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## TABLE OF CONTENTS

The University of Oklahoma General Catalog ..... 17
About OU ..... 18
Organization ..... 19
Norman Campus ..... 21
Health Sciences Center ..... 22
OU-Tulsa Schusterman Center and Polytechnic Institute ..... 22
Continuing Education ..... 23
Facilities and Resources ..... 23
Museums and Collections ..... 26
Division of Enrollment Management ..... 29
Office of Admissions \& Recruitment ..... 29
Student Financial Center ..... 36
Office of the Registrar ..... 39
Academic Records ..... 40
Registration \& Student Services ..... 48
Veteran Student Services ..... 51
Academic Majors - Undergraduate and Graduate ..... 55
Certificates ..... 61
Minors ..... 62
OU Online ..... 65
Orientation and Advisement ..... 67
Academic Success Center ..... 73
Career Planning ..... 77
Student Affairs ..... 79
Academic Affairs ..... 80
Multidisciplinary Studies, B.A. ..... 82
Multidisciplinary Studies, B.S. ..... 83
Community Engagement, Graduate Certificate ..... 84
Christopher C. Gibbs College of Architecture ..... 85
College of Architecture Administrated Programs ..... 88
Planning, Design and Construction, M.S. ..... 89
Data Systems and Digital Design (BIM/GIS/FAB), Graduate Certificate ..... 89
Data Systems and Digital Design Elective List ..... 90
Design Entrepreneurship and Real Estate, Graduate Certificate90
Design Entrepreneurship and Real Estate Elective List ..... 90
Resilient Planning, Design, and Construction, Graduate Certificate90
Resilient Planning, Design, and Construction Elective List
Planning, Design and Construction, Ph.D ..... 91
Division of Architecture ..... 91
Architecture, Three+ Year Program, B. in Arch. St. ..... 102
Architecture, Four+ Year Program, B. Arch. ..... 104
Architectural Studies, Minor ..... 106
Architecture, $31 / 2+1 \frac{1}{2}$ Program, B. Arch.St./M. Arch. ..... 107
Architecture via Non-Architecture Bachelor's Degree, M. Arch. ..... 109
Architecture via Architecture Bachelor's Degree, M. Arch. ..... 110
Sustainable Architecture, M.S. ..... 111
Haskell and Irene Lemon Construction Science Division ..... 111
Construction Science, B.S. ..... 117
Construction Science, Minor ..... 119
Entrepreneurship \& Real Estate Development, Undergraduate Certificate ..... 120
Certificate Elective Courses ..... 120
Construction Management: Special Studies, M.S. ..... 120
Construction Management: Thesis, M.S. ..... 120
Construction Management, M.C.B. ..... 121
M.C.B. Business Electives ..... 121
Construction Management, Graduate Certificate ..... 121
Division of Interior Design ..... 122
Interior Design, B.I.D. ..... 129
Interior Design for Architecture Majors, Minor ..... 130
Minor Electives for Interior Design for Architecture Majors131
Interior Design for Visual Communication Majors, Minor ..... 131
Interior Design for Non-Architecture/Non-Visual Communication Majors, Minor ..... 131
Minor Electives for Interior Design for Non-Architectural/Non-Visual Communication Majors132
Interior Design (First Professional), M.S. ..... 132
Interior Design (Post-Professional), M.S. ..... 132
Division of Planning, Landscape Architecture, and Design ..... 133
Environmental Design, B.S. ..... 143
Environmental Design, B.S./M.L.A. ..... 145
Environmental Design, B.S./M.R.C.P.L. ..... 148
Environmental Design, B.S./Urban Design, M.U.D. ..... 150
Landscape Architecture, M.L.A. ..... 152
Landscape Architecture via BLA, M.L.A. ..... 153
Landscape Architectural Studies, M.L.A. ..... 153
Regional and City Planning, M.R.C.P.L. ..... 154
Urban Design (Tulsa), M.U.D. ..... 155
Dodge Family College of Arts and Sciences ..... 156
College of Arts and Sciences Administrated Programs ..... 168
Community Health, B.A. ..... 177
Community Health, B.S. ..... 179
Latinx Studies, B.A. ..... 181
Planned Program, B.A. ..... 183
Planned Program, B.S. ..... 185
Public Health, B.P.H. ..... 187
Approved Public Health \& Community Health Major Electives189
Applied Statistics, Minor ..... 190
Applied Statistics Minor Course Lists ..... 190
Data Analytics, Minor ..... 191
Data Analytics Minor Course Lists ..... 192
Enterprise Studies, Minor ..... 193
International Enterprise Studies, Minor ..... 193
Latinx Studies, Minor ..... 194
Public and Community Health, Minor ..... 195
Applied Statistics, Undergraduate Certificate ..... 195
Applied Statistics Undergraduate Certificate Course Lists ..... 196
Data Analytics, Undergraduate Certificate ..... 196
Data Analytics Undergraduate Certificate Course Lists ..... 197
Community Health B.A./Epidemiology, M.P.H. ..... 198
Community Health, B.A./Health Promotion Sciences, M.P.H. ..... 201
Community Health, B.S./Epidemiology, M.P.H. ..... 203
Community Health, B.S./Health Promotion Sciences, M.P.H. ..... 206
Applied Statistics, M.S. ..... 209
Applied Statistics M.S. Approved Elective Courses ..... 209
Criminal Justice (Online), M.S ..... 209
Criminal Justice, Master of Science Elective Course List ..... 210
Human \& Health Services Administration (Online), M.A. ..... 210
Integrative Studies (Online), M.A. ..... 211
Integrative Studies Master of Arts Elective Course List ..... 212
Organizational Leadership (Online), M.A. ..... 213
Organizational Leadership Approved Graduate Electives ..... 214
Applied Statistics, Graduate Certificate ..... 214
Applied Statistics Graduate Certificate Course Lists ..... 215
Corrections Management (Online), Graduate Certificate ..... 216
Corrections Management Graduate Certificate Approved Electives List ..... 216
Criminal Justice Administration (Online), Graduate Certificate ..... 217
Data Analytics, Graduate Certificate ..... 217
Data Analytics Graduate Certificate Course Lists ..... 218
Drug Policy Management (Online), Graduate Certificate ..... 219
Organizational Leadership (Online), Graduate Certificate ..... 220
Restorative Justice Administration (Online), Graduate Certificate220
Restorative Justice Administration Graduate Certificate Approved Electives ..... 220
Clara Luper Department of African and African-American Studies ..... 221
African and African-American Studies, B.A. ..... 225
African and African-American Studies, Minor ..... 227
Department of Anthropology ..... 228
Anthropology, B.A. ..... 239
Anthropology Department Electives List ..... 242
Human Health \& Biology, B.S. ..... 243
Anthropology, Minor ..... 245
Anthropology, B.A./Sociocultural Anthropology, M.A. ..... 246
Anthropology (Standard), M.A. ..... 249
Anthropology: Applied Medical Anthropology, M.A. ..... 249
Anthropology: Linguistic Anthropology, M.A. ..... 250
Anthropology: Socio-Cultural Anthropology, M.A. ..... 251
Anthropology: Archaeology, Ph.D. ..... 251
Anthropology: Human Health \& Biology, Ph.D. ..... 252
Anthropology: Sociocultural \& Linguistics, Ph.D ..... 252
School of Biological Sciences ..... 253
Biology, B.S. ..... 274
Microbiology (Standard), B.S. ..... 276
Microbiology (Standard): Biotechnology, B.S. ..... 278
Microbiology (Professional), B. Mbio ..... 281
Plant Biology, B.S. ..... 283
Plant Biology: Biotechnology, B.S. ..... 285
Biology, Minor ..... 288
Microbiology, Minor ..... 288
Plant Biology, Minor ..... 289
Biology, M.S. ..... 289
Microbiology, M.S. ..... 289
Microbiology: Bioinformatics, M.S. ..... 290
Plant Biology, M.S. ..... 291
Plant Biology: Bioinformatics, M.S. ..... 291
Microscopic Imaging and Technology, Graduate Certificate ..... 292
Biology, Ph.D. ..... 292
Cellular and Behavioral Neurobiology: Biology, Ph.D. ..... 293
Ecology and Evolutionary Biology - Biology, Ph.D. ..... 293
Ecology and Evolutionary Biology - Botany and Microbiology, Ph.D. ..... 294
Microbiology, Ph.D. ..... 294
Plant Biology, Ph.D. ..... 295
Department of Chemistry and Biochemistry ..... 295
Biochemistry, B.S ..... 303
Chemical Biosciences, B.S. ..... 306
Chemistry and Biochemistry (Standard Option), B.S. ..... 308
Chemistry (Professional), B.S. ..... 311
Chemistry, Minor ..... 313
Chemistry \& Biochemistry, M.S. ..... 313
Chemistry: Bioinformatics, M.S. ..... 314
Chemistry and Biochemistry: Analytical Chemistry, Ph.D. ..... 315
Chemistry and Biochemistry. Biochemistry, Ph.D. ..... 315
Chemistry and Biochemistry: Inorganic Chemistry, Ph.D. ..... 316
Chemistry and Biochemistry: Materials Chemistry, Ph.D. ..... 316
Chemistry and Biochemistry: Organic Chemistry, Ph.D. ..... 317
Chemistry and Biochemistry: Physical Chemistry, Ph.D. ..... 317
Chemistry and Biochemistry: Structural Biology, Ph.D. ..... 317
Cellular and Behavioral Neurobiology: Chemistry \& Biochemistry,Ph.D.318
Department of Classics and Letters ..... 318
Classics: Classical Languages, B.A. ..... 328
Classics: Classical Studies, B.A. ..... 330
Classical Studies Distribution Course Lists ..... 332
Classics: Latin, B.A. ..... 333
Letters (Standard), B.A. ..... 335
Letters: Constitutional Studies, B.A. ..... 337
Constitutional Studies Category Course Lists ..... 339
Classical Archaeology, Minor ..... 340
Approved Classical Archaeology Electives ..... 341
Classical Culture, Minor ..... 342
Classical Greek, Minor ..... 342
Constitutional Studies, Minor ..... 342
Latin, Minor ..... 343
Department of Communication ..... 343
Communication, B.A. ..... 350
Communication, Minor ..... 352
Communication, M.A. ..... 353
Communication Approved Graduate Electives ..... 353
Communication: Organizational Communication, M.A. ..... 354
Communication, Ph.D. ..... 354
Department of Economics ..... 355
Economics, B.A. ..... 360
Economics, Minor ..... 362
Economics, B.A./M.A. ..... 363
Econometrics, M.A. ..... 365
Econometrics, M.A. Approved Electives ..... 366
Economics: Applied Economics, M.A. ..... 366
Economics: Managerial Economics, M.A. ..... 366
Economics, Ph.D. ..... 367
Department of English ..... 367
English: Literary \& Cultural Studies, B.A. ..... 377
English Literary \& Cultural Studies Distribution Lists ..... 380
English: Writing, B.A. ..... 380
English Writing Distribution Lists ..... 383
English: Literary \& Cultural Studies, Minor ..... 383
Editing and Publishing, Minor ..... 383
English: Writing, Minor ..... 384
Irish Studies, Minor ..... 385
English: Literary \& Cultural Studies, B.A./M.A. ..... 385
English: Writing, B.A./M.A. ..... 388
English: Literary Studies, M.A. ..... 391
English: Rhetoric \& Writing Studies, M.A. ..... 391
English: Literary Studies, Ph.D. ..... 392
English: Rhetoric \& Writing Studies, Ph.D. ..... 392
Environmental Studies ..... 393
Environmental Studies, B.A. ..... 396
Environmental Studies Category Lists ..... 398
Environmental Studies, Minor ..... 400
Environmental Studies, M.S. ..... 400
Department of Film and Media Studies ..... 401
Film \& Media Studies, B.A. ..... 405
Film and Media Studies Guided Electives ..... 407
Film \& Media Studies, Minor ..... 408
Department of Health and Exercise Science ..... 408
Health \& Exercise Science, B.S. ..... 416
Health \& Exercise Science, Minor ..... 418
Health \& Exercise Science, M.S. ..... 419
Health and Exercise Science: Exercise Physiology, M.S ..... 419
Health and Exercise Science: Health Promotion, M.S. ..... 420
Health and Exercise Science: Sports Data Analytics, M.S ..... 420
Cellular \& Behavioral Neurobiology: Exercise Physiology, Ph.D. ..... 421
Health and Exercise Science: Exercise Physiology, Ph.D. ..... 422
Health and Exercise Science: Health Promotion, Ph.D. ..... 422
Department of History ..... 423
History, B.A. ..... 436
History, Minor ..... 438
History, M.A. ..... 439
History, Ph.D. ..... 439
Department of History of Science, Technology, and Medicine ..... 440
Health, Medicine, and Society, B.A. ..... 446
Approved Health Medicine \& Society Elective Courses ..... 448
History of Science, Technology, and Medicine, B.A. ..... 449
History of Science, Technology, and Medicine Course Lists ..... 451
History of Medicine, Minor ..... 452
History of Science, Minor ..... 453
History of Science, Technology, and Medicine, M.A. ..... 453
History of Science, Technology, and Medicine, Ph.D. ..... 454
Department of Human Relations ..... 455
Human Relations, B.A. ..... 466
Human Relations, Minor ..... 469
Clinical Mental Health Counseling (Online), M.C.M.H.C. ..... 469
Clinical Mental Health Counseling, M.H.R. ..... 470
Clinical Mental Health Counseling, M.S. ..... 471
Diversity, Equity, and Strategic Impact (Online), M.H.R. ..... 471
Human Relations (Standard), M.H.R. ..... 472
Human Relations: Human Resources, M.H.R. ..... 473
Inclusive Leadership, M.H.R. ..... 474
Human Resource Studies, M.A. ..... 475
Helping Skills in Human Relations, Graduate Certificate ..... 476
Human Resource Development and Workforce Diversity, Graduate Certificate ..... 476
Schusterman Program in Judaic and Israel Studies ..... 476
Judaic Studies, B.A ..... 478
Judaic \& Israel Studies, Minor ..... 480
School of Library and Information Studies ..... 481
Information Science and Technology, B.S. ..... 489
Information Science and Technology Course Lists ..... 491
Information Studies, B.A. ..... 492
Information Studies Major Category Lists ..... 494
Information Studies, Minor ..... 496
Information Studies Minor Category Course Lists ..... 496
Information Studies, B.A./M.L.I.S. ..... 496
Library \& Information Studies, M.L.I.S. ..... 499
Museum Studies (Online), M.A. ..... 500
Museum Studies Graduate Elective List ..... 500
Archival Studies, Graduate Certificate ..... 500
Archival Studies Elective Course List ..... 501
Data Analytics for Information Professionals (Online), Graduate Certificate ..... 501
Data Analytics for Information Professionals Elective List ..... 501
Digital Humanities, Graduate Certificate ..... 501
Approved Digital Humanities Elective Courses ..... 502
Information Studies, Ph.D. ..... 502
David and Judi Proctor Department of Mathematics ..... 503
Mathematics (Standard Option), B.A. ..... 511
Mathematics (Professional Option), B.S. ..... 513
Mathematics, Minor ..... 515
Mathematics, B.A./M.B.A. ..... 515
Mathematics/MBA Accelerated Course Lists ..... 518
Mathematics, B.A./Finance, M.S. ..... 519
Mathematics BA/Finance MS Accelerated Course Lists ..... 521
Mathematics, B.S./Biostatistics, M.S. ..... 521
Mathematics, M.A. ..... 524
Mathematics, M.S. ..... 524
Mathematics, Ph.D. ..... 525
Medieval and Renaissance Studies ..... 526
Medieval \& Renaissance Studies, Minor ..... 526
Department of Modern Languages, Literatures, and Linguistics . ..... 528
Arabic, B.A. ..... 552
Arabic Major Support Course List ..... 554
Chinese, B.A. ..... 554
Chinese Major Support List ..... 556
French, B.A. ..... 556
German, B.A ..... 558
Italian, B.A. ..... 560
Italian Major Support List ..... 563
Japanese, B.A. ..... 563
Linguistics, B.A. ..... 565
Russian, B.A. ..... 567
Spanish, B.A ..... 570
Arabic, Minor ..... 572
Chinese, Minor ..... 572
French, Minor ..... 573
German, Minor ..... 573
Hebrew, Minor ..... 574
Italian, Minor ..... 574
Japanese, Minor ..... 575
Linguistics, Minor ..... 575
Portuguese, Minor ..... 576
Russian, Minor ..... 576
Spanish, Minor ..... 577
French, M.A. ..... 577
German, M.A. ..... 578
Spanish, M.A. ..... 578
TESOL, M.A. ..... 579
French, Ph.D. ..... 579
Spanish, Ph.D. ..... 580
Department of Native American Studies ..... 580
Native American Studies, B.A. ..... 588
Native American Studies Areas of Emphasis ..... 590
Native American Studies, Minor ..... 590
Native American Studies, M.A. ..... 591
Native American Studies, Graduate Certificate ..... 592
Shyam Dev Patwardhan Department of Philosophy ..... 592
Philosophy, B.A. ..... 598
Philosophy Major Distribution Lists ..... 601
Philosophy, Minor ..... 601
Philosophy, M.A. ..... 601
Philosophy, M.A. Course Lists ..... 602
Philosophy, Ph.D. ..... 602
Philosophy, Ph.D. Course Lists ..... 603
Homer L. Dodge Department of Physics and Astronomy ..... 603
Astronomy, B.S. ..... 611
Astrophysics, B.S ..... 613
Physics (Standard), B.S. ..... 615
Physics (Professional), B. Phys. ..... 618
Astronomy, Minor ..... 620
Physics, Minor ..... 620
Physics, M.S. ..... 621
Astrophysics, Ph.D. ..... 621
Physics, Ph.D. ..... 622
Department of Political Science ..... 623
Political Science, B.A. ..... 637
Political Science Distribution Requirement Course Lists ..... 639
Political Science: Elections and Campaign Management, B.A.640
Public and Nonprofit Administration, B.A. ..... 642
Elections \& Campaign Management, Minor ..... 644
Non-Governmental Organizations, Minor ..... 645
Nonprofit Organizational Studies, Minor ..... 646
Political Science, Minor ..... 646
Public Affairs \& Administration, Minor ..... 647
Political Science, B.A./M.A. ..... 647
Political Science, B.A./M.P.A. ..... 650
Public and Nonprofit Administration, B.A./Political Science, M.A.652
Public \& Nonprofit Administration, B.A./M.P.A. ..... 655
Political Science, M.A. ..... 657
Public Administration, M.P.A. ..... 658
Public Administration: Non-Profit Management, M.P.A. ..... 659
Public Administration: Public Management, M.P.A. ..... 659
Public Management Concentration Courses ..... 660
Public Administration: Public Policy, M.P.A. ..... 660
Non-Profit Management (Tulsa), Graduate Certificate ..... 660
Political Science, Ph.D. ..... 661
Department of Psychology ..... 661
Psychology (Standard), B.A. ..... 671
Psychology (Professional), B.S. ..... 674
Pre-Health Social Sciences, Minor ..... 677
Psychology, Minor ..... 677
Organizational Dynamics, M.A. ..... 678
Organizational Dynamics - Human Resource Management Option, M.A. ..... 679
Organizational Dynamics - Project Management Option, M.A. ..... 680
Psychology (Standard), M.S. ..... 681
Human Resource Management (Tulsa), Graduate Certificate ..... 682
Organizational Psychology (Tulsa), Graduate Certificate ..... 682
Organizational Research (Tulsa), Graduate Certificate ..... 682
Project Management (Tulsa), Graduate Certificate ..... 683
Cellular \& Behavioral Neurobiology: Psychology, Ph.D. ..... 683
Psychology, Ph.D. ..... 684
Psychology: Industrial and Organizational Psychology, Ph.D.684
Department of Religious Studies ..... 685
Religious Studies, B.A. ..... 689
Religious Studies Major Elective Course Lists ..... 691
Religious Studies, Minor ..... 693
Asian Religions, Undergraduate Certificate ..... 693
Islamic Studies, Undergraduate Certificate ..... 694
Reserve Officers Training Corps ..... 694
Air Force ROTC - Aerospace Studies ..... 694
Aerospace Studies, Minor ..... 696
Army ROTC - Military Science ..... 696
Military Science, Minor ..... 698
Naval ROTC - Naval Science ..... 699
Naval Science, Minor ..... 701
Anne and Henry Zarrow School of Social Work ..... 701
Social Work, B.A ..... 711
Social Work, M.S.W. ..... 713
Social Work: Advanced Standing, M.S.W. ..... 714
Social Work: Advanced Standing Graduate Elective Course List ..... 715
Social Work with American Indians, Graduate Certificate ..... 715
Department of Sociology ..... 715
Sociology - General Option, B.A. ..... 723
Sociology - Criminology Option, B.A. ..... 725
Sociology - General, Minor ..... 728
Sociology - Criminology, Minor ..... 728
Sociology, B.A./M.A. ..... 729
Sociology, M.A. ..... 731
Applied Research and Program Evaluation, Graduate Certificate ..... 732
Applied Research and Program Evaluation Electives CourseList732
Sociology, Ph.D. ..... 732
Department of Women's and Gender Studies ..... 733
Women's \& Gender Studies, B.A ..... 739
WGS Interdisciplinary Electives Course List ..... 741
LGBTQ Studies, Minor ..... 741
Social Justice, Minor ..... 742
Women's and Gender Studies, Minor ..... 743
Women's and Gender Studies, Graduate Certificate ..... 744
College of Atmospheric and Geographic Sciences ..... 746
Department of Geography and Environmental Sustainability ..... 752
Environmental Sustainability, B.A ..... 767
Environmental Sustainability Concentration Elective List ..... 770
Environmental Sustainability, B.S. ..... 771
Environmental Science B.S. Electives ..... 773
Geographic Information Science, B.A. ..... 774
Geographic Information Science, B.S. ..... 776
Geography: Geohumanities, B.A. ..... 778
Geography: Physical \& Social Sciences, B.A. ..... 780
Geography, B.S. ..... 782
Climate Adaptation, Minor ..... 785
Environmental Sustainability, Minor ..... 785
Geographic Information Systems, Minor ..... 786
Geography, Minor ..... 786
Hydrologic Science, Minor ..... 786
Physical Geography, Minor ..... 787
Environmental Sustainability. Planning \& Management, B.A./ M.R.C.P. ..... 787
Environmental Sustainability: Planning \& Management, B.S./ M.R.C.P. ..... 790
Geographic Information Science, B.A./M.R.C.P. ..... 794
Geographic Information Science, B.S./M.R.C.P. ..... 797
Geography: Physical \& Social Sciences, B.A./M.R.C.P. ..... 799
Geography, B.S./M.R.C.P. ..... 802
Geography and Environmental Sustainability, M.A. ..... 805
Geography and Environmental Sustainability: Environmental Systems, M.S ..... 805
Geography and Environmental Sustainability: Geospatial Technologies, M.S. ..... 806
Geospatial Technologies, Graduate Certificate ..... 807
Geography \& Environmental Sustainability, Ph.D. ..... 808
School of Aviation ..... 809
Aviation: Air Traffic Management Track, B.S ..... 815
Aviation: Aviation Management Track, B.S. ..... 818
Aviation: Aviation Management - Non-Flying Track, B.S. ..... 820
Aviation: Professional Pilot - Airplane Track, B.S. ..... 822
Aviation: Professional Pilot - Helicopter Track, B.S. ..... 825
Air Traffic Control, Minor ..... 827
Aviation: Aviation Management, Minor ..... 827
Aviation: Single-Engine Commercial Pilot, Minor ..... 828
Aviation: Multi-Engine Commercial Pilot, Minor ..... 828
School of Meteorology ..... 829
Meteorology, B.S. ..... 841
Meteorology Upper Division Major Elective Course List ..... 843
Meteorology, Minor ..... 844
Weather and Climate, Minor ..... 844
Meteorology, B.S./M.B.A ..... 845
Meteorology, B.S./Data Science and Analytics, M.S ..... 848
Meteorology, M.S ..... 850
Meteorology, Ph.D. ..... 851
Michael F. Price College of Business ..... 853
College of Business Administrated Programs ..... 862
Economics, B.B.A. ..... 871
General Business for Non-Business Majors, Minor ..... 873
Economics, B.B.A./Management of Information and Technology, M.S. ..... 874
Business Administration, M.B.A. ..... 876
Professional MBA, M.B.A. ..... 877
Aerospace and Defense, E.M.B.A. ..... 878
Energy, E.M.B.A. ..... 878
Renewables, E.M.B.A ..... 879
Aerospace and Defense Analytics, Graduate Certificate ..... 879
Commercial Space Applications, Graduate Certificate ..... 880
Executive Management in Aerospace \& Defense, Graduate Certificate ..... 880
Departmental List of Courses ..... 880
Foundations of Business, Graduate Certificate ..... 881
Departmental List of Courses ..... 881
Hydrocarbon Energy, Graduate Certificate ..... 881
Departmental Lists of Courses ..... 882
Renewable Energy, Graduate Certificate ..... 882
Departmental Lists of Courses ..... 882
Business Administration, Ph.D. ..... 883
John T. Steed School of Accounting ..... 885
Accounting, B.B.A. ..... 890
Accounting, Minor ..... 893
Accounting, B.B.A./M.Acc. ..... 893
Accounting, B.B.A./Finance, M.S. ..... 896
Accounting/Finance Graduate Electives Course List ..... 898
Accounting, B.B.A./Management of Information and Technology, M.S. ..... 898
Accounting Advanced Standing, M.Acc. ..... 901
Online Accounting Advanced Standing, M. Acc. ..... 901
Online Accounting, M.Acc. ..... 902
Tom Love Division of Entrepreneurship and Economic Development903
Entrepreneurship and Venture Management, B.B.A. ..... 908
Entrepreneurship for Business Majors, Minor ..... 910
Entrepreneurship for Non-Business Majors, Minor ..... 910
Entrepreneurship \& Venture Management, B.B.A./Management of Information and Technology, M.S. ..... 911
Entrepreneurship and Innovation (Online), M.S. ..... 913
Entrepreneurship and Innovation Major Electives List ..... 914
Business Entrepreneurship, Graduate Certificate ..... 914
Guided Electives ..... 914
Division of Finance ..... 915
Finance, B.B.A. ..... 923
Finance for Business Majors, Minor ..... 925
Finance, B.B.A./Finance, M.S. ..... 925
Finance BBA/MS Graduate Electives Course List ..... 928
Finance, B.B.A./Management of Information and Technology, M.S. ..... 928
Finance, M.S. ..... 931
Finance Electives Course List ..... 931
Business of Energy, Graduate Certificate ..... 932
Finance, Graduate Certificate ..... 932
Departmental List of Courses ..... 932
Division of Management and International Business ..... 933
Energy Management, B.B.A. ..... 941
International Business, B.B.A. ..... 944
Management, B.B.A. ..... 947
Sports Business, B.B.A. ..... 949
Leadership for Business Majors, Minor ..... 952
Management, Minor ..... 952
Sports Business for Business Majors, Minor ..... 952
Sports Business for Non-Business Majors, Minor ..... 953
Esports Business, Undergraduate Certificate ..... 954
Human Resource Management, Undergraduate Certificate ..... 954
Human Resource Management Electives Course List ..... 954
Leadership, Undergraduate Certificate ..... 954
Legal Studies, Undergraduate Certificate ..... 955
Legal Studies Electives Course List ..... 955
Renewable Energy Management, Undergraduate Certificate ..... 955
Management, B.B.A./Management of Information and Technology, M.S. ..... 955
Division of Management Information Systems ..... 958
Management Information Systems, B.B.A. ..... 964
MIS for Business Majors, Minor ..... 966
MIS for Non-Business Majors, Minor ..... 966
Business Intelligence and Analytics, Undergraduate Certificate ..... 967
Management Information Systems, B.B.A./Management of Information and Technology, M.S ..... 967
Business Analytics (Online), M.S. ..... 970
Business Analytics Course List ..... 970
Management of Information and Technology, M.S. ..... 970
Digital Technologies, Graduate Certificate ..... 971
Graduate Electives ..... 971
Division of Marketing and Supply Chain Management ..... 971
Healthcare Business, B.B.A. ..... 979
Marketing, B.B.A. ..... 981
Supply Chain Management, B.B.A. ..... 983
Digital Marketing for Business Majors, Minor ..... 986
Digital Marketing for Non-Business Majors, Minor ..... 986
Franchising, Minor ..... 987
Healthcare Business, Minor ..... 987
Marketing, Minor ..... 987
Marketing for Non-Business Majors, Minor ..... 988
Supply Chain Management for Business Majors, Minor ..... 988
Supply Chain Management for Non-Business Majors, Minor ..... 989
Marketing, B.B.A./Management of Information and Technology,989
Marketing, B.B.A./Supply Chain Management (Online), M.S. ..... 992
Supply Chain Management, B.B.A./Management of Information and Technology, M.S ..... 995
Supply Chain Management, B.B.A./Supply Chain Management (Online), M.S. ..... 997
Supply Chain Management (Online), M.S ..... 1000
Supply Chain Management Online Course List ..... 1000
Supply Chain Management (Online), Graduate Certificate ..... 1000
College of Continuing Education ..... 1002
Mewbourne College of Earth and Energy ..... 1005
College of Earth and Energy Administrated Programs ..... 1009
Sustainable Energy Systems, Undergraduate Certificate ..... 1009
Sustainable Energy Systems Electives ..... 1009
Mewbourne School of Petroleum and Geological Engineering ..... 1010
GeoEnergy Engineering, B.S. ..... 1019
Petroleum Engineering, B.S. ..... 1022
Petroleum Engineering, B.S./M.S. ..... 1024
Petroleum Engineering, B.S./M.B.A. ..... 1027
Geological Engineering, M.S ..... 1030
Natural Gas Engineering \& Management, M.S. ..... 1031
Petroleum Engineering (Standard), M.S. ..... 1032
Geological Engineering, Ph.D. ..... 1032
Petroleum Engineering, Ph.D. ..... 1033
School of Geosciences ..... 1033
Environmental Geology, B.S. ..... 1048
Geology, B.S. ..... 1050
School of Geosciences Math \& Science Elective Lists . ..... 1052
Geophysics, B.S. ..... 1053
Paleontology, B.S. ..... 1055
Petroleum Geology, B.S. ..... 1057
Geology, Minor ..... 1059
Geology, M.S. ..... 1059
Geophysics, M.S. ..... 1060
Geology, Ph.D. ..... 1060
Geophysics, Ph.D. ..... 1061
Jeannine Rainbolt College of Education ..... 1062
Department of Educational Leadership and Policy Studies ..... 1069
Adult \& Higher Education, M.Ed. ..... 1083
Adult \& Higher Education: Intercollegiate Athletic Administration, M.Ed. ..... 1083
Intercollegiate Athletic Administration Course List ..... 1084
Education Administration - Curriculum \& Supervision Option, M.Ed. ..... 1084
Educational Studies, M.Ed. ..... 1085
College Teaching Certificate, Graduate Certificate ..... 1086
Adult \& Higher Education, Ph.D. ..... 1086
Education Administration - Curriculum/Supervision Option, Ed.D. ..... 1087
Curriculum/Supervision, Ed.D. Elective Course Lists ..... 1088
Education Administration - Curriculum/Supervision Option, Ph.D. ..... 1089
Educational Studies, Ph.D. ..... 1089
Department of Educational Psychology ..... 1090
Special Education, B.S. ..... 1105
Clinical Professional Counseling, M.Ed. ..... 1108
Clinical Professional Counseling Graduate Elective Courses ..... 1109
Learning Experience Design and Technology, M.S. ..... 1109
Approved Learning Experience Design and Technology Electives ..... 1110
Science of Psychology, Data, and Research in Education, M.S1110
Special Education, M.Ed. ..... 1110
Applications of Educational Research and Evaluation, GraduateCertificate1111
Applied Behavior Analysis, Graduate Certificate ..... 1112
Drug and Alcohol Counseling, Graduate Certificate ..... 1112
Fundamentals of Special Education, Graduate Certificate ..... 1112
Learning Design and Technology, Graduate Certificate ..... 1113
School Counseling, Graduate Certificate ..... 1113
Secondary Transition Education Specialist, Graduate Certificate1113
Learning Experience Design and Technology, Ph.D. ..... 1114
Science of Psychology, Data, and Research in Education, Ph.D.1114
Special Education, Ph.D. ..... 1115
Department of Instructional Leadership and Academic Curriculum ..... 1116
Early Childhood Education, B.S. ..... 1140
Early Childhood Education: Birth through Third Grade (Tulsa), B.Ed. ..... 1143
Early Childhood: Birth through Third Grade (Tulsa), B.S. ..... 1146
Elementary Education, B.S. ..... 1149
Language Arts Education, B.S. ..... 1152
Mathematics Education, B.S. ..... 1155
Science Education: Biological Sciences, B.S. ..... 1158
Science Education: Chemistry, B.S. ..... 1162
Science Education: Earth Science, B.S. ..... 1165
Science Education: Physical Science, B.S. ..... 1168
Science Education: Physics, B.S. ..... 1171
Social Studies Education, B.S. ..... 1175
World Language Education: French, B.S. ..... 1178
World Language Education: German, B.S ..... 1181
World Language Education: Latin, B.S. ..... 1184
World Language Education: Spanish, B.S. ..... 1187
ILAC: Early Childhood Education, M.Ed ..... 1190
ILAC: Elementary Education, M.Ed. ..... 1191
ILAC: English Education, M.Ed ..... 1192
ILAC: Instructional Leadership, M.Ed. ..... 1192
ILAC: Mathematics Education, M.Ed. ..... 1193
ILAC: Reading Education, M.Ed. ..... 1194
ILAC: Science Education, M.Ed. ..... 1195
ILAC: Science, Technology, Engineering \& Math (STEM) Education, M.Ed ..... 1196
ILAC: Secondary Education, M.Ed. ..... 1197
ILAC: Social Studies Education, M.Ed ..... 1198
ILAC: Teacher Education, M.Ed. ..... 1198
ILAC: World Language Education, M.Ed. ..... 1199
Integrated Childhood Well-Being (Tulsa), M.A. ..... 1200
Reading Specialist, M.Ed ..... 1201
Literacy Specialist, Graduate Certificate ..... 1201
Instructional Leadership \& Academic Curriculum, Ph.D. ..... 1201
Gallogly College of Engineering ..... 1203
College of Engineering Administrated Programs ..... 1211
Engineering Leadership, Undergraduate Certificate ..... 1216
Engineering Leadership Course Lists ..... 1217
Engineering Leadership: Sustainability, Undergraduate Certificate ..... 1219
Engineering Leadership Sustainability Course Lists ..... 1219
Applied Computing, M.S ..... 1220
Electives Course List ..... 1221
Engineering, M.S. ..... 1221
Engineering Leadership and Management, M.S. ..... 1221
Electives Course List ..... 1222
Engineering, Ph.D. ..... 1222
Engineering: Engineering Education, Ph.D. ..... 1222
School of Aerospace and Mechanical Engineering ..... 1223
Aerospace Engineering, B.S. ..... 1235
Aerospace \& Mechanical Engineering Elective Lists ..... 1238
Mechanical Engineering (Standard), B.S. ..... 1239
Mechanical Engineering - Premedical Option, B.S ..... 1241
Aerospace Engineering, B.S./M.S. ..... 1244
Mechanical Engineering (Standard), B.S./M.S ..... 1247
Aerospace Engineering, M.S. ..... 1250
Mechanical Engineering, M.S. ..... 1251
Aerospace Engineering, Ph.D. ..... 1251
Mechanical Engineering, Ph.D. ..... 1252
Cellular and Behavioral Neurobiology: Aerospace \& Mechanical Engineering, Ph.D. ..... 1253
Stephenson School of Biomedical Engineering ..... 1253
Biomedical Engineering, B.S. ..... 1260
BME Course Lists ..... 1263
Biomedical Engineering, B.S./M.S ..... 1263
Biomedical Engineering, M.S. ..... 1266
Course Lists ..... 1266
Biomedical Engineering, Ph.D. ..... 1267
School of Sustainable Chemical, Biological and Materials Engineering ..... 1268
Chemical Engineering (Standard), B.S. ..... 1277
Advanced Chemistry Electives Course Lists ..... 1279
Chemical Engineering - Bioengineering Option, B.S. ..... 1279
Chemical Engineering - Pre-Medical Option, B.S ..... 1282
Chemical Engineering - Sustainability Option, B.S ..... 1284
Course Lists ..... 1287
Bioprocessing, Undergraduate Certificate ..... 1287
Chemical Engineering (Standard), B.S./M.S ..... 1287
Advanced Chemistry Electives Course Lists ..... 1290
Chemical Engineering, M.S. ..... 1290
Sustainability - Energy and Materials Management, M.S. ..... 1291
Electives Course List ..... 1291
Bioprocessing, Graduate Certificate ..... 1291
Chemical Engineering, Ph.D. ..... 1292
School of Civil Engineering and Environmental Science ..... 1292
Architectural Engineering, B.S ..... 1304
Civil Engineering, B.S. ..... 1307
Environmental Engineering, B.S ..... 1309
Environmental Science, B.S. ..... 1312
Environmental Science, Minor ..... 1314
Water and Sanitation for Health and Sustainable Development, Minor ..... 1315
Architectural Engineering, B.S./Civil Engineering, M.S. ..... 1315
Civil Engineering, B.S./M.S. ..... 1320
Environmental Engineering, B.S./M.S ..... 1326
Environmental Science, B.S./M.E.S. ..... 1329
Civil Engineering: Geotechnical Engineering, M.S. ..... 1332
Geotechnical Engineering Electives Course List ..... 1333
Civil Engineering: Geotechnical Engineering (Online), M.S. ... ..... 1333
Civil Engineering: Structural Engineering, M.S. ..... 1334
Structural Engineering Electives Course List ..... 1335
Civil Engineering: Structural Engineering (Online), M.S. ..... 1335
Civil Engineering: Transportation Engineering (Online), M.S. ..... 1336
Civil Engineering: Water Resources Engineering, M.S ..... 1337
Water Resources Engineering Electives Course List ..... 1337
Civil Engineering: Water Resources Engineering (Online), M.S. ..... 1338
Environmental Engineering, M.S. ..... 1338
Environmental Engineering Electives Course List ..... 1339
Environmental Science, M.E.S. ..... 1340
Environmental Science Electives Course List ..... 1341
Hydrology and Water Security (Online), M.E.S. ..... 1341
Hydrology and Water Security Guided Electives ..... 1342
Civil Engineering, Ph.D. ..... 1342
Environmental Engineering, Ph.D. ..... 1343
Environmental Science, Ph.D. ..... 1343
School of Computer Science ..... 1344
Computer Science, B.S. ..... 1352
Computer Science Elective Course Lists ..... 1355
Computer Science, Minor ..... 1355
Computational Technology, Minor ..... 1356
Computer Science, B.S./M.S ..... 1357
Computer Science BS/MS Elective Course Lists ..... 1360
Computer Science, M.S. ..... 1360
Computer Science, M.S. Approved Courses List ..... 1361
Computer Science, Ph.D. ..... 1361
Program in Data Science and Analytics ..... 1362
Data Science and Analytics, Undergraduate Certificate ..... 1367
Data Science and Analytics Undergraduate Certificate Electives ..... 1367
Data Science and Analytics, M.S. ..... 1368
Data Science and Analytics, Graduate Certificate ..... 1368
Data Science and Analytics, Ph.D. ..... 1369
School of Electrical and Computer Engineering ..... 1369
Computer Engineering, B.S. ..... 1378
Electrical Engineering, B.S. ..... 1380
Electrical and Computer Engineering, Minor ..... 1382
Computer Engineering, B.S./Computer Science, M.S. ..... 1383
Computer Engineering, B.S./Electrical and Computer Engineering, M.S. ..... 1386
Electrical Engineering, B.S./Electrical and Computer Engineering, M.S. ..... 1389
Electrical and Computer Engineering, M.S. ..... 1392
Electrical and Computer Engineering, Ph.D. ..... 1392
Program in Engineering Physics ..... 1393
Engineering Physics, B.S. ..... 1395
Engineering Physics, M.S. ..... 1398
Engineering Physics, Ph.D. ..... 1398
School of Industrial and Systems Engineering ..... 1399
Industrial and Systems Engineering, B.S. ..... 1406
Industrial and Systems Engineering - Analytics Option, B.S. ..... 1408
Industrial and Systems Engineering - Pre-Medicine Option, B.S.1410
Industrial and Systems Engineering, B.S./M.S. ..... 1413
Industrial and Systems Engineering, B.S./Data Science and
Analytics, M.S. ..... 1416
Industrial and Systems Engineering, B.S./M.B.A. ..... 1419
Industrial and Systems Engineering - Analytics, B.S./M.S. . ..... 1422
Industrial and Systems Engineering - Analytics, B.S./Data Science and Analytics, M.S. ..... 1425
Industrial and Systems Engineering, M.S. ..... 1427
Industrial Systems and Engineering Electives Course List ..... 1429
Industrial and Systems Engineering, Ph.D. ..... 1429
Weitzenhoffer Family College of Fine Arts ..... 1431
College of Fine Arts Administrated Programs ..... 1440
Arts Management and Entrepreneurship for Fine Arts Majors,
Minor ..... 1440
Arts Management and Entrepreneurship for Non-Fine Arts Majors, Minor ..... 1441
Arts Management (Online), M.A. ..... 1441
Arts Management Department List ..... 1441
Arts Management and Entrepreneurship, Graduate Certificate ..... 1442
Arts Management and Entrepreneurship Elective Lists ..... 1442
School of Dance ..... 1443
Ballet Pedagogy, B.F.A. ..... 1447
Ballet Performance, B.F.A. ..... 1450
Modern Dance Performance, B.F.A. ..... 1452
Dance History, Minor ..... 1454
Dance, M.F.A. in Dance ..... 1455
Peggy Dow Helmerich School of Drama ..... 1455
Theatre: Acting Emphasis, B.F.A. ..... 1463
Theatre: Costume Design Emphasis, B.F.A ..... 1465
Theatre: Dramaturgy Emphasis, B.F.A. ..... 1468
Dramaturgy Departmental Course Lists ..... 1470
Theatre: Lighting Design Emphasis, B.F.A. ..... 1471
Theatre: Scenic Design Emphasis, B.F.A. ..... 1473
Theatre: Sound Design Emphasis, B.F.A. ..... 1475
Theatre: Stage Management Emphasis, B.F.A. ..... 1478
Theatre, Minor ..... 1480
Drama, M.A. ..... 1480
School of Music ..... 1481
Music: Instrumental Jazz, B.A. ..... 1514
Music, B.A. ..... 1517
Composition, B.Mus. ..... 1519
Organ, B.Mus. ..... 1522
Piano, B.Mus. ..... 1524
Piano Pedagogy, B.Mus. ..... 1526
Voice, B.Mus. ..... 1529
Wind/Percussion/String: Brass \& Percussion, B.Mus. ..... 1531
Wind/Percussion/String: Harp, B.Mus. ..... 1534
Wind/Percussion/String: Strings \& Guitar, B.Mus. ..... 1536
Wind/Percussion/String: Woodwinds, B.Mus. ..... 1539
Music, B.M.A. ..... 1541
Instrumental Music Education, B.M.Ed. ..... 1544
Vocal Music Education, B.M.Ed. ..... 1547
Commercial Music, Minor ..... 1551
Instrumental Jazz, Minor ..... 1551
Music, Minor ..... 1552
Choral Conducting, M.M. ..... 1552
Instrumental Conducting, M.M. ..... 1553
Music Composition, M.M. ..... 1553
Music Theory, M.M. ..... 1554
Music Theory Course List ..... 1555
Musicology, M.M. ..... 1555
Organ: Standard, M.M. ..... 1555
Organ: Church Music, M.M. ..... 1556
Organ: Technology, M.M. ..... 1556
Piano: Performance, M.M. ..... 1557
Piano: Performance and Pedagogy, M.M. ..... 1558
Voice: Opera, M.M. ..... 1558
Voice: Performance, M.M. ..... 1559
Wind, Percussion, String, M.M. ..... 1560
Conducting, M.M.Ed. ..... 1560
General Music Education, M.M.Ed. ..... 1561
Instrumental, M.M.Ed. ..... 1563
Piano Pedagogy, M.M.Ed. ..... 1563
Conducting, D.M.A. ..... 1564
Music Composition, D.M.A. ..... 1565
Piano, D.M.A. ..... 1566
Organ, D.M.A. ..... 1567
Voice, D.M.A. ..... 1568
Wind, Percussion, String, D.M.A. ..... 1569
Music Education, Ph.D. ..... 1569
A. Max Weitzenhoffer School of Musical Theatre ..... 1571
Musical Theatre Performance, B.F.A. ..... 1575
OU School of Visual Arts ..... 1577
Art, B.A. ..... 1597
Art History, B.A. ..... 1599
Art, Technology \& Culture, B.F.A. ..... 1601
Studio Arts, B.F.A ..... 1603
Visual Communication, B.F.A. ..... 1604
Art, Minor ..... 1606
Art History, Minor ..... 1607
Museum Studies, Undergraduate Certificate ..... 1607
Art History, M.A. ..... 1607
Art and Technology (Online), M.A. ..... 1608
Art, M.F.A. in Art ..... 1608
Art History: Art of the American West, Ph.D. ..... 1609
Art History: European Art, Ph.D. ..... 1610
Art History: Native American Art, Ph.D. ..... 1610
Critical Issues in Art History, Ph.D. ..... 1611
Graduate College ..... 1612
Community Engagement (Tulsa), Graduate Certificate ..... 1613
Interdisciplinary Studies, Ph.D. ..... 1614
Organizational and Community Leadership (Tulsa), Ph.D. ..... 1614
University of Oklahoma Health Sciences Center ..... 1616
Joe C. and Carole Kerr McClendon Honors College ..... 1617
Medical Humanities, Minor ..... 1620
David L. Boren College of International Studies ..... 1622
Department of International and Area Studies ..... 1626
Asian Studies, B.A. ..... 1641
Asian Studies Course Lists ..... 1643
European Studies, B.A. ..... 1644
European Studies Course Lists ..... 1646
European Studies: Russian \& East European, B.A. ..... 1646
European Studies: Russian \& East European Course Lists ..... 1649
Global Energy, Environment, and Resources, B.A. ..... 1649
Global Energy, Environment, and Resources Course Lists ..... 1652
International Development, B.A. ..... 1652
International Development Course Lists ..... 1655
International Security Studies, B.A. ..... 1655
International Security Studies Course Lists ..... 1658
International Studies, B.A. ..... 1658
International Studies Course Lists ..... 1661
Latin American Studies, B.A ..... 1662
Latin American Studies Course Lists ..... 1664
Middle Eastern Studies, B.A. ..... 1665
Middle Eastern Studies Course Lists ..... 1667
African Studies, Minor ..... 1667
African Studies Minor Electives ..... 1668
Asian Studies, Minor ..... 1669
Cultural \& Area Studies Course List ..... 1670
European Studies, Minor ..... 1670
Global Energy, Environment, and Resources, Minor ..... 1671
International Development, Minor ..... 1671
International Security Studies, Minor ..... 1672
International Studies, Minor ..... 1673
Iranian Studies, Minor ..... 1673
Latin American Studies, Minor ..... 1674
Middle Eastern Studies, Minor ..... 1675
Russian and Eastern European Studies, Minor ..... 1675
Global Engagement, Undergraduate Certificate ..... 1676
International Studies, B.A./Global Studies, M.A. ..... 1676
International Studies Accelerated Course Lists ..... 1679
Global Affairs, M.A. ..... 1680
Global Affairs Course List ..... 1681
Global Studies, M.A. ..... 1682
Global Studies Course Lists ..... 1682
International Relations, M.A. ..... 1683
International Relations Course Lists ..... 1683
Gaylord College of Journalism and Mass Communication ..... 1686
Journalism Advertising, B.A. ..... 1707
Creative Media Production, B.A. ..... 1709
Journalism, B.A. ..... 1712
Professional Writing, B.A. ..... 1714
Public Relations, B.A. ..... 1717
Public Relations Course List ..... 1719
Broadcast Meteorology, Minor ..... 1719
Creative Media Production, Minor ..... 1719
Professional Writing, Minor ..... 1720
Journalism: Advertising, B.A./Journalism and Mass Communication, M.A. ..... 1720
Creative Media Production, B.A./Journalism and Mass Communication, M.A. ..... 1724
Journalism, B.A./Journalism and Mass Communication, M.A. ..... 1727
Public Relations, B.A./Journalism and Mass Communication, M.A. ..... 1731
Journalism and Mass Communication, M.A. ..... 1734
Strategic Communication and Digital Strategy, M.A. ..... 1735
Professional Writing, M.P.W. ..... 1735
Media Management, Graduate Certificate ..... 1736
Price College of Business approved course list ..... 1736
Strategic Planning, Graduate Certificate ..... 1736
Mass Communication, Ph.D. ..... 1737
College of Law ..... 1739
Law, LL.M. ..... 1756
Energy and Natural Resources Law, LL.M ..... 1756
Healthcare Law, LL.M. ..... 1757
Indigenous Peoples Law, LL.M. ..... 1757
International Business Law, LL.M. ..... 1758
Energy and Natural Resources Law, M.L.S. ..... 1758
Healthcare Law, M.L.S. ..... 1758
Indigenous Peoples Law, M.L.S. ..... 1759
International Business Law, M.L.S. ..... 1759
Master of Legal Studies, M.L.S ..... 1760
American Indian Law, Graduate Certificate ..... 1760
Business and Transactional Law, Graduate Certificate ..... 1761
Energy and Natural Resources Law, Graduate Certificate ..... 1762
Indigenous Peoples Law, Graduate Certificate ..... 1762
International Law, Graduate Certificate ..... 1763
Litigation, Graduate Certificate ..... 1764
Oil \& Gas, Natural Resources, and Energy Law, Graduate Certificate ..... 1764
Law, J.D. ..... 1765
Polytechnic Institute ..... 1767
Cybersecurity, B.S. ..... 1772
Approved Cybersecurity Electives ..... 1774
College of Professional and Continuing Studies ..... 1775
College of PACS Administrated Programs ..... 1792
Integrative Studies, B.A. ..... 1794
Integrative Studies Bachelor of Arts Elective Course Lists ..... 1795
Interdisciplinary Studies: Aerospace \& Defense Management, B.A. ..... 1795
Interdisciplinary Studies: Business Administration, B.A. ..... 1797
Interdisciplinary Studies: Construction Management, B.A. ... ..... 1798
Interdisciplinary Studies: Criminal Justice Leadership, B.A. . 1800
Interdisciplinary Studies: Healthcare Management, B.A. ..... 1801
Interdisciplinary Studies: Learning and Education Studies, B.A.1803
Interdisciplinary Studies: Organizational Leadership, B.A. ..... 1804
Lifespan Care Administration (Online), B.A. ..... 1806
Organizational Leadership, B.A. ..... 1808
Criminal Justice (Online), B.S. ..... 1809
Criminal Investigation and Intelligence Analysis, Minor ..... 1810
Criminal Justice, Minor ..... 181
Organizational Leadership, Minor ..... 1811
Restorative Justice, Minor ..... 1812
Policies ..... 1813
Glossary of Terms and Abbreviations ..... 1814
Course Descriptions ..... 1818
A HI-Art History ..... 1820
A T-Art and Technology ..... 1826
ACCT-Accounting ..... 1827
AERO-Aerospace Studies ..... 1831
AFAM-African \& African American Studies ..... 1832
AGSC-Atmospheric and Geographic Sciences ..... 1835
AHS-Allied Health Sciences ..... 1836
AME-Aerospace \& Mechanical Engineering ..... 1836
AMGT-Arts Management ..... 1842
ANTH-Anthropology ..... 1844
ARAB-Arabic ..... 1853
ARCH-Architecture ..... 1854
ARNM-Art for Non-Majors ..... 1861
ART-Art ..... 1862
ARTC-Art Theory \& Criticism ..... 1868
ARTH-Art Therapy ..... 1869
ASTR-Astronomy ..... 1869
ATC-Art, Technology, and Culture ..... 1871
AVIA-Aviation ..... 1872
B AD-Business Administration ..... 1875
B C-Business Communication ..... 1878
BASN-Bassoon ..... 1878
BASS-Bass ..... 1879
BIA-Business Intelligence \& Analysis ..... 1880
BIOL-Biology ..... 1880
BME-Biomedical Engineering ..... 1890
C S-Computer Science ..... 1894
CAS-College of Arts \& Sciences ..... 1900
CEE-College of Earth \& Energy ..... 1902
CEES-Civil Engineering \& Environmental Science ..... 1902
CELO-Cello ..... 1910
CH E-Chemical Engineering ..... 1911
CHEM-Chemistry ..... 1915
CHER-Cherokee ..... 1921
CHIN-Chinese ..... 1921
CHOC-Choctaw ..... 1922
CL C-Classical Culture ..... 1922
CLAR-Clarinet ..... 1925
CNS-Construction Science ..... 1925
COMM-Communication ..... 1929
COMP-Composition ..... 1935
CREK-Creek ..... 1935
CRJU-Criminal Justice ..... 1936
CYBS-Cybersecurity ..... 1937
DANC-Dance ..... 1940
DENG-Developmental English ..... 1944
DES-Design ..... 1944
DMAT-Developmental Mathematics ..... 1945
DRAM-Drama ..... 1945
DRDG-Developmental Reading ..... 1951
DSA-Data Science and Analytics ..... 1951
EACS-Educational Administration Curriculum \& Supervision ..... 1953
ECE-Electrical \& Computer Engineering ..... 1956
ECON-Economics ..... 1962
EDAH-Adult and Higher Education ..... 1966
EDEC-Early Childhood Education ..... 1971
EDEL-Elementary Education ..... 1974
EDEN-English Education ..... 1976
EDLT-Literacy Education ..... 1978
EDMA-Mathematics Education ..... 1980
EDPC-Professional Counseling ..... 1982
EDPY-Education \& Counseling Psychology ..... 1984
EDRG-Reading Education ..... 1985
EDS-Educational Studies ..... 1987
EDSC-Science Education ..... 1990
EDSE-Secondary Education ..... 1992
EDSP-Special Education ..... 1993
EDSS-Social Studies Education ..... 1998
EDSW-Education Sooner Works ..... 1999
EDUC-College of Education ..... 2000
EDWL-World Language Education ..... 2003
EIPT-Instructional Psychology \& Technology ..... 2004
ELM-Engineering Leadership and Management ..... 2008
EMAD-Executive MBA Aerospace \& Defense ..... 2009
EMBA-Executive Energy MBA ..... 2011
EMGT-Energy Management ..... 2014
EN D-Environmental Design ..... 2015
ENGB-Energy for Business ..... 2015
ENGL-English ..... 2016
ENGR-College of Engineering ..... 2024
ENST- Environmental Studies ..... 2027
ENT-Entrepreneurship ..... 2030
EPHY-Engineering Physics ..... 2034
EUPH-Euphonium ..... 2034
EXPO-Expository Writing ..... 2035
F A-College of Fine Arts ..... 2035
FIN-Finance ..... 2036
FLUT-Flute ..... 2041
FMS-Film and Media Studies ..... 2042
FR H-French Horn ..... 2045
FR-French ..... 2045
G E-Geological Engineering ..... 2047
GCRE-Grad Comp Recital ..... 2049
GDMA-Graduate Recital DMA ..... 2049
GEOG-Geography ..... 2049
GEOL-Geology ..... 2056
GERM-German ..... 2061
GIS-Geographic Information Science ..... 2063
GPHY-Geophysics ..... 2066
GRAD-Graduate College ..... 2068
GRK-Greek ..... 2069
GRRE-Graduate Recital - MM ..... 2071
GTAR-Guitar ..... 2071
H R-Human Relations ..... 2071
HARP-Harp ..... 2081
HCB-Health Care Business ..... 2081
HEBR-Hebrew ..... 2082
HES-Health and Exercise Science ..... 2083
HIST-History ..... 2089
HMS-Health, Medicine, and Society ..... 2099
HON-Honors College ..... 2099
HPCD-Harpsichord ..... 2100
HSTM-History of Science, Technology, and Medicine ..... 2100
I D-Interior Design ..... 2104
IAS-International \& Area Studies ..... 2109
ILAC-Instructional Leadership \& Academic Curriculum ..... 2120
ILAW-International Law ..... 2122
INTL-International Courses ..... 2122
ISE-Industrial and Systems Engineering ..... 2122
ITAL-Italian ..... 2127
JAPN-Japanese ..... 2128
JMC-Journalism \& Mass Communication ..... 2129
JRRE-Music Recitals ..... 2143
KIOW-Kiowa ..... 2143
L A-Landscape Architecture ..... 2144
L S-Legal Studies ..... 2145
LAT-Latin ..... 2147
LAW-Law ..... 2148
LDMA-Music Recitals ..... 2154
LGBT-LGBTQ Studies ..... 2154
LING-Linguistics ..... 2155
LIS-Library and Information Studies ..... 2157
LSG-Legal Studies (General) ..... 2163
LSH-Legal Studies Healthcare Law ..... 2163
LSHA-Human \& Health Services Administration ..... 2164
LSI-Legal Studies Indigenous Peoples Law ..... 2165
LSIB-Legal Studies International Business Law ..... 2166
LSO-Legal Studies Oil, Gas, \& Energy Law ..... 2167
LTRS-Letters ..... 2168
M S-Military Science - Army ..... 2171
MATH-Mathematics ..... 2172
MBIO-Microbiology ..... 2178
METR-Meteorology ..... 2181
MGT-Management ..... 2188
MIS-Management Information Systems ..... 2192
MIT-Management Information Technology ..... 2194
MKT-Marketing ..... 2196
MLLL-Modern Languages, Literatures, \& Linguistics ..... 2198
MRS-Medieval and Renaissance ..... 2202
MST-Museum Studies ..... 2203
MTHR-Musical Theatre ..... 2204
MUED-Music Education ..... 2207
MULI-Music Literature ..... 2210
MUNM-Music for Non-Majors ..... 2211
MUS-Music ..... 2213
MUSC-Musicology ..... 2214
MUTE-Music Technique ..... 2215
MUTH-Music Theory ..... 2222
MUTK-Music Technology ..... 2223
N S-Naval Science ..... 2224
NAS-Native American Studies ..... 2225
NPNG-Nonprofit \& Nongovernmental Organizations ..... 2230
OBOE-Oboe ..... 2231
OCL-Organizational and Community Leadership ..... 2232
ODYN-Organizational Dynamics ..... 2232
OL-Organizational Leadership ..... 2234
ORGN-Organ ..... 2236
P E-Petroleum Engineering ..... 2236
P SC-Political Science ..... 2242
PBIO-Plant Biology ..... 2251
PCUS-Percussion ..... 2254
PDC-Planning, Design \& Construction ..... 2255
PERS-Persian ..... 2255
PHCH-Public Health and Community Health ..... 2255
PHIL-Philosophy ..... 2256
PHYS-Physics ..... 2261
PIAN-Piano ..... 2265
PORT-Portuguese ..... 2265
POTA-Potawatomi ..... 2266
PSAD-PACS Aerospace \& Defense ..... 2266
PSBA-PACS Business Administration ..... 2266
PSCJ-PACS Criminal Justice ..... 2267
PSCS-PACS Computer \& Data Science ..... 2268
PSHA-Health Administration ..... 2269
PSHU-PACS Humanities ..... 2269
PSIS-PACS Integrative Studies ..... 2270
PSMS-PACS Math ..... 2271
PSNS-PACS Natural Sciences ..... 2271
PSOL-PACS Organizational Leadership ..... 2272
PSSC-PACS Social Sciences ..... 2272
PSY-Psychology ..... 2273
RCPL-Regional \& City Planning ..... 2279
RELS-Religious Studies ..... 2283
RPHD-Music Recitals ..... 2286
RUSS-Russian ..... 2286
S WK-Social Work ..... 2287
SAX-Saxophone ..... 2293
SCM-Supply Chain Management ..... 2293
SES-Sustainable Energy Systems ..... 2295
SOC-Sociology ..... 2295
SPAN-Spanish ..... 2301
SRRE-Music Recitals ..... 2304
TESL-TESOL ..... 2304
TRMP-Trumpet ..... 2305
TROM-Trombone ..... 2306
TUBA-Tuba ..... 2306
UGRE-Music Recitals ..... 2307
UNIV-University Course ..... 2307
VIOA-Viola ..... 2308
VIOL-Violin ..... 2308
VOIC-Voice ..... 2309
WGS-Women's \& Gender Studies ..... 2310
Archived Catalogs ..... 2315
Index ..... 2316

## THE UNIVERSITY OF OKLAHOMA GENERAL CATALOG



The General Catalog is produced by the University of Oklahoma Office of Academic Publications, a division of Enrollment Management, directed by Jeff Blahnik, Vice President for the Division of Enrollment Management and Executive Director of the Office of Admissions \& Recruitment, Norman Campus. This publication is issued by The University of Oklahoma and authorized by The University of Oklahoma Board of Regents.

Prospective undergraduate students should contact the Office of Admissions \& Recruitment at (405) 325-2151 or 1-800-234-6868, or send an email to admissions@ou.edu. Prospective graduate students should request information on specific programs from the Graduate College, 731 Elm Avenue, Room 213, Norman, OK 73019, (405) 325-3811, gradinfo@ou.edu.

The General Catalog is published for informational purposes and should not be construed as the basis of a contract between a student and the University of Oklahoma. Every effort is made to provide information that is accurate at the time the Catalog is prepared.

However, information concerning regulations, policies, fees, curricula, courses and other matters contained in the Catalog is subject to change at any time during the period for which the Catalog is in effect.

The University of Oklahoma reserves the right at all times to discontinue, modify, or otherwise change its degree programs when it determines it is in the best interest of the University to do so.

Campus visits are available through the Office of Admissions \& Recruitment. To arrange a campus tour, visit Tour Our Campus or call (405) 325-2151 or toll-free 1-800-234-6868.

The mission of the University of Oklahoma is to provide the best possible educational experience for our students through excellence in teaching, research and creative activity, and service to the state and society.

The University of Oklahoma, in compliance with all applicable federal and state laws and regulations does not discriminate on the basis of race, color, national origin, sex, sexual orientation, genetic information, gender
identity, gender expression, age, religion, disability, political beliefs, or status as a veteran in any of its policies, practices, or procedures. This includes, but is not limited to: admissions, employment, financial aid, housing, services in educational programs or activities, or health care services that the University operates or provides.

Inquiries regarding non-discrimination policies may be directed to: Marci Gracey, Interim Institutional Equal Officer, 405-325-3546, mgracey@ou.edu or visit the Institutional Equity Office website.

## ABOUT OU



Located halfway between the Atlantic and Pacific coasts at the boundary between the eastern woodlands and the vast western prairie, the University of Oklahoma is a gathering place for students and scholars from across the nation and around the globe. Students are attracted primarily by the high quality of the faculty and academic programs, outstanding research facilities, and unique resources at OU. The relatively low cost of attendance adds to OU's international appeal. Scholars also appreciate the mild Oklahoma climate, the varied cultural environment and the friendly, informal atmosphere of the University community

Created by the Oklahoma Territorial Legislature in 1890, the University of Oklahoma is a doctoral degree-granting research university serving the educational, cultural, economic and health-care needs of the state, region and nation. The Norman campus serves as home to all of the university's academic programs except health-related fields. The OU Health Sciences Center, which is located in Oklahoma City, is one of only three comprehensive academic health centers in the nation with seven professional colleges or programs, NCI Cancer Center designation and both an Adult and Pediatric Level One Trauma Center. Both the Norman and Health Sciences Center campuses offer programs at the Schusterman Center, the site of OU-Tulsa. OU enrolls more than 30,000 students, has more than 2,600 full-time faculty members, and has 20 colleges offering 174 majors at the baccalaureate level, 191 majors at the master's level, 86 majors at the doctoral level, 8 majors at the doctoral professional level, 9 undergraduate certificates, and 72 graduate certificates. The university's total annual operating budget is $\$ 2.4$ billion. The University of Oklahoma is an equal opportunity institution.

## The OU Difference

You can get a college degree at any of hundreds of colleges, but you can only get an OU degree from the University of Oklahoma. Whatever your field of study, your life will be enriched by experiences both inside and outside the classroom.

Contributing to the OU difference are:

- An outstanding and internationally recognized faculty to serve as your teachers, mentors, role models, and guides through your college years;
- Over 170 majors at the baccalaureate level, more than 200 majors at the graduate level, and more than 70 graduate certificates.
- Professional programs in law, medicine, dentistry, the health professions, and various master's dual degree programs;
- An emphasis on sound academic advising and orientation for all students;
- A focused general education program;
- Funded research opportunities for students;
- A nationally recognized Honors College;
- The opportunity to study abroad at universities on five continents; and
- A culturally diverse campus community providing a supportive environment for students of all cultural backgrounds.

The wide variety of academic programs, the dedicated faculty, the multicultural and international student body, the unique resources, the friendly and supportive community, and the traditions developed during 130 years of striving for academic excellence all contribute to the OU difference - a difference you will benefit from and contribute to as an OU student and alumnus.

We invite you to visit the University or to contact us for further information about our wide variety of educational programs. For more information about the University of Oklahoma please see the University's website. To arrange a visit, please write or call one of the following offices or a specific college or program listed in this catalog.

## University of Oklahoma Home page: www.ou.edu

Admissions and Recruitment
(405) 325-2151 or 1-800-234-6868

Internet: www.ou.edu/admissions/
email: admissions@ou.edu
The mission of the University of Oklahoma is to provide the best possible educational experience for our students through excellence in teaching, research and creative activity, and service to the state and society.

The University of Oklahoma recognizes, appreciates and actively pursues its special responsibility to help make Oklahoma a great place in which to live and work. The University also is part of a world community of scholars, and its activities make national and international contributions. Graduates of the University hold important leadership positions in the state and throughout the world. As the University meets its broad scholarly responsibilities, it targets many activities to bring maximum benefits to the state.

To encourage excellence, the University attracts, develops and retains outstanding faculty and staff; attracts capable students who will provide future leadership for the state, region and nation; provides superior library, laboratory, classroom, performance and computer facilities; and engages in ongoing planning, analysis and management for the effective use of its resources.

## Undergraduate Education

The University uses the liberal-professional model of education to provide undergraduates with the knowledge and skills needed to contribute and succeed in a rapidly changing global society. Capitalizing upon the strengths of an outstanding faculty unique to a research university, OU offers undergraduate education in a wide array of majors to meet the interests of students and the needs of the state. Admission to undergraduate programs is selective. Students are expected to be above the average for college applicants in ability and to have the maturity to work diligently and effectively in a demanding academic environment.

The University endeavors to instill in its undergraduates the tradition of lifelong learning, the capacity for critical thinking, the ability to work effectively in groups, the flexibility to adapt successfully to a rapidly changing world, and an enthusiasm for creativity. These qualities enrich
an individual's life and enable one to contribute to the making of a better world.

University of Oklahoma graduates understand our rich human heritage; comprehend differing approaches used by the arts, humanities and sciences in creating that heritage; develop the ability to make ethical, critical and analytical judgments; and use spoken, written and symbolic language to communicate effectively.

## Graduate Programs

The University of Oklahoma and the Graduate College are committed to providing the best graduate education possible for its students, an education that prepares its graduates to assume leadership positions in the fields and professions in which they are educated. Admission to the graduate programs is highly selective. Students are expected to have superior academic ability, a high level of motivation, and commitment to their discipline or profession. Strong emphasis is placed on faculty strength in teaching, research and creative activity; a critical mass of faculty and students; student quality; compatibility with other established University programs; and contributions to the state and nation's health, cultural, scientific, social and economic needs.

## Research, Scholarship and Creative Activity

National and international recognition in research, scholarship and creative activity in disciplinary and interdisciplinary areas is one of the primary goals of the University of Oklahoma. Consequently, faculty members at the University of Oklahoma are national leaders in their fields and, as such, are outstanding role models for students. They actively seek and obtain external support for research from the federal government, private foundations and corporations. Faculty at the University of Oklahoma also cooperate with faculty from other research universities and health sciences centers as well as individuals in the private sector and government agencies.

Research and creative activities enrich education and promote learning excellence for students by developing new knowledge for our society; allowing emerging issues, breakthroughs, and new information and perspectives to be shared swiftly in the classroom; and introducing students to the process of creativity and discovery. A major research university enlivens the community and, in our modern society based on information and technology, encourages and supports economic and social development in the state.

## Continuing Education and Service to the Public

The University of Oklahoma meets the growing needs of the state and nation for lifelong learning by offering continuing education programs that are built on the strengths of its academic programs. As a major public university, the University of Oklahoma has a responsibility to offer a broad range of high quality educational programs tailored to meet the needs of individuals for retraining or upgrading their skills. These programs are offered at times, in locations, and in formats to best serve the needs and schedules of adult learners.

The University is committed to offering degree programs, especially at the graduate level, for place-bound students in the state's urban areas and to supporting the state's economic development through education and research programs.

In the area of arts and culture, the University of Oklahoma plays a unique role as a nationally recognized center in the state and Southwest for selected artistic and cultural activities. The University's artistic
and cultural activities advance knowledge; enrich the campus and community; enhance Oklahoma's quality of life; and contribute to the state's development, attractiveness and prosperity.

## Accreditations

Achievement and maintenance of high academic standards entitle the University of Oklahoma to accredited membership in the Higher Learning Commission. See the Accreditation website for more information.

## Organization



## The Administrators

See University Leadership for current administrator listings.

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Courtney Warmington, Assistant Secretary
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John Antonio, Ph.D., Interim Dean, Mewbourne College of Earth and Energy
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H. Anne Pereira, Ph.D., Graduate College

James Herman, M.D., M.S.P., School of Community Medicine

## Tulsa Deans

James Herman, M.D. M.S.P., School of Community Medicine, Tulsa

## University Governance

The University is a part of the Oklahoma State System of Higher Education, which is composed of all higher education institutions supported wholly or in part by state appropriations. The Oklahoma Regents for Higher Education is the coordinating board for the system.

The University - as part of the public educational system of the state, established by legislative action and supported by annual legislative appropriations - places emphasis on sound scholarship, good citizenship, and the duties of the individual to the community and the commonwealth.

By constitutional enactment, the governance of the University is vested in the OU Board of Regents, a board consisting of seven members appointed by the governor with the advice and consent of the state Senate. Each member is appointed to serve for seven years, except when appointed to fill an unexpired term, and is subject to removal from office only as provided by law for the removal of officers not liable to impeachment.

The Oklahoma Regents and the University regents approve the requirements for admission and graduation, the degrees offered, and the fees and expenses. The boards reserve the right to change these requirements.

The president is charged with the educational and business management of the entire University. Upon recommendation of the faculties and by authority vested in them by the regents, the president confers all degrees.

The senior vice president and provost, Norman campus, and the senior vice president and provost, OU Health Sciences Center, are the chief administrative officers for the two campuses and provide academic and administrative leadership.

The registrar and senior associate vice president for the Division of Enrollment Management supervises admission and registration to the University and keeps the academic records of students enrolled on the Norman campus.

The vice president for student affairs and staff are the officials responsible for the nonacademic activities, programs and services of student life.

University College provides an advisory system for freshmen and assists students in choosing a field of study. The administrative functions are exercised by the dean of University College.

Each college, except University College, has its own faculty, consisting of the dean and the members of the faculty who teach courses in the college. The faculties set the requirements for graduation for the schools and colleges and make recommendations to the president to confer degrees upon those students who have completed these requirements. The dean of each college is its executive officer.

The general faculty of the University of Oklahoma Norman campus is composed of all faculty members with regular appointments. The Norman campus general faculty does not include faculty members with temporary appointments. The Norman campus Faculty Senate is the legislative group of the general faculty. It is composed of 50
members elected by the general faculty with senatorial seats apportioned according to the number of full-time faculty in the college. Faculty who are not members of a degree- recommending college are treated as a separate college for election. The Senate exercises the legislative powers of the faculty and has the power to initiate any legislation requiring approval by the OU Board of Regents. Subjects for review or legislation can be brought to the attention of the Senate by written communication from any member of the University community or any officially constituted agency.

- Norman Campus (p. 21)
- Health Sciences Center (p. 22)
- OU-Tulsa Schusterman Center and Polytechnic Institute (p. 22)
- Continuing Education (p. 23)


## Norman Campus

The central campus and the offices of administration of the University of Oklahoma are located on some 3,500 acres in Norman, a city of more than 100,000 residents. Norman is located near the center of the state, 20 miles south of Oklahoma City, the state capital.

The colleges housed on the Norman campus are the Christopher C. Gibbs College of Architecture, the Dodge Family College of Arts and Sciences, the College of Atmospheric and Geographic Sciences, the Michael F. Price College of Business, the Mewbourne College of Earth and Energy, the Jeannine Rainbolt College of Education, the Gallogly College of Engineering, the Weitzenhoffer Family College of Fine Arts, the Graduate College, the Joe C. and Carole Kerr McClendon Honors College, the David L. Boren College of International Studies, the Gaylord College of Journalism and Mass Communication, the College of Law, and the College of Professional and Continuing Studies. The Norman campus is also headquarters for the College of Continuing Education, which directs outreach programs throughout the state.

The Norman campus consists of four sections - central campus, south campus, research campus and north campus. Most of the academic and administrative buildings are located on the central campus, noted for its Cherokee Gothic architecture and award-winning landscaping. Also situated on the central campus are the University residence halls, which include residential colleges and other upperclassman housing; Sarkeys Energy Center; University Libraries; Fred Jones Jr. Museum of Art; Donald W. Reynolds Performing Arts Center, including historic Holmberg Hall; Rupel Jones Fine Arts Center, including Elsie C. Brackett Theatre; Catlett Music Center, including Sharp Concert Hall and Pitman Recital Hall; Oklahoma Memorial Union; recreational facilities, including the Sarkeys Fitness Center and the Murray Case Sells Swim Complex; Gaylord Family - Oklahoma Memorial Stadium; the Everest Indoor Training Center; and the Oklahoma Center for Continuing Education, a year-round educational center and conference site. Located one block east of the central campus is the OU Brandt Park and Duck Pond, a recreational area used throughout the year by OU students and Norman residents. David A. Burr Park is conveniently located near residence halls and other recreational facilities.

The first of its kind in the state, the OU Visitor Center serves all guests of the University of Oklahoma as a one-stop information and welcome center. This "front door" of the University is housed in historic Jacobson Faculty Hall and provides regular, guided tours for prospective students and advanced-scheduled group tours. Free parking passes for campus visitors are available at the Visitor Center. An extensive collection of photographs and art depicting the history and heritage of the

University fills the Visitor Center. It also has been designated as a local Tourism Information Center by the Oklahoma Tourism \& Recreation Department to provide state travel information. For complete visitor and tour information: Visitor Center (405) 325-2151 or 1-800-234-6868; or tour@ou.edu.

## South Campus

Immediately adjacent to central campus is the south campus, site of the College of Law; the OU Foundation; OU Traditions apartments; the world-class Sam Noble Oklahoma Museum of Natural History; Lloyd Noble Center and parking complex; the John Crain Field at the OU Soccer Complex; the Headington Family Tennis Center; the Gregg Wadley Tennis Pavilion; the Jimmie Austin University of Oklahoma Golf Course; L. Dale Mitchell Baseball Park; the Marita Hynes Field - OU Women's Softball Complex; the Sam Viersen Gymnastics Center; the OU Rugby Field; the OU Rowing Training Center; and the OU Learning Center.

## Research Campus

In less than a decade, the 277-acre OU Research Campus has been transformed from an empty field to a thriving economic engine shaped by a community of public and private sector collaborations located in nearly 1 million square feet of occupied space representing $\$ 300$ million in investment. Today, the Research Campus brings together 1,700 workers across academic, federal, state and industrial organizations in a mutually beneficial environment.

The National Weather Center, a 257,000 square-foot facility that opened in 2006, anchors the OU Research Campus on the south. The Center houses both academic and federal groups dedicated to forecasting, research and training. The Stephenson Research and Technology Center and the Stephenson Life Sciences Research Center house cutting-edge research in fields including robotics, genomics, bioengineering and the OU Department of Chemistry and Biochemistry, which includes a National Institutes of Health-funded structural biology program. A series of five "Partners Place" buildings, totaling 362,000 square-feet, enable the public and private sector collaboration on weather and radar research; innovation and entrepreneurship; and water, climate, and energy. The OU Innovation Hub serves as a creative space for students and faculty in support of invention and entrepreneurship. Additionally, a 35,000 squarefoot "one of a kind" Radar Innovations Laboratory opened in 2015.

OU's Research Campus has been certified by the Oklahoma Department of Commerce as Site Ready, which allows the University to capitalize on fast-moving economic opportunities and enables site selectors to readily find quality land and facilities that meet nationally established criteria. OU's Research Campus was named the nation's top research park for 2013 by the Association of University Research Parks, placing it among such past recipients as Research Triangle Park in North Carolina, Purdue Research Park in Indiana and University City Science Center in Pennsylvania.

## North Campus

North campus, which is two miles north of the main campus, includes the Merrick Computer Center; Max Westheimer Airport, the Universityoperated airport that also serves the City of Norman; and Swearingen Research Park, where government agencies and industry have established facilities.

Other research and study units of the University include the Biological Station on Lake Texoma; the Sutton Avian Research Center in Bartlesville; the Oklahoma Geophysical Observatory at Leonard near Tulsa; the Aquatic Biology Fisheries Research Center in Noble near Norman; and
the Oklahoma Biological Survey, the Oklahoma Archeological Survey and Charles M. Russell Center for the Study of Art of the American West in Norman. In addition, the Oklahoma Geological Survey is a state agency mandated in the Constitution of Oklahoma, and is part of the Mewbourne College of Earth and Energy at the University of Oklahoma.

## Health Sciences Center

The University of Oklahoma Health Sciences Center (OUHSC) is one of the most comprehensive academic health centers in the nation, with programs in Oklahoma City, Tulsa, and Lawton; six professional Colleges and the Graduate College; research centers of excellence such as the Stephenson Cancer Center, Harold Hamm Diabetes Center, and Dean McGee Eye Institute; and the state's largest clinical group practice OU Physicians with over 1,200 credentialed providers. Students enroll in programs at the College of Allied Health, College of Dentistry, College of Medicine and School of Community Medicine, Fran and Earl Ziegler College of Nursing, College of Pharmacy, Hudson College of Public Health and Graduate College.

The OUHSC prepares healthcare professionals and scientists to meet tomorrow's most complex healthcare needs, through research, discovery, and interdisciplinary education experiences. The OUHSC is a premier healthcare training institution for over 3,300 students, 80 post-doctoral researchers, and 800 residents and fellows, graduating physicians, biomedical and clinician scientists, nurses, dentists, pharmacists, allied health professionals, and public health leaders. Prominent OUHSC researchers receive the largest portfolio of National Institutes of Health (NIH) funding in the state, and commercialize new treatments and diagnostic tests, utilizing state-of-the-art research facilities such as the University Research Park, Stanton L. Young Biomedical Research Center, and Oklahoma Medical Research Foundation (OMRF). The Stephenson Cancer Center is the only National Cancer Institute (NCI) designated Center in Oklahoma and in the top 2 percent nationwide

The OUHSC is a founding partner with the University Hospitals Authority and Trust of the academic health system OU Medicine, which includes OU Medical Center, The Children's Hospital, and OU Medical Center Edmond. The OUHSC and OU Medicine combine efforts as the only research-driven healthcare system in Oklahoma, with treatment options and expertise found nowhere else. The Tulsa campus is part of the OU Medicine statewide system partnership, and also has academic and clinical affiliations with the Hillcrest, St. Francis, and St. John health systems. OUHSC has additional affiliations with the Veterans Administration Medical Center in Oklahoma City, and other hospitals, clinics, health departments, and healthcare facilities across Oklahoma.

Scientists, scholars and clinicians at the OUHSC deliver healthcare solutions through bench-to-bedside-to community research and through training the state's most comprehensive and skilled health workforce. The OUHSC is an essential partner for the state to improve health outcomes and drive economic growth and diversification.

For more information, see the OU Health Sciences Center p. 1616) section in this catalog

## OU-Tulsa Schusterman Center and Polytechnic Institute

The OU-Tulsa Schusterman Center is located in the heart of mid-town Tulsa at 41 st and Yale. On this campus both the OU Health Sciences Center and the OU Norman Campus offer programs. The vision of OU-

Tulsa is to build a nationally-recognized center of higher education excellence in select areas that emphasize strong campus community partnerships and leverage unique opportunities and needs in the Tulsa region.

OU has a long history in the Tulsa area. The earliest program of the University of Oklahoma in Tulsa started in 1957 as a partnership with the Tulsa City-County Library. This program averaged 50 students a year and was one of the first programs to be part of the Tulsa Graduate Center, which became University Center at Tulsa in 1982. Recognizing the potential community impact of an expansion of OU services in Tulsa, the Oklahoma Legislature enacted Senate Bill 453 in 1972 that created a clinical branch of the University of Oklahoma College of Medicine in Tulsa. Today, the OU College of Medicine in Tulsa enrolls medical students and trains 181 residents who conduct 200,000 patient visits annually at the college's ambulatory clinics.

Although OU's presence in Tulsa has been longstanding, it changed dramatically in 1999. As a result of the transformational \$10 million gift from the Charles and Lynn Schusterman Family Foundation and the leadership of President David L. Boren, OU was able to purchase 60 acres at the corner of 41 st and Yale, previously the BPAmoco Research Center. The OU programs in Tulsa had been located in a wide variety of physical locations. By the fall of 2002, all OU academic programs in Tulsa were located at the Schusterman Center campus. This campus has allowed OU to better serve the community by providing a strong, centralized identity in Tulsa.

In February of 2008, the George Kaiser Family Foundation made a $\$ 50$ million gift to the OU College of Medicine in Tulsa allowing the College of Medicine to have the explicit focus to improve the health status of underserved communities. To reflect that change, the name of the College of Medicine in Tulsa was changed to the OU School of Community Medicine, the first in the nation. The School of Community Medicine remains an integral part of the OU College of Medicine. The University of Tulsa and the University of Oklahoma welcomed its first class of students to the School of Community Medicine four-year educational track in Tulsa in 2015. The Tandy Education Center also opened in 2015 and is a space that provides students the opportunity to practice lifelike circumstances using models and virtual reality. It is a state-of-the-art facility that features the latest advances in medical simulation

See Explore OU-Tulsa Colleges \& Majors for a listing of degree programs offered at the Schusterman Center. All bachelor degree programs at OUTulsa are degree completion programs.

Future students or others interested in programming at the OU-Tulsa Schusterman can visit the OU-Tulsa website or call (918) 660-3318.

## Polytechnic Institute

First announced in 2022, the OU Polytechnic Institute (OUPI) represents a significant advancement for the Tulsa community and region, aiming to address the growing demand in northeast Oklahoma for highly skilled workers in essential STEM fields. This initiative underscores the region's commitment to becoming a leading center for technological growth and employment opportunities. Developed in collaboration with industry leaders, the school's curriculum is specifically designed to rapidly establish northeast Oklahoma as a technological hub, fostering economic growth and job creation. By offering cutting-edge programs, OUPI equips graduates with the skills to revolutionize Oklahoma's industries.

The Polytechnic Institute embodies learning by doing, providing a practical education in today's digital landscape. The program incorporates a strategic breadth of study coupled with integrated content designed to provide mastery in essential work ready skills including terminal proficiency, collaboration (comprehensive project portfolio), and demonstrable project management and delivery. Additionally, the curriculum is designed to build a student's professional network with other students, faculty as well as local and national employers. It's about fueling innovation through technology and preparing students in Tulsa to propel Oklahoma forward. This approach not only enriches the educational experience but also prepares students to meet the challenges of the future, driving innovation and leadership in the tech sector.

OUPI focuses on high-demand, advanced and applied technology-based education and prepares graduates to transform industries in Oklahoma. From curriculum to on-site training, programs at OUPI will help meet the changing academic and workforce needs of the Tulsa region largely thanks to our close working relationship with industry partners.

Future students or others interested in OUPI programs, visit the OU Polytechnic Institute website or call (918) 660-3456.

## Continuing Education

## OU Extended Campus - College of Professional and Continuing Studies

OU Extended Campus - College of Professional and Continuing Studies (EC-PACS) exists to provide access to transformational, world-class University of Oklahoma degrees, certifications, and programs for a diverse group of learners. OU Extended Campus is best characterized by the populations it serves, as well as the specialized academic programming it offers. Primarily focusing on the higher education needs of place-bound working adults, military-connected personnel, and those seeking specialized study in selected professional areas (such as Aviation), the College offers a variety of degrees at both graduate and undergraduate levels, including several programs offered collaboratively with other OU Colleges, and utilizing a variety of delivery modes (fully online, hybrid, onsite, cohort-based, etc.). To facilitate understanding of the complex world in which we live and building on its historical roots, the College emphasizes a holistic approach to learning, focuses on the immediate application of learning to one's life and work, promotes lifelong learning opportunities, and encourages the work of active citizenship.

While its programs were originally developed for adult and non-traditional students, many of the activities offered by the College also serve students enrolled in conventional academic programs, as well as the general public. Therefore, in addition to the full-time degree program offerings noted above, EC-PACS is also committed to meeting the educational needs of a wide variety of learners and organizations seeking smaller scale academic options, including credit courses, workshops, academic conferences, certification programs, executive academic programs and academically-oriented professional training services.

For more information, see the College of Continuing Education (p. 1002) and College of Professional and Continuing Studies (p. 1775) sections in this catalog.

Facilities and Resources


## University of Oklahoma Libraries

Denise Stephens, Dean of University Libraries
401 W. Brooks St. Norman, OK 73019
Phone: (405) 325-3341
libraries.ou.edu
The University of Oklahoma Libraries in Norman, Oklahoma City, and Tulsa are at the core of the University and serve as an intellectual center for interdisciplinary innovation to all OU students, staff and faculty. The research library facilities on the Norman campus include Bizzell Memorial Library and separate branch libraries for architecture, fine arts, and geology/engineering. The OU College of Law has a separate library in its facility, the Donald E. Pray Law Library. The Robert M. Bird Health Sciences Library at the OU Health Sciences Center supports teaching and research in medicine, nursing, dentistry, pharmacy, and health-related disciplines. The Schusterman Library at OU-Tulsa supports students enrolled in Tulsa-based programs.

## Bizzell Memorial Library

Bizzell Memorial Library, the main library on the Norman campus, consists of an original building constructed in 1929 and a large addition completed in 1958. The 1929 building was recently declared a National Historic Landmark and contains the Peggy V. Helmerich Great Reading Room, an elegant room beloved by students and alumni. The Doris W. Neustadt Wing was built in 1982 and added 150,000 square feet to the library facility. The library includes technology-enabled learning spaces, quiet and collaborative study areas, as well as the popular Bookmark Café Coffee Shop, and the Oklahoma Canyon Garden, which offers an outdoor area for reflection and study. Recent renovations have updated existing spaces to create the Peggy V. Helmerich Collaborative Learning Center, the Learning Lab, the Innovation @ the Edge learning space, and the Zarrow Family Faculty and Graduate Student Center.

## General Collections

The collections in the libraries total more than 6 million volumes, including 1.3 million eBooks, 3.6 million microform materials and 116,000 serials subscriptions. The libraries also maintain over 17,000 linear feet of manuscripts and archives, 1.6 million photographs, and more than 1.5 million maps. It also holds more than 70 incunabula (books printed before 1501), the oldest one of which was published in 1467.

## Special Collections

In addition to the general collections, there are notable special collections.

## Boorstin Collection

The Boorstin Collection is used for quiet study and reading books from the collection and is located on the main floor of the library. The facilities for the Daniel J. and Ruth F. Boorstin Collection were made possible by a generous gift from ConocoPhillips Inc.

## Chinese Literature Translation Archive

The Chinese Literature Translation Archive provides students and scholars with a wide range of rare books, reference materials, translation drafts, correspondence, notes, ephemera, and other historical materials that provide context for Western readers to gain a deeper understanding of Chinese literature. The archive currently houses nearly 10,000 volumes and thousands of documents from some of the greatest translators of modern Chinese literature in the West including Howard Goldblatt, Wolfgang Kubin, Wai-lim Yip and the "William Bikales and Margaret Eliot Grady Collection" of Arthur Waley. The mission of the archive is to improve the material conditions for translation students and for comparative and world literature by providing the materials necessary for historically informed research supported by the richly textured intellectual environments within which translation takes place.

## Bass Business History Collections

The Harry W. Bass Business History Collection began in 1955 with the purpose of collecting and preserving materials relating to the history of business and industry. The collection contains books, microforms, videos and journals on a number of topics including the histories of business leaders and firms and the economic, social and political forces that influence the role of business in society.

## History of Science Collections

The History of Science Collections, located on the 5th floor of Bizzell Memorial Library, is a premier research collection in its field. Holdings of nearly 100,000 volumes from every field and subject area of science, technology and medicine range chronologically from Hrabanus Maurus, Opus de universo (1467) to current publications in the history of science.

## The John and Mary Nichols Rare Books and Special Collections

 The John and Mary Nichols Rare Books and Special Collections are comprised of rare books and special materials in English, European and American literature dating from the 15th century to the present. A collection of general rare books, including several incunables, and a Bible collection complement the focal literature collections. These collections offer opportunities for interdisciplinary research in such fields as literary studies, the history of printing, and religion.
## Western History Collections

The purpose of the Western History Collections is to enhance the University Libraries general collection on the history of the American West; to support the research and teaching programs of the University of Oklahoma; and to provide opportunities for research through the
acquisition, preservation, and access of materials relating to the development of the Trans-Mississippi West and Native American cultures.

## William Bennett Bizzell Bible Collections

In addition to more common European languages such as Greek, Latin, German, French and Spanish, President Bizzell collected many Bibles in numerous other languages such as Cherokee, Muskogee, Hindi, Swahili, Javanese, Mongolian, Tartan, Mooltan, and Turkish. Additional related works include commentaries, textual studies, illustrations, geographies and histories of the holy land, works on the life of Christ, prayer books and hymnals. The collection contains 665 Bibles, including several incunabula (books published in the infancy of printing, before 1500). The oldest book is a hand-painted manuscript prayer book written on vellum in the fifteenth century. The Bizzell Bible Collection is housed in the Gaylord Room on the 5th floor of the Bizzell Memorial Library.

## Branch Libraries

The University Libraries include three branch libraries:

- Fine Arts Library (20 Catlett Music Center), (405) 325-4243
- National Weather Center Library (120 David L. Boren Blvd., Suite 4300), (405) 325-1 171
- Youngblood Energy (Geology \& Engineering) Library, 220 Sarkeys Energy Center, (405) 325-6451


## Services

## Library Website and Catalog

The University of Oklahoma Libraries provides a wealth of electronic, print and non-print resources. Students may access many library resources through the Libraries' website, available 24 hours a day, 7 days a week. The library catalog and website provide access to databases, books, ejournals, high-quality websites, government documents, and e-reference materials.

## Circulation, Interlibrary Loan, and Sooner Xpress

Most library materials are available for loan to students and faculty. Circulation policies are available on the library website. Materials not held by the libraries may be obtained through interlibrary loan services on all three campuses. Delivery on-campus is available via Sooner Xpress.

## Ask Us Reference Services

Reference and information service is available in all library facilities, in person, by telephone, by e-mail, and through instant message. Individuals may visit the reference desk at their convenience for assistance with questions, assignments or specific databases. They may also arrange an appointment with a librarian to discuss library resources and research questions. Questions may be sent via email a librarian at librarian@ou.edu.

## Library Instruction

The libraries provide instructional services to teach students and faculty how to access, evaluate, and use a variety of information sources. These services range from general orientation activities to classroom instruction designed to meet specific research needs.

## Online Tutorials

Online tutorials are available to help students learn how to evaluate and understand scholarly information, search electronic databases, search the catalog and request books and other materials through interlibrary loan.

## Government Documents

State, federal and foreign government publications are collected and made available through the Government Documents unit. Reference services and instructional sessions specific to government documents are available upon request.

## Digital Scholarship

Through workshops, consultation, and training, our Digital Scholarship Specialists help faculty and graduate students identify innovative digital tools and resources that build on traditional research and teaching methods.

## Helmerich Collaborative Learning Center

The Helmerich Collaborative Learning Center is a technology enabled, collaborative space where students can work together in groups. In this space, students can learn to create information, to explore it visually, and to synthesize it in new and different ways. Visit the Bookmark Café to grab a cup of coffee, and talk with a professor, colleague, or with friends.

## Innovation @ the Edge

Innovation @ the Edge is a flexible experimentation and innovation space that provides access to the latest tools used in research, instruction and knowledge creation, including 3D printing tools, custom virtual reality workstations, software and data skill development and microelectronics kits. Any member of the OU community, from any field, is free to prototype concepts or fly-through 3D data sets in this centrally located makerspace in the Bizzell Memorial Library, room 126.

## Learning Lab

The Learning Lab on Lower Level 1 provides presentation consultations from library personnel as well as other services that support student success such as the Writing Center and UC Action Tutoring.

## Loveridge Computer Lab

The Loveridge Computer Lab is located on the main floor of Bizzell Memorial Library, next to the West entrance and across from the main Circulation Desk. A number of computers are available for OU students, staff, and faculty; additionally, customers not affiliated with OU can request a guest log-in from the computer lab staff. A variety of software is available for all users. Multiple scanners and printers are also available in this lab.

## Zarrow Family Faculty and Graduate Student Center

Located on Lower Level 2 of Bizzell Memorial Library, the Zarrow Family Faculty \& Graduate Student Center is a space dedicated to supporting the research and teaching needs of OU faculty and graduate students in a central campus location. The center enables members of the academic community to access the wide variety of information resources available through OU Libraries creatively, analytically, and critically in pursuit of academic goals.

## Data Analytics, Visualization \& Informatics Syndicate

DAVIS, located in the Zarrow Family Faculty and Graduate Student Center, supports OU community members with their data needs. Specialists and graduate assistants who are familiar with working with data, including management, analysis, and visualization are available for consultation. With the ability to ask questions and receive guidance, DAVIS helps faculty, researchers, and students work with their data.

## Other Services

OU Libraries offers a wide range of services for students, staff, faculty, visiting scholars, and the community. In addition to print and digital resources, services are available to help students plan, get research
assistance, share their research, access scholarly tools and publication resources.

## OU Information Technology

OU Information Technology (OU IT) offers the following world class technology services to help you succeed at the University of Oklahoma.

- OUNetID - Set up your account at one.ou.edu/account to access the services outlined below. Additionally, you can set up your email alias, sign up for emergency communications, and update your emergency contacts.
- WIFI@OU - Connect to WIFI@OU across campus for dependable, secure, and speedy access to network and Internet resources.
- OU.edu Email - Check your OU email for official communications from departments and colleges at outlook.office.com.
- ONE Student Portal - View your schedule or grades, accept financial aid, prepare for enrollment, pay your bursar account and more - all in one place - at one.ou.edu.
- OU App - Download OU's mobile app on iOS or Android at the Apple App Store or the Google Play Store to access important student services, including a campus map, directory, bus routes, etc.
- Canvas Course Management - Access course information and assignments, view grades, and stay in touch with your professors at canvas.ou.edu.
- Office 365 - Use Microsoft's full suite of online services for FREE or download and install Word, Excel, PowerPoint, and more on your own devices at portal.office.com.
- Academic Technology - Enhance your learning experience with classroom technology, remote learning using Zoom, computer labs equipped with PC and Apple workstations, printers, and work areas specifically designed to meet the guidelines for computing as specified in the Americans with Disabilities Act.
- LinkedIn Learning - Visit linkedin.com/learning for FREE, unlimited access to instructional videos covering the latest software, creative, and business skills.
- WEPA Cloud Campus Printing - Print from your laptop, USB, or mobile device to one of our cloud printing kiosks on campus. For more information, visit print.ou.edu.


## Need Help?

Call us at (405) 325-HELP (4357) or visit needhelp.ou.edu for a full list of support options, including live chat, $24 \times 7 \times 365$ self-help, ticket requests, or in-person support at one of our Service Center locations.

## Museums and Collections



For many years the University has received gifts of artistic and scientific value from alumni, collectors and friends of the University. As a result, the Fred Jones Jr. Museum of Art, the Sam Noble Oklahoma Museum of Natural History, and the Charles M. Russell Center for Study of Art of the American West possess many valuable collections.

## The Fred Jones Jr. Museum of Art

555 Elm Ave., Norman, OK 73019
Phone: (405) 325-4938
museuminfo@ou.edu
www.ou.edu/fjjma/
Located at the intersection of Boyd Street and Elm Avenue, the University of Oklahoma's Fred Jones Jr. Museum of Art is one of the finest university art museums in the United States.

In 1936, with the acquisition of a large collection of East Asian art (750 objects), the generous gift of Lew Wentz and Gordon Matzene, the University of Oklahoma Museum of Art was officially founded and Jacobson was named its director. By this time, Jacobson had already collected more than 2,500 works of art for the University. The new museum's first galleries were in what is now Jacobson Hall. In 1948, the permanent collection was further embellished with the purchase of the so-called State Department Collection, comprised of 36 paintings from the exhibition Advancing American Art and including major works by artists such as Stuart Davis, Georgia O'Keeffe, and Edward Hopper.

Jacobson's vision of a permanent facility to house the art finally came to fruition in 1971, when Mr. and Mrs. Fred Jones of Oklahoma City donated a fine arts building to the University in memory of their son, Fred Jones, Jr., who had died in an airplane crash during his senior year at the University of Oklahoma. The resulting structure, the Fred Jones Jr. Memorial Art Center, housed the Museum of Art, which contains 15,000 square feet of exhibition space, the School of Art, and the administrative offices of the College of Fine Arts. In 1992, the Museum of Art was redesignated the Fred Jones Jr. Museum of Art.

Over the years, the museum's permanent collection has grown exponentially through the generosity of donors such as Max Weitzenhoffer and Jerome M. Westheimer Sr. In 1996, with an initial gift of \$1 million from Mrs. Fred Jones, OU President and Mrs. David L. Boren spearheaded a successful fundraising campaign to acquire the important collection of the late Richard H. and Adeline J. Fleischaker, which is composed primarily of Native American and Southwestern art.

2000 was a watershed year in the development of the FJJMA's collections, with the gift of the Weitzenhoffer Collection of French Impressionism, which consists of 33 works of art by Degas, Gauguin, Monet, Pissarro, Renoir, Toulouse-Lautrec, Van Gogh, Vuillard, and others. It is the most important collection of French Impressionism ever given to an American public university. The gift came to the University at the bequest of Clara Weitzenhoffer, an art collector and longtime University of Oklahoma supporter.

In 2005, the museum opened a new addition, designed by acclaimed architect Hugh Newell Jacobsen of Washington, D.C. Named in honor of Mary and Howard Lester of San Francisco, the wing added more than 34,000 square feet to the earlier 27,000-square-foot building. The Lester Wing features galleries for the Weitzenhoffer Collection, additional galleries, a 150-seat auditorium, an orientation room, a classroom, a museum store, and a new main entrance. Jacobsen designed the Lester Wing as a sequence of limestone pavilions having pyramidal slate roofs with glass skylights at their apexes. The building features an abundance of natural light, pure geometries, clarity of plan, and well-proportioned, top-lighted galleries that have an intimate, human scale. The resulting serene, contemplative spaces put the visitor in the proper frame of mind for viewing works of art.

The Adkins Foundation Board announced in July 2007 that the Fred Jones Jr. Museum of Art and the Philbrook Museum of Art in Tulsa had been jointly selected to steward the Eugene B. Adkins Collection. The joint partnership by OU and the Philbrook was among many proposals submitted by leading museums across the country. The Adkins Collection, which is valued at approximately $\$ 50$ million, features approximately 3,300 objects, including more than 400 paintings by such distinguished American artists as Maynard Dixon, Worthington Whittridge, Andrew Dasburg, Alfred Jacob Miller, Victor Higgins, Charles M. Russell, Nicolai Fechin, John Marin, William R. Leigh, Leon Gaspard, and Joseph H. Sharp. The collection also includes impressive examples of Native American paintings, pottery, and jewelry by such famed Native American artists as Jerome Tiger, Maria Martinez, and Charles Loloma.

In spring 2010, Arizona-based James T. Bialac decided to give his private collection to OU because of the University's commitment to excellence in education. The multimillion-dollar collection of more than 4,500 works represents indigenous cultures across North America, especially the Pueblos of the Southwest, the Navajo, the Hopi, many of the tribes of the Northern and Southern Plains, and the Southeastern tribes. Included in the James T. Bialac Native American Art Collection are approximately 2,600 paintings and works on paper, more than 1,000 kachinas, and 400 works of varying media, including ceramics and jewelry, representing major Native artists such as Fred Kabotie, Awa Tsireh, Fritz Scholder, Joe Herrera, Allan Houser, Jerome Tiger, Tonita Peña, Helen Hardin, Pablita Velarde, George Morrison, Richard "Dick" West, Patrick DesJarlait and Pop Chalee.

The Stuart Wing, which opened in October 2011, provides a new 18,000-square-foot expansion of the Fred Jones Jr. Museum of Art to house the museum's many collections acquired within the past 15 years. Designed by noted architect Rand Elliott, the addition is named to honor a \$3 million lead gift from the Stuart Family Foundation made possible by the generosity of OU Regent Jon R. Stuart and his wife, Dee Dee, a member of the art museum's board of visitors. Construction on the new wing began in 2009 and includes renovations to the original 1971 building and the addition of the Eugene B. Adkins Gallery, a new photography/works on paper gallery, and new administrative offices. In all, the new Stuart Wing, with renovations, includes 27,480 square feet of exhibition space.

Combining that with the 2005 Lester Wing's 12,106 square footage, the total museum exhibition space, is approximately 40,000 square feet.

In November 2012, the University of Oklahoma announced a new annual $\$ 60,000$ gift from the OU Athletics Department that now provides free admission for all visitors to the Fred Jones Jr. Museum of Art in perpetuity. This unique collaboration between athletics and art is one of the first in the United States creating free admission for a university art museum through a university athletics program.

The museum serves the educational needs of the University and the extended community through programs coordinated with the University faculty and the state's school districts. Museum information and art curriculum guides are provided to teachers and University faculty, and the museum sponsors the pARTner project, an arts education program that reaches 1,200 Norman Public School students annually.

Lectures, videos, and films complement the permanent collection and special exhibitions. Programs such as Art "à la Carte," Family Days, Art Adventures, Tuesday Noon Concerts, and Art After Noon utilize the museum's galleries, classroom, and auditorium and make the arts accessible to tens of thousands of visitors throughout the year. Tours are offered to all ages.


## Sam Noble Oklahoma Museum of Natural History

2401 Chautauqua Ave., Norman, OK 73072-7029
Phone: (405) 325-4712
samnoblemuseum.ou.edu/

The Sam Noble Oklahoma Museum of Natural History, located just south of the intersection of Timberdell Road and Chautauqua Avenue, has extensive collections in earth, life and social sciences, including more than seven million specimens and artifacts. These collections represent a vast and irreplaceable resource of the natural and cultural heritage of Oklahoma and many other parts of the world. The SNOMNH is the official museum of natural history for the state of Oklahoma as well as an independent research unit of the University of Oklahoma. The museum curators conduct original research and teach in their collection areas, while overseeing the research of graduate students and visiting scientists. The curators also maintain an active lending program that makes specimens available to scholars throughout the world. The collections provide the basis for a variety of exhibitions, public service programs and educational activities. Major collection areas include vertebrate and invertebrate paleontology, archaeology, classical art, entomology, ethnology, herpetology, ichthyology, invertebrate zoology, mammalogy, ornithology, paleobotany and Native American languages.

The 198,000-square-foot facility contains space for extensive permanent and traveling exhibits as well as a café, gift shop, education classrooms and a hands-on Discovery Room.

- The Siegfried Family Hall of Ancient Life leads visitors on an adventure through time. Visitors begin their journey in

Oklahoma's Precambrian seas where they can view the wealth of Paleozoic marine life known from our state. Mesozoic exhibits showcase the Age of the Dinosaurs and feature the largest Apatosaurus and Pentaceratops in the world, as well as Saurophaganax maximus, Oklahoma's official state fossil and the largest of the Jurassic predators. Cenozoic exhibits tell the story of the many unusual mammals that lived in Oklahoma after the extinction of the dinosaurs until the end of the last Ice Age, including the Columbian mammoth and Smilodon, the sabre-toothed cat.

- The Noble Drilling Corporation Hall of Natural Wonders features the diverse plant and animal life of Oklahoma in a series of realistic 'immersion" style walk-through dioramas. Visitors can view an oak and hickory forest, examine life in an Ozark stream, explore a walkthrough limestone cave, and learn about life in the mixed grass prairie.
- The McCasland Foundation Hall of the People of Oklahoma tells the fascinating story of human history in Oklahoma, from the earliest archaeological evidence of humans in the state, around 30,000 years ago, to modern Native Americans living in Oklahoma today. Highlights include the "Cooper skull." the skull of an extinct bison painted with a lightning bolt design which, at 10,000 years old, is the oldest painted object in North America. Visitors to this gallery also can experience reproductions of the houses made by the Mississippian people, builders of Oklahoma's famous Spiro Mounds, and see examples of modern era objects from the museum's extensive Native American collections.
- The Merkel Family Foundation Gallery of World Cultures features objects from around the world, chosen from the museum's diverse ethnology collection. The objects represent cultures from Oceania, Tibet, Peru, India and West Africa. Highlights include a carved wooden ancestor figure from Papua New Guinea, ceremonial masks from Mexico and Africa, stone seals from China and a boomerang from Australia. This gallery also displays examples from the museum's collection of classical Greek and Roman antiquities, featuring coins, glasswork, black-figure pottery and a large section of a mosaic found in Antioch (modern Turkey), dating to around 100 CE.
- The Fred and Enid Brown Native American Art and Special Exhibitions Gallery and the Dorothy C. Higginbotham Special Exhibitions Gallery are spaces for special exhibitions both from the museum's own collections and from other museums around the world. Check the museum's website for a listing of current and upcoming exhibitions.

With collections that document 500 million years of Oklahoma's natural history, the SNOMNH is one of the finest university-based natural history museums in the world. The museum is open 10 a.m. to 5 p.m. Monday through Saturday and 1 to 5 p.m on Sunday. It is closed Thanksgiving, Christmas and New Year's Day.

The museum also is available for after-hours rental for banquets, receptions and other events. For more information, visit the museum's website or call (405) 325-4712.


Charles M. Russell Center for the Study of Art of
the American West
520 Parrington Oval, Room 202, Norman, OK 73019-3011 (mailing) 409 West Boyd, Norman, OK 73069 (physical)
Phone: (405) 325-5939
russellcenter@ou.edu
www.ou.edu/finearts/visual-arts/explore/charles_m_russell_center
Founded in 1998, the Charles M. Russell Center for the Study of Art of the American West is the first such university-based program in the nation. The center, which opened to the public in the fall of 1999, is dedicated to the pursuit and dissemination of knowledge in the field of American art history as it relates to the western United States. Through its resource center, national symposia, course offerings and related outreach programs, the Russell Center actively engages students and the public in developing a better understanding of, and appreciation for, 19th- and 20th-century Euro-American and Native American artistic traditions. Special emphasis is given to art of Charles M. Russell and his contemporaries.

The Russell Center was established concurrently with the Charles Marion Russell Chair, an endowed professorship in art history at the University of Oklahoma. Both the center and the endowed chair were made possible through a generous gift from the Nancy Russell Trust and matching funds from the state of Oklahoma. Administered through the School of Visual Arts and the Weitzenhoffer Family College of Fine Arts, the Russell Center operates in concert with several of the University of Oklahoma's other distinguished branches including the Western History Collections, Fred Jones Jr. Museum of Art, Sam Noble Oklahoma Museum of Natural History, and the departments of History, Literature, Native American Studies and Film and Video Studies. The Russell Center also actively interfaces with institutions across the country, including museums of Western art and universities that support related programs or collections of Western material culture or art.

The Russell Center is both a facility and a program designed to inspire and excite interest in the study of American Western art, an aesthetic history that enjoys both a regional and a national dimension. While a branch of American art, Western art also incorporates European artistic traditions that have, over time, been adapted to themes, experiences and environments unique to the western United States. Art of the American West also encompasses Native American cultures as both subjects of art and as creative forces.

During much of America's history, the West has been a defining national symbol. Although considered a region by Euro-Americans, the West was also a myth, a dream and inspiration, a collection of individual experiences, a process of westering and a destination. For Native Americans, however, process and destination played little part in their thinking. For them, the West was something spiritual as well as physical, a sacred domain as well as a common home. The center's course of study in the art of the American West seeks to discover what the West symbolized and to whom and why.

## DIVISION OF ENROLLMENT MANAGEMENT



## Administrative Staff

Jeff Blahnik, Vice President for Division of Enrollment Management; Chief Enrollment Officer
Dorion Billups, Director of Connection \& Student Engagement Morgan Brammer, Assistant Vice President Division of Enrollment Management; Executive Director Office of Admissions \& Recruitment Danielle Dunn, Director of Marketing \& Communications Kellie Dyer, Registrar
Craig Hayes, Director of Admissions \& International Recruitment Courtney Henderson, Executive Director of the Financial Aid Services; Chief Student Financial Aid Officer
Mike Hinderman, Director of the Scholarship Office
Chris Kennedy, Director of Strategic Technology
Trish Koonce, Director of Administration \& Compliance
Allison Stanford, Director of Training \& Development
Kimberly West, Director of National Recruitment
Located mainly in Buchanan Hall and Jacobson Hall, the Division of Enrollment Management is the gateway to the University of Oklahoma. The following administrative areas and offices combine to form the Division of Enrollment Management: Office of Admissions and Recruitment, Office of the Registrar, Student Financial Center, Financial Aid Services, Scholarship Office, Enrollment Management Communications and Marketing, Administration and Compliance, Strategic Technology and Training and Development.

- Office of Admissions \& Recruitment (p. 29)
- Student Financial Center (p. 36)
- Financial Aid Services (p. 38)
- MoneyCoaches (p. 39)
- Scholarship Office (p. 39)
- Office of the Registrar (p. 39)
- Academic Records (p. 40)
- Registration and Student Services (p. 48)
- Veteran Student Services (p. 51)


## Office of Admissions \& Recruitment

Jeff Blahnik
Vice President for Division of Enrollment Management;

Chief Enrollment Officer

Office of Admissions \& Recruitment
Buchanan Hall
1000 Asp Ave
Norman, OK 73019
Phone: (405) 325-2151
admissions@ou.edu
www.ou.edu/admissions

## Undergraduate Admission

The admissions process at the University of Oklahoma seeks to identify applicants who will successfully complete a college preparatory academic program and contribute to the diverse intellectual, cultural and social environment of the University. The University of Oklahoma welcomes inquiries regarding admission requirements and application procedures. The Office of Admissions \& Recruitment assists prospective undergraduate students - both freshman and transfer - with the admissions process by providing information on admission requirements, financial aid, scholarship opportunities, housing, and student life. This office also serves as a visitor information center and provides tours of the campus to prospective students, their families, and other university guests.

## Application Deadlines

## Freshman Application Deadlines

Undergraduate, U.S. citizens, and permanent residents applying for freshman admission should submit applications as early as possible (please refer to When To Apply), but applications must be received by the Office of Admissions \& Recruitment by the following dates:

- February 1 - summer session
- February 1 - fall semester
- November 1 - spring semester

See Freshman Admissions for more information.
International Students applying for freshman admission must also observe the following deadlines to submit application support materials:

- Credential deadlines
- March 15 - summer session
- April 15 - fall semester
- November 15 - spring semester

See International Undergraduate Admission for more information.

## Transfer Application Deadlines

Undergraduate, U.S. citizens and permanent residents applying for transfer admission:

- April 1 - summer session
- June 1 - fall semester
- November 1 - spring semester

See Transfer Admissions for more details.
International students applying for transfer admission:

- Application deadlines
- February 1 - summer session
- April 1 - fall semester
- September 1 - spring semester
- Credential deadlines
- March 1 - summer session
- May 31 - fall semester
- November 1 - spring semester

See International Undergraduate Admission for more information. International students are considered to be those applicants who require a temporary, non-immigrant United States visa or immigration status. Students who have established permanent resident status in the United States are not considered international students.

## Credentials

To be considered for admission, applicants must submit official and complete academic credentials.

Applicants may not disregard any part of their educational history, and failure to report all institutions previously attended will be cause for cancellation of the admissions process or for dismissal. All credentials submitted for admission to the University of Oklahoma become the property of the University and will not be returned or released.

## Application Fee

Applicants to the University of Oklahoma must pay a non-refundable application-processing fee.

## Resident Status

All applicants are classified as resident or non-resident for purposes of admission and tuition based on information provided on the application for admission. Applicants may be required to submit evidence to substantiate their claim to resident classification.

A uniform policy concerning resident status exists for all state-supported institutions of higher education in Oklahoma. See the OU In-State/Out-ofState Tuition Policy for resident status information.

Questions concerning resident status should be directed to the Office of Admissions and Recruitment, (405) 325-2151.

## English Proficiency

All new applicants to the University for whom English is a second language, including those holding permanent resident status, are required to present evidence of proficiency in the English language prior to admission. The intent of this policy is to ensure that students for whom English is not a native language have a reasonable chance to succeed academically based on their ability to comprehend and use spoken and written English.

Undergraduate applicants may satisfy the English proficiency requirement in one of several ways which are stated in English Proficiency section on the International Undergraduate Admission web page.

## Admission of Freshmen

## How to Apply

Apply online through the Common Application, Apply Coalition with Scoir, or the OU Application and submit the following credentials:

- Official high school transcript reflecting at least six semesters of work completed
- Self-reported ACT and/or SAT scores; official copies of ACT and/or SAT scores will be required at a later date for all who enroll (optional)
- Letter of Recommendation (optional)
- An official transcript from any collegiate institution you have attended as a concurrently enrolled/dual credit student
- Official copies of any AP or CLEP test scores


## When to Apply

Prospective students are encouraged to apply as soon as possible after August 1 at the start of their senior year of high school in order to maximize opportunities for housing, financial aid, scholarships, and early enrollment. The OU application for incoming freshmen opens on August 1. The University of Oklahoma has an early action application date of November 1; students applying by November 1 are given priority consideration for admission, housing, financial aid, scholarships, and enrollment.

## Criteria for Admission of Freshmen

To be considered for admission to the University of Oklahoma, applicants:

- Must not have completed seven or more semester hours of collegelevel work after graduating high school (six hours or fewer is allowed).
- Must have graduated from an accredited or unaccredited high school*.
*Applicants who have received a General Education Development (GED) or are home-schooled will also be considered. Your high school class must have graduated by the time you plan to enter OU.

Applicants will be considered for admission using a holistic review and selection process which considers several factors that predict academic success (i.e. high school grade point average, high school course rigor, academic engagement, writing ability, leadership, and ACT/SAT scores if reported). The University of Oklahoma is test optional for admissions purposes. See requirements and other factors for admission decisions for more information.

Admission requirements are subject to change annually by the University of Oklahoma with the approval of the Oklahoma State Regents for Higher Education, when it is determined to be in the best interest of the University and its students to do so. If it becomes necessary to limit enrollment, preference will be given to residents of Oklahoma. For the most current information on admission requirements, contact Admissions \& Recruitment, (405) 325-2151 or visit the Admissions website.

## Minimum High School Performance

Because success in college is enhanced by solid academic preparation in high school, completion of the following courses in high school is required before entering the University.

- English - four units: Grammar, composition, and literature only.
- College Preparatory Mathematics - three units of prep math (four recommended): algebra I, algebra II, geometry, trigonometry, math analysis, calculus, or Advanced Placement statistics.
- Laboratory Science - three units (four recommended): Does not include general science, with or without a lab. One year of principles of technology may substitute for one of the lab science courses,
provided that the student also completes two traditional laboratory science courses.
- History and Citizenship Skills - three units: One unit must be American history and two additional units selected from the subjects of history, economics, geography, government, or non-western culture.
- Additional Subjects - two units: from any of the subjects previously listed or computer science or world language. Two years of the same world language will satisfy the University's language general education requirement. Any AP course not already used to satisfy the curricular units mentioned previously may be used to satisfy the two additional units except AP courses in Studio Art or International English.

Coursework in music, art, drama, or speech is also recommended.

## Adult Admission

Applicants who are 21 years of age or older or on active military duty may be considered under the Adult Admission category. Careful attention will be given to an applicant's written comments concerning background and educational goals, personal interviews, as well as letters of recommendation from school counselors, teachers, principals, employers, or supervisors attesting to the applicant's motivation and potential for academic success. An applicant's academic record will also be reviewed for completion of the high school curricular requirements. Students admitted under the Adult Admission category must demonstrate proficiency to the satisfaction of the entering institution in the curricular area the student desires to pursue. Prospective students should contact the Office of Admissions \& Recruitment at (405) 325-2151 for further information.

## Concurrent Enrollment

Concurrent Enrollment at the University of Oklahoma is a program designed to allow high school juniors and seniors with exceptional abilities to enroll in college courses on a limited basis. High school students may thus accumulate college credits prior to completing high school.

To be eligible for the Concurrent Enrollment Program, students must be enrolled in an accredited high school and meet the following requirements:

1. You must have achieved junior or senior standing and be eligible to complete requirements for graduation from high school no later than the spring of your senior year, as attested by your high school principal.
2. You must meet the requirements found on the Concurrent Enrollment website.

Interested students should apply online, and submit a completed Concurrent Enrollment Recommendation form signed by the high school principal, or counselor, and parent, an official high school transcript, and other application support documents as required.

Once admitted, a student's combined enrollment in high school and at the University of Oklahoma may not exceed 19 credit hours during a fall or spring term. For this purpose, the University will assume that any high school course enrollment is the equivalent of three (3) credit hours. Students may enroll in a maximum of nine (9) credit hours during a summer term without being concurrently enrolled in high school classes during the summer. Students who wish to exceed this credit hour limit
may petition the Academic Success Center for permission to do so, up to a maximum of 24 semester hours in a regular semester.

The completion of high school curricular requirements is not mandatory for Concurrent Enrollment students for admission purposes. However, students may not enroll in college-level courses in a curricular area until the high school curricular requirement in that discipline has been satisfied through coursework or assessment. Concurrent Enrollment students may not enroll in zero-level courses designed to remove high school curricular deficiencies.

Following high school graduation, Concurrent Enrollment students must apply for regular freshman admission to the University of Oklahoma, or they may transfer to another institution in the state system, provided that they have maintained a grade point average of 2.00 on a 4.00 scale at the University and meet the entrance requirements of the receiving institution, including high school curricular requirements.

## Opportunity Admission

Students who have not graduated from high school, regardless of age, whose composite score on the ACT (using Oklahoma norms) or combined verbal and mathematics score on the SAT (using national norms) places them in the 99th percentile of all students tested, may apply for admission to the University of Oklahoma. Admission will be determined based on test scores and an evaluation of the student's level of maturity and ability to function intellectually and socially in the adult college environment.

## Applicants for Readmission

Students must file an application for readmission if it has been more than one semester and a summer term since their last attendance at the University, or if they have completed a degree or were suspended after their last enrollment at OU. Application deadlines do apply to former students. Students who only enroll for summer terms (summer to summer students) do not need to reapply unless they graduate or break their continuous enrollment for a summer term. Students who have attended another college or university since last attending the University must file official transcripts from each institution attended. A student's eligibility for readmission will be determined after an evaluation of all transferred and OU work has been made. Academic credit awarded by any division of the University of Oklahoma is considered resident credit, with the exception of credit completed by correspondence or advanced standing examination.

## Suspended Students

A student who has been suspended once for academic reasons from the University or any other institution in the state system of higher education may apply for readmission to the University for any semester or summer term beyond the semester in which they were suspended. Such readmission is not automatic but is decided on an individual basis. The student must submit an application for readmission, a letter of appeal, and all required transcripts to the Office of Admissions \& Recruitment by April 1 for a fall semester or summer session, and November 1 for a spring semester. The letter of appeal should include an explanation of the student's previous academic record, information about the student's activities since suspension, and reasons why an exception to the requirements for admission to the University should be made.

A student who has been suspended twice from the University is not eligible for consideration for readmission until that student has attended
another accredited college or university and raised their grade point average to the University's retention standards.

## Other Applicants

## Undergraduate Visitor/Special Students

Any person who is admissible to the University of Oklahoma and who wishes to take undergraduate courses without the intention of pursuing a degree may do so under the classification of Undergraduate Visitor/ Special Student.

Undergraduate Visitor/Special Students must meet regular admission requirements to the University and are limited to twelve semester hours of enrollment in this classification, unless an exception to this enrollment maximum is made by the president of the University or his or her designate. University retention standards also apply to this category of student. A person who is admitted as an Undergraduate Visitor/ Special Student has no privileges beyond those which are available to all students. An Undergraduate Visitor/Special Student who wishes to enroll in a course with specific prerequisites must meet those prerequisites in the same manner as any other student.

Undergraduate Visitor/Special Students who later elect to enter a degree program will be expected to meet all of the regular requirements for that particular degree program and are urged to apply for regular (degreeseeking) admission as soon as a decision to pursue a degree has been made.

If an Undergraduate Visitor/Special Student applies for admission to an undergraduate degree program, the work they have taken as a Special Student will be evaluated in the same manner as any other work submitted for evaluation. The particular degree-recommending college involved will determine how this work will apply toward the degree sought.

## Second Undergraduate Degree Applicants

Students may apply for a second undergraduate degree at the University of Oklahoma, but are encouraged to investigate other options available through the Graduate College and other non-degree classifications before doing so. In addition to specific degree programs, the Graduate College offers teacher certification programs and an unclassified (non-degree) option, which allows students to take graduate and undergraduate courses before selecting a major field of graduate study.

Applicants for a second undergraduate degree must apply to a specific major and are not eligible for a second undergraduate degree in the major of their first degree.

General University policy, as well as specific college and school policies, may restrict an applicant from applying for a second undergraduate degree in certain majors. Applicants should contact the Office of Admissions \& Recruitment or the appropriate University degreerecommending college for further information on the pursuit of a second undergraduate degree.

## Post-Baccalaureate Non-Degree Students

Post-baccalaureate non-degree are students who hold at least a bachelor's degree and wish to take undergraduate courses without pursuing a degree, including students who wish to take undergraduate prerequisite courses for medical, dental, optometry, or veterinary school. Students who wish to take graduate-level courses without pursuing a degree should apply as an Unclassified Graduate Student. PostBaccalaureate Non-Degree students are not required to submit academic
credentials to be admitted. Post-baccalaureate students may not enroll in any course that is limited to majors only, may not enroll in 5000 or 6000level courses, and may not receive graduate credit for 3000 or 4000 -level courses.

## Policy on Non-Academic Criteria in the Admission of Students

In addition to the academic criteria used as the basis for the admission of students, the University shall consider the following non-academic criteria in deciding whether a student shall be granted admission: whether an applicant has been expelled, suspended, or denied admission or readmission by any other educational institution; whether an applicant has been convicted of a felony or lesser crime involving moral turpitude; whether an applicant's conduct would be grounds for expulsion, suspension, dismissal, or denial of readmission, had the student been enrolled at the University of Oklahoma. An applicant may be denied admission to the University if the University determines that there is substantial evidence, based on any of the instances described above, to indicate the applicant's unfitness to be a student at the University of Oklahoma.

## Admission of Transfer Students

Applicants are considered transfer students if they have attempted more than six semester hours of college-level work at another accredited college or university since graduating from high school. Students who complete college-level work while still in high school are not considered transfer students.

Transfer admission requirements are subject to change by the University of Oklahoma with the approval of the Oklahoma State Regents for Higher Education, when it is determined to be in the best interest of the University and its students to do so. If it becomes necessary to limit enrollment, preference will be given to residents of Oklahoma.

## Transfer Admission Criteria

Admission of transfer students is based on the following performance requirements and preparatory coursework in high school.

Curricular Requirements for Admission of Transfer Students ${ }^{1}$

- English-four units: grammar, composition, and literature only
- College Preparatory Mathematics-three units: algebra I, algebra II, geometry, trigonometry, math analysis, calculus, or AP statistics.
- Laboratory Science-three units: does not include general science with or without a lab. One year of Principles of Technology may substitute for one of the lab science courses, provided that the student also completes two traditional laboratory science courses.
- History and Citizenship Skills-three units: one unit must be American history and two additional units can be selected from the subjects of history, economics, geography, government, or nonwestern culture.
- Additional Subjects-two units: from any of the subjects previously listed, computer science, or world language.

1 If you have not completed the courses listed above in high school, you should do so before transferring to the University. With the exception of U.S. history and U.S. government, completion of remedial or collegelevel coursework in any of the subject areas in which a deficiency exists will also satisfy this requirement. A remedial mathematics
course must be the equivalent of high school Algebra II. Remedial or precollege-level courses cannot be used to fulfill degree requirements.

## Performance Requirements for Admission of Transfer Students

Admission requirements for transfer students are subject to change annually by the University of Oklahoma with the approval of the Oklahoma State Regents for Higher Education. For the most current information on performance requirements for transfer admission, contact the Office of Admissions \& Recruitment at (405) 325-2151 or 1 (800) 234-6868, or visit the Transfer Admission Requirements web page.

Transfer students with fewer than 24 semester hours attempted must meet performance requirements for first-time entering freshmen, as well as specified performance requirements on all transfer work attempted.

Transfer students who do not meet performance and/or curricular requirements are encouraged to contact the Office of Admissions \& Recruitment for advice and counseling on alternative admission opportunities.

## Application Deadlines

Your application must be received by the Office of Admissions \& Recruitment by the dates below.

- April 1 for a summer session
- June 1 for a fall semester
- November 1 for a spring semester


## How to Apply

- To apply online, visit our Transfer Admissions web page.
- Submit an official final high school transcript and official transcripts from each college or university attended. Students are not at liberty to disregard any part of their previous educational history when applying for admission.
- Submit ACT or SAT scores if you have fewer than 24 semester hours of college work (optional).


## When to Apply

Transfer students are encouraged to apply early in the semester prior to the term they wish to enter the University. Early admission allows students to maximize their opportunities for housing, financial aid, scholarships, and early enrollment. Admission decisions can often be made with the current term's grades outstanding.

## Transcript Evaluation

Once an applicant has been admitted to the University, the Office of the Registrar performs an evaluation of any transfer credit. Students who are admitted with coursework in progress should submit a schedule of courses in progress, and arrange to have a final, official transcript sent to the Office of Admissions \& Recruitment after completion of their last term. Once a complete and official transcript is received, the initial evaluation will be updated. Students will consult with an academic advisor at the time of enrollment to determine how their transfer work will apply toward a degree at the University of Oklahoma.

## Transfer Equivalencies

To help in a student's educational planning, the Office of Admissions \& Recruitment has developed a searchable transfer course database. Courses that have an OU equivalent course numbers will transfer to the University and often can be applied toward a degree. In some cases, they may substitute for required courses; in others, they may transfer as
elective credit. Please refer to OU's General Catalog for major-specific requirements by each college. How each course will apply toward an OU degree will be determined by the degree-recommending college within the University. Additionally, courses that carry fewer semester hours than their OU counterpart will generally substitute for the indicated OU courses, but students must make up the difference in credit hours before graduation.

## Transfer Credit Regulation

The amount of credit granted to applicants for admission as transfer students depends upon the nature and quality of the applicant's previous work, evaluated according to the academic requirements of the University, and the following provisions:

- Transfer credit earned by students at institutions accredited by the HLC or the Oklahoma State Regents for Higher Education will be accepted for transfer at face value. Credits earned at institutions accredited by organizations other than the HLC and recognized by the U.S. Department of Education will be reviewed on a course-by-course basis and may be accepted for transfer if the course is determined to be substantially equivalent to a University of Oklahoma course or courses.
- Lower-division courses transferred to the University of Oklahoma will generally be used to meet lower-division degree requirements. In the event that a lower-division transfer course is used as a substitution for an upper-division requirement at the University, a student may be required to complete additional upper-division hours for graduation.
- A minimum of 60 semester hours must be earned in a senior college for a baccalaureate degree.
- Transfer students who enter the University with an Associate of Arts or an Associate of Science from an institution in the Oklahoma State System of Higher Education are considered to have met the lower-division (1000- and 2000-level) course requirements of the University's General Education core curriculum. However, these students are still required to complete any lower-division coursework that is required beyond the University's lower-division General Education course requirements, as well as the upper-division (including General Education) course requirements for a degree.
- The dean's office of each degree-recommending college has ultimate responsibility for determining how transfer credit will apply to a specific degree program. Since graduation requirements vary from college to college, a reevaluation of transfer credit is required if a student changes degree colleges.
- A transfer applicant under disciplinary probation or suspension will not be considered for admission until the terms of the probation or suspension have been met. Students must meet appropriate application and credential deadlines for the term for which they are applying for readmission.
- Grades for courses taken at foreign institutions are used in determining admissibility to the University. However, once a student is admitted, transfer grades are changed to neutral (S or U) grades which do not affect the grade point average. The only exception to this policy is for foreign institutions that hold accreditation through a United States regional accrediting association.


## Graduate Admission

Admission to a graduate program at the University of Oklahoma is based on an evaluation of an applicant's overall record, experience, personal qualifications, and proposed area of study. Applicants who apply for graduate study at OU are applying for admission to the Graduate

College and the graduate program in their proposed area of study. Inquiries related to graduate admission should be directed to the Office of Graduate Admissions, University of Oklahoma, 731 Elm Avenue, Room 318, Norman, OK 73019; phone: (405) 325-6765; FAX (405) 325-5345; email: gradadm@ou.edu; and website: www.ou.edu/gradcollege/apply

Applications cannot be considered until all required materials have been submitted. Applications and supporting credentials are reviewed by the Office of Graduate Admissions, the graduate academic unit to which the applicant is seeking admission, and the Graduate College. The final decision on admission to the Graduate College is made by the graduate dean. To be eligible for enrollment, the student must have been admitted to the University and to the Graduate College before the registration period ends for any given semester.

The Office of Graduate Admissions has charge of all matters pertaining to general admission to the University. Admission and enrollment in the Graduate College are governed by the graduate dean. All admissions to the Graduate College require that the student hold a baccalaureate degree or equivalent from a regionally accredited college or university. Undergraduate applicants in their final semester at regionally accredited colleges and universities may apply for admission to the Graduate College. The Graduate College only accepts coursework and degree from regionally accredited institutions. Regionally accredited schools meet certain academic standards and are non-profit or state-owned. Schools with only a national accreditation are often technical, vocational, career, or religious-focused and are usually for profit. International colleges and universities must be recognized by the government-approved authority of education (i.e., Ministry of Education) in the country where the degree was earned.

If admitted, a student must register for courses at the University of Oklahoma for the term of admission to retain active status. The student is subject to the regulations applicable during their first term of enrollment so long as continuous enrollment is maintained.

## Application for Graduate Admission

Prospective graduate students should apply online.

## Required Application Materials

1. Transcript from last degree-conferring college or university ${ }^{1}$
2. It is recommended that you submit transcripts for any graduate coursework completed
3. An application-processing fee must accompany the application of all students who seek admission or readmission to the University

1 If you are admitted, you must submit official transcripts from all degree-granting institutions.

## Academic Unit Requirements

Most graduate academic units or programs require that supplemental application materials, such as letters of recommendation, goal statements, etc., be submitted along with the application for admission. Students should consult with the graduate academic unit to which they are seeking admission to verify admission requirements and credentials needed. Although the Graduate College does not require the Graduate Record Examination (GRE) or any other standardized tests, many academic units do require the GRE or other standardized tests.

## Deadlines

For graduate applicants within the United States, there are no formal admissions application deadlines.

International graduate applicants outside the United States are subject to application deadlines:

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\text { - Fall semester - April } 1
$$

- Spring semester - September 1
- Summer session - February 1

Most graduate academic units do have application deadlines, which are earlier than the dates listed. All applicants are strongly encouraged to contact the academic units to which they are seeking admission for the information regarding application deadlines.

Application deadlines can change between publications of this catalog. For the most current information on deadlines, go to Graduate Programs \& Deadlines.

## Graduate Assistantships

Many graduate academic units offer graduate assistantship opportunities. A graduate assistant is a student who serves in a support role while pursuing graduate study. Graduate assistants typically assist faculty with instructional responsibilities as teaching assistants or academic research responsibilities as research assistants. Graduate assistantships are awarded and governed by individual academic units and appointing departments. Prospective students should contact the academic unit to which they are seeking admission to obtain information about, and applications for, graduate assistantships

## Admission of University of Oklahoma Graduating Seniors

All seniors graduating from the University of Oklahoma who wish to apply for admission to a graduate program should apply online no later than the final semester of their senior year. Graduate Academic Unit application deadlines apply to graduating seniors. University of Oklahoma graduate seniors are not required to submit transcripts with their graduate applications since these applicants are current students at the University.

If admitted, the graduating senior must inform the Graduate College if they fail to complete any requirements for the baccalaureate degree. These degree requirements must be completed by the term of the student's admission to the Graduate College. If they are not completed in the proper time frame, the graduate admission will be canceled and the student must reapply to the Graduate College and graduate academic program to which they were previously admitted.

## Admission as a Visitor

Graduate students who are currently admitted and in good standing in graduate degree programs at other regionally accredited institutions are welcome to take courses at the University of Oklahoma as a Graduate Visitor. In this status, a graduate student has all the rights and privileges of other graduate students except they are not pursuing a graduate degree at the University of Oklahoma. Should a Graduate Visitor decide to pursue a graduate degree here, they would be required to file another application and submit official copies of degree transcripts. To be admitted as a Graduate Visitor, a prospective graduate student must submit the following information to the Office of Admissions:

- A completed application form and application-processing fee (apply online).
- A letter of good standing from the dean of the Graduate College of the student's home institution.


## Readmission to the Graduate College

Graduate students must file an application for readmission if it has been more than one year since their last attendance at the University. Students who only enroll for summer terms (summer to summer students) do not need to reapply unless they graduate or break their continuous enrollment for a summer term

Students who have attended another college or university since last attending the University must submit official transcripts from each institution attended to the University of Oklahoma's Office of Admissions \& Recruitment. A student's eligibility for readmission will be determined after an evaluation of all transferred work is made. Readmitted students will be subject to the regulations in effect at the time of readmission.

## English Proficiency

All new applicants to the Graduate College for whom English is a second language (including those holding permanent resident status) are required to present evidence of proficiency in the English language prior to admission. The intent of this policy is to ensure that students for whom English is not a native language have a reasonable chance to succeed academically based on their ability to comprehend and use spoken and written English. Graduate applicants may satisfy the English proficiency requirement in one of several ways which are stated on the English Proficiency Requirements web page.

Consult the OU Graduate College for further information concerning graduate admission, policies, and programs.

## Credit for Prior Learning Assessment/ExtraInstitutional Learning

The University of Oklahoma encourages capable students to seek college credit for knowledge they may have acquired in a variety of ways. Complete information on the ways students may establish credit for extra-institutional learning at the University of Oklahoma is found in Prior Learning Assessment Credits

A student enrolled in and attending a course may earn credit in that course by prior learning assessment examination up to the end of the second week of class in a regular semester or the first week of a summer session. If a student earns credit in the course by examination, the student may drop the course enrollment with no fee assessment, provided the course is dropped within the specified free drop period for the term. Refunds will not be made for courses dropped after the defined free drop period.

The amount of prior learning assessment credit that may be applied toward a degree is subject to OU graduation requirements and the degree-recommending college in which a student will earn a degree. The dean of the degree-recommending college will determine how this credit applies toward a degree.

The neutral grade of satisfactory (S) will be assigned to all types of prior learning assessment credit authorized by the Oklahoma State Regents for Higher Education.

Should a student fail a prior learning assessment examination, no grade will be recorded. In addition, a student may not receive credit for a repeat
of an exam previously failed. Students should consult the OU Admissions or the Center for Independent and Distance Learning to discuss other test options.

The regulations governing prior learning assessment credit mentioned above apply to all of the OU prior learning assessment options available.

Advanced standing examinations are under the general supervision of the University Registrar (and the chairperson of the department in the case of University departmental examinations).

The Academic Regulations Committee is responsible for hearing any appeals in hardship cases of students who do not meet the conditions and regulations governing advanced standing examinations.

Prior Learning Assessment credit may be earned through a variety of test options which include:

## University of Oklahoma departmental prior learning assessment examinations

The University of Oklahoma offers a number of departmental prior learning assessment examinations. Interested students should consult with an academic advisor during enrollment. All of the examinations are administered by the Center for Independent and Distance Learning (CIDL). For information about requirements and times at which examinations are offered, contact the Center of Independent and Distance Learning (CIDL) at 300 Kellogg Drive Room 140, Norman, OK 73072-6507, phone: (405) 325-1921 or (405) 325-1208, or visit their website: https://pacs.ou.edu/testing-center/ prior-learning-assessment/.

- The Advanced Placement Program (APP) offered by the College Entrance Examination Board (CEEB)
This program allows high school students to take examinations for credit at the college level. High school counselors will assist students with testing arrangements.
- The College Level Examination Program (CLEP) offered by the College Entrance Examination Board (CEEB)
The University of Oklahoma is a CLEP testing center. The University awards credit for certain CLEP subject examinations. The University does not award credit for what were formerly the CLEP general examinations. Inquiries about OU's testing center should be addressed to the Center for Independent and Distance Learning, 300 Kellogg Drive Room 140, Norman, OK 73072-6507, phone: (405) 325-1921, or visit their website: pacs.ou.edu/Academics/OU-TestingCenter
- Excelsior College Examinations

The University of Oklahoma awards credit for a few Excelsior College Examinations.

- International Baccalaureate

Credit may be awarded to students who have taken higher-level courses in the International Baccalaureate Program and who have scored at least a four (on a seven-point scale) on the higher-level course examinations. Such credit is awarded on a course-by-course basis as recommended by the appropriate University of Oklahoma department.

Score reports for any of the prior learning assessment examinations isted above should be submitted to the Office of Admissions \& Recruitment, University of Oklahoma, 1000 Asp Avenue, Room 127, Norman, OK 73019-4076.

## Other Types of Prior Learning Assessment Credit

Students may establish prior learning assessment credit at the University of Oklahoma by a variety of avenues other than examination.

## OU Military Service Credit

The University awards credit for educational experiences during military service according to the recommendations of the American Council on Education as published in the "Guide to the Evaluation of Military Experiences in the Armed Services." The policies governing the acceptance of credit awarded for military experience toward satisfying degree requirements vary among the degree-recommending colleges of the University. Students should contact their college academic advisement office for specific information on the applicability of this type of credit toward degree requirements. General questions concerning the evaluation of educational experiences in the armed services should be directed to the Office of Admissions.

The grade of S (satisfactory) is assigned to all credit awarded for military training.

Students with educational experiences in the military must submit the following military records to the Office of Admissions \& Recruitment for review.

- Army, Navy, Coast Guard, and Marine Corps: Submit an official Joint Services Transcript. Students may request a Joint Services Transcript be sent electronically to the University.
- Air Force personnel and veterans: Request an official transcript from the Community College of the Air Force for work taken as an undergraduate, or from the Air University for work taken as a graduate student. Community College of the Air Force transcripts may be ordered by sending a request in writing to: CCAF/RRR, 130 West Maxwell Blvd, Maxwell AFB AL 36112-6613, (334) 953-2794 (DSN 493-2794). You may also visit www.airuniversity.af.edu/Barnes/ CCAF/. Air University transcripts may be obtained by writing to the Registrar's Office, 50 South Turner Blvd., Maxwell AFB-Gunter Annex AL 36118-5643.
- DANTES/USAFI: Students may also request a transcript from DANTES (Defense Activity for Non-Traditional Education Support) or USAFI (United States Armed Forces Institute-tests taken prior to July 1, 1974). Many tests taken under the auspices of DANTES or USAFI carry American Council on Education credit recommendations recognized by the University. Official DANTES transcripts can be ordered from Thomson Prometric, P.O. Box 6604, Princeton, NJ 08541-6604, (877) 471-9860 (toll free). A transcript of USAFI courses or tests completed prior to July 1, 1974, may be obtained from Thomson Prometric, P.O. Box 6605, Princeton, NJ 08541-6605. Visit getcollegecredit.com to learn more.
- DANTES tests (DSSTs) can also be taken by people who are not in the military. Visit getcollegecredit.com to learn more.


## Credit for Training Programs and Other ExtraInstitutional Learning

The University awards credit for educational experiences provided by certain business, industrial, and governmental agencies. Credit is awarded on the basis of recommendations made by the American Council on Education in its publication "The National Guide to Educational Credit for Training Programs" and also by the publication "College Credit Recommendations: The Directory of the National Program on Non-Collegiate Sponsored Instruction." Students may present certificates of completion or a transcript from the ACE Registry of

Credit Recommendations to the Office of Admissions for evaluation. The dean of the college in which a student will earn a degree at the University will determine how this credit applies toward the degree. For further information, students should contact the Office of Admissions \& Recruitment, 1000 Asp Avenue, Room 127, Norman, OK 73019-4076, phone: (405) 325-2151.

## Transfer of Advanced Standing Credit

Prior learning assessment credit posted on transcripts from institutions in the Oklahoma State System of Higher Education will transfer to the University subject to the same conditions as resident credit from these campuses.

Prior learning assessment credit posted on transcripts from all other institutions will be accepted by the University as long as the credit was earned through one of the advanced standing mechanisms approved by the Oklahoma State Regents for Higher Education. The dean of the college in which a student will earn a degree will determine how this credit applies toward the degree.

## Enrollments at Other Institutions

Students must report any college or university work taken at other institutions while they are current students at the University of Oklahoma. Whether this work is taken while registered in classes at the University, during a summer session, or during a semester and/or summer session while students have "stopped out" of the University temporarily, students must submit an official transcript to the Office of Academic Records of all work undertaken. Failure to do so may result in suspension or permanent dismissal from the University.

## Student Financial Center

## Student Financial Center

Jessica Perez, Acting Director of Student Financial Center
Buchanan Hall, Room 105
1000 Asp Avenue
Norman OK 73019
Phone: (405) 325-9000
FAX: (405) 325-7608
sfc@ou.edu
www.ou.edu/sfc

## One Office for Assistance with All Your Student Financial Questions

Student Financial Center's focus is to eliminate unnecessary barriers to college access and completion. Our goal is to simplify the financial aid process as much as possible, and to make sure students are always engaged and aware of the next step. Our office allows us to reach students earlier and more efficiently, freeing up time for our Student Service Experts to have important conversations with students about their individual situations and what needs to be done to help them persist and succeed.

## Bursar Services

Sam Painter, Director of Bursar Services
Buchanan Hall, Room 208
1000 Asp Avenue
Norman, OK 73019
Phone: (405) 325-9000

FAX: (405) 325-7665
bursar@ou.edu
www.ou.edu/bursar

## Cost of Attending OU

The cost of attending the University of Oklahoma includes tuition, fees, books, housing (including room and board), transportation, and miscellaneous living expenses. The actual costs of attending the University will vary depending on a student's resident status, academic level, course load, housing option, personal needs, and spending habits.

For current cost estimate information, see Cost to Attend the University of Oklahoma.

## Tuition and Fees

Students pay resident tuition for each credit hour enrolled. In addition, students who are not residents of the state of Oklahoma must also pay non-resident tuition. See Tuition and Fees for details.

Information on tuition and fees for programs not found in the Tuition and Fees link above can be found on each program's website. (OU Online, College of Professional and Continuing Studies, Advanced Programs and other special programs.)

## When, Where, and How to Pay

The quickest way to make your payment is to pay electronically at One.ou.edu. Payments made online with an eCheck from your checking or savings account, or a credit card, are easy and convenient and are posted to your account the same day.

You can also easily set up authorized users to make payments on your behalf at One.ou.edu.

Pay your bill in full by the $25^{\text {th }}$ of each month to avoid monthly service charges. Remaining balances at the end of a term will be charged a late penalty and are subject to holds, which will prohibit you from registering for classes and accessing copies of transcripts and diplomas.

Monthly statements are prepared and emailed prior to the payment deadline. Failure to receive a statement does not exempt a student from late penalties. It is the student's responsibility to determine their financial obligation and how it is to be met.

## eCheck (Electronically through your bank/debit account)

Using your bank account information, set up a payment profile through One.ou.edu to transfer funds directly from your checking or savings account. If you have a debit card, contact your bank for the account and routing numbers. There is no additional cost for this option.

## Check

Bring your personal check, cashier's check, money order, or scholarship check to the drop box on the first floor of Buchanan Hall during business hours. Please be sure to include your full student ID number for proper identification and posting.

Or mail it to:
Student Financial Center
1000 Asp Ave., Room 105
Norman, OK 73019

## Credit Card

Credit cards can be processed online through One.ou.edu. There is a $\mathbf{2 . 9 5 \%}$ convenience fee for this option. If you have a debit card, use the eCheck option above to avoid this fee.

## Flywire

Payments through international bank accounts (wire transfers) can be processed through Flywire.

## Cash

No cash payments are accepted.

## Payment Plan Options

There is no enrollment required to participate in the payment plan. The payment plan is only available to currently enrolled students. Students participating in the payment plan can pay their bill in four installments each semester. The first Fall eBill is available on August 1 st and the first Spring eBill is available January 2nd at One.ou.edu. The monthly due date is the $25^{\text {th }}$. Students following the payment plan will be assessed a monthly service charge of $1.5 \%$ ( $18 \%$ APR) on the unpaid balance, beginning September 26th for Fall and February 26th for Spring. Service charges and late penalties will not be removed due to late or nonpayment.

| Fall Term | Pay this percentage of the balance |
| :--- | :---: |
| - August 25 | $25 \%$ |
| - September 25 | $33 \%$ |
| - October 25 | $50 \%$ |
| - November 25 | $100 \%$ |

## Spring Term

| - January 25 | $25 \%$ |
| :--- | ---: |
| - February 25 | $33 \%$ |
| - March 25 | $50 \%$ |
| - April 25 | $100 \%$ |

Summer Term Pay this percentage of the balance

- June 25 50\%

For more information on OU pay login, adding an authorized user(s), viewing your statement summary and/or account history, changing your billing address, and more, please go to One.ou.edu or call Student Financial Center at (405) 325-9000.

For more information and payment plan FAQs, please visit the Bursar Services website.

## Refund Policy

The Oklahoma State Regents refund policy with respect to fees and tuition is as follows:

Changes in schedules and complete withdrawals from the institution during the defined add/drop period (first 10 days off classes in fall and spring semesters) will result in full charges for courses added and full credit for courses dropped. No reduction of charges may be made after the add/drop period for the session, except as stipulated for students who must withdraw from courses due to unforeseen hardship or extenuating circumstances.

The fastest way to receive your refund is electronically. You can easily set up your eRefund at One.ou.edu. For easy step-by-step instructions, please visit the Bursar Services website.

## Financial Aid Services

Courtney Henderson, Executive Director of Financial Aid
Buchanan Hall, Room 312
1000 Asp Avenue
Norman, OK 73019-4078
Phone: (405) 325-9000
FAX: (405) 325-7608
www.ou.edu/sfc

## Financial Assistance and Costs

## Financial Aid

Financial aid is any financial resource that a student receives to assist in meeting the cost of attending college. These resources include awards such as federal and state grants, loans, student employment, scholarships, etc. Students must apply for financial aid annually and demonstrate eligibility as determined by regulations established by the U.S. Department of Education. Financial Aid Services is responsible for the administration of the federal financial aid programs. Additional sources of funding may include tribal grants, vocational rehabilitation assistance, Reserve Officer Training, and funding from other outside agencies.

## Financial Aid Programs

Many financial aid programs are available at the University of Oklahoma. The Free Application for Federal Student Aid (FAFSA) opens annually on October 1. Apply annually for the following federal financial aid programs Pell Grant, Supplemental Educational Opportunity Grant, Perkins Loan, Stafford Loans (subsidized and unsubsidized), and Federal Work-Study. The Federal PLUS Loan (Parent Loan) and Graduate PLUS loans require a separate loan application in addition to the FAFSA. Additional financial aid programs (most requiring the FAFSA) include Oklahoma's Promise, Oklahoma Tuition Aid Grant, Crimson Commitment, additional needbased scholarships, and several low-interest OU Institutional Loan programs. Please visit our Student Financial Center website for complete information on the financial aid and scholarship programs available at OU. Financial Aid programs are subject to change.

## Applying for Financial Aid

Those planning to attend OU and current students are encouraged to apply annually for financial aid. FAFSA and the OU Centralized Academic Scholarship Hub CASH online applications open every October 1. Be sure to visit the Student Financial Center website, where a wealth of information about financial aid, scholarships, and other financial resources is available. Also listed are deadlines, eligibility requirements, applications, and links to other helpful websites.

## Getting Started

- Apply for financial aid by the OU Financial Aid Services recommended deadlines.
- Apply for a U.S. Department of Education Federal Student Aid ID (FSA ID) online. This FSA ID serves as your electronic signature for the Free Application for Student Aid (FAFSA) and to access certain financial aid information online. Obtain an FSA ID for your parent if parental information is required on the FAFSA.

Next, complete the FAFSA at fafsa.gov to apply for federal, state, and institutional aid. Applying for financial aid is FREE!

- List OU's school code, 003184, on your FAFSA application. Be sure to include your housing plans on your FAFSA.
- Once your FAFSA is processed, a Student Aid Report will be sent to you and your information will be sent to OU if you listed OU's code on your FAFSA.

Important Note: The FAFSA must be completed annually. Submit the FAFSA as soon as possible after the annual open date, October 1, but before March 1, to be considered for all available aid programs for the following fall/spring semesters. For priority processing, all requested documents must be received in Financial Aid Services by June 1 for the following fall/spring semesters and by November 1 for the spring only semester. Check the Financial Aid Services website for summer financial aid information.

Please contact 1 (800) 4FEDAID for a paper FAFSA if unable to file the FAFSA online.

## What Happens Next

The Student Financial Center will notify admitted students via One.ou.edu if any additional information is needed.

- Instructions for activating your One.ou.edu account and OU email are included with the admission letter to OU.
- The application is reviewed after submitting all requested information (processing times vary).
- The Student Financial Center sends an OU-Financial Aid Notification (OU-FAN) to the student's OU email listing the financial aid awards available.
- Awards may consist of a combination of aid, such as grants, loans, student employment, scholarships, and/or other resources. ${ }^{1}$
- The student then decides which aid programs to accept, reduce, or decline, and submits the OU-FAN acceptance within One.ou.edu
- Complete information regarding the financial aid programs offered and the disbursement process is included as links on the OU-FAN.

1 Important Note: Students who receive academic, talent-based, or other awards that also receive federal financial aid may expect their financial aid awards to be revised. This is required by federal regulations.

## Other Resources

Students are encouraged to apply for outside scholarships, grants, fellowships, and other types of financial assistance that can help pay for their college or general living expenses. Many opportunities are available that require an application from the student. Be careful about possible scholarship scams. If in doubt about the legitimacy of an organization that offers financial aid, scholarships, or college funding check the Federal Trade Commission Scholarship Scams website.

## Cost of Attending OU

Using federal regulations, the Financial Aid Services office develops standard budgets to determine the estimated costs of attending OU. This budget is used to award financial aid. The cost of attending the University of Oklahoma includes tuition, fees, books, housing (including food), transportation, and miscellaneous living expenses. The actual costs will vary depending on a student's resident status, academic level, course load, housing and food options, personal needs, and spending habits.

For current cost estimate information, see Cost to Attend the University of Oklahoma.

Award amounts are subject to change. Visit Student Financial Center for more information.

## The MidFirst Bank MoneyCoach Program

Mellissa Stiles, MoneyCoach Manager
Cami Sheaffer, MoneyCoach Manager, MidFirst Bank
Buchanan Hall
1000 Asp Avenue
Norman, OK 73019
Phone: (405) 325-4692
MoneyCoach@ou.edu
www.ou.edu/moneycoach

## The MidFirst Bank MoneyCoach Program

A MoneyCoach is a financial professional available to all students at the University of Oklahoma. MoneyCoaches help students build lifelong money management skills and navigate the process of paying for college. The MoneyCoach program also offers financial education workshops. Once a student has met with a MoneyCoach, they are then assigned to that MoneyCoach. This allows the student to meet with the same person about finances throughout their time at OU.

## MoneyCoaches are knowledgeable on the following:

- Paying for OU
- Creating a financial plan for the year
- Understanding scholarship, grant, and loan options
- Minimizing student loan debt
- Personal finance
- Building wealth and becoming financially independent
- Budgeting, saving, investing, etc.
- Student loan repayment


## Disclaimer

The MoneyCoach team and University of Oklahoma staff who work with students on financial issues such as federal student aid, private student aid, and serving loans do not provide investment, legal, or tax advice. The information provided is for general educational purposes only, and is not intended to substitute for the advice of your investment, legal, and/or tax advisors or to be the basis of specific financial planning activities. If you need investment, legal, and/or tax advice, please consult with one of these professionals.

## Scholarships Office

Mike Hinderman, Director of the Scholarship Office
Buchanan Hall
1000 Asp Avenue
Norman, OK 73019-4078
Phone: (405) 325-9000
FAX: (405) 325-7608
www.ou.edu/sfc/scholarships

## Scholarships

Students are encouraged to apply for scholarships to help meet the costs of attending the University of Oklahoma. Numerous scholarships are available to OU students based on academic merit,
talent, athletics, financial need, etc. Students may see an overview of available scholarship and tuition waiver opportunities by visiting our website. Degree-seeking students from the Norman campus may pursue scholarship opportunities via the Centralized Academic Scholarship Hub.

High school seniors apply for all general freshmen scholarships at OU by completing our online scholarship process which is now a section of the admission application. December 15 of the senior year is the deadline to apply for these scholarships by completing the admission/scholarship application. See Future Sooners Scholarships for general freshman scholarships covered by the admission/scholarship application. Some OU academic areas may have further requirements for scholarship selection (e.g., auditions for the School of Music, etc.).

Undergraduate transfer students will also find the transfer scholarship application as part of their admission application process. Annually March 1 is the deadline to apply for transfer scholarships by completing the admission/scholarship application. Transfer students may also be eligible for departmental scholarships. See Future Sooners Scholarships for general transfer scholarships covered by the admission/ scholarship application.

Important note: Students who receive academic, talent-based, or other awards that also receive federal financial aid may expect their financial aid awards to be revised. This is required by federal regulations.

## Office of the Registrar

Kellie Dyer, Registrar
Katie McIntyre, Assistant Registrar, Academic Records \& Transcript Evaluations
Kasie Crall, Ph.D., Associate Registrar, Certifications \& Graduation Debbie Blevins, Coordinator of Registration \& Student Services Lisa Cannon, Coordinator of Academic Publications \& Curriculum Jennifer Trimmer, Director of Veteran Student Services

Office of the Registrar
Buchanan Hall
1000 Asp Ave., Room 230
Norman, OK 73019
Phone: (405) 325-4147
www.ou.edu/registrar

## Mission

Collaborating with students, faculty, and staff to provide comprehensive enrollment management and academic record services with the utmost integrity, accuracy, while keeping records confidential and secure.

## Values

In the Office of the Registrar, we aim to:

- Be ethical in all that we do
- Remove all unnecessary obstacles to students, faculty, and staff
- Provide great customer service
- Be a purposeful teamwork-oriented workplace
- Collaborate with others for continued improvement and innovation


## Departments

- Academic Records (p. 40)
- Registration \& Student Services (p. 48)
- Veteran Student Services (p. 51)


## Academic Records

## Kellie Dyer, Registrar

Kasie Crall, Ph.D., Associate Registrar of Certifications \& Graduation Katie McIntyre, Assistant Registrar of Academic Records \& Transcript Evaluations

Buchanan Hall
1000 Asp Ave., Room 330
Norman, OK 73019
Phone: (405) 325-4147
FAX: (405) 325-7047
records@ou.edu
www.ou.edu/registrar

## Grades

Students' grades in all courses are filed in the Office of the RegistrarAcademic Records and become a part of the official records of the University. Current students can view grades by clicking: https:// one.ou.edu.

- Passing grades are identified with A, B, C, D, P, S, and X
- Failing grades are identified with F, U and NP
- Neutral grades are identified with AW, I, N, and W

A, the highest grade, is given for work of exceptional quality. $\mathbf{D}$ is the lowest grade for which credit is given in any undergraduate college and means that, although in the judgment of the instructor credit should be allowed for the course, a degree will not be conferred upon a student whose work is all of that level. In the Graduate College, however, the grade of $D$ is failing, insofar as credit toward a graduate degree is concerned, and cannot be used to satisfy prerequisite requirements and/ or requirements for certificates. F means failure. No credit hours or grade points are awarded for an F, but the credit hours are calculated into the cumulative grade point average.

S and U, meaning Satisfactory and Unsatisfactory, may be used in grading certain courses identified at the discretion of the degreerecommending college. Courses selected for S-U grading must be of a noncompetitive nature and the entire class must be graded on this basis. The S-U grades are considered neutral in the computation of a student's grade point average. At the undergraduate level, a grade of $\mathbf{S}$ signifies work of $D$ quality or better (except in the case of credit earned by advanced standing examination, when the grade of $S$ represents work of $C$ quality or better). In the Graduate College, the grade of $S$ represents work of B quality or better. S must be used to indicate that a thesis or dissertation is satisfactorily completed, and is the only passing grade accepted for special problems, individual research, and directed readings courses. The S grade may not be used for lecture/recitation courses except with the expressed approval of the graduate dean. The $\mathbf{U}$ grade is used to indicate that no credit is to be given for the work undertaken.

P and NP, meaning Pass and No Pass, are used as grades in a course in which a student has enrolled under the pass/no pass option. $\mathbf{P}$ meaning Pass is used as a passing grade and indicates quality of $C$ work or better. NP, meaning No Pass, is a non-passing mark used to indicate no credit for a pass/no-pass option enrollment. The grades of $P$ and NP are considered neutral in the computation of the student's grade point average.
$\underline{I}$ is a neutral mark and means incomplete. It is not an alternative to a grade of $F$, and no student may be failing a course at the time an I grade
is awarded. To receive an I grade, the student should have satisfactorily completed a substantial portion of the required coursework for the semester. The instructor will indicate to the student and to Academic Records what must be done to complete the course and set a time limit appropriate to the circumstances. However, the time limit allowed may not exceed one calendar year. If by the end of the year no change in grade has been submitted, the grade of I will be changed to the pre-determined permanent grade. After a grade of I has been changed, a student may re-enroll in the course if appropriate or required. The foregoing time limitations concerning removal of an incomplete do not apply to graduate research and graduate problem courses.

I (Graduate College) With the approval of the instructor and Graduate College Dean, a graduate student may be granted up to a one-year extension for making up incomplete work. No petitions for extensions beyond one year will be considered. After the incomplete work is made up, the instructor shall promptly report the new grade to the Office of the Registrar-Academic Records so that it can be posted to the student's transcript. In any case, the new grade must be posted to the student's transcript within one year of the deadline for making up the incomplete work (including any extension, if granted). If the new grade has not been posted within this one-year time period, the student shall have one additional year in which to file an appeal with the Graduate Dean requesting that the proper grade be posted. If no such appeal is received by the Graduate Dean within this second year time period, the grade of "I" shall be changed to the pre-determined permanent grade.

All instructional faculty are required to use the Universitywide Incomplete Contract Form (PDF) or electronic Incomplete Contract Form (https://icontracts.outreach.ou.edu/) when assigning a grade of Incomplete. This document protects both faculty and students by documenting circumstances that led to the assignment of an Incomplete grade.

If an incomplete is received, the I grade remains on the student's record and the final grade is next to the "I" (example I/B).
$\underline{\mathbf{X}}$ indicates that satisfactory progress is being made and is a neutral grade to be used only for thesis and dissertation research courses numbered 5980 and 6980 and for thesis and dissertation equivalent courses numbered 5880 and 6880.

AU (Audit) Auditing is attending a class without participating in classwork or receiving credit. Enrollment as an auditor is indicated on the student's permanent academic record and is subject to the same posting regulations governing credit enrollment.

AW, meaning Administrative Withdrawal, is a neutral grade used to indicate that a student has been involuntarily withdrawn after the add/drop period by the institution. Students may receive an AW for disciplinary reasons, financial reasons or inadequate attendance.
$\underline{\mathbf{N}}$ is a temporary grade used only to indicate that no final grade has been reported at the time of grade processing and is removed from the student's record when the final grade is received. It is neutral in the computation of the student's grade point average.

## Grade Point System

Each hour of $A, B, C, D$, and $F$ carries a grade point value as follows: $A=4$, $B=3, C=2, D=1$, and $F=0$. Grades of $P$ and $S$, as well as grades of $I, X, U$, N, NP, AW, and W, carry no grade point value and are not included in the computation of a student's semester or cumulative grade point average.

## Grade Point Average

The cumulative retention/graduation grade point average is based on all work attempted, both transfer and OU, minus those courses repeated in accordance with the policy on repeated courses. The minimum cumulative retention/graduation grade point average required for graduation is 2.0. Each degree-recommending college may establish higher standards for retention and graduation.

## Grade Suffixes

\# = Repeat Policy Applied
@ = Academic Renewal
${ }^{\wedge}=$ Academic Reprieve
~ = PE/Activity Course

* = Remedial/Developmental Course

SA = Transfer Advanced Standing Credit

## Grade Reports

All final grades must be submitted online no later than the date specified in the call for grades.

## Correcting Grades Reported in Error

The instructor initiates the change by filing a Faculty Request for Grade Change form with the department under which the course was taught.

## Academic Appeals Boards

In each college of the University, there shall be established an Academic Appeals Board consisting of an equal number of students and faculty. Faculty members of the board will be chosen by the faculty of the college for a term determined by the faculty. Student members of the board will be appointed for a term of one year by the dean of the college upon recommendations from the student president.

Each Academic Appeals Board will hear cases in which the issue to be resolved is that of prejudiced or capricious evaluation, or alleged inability to speak the English language to the extent necessary to adequately instruct students.

Except for those cases that arise in the College of Law, the following procedures shall apply. (For procedure in the College of Law, contact the Office of the Dean.)

1. A Board will hear a case only after a student has notified an instructor of a dispute over an academic evaluation and after the student has made an unsuccessful attempt to resolve differences with the instructor, if necessary in consultation with the departmental chair. In cases of end-of-term evaluations, a student must notify an instructor of a dispute over an academic evaluation and must attempt to resolve differences no later than February 15 for the previous fall semester or winter intersession; and no later than September 15 in cases of end-of-term evaluations for the previous spring semester, spring intersession, or summer session. In cases of an evaluation made known to a student during the term, the student must notify an instructor of a dispute over academic evaluation and must attempt to resolve differences no later than 15 calendar days (excluding Saturdays, Sundays, and University holidays from classes) after the results of the evaluation are made known to the student. If a student fails to notify an instructor or fails to attempt resolution within the appropriate time limit, the Board shall deny any request for a hearing on the claim unless, in the view of the Board, the student has been prevented from complying with the appropriate time limit (as for example, in the case of a student being called into military service).
2. The filing of a written request for a hearing on a claim before the appropriate Academic Appeals Board shall be within 10 calendar days (excluding Saturdays, Sundays, and University holidays from classes) following the day when the attempts at resolution in paragraph (1) above are completed. The Board shall deny any request for a hearing on a claim that does not meet this deadline unless, in the view of the Board, exceptional circumstances exist whereby the student is prevented from filing the claim. Furthermore, if in the judgment of the Board, the case is deemed to be without merit or has already been satisfactorily resolved in the department, the Board may refuse the student a hearing.
3. To avoid a jurisdictional impasse, the appeal shall be heard by the Appeals Board in the undergraduate college in which both the course and the instructor are located. Any thesis and dissertation appeals shall be heard by the Graduate College Appeals Board.
4. It shall be the primary function of a Board to mediate or adjudicate disputes that have not been satisfactorily resolved on the department level.
5. Each Board shall be given the responsibility of establishing its own rules of procedure. Such rules as it establishes must be consistent with the full protection of the rights of all parties involved.
6. Meetings of a Board may be closed to the public.
7. Decisions of the Board shall be communicated in writing to the Board's dean, the student's dean, the student, and the instructor. The Board's decisions shall be final and shall be implemented unless either the student or the instructor makes written appeal to the Executive Committee (or comparable body) of the degreerecommending college within 10 calendar days (excluding Saturdays, Sundays, or University holidays from classes) after being notified of the Board's decision. The decision of the Executive Committee (or comparable body) shall be final and shall be implemented unless either the student or the instructor makes a written appeal to the faculty of the degree-recommending college within 10 calendar days (excluding Saturdays, Sundays, and University holidays from classes) after being notified of the Committee's decision. In the case of an appeal to the faculty of the degree-recommending college, the faculty's decision shall be final and shall be implemented. The faculty of a degree-recommending college, however, may delegate their authority to consider appeals under this policy to the Executive Committee (or equivalent body) of the degree-recommending college, in which case the decision of the Executive Committee shall be final and shall be implemented without appeal to the faculty.
8. Revisions to this policy shall be reviewed by the Faculty Senate and the Student Code Revision Committee.

## Student Academic Records

## Transcripts

Current OU students can access semester grades and unofficial transcripts through one.ou.edu.

## Official Transcripts

Official transcripts are released by the Office of Academic Records upon the written request of the student, except that the University reserves the right to withhold an official transcript for any student with financial indebtedness to the University.

See Order Your OU Transcript for complete information about obtaining OU transcripts.

## Release of Student Information and Access to Student Records

Most information concerning a student's academic record is considered confidential and is not released to anyone without the student's written authorization. The Federal Family Educational Rights and Privacy Act (FERPA) affords students certain rights with respect to their education records, one of which is the right to provide written consent before the University discloses personally identifiable information other than "directory information" from the student's education record. See Release of Student Information below for a full statement of the OU FERPA policy.

Students can grant access to their OU records in these ways:

- Students can authorize the release of their education record information to a third party on either a one-time or an ongoing basis. Authorizations for the release of information on an ongoing basis will remain valid for one year following the student's last enrollment at the University of Oklahoma or until canceled in writing by the student at any time.
Student Permission to Release Education Record Information Form
- Students can authorize access to their Bursar account through one.ou.edu.
- Students can authorize the Financial Aid Services Office to release information regarding their student financial aid records through that office's OU Financial Aid Services Release Form (PDF).
- Students can consent to the release of documents associated with a record of an admonition or violation of the Academic Integrity Code filed with the Office of Academic Integrity Programs through that office's Request for Release of Information form.
- Students can provide consent to the disclosure of educational records maintained by the Student Affairs Student Conduct Office through that office's FERPA Release form.
- Students can authorize OU Health Services to release their health information records through that office's Release for Medical Records Authorization form (PDF).
- Students can authorize any OU faculty/staff member to include personally identifiable education record information in letters of recommendation through the Open Records Office's Letter of Recommendation Authorization form (PDF). Students provide the faculty/staff member with this form, and the faculty/staff member should keep it on file as documentation that the student authorized the release of their information.
- Student can authorize the Open Records Office to release transcripts, student and academic conduct records, campus police, housing, student employment, financial aid, and bursar information through that office's FERPA Release form (PDF).
- Students in the Academic Success Center can provide consent to the disclosure of their academic standing through the FERPA Release form.
- Students in Price College of Business can authorize the release of confidential information through that College's Student Release of Student Records form.
- Students living in University Housing can provide consent for Housing to disclose protected student information by completing the release section of the Housing Contract.


## Parental Access to Student Education Records

Parents of a dependent student may have access to grades and other confidential academic information under guidelines provided in the Family Educational Rights and Privacy Act of 1974. Access to this information is limited to parents who claim the student as an exemption on their federal income tax return.
Parental Access to Student Education Records Form

## Release of Student Information

The Family Educational Rights and Privacy Act of 1974 (FERPA), also known as the Buckley Amendment, affords students certain rights with respect to their education records. These rights include:

1. The right to inspect and review the student's education records within 45 days of the day the University receives a request for access. A student should submit to the registrar, dean, head of the academic department, or other appropriate officials a written request that identifies the record(s) the student wishes to inspect. The University official will make arrangements for access and notify the student of the time and place where the records may be inspected. If the records are not maintained by the University official to whom the request was submitted, that official shall advise the student of the correct official to whom the request should be addressed.
2. The right to request the amendment of the student's education records that the student believes are inaccurate, misleading, or otherwise in violation of the student's privacy rights under FERPA. A student who wishes to ask the University to amend a record should write the University official responsible for the record, clearly identify the part of the record the student wants changed, and specify why it should be changed. If the University decides not to amend the record as requested, the University will notify the student in writing of the decision and the student's right to a hearing regarding the request for amendment. Additional information regarding the hearing procedures will be provided to the student when notified of the right to a hearing.
3. The right to provide written consent before the University discloses personally identifiable information other than "directory information" from the student's education records, except to the extent that FERPA authorizes disclosure without consent. Directory information, which may be disclosed without consent, includes: Student's name, local and permanent addresses, email address, telephone number, college, major, dates of attendance, classification, current enrollment status, anticipated degree date, participation in recognized student activities and sports, degrees and awards received and dates of receipt, and most recent previous educational institution attended.

## Withholding Directory Information

A student may elect to withhold directory information by filling out the Directory Hold Form. The hold will: block the student's name, address, and email address from the OU website directory; prevent the release of attendance, withdrawal, or graduation information, even after the student leaves the University (unless the student submits a Directory Hold Release Form); and prevent the University from releasing contact information. For students who withhold directory information, University officials are prohibited from releasing any form of information without a written release from the student. The University requires this release before it will verify employment, enrollment or the status of students who make applications for employment, auto loans, good student discounts, apartment leases, etc.

Without a directory hold, any member of the public, including individuals, organizations, and vendors, may obtain student directory information for purposes such as advertising and solicitation.

A student cannot place a hold on a portion of the information. A student can place a directory hold at any time. However, in order for information to be withheld from the printed directory, if a printed directory is produced, the directory hold must be on file by the end of the second week of the fall semester.

The University may disclose education records without a student's prior written consent under the FERPA exceptions: disclosure to school officials with legitimate educational interests. A school official is a person employed by the University in an administrative, supervisory, academic or research, or support staff position (including law enforcement personnel and health staff); officials of schools to which the student seeks to transfer; the Comptroller General of the United States, the HEW Secretary, the administrative head of an educational agency, or State educational authorities; in connection with the student's application for, or receipt of, financial aid; State and local officials or authorities to which such information is specifically required to be reported under the State statute and adopted prior to November 19, 1974; organizations or educational agencies conducting legitimate research, provided no personal identifiable information about the student is made public; accrediting organizations; parents of a dependent student upon proof of dependency (exclusive of international students); in connection with an emergency when such information is necessary to protect the health or safety of the student or other persons, and to comply with a judicial order or lawfully issued subpoena.
4. The right to file a complaint with the U.S. Department of Education concerning alleged failures by the University to comply with the requirements of FERPA.
The name and address of the Office that administers FERPA is: Family Policy Compliance Office
U.S. Department of Education

400 Maryland Avenue, SW
Washington, DC 20202

## Types of Educational Records

Types, Locations, and Custodians of Educational Records

| Type | Campus | Location | Custodian |
| :--- | :--- | :--- | :--- |
| Admission | OU-Norman | Office of | Division of |
| Records |  | Admissions \& | Enrollment |
|  |  | Recruitment, | Management |
|  |  | 1000 Asp Ave., |  |
|  |  | Room 127, |  |
|  |  | Norman, OK |  |
|  | OU-Tulsa | 73019 |  |
|  |  | University of | Division of |
|  |  | Oklahoma - Tulsa | Enrollment |
|  |  | Schusterman | Management |
|  |  | Center, 4502 |  |
|  |  | E. 41st Street, |  |
|  |  | Tulsa, OK 74135 |  |
|  |  |  |  |


|  | OU-HSC | Admissions Office, Robert M. Bird Library, 1105 N. Stonewall, Oklahoma City, OK 73104 | Assistant Vice Provost for Academic Affairs, Registrar |
| :---: | :---: | :---: | :---: |
|  | PACS | Registration and Records, OU Professional and Continuing Studies, 1700 Asp Ave., Room B-1, Norman, OK 73072-6400 | Registrar- <br> Extended <br> Campus and Outreach |
| Enrollment Records | OU-Norman | Office of the Registrar, 1000 Asp Ave., Room 230, Norman, OK 73019 | Division of Enrollment Management |
|  | OU-Tulsa | University of Oklahoma - Tulsa Schusterman Center, 4502 E. 41 st Street, Tulsa, OK 74135 | Division of Enrollment Management |
|  | OU-HSC | Registrar's Office, Robert M. Bird Library, 1105 N. Stonewall, Oklahoma City, OK 73104 | Assistant Vice <br> Provost for <br> Academic Affairs, Registrar |
|  | PACS | Registration and Records, OU Professional and Continuing Studies, 1700 Asp Ave., Room B-1, Norman, OK 73072-6400 | Registrar- <br> Extended <br> Campus and <br> Outreach |
| Transcripts | OU-Norman | Office of the Registrar, 1000 Asp Ave., Room 230, Norman, OK 73019 | Division of Enrollment Management |
|  | OU-Tulsa | University of Oklahoma - Tulsa Schusterman Center, 4502 E. 41 st Street, Tulsa, OK 74135 | Division of Enrollment Management |
|  | OU-HSC | Registrar's Office, Robert M. Bird Library, 2205 N. Stonewall Oklahoma City, OK 73104 | Assistant Vice <br> Provost for <br> Academic Affairs, <br> Registrar |

$\left.\begin{array}{llll} & \text { PACS } & \begin{array}{ll}\text { Registration } \\ \text { and Records, }\end{array} & \begin{array}{l}\text { Registrar-College } \\ \text { of Continuing }\end{array} \\ & & \begin{array}{ll}\text { OU Professional } \\ \text { and Continuing }\end{array} & \text { Education }\end{array}\right]$

|  | OU-HSC | Registrar's Office, Robert M. Bird Library, 1105 <br> N. Stonewall, Oklahoma City, OK 73104 | Assistant Vice <br> Provost for <br> Academic Affairs, <br> Registrar |
| :---: | :---: | :---: | :---: |
|  | PACS | Office of Student Affairs and/or College Dean | Registrar- <br> Extended <br> Campus and <br> Outreach |
| Financial Aid | OU-Norman | Student Financial Center, 1000 Asp Avenue, Room 105, Norman, OK 73019 | Director, Financial Aid Services |
|  | OU-Tulsa | Student Financial Center, 1000 Asp Avenue, Room 105, Norman, OK 73019 | Director, Financial Aid Services |
|  | OU-HSC | Office of <br> Financial <br> Aid, 1106 N. <br> Stonewall, Room <br> 301, Oklahoma <br> City, OK 73104 | Director, Office of Financial Aid |
|  | PACS | Student Financial Center, 1000 Asp Avenue, Room 105, Norman, OK 73019 | Director, Financial Aid Services |
| Health Records | OU-Norman | Goddard Health Center, 620 Elm Ave., Norman, OK 73019 | Director, Student Health Services |
|  | OU-Tulsa | Student Services Office, Schusterman Center, 4502 E. 41st St., Tulsa, OK 74135 | Director, Student Health Services |
|  | OU-HSC | Student Health Services, Family Medicine Clinic, 900 N.E. 10th, Oklahoma City, OK 73104 | Director, Student Health Services |
|  | PACS | Goddard Health Center, 620 Elm Ave., Norman, OK 73019 | Director, Student Health Services |

## Standards of Scholarship

The following standards relating to retention of undergraduate students at the University of Oklahoma have been established. For continued enrollment in good standing, a student must maintain a retention grade point average based on total hours attempted as indicated as follows:

- 0 through 29 semester credit hours attempted -1.70
- Greater than 30 semester credit hours attempted - 2.00

Students with 0 to 29 semester hours attempted and a retention grade point average of 1.70 to 1.99 will be placed on academic notice.

The retention grade point average is based on all work attempted, both transfer and OU, minus those courses repeated or reprieved in accordance with the academic forgiveness policy, as well as remedial courses, and PE activity courses. These standards are minimal. Each degree-recommending college may establish higher standards for retention.

## Academic Probation and Suspension

Students not meeting retention standards will be placed on academic probation for one semester, at the end of which they must have met the minimum standard required to continue as a student in good standing. However, a student enrolled on probation may continue on probation provided the student makes a 2.00 grade point average on that semester's work. Students should check with their college dean's office or with the Office of the Registrar-Academic Records for specific enrollment requirements while on academic probation. A student enrolled on probation, who fails to raise their cumulative retention grade point average to minimum requirements or make a 2.00 grade point average on work taken while enrolled on probation, excluding activity courses, will be suspended for poor scholarship.

Credit completed after the end of the term, or credit earned at another institution, will be included in the student's retention/graduation grade point average at the time the work is recorded in Academic Records. The student's current academic status will be reviewed and/or updated at that time but previous postings of academic standing will remain unchanged. A student's academic status will not be changed retroactively.

A student suspended from the University for academic reasons is not eligible for readmission until one full semester has elapsed following the date of suspension. Any student who has been suspended should contact the Office of Admissions \& Recruitment for further instructions.

Regulations concerning admission, readmission, probation, and suspension of undergraduate students at the University are administered by the Committee on Academic Regulations.

The regulations of various colleges, established by the faculty, are administered by the deans concerned:

1. After the student has been readmitted to the University following suspension, they must meet any specific conditions established by the dean of their college for retention in that college.
2. A student who fails to meet college requirements may be placed on probation in that college or denied enrollment in that college.

## Graduation

Although the formal Commencement ceremony is held only at the conclusion of the spring semester, degrees are posted and awarded at the end of each fall and spring semester and summer session. The degree and date of the diploma are entered on the student's permanent academic record. The date of graduation for each term is the last day of examinations in the fall, the date of commencement in the spring, and the last day of classes in the summer. All diplomas are mailed to students approximately 10-12 weeks following the official graduation date.

For a student to graduate, all work required for the degree must be completed satisfactorily by the last day of finals of the semester or term. It is the student's responsibility to make sure all degree requirements have been met.

Students should check with the Office of the Registrar or their college office regarding the date all work must be submitted to the Office of the Registrar-Academic Records including incomplete grade (I) makeup reports, transfer work, correspondence grades, and any other information required to complete their requirements for graduation.

Should a student complete all academic requirements for graduation and apply for the degree at a time other than the end of a semester or summer session, the Office of the Registrar-Academic Records, upon request, will issue a certified statement that the student is eligible for the degree as of the date when the requirements for the degree were completed.

A student may elect to be graduated under the requirements for an undergraduate degree in effect at the time of their first enrollment in the state system provided they complete the work for the degree within a maximum time limit, determined by the college, of not less than six nor more than 10 years. If the work for a degree covers a period longer than that specified by the college, the college, in consultation with the student, will determine the catalog or bulletin to be in effect for that student's graduation.

A student whose initial enrollment in the state system is during the summer session will be subject to the degree requirements in effect for the academic year following that summer.

Credit in the student's major field or area of concentration which is more than 10 years old may not be applied toward a bachelor's degree unless it is validated by the major department, or by the departments in the student's area of concentration. (The term "area of concentration" is included in addition to "major field" to allow for those cases in which the equivalent of a major may be earned by a combination of work in several departments.)

The following general requirements must have been met in order to be eligible for an undergraduate or first professional degree from the University of Oklahoma:

1. Each student must satisfactorily complete the requirements for graduation prescribed by the faculty of the college recommending the degree.
2. All undergraduate students must satisfy the general education requirements that are part of the degree program under which they will graduate, unless they have completed an Associate of Arts or Associate of Science degree at an institution in the Oklahoma State System of Higher Education. Transfer students who enter the University with an Associate of Arts or an Associate of Science degree from an institution in the Oklahoma State System of Higher Education are considered to have met the lower-division (1000- and 2000-level) course requirements of the University's General Education core curriculum. However, these students are still required to complete any lower-division coursework that is required beyond the University's lower-division General Education course requirements, as well as the upper-division (including General Education) course requirements for a degree. Requests for exceptions to this policy must be submitted by the student's college and approved by the general education committee. The college advising coordinator must originate the request with a letter to the general education committee
explaining and justifying the request, along with any supporting documentation.
3. A student must take a minimum of 30 semester credit hours at the University of Oklahoma, exclusive of correspondence and extension courses. At least 15 of the final 30 hours applied toward the bachelor's degree or at least 50 percent of the hours required by the institution in the major field must be satisfactorily completed in residence at the University. However, colleges may have higher standards and it is the student's responsibility to be informed concerning the specific requirements for graduation from the degree program in which the student is enrolled. Hours completed in residence means college-level courses taken for academic credit from any division of the University of Oklahoma, including the Norman Campus, the Health Sciences Center, OU-Tulsa, and the College of Professional and Continuing Studies, with the exception of correspondence courses. Grades and hours earned at any of these divisions are included in the OU retention/graduation grade point average for purposes of determining completion of degree requirements.
4. Students recommended for the bachelor's degree must achieve a combined retention/graduation grade point average of at least 2.00 in all coursework attempted, including both work undertaken at the University and transfer courses, excluding any courses repeated or reprieved as detailed in the State Regents' Grading Policy and excluding physical education activity courses. However, colleges may require a grade point average higher than 2.00 for graduation, and it is the student's responsibility to be informed concerning the specific requirements for graduation from the degree program in which the student is enrolled.
5. The Oklahoma State Regents for Higher Education require that all students graduating from institutions in the Oklahoma State System of Higher Education, before they are awarded a baccalaureate degree of any type, must have completed at least six semester hours of college credit in American history and government.
6. Responsibility for meeting graduation requirements lies with the student.
7. A student who is a candidate for a degree at the close of any semester or summer session must submit an official Application for Graduation and pay all tuition and fee charges before the degree will be conferred and a diploma issued. For students who have not paid all of the tuition and fees by the end of the term, the degree will not be posted to their academic record and a diploma will not be issued until their tuition and fees are paid. Once these are paid in full, the degree will be posted and the diploma issued and dated with the term in which the student completed degree requirements. Those finishing in the fall should submit a graduation application by May 1 ; those finishing in the spring, by December 1; and those in the summer, by March 1.
8. Students are encouraged to participate in Commencement and convocation ceremonies and should purchase their official University of Oklahoma caps and gowns from the campus bookstore. The Graduation Office also will coordinate Commencement Countdown in the fall and spring, a one-stop event where students can purchase caps and gowns, graduation announcements, the OU Ring, and take senior photos. The University of Oklahoma prints a Commencement program each spring to be distributed at the May Commencement exercises. Student who do not wish to have their names published in the program must mark the appropriate box on the graduation application for their name to be withheld. Visit the Commencement website for more information.
9. A student may receive a second bachelor's degree either from the college from which they received a first degree or from another college in the University. In order to receive a second degree, however, a student must spend at least two semesters in residence and complete at least 30 additional hours in the college. These 30 hours must be in addition to the total number of hours completed by the student for the first degree. Two degrees may be conferred at the same Commencement, provided permission is granted by the faculty recommending each degree, and provided the student submits the additional Application for Graduation.
10. Degrees achieved through the Honors College, pursuant to University and/or State legislation, shall be recognized by diplomas \& transcripts attesting the character of such honors and their relative degree. Students must be admitted to and satisfy the requirements of the Honors College ( $p .1618$ ) to receive the transcript notation "Honors College Completion."

### 4.0 Medallion

Students may graduate with a 4.0 Medallion if they have completed the requirements of their undergraduate degree with:

- 4.0 OU and Combined Retention GPA ${ }^{1}$
- Minimum of 60 hours taken at OU
- No disciplinary Academic Integrity action


## Latin Honorifics, Effective Spring 2024 (Norman Campus-Based Undergraduate Academic Programs):

- cum Laude (3.60 to 3.74)
- Magna cum Laude (3.75 to 3.89)
- Summa cum Laude (3.90 to 4.00 )
- Minimum of 60 hours taken at OU
- No disciplinary Academic Integrity action

1 Combined Retention GPA: includes all courses taken with repeat, reprieve and renewal policies applied - Overall Transcript Total.

## Academic Forgiveness Policy

The Academic Forgiveness Policy, instituted by the Oklahoma State Regents for Higher Education, allows undergraduate students, under certain circumstances, to have courses removed from the calculation of the retention grade point average. It consists of three components: the repeat policy, the reprieve policy, and the renewal policy.

## Repeat Policy

## Undergraduate Students

- University policy prohibits students from repeating a course in which they have earned a grade of $A$ or $B$ unless the course is one in which there is a change of subject matter and the course has been designated "repeatable for credit." Courses that are repeatable for credit are identified as such in the course description.
- Undergraduate students may repeat up to four courses or 18 hours (whichever comes first) in which the original grade was a D or F. Only the second grade will be included in the calculation of the retention/ graduation grade point average. The original grade will still appear on the student's permanent record, but will not be calculated into the student's retention/graduation grade point average or total hours earned.
- Students who repeat courses/hours beyond those under the Repeat Policy may do so with both the original grades and repeat grades included in the calculation of the retention/graduation grade point average. Academic credit from any division of the University of Oklahoma-Norman campus, OU Health Sciences Center, OU-Tulsa, or the College of Continuing Education-are included in the OU retention/graduation and cumulative grade point averages for purposes of retention and graduation.


## Graduate Students (effective beginning Summer 2019)

- A student may repeat courses and have only the second grade earned, even if it is lower than the first grade, count in the calculation of the GPA, up to a maximum of four courses, but not to exceed 18 hours, in the courses in which the original grade earned was a C, D, or F.
- Both attempts will be recorded on the transcript automatically with the earned grade for each listed in the semester earned. The Explanation of Grades section of the transcript will note that only the second grade earned is used in the calculation of the GPA.
- If a student repeats an individual course more than once, all grades earned, with the exception of the first, are automatically used in the calculation of the GPA.
- Students repeating courses above the first four courses or 18 credit hours of C, D, or F may do so; however, the initial grades and repeat grades will be used in the calculation of the GPA.
- A student must be currently enrolled as a degree-seeking graduate student at OU in order to receive grade forgiveness for a repeated course under this policy.
- Students enrolled under a non-degree classification such as unclassified status, teaching certification status, graduate visitor status, and students who are admitted solely to a graduate certificate program are not eligible for grade forgiveness under this policy.
- Courses with variable credit and/or content, even if letter-graded, are not eligible for grade forgiveness under this policy. This includes, but is not limited to, seminars, special topics, independent studies, directed readings, and thesis or dissertation research.
- Maximum allowable tuition waiver will not be increased to cover repeated courses.
- The repeat policy grade forgiveness does not negate the limit of $C, D$, and/or F grades permitted for doctoral students. Doctoral students who accumulate nine credit hours of C, D, and/or F grades in any combination will be disenrolled from the doctoral program.
- The repeat policy grade forgiveness does not apply to course substitutions approved for courses in which the student previously earned a grade of C, D, and/or F. The substitute course may take the place of the original course on the program of study but the substitute course grade will not replace the grade earned in the original course. Both courses will be used in the calculation of the GPA.
- Coursework previously assigned a temporary course number might be eligible to be repeated under this policy; however, if there is any deviation in the course number and/or course title, the student and academic unit will need to consult with the Graduate College before the course in question is repeated to verify eligibility under this policy.

A student may request only one reprieve or renewal from the University of Oklahoma.

## Academic Reprieve Policy

The Reprieve Policy allows undergraduate students to request that one or two semesters' grades be excluded from the calculation of the combined retention/graduation grade point average. Grades from courses taken during the reprieved term(s) will remain on the student's permanent record, but will only be calculated into the student's cumulative grade point average. A student may request an academic reprieve if the following criteria are met:

- The student must be currently enrolled as an undergraduate on the Norman campus;
- at least three years must have elapsed between the period in which the grades being requested to be reprieved were earned and the reprieve request; and
- prior to requesting the reprieve, the student must have earned at least a 2.00 grade point average with no grade lower than C in all regularly graded coursework (minimum of 12 semester credit hours), excluding activity and performance courses. This coursework may be completed at any accredited higher education institution.

The request may be for one semester/term or two consecutive semesters/terms. If the reprieve is awarded, all grades and hours during the enrollment period are excluded from the retention/graduation grade point average. Coursework with a passing grade included in a reprieved semester may be used to demonstrate competency in the subject matter. However, the coursework may not be used to fulfill credit hour requirements. If the student's request is for two consecutive semesters/ terms, the institution may choose to reprieve only one semester.

The student may not receive more than one academic reprieve during their academic career. The student will not be eligible to receive a reprieve if a previous reprieve request was denied at the University of Oklahoma.

The request form is available in Academic Records. Students should contact their college concerning the process for requesting a reprieve.

## Academic Renewal Policy

The Academic Renewal Policy allows undergraduate students who have had academic trouble in the past and who have been out of higher education for a number of years to recover without penalty and have a fresh start. Under Academic Renewal, all course work taken prior to a date specified by the University of Oklahoma will be excluded from retention/graduation grade point average. All courses and grades will remain on the student's transcript and be calculated in the student's cumulative grade point average. Neither the content nor credit hours of renewed course work may be used to fulfill any degree or graduation requirements. If a student has received a renewal at another institution in Oklahoma, the student may request a renewal at the University of Oklahoma. Whether accepted or denied, this review will constitute the student's request for renewal at the University of Oklahoma.

If the student has not received a renewal at another institution in Oklahoma, they may request an Academic Renewal if the following is met:

- The student must be currently enrolled as an undergraduate student on the Norman campus.
- At least five years must have elapsed between the period of time in which the grades being requested to be renewed were earned and the renewal request.
- Prior to requesting the renewal, the student must have earned at least a 2.00 grade point average with no grade lower than a C in all
regularly graded course work (minimum 12 semester credit hours), excluding activity and performance courses. This coursework may be completed at any accredited higher education institution.

The request form is available in Academic Records. Students should contact their college concerning the process for requesting an Academic Renewal.

## Registration \& Student Services

Kellie Dyer, Registrar
Debbie Blevins, Coordinator of Registration \& Student Services
Lisa Cannon, Coordinator of Academic Publications \& Curriculum
Buchanan Hall
1000 Asp Ave., Room 230
Norman, OK 73019-4076
Phone: (405) 325-4147
FAX: (405) 325-7047
enroll@ou.edu
www.ou.edu/registrar

## Classroom Management

Classroom Management (233 Buchanan Hall) is responsible for the scheduling of general-purpose classrooms, event room scheduling, pertinent information for the class schedule (such as allocation guidelines, schedule changes, course grading, and course cancellation), forms, and class roll information.

## Academic Publications and Curriculum

The office of Academic Publications and Curriculum (233 Buchanan Hall) is responsible for producing the general catalog, degree checksheets, and the degree inventory. The Academic Curriculum Specialists are responsible for maintaining and updating the degree audit software, Degree Navigator (DN). DN is a web-based degree audit system and is intended to be used as a supplement to degree check sheets, the general catalog, and academic advising. DN has the ability to allow the students to see degree requirements, course requirements, and degree audits in multiple report formats. DN allows students to shop their credits into any of the institution's other major/minor programs.

## Registration: Online Enrollment

Registration (230 Buchanan Hall) includes the University's online enrollment process which is done through one.ou.edu. Students should refer to the Enrollment Services website for specific dates, deadlines, and procedures that apply to the registration process.

Generally, registration consists of advisement through the college office, enrollment in courses, and payment of tuition and fees. Advisement and enrollment should take place before classes begin; tuition can be paid following enrollment and must be paid by the date published on the Bursar Office website.

In addition to the normal registration process, students enrolled at either the Norman Campus or the University of Oklahoma Health Sciences Center in Oklahoma City may cross-enroll in courses at the other campus. Students should check with the Registration Office of their home campus for more specific information on the cross-enrollment procedure.

## Calendar

The University of Oklahoma offers courses in the fall semester (late August to early January), the spring semester (mid-January to mid-May), and the summer session (mid-May to mid-August). For current academic calendars, see the Office of the Registrar website.

## Academic Workload

A student desiring to carry an academic overload (number of semester-credit-hours 25 percent or more than the number of weeks in the applicable academic semester or summer term), must have demonstrated readiness to perform on an overload basis, either through superior performance on a college aptitude test or on the basis of superior academic achievement in high school or college.

An academic overload is defined as a number of semester-credit-hours 25 percent or more than the number of weeks in the applicable academic semester or summer term. A student wishing to enroll in an academic overload must obtain permission from his or her dean. The fall/spring semesters are periods of 16 weeks; consequently, 20 credit hours are considered an overload, and the maximum enrollment permitted under any circumstances is 24 hours. Likewise, the summer session is a period of eight weeks; consequently, 10 credit hours are considered an overload, and the maximum enrollment permitted under any circumstances is 12 hours.

The maximum student overload in any given semester or term is limited to a number of semester-credit-hours which is 50 percent greater than the total number of weeks in the applicable academic semester term. A student simultaneously enrolled in two or more institutions should not exceed the standards set forth in this policy.

## Attendance Policy

Students are responsible for the content of the courses in which they are enrolled. Specific policy concerning attendance requirements and announced and unannounced examinations is the responsibility of the individual instructor. Students have a responsibility to inform faculty prior to absences whenever possible. Faculty should make every effort to find a reasonable accommodation for students who miss class as a result of participation in Provost approved or Director of Athletics approved University-sponsored activities or legally required activities such as emergency military service. Students missing class on account of jury duty must receive such accommodation. The student is responsible for class attendance after completion of registration. The student must cancel before the first day of classes to avoid being charged fees and tuition. Students who do not attend classes beginning the first day may be canceled from a course if there is high demand for seats from students who are waiting to enroll in courses. However, students should understand that non-attendance and/or non-payment of fees will not automatically result in the cancellation of enrollment. The student is responsible for dropping courses by the appropriate deadlines in order to avoid tuition charges.

## Final Examinations

Oklahoma State Regents for Higher Education regulations require that those institutions that reserve the final week of the semester as a testing period shall ensure that all classes meet during the testing period. Final examinations are given at the discretion of the instructor, or, in the case of multiple sections, the department in which the course is offered. The
current schedule for final exams is listed on the Office of the Registrar's website.
(Exceptions: The Gallogly College of Engineering and the Mewbourne College of Earth and Energy require comprehensive examinations to be given during the regularly scheduled examination periods in all undergraduate courses excluding directed readings, pure laboratory courses, and project-type design courses and seminars.)

When a final examination is given, the student must take the examination. If a final examination is given, no faculty member is authorized to depart from the published examination schedule for either a class or an individual without approval, as stated in the Faculty Handbook. Early final examinations are prohibited.

Final Examination has been defined as follows: an examination that is comprehensive in nature or which accounts for a greater proportion of the final grade than an examination given during the semester. (President, 2-10-86) A student will not be expected to take more than two final examinations in one day. In cases where a student has three or more exams scheduled for the same day, instructors must offer make-up exams. The student's number of exams will be brought down to two by the following procedure:

1. If a student has three or more exams on the same day, the instructor(s) giving the third and subsequent exams must provide make-up exams during the week designated for final exams for that semester;
2. The student must notify the instructor or department of the third and subsequent final exams scheduled within a single day. Such notification must be given to the specific instructor or department before the end of the twelfth week of classes (sixth week of the summer term).

In the event a conflict should arise from the scheduling of two or more final examinations at the same time, the student will attend the examination for the class that met first during the week, according to the student's class schedule. The instructor(s) giving the second and subsequent exams must provide make-up exams during the week designated for final exams that semester.

## Change of Address

A student may change their billing, mailing, parent, and permanent addresses and phone numbers online through one.ou.edu, through the Personal Information channel on the home tab. In addition, international students must also report to the International Student Services office in 144 Farzaneh Hall.

## Change of College and Major

A student wishing to transfer from one degree-recommending college to another within the University should contact the advising office of the college to which the transfer is occurring.

A student who wishes to change major fields should consult his or her college advising office.

## Classification of Students

Freshman - through 29 semester hours earned.
Sophomore - 30-59 semester hours earned.
Junior - 60-89 semester hours earned.

Senior - 90 semester hours earned.

## Full-Time Students

To be considered full-time, an undergraduate student must be enrolled in at least six (6) hours in a summer session and at least 12 hours in a fall or spring semester. For limitations on graduate student enrollment, see the Graduate College website.

## Payment

## Tuition and Fees

Tuition and fees may be paid following enrollment. To avoid penalties for late payment, fees should be paid completely prior to the date given in the University calendar. Fees may be paid online through one.ou.edu, in person at the Student Financial Center in Buchanan Hall, or by mail. For the most up-to-date information concerning tuition and fees, visit the Bursar Services website.

For more information on tuition and fees for other programs (OU Online, College of Professional and Continuing Studies, and other special programs), please visit their program's website.

## Refunds

Refunds are calculated from the day classwork begins for each semester or session according to the following schedules established by the Oklahoma State Regents for Higher Education. Schedules for the summer session may differ; please consult the Summer Session Schedule for applicable refund dates.

## Change(s) of Enrollment

NOTE: The regulations listed below apply to courses that meet the full semester. For summer session, please refer to the Academic Calendar for specific dates for all summer blocks. Courses that do not meet the full term will have different deadlines. Contact Enrollment Services, 230 Buchanan Hall, enroll@ou.edu for more information.

## Period I - Free Add and Drop

Students may add during the first week of classes for fall or spring without approval of instructor. Students may add during the second week of classes for the fall or spring semester with approval of instructors. Students may drop without additional charges or grading penalties any time up through the end of the second week of classes in fall or spring. No grades will be recorded for dropped courses.

Note on tuition charges for dropped courses: You will be required to pay tuition and fees for any course dropped after the second week of classes in fall or spring semesters, even if you add another course at the same time.

Students can add and drop classes online through one.ou.edu during the first two weeks of fall and spring.

## Period II - Automatic Grade of W

Undergraduate students: Third through the twelfth week of fall and spring. Students may add classes only by permission of the instructor of the course and the Dean of the student's College. Courses dropped during this time will be recorded with a grade of W. (All undergraduate colleges require their students to obtain approval from their advisor to drop a course after the second week of classes.)

Graduate students: Third through the sixth week of fall and spring.
Students may add classes only by permission of the instructor of the
course and the Graduate College Dean. Courses dropped during this time will be recorded with a grade of W .

## Period III - Grade of W or F

Graduate students: Seventh through the tenth week of fall and spring.
The same restrictions on added courses apply as for Period II, above. For dropped courses, instructors may assign a grade of W or F .

## Period IV - Petition College Dean

Undergraduate Students: Thirteenth week through the end of classes in fall and spring. Permission of instructor and Dean is required for added classes. Students who wish to drop a course during this period must petition the Dean of the student's College. (Instructor's Signature and Grade of W or F are required.)

Graduate Students: Eleventh week through the end of classes in fall and spring. Permission of instructor and Dean is required for added classes. Students who wish to drop a course during this period must petition the Dean of the student's College. (Instructor's Signature and Grade of W or F are required.)

## Undergraduate 5-W Limit

A student is allowed only five grades of W throughout the course of their undergraduate career at The University of Oklahoma. Once a student reaches this maximum number of W grades, they will not be allowed to drop any courses after the free add and drop period. After the five-drop limit has been reached, students with extreme, extenuating circumstances may apply for an exception to the limit on W grades through the Academic Advising Resource Center. Complete withdrawals do not count in this limit.

## Cancel or Withdraw Enrollment (Current Students Only)

Many students become confused by the difference between "canceling" and "withdrawing" and how these affect tuition charges and grades. Cancellation is the term OU uses if a student drops all classes before classes begin. Canceling enrollment removes all tuition charges and all record of enrollment. No grades are recorded. Complete Withdrawal occurs when a student drops all classes after classes begin. When complete withdrawal occurs before the tuition obligation deadline, there are no tuition charges. When the student withdraws after the deadline, the student will be charged full tuition rates.*
*Federal regulations required the First Time Title IV Attendees (students receiving federally guaranteed financial aid for the first time at OU) will be charged on a different schedule if they withdraw from school after classes begin. Refund schedules for students in this category are available on request.

## Cancel Your Enrollment

Current undergraduate students may cancel enrollment by completing an online petition at link.ou.edu/withdraw which will be sent to Graduation and Persistence Support (GPS). The student will be contacted directly to discuss the situation or gather additional information.

Graduate students may contact the Office of Enrollment Services by emailing enroll@ou.edu or by calling (405) 325-4147. After classes have begun, students must withdraw from enrollment according to the following instructions.

For summer enrollments, petitioning is not required. Students may cancel their enrollment through ONE.

If you are a prospective student admitted for an upcoming term and wish to decline admission or withdraw your application,
please email admissions@ou.edu or contact your OU admissions counselor.

## Complete Withdrawal from Enrollment

A student who experiences an interruption due to unforeseen or extenuating circumstances and chooses to leave the institution must officially withdraw from the University of Oklahoma through the Complete Withdrawal Process.

## Undergraduate Students - Fall and Spring

During the first three weeks of classes, undergraduate students requesting a Complete Withdrawal from the University must complete an online petition at link.ou.edu/withdraw to be processed through Graduation and Persistence Support (GPS). The student will be contacted directly to discuss the situation or gather additional information.

Beginning the fourth week, undergraduate students requesting a Complete Withdrawal must complete an Online Petition for Complete Withdrawal which will be sent to the Academic Advising Lead of the college in which the student is enrolled for consideration. The College Academic Advising Lead will contact the student directly to discuss the implications and feasibility of withdrawing, as well as any alternative academic options that may exist. Documentation of extreme extenuating circumstances will be required. When possible, students are expected to continue attending classes until such time the Petition for Complete Withdrawal is approved. Once the petition has been approved for a complete withdrawal for the semester, students will receive grades of W for all courses.

## Undergraduate Students - Summer

- The final day to completely withdraw from a four-week course is the third day.
- The final day to completely withdraw from an eight-week course is the fifth day.

Prior to these deadlines, undergraduate students requesting a Complete Withdrawal should contact Office of the Registrar- Enrollment Services at enroll@ou.edu or (405) 325-4147 to request a complete withdrawal. After the deadline, undergraduate students requesting a Complete Withdrawal must complete an Online Petition for Complete Withdrawal which will be sent to the Academic Advising Lead of the college in which the student is enrolled for consideration. The College Academic Advising Lead will contact the student directly to discuss the implications and feasibility of withdrawing, as well as any alternative academic options that may exist. Documentation of extreme extenuating circumstances will be required. When possible, students are expected to continue attending classes until such time the Petition for Complete Withdrawal is approved. Once the petition has been approved for a complete withdrawal for the semester, students will receive grades of W for all courses.

## Graduate Students

Graduate students withdrawing from the University should contact Enrollment Services at enroll@ou.edu or (405) 325-4147 during the first two weeks of classes (fall/spring), and the Graduate College Office beginning the third week of classes. Graduate students withdrawing from all courses in the first six weeks of classes (first three weeks of a summer session) receive a grade of $W$ in each course of enrollment. Beginning with the seventh week (fourth week of a summer session) through the
last day of classes of the semester or summer term, these students must receive a grade of W or F from the instructor in each course upon withdrawal.

Withdrawn students are refunded fees and tuition according to State Regents' refund policy.

A student will be held responsible for the cost of room and board when either or both are furnished by the University.

## Undergraduate 5-W Limit

A student is allowed only five grades of W throughout the course of their undergraduate career at The University of Oklahoma.

Fall 2020 and Fall 2021 ONLY: Any W earned during the fall 2020 semester will NOT count toward the student's total limit of 5 . Once a student reaches this maximum number of W grades, they will not be allowed to drop any courses after the free add and drop period. After the five-drop limit has been reached, students with extreme, extenuating circumstances may apply for an exception to the limit on W grades through the Academic Advising Resource Center. Complete withdrawals do not count in this limit.

## Audit

Auditing is attending a class without participating in classwork or receiving credit. Enrollment as an auditor is permitted in all courses, subject to the approval of the instructor in the course. All tuition and fees are assessed for audit enrollments.

Initial enrollment in a course as an auditor may be completed only between the first day of classes and the last day permitted for late enrollment for credit in any semester or term. Students wishing to enroll in a course as an auditor need to get an Audit add/drop form from OU Enrollment Services in 230 Buchanan Hall, get the instructor's approval, and then return the form to Enrollment Services.

A change of enrollment from audit to credit may be made, provided the change is made no later than the end of the second week of classes in a regular semester and provided the instructor and appropriate dean grant approval. Students wishing to change enrollment from audit to credit need to get an add/drop form from OU Enrollment Services in 230 Buchanan Hall, get the appropriate approvals, and then return the form to Enrollment Services.

To change enrollment from credit to audit, students need to get an Enrolling for Audit form from the OU Enrollment Services office in 230 Buchanan Hall, get appropriate approvals, and then return the form to Enrollment Services.

- Undergraduate students: a change of enrollment from credit to audit may be made during the first two weeks of classes in a semester.
- Graduate students: a change of enrollment from credit to audit may be made during the first ten weeks of classes in a semester, provided the student is passing in the course at the time the change is processed and the student has received approval from the instructor. A change of enrollment processed during the first ten weeks of a semester requires a report of progress from the student's instructor.

For summer sessions, students should refer to the Academic Calendar for specific deadlines for all summer blocks.

A change of enrollment to audit supersedes the original enrollment for credit, and no withdrawal from the credit enrollment is posted on the student's academic record.

A grade of W may be assigned to a student who has not performed according to the instructor's requirements for an auditor in that class. Such W's will be applied to the total of five drops allowed in a student's academic career.

Enrollment as an auditor is indicated on the student's permanent academic record with the final mark AU (identified as Audit), subject to the same posting regulations governing credit enrollment.

## Fee Waivers for Auditing of Courses

Institutions of the state system are authorized to waive general enrollment and all other fees for residents of Oklahoma 65 years of age or older for auditing of academic courses, contingent upon space being available.

## Pass/No Pass Option

Students may elect to enroll in courses on a Pass/No Pass basis but should understand that colleges may not count Pass/No Pass enrollments when determining whether the student has fulfilled the requirements for a degree. Specific college limits are listed in the Pass/ No Pass Policy section of the Academic Records web page.

Both grades, P and NP, are considered neutral grades in the computation of grade point averages, i.e., credit hours for Pass, though earned, will not be included in grade point averaging, and no credit hours will be earned for No Pass. Pre-professional students who plan to apply for admission to professional schools, such as law or medicine after completion of an undergraduate degree, are advised that courses taken on the Pass/No Pass option may hinder admission when grade point average is a major consideration. For advice, the student should consult the admissions office of the professional school where they intend to apply.

Before enrolling in courses under the Pass/No Pass option, students should consult with their advisers or personnel in college offices to be certain of approved enrollment.

Students may change enrollment in a course to or from the Pass/No Pass option by the add/drop procedure in the first two weeks of a regular semester or the first week of a summer term with the approval of an adviser and the college office when required. This change in enrollment must be completed in person at Enrollment Services, 230 Buchanan Hall.

To prevent any discrimination in grading, the student's choice of P/NP grading will not be made known to the instructor in a course. The grade will be automatically assigned at the end of the course on the basis of the grade submitted by the instructor. The minimum performance level required to receive a P grade in a course is a grade of C .

## Veteran Student Services

## Jennifer Trimmer, Director

216 Buchanan Hall
Norman, ОК 73019-4076
Phone: (405) 325-4308
FAX: (405) 325-3639
veterans@ou.edu
www.ou.edu/veterans/veteran_student_services

## Veteran Student Services

## GI BILL® Student Responsibilities

Additional information in the U.S Department of Veterans Affairs, School Certifying Official Handbook

GI Bill(®) is a registered trademark of the U.S. Department of Veterans Affairs (VA). More information about education benefits offered by VA is available at the official U.S. government Web site at https:// www.benefits.va.gov/gibill.

## Applications for Benefits

VA students can submit applications online. If students don't have access to apply online they can call 1-888-442-4551 and ask that an application be mailed to them.

All VA students must file an application when they first start school before they can receive benefits. Students who have never received VA benefits must file an original application. There are multiple applications from which to choose.

Initial application to VA for Education benefits:

- Veterans or Service members applying for chapters 30,33, and 1606 use VA Form 22-1990;
- Dependents applying for chapter 35 or chapter 33 (Fry Scholarship) use VA Form 22-5490;
- Dependents requesting Transferred Post-9/11 GI Bill (chapter 33) use VA-Form 22-1990e;


## Change of Address and Direct Deposit

Address and direct deposit information must be kept current. Chapter 30 and 1606 students can use the WAVE system to update address and financial institution information. Links are on the "Main Menu" available after they log onto WAVE.

In order for a student to either start or change direct deposit information, the student should have their account information handy. The following information is needed to set up direct deposit and can be found on checks and bank statements:

- Account number
- 9-digit bank routing number
- Type of account (checking or savings)

If a student has chosen direct deposit, the student still needs to keep their address current because all other correspondence including award letters are mailed to the student's address.

Students who cannot add their account information through WAVE should contact 1-877-838-2778 to begin and change direct deposit.

## MY VA

Students are strongly encouraged to register and utilize My VA to assist them in the following:

- Obtaining up to date information on their educational entitlement
- Updating their Direct Deposit and personal contact information
- Downloading VA letters and personal documents
- Viewing the current status of their payments (both education and disability)

Students can register for either a Basic or Premium account but must be enrolled in the Defense Enrollment Eligibility Reporting System (DEERS) to obtain either account type.

## Student Verification of Enrollment

Chapter 33 students must verify their enrollment status each month for enrollment periods which begin on or after August 1, 2021, to continue to receive their monthly housing allowance (MHA) and/or kicker payments. If a beneficiary fails to verify for two consecutive months, VA will withhold any additional MHA payments until verified by the student. The requirement for the student to verify their enrollment status means VA cannot accept statements from the school to verify the enrollment, as the current process for monthly certification for other education benefits allows.

This law will be implemented in phases. The first phase is for students enrolled at Non-College Degree (NCD) facilities who are in terms or programs beginning August 1,2021 or later. Additional phases will include those enrolled in training at an Institutions of Higher Learning ( IHL ).

## Non-Chapter 33 Verification of Enrollment

The preferred verification method is WAVE, which includes features not in IVR (Interactive Voice Response). When students are awarded benefits, the award letter they receive describes WAVE and IVR. The earliest date students can verify their enrollment is the last calendar day of each month.

WAVE allows students to verify their enrollment on the Internet. WAVE is on the Education Service website at W.A.V.E. Web Automated Verification of Enrollment

Students must be currently enrolled in an approved educational program and must have a current benefit award to use WAVE. The WAVE system permits students to perform a multitude of functions. For instance, students may:

- Verify that enrollment has not changed
- Report a change in enrollment
- Change mailing address
- Initiate or change direct deposit information
- View the enrollment period and monthly benefit amount
- View the remaining entitlement
- Sign up for a monthly e-mail reminder

IVR allows students to "phone in" (1-877-823-2378) their monthly verification if there are no changes to the enrollment during the previous month. If there were changes in the enrollment the student must contact the VA Certifying Official to submit a change in status and the payment may be delayed until the reduction is processed.

## School Responsibilities

The following information provides the basic responsibilities of an educational institution and VA School Certifying Official (SCO). Each school will designate at least one VA Certifying Official to carry out reporting requirements.

Additional information in the U.S Department of Veterans Affairs, School Certifying Official Handbook

- School Certifying Officials complete annual training administered by Dept of VA and State Accrediting Agency.
- Keep VA informed of the enrollment status of veterans and other eligible persons.
- Keep up-to-date on current VA rules and benefits
- Maintain records of VA students and make all records available for inspection.
- Certify in accordance with the school's Yellow Ribbon Program agreement
- Apprise supervisors of any internal problems that may affect service to VA students
- Keep the State Approving Agency (SAA) informed of any new programs or changes in current programs, academic policies, procedures, addresses, phone numbers, and certifying officials.


## OU In-State/Out-of-State Tuition Policy

Additional Information on In-State \& Out-of-State Tuition Policy
Please contact OU Veteran Student Services for more information.

## Chapter 33 \& 31 - Veterans Benefits and Transition Act of 2018

Additional information found in Bursar Services Bill Pay
Students using these benefits must present their VA Certificate of Eligibility to the Office of Veteran Student Services, complete the request to be certified using the electronic Veteran Course Confirmation Form, and provide any additional information needed for the School Certifying Official to properly certify. Students that have completed these steps will not have service charges or registration holds placed on their accounts due to unpaid charges that are awaiting payment from the VA.

## 85/15 Percent Ratio Requirement

The 85 percent rule, or $85 / 15$ rule, prohibits Department of Veterans Affairs (VA) from paying benefits to students who are enrolling in a program when more than 85 percent of the students that are already enrolled in that program have any part of their tuition, fees, or other mandatory charges paid for them ("supported") by the school or by VA under Title 38 or Title 10. The 35 percent exemption grants relief from $85 / 15$ routine reporting requirements to any school when fewer than 35 percent of its total enrollment of students are receiving VA benefits under Title 10 or Title 38. In addition to the exemption to routinely report, programs at accredited educational institutions and vocational flight schools approved under 38 CFR 3672 with the 35 percent exemption are exempt from the $85 / 15$ rule for enrollment periods beginning on or after August 26, 2022, or the date of their 35 percent exemption, whichever date is later.

Listing of all approved programs at all GI Bill® approved institutions found on VA website.

## OU Military Service Credit

The University awards credit for educational experiences during military service according to the recommendations of the American Council on Education as published in the "Guide to the Evaluation of Military Experiences in the Armed Services." The policies governing the acceptance of credit awarded for military experience toward satisfying degree requirements vary among the degree-recommending colleges of the University. Students should contact their college academic advisement office for specific information on the applicability of this type of credit toward degree requirements. General questions concerning the evaluation of educational experiences in the armed services should be directed to the Office of Admissions.

The grade of S (satisfactory) is assigned to all credit awarded for military training.

Students with educational experiences in the military must submit the following military records to the Office of Admissions \& Recruitment for review.

- Army, Navy, Coast Guard, and Marine Corps: Submit an official Joint Services Transcript. Students may request a Joint Services Transcript be sent electronically to the University.
- Air Force personnel and veterans: Request an official transcript from the Community College of the Air Force for work taken as an undergraduate, or from the Air University for work taken as a graduate student. Community College of the Air Force transcripts may be ordered by sending a request in writing to: CCAF/RRR, 130 West Maxwell Blvd, Maxwell AFB AL 36112-6613, (334) 953-2794 (DSN 493-2794). You may also visit www.airuniversity.af.edu/Barnes/ CCAF/. Air University transcripts may be obtained by writing to the Registrar's Office, 50 South Turner Blvd., Maxwell AFB-Gunter Annex AL 36118-5643.
- DANTES/USAFI: Students may also request a transcript from DANTES (Defense Activity for Non-Traditional Education Support) or USAFI (United States Armed Forces Institute-tests taken prior to July 1, 1974). Many tests taken under the auspices of DANTES or USAFI carry American Council on Education credit recommendations recognized by the University. Official DANTES transcripts can be ordered from Thomson Prometric, P.O. Box 6604, Princeton, NJ 08541-6604, (877) 471-9860 (toll free). A transcript of USAFI courses or tests completed prior to July 1, 1974, may be obtained from Thomson Prometric, P.O. Box 6605, Princeton, NJ 08541-6605. Visit getcollegecredit.com to learn more.
- DANTES tests (DSSTs) can also be taken by people who are not in the military. Visit getcollegecredit.com to learn more.


## Students Called to Active Duty

## What You Need To Do

It is the policy of the University of Oklahoma that any student who is deployed to active service in the armed forces of the United States will be allowed to terminate their enrollment in a manner that minimizes the educational and financial impact on the student. This policy also applies to civilian employees of the military whose work hours are changed in a manner that affects their ability to attend classes. Because the specific steps will vary with the situation and the needs of the individual student, each student will be counseled and allowed to choose among the options available. Students who are called up, or who anticipate being called up, should immediately get in touch with Kellie Dyer, Registrar (phone: 405-325-4147, email: kdyer@ou.edu, who has been designated the initial contact person for all students wishing to terminate their enrollment because of military service. After counseling the student, Ms. Dyer will consult with the Office of Financial Aid and others, as necessary, to effect a smooth termination of the student's enrollment, and facilitate the subsequent return of the student to the University when they wish to do so.

## Early in the Semester

If you are a main campus student, you need to contact Kellie Dyer at $325-4147$ or by email kdyer@ou.edu. The Office of the Registrar will need a copy of your orders as soon as possible. You can fax them to 325-3639. The Office of the Registrar will withdraw you from your classes and notify Bursar Services and Financial Aid.

## Mid to Late Semester

If time allows, visit with each of your instructors to discuss your options.

The faculty and staff have been instructed by the Provost office to assist you in the disposition of your coursework. This may include early completion of courses, withdrawal or receipt of grades of Incomplete.
Whatever your decision, you must then notify Veteran Student Services so they can counsel you on how it will impact your Montgomery or Post $9 / 11 \mathrm{GI}^{\text {Bill }}{ }^{1}$.

## When You Know the Semester in Which You Will Return

We will do everything we can to get you back in classes as seamlessly as possible. You may go online to one.ou.edu at the appropriate time and enroll. If you have any stops/holds, advising or otherwise, you may email Veteran Student Services at veterans@ou.edu and they will forward your email to the appropriate person(s).

## Other Considerations

If you are living in University Housing, you need to submit a release application and a copy of your orders. You should be released from your contract with no penalty. Contact Housing and Food Services to begin your release application. Email: housinginfo@ou.edu or phone 325-3511 and H\&F will guide you through the process.

If you have a parking permit, send the permit to OU Parking and Transportation, 1332 Jenkins Avenue, Norman OK 73019. Parking and Transportation will credit your Bursar account. The Bursar will issue a refund if there are no other outstanding charges to your account. If you have any questions about this, contact Parking and Transportation at 325-3311 or parking@ou.edu.

If you purchased your textbooks at any of the Norman campus area bookstores, the stores will give you a refund as long as you can present a receipt.

If you have checked out materials from the University Libraries, be sure they get returned.

If you need to change your address, go to one.ou.edu.
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## ACADEMIC MAJORS UNDERGRADUATE AND GRADUATE



## Certificates (p. 61)

## Minors (p. 62)

Archived Degree Checksheets 2007-08 through 2018-19
Archived Degree Checksheets 2019-2023 (p. 2315)
A

- Accounting Advanced Standing, M.Acc. (p. 901)
- Accounting, B.B.A. (p. 890)
- Accounting, B.B.A./Finance, M.S. (p. 896)
- Accounting, B.B.A./M.Acc. (p. 893)
- Accounting, B.B.A./Management of Information and Technology, M.S. (p. 898)
- Adult \& Higher Education, M.Ed. (p. 1083)
- Adult \& Higher Education, Ph.D. (p. 1086)
- Adult \& Higher Education: Intercollegiate Athletic Administration, M.Ed. (p. 1083)
- Aerospace and Defense, E.M.B.A. (p. 878)
- Aerospace Engineering, B.S. (p. 1235)
- Aerospace Engineering, B.S./M.S. (p. 1244)
- Aerospace Engineering, M.S. (p. 1250)
- Aerospace Engineering, Ph.D. (p. 1251)
- African and African-American Studies, B.A. (p. 225)
- Anthropology (Standard), M.A. (p. 249)
- Anthropology, B.A. (p. 239)
- Anthropology, B.A./Sociocultural Anthropology, M.A. (p. 246)
- Anthropology: Applied Medical Anthropology, M.A. (p. 249)
- Anthropology: Archaeology, Ph.D. (p. 251)
- Anthropology: Human Health \& Biology, Ph.D. (p. 252)
- Anthropology. Linguistic Anthropology, M.A. (p. 250)
- Anthropology: Socio-Cultural Anthropology, M.A. (p. 251)
- Anthropology: Sociocultural \& Linguistics, Ph.D. (p. 252)
- Applied Computing, M.S. (p. 1220)
- Applied Statistics, M.S. (p. 209)
- Arabic, B.A. (p. 552)
- Architectural Engineering, B.S. (p. 1304)
- Architectural Engineering, B.S./Civil Engineering, M.S. (p. 1315)
- Architecture via Architecture Bachelor's Degree, M. Arch. (p. 110)
- Architecture via Non-Architecture Bachelor's Degree, M. Arch. (p. 109)
- Architecture, $31 / 2+11 / 2$ Program, B. Arch.St./M. Arch. (p. 107)
- Architecture, Four+ Year Program, B. Arch. (p. 104)
- Architecture, Three+ Year Program, B. in Arch. St. (p. 102)
- Art and Technology (Online), M.A. (p. 1608)
- Art History, B.A. (p. 1599)
- Art History, M.A. (p. 1607)
- Art History: Art of the American West, Ph.D. (p. 1609)
- Art History. European Art, Ph.D. (p. 1610)
- Art History: Native American Art, Ph.D. (p. 1610)
- Art, B.A. (p. 1597)
- Art, M.F.A. in Art (p. 1608)
- Art, Technology \& Culture, B.F.A. (p. 1601)
- Arts Management (Online), M.A. (p. 1441)
- Asian Studies, B.A. (p. 1641)
- Astronomy, B.S. (p. 611)
- Astrophysics, B.S. (p. 613)
- Astrophysics, Ph.D. (p. 621)
- Aviation: Air Traffic Management Track, B.S. (p. 815)
- Aviation: Aviation Management Track, B.S. (p. 818)
- Aviation: Aviation Management - Non-Flying Track, B.S. (p. 820)
- Aviation: Professional Pilot - Airplane Track, B.S. (p. 822)
- Aviation: Professional Pilot - Helicopter Track, B.S. (p. 825)


## B

- Ballet Pedagogy, B.F.A. (p. 1447)
- Ballet Performance, B.F.A. (p. 1450)
- Biochemistry, B.S. (p. 303)
- Biology, B.S. (p. 274)
- Biology, M.S. (p. 289)
- Biology, Ph.D. (p. 292)
- Biomedical Engineering, B.S. (p. 1260)
- Biomedical Engineering, B.S./M.S. (p. 1263)
- Biomedical Engineering, M.S. (p. 1266)
- Biomedical Engineering, Ph.D. (p. 1267)
- Business Administration, M.B.A. (p. 876)
- Business Administration, Ph.D. (p. 883)
- Business Analytics (Online), M.S. (p. 970)


## C

- Cellular \& Behavioral Neurobiology: Exercise Physiology, Ph.D. (p. 421)
- Cellular \& Behavioral Neurobiology: Psychology, Ph.D. (p. 683)
- Cellular and Behavioral Neurobiology: Aerospace \& Mechanical Engineering, Ph.D. (p. 1253)
- Cellular and Behavioral Neurobiology. Biology, Ph.D. (p. 293)
- Cellular and Behavioral Neurobiology: Chemistry \& Biochemistry, Ph.D. (p. 318)
- Chemical Biosciences, B.S. (p. 306)
- Chemical Engineering (Standard), B.S. (p. 1277)
- Chemical Engineering (Standard), B.S./M.S. (p. 1287)
- Chemical Engineering - Bioengineering Option, B.S. (p. 1279)
- Chemical Engineering - Pre-Medical Option, B.S. (p. 1282)
- Chemical Engineering - Sustainability Option, B.S. (p. 1284)
- Chemical Engineering, M.S. (p. 1290)
- Chemical Engineering, Ph.D. (p. 1292)
- Chemistry \& Biochemistry, M.S. (p. 313)
- Chemistry (Professional), B.S. (p. 311)
- Chemistry and Biochemistry (Standard Option), B.S. (p. 308)
- Chemistry and Biochemistry: Analytical Chemistry, Ph.D. (p. 315)
- Chemistry and Biochemistry. Biochemistry, Ph.D. (p. 315)
- Chemistry and Biochemistry: Inorganic Chemistry, Ph.D. (p. 316)
- Chemistry and Biochemistry: Materials Chemistry, Ph.D. (p. 316)
- Chemistry and Biochemistry. Organic Chemistry, Ph.D. (p. 317)
- Chemistry and Biochemistry: Physical Chemistry, Ph.D. (p. 317)
- Chemistry and Biochemistry: Structural Biology, Ph.D. (p. 317)
- Chemistry: Bioinformatics, M.S. (p. 314)
- Chinese, B.A. (p. 554)
- Choral Conducting, M.M. (p. 1552)
- Civil Engineering, B.S. (p. 1307)
- Civil Engineering, B.S./M.S. (p. 1320)
- Civil Engineering, Ph.D. (p. 1342)
- Civil Engineering: Geotechnical Engineering (Online), M.S. (p. 1333)
- Civil Engineering: Geotechnical Engineering, M.S. (p. 1332)
- Civil Engineering: Structural Engineering (Online), M.S. (p. 1335)
- Civil Engineering: Structural Engineering, M.S. (p. 1334)
- Civil Engineering: Transportation Engineering (Online), M.S. (p. 1336)
- Civil Engineering: Water Resources Engineering (Online), M.S. (p. 1338)
- Civil Engineering: Water Resources Engineering, M.S. (p. 1337)
- Classics: Classical Languages, B.A. (p. 328)
- Classics: Classical Studies, B.A. (p. 330)
- Classics: Latin, B.A. (p. 333)
- Clinical Mental Health Counseling (Online), M.C.M.H.C. (p. 469)
- Clinical Mental Health Counseling, M.H.R. (p. 470)
- Clinical Mental Health Counseling, M.S. (p. 471)
- Clinical Professional Counseling, M.Ed. (p. 1108)
- Communication, B.A. (p. 350)
- Communication, M.A. (p. 353)
- Communication, Ph.D. (p. 354)
- Communication: Organizational Communication, M.A. (p. 354)
- Community Health B.A./Epidemiology, M.P.H. (p. 198)
- Community Health, B.A. (p. 177)
- Community Health, B.A./Health Promotion Sciences, M.P.H. (p. 201)
- Community Health, B.S. (p. 179)
- Community Health, B.S./Epidemiology, M.P.H. (p. 203)
- Community Health, B.S./Health Promotion Sciences, M.P.H. (p. 206)
- Composition, B.Mus. (p. 1519)
- Computer Engineering, B.S. (p. 1378)
- Computer Engineering, B.S./Computer Science, M.S. (p. 1383)
- Computer Engineering, B.S./Electrical and Computer Engineering, M.S. (p. 1386)
- Computer Science, B.S. (p. 1352)
- Computer Science, B.S./M.S. (p. 1357)
- Computer Science, M.S. (p. 1360)
- Computer Science, Ph.D. (p. 1361)
- Conducting, D.M.A. (p. 1564)
- Conducting, M.M.Ed. (p. 1560)
- Construction Management, M.C.B. (p. 121)
- Construction Management: Special Studies, M.S. (p. 120)
- Construction Management: Thesis, M.S. (p. 120)
- Construction Science, B.S. (p. 117)
- Creative Media Production, B.A. (p. 1709)
- Creative Media Production, B.A./Journalism and Mass Communication, M.A. (p. 1724)
- Criminal Justice (Online), B.S. (p. 1809)
- Criminal Justice (Online), M.S. (p. 209)
- Critical Issues in Art History, Ph.D. (p. 1611)
- Cybersecurity, B.S. (p. 1772)


## D

- Dance, M.F.A. in Dance (p. 1455)
- Data Science and Analytics, M.S. (p. 1368)
- Data Science and Analytics, Ph.D. (p. 1369)
- Diversity, Equity, and Strategic Impact (Online), M.H.R. (p. 471)
- Drama, M.A. (p. 1480)


## E

- Early Childhood Education, B.S. (p. 1140)
- Early Childhood Education: Birth through Third Grade (Tulsa), B.Ed. (p. 1143)
- Early Childhood: Birth through Third Grade (Tulsa), B.S. (p. 1146)
- Ecology and Evolutionary Biology - Biology, Ph.D. (p. 293)
- Ecology and Evolutionary Biology - Botany and Microbiology, Ph.D. (p. 294)
- Economics, B.A. (p. 360)
- Economics, B.A./M.A. (p. 363)
- Economics, B.B.A. (p. 871)
- Economics, B.B.A./Management of Information and Technology, M.S. (p. 874)
- Economics, Ph.D. (p. 367)
- Economics: Applied Economics, M.A. (p. 366)
- Economics: Managerial Economics, M.A. (p. 366)
- Education Administration - Curriculum \& Supervision Option, M.Ed. (p. 1084)
- Education Administration - Curriculum/Supervision Option, Ed.D. (p. 1087)
- Education Administration - Curriculum/Supervision Option, Ph.D. (p. 1089)
- Educational Studies, M.Ed. (p. 1085)
- Educational Studies, Ph.D. (p. 1089)
- Electrical and Computer Engineering, M.S. (p. 1392)
- Electrical and Computer Engineering, Ph.D. (p. 1392)
- Electrical Engineering, B.S. (p. 1380)
- Electrical Engineering, B.S./Electrical and Computer Engineering, M.S. (p. 1389)
- Elementary Education, B.S. (p. 1149)
- Energy and Natural Resources Law, LL.M. (p. 1756)
- Energy and Natural Resources Law, M.L.S. (p. 1758)
- Energy Management, B.B.A. (p. 941)
- Energy, E.M.B.A. (p. 878)
- Engineering Leadership and Management, M.S. (p. 1221)
- Engineering Physics, B.S. (p. 1395)
- Engineering Physics, M.S. (p. 1398)
- Engineering Physics, Ph.D. (p. 1398)
- Engineering, M.S. (p. 1221)
- Engineering, Ph.D. (p. 1222)
- Engineering: Engineering Education, Ph.D. (p. 1222)
- English: Literary \& Cultural Studies, B.A. (p. 377)
- English: Literary \& Cultural Studies, B.A./M.A. (p. 385)
- English: Literary Studies, M.A. (p. 391)
- English: Literary Studies, Ph.D. (p. 392)
- English: Rhetoric \& Writing Studies, M.A. (p. 391)
- English: Rhetoric \& Writing Studies, Ph.D. (p. 392)
- English: Writing, B.A. (p. 380)
- English: Writing, B.A./M.A. (p. 388)
- Entrepreneurship \& Venture Management, B.B.A./Management of Information and Technology, M.S. (p. 911)
- Entrepreneurship and Innovation (Online), M.S. (p. 913)
- Entrepreneurship and Venture Management, B.B.A. (p. 908)
- Environmental Design, B.S. (p. 143)
- Environmental Design, B.S./M.L.A. (p. 145)
- Environmental Design, B.S./M.R.C.P.L. (p. 148)
- Environmental Design, B.S./Urban Design, M.U.D. (p. 150)
- Environmental Engineering, B.S. (p. 1309)
- Environmental Engineering, B.S./M.S. (p. 1326)
- Environmental Engineering, M.S. (p. 1338)
- Environmental Engineering, Ph.D. (p. 1343)
- Environmental Geology, B.S. (p. 1048)
- Environmental Science, B.S. (p. 1312)
- Environmental Science, B.S./M.E.S. (p. 1329)
- Environmental Science, M.E.S. (p. 1340)
- Environmental Science, Ph.D. (p. 1343)
- Environmental Studies, B.A. (p. 396)
- Environmental Studies, M.S. (p. 400)
- Environmental Sustainability, B.A. (p. 767)
- Environmental Sustainability, B.S. (p. 771)
- Environmental Sustainability. Planning \& Management, B.A./M.R.C.P. (p. 787)
- Environmental Sustainability: Planning \& Management, B.S./M.R.C.P. (p. 790)
- European Studies, B.A. (p. 1644)
- European Studies: Russian \& East European, B.A. (p. 1646)


## F

- Film \& Media Studies, B.A. (p. 405)
- Finance, B.B.A. (p. 923)
- Finance, B.B.A./Finance, M.S. (p. 925)
- Finance, B.B.A./Management of Information and Technology, M.S. (p. 928)
- Finance, M.S. (p. 931)
- French, B.A. (p. 556)
- French, M.A. (p. 577)
- French, Ph.D. (p. 579)


## G

- General Music Education, M.M.Ed. (p. 1561)
- GeoEnergy Engineering, B.S. (p. 1019)
- Geographic Information Science, B.A. (p. 774)
- Geographic Information Science, B.A./M.R.C.P. (p. 794)
- Geographic Information Science, B.S. (p. 776)
- Geographic Information Science, B.S./M.R.C.P. (p. 797)
- Geography \& Environmental Sustainability, Ph.D. (p. 808)
- Geography and Environmental Sustainability, M.A. (p. 805)
- Geography and Environmental Sustainability: Environmental Systems, M.S. (p. 805)
- Geography and Environmental Sustainability: Geospatial Technologies, M.S. (p. 806)
- Geography, B.S. (p. 782)
- Geography, B.S./M.R.C.P. (p. 802)
- Geography: Geohumanities, B.A. (p. 778)
- Geography: Physical \& Social Sciences, B.A. (p. 780)
- Geography: Physical \& Social Sciences, B.A./M.R.C.P. (p. 799)
- Geological Engineering, M.S. (p. 1030)
- Geological Engineering, Ph.D. (p. 1032)
- Geology, B.S. (p. 1050)
- Geology, M.S. (p. 1059)
- Geology, Ph.D. (p. 1060)
- Geophysics, B.S. (p. 1053)
- Geophysics, M.S. (p. 1060)
- Geophysics, Ph.D. (p. 1061)
- German, B.A. (p. 558)
- German, M.A. (p. 578)
- Global Affairs, M.A. (p. 1680)
- Global Energy, Environment, and Resources, B.A. (p. 1649)
- Global Studies, M.A. (p. 1682)
- Health \& Exercise Science, B.S. (p. 416)
- Health \& Exercise Science, M.S. (p. 419)
- Health and Exercise Science: Exercise Physiology, M.S. (p. 419)
- Health and Exercise Science: Exercise Physiology, Ph.D. (p. 422)
- Health and Exercise Science: Health Promotion, M.S. (p. 420)
- Health and Exercise Science: Health Promotion, Ph.D. (p. 422)
- Health and Exercise Science: Sports Data Analytics, M.S. (p. 420)
- Health, Medicine, and Society, B.A. (p. 446)
- Healthcare Business, B.B.A. (p. 979)
- Healthcare Law, LL.M. (p. 1757)
- Healthcare Law, M.L.S. (p. 1758)
- History of Science, Technology, and Medicine, B.A. (p. 449)
- History of Science, Technology, and Medicine, M.A. (p. 453)
- History of Science, Technology, and Medicine, Ph.D. (p. 454)
- History, B.A. (p. 436)
- History, M.A. (p. 439)
- History, Ph.D. (p. 439)
- Human \& Health Services Administration (Online), M.A. (p. 210)
- Human Health \& Biology, B.S. (p. 243)
- Human Relations (Standard), M.H.R. (p. 472)
- Human Relations, B.A. (p. 466)
- Human Relations, B.A./Human Resource Studies, M.A.
- Human Relations: Human Resources, M.H.R. (p. 473)
- Human Resource Studies, M.A. (p. 475)
- Hydrology and Water Security (Online), M.E.S. (p. 1341)


## I

- ILAC: Early Childhood Education, M.Ed. (p. 1190)
- ILAC: Elementary Education, M.Ed. (p. 1191)
- ILAC: English Education, M.Ed. (p. 1192)
- ILAC: Instructional Leadership, M.Ed. (p. 1192)
- ILAC: Mathematics Education, M.Ed. (p. 1193)
- ILAC: Reading Education, M.Ed. (p. 1194)
- ILAC: Science Education, M.Ed. (p. 1195)
- ILAC: Science, Technology, Engineering \& Math (STEM) Education, M.Ed. (p. 1196)
- ILAC: Secondary Education, M.Ed. (p. 1197)
- ILAC: Social Studies Education, M.Ed. (p. 1198)
- ILAC: Teacher Education, M.Ed. (p. 1198)
- ILAC: World Language Education, M.Ed. (p. 1199)
- Inclusive Leadership, M.H.R. (p. 474)
- Indigenous Peoples Law, LL.M. (p. 1757)
- Indigenous Peoples Law, M.L.S. (p. 1759)
- Industrial and Systems Engineering - Analytics Option, B.S. (p. 1408)
- Industrial and Systems Engineering - Analytics, B.S./Data Science and Analytics, M.S. (p. 1425)
- Industrial and Systems Engineering - Analytics, B.S./M.S. (p. 1422)
- Industrial and Systems Engineering - Pre-Medicine Option, B.S. (p. 1410)
- Industrial and Systems Engineering, B.S. (p. 1406)
- Industrial and Systems Engineering, B.S./Data Science and Analytics, M.S. (p. 1416)
- Industrial and Systems Engineering, B.S./M.B.A. (p. 1419)
- Industrial and Systems Engineering, B.S./M.S. (p. 1413)
- Industrial and Systems Engineering, M.S. (p. 1427)
- Industrial and Systems Engineering, Ph.D. (p. 1429)
- Information Science and Technology, B.S. (p. 489)
- Information Studies, B.A. (p. 492)
- Information Studies, B.A./M.L.I.S. (p. 496)
- Information Studies, Ph.D. (p. 502)
- Instructional Leadership \& Academic Curriculum, Ph.D. (p. 1201)
- Instrumental Conducting, M.M. (p. 1553)
- Instrumental Music Education, B.M.Ed. (p. 1544)
- Instrumental, M.M.Ed. (p. 1563)
- Integrated Childhood Well-Being (Tulsa), M.A. (p. 1200)
- Integrative Studies (Online), M.A. (p. 211)
- Integrative Studies, B.A. (p. 1794)
- Interdisciplinary Studies, Ph.D. (p. 1614)
- Interdisciplinary Studies: Aerospace \& Defense Management, B.A. (p. 1795)
- Interdisciplinary Studies: Business Administration, B.A. (p. 1797)
- Interdisciplinary Studies: Construction Management, B.A. (p. 1798)
- Interdisciplinary Studies: Criminal Justice Leadership, B.A. (p. 1800)
- Interdisciplinary Studies: Healthcare Management, B.A. (p. 1801)
- Interdisciplinary Studies: Learning and Education Studies, B.A. (p. 1803)
- Interdisciplinary Studies: Organizational Leadership, B.A. (p. 1804)
- Interior Design (First Professional), M.S. (p. 132)
- Interior Design (Post-Professional), M.S. (p. 132)
- Interior Design, B.I.D. (p. 129)
- International Business Law, LL.M. (p. 1758)
- International Business Law, M.L.S. (p. 1759)
- International Business, B.B.A. (p. 944)
- International Development, B.A. (p. 1652)
- International Relations, M.A. (p. 1683)
- International Security Studies, B.A. (p. 1655)
- International Studies, B.A. (p. 1658)
- International Studies, B.A./Global Studies, M.A. (p. 1676)
- Italian, B.A. (p. 560)


## J

- Japanese, B.A. (p. 563)
- Journalism Advertising, B.A. (p. 1707)
- Journalism and Mass Communication, M.A. (p. 1734)
- Journalism, B.A. (p. 1712)
- Journalism, B.A./Journalism and Mass Communication, M.A. (p. 1727)
- Journalism: Advertising, B.A./Journalism and Mass Communication, M.A. (p. 1720)
- Judaic Studies, B.A. (p. 478)


## L

- Landscape Architectural Studies, M.L.A. (p. 153)
- Landscape Architecture via BLA, M.L.A. (p. 153)
- Landscape Architecture, M.L.A. (p. 152)
- Language Arts Education, B.S. (p. 1152)
- Latin American Studies, B.A. (p. 1662)
- Latinx Studies, B.A. (p. 181)
- Law, J.D. (p. 1765)
- Law, LL.M. (p. 1756)
- Learning Experience Design and Technology, M.S. (p. 1109)
- Learning Experience Design and Technology, Ph.D. (p. 1114)
- Letters (Standard), B.A. (p. 335)
- Letters: Constitutional Studies, B.A. (p. 337)
- Library \& Information Studies, M.L.I.S. (p. 499)
- Lifespan Care Administration (Online), B.A. (p. 1806)
- Linguistics, B.A. (p. 565)

M

- Management Information Systems, B.B.A. (p. 964)
- Management Information Systems, B.B.A./Management of Information and Technology, M.S. (p. 967)
- Management of Information and Technology, M.S. (p. 970)
- Management, B.B.A. (p. 947)
- Management, B.B.A./Management of Information and Technology, M.S. (p. 955)
- Marketing, B.B.A. (p. 981)
- Marketing, B.B.A./Management of Information and Technology, M.S. (p. 989)
- Marketing, B.B.A./Supply Chain Management (Online), M.S. (p. 992)
- Mass Communication, Ph.D. (p. 1737)
- Master of Legal Studies, M.L.S. (p. 1760)
- Mathematics (Professional Option), B.S. (p. 513)
- Mathematics (Standard Option), B.A. (p. 511)
- Mathematics Education, B.S. (p. 1155)
- Mathematics, B.A./Finance, M.S. (p. 519)
- Mathematics, B.A./M.B.A. (p. 515)
- Mathematics, B.S./Biostatistics, M.S. (p. 521)
- Mathematics, M.A. (p. 524)
- Mathematics, M.S. (p. 524)
- Mathematics, Ph.D. (p. 525)
- Mechanical Engineering (Standard), B.S. (p. 1239)
- Mechanical Engineering (Standard), B.S./M.S. (p. 1247)
- Mechanical Engineering - Premedical Option, B.S. (p. 1241)
- Mechanical Engineering, M.S. (p. 1251)
- Mechanical Engineering, Ph.D. (p. 1252)
- Meteorology, B.S. (p. 841)
- Meteorology, B.S./Data Science and Analytics, M.S. (p. 848)
- Meteorology, B.S./M.B.A. (p. 845)
- Meteorology, M.S. (p. 850)
- Meteorology, Ph.D. (p. 851)
- Microbiology (Professional), B. Mbio. (p. 281)
- Microbiology (Standard), B.S. (p. 276)
- Microbiology (Standard): Biotechnology, B.S. (p. 278)
- Microbiology, M.S. (p. 289)
- Microbiology, Ph.D. (p. 294)
- Microbiology: Bioinformatics, M.S. (p. 290)
- Middle Eastern Studies, B.A. (p. 1665)
- Modern Dance Performance, B.F.A. (p. 1452)
- Multidisciplinary Studies, B.A. (p. 82)
- Multidisciplinary Studies, B.S. (p. 83)
- Museum Studies (Online), M.A. (p. 500)
- Music Composition, D.M.A. (p. 1565)
- Music Composition, M.M. (p. 1553)
- Music Education, Ph.D. (p. 1569)
- Music Theory, M.M. (p. 1554)
- Music, B.A. (p. 1517)
- Music, B.M.A. (p. 1541)
- Music: Instrumental Jazz, B.A. (p. 1514)
- Musical Theatre Performance, B.F.A. (p. 1575)
- Musicology, M.M. (p. 1555)

N

- Native American Studies, B.A. (p. 588)
- Native American Studies, M.A. (p. 591)
- Natural Gas Engineering \& Management, M.S. (p. 1031)


## 0

- Online Accounting Advanced Standing, M. Acc. (p. 901)
- Organ, B.Mus. (p. 1522)
- Organ, D.M.A. (p. 1567)
- Organ: Church Music, M.M. (p. 1556)
- Organ: Standard, M.M. (p. 1555)
- Organ: Technology, M.M. (p. 1556)
- Organizational and Community Leadership (Tulsa), Ph.D. (p. 1614)
- Organizational Dynamics - Human Resource Management Option, M.A. (p. 679)
- Organizational Dynamics - Project Management Option, M.A. (p. 680)
- Organizational Dynamics, M.A. (p. 678)
- Organizational Leadership (Online), M.A. (p. 213)
- Organizational Leadership, B.A. (p. 1808)


## P

- Paleontology, B.S. (p. 1055)
- Petroleum Engineering (Standard), M.S. (p. 1032)
- Petroleum Engineering, B.S. (p. 1022)
- Petroleum Engineering, B.S./M.B.A. (p. 1027)
- Petroleum Engineering, B.S./M.S. (p. 1024)
- Petroleum Engineering, Ph.D. (p. 1033)
- Petroleum Geology, B.S. (p. 1057)
- Philosophy, B.A. (p. 598)
- Philosophy, M.A. (p. 601)
- Philosophy, Ph.D. (p. 602)
- Physics (Professional), B. Phys. (p. 618)
- Physics (Standard), B.S. (p. 615)
- Physics, M.S. (p. 621)
- Physics, Ph.D. (p. 622)
- Piano Pedagogy, B.Mus. (p. 1526)
- Piano Pedagogy, M.M.Ed. (p. 1563)
- Piano, B.Mus. (p. 1524)
- Piano, D.M.A. (p. 1566)
- Piano: Performance and Pedagogy, M.M. (p. 1558)
- Piano: Performance, M.M. (p. 1557)
- Planned Program, B.A. (p. 183)
- Planned Program, B.S. (p. 185)
- Planning, Design and Construction, M.S. (p. 89)
- Planning, Design and Construction, Ph.D. (p. 91)
- Plant Biology, B.S. (p. 283)
- Plant Biology, M.S. (p. 291)
- Plant Biology, Ph.D. (p. 295)
- Plant Biology: Bioinformatics, M.S. (p. 291)
- Plant Biology: Biotechnology, B.S. (p. 285)
- Political Science, B.A. (p. 637)
- Political Science, B.A./M.A. (p. 647)
- Political Science, B.A./M.P.A. (p. 650)
- Political Science, M.A. (p. 657)
- Political Science, Ph.D. (p. 661)
- Political Science: Elections and Campaign Management, B.A. (p. 640)
- Professional MBA, M.B.A. (p. 877)
- Professional Writing, B.A. (p. 1714)
- Professional Writing, M.P.W. (p. 1735)
- Psychology (Professional), B.S. (p. 674)
- Psychology (Standard), B.A. (p. 671)
- Psychology (Standard), M.S. (p. 681)
- Psychology, Ph.D. (p. 684)
- Psychology: Industrial and Organizational Psychology, Ph.D. (p. 684)
- Public \& Nonprofit Administration, B.A./M.P.A. (p. 655)
- Public Administration, M.P.A. (p. 658)
- Public Administration: Non-Profit Management, M.P.A. (p. 659)
- Public Administration: Public Management, M.P.A. (p. 659)
- Public Administration: Public Policy, M.P.A. (p. 660)
- Public and Nonprofit Administration, B.A. (p. 642)
- Public and Nonprofit Administration, B.A./Political Science, M.A. (p. 652)
- Public Health, B.P.H. (p. 187)
- Public Relations, B.A. (p. 1717)
- Public Relations, B.A./Journalism and Mass Communication, M.A (p. 1731)


## R

- Reading Specialist, M.Ed. (p. 1201)
- Regional and City Planning, M.R.C.P.L. (p. 154)
- Religious Studies, B.A. (p. 689)
- Renewables, E.M.B.A. (p. 879)
- Russian, B.A. (p. 567)


## S

- Science Education: Biological Sciences, B.S. (p. 1158)
- Science Education: Chemistry, B.S. (p. 1162)
- Science Education: Earth Science, B.S. (p. 1165)
- Science Education: Physical Science, B.S. (p. 1168)
- Science Education: Physics, B.S. (p. 1171)
- Science of Psychology, Data, and Research in Education, M.S. (p. 1110)
- Science of Psychology, Data, and Research in Education, Ph.D. (p. 1114)
- Social Studies Education, B.S. (p. 1175)
- Social Work, B.A. (p. 711)
- Social Work, M.S.W. (p. 713)
- Social Work: Advanced Standing, M.S.W. (p. 714)
- Sociology - Criminology Option, B.A. (p. 725)
- Sociology - General Option, B.A. (p. 723)
- Sociology, B.A./M.A. (p. 729)
- Sociology, M.A. (p. 731)
- Sociology, Ph.D. (p. 732)
- Spanish, B.A. (p. 570)
- Spanish, M.A. (p. 578)
- Spanish, Ph.D. (p. 580)
- Special Education, B.S. (p. 1105)
- Special Education, M.Ed. (p. 1110)
- Special Education, Ph.D. (p. 1115)
- Sports Business, B.B.A. (p. 949)
- Strategic Communication and Digital Strategy, M.A. (p. 1735)
- Studio Arts, B.F.A. (p. 1603)
- Supply Chain Management (Online), M.S. (p. 1000)
- Supply Chain Management, B.B.A. (p. 983)
- Supply Chain Management, B.B.A./Management of Information and Technology, M.S. (p. 995)
- Supply Chain Management, B.B.A./Supply Chain Management (Online), M.S. (p. 997)
- Sustainability - Energy and Materials Management, M.S. (p. 1291)
- Sustainable Architecture, M.S. (p. 111)


## T

- TESOL, M.A. (p. 579)
- Theatre: Acting Emphasis, B.F.A. (p. 1463)
- Theatre: Costume Design Emphasis, B.F.A (p. 1465)
- Theatre: Dramaturgy Emphasis, B.F.A. (p. 1468)
- Theatre: Lighting Design Emphasis, B.F.A. (p. 1471)
- Theatre: Scenic Design Emphasis, B.F.A. (p. 1473)
- Theatre: Sound Design Emphasis, B.F.A. (p. 1475)
- Theatre: Stage Management Emphasis, B.F.A. (p. 1478)


## U

- Urban Design (Tulsa), M.U.D. (p. 155)


## V

- Visual Communication, B.F.A. (p. 1604)
- Vocal Music Education, B.M.Ed. (p. 1547)
- Voice, B.Mus. (p. 1529)
- Voice, D.M.A. (p. 1568)
- Voice: Opera, M.M. (p. 1558)
- Voice: Performance, M.M. (p. 1559)


## W

- Wind, Percussion, String, D.M.A. (p. 1569)
- Wind, Percussion, String, M.M. (p. 1560)
- Wind/Percussion/String: Brass \& Percussion, B.Mus. (p. 1531)
- Wind/Percussion/String: Harp, B.Mus. (p. 1534)
- Wind/Percussion/String: Strings \& Guitar, B.Mus. (p. 1536)
- Wind/Percussion/String: Woodwinds, B.Mus. (p. 1539)
- Women's \& Gender Studies, B.A. (p. 739)
- World Language Education: French, B.S. (p. 1178)
- World Language Education: German, B.S. (p. 1181)
- World Language Education: Latin, B.S. (p. 1184)
- World Language Education: Spanish, B.S. (p. 1187)


## Certificates

A

- Aerospace and Defense Analytics, Graduate Certificate (p. 879)
- American Indian Law, Graduate Certificate (p. 1760)
- Applications of Educational Research and Evaluation, Graduate Certificate (p. 1111)
- Applied Behavior Analysis, Graduate Certificate (p. 1112)
- Applied Research and Program Evaluation, Graduate Certificate (p. 732)
- Applied Statistics, Graduate Certificate (p. 214)
- Applied Statistics, Undergraduate Certificate (p. 195)
- Archival Studies, Graduate Certificate (p. 500)
- Arts Management and Entrepreneurship, Graduate Certificate (p. 1442)
- Asian Religions, Undergraduate Certificate (p. 693)

B

- Bioprocessing, Graduate Certificate (p. 1291)
- Bioprocessing, Undergraduate Certificate (p. 1287)
- Business and Transactional Law, Graduate Certificate (p. 1761)
- Business Entrepreneurship, Graduate Certificate (p. 914)
- Business Intelligence and Analytics, Undergraduate Certificate (p. 967)
- Business of Energy, Graduate Certificate (p. 932)


## C

- College Teaching Certificate, Graduate Certificate (p. 1086)
- Commercial Space Applications, Graduate Certificate (p. 880)
- Community Engagement (Tulsa), Graduate Certificate (p. 1613)
- Community Engagement, Graduate Certificate (p. 84)
- Construction Management, Graduate Certificate (p. 121)
- Corrections Management (Online), Graduate Certificate (p. 216)
- Criminal Justice Administration (Online), Graduate Certificate (p. 217)


## D

Data Analytics for Information Professionals, Graduate Certificate (p. 501)

- Data Analytics, Graduate Certificate (p. 217)
- Data Analytics, Undergraduate Certificate (p. 196)
- Data Science and Analytics, Graduate Certificate (p. 1368)
- Data Science and Analytics, Undergraduate Certificate (p. 1367)
- Data Systems and Digital Design (BIM/GIS/FAB), Graduate Certificate (p. 89)
- Design Entrepreneurship and Real Estate, Graduate Certificate (p. 90)
- Digital Humanities, Graduate Certificate (p. 501)
- Digital Technologies, Graduate Certificate (p. 971)
- Drug and Alcohol Counseling, Graduate Certificate (p. 1112 )
- Drug Policy Management (Online), Graduate Certificate (p. 219)


## E

- Energy and Natural Resources Law, Graduate Certificate (p. 1762)
- Engineering Leadership, Undergraduate Certificate (p. 1216)
- Engineering Leadership: Sustainability, Undergraduate Certificate (p. 1219)
- Entrepreneurship \& Real Estate Development, Undergraduate Certificate (p. 120)
- Esports Business, Undergraduate Certificate (p. 954)
- Executive Management in Aerospace and Defense, Graduate Certificate (p. 880)


## F

- Finance, Graduate Certificate (p. 932)
- Foundations of Business, Graduate Certificate (p. 881)
- Fundamentals of Special Education, Graduate Certificate (p. 1112)


## G

- Geospatial Technologies, Graduate Certificate (p. 807)
- Global Engagement, Undergraduate Certificate (p. 1676)

H

- Helping Skills in Human Relations, Graduate Certificate (p. 476)
- Human Resource Development and Workforce Diversity, Graduate Certificate (p. 476)
- Human Resource Management (Tulsa), Graduate Certificate (p. 682)
- Human Resource Management, Undergraduate Certificate (p. 954)
- Hydrocarbon Energy, Graduate Certificate (p. 881)

I

- Indigenous Peoples Law, Graduate Certificate (p. 1762)
- International Law, Graduate Certificate (p. 1763)
- Islamic Studies, Undergraduate Certificate (p. 694)

L

- Leadership, Undergraduate Certificate (p. 954)
- Learning Design and Technology, Graduate Certificate (p. 1113)
- Legal Studies, Undergraduate Certificate (p. 955)
- Literacy Specialist, Graduate Certificate (p. 1201)
- Litigation, Graduate Certificate (p. 1764)


## M

- Media Management, Graduate Certificate (p. 1736)
- Microscopic Imaging and Technology, Graduate Certificate (p. 292)
- Museum Studies, Undergraduate Certificate (p. 1607)

N

- Native American Studies, Graduate Certificate (p. 592)
- Non-Profit Management (Tulsa), Graduate Certificate (p. 660)


## 0

- Oil \& Gas, Natural Resources, and Energy Law, Graduate Certificate (p. 1764)
- Organizational Leadership (Online), Graduate Certificate (p. 220)
- Organizational Psychology (Tulsa), Graduate Certificate (p. 682)
- Organizational Research (Tulsa), Graduate Certificate (p. 682)


## P

- Project Management (Tulsa), Graduate Certificate (p. 683)


## R

- Renewable Energy Management, Undergraduate Certificate (p. 955)
- Renewable Energy, Graduate Certificate (p. 882)
- Resilient Planning, Design, and Construction, Graduate Certificate (p. 90)
- Restorative Justice Administration (Online), Graduate Certificate (p. 220)


## S

- School Counseling, Graduate Certificate (p. 1113)
- Secondary Transition Education Specialist, Graduate Certificate (p. 1113)
- Social Work with American Indians, Graduate Certificate (p. 715)
- Strategic Planning, Graduate Certificate (p. 1736)
- Supply Chain Management (Online), Graduate Certificate (p. 1000)
- Sustainable Energy Systems, Undergraduate Certificate (p. 1009)


## W

- Women's and Gender Studies, Graduate Certificate (p. 744)


## Minors

## A

- Accounting, Minor (p. 893)
- Aerospace Studies, Minor (p. 696)
- African and African-American Studies, Minor (p. 227)
- African Studies, Minor (p. 1667)
- Air Traffic Control, Minor (p. 827)
- Anthropology, Minor (p. 245)
- Applied Statistics, Minor (p. 190)
- Arabic, Minor (p. 572)
- Architectural Studies, Minor (p. 106)
- Art History, Minor (p. 1607)
- Art, Minor (p. 1606)
- Arts Management and Entrepreneurship for Fine Arts Majors, Minor (p. 1440)
- Arts Management and Entrepreneurship for Non-Fine Arts Majors, Minor (p. 1441)
- Asian Studies, Minor (p. 1669)
- Astronomy, Minor (p. 620)
- Aviation: Aviation Management, Minor (p. 827)
- Aviation: Multi-Engine Commercial Pilot, Minor (p. 828)
- Aviation: Single-Engine Commercial Pilot, Minor (p. 828)


## B

- Biology, Minor (p. 288)
- Broadcast Meteorology, Minor (p. 1719)


## C

- Chemistry, Minor (p. 313)
- Chinese, Minor (p. 572)
- Classical Archaeology, Minor (p. 340)
- Classical Culture, Minor (p. 342)
- Classical Greek, Minor (p. 342)
- Climate Adaptation, Minor (p. 785)
- Commercial Music, Minor (p. 1551)
- Communication, Minor (p. 352)
- Computational Technology, Minor (p. 1356)
- Computer Science, Minor (p. 1355)
- Constitutional Studies, Minor (p. 342)
- Construction Science, Minor (p. 119)
- Creative Media Production, Minor (p. 1719)
- Criminal Investigation and Intelligence Analysis, Minor (p. 1810)
- Criminal Justice, Minor (p. 1811)

D

- Dance History, Minor (p. 1454)
- Data Analytics, Minor (p. 191)
- Digital Marketing for Business Majors, Minor (p. 986)
- Digital Marketing for Non-Business Majors, Minor (p. 986)


## E

- Economics, Minor (p. 362)
- Editing and Publishing, Minor (p. 383)
- Elections \& Campaign Management, Minor (p. 644)
- Electrical and Computer Engineering, Minor (p. 1382)
- English: Literary \& Cultural Studies, Minor (p. 383)
- English: Writing, Minor (p. 384)
- Enterprise Studies, Minor (p. 193)
- Entrepreneurship for Business Majors, Minor (p. 910)
- Entrepreneurship for Non-Business Majors, Minor (p. 910)
- Environmental Science, Minor (p. 1314)
- Environmental Studies, Minor (p. 400)
- Environmental Sustainability, Minor (p. 785)
- European Studies, Minor (p. 1670)


## F

- Film \& Media Studies, Minor (p. 408)
- Finance for Business Majors, Minor (p. 925)
- Franchising, Minor (p. 987)
- French, Minor (p. 573)


## G

- General Business for Non-Business Majors, Minor (p. 873)
- Geographic Information Systems, Minor (p. 786)
- Geography, Minor (p. 786)
- Geology, Minor (p. 1059)
- German, Minor (p. 573)
- Global Energy, Environment, and Resources, Minor (p. 1671)


## H

- Health \& Exercise Science, Minor (p. 418)
- Healthcare Business, Minor (p. 987)
- Hebrew, Minor (p. 574)
- History of Medicine, Minor (p. 452)
- History of Science, Minor (p. 453)
- History, Minor (p. 438)
- Home (p. 17)
- Human Relations, Minor (p. 469)
- Hydrologic Science, Minor (p. 786)


## I

- Information Studies, Minor (p. 496)
- Instrumental Jazz, Minor (p. 1551)
- Interior Design for Architecture Majors, Minor (p. 130)
- Interior Design for Non-Architecture/Non-Visual Communication Majors, Minor (p. 131)
- Interior Design for Visual Communication Majors, Minor (p. 131)
- International Development, Minor (p. 1671)
- International Enterprise Studies, Minor (p. 193)
- International Security Studies, Minor (p. 1672)
- International Studies, Minor (p. 1673)
- Iranian Studies, Minor (p. 1673)
- Irish Studies, Minor (p. 385)
- Italian, Minor (p. 574)


## J

- Japanese, Minor (p. 575)
- Judaic \& Israel Studies, Minor (p. 480)


## L

- Latin American Studies, Minor (p. 1674)
- Latin, Minor (p. 343)
- Latinx Studies, Minor (p. 194)
- Leadership for Business Majors, Minor (p. 952)
- LGBTQ Studies, Minor (p. 741)
- Linguistics, Minor (p. 575)


## M

- Management, Minor (p. 952)
- Marketing for Non-Business Majors, Minor (p. 988)
- Marketing, Minor (p. 987)
- Mathematics, Minor (p. 515)
- Medical Humanities, Minor (p. 1620)
- Medieval \& Renaissance Studies, Minor (p. 526)
- Meteorology, Minor (p. 844)
- Microbiology, Minor (p. 288)
- Middle Eastern Studies, Minor (p. 1675)
- Military Science, Minor (p. 698)
- MIS for Business Majors, Minor (p. 966)
- MIS for Non-Business Majors, Minor (p. 966)
- Music, Minor (p. 1552)


## N

- Native American Studies, Minor (p. 590)
- Naval Science, Minor (p. 701)
- Non-Governmental Organizations, Minor (p. 645)
- Nonprofit Organizational Studies, Minor (p. 646)


## 0

- Organizational Leadership, Minor (p. 1811)


## P

- Philosophy, Minor (p. 601)
- Physical Geography, Minor (p. 787)
- Physics, Minor (p. 620)
- Plant Biology, Minor (p. 289)
- Political Science, Minor (p. 646)
- Portuguese, Minor (p. 576)
- Pre-Health Social Sciences, Minor (p. 677)
- Professional Writing, Minor (p. 1720)
- Psychology, Minor (p. 677)
- Public Affairs \& Administration, Minor (p. 647)
- Public and Community Health, Minor (p. 195)

R

- Religious Studies, Minor (p. 693)
- Restorative Justice, Minor (p. 1812)
- Russian and Eastern European Studies, Minor (p. 1675)
- Russian, Minor (p. 576)


## S

- Social Justice, Minor (p. 742)
- Sociology - Criminology, Minor (p. 728)
- Sociology - General, Minor (p. 728)
- Spanish, Minor (p. 577)
- Sports Business for Business Majors, Minor (p. 952)
- Sports Business for Non-Business Majors, Minor (p. 953)
- Supply Chain Management for Business Majors, Minor (p. 988)
- Supply Chain Management for Non-Business Majors, Minor (p. 989)


## T

- Theatre, Minor (p. 1480)


## W

- Water and Sanitation for Health and Sustainable Development, Minor (p. 1315)
- Weather and Climate, Minor (p. 844)
- Women's and Gender Studies, Minor (p. 743)


## OU ONLINE



## Contact

201 David L. Boren Blvd.
3 Partners Place, Suite 230
Norman, OK 73072
Main Phone: (405) 325-3793
Website: www.ou.edu/online
Email: online@ou.edu

## Administrative Officers

Dr. Gregg Garn - Vice President of Online Learning
Holly Anderson - Director of Special Projects
Hannah Rieger - Director of Student Support Services Christa Berry - Director of Marketing
Adam Croom - Director of Office of Digital Learning
Kevin Jones - Associate Director of Online Financial Aid
Martina Ferguson - Senior Program Manager
Nicole Diel - Director of Recruitment

## General Information

## Our Programs

Every OU Online program is built on the foundation of world-class faculty mixed with professors of practice providing valuable instruction. By linking industry experts with our online programs, we are offering the most advanced curriculum available and preparing students for future career success.

## Our Degrees

When you graduate from an OU Online program, you'll earn a degree from the University of Oklahoma. Graduates join the network of 250,000 OU alumni and are forever part of the OU family. Become part of the tradition of excellence that OU has established in its 130-year history.

## Undergraduate

Integrative Studies, B.A.
Interdisciplinary Studies: Business Administration, B.A.

Interdisciplinary Studies: Criminal Justice Leadership, B.A. Interdisciplinary Studies: Healthcare Management, B.A.

Interdisciplinary Studies: Organizational Leadership, B.A.

## Graduate

Master of Accountancy
Aerospace and Defense, Executive M.B.A.

Applied Computing, M.S.

Applied Statistics, M.S.

Arts Management, M.A.

Art and Technology, M.A.

Master of Business Administration

Business Analytics, M.S.

Civil Engineering, M.S.

Master of Clinical and Mental Health Counseling
Computer Science, M.S.
Master of Construction Business

Criminal Justice, M.S.
Data Science and Analytics, M.S.
Educational Administration Curriculum and Supervision, Master of Education

Education Administration, Doctor of Education

Energy, Executive M.B.A.
Energy and Natural Resources Law, MLS
Energy and Natural Resources Law, LLM

Engineering Leadership and Management, M.S.
Finance, M.S.

Geospatial Technologies, M.S.
Global Affairs, M.A.
Healthcare Law, MLS
Healthcare Law, LLM

Master of Human Relations

- Diversity, Equity, and Strategic Impact
- Inclusive Leadership

Hydrology and Water Security, Master of Environmental Science
Indigenous Peoples Law, MLS
Indigenous Peoples Law, LLM

Industrial Systems Engineering, M.S.
International Business Law, MLS

International Business Law, LLM

Master of Library and Information Studies

Museum Studies, M.A.

Natural Gas Engineering and Management, M.S.

Organizational Leadership, M.A

Population Health Certificate in Public Health (OUHSC)
Master of Public Health in Population \& Community Health (OUHSC)

Master of Social Work

- 60-credit hour program
- Advanced Standing program

Special Education, Master of Education
Strategic Communication and Digital Strategy, M.A.
Supply Chain Management, M.S.
Sustainable Architecture, M.S.
Sustainability - Energy \& Materials Management, M.S.

## ORIENTATION AND ADVISEMENT



## Orientation for New Students

Orientation for new students at the University of Oklahoma is a multi-step process designed to provide OU students with the knowledge, tools, and connections they need to succeed academically, personally, and socially.

The first step in the process is New Sooner Orientation (NSO). New Sooner Orientation is a key part of every new student's successful transition to OU. Parents and families are invited to attend New Sooner Orientation with their students to learn more about resources we have at OU! Students will also have the opportunity to meet with an academic advisor and enroll in their first semester of courses at OU.

The second step in the process is Camp Crimson. Camp Crimson is OU's premier orientation experience for all incoming students. Hosted during the eight days before fall classes begin, Camp Crimson helps students connect to other students and members of the OU community, engage in educational programs and events, complete mandatory first-year training, learn more about campus resources and traditions, and learn what it means to be a part of the OU family.

For incoming students who want to begin their journey with OU earlier, there is the Start Sooner program. Start Sooner allows incoming freshmen to get a head start on their college experience with a smaller cohort. Students will be able to move into the residence halls in July, take 6 hours of class, and explore Oklahoma.

## Introductory Courses

New students also have the opportunity to participate in one of two types of introductory courses during their first year of enrollment. These include:

- First-Year Foundations - OU's introduction to college course, assists students in the transition from high school to college. Firstyear students learn campus systems and policies, build essential academic skills (critical reading, time management, test-taking, etc.), explore major and career planning, and are introduced to campus resources. This course is an elective credit and doesn't count for major credit in any department.
- University Seminars-Each seminar is limited to 25 students and is taught by an individual faculty member who leads the students through an in-depth exploration of a specific intellectual topic.


## Facilities and Resources

- University of Oklahoma Libraries (p. 23)
- Information Technology (p. 25)


## Advisement

Knowing that academic advising is a key component to helping students graduate, our goal is to help students succeed academically so that they can fulfill their dreams and meet their potential. The Academic Success Center provides general advising for first-year students. The Academic Success Center focuses on helping students make the transition to the University, provides them with academic advising, and a variety of coaching activities to help them to succeed. During the freshman year, the OU Scholars Program provides specialized advising services to scholarship recipients of the Award of Excellence, Distinguished Scholar, Regents Award, National Award, and National Merit scholarships.

Once students earn 24 credit hours after two semesters at OU and move to a degree college, they will meet with an academic advisor before each term of enrollment. Students are advised either by academic counselors in the college office, professional advisors in the academic unit or by faculty advisers in their major. Academic advising is an integral part of the educational process and includes regular interaction and relationshipbuilding during each transition as a student navigates their academic career.

The Academic Advising Resource Center (AARC) serves as a resource for students and academic advisors alike. The AARC advises students who are going into their third or later semester and would like extra time in deciding on their academic major while being declared Exploratory. The AARC also works with students who need support during a period of academic repair so that the student can meet degree college admission standards. The AARC was established in 2011 and houses the Pre-Law, Pre-Medical Professions, and Exploratory Academic Advisors. The AARC uses the services of a Triage Advisor to help students navigate the academic advising system and who maintains the advising@ou.edu account. The AARC is in Cate 1, Room 418, 308 Cate Center Drive Rm. 418, Norman, OK 73019-2180, (405) 325-1596.

In addition to formal academic advising, students may select from a wide variety of additional academic and support services. Examples include academic life coaching sessions with trained and certified academic life coaches, workshops offered by the Student Learning Center and the Center for Student Life; individual career advising by Career Services; and academic assistance through the Writing Center and several tutoring programs.

## Student Support Services

Student Support Services, also known as Project Threshold, is an academic support program established in 1970 to serve students who are first-generation college, economically disadvantaged, disabled. The primary goal of this program is to increase retention and graduation rates of program participants.

To accomplish this goal, Project Threshold provides personal, academic, and financial aid counseling as well as academic tutoring. Small sections of freshman-level courses are offered to Threshold students to help ease the adjustment to larger college classes. The ethnic diversity of the staff further serves to provide the student with a sense of belonging.

Inquiries should be directed to Project Threshold, 215 Wagner Hall, 1005 Asp Ave., Norman, OK 73019-0315, (405) 325-6261, cpstell@ou.edu.

## Planning a Program

- If you have selected a major, learn all the requirements for your chosen degree program.
- If you are unsure of your major, make an appointment with a major exploration coach who can help you match your interests, skills and goals to possible majors
- Prepare a plan of study showing the courses you will take each semester that will complete requirements for graduation.
- The degree program should be designed according to the rules and regulations that govern enrollment and graduation. These rules and regulations can be found in the specific chapter of this catalog providing information about the college offering your major as well as the chapter, "Admission, Enrollment, and Graduation."
- Freshmen and sophomores who are unsure of a major should choose courses that will fulfill University-Wide General Education Requirements and provide exposure to disciplines that are of interest for selection of a major.
- Utilize the University General Catalog, the Degree Navigator system and degree checksheets to plan your program.
- Take basic required courses such as English composition and mathematics that provide a sound foundation for future successful enrollments early in the academic program.
- Include courses early in the program that are required for admission to the degree college offering the chosen major.
- Schedule upper-division courses for the junior and senior years with few exceptions in your schedule.
- Look into programs that will enhance your individual program such as study abroad, internships, and research opportunities.
- Balance enrollments to avoid including too many heavy reading courses, too many laboratory courses, or too many credit hours in one semester or term.
- Attempt to schedule all specifically required courses prior to the final enrollment.
- Plan the final semester with fewer hours to allow for such activities as job interviews.
- Plan an enrollment of 12-19 hours, according to academic ability and responsibilities outside of class, for the fall and spring semesters (6-9 hours are appropriate for the summer term). Most degree programs require 120 hours or more which averages out to 15 credit hours per semester to graduate in four years. Students should anticipate that each credit hour taken will normally require a minimum of two hours each week for study time outside of class.


## Graduation Plan

The University of Oklahoma has instituted a graduation plan for many degree programs. This plan requires the student and the University to sign a contract that guarantees the student can graduate in a specified period of time based on certain conditions that can be detailed when the student talks with an academic adviser on campus.

## University-Wide General Education

In today's global society, the most important contribution a university can make is to help prepare its students for a lifetime of change and a future as an educated and responsible citizen. OU's university-wide general education core curriculum, which was implemented in fall 1990 and updated in fall 2021, meets this challenge by providing a curriculum of required courses designed to help students think creatively, reason and communicate clearly, and adapt quickly to a rapidly changing world.

OU was the first college in the state - and among the pioneers nationally - to organize its general education requirements into a focused
curriculum that emphasizes the key areas of knowledge essential in today's society and life in the $21^{\text {st }}$ century.

In designing its general education curriculum, OU looked toward two new centuries-the 21st century, in which students will need to cope with global, societal and career changes - and OU's second century, in which it will continue to produce leaders for the state, nation and world. OU's general education curriculum is designed to help its students succeed after graduation, regardless of their field of endeavor. Because effective communication skills are essential, writing is emphasized across the general education curriculum. Courses also help students learn to express themselves orally, use mathematical analysis, examine and solve problems, explore the concepts and methodologies of the natural and social sciences, appreciate the creative arts, and better understand their own and others' cultural heritages. Courses are designed to foster enthusiasm, curiosity and a desire to continue learning.

## General Education Requirements

A minimum of 40 credit hours of general education courses is required for graduation. Some colleges or majors require students to complete additional hours of general education coursework or to take specific courses to fulfill general education requirements. The list of courses approved for general education credit is available in the Gen Ed Planner. Courses must be distributed among the following areas:

## I. SYMBOLIC AND ORAL COMMUNICATION (3-6 courses, 9-22 hours)

- English Composition (2 courses, 6 hours)
- Language (2 courses, 6-10 hours). This requirement can be satisfied by successfully completing two semesters of the same language at the college level equivalent to two semesters at OU. It also may be satisfied by successfully completing two years of the same language in high school or by demonstrating an equivalent level of competence on an assessment test. (Note: the Gaylord College of Journalism and Mass Communication, College of Arts and Sciences, and the College of International Studies require students to complete three semesters of college-level language or pass an assessment test. The College of Arts \& Sciences and College of International Studies requirement cannot be met by high school coursework. Some majors require a fourth semester of language.)
- Mathematics (1 course, 3 hours).
- Other. Courses in this category are not required, but may be used when additional credit hours are needed to bring the total hours completed to 40. Approved courses in this area include communication, logic and public speaking.
II. NATURAL SCIENCE (2 courses, 7-8 hours)
- At least two courses of three or more credit hours each and totaling a minimum of seven credit hours are required. The courses must be from different disciplines, and at least one course must include a laboratory component, denoted by [L] in the list of general education courses. (Note: the College of Arts and Sciences requires its students to complete one course in the Biological Sciences and one course in the Physical Sciences.)
III. SOCIAL SCIENCE (2 courses, 6 hours)

One course must be P SC 1113 American Federal Government, (three hours)
IV. ARTS \& HUMANITIES (4 courses, 12 hours)

- Artistic Forms (1 course, 3 hours)
- Western Culture (2 courses, 6 hours). One course must be HIST 1483 United States to 1865 or HIST 1493 United States, 1865 to the Present. The other course may not be History 1483 or History 1493.
- World Culture (1 course, 3 hours). Note: The Gaylord College of Journalism and Mass Communication, College of Arts and Sciences, and College of International Studies require additional upper-division Arts \& Humanities courses outside the major (2 courses, 6 hours).
V. FIRST-YEAR EXPERIENCE (1 course, 3 hours)


## VI. UPPER-DIVISION REQUIREMENT

- At least one of the courses (minimum of 3 hours) used to satisfy the general education requirements must be at the upper-division level and outside of the student's major.


## Academic Major, Minor, and Certificates

## Major (p. 55)

The major is the emphasis of study that provides depth of learning within the degree program. It is composed of specific requirements determined by the department through which the major is offered. Although many majors are highly structured, some offer flexibility, allowing choice of courses within preset guidelines. Each major is fully described in the section of this catalog where information is provided about the unit offering the major. Major exploration coaches are available to help you decide on a major.

See the Academic Majors (p. 55) page for an alphabetical list of majors offered at OU.

## Minor (p. 62)

The minor is a secondary and optional area of interest for depth of study. It can be closely related to the major to serve as a support area, or it can be unrelated. The department through which it is offered sets the requirements for the minor. Presently, the College of Architecture, College of Arts and Sciences, College of Atmospheric and Geographic Sciences, Price College of Business, College of Continuing Education (Aviation), Gallogly College of Engineering, Weitzenhoffer Family College of Fine Arts, College of International Studies, Joe C and Carole Kerr McClendon Honors College, and Gaylord College of Journalism and Mass Communication offer approved minor programs. The minors are made available by the colleges to all students within the University, except for those in the College of Business that are for business majors only. The minor programs are described in the section of this catalog where information is provided about the unit through which they are offered. Upon graduation, the student's official transcript will reflect completion of a minor if recommended by the student's degree college.

See the Minors (p. 62) page for the list of minors offered at OU.

## Certificates (p. 61)

Certificates are a separate credential and can be earned independently or in conjunction with a student's degree. The University of Oklahoma offers both undergraduate and graduate certificates. An undergraduate certificate represents a focused program of study on a specific topic that may be related or unrelated to the student's major. A graduate certificate represents completion of a set of courses that provides mastery of a specific area of knowledge and indicates an advanced, focused inquiry into an area of study.

See the Certificates (p. 61) page for an alphabetical list of both undergraduate and graduate certificates offered at OU.

## Preparing for Graduate and Professional Studies

When preparing for your future, we encourage you to consider graduate and professional studies. Advanced study can provide more in-depth research and creative experiences in your chosen field of study. You will work closely with faculty on particular subjects to develop the skills necessary for research and independent thought.

Graduate assistantships and internships provide additional opportunities to develop your skills and talents while working toward an advanced degree. Attendance at professional meetings can provide opportunities for valuable exchanges of information and ideas with colleagues in your discipline.

Career options are greatly enhanced by completion of an advanced degree, and we hope you will avail yourself of the opportunities that are available at the University of Oklahoma.

## Special Programs

## Academic Common Market

The Academic Common Market (ACM) is an interstate agreement coordinated by the Southern Regional Education Board for sharing some unique academic programs through an exchange of students across state lines wherein non-resident tuition charges are waived. Visit Academic Common Market for more information regarding the University's participation in the Academic Common Market

## Center for the Creation of Economic Wealth

Three Partners Place
201 David L. Boren Blvd, Suite 200 Norman, OK 73072-7264
Phone: (405) 325-2603
iccew@ou.edu
ccew.ou.edu

Formed in 2006, the Center for the Creation of Economic Wealth provides an interdisciplinary environment for researchers, entrepreneurs and students to collaborate in growing, strengthening and diversifying Oklahoma's economy through the nurturing of technology-based enterprises. The Center is a collaborative space that contributes to the entrepreneurial ecosystem of Oklahoma with numerous collegesupported programs that encourage innovation in the University and the broader Oklahoma business community, with locations in both Norman and Tulsa.

Administered by the University Vice President for Strategic Planning and Technology Development, the CCEW internship program offers student interns exposure to a variety of authentic business situations and distinguished executives. Additionally, CCEW interns engage in career development opportunities designed to propel their careers following graduation. The internship program has opportunities in technology commercialization, software development, social entrepreneurship, and product design and development.

## Education Abroad

Shanna Vincent, Director
Farzaneh Hall, Room 144
Norman, OK 73019-3061
Phone: (405) 325-1693

FAX: (405) 325-7387
ea@ou.edu
www.ou.edu/cis/education_abroad
The mission of Education Abroad is to further intercultural competency through safe, academically focused, professionally relevant, and personally transformative global opportunities for all OU students. Education Abroad develops programs aimed at increasing crosscultural awareness and emphasizing international education. The office maintains linkages with professional organizations at the state, national and international levels. This unit works in close liaison with colleges across campus to develop innovative and meaningful study abroad programs.

## International Study Centers

International Study Centers are the signature study abroad programs at the University of Oklahoma! Located in two attractive locations, students can take classes taught by OU professors, explore the language and culture of their host country, engage in meaningful dialog with locals, and get active with community service or through internships, while earning credit towards their degrees.

## - OU in Arezzo

OU in Arezzo is the University of Oklahoma's Italian Study Center. You will take classes taught by OU professors in the middle of Tuscany.

## - OU in Puebla

OU in Puebla is the University of Oklahoma's Mexican Study Center. It offers a unique blend of courses taught by OU professors and the immersive experience of being at a Mexican University.

## Faculty Led Programs

Faculty-led programs are designed so that you can take OU courses with OU professors while traveling around the world with other OU students. These programs have OU tuition and fees, so you can apply tuition waiver scholarships and any applicable financial aid. We offer a variety of longterm and short-term program options.

## Exchange Programs

Exchange programs allow you to take classes at a university abroad, but continue paying OU tuition and fees at your normal rate. These programs are highly independent and ideal for students who would like to be immersed in a new cultural and academic setting. Choose from longterm and short-term options.

## Affiliate Programs

Affiliate programs are facilitated by approved affiliate providers with which the University of Oklahoma has an active agreement. Affiliate programs offer a variety of academic courses and internship opportunities, which will show up as transfer credit on your transcript. Tuition and fees are paid directly to your affiliate provider, not to the University of Oklahoma. Some financial aid may still apply.

## Selection Criteria

Students are selected for study abroad programs based on the following criteria: grade point average, personal essay, academic standing, and letters of recommendation. For certain study abroad destinations with limited availability, the selection process is quite competitive. All students who qualify for study abroad are offered a location for study, but because of the competitive process, some may not be admitted to the school or destination that they most prefer. Contact the Education Abroad Office for application information.

## Center for English as a Second Language

Mary Martin, Director
Farzaneh Hall, Room 114
729 Elm Avenue
Norman, OK 73019
Phone: (405) 325-2351
FAX: (405) 325-7387
esl@ou.edu.
https://www.ou.edu/cis/cesl
The mission of the Center for English as a Second Language at the University of Oklahoma is to provide exemplary English language instruction, as well as cultural education to empower students to communicate successfully in social, academic, and professional settings. Established in 1988, the Center for English as a Second Language offers intensive English language courses on the Norman campus of the University of Oklahoma. CESL prepares students for the University by focusing on English for academic purposes, teaching American culture classes, and practicing American classroom culture. Students who go to CESL are better prepared for all aspects of attending universities in the United States.

## Expository Writing Program

## The Edith Kinney Gaylord Expository Writing Program

Catherine Mintler, Interim Director
Bizzell Memorial Library, Room 4
Norman, OK 73019-6030
Phone: (405) 325-3583
FAX: (405) 325-3678
expository.writing@ou.edu
www.ou.edu/expo/
The Expository Writing Program offers students the opportunity to sharpen their critical thinking, reading, and writing skills through the intensive examination of a particular topic. The defining feature of an Expo course is students' collaboration with their instructors.

## All Expo courses feature

- a guided investigation of a special topic
- seminar-sized class of no more than 16 students
- an emphasis on individual instruction and student/teacher collaboration
- an open, interactive classroom atmosphere


## International Student Services (ISS)

Jalal Daneshfar, Director
Farzaneh Hall, Room 144
729 Elm Avenue
Norman, OK 73019
Phone: (405) 325-3337
FAX: (405) 325-0197
iss@ou.edu
www.ou.edu/cis/iss
International Student Services (ISS) assists around 1800 international students and their dependents from over 100 countries. We provide immigration advising services to students on $\mathrm{F}-1$ and $\mathrm{J}-1$ visas, and fulfill the University's federal reporting requirement of international student information to the Student and Exchange Visitor Information System (SEVIS). We also provide international student programming services that include the New International Student Orientation experience, various workshops for international students on acclimating to life
in the US, and social and cultural events for students to engage with their international student community and to facilitate cross cultural exchange on campus. International students also have the opportunity to engage with the community beyond campus through excursions to sites across Oklahoma and through cultural exchange programs designed to introduce international students and their cultures to the greater Oklahoma community and to connect international students with local families.

F-1 and J-1 visas are issued by US consulates to qualifying students studying in the United States. F-1 visas are issued to students whose primary source of funding for college comes from personal or family funds. Most often these are long-term, degree-seeking students. J-1 visas may be issued to students whose primary funding for school comes from a third party, such as a university, corporation, nonprofit or the government. Most of OU's J-1 students are short-term exchange students, although we do have some degree seeking $\mathrm{J}-1$ students. International students must maintain their lawful visa status in order to pursue and complete their academic programs in the US. While it is the student's responsibility to maintain lawful visa status, we are here to offer guidance on immigration regulations and benefits.

F-1 and J-1 students studying on the Norman campus or on the Tulsa campus in Norman-based programs can get assistance from the ISS office in Norman, while F-1 and J-1 students studying at the OU Health Sciences Center (OUHSC) or on the Tulsa campus in OUHSC based programs are serviced by the HSC Admissions and Records Office.

## International Advisory Committee (IAC)

The International Advisory Committee (IAC) serves as the umbrella organization for the international student organizations at OU. IAC organizes and facilitates various intercultural, social, political, and intramural events among member international student organizations.

## OSLEP

## Oklahoma Scholar-Leadership Enrichment Program

The Oklahoma Scholar-Leadership Enrichment Program - OSLEP - is an intercollegiate academic program sponsored by the Oklahoma State Regents for Higher Education open to students at all the public and private universities in Oklahoma. Small groups of students selected from Oklahoma's four-year colleges and universities study with distinguished visiting scholars. Students tell us over and over again that being in an OSLEP class is one of the most rewarding experiences in their academic careers because of the unique learning environment, the time devoted to one subject, and the opportunity to develop a personal relationship with a world-famous scholar and make lasting friendships with students from around the state. Many of the visiting scholars present a free public lecture, open to the community. These programs always include a question \& answer session and an opportunity to meet and talk with the scholar. Interested students can contact the OSLEP office or visit www.oslep.org for the current schedule of seminars and additional information. The OSLEP office is located in Monnet Hall, Room 559, 630 Parrington Oval, 325-4309; email oslep@oslep.org.

## ORAU

## Oak Ridge Associated Universities (ORAU)

Since 1949, students and faculty of the University of Oklahoma have benefitted from its membership in Oak Ridge Associated Universities (ORAU). ORAU is a consortium of 91 colleges and universities and a contractor for the U.S. Department of Energy(DOE) located in Oak Ridge, Tennessee. ORAU works with its member institutions to help their students and faculty gain access to federal research facilities throughout
the country; to keep its members informed about opportunities for fellowship, scholarship, and research appointments; and to organize research alliances among its members.

Undergraduates, graduates, postgraduates, as well as faculty enjoy access to a multitude of opportunities for study and research through the Oak Ridge Institute for Science and Education (ORISE), the DOE facility that ORAU operates. Students can participate in programs covering a wide variety of disciplines, including business, earth sciences, epidemiology, engineering, physics, geological sciences, pharmacology, ocean sciences, biomedical sciences, nuclear chemistry, and mathematics. Appointment and program length range from one month to four years. Many of these programs are especially designed to increase the numbers of under-represented minority students pursuing degrees in science- and engineering-related disciplines.

ORAU's Office of Partnership Development seeks opportunities for partnerships and alliances among ORAU's members, private industry, and major federal facilities. Activities include faculty development programs, such as the Ralph E. Powe Junior Faculty Enhancement Awards, the Visiting Industrial Scholars Program, consortium research funding initiatives, faculty research, and support programs as well as services to chief research officers.

For more information about ORAU and its programs, contact Richard D. Elmore, Robert and Doris Klabzuba Professor of Geology and ORAU Councilor for the University of Oklahoma at (405) 325-3253; contact Monnie E. Champion, ORAU corporate secretary, at (865)576-3306; or visit the ORAU Home Page.

## University of Oklahoma Press

2800 Venture Dr., Norman, OK 73069-8216
Phone: (405) 325-2000
www.oupress.com
Since 1928 the University of Oklahoma Press has published awardwinning books that challenge readers to discover the past, contemplate the present, and shape the future. Committed to excellence, the Press publishes high-quality scholarly, regional, and general-interest books that offer readers valuable information, ideas, analysis, and research. During its long and distinguished history, OU Press has published more than 3,000 discrete titles, has over 1400 active titles, and maintains an inventory of approximately 750,000 books.

The OU Press publishes books in the humanities and social sciences and is the preeminent publisher of books on the American West and American Indians. the Press publishes approximately 80 books per year.

More than 1,500 University of Oklahoma Press titles are now available to libraries as electronic books (ebooks) through EBSCO host and ebrary, a division of Proquest. Many OU Press books are also available through Kindle, Nook, and Kobo ereaders and can also be read on personal computers, smart phones, iPads, and android tablets through a host of applications. The Press is committed to making its books available globally in the reader's choice of format.

## World Literature Today

630 Parrington Oval, Suite 110 Norman, OK 73019-4033
Phone: (405) 325-4531
www.ou.edu/worldlit/
World Literature Today, founded in 1927 as Books Abroad, is the University of Oklahoma's award-winning bimonthly magazine of international
literature and culture, now in its ninth decade of continuous publication. The magazine has been recognized by the Nobel Prize committee as one of the "best edited and most informative literary publications" in the world, and was recently called "an excellent source of writings from around the globe by authors who write as if their lives depend on it" (Utne Reader, 2005). WLT has received a dozen national publishing awards in the past ten years, including the Phoenix Award for Editorial Achievement from the Council of Editors of Learned Journals in 2002.

## Neustadt International Prize for Literature

The Neustadt International Prize for Literature, sponsored by World Literature Today, is an award that honors outstanding achievement in fiction, poetry, or drama and is open to writers in any language. Often referred to as the "American Nobel" for the high quality of its laureates, candidates, and jurors, the Neustadt Prize is the first international literary award of such scope to originate in the United States and is one of the very few international prizes for which poets, fiction writers and dramatists are equally eligible. Founded in 1969, the prize bears the name of the Neustadt family of Ardmore, OK, whose 1972 endowment has ensured funding of the award in perpetuity. Recipients include such noted authors as Gabriel García Márquez, Elizabeth Bishop, Czeslaw Milosz, Octavio Paz, Adam Zagajewski, Claribel Alegría, and Patricia Grace.

## The Puterbaugh Festivals

The Puterbaugh Festivals of World Literature \& Culture are sponsored by World Literature Today in collaboration with the University of Oklahoma's Departments of Modern Languages, Literatures and Linguistics and English. Originally named the Oklahoma Conferences on Writers of the Hispanic World, the series was endowed in perpetuity by the Puterbaugh Foundation of McAlester, Okla., in 1978. A rich tradition in support of literary and international studies at OU, the Puterbaugh Conferences bring the world's greatest authors to the OU campus for a course built around the writer's work, an international symposium, a public talk, and various meetings with students. Since 1968, the Puterbaugh Festival series has furthered the literary and international studies education of thousands of OU students. The most recent Puterbaugh fellows have included Bei Dao, Orhan Pamuk, Nélida Piñon, and J.M. Coetzee.

## NSK Neustadt Prize for Children's Literature

The NSK Neustadt Prize for Children's Literature is awarded every other year to a living writer or author-illustrator with significant achievement in children's or young-adult literature. Made possible through the generosity of Nancy Barcelo, Susan Neustadt Schwartz, and Kathy Neustadt and sponsored by WLT, the NSK Prize celebrates literature that contributes to the quality of children's lives. Candidates for the award are nominated by a jury of children's literature experts, and the jury also selects the winner of each biennial prize. Laureates receive a check for \$25,000, a silver medallion, and a certificate at a public ceremony at the University of Oklahoma and are featured in a subsequent issue of WLT. To date, the winners have included Mildred D. Taylor (2003), Brian Doyle (2005), Katherine Paterson (2007), Vera B. Williams (2009), Virginia Euwer Wolff (2011), and Naomi Shihab Nye (2013).

## - Veterinary Medicine

- Law

A student may qualify for the degree of Bachelor of Arts or Bachelor of Science at the end of their first year in an approved school of law, dentistry, medicine, osteopathic medicine, or veterinary medicine by fulfilling the requirements listed below. Items A-1 through A-4 must be completed prior to entering the professional school.

1. Combined Curriculum with the University of Oklahoma College of Medicine, College of Dentistry, or College of Law:
a. Complete at least 98 semester credit hours before entering the College of Medicine, College of Dentistry, or College of Law.
b. Earn at least 30 semester credit hours in residence at the University of Oklahoma.
c. Earn at least 15 semester credit hours of upper-division major credit courses at the University of Oklahoma
d. Earn at least 15 of the last 30 semester credit hours before entering the College of Medicine, College of Dentistry, or College of Law in residence at the University of Oklahoma.
e. Complete all other degree requirements of the College including the University's general education requirements, the College requirements, and all the major and major support requirements of a regular degree program.
f. Successfully complete the work of the first year in the College of Medicine, Dentistry, or Law.
2. Combined Curriculum with other Approved Schools of Medicine, Osteopathic Medicine, Dentistry, and Veterinary Medicine:

A student enrolled in a medical school approved by the Association of American Medical Colleges, in an Osteopathic Medical School approved by the American Osteopathic Association, in a dental school approved by the American Dental Association, or in a school of veterinary medicine approved by the American Veterinary Medical Association may receive the degree of Bachelor of Arts or Bachelor of Science upon the satisfactory completion of: Items A-2 through A-4 (above) and completion of at least 98 hours prior to entering the professional school and by satisfactory completion of the first year in the approved College of Dentistry, Medicine, Osteopathic Medicine or Veterinary Medicine.

## ACADEMIC SUCCESS CENTER



100 Wagner Hall 1005 Asp Avenue
Norman, OK 73019
Phone: (405) 325-3521
FAX: (405) 325-7383
ucquestions@ou.edu
www.ou.edu/univcoll

## Administrative Officers

Lillian D. Miller, M.Ed., Associate Provost
Missy McBride, MHR, Director of Operations
George Bogaski, Ph.D., Director, Assessment \& Academic Processes Analysis
Jonathan Vann, M.Ed., Director, Center for Student Advancement Janel Russell-Pendergraft, M.Ed., Director, Academic Advising Operations

Lauren Ledbetter, M.Ed., Interim Director, Center for Major and Career Exploration
Lori Stevens, M.Ed., Director, First-Year Learning and Engagement Josephine Kim, Ph.D. Director, Student Learning Center

## Academic Advising

Dana Anderson, Senior Academic Advisor Maggie Bartlett, Senior Academic Advisor
Sarah Flanagan, Senior Academic Advisor
Joey Cannon, Academic Advisor
Matt Hamilton, Academic Advisor
Darshana Patel, Academic Advisor
Megan Milan, Academic Advisor
Cassandra Negron, Assistant Director
Jay Owens, Academic Advisor
Hannah Oxsen, Assistant Director of OU Scholars Advising
Matt Regier, Assistant Director
Sadie Sieck, Academic Advisor
Lisa Velasco, Academic Advisor
Sunny Wenger, Academic Advisor
Travis Williams, Academic Advisor
Anthony Vogt, Academic Advisor
Nathaniel McKnight, Academic Advisor
Carlee Bressler, Academic Advisor

## General Information

The Academic Success Center serves as a university-wide student success center that provides outstanding academic support and further promote college retention and persistence efforts. The ASC empowers students to realize their academic goals at OU through comprehensive tutoring services, mentoring opportunities, transition courses, and leadership development opportunities. We strive to cultivate a culture of academic excellence and success for all students at the University of Oklahoma.

Professional academic advisors are available throughout the year to help students decide on majors, select appropriate courses, and become acquainted with University policies and resources. Our goal is to provide students with the support they need to succeed at the University of Oklahoma. In addition to taking courses required for their major(s) of interest, incoming students will also take courses common to all degree programs at the University. These include two courses in English composition, one course in American history, and one course in United States government (political science). Students will also enroll in courses required for general education, courses required for the major, or courses designed to explore various fields of interest. Students may also take courses to supplement their high school background or to help them be successful in college.

## Programs \& Facilities

- University of Oklahoma Libraries (p. 23)
- Information Technology (p. 25)


## Support Courses and Programs

## Making the Transition to College: Courses for First-Year Students

The Academic Success Center works diligently to provide courses that meet our mission of helping students successfully transition to the University of Oklahoma by establishing a space of belonging, a place for flourishing, and a foundation for further academic success.

- Foundations for College Learning, UNIV 1002: OU's introduction to college course; assists students in the transition from high school to college. First-year students build skills critical to their success, explore major and career planning, learn about campus policies, procedures and resources, and build a community with other firstyear students.
- University Seminar, UNIV 1022: developed and taught by an individual faculty member who leads students through an in-depth exploration of a specific intellectual topic.
- Introduction to the College Experience, UNIV 1013: assists students in the transition from high school to college. Focus is placed on both the characteristics and behavior of the successful college student.
- Exploring Careers, UNIV 1031: gives students the opportunity to engage in self-assessment, research careers, investigate additional academic opportunities, and create action plans to prepare for postcollege careers.
- Strategies for Success, UNIV 2001: designed for Academic Success Center students whose OU GPA has dropped below a 2.0; helps students recognize and overcome obstacles that prevent them from reaching their full potential.
- Choosing a Major, UNIV 2021: leads students through the majors and minors that OU has to offer, and helps students find their own interests and strengths.
- Transitions for Transfer Students, UNIV 3001: introduces transfer students to the academic requirements, policies, and resources at the University of Oklahoma.
- First-Year Student Mentoring, UNIV 1210: provides students the opportunity to build relationships with faculty, increase their network base, and gain valuable life experience.


## First-Year Student Mentoring Program

The First-Year Student Mentoring Program matches entering students and experienced faculty mentors to help create nurturing and personal relationships, thus easing the transition from high school to college. This program provides students opportunities to build connections with faculty and gain valuable life experience. It is a chance to become acquainted with someone who is personally interested in the student's success, and who can guide a student through the complexities of university life. The minimum expectation of the mentoring program is that the student will meet with the mentor twice during the fall semester. To participate, a student will enroll in UNIV 1210. This is a zero-credit course, which costs nothing. A student who participates throughout the semester will receive a grade of " S " (satisfactory).

## Center for Student Advancement

The Center for Student Advancement (CSA) is committed to providing programs and services that promote the retention and success of students experiencing academic challenges. CSA offers courses entitled Strategies for Success and Transitions and oversees the First-Year Student Mentoring Program. CSA is open for student walkins or appointments. For more information on the Center for Student Advancement, call 405.325.2574 or go to Wagner Hall 150.

## New Sooner Orientation Program

Beginning in mid-May and continuing throughout summer, the Academic Success Center supports incoming students through the New Sooner Orientation Program. This program allows students and their parents to spend a day on campus in small groups, accompanied by student guides who are current OU students. Activities include attending information sessions, meeting with academic advisors to discuss majors and select courses, visiting with other campus services and resources, and enrolling in fall classes. Students leave the campus with an appropriate schedule and a sense of what they can look forward to in the fall.

## Entry-Level Assessment

The Assessment Center provides assessment and course placement services for new and transfer students to give them the best possible chance of success in attaining their academic goals. All new students at the University of Oklahoma will be assessed in three areas: reading, English, and mathematics. The American College Test (ACT) or the Scholastic Aptitude Test (SAT) will be used as the preliminary screening instruments for English and reading. The Math Offers Model (a placement generated by OU's Assessment Center) will be the preliminary screening for mathematics. Students will be placed in the appropriate course based upon their assessment scores and choice of major. Those not placing into the needed class will use a secondary assessment for placement-Accuplacer for English and Reading, and ALEKS for mathematics These assessments are used to provide academic advisors with information on students' current skill levels. If the test results indicate a need for improvement in any of these areas, an academic advisor can help students select courses designed to develop or enhance skills.

## Math Placement Assessment

The University of Oklahoma requires all first-time OU students or transfer students who need to enroll in a math course to first use the Math Offers Model to see if they can place in the desired class without taking a test. Those that are not placed in a class via the Math Offers Model will take the ALEKS Mathematics Placement Assessment to determine their proper math course placement. The ALEKS Placement Assessment covers material from basic math through pre-calculus and will provide an accurate indication of a student's math skills and a recommended course placement. See Math Assessment for more information.

## Reading Placement Assessment

All incoming OU students with an ACT reading sub-score of an 18 or less are required to take a Reading Placement Assessment to determine whether they must take a developmental reading course before moving on to higher reading leveled courses. There are no enrollment restrictions for students with an ACT reading sub-score of 19 or higher. If a student is admitted Test Optional, our predictive models will determine if a person needs to take the Accuplacer assessment. See Reading Assessment for more information.

## English Placement Assessment

All incoming OU students with an ACT English sub-score of an 18 or less are required to take an English Placement Assessment to determine whether they must take a developmental English course before moving on to ENGL 1113. There are no enrollment restrictions for students with an ACT English sub-score of 19 or higher. If a student is admitted Test Optional, our predictive models will determine if a person needs to take the Accuplacer assessment. See English Placement for more information.

## Academic Success Center Action Tutoring

The Student Learning Center offers free tutoring sessions through the ASC Action program. This nationally certified program offers walk-in sessions, small group appointments, online tutoring, and/ or faculty directed sessions to help students take action towards their own academic success. The SLC also offers one-on-one study skills consultations on topics such as time management, effective note taking, and study strategies.

## Undergraduate Students

## Admission to a Degree-Recommending College

A student may be admitted to one of the degree-recommending colleges on the Norman campus if they have declared a major, completed a year of coursework, and achieved an overall grade point average required for entrance into that college. Admission to the degree-recommending colleges at the OU Health Sciences Center requires a separate application process and is governed by requirements unique to each college or program.

## Major Exploration and Advising for Undecided Students

Many students in the Academic Success Center have not yet chosen an academic major, and many of the students who have declared a major will change their majors during their first year. The Academic Success Center offers students the unique opportunity to take a semester or more to explore different career options and academic majors. Rather than making an uninformed decision, students are encouraged to evaluate options by enrolling in exploratory classes, completing inventories designed to assess abilities and interests, and interacting with major exploration coaches who are experienced in working with undecided students.

MyMajors and SuperStrong are interest inventories designed to aid students with the process of selecting a major and/or a career and are available to all OU students through the Academic Success Center. These programs allow students to explore careers and the relationship between choosing a career and choosing an academic major. Major exploration coaches in the Academic Success Center can meet with students and, using results from career assessments and their familiarity with all OU majors, help students narrow their focus on select majors and careers.

## Pre-Health Professions Advising

The Academic Success Center advises students seeking to enter professional health fields such as communication sciences and disorders, dental hygiene, nursing, nutritional sciences, occupational therapy, physical therapy, and the radiologic technologies. The assistance of an academic advisor is especially important to pre-health profession students who want to complete their admission requirements while maintaining a competitive grade point average for admission to the University of Oklahoma Health Sciences Center.

## Academic Success Center Enrollment Policies

## All-University Writing Requirement

All University of Oklahoma students must complete a university writing requirement consisting of six hours of English Composition and/or Expository Writing (ENGL 1113 and ENGL 1213 or EXPO 1213). Any student who has not fulfilled the requirement is encouraged to enroll in English and/or Expository Writing.

## Pass/No Pass Option

First-year students in the Academic Success Center may not enroll in courses on a P/NP basis. Students in the Academic Success Center who are above freshman standing may enroll in courses on a P/NP basis only if they have a declared major and the approval of that major department.

## Forty-Five Hour Rule

Students who have attempted 45 or more semester hours, based on grades of $A, B, C, D, F, I, P, N P, S$ and $U$, may enroll or continue to enroll in the Academic Success Center only with a 2.00 or higher grade point average in their last OU enrollment period or with a 2.00 or higher OU retention grade point average

## Academic Probation

Students on academic probation must be advised by an academic advisor in the Academic Success Center before they may enroll for the next semester.

## Student Responsibilities

All colleges and universities have requirements that must be met in order to earn a degree. These include coursework in both general education areas and courses in a specific major, as well as compliance with academic standards and policies. Although academic counselors and departmental advisors are available to help students plan their programs of study, students have an individual, three-fold responsibility in this regard:

1. to know their academic standing relative to published standards;
2. to understand the published degree requirements; and
3. to know and observe academic deadlines, as established in the University's Academic Calendar.

## Opportunities

## Awards/Honors/Scholarships

## PACE Awards

PACE awards represent outstanding accomplishments in four areas of student performance during the fall semester only.

The PACE acronym is interpreted as:

- Participation in recognized campus clubs and activities
- Academic achievement with a minimum of 3.25 in 14 hours
- Community service either on campus or in the metro area
- Excellence in leadership positions on campus including residence life

First-year students may be nominated by faculty, staff, academic advisors, organization sponsors, student organization presidents, and housing resident advisors, or students may self-nominate. A committee composed of the Academic Success Center administrators and staff reviews all nominations and then selects up to one percent (1\%) of the total number of entering freshmen in any given year as PACE recipients. All applications must be completed by February 1 st each year.

## McLaughlin Balch Awards

These awards honor Mr. Dennis McLaughlin, a long-time benefactor of the Academic Success Center, and his grandmother, Ann Balch, who greatly valued education. The awards are given to several of our top students in the Academic Success Center. Recipients are selected from PACE Award applicants.

## Myrna Carney Award

The Myrna Carney award is a special Academic Success Center Award, established to honor Dr. Myrna Carney for her 24 years of service as Assistant Dean in the Academic Success Center. Recipients are selected from PACE Award applicants.

## Sylvia Corwin Education Award

This award seeks to honor the most promising first-year student pursuing a career in Elementary Education. Recipients are selected from PACE Award applicants.

## Dan Tankersley "Boot Strap" Award

This award, presented by the Center for Student Advancement, assists and rewards students who have overcome life obstacles and demonstrated academic perseverance to progress toward graduation. Recipients are selected from PACE Award applicants.

## Milton V. Brown Scholarship

The Milton V. Brown Scholarship was established in 1986 by the Milton V. Brown Foundation. The scholarship honors a student with a strong work ethic, who is earning their way through college. Mr. Brown writes: "I seek a student who, despite obstacles and difficulties, has managed to overcome them and qualify for a college education." The scholarship continues for a total of six semesters.

## Alpha Lambda Delta National First-Year Honor Society

The national first-year honor society, Alpha Lambda Delta, is sponsored by the Academic Success Center First-Year Learning and Engagement Office. Students must have completed a minimum of 12 letter-graded semester hours during their first fall term with at least a 3.5 fall OU GPA and no grades of I, N, D, F, or U for fall semester. They must also accept the invitation sent by email in early January and pay the required dues online by the posted deadline date.

## Courses

UNIV 1002 Foundations for College Learning 2 Credit Hours
Prerequisite: Freshman standing and departmental permission. This course aids students in making a successful transition from high school to college and creating a foundation for future success. Students develop critical skills for college-level learning, managing time, exploring career pathways, financial planning, healthy living, connecting to campus resources, etc. Class sizes of 20-24 foster active learning and connection with the instructor, peer mentor, and classmates. (F, Sp)
UNIV 1013 Introductory Seminars
3 Credit Hours
Prerequisite: departmental permission. This course is intended to assist students in the transition from high school to college. Focus is placed on both the characteristics and behavior of the successful college student. Topics to be covered include, but are not limited to, study skills, time management, goal setting, major and career exploration, financial planning, physical and mental health, and personal and civic responsibility. (F, Su)

UNIV 1022 University Seminar 2 Credit Hours
Prerequisite: departmental permission. This course is intended to assist students in the transition from high school to college. Focus is placed on both the characteristics and behavior of the successful college student. Topics to be covered include, but are not limited to, study skills, time management, goal setting, major and career exploration, financial planning, physical and mental health, and personal and civic responsibility. (F, Su)

## UNIV 1023 Majors and Money <br> 3 Credit Hours

Prerequisite: Concurrent students only and departmental permission. This hybrid course merges major exploration and financial management. It dives into how values, interests and skills connect to major and career options as well as the decision-making process. It looks at how to manage your money during your college years and beyond, focusing on personal finance topics \& issues that are practical and relevant now and for the future. (Irreg.)

UNIV 1031 Exploring Careers
1 Credit Hour
Designed for students who have decided on a major and are beginning the process of exploring their career options. Students will have the opportunity to engage in self-assessment, perform career research, investigate additional academic opportunities, and create action plans to prepare for post-college careers. ( $\mathrm{F}, \mathrm{Sp}$ )

## UNIV 1210 First-Year Student Mentoring

0 Credit Hours
Introduction to the academic community; individual and group meetings to encourage student-faculty interaction and foster awareness of academic and cultural resources available to freshmen. (F, Sp)

## UNIV 2001 Strategies for Success

1 Credit Hour
Prerequisite: Departmental permission; may be repeated; maximum credit two hours. Strategies for Success assists students in reaching their academic potential. It is required for first-year students with an OU GPA below 2.0 and available, by permission, to other students who are in need of academic recovery and assistance. This course will emphasize holistic support which includes academic skills, time management, motivation, goal setting, wellness, majors and career, and finances. (F, Sp)

UNIV 2021 Choosing a Major
1 Credit Hour
Designed to help students decide on a major that fits their personality, interests, skills, and goals. Working through the decision-making process, this activity-based class uses self-assessments, group discussions, and in-class research to explore majors and careers. Students will decide on a major or narrow their options, and have the skills and resources needed to make decisions about future career choices. (F, Sp)

UNIV 2970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: May be repeated; Maximum credit nine hours
Special topics course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research, and field projects. (Irreg.)

UNIV 3001 Transitions for Transfer Students 1 Credit Hour
Prerequisite: must be a transfer student. Introduces transfer students to the academic requirements, policies, and resources at the University of Oklahoma. Students will learn about academic advising, transfer credit, degree programs, resources, student life, and methods for achieving academic success at a four-year research institution. (F)

UNIV 3440 Mentored Research Experience
3 Credit Hours
0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)

UNIV 4970 Special Topics/Seminar 1-3 Credit Hours 1 to 3 hours. Prerequisite: Senior standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

## CAREER PLANNING



## Career Center

Career planning and decision-making is a continuous process requiring active involvement in the investigation of self, education, and career possibilities. There are two main approaches to choosing a major and relating it to a career goal:

1. Choose a major because it is intellectually stimulating and develop a career goal gradually while progressing through the program; or,
2. Decide on a career goal first and then choose a major that will provide the best preparation for that career.

Whichever method you use, it is important to identify your skills, interests, and values; to explore majors and their relationships to careers.

Developing educational plans and career goals are closely related, and the University offers a broad range of assistance to its students. Academic advisors from the various colleges and/or departments can help you select your academic major and plan a course sequence to fulfill degree requirements. In addition to the Academic Success Center and the individual college and departmental advisement units, the following offices can be helpful:

Assessment Center, Wagner Hall, ucac@ou.edu, (405) 325-4336
Career Center, Oklahoma Memorial Union, Suite 323,
careercenter@ou.edu, (405) 325-1974

## Co-ops and Internships

Cooperative education, internships, and practicums, which are available in a wide variety of settings, can make students' academic study come alive by providing practical experience related to their academic goals. This experience can help students evaluate their career choices and enhance their employability upon graduation. More than 50 undergraduate fields of study offer positions, ranging from informal arrangements between a professor and a business colleague to formal, required internships. Some internships are paid positions; other field experiences may provide the opportunity to earn credit toward a degree while gaining practical work experience. Co-ops are always paid experiences. Visit the Career Center to identify openings and opportunities and contact the representative who coordinates specialized programs through your academic department. The Career Center will help
you learn the job-search skills and techniques necessary to be successful in the application process. For additional information, contact the Career Center, 3rd floor Oklahoma Memorial Union, (405) 325-1974.

If you participate in the available programs and services, you can enjoy the satisfaction of the rich experiences offered by the University of Oklahoma. It's your future; plan it wisely.

## Career Planning Calendar

## Freshman Year

- Sign in and explore your Handshake account - including the mobile app. Start filling out your profile with experience, coursework, and involvement.
- Make an appointment with a Career Advisor to explore and join a Career Community and receive career advice.
- Identify your personal interests and determine your career goals
- Get involved with campus organizations and activities.
- Take one of the free career assessments through the Center for Major \& Career Exploration.
- Apply for summer jobs and/or study abroad programs.
- Maintain good grades. A great GPA will help you stand out.
- Sign up to volunteer at one of the OU Career Center job \& internship fairs.


## Sophomore Year

- Update your profile on Handshake, review the job board, and explore the resources to apply for internships or co-ops.
- Make an appointment with a Career Advisor to create a winning resume.
- Attend on-campus and virtual events featuring employers of interest
- Sign up to volunteer at one of the OU Career Center job \& internship fairs.
- Join a campus organization or apply for an on-campus job that relates to your major or career interest(s).
- Get a professional headshot taken during headshot drop-ins at the OU Career Center.
- Apply for summer jobs and/or study abroad programs.
- Update or join a Career Community through Handshake


## Junior Year

- Update your Handshake profile and create your LinkedIn account to research employers in your field by viewing the company's page or website.
- Enhance your job search, business etiquette, and interviewing skills by using the resources available through the Career Center
- Actively develop leadership through campus organizations by taking on an officer or committee member position.
- Attend job \& internship fairs to expand your network and apply for internships or co-ops.
- If your career path requires graduate or professional school, research what you need to advance.
- Update or join a Career Community through Handshake.


## Senior Year

- Make sure your Handshake and LinkedIn profiles are updated, and your resume is ready to go.
- Attend job \& internship fairs dressed professionally, prepared with questions to ask employers, and ready to distribute resumes.
- Attend meetings of professional associations as a student member to network with professionals in your field.
- Update or join a Career Community through Handshake.
- Visit Career Community pages to find specific industry job sites.
- Review and apply for full-time positions through Handshake and Linkedln, and other job search sites related to your career interests
- Complete the Post-graduation survey on Canvas, updating your future plans for full-time employment or continued education.


## Academic Planning Calendar

## Freshman Year (0-30 hours)

- Complete required freshman English composition courses (ENGL 1113 and ENGL 1213).
- Complete General Education Math requirement.
- Complete General Education First-Year Experience requirement.
- Complete all other course requirements and any necessary application procedures for admission to the Norman campus degree college of choice by the end of the freshman year.
- Complete any necessary testing for admission to major programs and degree colleges, such as the PPST (Pre-Profession Skills Test), as needed for admission to a teacher education program in the College of Education or the Language Skills Test for admission to a journalism and mass communication program in the Gaylord College of Journalism and Mass Communication.
- Interested students not previously admissible to the Honors Program should apply for admission as soon as the necessary hours and grade point average are acquired.


## Sophomore Year (30-60 hours)

- Complete remaining requirements and the application procedures for admission to the degree college of choice at the University of Oklahoma Health Sciences Center.
- Complete required courses and application procedures for formal acceptance into such Norman campus programs as health and exercise science, journalism and social work.
- Finalize decision about choice of major or run the risk of delaying graduation (some of the highly structured programs such as engineering require firm decisions during the freshman year).
- Consider study abroad programs.


## Junior Year (60-90 hours)

- Consider double major, minor, and area of concentration.
- Complete any necessary testing and application procedures for admission to professional schools (such as the MCAT and application to medical schools the second semester).
- Request initial graduation check from degree college office during the last semester of the junior year.
- Consider such post-baccalaureate options as Fulbright Grants and Rotary Scholarships.


## Senior Year (90 hours and above)

- All requests for program adjustments should be made no later than the beginning of the senior year.
- Request final graduation check from degree college early in the last term of enrollment.
- Apply for graduation during the last term of enrollment (applications should be submitted by December 1 for spring, March 1 for summer and May 1 for fall).
- Satisfy all remaining requirements for the degree program, including courses, hours, grade point average, residence, and any additional requirements for anticipated distinguished degree.
- Apply for admission to post-baccalaureate programs and complete any required testing.
- Degrees are formally conferred at spring commencement. Degrees are awarded and diplomas mailed at the end of each semester and summer session.

It is the student's responsibility to meet deadlines and all other requirements from the beginning of the freshman year through graduation. Information about deadlines and requirements is available from advisors.

## STUDENT AFFAIRS



Oklahoma Memorial Union
900 Asp Avenue, Suite 265
Norman OK 73019
(405) 325-3161
studentaffairs@ou.edu
ou.edu/studentaffairs

## Our Mission

The mission of Student Affairs is to enhance students' academic success by developing student skills, cultivating diverse, campus life experiences and enriching the university community through programs and services.

## Vice President's Office

- Meet the Team


## Student Affairs Departments, Programs, \& Services

Student Affairs is responsible for the portion of the collegiate experience that occurs outside the classroom.

- See our Departments, Programs, \& Services


## Report an Incident

- View Reporting Tools


## ACADEMIC AFFAIRS



124 Ellison Hall
633 Elm Ave.
Norman, OK 73019
Phone: (405) 325-441
Fax: (405) 325-7429
mds@ou.edu
www.ou.edu/cas/students/academic-advising

## Academic Advising:

Ryan Peters (ryanpeters@ou.edu) Students with a last name of A-M Phoenix Miranda (nixmiranda@ou.edu): Students with a last name of N-Z

## Multidisciplinary Studies

Multidisciplinary Studies (MDS) is an individualized major program that allows students with a specific field of study interest that is not covered by any available OU major the opportunity to design their own degree program. This process is discussed and overseen by the student's assigned MDS academic advisor and all plans are reviewed through the Provost office. This is a highly selective and rigorous program and there is no guarantee that an application will be approved. A student's major design should include a minimum of synthesizing content from two disciplines (typically the minors from those fields) plus additional supporting courses to the selected field of study.

## Graduation Requirements

The MDS major requires a minimum GPA of 2.00. Students within the MDS major program must complete a minimum of 120 total college credit hours with at least 48 hours at the upper division (3000-4000 level). Within these total hours students must also fulfill all stipulated General Education and designed major requirements.

## Graduate Certificate in Community Engagement

The Graduate Certificate in Community Engagement is offered through Academic Affairs in Norman and through the Graduate College in Tulsa. The curriculum builds on the learner's existing knowledge and skills in their respective degree programs and provides additional knowledge, tools, and skills needed to be a highly effective agent of change to positively influence and promote a thriving community and help its members to optimize their potential.

## Programs Offered

- Multidisciplinary Studies, B.A. (p. 82)
- Multidisciplinary Studies, B.S. (p. 83)
- Community Engagement, Graduate Certificate (p. 84)


## Courses

EXPO 1113 Principles of Expository Writing 3 Credit Hours
Prerequisite: ACT English 19 or ACT English (CICS) 19 or Undergraduate level ENGL 0113 Minimum Grade of D or Compass English 085 or Compass Writing Placement C or SAT Verbal 450 or SAT Verbal (CICS) 450. An introduction to the basic genres and methodologies of academic writing, with an emphasis on argumentation and audience analysis. For descriptions of section topics go to http://www.ou.edu/expo.html. (F, Sp) [I-ENGL].

EXPO 1213 Expository Writing
3 Credit Hours
Prerequisite: ENGL 1113, EXPO 1113 or faculty permission. Students will study and practice the craft of writing through four series of sequenced writing assignments that are attuned to selected readings in the particular topic of the course (http://www.ou.edu/expo.html). Freshmen exempted from the requirement of a 1200 -level writing course may sign up for EXPO 1223, which signifies that the student will receive lower division western civilization and culture credit. (F, Sp) [I-ENGL]

## EXPO 1223 Expository Writing

3 Credit Hours
Prerequisite: ENGL 1113 or equivalent or faculty permission. Students will study and practice the craft of writing through four series of sequenced writing assignments that are attuned to selected readings in the topic around which the course is organized (http://www.ou.edu/expo.html). Freshmen exempted from the requirement of a 1200 -level writing course may sign up for EXPO 1223 which signifies that the student will receive lower-division western civilization credit. ( $\mathrm{F}, \mathrm{Sp}$ ) [IV-WC]

EXPO 3440 Mentored Research Experience 3 Credit Hours 0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)

EXPO 4980 Independent Research
1-3 Credit Hours
1 to 3 hours. Prerequisite: ENGL 1213, sophomore standing, and permission of department. May be repeated with change of content; maximum credit six hours. An upper-division course used by students to complete independent research projects of their own design under the guidance of Expository Writing faculty. (F, Sp)

OCL 5603 The Science of Community Engagement 3 Credit Hours Prerequisite: Graduate standing. This course provides an evidence-based foundation of knowledge to prepare participants for the collaborative world of community engagement. Lectures/discussions will cover a range of subjects including organizational dynamics, anatomy of a community, and aspects of community observation and interaction. Levels of helping and psychology of helping and being helped will also be covered. (Irreg.)

OCL 5613 The Tools of Community Engagement 3 Credit Hours Prerequisite: Graduate standing and OCL 5603. The course focuses on methods of conducting community assessments, theories of developing and implementing programs and systems of change, public policy and administration as modes of transformation, and measuring successes and program evaluation. (Irreg.)

OCL 5623 Community Engagement Apprenticeship 3 Credit Hours
Prerequisite: Graduate standing, OCL 5603, and OCL 5613. Learners will work with a mentor associated with a community partner. The apprenticeship entails shadowing, observing, and actively learning from a community partner mentor that provides a "deep dive" into community engagement. During the course of the apprenticeship, the learner will identify a key problem or issue within the community partner organization and formulate a "Capstone Prospectus." (Irreg.)
OCL 5633 Community Engagement Capstone
3 Credit Hours
Prerequisite: Graduate standing, OCL 5603, OCL 5613, and OCL 5623. Learners will apply all they have learned in the preceding courses to address a real-world problem or issue affecting a community partner. In this course, learners will implement the program they developed in the Community Engagement Apprenticeship course. Learners will collect measures and other forms of data at baseline and at points following implementation of their program. (Irreg.)
$\begin{array}{lll}\text { OCL } 6813 & \text { Prospectus Development for Doctoral Dissertation } & 3 \\ \text { Credit } & \text { Hours }\end{array}$
Prerequisite: Graduate standing and departmental permission. May be repeated; maximum credit six hours. The course is designed for advanced doctoral students/candidates. Students will develop a research topic and write a topic proposal as a starting point to work from and further develop with the dissertation chair and committee. (F, Sp, Su)

OCL 6980 Research for Doctoral Dissertation 2-16 Credit Hours
2 to 16 hours. Prerequisite: Graduate standing and permission of instructor; May be repeated. Directed research culminating in the completion of the doctoral dissertation. (F, Sp, Su)

## OCL 6990 Independent Study

1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing and permission of instructor. May be repeated with change of content; maximum credit twelve hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Individual research in areas of organizational and community leadership. Independent study may include library and/or laboratory research and field projects. Specific objectives and work requirements should be established by prior agreement between the instructor and student. (F, Sp, Su)
UNIV 1000 University Course 16 Credit Hours
Prerequisite: variable, generally at freshman level. May be repeated without restriction with change of subject matter. An interdisciplinary course, with subject matter, credit and format variable, and usually of an ad hoc and/or experimental nature. (F, Sp, Su)
UNIV 1002 Foundations for College Learning 2 Credit Hours Prerequisite: Freshman standing and departmental permission. This course aids students in making a successful transition from high school to college and creating a foundation for future success. Students develop critical skills for college-level learning, managing time, exploring career pathways, financial planning, healthy living, connecting to campus resources, etc. Class sizes of 20-24 foster active learning and connection with the instructor, peer mentor, and classmates. (F, Sp)
UNIV 1013 Introductory Seminars 3 Credit Hours
Prerequisite: departmental permission. This course is intended to assist students in the transition from high school to college. Focus is placed on both the characteristics and behavior of the successful college student. Topics to be covered include, but are not limited to, study skills, time management, goal setting, major and career exploration, financial planning, physical and mental health, and personal and civic responsibility. (F, Su)

UNIV 1022 University Seminar
2 Credit Hours
Prerequisite: departmental permission. This course is intended to assist students in the transition from high school to college. Focus is placed on both the characteristics and behavior of the successful college student. Topics to be covered include, but are not limited to, study skills, time management, goal setting, major and career exploration, financial planning, physical and mental health, and personal and civic responsibility. (F, Su)

UNIV 1023 Majors and Money
3 Credit Hours
Prerequisite: Concurrent students only and departmental permission. This hybrid course merges major exploration and financial management. It dives into how values, interests and skills connect to major and career options as well as the decision-making process. It looks at how to manage your money during your college years and beyond, focusing on personal finance topics \& issues that are practical and relevant now and for the future. (Irreg.)

UNIV 1031 Exploring Careers
1 Credit Hour
Designed for students who have decided on a major and are beginning the process of exploring their career options. Students will have the opportunity to engage in self-assessment, perform career research, investigate additional academic opportunities, and create action plans to prepare for post-college careers. (F, Sp)

## UNIV 1210 First-Year Student Mentoring

0 Credit Hours
Introduction to the academic community; individual and group meetings to encourage student-faculty interaction and foster awareness of academic and cultural resources available to freshmen. (F, Sp)

UNIV 2000 University Course 1-16 Credit Hours Prerequisite: variable, generally at sophomore level. May be repeated without restriction with change of subject matter. An interdisciplinary course, with subject matter, credit and format variable, and usually of an ad hoc and/or experimental nature. (F, Sp, Su)
UNIV 2001 Strategies for Success
1 Credit Hour
Prerequisite: Departmental permission; may be repeated; maximum credit two hours. Strategies for Success assists students in reaching their academic potential. It is required for first-year students with an OU GPA below 2.0 and available, by permission, to other students who are in need of academic recovery and assistance. This course will emphasize holistic support which includes academic skills, time management, motivation, goal setting, wellness, majors and career, and finances. (F, Sp)
UNIV 2021 Choosing a Major
1 Credit Hour
Designed to help students decide on a major that fits their personality, interests, skills, and goals. Working through the decision-making process, this activity-based class uses self-assessments, group discussions, and in-class research to explore majors and careers. Students will decide on a major or narrow their options, and have the skills and resources needed to make decisions about future career choices. ( $F, S p$ )

## UNIV 2970 Special Topics/Seminar 1-3 Credit Hours

1 to 3 hours. Prerequisite: May be repeated; Maximum credit nine hours. Special topics course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research, and field projects. (Irreg.)
UNIV 3000 University Course
16 Credit Hours
Prerequisite: variable, generally at junior level. May be repeated without restriction with change of subject matter. An interdisciplinary course, with subject matter, credit and format variable, and usually of an ad hoc and/ or experimental nature. (F, Sp, Su)

UNIV 3001 Transitions for Transfer Students 1 Credit Hour Prerequisite: must be a transfer student. Introduces transfer students to the academic requirements, policies, and resources at the University of Oklahoma. Students will learn about academic advising, transfer credit, degree programs, resources, student life, and methods for achieving academic success at a four-year research institution. (F)

UNIV 3440 Mentored Research Experience 3 Credit Hours 0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)
UNIV 4000 University Course
16 Credit Hours
Prerequisite: variable, generally at senior level. May be repeated without restriction with change of subject matter. An interdisciplinary course, with subject matter, credit and format variable, and usually of an ad hoc and/ or experimental nature. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

UNIV 4970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: Senior standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)
UNIV 5000 University Course 16 Credit Hours
Prerequisite: variable, Graduate level. May be repeated without restriction with change of subject matter. An interdisciplinary course, with subject matter, credit and format variable, and usually of an ad hoc and/or experimental nature. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

## Multidisciplinary Studies, B.A.

Minimum Total Credit Hours: 120
Major Hours: 30
Minimum Upper-Division Hours: 48

Overall GPA - Combined and OU: 2.00
Major GPA - Combined and OU: 2.00
Program Code: B700

## Major Requirements

- Some courses required for the major may also fulfill University General Education Requirements.

Every candidate for this degree must select a major theme, which is a set of courses that meets the student's professional and personal goals. These courses must total a minimum of 30 credit hours, with a minimum of 18 hours completed at the upper-division level (3000-4000-level).

Courses should be selected in consultation with an MDS advisor to submit a Proposed Plan of Study and MDS Questionnaire to the Senior Vice Provost. MDS Plan of Study should include at minimum the courses required by two minors or concentrations.

## General Education Requirements

Courses for fulfillment of General Education requirements must be from the approved General Education course list published in the Class

Schedule or at http://www.ou.edu/content/gened/courses.html. Courses graded P/NP will not apply.
$\begin{array}{lll}\text { University-Wide General Education (minimum } 40 \text { hours) } & \\ \text { Code } & \text { Title } & \text { Credit }\end{array}$

## Core Area I: Symbolic and Oral Communication

English Composition
ENGL 1113 Principles of English Composition 3
ENGL 1213 Principles of English Composition 3
or EXPO 1213 Expository Writing
Language
( $0-10$ hours, 2 courses in the same language) May be met by successful completion of 2 years of the same language in high school
Beginning Course 0-5
$\begin{array}{ll}\text { Beginning Course, continued } & 0-5\end{array}$
Mathematics
Choose one course 3

Core Area II: Natural Science
Choose 2 courses from different disciplines, including one 7
laboratory component
Core Area III: Social Science
P SC 1113 American Federal Government 3
Choose one course 3

Core Area IV: Arts and Humanities
Artistic Forms
Choose one course 3

Western Culture
HIST 1483 United States to 1865
or HIST 1493 United States, 1865 to the Present
Choose one course ${ }^{1}$
World Culture
Choose one course 3
Core Area V: First Year Experience (3 hours)
Choose one course
Total Credit Hours 47
${ }^{1}$ Excluding HIST 1483 and HIST 1493.

One of the courses (minimum 3 credit hours) used to satisfy General Education Requirements must be at the upper-division level and outside of the student's major.

## Free Electives

Electives to bring total applicable hours to the minimum total required for the degree including 48 upper-division hours.

## Information Concerning General Rules, Regulations and Minimum Requirements

Upper-Division Hours: A minimum of 48 upper-division semester hours acceptable toward graduation must be completed. OU courses numbered 3000 or above are upper-division. Transfer work is counted as lower-
division or upper-division credit depending on the level at which it was offered at the institution where it was earned. Two-year college work is accepted only as lower-division credit.
Bachelor of Arts and Bachelor of Science Hours: At least 80 semester hours of liberal arts and sciences courses are required for a BA degree. At least 55 semester hours of liberal arts and sciences courses are required for a BS degree.
Major Work: A minimum of 30 credit hours, with a minimum of 18 hours completed at the upper-division level (3000-4000 level).
Pass/No Pass Enrollment: A maximum of 16 semester hours of free elective credit may be attempted under this option.
Individual Studies (e.g., courses titled "Independent Study"): A maximum of 12 total semester hours may be counted toward graduation, excluding Honors Reading and Honors Research.
P.E. Courses: No physical education activity courses will be counted toward the 120 semester hours of acceptable credit for graduation
Senior Institution Hours: A minimum of 60 semester hours applied toward graduation must be earned at senior (4-year) institutions. Residency:

- At least 15 of the final 30 hours applied toward the degree or at least 50 percent of the hours required in the major field must be satisfactorily completed a t OU .
- At least 15 semester hours of upper-division major work must be completed in residence at OU.
- Credits earned via examination are neither resident nor nonresident credit.

Grade Point Averages: Students must earn a minimum overall 2.00 for each of the following: Combined Retention GPA (all college grades), OU Retention GPA, GPA for all major courses, and GPA for all major courses taken at OU

## Multidisciplinary Studies, B.S.

Minimum Total Credit Hours: 120
Major Hours: 30
Minimum Upper-Division Hours: 48

Overall GPA - Combined and OU: 2.00
Major GPA - Combined and OU: 2.00

Program Code: B701

## Major Requirements

## - Some courses required for the major may also fulfill University General Education Requirements

Every candidate for this degree must select a major theme, which is a set of courses that meets the student's professional and personal goals. These courses must total a minimum of 30 credit hours, with a minimum of 18 hours completed at the upper-division level (3000-4000-level).

Courses should be selected in consultation with an MDS advisor to submit a Proposed Plan of Study and MDS Questionnaire to the Senior Vice Provost. MDS Plan of Study should include at minimum the courses required by two minors or concentrations.

## General Education Requirements

Courses for fulfillment of General Education requirements must be from the approved General Education course list published in the Class

Schedule or at http://www.ou.edu/content/gened/courses.html. Courses graded P/NP will not apply.

| University-Wide General Education (minimum 40 hours) |  |
| :--- | :--- | :--- |
| Code $\quad$ Title | Credit |

Core Area I: Symbolic and Oral Communication

| English Composition |  |
| :---: | :---: |
| ENGL 1113 Principles of English Composition | 3 |
| ENGL 1213 Principles of English Composition <br> or EXPO 1213 Expository Writing | 3 |
| Language |  |
| (0-10 hours, 2 courses in the same language) May be met by successful completion of 2 years of the same language in high school |  |
| Beginning Course | 0-5 |
| Beginning Course, continued | 0-5 |
| Mathematics |  |
| Choose one course | 3 |
| Core Area II: Natural Science |  |
| Choose 2 courses from different disciplines, including one laboratory component |  |
| Core Area III: Social Science |  |
| P SC 1113 American Federal Government | P SC 1113 |
| Choose one course | 3 |
| Core Area IV: Arts and Humanities |  |
| Artistic Forms |  |
| Choose one course | 3 |
| Western Culture |  |
| HIST 1483 United States to 1865 <br> or HIST 1493 United States, 1865 to the Present |  |
|  |  |
| Choose one course ${ }^{1}$ | 3 |
| World Culture |  |
| Choose one course | 3 |
| Core Area V: First Year Experience (3 hours) |  |
| Choose one course | 3 |

${ }^{1}$ Excluding HIST 1483 and HIST 1493.

One of the courses (minimum 3 credit hours) used to satisfy General Education Requirements must be at the upper-division level and outside of the student's major.

## Free Electives

Electives to bring total applicable hours to the minimum total required for the degree including 48 upper-division hours.

## Information Concerning General Rules, Regulations and Minimum Requirements

Upper-Division Hours: A minimum of 48 upper-division semester hours acceptable toward graduation must be completed. OU courses numbered 3000 or above are upper-division. Transfer work is counted as lower-
division or upper-division credit depending on the level at which it was offered at the institution where it was earned. Two-year college work is accepted only as lower-division credit.
Bachelor of Arts and Bachelor of Science Hours: At least 80 semester hours of liberal arts and sciences courses are required for a BA degree. At least 55 semester hours of liberal arts and sciences courses are required for a BS degree.
Major Work: A minimum of 30 credit hours, with a minimum of 18 hours completed at the upper-division level (3000-4000 level).
Pass/No Pass Enrollment: A maximum of 16 semester hours of free elective credit may be attempted under this option.
Individual Studies (e.g., courses titled "Independent Study"): A maximum of 12 total semester hours may be counted toward graduation, excluding Honors Reading and Honors Research.
P.E. Courses: No physical education activity courses will be counted toward the 120 semester hours of acceptable credit for graduation. Senior Institution Hours: A minimum of 60 semester hours applied toward graduation must be earned at senior (4-year) institutions. Residency

- At least 15 of the final 30 hours applied toward the degree or at least 50 percent of the hours required in the major field must be satisfactorily completed at OU .
- At least 15 semester hours of upper-division major work must be completed in residence at OU.
- Credits earned via examination are neither resident nor nonresident credit.

Grade Point Averages: Students must earn a minimum overall 2.00 for each of the following: Combined Retention GPA (all college grades), OU Retention GPA, GPA for all major courses, and GPA for all major courses taken at OU.

## Community Engagement, Graduate Certificate

Minimum Total Hours: 12

Program Code: G031

## Admission Requirements

The Graduate Certificate in Community Engagement is offered through Academic Affairs in Norman and through the Graduate College in Tulsa.

In addition to meeting the general requirements for admission to the Graduate College, applicants must also meet the admissions requirements for the Certificate Program in Community Engagement. Applications will be evaluated based on previous course work, evidence of leadership potential, and commitment to community health and well-being. Applicants must meet the minimum 3.0 GPA requirement (based upon a 4.0 scale) in previous course work. Compliance with admission requirements is demonstrated by submission of the following documents:

- Application to the Certificate program
- Personal Goal Statement
- Community Engagement Interest Statement
- Professional resume or CV
- Three letters of recommendation from persons familiar with the applicant's scholastic or leadership
potential

For admission into the certificate program, applicants must meet the requirements for full graduate admission standing. To do so, the candidate must have supplied all the items listed above and must be eligible for admission to graduate certificate degree program for the Graduate College.

## Certificate Requirements

The curriculum builds on the learner's existing knowledge and skills in their respective degree programs and provides additional knowledge, tools, and skills needed to be a highly effective agent of change to positively influence and promote a thriving community and help its members to optimize their potential.

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| OCL 5603 | The Science of Community Engagement | 3 |
| OCL 5613 | The Tools of Community Engagement | 3 |
| OCL 5623 | Community Engagement Apprenticeship | 3 |
| OCL 5633 | Community Engagement Capstone | 3 |

Total Credit Hours 12

A graduate certificate is not a graduate degree. A graduate degree represents a program of independent inquiry beyond the depth of coursework alone, while a graduate certificate represents a set of courses only.

- All courses must be taken at OU. No transfer credit will apply.
- No course substitutions are permitted for graduate certificates.
- Coursework applied to a graduate certificate cannot be more than five years old as of the semester the graduate certificate is awarded.
- Students must earn a grade point average of 3.00 or higher on all coursework applied to the graduate certificate.


## CHRISTOPHER C. GIBBS COLLEGE OF ARCHITECTURE



Gould Hall
830 Van Vleet Oval
Norman, OK 73019
Phone: (405) 325-2444
FAX: (405) 325-7558
coa-communications@ou.edu
architecture.ou.edu

## Administrative Officers

Hans E. Butzer, F.A.I.A. LEED AP, Dean
Suchismita Bhattacharjee, Ph.D., Associate Dean of Academic and College Administration
Stephanie Pilat, Ph.D., Director, Division of Architecture
Ben Bigelow, Ph.D., Director, Haskell \& Irene Lemon Construction Science Division
Elizabeth Pober, M.S., Director, Division of Interior Design
Division of Planning, Landscape Architecture, and Design:
Ron Frantz, M.S., Environmental Design
Sarah Little, Ph.D., Landscape Architecture
John C. Harris, Ph.D., APA/AICP, Regional and City Planning
Shawn Schaefer, LEED AP, Urban Design Program (OU-Tulsa)
Vanessa Morrison, Interim Director, Institute for Quality Communities Angela Person, Ph.D., Director, Research Initiatives and Strategic Planning
Erin Nance, Director of Advising

## General Information

The Christopher C. Gibbs College of Architecture is a comprehensive, multi-disciplinary unit concerned with the planning, design and construction of the built environment. The college is comprised of the Divisions of Architecture, Construction Science, Interior Design, and Planning, Landscape Architecture, and Design. A graduate program, focusing on Urban Design, is also offered by the OU College of Architecture at OU-Tulsa.

Students in the college develop the capacity for critical analysis of the context and constraints of physical design, formulate planning and design goals, and acquire specialized skills to attain these goals. Individual professional degree programs offered under the divisions within the college have complementary theory and practice components. The curricula are strengthened by deliberate sharing of courses and by the interaction of faculty and students across division boundaries.

Students in the programs have the unique opportunity to work with others preparing to enter related professional fields, as well as exposure to practicing professionals in these fields.

## Programs Offered

- College of Architecture Administrated Programs (p. 88)
- Planning, Design and Construction, M.S. (p. 89)
- Data Systems and Digital Design (BIM/GIS/FAB), Graduate Certificate (p. 89)
- Data Systems and Digital Design Elective List (p. 90)
- Design Entrepreneurship and Real Estate, Graduate Certificate (p. 90)
- Design Entrepreneurship and Real Estate Elective List (p. 90)
- Resilient Planning, Design, and Construction, Graduate Certificate (p. 90)
- Resilient Planning, Design, and Construction Elective List (p. 91)
- Planning, Design and Construction, Ph.D. (p. 91)
- Division of Architecture (p. 91)
- Architecture, Three+ Year Program, B. Arch.St. (p. 102)
- Architecture, Four+ Year Program, B. Arch. (p. 104)
- Architectural Studies, Minor (p. 106)
- Architecture, $31 / 2+1 \frac{1}{2}$ Program, B. Arch.St./M. Arch. (p. 107)
- Architecture via Non-Architecture Bachelor's Degree, M. Arch. (p. 109)
- Architecture via Architecture Bachelor's Degree, M. Arch. (p. 110)
- Sustainable Architecture, M.S. (p. 111)
- Haskell and Irene Lemon Construction Science Division (p. 111)
- Construction Science, B.S. (p. 117)
- Construction Science, Minor (p. 119)
- Entrepreneurship \& Real Estate Development, Undergraduate Certificate (p. 120)
- Certificate Elective Courses (p. 120)
- Construction Management: Special Studies, M.S. (p. 120)
- Construction Management: Thesis, M.S. (p. 120)
- Construction Management, M.C.B. (p. 121)
- M.C.B. Business Electives (p. 121)
- Construction Management, Graduate Certificate (p. 121)
- Division of Interior Design (p. 122)
- Interior Design, B.I.D. (p. 129)
- Interior Design for Architecture Majors, Minor (p. 130)
- Minor Electives for Interior Design for Architecture Majors (p. 131)
- Interior Design for Visual Communication Majors, Minor (p. 131)
- Interior Design for Non-Architecture/Non-Visual Communication Majors, Minor (p. 131)
- Minor Electives for Interior Design for Non-Architectural/NonVisual Communication Majors (p. 132)
- Interior Design (First Professional), M.S. (p. 132)
- Interior Design (Post-Professional), M.S. (p. 132)
- Division of Planning, Landscape Architecture, and Design (p. 133)
- Environmental Design, B.S. (p. 143)
- Environmental Design, B.S./M.L.A. (p. 145)
- Environmental Design, B.S./M.R.C.P.L. (p. 148)
- Environmental Design, B.S./Urban Design, M.U.D. (p. 150)
- Landscape Architecture, M.L.A. (p. 152)
- Landscape Architecture via BLA, M.L.A. (p. 153)
- Landscape Architectural Studies, M.L.A. (p. 153)
- Regional and City Planning, M.R.C.P.L. (p. 154)
- Urban Design (Tulsa), M.U.D. (p. 155)


## Programs \& Facilities

## Preceptorship Program

The college administers a preceptorship program which permits students of demonstrated ability to complete a limited number of degree requirements as a participant in a professional office.

## Summer Program

Selected courses may be offered during the summer session in the College of Architecture. Special summer studies are also offered in international settings.

## Creating_Making Lab

Located just a few blocks from campus, the Christopher C. Gibbs College of Architecture's Creating_Making Lab (C_ML) is a 7,000+ sf lab for students, faculty and staff in the college. In addition to the three bays of woodworking area, the lab also has a metal shop, laser cutters, plasma cutter, a paint booth, a lecture area and a photo documentation room. Users are required to go through safety training before they can use all of the lab's many resources.

## Undergraduate Study

## Admission

Admission to the University of Oklahoma (Norman Campus) and subsequently a degree granting college is based upon the admission requirements that are in effect for the semester that a student initiates enrollment at OU. For information on current admission requirements, contact the Office of Admissions \& Recruitment, University of Oklahoma, Jacobson Hall, 550 Parrington Oval, Room L-1, Norman, OK 73019-4076 or visit their homepage.

Admission to an undergraduate program within the Christopher C. Gibbs College of Architecture is based upon the program requirements in effect at the time of a student's initial enrollment in any institution (including OU) in the Oklahoma State System of Higher Education. All first-year students direct from high school are enrolled in University College. All students seeking admission to a program within the Christopher C. Gibbs College of Architecture must fulfill the following minimum requirements:

Completed admission to the University of Oklahoma;
2. At least 24 semester hours of earned college credit;
3. Completion of any curricular deficiencies that may exist in English, Math and/or Science;
4. A declared major in the College of Architecture; and
5. Obtain at least the minimum combined and OU retention grade point average required for graduation from the program the student has declared. All undergraduate programs in the College of Architecture may require additional admission requirements beyond those listed above. Refer to the respective division section in the following pages for information regarding additional program admission requirements.

## Transfer Students

An undergraduate student transferring from an institution within the Oklahoma State System of Higher Education must fulfill the transfer admission requirements of the University of Oklahoma Office of Admissions \& Recruitment. For more information, visit their website.

A student requesting transfer into a program of the Christopher C. Gibbs College of Architecture from another institution will be considered for admission based on various factors such as GPA, portfolio review, and/ or space availability which varies between programs. Such an applicant, in addition to satisfying all admission requirements of the University and the college, must be approved by the division director for that particular major.

A student requesting to transfer into a program of the Christopher C. Gibbs College of Architecture from another institution outside of the Oklahoma State System of Higher Education will follow the most recent curriculum requirements for the major the student declares.

## Transfer Credit

The following credit hour regulations are specific to transfer students:

- Two-year college work is accepted only as lower-division credit.
- At least 60 semester hours applied toward completion of a baccalaureate degree must be earned at accredited senior (four-year) institutions.
- Credits earned in physical education courses or in basic ROTC courses cannot be applied toward the graduation requirements of any degree program of the College of Architecture. Advanced ROTC courses may be applied toward degree requirements only with the special permission of the dean.
- All professional courses not taken at the University of Oklahoma are subject to evaluation for equivalency by the appropriate division of the college prior to the approval of these courses as transfer credit.
- Work accepted from other institutions is subject to validation by the satisfactory completion of at least 30 hours of credit in residence.
- Any student enrolling for the first time at the University of Oklahoma in a design or graphics course offered by the College of Architecture must enroll in the first course in the sequence, unless specifically approved for higher placement based on a review by the appropriate division director of previous work completed by the student.
- College credit for professional work experience is permitted only under the supervised conditions of the Preceptor Program of the college or approved internship/field experience courses.


## Admission Limitations

Admission to the various degree programs within the college is considered based on various factors like GPA, completed coursework, portfolio review, and/or space availability which varies between programs. Enrollment restrictions are most common in professional programs and courses and are subject to national standards of professional accreditation review.

## College Regulations

## Laptop Requirement

Students with a major in the Christopher C. Gibbs College of Architecture will be required to have a laptop computer. Laptop technologies are used to enhance the learning experience, and using a computer will become second nature to all of our students. See Technology Policy Requirement
page (PDF) for recommendations for the specifications needed, as well as other pertinent information.

## Probation and Advancement

In accordance with the approved retention policy of the Oklahoma State Regents for Higher Education a student must maintain a combined retention minimum grade point average of at least 2.00 (C) in order to be in good academic standing at the University of Oklahoma. The student must maintain at least a 2.50 OU retention and combined retention grade point averages required for graduation from any of the following undergraduate programs within the Christopher C. Gibbs College of Architecture: Architecture, Construction Science, and Interior Design. The standalone Environmental Design degree requires an OU retention and combined retention grade point average of 2.0 in order to be in good academic standing within the college. A student who fails to maintain the required grade point averages for their program will be notified and required to sign an "Enrollment Contract" each semester their retention grade point average is below the minimum required for graduation. A student on enrollment contract may be denied further enrollment in the college if they fail to fulfill the terms of the enrollment contract during any semester they are on academic notice.

A student who is denied enrollment in the Christopher C. Gibbs College of Architecture may still be eligible for enrollment in another college within the University of Oklahoma. Students who have been dismissed from the College of Architecture for academic reasons should contact the Academic Advising Resource Center for advisement regarding continued enrollment at the University of Oklahoma. If a dismissed student from the College of Architecture decides to continue at the University of Oklahoma, further enrollment in College of Architecture courses will be denied.

A student denied enrollment in the Christopher C. Gibbs College of Architecture may apply for readmission after a lapse of one regular semester (fall or spring). The student must submit a letter stating why they should be readmitted (what caused the poor academic performance and how the problems causing the poor academic performance have been remedied.) Such a request will be reviewed and decided upon by the appropriate division.

If it is the first academic stop, the student's record will be reviewed to determine if it is possible for the student to earn the required grade points in the courses that remain to complete the degree and graduate.

If it is the student's second academic stop, they will automatically be denied readmission.

## Attendance

The establishment of a specific policy concerning attendance requirements, as well as announced and unannounced examinations, is the responsibility of the individual instructor. Regular attendance in required studio courses is considered essential to the overall development of the student within the professional and pre-professional curricula.

## Studio Regulations

A student may enroll in only one design and one graphics course per semester. Any student who enrolls in a studio course with an incomplete in a prerequisite must remove the incomplete prior to the first day of class of the subsequent semester.

## Ownership of Work

All work completed or submitted in fulfillment of any requirements of a course in the Christopher C. Gibbs College of Architecture is the property of the college, which reserves the right to retain, copyright, use, exhibit, reproduce or publish any work so submitted.

## Outside Employment

The demands of outside employment during the academic year, with the exception of an approved preceptorship program or internship, may be inconsistent with the requirements of the professional degree programs. Outside employment is not considered an extenuating circumstance in cases of poor performance, excessive absences or failure to submit assigned work on schedule. Students who fail to adequately fulfill course and curriculum requirements while maintaining outside employment may be required to carry reduced course loads. A longer period in residence may result from this reduction in course loads.

## Enrollment Limitations

Undergraduate students may enroll in a maximum of 19 credit hours per any regular semester (fall or spring), and nine credit hours in summer. Enrollment in more than the maximum credit hours is permitted only with the approval and signature of the student's academic counselor and the dean of the college. Enrollment in more than the maximum credit hours for any given enrollment period cannot exceed the Oklahoma State Regents' absolute maximum for any given enrollment period.

All students enrolled in courses offered by the college are subject to the applicable rules of the college, including those governing performance reviews and enrollment limitations. Students admitted to the professional program in architecture may enroll in any architecture course for which they are eligible. Students who have been accepted as majors in another division of the Christopher C. Gibbs College of Architecture will be admitted to those architecture courses which are specifically required for their degree programs.

## Student Advisement

Students in the Christopher C. Gibbs College of Architecture are advised by one of the college's full-time academic advisors. Students schedule advising appointments through iAdvise.ou.edu or call the Academic Advising Services at 325-2444 for details.

Due to the complexity of the program sequences, it is necessary that all undergraduate students meet with an academic advisor during the preenrollment periods. Academic advisors are available to answer questions about the various undergraduate programs. The College of Architecture requires semester-by-semester advising. Students are not permitted to self-advise.

## Graduation Requirements

Approval for graduation with a degree from the Christopher C. Gibbs College of Architecture requires completion of all degree requirements listed on the curriculum requirements checksheet for the program the student was admitted as well as the graduation requirements set forth by the Oklahoma State Regents for Higher Education, and the University of Oklahoma. Copies of current or past checksheets can be obtained from the College's Academic Advising Services Office.

In addition to the minimum graduation requirements set forth by the Oklahoma State Regents for Higher Education and the University of Oklahoma, the Christopher C. Gibbs College of Architecture requires the following:

1. A student must obtain the minimum OU retention, combined retention and curriculum grade point averages specified on the requirements checksheet for their degree program. Note: Specific grade point averages required for graduation from programs within the college supersede the minimums set forth by the Oklahoma State Regents for Higher Education and the University of Oklahoma.
2. A student must complete at least the minimum upper division (3000 level or above) and total hours listed on their program requirements checksheet. Total credit hours applied toward graduation must be verified by one of the professional academic counselors in the Academic Advising Services Office. Students are encouraged to meet with one of the college's academic counselors for a degree check at least one semester before the intended semester of graduation. The following are additional College of Architecture regulations regarding total hours applied toward graduation:
a. credit hours earned in physical education courses or in basic ROTC courses cannot be applied toward the graduation requirements of any degree program of the College of Architecture. Advanced ROTC courses may be applied toward degree requirements only with the special permission of the dean;
b. a maximum of 64 hours will transfer for credit from a two-year college;
c. at least 60 semester hours toward graduation must be earned at accredited senior (four-year) institutions;
d. no hours for remedial or pre-college level course work may apply toward graduation;
e. transfer coursework specifically denied by the division for application toward the curriculum will not count toward graduation;
f. courses taken under the student elected Pass/No Pass grading option will not be allowed to count toward fulfillment of any university general education or college curriculum requirements.

Additional information about specific program requirements are described under the respective division sections in this chapter.
Responsibility for meeting graduation requirements lies with the student.

## Graduate Study

Refer to the Graduate tabs within the Christopher C. Gibbs College of Architecture's division (p. 829)pages of this catalog for information concerning graduate programs.

- Division of Architecture (p. 91)
- Division of Construction Science (p. 111)
- Division of Interior Design (p. 122)
- Division of Planning, Landscape Architecture, and Design (p. 133)


## Honors and Awards

## Honors Degrees

All of the bachelor's degree programs offered by the Christopher C. Gibbs College of Architecture are available to qualified students as honors degree programs. Students may graduate with Latin Honorifics (cum Laude, Magna cum Laude, Summa cum Laude) if they successfully meet the GPA requirements in addition to their regular degree program requirements. Please refer to the Honors College (p. 1617) section of this catalog for specific information regarding research opportunities and admission into the Honors College for a special notation on your final transcript.

## Recognition of Academic Achievement

The Dean's Honor Roll is compiled at the close of each fall and spring semester. It includes students who have completed at least 12 grade point hours and have earned an average of 3.50 or higher for the semester.

Students enrolled part-time for both the fall and spring semesters of an academic year will be included on the spring semester honor roll, provided that a 3.50 or better is earned for each semester.

## Scholarships and Awards

Many scholarships and awards are provided by professional societies, the building industry, and patrons of architecture and the allied arts. The University of Oklahoma has many general financial aid programs which are listed on the Scholarships website

## Honor Societies and Professional Organizations

Divisions and programs within the Gibbs College of Architecture have established student organizations related to professional licensure and national associations. Students should check with their division directors and program coordinators for this information.

## College of Architecture Administrated Programs

## Graduate Programs

## Master of Science

The Master of Science (p. 89) in Planning, Design, and Construction is available to students wishing to pursue a specialized research or creative agenda. Students in the Master of Science in Planning, Design, and Construction degree program are offered a combination of courses within the Christopher C. Gibbs College of Architecture including: graduate level elective seminars; professional practice; architectural history and theory; structures; and sustainable design and technology. Students have the opportunity to study with leading scholars in Architecture, as well as in University-wide fields as diverse as Engineering, Geography, History of Science, and more. Students gradually narrow and focus their research agendas, culminating in a written or designed final dissertation. Ultimately, graduates are well prepared to develop and undertake new research and creative endeavors.

## ARCHITECTURE GRADUATE CERTIFICATES

The Division of Architecture offers graduate certificates for design professionals to participate in an assortment of courses specifically centered on expertise in:

- Data Systems and Digital Design (p. 89)
- Design Entrepreneurship and Real Estate (p. 90)
- Resilient Planning, Design, and Construction (p. 90)


## DOCTORAL PROGRAMS

The Ph.D in Planning, Design and Construction (p. 91) is available to students wishing to pursue a specialized research or creative agenda. This program consists of coursework tailored to the student's interests, providing practitioners and students with an opportunity to deepen their expertise in a particular realm of research.

PDC 1003 Gateway to Building Communities 3 Credit Hours
This first-year experience course introduces students to aspects of creating communities through the lens of planning, design, and construction disciplines. Lectures explore tools of listening and successful collaboration that can help lead to personal and professional success. Concepts of cultural fluency, critical thinking, civil discourse, citizenship, and community engagement will be investigated through inclass discussions, writing assignments, and group projects. (F) [V-FYE].
PDC 6003 History and Philosophy of Planning, Design and

## Construction

3 Credit Hours
Prerequisite: graduate standing with permission of instructor. Explore the events, phases and evolution of planning, design and construction; review historical developers, city planners and contractors and the contributions/impacts they had on the professions and marketplace; explore the future based on the past. (Sp)
PDC 6023 Advanced Research Methods
3 Credit Hours
Prerequisite: graduate standing with permission of instructor. Explore discipline-based qualitative and quantitative research methods; develop dissertation research design and support documentation; apply for funding for the dissertation project. (F)

PDC 6980 Research for Doctoral Dissertation 2-16 Credit Hours 2 to 16 hours. Prerequisite: Graduate standing and permission of instructor; may be repeated. Directed research culminating in the completion of the doctoral dissertation. (F, Sp, Su)

## Planning, Design and Construction, M.S.

Minimum Total Hours (Thesis): 30
Program Code: M784

## Required Courses

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Required Courses |  |  |
| ARCH 5980 | Research for Master's Thesis ${ }^{1}$ | 12 |
| ARCH 5543 | Architectural Theory and Criticism $^{1}$ | 3 |
| RCPL 5113 | Urban Planning Research Methods ${ }^{1}$ | 3 |
| Electives |  | 12 |
| Choose 12 credits (p. 89) | $\mathbf{3 0}$ |  |
| Total Credit Hours |  |  |

1 All MS Architecture degree students must pass this course with a grade of B or better.

## ELECTIVES

The remaining electives will be selected by the student under the guidance of his or her advisory committee. Graduate Certificate Programs will be coordinated with this MS Architecture program in the following research areas:

1. Architectural History, Theory and Criticism
2. Creating and Making
3. Design Representation and Modeling
4. Middle Eastern Architecture and Culture
5. Social Equity and Design
6. Sustainable Design and Building Technologies
7. Real Estate and Urbanism

The Master of Science in Architecture degree track is designed to be completed over the span of three semesters. In consultation with the Graduate Liaison, the student may elect to complete the degree within two semesters.

## General Requirements for all Master's Degrees

The master's degree requires the equivalent of at least two semesters of satisfactory graduate work and additional work as may be prescribed for the degree.

All coursework applied to the master's degree must carry graduate credit.
Master's degree programs which require a thesis consist of at least 30 credit hours. All non-thesis master's degree programs require at least 30 credit hours.

Credit transferred from other institutions must meet specific criteria and is subject to certain limitations.

Courses completed through correspondence study may not be applied to the master's degree.

To qualify for a graduate degree, students must achieve an overall grade point average of 3.0 or higher in the degree program coursework and in all resident graduate coursework attempted. A student must also have at least a 3.0 in all coursework (including undergraduate coursework if any).

Additional information for master's degree students may be found in the Graduate College Bulletin.

## Data Systems and Digital Design (BIM/ GIS/FAB), Graduate Certificate

Minimum Total Hours: 12<br>Program Code: G304

The Graduate Certificate in Data Systems and Digital Design (BIM/ GIS/FAB) is an option for design professionals to participate in an assortment of courses specifically centered on expertise in Data Systems and Digital Design education. A total of 12 hours is required. While this certificate is embedded within the Master of Science in Planning, Design, and Construction degree, graduate students enrolled in the Master of Architecture degrees are also eligible based upon allowable electives.

## Certificate Requirements

| Code | Title | Credit |
| :---: | :---: | :---: |
| Choose one course: |  | 3 |
| ARCH 5773 |  |  |
| ARCH 5863 | Meth Analy |  |
| Select 9 hours (p. 90) | m a li | 9 |

Total Credit Hours

A graduate certificate is not a graduate degree. A graduate degree represents a program of independent inquiry beyond the depth of coursework alone, while a graduate certificate represents a set of courses only.

- All courses must be taken at OU. No transfer credit will apply.
- No course substitutions are permitted for graduate certificates.
- Coursework applied to a graduate certificate cannot be more than five years old as of the semester the graduate certificate is awarded.
- Students must earn a grade point average of 3.00 or higher on all coursework applied to the graduate certificate.


## Data Systems and Digital Design Elective

 List| Code | Title | Credit Hours |
| :---: | :---: | :---: |
| ARCH 5283 | Persian Architecture | 3 |
| ARCH 5970 | General Departmental Seminar (Topic: Envisioning Space) | 1-4 |
| ARCH 5970 | General Departmental Seminar (Topic: Fabrication and the Digital City, Computational Design and Fabrication) | 1-4 |
| C S 5093 | Visual Analytics | 3 |
| ID 5763 | Graduate Interior Design Computer Application | 3 |
| RCPL 5463 | Geographic Information Systems for Land Use Planning | 3 |

## Design Entrepreneurship and Real Estate, Graduate Certificate

Minimum Total Hours: 12
Program Code: G310
The Graduate Certificate in Design Entrepreneurship and Real Estate is an option for design professionals to participate in an assortment of courses specifically centered on expertise in Design Entrepreneurship and Real Estate education. A total of 12 hours is required. While this certificate is embedded within the Master of Science in Planning, Design, and Construction degree, graduate students enrolled in the Master of Architecture degrees are eligible based upon allowable electives.

## Certificate Requirements

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Choose one course: | 3 |  |
| ARCH 5923 | Methods IX - Entrepreneurial Architect and <br> Leadership |  |
| ARCH 5663 | Methods VI- Urban Design Methodologies |  |
| ARCH 5713 | Real Estate Fundamentals |  |
| Select 9 hours from a list maintained by the department <br> (p. 90) | 9 |  |

Total Credit Hours
coursework alone, while a graduate certificate represents a set of courses only.

- All courses must be taken at OU. No transfer credit will apply.
- No course substitutions are permitted for graduate certificates.
- Coursework applied to a graduate certificate cannot be more than five years old as of the semester the graduate certificate is awarded.
- Students must earn a grade point average of 3.00 or higher on all coursework applied to the graduate certificate.


## Design Entrepreneurship and Real Estate Elective List

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| ARCH 5663 | Methods VI- Urban Design Methodologies | 3 |
| ARCH 5743 | Legal Framework for Design | 3 |
| ARCH 5970 | General Departmental Seminar (Topic: | $1-4$ |
|  | Urban Redevelopment) | $1-4$ |
| ARCH 5970 | General Departmental Seminar (Topic: <br> Housing Typologies and Trends) | 3 <br> ARCH/L A/RCPL |
| Urban Design Theory $1-6$ <br> ARCH 6680 Urban Design Studio |  |  |
| ID 5123 | Environment and Human Behavior | 3 |
| ID 5143 | Design Theory Analysis and Evaluation | 3 |
| RCPL 5173 | Urban and Regional Analysis | 3 |
| RCPL 5893 | Historic Preservation Planning | 3 |

# Resilient Planning, Design, and Construction, Graduate Certificate 

Minimum Total Hours: 12
Program Code: G776
The Graduate Certificate in Resilient Planning, Design, and Construction is an option for design professionals to participate in an assortment of courses specifically centered on expertise in Resilient Planning, Design, and Construction education. A total of 12 hours is required. While this certificate is embedded within the Master of Science in Architecture degree, graduate students enrolled in the Master of Architecture degrees will also be eligible based upon allowable electives.

## Certificate Requirements

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| ARCH 5463 | Advanced Sustainable and Resilient <br> Systems | 3 |
| Select 9 <br> (p. 91$)$ | 9 |  |
| Total Credit Hours from a list maintained by the department | $\mathbf{1 2}$ |  |

A graduate certificate is not a graduate degree. A graduate degree represents a program of independent inquiry beyond the depth of coursework alone, while a graduate certificate represents a set of courses only.

A graduate certificate is not a graduate degree. A graduate degree represents a program of independent inquiry beyond the depth of

- All courses must be taken at OU. No transfer credit will apply.
- No course substitutions are permitted for graduate certificates.
- Coursework applied to a graduate certificate cannot be more than five years old as of the semester the graduate certificate is awarded.
- Students must earn a grade point average of 3.00 or higher on all coursework applied to the graduate certificate.


## Resilient Planning, Design, and Construction Elective List

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| ARCH 5663 | Methods VI- Urban Design Methodologies | 3 |
| ARCH 5723 | Methods VII-Advanced Systems | 3 |
| ARCH 5783 | Architectural Acoustics | 3 |
| ARCH 5863 | Methods VIII-Building Performance | 3 |
|  | Analytics | $1-4$ |
| ARCH 5970 | General Departmental Seminar (Topic: |  |
|  | LEED Seminar) | 3 |
| I D 5223 | Advanced Materials and Methods | 3 |
| I D 5343 | Indoor Environmental Quality | 3 |
| I D 5413 | Indoor Controls and Technology | 3 |
| ID 5723 | Lighting Design | 3 |
| LA 5423 | Human Experience of the Environment | $1-4$ |
| L A 5970 | General Department Seminar (Topic: |  |
| RCPL 5483 | Exterior Lighting) | 3 |
| RCPL 5893 | Planning | 3 |

## Planning, Design and Construction, Ph.D.

Minimum Total Hours: 90
Program Code: D785

## Program Requirements

| Code Title | Credit |
| :---: | :---: |
| General Education |  |
| Master's level equivalent coursework in architecture, construction, interior design, landscape architecture, and planning or related disciplines | 30-44 |
| Core PDC Courses |  |
| PDC 6003 History and Philosophy of Planning, Design |  |
| PDC 6023 Advanced Research Methods | 3 |
| Core Courses (40-54 hours) |  |
| Choose a minimum of 9 hours of guided research methods or research analysis courses (beyond PDC 6023) |  |
| Concentration Courses ${ }^{1}$ |  |
| Choose a minimum of 9 hours from one or more of the following concentrations. Courses are selected based on the requirements of a specific area of concentration and student's interests and goals, as approved by the doctoral committee chair. | 9 |


| Architecture |
| :--- |
| Construction Science |
| Interior Design |
| Landscape Architecture |
| Regional and City Planning |
| Dissertation Research  <br> PDC 6980 Research for Doctoral Dissertation (6+ <br> hours) |

Total Credit Hours

1 Any core concentration courses taken during the first two semesters may be approved by the graduate liaison. During the remaining semesters, core concentration courses should be approved by the student's doctoral committee chair.

## General Requirements for Doctoral Degrees

A student should expect to spend at least the equivalent of three full academic years beyond the bachelor's degree to obtain the doctoral degree. During this period the student will take appropriate graduate coursework, successfully complete the general examination, and successfully defend and submit the final dissertation.

All coursework applied to the doctoral degree must carry graduate credit.

The doctoral degree requires at least 90 post-baccalaureate hours, including both formal coursework and hours of research.

The minimum hour requirement for a specific doctoral degree program cannot be waived

No more than one-half of the credit hours, both OU and overall, excluding Research for Doctoral Dissertation (6980), may be S/U-graded coursework.

The student must be in residence at OU for at least two consecutive 16 week semesters during the pursuit of the doctoral degree while enrolled and engaged in coursework or research activities as prescribed by the major academic unit.

For more detailed regulations and requirements for Doctoral degrees, please consult the Graduate College Bulletin: http://www.ou.edu/ gradcollege/forms/bulletin

## Division of Architecture

Stephanie Pilat, Ph.D, Director
Shideh Shadravan, Ph.D., Graduate Liaison
Gould Hall
830 Van Vleet Oval
Norman, OK 73019-6141
Phone: (405) 325-2444
FAX: (405) 325-7558
arch@ou.edu
arch.ou.edu

## General Information

The Architecture program at the University of Oklahoma was founded in 1926 as part of the College of Engineering. In 1968 the program became a separate college and the first component of what is now a multidisciplinary college including programs in Interior Design, Construction

Science, Planning, and Landscape Architecture. The Architecture program benefits strongly from this multi-disciplinary context.

The Division of Architecture at the University of Oklahoma is committed to educating students of diverse backgrounds and interests through graduate level studies in architecture. Focused on advancing architecture and society through education, scholarship, and service, the graduate degree programs provide a creative and challenging forum through which students engage environmental and social issues, thereby actively shaping the profession of architecture. Our graduates are known for their exceptional design abilities as well as their critical problem-solving and leadership skills. Established on a core foundation of ethics and sustainability, our graduate programs enable and equip students to deal with complex real world issues that go beyond the realm of design.

Located in Norman, Oklahoma with a branch campus in Tulsa, Oklahoma, the Architecture program at the University of Oklahoma draws from the region's rich cultural legacy. Our graduate degree programs in Architecture offer students opportunities to learn and work in a collaborative and multi-disciplinary environment through coursework, faculty-led research projects, and student-led associations. As the Flagship Research Institution in the State, faculty and students are collectively engaged in the production of new knowledge through research and creative practices.

Our curriculum grows out of our American School history, which emerged in the middle of the twentieth century, under the leadership of architect Bruce Goff and a talented roster of faculty. They developed a curriculum that emphasized individual creativity and experimentation. They modelled a radical empathy, which taught students to trust their own creative instincts. The work of American School architects is grounded in a respect for context, a material resourcefulness, and a commitment to experimentation and innovative problem solving. Today, we continue to embrace the spirit of the American School. We aim to educate students to be resourceful-always considering how to make the most with the least impact on the natural environment. Experimentation is advanced today through a research orientation in our curriculum, which instills in students an aspiration to innovate and produce new knowledge.

## Degree Program and Architectural Registration

In the United States, most state registration boards require a degree from an accredited professional degree program as a prerequisite for licensure. The National Architectural Accrediting Board (NAAB), which is the sole agency authorized to accredit U.S. professional degree programs in Architecture, recognizes three types of degrees: the Bachelor of Architecture, the Master of Architecture, and the Doctor of Architecture. A program may be granted a 6-year, 3-year, or 2-year term of accreditation, depending on the extent of its conformance with established educational standards.

Doctor of Architecture and Master of Architecture degree programs may consist of a pre-professional undergraduate degree and a professional graduate degree that, when earned sequentially, constitute an accredited professional education. However, the pre-professional degree is not, by itself, recognized as an accredited degree.

## Programs \& Facilities

## Programs

## The Institute for Quality Communities

Housed within the GCA, is the service-learning arm of the college. The IQC undertakes urban design and planning projects in partnership with communities across the state of Oklahoma each year. Architecture
students and faculty regularly partner with the IQC faculty and staff on these endeavors.

## Integrated Studio Field Trips

Recognizing the importance of learning about the built environment from first-hand experiences outside the classroom, we have developed a robust sequence of field trips, a lecture series, as well as individual and collective opportunities to learn outside the classroom. Field trips are an integral and intentional part of the architecture curriculum. In addition to typical site visits, students travel around the region and beyond to see great works of architecture firsthand.

## Study Abroad

Study Abroad programs are highly valued, encouraged, and supported at the University of Oklahoma. In the Division of Architecture, we have hosted a spring semester Rome program since 2013. Architecture and Interior Design students in their third-year spring semester study all their required courses in Rome. The program is led by Academic Initiatives Abroad Director and architect Scott Schlimgen. It includes a rich roster of site visits and travel within Italy. In the past decade, the GCA has also hosted study abroad summer programs to Zambia, Uganda, Arezzo, and within the US to Taliesin West. OU's College of International Studies Education Abroad Office also supports a wide variety of summer study abroad programs across the world. OU has two International Study Centers: one in Arezzo, Italy, and another in Puebla, Mexico.

## Lecture Series

Our Bruce Goff Creative Chair Lecture series brings designers and scholars to OU each year to give lectures and lead workshops. Goff Chairs have included renowned architects such as Odile Decq, Patrick Tighe, Marlon Blackwell, Sheila Kennedy, Jesus Vassallo, Leslie Bernstein, Miguel Olivares, and Deborah Berke. Scholars such as Barry Bergdoll, Christopher Mead, Kathryn Anthony, Tito Alegría, Billy Fleming, Irene Hwang, Saskia Sassen, Beatriz Colomina, and Itohan Osayimwese have shared their research through the Goff series.

## Physical Resources <br> Gould Hall

The program is housed in Gould Hall along with Interior Design, Landscape Design, Construction Science, City and Regional Planning, and Environmental Design. Gould Hall is a four-story, 108,000-square-foot facility located in the heart of the campus. About one-third of the space in Gould Hall is dedicated to studio space. The studio spaces are spread out among the garden, second and third floors. A number of these spaces are shared among year levels as well as with the interior and landscape design programs. This sharing of studio space corresponds with our dedication to interdisciplinary study. Every student has a dedicated desk in each studio. Gould Hall is open from 7:00 a.m. to 7:00 p.m. and with secured card access 24/7 to all students, faculty, and staff. The layout of Gould Hall can be viewed here. The studios in Gould Hall are considered our "maker spaces." These maker spaces are more than typical studios; each space provides an opportunity for collaboration, growth, and discovery.

## Creating_Making Lab (C_ML)

The C_ML is a 7,000-square-foot lab a few blocks away from Gould Hall. The lab is open 9:00 a.m. to 6:00 p.m. Monday through Friday for students, faculty, and staff. The lab contains three bays of woodworking area, a metal shop, laser cutters, a plastics room, a paint booth, a lecture area, and a photo documentation room. Users are required to go through two levels of safety training before they can use all of the lab's many resources.

## Digital Making Lab

The Digital Making Lab provides students with a Gould Hall facility for Creating Making. Located in Room 206, the lab contains lasers and woodworking tools.

## Computer Lab Gould Hall B15.

The computer lab has 43 high-powered workstations with dual monitors. Some classes are taught in the computer lab, but they are otherwise available to students $24 / 7$. There are also 27 additional lab computers distributed throughout Gould Hall, often located in division studios.

## Undergraduate Study

## Bachelor of Architecture

The Bachelor of Architecture (p. 104) program is accredited by the National Architectural Accrediting Board (NAAB) and fulfills the educational prerequisites for professional registration required by most state boards. Admission to the program beyond the first year is competitive. At the heart of the Division of Architecture's educational approach is its Creating-Making curriculum, which emphasizes the importance of analytical thinking and visioning balanced with the ability to implement meaningful real-world architectural solutions.

## Bachelor of Architectural Studies

The Bachelor of Architectural Studies (p. 102) offers students a strong basis in architectural studies and design principles. This degree path emphasizes the importance of analytical thinking and physical craft balanced with the ability to implement meaningful real-world architectural design solutions. Courses prepare students for various careers and graduate program options.

## Bachelor of Architectural Studies/Master of Architecture

The Bachelor of Architectural Studies/Master of Architecture (p. 107) is an accelerated dual degree program.

## Minor

The Architectural Studies Minor (p. 106) is offered to non-majors.

## Special Regulations

## Degree Program Admission

Class size in studios and other architectural coursework is influenced by national guidelines. Limitations of university resources (e.g. facilities, faculty, operating funds, etc.) also impose restrictions on class sizes. Therefore, an Enrollment Management Program within the Division of Architecture governs admission to the professional undergraduate degree program. For further information, contact the director of the Division of Architecture.

## Graduation Requirements

Approval for graduation with the Bachelor of Architecture degree requires completion of all degree requirements with a minimum program grade point average of 2.50 in all coursework used to fulfill degree requirements.

## Collaborative Program

Housed within the Christopher C. Gibbs College of Architecture, the accredited 5 -year undergraduate curriculum is designed to encourage collaborative experiences for students. Courses, competitions and other planned experiences prepare students of Architecture, Planning, Landscape Architecture, Interior Design, Construction Science and

Architectural Engineering to work together as they may later in professional practice

## Placement in Studio Courses

Any student enrolling for the first time at the University of Oklahoma in a design support course offered by the Division of Architecture must enroll in the first course in the sequence, unless specifically approved for higher placement by the Director of Architecture.

## Enrollment in Architecture Courses

A student may not enroll in more than one required studio course per semester. Students must have completed "Incompletes" in all prerequisite courses prior to the first day of class in any subsequent Architecture course unless otherwise granted permission by the Director of Architecture.

## Portfolio Requirements

Each student enrolled in a professional program in Architecture is required to maintain an up-to-date record of design and graphics work for use in program advisement, the evaluation of overall progress toward the professional degree, and in maintaining an on-going dialogue with professionals in the workplace through employment and mentorship programs.

## Advancement in Major Course Sequences

All professional degree programs of the Division of Architecture are organized around a sequence of courses in which the student develops and demonstrates a capability for analyzing problems and synthesizing solutions, using techniques and skills unique to the field of architecture. Advancement in a major course sequence may be denied if a student earns less than a C in the prerequisite course. Further progress in the studio sequence in such cases may be permitted if the course average is raised by retaking the course, or by special permission.

## Graduate Study

## Master of Architecture

The Architecture via Architecture Bachelor's Degree, Master of Architecture (p. 110) program is available to students holding bachelor's degrees in Architecture or Environmental Design. This degree is accredited by the NAAB. The Architecture via Non-Architecture Bachelor's degree, Master of Architecture (p. 109) program is designed for students with bachelor's degrees in fields other than Architecture. This degree is accredited by the National Architectural Accrediting Board (NAAB). The Master of Architecture (M. Arch) at the University of Oklahoma is offered on the Norman campus only. It follows an intensive and structured program of studio design and coursework intended to develop the specialized abilities and expertise demanded of the professional architect. The program is accredited by the National Architectural Accrediting Board (NAAB) and fulfills the educational prerequisite for professional registration required by most state boards.

## Master of Science

The Master of Science in Sustainable Architecture (p. 111) is designed to meet the growing demand for up-to-date expertise in design and construction.

## Special Regulations

## Enrollment Limitations

Graduate students may enroll in nine to 16 credit hours of work per semester. Enrollment in more than 16 or less than nine credit hours is
permitted only with the approval and signature of the graduate liaison and the graduate dean.

## Graduation Requirements

Approval for graduation with the degree of Master of Architecture requires satisfaction of all requirements of the Graduate College and certification by the graduate liaison of completion of all requirements of the graduate professional degree program in Architecture, with a minimum grade point average of $B(3.00)$ in all work for which graduate credit is awarded.

## Transfer of Graduate Credit

In addition to the policies of the Graduate College for the transfer of credit hours for master's degrees, the College of Architecture graduate liaison must approve any work transferred to a Master of Architecture degree program.

## Courses

ARCH 1155 Design I- Design Fundamentals 5 Credit Hours
Prerequisite: Co-requisites: ARCH 1163 or permission of director.
Development of foundational design and representational skills, and graphic conventions including sketching and digital methods. The course introduces processes of Creating-Making through methods engaged in critical thinking and experiential knowing. Methods of composition are introduced and explored: design elements and principles, proportion and scale, ordering systems, and organizational strategies. Introduction to issues of craft and material engagement. (F)

## ARCH 1163 Methods I-Materiality of Place <br> 3 Credit Hours

Prerequisite: Co-requisites: ARCH 1155 or permission of director. Introduction to principles of representation in freehand, handconstructed, and computer-generated form through a variety of media, formats, and techniques, including projective geometry, orthographic and axonometric drawings, perspectives, sketches, and more. A wide breadth of architectural vocabulary will be explored and related to the design studio activities. (F)

## ARCH 1255 Design II - Craft and Making 5 Credit Hours

Prerequisite: ARCH 1163 and ARCH 1155, Corequisite: ARCH 1263; or permission of director. A continuation in the development of fundamental design skills through introductions to the material, formal, and spatial properties of architecture. Fabrication safety, craft, and techniques will be introduced and developed through the making of full-scale constructions. Continued ideas involving Creating-Making are explored through exercises in the formal, spatial, and material qualities of human environments. (Sp)
ARCH 1263 Methods II - Pattern of Architecture 3 Credit Hours Prerequisite: ARCH 1163 and ARCH 1155, Corequisite: ARCH 1255; or permission of director. An introduction to organizational strategies across a range of architectural scales. Ordering principles are investigated from micro through macro, from the materiality and tectonics of details, to urban patterns. Architectural assemblies and building technology will introduce structural systems and material characteristics. Massing and typology studies will introduce relationships of building to site and environment. (Sp)

## ARCH 1713 Architectural Journeys in Europe and the

Americas
3 Credit Hours
Introduction to the built environment using residence, public buildings, and communities as vehicles. Overview of architectural history is interwoven with an introduction to architectural form, space, order, and the elements of architecture. Stories of European and American cities serve as a vehicle to explore both architectural styles and to apply ways of thinking about space and how humans live together. (Sp) [IV-AF].

## ARCH 1723 Architectural Explorations in Asia, Africa, and

 Australia3 Credit Hours
Introduction to the built environment using residence, public buildings, and communities as vehicles. Overview of architectural history is interwoven with an introduction to architectural form, space, order, and the elements of architecture. Stories of East Asian, South Asian, and Southeast Asian cities serve as a vehicle to explore architectural styles, space, and how humans live together. (F) [IV-WDC]

ARCH 2243 History of the Built Environment I 3 Credit Hours
Prerequisite: majors only or permission of director. Co-requisite:
ARCH 2363, ARCH 2356; for Interior Design majors: completion of A HI 2213 and A HI 2223. A theoretical investigation of the cultural, political, and aesthetic values of diverse Western and non-Western cultures and how these affect the built environment from pre-history through the Renaissance. This course continues the development of critical writing skills and further develops analytic skills that act to inform design decisions related to studio projects. (F) [IV-WC].

ARCH 2343 History of the Built Environment II 3 Credit Hours Prerequisites: ARCH 2363, ARCH 2356, ARCH 2243. Co-requisites: ARCH 2463, ARCH 2456, ARCH 4193; or permission of director. An investigation of the cultural, political, and aesthetic values of diverse Western and non-Western cultures and how these have affected the built environment from the Renaissance through the 19th century. This course continues the development of critical writing skills and further develops analytic skills that act to inform design decisions related to studio projects. (Sp) [IV-WC].

ARCH 2356 Design III - Crafting Place
6 Credit Hours
Prerequisites: ARCH 1263, ARCH 1255 with a grade of C or better. Corequisites: ARCH 2363, ARCH 2243; or permission of director. Development of formal and spatial architectural components that demonstrate engagement with design principles, precedent analysis, human factors, and environmental and cultural influences on design. Expression of ideas through the application of virtual techniques of representation and visual communication are required. (F)

ARCH 2363 Materials and Form
3 Credit Hours
(Crosslisted with CNS 2363) Prerequisite: Majors only. An introduction to the nature of building materials with regard to form, strength, durability, workability, structure, connections, surfaces, and edges. Analysis of architectural expression through the use of building materials including the effects of: light, air movement, humidity, and their relationships to both one another and formal and spatial expressions. (F)

ARCH 2456 Design IV - Materials and Making 6 Credit Hours Prerequisite: ARCH 2363, ARCH 2356, ARCH 2243 with a grade of C or better. Corequisites: ARCH 2463, ARCH 2343, and ARCH 4193; Majors only; or permission of director. Introduces projects of moderate complexities demonstrating intermediate design principles within the context of the urban environment demonstrating an understanding of material. Students begin to engage the effects of site and environmental conditions upon material, formal, and spatial design decisions. (Sp)

ARCH 2463 Methods IV- Sustainable and Resilient Systems I

3 Credit Hours
Prerequisite: ARCH 2363, ARCH 2356, and ARCH 2243 with a grade of C or better. Co-requisites: ARCH 2456, ARCH 2343, ARCH 4193; or permission of director. Introduction to psychrometrics, heat transmission, mechanical heating and cooling, natural ventilation, passive solar conditioning, plumbing, and fire protection in buildings. (Sp)
ARCH 2970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: May be repeated; Maximum credit nine hours. Special topics course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research, and field projects. (Irreg.)
ARCH 3013 Architecture for Non-Majors 3 Credit Hours
Prerequisite: junior standing. An introduction of basic principles of architecture for the non-architect. Understanding of the qualities and characteristics of a well-designed architectural environment. Not open to architecture majors. (F, Sp) [IV-AF].
ARCH 3440 Mentored Research Experience 3 Credit Hours 0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)
ARCH 3556 Design V - Architectural Making I 6 Credit Hours Prerequisite: ARCH 2463, ARCH 2456, ARCH 2343, and ARCH 4193 with a grade of C or better. Co-requisites: ARCH 4563, ARCH 4233, ARCH 4453; or permission of director. Introduces principles and techniques of site design within a building context of place, order, form, and structure. It also introduces climatic data analysis software as a means for teaching evidence based design and sustainable design principles. Studio-based lectures and assignments will challenge students to analyze, adapt to, and transform the site within a building design context. (F)
ARCH 3656 Design VI - Architectural Making II 6 Credit Hours Prerequisites: ARCH 4563, ARCH 3556, ARCH 4233, ARCH 4453 with a grade of C or better. Co-requisites: ARCH 4663, ARCH 4543; or permission of director. Students develop the ability to design in the context of existing urban environments. Students are challenged to take into account the layered histories of cities as well as the complexities of dealing with site and street design for urban contexts. Course features guest lectures from experts on urban design and planning; and special topics pertaining to individual studio programs. (Sp)
ARCH 3960 Honors Reading 1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Consists of topics designated by the instructor in keeping with the student's major program. The topics will cover materials not usually presented in the regular courses. (F, Sp, Su)

## ARCH 3970 Honors Seminar

1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. The projects covered will vary. The content will deal with concepts not usually presented in regular coursework.
ARCH 3980 Honors Research 1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. Provides an opportunity for the gifted Honors candidate to work at a special project in the student's field. (F, Sp)

ARCH 3990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: permission of instructor and junior standing. May be repeated once with change of content. Independent study may be arranged to study a subject not available through regular course offerings. (F, Sp, Su)

## ARCH 4000 Foreign Study

0 Credit Hours
Prerequisite: permission of instructor. The student will experience an alternative culture or setting that enhances awareness and sensitivity. While this course normally involves foreign studies, it may include design/build, community service, volunteer activities, or other experiences relevant to Creating-Making. The duration of this experience shall be no less than eight weeks, and must be approved by a faculty coordinator. (F, Sp, Su)

ARCH 4053 Methods X- Tool of Practice
3 Credit Hours
(Slashlisted with ARCH 5053) Prerequisites: ARCH 4923, ARCH 4956 with a grade of $C$ or better. Co-requisites: ARCH 4056 or permission of director. Explores issues in contemporary architectural practice including the role of the client, contracts, practice and project management, leadership skills, legal responsibilities, and ethics. Emphasis is placed upon issues of cultural and environmental sustainability, political activism, and the changing role of the architecture profession. The course contains program specific research and support related to studio projects. No student may earn credit for both 4053 and 5053. (Sp)
ARCH 4056 Design X- Options Studio II
6 Credit Hours
Prerequisite: ARCH 4723, ARCH 4756, and ARCH 4333 with a grade of $C$ or better. This course examines analytical and methodological aspects of the design process through individual architectural projects. Students develop design proposals through means of intensive modeling and representation, both in analog and digital media. Fundamental issues of form, order, site, program along with schematic structure and constructability concepts are developed as part of the final project. (Sp)

## ARCH 4160 Internship 0 Credit Hours

(Slashlisted with ARCH 5160) Prerequisite: ARCH 4723, ARCH 4756; or permission of director. This internship requirement corresponds with the National Council of Architectural Registration Boards Internship Development Program (IDP) and provides students with experience in an architecture office or in a related field. Students must follow the Division's Internship Program Guidelines in order to verify the appropriate experience is gained and documented. No student may earn credit for both 4160 and 5160. (F, Sp, Su)
ARCH 4161 Co-Op: Cooperative Education Experience 1 Credit Hour (Slashlisted with ARCH 5161) Prerequisite: ARCH 4723 and ARCH 4756; or permission of director. The purpose of the Cooperative Education Program is to provide students with an actual office practice experience prior to graduation. The student is ideally exposed to a broad range of areas, such as construction documents, marketing, office practice, business management, client reviews, construction administration and a host of other daily activities that may be possible while working in Host Firms. No student may earn credit for both 4161 and 5161 . (F, Sp, Su)
ARCH 4183 Survey of Middle Eastern Architecture 3 Credit Hours (Slashlisted with ARCH 5183) Prerequisite: Junior standing or permission of instructor. Survey of Middle Eastern architecture and the impact architects and architecture from this time and region had upon the advancement of environmental/urban design throughout the rest of history. No student may earn credit for both 4183 and 5183. (Irreg.) [IVWDC].

ARCH 4193 Architectural Structures I
(Slashlisted with ARCH 5193; Crosslisted with CNS 4193) Prerequisite: Architecture major and completion of MATH 1523 and PHYS 1114; or Construction Science major and completion of PHYS 2414 and MATH 1523; or permission of division director. An introduction to basic physics, forces within structural systems, material strength, and associated structural engineering principles. Develops both intuitive and empirical knowledge of forces within structural systems that serve as a foundation for future courses within the Structures sequence. No student may earn credit for both 4193 and 5193. (Sp)

ARCH 4233 Architectural Structures II
3 Credit Hours
(Slashlisted with ARCH 5233; Crosslisted with CNS 4233) Prerequisite: ARCH 4193 or CNS 4193; majors only. Focus is on wood, concrete, and steel as structural materials. Material properties, common manufactured systems, common material sections, and common connection types will be explored with students demonstrating the ability to develop technical details related to various structural systems. No student may earn credit for both 4233 and 5233. (F)

## ARCH 4283 Persian Architecture

3 Credit Hours
(Slashlisted with ARCH 5283) Prerequisite: junior standing. The goal of the course is to guide students into an understanding of the important contributions that Persian Architecture has made to the built environment. This course provides a comprehensive history of ancient Iranian architecture and urbanism, from the first societies to the present. No student may earn credit for both 4283 and 5283. (Sp)
ARCH 4333 Advanced Structures 3 Credit Hours (Slashlisted with ARCH 5333) Prerequisite: ARCH 4193 and ARCH 4233; or permission of director. Introduces design of structural members using reinforced concrete. It covers the structural concrete, loads, analyses of tension and compression members, bending design for beams, axial load design for columns, structural systems, and design of reinforced concrete buildings. Concrete structures as taught for architects emphasizes principles of design rather than formulaic calculations. It emphasizes learning through project based collaborations. No student may earn credit for both 4333 and 5333. (F)

## ARCH 4353 LEED Seminar

3 Credit Hours
Prerequisite: senior standing. Gives a comprehensive understanding of leadership in energy and environmental design (LEED) and the certification process. Students acquire first-hand experience in the process of "greening up" a campus. Prepares students with the knowledge necessary to sit for and pass the LEED certification exam. ( F , Sp )

## ARCH 4433 Rendering

3 Credit Hours
Prerequisite: senior standing. Helps students develop a more advanced understanding of graphic presentation principles and the use of pen and pencil, marker, and water color in developing presentation floor plans, sections, elevations and 3-D renderings. (Sp) [IV-AF].
ARCH 4453 Modern and Contemporary Architecture 3 Credit Hours (Slashlisted with ARCH 5453) Prerequisite: Junior level standing; or permission of director. The course focus is on the relationship between architectural theories and projects during culture and the modern era. It considers how particular historical contexts shaped theories of design as well as how architects responded to the change. The course examines the relationship between the constructed environment and notions of modernity, developments in technology, building traditions, and politics. No student may earn credit for both 4453 and 5453. (F)

ARCH 4493 Architecture of Democracy
3 Credit Hours
(Slashlisted with ARCH 5493; Crosslisted with P SC 4493) Prerequisite: P SC 1113 or permission of instructor. This course explores how space, place and values come together in public spaces, by reviewing the evolution of architecture as it relates to human governance; introducing methods for assessing and designing physical space as an expression of human values; examines the social meaning and behavioral impact of spaces; studies the expression of democratic values in public spaces. No student may earn credit for both 4493 and 5493. (Irreg.)
ARCH 4513 Creativity Through Sketching
3 Credit Hours
(Slashlisted with ARCH 5513) Prerequisite: ENGL 1213 or EXPO 1213. This course teaches students how to express themselves creatively through sketching. Students receive instruction and assignments tailored to help them learn basic sketching techniques with the aim of developing their own expressive means of communicating through sketching. No student may earn credit for both 4513 and 5513. (F) [IV-AF].
ARCH 4543 Architectural Theory and Criticism
3 Credit Hours
(Slashlisted with ARCH 5543) Prerequisite: Junior level standing; or permission of director. The development of research and academic writing in an urban and architectural context. Development of critical and analytical writing skills through the use of original research and/ or analysis term papers. Topics may range from periods, politics, technology, economics, religion, gender, and culture. Open to nonarchitecture majors to encourage interdisciplinary research/writing. No student may earn credit for both 4543 and 5543. (Sp)

## ARCH 4563 Methods V- Sustainable and Resilient Systems

 II3 Credit Hours
Prerequisite: ARCH 2463, ARCH 2456, ARCH 2343, ARCH 4193 with a grade of C or better. Co-requisite: ARCH 3556, ARCH 4453, ARCH 4233; or permission of director. Introduction to plumbing, lighting, acoustics, and other auxiliary systems that impact the Creating-Making of the built environment. These systems are discussed in relation to issues of sustainability and human comfort. Codes and standards that effect building design will be introduced and discussed. (F)

ARCH 4663 Methods VI- Urban Design Methodologies 3 Credit Hours (Slashlisted with ARCH 5663). Prerequisites: ARCH 4563, ARCH 3556, ARCH 4233, ARCH 4453 with a grade of $C$ or better. Co-requisites: ARCH 3656, ARCH 4543 or permission of program director. Provides an introduction to urban design, an overview of its history, and a cross section of contemporary strategies to effect desired urban design conditions. The course content may support design work developed in studios of the architecture curriculum. Students may not earn credit for both 4663 and 5663. (Sp)
ARCH 4713 Real Estate Fundamentals
3 Credit Hours
(Slashlisted with ARCH 5713) Prerequisite: Junior Standing. This course is the first part of a two-course series providing an introductory survey of real estate development in terms of terminology, data, and the players, parties, and processes involved from both theoretical and practical perspectives. This course, Real Estate I, is intended to provide students with a fundamental understanding of real property's role in the creation of cities. No student may earn credit for both 4713 and 5713. (F)
ARCH 4723 Methods VII - Advanced Systems 3 Credit Hours (Slashlisted with ARCH 5723) Prerequisites: ARCH 4543, ARCH 4663, ARCH 3656 with a grade of C or better. Co-requisites: ARCH 4756; or permission of director. Introduction to advanced issues of structure, building systems, sustainability, and integrated building management systems. Course material will develop advanced understanding of the theories and practices of these complex systems and their effects on the built environment. No student may earn credit for both 4723 and 5723. (F)

ARCH 4743 Legal Framework for Design
3 Credit Hours
(Slashlisted with ARCH 5743) Prerequisite: Junior standing or permission of instructor. The course covers the study of legal principles relevant to real estate and real-estate projects, and the business entities through which to conduct that business. No student may earn credit for both 4743 and 5743. (F)
ARCH 4756 Design VII - Systems and Context 6 Credit Hours Prerequisites: ARCH 4543, ARCH 4663, ARCH 3656 with a grade of C or better. Co-requisites: ARCH 4723; or permission of director. This capstone course emphasizes the relationship of schematic design to contract documents through a broad exploration of structural, mechanical, electrical, plumbing, and other buildings systems. It builds on the fundamental issues of place, order, form, structure, site and programming. It is also dedicated to developing interdisciplinary and collaborative skills through team-based projects and other small group exercises. (F) [V].
ARCH 4783 Architectural Acoustics
3 Credit Hours
(Slashlisted with ARCH 5783) Prerequisite: 3rd, 4th or 5th year student in the College of Architecture. Focuses primarily on the nature of architectural acoustics based on material choices, surface arrangement, and the overall shaping of space to promote natural acoustics. There will also be some discussion concerning natural lighting and how design decisions for lighting and acoustics can work in unison. Students may not earn credit for both 4783 and 5783. (Irreg.)

## ARCH 4813 Real Estate Development

3 Credit Hours (Slashlisted with ARCH 5813) Prerequisite: Junior Standing. The course is the second part of a two-course series providing an introductory survey of real estate development in terms of terminology, data, and the players, parties, and processes involved from both theoretical and practical perspectives. This course, Real Estate II, is intended to provide students with an understanding of the development process from beginning to end. No student may earn credit for both 4813 and 5813. (Sp)
ARCH 4923 Methods IX- Entrepreneurial Architect and Leadership 3 Credit Hours
(Slashlisted with ARCH 5923) Prerequisites: ARCH 4723, ARCH 4756, ARCH 4333 with a grade of C or better. Co-requisites: ARCH 4956; or permission of director. Explores finance and leadership issues that currently confront the development, design, and construction industries. Expertise and decision-making capabilities with be explored. No student may earn credit for both 4923 and 5923. (F)
ARCH G4940 Field Work 1-4 Credit Hours
1 to 4 hours. Prerequisite: senior standing and permission of instructor. Field study related to the student's area of interest in a position approved by the instructor. One hour credit per 120 hours of field work or equivalent. Documentation and evaluation is required. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

## ARCH 4956 Design IX- Options Studio I <br> 6 Credit Hours

Prerequisite: ARCH 4723 , ARCH 4756, ARCH 4333 with a grade of $C$ or better. This course addresses advanced aspects of architectural design. It focuses on the development of analytical and methodological aspects of the design process, including but not limited to problem formulation, design representation and decision-making. Projects investigate a number of issues ranging from socio-economic, demographic, spatial justice, equity and environmental challenges, among others. (F)
ARCH 4960 Directed Readings
1-4 Credit Hours
1 to 4 hours. Prerequisite: senior standing and permission of instructor. May be repeated with change of subject; maximum credit 12 hours. Designed for upper-division students who need opportunity to study a specific problem in greater depth than formal course content permits. ( $F$, $\mathrm{Sp}, \mathrm{Su}$ )

ARCH G4970 General Departmental Seminar
1-6 Credit Hours
1 to 6 hours. Prerequisite: senior or graduate standing, or permission of instructor. May be repeated with change of content. Special topics in architecture. (F, Sp, Su)
ARCH 4990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: four courses in general area to be studied; permission of instructor and department. May be repeated; maximum credit six hours. Contracted independent study for topic not currently offered in regularly scheduled courses. ( $F, S p$ )

ARCH 5053 Methods X - Tools of Practice
3 Credit Hours
(Slashlisted with ARCH 4053) Prerequisites: Program admission or permission of graduate liaison. Explores issues in contemporary architectural practice including the role of the client, contracts, practice and project management, leadership skills, legal responsibilities, and ethics. Emphasis is placed upon issues of cultural and environmental sustainability, political activism, and the changing role of the architecture profession. The course contains program specific research and support related to studio projects. No student may earn credit for both 4053 and 5053. (Sp)

ARCH 5055 Design X - Comprehensive Architecture II 5 Credit Hours Prerequisite: ARCH 5922, ARCH 5955, or permission of graduate liaison. Corequisite: 5022. A continuation of ARCH 5955. Students are expected to further develop their project to a level of Design Development and limited Construction Detailing. The course encourages the continued exploration, speculation, and experimental innovation begun in Design IX extended into materials detailing, construction methods, mechanical systems, and creative spatial and aesthetic development. Component and assembly prototyping and performance modeling are included. (Sp)
ARCH 5143 Architectural History
3 Credit Hours
Prerequisite: Program admission or permission of graduate liaison. A theoretical investigation of the cultural, political, and aesthetic values of diverse Western and non-Western cultures and how these affect the built environment. This course continues the development of critical writing skills and further develops analytic skills that act to inform design decisions related to studio projects. (F)
ARCH 5160 Internship
0 Credit Hours
(Slashlisted with ARCH 4160) Prerequisite: Program admission or permission of graduate liaison. This internship requirement corresponds with the National Council of Architectural Registration Boards Internship Development Program (IDP) and provides students with experience in an architecture office or in a related field. Students must follow the Division's Internship Program Guidelines in order to verify the appropriate experience is gained and documented. No student may earn credit for both 4160 and 5160. (F, Sp, Su)
ARCH 5161 Co-Op: Cooperative Education Experience 1 Credit Hour (Slashlisted with ARCH 4161) Prerequisite: Graduate standing. The purpose of this Cooperative Education Program is to provide students with an actual office practice experience prior to graduation. The student is ideally exposed to a broad range of areas, such as construction documents, marketing, office practice, business management, client reviews, construction administration, and a host of other daily activities that may be possible while working in host firms. No student may earn credit for both 4161 and 5161.
ARCH 5183 Survey of Middle Eastern Architecture 3 Credit Hours (Slashlisted with 4183) Prerequisite: Graduate standing or permission of instructor. Survey of Middle Eastern architecture and the impact architects and architecture from this time and region had upon the advancement of environmental/urban design throughout the rest of history. No student may earn credit for both 4183 and 5183. (Irreg.)

ARCH 5193 Architectural Structures I
3 Credit Hours
(Slashlisted with ARCH 4193) Prerequisite: graduate standing and majors only; or permission of graduate liaison. An introduction to basic physics, forces within structural systems, material strength, and associated structural engineering principles. Develops both intuitive and empirical knowledge of forces within structural systems that serve as a foundation for future courses within the Structures sequence. No student may earn credit for both 4193 and 5193. (Sp)
ARCH 5233 Architectural Structures II
3 Credit Hours
(Slashlisted with ARCH 4233) Prerequisite: Program admission or permission of graduate liaison. Focus is on wood, concrete, and steel as structural materials. Material properties, common manufactured systems, common material sections, and common connection types will be explored with students demonstrating the ability to develop technical details related to various structural systems. No student may earn credit for both 4233 and 5233. (F)

## ARCH 5283 Persian Architecture

3 Credit Hours
(Slashlisted with ARCH 4283) Prerequisite: graduate standing. The goal of the course is to guide students into an understanding of the important contributions that Persian Architecture has made to the built environment. This course provides a comprehensive history of ancient Iranian architecture and urbanism, from the first societies to the present. No student may earn credit for both 4283 and 5283. (Sp)

## ARCH 5333 Advanced Structures

3 Credit Hours
(Slashlisted with ARCH 4333) Prerequisite: Program admission or permission of graduate liaison. Introduces design of structural members using reinforced concrete. It covers the structural concrete, loads, analyses of tension and compression members, bending design for beams, axial load design for columns, structural systems, and design of reinforced concrete buildings. Concrete structures as taught for architects emphasizes principles of design rather than formulaic calculations. It emphasizes learning through project based collaborations. No student may earn credit for both 4333 and 5333. (F)
ARCH 5363 Methods III- Materials and Form 3 Credit Hours
Prerequisite: Program admission or permission of graduate liaison. Introduction to the nature of building materials with regard to form, strength, durability, workability, structure, connections, surfaces, and edges. Analysis of architectural expression through the use of building materials including the effects of: light, air movement, humidity, and their relationships to both one another and formal and spatial expressions. (F)
ARCH 5453 Modern and Contemporary Architecture 3 Credit Hours (Slashlisted with ARCH 4453) Prerequisite: Program admission or permission of graduate liaison. The course focus is on the relationship between architectural theories and projects during culture and the modern era. It considers how particular historical contexts shaped theories of design as well as how architects responded to the change. The course examines the relationship between the constructed environment and notions of modernity, developments in technology, building traditions, and politics. No student may earn credit for both 4453 and 5453. (F)

## ARCH 5463 Advanced Sustainable and Resilient Systems 3 Credit Hours

Prerequisite: Graduate standing, ARCH 5363 and ARCH 5516 with a grade of C or better. Introduction to plumbing, lighting, acoustics, and other auxiliary systems that impact the Creating-Making of the built environment. These systems are discussed in relation to issues of sustainability and human comfort. Codes and standards that effect building design will be introduced and discussed. (Sp)

ARCH 5493 Architecture of Democracy
3 Credit Hours
(Slashlisted with ARCH 4493; Crosslisted with P SC 5493) Prerequisite: Graduate standing or permission of instructor. This course explores how space, place and values come together in public spaces by reviewing the evolution of architecture as it relates to human governance; introducing methods for assessing and designing physical space as an expression of human values; examining the social meaning and behavioral impact of spaces; and studying the expression of democratic values in public spaces. No student may earn credit for both 4493 and 5493. (Irreg.)
ARCH 5513 Creativity Through Sketching
3 Credit Hours
(Slashlisted with ARCH 4513) Prerequisite: Graduate standing or instructor permission. This course teaches students how to express themselves creatively through sketching. Students receive instruction and assignments tailored to help them learn basic sketching techniques with the aim of developing their own expressive means of communicating through sketching. No student may earn credit for both 4513 and 5513. (F)

ARCH 5516 Graduate Architectural Design I 6 Credit Hour
Prerequisite: Program admission or permission of the graduate
liaison. Introduces projects of moderate complexities demonstrating intermediate design principles within the context of the built environment. Application of both physical and virtual communication skills as professional techniques of representation and communication are required. (F)
ARCH 5526 Graduate Architectural Design II
6 Credit Hours
Prerequisite: Program admission or permission of graduate liaison. Continuation of ARCH 5126 with an introduction to passive and active forms of lighting, acoustics, conveyance systems, and electrical systems. An emphasis will be placed on the relation between these auxiliary building systems and Creating-Making. Issues of sustainability including environmental impacts, resource utilization, ethical resource efficiencies and performance-based design will be related to concepts of CreatingMaking. Codes and standards that effect the built environment will be explored. (Sp)

ARCH 5536 Graduate Architectural Design III
6 Credit Hours
Prerequisite: Program admission or permission of graduate liaison. Emphasis is on the relationship of schematic design to contract documents in order to understand structural, mechanical, electrical, plumbing, and other systems within buildings. Students demonstrate an understanding of drafting conventions, the production of traditional contract documents, Building Information Modeling, and the communication of additional solutions necessary for construction. The course develops interdisciplinary and collaborative skills through team projects. (F) [V].
ARCH 5543 Architectural Theory and Criticism 3 Credit Hours
(Slashlisted with ARCH 4543) Prerequisite: Program admission or permission of graduate liaison. The development of research and academic writing in an urban and architectural context. Development of critical and analytical writing skills through the use of original research and/or analysis term papers. Topics may range from periods, politics, technology, economics, religion, gender, and culture. Open to nonarchitecture majors to encourage interdisciplinary research/writing. No student may earn credit for both 4543 and 5543. (Sp)

ARCH 5546 Graduate Architectural Design IV 6 Credit Hours
Prerequisite: Program admission or permission of graduate liaison. Emphasis is on the development of a complete project from schematic design through design development and construction detailing. Students will develop a building of limited programmatic complexity through more complete technical development. The application of Building Information Modeling software will be required. This course addresses and builds upon the collaborative and analytic knowledge developed in ARCH 5423. (Sp)
ARCH 5663 Methods VI- Urban Design Methodologies 3 Credit Hours (Slashlisted with ARCH 4663) Pre-requisites: Program admission or permission of graduate liaison. Provides an introduction to urban design, an overview of its history and a cross section of contemporary strategies to effect desired urban design conditions. The course content may support design work developed in studios of the architecture curriculum. No student may earn credit for both 4663 and 5663. (Sp)

## ARCH 5713 Real Estate Fundamentals <br> 3 Credit Hours

(Slashlisted with ARCH 4713) Prerequisite: Graduate standing or permission of instructor. This course is the first of a two-course series providing an introductory survey of real estate development in terms of terminology, data, and the players, parties, and processes involved from both theoretical and practical perspectives. The course is intended to provide students with a fundamental understanding of real property's role in the creation of cities. No student may earn credit for both 4713 and 5713. (F)

ARCH 5723 Methods VII-Advanced Systems 3 Credit Hours
(Slashlisted with ARCH 4723) Prerequisite: Program admission or permission of graduate liaison. This course introduces students to advanced issues of structure, building systems, sustainability, and integrated building management systems. Course material will develop advanced understanding of the theories and practices of these complex systems and their effects on the built environment. No student may earn credit for both 4723 and 5723. (F)
ARCH 5743 Legal Framework for Design
3 Credit Hours
(Slashlisted with ARCH 4743) Prerequisite: Graduate standing or permission of instructor. The course covers the study of legal principles relevant to real estate, real estate projects, and the business entities through which to conduct that business. No student may earn credit for both 4743 and 5743. (F)
ARCH 5763 Landscape Architecture for Architects 3 Credit Hours Prerequisite: graduate standing or permission of instructor. Analysis and organization of the site together with the use of plant materials in landscape design. (Sp)
ARCH 5783 Architectural Acoustics 3 Credit Hours
(Slashlisted with ARCH 4783) Prerequisite: Graduate standing and permission of instructor. Focuses primarily on the nature of architectural acoustics based on material choices, surface arrangement, and the overall shaping of space to promote natural acoustics. There will also be some discussion concerning natural lighting and how design decisions for lighting and acoustics can work in unison. Students may not earn credit for both 4783 and 5783. (Irreg.)
ARCH 5812 Human Centric Design: Equity and Comfort 2 Credit Hours Prerequisite: Graduate standing and majors only. An introduction to environmental justice, including stakeholders and community engagement. A survey of how human comfort metrics intersect with site and climate. Introduces systemic issues associated with equity in the built environment and indigenous approaches. (F, Sp, Su)

ARCH 5813 Real Estate Development
3 Credit Hours
(Slashlisted with ARCH 4813) Prerequisite: Graduate standing or permission of the instructor. The course provides an introductory survey of real estate development in terms of terminology, data, and the players, parties, and processes involved from both theoretical and practical perspectives. This course is intended to provide students with an understanding of the development process from beginning to end. No student may earn credit for both 4813 and 5813. (Sp)

## ARCH 5822 Foundations of Building Physics and Analysis 2 Credit Hours

Prerequisite: Graduate standing and majors only. An introduction to topics in building physics including indoor and outdoor climate, passive technologies, daylighting, water issues, psychrometrics, and heat transfer. Explores the scientific method and application with building performance analysis, simple software-based calculations used to evaluate designs and construction against codes and standards. Explores connections between site and sustainable building metrics, Zero Tool, and AIA Framework for Design Excellence. (F, Sp, Su)
ARCH 5832 Introduction to Building Performance Analysis 2 Credit Hours
Prerequisite: Graduate standing; ARCH 5812, ARCH 5822; majors only. An introduction to metrics for evaluating building performance and tools for evaluation. Explores performance targets such as the Architecture 2030 Challenge. Examines pre- and post-occupancy performance analysis tools, equipment, and methods. Introduces software such as Cove Tools, Autodesk Insight, and Sefaira. (F, Sp)
ARCH 5842 Introduction to Research Methods for Analysis

## 2 Credit Hours

Prerequisite: Graduate standing; ARCH 5812, ARCH 5822; majors only. An introduction to design research methods. Examines the application of quantitative and qualitative research methods to research questions in architecture and urban design from pre-design to post-occupancy evaluation. Explores the practice of evidence-based design. (F, Sp)
ARCH 5852 Sustainable Design and BIM Workflows 2 Credit Hours Prerequisite: Graduate standing; ARCH 5812, ARCH 5822; majors only. An introduction to Building Information Modeling (BIM) sustainable design workflows. Explores how designers, engineers, and contractors collaborate through BIM to reach sustainable design goals. Examines how BIM can be used to drive sustainable design and decision-making in theory and practice. (F, Sp)
ARCH 5862 Sustainable Urban Design
2 Credit Hours
Prerequisite: Graduate standing; ARCH 5812, ARCH 5822; majors only. An introduction to sustainable urban design principles and practices. Explores Geographic Information System (GIS) tools and EPA databases such as the TRI Explorer as they relate to sustainable urbanism, real estate, and equity. Introduces the Ecodistrict Accredited Professional program. (F, Sp)

## ARCH 5863 Methods VIII-Building Performance Analytics 3 Credit

 HoursPrerequisite: Graduate standing in Architecture, ARCH 5723, and ARCH 5536; corequisite, ARCH 5546; or permission of graduate liaison. Advanced level course investigating contemporary theories and practices of sustainable and resilient design. Case studies are used to examine the connections between theories and practices particularly with regard to circular economies, and life cycle costs. (Sp)

ARCH 5872 LEED GA Exam
2 Credit Hours
Prerequisite: Graduate standing; ARCH 5812, ARCH 5822; majors only. An introduction to the US Green Building Council Leadership in Energy and Environmental Design (LEED) program. Examines how buildings can be designed and operated to reduce energy consumption, protect resources and promote health through the LEED program. Prepares students for taking the LEED Green Associate Exam. (F, Sp)
ARCH 5882 WELL AP Exam
2 Credit Hours
Prerequisite: Graduate standing; ARCH 5812, ARCH 5822; majors only. An introduction to the theory and practices associated with WELL Building Standard. Explores the research on human health and the design of the built environment that forms the foundation for the WELL building program. Prepares students for taking the WELL Accredited Professional exam. (F, Sp)
ARCH 5892 LCCA and the Circular Economy 2 Credit Hours Prerequisite: Graduate standing; ARCH 5842; majors only. Introduction to Life Cycle Cost Accounting (LCCA) and the Circular Economy. Explores the economic history, basic theory, and practices associated with LCCA.
Examines connections between performative building design evaluations and sustainability's three "E's": Environment, Equity, and Economic factors. Considers the role of the architect in a global context and their interdisciplinary impact on sustainability. ( $F, \mathrm{Sp}$ )
ARCH 5902 Building Operations Management 2 Credit Hours Prerequisite: Graduate standing; ARCH 5812, ARCH 5822; majors only. This course will explore the Rocky Mountain Institute (RMI) "NZE Leasing Best Practice Guide" and ULI's "Blueprint for Green Real Estate" including the steps of how to write and negotiate an NZE lease with elements that include energy budgets, building dashboards, recommissioning, green building financing models, and BIM-enabled digital twins. (F, Sp)
ARCH 5912 Sustainable Design Case Studies
2 Credit Hours
Prerequisite: Graduate standing; ARCH 5842; majors only. Explores the realities of building impacts on the environment through sustainable design case studies. Introduces the case study method of analysis using the AIA Framework for Design Excellence. Introduces tools and methods for undertaking case study analysis of built works. ( $F, S p$ )
ARCH 5923 Methods IX - Entrepreneurial Architect and Leadership 3 Credit Hours
(Slashlisted with ARCH 4923) Prerequisites: Program admission or permission of graduate liaison. Explores finance and leadership issues that currently confront the development, design, and construction industries. Expertise and decision-making capabilities with be explored. No student may earn credit for both 4923 and 5923. (F)
ARCH 5932 Sustainable Design Literature Reviews 2 Credit Hours Prerequisite: Graduate standing; ARCH 5912; majors only. Introduces literature reviews in the context of architectural research questions. Explores design research methods and process through a review of existing literature on a topic. Develops an understanding of how to identify gaps in existing knowledge. (F, Sp)
ARCH 5942 Case Study Research

## 2 Credit Hours

Prerequisite: Graduate standing; ARCH 5932; majors only. Explores examples of sustainable building design and construction through case study analysis following the American Institute of Architects case study format. Provides an opportunity for individual research project development. Includes consideration of sustainable design standards such as LEED and/or WELL. ( $\mathrm{F}, \mathrm{Sp}$ )

ARCH 5952 Comprehensive Exam
2 Credit Hours
Prerequisite: Graduate standing; ARCH 5882 and ARCH 5892; majors only. This course prepares students to take the Comprehensive Examination, given at the end of the course, demonstrating: 1) their experience in secondary research in their area of program concentration; 2) their knowledge of the areas and subareas of the discipline and their position relative to these areas; and (3) their pedagogical knowledge, techniques and literature. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
ARCH 5960 Directed Readings
1-4 Credit Hours
1 to 4 hours. Prerequisite: fifth year or graduate standing in architecture and permission of instructor. May be repeated with change of subject; maximum credit nine hours. Studies in major field as approved by instructor. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

ARCH 5962 Case Study Development and Presentation 2 Credit Hours Prerequisite: Graduate standing; ARCH 5942; majors only. Building on ARCH 5942, case studies are developed through peer reviews and presentations. Publication venues are investigated. ( $\mathrm{F}, \mathrm{Sp}$ )
ARCH 5970 General Departmental Seminar
1-4 Credit Hours
1 to 4 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit 12 hours. Advanced professional topics in architecture, construction science, urban design or environmental design. Lectures, team and individual assignments. (F)

## ARCH 5980 Research for Master's Thesis

2-9 Credit Hours
Prerequisite: Graduate standing. Variable enrollment, two to nine hours; Laboratory ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

ARCH 5990 Special Studies in Architecture 1-6 Credit Hours 1 to 6 hours. Prerequisite: fifth year or graduate standing and permission of instructor. May be repeated; maximum credit nine hours. Subject as assigned by instructor will be explored in depth. Documentation and presentation varies with nature of problem. Laboratory ( $\mathrm{Sp}, \mathrm{Su}$ )
ARCH 6056 Design X-Comprehensive Architecture II 6 Credit Hours Prerequisite: Graduate standing and ARCH 6956, or permission of graduate liaison. This course is a continuation of ARCH 6956. Analytical and methodological aspects of the design process introduced in the Fall are reinforced in the context of individual architectural projects. Schematic design alternatives developed at the end of ARCH 6956 will be developed. Fundamental issues of form, order, site, program, and building systems integration are developed for the final project. (Sp)

## ARCH 6156 Graduate Studio I

6 Credit Hours
Prerequisite: Permission of graduate liaison. The class introduces fundamental design and visual communication skills through the use of material, formal, and spatial properties of architecture. Fabrication safety, craft, and techniques will be introduced and developed through the making. Ideas involving creating-making are explored through exercises in the formal, spatial and material qualities of human environments.(Su)

## ARCH 6590 Professional Project Research

1-4 Credit Hours
1 to 4 hours. Prerequisite: permission of instructor. Research and development on subjects related to the professional project in architectural studies, architectural technology, historic preservation, urban design or other approved topics. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
ARCH 6643 Urban Design Theory
3 Credit Hours
(Crosslisted with LA 6643 and RCPL 6643) Prerequisite: graduate standing. A survey of theory relevant to the urban design process, including social and behavioral concepts, visual and aesthetic theory, spatial and geographic factors of urban form. (Sp)
ARCH $6680 \quad$ Urban Design Studio 1-6 Credit Hours
1 to 6 hours. Prerequisite: graduate standing. May be repeated with
different content; maximum credit six hours. The course involves
advanced architectural design projects with an emphasis in architectural
studies, architectural technology, historic preservation, urban design, or studies, architectural technology, historic preservation, urban design, or other approved topics. Laboratory. (F, Sp)

## ARCH 6690 Professional Project

1-6 Credit Hours
1 to 6 hours. Prerequisite: 5595 or 6680. May be repeated; maximum credit six hours. A terminal professional project demonstrating comprehensive understanding and integrative capabilities in architectural studies, architectural technology, historic preservation, urban design or other approved topics. Laboratory (F, Sp, Su)
ARCH 6956 Design IX- Comprehensive Architecture I 6 Credit Hours Prerequisite: Program admission or permission of graduate liaison. This is the first of a two-semester sequence that concludes with ARCH 6056. The course encourages innovative exploration, analysis, speculation, and experimentation in developing schematic proposals. Building design concepts will consider attitudes towards ethical, environmental, site, sustainable, social, financial, material, and historical issues within the built environment and the program's Creating-Making curriculum. (F)

## ARCH 6960 Directed Readings

1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit six hours. Directed readings and/or literature review under the direction of a faculty member. (Irreg.)
ARCH 6970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit 12 hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or research and field projects. (Irreg.)

ARCH 6990 Special Studies in Architecture
1-6 Credit Hours
1 to 6 hours. Prerequisite: graduate standing. May be repeated; maximum credit 12 hours. The candidate will thoroughly explore the particular phase of architecture selected for advanced study by the student and the graduate committee; presentation of the work will be determined by the nature of the contribution. Laboratory ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

## Faculty

| Last Name | First/Middle Middle <br> Name <br> init. | OU <br> Service <br> start | Title(s), date(s) <br> appointed | Degrees Earned, <br> Schools, Dates |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Boeck | David | L | 2006 | ASSOCIATE | Completed <br> B Arch, Univ of |
|  |  |  |  | PROFESSOR OF <br> ARCHITECTURE, | Oklahoma, 1979; <br> M Arch, Univ of |
|  |  |  |  | 2006 | Oklahoma, 1979; B <br> Env Design, Univ of |
|  |  |  |  |  | Oklahoma, 1978 |

Butko Daniel J 2010 ASSOCIATE PROFESSOR OF ARCHITECTURE, 2016; ACADEMIC ASSOCIATE DIRECTOR, ARCHITECTURE,
2018

| Butzer | Hans | E | 2000 | CARLISLE AND LURLINE MABREY PRESIDENTIAL PROFESSOR, 2010; PROFESSOR OF ARCHITECTURE, 2013; A. BLAINE IMEL, JR. PROFESSOR OF ARCHITECTURE, 2013 | M Arch, Harvard Univ, 1999; B Arch, Univ of Texas, 1990 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Callahan | Marjorie | P | 2000 | ASSOCIATE PROFESSOR OF ARCHITECTURE, 2007; GRADUATE LIAISON, DIVISION OF ARCHITECTURE | MS, Univ of Massachusetts, 1990; B Arch Univ of Oklahoma, 1995; BA, Mills College, 1977 | OF ARCHITECTURE,


| Callahan | Sam | E | 2008 | LECTURER, 2015 |
| :--- | :--- | :--- | :--- | :--- |
|  |  |  |  |  |
| Cavieres Andres | F | 2015 |  |  |
| Pinilla |  |  |  | ASSOCIATE <br> PROFESSOR OF <br> ARCHITECTURE, |
|  |  |  |  |  |


| Callahan | Sam | E | 2008 | LECTURER, 2015 |
| :--- | :--- | :--- | :--- | :--- |
|  |  |  |  |  |
|  |  |  |  |  |
| Cavieres | Andres | F | 2015 | ASSOCIATE |
| Pinilla |  |  |  | PROFESSOR OF |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  | ARCHITECTURE, 2022


| Cianfarani Francesco | 2017 | ASSISTANT <br>  <br>  <br>  |
| :--- | :--- | :--- |
|  |  |  |

2000
School of Architecture Valle Giulia, Sapienza Univ of Rome, Italy Doctor in Architecture, Degree Course in EU Architecture M Arch, Univ of Texas Arlington, 1995; BS Arch, Univ of Texas At Arlington, 1993 PhD, Univ of Oklahoma 2018; M Arch, Univ of Oklahoma, 1998; BS, Univ of Oklahoma, 1986; BS Engr, Univ of Oklahoma, 1984

MS, Univ of Florida, 2005; BS, Univ of Florida, 1998

MS, Univ of Massachusetts, 1990; B Arch Univ of Mills College, 1977

B Arch, Univ of Oklahoma, MS Architecture, Univ of Oklahoma PhD. Arch Georgia Institute of Technology, MS. Arch, Georgia Institute of Technology, Prof. Degree, Univ of Chile,

## 2002; BA, Univ of

Chile, 2000 PROFESSOR, 2020

| Cricchio | Anthony | J | 2008 | ASSOCIATE PROFESSOR OF ARCHITECTURE, 2014 |
| :---: | :---: | :---: | :---: | :---: |
| Fithian | Lee | A | 2005 | ASSOCIATE PROFESSOR OF ARCHITECTURE, 2011; ADJUNCT ASSOCIATE PROFESSOR OF LIBERAL STUDIES, 2011 |


| Frantz | Ronald | H | 2011 | ASSOCIATE <br> PROFESSOR OF <br> ARCHITECTURE, <br> 2011; WICK CARY <br> PROFESSOR OF <br> THE INSTITUTE <br> FOR QUALITY <br> COMMUNITIES, <br> 2011; DIRECTOR, <br> SMALL TOWN <br> STUDIOS, INSTITUTE <br> FOR QUALITY <br> COMMUNITIES, 2011; <br> COORDINATOR, <br> BACHELOR OF <br> SCIENCE IN <br> ENVIRONMENTAL <br> DESIGN PROGRAM, <br> 2013 | MS, Tulane Univ, 2004; BS, Tulane Univ, 1981 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Hampton | Shane | R | 2013 | WICK CARY PROFESSOR OF THE INSTITUTE FOR QUALITY COMMUNITIES, 2016; DIRECTOR, INSTITUTE FOR QUALITY COMMUNITIES, 2016; ADJUNCT INSTRUCTOR OF ARCHITECTURE, 2014; RESEARCH ASSOCIATE OF THE INSTITUTE FOR QUALITY COMMUNITIES, 2013; INSTRUCTOR, ENVIRONMENTAL DESIGN | MA, Univ of Oklahoma, 2013; BA, Univ of Oklahoma, 2011 |
| Hwang | Youngjin |  | 2022 | ASSISTANT <br> PROFESSOR, 2022 | PhD. Architectural Science, Rensselaer Polytechnic Institute, M. EBD Univ of Pennsylvania, ,MA , Hanyang Univ, BA, Hanyang Univ |
| Leveno | Amy |  | 2021 | ASSISTANT <br> PROFESSOR, 2021 | MArch, Univ of Texas at Austin, BS, Civil Engineering, Lehigh Univ, BA, Architecture Lehigh Univ |
| Liebermann | Wanda | K | 2021 | ASSISTANT <br> PROFESSOR, 2021 | Doctor of Design, Harvard Univ, MArch Univ of California Berkeley, BA, Architecture, Univ of California at Berkeley |
| Marold | Ken |  | 2017 | ASSISTANT PROFESSOR OF ARCHITECTURE, 2017 | MA, Univ of New <br> Mexico, 2008; BA, <br> Roger Williams Univ, 1999 |
| Morrey | Chris |  | 2021 | LECTURER, 2021 | MFL, Sculpture, Univ of Missouri, BFA, Sculpture, Kansas City Art Institute |
| Peralta | Rene' |  | 2022 | LECTURER 2022 | MS Arch, University of Oklahoma, BArch, New School of Architecture and Design |


| Person | Angela | M | 2016 | ASSOCIATE <br> PROFESSOR, 2023 | Ph.D., Geography MA, Museum Studies BS, Environmental Design, Minor in Geology; Univ of Oklahoma |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Pilat | Stephanie | Z | 2010 | ASSOCIATE PROFESSOR OF ARCHITECTURE, 2016; EDITH KINNEY GAYLORD PRESIDENTIAL PROFESSOR, 2017; W. EDWIN BRYAN, JR. PROFESSORSHIP OF ARCHITECTURE, 2017 | PhD, Univ of <br> Michigan, 2009; MS, Univ of Michigan, 2002; B Arch, Univ of Cincinnati, 1999 |
| Proietti | Tiziana |  | 2021 | ASSISTANT <br> PROFESSOR, 2021 | Ph.D., Department of Architecture of the Sapienza, |
| Richards | Deborah | A | 2014 | ASSISTANT PROFESSOR OF ARCHITECTURE, 2017 | M Arch, Columbia Univ, 2009; BS Arch, Univ of Michigan, 2006 |
| Schaefer | Shawn | M | 2000 | DIRECTOR, MASTERS OF ARCHITECTURE URBAN STUDIES PROGRAM AT TULSA, 2002; ASSOCIATE PROFESSOR OF ARCHITECTURE AT TULSA, 2012 | M.Arch, Univ of Oklahoma, 1993; B.Arch, Univ of Oklahoma, 1990 |
| Shadravan | Shideh |  | 2014 | ASSISTANT PROFESSOR OF ARCHITECTURE, 2014 | PhD, Univ of Oklahoma, 2011; MS, Univ of Oklahoma, 2007; BE, Ferdowsi Univ, 1988 |
| Shimul | Shakil | A | 2022 | ASSISTANT <br> PROFESSOR, 2022 | PhD, Texas Tech Univ MS, Arch, Texas Tech Univ, BArch, Univ of Bangladesh |
| Zinger | Tamar |  | 2021 | ASSISTANT <br> PROFESSOR, 2021 | PhD. Princeton Univ, MS Architecture, Technion Israel Institute of Technology, BArch, The Cooper Union |

## Architecture, Three+ Year Program, B. in Arch. St.

Minimum Total Credit Hours: 120
Major Hours: 79
Minimum Upper-Division Hours: 48
Overall GPA - Combined and OU: 2.50
All Required Professional Courses GPA: 2.50
Program Code: B043

## Major Requirements

- A minimum grade of C is required in all major coursework.
- Completion of a university-approved minor or Division approved concentration is also required. All first year courses are to be
completed before advancing to the second year unless otherwise approved by the Architecture Division Director.
- Admission to the BAS degree program is limited to students who are certified for degree candidacy and meet all prerequisites.

| Code | Title | Credit Hours |
| :---: | :---: | :---: |
| Required Courses |  |  |
| ARCH 1155 | Design I- Design Fundamentals | 5 |
| ARCH 1163 | Methods I-Materiality of Place | 3 |
| ARCH 1255 | Design II - Craft and Making | 5 |
| ARCH 1263 | Methods II - Pattern of Architecture | 3 |
| ARCH 2243 | History of the Built Environment I | 3 |
| ARCH 2343 | History of the Built Environment II (Core IVWC) | 3 |
| ARCH 2356 | Design III - Crafting Place | 6 |
| ARCH 2363 | Materials and Form | 3 |
| ARCH 2456 | Design IV - Materials and Making | 6 |
| ARCH 2463 | Methods IV- Sustainable and Resilient Systems I | 3 |
| ARCH 4000 | Foreign Study | 0 |
| ARCH 4193 | Architectural Structures I | 3 |
| ARCH 4233 | Architectural Structures II | 3 |
| ARCH 4453 | Modern and Contemporary Architecture | 3 |
| ARCH 3556 | Design V - Architectural Making I | 6 |
| ARCH 3656 | Design VI - Architectural Making II | 6 |
| ARCH 4563 | Methods V- Sustainable and Resilient Systems II | 3 |
| ARCH 4543 | Architectural Theory and Criticism | 3 |
| ARCH 4663 | Methods VI- Urban Design Methodologies | 3 |
| ARCH 4723 | Methods VII - Advanced Systems | 3 |
| ARCH 4756 | Design VII - Systems and Context | 6 |
| Total Credit Hours |  | 79 |

## General Education and College Requirements

Courses designated as Core I, II, III, IV, or V are part of the General Education curriculum. Students must complete a minimum of 40 hours of General Education courses, chosen from the approved list, including at least one upper-division Gen. Ed. course outside of the student's major. Courses graded S/U or P/NP will not apply.
UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS

| Code Title | Credit |
| :--- | :--- |
|  | Hours |

Core Area I: Symbolic and Oral Communication
\(\left.\begin{array}{lr}\hline English Composition \& 3 <br>
\hline ENGL 1113 \quad Principles of English Composition \& 3 <br>
\hline ENGL 1213 \& Principles of English Composition <br>

or EXPO 1213 \& Expository Writing\end{array}\right]\)| Language (0-10 hours in the same language) | $0-10$ |
| :--- | :--- |
| This requirement can be met by two years of the same <br> language in high school: <br> Beginning Course (0-5 hours) <br> Beginning Course, continued (0-5 hours) |  |



## Free Electives

Electives to bring total applicable hours to 120 including 48 upperdivision hours.

## Semester Plan of Study

Courses designated as Core I, II, III, IV, or V are part of the General Education curriculum. Students must complete a minimum of 40 hours of General Education courses, chosen from the approved list, including at least one upper-division Gen. Ed. course outside of the student's major. Courses graded S/U or P/NP will not apply.

A minimum grade of C is required in all major coursework. Completion of a university-approved minor or Division approved concentration is also required. All first year courses are to be completed before advancing to the second year unless otherwise approved by the Architecture Division Director.

Admission to the BAS degree program is limited to students who are certified for degree candidacy and meet all prerequisites.

## Freshman

| First Semester |  | Credit <br> Hours |
| :--- | :--- | ---: |
| ARCH 1163 | Methods I - Materiality of Place | 3 |
| ARCH 1155 | Design I- Design Fundamentals | 5 |
| ENGL 1113 | Principles of English Composition (Core I) | 3 |
| MATH 1523 | Precalculus and Trigonometry (Core I) | 3 |
|  | Credit Hours | $\mathbf{1 4}$ |


| Second Semester |  |  |
| :--- | :--- | :--- |
| ARCH 1263 | Methods II - Pattern of Architecture | 3 |
| ARCH 1255 | Design II - Craft and Making | 5 |
| First-Year Experience (Core V) | 3 |  |
| PHYS 1114 | General Physics for Non-Science Majors | 4 |
|  | (Core II) |  |
|  | Credit Hours | $\mathbf{1 5}$ |

Summer

| HIST 1483 <br> or HIST 1493 | United States to 1865 (Core IV) <br> or United States, 1865 to the Present | 3 |
| :---: | :--- | :---: |
| ENGL 1213 <br> or EXPO 1213 | Principles of English Composition (Core I) <br> or Expository Writing | 3 |
|  | Credit Hours | $\mathbf{6}$ |

Sophomore
First Semester

| ARCH 2243 | History of the Built Environment I (Core IV) | 3 |
| :--- | :--- | ---: |
| ARCH 2363 | Materials and Form | 3 |
| ARCH 2356 | Design III - Crafting Place | 6 |
| Natural Science, with lab-(Core II) from approved Gen. Ed. list | 4 |  |
|  | Credit Hours | $\mathbf{1 6}$ |

Second Semester

| ARCH 2343 | History of the Built Environment II (Core IV- <br> WC) | 3 |
| :--- | :--- | ---: |
| ARCH 2463 | Methods IV- Sustainable and Resilient |  |
|  | Systems I | 3 |
| ARCH 2456 | Design IV - Materials and Making | 6 |
| ARCH 4193 | Architectural Structures I | 3 |
|  | Credit Hours | $\mathbf{1 5}$ |


| Summer |  |  |
| :--- | :--- | ---: |
| P SC 1113 | American Federal Government (Core III) | 3 |
| Social Science | Advised Elective (Core III) | 3 |
|  | Credit Hours | $\mathbf{6}$ |
| Junior |  |  |
| First Semester |  | 3 |
| ARCH 4233 | Architectural Structures II | 3 |
| ARCH 4453 | Modern and Contemporary Architecture | 3 |
| ARCH 4563 | Methods V- Sustainable and Resilient |  |
|  | Systems II |  |
| ARCH 3556 | Design V - Architectural Making I | 6 |
|  | Credit Hours | $\mathbf{1 5}$ |


| Second Semester |  |  |
| :--- | :--- | ---: |
| ARCH 4000 | Foreign Study (may be taken any semester) | 0 |
| ARCH 4543 | Architectural Theory and Criticism | 3 |
| ARCH 4663 | Methods VI- Urban Design Methodologies | 3 |
| ARCH 3656 | Design VI - Architectural Making II | 6 |
| Open Elective (upper division) ${ }^{1}$ | 3 |  |
|  | Credit Hours | $\mathbf{1 5}$ |

Senior

| First Semester |  |  |
| :--- | :--- | :--- |
| ARCH 4723 | Methods VII - Advanced Systems | 3 |
| ARCH 4756 | Design VII - Systems and Context | 6 |
| Open Elective (upper division) |  |  |
| World Culture - (Core IV), upper-division | 3 |  |



## Architecture, Four+ Year Program, B. Arch.

Minimum Total Credit Hours: 150
Major Hours: 109
Minimum Upper-Division Hours: 48
Overall GPA - Combined and OU: 2.50
All Required Professional Courses GPA: 2.50
Program Code: B044

## Major Requirements

- A minimum grade of $C$ is required in all major coursework.
- Completion of a university-approved minor or Division approved concentration is also required. All first year courses are to be completed before advancing to the second year unless otherwise approved by the Architecture Division Director.
- Admission to the BARCH degree program is limited to students who are certified for degree candidacy and meet all prerequisites.

| Code | Title | Credit Hours |
| :---: | :---: | :---: |
| Required Courses |  |  |
| ARCH 1155 | Design I- Design Fundamentals | 5 |
| ARCH 1163 | Methods I- Materiality of Place | 3 |
| ARCH 1255 | Design II - Craft and Making | 5 |
| ARCH 1263 | Methods II - Pattern of Architecture | 3 |
| ARCH 2243 | History of the Built Environment I (Core IVWC) | 3 |
| ARCH 2343 | History of the Built Environment II (Core IVWC) | 3 |
| ARCH 2356 | Design III - Crafting Place | 6 |
| ARCH 2363 | Materials and Form | 3 |
| ARCH 2456 | Design IV - Materials and Making | 6 |
| ARCH 2463 | Methods IV- Sustainable and Resilient Systems I | 3 |
| ARCH 4000 | Foreign Study | 0 |
| ARCH 4193 | Architectural Structures I | 3 |
| ARCH 4233 | Architectural Structures II | 3 |
| ARCH 4333 | Advanced Structures | 3 |
| ARCH 4453 | Modern and Contemporary Architecture | 3 |
| ARCH 3556 | Design V - Architectural Making I | 6 |
| ARCH 3656 | Design VI - Architectural Making II | 6 |
| ARCH 4563 | Methods V- Sustainable and Resilient Systems II | 3 |
| ARCH 4543 | Architectural Theory and Criticism | 3 |


| ARCH 4663 | Methods VI- Urban Design Methodologies | 3 |
| :---: | :---: | :---: |
| ARCH 4723 | Methods VII - Advanced Systems | 3 |
| ARCH 4756 | Design VII - Systems and Context | 6 |
| ARCH 4160 | Internship | 0 |
| ARCH 4923 | Methods IX- Entrepreneurial Architect and Leadership | 3 |
| ARCH 4956 | Design IX- Options Studio I | 6 |
| ARCH 4053 | Methods X-Tool of Practice | 3 |
| ARCH 4056 | Design X-Options Studio II | 6 |
| Professional Elective |  |  |
| Choose 9 hour related disci | upper-division courses in architecture or a | 9 |

## Total Credit Hours

## General Education and College Requirements

Courses designated as Core I, II, III, IV, or V are part of the General Education curriculum. Students must complete a minimum of 40 hours of General Education courses, chosen from the approved list, including at least one upper-division Gen. Ed. course outside of the student's major. Courses graded S/U or P/NP will not apply.

## UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS

| Code Title | Credit |
| :--- | :--- |
|  | Hours |

Core Area I: Symbolic and Oral Communication

| English Composition |  |
| :---: | :---: |
| ENGL 1113 Principles of English Composition | 3 |
| ENGL 1213 Principles of English Composition or EXPO 1213 Expository Writing | 3 |
| Language (0-10 hours in the same language) |  |
| This requirement can be met by two years of the same language in high school: | 0-10 |
| Beginning Course (0-5 hours) |  |
| Beginning Course, continued (0-5 hours) |  |
| Mathematics |  |
| MATH 1523 Precalculus and Trigonometry | 3 |
| Core Area II: Natural Science (including one laboratory) |  |
| Natural Science |  |
| PHYS 1114 General Physics for Non-Science Majors | 4 |
| Natural Science with lab |  |
| Choose one course from a different topic than natural science | 4 |
| Core Area III: Social Science |  |
| P SC 1113 American Federal Government | 3 |
| Choose one course | 3 |
| Core Area IV: Arts \& Humanities |  |
| Artistic Forms |  |
| Choose one course | 3 |
| Western Culture |  |
| HIST 1483 United States to 1865 | 3 |
| or HIST 1493 United States, 1865 to the Present |  |
| Choose one course ${ }^{1}$ | 3 |

## World Culture

| Choose one general education course at the upper division | 3 |
| :--- | ---: |
| $(3000-4000)$ level and outside of the major |  |
| Core Area V: First-Year Experience | 3 |
| Choose one course | $38-48$ |
| Total Credit Hours |  |
| 1 Excluding HIST 1483 and HIST 1493. |  |
| Free Electives |  |

Electives to bring total applicable hours to 150 including 48 upperdivision hours (may not include architecture courses).

Courses designated as Core I, II, III, IV, or V are part of the General Education curriculum. Students must complete a minimum of 40 hours of General Education courses, chosen from the approved list, including at least one upper-division Gen. Ed. course outside of the student's major. Courses graded S/U or P/NP will not apply.

A minimum grade of C is required in all major coursework. Completion of a university-approved minor or Division approved concentration is also required. All first year courses are to be completed before advancing to the second year unless otherwise approved by the Architecture Division Director.

Admission to the BARCH degree program is limited to students who are certified for degree candidacy and meet all prerequisites.

In the United States, most registration boards require a degree from an accredited professional degree program as a prerequisite for licensure. The National Architectural Accrediting Board (NAAB), which is the sole agency authorized to accredit professional degree programs in architecture offered by institutions with U.S. regional accreditation, recognizes three types of degrees: the Bachelor of Architecture, the Master of Architecture, and the Doctor of Architecture. A program may be granted an eight-year term, an eight-year term with conditions, or a two-year term of continuing accreditation, or a three-year term of initial accreditation, depending on the extent of its conformance with established education standards. Doctor of Architecture and Master of Architecture degree programs may require a non-accredited undergraduate degree in architecture for admission. However, the nonaccredited degree is not, by itself, recognized as an accredited degree.

The University of Oklahoma, Division of Architecture offers the following NAAB-accredited degree programs: Bachelor of Architecture, 150 credits; Master of Architecture, 60 credits; Master of Architecture, 96 credits; and Accelerated Master of Architecture/Bachelor of Sciences in Architectural Studies, 168 credits. The next accreditation visit date for the University of Oklahoma is 2023.

## Freshman

First Semester Credit

| ARCH 1163 | Methods I - Materiality of Place | 3 |
| :--- | :--- | ---: |
| ARCH 1155 | Design I- Design Fundamentals | 5 |
| ENGL 1113 | Principles of English Composition (Core I) | 3 |
| MATH 1523 | Precalculus and Trigonometry (Core I) | $\mathbf{3}$ |
|  | Credit Hours | $\mathbf{1 4}$ |

## Second Semester

| ARCH 1263 | Methods II - Pattern of Architecture | 3 |
| :--- | :--- | :--- |
| ARCH 1255 | Design II - Craft and Making | 5 |


| First-Year Experience (Core V) |  | 3 |
| :---: | :---: | :---: |
| PHYS 1114 | General Physics for Non-Science Majors (Core II) | 4 |
|  | Credit Hours | 15 |
| Summer |  |  |
| HIST 1483 or HIST 1493 | United States to 1865 (Core IV) or United States, 1865 to the Present | 3 |
| ENGL 1213 or EXPO 1213 | Principles of English Composition (Core I) or Expository Writing | 3 |
|  | Credit Hours | 6 |
| Sophomore |  |  |
| First Semester |  |  |
| ARCH 2243 | History of the Built Environment I (Core IV) | 3 |
| ARCH 2363 | Materials and Form | 3 |
| ARCH 2356 | Design III - Crafting Place | 6 |
| $\underline{\text { Natural Science, with lab-(Core II) from approved Gen. Ed. list }}$ |  | 4 |
|  | Credit Hours | 16 |
| Second Semester |  |  |
| ARCH 2343 | History of the Built Environment II (Core IV) | 3 |
| ARCH 2463 | Methods IV- Sustainable and Resilient Systems I | 3 |
| ARCH 2456 | Design IV - Materials and Making | 6 |
| ARCH 4193 | Architectural Structures I | 3 |
|  | Credit Hours | 15 |
| Summer |  |  |
| Social Science - Advised Elective (Core III) |  | 3 |
| P SC 1113 | American Federal Government (Core III) | 3 |
|  | Credit Hours | 6 |
| Junior |  |  |
| First Semester |  |  |
| ARCH 4233 | Architectural Structures II | 3 |
| ARCH 4453 | Modern and Contemporary Architecture | 3 |
| ARCH 4563 | Methods V- Sustainable and Resilient Systems II | 3 |
| ARCH 3556 | Design V - Architectural Making I | 6 |
|  | Credit Hours | 15 |
| Second Semester |  |  |
| ARCH 4000 | Foreign Study (may be taken any semester) | 0 |
| ARCH 4543 | Architectural Theory and Criticism | 3 |
| ARCH 4663 | Methods VI- Urban Design Methodologies | 3 |
| ARCH 3656 | Design VI - Architectural Making II | 6 |
| Open Elective (upper division) |  | 3 |
|  | Credit Hours | 15 |
| Senior |  |  |
| First Semester |  |  |
| ARCH 4333 | Advanced Structures | 3 |
| ARCH 4723 | Methods VII - Advanced Systems | 3 |
| ARCH 4756 | Design VII - Systems and Context (Capstone) | 6 |
| World Culture (Core IV), upper-division |  | 3 |
| Artistic Forms (Core IV) ${ }^{2}$ |  | 3 |
|  | Credit Hours | 18 |


| Second Semester |  |  |
| :---: | :---: | :---: |
| ARCH 4160 | Internship (shall comply to the program internship guidelines) | 0 |
|  | Credit Hours | 0 |
| Fifth Year |  |  |
| First Semester |  |  |
| ARCH 4923 | Methods IX- Entrepreneurial Architect and Leadership | 3 |
| ARCH 4956 | Design IX- Options Studio I | 6 |
| Professional Elective ${ }^{3} 3$ |  |  |
| Open Elective (upper division) $^{1} \quad 3$ |  |  |
|  | Credit Hours | 15 |
| Second Semester |  |  |
| ARCH 4053 | Methods X-Tool of Practice | 3 |
| ARCH 4056 | Design X-Options Studio II | 6 |
| Professional Elective ${ }^{3} 3$ |  |  |
| Professional Elective ${ }^{3}$ 3 |  |  |
|  | Credit Hours | 15 |
|  | Total Credit Hours | 150 |
| 1 Open Elective (6 hours)-Any open elective hours are the student's choice but may not include architecture courses. <br> ${ }^{2}$ Required upper-division Gen. Ed. course outside of the student's major. <br> ${ }^{3}$ Professional Elective (9 hours)-student choice of upper-division courses in architecture or related discipline. |  |  |
| Architectural Studies, Minor |  |  |
| Minimum Total Credit Hours: 15 Minimum Upper-Division Hours: 3 |  |  |
| Program Code: N045 |  |  |
| The requirements for a minor must be completed concurrently with the major degree requirements. No minor may be added by completing courses after receiving the bachelor's degree. |  |  |
| - The minor is not intended to prepare a student for professional practice in the minor field. <br> - Required courses in the student's major cannot be used for the minor. |  |  |
| Required Courses |  |  |
| Students who declare a minor in Architecture must complete fifteen hours from the list of courses below. One course must be taken at the upper-division level to complete the minor. |  |  |
| Code | Title | Credit Hours |
| ARCH 1112 |  |  |
| ARCH 1163 | Methods I-Materiality of Place | 3 |
| ARCH 1153 |  |  |
| ARCH 1263 | Methods II - Pattern of Architecture | 3 |
| ARCH 1255 | Design II - Craft and Making | 5 |
| ARCH 2243 | History of the Built Environment I | 3 |
| ARCH 2343 | History of the Built Environment II | 3 |
| ARCH 2363 | Materials and Form | 3 |


| ARCH 2356 | Design III - Crafting Place | 6 |
| :--- | :--- | :---: |
| ARCH 2463 | Methods IV- Sustainable and Resilient <br> Systems I | 3 |
| ARCH 2456 | Design IV - Materials and Making | 6 |
| ARCH 4133 |  | 3 |
| ARCH 4233 | Architectural Structures II | 3 |
| ARCH 4453 | Modern and Contemporary Architecture | 3 |
| ARCH 4543 | Architectural Theory and Criticism | 3 |

Minors are available to all undergraduate students at OU . If the minor is officially declared and approved, successfully completed, and noted on the graduation application, the student's transcript will so indicate at the time the bachelor's degree is posted.

## Architecture, $3^{1 / 2}+1 \frac{1}{2}$ Program, B. Arch.St./M. Arch.

Minimum Total Credit Hours: 168
Minimum Upper-Division Hours: 48

Overall GPA - Combined and OU: 3.00
All Required Professional Courses GPA: 3.0
Program Code: A043/F046

## Major Requirements

- A minimum grade of $C$ is required in all major coursework to continue in the BAS. A minimum 3.25 GPA is required for admission to the accelerated BAS+MARCH. A minimum 3.0 GPA must be maintained to continue in the accelerated BAS+MARCH.
- All first year courses are to be completed before advancing to the second year unless otherwise approved by the Architecture Division Director.
- Admission to the BAS or the accelerated MARCH degree program is limited to students who are certified for degree candidacy and meet all prerequisites.

| Code | Title | Credit |
| :--- | :--- | :--- |
|  | Hours |  |

## Required Courses

| ARCH 1155 | Design I- Design Fundamentals | 5 |
| :--- | :--- | :--- |
| ARCH 1163 | Methods I - Materiality of Place | 3 |
| ARCH 1255 | Design II - Craft and Making | 5 |
| ARCH 1263 | Methods II - Pattern of Architecture | 3 |
| ARCH 2243 | History of the Built Environment I | 3 |
| ARCH 2343 | History of the Built Environment II (Core IV- <br>  <br> WC) | 3 |
| ARCH 2356 | Design III - Crafting Place | 6 |
| ARCH 2363 | Materials and Form | 3 |
| ARCH 2456 | Design IV - Materials and Making | 6 |
| ARCH 2463 | Methods IV- Sustainable and Resilient | 3 |
| ARCH 4000 | Systems I | Foreign Study |
| ARCH 4193 | Architectural Structures I | 3 |
| ARCH 4233 | Architectural Structures II | 3 |
| ARCH 4453 | Modern and Contemporary Architecture | 3 |


| ARCH 3556 | Design V - Architectural Making I | 6 |
| :--- | :--- | ---: |
| ARCH 3656 | Design VI - Architectural Making II | 6 |
| ARCH 4563 | Methods V- Sustainable and Resilient <br>  <br>  <br> Systems II | 3 |
| ARCH 4543 | Architectural Theory and Criticism | 3 |
| ARCH 4663 | Methods VI- Urban Design Methodologies | 3 |
| Total Credit Hours | $\mathbf{7 0}$ |  |

## Graduate Requirements

| Code | Title | Credit Hours |
| :---: | :---: | :---: |
| Required Courses |  |  |
| ARCH 5723 | Methods VII-Advanced Systems ${ }^{1,2}$ | 3 |
| ARCH 5536 | Graduate Architectural Design III ${ }^{\text {1,2 }}$ | 6 |
| ARCH 5333 | Advanced Structures | 3 |
| ARCH 5863 | Methods VIII-Building Performance Analytics | 3 |
| ARCH 5546 | Graduate Architectural Design IV | 6 |
| ARCH 5543 | Architectural Theory and Criticism ${ }^{2}$ | 3 |
| ARCH 6590 | Professional Project Research | 3 |
| ARCH 5923 | Methods IX - Entrepreneurial Architect and Leadership | 3 |
| ARCH 6956 | Design IX-Comprehensive Architecture I | 6 |
| ARCH 5053 | Methods X - Tools of Practice | 3 |
| ARCH 6056 | Design X-Comprehensive Architecture II | 6 |

## Research Elective

Choose 15 hours of graduate courses in architecture or 15
related discipline
Total Credit Hours 60
1 ARCH 4723 and ARCH 4756 were removed from the BARCH and replaced by ARCH 5723 and ARCH 5536 in order to share hours between the BARCH and MARCH degrees.
2 These courses are shared between the BARCH and MARCH (12 hours): ARCH 5723, ARCH 5536, and ARCH 5543.

## General Education and College Requirements

Courses designated as Core I, II, III, IV, or V are part of the General Education curriculum. Students must complete a minimum of 40 hours of General Education courses, chosen from the approved list, including at least one upper-division Gen. Ed. course outside of the student's major. Courses graded S/U or P/NP will not apply.

## UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS <br> Code Title Credit

## Core Area I: Symbolic and Oral Communication

English Composition
ENGL 1113 Principles of English Composition 3
ENGL 1213 Principles of English Composition 3
or EXPO 1213 Expository Writing
Language (0-10 hours in the same language)
This requirement can be met by two years of the same 0-10
language in high school:

| Beginning Course (0-5 hours) |  |
| :---: | :---: |
| Beginning Course, continued ( $0-5$ hours) |  |
| Mathematics |  |
| MATH 1523 Precalculus and Trigonometry | 3 |
| Core Area II: Natural Science (including one laboratory) |  |
| Natural Science |  |
| PHYS 1114 General Physics for Non-Science Majors | 4 |
| Natural Science with lab |  |
| Choose one course from a different topic than natural science 4 |  |
| Core Area III: Social Science |  |
| P SC 1113 American Federal Government | 3 |
| Choose one course | 3 |
| Core Area IV: Arts \& Humanities |  |
| Artistic Forms |  |
| Choose one course |  |
| Western Culture |  |
| HIST 1483 United States to 1865 | 3 |
| or HIST 1493 United States, 1865 to the Present |  |
| Choose one course ${ }^{1} 3$ |  |
| World Culture |  |
| Choose one general education course at the upper division (3000-4000) level and outside of the major |  |
| Core Area V: First-Year Experience |  |
| Choose one course | 3 |
| Total Credit Hours |  |
| 1 Excluding HIST 1483 and HIST 1493. |  |

## Free Electives

Electives to bring total applicable hours to the minimum total required for the degree including 48 upper-division hours.

## Semester Plan of Study

Courses designated as Core I, II, III, IV, or V are part of the General Education curriculum. Students must complete a minimum of 40 hours of General Education courses, chosen from the approved list, including at least one upper-division Gen. Ed. course outside of the student's major. Courses graded S/U or P/NP will not apply.

A minimum grade of $C$ is required in all major coursework to continue in the BAS. A minimum 3.25 GPA is required for admission to the accelerated BAS+MARCH. A minimum 3.0 GPA must be maintained to continue in the accelerated BAS+MARCH.

All first year courses are to be completed before advancing to the second year unless otherwise approved by the Architecture Division Director.

Admission to the BAS or the accelerated MARCH degree program is limited to students who are certified for degree candidacy and meet all prerequisites.

In the United States, most registration boards require a degree from an accredited professional degree program as a prerequisite for licensure. The National Architectural Accrediting Board (NAAB), which is the sole agency authorized to accredit professional degree programs in architecture offered by institutions with U.S. regional accreditation, recognizes three types of degrees: the Bachelor of Architecture, the

Master of Architecture, and the Doctor of Architecture. A program may be granted an eight-year term, an eight-year term with conditions, or a two-year term of continuing accreditation, or a three-year term of initial accreditation, depending on the extent of its conformance with established education standards. Doctor of Architecture and Master of Architecture degree programs may require a non-accredited undergraduate degree in architecture for admission. However, the nonaccredited degree is not, by itself, recognized as an accredited degree.

The University of Oklahoma, Division of Architecture offers the following NAAB-accredited degree programs: Bachelor of Architecture, 150 credits; Master of Architecture, 60 credits; Master of Architecture, 96 credits; and Accelerated Master of Architecture/Bachelor of Sciences in Architectural Studies, 168 credits. The next accreditation visit date for the University of Oklahoma is 2023.

## Freshman

| First Semester |  | Credit <br> Hours |
| :--- | :--- | ---: |
| ARCH 1163 | Methods I - Materiality of Place | 3 |
| ARCH 1155 | Design I- Design Fundamentals | 5 |
| ENGL 1113 | Principles of English Composition (Core I) | 3 |
| MATH 1523 | Precalculus and Trigonometry (Core I) | 3 |
|  | Credit Hours | $\mathbf{1 4}$ |

## Second Semester

ARCH 1263 Methods II - Pattern of Architecture 3
ARCH 1255 Design II - Craft and Making 5
First-Year Experience (Core V) 3
PHYS 1114 General Physics for Non-Science Majors 4
(Core II)

|  | Credit Hours | $\mathbf{1 5}$ |
| :--- | :--- | :---: |
| Summer <br> HIST 1483 <br> or HIST 1493 | United States to 1865 (Core IV) <br> or United States, 1865 to the Present | 3 |
| ENGL 1213 <br> or EXPO 1213 | Principles of English Composition (Core I) <br> or Expository Writing | 3 |
|  | Credit Hours | $\mathbf{6}$ |

Sophomore
First Semester

| ARCH 2243 | History of the Built Environment I (Core IV) | 3 |
| :--- | :--- | ---: |
| ARCH 2363 | Materials and Form | 3 |
| ARCH 2356 | Design III - Crafting Place | 6 |
| Natural Science, with lab-(Core II) from approved Gen. Ed. list | $\mathbf{4}$ |  |
| Credit Hours |  | $\mathbf{1 6}$ |

## Second Semester

| ARCH 2343 | History of the Built Environment II (Core IV) | 3 |
| :--- | :--- | ---: |
| ARCH 2463 | Methods IV- Sustainable and Resilient <br> Systems I | 3 |
| ARCH 2456 | Design IV - Materials and Making | 6 |
| ARCH 4193 | Architectural Structures I | 3 |
|  | Credit Hours | $\mathbf{1 5}$ |


| Summer |  |  |
| :--- | :---: | :---: |
| P SC 1113 | American Federal Government (Core III) | 3 |
| Social Science - Advised Elective (Core III) | 3 |  |
| Credit Hours |  | $\mathbf{6}$ |

## Junior

| First Semester |  |  |
| :---: | :---: | :---: |
| ARCH 4233 | Architectural Structures II | 3 |
| ARCH 4453 | Modern and Contemporary Architecture | 3 |
| ARCH 4563 | Methods V- Sustainable and Resilient Systems II | 3 |
| ARCH 3556 | Design V - Architectural Making I | 6 |
|  | Credit Hours | 15 |
| Second Semester |  |  |
| ARCH 4000 | Foreign Study (may be taken any semester) | 0 |
| ARCH 4663 | Methods VI- Urban Design Methodologies | 3 |
| ARCH 3656 | Design VI - Architectural Making II | 6 |
| Open Elective (upper division) ${ }^{1}$ |  | 3 |
| Open Elective (upper division) ${ }^{1}$ |  | 3 |
|  | Credit Hours | 15 |

## Senior



## Fifth Year

First Semester

| ARCH 5923 | Methods IX - Entrepreneurial Architect and <br> Leadership | 3 |
| :--- | :--- | ---: |
| ARCH 6956 | Design IX- Comprehensive Architecture I | 6 |
| ARCH 5333 | Advanced Structures | 3 |
| Research Elective $^{3}$ | 3 |  |
|  | Credit Hours | $\mathbf{1 5}$ |


| Second Semester |  |  |
| :--- | ---: | ---: |
| ARCH 5053 | Methods X-Tools of Practice | 3 |
| ARCH 6056 | Design X-Comprehensive Architecture II | 6 |
| Research Elective ${ }^{3}$ | 3 |  |
| Research Elective $^{3}$ | 3 |  |
| Credit Hours |  | $\mathbf{1 5}$ |
| Total Credit Hours | $\mathbf{1 6 8}$ |  |

[^0]${ }^{5}$ ARCH 4756 can be substituted for ARCH 5536. Students must take ARCH 5536 in order to share hours with the graduate degree.
${ }^{6}$ Shared courses (12 hours): ARCH 5723, ARCH 5536, and ARCH 5543.

# Architecture via Non-Architecture Bachelor's Degree, M. Arch. 

Minimum Total Hours (Non-Thesis): 96

## Program Code: M047

In the United States, most registration boards require a degree from an accredited professional degree program as a prerequisite for licensure. The National Architectural Accrediting Board (NAAB), which is the sole agency authorized to accredit professional degree programs in architecture offered by institutions with U.S. regional accreditation, recognizes three types of degrees: the Bachelor of Architecture, the Master of Architecture, and the Doctor of Architecture. A program may be granted an eight-year term, an eight-year term with conditions, or a two-year term of continuing accreditation, or a three-year term of initial accreditation, depending on the extent of its conformance with established education standards. Doctor of Architecture and Master of Architecture degree programs may require a non-accredited undergraduate degree in architecture for admission. However, the nonaccredited degree is not, by itself, recognized as an accredited degree.

The University of Oklahoma, Division of Architecture offers the following NAAB-accredited degree programs: Bachelor of Architecture, 150 credits; Master of Architecture, 60 credits; Master of Architecture, 96 credits; and Accelerated Master of Architecture/Bachelor of Sciences in Architectural Studies, 168 credits. The next accreditation visit date for the University of Oklahoma is 2023.

## Required Courses

## First Year

| Summer |  | Credit |
| :---: | :---: | :---: |
|  |  | Hours |
| ARCH 6156 | Graduate Studio I | 6 |
|  | Credit Hours | 6 |
| Fall |  |  |
| ARCH 5516 | Graduate Architectural Design I | 6 |
| ARCH 5363 | Methods III- Materials and Form | 3 |
| Choose one of the following: |  | 3 |
| ARCH 5143 | Architectural History |  |
| $5003$ |  |  |
|  | Credit Hours | 12 |
| Spring |  |  |
| ARCH 5193 | Architectural Structures I | 3 |
| ARCH 5526 | Graduate Architectural Design II | 6 |
| ARCH 5463 | Advanced Sustainable and Resilient Systems | 3 |
| ARCH 5663 | Methods VI- Urban Design Methodologies | 3 |
|  | Credit Hours | 15 |
| Second Year |  |  |
| Fall |  |  |
| ARCH 5233 | Architectural Structures II | 3 |


| ARCH 5453 | Modern and Contemporary Architecture | 3 |
| :---: | :---: | :---: |
| ARCH 5536 | Graduate Architectural Design III | 6 |
| ARCH 5723 | Methods VII-Advanced Systems | 3 |
| Research Elective |  | 3 |
|  | Credit Hours | 18 |
| Spring |  |  |
| ARCH 5543 | Architectural Theory and Criticism | 3 |
| ARCH 5546 | Graduate Architectural Design IV | 6 |
| ARCH 5863 | Methods VIII-Building Performance Analytics | 3 |
| ARCH 6590 | Professional Project Research | 3 |
|  | Credit Hours | 15 |
| Third Year |  |  |
| Fall |  |  |
| ARCH 5923 | Methods IX - Entrepreneurial Architect and Leadership | 3 |
| ARCH 6956 | Design IX-Comprehensive Architecture I | 6 |
| ARCH 5333 | Advanced Structures | 3 |
| Research Elective |  | 3 |
|  | Credit Hours | 15 |
| Spring |  |  |
| ARCH 5053 | Methods X - Tools of Practice | 3 |
| ARCH 6056 | Design X-Comprehensive Architecture II | 6 |
| Research Elective |  | 3 |
| Research Elective |  | 3 |
|  | Credit Hours | 15 |
|  | Total Credit Hours | 96 |

## General Requirements for all Master's Degrees

The master's degree requires the equivalent of at least two semesters of satisfactory graduate work and additional work as may be prescribed for the degree

All coursework applied to the master's degree must carry graduate credit.

Master's degree programs which require a thesis consist of at least 30 credit hours. All non-thesis master's degree programs require at least 30 credit hours

Credit transferred from other institutions must meet specific criteria and is subject to certain limitations.

Courses completed through correspondence study may not be applied to the master's degree.

To qualify for a graduate degree, students must achieve an overall grade point average of 3.0 or higher in the degree program coursework and in all resident graduate coursework attempted. A student must also have at least a 3.0 in all coursework (including undergraduate coursework if any).

Additional information for master's degree students may be found in the Graduate College Bulletin.

## Architecture via Architecture Bachelor's Degree, M. Arch.

## Program Code: M046

In the United States, most registration boards require a degree from an accredited professional degree program as a prerequisite for licensure. The National Architectural Accrediting Board (NAAB), which is the sole agency authorized to accredit professional degree programs in architecture offered by institutions with U.S. regional accreditation, recognizes three types of degrees: the Bachelor of Architecture, the Master of Architecture, and the Doctor of Architecture. A program may be granted an eight-year term, an eight-year term with conditions, or a two-year term of continuing accreditation, or a three-year term of initial accreditation, depending on the extent of its conformance with established education standards. Doctor of Architecture and Master of Architecture degree programs may require a non-accredited undergraduate degree in architecture for admission. However, the nonaccredited degree is not, by itself, recognized as an accredited degree.

The University of Oklahoma, Division of Architecture offers the following NAAB-accredited degree programs: Bachelor of Architecture, 150 credits; Master of Architecture, 60 credits; Master of Architecture, 96 credits; and Accelerated Master of Architecture/Bachelor of Sciences in Architectural Studies, 168 credits. The next accreditation visit date for the University of Oklahoma is 2023.

## Required Courses

| First Year |  |  |
| :--- | :--- | ---: |
| Fall |  | Credit <br> Hours |
|  |  | 6 |
| ARCH 5536 | Graduate Architectural Design III | 3 |
| ARCH 5723 | Methods VII-Advanced Systems | 3 |
| Research Elective | 3 |  |
| Research Elective | $\mathbf{1 5}$ |  |
|  | Credit Hours |  |
| Spring |  | 3 |
| ARCH 5193 | Architectural Structures I | 6 |
| ARCH 5546 | Graduate Architectural Design IV | 3 |
| ARCH 5863 | Methods VIII-Building Performance |  |
|  | Analytics | 3 |
| ARCH 6590 | Professional Project Research | $\mathbf{1 5}$ |

## Second Year

Fall

| ARCH 5333 | Advanced Structures | 3 |
| :--- | :--- | ---: |
| ARCH 5923 | Methods IX - Entrepreneurial Architect and <br> Leadership | 3 |
| ARCH 6956 | Design IX- Comprehensive Architecture I | 6 |
| Research Elective | $\mathbf{3}$ |  |
|  | Credit Hours | $\mathbf{1 5}$ |


| Spring |  |  |
| :--- | :--- | ---: |
| ARCH 5053 | Methods X - Tools of Practice | 3 |
| ARCH 5543 | Architectural Theory and Criticism | 3 |
| ARCH 6056 | Design X-Comprehensive Architecture II | 6 |
| Research Elective | $\mathbf{3}$ |  |
|  | Credit Hours | $\mathbf{1 5}$ |
|  | Total Credit Hours | $\mathbf{6 0}$ |

## General Requirements for all Master's Degrees

The master's degree requires the equivalent of at least two semesters of satisfactory graduate work and additional work as may be prescribed for the degree.

All coursework applied to the master's degree must carry graduate credit.
Master's degree programs which require a thesis consist of at least 30 credit hours. All non-thesis master's degree programs require at least 30 credit hours.

Credit transferred from other institutions must meet specific criteria and is subject to certain limitations.

Courses completed through correspondence study may not be applied to the master's degree.

To qualify for a graduate degree, students must achieve an overall grade point average of 3.0 or higher in the degree program coursework and in all resident graduate coursework attempted. A student must also have at least a 3.0 in all coursework (including undergraduate coursework if any).

Additional information for master's degree students may be found in the Graduate College Bulletin.

## Sustainable Architecture, M.S.

Minimum Total Hours (Non-Thesis): 30
Program Code: M866/M867-OL
Required Courses

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Program Core |  |  |
| ARCH 5812 | Human Centric Design: Equity and Comfort | 2 |
| ARCH 5822 | Foundations of Building Physics and <br>  <br>  <br> Analysis | 2 |
| ARCH 5832 | Introduction to Building Performance <br>  <br> ARCH 58lysis | Introduction to Research Methods for |
| ARCH 5852 | Sustainable Design and BIM Workflows | 2 |
| ARCH 5862 | Sustainable Urban Design | 2 |
| ARCH 5872 | LEED GA Exam | 2 |
| ARCH 5882 | WELL AP Exam | 2 |
| ARCH 5892 | LCCA and the Circular Economy | 2 |
| ARCH 5902 | Building Operations Management | 2 |
| ARCH 5912 | Sustainable Design Case Studies | 2 |
| ARCH 5932 | Sustainable Design Literature Reviews | 2 |
| ARCH 5942 | Case Study Research | 2 |
| ARCH 5952 | Comprehensive Exam | 2 |
| ARCH 5962 | Case Study Development and Presentation | 2 |
| Total Credit Hours | 2 |  |

This is a non-thesis program that will have a comprehensive exam course at the end of the program.

## General Requirements for all Master's Degrees

The master's degree requires the equivalent of at least two semesters of satisfactory graduate work and additional work as may be prescribed for the degree.

All coursework applied to the master's degree must carry graduate credit.
Master's degree programs which require a thesis consist of at least 30 credit hours. All non-thesis master's degree programs require at least 30 credit hours.

Credit transferred from other institutions must meet specific criteria and is subject to certain limitations.

Courses completed through correspondence study may not be applied to the master's degree.

To qualify for a graduate degree, students must achieve an overall grade point average of 3.0 or higher in the degree program coursework and in all resident graduate coursework attempted. A student must also have at least a 3.0 in all coursework (including undergraduate coursework if any).

Additional information for master's degree students may be found in the Graduate College Bulletin.

## Haskell and Irene Lemon Construction Science Division

Ben Bigelow, Ph.D., Director
Gould Hall
830 Van Vleet Oval
Norman, OK 73019-6141
Phone: (405) 325-6404
FAX: (405) 325-7558
cns@ou.edu
architecture.ou.edu/construction-science/

## General Information

Accredited by the ACCE (American Council of Construction Education), the Construction Science program leverages courses in Construction Science, Architecture, and Business to educate the future managers of the construction industry. Students obtaining a Construction Science degree pursue management careers in a wide variety of occupations across the construction industry. The curriculum prepares students to manage the skilled trades and craftsmen on the job site, and to collaborate with architects, engineers, owners, and other professionals required by the complexities of construction projects.

Emphasis throughout the curriculum is placed on developing students' communication skills, understanding of the technical aspects of construction and the construction process, and the application of information technology to the construction industry. In addition to the academic curriculum, students are strongly encouraged to participate in the Construction Student Association (CSA) and the various student competitions available to Construction Science students. Since its inception, the Construction Science program has maintained a close partnership with the construction industry, and utilizes a Professional Advisory Board (PAB) made up of construction professionals representing the different segments of the construction industry. The PAB is an extremely important element in producing quality graduates who are in demand by employers.

## Faculty

The faculty in the Construction Science program all have construction industry experience. Faculty members maintain close working relationships with industry through consulting work, participation in professional organizations, and maintaining active memberships in professional societies which represent their areas of expertise. Faculty members actively consult with construction companies, governmental agencies, architects and professional organizations both nationally and internationally. CNS faculty have received university, regional, and national teaching awards.

## Programs \& Facilities

## Industry Engagement

The Haskell and Irene Lemon Division of Construction Science (CNS) prides itself on maintaining active relationships with the construction industry. The division's many partnerships with local and national construction firms facilitates students gaining first hand experience through internships as well as informal networking opportunities.

## Career Fair

Every spring and fall semester, Construction Science hosts a career fair. This fair enables students at all levels to develop relationships with industry professionals while also seeking internships and full-time employment.

## Competitions

We participate in various student competitions each year and have earned 34 top 3 finishes since 2011. These competitions are sponsored by professional organizations, including TEXO, The Associated Schools of Construction, the Design Build Institute of America, and the National Association of Home Builders.

## Internships

Students are required to complete one internship the summer before their senior year, and are encouraged to complete additional internships.

## Undergraduate Study

## Bachelor of Science

The Bachelor of Science (p. 117) in Construction Science program requires a minimum of 120 credit hours, with a minimum grade point average of 2.50 . Construction Science majors must earn a C or better in all CNS prefix courses.

## Limitation Rules

Students pursuing the undergraduate degree in Construction Science must complete the degree program within a maximum of seven calendar years from the date of entry into the degree program.

## Minor

Construction Science Minor (p. 119)

## Undergraduate Certificate

Entrepreneurship \& Real Estate Development (p. 120)

## Graduate Study

## Master of Science

The Master of Science in Construction Management, Special Studies (p. 120) or Thesis (p. 120) option, is designed to provide Construction Science graduates, as well as graduates from affiliated degrees, a more
in depth knowledge of the current trends in the construction industry. The program's flexibility allows students with limited construction experience to understand the current trends in the industry while providing the flexibility to students with construction experience to pursue a more in depth knowledge of their specific area of interest. Course content focuses on emerging construction trends, risk management, building information modeling, lean construction, and workforce issues in the construction industry. Courses are designed to develop technical and management skills using the following:

- In-class lectures and discussions
- Out-of-class meetings and discussions
- Construction case studies
- Individual and team projects
- Interaction with Industry members


## Master of Construction Business (MCB)

The Master of Business Construction in Construction Management (p. 121) (MCB) is designed to provide students with knowledge and skills in executive business processes in the context of construction management. It is targeted at working professionals in the AEC industries, as an alternative to a generic MBA. This program equips students for leadership positions in the planning, design, and construction industry. The collaboration with Price College of Business adds to the diverse and meaningful educational experience for students.

## Graduate Certificate

The Graduate Certificate in Construction Management (p. 121) adheres to the division's mission of providing students with a relevant and applied educational experience that prepares them to be successful in their professional careers. This certificate program is targeted towards students enrolled in graduate programs at $O U$ to develop basic expertise in construction management. This certificate will impart the necessary information to any graduate to embark on a successful journey in construction related endeavors.

## Courses

CNS 1111 Introduction to Construction Management 1 Credit Hour An introduction to the concepts and issues related to construction management, as well as a description of the roles and careers available in the construction industry. (F)
CNS 1312 Computers in Construction Lab
2 Credit Hours
Prerequisite: Majors only and CNS 2833. Introductory course providing students with basic computer application knowledge relevant to the construction industry. (Sp)

## CNS 2133 Introduction to Housing in America

3 Credit Hours
This course covers housing in America. It provides a background of the evolution of the American home, including regional and cultural influences, governmental housing policies, urban and suburban residential development, and construction materials and methods. (Sp) [IV-WC].
CNS 2303 Construction Industry Fundamentals 3 Credit Hours Students will gain an understanding of the construction industry. A brief history of the industry, its different segments, stakeholders, roles, and characteristics are covered. Attention is paid to the general construction process and the documents used in construction (blueprints, specifications, and contracts). These concepts are foundational to subsequent construction management courses. (F, Sp, Su)

CNS 2313 Construction Materials and Methods 3 Credit Hours
Students will gain an understanding of the materials and methods commonly used in the construction of buildings and other projects. Topics include: sitework, concrete, masonry, metals, woods and plastics, thermal and moisture protection, openings, finishes, specialties, Equipment, Mechanical, Electrical, \& Plumbing. (F, Sp, Su)
CNS 2363 Materials and Form 3 Credit Hours (Crosslisted with ARCH 2363) Prerequisite: ARCH or CNS majors only. An introduction to the nature of building materials with regard to form, strength, durability, workability, structure connections, surfaces and edges. Analysis of architectural expression through the use of building materials including the effects of light, air movement, humidity, and their relationships to both one another and formal and spatial expressions. (F)

## CNS 2433 MEP Systems 1

3 Credit Hours
Prerequisite: CNS 2833; majors only. The Mechanical Electrical \& Plumbing (MEP) Systems course introduces theories, concepts, and their materials and methods. The course prepares construction science students to work closely with mechanical engineers and subcontractors. Design aspects of MEP systems are introduced, while the course is mainly focused on understanding MEP systems, their procurement and installation. (Sp)
CNS 2811 Construction Fundamentals Lab
1 Credit Hour
Prerequisite: CNS 1111 and CNS 2363; Corequisite: CNS 2813. Practical exercises reinforce material seen in CNS 2813 to improve students' understanding and ability to interpret construction drawings and specifications, use hands on techniques to understand actual installation of common materials and systems used in building construction. (F)
CNS 2813 Construction Documents 3 Credit Hours Prerequisite: Majors only; CNS 1111 and CNS 2363; Corequisite (major only, not required for CNS minor): CNS 2811. Students will learn to read, find information, and interpret the drawings and specifications of typical construction projects. (F)
CNS 2833 Materials and Methods for Construction 3 Credit Hours Prerequisite: CNS 1111 and CNS 2363; CNS majors only. Focuses on materials and methods used to construct a building from the roofed frame to flooring installation. Content includes exterior cladding, finishes, and waterproofing, exterior glazing systems, electrical, plumbing, and mechanical system installation basics, above the ceiling installation, interior walls and finishes, interior doors and hardware, dropped ceilings and flooring. (Sp)

## CNS 3103 Construction Surveying

3 Credit Hours
Prerequisite: Majors only; junior standing; CNS 2813 and CNS 1312; Corequisite: CNS 3533. The purpose of this course is to acquaint the student with basic concepts of surveying and to provide practical training necessary for construction applications. (F)
CNS 3303 Preconstruction Management
3 Credit Hours
Prerequisite: CNS 2303 and CNS 2313 or permission of instructor. Students will gain a deeper understanding of the preconstruction management aspect of construction. Special attention will be paid to business development, delivery methods, contract types, negotiation, bidding documents, and preconstruction. Students will explore these concepts through the lens of real world case studies. (F, Sp, Su)

CNS 3313 Applied Construction Project Management 3 Credit Hours Prerequisite: CNS 3303. Students will gain a deeper understanding of project management processes and procedures. The course will focus on documentation, project cost controls, trade coordination, permitting, risk management, safety management, different meeting requirements, and the differences between project management for a general contractor vs a specialty contractor. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
CNS 3323 Applied Construction Estimating \& Scheduling 3 Credit Hours Prerequisite: CNS 3313 . Students will gain a deeper understanding of cost estimating and scheduling processes. Through the study of contract documents and estimating practices, students will learn basic estimating skills, schedule concepts and strategies, and basic scheduling software. (F, Sp, Su)
CNS 3333 Construction Efficiency 3 Credit Hours
Prerequisite: CNS 3313. Students will gain a deeper understanding of construction efficiency as facilitated through the application of specialized software, technology, sustainability concepts, and management strategies. Students will use these various lenses during the course to explore opportunities for efficiency during the various phases of a construction project. (F, Sp, Su)

## CNS 3343 Communication and Personnel Management in

 Construction3 Credit Hours
Prerequisite: CNS 3313. Students will gain a deeper understanding of communication and personnel management in construction. Students will learn about technical communication, the difference between leadership and management, relationships between trades people and general contractor staff, ethics and personal behavior, resumes, LinkedIn, proposal presentations, and personal growth. (F, Sp, Su)
CNS 3413 Construction Communication
3 Credit Hours
Prerequisite: Majors only; Junior Standing; CNS 3533 and COMM 1113; Corequisite: CNS 3823. A communication course designed to focus on written, visual, and oral communication appropriate to the construction industry. The course will expand on the fundamentals of communication with specific instruction about the techniques and tools used to communicate with both internal and external team members. (Sp)
CNS 3440 Mentored Research Experience 3 Credit Hours 0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)
CNS 3443 MEP Systems 2
3 Credit Hours
Prerequisite: Majors only; Junior Standing; CNS 2433; Corequisite: CNS 3533. This course builds on the theories, concepts, materials, and methods of mechanical, electrical, \& Plumbing (MEP) systems students were introduced to in CNS 2433. The accumulated knowledge will be used to explore building science and coordination of MEP subcontractors. (F)
CNS 3533 Construction Cost Estimating
3 Credit Hours
Prerequisite: Majors only; Junior Standing; CNS 2813 and CNS 1312. In this course we will learn the basic foundations of the estimating process and about the different components of a construction project estimate. These include: quantity surveying, estimate organization, direct and indirect costs, cost database use, and bid preparation. Students will create cost estimates using manual and electronic take-off estimating software. (F)

CNS 3543 Project Planning and Scheduling 3 Credit Hours Prerequisite: Majors only; Junior Standing; CNS 2813 and CNS 3533; Corequisite: CNS 3413 . Students will learn about scheduling concepts in an integrated construction planning and control system. Students will gain knowledge about different scheduling techniques and computer applications employed to facilitate the scheduling process. Students will learn to create schedules using manual network computations and scheduling software. (Sp)
CNS 3823 Project Management \& Cost Controls 3 Credit Hours Prerequisite: Majors only; Junior Standing; CNS 3533; Corequisite: CNS 3543. Focuses on the management of a commercial building project after the contract is awarded. Content includes required project communication and documentation and setup and use of a cost accounting system to track and manage the project - including field productivity, work sequence, cost and profitability, payment and cash flow, schedule compression and updating change process and closeout. (Sp)

CNS 3881 Construction Safety 1 Credit Hour
Prerequisite: Majors only; Junior Standing; CNS 4941. Students will learn strategies and understand how construction managers proactively plan to ensure safety on an active job site, including the creation of a safety plan for a construction project. (F)
CNS 3943 Field Work
3 Credit Hours
Prerequisite: CNS major and permission. Utilize a construction work experience to prepare for construction management functions. Student is responsible for finding the construction-related activity and proposing a work-related project. Written and oral presentation is required. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

CNS 3960 Honors Reading
-3 Credit Hours
1 to 3 hours. Prerequisite: Admission to Honors Program. May be repeated; maximum credit six hours. Consists of topics designated by the instructor in keeping with the student's major program. The topics will cover materials not usually presented in the regular courses. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

## CNS 3970 Honors Seminar <br> 1-3 Credit Hours

1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Subjects covered vary. Deals with concepts not usually treated in regular courses. (Irreg.)

CNS 3980 Honors Research 1-3 Credit Hours 1 to 3 hours. Prerequisite: Admission to Honors Program. May be repeated; maximum credit six hours. Will provide an opportunity for the gifted Honors candidate to work at a special project in the student's field. (F, Sp, Su)

CNS 3990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: permission of instructor and junior standing. May be repeated once with change of content. Independent study may be arranged to study a subject not available through regular course offerings. (F, Sp, Su)

CNS 4133 BIM for Constructors 3 Credit Hours (Slashlisted with CNS 5133) Prerequisite: Majors only; Senior Standing; CNS 3823; Corequisite: CNS 4523. This Building Information Modeling (BIM) course is designed for the construction professional. Students will gain knowledge about the concepts, core business processes, and software involved in a building information model. BIM is presented as a methodology and tool that provides for shared information across the facility's lifecycle. No student may earn credit for both 4133 and 5133. (F)

CNS 4143 Legal Issues in Construction
3 Credit Hours
(Slashlisted with CNS 5143) Prerequisite: Majors only, Senior Standing, and CNS 4523. An examination of current construction law as it pertains to the day-to-day management of the construction contract. Includes legal ramifications of construction bidding, contracts, changes, delays, and dispute resolution. Course emphasizes reduction of disputes through knowledge. No student may earn credit for both 4143 and 5143. (Sp)

CNS 4193 Architectural Structures I
3 Credit Hours
(Crosslisted with ARCH 4193) Prerequisite: Architecture major and completion of MATH 1523 and PHYS 1114 or Construction Science major and completion of PHYS 2414 and MATH 1523 or permission of the division director. An introduction to basic physics, forces within structural systems, material strength, and associated structural engineering principles. Develops both intuitive and empirical knowledge of forces with structural systems that serve as a foundation for future courses within the structures sequence. (Sp)

CNS 4213 Design-Build Principles and Practices 3 Credit Hours (Slashlisted with CNS 5213) Prerequisites: 3rd, 4th or 5th year College of Architecture student or instructor permission. Introduces design and construction students to the principles and practices of design-build. Course is approved by the Design-Build Institute of America. Students who successfully complete core course requirements will earn credit for the professional designation as Associate DBIA Professional. Students may not earn credit for both 4213 and 5213. (Sp)

CNS 4303 Lean Construction Management
3 Credit Hours
(Slashlisted with 5303) Prerequisite: Junior standing; Majors only;
Permission of instructor. (Slashlisted with CNS 5303.) Explores the
lean concepts specifically tailored to the Architecture Engineering
Construction (AEC) industry. Students will learn how lean concepts along with creative transformational thinking and technological advancement can improve and sustain performance in the construction industry. Students may not earn credit for both CNS 4303 and CNS 5303. (Sp) No student may earn credit for both 4303 and 5303. (Sp)
CNS 4403 Leadership in the Construction Industry 3 Credit Hours (Slashlisted with 5403) Prerequisite: Permission of instructor. A study of leadership styles and best practices found in the Architecture, Engineering and Construction industries. The course is designed to educate students about individual, organizational and process/structural leadership. No student may earn credit for both 4403 and 5403. (Sp)

CNS 4503 Residential Construction
3 Credit Hours
(Slashlisted with CNS 5503) Prerequisite: Junior standing; CNS majors only or instructor approval. Examines the processes and stakeholders specific to residential property development, including predevelopment activities, feasibility analyses, project financing, and relevant regulatory frameworks. The course also covers material selection and installation practices specific to residential projects, as well as emerging trends in homebuilding and multifamily construction. No student may earn credit for both 4503 and 5503. (F)

CNS 4512 Soils and Foundations
2 Credit Hours
Prerequisite: Majors only, Senior Standing, and CNS 4193. Content includes identification and classification of soil properties as they pertain to a construction project, the role of the geotechnical engineer, soils reports, soil preparation, foundation design, soil testing, and the causes of building settlement. Practical exercises are emphasized. (F)

CNS 4523 Pre-Construction Services 3 Credit Hours
(Slashlisted with CNS 5523) Prerequisite: Majors only; Senior Standing; CNS 3533 and CNS 3543; Corequisite: CNS 4133. Pre-construction services provide owners with greater project clarity and expectations before their project begins while also aligning owners, designers, and contractors. This course covers the practices performed during preconstruction to increase project success from the owner's, designer's, and contractor's perspectives. Topics include: feasibility reports, budget development, value engineering, economics, risk management, QC, site management, and subcontractor procurement. No student may earn credit for both 4523 and 5523. (F)
CNS 4603 Design + Build: Construction Lab 3 Credit Hours Prerequisite: Junior standing and permission of instructor. Design + Build: Construction Lab is a comprehensive, interdisciplinary, and handson learning experience. Serving a community partner, students analyze a conceptual design for cost effectiveness and constructability, then assist in developing construction drawings. Upon completing material investigation and systems analyses, students spend the majority of the semester constructing the project and undertake all activities leading to a completed facility. (Sp)
CNS 4853 Heavy Civil Construction Project Management 3 Credit Hours (Slashlisted with CNS 5853) Prerequisite: Junior standing and majors only. This course is designed to familiarize students with the peculiarities of the heavy-civil construction industry, and to provide students with the analytical skills to compete for projects in that arena. Students will study projects which may include the construction of airports, highways, bridges, dams, tunnels, and similar heavy civil projects. No student may earn credit for both 4853 and 5853. (Sp)
CNS 4941 Field Work (Internship) - Required 1 Credit Hour Prerequisite: Majors only; Junior Standing; CNS 3533; CNS 3413; CNS 3813; CNS 3823. Utilize a construction work experience to prepare for construction management functions and understand entry level roles in the construction industry. Students are responsible for securing a construction-related internship. Written and oral presentation are required. Students must work for 12 weeks and 480 hours. (Su)
CNS 4960 Directed Readings 1-4 Credit Hours
1 to 4 hours. Prerequisite: senior standing, permission. May be repeated with change of subject matter; maximum credit eight hours. Subjects proposed by students or instructors may be used to expand knowledge beyond the normal core construction curriculum. Verbal or written presentation may be required to demonstrate successful completion of a subject unit. (F, Sp, Su)

## CNS 4970 Undergraduate General Departmental Seminar 1-4 Credit Hours

1 to 4 hours. Prerequisite: senior standing, permission. May be repeated with change of subject matter; maximum credit 12 hours. Special topics in construction science. (Irreg.)
CNS 4990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: Senior standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)

CNS 4993 Construction Science Capstone 3 Credit Hours
Prerequisite: Majors only; Senior Standing; CNS 4133 and CNS 4523.
The capstone course is the culmination of the Construction Science undergraduate experience. Students apply all aspects of the construction project management process in an integrated manner to a construction project. Class interaction requires participants to utilize and extend knowledge of all areas of expertise used by construction managers. Teamwork, interdisciplinary collaboration, and cooperation are required. (Sp) [V].
CNS 5003 Construction Fundamentals I
3 Credit Hours
Prerequisite: Graduate standing and majors only. Course will familiarize students with the basic foundations of construction management, including reading and understanding construction plans and specifications, implementing cost estimating techniques, and developing and manipulating project schedules as applied to design and construction project management. (F)
CNS 5013 Construction Fundamentals II
3 Credit Hours
Prerequisite: Graduate standing; CNS 5003 and CNS 5033. The course is designed to continue to familiarize students with the basic foundations of the project management and control mechanisms from the owner's, the designer's and the construction contractor's perspective. These concepts include terms, vocabulary, and paperwork used in the construction industry, as well as construction site safety and construction methods. (Sp)

## CNS 5023 Research Methods in Planning, Design and

 Construction
## 3 Credit Hours

Prerequisite: graduate standing and majors only. Framework for understanding the processes, components, and methods of empirical research used in the design and evaluation of planning, design, and construction problems. Emphasis is on understanding the primary types of research methods, evaluating the pros and cons of each, and developing the skills necessary to identify research questions and ways to answer research questions. (Sp)
CNS 5033 Applied Project Management
3 Credit Hours
Prerequisite: Graduate standing and majors only. Course is designed to familiarize students with the fundamental processes to apply principles of financial management to managing a construction project. These concepts include document management strategies, cost accounting and control, and project closeout. (F)
CNS 5133 BIM for Constructors
3 Credit Hours
(Slashlisted with CNS 4133) Prerequisite: Graduate standing; majors only;
CNS 5013. This Building Information Modeling (BIM) course is designed for the construction professional. Students will gain knowledge about the concepts, core business processes, and software involved in a building information model. BIM is presented as a methodology and a tool that provides for shared information across the facility's lifecycle. No student may earn credit for both 4133 and 5133. (F)
CNS 5143 Legal Issues in Construction
3 Credit Hours
(Slashlisted with CNS 4143) Prerequisite: Graduate standing and majors only. An examination of current construction law as it pertains to the day-to-day management of the construction contract. Includes legal ramifications of construction bidding, contracts, changes, delays, and dispute resolution. Course emphasizes reduction of disputes through knowledge. No student may earn credit for both 4143 and 5143. (Sp)

CNS 5213 Design-Build Principles and Practices 3 Credit Hours (Slashlisted with CNS 4213) Prerequisite: Graduate standing and majors only, or departmental permission for non-majors. Introduces design and construction students to the principles and practices of design-build. Course is approved by the Design-Build Institute of America. Students who successfully complete core course requirements will earn credit for the professional designation as Associate DBIA Professional. No student may earn credit for both 4213 and 5213. (Sp)
CNS 5303 Lean Construction Management 3 Credit Hours (Slashlisted with CNS 4303) Prerequisite: Graduate standing; majors only; and CNS 5013 or concurrent enrollment. Explores the lean concepts specifically tailored to the Architecture Engineering Construction (AEC) industry. Students will learn how lean concepts along with creative transformational thinking and technological advancement can improve and sustain performance in the construction industry. No student may earn credit for both 4303 and 5303. (Sp)
CNS 5403 Leadership in the Construction Industry 3 Credit Hours (Slashlisted with CNS 4403) Prerequisite: Graduate standing; majors only. A study of leadership styles and best practices found in the architecture, engineering, and construction industries. The course is designed to educate students about individual, organizational, and process/structural leadership. No student may earn credit for both 4403 and 5403. (Sp)
CNS 5503 Residential Construction 3 Credit Hours
(Slashlisted with CNS 4503) Prerequisite: Graduate standing. Examines the processes and stakeholders specific to residential property development, including predevelopment activities, feasibility analyses, project financing, and relevant regulatory frameworks. The course also covers material selection and installation practices specific to residential projects, as well as emerging trends in homebuilding and multifamily construction. No student may earn credit for both 4503 and 5503. (F)

## CNS 5523 Pre-Construction Services

3 Credit Hours
(Slashlisted with CNS 4523) Prerequisite: Graduate standing; majors only; and CNS 5013. Pre-construction services provide owners with greater project clarity and expectations before their project begins while also aligning owners, designers, and contractors. This course covers the practices performed during pre-construction to increase project success from the owner's, designer's, and contractor's perspectives. Topics include: feasibility reports, budget development, value engineering, economics, risk management, QC, site management, and subcontractor procurement. No student may earn credit for both 4523 and 5523. (F)
CNS 5611 Introduction to Construction Management 1 Credit Hour Prerequisite: Graduate standing and majors only. The purpose of this course is to learn about the various facets of the design and construction industry and the role of the construction manager. Students will engage in workshops with faculty and industry professionals from diverse backgrounds to explore the variety of specialties within the industry. (F, Sp )
CNS 5612 Construction Business Development 2 Credit Hours
Prerequisite: Graduate standing and majors only. The purpose of this course is to explore strategies for connecting with potential clients, nurturing relationships with industry partners, developing proposals, and setting goals that will lead to company success. ( Sp )

CNS 5621 Construction Management Capstone 1 Credit Hour Prerequisite: Graduate standing and majors only. This course gives students the opportunity to apply all of the concepts and topics from the program and create a project plan and proposal. Students will work with industry professionals and with fellow classmates in the development of the final project. ( $F, S p$ )

CNS 5622 Lean Construction: Principles and Methodologies 2 Credit Hours
Prerequisite: Graduate standing and majors only. The purpose of this course is to explore lean concepts as they are applied in the design and construction industry. Students will learn how to use creative thinking and available technologies to apply lean concepts to processes in the design and construction industry to foster sustained, improved performance. (F)

## CNS 5632 Leadership Principles in the Construction

 Industry
## 2 Credit Hours

Prerequisite: Graduate standing and majors only. The purpose of this course is to explore leadership styles, techniques, and best practices and how they are applied in the design and construction industry. (Sp)

## CNS 5642 Advanced Construction Law 2 Credit Hours

Prerequisite: Graduate standing and majors only. The purpose of this course is to examine construction law as it pertains to the management of the design and construction process. Students will examine the legal ramifications of construction bidding, contracts, performance, changes, delays, and dispute resolution. Students will learn how legal requirements impact the design and construction process beginning in the feasibility and financing phase through completion. (Su)
CNS 5652 Experiential Learning in Design and Construction 2 Credit Hours
Prerequisite: Graduate standing and majors only. In this course, students will connect with industry professionals in a variety of roles within the industry to learn how the different roles contribute to the design and construction process. Students will shadow the professionals in the workplace and work with classmates to develop a framework of how various key team members influence a project. (F)
CNS 5853 Heavy Civil Construction Project Management 3 Credit Hours (Slashlisted with CNS 4853) Prerequisite: Graduate standing; majors only. This course will familiarize students with the challenges of the heavycivil construction industry and give them the analytical tools to compete for projects in that area. Skills include unit price estimating, construction equipment, linear scheduling, and major components of the construction of highways, bridges, and engineered facilities. No student may earn credit for both 4853 and 5853. (Sp)

CNS 5940 Construction Industry Practicum 1-3 Credit Hours 1 to 3 hours. Prerequisite: Graduate standing, majors only, and permission of instructor. May be repeated with change of content; maximum credit 3 hours. Students will utilize construction work experience to prepare for construction management functions. Students will find an activity and propose a work-related project. (F, Sp, Su)
CNS 5952 Special Studies Presentation
2 Credit Hours
Prerequisite: permission of committee chair. May be repeated; maximum credit six hours. Completion of research for the required special studies project selected by the student and advisory committee. (Irreg.)

CNS 5960 Directed Readings
1-4 Credit Hours
1 to 4 hours. Prerequisite: Graduate standing, majors only, and permission of instructor. May be repeated with change of content; maximum credit 6 hours. Studies in major field as approved by the individual instructor. ( F , Sp, Su)
CNS 5970 Special Topics/Seminar 1-3 Credit Hours 1 to 3 hours. Prerequisite: Graduate standing and majors only. May be repeated with change of content; maximum credit 9 hours. Special topics or seminar course for content not currently offered in regularlyscheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

CNS 5980 Research for Master's Thesis 2-9 Credit Hours
2 to 9 hours. Prerequisite: Graduate standing and majors only. May be repeated; Maximum credit applicable toward degree, 5 hours. Production of Master's Thesis. (F, Sp, Su)
CNS 5990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)
CNS 5993 Special Studies Research
3 Credit Hours
Prerequisite: Graduate standing and majors only. May be repeated with change of content; maximum credit 6 hours. Credit for applied research for the special studies project selected by the student and advisory committee. (Irreg.)

## Faculty

| Last Name | First/Middle <br> Name | Middle init. | OU <br> Service start | Title(s), date(s) appointed | Degrees Earned, Schools, Dates Completed |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Asare | Kofi | A | 2024 | Assistant Professor | PhD, University of Florida, 2023; MS, Loughborough University, 2019; MA, Kwame Nkrumah University, 2015; BS, Kwame Nkrumah University, 2009. |
| Bigelow | Ben | F | 2017 | PROFESSOR OF HASKELL AND IRENE LEMON CONSTRUCTION SCIENCE DIVISION, 2017; HASKELL AND IRENE LEMON CHAIR OF CONSTRUCTION SCIENCE DIVISION, 2017 | PhD, Colorado State Univ, 2012; MS, Arizona State Univ, 2008; BS, Texas A\&M Univ, 2005 |
| Bloom | Bryan | P | 2017 | Assistant Professor | M.S., Colorado State Univ, 2007; B.A., Univ of Oklahoma, 2004 |
| Doyle | Phillips | T | 2024 | Associate Professor | EdD, Capella <br> University, 2016; MS, Cappella University, 2011; BS, University of Arkansas Little Rock, 2008 |
| Gaffney | Johnny | M | 2020 | INSTRUCTOR | AAS, North Lake College; BA, Kansas State Univ; MS, Univ of Kansas |
| Ghosh | Somik |  | 2013 | ASSOCIATE <br> PROFESSOR OF CONSTRUCTION SCIENCE, 2013; CNS <br> Board of Visitors Professor | PhD, Virginia Tech, 2012; MS, Michigan State Univ, 2007; B Arch, Jadavpur Univ, 2005 |
| McCuen | Tamera | L | 2006 | PROFESSOR, 2012; ROBERT E. BUSCH PROFESSOR OF CONSTRUCTION SCIENCE, 2015; PROFESSOR OF CONSTRUCTION SCIENCE, 2017 | PhD, Univ of Oklahoma, 2015; MBA, Univ of Oklahoma, 1997; MSCA, Univ of Oklahoma, 1997; B Interior Design, Univ of Oklahoma, 1991 |


| Reyes | Matthew | D | 2012 | ASSOCIATE | PhD, Univ of |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | PROFESSOR OF | Oklahoma, 2017; |
|  |  |  |  | CONSTRUCTION | MS, Texas A\&M Univ, |
|  |  |  |  | SCIENCE, 2018; | 2004; BA, Texas A\&M |
|  |  |  |  | HAROLD W. CONNER | Univ, 2003 |
|  |  |  |  | PROFESSOR OF |  |
|  |  |  |  | CONSTRUCTION |  |
|  |  |  |  | SCIENCE, 2018 |  |

## Construction Science, B.S.

Minimum Total Credit Hours: 120
Major Hours: 59
Minimum Upper-Division Hours: 48
Overall GPA - Combined and OU: 2.50
All Required Professional Courses GPA: 2.50
Program Code: B250

## Major Requirements

- A minimum grade of $C$ is required in all CNS courses.
- A minimum 2.50 OU and combined retention GPA is required for admission to Construction Science program. Admission is limited to the top 60 students with the required GPAs based on all courses listed in the first and second years. All of these courses must be completed before applying for admission to the junior year.
- CNS students are strongly encouraged to obtain a minor in Architecture, Business, or Communication.



# Major Support Requirements 

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| ACCT 2113 | Fundamental Financial Accounting | 3 |
| COMM 1113 | Principles of Communication | 3 |
| ECON 1123 | Principles of Economics-Micro | 3 |
| MGT 3013 | Principles of Organization and | 3 |
|  | Management |  |

Communications Elective
Choose one of the following:

B C $2813 \quad$| Strategic Communication for Business |
| :--- |
|  |
| Professionals |

COMM 2113 Business and Professional Communication
COMM 2613 Public Speaking

## Liberal Arts \& Science Electives

Choose 8 hours from a list of approved courses maintained by

Total Credit Hours

## General Education and College Requirements

Courses designated as Core I, II, III, IV, or V are part of the General Education curriculum. Students must complete a minimum of 40 hours of General Education courses, chosen from the approved list, including at least one upper-division Gen. Ed. course outside of the student's major. Courses graded S/U or P/NP will not apply.

UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS

| Code Title | Credit |
| :--- | :--- | :--- |
|  | Hours |

Core Area I: Symbolic and Oral Communication

| English Composition | Principles of English Composition | 3 |
| :--- | :--- | :--- |
| ENGL 1113 | Principles of English Composition | 3 |
| ENGL 1213 | Expository Writing |  |

Language ( $0-10$ hours in the same language)
This requirement can be met by two years of the same 0-10
language in high school:
Beginning Course ( $0-5$ hours)
Beginning Course, continued ( $0-5$ hours)
Mathematics
MATH 1523 Precalculus and Trigonometry 3

| Core Area II: Natural Science (including one laboratory) |
| :--- |
| Natural Science |
| PHYS 2414 | | General Physics for Life Science Oriented |
| :--- |
| Majors |$\quad 4$

## Natural Science with lab

$\begin{array}{lll}\text { GEOL } 1114 & \text { Physical Geology for Science and } & 4 \\ & \text { Engineering Majors }\end{array}$
Core Area III: Social Science
P SC $1113 \quad$ American Federal Government

ECON 1113 Principles of Economics-Macro 3

## Core Area IV: Arts \& Humanities

Artistic Forms

| ARCH 3013 | Architecture for Non-Majors | 3 |
| :---: | :---: | :---: |
| Western Culture |  |  |
| HIST 1483 | United States to 1865 | 3 |
| or HIST 1493 | United States, 1865 to the Present |  |
| Choose one course ${ }^{1}$ |  | 3 |
| ARCH 2243 | History of the Built Environment I |  |
| ARCH 2343 | History of the Built Environment II |  |
| World Culture |  |  |
| Choose one general education course at the upper division (3000-4000) level and outside of the major |  | 3 |
| Core Area V: First-Year Experience |  |  |
| Choose one course |  | 3 |
| Total Credit Hours |  |  |
| 1 Excluding HIST | 1483 and HIST 1493. |  |

## Free Electives

Electives to bring total applicable hours to 120 including 48 upperdivision hours.

Courses designated as Core I, II, III, IV, or V are part of the General Education curriculum. Students must complete a minimum of 40 hours of General Education courses, chosen from the approved list, including at least one upper-division Gen. Ed. course outside of the student's major. Courses graded S/U or P/NP will not apply.

## A minimum grade of $C$ is required in all CNS courses.

A minimum 2.50 OU and combined retention GPA is required for admission to Construction Science program. Admission is limited to the top 60 students with the required GPAs based on all courses listed in the first and second years. All of these courses must be completed before applying for admission to the junior year.

CNS students are strongly encouraged to obtain a minor in Architecture, Business, or Communication.

## Freshman

| First Semester |  | Credit |
| :---: | :---: | :---: |
|  |  | Hours |
| MATH 1523 | Precalculus and Trigonometry (Core I) | 3 |
| ENGL 1113 | Principles of English Composition (Core I) | 3 |
| HIST 1483 or HIST 1493 | United States to 1865 (Core IV) or United States, 1865 to the Present | 3 |
| CNS 1111 | Introduction to Construction Management | 1 |
| CNS 2363 | Materials and Form | 3 |
| Liberal Arts/Science Elective |  | 2 |
|  | Credit Hours | 15 |
| Second Semester |  |  |
| $\begin{aligned} & \text { ENGL } 1213 \\ & \text { or EXPO } 1213 \end{aligned}$ | Principles of English Composition (Core I) or Expository Writing | 3 |
| P SC 1113 | American Federal Government (Core III) | 3 |
| Choose one of the following: |  | 3 |
| ARCH 2243 | History of the Built Environment I (Core IV) |  |
| ARCH 2343 | History of the Built Environment II (Core IV) |  |
| CNS 2833 | Materials and Methods for Construction | 3 |


| First-Year Experience (Core V) |  | 3 |
| :---: | :---: | :---: |
|  | Credit Hours | 15 |
| Sophomore |  |  |
| First Semester |  |  |
| COMM 1113 | Principles of Communication | 3 |
| ACCT 2113 | Fundamental Financial Accounting | 3 |
| ECON 1113 | Principles of Economics-Macro (Core III) | 3 |
| GEOL 1114 | Physical Geology for Science and Engineering Majors (Core II) | 4 |
| CNS 2813 | Construction Documents | 3 |
| CNS 2811 | Construction Fundamentals Lab | 1 |
|  | Credit Hours | 17 |
| Second Semester |  |  |
| PHYS 2414 | General Physics for Life Science Oriented Majors (Core II) | 4 |
| ECON 1123 | Principles of Economics-Micro | 3 |
| Communication Elective, Choose one of the following: |  | 3 |
| B C 2813 | Strategic Communication for Business Professionals |  |
| COMM 2113 | Business and Professional Communication |  |
| COMM 2613 | Public Speaking |  |
| CNS 1312 | Computers in Construction Lab | 2 |
| CNS 2433 | MEP Systems 1 | 3 |
|  | Credit Hours | 15 |
| Junior |  |  |
| First Semester |  |  |
| CNS 3103 | Construction Surveying | 3 |
| CNS 3443 | MEP Systems 2 | 3 |
| CNS 3533 | Construction Cost Estimating | 3 |
| ARCH 3013 | Architecture for Non-Majors (Core IV Artistic Forms) | 3 |
| Liberal Arts/Science Elective |  | 3 |
|  | Credit Hours | 15 |


| Second Semester |  |  |
| :--- | :--- | ---: |
| CNS 4193 | Architectural Structures I | 3 |
| CNS 3413 | Construction Communication | 3 |
| CNS 3543 | Project Planning and Scheduling | 3 |
| CNS 3823 | Project Management \& Cost Controls | 3 |
| CNS elective (upper-division) | $\mathbf{3}$ |  |
|  | Credit Hours | $\mathbf{1 5}$ |


| Summer |  |  |
| :---: | :---: | :---: |
| CNS 4941 | Field Work (Internship) - Required | 1 |
|  | Credit Hours | 1 |


| Senior |  |  |
| :--- | :--- | ---: |
| First Semester |  | 1 |
| CNS 3881 | Construction Safety | 3 |
| CNS 4133 | BIM for Constructors | 2 |
| CNS 4512 | Soils and Foundations | 3 |
| CNS 4523 | Pre-Construction Services | 3 |
| World Culture Elective (Core IV)-Upper-Division | 3 |  |
| Liberal Arts/Science Elective |  |  |
|  | Credit Hours | $\mathbf{1 5}$ |


| Second Semester |  |  |
| :--- | :--- | ---: |
| CNS 4143 | Legal Issues in Construction | 3 |
| CNS 4993 | Construction Science Capstone | 3 |
| MGT 3013 | Principles of Organization and | 3 |
|  | Management | $\mathbf{3}$ |
| CNS Elective (upper-division) | $\mathbf{1 2}$ |  |
| Credit Hours | $\mathbf{1 2 0}$ |  |

## Construction Science, Minor

## Minimum Total Credit Hours: 19

Overall GPA - Combined and OU: 2.50

## Program Code: N250

Enrollment in the minor in construction science program requires approval of the Director of the Construction Science Division. Students are admitted on a competitive basis, based on GPA and experience. A minimum GPA of 2.5 is required to enter the minor and must be maintained to remain in the program and receive the minor. For consideration to enter the program, this form must be completed and returned to the CNS academic adviser by April 1. Students will be notified of admission decisions by June 1.

The requirements for a minor must be completed concurrently with the major degree requirements. No minor may be added by completing courses after receiving the bachelor's degree.

- The minor is not intended to prepare a student for professional practice in construction.
- Required courses in the student's major cannot be used for the minor.


## Required Courses

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| CNS 1111 | Introduction to Construction Management | 1 |
| CNS 2363 | Materials and Form ${ }^{1}$ | 3 |
| CNS 2813 | Construction Documents | 3 |
| CNS 2833 | Materials and Methods for Construction | 3 |
| Choose 9 hours from the following: | 9 |  |
| CNS 3103 | Construction Surveying |  |
| CNS 3943 | Field Work |  |
| CNS 4143 | Legal Issues in Construction |  |
| CNS 4213 | Design-Build Principles and Practices |  |
| CNS 4403 | Leadership in the Construction Industry |  |
| CNS 4503 | Residential Construction |  |
| CNS 4853 | Heavy Civil Construction Project <br> Management |  |
| CNS 4193 | Architectural Structures I (non-Architecture <br> majors only) |  |

Total Credit Hours

1 Architecture majors cannot use CNS 2363 for the minor because it is required major work. CNS 1312 and CNS 2811 are required as a substitution.

Minors are available to all undergraduate students at OU. If the minor is officially declared and approved, successfully completed, and noted on the graduation application, the student's transcript will so indicate at the time the bachelor's degree is posted.

## Entrepreneurship \& Real Estate Development, Undergraduate Certificate

## Minimum Total Credit Hours: 15

## Program Code: T155

The 15 credit-hour curriculum of the certificate program has been designed to be interdisciplinary and to provide students a broad perspective of the real estate development industry, with an emphasis on residential real estate.

## Certificate Requirements

A minimum 2.5 overall GPA is required to complete the certificate.

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| CNS 2133 | Introduction to Housing in America | 3 |
| ARCH 4743 | Legal Framework for Design | 3 |
| Choose 3 courses (9 hours) from the list of approved courses | 9 |  |
| maintained by the Division of Construction Science (p. 120) | $\mathbf{1 5}$ |  |
| Total Credit Hours |  |  |

## Certificate Elective Courses

Choose any 3 courses ( 9 hours) from the following list of approved courses:

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| CNS 4503 | Residential Construction | 3 |
| ARCH 4663 | Methods VI- Urban Design Methodologies | 3 |
| ARCH 4713 | Real Estate Fundamentals | 3 |
| ARCH 4813 | Real Estate Development | 3 |
| ARCH 4970 | General Departmental Seminar (Housing | 3 |
| I D 4823 | Typologies and Trends) |  |
| EN D 3893 | Design for Independent Living | 3 |

## Construction Management: Special Studies, M.S.

Minimum Total Hours (Non-Thesis): 32
Program Code: M253
Required Courses

| Code $\quad$ Title | Credit <br>  <br>  |
| :--- | :--- |

## Required Courses

| CNS 5003 | Construction Fundamentals I I $^{1}$ | 3 |
| :--- | :--- | :--- |
| CNS 5013 | Construction Fundamentals II $^{1}$ | 3 |
| CNS 5033 $^{1}$ | Applied Project Management ${ }^{1}$ | 3 |


| CNS 5023 | Research Methods in Planning, Design and <br> Construction | 3 |
| :--- | :--- | ---: |
| Electives | 15 |  |
| Electives as required and approved by the graduate liaison <br> Research Courses | 2 |  |
| CNS 5952 $\quad$ Special Studies Presentation | 3 |  |
| CNS 5993 $\quad$ Special Studies Research | $\mathbf{3 2}$ |  |
| Total Credit Hours |  |  |
| CNS 5003, CNS 5013, and CNS 5033 are fundamental courses for <br> students without construction education or background-may be <br> replaced with electives for students with sufficient construction <br> education and/or experience, with approval of the graduate liaison. |  |  |

## General Requirements for all Master's Degrees

The master's degree requires the equivalent of at least two semesters of satisfactory graduate work and additional work as may be prescribed for the degree.

All coursework applied to the master's degree must carry graduate credit.
Master's degree programs which require a thesis consist of at least 30 credit hours. All non-thesis master's degree programs require at least 30 credit hours.

Credit transferred from other institutions must meet specific criteria and is subject to certain limitations.

Courses completed through correspondence study may not be applied to the master's degree.

To qualify for a graduate degree, students must achieve an overall grade point average of 3.0 or higher in the degree program coursework and in all resident graduate coursework attempted. A student must also have at least a 3.0 in all coursework (including undergraduate coursework if any).

Additional information for master's degree students may be found in the Graduate College Bulletin.

- A student who has done satisfactory graduate work and has earned a 3.0 grade point average may file for master's candidacy.


## Construction Management: Thesis, M.S.

Minimum Total Hours (Thesis): 32
Program Code: M254

## Required Courses

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Required Courses |  |  |
| CNS 5003 | Construction Fundamentals I ${ }^{1}$ | 3 |
| CNS 5013 | Construction Fundamentals II $^{1}$ | 3 |
| CNS 5033 | Applied Project Management ${ }^{1}$ | 3 |
| CNS 5023 | Research Method in Planning, Design and <br> Construction | 3 |
| Electives |  | 15 |
| Electives as required and approved by the graduate liaison |  |  |

## Research Courses

| CNS 5980 | Research for Master's Thesis | 5 |
| :--- | ---: | ---: |

Total Credit Hours
1 CNS 5003, CNS 5013, and CNS 5033 are fundamental courses for students without construction education or background-may be replaced with electives for students with sufficient construction education and/or experience, with approval of the graduate liaison.

## General Requirements for all Master's Degrees

The master's degree requires the equivalent of at least two semesters of satisfactory graduate work and additional work as may be prescribed for the degree.

All coursework applied to the master's degree must carry graduate credit.
Master's degree programs which require a thesis consist of at least 30 credit hours. All non-thesis master's degree programs require at least 30 credit hours.

Credit transferred from other institutions must meet specific criteria and is subject to certain limitations.

Courses completed through correspondence study may not be applied to the master's degree.

To qualify for a graduate degree, students must achieve an overall grade point average of 3.0 or higher in the degree program coursework and in all resident graduate coursework attempted. A student must also have at least a 3.0 in all coursework (including undergraduate coursework if any).

Additional information for master's degree students may be found in the Graduate College Bulletin.

## Construction Management, M.C.B.

Minimum Total Hours (Non-Thesis): 32
Program Code: M246

| Code | Title | Credit Hours |
| :---: | :---: | :---: |
| Core |  |  |
| CNS 5611 | Introduction to Construction Management | 1 |
| CNS 5612 | Construction Business Development | 2 |
| CNS 5621 | Construction Management Capstone | 1 |
| CNS 5622 | Lean Construction: Principles and Methodologies | 2 |
| CNS 5632 | Leadership Principles in the Construction Industry | 2 |
| CNS 5642 | Advanced Construction Law | 2 |
| CNS 5652 | Experiential Learning in Design and Construction | 2 |

## Electives

Choose 20 credit hours of graduate level courses from
the College of Business, selected from an approved list
maintained by the College of Architecture. (p. 121)
Total Credit Hours

## General Requirements for all Master's Degrees

The master's degree requires the equivalent of at least two semesters of satisfactory graduate work and additional work as may be prescribed for the degree.

All coursework applied to the master's degree must carry graduate credit.
Master's degree programs which require a thesis consist of at least 30 credit hours. All non-thesis master's degree programs require at least 30 credit hours.

Credit transferred from other institutions must meet specific criteria and is subject to certain limitations.

Courses completed through correspondence study may not be applied to the master's degree.

To qualify for a graduate degree, students must achieve an overall grade point average of 3.0 or higher in the degree program coursework and in all resident graduate coursework attempted. A student must also have at least a 3.0 in all coursework (including undergraduate coursework if any).

Additional information for master's degree students may be found in the Graduate College Bulletin.

## M.C.B. Business Electives

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| ACCT 5202 | Financial Accounting | 2 |
| B AD 5102 | Managerial Economics | 2 |
| B AD 5122 | Quantitative Analysis I | 2 |
| FIN 5102 | Financial Management | 2 |
| FIN 5112 | Investments | 2 |
| FIN 5442 | Real Estate Finance and Investments | 2 |
| MGT 5702 | Organizational Behavior | 2 |
| MGT 5712 | Negotiations | 2 |
| MIT 5602 | Management Information Systems | 2 |
| SCM 5522 | Planning and Operations Management | 2 |

## Construction Management, Graduate Certificate

Minimum Total Hours: 12
Program Code: G275, (Online G276)

## Certificate Requirements

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Core Requirements | 3 |  |
| CNS 5003 | Construction Fundamentals I | 3 |
| CNS 5013 | Construction Fundamentals II |  |
| Electives |  | 6 |
| Choose any | 6 credit hours from the following: |  |


| CNS 5622 | Lean Construction: Principles and <br> Methodologies |
| :--- | :--- |
| CNS 5632 | Leadership Principles in the Construction <br> Industry |
| CNS 5642 | Advanced Construction Law <br> CNS 5652 |
| Experiential Learning in Design and |  |
| Construction |  |

Total Credit Hours
A graduate certificate is not a graduate degree. A graduate degree represents a program of independent inquiry beyond the depth of coursework alone, while a graduate certificate represents a set of courses only.

- All courses must be taken at OU. No transfer credit will apply.
- No course substitutions are permitted for graduate certificates.
- Coursework applied to a graduate certificate cannot be more than five years old as of the semester the graduate certificate is awarded.
- Students must earn a grade point average of 3.00 or higher on all coursework applied to the graduate certificate.


## Division of Interior Design

Elizabeth Pober, Director
Suchismita Bhattacharjee, Ph.D., Graduate Liaison
Gould Hall
830 Van Vleet Oval, Room 180
Norman, OK 73019-6141
Phone: (405) 325-2444
FAX: (405) 325-7558
idcoa@ou.edu
architecture.ou.edu/interior-design/

## General Information

The University of Oklahoma Division of Interior Design provides a studentcentric learning environment with diverse faculty who emphasize excellence in design education, innovative research, and service to the community while preparing students to join the professional practice of interior design. The undergraduate program is accredited by the Council for Interior Design Accreditation. There are two graduate programs, including a Master of Science in Interior Design, Post Professional, and a Master of Science in Interior Design, First Professional. The disciplinary perspectives share a common pedagogy within the Christopher C. Gibbs College of Architecture divisions, engaging in creative and technical skills that prepare new graduates to solve problems related to global challenges facing the profession of Interior Design.

The Division of Interior Design recognizes the definition of a professional designer as the cornerstone of its philosophical underpinnings.

Interior design is a multi-faceted profession in which creative and technical solutions are applied within a structure to achieve a built interior environment. These solutions are functional, enhance the quality of life and culture of the occupants, and are aesthetically attractive. Designs are created in response to and coordinated with the building shell, and acknowledge the physical location and social context of the project. Designs must adhere to code and regulatory requirements, and encourage the principles of environmental sustainability. The interior design process follows a systematic and coordinated methodology, including research, analysis and integration of knowledge into the creative process, whereby the needs and resources of the client are satisfied to produce an interior space that fulfills the project goals.

Interior design includes a scope of services performed by a professional design practitioner, qualified by means of education, experience, and examination, to protect and enhance the life, health, safety and welfare of the public. These services may include any or all of the following tasks:

- Research and analysis of the client's goals and requirements; and development of documents, drawings and diagrams that outline those needs
- Formulation of preliminary space plans and two and three dimensional design concept studies and sketches that integrate the client's program needs and are based on knowledge of the principles of interior design and theories of human behavior
- Confirmation that preliminary space plans and design concepts are safe, functional, aesthetically appropriate, and meet all public health, safety and welfare requirements, including code, accessibility, environmental, and sustainability guidelines
- Selection of colors, materials and finishes to appropriately convey the design concept, and to meet sociopsychological , functional, maintenance, life-cycle performance, environmental, and safety requirements;
- Selection and specification of furniture, fixtures, equipment and millwork, including layout drawings and detailed product description; and provision of contract documentation to facilitate pricing, procurement and installation of furniture
- Provision of project management services, including preparation of project budgets and schedules;
- Preparation of construction documents, consisting of plans, elevations, details and specifications, to illustrate non-structural and/or non-seismic partition layouts; power and communications locations; reflected ceiling plans and lighting designs; materials and finishes; and furniture layouts
- Preparation of construction documents to adhere to regional building and fire codes, municipal codes, and any other jurisdictional statutes, regulations and guidelines applicable to the interior space
- Coordination and collaboration with other allied design professionals who may be retained to provide consulting services, including but not limited to architects; structural, mechanical and electrical engineers, and various specialty consultants
- Confirmation that construction documents for non-structural and/or non-seismic construction are signed and sealed by the responsible Interior Designer, as applicable to jurisdictional requirements for filing with code enforcement officials
- Administration of contract documents, bids and negotiations as the client's agent
- Observation and reporting on the implementation of projects while in progress and upon completion, as a representative of and on behalf of the client; and conducting post-occupancy evaluation reports

Learn more from the National Council for Interior Design Qualification at: www.ncidq.org

The basic principles and concepts of interior design guide our thinking and decision-making with regard to program content, delivery and evaluation. We direct our efforts toward the development of the entry level Interior Design professional, with capabilities in the enhancement of the function and quality of interior spaces. We promote an understanding of current practice within the broadest context of the interior architectural profession as well as within the southwestern culture specific to this region.

The program places value upon three distinct characteristics which embody the philosophy of the Interior Design program at OU:

- Learning is centered around contemporary practice: faculty bring significant practice experience which demonstrates advanced achievement in design management expertise beyond the project management levels of interior architectural design practice.
- Learning is diverse and demonstrates a holistic approach to design problem-solving: faculty and students are exposed to regional and international practices emphasizing resources, culture and traditionbased design. The program also addresses global considerations focusing on issues which reinforce the positioning of interior design for the future.
- Learning is interdisciplinary: the location of the Interior Design program within a college that shares teaching pedagogy across the disciplines of the built environment provides Interior Design faculty and students with an environment where team contributions are sought and disciplinary expertise is valued.

The mission of the Division of Interior Design is to provide a design education within a student-centric learning environment emphasizing excellence in education, research and service to the community.

The goals of the Interior Design program in the Christopher C. Gibbs College of Architecture reflect the program's location and resources and embrace change as a constant variable in the learning environment. The program strives to:

- prepare entry level Interior Designers to work effectively with professionals from other disciplines engaged in the planning, design and management of the built environment;
- engage Interior Design students in the exploration of design within broad cultural contexts, addressing both regional and international contributions to the design of the built environment while utilizing resources across and beyond the campus;
- integrate the expressive qualities embodied in the practice of interior design within the context of a technological learning environment;
- capitalize upon the design practice and design management expertise of the faculty by engaging students in effective and appropriate problem-solving experiences involving student-centered research of the built environment;
- challenge students by addressing contemporary and critical issues facing the profession;
- ensure adequate curricular flexibility to accommodate future change affecting interior design education throughout the duration of a four year program of study;
- preserve and enhance the development of problem-solving skills within a sequential studio sequence, continually expanding to encompass increasingly more complex concepts, skills, knowledge and application strategies; and,
- actively seek and promote the involvement of external organizations in collaborative partnerships, providing opportunities for students and faculty to engage in real life design experiences.


## Special Programs and Facilities

An active Interior Design Student Association (IDSA) student chapter umbrella provides students with valuable interaction with members of the Interior Design profession while pursuing their degree. The International Interior Design Association (IIDA) and the American Society of Interior Designers (ASID) are two of the industry professional organizations aligned with IDSA. The IDSA student chapter sponsors field trips to designers' offices, significant design projects and sites in the region, furnishings markets, and trade shows. Students also participate in competitions in studio as well as through formal independent study opportunities. In addition, students travel to national professional meetings, undertake structured internship experiences, and work with real clients.

College and divisional seminars bring visiting scholars and noted professionals to the college to provide students with a broad understanding of the multi-disciplinary nature of the college and both international and national exposure to significant work in the built environment.

Design studios provide students with permanent work stations. A resource room and lighting lab with current manufacturers' catalogs, architecture and interior design samples, and technical data that provides students with design resource materials. The Christopher C. Gibbs College of Architecture maintains a shared computer lab with access 24 hours a day, seven days a week.

## Undergraduate Study

## Bachelor of Interior Design

The Bachelor of Interior Design (p. 129) program requires completion of a minimum of 120 semester hours distributed in general education, major, and elective courses.

## Minors

- Interior Design Minor for Non-Architecture/Non-Visual Communication Majors (p. 131)
- Interior Design Minor for Architecture Majors (p. 130)
- Interior Design Minor for Visual Communication Majors (p. 131)


## Curriculum Organization

The Interior Design curriculum combines the development of conceptual ideas - knowledge of art, architecture, craft, and manufacture that stimulates form-making and design with technical knowledge essential to the delivery of the interior built environment - while at the same time integrating the important tasks and rituals of individuals and groups.

A sequential core of professional courses and design studios are linked to University general education courses to prepare students for everchanging conditions of practice and life. Sequential studio coursework is required in each semester from the environmental design foundation coursework through to the Interior Design capstone. The curriculum
enables interdisciplinary experiences with Architecture, Landscape Architecture, and Construction Science disciplines.

## Graduate Study

The Master of Science in Interior Design First Professional (p. 132) option offers graduate education in Interior Design to students who do not have a previous professional degree in Interior Design or Architecture. The program reinforces the notion of collaboration and integrated practices in the built environment.

The Master of Science in Interior Design Post Professional (p. 132) option offers an opportunity for a graduate degree to students with an undergraduate degree in interior design or a related field.

## Courses

ID 1134 Interior Design Communication Studio I 4 Credit Hours
Prerequisite: Majors only; Corequisite: I D 1164. The course is an introduction to the fundamentals of sketching, technical drawing, and rendering techniques, and their relationships to one another. Communication of design ideas is explored through the application of drafting and sketching techniques, including traditional media and digital tools such as the iPad. (F)

## I D 1164 Interior Design Studio I

4 Credit Hours
Prerequisite: Majors only; corequisite: I D 1134. This studio course challenges students with the exploration of 2D and 3D design elements and principles. (F)

## I D 1173 Foundations of Interior Design

3 Credit Hours
Contemporary exploration of the interior design profession as both a creative and problem-solving process. Emphasis on the elements and principles that define interior spaces, the design process and technical aspects of the interior design profession. Types of practices, professional registration, certifications, professional organizations and the integration of interior design with allied disciplines will be provide through project exploration. (F)
ID 1234 Interior Design Communication Studio II 4 Credit Hours Prerequisite: ID 1134 and ID 1164; Corequisite: ID 1264; majors only. Introduction of computer applications in the professional practice of interior design. Software use for graphic communication of design and problem-solving solutions in two and three-dimensional representations. (Sp)

## I D 1264 Interior Design Studio II

4 Credit Hours
Prerequisite: I D 1134 and ID 1164; corequisite: I D 1234; majors only. This studio course challenges students through the design of small-scale single and multi-family residential projects. (Sp)
I D 2223 Human-Centered Design 3 Credit Hours The Human-centered design (HCD) course introduces an interdisciplinary approach that places human experience at the forefront of design processes. Human-centered design thinking and its empathetic mindset promote innovative, creative problem-solving. These are foundational skills that are highly valued in diverse disciplines, including but not limited to design, business, engineering, healthcare, education, computer science, etc. (F) [III-SS].
ID 2334 Interior Design Communication Studio III 4 Credit Hours Prerequisite: ID 1234 and ID 1264; co-requisite: ID 2364; majors only. Advanced computer applications used in the professional practice of interior design for construction drawings and presentation drawings. The use of software applications in project delivery methods and integrated design practice. (F)

I D 2364 Interior Design Studio III
4 Credit Hours
Prerequisite: ID 1234 and ID 1264; co-requisite: I D 2334; majors only; sophomore standing. This studio course challenges students to design small commercial project types including but not restricted to retail or restaurant/cafe. Project size varies up to approximately 4,000 square feet. (F)

I D 2464 Interior Design Studio IV
4 Credit Hours
Prerequisite: I D 2334 and I D 2364 I; majors only; sophomore standing.
This studio course focuses on institutional building design and may
include, but is not limited to, educational facilities (early childhood higher education), libraries, and museums. Project size varies up to approximately 8000 square feet. (Sp)

ID 2773 Interior Construction
3 Credit Hours
Prerequisite: ID 1234 and ID 1264; majors only. Introduction to the building and finish materials used in the design of non-loadbearing interior construction. Development of accurate selection and detailing of materials and assemblies in construction drawings. Additional topics include mechanical and electrical systems, building codes, and planning standards. (F)

I D 3433 Interior Design Portfolio I
3 Credit Hours
Prerequisite: I D 2364; majors only; sophomore standing. The course serves as an introduction to methods and formats of preparing a professional portfolio, with an emphasis on portfolio design, personal branding, and delivery methods. Each student will exhibit their design skills and achievements as part of the Interior Design Sophomore Portfolio Review. (Sp)
ID 3440 Mentored Research Experience
3 Credit Hours
0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)
I D 3473 History of Interior Design
3 Credit Hours
Prerequisite: ARCH 2343; majors only; junior standing; or permission of the instructor. Historical survey of interior design, decorative arts, and product design from ancient to contemporary times. Emphasis is given to the history of interior design from the late 19th century to the contemporary. (Sp)
I D 3564 Interior Design Studio V
4 Credit Hours
Prerequisite: I D 2464; corequisite: I D 4573; acceptance into the Interior Design program; junior standing; Majors only. This studio course focuses on health and wellness projects which may include medical specialties, clinics, ambulatory care facilities, fitness/ rehabilitation centers, or community engagement spaces. Project size varies up to approximately 12,000 square feet. (F)

ID 3573 Interior Materials and Specifications
3 Credit Hours Prerequisite: ID 2364 and ID 2773; majors only; sophomore standing. The course involves a study of the basic characteristics and installation of materials and finishes used in the design of the built environment, with an emphasis on building codes, fire safety, sustainability, and regulations for accessibility. The course also provides an introduction to writing specifications for materials, equipment, and non-load bearing construction. (Sp)

I D 3664 Interior Design Studio VI
4 Credit Hours
Prerequisite: I D 3564 and I D 4573; majors only; junior standing. The studio course challenges students with the design of corporate office projects that include workplace environments with secondary hospitality components. Project size varies up to approximately 18,000 square feet. (Sp)

## I D 3960 Honors Reading

1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Will consist of topics in keeping with student's major program. Topics will cover materials not usually presented in the regular courses. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

## I D 3970 Honors Seminar 1-3 Credit Hours

1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Content deals with concepts not usually presented in regular coursework. (Irreg.)

## I D 3980 Honors Research <br> 1-3 Credit Hours

1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Will provide an opportunity for work on special projects under the guidance of a faculty member. (F, Sp, Su)

## I D 3990 Independent Study

1-3 Credit Hours
1 to 3 hours. Prerequisite: permission of instructor and junior standing. May be repeated once with change of content. Independent study may be arranged to study a subject not available through regular course offerings. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

## ID 4123 Environment and Human Behavior 3 Credit Hours

(Slashlisted with I D 5123) Prerequisite: Majors only; junior standing, or permission of instructor. The course introduces students to a range of fundamental readings on theories and practices relevant to EnvironmentBehavior ( $\mathrm{E}-\mathrm{B}$ ) relationships (people and their environment). The course also introduces students to environmental psychology for design and illustrates situations they will likely encounter. No student may earn credit for both 4123 and 5123. (F)

## I D 4253 Taliesin Studio in Residence

3 Credit Hours
(Slashlisted with I D 5253) Prerequisite: Majors in the Gibbs College of Architecture with sophomore standing or by approval of the professor leading the program. This intensive six-day immersive program provides students with an in-depth, studio-based experience at Taliesin East in Wisconsin. It includes tours and individual exploration of the house, and campus. This course will also provide educational lectures and discussions, and studio exercises crafted to deepen students' understanding of Frank Lloyd Wright's design and its influence on Bruce Goff. No student may earn credit for both 4253 and 5253. (Su)

I D 4263 Fallingwater Studio in Residence
3 Credit Hours
(Slashlisted with I D 5263) Prerequisite: Majors in the Gibbs College of Architecture with sophomore standing or by approval of the professor leading the program. This intensive seven-day immersive program provides students with an in-depth, studio-based experience at Fallingwater in Pennsylvania. It includes tours and individual exploration of the house, educational lectures and discussions, and studio exercises crafted to deepen students' understanding of Frank Lloyd Wright's design and its influence on Bruce Goff. No student may earn credit for both 4263 and 5263. (Su)

ID 4273 Taliesin West Studio in Residence 3 Credit Hours
(Slashlisted with I D 5273) Prerequisite: Majors in the Gibbs College of Architecture with sophomore standing or by approval of the professor leading the program. This intensive six-day immersive program provides students with an in-depth, studio-based experience at Taliesin West in Arizona. It includes tours and individual exploration of the house, and campus. This course will also provide educational lectures and discussions, and studio exercises crafted to deepen students' understanding of Frank Lloyd Wright's design and its influence on Bruce Goff. No student may earn credit for both 4273 and 5273. (Su)

## ID 4343 Indoor Environmental Quality

3 Credit Hours
(Slashlisted with I D 5343) Prerequisite: Majors only, junior standing, or permission of instructor. The course focuses on the examination of factors that contribute to indoor environmental quality and the design practices and techniques for improving indoor environmental quality. Specific topics include daylight, views, acoustic control, lighting, thermal comfort and air quality. No student may earn credit for both 4343 and 5343. (F)

ID 4413 Indoor Controls and Technology
3 Credit Hours
(Slashlisted with I D 5413) Prerequisite: I D 4573, majors only, junior standing, or permission of instructor. The course introduces and analyzes the technology of luminaries and control systems, including solid systems, dimming control, and other building management systems. It then invites students to apply their understanding through the design of a prescribed space. Students will be taught how to design and coordinate lighting control for energy effectiveness, flexibility of space, and increased occupant satisfaction. No student may earn credit for both 4413 and 5413. (Sp)
I D 4463 Interior Design Office Professional Practice 3 Credit Hours (Slashlisted with I D 5463) Prerequisite: ID 3573; majors only; junior standing. Review of business and professional issues relating to interior design practice including organizational structures, marketing, contracts, professional registration, trade professions, fee structures, and project management. Overview of legal, financial, management, and administrative issues, establishing a practice, managing a project progress, business development, business ethics, project compensation and agreements, issues and procedures for both commercial and residential design firms. No student may earn credit for both 4463 and 5463. (Sp)

I D 4573 Interior Lighting

## 3 Credit Hours

(Slashlisted with I D 5573) Prerequisite: I D 2464; co-requisite I D 3564; majors only; junior standing. This course introduces the use of lighting to define and enhance interior environments through the interaction between light, vision, and psychology. Lectures cover topics such as the relationship between light and materials, color rendering and appearance, lighting control systems, building codes and standards, and sustainability and energy conservation. No student may earn credit for both 4573 and 5573. (F)

ID 4633 Interior Design Portfolio II
3 Credit Hours
(Slashlisted with ID 5633) Prerequisite: ID 3433; junior standing; majors only. The course offers preparation and presentation of an advanced portfolio to be assessed by industry professionals and educators. Emphasis is on the design of the portfolio, resume and marketing collateral and their organization and delivery methods including software applications necessary for creating printed and web-based portfolios. Will assist students in the transition to professional practice or graduate school. No student may earn credit for both 4633 and 5633. (Sp)

ID 4764 Furniture Design Build Studio 4 Credit Hours
Prerequisite: I D 3664; Corequisite: I D 4784; senior standing; majors only or permission of instructor. This course explores the design of furniture through the complete creative process from concept to finished product. Emphasizing an iterative design process, the course progresses through sketching, models, material selection, joinery methods, and construction techniques, enabling students to develop skills in both design ideation and fabrication craftsmanship. The course culminates in the fabrication of full-scale furniture projects. (F)
ID 4784 Interior Design Capstone: Pre-Design Phase 4 Credit Hours Prerequisite: I D 3664 and I D 4573; co-requisite: I D 4764; senior standing; majors only. This is the first of a two-part studio course where students complete a professional interior design project utilizing the comprehensive knowledge and skills of the major. Students will complete research and program development, site analysis, building codes and regulations analysis, and concept development for an interior design project of significant scale and complexity. (F)

I D 4823 Design for Independent Living
3 Credit Hours
(Slashlisted with I D 5823) Prerequisite: Senior standing. Students will be introduced to aging in place design and universal design that supports safe, comfortable and independent living for users as they age in their residential setting. The course will focus on design determinants, design implications of spatial relationships, scale and function, residential building codes, and design programming as they relate to aging in place homes. No student may earn credit for both 4823 and 5823. (Sp)
ID 4865 Interior Design Capstone: Design Phase 5 Credit Hours Prerequisite: I D 4784 and I D 4764; senior standing; majors only. This is the second of a two-part studio course where students complete a professional interior design project utilizing the comprehensive knowledge and skills of the major. Students will complete schematic design, design development, presentation documents, and contract documents, including construction drawings and specifications, for an interior design project of significant scale and complexity. (Sp) [V].

## I D 4940 Field Work

1-3 Credit Hours
1 to 3 hours. Prerequisite: permission of instructor. Field study related to the student's major in a position approved by the instructor. One hour credit per 120 hours of field work or equivalent. Documentation and evaluation is required. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

## I D 4960 Directed Readings <br> 1-4 Credit Hours

1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean. May be repeated; maximum credit four hours. Designed for upper-division students who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)

## I D 4970 General Departmental Seminar

1-6 Credit Hours
1 to 6 hours. Prerequisite: junior standing or permission of instructor. May be repeated with change in content; maximum credit twelve hours. Special topics in interior design. (F, Sp, Su)

## I D 4990 Independent Study 1-3 Credit Hours

1 to 3 hours. Prerequisite: permission of instructor and director. May be repeated; maximum credit six hours. Contracted independent study for topic not currently offered in scheduled courses. Study may include research and/or field projects. (F, Sp, Su)

ID 5123 Environment and Human Behavior
3 Credit Hours
(Slashlisted with I D 4123) Prerequisite: Graduate standing in the College of Architecture, and I D 5133 or RCPL 5113; or permission of instructor. The course introduces students to a range of fundamental readings on theories and practices relevant to Environment-Behavior (E-B) relationships (people and their environment). The course also introduces students to environmental psychology for design and illustrates situations that they will likely encounter. No student may earn credit for both 4123 and 5123. (F)
ID 5133 Research Methods
3 Credit Hours
Prerequisite: Graduate standing in College of Architecture or permission of instructor. Introduction to research methods with emphasis on the built environment. Topics will include interpretive-historical research, qualitative research, co-relational research, logical argumentation and case study/mixed methods. (Sp)
ID 5143 Design Theory Analysis and Evaluation 3 Credit Hours
Prerequisite: Graduate standing in the College of Architecture, and I D 5133 or RCPL 5113; or permission of instructor. The course examines the ways in which designers and theorists express and conceptualize interiors. Readings from significant works detailing the history of interior design and its role in the future are included. Through discussion, research papers, and independent analysis, students are expected to develop skills in analyzing and conceptualizing interior design principles. (F)

ID 5163 Design Computation Visualization and Analysis 3 Credit Hours Prerequisite: Graduate standing in College of Architecture or permission of instructor. Focus is on the software used to introduce basic functions of (Building Information Modeling) BIM. Topics concentrate on techniques and methods for creating building parts, the production of construction documents, and renderings. Tools are also introduced for material and construction analysis as well as costing and scheduling data. (F)
I D 5223 Advanced Materials and Methods
3 Credit Hours
Prerequisite: Graduate standing in College of Architecture or permission of instructor. The study and use of building materials specified during the design and construction process. Coursework will emphasize the analysis of current practices and applications involving material types and construction methods. (F)

## I D 5253 Taliesin Studio in Residence

3 Credit Hours
(Slashlisted with I D 4253) Prerequisite: Graduate standing in the Gibbs College of Architecture or by approval of the professor leading the program. This intensive six-day immersive program provides students with an in-depth, studio-based experience at Taliesin East in Wisconsin. It includes tours and individual exploration of the house and campus. The course will also provide educational lectures and discussions, and studio exercises crafted to deepen students' understanding of Frank Lloyd Wright's design and its influence on Bruce Goff. No student may earn credit for both 4253 and 5253. (Su)
ID 5263 Fallingwater Studio in Residence
3 Credit Hours
(Slashlisted with I D 4263) Prerequisite: Graduate standing in the Gibbs College of Architecture or by approval of the professor leading the program. This intensive seven-day immersive program provides students with an in-depth, studio-based experience at Fallingwater in Pennsylvania. It includes tours and individual exploration of the house, educational lectures and discussions, and studio exercises crafted to deepen students' understanding of Frank Lloyd Wright's design and its influence on Bruce Goff. No student may earn credit for both 4263 and 5263. (Su)

ID 5273 Taliesin West Studio in Residence 3 Credit Hours
(Slashlisted with I D 4273) Prerequisite: Graduate standing in the Gibbs College of Architecture or by approval of the professor leading the program. This intensive six-day immersive program provides students with an in-depth, studio-based experience at Taliesin West In Arizona. It includes tours and individual exploration of the house and campus. This course will also provide educational lectures and discussions, and studio exercises crafted to deepen students' understanding of Frank Lloyd Wright's design and its influence on Bruce Goff. No student may earn credit for both 4273 and 5273. (Su)

## I D 5343 Indoor Environmental Quality 3 Credit Hours

 (Slashlisted with I D 4343) Prerequisite: Graduate standing in the College of Architecture, and ID 5133 or RCPL 5113; or permission of instructor. This course focuses on the examination of factors that contribute to indoor environmental quality and the design practices and techniques for improving indoor environmental quality. Specific topics include daylight, views, acoustic control, lighting, thermal comfort, and air quality. No student may earn credit for both 4343 and 5343. (F)ID 5413 Indoor Controls and Technology 3 Credit Hours
(Slashlisted with ID 4413) Prerequisite: Graduate standing in the College of Architecture, I D 5343, and I D 5133 or RCPL 5113; or permission of instructor. The course introduces and analyzes the technology of luminaries and control systems, including solid systems, dimming control, and other building management systems. It then invites students to apply their understanding through the design of a prescribed space. Students will be taught how to design and coordinate lighting control for energy effectiveness, flexibility of space, and increased occupant satisfaction. No student may earn credit for both 4413 and 5413. (Sp)

## ID 5463 Interior Design Office Professional Practice 3 Credit Hours

 (Slashlisted with ID 4463) Prerequisite: Graduate standing in the College of Architecture or permission of instructor. Review of business and professional issues relating to interior design practice, including organizational structures, marketing, contracts, professional registration, trade professions, fee structures, and project management. Overview of legal, financial, management, and administrative issues, establishing a practice, managing project progress, business development, business ethics, project compensation and agreements, and issues and procedures for both commercial and residential design firms. No student may earn credit for both 4463 and 5463. (Sp)
## I D 5523 Graduate Studio I

3 Credit Hours
Prerequisite: Graduate standing and permission of Graduate Liaison. Introduction to fundamental design and visual communication skills through material, formal, and spatial properties of design. Graphic techniques will be employed through a range of phases, from communicating initial design proposals to detailed drawings that can fully convey information necessary for construction. Students will construct architectural study models to use as spatial analysis during the design process. (F)

## I D 5533 Graduate Studio II

3 Credit Hours
Prerequisite: Graduate standing and ID 5523, with I D 5763 a co-requisite, or permission of Graduate Liaison. An introduction to space planning strategies, interior architectural components, accessibility guidelines, design programming, residential codes, and the design process as they relate to small scale residential projects, with an emphasis on issues of form, function, space, light, materials, color, texture, and ergonomics. (Sp)

I D 5534 Graduate Studio III
4 Credit Hours
Prerequisite: Graduate standing, I D 5533, and I D 5763, with I D 5163 as a co-requisite; or permission of Graduate Liaison. Introduction to advanced space planning, human factors, universal design, building codes as they relate to multi-family and small commercial projects, including but not restricted to retail, businesses, restaurants, cafes, coffee shops, and galleries up to 3,000 square feet; emphasis on the influence of space planning strategies and human factors on interior architectural components, design programming, and design development. (F)
I D 5544 Graduate Studio IV
4 Credit Hours
Prerequisite: Graduate standing, ID 5534, and I D 5163; or permission of Graduate Liaison. Introduction to human needs and activities as design determinants, design implications of spatial relationships, scale and function, building codes, and design programming as they relate to institutional building design, including but not limited to educational facilities, libraries, higher ed, K-12, or museums up to 5000 sq ft ; emphasis on influence of human factor on furniture, fixture, and equipment specifications. (Sp)

## I D 5564 Graduate Studio V

4 Credit Hours
Prerequisite: Graduate standing and I D 5544, with I D 5573 as a corequisite; or permission of Graduate Liaison. Introduction to the space planning processes and application of design principles as they pertain to mid-size commercial projects up to 8,000 square feet, with an emphasis on health and wellness. Projects may include clinics, medical office buildings, fitness/rehabilitation centers, and community engagement spaces; emphasis on the importance of evidence-based design research. (F)

I D 5573 Interior Lighting
3 Credit Hours
(Slashlisted with I D 4573) Prerequisite: Graduate standing in the College of Architecture or permission of instructor. This course introduces the use of lighting to define and enhance interior environments through the interaction of light, vision, and psychology. Lectures cover topics such as the relationship between light and materials, color rendering and appearance, lighting control systems, building codes and standards, sustainability, and energy conservation. No student may earn credit for both 4573 and 5573. (F)
ID 5633 Interior Design Portfolio II 3 Credit Hours (Slashlisted with ID 4633) Prerequisite: Graduate standing and departmental permission. The course offers preparation and presentation of an advanced portfolio to be assessed by industry professionals and educators. Emphasis is on the design of the portfolio, resume and marketing collateral, and their organization and delivery methods, including software applications necessary for creating printed and webbased portfolios. This course will assist students in the transition to professional practice or graduate school. No student may earn credit for both 4633 and 5633. (Sp)
ID 5713 Commercial Design
3 Credit Hours
Prerequisite: Graduate standing and permission of Graduate Liaison. Introduction to planning processes and the application of design principles to commercial design projects. Space planning process, design philosophy, specifications and oral presentations will be expected on each project. (Sp)
I D 5723 Lighting Design
3 Credit Hours
Prerequisite: Graduate standing or permission of Graduate Liaison. Introduction to lighting design of interiors. Studio/lecture presentations; focus on design principles in lighting, lighting quality, lighting quantification codes, and energy conservation. Emphasis is on integration of lighting with interior spaces, techniques in lighting design, fixture design, and exploration of computer visualization. (F)

I D 5753 History of Interior Design
3 Credit Hours
(Slashlisted with I D 4753) Prerequisite: Graduate standing and permission of Graduate Liaison. Historical survey of architectural interiors and of the decorative arts. Cultural and socioeconomic factors which influenced interior spaces and furnishings will be an emphasis in addition to readings, lectures and discussion about the art, composition and aesthetic theories that give value to historical interiors. Students may not earn credit for both 4753 and 5753. (Sp)
ID 5763 Graduate Interior Design Computer Application 3 Credit Hours Prerequisite: Graduate standing and permission of Graduate Liaison. Use of computer-aided design (AutoCAD Architecture, SketchUp, Photoshop and InDesign) and its role in interior design professional practice. Applications to demonstrate design process and problem-solving solutions in two- and three-dimensional representation and modeling. Analysis of the applications of computer-aided design in the interior design industry. (F)

## I D 5773 Graduate Interior Construction

3 Credit Hours
Prerequisite: Graduate standing and permission of Graduate Liaison. Introduction to the construction materials and methods, building and finish materials used in the design of non-loadbearing interior construction. Intended to develop an accurate and efficient expression of selection and detailing of materials and assemblies in construction drawings. Additional topics include mechanical and electrical systems, building codes, and planning standards. (Sp)

## I D 5793 Interior Materials and Specifications

3 Credit Hours
Prerequisite: Graduate standing and permission of Graduate Liaison. Study of the basic characteristics and installation of materials and finishes used in the design of interiors, building codes, fire safety, and regulations for accessibility. Emphasis on writing specifications for FF\&E and non-loadbearing construction. (F)
I D 5823 Design for Independent Living
3 Credit Hours
(Slashlisted with ID 4823) Prerequisite: Graduate standing. Students will be introduced to aging in place design and universal design that supports safe, comfortable and independent living for users as they age in their residential setting. The course will focus on design determinants, design implications of spatial relationships, scale and function, residential building codes, and design programming as they relate to aging in place homes. No student may earn credit for both 4823 and 5823. (Sp)

## I D 5940 Field Work

3 Credit Hours
Prerequisite: Graduate standing in College of Architecture or permission of instructor. Field study related to the student's interest in architectural lighting approved by graduate liaison. One credit hour per 120 hours of fieldwork or equivalent. Documentation and evaluation required. (F, Sp, Su )

I D 5950 Masters of Science in Interior Design Project 2-6 Credit Hours 2 to 6 hours. Prerequisite: Permission of director/graduate coordinator. May be repeated with change of content; maximum credit six hours. Professional project of significant scale and complexity in the student's area of concentration. (F, Sp)

## I D 5960 Directed Readings

1-4 Credit Hours
1 to 4 hours. Prerequisite: graduate standing; permission of instructor, adviser and dean. May be repeated; maximum credit six hours. (F, Sp)
I D 5970 Special Topics/Seminar 1-3 Credit Hours 1 to 3 hours. Prerequisite: Graduate standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

I D 5980 Research for Master's Thesis
2-6 Credit Hours
2 to 6 hours. Prerequisite: Permission of director/graduate coordinator. Variable enrollment, two to six hours; maximum credit applicable toward degree, 6 hours. (F, Sp)
I D 5990 Special Studies
1-6 Credit Hours
1 to 6 hours. Prerequisite: permission of instructor, adviser and dean. The opportunity is provided for students with above-average grades to do individual library or laboratory work on special problems not included in present courses. (F, Sp)

## Faculty

| Last Name | First/Middle Name | Middle init. | OU <br> Service <br> start | Title(s), date(s) appointed | Degrees Earned, Schools, Dates Completed |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Bhattacharj | uchismita |  | 2013 | Associate Professor of Interior Design - 2019; Assistant Professor of Interior Design-2013; Graduate Liaison of Interior Design - 2015 | PhD, Virginia Polytechnic Inst, 2010; MS, Virginia Polytechnic Institute, 2010; MS, Michigan State Univ, 2007; BS, Jadavpur Univ, 2005 |
| Holcomb | Chelsea |  | 2021 | Associate Professor of Interior Design - 2024; Lecturer of Interior Design - 2021 | Masters of Architecture, Univ of Oklahoma; BFA, Interior Design, Univ of Central Oklahoma |

Kile Mia 2012

Loraas Dawn 2022 | Assistant Professor |
| :--- |
| of Interior Design - |
| 2022 |



|  |  |  |  |  | Design University of Minnesota - 2001; BBA, Accounting and Finance University of North Dakota - 1994 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Matin | Negar |  | 2019 | Assistant Professor of Interior Design 2020 | PhD, Technology (Concentration on Interior Design), Eastern Michigan Univ; MS, Architecture, Tabriz Art Univ; BS, Architecture, Chamran Univ of Ahvaz |
| Pober | Elizabeth | F | 2004 | Associate Professor of Interior Design - 2014; Assistant Professor of Interior Design - 2007 | MS, Univ of Oklahoma, 2004; B Interior Design, Univ of Oklahoma, 2003 |


| Proietti | Tiziana | 2018 | Assistant Professor of Interior Design \& Architecture-2018 | PhD in Architectural <br> Design, Univ of Rome Sapienze, <br> 2013; Masters of <br> Architecture, Univ of <br> Rome Sapienze, 2008 |
| :---: | :---: | :---: | :---: | :---: |
| Yeji | Yi |  | Assistant Professor of Interior Design 2023 | PhD-Planning, <br>  <br> Construction, <br> University of <br> Oklahoma, 2021; <br> Master of Science <br> in Architecture, <br> University of <br> Oklahoma, 2017; <br> Masters Degree <br> of Design Studies <br> in Architecture, <br> Hanyang University, 2013. |

## Interior Design, B.I.D.

Minimum Total Credit Hours: 120
Major Hours: 76
Minimum Upper-Division Hours: 48
Upper-Division Hours Within Major. 42
Overall GPA - Combined and OU: 2.50
All Required Professional Courses GPA: 2.50
Program Code: B585

## Major Requirements

- A minimum grade of $C$ is required in all ID and ARCH courses.
- A minimum 2.50 OU and combined retention GPA is required for admission to the third and fourth years of the BID program. Admission is limited to students meeting the GPA and portfolio review requirement. All first and second year courses must be completed before applying for admission.

| Code | Title | Credit Hours |
| :---: | :---: | :---: |
| Required Courses |  |  |
| I D 1134 | Interior Design Communication Studio I | 4 |
| I D 1164 | Interior Design Studio I | 4 |
| I D 1173 | Foundations of Interior Design | 3 |
| I D 1234 | Interior Design Communication Studio II | 4 |
| I D 1264 | Interior Design Studio II | 4 |
| I D 2334 | Interior Design Communication Studio III | 4 |
| I D 2364 | Interior Design Studio III | 4 |
| I D 2773 | Interior Construction | 3 |
| I D 2464 | Interior Design Studio IV | 4 |
| I D 3433 | Interior Design Portfolio I | 3 |
| I D 3573 | Interior Materials and Specifications | 3 |
| I D 3564 | Interior Design Studio V | 4 |
| I D 3473 | History of Interior Design | 3 |
| I D 4573 | Interior Lighting | 3 |
| ARCH 4563 | Methods V- Sustainable and Resilient Systems II | 3 |
| I D 3664 | Interior Design Studio VI | 4 |


| I D 4633 | Interior Design Portfolio II | 3 |
| :--- | :--- | ---: |
| I D 4463 | Interior Design Office Professional Practice | 3 |
| I D 4764 | Furniture Design Build Studio | 4 |
| I D 4784 | Interior Design Capstone: Pre-Design Phase | 4 |
| I D 4865 | Interior Design Capstone: Design Phase | 5 |
| Total Credit Hours | 76 |  |

## Major Support Requirements

| Code Title | Credit |
| :---: | :---: |
| Interior Design Professional Elective |  |
| Choose 3 upper-division hours from an approved list of courses with the following course designator: ID | 3 |
| Professional Elective |  |
| Choose 3 upper-division hours from an approved list of courses with the following course designators: A HI, ARCH, I D, CNS, L A, or RCPL | 3 |
| Total Credit Hours | 6 |

## General Education and College Requirements

Courses designated as Core I, II, III, IV, or V are part of the General Education curriculum. Students must complete a minimum of 40 hours of General Education courses, chosen from the approved list, including at least one upper-division Gen. Ed. course outside of the student's major. Courses graded S/U or P/NP will not apply.

## UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Core Area I: Symbolic and Oral Communication |  |  |
| English Composition | 3 |  |
| ENGL 1113 | Principles of English Composition | 3 |

or EXPO 1213 Expository Writing
Language (0-10 hours in the same language)
This requirement can be met by two years of the same 0-10 language in high school:

Beginning Course (0-5 hours)
Beginning Course, continued (0-5 hours)

## Mathematics

Choose one course 3
Core Area II: Natural Science (including one laboratory)
Natural Science
PHYS 1114 General Physics for Non-Science Majors 4

Natural Science with lab
Choose one course from a different topic than natural science 4

Core Area III: Social Science
P SC 1113 American Federal Government 3
Choose one course 3
Core Area IV: Arts \& Humanities
A HI 1113 The Understanding of Art (Core IV-AF) 3

## Western Culture

HIST 1483 United States to 1865

| or HIST 1493 | United States, 1865 to the Present |
| :--- | :--- | ---: |
| ARCH 2343 | History of the Built Environment II (Core IV- <br> WC) |
| World Culture 3 <br> Choose one general education course at the upper division  <br> (3000-4000) level and outside of the major (Core IV-WDC)  |  |
| Core Area V: First-Year Experience |  |
| Choose one course | 3 |
| Total Credit Hours | $\mathbf{3 8 - 4 8}$ |

## Free Electives

Electives to bring total applicable hours to 120, including 40 general education hours and 48 upper-division hours.

A minimum grade of $C$ is required in all I D and ARCH courses.
A minimum 2.50 OU and combined retention GPA is required for admission to the third and fourth years of the Bachelor of Interior Design program. Admission is limited to students meeting the GPA and portfolio review requirement. All first and second year courses must be completed before applying for admission.

Courses designated as Core I, II, III, IV, or V are part of the General Education curriculum. Students must complete a minimum of 40 hours of General Education courses, chosen from the approved list, including at least one upper-division Gen. Ed. course outside of the student's major. Courses graded S/U or P/NP will not apply.

## Freshman

| First Semester |  | Credit <br> Hours |
| :--- | :--- | ---: |
| ENGL 1113 | Principles of English Composition (Core I- | 3 |
|  | EN1) | 4 |
| ID 1134 | Interior Design Communication Studio I | 4 |
| ID 1164 | Interior Design Studio I | 3 |
| I D 1173 | Foundations of Interior Design | $\mathbf{1 4}$ |


| Second Semester |  |  |
| :--- | :--- | ---: |
| First-Year Experience (Core V) | 3 |  |
| I D 1234 | Interior Design Communication Studio II | 4 |
| I D 1264 | Interior Design Studio II | $\mathbf{4}$ |
| A HI 1113 | The Understanding of Art (Core IV-AF) | 3 |
|  | Credit Hours | $\mathbf{1 4}$ |

ENGL 1213 Principles of English Composition (Core I-
EN2)

| Any Gen. Ed. approved MATH course (Core I-MATH) | 3 |
| :---: | :---: |
| Credit Hours | 6 |

## Sophomore

## First Semester

| PHYS 1114 | General Physics for Non-Science Majors <br> $($ Core II-NS) | 4 |
| :--- | :--- | ---: |
| I D 2334 | Interior Design Communication Studio III | 4 |
| I D 2364 | Interior Design Studio III | 4 |
| I D 2773 | Interior Construction | 3 |
|  | Credit Hours | 15 |


| Second Semester |  |  |
| :--- | :--- | ---: |
| I D 2464 | Interior Design Studio IV | 4 |
| I D 3433 | Interior Design Portfolio I | 3 |
| I D 3573 | Interior Materials and Specifications |  |
| ARCH 2343 | History of the Built Environment II (Core IV- <br>  <br>  <br> WC) | 3 |
| Cummer | Credit Hours | 3 |
| HIST 1483 | United States to 1865 (Core IV-HIST) | $\mathbf{1 3}$ |
|  | Credit Hours | $\mathbf{3}$ |

## Junior

First Semester

| I D 3564 | Interior Design Studio V | 4 |
| :--- | :--- | :---: |
| I D 3473 | History of Interior Design | 3 |
| I D 4573 | Interior Lighting | 3 |
| ARCH 4563 | Methods V- Sustainable and Resilient | 3 |
|  | Systems II | $\mathbf{1 3}$ |

## Second Semester

| P SC 1113 | American Federal Government (Core III- | 3 |
| :--- | :--- | ---: |
| I D 3664 | PSC) | 4 |
| I D 4463 | Interior Design Studio VI | 3 |
| I D 4633 | Interior Design Office Professional Practice | 3 |
|  | Credit Hours | $\mathbf{1 3}$ |

## Senior

First Semester

| Natural | Science with lab - Advised Elective (Core II-NSL) | 4 |
| :--- | ---: | ---: |
| I D 4764 | Furniture Design Build Studio | 4 |
| ID 4784 | Interior Design Capstone: Pre-Design Phase | 4 |
| Professional Elective - upper-division ID $^{1}$ | 3 |  |
| Credit Hours | $\mathbf{1 5}$ |  |

## Second Semester

I D 4865 Interior Design Capstone: Design Phase 5
Professional Elective-upper-division ${ }^{2} 3$

Social Science Elective - Advised Elective (Core III-SS) 3
World Culture—Upper Division Advised Elective - (Core IV- 3
WDC)

| Credit Hours | 14 |
| :--- | ---: |
| Total Credit Hours | 120 |

1 Professional Elective - Any upper-division course from an approved list with the following designator. ID (Interior Design)
2 Professional Elective - Any upper-division course from an approved list with the following designator. A HI (Art History), ARCH (Architecture), I D (Interior Design), CNS (Construction Science), LA (Landscape Architecture), or RCPL (Regional and City Planning).

## Interior Design for Architecture Majors, Minor

Minimum Total Credit Hours: 15-16

## Program Code: N586

Minor applications will be reviewed at the end of each semester and are due during dead week with decisions made prior to the start of each semester. The top students will be selected, based on applicant's GPA, and admitted based on enrollment availability in the ID program.

- The requirements for a minor must be completed concurrently with the major degree requirements. No minor may be added by completing courses after receiving the bachelor's degree.
- Required courses in the student's major cannot be used for the minor.
- The minor is only available to undergraduate students with a declared Architecture major.
- Students must achieve a minimum 2.50 GPA (OU and overall) in the minor coursework.


## Required Courses



## Total Credit Hours

If the minor is officially declared and approved, successfully completed, and noted on the graduation application, the student's transcript will so indicate at the time the bachelor's degree is posted.

## Minor Electives for Interior Design for Architecture Majors <br> Department maintained list of I D Professional Electives

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| I D 4123 | Environment and Human Behavior (F) | 3 |
| I D 4343 | Indoor Environmental Quality (Sp) | 3 |
| I D 4413 | Indoor Controls and Technology (Sp) | 3 |
| ID 4253 | Taliesin Studio in Residence (Su) | 3 |
| ID 4263 | Fallingwater Studio in Residence (Su) | 3 |
| ID 4273 | Taliesin West Studio in Residence (Su) | 3 |


| I D 4823 | Design for Independent Living (Su) | 3 |
| :--- | :--- | :--- |
| I D 4970 | General Departmental Seminar | 3 |

## Interior Design for Visual Communication Majors, Minor

Minimum Total Credit Hours: 15
Program Code: N588
Minor applications will be reviewed annually and are due June 1 st with decisions made by August 1 st. The top students will be selected, based on applicant's GPA, and admitted based on enrollment availability in the ID program.

- The requirements for a minor must be completed concurrently with the major degree requirements. No minor may be added by completing courses after receiving the bachelor's degree.
- Required courses in the student's major cannot be used for the minor.
- Students must achieve a minimum 2.50 GPA (OU and overall) in the minor coursework.


## Required Courses

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Choose 15 credit hours from the following courses | 15 |  |
| I D 1173 | Foundations of Interior Design (F) |  |
| I D 1164 | Interior Design Studio I (F) |  |
| I D 1134 | Interior Design Communication Studio I (F) |  |
| I D 1234 | Interior Design Communication Studio II |  |
|  | $(S p)$ |  |
| I D 3473 | History of Interior Design (F) |  |

Total Credit Hours
If the minor is officially declared and approved, successfully completed, and noted on the graduation application, the student's transcript will so indicate at the time the bachelor's degree is posted.

## Interior Design for Non-Architecture/NonVisual Communication Majors, Minor

Minimum Total Credit Hours: 15

Program Code: N584
Minor applications will be reviewed annually and are due June 1 st with decisions made by August 1 st. The top students will be selected, based on applicant's GPA, and admitted based on enrollment availability in the ID program.

- The requirements for a minor must be completed concurrently with the major degree requirements. No minor may be added by completing courses after receiving the bachelor's degree.
- Required courses in the student's major cannot be used for the minor.
- Students must achieve a minimum 2.50 GPA (OU and overall) in the minor coursework.



## Interior Design (First Professional), M.S.

Minimum Total Hours (Non-Thesis): 63
Program Code: M587

## General Information

The Master of Science in Interior Design First Professional option offers an opportunity for pursuing a post-baccalaureate degree in Interior Design for students who do not have an undergraduate degree in Interior Design or closely related fields.

## This program has changes pending Regents approval for 2024-25. These pending changes are not reflected here.

Required Courses

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Prerequisite Leveling Courses |  |  |
| I D 5523 | Graduate Studio I | 3 |
| I D 5533 | Graduate Studio II | 3 |


| I D 5534 | Graduate Studio III | 4 |
| :---: | :---: | :---: |
| I D 5544 | Graduate Studio IV | 4 |
| I D 5763 | Graduate Interior Design Computer Application | 3 |
| I D 5773 | Graduate Interior Construction | 3 |
| I D 5793 | Interior Materials and Specifications | 3 |
| I D 5573 | Interior Lighting | 3 |
| I D 5564 | Graduate Studio V | 4 |
| Core Courses |  |  |
| $\begin{aligned} & \text { I D } 5133 \\ & \text { or RCPL } 5113 \end{aligned}$ | Research Methods <br> Urban Planning Research Methods | 3 |
| I D 5123 | Environment and Human Behavior | 3 |
| $\begin{aligned} & \text { I D } 5143 \\ & \text { or ARCH } 5543 \end{aligned}$ | Design Theory Analysis and Evaluation Architectural Theory and Criticism | 3 |
| I D 5163 | Design Computation Visualization and Analysis | 3 |
| I D 5343 | Indoor Environmental Quality | 3 |
| I D 5413 | Indoor Controls and Technology | 3 |
| I D 5940 | Field Work (or Research Elective) | 3 |
| Research Elective |  | 3 |
| $\begin{aligned} & \text { I D } 5463 \\ & \text { or ARCH } 5053 \end{aligned}$ | Interior Design Office Professional Practice Methods X - Tools of Practice | 3 |
| I D 5950 | Masters of Science in Interior Design Project | 6 |

Total Credit Hours

## General Requirements for all Master's Degrees

The master's degree requires the equivalent of at least two semesters of satisfactory graduate work and additional work as may be prescribed for the degree.

All coursework applied to the master's degree must carry graduate credit.
Master's degree programs which require a thesis consist of at least 30 credit hours. All non-thesis master's degree programs require at least 30 credit hours.

Credit transferred from other institutions must meet specific criteria and is subject to certain limitations.

Courses completed through correspondence study may not be applied to the master's degree.

To qualify for a graduate degree, students must achieve an overall grade point average of 3.0 or higher in the degree program coursework and in all resident graduate coursework attempted. A student must also have at least a 3.0 in all coursework (including undergraduate coursework if any).

Additional information for master's degree students may be found in the Graduate College Bulletin.

- A student who has done satisfactory graduate work and has earned a 3.0 grade point average may file for master's candidacy.


## Interior Design (Post-Professional), M.S.

[^1]
## Program Code: M588

## General Information

The Master of Science in Interior Design Post Professional option offers an opportunity for the students graduating from a CIDA accredited program to earn a Master of Science in Interior Design degree in one year (Summer+Fall+Spring semester).

## This program has changes pending Regents approval for 2024-25. These pending changes are not reflected here.

- Note: I D 5793 (Interior Materials and Specifications) may be required as a prerequisite course requirement for students with undergraduate degrees from non-CIDA accredited Interior Design programs or a related field. If I D 5793 is identified as a prerequisite at admission, it cannot be applied toward the MSID degree.


## Thesis Option

| Code | Title | Credit Hours |
| :---: | :---: | :---: |
| I D 5123 | Environment and Human Behavior | 3 |
| $\begin{aligned} & \text { ID } 5133 \\ & \text { or RCPL } 5113 \end{aligned}$ | Research Methods <br> Urban Planning Research Methods | 3 |
| $\begin{aligned} & \text { I D } 5143 \\ & \text { or ARCH } 5543 \end{aligned}$ | Design Theory Analysis and Evaluation Architectural Theory and Criticism | 3 |
| Guided Electives: |  | 12 |
| I D 5163 | Design Computation Visualization and Analysis |  |
| I D 5343 | Indoor Environmental Quality |  |
| I D 5413 | Indoor Controls and Technology |  |
| $\text { I D } 5463$ <br> or ARCH 50 | Interior Design Office Professional Practice 5Methods X - Tools of Practice |  |
| I D 5940 | Field Work (or Research Elective) | 3 |
| I D 5980 | Research for Master's Thesis | 6 |

## Total Credit Hours

1 With approval of the graduate liaison, other graduate-level coursework may be substituted for these courses based on undergraduate degree or professional background.

## Non-Thesis Option

| Code | Title | Credit <br> Hours |
| :---: | :---: | :---: |
| I D 5123 | Environment and Human Behavior | 3 |
| $\begin{aligned} & \text { I D } 5133 \\ & \text { or RCPL } 5113 \end{aligned}$ | Research Methods <br> Urban Planning Research Methods | 3 |
| $\text { I D } 5143$ <br> or ARCH 5543 | Design Theory Analysis and Evaluation Architectural Theory and Criticism | 3 |
| Guided Electives: |  | 12 |
| I D 5163 | Design Computation Visualization and Analysis |  |
| I D 5343 | Indoor Environmental Quality |  |
| I D 5413 | Indoor Controls and Technology |  |



## General Requirements for all Master's Degrees

The master's degree requires the equivalent of at least two semesters of satisfactory graduate work and additional work as may be prescribed for the degree.

All coursework applied to the master's degree must carry graduate credit.
Master's degree programs which require a thesis consist of at least 30 credit hours. All non-thesis master's degree programs require at least 30 credit hours.

Credit transferred from other institutions must meet specific criteria and is subject to certain limitations.

Courses completed through correspondence study may not be applied to the master's degree.

To qualify for a graduate degree, students must achieve an overall grade point average of 3.0 or higher in the degree program coursework and in all resident graduate coursework attempted. A student must also have at least a 3.0 in all coursework (including undergraduate coursework if any).

Additional information for master's degree students may be found in the Graduate College Bulletin.

- A student who has done satisfactory graduate work and has earned a 3.0 grade point average may file for master's candidacy.


## Division of Planning, Landscape Architecture, and Design

Ron Frantz, AIA, Director of Environmental Design
Sara Little, Ph.D., Acting Director of Landscape Architecture
John C. Harris, Ph.D., APA/AICP, Director of Regional and City Planning
Shawn Schaefer, Director of Urban Design Program (OU-Tulsa)
Gould Hall
830 Van Vleet Oval
Norman, OK 73019-6141
Phone: (405) 325-2444
FAX: (405) 325-7558
architecture.ou.edu

## General Information

## Environmental Design

The Environmental Design program at the Christopher C. Gibbs College of Architecture offers an interdisciplinary perspective on all aspects of how the built environment impacts people and communities. The program emphasizes service learning and community engagement.

Students study topics in architecture, city planning, equity planning, heritage conservation, historic preservation, landscape architecture, real estate, and urban design, and gain experience through projectbased coursework. Some coursework includes collaborations with faculty and students who are in other College of Architecture programs including Architecture, Construction Science, Interior Design, Landscape Architecture, and Regional and City Planning. Environmental Design offers accelerated pathways to master's degrees that save time. The Environmental Design program focuses on the intersection of theory and practice.

Students in Environmental Design courses work alongside the OU Institute for Quality Communities to partner with Oklahoma towns and cities to solve challenges they are facing. Through recent work, Environmental Design students contributed to:

- Public space concepts in Altus, Alva, and Durant.
- Preservation of cultural resources in Moore, Okemah, Oklahoma City, Wagoner, and Waurika.
- Design recommendations for safer downtown streets in Blanchard and Norman.
- Heritage conservation and speculative design solutions for rural, Black towns like Boley, McAlester, and Tullahassee.
- Strategic planning for commercial district development in downtown Norman and Oklahoma City's Bricktown, Plaza District, Uptown, and Deep Deuce areas.
- Parking strategies and bicycle route planning in downtown Chickasha.
- Pedestrian traffic and safety assessments in Bricktown (Oklahoma City).


## Vision

The Environmental Design program is all about working with real communities, turning ideas into action, and turning dreams into doing. The students gain exposure and experience working in cities, small towns, and communities that are not necessarily defined by size or geographic location.

The program teaches students how to investigate the social and physical challenges that harm communities. The program gives students, who are looking to do something significant, the know-how and ability to contribute to all places. This kind of collaborative, community-minded, inclusive design occurs through community service that is outside the classroom. They turn ideas into actions for real projects and for everyday people. The program gives students a glimpse into what it feels like to make the world better for others while creating a meaningful career that shapes the future of our communities. This program prepares students to follow various paths: graduate school (within the College of Architecture or at another university), private sector employment, governmental agency or non-profit organization employment. Students will be ready to engage and to make changes happen by design and through spirited collaboration. This is what "placemaking" is about. It is where community engagement, ideas, and making a difference meet. It is how dreaming becomes doing.

## Landscape Architecture

Landscape Architecture offers graduate students an interdisciplinary setting in which to learn and think critically and creatively in addressing environmental issues. The program's primary mission is the professional education of future Landscape Architects who will be able to contribute to the profession at any level typifying practice in the field. A secondary mission of the program is to successfully offer a post-professional degree
for those students who already have the first professional degree at the undergraduate level who are interested in advanced study in Landscape Architecture.

## About Landscape Architecture

- As described by the American Society of Landscape Architects (ASLA), "landscape architecture is the art and science of analysis, planning, design, management, preservation and rehabilitation of the land."
- "Landscape architects design the built environment of neighborhoods, towns and cities while also protecting and managing the natural environment, from its forests and fields to rivers and coasts. Members of the profession have a special commitment to improving the quality of life through the best design of places for people and other living things."
- "In fact, the work of landscape architects surrounds us. Members of the profession are involved in the planning of such sites as office plazas, public squares and thoroughfares. The attractiveness of parks, highways, housing developments, urban plazas, zoos and campuses reflects the skill of landscape architects in planning and designing the construction of useful and pleasing projects."
- "Depending on the scope of the project for clients, ranging from a local developer to the federal government, landscape architects may plan the entire arrangement of a site, including the location of buildings, grading, stormwater management, construction and planting. They may also coordinate teams of design, construction and contracting professionals."
- "Already, federal and state government agencies ranging from the National Park Service to local planning boards employ a large number of landscape architects. More and more private developers realize that the services of a landscape architect are an integral part of a successful, more profitable project."

Visit the ASLA website or the Landscape Architecture Foundation website for further information about the profession of Landscape Architecture.

## Regional and City Planning

Faculty in Regional and City Planning (RCPL) prepare students to address the challenges that face the cities, towns and rural areas of Oklahoma and the nation. The OU RCPL program, founded in 1947, is one of the oldest programs west of the Mississippi River. RCPL students, like those in other divisions of the Christopher C. Gibbs College of Architecture, have access to a multidisciplinary learning environment and a low student-faculty ratio that allows them to work closely with faculty and gain insight from faculty expertise. Regional and City Planning's focus on communication and experience better prepares graduates for the collaborative work of successful city planning professionals.

## Programs \& Facilities

## Academic Opportunities

Environmental Design students are strongly encouraged to participate in one of the many Study Abroad Programs offered in the Christopher C. Gibbs College of Architecture (GCA). Other academic programsArchitecture, Construction Science, Interior Design, and Landscape Architecture-offer a variety of travel experiences both across the United States and throughout the world. Environmental Design students have contributed to these valuable educational and service learning activities.

## Non-Academic Institutional Experiences

Environmental Design students have a unique opportunity to engage with service learning opportunities through the OU Institute for Quality Communities (IQC). IQC is an outreach center that brings together GCA students, faculty, and staff to assist Oklahoma communities. The design assistance happens in a variety of ways-out in Oklahoma communities. Students in Environmental Design classrooms are part of interdisciplinary project teams that work alongside professionals and with government and non-profit clients. These community-based projects focus on:

- historic preservation Waurika, Oklahoma
- tactical urbanism StART Norman Project
- inclusion, equity, justice (Langston, Northeast Oklahoma City, Tulsa Riverwood)
- public space design Vinita, Oklahoma
- walkability Wynnewood, Oklahoma
- bikeability issues Downtown Chickasha, Oklahoma
- some other community design issues Blanchard, Oklahoma Altus Reservoir Deep Deuce Retail Study

The students begin to gain experience and add to their resumes in a way that complements their academic studies. For more information, please visit OU Institute for Quality Communities

## Non-Academic Community Exposures

Due to the nature of the studies in the Environmental Design program, students are "out there" doing projects and getting their hands dirty. This work lets them get to know community leaders in all sectors of society: private, governmental, and non-profit organizations. Exposure to representatives in these organizations includes, but is not limited to, the following:

- American Institute of Architects, Central Oklahoma Chapter
- AIA Oklahoma
- American Planning Association
- BlackSpace Oklahoma
- City of Oklahoma City Planning and Historic Preservation Planning Departments
- The Coltrane Group, Historic Black Town Tours
- Downtown Oklahoma City, Inc.
- The Moore-Lindsay Historical House Museum (Norman)
- Neighborhood Alliance of Central Oklahoma
- Norman Arts Council
- Norman Downtowners
- Oklahoma Arts Council
- Oklahoma Brownfields Program/Oklahoma Department of Environmental Quality
- Oklahoma Main Street Center/Oklahoma Department of Commerce (and local Main Street programs throughout the state)
- Oklahoma Municipal League
- Oklahoma State Historic Preservation Office/Oklahoma Historical Society
- Oklahoma Tobacco Settlement Endowment Trust/Local County Healthy Living Programs
- Preservation Oklahoma, Inc.
- Western History Collection/OU Norman Campus
- Urban Land Institute

Students are strongly encouraged to attend activities and conferences sponsored by the American Institute of Architects, the American Planning Association, and the Urban Land Institute as well as the IQC Placemaking Conference.

## Bachelor of Science

The Bachelor of Science in Environmental Design (En.D.) (p. 143) program is an undergraduate program in the Christopher C. Gibbs College of Architecture (GCA) that gives students who want to make a difference the know-how and ability to work on critical community issues. From revitalizing historic downtowns to imagining new neighborhoods, En.D. students learn about problems that are worth solving to make places that matter for people.

## Flexible Plan of Study

The Environmental Design program is notable for its flexible degree plan with many electives. Environmental Design students can build a custom plan of study based on their interests, selecting elective courses from GCA programs in Architecture, Construction Science, Interior Design, Landscape Architecture, and Regional \& City Planning.

Environmental Design students also take ecology electives that provide a sustainability emphasis to the studies in the Bachelor of Science in Environmental Design.

## Well-Suited for Transfer Students

While many Environmental Design students come to the program straight from high school, a number of our students transfer from other undergraduate degrees or enroll after junior college studies. The degree plan remains flexible as students come to the program in various stages of study or from different backgrounds of study.

## Pathway to Specialized Master's Degrees

The Environmental Design degree is an excellent pathway to further studies in graduate programs including Architecture, Interior Design, Landscape Architecture, Regional \& City Planning, and Urban Design. All of these programs are part of the Christopher C. Gibbs College of Architecture. Other students have gone onto other graduate programs around the world including architecture, landscape architecture, golf turf management, law, and public policy.

For those who go directly into the professional work world, students joined architectural firms, city and county planning departments, Americorps, non-profit public space design organizations, construction firms, and state governmental agencies.

## Accelerated Programs

- Environmental Design, B.S./Master of Landscape Architecture (p. 145)
- Environmental Design, B.S./Master of Regional and City Planning (p. 148)
- Environmental Design, B.S./Master of Urban Design (p. 150)


## Graduate Study

## Master of Landscape Architecture

## First Professional Degree

The First Professional Master of Landscape Architecture (p. 152) is an LAAB accredited degree, is for students who do not have a previous professional degree in Landscape Architecture and who may come from
fields as diverse as English literature, drama, wildlife management or nursing.

## Post-Professional Degree

The Post Professional Master of Landscape Architecture (p. 153) is only for students who have completed an accredited professional degree in Landscape Architecture and desire a design or research focus in a specialized area.

In both of these options, the graduate student is expected to focus the professional electives requirement on an area of specialization such as urban design, rural and small town design, sustainable and ecological design, environmental issues, or computer technologies. The student is encouraged to consider offerings in allied departments such as Anthropology, Architecture, Art, Botany, Construction Science, Civil Engineering, Environmental Science, Communications, Geography, Geology, Health and Sports Sciences, Human Relations, Political Science, Regional and City Planning, Sociology, and Zoology.

## Landscape Architectural Studies

The Landscape Architectural Studies (p. 153) is a non-accredited degree. This degree in intended for students with undergraduate degrees in Landscape Architecture or a related area.

All graduate students are required to develop a graduate advisory committee that will guide the student through the selection of a graduate project topic and its sequence as reflected in the program curriculum. All master's programs are subject to approval by the program director and/or the graduate liaison.

## Master of Regional and City Planning

The Master of Regional and City Planning (p. 154) degree is designed for persons who desire to work in urban and/or regional planning, neighborhood and area development, housing, community and economic development, urban design, transportation planning, and land development. The course of study integrates concepts from architecture, social sciences, environmental studies, engineering, business and law and prepares graduates for lifelong professional practice. Requirements for the degree include a bachelor's degree from a recognized college or university. In addition to the formal application, a statement of the student's personal objectives and three letters of recommendation should be sent directly to the division. Fall semester admission is suggested, but not required, to take advantage of the schedule sequence of course offerings.

## Master of Urban Design (Tulsa)

The Master of Urban Design (p. 155) program is designed for candidates from architectural or related disciplines seeking a career in the dynamics of the urban environment but not desiring to enter one of the licensed professions. The curriculum prepares students for careers in urban research, management, civic administration, public works, and other related areas. The program is also a sound base for those in community service and community design advocacy. This program is available through the Schusterman Center in Tulsa.

This program can be spread out over two years in order to allow students to have full-time office practice opportunities in professional offices. This degree program is designed for candidates already holding a professionally accredited degree in Architecture and is primarily for those already holding an NAAB accredited professional degree. It is not a viable track for candidates wishing to establish NAAB accredited degree credentials as a prerequisite to architectural licensing as required in most
of the U.S. (This track is not available to any candidate already holding a Master of Architecture degree from any institution).

Both thesis and professional project options are available. The curriculum is structured to fit into the College's Tulsa "Urban Laboratory" academic environment, with evening and weekend courses delivered in three credit segments.

## Dual Degree Programs

Students may pursue another degree program with the Master of Regional and City Planning under the University's dual degree program. Graduates have developed dual degree programs with Architecture, Landscape Architecture, Public Administration, Environmental Engineering and Law.

Several accelerated dual-degree programs are offered through collaboration with the Department of Geography and Environmental Sustainability housed in the College of Atmospheric and Geographic Sciences and the Division of Regional and City Planning, an academic unit in the Christopher C. Gibbs College of Architecture:

- Bachelor of Arts in Environmental Sustainability: Planning \& Mgt/ Master of Regional and City Planning (p. 787)
- Bachelor of Science in Environmental Sustainability: Planning \& Mgt/ Master of Regional \& City Planning (p. 790)
- Bachelor of Arts in Geographic Information Science/Master of Regional \& City Planning (p. 794)
- Bachelor of Science in Geographic Information Science/Master of Regional \& City Planning (p. 797)
- Bachelor of Arts in Geography: Physical \& Social Sciences/Master of Regional \& City Planning (p. 799)
- Bachelor of Science in Geography/Master of Regional \& City Planning (p. 802)

These accelerated programs are designed for exceptional students who wish to begin earning the Master of Regional and City Planning in the second semester of their junior year of their Bachelor programs.

## Courses

EN D 3440 Mentored Research Experience
3 Credit Hours
0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)
EN D 3893 Intro to Urban Real Estate Development 3 Credit Hours Prerequisite: Junior standing. This course will explore the formation of places through the study of real estate topics and guest lectures from related professions. Real estate development is a process by which the built environment is produced and modified over time. It results from the actions of many individuals and groups working within a context of natural environment, politics, culture, economics, and more. (F)

EN D 3993 Environmental Design Practicum 3 Credit Hours
Prerequisite: Junior standing. In-depth and on-site problem solving workshop focused on helping community stakeholders address real world challenges found in their local built environments. Emphasis is given to phasing proposed investments in the public and private realms. Subject matter varies and is reflective of a host of issues common to urban development. (Sp)

## EN D 4893 Historic Preservation Planning

3 Credit Hours
Prerequisite: Junior standing. In this course, students will: understand and articulate the social and economic values associated with preservation; Gain exposure to and understanding of local, state and federal guidelines for delineation and regulation of historic districts and buildings; Develop case studies in economic feasibility and adaptive reuse, reconstruction and rehabilitation; Understand the role of the State Historic Preservation Office; etc. (F)
EN D 4960 Directed Readings
1-4 Credit Hours
1 to 4 hours. Prerequisite: senior standing and permission of instructor. May be repeated with change of subject; maximum credit 12 hours. Designed for upper-division students who need opportunity to study a specific problem in greater depth than formal course content permits. ( $F$, $\mathrm{Sp}, \mathrm{Su}$ )
EN D 4990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: four courses in general area to be studied; permission of instructor and department. May be repeated; maximum credit six hours. Contracted independent study for topic not currently offered in regularly scheduled courses. ( $F, S p$ )

## EN D 4993 Environmental Design Capstone

3 Credit Hours
Prerequisite: senior standing. Provides students a hands-on service/ learning opportunity, presenting real world challenges that require collaboration and the application of acquired expertise within the dynamic context of a community's social and built environment. (Sp)[V].

## L A 2970 Special Topics/Seminar

1-3 Credit Hours
1 to 3 hours. Prerequisite: May be repeated; Maximum credit nine hours.
Special topics course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research, and field projects. (Irreg.)

## L A 3440 Mentored Research Experience <br> 3 Credit Hours

0 to 3 hours. Prerequisite: ENGL 1113 or equivalent, and permission of instructor; May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)
LA 4103 Introduction to Landscape Architecture 3 Credit Hours (Slashlisted with L A 5103) Prerequisite: junior standing and permission of instructor. Introduction to the multidisciplinary design profession of landscape architecture. This course will highlight the profession of landscape architecture as a leader in today's sustainable construction and design industry. No student may earn credit for both 4103 and 5103. (F) [IV-AF].

L A 4423 Human Experience of the Environment 3 Credit Hours
(Slashlisted with L A 5423) Prerequisites: Junior standing. An introduction to the understanding of how people interact with the world around them. We will explore the many ways in which environments have shaped us, how we perceive and interact with the world, what tools researchers use, how places are designed to accommodate particular human behaviors, and how designers can create healthy environments. No student may earn credit for both 4423 and 5423. (F, Sp, Su)[III-SS].
LA 4613 Landscape Architecture Computer Applications 3 Credit Hours (Slashlisted with LA 5613) Prerequisite: Junior standing or permission of instructor. A survey of computer applications common to the profession of landscape architecture including word processing, desktop publishing, computer image manipulation, computer-aided drafting, spreadsheets and databases with particular emphasis on computer image manipulation and computer-aided drafting. No student may earn credit for both 4613 and 5613. (F)
LA 4743 Garden History from Ancient to Contemporary 3 Credit Hours Prerequisite: junior standing. This course examines the history of human design and use of land through an examination of the gardens different civilizations built. Gardens from pre-history to twenty-first history in Asia, Latin/South America, Europe and the United States will be studied as products of conscious design. Understand the social, cultural and economic contexts within which historic garden styles emerged. (F, Sp)
LA 4943 History and Theory of Landscape Architecture 3 Credit Hours (Slashlisted with LA 5943) Prerequisite: Junior standing or permission of instructor. A survey of American landscape architecture trends and personalities. Includes an overview of European and Asian Iandscape and garden design precedents. The framework of modern architecture, modern art, and public art which provide a context for and influence upon landscape architecture will be discussed in historical and theoretical terms. No student may earn credit for both 4943 and 5943. (Sp)
L A 4970 Special Topics/Seminar 1-3 Credit Hours
1 to 3 hours. Prerequisite: junior standing or permission of instructor; May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

## L A 5052 Professional Practice <br> 2 Credit Hours

Prerequisite: 5043 or permission of instructor. Survey of career options, internship, registration, firm organization, office management, professional conduct and ethics within the practice of architecture. (F, Sp)
LA5103 Introduction to Landscape Architecture 3 Credit Hours (Slashlisted with LA 4103) Prerequisites: graduate standing, permission of instructor. Introduction to the multidisciplinary design profession of landscape architecture. This course will highlight the profession of landscape architecture as a leader in today's sustainable construction and design industry. No student may earn credit for both 4103 and 5103. (F)

## LA 5243 Landscape Architecture Technology: Materials and Construction 3 Credit Hours

Prerequisite: Graduate Standing. Technical requirements and design characteristics of landscape construction materials. Brick, concrete, asphalt, stone, wood, paving curbs, walls, steps, small structures, site furnishings, lighting, and basic construction documentation. (F)

## L A 5343 Landscape Architecture Technology: Site Issues 3 Credit Hours

Prerequisite: Graduate Standing. Technical aspects of land and water interactions in site planning and landscape engineering. Introduction to contours, grading and earthwork; watershed and site drainage; horizontal and vertical curves; erosion control, and sedimentation. (Sp)

L A 5402 Res Methods Landscape Arch 2 Credit Hours
Prerequisite: graduate standing or permission of instructor. Introduces basic research methods applicable to landscape architecture. (F)

L A 5423 Human Experience of the Environment 3 Credit Hours (Slashlisted with L A 4423) Prerequisite: Graduate standing. An introduction to the understanding of how people interact with the world around them. We will explore the many ways in which environments have shaped us, how we perceive and interact with the world, what tools researchers use, how places are designed to accommodate particular human behaviors, and how designers can create healthy environments. No student may earn credit for both 4423 and 5423. (F, Sp, Su)
LA 5513 Landscape Architecture Drawing and Graphics 3 Credit Hours Prerequisite: Graduate Standing. Basic techniques for visual thinking/ seeing and basic graphic techniques for two- and three-dimensional representation. Different methods of communication such as sketching, diagramming, plan, section and elevation drawing, rendering, one and two point perspective, and axonometric drawing for layout and composition. (F)

LA 5515 Landscape Architecture Introductory Graduate Studio I

5 Credit Hours
Prerequisite: Graduate standing and departmental permission. Smallscale problems in landscape architecture with particular emphasis on principles and elements of design, design of individual sites, design as a process including communication of site analysis, design, development and final design proposals. (F)

## L A 5525 Landscape Architecture Introductory Graduate Studio II 5 Credit Hours

Prerequisite: Graduate standing and LA 5515. Introduction to site planning at small to medium scales with particular emphasis on design process where consideration of natural and human factors influence design solutions. Subject matter varies and is reflective of a host of problems and issues common to landscape architecture. (Sp)

## L A 5535 Landscape Architecture Intermediate Graduate Studio

 III5 Credit Hours
Prerequisite: Graduate standing and LA 5525. Studio work concerned with park, recreation, and open space issues pertinent to contemporary needs. Subject matter may include park typologies and their design, recreation typologies, public education, greenways, scenic byways, ecotourism, schools, art in the landscape, and community gardens. (F)

## LA 5545 Landscape Architecture Intermediate Graduate Studio

 IV5 Credit Hours
Prerequisite: Graduate standing and LA 5535. Focus on housing and community planning as related to site planning and site design with particular emphasis on urban environments, housing typologies, community participation, community facilities, and the landscape architect's approach to integration of proposed developments within natural and human contexts. (Sp)

LA 5613 Landscape Architecture Computer Applications 3 Credit Hours
(Slashlisted with LA 4613) Prerequisite: Graduate Standing. A survey of computer applications common to the profession of landscape architecture including word processing, desktop publishing, computer image manipulation, computer-aided drafting, spreadsheets and databases with particular emphasis on computer image manipulation and computer-aided drafting. No student may earn credit for both 4613 and 5613. (F)
L A 5713 Plant Material and Technology
3 Credit Hours
Prerequisite: Graduate standing. Identification and classification of native and ornamental woody evergreen and deciduous trees, shrubs, vines, and ground covers. Study of their morphology, cultural characteristics, landscape uses, pruning maintenance, planting and establishment. Includes basic horticultural principles, plant processes, and factors affecting plant growth. (F, Sp)
L A 5923 Planting Design
3 Credit Hours
Prerequisite: LA 5713, graduate standing. An intensive lecture course emphasizing the use of plants in landscape architecture design. (F)
L A 5940 Field Work 1-4 Credit Hours
1 to 4 hours. Prerequisite: 4515 and permission of instructor. Studies in landscape architecture not suited to the conventional classroom setting. (F, Sp)

L A 5943 History and Theory of Landscape Architecture 3 Credit Hours
(Slashlisted with LA 4943) Prerequisite: Graduate Standing. A survey of American landscape architecture trends and personalities. Includes an overview of European and Asian landscape and garden design precedents. The framework of modern architecture, modern art, and public art which provide a context for and influence upon landscape architecture will be discussed in historical and theoretical terms. Students may not earn credit for 4943 and 5943. No student may earn credit for both 4943 and 5943. (Sp)
LA 5950 Graduate Project Proposal
2-4 Credit Hours
2 to 4 hours. Prerequisite: graduate standing and permission of
instructor. Proposal development for terminal graduate project in landscape architecture. ( $\mathrm{F}, \mathrm{Sp}$ )

L A 5960 Directed Readings 1-4 Credit Hours
1 to 4 hours. Prerequisite: permission of instructor; May be repeated with change of content; maximum credit nine hours. Selected readings in landscape architecture. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

L A 5970 General Department Seminar 1-4 Credit Hours 1 to 4 hours. Prerequisite: graduate standing and permission of instructor; May be repeated with change of topic; maximum credit nine hours. Advanced professional topics in landscape architecture and experimental course offerings. (Sp)
L A 5990 Independent Study 1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing and permission of instructor; May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)
L A 6595 Graduate Project
5 Credit Hours
Prerequisite: 6950 or permission of instructor. An approved individual project or thesis exploiting or integrating the student's specialization with landscape architecture. Laboratory (Sp)

## L A 6643 Urban Design Theory

3 Credit Hours
(Crosslisted with ARCH 6643 and RCPL 6643) Prerequisite: graduate standing. A survey of theory relevant to the urban design process, including social and behavioral concepts, visual and aesthetic theory, spatial and geographic factors of urban form. (Sp)
LA 6950 Applied Research in Landscape Architecture 1-4 Credit Hours 1 to 4 hours. Prerequisite: 6013 and permission of instructor. Approved individual research in landscape architecture coordinated with electives in preparation for the graduate project. (F)

## L A 6960 Directed Readings

1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor; May be repeated; maximum credit six hours. Directed readings and/or literature review under the direction of a faculty member. (Irreg.)

## L A 6970 Special Topics/Seminar

1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor; May be repeated; maximum credit 12 hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or research and field projects. (Irreg.)

## L A 6990 Graduate Special Studies

1-6 Credit Hours
1 to 6 hours. Prerequisite: graduate standing and permission of instructor; May be repeated with change of content; maximum credit 12 hours. Selected topics in landscape architecture. (F, Sp, Su)
RCPL 3440 Mentored Research Experience 3 Credit Hours 0 to 3 hours. Prerequisite: ENGL 1113 or equivalent, and permission of instructor; May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)
RCPL 4003 The Global City and Planning Issues 3 Credit Hours (Crosslisted with GEOG 4003; Slashlisted with 5003) Prerequisite: English 1213 and junior standing. An introduction to the concept of globalization and its effects on cities, and the city planning issues related to those effects. Characteristics, theories, and strategies of city development are reviewed. Cities are observed from several perspectives: natural and built environment, governance, society, economics, and history. No student may earn credit for both 4003 and 5003. (Sp)
RCPL 4033 Sociology of Housing
3 Credit Hours
(Slashlisted with RCPL 5033; Crosslisted with SOC 4033) Prerequisite: ENGL 1213 or EXPO 1213, Junior standing, and Departmental Permission. This course introduces students to socioeconomic, political, and equity issues in housing. Students will engage with planning and policy issues to understand the history of housing and interventions for diverse populations. Topics will cover primarily U.S. Housing policy and practices with some comparative international examples. No student may earn credit for both 4033 and 5033. (Irreg.)
RCPL 4063 Planning with Diverse Communities 3 Credit Hours (Slashlisted with RCPL 5063) Prerequisite: Completion of ENG 1213 or EXPO 1213, Junior Standing, and Department or Instructor Permission. As cities become more diverse, planning with various communities becomes increasingly complex and challenging. This upper-division undergraduate and graduate course is intended to introduce students to issues related to diversity and inequality. Aspects of diversity (e.g., race/ ethnicity, gender, class, sexuality, national origin, abilities, etc) and their intersections with planning and urban policy and development issues are discussed. No student may earn credit for both 4063 and 5063. (Irreg., Sp )

RCPL 4213 Principles and Practice of Urban Planning 3 Credit Hours (Slashlisted with RCPL 5213) Prerequisite: Junior standing. The field of urban and regional planning is a multi-dimensional discipline that seeks, by its actions, to promote the public purpose. What falls within the embrace of the public purpose varies by and within each jurisdiction. This survey course is about how the planning process, and specifically urban planners, help identify and cultivate that purpose across special interests. No student may earn credit for both 4213 and 5213. (F)
RCPL 4263 Infrastructure Planning
3 Credit Hours
(Slashlisted with RCPL 5263) Prerequisite: Permission of the instructor. Course focuses on several major topics related to planning of community infrastructure: an overview of major infrastructure systems; the relationship between larger planning goals such as growth management, economic development, and sustainability and infrastructure; as well as municipal budgeting and financing techniques for infrastructure projects. No student may earn credit for both 4263 and 5263. (F)
RCPL 4273 International Development Planning
3 Credit Hours (Slashlisted with RCPL 5273) Prerequisite: Permission of Instructor. This course is open to both graduate and undergraduate students interested in improving the quality of life for people living in the developing world. It will explore what has been tried, what has been learned, and what are the current challenges in expanding human opportunity through international development efforts in middle and low income countries. No student may earn credit for both 4273 and 5273. (Irreg.)

RCPL 4283 Public Health and the Built Environment 3 Credit Hours (Slashlisted with RCPL 5283) Prerequisite: Permission of the instructor. The intersection of public health and planning is a critical new area for both theory and professional practice. Planning the built environment is an essential part of improving physical activity levels, decreasing air quality pollutants, and increasing transportation options. Class covers how addressing public health and planning issues together will address our environment, infrastructure costs, health, and quality of life. No student may earn credit for both 4283 and 5283. (Irreg., Sp)
RCPL 4293 Food Systems Planning
3 Credit Hours
(Slashlisted with RCPL 5293) Prerequisite: Permission of the instructor. Course provides students with foundational understanding of social, spatial, economic, and environmental processes that influence food availability, access, consumption, and governance in U.S. Specifically, it explores both historical and contemporary trends in food systems to encourage students to think more critically about the role of public health and planning professionals in remedying patterns of food insecurity and concomitant health consequences. No student may earn credit for both 4293 and 5293. (Irreg., Sp)
RCPL 4463 Geographic Information Systems for Land Use Planning

3 Credit Hours
(Slashlisted with RCPL 5463 ) Prerequisite: junior standing. This introductory course is concerned with theories, models, and techniques for geographical information systems (GIs) and its associated spatial data management, spatial analysis, and quantitative modeling within a Gls environment for effective socio-economic decision-making for problems in the field of regional and city planning. Introduces the regional and city planning applications of microcomputer-based mapping and geographic information systems. No student may earn credit for both 4463 and 5463. (F)

## RCPL 4513 Subdivision and Planned Unit Development

## Planning

3 Credit Hours
(Slashlisted with RCPL 5513) Prerequisite: ENGL 1213 or EXPO 1213, Junior Standing, and Departmental Permission. The course provides students from a range of disciplines with a foundational understanding of social, ecological, and physical conditions that influence the design of the built environment. Specifically, the course explores historical and contemporary trends in site planning and urban design as a means of encouraging students to think more critically about designing a more sustainable built environment. No student may earn credit for both 4513 and 5513. (Sp)

RCPL 4753 Transportation Geography and Planning 3 Credit Hours (Slashlisted with RCPL 5753; Crosslisted with GEOG 4753) Prerequisite: Junior Standing. This course is intended to introduce students to the world of transportation planning and geography by explaining the importance of transportation from local to global and by engaging them in everyday transportation activities. Topics include, but not limited to, the history of transportation, the relationships between transportation and geography, transportation managements and policies, and urban transportation systems. No student may earn credit for both 4753 and 5753. (Sp)

RCPL 4960 Directed Readings
1-4 Credit Hours
1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean; May be repeated; maximum credit four hours. Designed for upper-division students who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)

## RCPL 4970 Special Topics/Seminar

1-3 Credit Hours
1 to 3 hours. Prerequisite: Senior standing or permission of instructor; May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)
RCPL 4990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: Senior standing and permission of instructor; May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)

RCPL 5003 The Global City and Planning Issues 3 Credit Hours
(Slashlisted with RCPL 4003; Crosslisted with GEOG 5003) Prerequisite: graduate standing. An introduction to the concept of globalization and its effects on cities, and the city planning issues related to those effects. Characteristics, theories, and strategies of city development are reviewed. Cities are observed from several perspectives: natural and built environment, governance, society, economics, and history. No student may earn credit for both 4003 and 5003. (Sp)

RCPL 5013 History and Theory of Urban Planning 3 Credit Hours (Crosslisted with P SC 5013) Prerequisite: open to seniors in social science departments, civil engineering and architecture, and to graduate students in regional and city planning. An introductory course on the history and theory of contemporary planning, focusing on the physical, social, institutional and economic structure and dynamics of human settlements, and on the role and responsibilities of the professional planner. (F)

RCPL 5033 Sociology of Housing 3 Credit Hours
(Slashlisted with RCPL 4033; Crosslisted with SOC 5033) Prerequisite: Graduate standing, departmental permission, and instructor permission. This course introduces students to socioeconomic, political, and equity issues in housing. Students will engage with planning and policy issues to understand the history of housing and interventions for diverse populations. Topics will cover primarily U.S. Housing policy and practices with some comparative international examples. No student may earn credit for both 4033 and 5033. (Irreg.)

RCPL 5053 Planning Management 3 Credit Hours
Prerequisite: 5525. Planning management draws on the skills and experiences in previous courses, internships, and/or planning studio to prepare students for the day-to-day life of a professional planner. Topics covered include planners' roles in a democratic society, citizen participation, planning ethics, communication and presentation skills, project management, proposal and grant writing, and systems management. (Sp)

RCPL 5063 Planning with Diverse Communities 3 Credit Hours
(Slashlisted with RCPL 4063) Prerequisite: Graduate standing, and departmental or instructor permission. As cities become more diverse, planning with various communities becomes increasingly complex and challenging. This course is intended to introduce students to issues related to diversity and inequality. Aspects of diversity (e.g., race/ ethnicity, gender, class, sexuality, national origin, abilities, etc.) and their intersections with planning and urban policy and development issues are discussed. No student may earn credit for both 4063 and 5063. (Irreg.)
RCPL 5113 Urban Planning Research Methods
3 Credit Hours
Prerequisite: graduate standing or permission of instructor. Introduces the basic research and statistical methods used by urban planners and related professions. The course emphasizes application of statistical methods to urban planning problems. (F)

RCPL 5173 Urban and Regional Analysis
3 Credit Hours
(Crosslisted with ECON 5173) Prerequisite: Graduate standing and RCPL 5113 or equivalent. A lecture-seminar-problems-oriented course designed to acquaint the student with the scientific techniques used to analyze urban and regional social, economic, political and environmental problems. Oriented to reflect requirements for studies leading to the preparation of goals, policies and plans for urban and regional scale development. (Sp)
RCPL 5203 Urban Land Use Controls
3 Credit Hours
(Crosslisted with SOC 5203) Prerequisite: open to seniors in social sciences, architecture and civil engineering, and to graduate students in regional and city planning. A study of the historical development of property systems; of zoning law, ordinance preparation, and administrative procedures; of subdivision regulations and other codes used in the regulation and control of land use. (Sp)

RCPL 5213 Principles and Practice of Urban Planning 3 Credit Hours (Slashlisted with RCPL 4213; Crosslisted with GEOG 5213) Prerequisite: open to seniors in social science departments, architecture and civil engineering, and to graduate students in regional and city planning. Examines the physical, social, economic, and public interest determinants of land use; the economic, population, and land use studies required to provide the basis for planning; space and location requirements and design characteristics for residential, commercial, industrial, and public uses of land; and the study of urban traffic as a function of land use in terms of structure and systems. No student may earn credit for both 4213 and 5213. (F)

RCPL 5263 Infrastructure Planning 3 Credit Hours
(Slashlisted with RCPL 4263) Prerequisite: Graduate standing and permission of instructor. This course focuses on an overview of major infrastructure systems; the relationship between larger planning goals such as growth management, economic development, and sustainability and infrastructure; and municipal budgeting and financing techniques for infrastructure projects. No student may earn credit for both 4263 and 5263. (F)

RCPL 5273 International Development Planning 3 Credit Hours
(Slashlisted with RCPL 4273) Prerequisite: Graduate standing and permission of instructor. This course is for students interested in improving the quality of life for people living in the developing world. It will explore what has been tried, what has been learned, and what are the current challenges in expanding human opportunity through international development efforts in middle- and low-income countries. No student may earn credit for both 4273 and 5273. (Sp)
RCPL 5283 Public Health and the Built Environment 3 Credit Hours (Slashlisted with RCPL 4283) Prerequisite: Graduate standing and permission of instructor. This class will cover how addressing public health and planning issues together will address our environment, infrastructure costs, health, and quality of life. How we plan the built environment is an essential part of the equation for improving physical activity levels, decreasing air quality pollutants, and increasing transportation options. No student may earn credit for both 4283 and 5283. (Irreg., Sp)

RCPL 5293 Food Systems Planning 3 Credit Hours
(Slashlisted with RCPL 4293) Prerequisite: Graduate standing and permission of instructor. The course will provide a foundational understanding of the social, spatial, economic, and environmental processes that influence food availability, access, consumption, and governance in the United States. Students will acquire an ability to interpret, analyze, and discuss food systems as one component of planning more sustainable forms of urban, suburban, and rural development. No student may earn credit for both 4293 and 5293. (Irreg., Sp )

## RCPL 5353 State and Local Public Finance and Budgeting

 Systems3 Credit Hours
(Crosslisted with P SC 5353) Prerequisite: graduate standing or permission. An overview of the process and methods for local capital improvement programs and capital budget preparation, and an examination of the relationships between local development policies and fiscal decision making, including revenue potential. (Irreg.)

RCPL 5453 Public Mass Transportation Systems 3 Credit Hours Prerequisite: Graduate standing; CEES 3884 or permission of instructor. Service characteristics of the principal modes of public mass transportation with emphasis on urban transit (fixed-route bus, light rail, subways, commuter rail, paratransit, taxi); legislation and regulations; institutional structures; financing; need and demand studies; planning strategies; management; operations and record keeping; case studies of leading systems. (Irreg.)

RCPL 5463 Geographic Information Systems for Land Use Planning

3 Credit Hours
(Slashlisted with RCPL 4463) Prerequisite: Graduate standing or permission of instructor. This introductory course is concerned with theories, models, and techniques for geographical information systems (GIs) and its associated spatial data management, spatial analysis, and quantitative modeling within a GIs environment for effective socioeconomic decision-making for problems in the field of regional and city planning. Introduces the regional and city planning applications of microcomputer-based mapping and geographic information systems. No student may earn credit for both 4463 and 5463. (F)
RCPL 5483 Urban and Regional Transportation Planning 3 Credit Hours Prerequisite: graduate standing or permission. Characteristics of urban and regional passenger and freight demand; travel demand forecasting methodologies; long- and short-range planning strategies; role of governments; characteristics of major modes of transport; decisionmaking strategies; case studies. (Sp)

RCPL 5493 Transportation and Land Development 3 Credit Hours (Crosslisted with CEES 5493) Prerequisite: graduate standing or permission. Study of interactions between land development activity and the transportation network. Application of planning and design techniques to manage the impacts of development upon the transportation system.

## RCPL 5513 Subdivision and Planned Unit Development

## Planning

3 Credit Hours
(Slashlisted with RCPL 4513) Prerequisite: Graduate standing and departmental permission. The course provides students from a range of disciplines with a foundational understanding of social, ecological, and physical conditions that influence the design of the built environment. Specifically, the course explores historical and contemporary trends in site planning and urban design as a means of encouraging students to think more critically about designing a more sustainable built environment. No student may earn credit for both 4513 and 5513. (Sp, Irreg.)

RCPL 5522 Comprehensive RCPL Project: Reporting and Implementation 2 Credit Hours Prerequisite: Graduate standing. The second course in a two-course sequence intended to fulfill the 5 -credit studio requirement in Masters of Planning curriculum and Studio V in the MLA curriculum. Focusing on data analysis and presentation of recommendations to a community. Involving quantitative or qualitative analysis of gathered data, the development of recommendations and the preparation of professional deliverables to a client. Laboratory. (F, Sp, Su)
RCPL 5523 Comprehensive RCPL Project: Research and Plan Making 3 Credit Hours
Prerequisite: Graduate standing. First course in a two-course sequence intended to fulfill the 5-credit studio requirement in Masters of Planning curriculum and Studio V in the MLA curriculum. Focusing on data collection for community projects and community engagement aspects of professional planning practice. These elements are often the most time consuming elements of professional practice and usually precede actually "plan making". Laboratory. (F, Sp, Su)

RCPL 5525 Comprehensive Regional And City Planning
Project
5 Credit Hours
Prerequisite: RCPL 5513 or RCPL 5515. Theories, Concepts, And Methods Used To Develop And Implement A Comprehensive Regional Or City Plan. Topics Include The Methods To Assess, Analyze, Plan, And Implement The Elements Of A Comprehensive Plan Such As Citizen Participation, Human Settlement Issues, Demographics And Economics, Environmental Factors, Infrastructure Systems, Transportation Systems, Land Use, Community Facilities, And Typical Legally Mandated City Planning Processes. Laboratory. (F)

RCPL 5713 Urban Economic Development Planning 3 Credit Hours Prerequisite: graduate standing or permission of instructor. An introductory course on planning for economic development in the United States at the local, substate and state level. Topics include organizing the economic development planning process, identifying appropriate development strategies, the role of different community components, business attraction and retention, infrastructure issues, industrial parks, financing, training, and programmatic assistance currently available. (Sp)

RCPL 5723 Community Development and Revitalization 3 Credit Hours Prerequisite: graduate standing or permission. An overview of community development, revitalization and preservation programs, their historical context, principles and procedures, current approaches and function in the planning process. Topics also include housing, public/private cooperation, financing methods, historic issues, legal context and case studies. Laboratory ( $\mathrm{F}, \mathrm{Sp}$ )

RCPL 5753 Transportation Geography and Planning 3 Credit Hours (Slashlisted with RCPL 4753; Crosslisted with GEOG 5753) Prerequisite: Graduate standing. This course is intended to introduce students to the world of transportation planning and geography by explaining the importance of transportation from local to global and by engaging them in everyday transportation activities. Topics include, but not limited to, the history of transportation, the relationships between transportation and geography, transportation managements and policies, and urban transportation systems. No student may earn credit for both 4753 and 5753. (Sp)

RCPL 5813 Environmental Planning Methods 3 Credit Hours Prerequisite: graduate standing or permission. An introduction to the use of environment factors in the urban planning process. Current methodologies for minimizing detrimental environmental impacts are introduced and applied to case study examples. Alternative approaches are compared and contrasted.

## RCPL 5893 Historic Preservation Planning

3 Credit Hours
Prerequisite: Graduate standing. Through this course, students will: understand and be able to articulate the social and economic values associated with preservation; Gain exposure to and understanding of local, state and federal guidelines for delineation and regulation of historic districts and buildings; Develop case studies in economic feasibility and adaptive reuse, reconstruction and rehabilitation; Understand the role of the State Historic Preservation Office. (F)

RCPL 5960 Directed Readings
1-6 Credit Hours
1 to 6 hours. Prerequisite: Graduate standing; enrollment in regional and city planning; May be repeated; maximum credit six hours. Designed to permit the individual student to read extensively in one or more phases of urban or regional planning. (F, Sp)
RCPL 5970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing or permission of instructor; May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

RCPL 5980 Research for Master's Thesis
2-9 Credit Hours
2 to 9 hours. Prerequisite: Graduate standing and majors only. Variable enrollment, two to nine hours; maximum credit applicable toward degree, four hours. (F, Sp, Su)

## RCPL 5990 Special Studies in Urban and Regional Planning <br> 2-6 Credit Hours

2 to 6 hours. Prerequisite: Graduate standing; enrollment in regional and city planning; May be repeated with change of subject matter; maximum credit 15 hours. A research problems course designed for the specific needs of students desiring intensive study in a specialized phase of urban or regional planning. Studies are provided in urban and regional analysis, community organization and action programs, and similar areas of concern. Laboratory ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

RCPL 6520 Field Studies
1-6 Credit Hours
1 to 6 hours. Prerequisite: Graduate standing; RCPL 5213, RCPL
5613, enrollment in regional and city planning or permission of staff.
Provides the individual student with practical experience in working
on a professional staff on a specific planning project. The design of the project and the staff situation under which the student will work is carefully controlled to provide opportunity for significant and meaningful experience. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
RCPL 6643 Urban Design Theory
3 Credit Hours
(Crosslisted with L A 6643 and ARCH 6643) Prerequisite: graduate standing. A survey of theory relevant to the urban design process, including social and behavioral concepts, visual and aesthetic theory, spatial and geographic factors of urban form. (Sp)

RCPL 6960 Directed Readings
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor; May be repeated; maximum credit six hours. Directed readings and/or literature review under the direction of a faculty member. (Irreg.)

RCPL 6970 Special Topics/Seminar 1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor; May be repeated; maximum credit 12 hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or research and field projects. (Irreg.)

RCPL 6990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing and permission of instructor; May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)

## Faculty

| Last Name | First/Middle Middle <br> Name | OU <br> init. | Sitle(s), date(s) <br> Service <br> start | Degrees Earned, <br> appointed | Schools, Dates <br> Completed |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Cheng | Wenwen |  | 2020 | ASSISTANT | PhD, Texas A\&M, |
|  |  |  | PROFESSOR, | 2020; MLA, Peking |  |
|  |  |  | LANDSCAPE | University, 2014; |  |
|  |  |  |  | ARCHITECTURE | BLA, Beijing Forestry |
|  |  |  | DIVISION | University, 2012 |  |


| Frantz | Ronald | H | 2011 | ASSOCIATE <br> PROFESSOR OF ARCHITECTURE, <br> 2011; WICK CARY <br> PROFESSOR OF <br> THE INSTITUTE <br> FOR QUALITY <br> COMMUNITIES, <br> 2011; DIRECTOR, <br> SMALL TOWN <br> STUDIOS, INSTITUTE <br> FOR QUALITY <br> COMMUNITIES, 2011; <br> COORDINATOR, <br> BACHELOR OF <br> SCIENCE IN <br> ENVIRONMENTAL <br> DESIGN PROGRAM, <br> 2013 | MS, Tulane Univ, 2004; BS, Tulane Univ, 1981 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Hampton | Shane | R | 2013 | WICK CARY PROFESSOR OF THE INSTITUTE FOR QUALITY COMMUNITIES, 2016; DIRECTOR, INSTITUTE FOR QUALITY COMMUNITIES, 2016; ADJUNCT INSTRUCTOR OF ARCHITECTURE, 2014; RESEARCH ASSOCIATE OF THE INSTITUTE FOR QUALITY COMMUNITIES, 2013; INSTRUCTOR, ENVIRONMENTAL DESIGN | MA, Univ of Oklahoma, 2013; BA, Univ of Oklahoma, 2011 |
| Harris | John | C | 2013 | ASSISTANT <br> PROFESSOR OF REGIONAL AND CITY <br> PLANNING, 2013; <br> INTERNATIONAL <br> PROGRAMS <br> COORDINATOR, <br> COLLEGE OF ARCHITECTURE, 2016; PRESIDENT'S ASSOCIATES PRESIDENTIAL PROFESSOR, 2018; ADJUNCT ASSISTANT PROFESSOR OF INTERNATIONAL AND AREA STUDIES, 2018 | PhD, Florida State Univ, 2012; MS, Florida State Univ, 2003; BA, Wheaton College, 2001 |
| Lee | Christina | A | 2018 | ASSISTANT <br> PROFESSOR OF <br> REGIONAL AND CITY <br> PLANNING, 2018 | PhD, Univ of <br> California, 2018; MA, <br> Univ of Illinois, 2014; <br> BA, Univ of California, <br> 2009 |
| Lee | Kanghyun |  | 2021 | LECTURER, LANDSCAPE ARCHITECTURE DIVISION, 2022 | PhD, Texas A\&M, 2021; MUP, Texas A\&M, 2016; MLA, Seoul National University, 2013; BLA Kangwon National University, 2010 |


| Little | Sarah | E | 2014 | GRADUATE LIAISON, 2022; ASSOCIATE PROFESSOR OF LANDSCAPE ARCHITECTURE, 2022 | PhD, North Carolina State Univ, 2016; MLA, North Carolina State Univ, 2002; BA, North Carolina State Univ, 1996 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Lowery | Bryce | C | 2014 | ASSISTANT <br> PROFESSOR OF <br> REGIONAL AND CITY <br> PLANNING, 2014 | PhD, Univ of Southern California, 2014; MLA, California State Polytechnic Univ, 2008; MS, Univ of Michigan, 2000; BA, Univ of Southern California, 1996 |
| Morrison | Vanessa |  | 2020 | ASSOCIATE DIRECTOR, INSTITUTE FOR QUALITY COMMUNITIES, 2020; AFFILIATE FACULTY, 2017; INSTRUCTOR, ENVIRONMENTAL DESIGN | MS, Univ of Oklahoma, 2015; BS, Univ of Oklahoma, 2011 |
| Schaefer | Shawn | M | 2000 | DIRECTOR, MASTERS OF ARCHITECTURE URBAN STUDIES PROGRAM AT TULSA, 2002; ASSOCIATE PROFESSOR OF ARCHITECTURE AT TULSA, 2012 | M.Arch, Univ of Oklahoma, 1993; B. Arch, Univ of Oklahoma, 1990 |
| Warnken | Charles | G | 2001 | ASSOCIATE <br> PROFESSOR OF <br> REGIONAL AND CITY <br> PLANNING, 2009 | PhD, Florida State, 2003; MPA, Louisville, 1996; BS, Wyoming, 1992 |
| Wieters | Kathleen | M | 2009 | GRADUATE LIAISON, DIVISION OF REGIONAL AND CITY PLANNING, 2013; ASSISTANT PROFESSOR OF REGIONAL AND CITY PLANNING, 2015 | PhD, Texas A\&M Univ, 2009; MS, Univ of Texas, 1995; BA, Trinity Univ, 1993 |

## Environmental Design, B.S.

Minimum Total Credit Hours: 120
Major Hours: 41
Minimum Upper-Division Hours: 48
Overall GPA - Combined and OU: 2.00
Major GPA - Combined and OU: 2.00

## Program Code: B385

## Major Requirements

Some courses required for the major may also fulfill University General Education Requirements

A grade of C or better must be earned in each course counted for major and major support credit.

| Code | Title | Credit Hours |
| :---: | :---: | :---: |
| ARCH 4453 | Modern and Contemporary Architecture | 3 |
| L A 4613 | Landscape Architecture Computer Applications | 3 |
| LA 4103 | Introduction to Landscape Architecture | 3 |
| RCPL 4213 | Principles and Practice of Urban Planning | 3 |
| EN D 3893 | Intro to Urban Real Estate Development | 3 |
| EN D 3993 | Environmental Design Practicum | 3 |
| EN D 4893 | Historic Preservation Planning | 3 |
| EN D 4993 | Environmental Design Capstone | 3 |
| Electives |  |  |
| Choose 17 hours from a list of approved courses maintained by the department |  | 17 |
| Total Credit Hours |  | 41 |
| Major Support Requirements |  |  |
| Code | Title | Credit Hours |
| ECON 1113 | Principles of Economics-Macro | 3 |
| ECON 1123 | Principles of Economics-Micro | 3 |
| Choose one of the following: |  | 3 |
| COMM 1113 | Principles of Communication |  |
| COMM 2213 | Interpersonal Communication |  |
| COMM 2613 | Public Speaking |  |
| ECON 2843 or PSY 2003 | Elements of Statistics Understanding Statistics | 3 |
| Ecology Elective |  |  |
| Choose 3 hours the department | rom a list of approved courses maintained by | 3 |

## Total Credit Hours

## General Education and College Requirements

Courses designated as Core I, II, III, IV, or V are part of the General Education curriculum. Students must complete a minimum of 40 hours of General Education courses, chosen from the approved list, including at least one upper-division Gen. Ed. course outside of the student's major. Courses graded S/U or P/NP will not apply.

## UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS <br> Code Title

Core Area I: Symbolic and Oral Communication
English Composition
ENGL 1113 Principles of English Composition 3
ENGL 1213 Principles of English Composition 3
or EXPO 1213 Expository Writing
Language (0-10 hours in the same language)
This requirement can be met by two years of the same
0-10
language in high school:
Beginning Course ( $0-5$ hours)
Beginning Course, continued ( $0-5$ hours)

## Mathematics

Choose one course 3
Core Area II: Natural Science (including one laboratory)
Natural Science
Choose one course 3

Natural Science with lab
Choose one course from a different topic than natural science 4
Core Area III: Social Science
P SC 1113 American Federal Government 3
Choose one course 3
Core Area IV: Arts \& Humanities
Artistic Forms
Choose one course 3

Western Culture
HIST 1483 United States to 1865
or HIST 1493 United States, 1865 to the Present
Choose one course ${ }^{1} 3$
World Culture
Choose one general education course at the upper division 3
(3000-4000) level and outside of the major
Core Area V: First-Year Experience
Choose one course 3

Total Credit Hours 37-47
${ }^{1}$ Excluding HIST 1483 and HIST 1493.

## Free Electives

Electives to bring total applicable hours to 120 including 48 upperdivision hours.

## Suggested Semester Plan of Study

A minimum grade of $C$ is required in all major and major support coursework.

## First Year

| First Semester |  | Credit <br> Hours |
| :--- | ---: | ---: |
| ENGL 1113 | Principles of English Composition (Core I) | 3 |
| HIST 1483 | United States to 1865 (Core IV) | 3 |
| or HIST 1493 | or United States, 1865 to the Present |  |
| Natural Science - Advised Elective (Core II) | 3 |  |
| Communications Elective | 3 |  |
| First-Year Experience (Core V) | 3 |  |
| $\quad$ Credit Hours | $\mathbf{1 5}$ |  |

## Second Semester

Any Gen. Ed. Approved MATH course (Core I) 3
ENGL $1213 \quad 3$
or EXPO 1213 or Expository Writing
P SC 1113 American Federal Government (Core III) 3
Ecology Elective 3
ECON 1113 Principles of Economics-Macro 3
Credit Hours
15

| Second Year |  |  |
| :---: | :---: | :---: |
| First Semester |  |  |
| Natural Science with Lab \# Advised Elective (Core II) |  | 4 |
| Western Civiliza | on - Advised Elective (Core IV) | 3 |
| ECON 1123 | Principles of Economics-Micro | 3 |
| L A 4103 | Introduction to Landscape Architecture | 3 |
| Major Elective |  | 3 |
|  | Credit Hours | 16 |
| Second Semester |  |  |
| Artistic Forms (Core IV) |  | 3 |
| Social Science - Advised Elective (Core III) |  | 3 |
| Major Elective |  | 3 |
| Major Elective |  | 3 |
| $\begin{aligned} & \text { ECON } 2843 \\ & \text { or PSY } 2003 \end{aligned}$ | Elements of Statistics or Understanding Statistics | 3 |
|  | Credit Hours | 15 |
| Third Year |  |  |
| First Semester |  |  |
| RCPL 4213 | Principles and Practice of Urban Planning | 3 |
| EN D 3893 | Intro to Urban Real Estate Development | 3 |
| Upper Division World Culture (Core IV) |  | 3 |
| ARCH 4453 | Modern and Contemporary Architecture | 3 |
| Major Elective |  | 2 |
|  | Credit Hours | 14 |
| Second Semester |  |  |
| EN D 3993 | Environmental Design Practicum | 3 |
| L A 4613 | Landscape Architecture Computer Applications | 3 |
| Open Elective |  | 3 |
| Open Elective |  | 3 |
| Open Elective |  | 3 |
|  | Credit Hours | 15 |
| Fourth Year |  |  |
| First Semester |  |  |
| EN D 4893 | Historic Preservation Planning | 3 |
| Major Elective |  | 3 |
| Open Elective |  | 3 |
| Open Elective |  | 3 |
| Open Elective |  | 3 |
|  | Credit Hours | 15 |
| Second Semester |  |  |
| EN D 4993 | Environmental Design Capstone | 3 |
| Major Elective |  | 3 |
| Open Elective |  | 3 |
| Open Elective |  | 3 |
| Open Elective |  | 3 |
|  | Credit Hours | 15 |
|  | Total Credit Hours | 120 |

## Environmental Design, B.S./M.L.A.

## Overall GPA - Combined and OU: 3.00 <br> Major GPA - Combined and OU: 3.00 <br> Program Code: A385/F621 Q224 <br> Major Requirements

Some courses required for the major may also fulfill University General Education Requirements

A grade of C or better must be earned in each course counted for major and major support credit.

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| ARCH 4453 | Modern and Contemporary Architecture | 3 |
| L A 4613 | Landscape Architecture Computer <br> Applications | 3 |
| L A 4103 | Introduction to Landscape Architecture | 3 |
| RCPL 4213 | Principles and Practice of Urban Planning | 3 |
| EN D 3893 | Intro to Urban Real Estate Development | 3 |
| EN D 3993 | Environmental Design Practicum | 3 |
| EN D 4893 | Historic Preservation Planning | 3 |
| EN D 4993 | Environmental Design Capstone | 3 |
| Electives |  | 17 |
| Choose 17 hours from a list of approved courses maintained <br> by the department (8 shared hours) |  |  |

Total Credit Hours
${ }^{1}$ Shared Hours: 8 hours of shared coursework will count toward the major electives.

## Major Support Requirements

| Code | Title | Credit |
| :---: | :---: | :---: |
| ECON 1113 | Principles of Economics-Macro | 3 |
| ECON 1123 | Principles of Economics-Micro | 3 |
| Choose one of the following: |  | 3 |
| COMM 1113 | Principles of Communication |  |
| COMM 2213 | Interpersonal Communication |  |
| COMM 2613 | Public Speaking |  |
| ECON 2843 | Elements of Statistics | 3 |
| or PSY 2003 | Understanding Statistics |  |
| Ecology Elective |  |  |
| Choose 3 hours from a list of approved courses maintained by the department |  | 3 |
| Total Credit Hours |  | 15 |

## Shared Hours

These 27 hours of graduate credit count for both the undergraduate and graduate degrees.

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| L A 5243 | Landscape Architecture Technology: | 3 |


| LA 5343 | Landscape Architecture Technology: Site <br> Issues | 3 |
| :--- | :--- | ---: |
| L A 5513 | Landscape Architecture Drawing and <br> Graphics | 3 |
| L A 5515 | Landscape Architecture Introductory <br> Graduate Studio I | 5 |
| L A 5525 | Landscape Architecture Introductory <br> Graduate Studio II | 5 |
| L A 5713 | Plant Material and Technology | 3 |
| L A 5923 | Planting Design | 3 |
| L A 5940 | Field Work | 2 |
| Total Credit Hours | $\mathbf{2 7}$ |  |

M.L.A. Component

Code Title

## Required Courses

| L A 5535 | Landscape Architecture Intermediate Graduate Studio III | 5 |
| :---: | :---: | :---: |
| L A 5545 | Landscape Architecture Intermediate Graduate Studio IV | 5 |
| L A 5943 | History and Theory of Landscape Architecture | 3 |
| L A 5950 | Graduate Project Proposal | 2 |
| L A 6950 | Applied Research in Landscape Architecture | 2 |
| L A 6595 | Graduate Project | 5 |
| L A 6643 | Urban Design Theory | 3 |
| L A 5402 | Res Methods Landscape Arch | 2 |
| Graduate | choose a 3 hour graduate level elective ${ }^{1}$ | 3 |
| Professional Practice Requirement |  |  |
| Choose 2 ho | om approved list | 2 |
| Advanced Professional Electives |  |  |
| Choose a minimum of 3 hours ${ }^{2}$ |  | 3 |
| Total Credit Hours |  | 35 |

${ }^{1}$ LA 4613 is required for EnD program and is slash listed with LA 5613 which is required for MLA program. In the accelerated program, students will take LA 4613 and credit applied to EnD. Then, in the Spring of Year Six students will take an elective to substitute for LA 5613.
${ }^{2}$ Any graduate level course at the 5000 or 6000 level, or ' $G$ ' designated undergraduate course at the 3000 or 4000 level may be taken that is appropriate to the student's interests and area of specialization. Students are encouraged to work with an advisor, either the Division Director or the Graduate Liaison, to develop a package of appropriate electives. Allied departments at OU that may have useful offerings include Anthropology, Architecture, Art, Biology, Business Administration, Construction Science, Civil Engineering, Environmental Science, Communications, Geography, Geology, Health and Exercise Sciences, Human Relations, Political Science, Regional and City Planning, and Sociology.

## General Education and College Requirements

Courses designated as Core I, II, III, IV, or V are part of the General Education curriculum. Students must complete a minimum of 40 hours
of General Education courses, chosen from the approved list, including at least one upper-division Gen. Ed. course outside of the student's major.
Courses graded S/U or P/NP will not apply.

## UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND

 COLLEGE REQUIREMENTSCode Title Credit
Hours

Core Area I: Symbolic and Oral Communication
English Composition
ENGL 1113 Principles of English Composition 3
ENGL 1213 Principles of English Composition 3
or EXPO 1213 Expository Writing
Language ( $0-10$ hours in the same language)
This requirement can be met by two years of the same 0-10
language in high school:
Beginning Course ( $0-5$ hours)
Beginning Course, continued (0-5 hours)
Mathematics
Choose one course 3

Core Area II: Natural Science (including one laboratory)
Natural Science
Choose one course 3
Natural Science with lab
Choose one course from a different topic than natural science 4
Core Area III: Social Science
P SC 1113 American Federal Government 3
Choose one course 3
Core Area IV: Arts \& Humanities
Artistic Forms
Choose one course 3

Western Culture
HIST $1483 \quad 3$
or HIST 1493 United States, 1865 to the Present
Choose one course ${ }^{1} 3$
World Culture
Choose one general education course at the upper division 3
(3000-4000) level and outside of the major
Core Area V: First-Year Experience
Choose one course 3
Total Credit Hours 37-47
1 Excluding HIST 1483 and HIST 1493.

## Free Electives

Electives to bring total applicable hours to 120 including 48 upperdivision hours.

## Suggested Semester Plan of Study

A minimum grade of $C$ is required in all major and major support coursework.

| First Year |  |  |
| :---: | :---: | :---: |
| First Semester |  | Credit |
|  |  | Hours |
| ENGL 1113 | Principles of English Composition (Core I) | 3 |
| HIST 1483 or HIST 1493 | United States to 1865 (Core IV) or United States, 1865 to the Present | 3 |
| Natural Science - Advised Elective (Core II) |  | 3 |
| Communications Elective |  | 3 |
| First-Year Experience (Core V) |  | 3 |
| Credit Hours |  | 15 |
| Second Semester |  |  |
| Any Gen. Ed. Approved MATH course (Core I) |  | 3 |
| $\begin{aligned} & \text { ENGL } 1213 \\ & \text { or EXPO } 1213 \end{aligned}$ | Principles of English Composition (Core I) or Expository Writing | 3 |
| P SC 1113 | American Federal Government (Core III) | 3 |
| Ecology Elective |  | 3 |
| ECON 1113 | Principles of Economics-Macro | 3 |
|  | Credit Hours | 15 |


| Second Year |  |  |
| :--- | :--- | ---: |
| First Semester |  | 4 |
| Natural Science with Lab \# Advised Elective (Core II) | 3 |  |
| Western Civilization | - Advised Elective (Core IV) | 3 |
| ECON 1123 | Principles of Economics-Micro | 3 |
| LA 4103 | Introduction to Landscape Architecture | 3 |
| Major Elective |  | $\mathbf{1 6}$ |


| Second Semester |  |
| :--- | :--- |
| Artistic Forms (Core IV) | 3 |
| Social Science - Advised Elective (Core III) | 3 |
| Major Elective | 3 |
| Major Elective | 3 |
| ECON 2843 <br> or PSY 2003 | Elements of Statistics <br> or Understanding Statistics |
|  | Credit Hours |


| Third Year |  |  |
| :--- | :--- | :--- |
| First Semester |  | 3 |
| RCPL 4213 | Principles and Practice of Urban Planning | 3 |
| EN D 3893 | Intro to Urban Real Estate Development | 3 |
| L A 5513 | Landscape Architecture Drawing and <br> Graphics ${ }^{1}$ |  |
|  |  |  |


| ARCH 4453 | Modern and Contemporary Architecture | 3 |
| :--- | :--- | ---: |
| Credit Hours | 15 |  |


| Second Semester |  |  |
| :--- | :--- | ---: |
| EN D 3993 | Environmental Design Practicum | 3 |
| LA 4613 | Landscape Architecture Computer <br> Applications |  |
|  |  | 3 |
| Open Elective |  | 3 |
| Open Elective |  | 3 |
| Open Elective |  | 3 |
|  | Credit Hours | $\mathbf{1 5}$ |

## Fourth Year

First Semester

| EN D 4893 | Historic Preservation Planning | 3 |
| :---: | :---: | :---: |
| L A 5515 | Landscape Architecture Introductory Graduate Studio ${ }^{1}$ | 5 |
| L A 5713 | Plant Material and Technology ${ }^{1}$ | 3 |
| L A 5343 | Landscape Architecture Technology: Site Issues ${ }^{1}$ | 3 |
|  | Credit Hours | 14 |


| Second Semester |  |  |
| :---: | :---: | :---: |
| EN D 4993 | Environmental Design Capstone | 3 |
| L A 5525 | Landscape Architecture Introductory Graduate Studio II ${ }^{1}$ | 5 |
| L A 5243 | Landscape Architecture Technology: Materials and Construction ${ }^{1}$ | 3 |
| L A 5923 | Planting Design ${ }^{1}$ | 3 |
|  | Credit Hours | 14 |
| Summer |  |  |
| L A 5940 | Field Work ${ }^{1}$ | 2 |
|  | Credit Hours | 2 |

## Fifth Year

## First Semester

| L A 5535 | Landscape Architecture Intermediate <br> Graduate Studio III | 5 |
| :--- | :--- | ---: |
| L A 5943 | History and Theory of Landscape <br>  <br>  <br> L A 54chitecture | 3 |
| L A 6643 | Res Methods Landscape Arch | 2 |
|  | Urban Design Theory | 3 |
|  | Credit Hours | $\mathbf{1 3}$ |

## Second Semester

| L A 5545 | Landscape Architecture Intermediate <br> Graduate Studio IV | 5 |
| :--- | :--- | ---: |
| L A 5950 | Graduate Project Proposal | 2 |
| Professional Elective | 3 |  |
| Credit Hours | $\mathbf{1 0}$ |  |

## Sixth Year

First Semester

| L A 6950 | Applied Research in Landscape <br> Architecture | 2 |
| :---: | :---: | :---: |
| L A Professional Practice $^{3}$ | $\mathbf{2}$ |  |
| Credit Hours | $\mathbf{4}$ |  |

## Second Semester

| L A 6595 | Graduate Project | 5 |
| :--- | ---: | ---: |
| Graduate Elective $^{2}$ | 3 |  |
| Credit Hours | $\mathbf{8}$ |  |
| Total Credit Hours | $\mathbf{1 5 6}$ |  |

1 These 27 hours of Graduate Credit count towards both the undergraduate and graduate degrees.
${ }^{2}$ LA 4613 is required for the Environmental Design program and is slash-listed with L A 5613 which is required for the MLA program. In accelerated program students will take L A 4613 and credit will be applied to the Environmental Design program. Then in the second
semester of the sixth year, students will take an elective to substitute for LA 5613.
${ }^{3}$ Chosen from approved list.

## Environmental Design, B.S./M.R.C.P.L.

Minimum Total Credit Hours: 146
Overall GPA - Combined and OU: 3.00
Major GPA - Combined and OU: 3.00
Program Code: A386/F817 Q224

## Major Requirements

Some courses required for the major may also fulfill University General Education Requirements

A grade of $C$ or better must be earned in each course counted for major and major support credit.

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| ARCH 4453 | Modern and Contemporary Architecture | 3 |
| L A 4613 | Landscape Architecture Computer <br> Applications | 3 |
| L A 4103 | Introduction to Landscape Architecture | 3 |
| RCPL 4213 | Principles and Practice of Urban Planning | 3 |
| EN D 3893 | Intro to Urban Real Estate Development | 3 |
| EN D 3993 | Environmental Design Practicum | 3 |
| EN D 4893 | Historic Preservation Planning | 3 |
| EN D 4993 | Environmental Design Capstone | 3 |
| Electives |  | 17 |
| Choose 17 hours from a list of approved courses maintained |  |  |
| by the department (8 shared hours) ${ }^{1}$ |  |  |

Total Credit Hours
1 Shared Hours: 8 hours of shared coursework will count toward the major electives.

## Major Support Requirements

| Code | Title | Credit <br> Hours |
| :---: | :---: | :---: |
| ECON 1113 | Principles of Economics-Macro | 3 |
| ECON 1123 | Principles of Economics-Micro | 3 |
| Choose one of the following: |  | 3 |
| COMM 1113 | Principles of Communication |  |
| COMM 2213 | Interpersonal Communication |  |
| COMM 2613 | Public Speaking |  |
| ECON 2843 or PSY 2003 | Elements of Statistics <br> Understanding Statistics | 3 |
| Ecology Elective |  |  |
| Choose 3 hours from a list of approved courses maintained by the department |  | 3 |
| Total Credit Hours |  | 15 |

## Shared Hours

These 18 hours of graduate credit count for both the undergraduate and graduate degrees.

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| RCPL 5013 | History and Theory of Urban Planning ${ }^{1}$ | 3 |
| RCPL 5063 | Planning with Diverse Communities ${ }^{1}$ | 3 |
| RCPL 5113 | Urban Planning Research Methods ${ }^{1}$ | 3 |
| RCPL 5173 | Urban and Regional Analysis ${ }^{1}$ | 3 |
| RCPL 5203 | Urban Land Use Controls ${ }^{1}$ | 3 |
| RCPL 5463 | Geographic Information Systems for Land <br>  <br>  <br>  <br> Use Planning ${ }^{1}$ | 3 |


| Total Credit Hours | 18 |
| :--- | :--- |

## M.R.C.P.L. Component

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Choose one of the following: |  |  |
| RCPL 5525 | Comprehensive Regional And City Planning <br> Project | 5 |
| RCPL 5522 | Comprehensive RCPL Project: Reporting <br> \& RCPL 5523 <br> and Implementation <br> and Comprehensive RCPL Project: <br> Research and Plan Making |  |
| Program Electives | 21 |  |
| Choose 21 hours | $\mathbf{2 6}$ |  |
| Total Credit Hours |  |  |

## General Education and College Requirements

Courses designated as Core I, II, III, IV, or V are part of the General Education curriculum. Students must complete a minimum of 40 hours of General Education courses, chosen from the approved list, including at least one upper-division Gen. Ed. course outside of the student's major. Courses graded S/U or P/NP will not apply.

## UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND

 COLLEGE REQUIREMENTSCode Title Credit

| Core Area I: Symbolic and Oral Communication |  |
| :---: | :---: |
| English Composition |  |
| ENGL 1113 Principles of English Composition | 3 |
| $\begin{array}{ll}\text { ENGL } 1213 & \text { Principles of English Composition } \\ \text { or EXPO } 1213 & \text { Expository Writing }\end{array}$ | 3 |
| Language (0-10 hours in the same language) |  |
| This requirement can be met by two years of the same language in high school: | 0-10 |
| Beginning Course (0-5 hours) |  |
| Beginning Course, continued (0-5 hours) |  |
| Mathematics |  |
| Choose one course | 3 |
| Core Area II: Natural Science (including one laboratory) |  |
| Natural Science |  |
| Choose one course | 3 |



## Free Electives

Electives to bring total applicable hours to 120 including 48 upperdivision hours.

## Suggested Semester Plan of Study

A minimum grade of $C$ is required in all major and major support coursework.

| First Year |  |  |
| :---: | :---: | :---: |
| First Semester |  | Credit |
|  |  | Hours |
| ENGL 1113 | Principles of English Composition (Core I) | 3 |
| HIST 1483 or HIST 1493 | United States to 1865 (Core IV) or United States, 1865 to the Present | 3 |
| Natural Science - Advised Elective (Core II) |  | 3 |
| Communications Elective |  | 3 |
| First-Year Experience (Core V) |  | 3 |
| Credit Hours |  | 15 |
| Second Semester |  |  |
| Any Gen. Ed. Approved MATH course (Core I) |  | 3 |
| $\begin{aligned} & \text { ENGL } 1213 \\ & \text { or EXPO } 1213 \end{aligned}$ | Principles of English Composition (Core I) or Expository Writing | 3 |
| P SC 1113 | American Federal Government (Core III) | 3 |
| Ecology Elective |  | 3 |
| ECON 1113 | Principles of Economics-Macro | 3 |
|  | Credit Hours | 15 |
| Second Year |  |  |
| First Semester |  |  |
| Natural Science with Lab \# Advised Elective (Core II) |  | 4 |
| Western Civilization - Advised Elective (Core IV) |  | 3 |
| ECON 1123 | Principles of Economics-Micro | 3 |
| L A 4103 | Introduction to Landscape Architecture | 3 |


| Major Elective |  | 3 |
| :--- | :--- | ---: |
|  | Credit Hours | 16 |

## Second Semester

Artistic Forms (Core IV) 3
Social Science - Advised Elective (Core III) 3
Major Elective 3
Major Elective 3
ECON 2843 Elements of Statistics 3

| or PSY 2003 | or Understanding Statistics |  |
| :--- | :--- | :--- |
|  | Credit Hours | $\mathbf{1 5}$ |

Third Year

## First Semester

RCPL 4213 Principles and Practice of Urban Planning 3
EN D 3893 Intro to Urban Real Estate Development 3

Upper Division World Culture (Core IV) 3
ARCH 4453 Modern and Contemporary Architecture 3

| Open Elective | 2 |  |
| :--- | ---: | ---: |
|  | Credit Hours | $\mathbf{1 4}$ |

Second Semester

| EN D 3993 | Environmental Design Practicum | 3 |
| :--- | :--- | :--- |
| L A 4613 | Landscape Architecture Computer | 3 |

Open Elective 3

Open Elective 3

| Open Elective | 3 |  |
| :--- | ---: | ---: |
|  | Credit Hours | 15 |

## Fourth Year

First Semester

| EN D 4893 | Historic Preservation Planning | 3 |
| :--- | :--- | ---: |
| RCPL 5463 | Geographic Information Systems for Land <br> Use Planning 1 | 3 |
| RCPL 5013 | History and Theory of Urban Planning ${ }^{1}$ | 3 |
| RCPL 5113 | Urban Planning Research Methods ${ }^{1}$ | 3 |
| Program Elective | Credit Hours | 3 |
|  | $\mathbf{1 5}$ |  |

## Second Semester

EN D 4993 Environmental Design Capstone 3
RCPL 5203 Urban Land Use Controls ${ }^{1} 3$
RCPL $5173 \quad$ Urban and Regional Analysis ${ }^{1} 3$
RCPL 5063 Planning with Diverse Communities ${ }^{1} 3$
Program Elective 3
Credit Hours 15

## Fifth Year

First Semester
RCPL 5523 Comprehensive RCPL Project: Research 3
Program Elective 3

Program Elective 3
Program Elective 3

| Program Elective | 3 |
| :--- | ---: |


| Second Semester |  |  |
| :--- | ---: | ---: |
| RCPL 5522 | Comprehensive RCPL Project: Reporting <br> and Implementation | 2 |
| Program Elective | 3 |  |
| Program Elective | 3 |  |
| Program Elective | 3 |  |
|  | Credit Hours | $\mathbf{1 1}$ |
|  | Total Credit Hours | $\mathbf{1 4 6}$ |

1 These courses are shared between the undergraduate and graduate degrees.

## Environmental Design, B.S./Urban Design, M.U.D.

Minimum Total Credit Hours: 135
Major Hours: 41
Minimum Upper-Division Hours: 48
Overall GPA - Combined and OU: 3.00
Major GPA - Combined and OU: 3.00
Program Code: A387/F865 Q224

## Major Requirements

Some courses required for the major may also fulfill University General Education Requirements

A grade of C or better must be earned in each course counted for major and major support credit.

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| ARCH 4453 | Modern and Contemporary Architecture | 3 |
| L A 4613 | Landscape Architecture Computer <br> Applications | 3 |
| LA 4103 | Introduction to Landscape Architecture | 3 |
| RCPL 4213 | Principles and Practice of Urban Planning | 3 |
| EN D 3893 | Intro to Urban Real Estate Development | 3 |
| EN D 3993 | Environmental Design Practicum | 3 |
| EN D 4893 | Historic Preservation Planning | 3 |
| EN D 4993 | Environmental Design Capstone | 3 |
| Electives |  |  |
| Choose 17 hours from a list of approved courses maintained | 17 |  |
| by the department ${ }^{1}$ |  |  |
| Total Credit Hours |  | $\mathbf{4 1}$ |

${ }^{1}$ Shared Hours: 18 hours of shared coursework may count toward the major electives.

## Major Support Requirements

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| ECON 1113 | Principles of Economics-Macro | 3 |
| ECON 1123 | Principles of Economics-Micro | 3 |


| Choose one of | following: | 3 |
| :---: | :---: | :---: |
| COMM 1113 | Principles of Communication |  |
| COMM 2213 | Interpersonal Communication |  |
| COMM 2613 | Public Speaking |  |
| ECON 2843 or PSY 2003 | Elements of Statistics <br> Understanding Statistics | 3 |
| Ecology Elective |  |  |
| Choose 3 hours from a list of approved courses maintained by the department |  | 3 |
| Total Credit Hours |  | 15 |

## Shared Hours

These 18 hours of graduate credit count for both the undergraduate and graduate degrees.
$\left.\begin{array}{llr}\text { Code } & \text { Title } & \begin{array}{r}\text { Credit } \\ \text { Hours }\end{array} \\ \text { L A 5343 } & \begin{array}{l}\text { Landscape Architecture Technology: Site } \\ \text { Issues }\end{array} & 3 \\ \text { or L A 5513 } & \text { Landscape Architecture Drawing and Graphics }\end{array}\right]$

Total Credit Hours

## M.U.D. Component

To be completed at the Urban Design Studio at OU-Tulsa.

${ }^{1}$ Course offered in two parts. Part A-3 credit hours in fall term. Part B-3 credit hours in spring term.
2 Shared Hours: 18 hours of shared coursework may count toward the graduate electives.

## Professional Electives

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| ARCH 5713 | Real Estate Fundamentals | 3 |
| ARCH 5743 | Legal Framework for Design | 3 |
| ARCH 5763 | Landscape Architecture for Architects | 3 |
| ARCH 5990 | Special Studies in Architecture | $1-6$ |
| ARCH 6643 | Urban Design Theory | 3 |
| LA 5243 | Landscape Architecture Technology: | 3 |
|  | Materials and Construction |  |
| LA 5343 | Landscape Architecture Technology: Site | 3 |
|  | Issues | 3 |
| LA 5923 | Planting Design | 3 |
| RCPL 5003 | The Global City and Planning Issues | 3 |
| RCPL 5203 | Urban Land Use Controls | 3 |
| RCPL 5453 | Public Mass Transportation Systems | 3 |
| RCPL 5463 | Geographic Information Systems for Land | 3 |
|  | Use Planning | 3 |
| RCPL 5483 | Urban and Regional Transportation | 3 |
| RCPL 5893 | Planning | Historic Preservation Planning |

## General Education and College Requirements

Courses designated as Core I, II, III, IV, or V are part of the General Education curriculum. Students must complete a minimum of 40 hours of General Education courses, chosen from the approved list, including at least one upper-division Gen. Ed. course outside of the student's major.
Courses graded S/U or P/NP will not apply.

\section*{UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS <br> | Code | Title | Credit <br> Hours |
| :--- | :--- | :--- |}

Core Area I: Symbolic and Oral Communication
English Composition
ENGL $1113 \quad$ Principles of English Composition
ENGL 1213 Principles of English Composition 3

$$
\text { or EXPO } 1213 \text { Expository Writing }
$$

Language ( $0-10$ hours in the same language)
This requirement can be met by two years of the same 0-10
language in high school:
Beginning Course ( $0-5$ hours)
Beginning Course, continued ( $0-5$ hours)
Mathematics
Choose one course

Core Area II: Natural Science (including one laboratory)

| Natural Science | 3 |
| :--- | :---: |
| Choose one course |  |
| Natural Science with lab | 4 |
| Choose one course from a different topic than natural science |  |
| Core Area III: Social Science | 3 |
| P SC $1113 \quad$ American Federal Government | 3 |
| Choose one course |  |

Core Area IV: Arts \& Humanities

Artistic Forms


## Free Electives

Electives to bring total applicable hours to 120 including 48 upperdivision hours.

## Suggested Semester Plan of Study

A minimum grade of $C$ is required in all major and major support coursework.

## The Summer, Fall, and Spring of the Fifth Year are completed at OU-

 Tulsa.
## First Year

| First Semester |  | Credit <br> Hours |
| :--- | :---: | ---: |
| ENGL 1113 | Principles of English Composition (Core I) | 3 |
| HIST 1483 | United States to 1865 (Core IV) | 3 |
| or HIST 1493 | or United States, 1865 to the Present |  |
| Natural Science | Advised Elective (Core II) | 3 |
| Communications Elective | 3 |  |
| First-Year Experience (Core V) | 3 |  |
| Credit Hours | $\mathbf{1 5}$ |  |

## Second Semester

Any Gen. Ed. Approved MATH course (Core I) 3
ENGL 1213 Principles of English Composition (Core I) 3
or EXPO 1213 or Expository Writing
P SC 1113 American Federal Government (Core III) 3
Ecology Elective 3
ECON 1113 Principles of Economics-Macro 3

## Second Year

## First Semester

Natural Science with Lab \# Advised Elective (Core II) 4
Western Civilization - Advised Elective (Core IV) 3
ECON 1123 Principles of Economics-Micro 3
LA 4103 Introduction to Landscape Architecture 3
Major Elective $\quad 3$

## Second Semester

Artistic Forms (Core IV)

| Social Science - Advised Elective (Core III) | 3 |
| :---: | :---: |
| Major Elective | 3 |
| Major Elective | 3 |
| $\begin{array}{lr}\text { ECON } 2843 & \text { Elements of Statistics } \\ \text { or PSY } 2003 & \text { or Understanding Statistics }\end{array}$ | 3 |
| Credit Hours | 15 |
| Third Year |  |
| First Semester |  |
| RCPL 4213 Principles and Practice of Urban Planning | 3 |
| EN D 3893 Intro to Urban Real Estate Development | 3 |
| Upper Division World Culture (Core IV) | 3 |
| ARCH 4453 Modern and Contemporary Architecture | 3 |
| Major Elective | 2 |

## Second Semester

| EN D 3993 | Environmental Design Practicum | 3 |
| :--- | :--- | ---: |
| L A 4613 | Landscape Architecture Computer <br>  <br>  <br> Applications | 3 |
| Open Elective |  | 3 |
| Open Elective |  | 3 |
| Open Elective |  | $\mathbf{3}$ |
|  | Credit Hours | $\mathbf{1 5}$ |

## Fourth Year

| First Semester |  |  |
| :---: | :---: | :---: |
| EN D 4893 | Historic Preservation Planning | 3 |
| Major Elective |  | 3 |
| $\begin{aligned} & \text { L A } 5343 \\ & \quad \text { or L A } 5513 \end{aligned}$ | Landscape Architecture Technology: Site Issues ${ }^{1}$ or Landscape Architecture Drawing and Graphics | 3 |
| $\begin{aligned} & \text { RCPL } 6643 \\ & \text { or ARCH } 6643 \end{aligned}$ | Urban Design Theory ${ }^{1}$ or Urban Design Theory | 3 |
| RCPL 5003 | The Global City and Planning Issues ${ }^{1}$ | 3 |
|  | Credit Hours | 15 |


| Second Semester |  |  |
| :---: | :---: | :---: |
| EN D 4993 | Environmental Design Capstone | 3 |
| Major Elective |  | 3 |
| L A 5713 | Plant Material and Technology ${ }^{1}$ | 3 |
| RCPL 5203 | Urban Land Use Controls ${ }^{1}$ | 3 |
| RCPL 5463 | Geographic Information Systems for Land Use Planning ${ }^{1}$ | 3 |
|  | Credit Hours | 15 |

Fifth Year
Summer

| ARCH 6590 | Professional Project Research | 3 |
| :--- | :--- | :--- |
|  | Credit Hours | 3 |

## Fall

| ARCH 6680 | Urban Design Studio (Part A) | 3 |
| :--- | :--- | :--- |
| ARCH 6690 | Professional Project (Part A) | 3 |
|  | Credit Hours | 6 |

Spring
ARCH $6680 \quad 3$

| ARCH 6690 | Professional Project (Part B) | 3 |
| :--- | :--- | ---: |
| Credit Hours | 6 |  |
| Total Credit Hours | 135 |  |
|  |  |  |
| Shared Courses: <br> of both the BS in Environmental Design and Master of Urban Design. |  |  |

## Landscape Architecture, M.L.A.

Minimum Total Hours (Non-Thesis): 62
Program Code: M620

## Required Courses

| Code | Title | Credit <br> Hours |
| :---: | :---: | :---: |
| Required Courses |  |  |
| L A 5515 | Landscape Architecture Introductory Graduate Studio I | 5 |
| L A 5525 | Landscape Architecture Introductory Graduate Studio II | 5 |
| L A 5535 | Landscape Architecture Intermediate Graduate Studio III | 5 |
| L A 5545 | Landscape Architecture Intermediate Graduate Studio IV | 5 |
| L A 5243 | Landscape Architecture Technology: Materials and Construction | 3 |
| L A 5343 | Landscape Architecture Technology: Site Issues | 3 |
| L A 5513 | Landscape Architecture Drawing and Graphics | 3 |
| L A 5613 | Landscape Architecture Computer Applications | 3 |
| L A 5713 | Plant Material and Technology | 3 |
| L A 5923 | Planting Design | 3 |
| L A 5943 | History and Theory of Landscape Architecture | 3 |
| L A 5950 | Graduate Project Proposal | 2 |
| L A 6950 | Applied Research in Landscape Architecture | 2 |
| L A 6595 | Graduate Project | 5 |
| L A 6643 | Urban Design Theory | 3 |
| L A 5402 | Res Methods Landscape Arch | 2 |
| L A 5940 | Field Work | 2 |
| Professional Practice Requirement |  |  |
| Choose 2 | om approved list | 2 |
| Advanced Professional Electives |  |  |
| Choose a minimum of 3 hours ${ }^{1}$ |  | 3 |
| Total Credit Hours |  | 62 |
| ${ }^{1}$ Any graduate level course at the 5000 or 6000 level, or ' $G$ ' designated undergraduate course at the 3000 or 4000 level may be taken that is appropriate to the student's interests and area of specialization. Students are encouraged to work with an advisor, either the Division Director or the Graduate Liaison, to develop a package of appropriate electives. Allied departments at OU that may have useful |  |  |

offerings include Anthropology, Architecture, Art, Biology, Business Administration, Construction Science, Civil Engineering, Environmental Science, Communications, Geography, Geology, Health and Exercise Sciences, Human Relations, Political Science, Regional and City Planning, and Sociology.

## General Requirements for all Master's Degrees

The master's degree requires the equivalent of at least two semesters of satisfactory graduate work and additional work as may be prescribed for the degree.

All coursework applied to the master's degree must carry graduate credit.
Master's degree programs which require a thesis consist of at least 30 credit hours. All non-thesis master's degree programs require at least 30 credit hours.

Credit transferred from other institutions must meet specific criteria and is subject to certain limitations.

Courses completed through correspondence study may not be applied to the master's degree.

To qualify for a graduate degree, students must achieve an overall grade point average of 3.0 or higher in the degree program coursework and in all resident graduate coursework attempted. A student must also have at least a 3.0 in all coursework (including undergraduate coursework if any).

Additional information for master's degree students may be found in the Graduate College Bulletin.

## Landscape Architecture via BLA, M.L.A.

Minimum Total Hours (Non-Thesis): 47
Program Code: M621
Required Courses
Code $\quad$ Title

## Required Courses

| L A 5535 | Landscape Architecture Intermediate <br> Graduate Studio III | 5 |
| :--- | :--- | :---: |
| L A 5545 | Landscape Architecture Intermediate <br> Graduate Studio IV | 5 |
| RCPL 5525 | Comprehensive Regional And City Planning <br> Project | 5 |
| LA 5960 | Directed Readings <br> L A 6950 | Applied Research in Landscape <br> Architecture |
| LA 6595 | Graduate Project | 2 |
| LA 6643 | Urban Design Theory | 2 |
| LA 5402 | Res Methods Landscape Arch | 5 |
| Environmental Requirement |  |  |


| Environmental Requirement | 3 |
| :--- | :--- |
| Choose 3 hours from approved list |  |

Advanced Professional Electives
Choose 5 courses (a minimum of 15 hours) from approved list 15
${ }_{1}$ Choose 5 courses (a minimum of 15 hours) from approved list
${ }^{1}$ Any graduate level course at the 5000 or 6000 level, or ' $G$ ' designated undergraduate course at the 3000 or 4000 level may be taken that is appropriate to the student's interests and area of specialization. Students are encouraged to work with an advisor, either the Division Director or the Graduate Liaison, to develop a package of appropriate electives. Allied departments at OU that may have useful offerings include Anthropology, Architecture, Art, Biology, Business Administration, Construction Science, Civil Engineering, Environmental Science, Communications, Geography, Geology, Health and Exercise Sciences, Human Relations, Political Science, Regional and City Planning, and Sociology.

## General Requirements for all Master's Degrees

The master's degree requires the equivalent of at least two semesters of satisfactory graduate work and additional work as may be prescribed for the degree.

All coursework applied to the master's degree must carry graduate credit.
Master's degree programs which require a thesis consist of at least 30 credit hours. All non-thesis master's degree programs require at least 30 credit hours.

Credit transferred from other institutions must meet specific criteria and is subject to certain limitations.

Courses completed through correspondence study may not be applied to the master's degree.

To qualify for a graduate degree, students must achieve an overall grade point average of 3.0 or higher in the degree program coursework and in all resident graduate coursework attempted. A student must also have at least a 3.0 in all coursework (including undergraduate coursework if any).

Additional information for master's degree students may be found in the Graduate College Bulletin.

## Landscape Architectural Studies, M.L.A.

Minimum Total Hours (Non-Thesis): 47

## Program Code: M622

Required Courses

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| L A 5515 | Landscape Architecture Introductory <br> Graduate Studio I | 5 |
| L A 5513 | Landscape Architecture Drawing and <br> Graphics | 3 |
| L A 5343 | Landscape Architecture Technology: Site <br> Issues | 3 |
| L A 5713 | Plant Material and Technology | 3 |
| L A 5525 | Landscape Architecture Introductory <br> L A 5243 | Landscape Architecture Technology: <br> Materials and Construction |
| L A 5923 | Planting Design | 3 |
| L A 5613 | Landscape Architecture Computer | 3 |
|  | Applications | 3 |


| L A 5940 | Field Work | 1 |
| :--- | :--- | :--- |
| L A 5535 | Landscape Architecture Intermediate <br> Graduate Studio III | 5 |
| L A 5943 | History and Theory of Landscape <br> Architecture | 3 |
| L A 5402 | Res Methods Landscape Arch | 2 |
| L A 6643 | Urban Design Theory |  |
| L A 5545 | Landscape Architecture Intermediate <br> Graduate Studio IV | 3 |

## Total Credit Hours

## General Requirements for all Master's Degrees

The master's degree requires the equivalent of at least two semesters of satisfactory graduate work and additional work as may be prescribed for the degree.

All coursework applied to the master's degree must carry graduate credit.
Master's degree programs which require a thesis consist of at least 30 credit hours. All non-thesis master's degree programs require at least 30 credit hours.

Credit transferred from other institutions must meet specific criteria and is subject to certain limitations.

Courses completed through correspondence study may not be applied to the master's degree.

To qualify for a graduate degree, students must achieve an overall grade point average of 3.0 or higher in the degree program coursework and in all resident graduate coursework attempted. A student must also have at least a 3.0 in all coursework (including undergraduate coursework if any).

Additional information for master's degree students may be found in the Graduate College Bulletin.

## Regional and City Planning, M.R.C.P.L.

Minimum Total Hours (Thesis): 48<br>Minimum Total Hours (Non-Thesis): 44

Program Code: M818

## Non-Thesis Track

| Code | Title | Credit Hours |
| :---: | :---: | :---: |
| Required Courses |  |  |
| RCPL 5013 | History and Theory of Urban Planning | 3 |
| RCPL 5063 | Planning with Diverse Communities | 3 |
| RCPL 5113 | Urban Planning Research Methods | 3 |
| RCPL 5173 | Urban and Regional Analysis | 3 |
| RCPL 5203 | Urban Land Use Controls | 3 |
| RCPL 5463 | Geographic Information Systems for Land Use Planning | 3 |
| Choose one of the following: |  | 5 |
| RCPL 5525 | Comprehensive Regional And City Planning Project |  |


| RCPL 5522 | Comprehensive RCPL Project: Reporting <br> \& RCPL 5523 <br> and Implementation <br> and Comprehensive RCPL Project: <br> Research and Plan Making 1 |  |
| :--- | :--- | :--- |
| Program Electives | 21 |  |
| Choose 21 hours | 44 |  |
| Total Credit Hours | 4 |  |

## Thesis Track

| Code | Title | Credit <br> Hours |
| :---: | :---: | :---: |
| Required Courses |  |  |
| RCPL 5013 | History and Theory of Urban Planning | 3 |
| RCPL 5063 | Planning with Diverse Communities | 3 |
| RCPL 5113 | Urban Planning Research Methods | 3 |
| RCPL 5173 | Urban and Regional Analysis | 3 |
| RCPL 5203 | Urban Land Use Controls | 3 |
| RCPL 5463 | Geographic Information Systems for Land Use Planning | 3 |
| Choose one of the following: |  | 5 |
| RCPL 5525 | Comprehensive Regional And City Planning Project |  |
| RCPL 5522 <br> \& RCPL 5523 | Comprehensive RCPL Project: Reporting and Implementation and Comprehensive RCPL Project: Research and Plan Making ${ }^{1}$ |  |


| Program Electives |  |
| :--- | ---: |
| Choose 21 hours | 21 |
| Thesis Research |  |
| RCPL $5980 \quad$ Research for Master's Thesis | 4 |

Total Credit Hours
${ }^{1}$ Both RCPL 5522 and RCPL 5523 are required as part of this option.

## General Requirements for all Master's Degrees

The master's degree requires the equivalent of at least two semesters of satisfactory graduate work and additional work as may be prescribed for the degree.

All coursework applied to the master's degree must carry graduate credit.
Master's degree programs which require a thesis consist of at least 30 credit hours. All non-thesis master's degree programs require at least 30 credit hours.

Credit transferred from other institutions must meet specific criteria and is subject to certain limitations.

Courses completed through correspondence study may not be applied to the master's degree.

To qualify for a graduate degree, students must achieve an overall grade point average of 3.0 or higher in the degree program coursework and in
all resident graduate coursework attempted. A student must also have at least a 3.0 in all coursework (including undergraduate coursework if any).

Additional information for master's degree students may be found in the Graduate College Bulletin.

## Urban Design (Tulsa), M.U.D.

Minimum Total Hours (Thesis): 33
Minimum Total Hours (Non-Thesis): 33
Program Code: M865
Required Courses

| Code | Title | Credit Hours |
| :---: | :---: | :---: |
| Core Courses |  |  |
| ARCH 6590 | Professional Project Research | 3 |
| ARCH 6680 | Urban Design Studio | 3 |
| ARCH 6680 | Urban Design Studio | 3 |
| Professional Electives |  |  |
| Choose 9 hour | 155) | 9 |
| Electives |  |  |
| Choose at least director of the p | ine hours of other electives as approved by gram | 9 |
| Project/Thesis Research |  |  |
| Choose one of t | following: | 6 |
| ARCH 6690 | Professional Project (Non-Thesis students) |  |
| ARCH 5980 | Research for Master's Thesis (Thesis students only) |  |
| Total Credit Hou |  | 33 |
| Professional Electives |  |  |
| Code | Title | Credit <br> Hours |
| ARCH 5713 | Real Estate Fundamentals | 3 |
| ARCH 5743 | Legal Framework for Design | 3 |
| ARCH 5763 | Landscape Architecture for Architects | 3 |
| ARCH 5990 | Special Studies in Architecture | 1-6 |
| ARCH 6643 | Urban Design Theory | 3 |
| L A 5243 | Landscape Architecture Technology: Materials and Construction | 3 |
| L A 5343 | Landscape Architecture Technology: Site Issues | 3 |
| L A 5923 | Planting Design | 3 |
| RCPL 5003 | The Global City and Planning Issues | 3 |
| RCPL 5203 | Urban Land Use Controls | 3 |
| RCPL 5453 | Public Mass Transportation Systems | 3 |
| RCPL 5463 | Geographic Information Systems for Land Use Planning | 3 |
| RCPL 5483 | Urban and Regional Transportation Planning | 3 |
| RCPL 5893 | Historic Preservation Planning | 3 |

## General Requirements for all Master's Degrees

The master's degree requires the equivalent of at least two semesters of satisfactory graduate work and additional work as may be prescribed for the degree.

All coursework applied to the master's degree must carry graduate credit.
Master's degree programs which require a thesis consist of at least 30 credit hours. All non-thesis master's degree programs require at least 30 credit hours.

Credit transferred from other institutions must meet specific criteria and is subject to certain limitations.

Courses completed through correspondence study may not be applied to the master's degree.

To qualify for a graduate degree, students must achieve an overall grade point average of 3.0 or higher in the degree program coursework and in all resident graduate coursework attempted. A student must also have at least a 3.0 in all coursework (including undergraduate coursework if any).

Additional information for master's degree students may be found in the Graduate College Bulletin.

## DODGE FAMILY COLLEGE OF ARTS AND SCIENCES



Ellison Hall
633 Elm Avenue
Norman, OK 73019-3109
Phone: (405) 325-2077
FAX: (405) 325-7709
cas@ou.edu
www.ou.edu/cas/
Inquiries should be directed to:
Dodge Family Student Success \& Advising Center
240 Physical Sciences Center
Student Success Center (ou.edu)
Phone: (405) 325-4411

## Administrative Officers

David Wrobel, Dean
Rhonda Dean-Kyncl, Associate Dean for Students
Georgia Kosmopoulou, Associate Dean for Research
Michael Markham, Associate Dean for Academic Programs
Kelvin White, Associate Dean for Faculty Development and Community

## General Information

## History and Purpose

The Dodge Family College of Arts and Sciences is the oldest and largest of the degree-recommending colleges at the University of Oklahoma. Established in 1892 as the College of Liberal Arts, the college granted its first degree in 1898. Today, as then, the liberal arts and sciences provide the foundation for the OU educational experience, through which we prepare our students to live productive and successful lives as citizens of a democracy.

The Dodge Family College of Arts and Sciences is responsible for providing all of OU's undergraduate students with a core curriculum that exposes them to both the natural and social environments in which they live and helps them view and analyze the world from different perspectives and to arrive at their own opinions. Students majoring in one of the college's degree programs receive additional education in world language and the humanities. Our goal is to graduate students who can communicate clearly, both in writing and orally; think creatively; reason
and act ethically; serve as leaders of their professions and their local and global communities; and continue to learn after they leave OU. By providing a broad-based education, the college seeks to enrich the lives of our students, both as individuals and as active, productive members of society. To accomplish these goals, we bring together talented students and dedicated teacher-scholars in an environment that supports learning and personal development and is, in turn, supported by the donations of our alumni and friends to produce the best educational experience possible, anywhere.

The degrees offered by the college provide a strong foundation for further professional or graduate studies and for pursuing employment in a wide variety of endeavors.

## Teacher Certification Programs

Arts and Sciences students with approved majors may also work toward completion of an Oklahoma teaching certificate for secondary education through the Alternative Certification program. For more information concerning teaching certificate programs, consult an academic counselor in the Dodge Family College of Arts and Sciences.

## Honors Degrees

All of the bachelor's degree programs offered by the Dodge Family College of Arts and Sciences are available to qualified students as honors degree programs. Students may graduate with Latin Honorifics (cum Laude, Magna cum Laude, Summa cum Laude) if they successfully meet the GPA requirements in addition to their regular degree program requirements. Please refer to the Honors College (p. 1617) section of this catalog for specific information regarding research opportunities and admission into the Honors College for a special notation on your final transcript.

## Optional Opportunities

## Additional Bachelor's Degrees

Additional bachelor's degrees may be earned from the Dodge Family College of Arts and Sciences by satisfying specific requirements beyond those required for a first degree from the college. Students may earn degrees from the college concurrently, or students holding a bachelor's degree from the Dodge Family College of Arts and Sciences or another college within the University or from another institution may qualify for an additional (consecutive) degree. To earn an additional bachelor's degree from the Dodge Family College of Arts and Sciences, a student must:

1. Choose a major different from that of the prior degree(s).
2. Satisfy all current requirements of the additional degree program.
3. Earn a minimum of 30 credit hours in Arts and Sciences courses not applied toward a previous degree, 24 of which must be upper-division.
4. Earn a minimum 2.00 average on all work attempted for the additional degree.
5. At least 15 of the last 30 hours applied toward the second degree must be completed in residence at the University of Oklahoma.

Credit-hour limitations set for the first bachelor's degree from the Dodge Family College of Arts and Sciences will not be extended for an additional degree (i.e., if the college's 12 independent study hours were applied to an earlier degree, no additional independent study may be taken).

## Double Majors

Students may earn two majors as part of a single degree. Only one degree will be awarded but the transcript will indicate both majors. The degree will be awarded when requirements for both majors are completed.

Courses used to fulfill minor requirements may not be used toward either major.

## Programs Offered

- College of Arts and Sciences Administrated Programs (p. 168)
- Community Health, B.A. (p. 177)
- Community Health, B.S. (p. 179)
- Latinx Studies, B.A. (p. 181)
- Planned Program, B.A. (p. 183)
- Planned Program, B.S. (p. 185)
- Public Health, B.P.H. (p. 187)
- Approved Public Health and Community Health Major Electives (p. 189)
- Applied Statistics, Minor (p. 190)
- Applied Statistics Minor Course Lists (p. 190)
- Data Analytics, Minor (p. 191)
- Data Analytics Minor Course Lists (p. 192)
- Enterprise Studies, Minor (p. 193)
- International Enterprise Studies, Minor (p. 193)
- Latinx Studies, Minor (p. 194)
- Public and Community Health, Minor (p. 195)
- Applied Statistics, Undergraduate Certificate (p. 195)
- Applied Statistics Undergraduate Certificate Course Lists (p. 196)
- Data Analytics, Undergraduate Certificate (p. 196)
- Data Analytics Undergraduate Certificate Course Lists (p. 197)
- Community Health, B.A./Epidemiology, M.P.H. (p. 198)
- Community Health, B.A./Health Promotion Sciences, M.P.H. (p. 201)
- Community Health, B.S./Epidemiology, M.P.H. (p. 203)
- Community Health, B.S./Health Promotion Sciences, M.P.H. (p. 206)
- Applied Statistics, M.S. (p. 209)
- Applied Statistics M.S. Approved Elective Courses (p. 209)
- Criminal Justice (Online), M.S. (p. 209)
- Criminal Justice, Master of Science Elective Course List (p. 210)
- Human \& Health Services Administration (Online), M.A. (p. 210)
- Integrative Studies (Online), M.A. (p. 211)
- Integrative Studies Master of Arts Elective Course List (p. 212)
- Organizational Leadership (Online), M.A. (p. 213)
- Organizational Leadership Approved Graduate Electives (p. 214)
- Applied Statistics, Graduate Certificate (p. 214)
- Applied Statistics Graduate Certificate Course Lists (p. 215)
- Corrections Management (Online), Graduate Certificate (p. 216)
- Corrections Management Graduate Certificate Approved Electives List (p. 216)
- Criminal Justice Administration (Online), Graduate Certificate (p. 217)
- Data Analytics, Graduate Certificate (p. 217)
- Data Analytics Graduate Certificate Course Lists (p. 218)
- Drug Policy Management (Online), Graduate Certificate (p. 219)
- Organizational Leadership (Online), Graduate Certificate (p. 220)
- Restorative Justice Administration (Online), Graduate Certificate (p. 220)
- Restorative Justice Administration Graduate Certificate Approved Electives (p. 220)
- Clara Luper Department of African and African-American Studies (p. 221)
- African and African-American Studies, B.A. (p. 225)
- African and African-American Studies, Minor (p. 227)
- Department of Anthropology (p. 228)
- Anthropology, B.A. (p. 239)
- Anthropology Elective List (p. 242)
- Human Health \& Biology, B.S. (p. 243)
- Anthropology, Minor (p. 245)
- Anthropology, B.A./Sociocultural Anthropology, M.A. (p. 246)
- Anthropology (Standard), M.A. (p. 249)
- Anthropology: Applied Medical Anthropology, M.A. (p. 249)
- Anthropology: Linguistic Anthropology, M.A. (p. 250)
- Anthropology: Socio-Cultural Anthropology, M.A. (p. 251)
- Anthropology: Archaeology, Ph.D. (p. 251)
- Anthropology: Human Health \& Biology, Ph.D. (p. 252)
- Anthropology: Sociocultural \& Linguistics, Ph.D. (p. 252)
- School of Biological Sciences (p. 253)
- Biology, B.S. (p. 274)
- Microbiology (Standard), B.S. (p. 276)
- Microbiology (Standard): Biotechnology, B.S. (p. 278)
- Microbiology (Professional), B. Mbio. (p. 281)
- Plant Biology, B.S. (p. 283)
- Plant Biology: Biotechnology, B.S. (p. 285)
- Biology, Minor (p. 288)
- Microbiology, Minor (p. 288)
- Plant Biology, Minor (p. 289)
- Biology, M.S. (p. 289)
- Microbiology, M.S. (p. 289)
- Microbiology. Bioinformatics, M.S. (p. 290)
- Plant Biology, M.S. (p. 291)
- Plant Biology. Bioinformatics, M.S. (p. 291)
- Microscopic Imaging and Technology, Graduate Certificate (p. 292)
- Biology, Ph.D. (p. 292)
- Cellular and Behavioral Neurobiology: Biology, Ph.D. (p. 293)
- Ecology and Evolutionary Biology - Biology, Ph.D. (p. 293)
- Ecology and Evolutionary Biology - Botany and Microbiology, Ph.D. (p. 294)
- Microbiology, Ph.D. (p. 294)
- Plant Biology, Ph.D. (p. 295)
- Department of Chemistry and Biochemistry (p. 295)
- Biochemistry, B.S. (p. 303)
- Chemical Biosciences, B.S. (p. 306)
- Chemistry and Biochemistry (Standard Option), B.S. (p. 308)
- Chemistry (Professional), B.S. (p. 311)
- Chemistry, Minor (p. 313)
- Chemistry \& Biochemistry, M.S. (p. 313)
- Chemistry: Bioinformatics, M.S. (p. 314)
- Chemistry and Biochemistry: Analytical Chemistry, Ph.D. (p. 315)
- Chemistry and Biochemistry: Biochemistry, Ph.D. (p. 315)
- Chemistry and Biochemistry: Inorganic Chemistry, Ph.D. (p. 316)
- Chemistry and Biochemistry: Materials Chemistry, Ph.D. (p. 316)
- Chemistry and Biochemistry: Organic Chemistry, Ph.D. (p. 317)
- Chemistry and Biochemistry: Physical Chemistry, Ph.D. (p. 317)
- Chemistry and Biochemistry: Structural Biology, Ph.D. (p. 317)
- Cellular \& Behavioral Neurobiology: Chemistry \& Biochemistry, Ph.D. (p. 318)
- Department of Classics and Letters (p. 318)
- Classics: Classical Languages, B.A. (p. 328)
- Classics: Classical Studies, B.A. (p. 330)
- Classical Studies Distribution Course Lists (p. 332)
- Classics: Latin, B.A. (p. 333)
- Letters (Standard), B.A. (p. 335)
- Letters: Constitutional Studies, B.A. (p. 337)
- Constitutional Studies Category Course Lists (p. 339)
- Classical Archaeology, Minor (p. 340)
- Approved Classical Archaeology Electives (p. 341)
- Classical Culture, Minor (p. 342)
- Classical Greek, Minor (p. 342)
- Constitutional Studies, Minor (p. 342)
- Latin, Minor (p. 343)
- Department of Communication (p. 343)
- Communication, B.A. (p. 350)
- Communication, Minor (p. 352)
- Communication, M.A. (p. 353)
- Communication Approved Graduate Electives (p. 353)
- Communication: Organizational Communication, M.A. (p. 354)
- Communication, Ph.D. (p. 354)
- Department of Economics (p. 355)
- Economics, B.A. (p. 360)
- Economics, Minor (p. 362)
- Economics, B.A./M.A. (p. 363)
- Econometrics, M.A. (p. 365)
- Econometrics, M.A. Approved Electives (p. 366)
- Economics: Applied Economics, M.A. (p. 366)
- Economics: Managerial Economics, M.A. (p. 366)
- Economics, Ph.D. (p. 367)
- Department of English (p. 367)
- English: Literary \& Cultural Studies, B.A. (p. 377)
- English Literary \& Cultural Studies Distribution Lists (p. 380)
- English: Writing, B.A. (p. 380)
- English Writing Distribution Lists (p. 383)
- English: Literary \& Cultural Studies, Minor (p. 383)
- Editing and Publishing, Minor (p. 383)
- English: Writing, Minor (p. 384)
- Irish Studies, Minor (p. 385)
- English: Literary \& Cultural Studies, B.A./M.A. (p. 385)
- English: Writing, B.A./M.A. (p. 388)
- English: Literary Studies, M.A. (p. 391)
- English: Rhetoric \& Writing Studies, M.A. (p. 391)
- English: Literary Studies, Ph.D. (p. 392)
- English: Rhetoric \& Writing Studies, Ph.D. (p. 392)
- Environmental Studies (p. 393)
- Environmental Studies, B.A. (p. 396)
- Environmental Studies Category Lists (p. 398)
- Environmental Studies, Minor (p. 400)
- Environmental Studies, M.S. (p. 400)
- Department of Film and Media Studies (p. 401)
- Film \& Media Studies, B.A. (p. 405)
- Film and Media Studies Guided Electives (p. 407)
- Film \& Media Studies, Minor (p. 408)
- Department of Health and Exercise Science (p. 408)
- Health and Exercise Science, B.S. (p. 416)
- Health \& Exercise Science, Minor (p. 418)
- Health \& Exercise Science, M.S. (p. 419)
- Health and Exercise Science: Exercise Physiology, M.S. (p. 419)
- Health and Exercise Science: Health Promotion, M.S. (p. 420)
- Health and Exercise Science: Sports Data Analytics, M.S. (p. 420)
- Cellular \& Behavioral Neurobiology: Exercise Physiology, Ph.D. (p. 421)
- Health and Exercise Science: Exercise Physiology, Ph.D. (p. 422)
- Health and Exercise Science: Health Promotion, Ph.D. (p. 422)
- Department of History (p. 423)
- History, B.A. (p. 436)
- History, Minor (p. 438)
- History, M.A. (p. 439)
- History, Ph.D. (p. 439)
- Department of History of Science, Technology, and Medicine (p. 440)
- Health, Medicine, and Society, B.A. (p. 446)
- Approved Health Medicine \& Society Elective Courses (p. 448)
- History of Science, Technology, and Medicine, B.A. (p. 449)
- History of Science, Technology, and Medicine Course Lists (p. 451)
- History of Medicine, Minor (p. 452)
- History of Science, Minor (p. 453)
- History of Science, Technology, and Medicine, M.A. (p. 453)
- History of Science, Technology, and Medicine, Ph.D. (p. 454)
- Department of Human Relations (p. 455)
- Human Relations, B.A. (p. 466)
- Human Relations, Minor (p. 469)
- Clinical Mental Health Counseling (Online), M.C.M.H.C. (p. 469)
- Clinical Mental Health Counseling, M.H.R. (p. 470)
- Clinical Mental Health Counseling, M.S. (p. 471)
- Diversity, Equity, and Strategic Impact, M.H.R. (p. 471)
- Human Relations (Standard), M.H.R. (p. 472)
- Human Relations: Human Resources, M.H.R. (p. 473)
- Inclusive Leadership, M.H.R. (p. 474)
- Human Resource Studies, M.A. (p. 475)
- Helping Skills in Human Relations, Graduate Certificate (p. 476)
- Human Resource Development and Workforce Diversity, Graduate Certificate (p. 476)
- Schusterman Program in Judaic and Israel Studies (p. 476)
- Judaic Studies, B.A. (p. 478)
- Judaic \& Israel Studies, Minor (p. 480)
- School of Library and Information Studies (p. 481)
- Information Science and Technology, B.S. (p. 489)
- Information Science and Technology Course Lists (p. 491)
- Information Studies, B.A. (p. 492)
- Information Studies Major Category Lists (p. 494)
- Information Studies, Minor (p. 496) - Information Studies Minor Category Course Lists (p. 496)
- Information Studies, B.A./M.L.I.S. (p. 496)
- Library \& Information Studies, M.L.I.S. (p. 499)
- Museum Studies (Online), M.A. (p. 500)
- Museum Studies Graduate Elective List (p. 500)
- Archival Studies, Graduate Certificate (p. 500)
- Archival Studies Elective Course List (p. 501)
- Data Analytics for Information Professionals, Graduate Certificate (p. 501)
- Data Analytics for Information Professionals Elective List (p. 501)
- Digital Humanities, Graduate Certificate (p. 501)
- Approved Digital Humanities Elective Courses (p. 502)
- Information Studies, Ph.D. (p. 502)
- David and Judi Proctor Department of Mathematics (p. 503)
- Mathematics (Standard Option), B.A. (p. 511)
- Mathematics (Professional Option), B.S. (p. 513)
- Mathematics, Minor (p. 515)
- Mathematics, B.A./M.B.A. (p. 515)
- Mathematics/MBA Accelerated Course Lists (p. 518)
- Mathematics, B.A./Finance, M.S. (p. 519)
- Mathematics BA/Finance MS Accelerated Course Lists (p. 521)
- Mathematics, B.S./Biostatistics, M.S. (p. 521)
- Mathematics, M.A. (p. 524)
- Mathematics, M.S. (p. 524)
- Mathematics, Ph.D. (p. 525)
- Medieval and Renaissance Studies (p. 526)
- Medieval \& Renaissance Studies, Minor (p. 526)
- Department of Modern Languages, Literatures, and Linguistics (p. 528)
- Arabic, B.A. (p. 552)
- Arabic Major Support Course List (p. 554)
- Chinese, B.A. (p. 554)
- Chinese Major Support List (p. 556)
- French, B.A. (p. 556)
- German, B.A. (p. 558)
- Italian, B.A. (p. 560)
- Italian Major Support List (p. 563)
- Japanese, B.A. (p. 563)
- Linguistics, B.A. (p. 565)
- Russian, B.A. (p. 567)
- Spanish, B.A. (p. 570)
- Arabic, Minor (p. 572)
- Chinese, Minor (p. 572)
- French, Minor (p. 573)
- German, Minor (p. 573)
- Hebrew, Minor (p. 574)
- Italian, Minor (p. 574)
- Japanese, Minor (p. 575)
- Linguistics, Minor (p. 575)
- Portuguese, Minor (p. 576)
- Russian, Minor (p. 576)
- Spanish, Minor (p. 577)
- French, M.A. (p. 577)
- German, M.A. (p. 578)
- Spanish, M.A. (p. 578)
- TESOL, M.A. (p. 579)
- French, Ph.D. (p. 579)
- Spanish, Ph.D. (p. 580)
- Department of Native American Studies (p. 580)
- Native American Studies, B.A. (p. 588)
- Native American Studies Areas of Emphasis (p. 590)
- Native American Studies, Minor (p. 590)
- Native American Studies, M.A. (p. 591)
- Native American Studies, Graduate Certificate (p. 592)
- Shyam Dev Patwardhan Department of Philosophy (p. 592)
- Philosophy, B.A. (p. 598)
- Philosophy Major Distribution Lists (p. 601)
- Philosophy, Minor (p. 601)
- Philosophy, M.A. (p. 601)
- Philosophy, M.A. Course Lists (p. 602)
- Philosophy, Ph.D. (p. 602)
- Philosophy, Ph.D. Course Lists (p. 603)
- Homer L. Dodge Department of Physics and Astronomy (p. 603)
- Astronomy, B.S. (p. 611)
- Astrophysics, B.S. (p. 613)
- Physics (Standard), B.S. (p. 615)
- Physics (Professional), B. Phys. (p. 618)
- Astronomy, Minor (p. 620)
- Physics, Minor (p. 620)
- Physics, M.S. (p. 621)
- Astrophysics, Ph.D. (p. 621)
- Physics, Ph.D. (p. 622)
- Department of Political Science (p. 623)
- Political Science, B.A. (p. 637)
- Political Science Distribution Requirement Course Lists (p. 639)
- Political Science: Elections and Campaign Management, B.A. (p. 640)
- Public and Nonprofit Administration, B.A. (p. 642)
- Elections \& Campaign Management, Minor (p. 644)
- Non-Governmental Organizations, Minor (p. 645)
- Nonprofit Organizational Studies, Minor (p. 646)
- Political Science, Minor (p. 646)
- Public Affairs \& Administration, Minor (p. 647)
- Political Science, B.A./M.A. (p. 647)
- Political Science, B.A./M.P.A. (p. 650)
- Public and Nonprofit Administration, B.A./Political Science, M.A. (p. 652)
- Public \& Nonprofit Administration, B.A./M.P.A. (p. 655)
- Political Science, M.A. (p. 657)
- Public Administration, M.P.A. (p. 658)
- Public Administration: Non-Profit Management, M.P.A. (p. 659)
- Public Administration: Public Management, M.P.A. (p. 659)
- Public Management Concentration Courses (p. 660)
- Public Administration: Public Policy, M.P.A. (p. 660)
- Non-Profit Management (Tulsa), Graduate Certificate (p. 660)
- Political Science, Ph.D. (p. 661)
- Department of Psychology (p. 661)
- Psychology (Standard), B.A. (p. 671)
- Psychology (Professional), B.S. (p. 674)
- Pre-Health Social Sciences, Minor (p. 677)
- Psychology, Minor (p. 677)
- Organizational Dynamics, M.A. (p. 678)
- Organizational Dynamics - Human Resource Management option, M.A. (p. 679)
- Organizational Dynamics - Project Management option, M.A. (p. 680)
- Psychology (Standard), M.S. (p. 681)
- Human Resource Management (Tulsa), Graduate Certificate (p. 682)
- Organizational Psychology (Tulsa), Graduate Certificate (p. 682)
- Organizational Research (Tulsa), Graduate Certificate (p. 682)
- Project Management (Tulsa), Graduate Certificate (p. 683)
- Cellular \& Behavioral Neurobiology: Psychology, Ph.D. (p. 683)
- Psychology, Ph.D. (p. 684)
- Psychology: Industrial and Organizational Psychology, Ph.D. (p. 684)
- Department of Religious Studies (p. 685)
- Religious Studies, B.A. (p. 689)
- Religious Studies Major Elective Course Lists (p. 691)
- Religious Studies, Minor (p. 693)
- Asian Religions, Undergraduate Certificate (p. 693)
- Islamic Studies, Undergraduate Certificate (p. 694)
- Reserve Officers Training Corps (p. 694)
- Air Force ROTC - Aerospace Studies (p. 694)
- Aerospace Studies, Minor (p. 696)
- Army ROTC - Military Science (p. 696)
- Military Science, Minor (p. 698)
- Naval ROTC - Naval Science (p. 699)
- Naval Science, Minor (p. 701)
- Anne and Henry Zarrow School of Social Work (p. 701)
- Social Work, B.A. (p. 711)
- Social Work, M.S.W. (p. 713)
- Social Work: Advanced Standing, M.S.W. (p. 714)
- Social Work: Advanced Standing Graduate Elective Course List (p. 715)
- Social Work with American Indians, Graduate Certificate (p. 715)
- Department of Sociology (p. 715)
- Sociology - General Option, B.A. (p. 723)
- Sociology - Criminology Option, B.A. (p. 725)
- Sociology - General, Minor (p. 728)
- Sociology - Criminology, Minor (p. 728)
- Sociology, B.A./M.A. (p. 729)
- Sociology, M.A. (p. 731)
- Applied Research and Program Evaluation, Graduate Certificate (p. 732)
- Applied Research and Program Evaluation Electives Course List (p. 732)
- Sociology, Ph.D. (p. 732)
- Department of Women's and Gender Studies (p. 733)
- Women's \& Gender Studies, B.A. (p. 739)
- WGS Interdisciplinary Elective List (p. 741)
- LGBTQ Studies, Minor (p. 741)
- Social Justice, Minor (p. 742)
- Women's and Gender Studies, Minor (p. 743)
- Women's and Gender Studies, Graduate Certificate (p. 744)


## Programs \& Facilities

## Oklahoma Archeological Survey

111 E. Chesapeake St., Norman, OK 73019-5111
Phone: (405) 325-7211
archsurvey@ou.edu
www.ou.edu/archsurvey
Established in 1970, the Oklahoma Archeological Survey is a state agency with regulatory authority, as well as a unit of the Dodge Family College of Arts and Sciences.

The Survey's enabling legislation charges the Survey with three basic mandates:

1. to conduct research on Oklahoma's prehistoric and early historic archaeological record,
2. to work with the citizens of Oklahoma to preserve significant archaeological resources, and
3. to disseminate information on our activities through publications, public presentations and other means of outreach.

The Archeological Survey has two divisions: Organized Research and the Community Assistance Program. The Survey also serves as the centralized repository for records on archaeological sites in the state (currently holding information on some 23,000 locations). Personnel of the Archeological Survey consists of seven research faculty, along with graduate and undergraduate students, and volunteers who perform a wide range of research, managerial, and educational activities. The Survey faculty also teach classes through the Department of Anthropology.

## Biological Station

15389 Station Rd., Kingston, OK 73439-8744
Phone: (405) 325-7430, or (580) 564-2478
deptemail@ou.edu
www.ou.edu/uobs/
The University of Oklahoma Biological Station is a permanent field station located on the north shore of Lake Texoma, approximately 120 miles from Norman, and is subject to all rules and regulations that govern the University of Oklahoma. The station's primary mission is to promote research and education in ecology and field biology. Our facilities are open to students and scientists world-wide for research and study, and the Biological Station participates significantly in ecological and evolutionary research at national and international levels.

Primary academic goals include biological instruction, experimentation, and exploration as it relates to the University of Oklahoma student. However, the scientific and study programs have been enlarged to incorporate four main areas. They are:

1. the constant updating of curriculum necessary for quantitative and experimental courses for graduate and undergraduate students;
2. year-round ecological research by resident faculty and/or collaborating investigators from other institutions;
3. providing a base for sabbatical/short-term study by the national and international research community and;
4. providing an ideal meeting site for academic and/or other educational non-profit institutions.

The Biological Station does not offer a degree program, although credit obtained is directly applicable toward the requirements of the degreerecommending colleges of the University. Scholarships, graduate research fellowships and assistantships, work-study assistance, and independent study are also available. Inquiries should be sent to the director. The Biological Station's major instructional emphasis is on twoweek courses offered in May and August at the Station. Field-research participation is also available for undergraduate and graduate students, as well as grade school, high school, and college teachers.

## Oklahoma Biological Survey

111 E. Chesapeake St., Norman, OK 73019-5111
Phone: (405) 325-4034
biosurvey.ou.edu/
The Oklahoma Biological Survey, established in 1927, is both a research unit of the Dodge Family College of Arts and Sciences and a state agency recognized through 1987 legislation. The mission of the Survey is to scientifically investigate the diversity of plants and animals in Oklahoma and associated regions and to contribute to conservation and education concerning these important resources. The Survey includes:

1. the General Biological Survey program;
2. the Oklahoma Natural Heritage Inventory;
3. the Bebb Herbarium jointly operated with the Department of Microbiology and Plant Biology;
4. the Oklahoma Fishery Research Laboratory jointly operated with the Oklahoma Department of Wildlife Conservation; and,
5. the Sutton Avian Research Center, a bird conservation center located in Bartlesville, Oklahoma.

Personnel in the Survey include faculty, staff, graduate students and undergraduates who engage in a wide range of research, teaching and service activities.

## Carl Albert Congressional Research and Studies Center

630 Parrington Oval, Room 101, Norman, OK 73019-4031
Phone: (405) 325-6372
carlalbertcenter@ou.edu
www.ou.edu/carlalbertcenter
The Carl Albert Congressional Research and Studies Center is a nonpartisan institution devoted to teaching and research related to the United States Congress and more broadly to strengthening representative democracy through engaged and informed citizens. The Center is concerned with the health of our modern representative democracy. Its mission embraces three principal functions - teaching, research, and public service. The Center offers academic programs in congressional
studies at both the graduate and undergraduate levels. Believing that professional research is the foundation upon which its academic programs rest, the Center promotes original research by faculty members and students into various aspects of politics and the Congress. Further, the Center's congressional archive provides a national resource available to historians, political scientists, the media, and public interested in the health of our representative institutions. The Center actively strives to promote a wider understanding and appreciation of the Congress through its various public service programs. Traveling and online exhibits promote understanding of Oklahoma history and congressional policymaking. The Center also provides programs, archives talks, and lectures which offer the local community the opportunity to engage in discussion of public affairs. Outreach to K-12 teachers extends the impact of the Center to younger students. Taken together, these diverse aspects of the Carl Albert Center constitute a unique resource for scholarship and research related to the United States Congress.

In cooperation with the Department of Political Science, the Center sponsors a unique four-year graduate fellowship program leading to a doctoral degree in political science with special emphasis on Congress and representative government. The Center also offers research fellowships to a select group of undergraduate students who participate with political science faculty members in collaborative research projects.

In seeking to foster a wider understanding and appreciation of Congress through civic education, the Carl Albert Center sponsors the biennial Julian J. Rothbaum Distinguished Lecture in Representative Government, which is among the most distinguished lecture series of its kind and has resulted in a book series published by The University of Oklahoma Press.

Twice each year the Carl Albert Center publishes the journal Extensions as a forum for discussion of representative government. Extensions is also available in electronic format on the Center's website.

As a participating partner in the National Education for Women's (N.E.W.) Leadership Development Network, the Carl Albert Center sponsors an annual institute to educate, empower, and inspire a select number of undergraduate women throughout the State of Oklahoma for active participation in politics and public service. The Center also sponsors for undergraduate students the Capitol Scholars and Community Scholars programs, which are intensive academic internship experiences at either the State Capitol or in the local government and non-profit community.

Students and others who are interested in learning more about these various opportunities should visit the Carl Albert Center website.

## Advanced Center for Genome Technology

The Advanced Center for Genome Technology (ACGT) has played an important role in revealing the essence of life processes, and is actively engaged in the sequence and functional annotation of several genomes of health and agricultural importance. The OU ACGT provides the powerful tools of genomics and functional genomics to researchers at the University of Oklahoma and information to users around the world. Under the direction of Drs. Bruce Roe and Tyrrell Conway, the facility has been designated a Genome Center by the National Human Genome Research Institute (NIH-NHGRI) since 1990 and provides a comprehensive microarray core facility and database that handles all aspects of this complex technology seamlessly.

## Center for Applied Social Research

The Center for Applied Social Research (CASR) applies innovative concepts and methods in social sciences to advance complex, multifaceted organizational, policy, and public health research. CASR
approaches critical emerging issues that influence institutional policies and practices from an interdisciplinary perspective to enhance our understanding of human social behavior and develop practical solutions to real-world problems.

## Center for Classical Archaeology and Civilizations

The Center for Classical Archaeology and Civilizations seeks to introduce Oklahoma students to the larger world of the Mediterranean in the context of its history and culture. Therefore, with a focus on undergraduate education, the Center strives to make the past 'come alive' for students who participate in its symposia, colloquia, summer institutes, seminars, conferences, and archaeological projects. The Center also serves as a forum for national and international discussion of multiple issues that relate to the ancient Mediterranean world. Special attention is given to new archaeological evidence and how it applies to the interpretation of the ancient past.

## Center for Risk \& Crisis Management

The Center for Risk \& Crisis Management is an interdisciplinary research center at the University of Oklahoma that studies risk, risk perception and crisis management in several substantive domains. The areas of research interest and expertise include energy and the environment, weather and climate, national security and terrorism, and the social dynamics surrounding complex controversial technologies.

## Cognitive Science Research Center

The Cognitive Science Research Center (CSRC) is an interdisciplinary research center at the University of Oklahoma focused on understanding individual differences in human performance and identification of risk factors that degrade, enhance, or extend cognitive performance capabilities. CSRC researchers emphasize the application of computerbased technology for assessing neurocognitive performance in these endeavors.

## Center for Social Justice

The Center for Social Justice is an initiative of the Department of Women's and Gender Studies to promote gender justice, equality, and human rights through local and global engagement.

## Knee Center for Strong Families

The Knee Center for Strong Families sponsors academic and communityoriented programs in the fields of social work, public health (including mental health), and fine arts in three core areas: Visiting lectureships, workshops, seminars, meetings of scholars, conferences, symposia, and forums; planning grants or "seed money" to develop programs that might have continuous funding from other sources; and underwriting research on the planning and development of educational programs to enhance family life in Oklahoma.

## Environmental Studies Resource Center

The Environmental Studies Resource Center, located in Sutton Hall room 303 , contains a collection of books, videos, and other materials related to environmental issues in general.

## Film \& Media Studies Library and Media Lab

The Film and Media Studies Library and Media Lab, located in Wallace Old Science Hall, holds a large collection of screenplays, DVDs, and VHS cassettes for reference. A student media lab is also housed in the library, enabling FMS majors to check out digital filmmaking equipment and to edit digital film projects.

## Language Learning Center

The Department of Modern Languages, Literatures and Linguistics is home to the computerized Language Learning Center, located in Kaufman Hall. Here students can utilize audio, live international television programming, video, and interactive computer tutorials for Arabic, Mandarin Chinese, French, German, Hebrew, Italian, Japanese, Portuguese, Russian, and Spanish languages and literatures. Placement exams are administered in the lab for French, German, Japanese, Russian, and Spanish.

## Library Resources

In addition to the extensive collections housed in the Bizzell Memorial Library, Arts and Sciences students have access to two notable special collections, the History of Science and Western History collections, as well as two branch libraries and two special collections housed within departments.

The History of Science Collection, located on the 5th floor of Bizzell Memorial Library, is a premier research collection in its field. Holdings of nearly 100,000 volumes from every field and subject area of science, technology and medicine range chronologically from Hrabanus Maurus, Opus de universo (1467) to current publications in the history of science. The Darwin collection consists of all of Darwin's works in their first editions and several autographed letters, as well as hundreds of subsequent editions and translations.

The Western History Collections is a special collection within the University of Oklahoma Libraries system. Its purpose is to enhance the University Libraries general collection on the history of the American West; to support the research and teaching programs of the University of Oklahoma; and to provide opportunities for research through the acquisition, preservation, and access of materials relating to the development of the Trans-Mississippi West and Native American cultures.

There are two branch libraries in addition to the larger collections that house materials of importance to Arts and Sciences students. The Chemistry-Math Library, located in the Physical Sciences Center, contains a collection of approximately 80,000 books (including reference materials, periodicals, and monographs) and subscribes to more than 500 journals and continuing serials. The Physics Library, housed in Nielsen Hall, contains 28,000 books and subscribes to 170 journals for physics and astronomy majors. They also have full text access to additional journals.

The Department of Communication's Julian P. Kanter Political Communication Archives, housed in Burton Hall, holds what is generally considered as the world's largest library of broadcast political advertisements, with approximately 80,000 archived political commercials.

The Women's and Gender Studies Library, housed in Robertson Hall, includes over 1,700 books and over 100 films that focus on women's subjects.

## Native American Languages Program

The Dodge Family College of Arts and Sciences, through Native American Language Program, promotes the teaching, maintenance, and preservation of Native American languages. Classes are taught in several languages by native speakers with training in linguistics. These languages satisfy both the college's and the University's language requirements.

## OU Observatory

The OU Observatory, operated by the Homer L. Dodge Department of Physics and Astronomy, offers free public viewing sessions using a 16inch LX-200 telescope permanently mounted in a dome on campus.

## Computing Resources

In order to meet the challenges of the 21 st century, graduates of the Dodge Family College of Arts and Sciences must be able to research problems, gather, evaluate, and analyze information and present the results in a logical coherent manner. The college provides a number of technology resources and computing facilities to help students develop these skills. See Online and Academic Technology Services for more information.

## Variorum Chaucer

401 W. Brooks St., Norman, OK 73019
Phone: (405) 325-6702
www.ou.edu/variorum/
As a unit of the Dodge Family College of Arts and Sciences, the Variorum Chaucer project has a two fold mission: 1) to provide an analysis of the textual history of Chaucer's individual works; 2) to offer a comprehensive overview of all facets of critical commentary on each work. Textual analysis begins with collation, a careful word-by-word comparison of important manuscripts and printed editions of the work in question; in most cases some thirty or so copies are examined. The process allows one to see how copyists and editors, from the 15th century to the late 20th century, understood, revised, presented, and explained the language of Chaucer's works. The survey of criticism seeks to provide a historical survey of all commentary on each aspect of a given work: sources and analogues, date, relationship with other Chaucerian works, all relevant thematic considerations, and individual passages, phrases, and words.

## Undergraduate Study

## Student Responsibilities

It is the student's responsibility to make decisions during undergraduate study that ensure academic success and timely graduation. To make such important decisions, it is crucial that students know and understand the following:

- All requirements for admission to and completion of the degree program.
- The rules and regulations that govern enrollment and graduation.
- University deadlines.
- University policies and procedures.
- Availability of required courses to complete the degree.
- Where and when to go for help.

The University provides a number of resources for students to help them meet their academic responsibilities successfully. These include:

- Informational publications such as this catalog, A Guide to Scholarships and Financial Aid, and degree requirement checksheets;
- Dodge Family College of Arts \& Sciences website;
- Academic Advisors in the Academic Services office and departmental offices
- Peer tutors for assistance with many of the lower-division courses;
- Writing Center, which is available to students seeking assistance with writing assignments; and
- Faculty, who teach, advise, and later write letters of recommendation for students.

It is the student's responsibility to seek out and make use of the resources provided by the University.

Undergraduate students who experience academic difficulty are strongly encouraged to use the appropriate academic support services provided by the University. Students who have questions about these services should consult their academic advisor within their declared major..

Students who need help with coursework beyond the help available from peer tutors or the instructor may wish to consult with the department offering the course to inquire about the availability of other tutors. Most departments maintain a list of tutors, primarily graduate students within the department. These tutors provide services for a fee arranged between the student and the tutor.

## Admission to the Dodge Family College of Arts and Sciences

The minimum requirements for admission to the college are:

1. A declared Arts and Sciences major;
2. At least a 2.00 (C) combined retention grade point average on all college-level work attempted (transfer students with fewer than 60 hours at least a 2.50 GPA ); and
3. At least 24 semester credit hours of earned college-level credit.

Some major programs have admission requirements beyond the minimums set by the college.

The freshman year at the University of Oklahoma is spent in University College, which is not a degree-granting college. University College provides an advisory system for freshmen and assists students in choosing a major. University College students are invited to visit the academic advisor housed within the departments in which they have an interest. Transfer to the Dodge Family College of Arts and Sciences from University College is automatic upon completion of the minimum requirements for admission listed above.

## Transfer Students

The Dodge Family College of Arts and Sciences welcomes students who wish to transfer from other colleges or universities. Transfer students who have completed at least 24 semester credit hours will be admitted directly into the Dodge Family College of Arts and Sciences if they meet the University's admission requirements. Transfer students who have earned fewer than 24 semester credit hours will be admitted to University College.

The Office of Admissions will determine acceptance of credits from the transferring institutions. The Dodge Family College of Arts and Sciences will determine how the credits apply toward the requirements for an Arts and Sciences degree. All new transfer students who are directly admitted to the Dodge Family College of Arts and Sciences must meet with an academic counselor prior to their first enrollment at the University of Oklahoma.

Transfer students should pay particular attention to the following requirements for graduation from the University of Oklahoma:

- At least 60 semester credit hours must be earned at accredited senior (4-year) institutions.
- At least 48 semester hours of upper-division credit (courses numbered 3000 or above) must be earned. Transfer work is counted as lower-division or upper-division depending on the level at which it was offered at the institution where it was earned. Two-year college work is accepted only as lower-division credit.
- Residency: this is defined as coursework taken at the University of Oklahoma, excluding correspondence courses.
- A minimum of $\mathbf{3 0}$ semester credit hours applied toward the degree must be earned in residence at the University of Oklahoma.
- At least 15 of the final $\mathbf{3 0}$ hours applied toward the degree or at least 50 percent of the hours required by the institution in the major field must be satisfactorily completed at the University of Oklahoma.
- At least 15 semester hours of upper-division major credit applied to the degree must be earned in residence at the University of Oklahoma.
- Credit transferred from other institutions and credit earned through OU correspondence courses is non-resident credit. Credit earned by examination is considered neither resident nor nonresident for the purposes of these calculations.
- Capstone courses must be taken through the University of Oklahoma unless a substitution is approved by the academic department awarding the degree.


## Change of Major/College

A student who wishes to change major fields within the Dodge Family College of Arts and Sciences must fill out a Change of Major Form. This digital form can be completed anytime during business hours within the Hobson Academic Services Center. The student should then schedule an advisement session with the professional staff advisor in the department of the new major. To select a major in another college, the student should contact that college.

## Advising Services

The college provides advising services to all undergraduate majors through professional staff advisors in the major departments and through the Hobson Academic Services office.

The Cal Hobson Academic Services Center of the Dodge Family College of Arts and Sciences is located in 124 Ellison Hall. Academic counselors in this office are knowledgeable about programs offered by the college. They assist students with choice of major, transcript evaluation, enrollment, graduation requirements, graduation certification, minors, and any problems of an academic nature. Counselors are available throughout the year. Students may schedule appointments with their counselor at iAdvise.

Students who have earned at least 90 credit hours (earned hours plus current enrollment) should schedule an appointment with an academic counselor in the Academic Services office to determine the remaining requirements for graduation ("degree check").

Seniors must consult with their academic counselor prior to the beginning of their final semester or term to ensure that their final enrollment will complete all remaining graduation requirements. In order to graduate seniors must also complete a graduation application form and submit it during their final term of enrollment prior to published deadlines.

## Pre-Law Advising

Undergraduates can pursue admission to law school with any bachelor's degree, although many pre-law students choose history, Letters, or political science. OU has a full-time pre-law advisor dedicated to students who wish to attend law school. The pre-law advisor can offer guidance in not only course selection, but can also assist students in choosing a major that fits their needs and interests. As students proceed through college, the pre-law advisor is available to counsel them through the various stages of law school preparation, application, and selection. See Pre-Professional Advising for more information.

## Pre-Medical Professions Advising

OU is one of the few universities in the nation to provide two full-time advisors to guide Pre-Medical Professions students through the process of completing prerequisite requirements, the MCAT and the medical school application process. A variety of workshops are also provided for Pre-Medical students, including a "Personal Statement and Interview Skills" workshop. These workshops prepare students to be stronger applicants to various medical schools across the country. Students may major in any academic area as OU undergraduates, as long as they take the pre-requisite pre-Med courses. Students interested in Pre-Medical Professions typically receive a bachelor's degree, often in a biological science, before applying to medical school. See Pre-Professional Advising for more information.

## Academic Advisors

The Dodge Family College of Arts and Sciences requires all undergraduate majors to meet with their professional academic advisor in their major department each semester prior to enrollment.

The Arts and Sciences professional academic advisors have special expertise in degree program planning, due to their knowledge of the discipline, courses, methods of teaching, and special opportunities available through the major departments. In addition, they can provide information about potential careers and assist with plans for graduate study. Visit Arts \& Sciences Academic Advising to find your assigned academic advisor.

## Enrollment Information

## Credit Hour Regulations

The maximum course load in a fall/spring semester is 19 total hours and 9 hours in the summer term. A student who has established a strong academic record may request to exceed the maximum enrollment hours by petition to their academic counselor.

## Change of Enrollment

Deadlines for enrollment, adding a course, and dropping a course are published in the Academic Calendar. It is the student's responsibility to meet deadlines set by the University for changing an enrollment.

## Pass/No Pass Enrollment

Students have the option of taking a course Pass/No Pass (P/NP). To prevent possible bias in grading, the student's choice of the P/NP option will not be made known to the instructor who will assign the letter grade. The final P/NP grade will be assigned automatically, by computer, on the basis of the letter grade reported by the professor. The grade of $P$ is assigned to a course in which the student earned the equivalent of a C or better. The grade NP is assigned to a course in which the student earned a D or an F. No credit is given for a course graded NP. Courses graded P/ NP are not calculated into the student's grade point average.

There are three very important restrictions to Pass/No Pass enrollment in the Dodge Family College of Arts and Sciences:

- A student may enroll in a maximum of 16 hours of courses under the P/NP option throughout their academic career.
- A student may not use the P/NP option for courses taken to satisfy University General Education requirements, Arts and Sciences college requirements, major credit courses, major support requirements, or minor requirements. Only courses used to fulfill free electives may be taken under the Pass/No Pass option.
- A student may change registration in any course from the P/NP option to a regular graded status (or vice versa) only during the first two weeks of a semester or the first week of a regular summer session.


## Enrollment Contract

Students are on enrollment contract with the Dodge Family College of Arts and Sciences if their OU and/or Combined GPA is below a 2.00. Students will be notified of their contract status after grades have been posted at the end of each semester. A college Hold is placed on their record until the students raise their GPA back to the required 2.00 or above. Contract students will be required to sign a new contract each semester their GPA remains below the required 2.00. Call 405.325.4411 for more information.

## Academic Forgiveness Policy

The Academic Forgiveness Policy (p. 46), instituted by the Oklahoma State Regents for Higher Education, allows students, under certain circumstances, to have courses removed from the calculation of the retention grade point average. It consists of three components: the repeat policy and reprieve policy, and the renewal policy. These are described in the Academic Standards section of this catalog.

Students should contact the assistant dean in the Hobson Academic Services Center for instructions concerning the process of requesting academic forgiveness.

## Graduation Requirements

## Rules, Regulations, and Requirements for Undergraduate Programs

## The responsibility for meeting graduation requirements lies with the student.

The requirements for graduation from the Dodge Family College of Arts and Sciences are listed on the next several pages. The requirements for a specific degree come from four separate sources:

1. the Oklahoma State Regents for Higher Education;
2. the faculty of the University of Oklahoma;
3. the faculty of the Dodge Family College of Arts and Sciences; and
4. the faculty of a school or department, or the faculty committee administering a special curriculum.

Degree programs normally have four components:

- University-Wide General Education requirements,
- Arts and Sciences college requirements,
- Major requirements, and
- Free electives.

The specific requirements for majors and minors are listed in the Academic Units section of this catalog and on the degree requirement checksheets (p. 55).

Certification of completion of graduation requirements is the responsibility of the Hobson Academic Services Center. If grades for the last term of enrollment prior to the planned date of graduation are not adequate for degree completion, students should immediately contact their academic counselor. The counselor will assist the student in establishing another graduation date.

## Graduation Grade Point Average Requirements

The Dodge Family College of Arts and Sciences requires a minimum ' $C$ ' (2.00) average in each of the following areas:

- Students must earn a minimum of a 2.00 combined retention grade point average (University of Oklahoma and transfer work combined).
- Students must earn a minimum of a 2.00 retention grade point average on all University of Oklahoma coursework.
- Students must earn a minimum of a 2.00 retention grade point average in all major credit courses (University of Oklahoma and transfer work combined), and a 2.00 retention grade point average in major credit courses taken at the University of Oklahoma. Some schools and departments in the Dodge Family College of Arts and Sciences have established additional higher grade point requirements for their students. Please refer to the Academic Units for detailed information.


## Ten-Year Limitation Rules

A student in the Dodge Family College of Arts and Sciences may elect to graduate under the degree plan in effect at the time of their first enrollment in the state system provided they complete the work for a degree within a maximum of 10 calendar years from the time of their first enrollment in the state system. If the work for a degree covers a period longer than 10 years, the college, in consultation with the student, will determine the degree plan to be in effect for that student's graduation.

Credit in a student's major that is more than 10 years old may not be applied toward a bachelor's degree unless it is validated by the major department, or each individual department if the major is interdisciplinary.

## Credit Hour Regulations

Please read this section carefully. Each of the following credit hour regulations must be satisfied to earn a bachelor's degree from the Dodge Family College of Arts and Sciences. Refer to individual degree program checksheets for specific requirements.

- A minimum of $\mathbf{1 2 0}$ semester credit hours applicable towards an Arts and Sciences degree must be earned, excluding physical education activity courses.
- A minimum of $\mathbf{8 0}$ semester credit hours must be earned in liberal arts and sciences courses for a Bachelor of Arts degree. A minimum of 55 semester credit hours must be earned in liberal arts and sciences courses for a Bachelor of Science degree. "Liberal arts \& sciences courses" are defined by the State Regents as courses in the humanities; social and behavioral sciences; communication; natural and life sciences; mathematics; and the history, literature and theory of the fine arts (music, art, drama, and dance). This excludes fine arts courses that focus primarily on performance techniques or involve mostly studio work.
- A minimum of $\mathbf{6 0}$ semester credit hours must be earned at accredited senior (4-year) institutions.
- A minimum of 48 semester hours of upper-division credit (courses numbered 3000 or above) must be earned at accredited senior institutions. Transfer work is counted as lower-division or upperdivision depending on the level at which it was offered at the institution where it was earned. Two-year college work is accepted only as lower-division credit.
- A minimum of $\mathbf{3 0}$ semester credit hours must be earned in the major, including a minimum of 15 semester credit hours at the upperdivision level.
- Residency: this is defined as coursework taken at the University of Oklahoma, excluding correspondence courses.
- A minimum of $\mathbf{3 0}$ semester credit hours applied toward the degree must be earned in residence at the University of Oklahoma.
- At least $\mathbf{1 5}$ of the final $\mathbf{3 0}$ hours applied toward the degree or at least 50 percent of the hours required by the institution in the major field must be satisfactorily completed at the University of Oklahoma.
- At least 15 semester hours of upper-division major credit applied to the degree must be earned in residence at the University of Oklahoma.
- A student must be listed as a Dodge Family College of Arts and Sciences student at the time of graduation.
- Credit transferred from other institutions and credit earned through OU correspondence courses is non-resident. Credit earned by examination is considered neither resident nor nonresident for the purposes of these calculations.
- Capstone courses must be taken through the University of Oklahoma unless a substitution is approved by the academic department awarding the degree.
- No more than 16 semester credit hours earned under the Pass/No Pass option will apply toward the degree. Refer to the Dodge Family College of Arts and Sciences section on P/NP Enrollment.
- No more than 12 semester credit hours earned in all individualized study courses, e.g., Independent Study and Directed Readings, but excluding Honors Reading and Honors Research, will be counted as part of the minimum 120 semester credit hours required for graduation.
- No courses may be repeated for credit unless specified "repeatable for credit" in the course description of this catalog or the University's course inventory. Refer to the course description for the number of times or hours a course can be repeated.
- Students recommended for the bachelor's degree must achieve a grade point average of 2.0 as a minimum on all course work attempted, excluding any courses repeated or reprieved as detailed in the State Regents' Grading Policy and excluding physical education activity courses.


## University-Wide General Education Requirements

All bachelor's degrees offered by the Dodge Family College of Arts and Sciences include the following minimum general education requirements:

Courses for fulfillment of these requirements must be chosen from the University-Wide General Education Approved Course List, published by the University.

Core Area I: Symbolic and Oral Communication (9-19 hours, 3-5 courses):

1. English Composition (6 hours, 2 courses),
2. Language (met with the college requirement),
3. Mathematics (3 hours, 1 course),
4. Other (may be used when additional credit hours are needed to bring the total hours completed to 40 . Approved courses in this area include communication, logic and public speaking).

## Core Area II: Natural Science (met with the college requirement)

Core Area III: Social Science (6 hours, 2 courses): P SC 1113 U.S. Government, plus one additional social sciences course chosen from the approved list.

## Core Area IV: Arts and Humanities (12 hours, 4 courses):

1. Artistic Forms (3 hours, 1 course),
2. Western Culture ( 6 hours, 2 courses), 3 of these 6 hours must be HIST 1483 or HIST 1493,
3. World Culture (3 hours, 1 course).

## Core Area V: First-Year Experience (3 hours, 1 course)

Students must also take at least one upper-division General Education approved course outside the student's major.

## Arts and Sciences College Requirements

Courses for fulfillment of these requirements must be chosen from the University-Wide General Education Approved Course List published by the University.

All bachelor's degrees offered by the Dodge Family College of Arts and Sciences require the following minimum college requirements:
I. Science (7 hours, 2 courses, consisting of one biological science and one physical science course. One of the courses must include a laboratory.)
II. Language ( $0-13$ hours. One course at the intermediate level or demonstrated competency at that level. Students may need to complete one or two courses at the introductory level prior to enrolling in an intermediate course. Language courses transferred from another institution must be equated to an OU intermediate-level course or evaluated by OU. Competency at the intermediate level will also fulfill the General Education Language requirement.)
III. Additional Core IV Arts and Humanities courses (6 upper-division hours, 2 courses at the 3000-level or above. Must be outside the major and selected from approved courses in Artistic Forms, Western Culture, or World Culture.)

## Application for Graduation

Students are responsible for filing an official graduation application during their final semester. Graduation applications are available online at one.ou.edu. Failure to file the graduation application will result in the student not being eligible for graduation during that semester or term. Those students who plan to graduate in the fall are strongly encouraged to apply for graduation before September 15; those finishing in the spring before February 15 ; and those finishing in the summer before June 1. In addition to completing all academic requirements for the undergraduate degree, students must also pay all tuition and fees before the degree can be conferred. Students who complete all academic requirements but fail to pay tuition and fees before the beginning of the following semester or
session will have the original graduation date printed on their diploma, but only after all tuition and fees are paid.

## Degree Check

Students who have earned 90 or more credit hours should schedule a degree check with their academic counselor in the Hobson Academic Services Center. At this appointment the counselor will review the student's transcript and how the completed courses will apply to the degree program. At the conclusion of the degree check, the student will know exactly how the earned credits apply to their degree as well as what courses and how many hours are required to graduate. It is crucial for students to complete the degree check so they will know exactly where they are on the track to graduation. Students may schedule a degree check appointment at iAdvise.

## Graduate Study

Refer to the Graduate tabs within each of the Arts and Sciences academic units' pages of this catalog for information concerning graduate work.

- Department of Anthropology (p. 228)
- School of Biological Sciences (p. 253)
- Department of Chemistry and Biochemistry (p. 295)
- Department of Communication (p. 343)
- Department of Economics (p. 355)
- Department of English (p. 367)
- Environmental Studies (p. 393)
- Department of Film and Media Studies (p. 401)
- Department of Health and Exercise Science (p. 408)
- Department of History (p. 423)
- Department of History of Science, Technology, and Medicine (p. 440)
- Department of Human Relations (p. 455)
- Schusterman Program in Judaic and Israel Studies (p. 476)
- School of Library and Information Studies (p. 481)
- David and Judi Proctor Department of Mathematics (p. 503)
- Department of Modern Languages, Literatures, and Linguistics (p. 528)
- Department of Native American Studies (p. 580)
- Shyam Dev Patwardhan Department of Philosophy (p. 592)
- Homer L. Dodge Department of Physics and Astronomy (p. 603)
- Department of Political Science (p. 623)
- Department of Psychology (p. 661)
- Anne and Henry Zarrow School of Social Work (p. 701)
- Department of Sociology (p. 715)
- Department of Women's and Gender Studies (p. 733)


## Student Success Center

## Mission

The Student Success Center shares the Dodge Family College of Arts and Sciences' mission to prepare students for lives of professional accomplishment, civic engagement, personal fulfillment, and lifelong learning. The center supports the development and implementation of high-impact curricula, in the form of undergraduate research, internships, study abroad or study away, service and community-based learning, and other forms of ethically engaged experiential learning. High-Impact teaching practices allow students to deepen their learning by applying
the skills and knowledge they gain from Arts and Sciences coursework in a range of real-world contexts. Participation in these has been shown to increase student engagement, persistence, and degree completion. The Student Success Center is committed to increasing equity of access to these opportunities, ensuring that financial and logistical barriers never stand between a student and their goals.

## Academic Achievement

## Recognition of Academic Achievement <br> Dean's Honor Roll

The Dodge Family College of Arts and Sciences Honor Roll is compiled at the close of each fall and spring semester. It includes students who have completed at least 12 grade point hours and have earned an average of 3.50 or higher for the semester.

## Scholarships and Awards

Scholarships and awards are given annually to students who have achieved academic excellence. Among the many scholarships available only to Arts and Sciences majors are the College of Arts and Sciences Leadership Scholars scholarships, awarded to sophomores, juniors and seniors, and Phi Beta Kappa scholarships awarded to juniors and seniors.

The prestigious Carl Albert Award is given annually to the Arts and Sciences senior who best demonstrates superior academic achievement, moral force of character, and the promise of future service to the state and nation. Each year, the college also awards four outstanding students, each student representing one of the college's four divisions: natural sciences, humanities, social sciences, and professional programs.

The Dodge Family College of Arts and Sciences offers approximately 160 scholarships annually through the dean's office and many other scholarships through its various departments and schools. Students should consult the college's website or the University's publication A Guide to Scholarships and Financial Aid for further information. The Guide is available on the Financial Aid Services website.

## Phi Beta Kappa

Phi Beta Kappa, the nation's oldest college honor society, was founded at the College of William and Mary in 1776. Alpha Chapter of the University of Oklahoma was chartered in 1920. Membership in Phi Beta Kappa is open by invitation only to juniors and seniors in the Dodge Family College of Arts and Sciences, the Gaylord College of Journalism, and a limited number of other programs.

Juniors and seniors with distinguished academic records are elected in March/April of each year. Students who graduate at the end of the summer session or fall semester are eligible for election the following spring. For additional information about the University's Phi Beta Kappa chapter, contact the Dodge Family College of Arts and Sciences Academic Services office, or visit the Phi Beta Kappa website.

## College Honorary Organizations

Several of the departments and schools within the Dodge Family College of Arts and Sciences participate in national honorary societies, and others have established University of Oklahoma honorary organizations. Students should check with their major department for this information.

## College of Arts and Sciences Administrated Programs

- Community Health, B.A. (p. 177)
- Community Health, B.S. (p. 179)
- Latinx Studies, B.A. (p. 181)
- Planned Program, B.A. (p. 183)
- Planned Program, B.S. (p. 185)
- Public Health, B.P.H. (p. 187)
- Applied Statistics, Minor (p. 190)
- Data Analytics, Minor (p. 191)
- Enterprise Studies, Minor (p. 193)
- International Enterprise Studies, Minor (p. 193)
- Latinx Studies, Minor (p. 194)
- Public and Community Health, Minor (p. 195)
- Applied Statistics, Undergraduate Certificate (p. 195)
- Data Analytics, Undergraduate Certificate (p. 196)
- Community Health, B.A./Epidemiology, M.P.H. (p. 198)
- Community Health, B.A./Health Promotion Sciences, M.P.H. (p. 201)
- Community Health, B.S./Epidemiology, M.P.H. (p. 203)
- Community Health, B.S./Health Promotion Sciences, M.P.H. (p. 206)
- Applied Statistics, M.S. (p. 209)
- Criminal Justice (Online), M.S. (p. 209)
- Human \& Health Services Administration (Online), M.A. (p. 210)
- Integrative Studies (Online), M.A. (p. 211)
- Organizational Leadership (Online), M.A. (p. 213)
- Applied Statistics, Graduate Certificate (p. 214)
- Corrections Management (Online), Graduate Certificate (p. 216)
- Criminal Justice Administration (Online), Graduate Certificate (p. 217)
- Data Analytics, Graduate Certificate (p. 217)
- Drug Policy Management (Online), Graduate Certificate (p. 219)
- Organizational Leadership (Online), Graduate Certificate (p. 220)
- Restorative Justice Administration (Online), Graduate Certificate (p. 220)


## Bachelor's Degrees

## Latinx Studies, B.A.

Latinx Studies is an interdisciplinary course of studies in literature, politics, history, culture, and society. Students can pursue a primary course of study (a Planned Program) or take courses toward a minor to create a valuable supplement to any major whether in the humanities, sciences, or social sciences.

- Latinx Studies, B.A. (p. 181)
- Latinx Studies, Minor (p. 194)


## Public and Community Health

Public and community health programs focus on population health (e.g. the community, group, city level), instead of individual patient health. These programs build from the OU core curriculum and build knowledge and skills necessary for work public health, community health, and related fields. We want to understand what factors contribute to health, what factors contribute to injury or disease, prevent poor health
outcomes, and promote healthy populations. Public health is a very broad field of study, incorporating many disciplines, to develop solutions to complex health issues (for example: access to healthcare, substance abuse, workplace injury, infectious disease outbreaks).

- Community Health, B.A. (p. 177)
- Community Health, B.S. (p. 179)
- Public Health, B.P.H. (p. 187)


## Planned Programs

The Planned Program options offer students the opportunity to design a degree program that meets their own unique needs and interests, particularly when their interests diverge from the pre-determined options offered by the University. Students in this major will work closely with an academic advisor in the development of their degree program and selection of appropriate courses for their concentration.

- Planned Program, B.A. (p. 183)
- Planned Program, B.S. (p. 185)


## Minors

- Applied Statistics, Minor (p. 190)
- Data Analytics, Minor (p. 191)
- Enterprise Studies, Minor (p. 193)
- International Enterprise Studies, Minor (p. 193)
- Latinx Studies, Minor (p. 194)
- Public and Community Health, Minor (p. 195)


## Undergraduate Certificates

- Applied Statistics, Undergraduate Certificate (p. 195)
- Data Analytics, Undergraduate Certificate (p. 196)


## Master of Arts

## Human \& Health Services Administration, M.A.

The Human \& Health Services Administration Master of Arts (p. 210) program addresses current issues and ethics in health care and provides students the opportunity to select a specific area for intensive study. This option is designed to accommodate students who are interested in furthering their preparation for advancement in the Human and Health Service Administration areas. The program provides a broad-based perspective of the health care and human service delivery systems, and is not designed to provide primary professional preparation. Students selecting this program must have a prior training and/or work history in an applicable area for job entry. This program is intended to serve as a mechanism for professional advancement by enhancing the student's competency level and expanding their administrative knowledge base.

## Integrative Studies, M.A.

The Integrative Studies Master of Arts (p. 211) provides graduates with the necessary knowledge and skills to make positive, well-informed, and immediate contributions in their careers and communities. Curricular tracks are available in in Archaeoastronomy and Astronomy in Culture, Diversity, and a Self-Design track for direct student research in clearly delineated areas of study.

## Organizational Leadership, M.A.

The Organizational Leadership Master of Arts (p. 213) (MAOL) degree provides an applied approach to the study and practice of leadership. The MAOL program enables students to increase their ability to lead others and develop the skills needed to enhance the overall leadership capacity of the organizations where they work, consult, or serve. Students will expand their self-awareness, learn how to improve the performance of individuals, teams, and organizations, and gain knowledge about how to develop these vital leadership skills in others. The program is designed to meet the needs of working adults while maintaining a commitment to providing affordable, high-quality education and an enjoyable learning experience.

## Master of Science

## Applied Statistics, M.S.

The objective of the graduate degree in Applied Statistics (p. 209) is to provide a pathway for students with diverse disciplinary interests to develop authoritative and practical expertise in applying statistical methods to analyzing data across disciplinary boundaries. Further, the program is designed for adult learners who may already be practicing professionals to increase their skills in applied statistics within various business and nonprofit contexts.

## Criminal Justice, M.S.

The Criminal Justice Master of Science (p. 209) program focuses on the practices and knowledge bases needed to be a successful in the criminal justice workforce. Students explore both the theoretical aspects of criminal justice and applied practices. Combining the knowledge of specific, work-related principles with the mind-set of a liberal education, allows students to approach new ideas, projects, and challenges by drawing upon multiple perspectives. Electives in the Criminal Justice program can be utilized to pursue specific areas of interest and to develop greater depth of expertise in particular areas of criminal justice study, such as leadership/administration, restorative justice, drug abuse policy \& management, or corrections.

## Graduate Certificates

- Applied Statistics, Graduate Certificate (p. 214)
- Corrections Management (Online), Graduate Certificate (p. 216)
- Criminal Justice Administration (Online), Graduate Certificate (p. 217)
- Data Analytics, Graduate Certificate (p. 217)
- Drug Policy Management (Online), Graduate Certificate (p. 219)
- Organizational Leadership (Online), Graduate Certificate (p. 220)
- Restorative Justice Administration (Online), Graduate Certificate (p. 220)


## Accelerated Programs

- Community Health, B.A./Epidemiology, M.P.H. (p. 198)
- Community Health, B.A./Health Promotion Sciences, M.P.H. (p. 201)
- Community Health, B.S./Epidemiology, M.P.H. (p. 203)
- Community Health, B.S./Health Promotion Sciences, M.P.H. (p. 206)


## Courses

CAS 1523 Gateway to Belonging at OU 3 Credit Hours
This course teaches critical thinking skills and supports students in developing a true understanding of others, as well as a sense of belonging at OU and beyond. It offers students an opportunity to consider how they have formed their own beliefs and opinions and how they can interact with one another to gain the most from their college experience. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ ) [V-FYE].
CAS 1543 Ethical and Intercultural Leadership 3 Credit Hours This course offers students an exploration of ethical and intercultural leadership through an interdisciplinary lens. Students will have an opportunity to practice ethical and moral decision-making and other competencies, skills, and attitudes that are beneficial for leading and facilitating intercultural groups in the campus and community environments. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ ) [V-FYE].
CAS 1553 Gateway to the Sciences
3 Credit Hours
This course enriches the first-year experience. Students explore and discuss how various fields of science impact society and learn about their research methods. Students develop an awareness of the rich diversity of scientists and scientific disciplines. Students get to know faculty and advisors from various departments. Students are empowered through the development of foundational knowledge and skills. (F, Sp, Su) [V-FYE].
CAS 1563 Gateway to the Social Sciences
3 Credit Hours
This course enhances the first-year experience by cultivating a supportive student community that thrives on interactive learning. Participants will actively examine how diverse fields within the realm of social sciences influence society, and gain insights into their research methodologies. Students will also gain an understanding of the rich diversity of scientific disciplines within the social sciences. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ ) [V-FYE].
CAS 1573 Gateway to the Humanities
3 Credit Hours
This course enhances the first-year experience by cultivating a supportive student community that thrives on interactive learning. Participants will actively examine how diverse fields within the realm of the Humanities influence society, and gain insights into their research methodologies. Students will also gain an understanding of the rich diversity of disciplines within the Humanities. ( $F, \mathrm{Sp}, \mathrm{Su}$ ) [V-FYE].

## CAS 2091 Career Planning for Arts and Sciences Students 1 Credit Hour Assist students to determine personal career goals, explore career opportunities beyond graduation, develop a strategy for the job search process, and improve job search techniques as life-long resource tools. (F, Sp )

CAS 2970 Special Topics
1-3 Credit Hours
1 to 3 hours. Prerequisite: May be repeated; Maximum credit nine hours. Special topics course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research, and field projects. (Irreg.)

## CAS 3002 Digital Scholarship Internship

2 Credit Hours
Prerequisite: junior standing or permission of instructor. Provides the opportunity to learn technological means of communicating academic information to the public. Such digital skills are increasingly necessary in a global job market. Students will reflect upon and integrate their practical experiences learning technological communication formats into their major, minor, or study abroad coursework, incorporating how the internship illuminates and augments a particular aspect of academic research. (F, Sp, Su)

CAS 3091 Career Planning for Arts and Sciences Students 1 Credit Hour Prerequisite: CAS major; must have completed 30 hours. Assist students to determine personal career goals, explore career opportunities beyond graduation, develop a strategy for the job search process, and improve job search techniques as life-long resource tools. (F, Sp)

CAS 3440 Mentored Research Experience 3 Credit Hours
0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)

## CAS 3900 Study Abroad <br> 1-6 Credit Hours

1-6 hours. Prerequisite: sophomore standing and completion of ENGL 1213, or permission of instructor. May be repeated; maximum credit 12 hours. Content/location varies. Enrollment in this course indicates that the student is participating in an OU study abroad program run by the College of Arts and Sciences, taught by OU faculty. They will study various cultural, historical, political, social, economic or linguistics issues relevant to understanding their study abroad environment in the specific country chosen and reflected in the course title. (Su)
CAS 3901 Arts and Sciences Co-Op Program
1 Credit Hour
Prerequisite: concurrent participation in A\&S Co-Op Program. Program allows students to work outside the university in a job related to the major. Enrollment in this course will be during a term in which a student is working full-time, with the cooperation of the employer, with the intent of returning to OU to continue with the degree requirements. Upon completion of the term's work, the student will write a paper describing their work experience and the relevance to their major. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

CAS 3960 Honors Reading 1-3 Credit Hours
1 to 3 hours. Prerequisite: Admission to Honors Program. May be repeated; maximum credit six hours. Consists of topics designated by the instructor in keeping with the student's major program. The topics will cover materials not usually presented in the regular courses. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

## CAS 3970 Honors Seminar

1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Subjects covered vary. Deals with concepts not usually treated in regular courses. (Irreg.)

CAS 3980 Honors Research 1-3 Credit Hours
1 to 3 hours. Prerequisite: Admission to Honors Program. May be repeated; maximum credit six hours. Will provide an opportunity for the gifted Honors candidate to work at a special project in the student's field. (F, Sp, Su)
CAS 3990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: permission of instructor and junior standing. May be repeated once with change of content. Independent study may be arranged to study a subject not available through regular course offerings. (F, Sp, Su)

CAS 4113 Life After OU: A Survival Course 3 Credit Hours
Prerequisite: senior standing. Introduces students to practical aspects of life after college. Includes interviewing; legal aspects of employment; money, banking and finances; insurance; mortgages; estate planning; and civic involvement. (Irreg.)

CAS 4630 CAS Internship
1-6 Credit Hours
1 to 6 hours. Prerequisite: CAS major; must have completed at least 30 hours; permission of instructor. May be repeated; maximum credit six hours. Provides hands-on experience for students in chosen field of study. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

CAS 4703 Multidisciplinary Capstone
3 Credit Hours
Prerequisite: senior standing and permission. Explores interdisciplinary topics through research, analysis, and writing. It will incorporate instruction in appropriate research methods, focus on contemporary issues from a global perspective, and prepare students to function as informed citizens in a democracy. Required readings will provide a common basis for discussion. (F, Sp) [V] .

## CAS 4710 Entrepreneurship Internship 1-3 Credit Hours

Prerequisite: Student must have declared minor in enterprise studies. May be repeated for up to six hours credit. (F, Sp, Su)

## CAS 4960 Directed Readings <br> 1-4 Credit Hours

1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean. May be repeated; maximum credit four hours. Designed for upper-division students who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)

CAS 4970 Special Topics/Seminar 1-3 Credit Hours
1 to 3 hours. Prerequisite: Senior standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

CAS 4990 Independent Study 1-3 Credit Hours 1 to 3 hours. Prerequisite: Senior standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)

CAS 5003 Introduction to Grad Studies
3 Credit Hours
Prerequisite: graduate standing. Intensive seminar providing orientation to advanced interdisciplinary study, appreciation for standards of performance and scholarship appropriate to graduate study, development of skills necessary for success in academic research and writing in a graduate interdisciplinary program. (F, Sp, Su)

CAS 5013 Interdisciplinary Foundations
3 Credit Hours
Prerequisite: graduate standing. Selected readings designed to reinforce the interdisciplinary approach to graduate studies and to introduce the concept of paradigms as an organizing principle for understanding and interpreting information. (F, Sp, Su)
CAS 5043 Research Methods
3 Credit Hours
Prerequisite: graduate standing, CAS 5003 and CAS 5013; or permission of dean. Theories and techniques of research designed to prepare MLS students to carry out individual research on a topic within an interdisciplinary program of study. (F, Sp, Su)

## CAS 5073 Quantitative Research Methods for Interdisciplinary

 Studies3 Credit Hours
Prerequisite: Graduate standing, CAS 5003 and CAS 5013 or permission from graduate advisor. Introduction to descriptive and inferential statistics for quantitative research in interdisciplinary studies. Includes use of graphs, frequency distributions, probability, central tendency, dispersion, hypothesis testing, tests of mean differences, and correlation. (F, Sp, Su)

CAS 5083 Qualitative Research Methods in Interdisciplinary

## Studies

3 Credit Hours
Prerequisite: graduate standing, CAS 5003 and CAS 5013; or permission of dean. An inquiry designed to acquaint students with qualitative research methods in interdisciplinary study. By the end of the course, the student will be familiar with the most common methods and issues qualitative research. Students will learn how to design a study; how to recognize and address ethical issues; and how to analyze qualitative data. (F, Sp, Su)
CAS 5700 Advanced Topics in Interdisciplinary Studies2-9 Credit Hours 2 to 9 hours. Prerequisite: graduate standing. Intensive research on a topic related to the student's program of study; variable topics. (F, Sp, Su)
CAS 5920 Internship 2-6 Credit Hours
2 to 6 hours. Prerequisite: Graduate standing, CAS 5003, and permission of dean; May be repeated, maximum credit six hours. 450 hours of field experience directly related to study focus in the MA in Integrative Studies program ( 75 hours per credit hour of enrollment). Requirements include journal, reports, written summary, and comprehensive examination over these materials. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

## CAS 5940 Research Project

2-6 Credit Hours
2 to 6 hours. Prerequisite: Graduate standing, CAS 5003, CAS 5013, and completion of first concentration core class; May be repeated, maximum credit six hours. Development of creative or applied research project related to MA in Integrative Studies study focus. The final form will vary according to topic and purpose of the project but must include a written component. Comprehensive examination over the research project is required. (F, Sp, Su)

## CAS 5960 Directed Readings

1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing and permission of department. May be repeated; maximum credit twelve hours. Directed readings and/or literature reviews under the direction of a faculty member. (F, Sp, Su)
CAS 5970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)
CAS 5990 Independent Study 1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)

CRJU 5013 Introduction to Criminal Justice 3 Credit Hours Prerequisite: Graduate standing. This course provides a comprehensive overview of the American criminal justice system. Students will examine the historical foundations and evolution of key institutions, policies, and practices. A critical lens will be applied to analyze how structural inequality has contributed to disparate outcomes for marginalized groups. (F, Sp, Su)
CRJU 5063 Research Methods for Criminal Justice 3 Credit Hours Prerequisite: graduate standing, CAS 5003 and CAS 5013; or permission of dean. Introduces students to conducting and evaluating scientific research of the criminal justice system. Research methods overview the basics of research methodologies, with a focus on measurement and data collection. Statistical analysis overviews basic statistical techniques for analysis of criminal justice data, with a focus on both descriptive and inferential statistics. (F, Sp, Su)

CRJU 5073 Quantitative Research and Analysis 3 Credit Hours Prerequisite: Graduate standing and CRJU 5063; or permission of academic advisor. This course is designed as an introduction to quantitative statistical methods and their application in criminology and criminal justice research. The course features an overview of the use and interpretation of descriptive, inferential, and predictive statistics. Basic regression and data analysis techniques are discussed, along with bivariate and multivariate techniques. (F, Sp, Su)

## CRJU 5083 Qualitative Research Methods in Criminal

 Justice3 Credit Hours
Prerequisite: Graduate standing and CRJU 5063; or permission of academic advisor. This course is an introduction to the use of qualitative research methods and analysis in criminal justice research, including practical application of methods addressed in the course. (F, Sp, Su)
CRJU 5113 Theoretical Foundations of Criminal Justice 3 Credit Hours Prerequisite: graduate standing. Enhances students' understanding of criminal theory focusing on critical analysis of major theoretical perspectives in a social, historical and political context. (F, Sp, Su)
CRJU 5133 Criminal Justice Policy Development 3 Credit Hours
Prerequisite: graduate standing. Students will learn how to measure policies against established standards of practice and case law, writing model policies to gain experience in the process, and evaluating policies to see if they actually work. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
CRJU 5153 Ethical Decision Making in Criminal Justice 3 Credit Hours Prerequisite: graduate standing. Principles from the major ethical positions charted by Plato, Aristotle, Hume, Mill, Kant, and Rawls. Students will combine these principles with codes of practice and current case law, examine case vignettes and discuss the ethical components of each case. ( $F, S p, S u$ )

CRJU 5203 Victimology and Restorative Justice 3 Credit Hours Prerequisite: graduate standing, CAS 5003, and CRJU 5113; or permission of dean. A survey of the evolving field of victimology from its preoccupation with the study of the victim as a co-active participant in crime to the reemergence of the victim as the focus of the criminal justice system and public policy. This course will also examine the corollary reemergence of the concept of restorative justice, which seeks to address the needs of victims, offenders, and the community. (F, Sp, Su)

## CRJU 5213 Mediation \& Conflict Resolution for Criminal Justice

 Professionals 3 Credit HoursPrerequisite: graduate standing, CAS 5003, and CRJU 5113; or permission of dean. An examination of practical strategies for managing and resolving conflicts in criminal justice professions. (F, Sp, Su)

CRJU 5223 Community Corrections in the 21 st Century 3 Credit Hours Prerequisite: graduate standing, CAS 5003, and CRJU 5113; or permission of dean. Introduction to the topics of probation, parole, and other alternatives to incarceration, collectively referred to as Community Corrections. Emphasis will be placed on the role of research and program evaluation in determining policy/program effectiveness. (F, Sp, Su)

## CRJU 5263 Restorative Justice Programs for Drug

## Offenders

## 3 Credit Hours

Prerequisite: graduate standing, CAS 5003, and CRJU 5113; or permission of dean. An exploration of the restorative justice model focusing on how drug courts have implemented key principles of restorative justice programs to deter crime and improve public health. (F, Sp, Su)

CRJU 5283 Human Trafficking and Prostitution 3 Credit Hours Prerequisite: Graduate standing, CAD 5003 and CRJU 5113. This course will unpack the international debate on trafficking and prostitution by examining the intersections of contemporary social issues, gender bias, poverty, social hierarchies, and culture that perpetuate human trafficking. We will critique mainstream trafficking frameworks that often result in revictimization of vulnerable people and explore feminist debates on sex work and competing policy approaches to regulating sex work. (F, Sp, Su)

CRJU 5303 Correctional Leadership 3 Credit Hours
Prerequisite: graduate standing, CAS 5003, and CRJU 5113; or permission of dean. A review of leadership styles, core competencies demonstrated by effective correctional leaders, skills sets needed for each managerial level within corrections, and elements of leadership that effect the development of a collaborate and dynamic workforce. (F, Sp, Su)

CRJU 5343 Mental Illness and the Criminal Justice
System
3 Credit Hours
Prerequisite: graduate standing, CAS 5003, and CRJU 5113; or permission of dean. An examination of mental illness in the criminal justice system. (F, Sp, Su)

## CRJU 5353 Women and Crime

3 Credit Hours
Prerequisite: graduate standing, CAS 5003 and CRJU 5113; or permission of dean. Provides an in-depth examination of women and crime, particularly in the United States, from a sociological perspective, focusing on theoretical explanations, women as offenders, women as victims of crime, and societal responses to female crime. (F, Sp, Su)

CRJU 5363 Penology
3 Credit Hours
Prerequisite: graduate standing, CAS 5003 and CRJU 5113; or permission of dean. An exploration of key issues and emerging themes in scholarship on penology and corrections. Specific attention will be devoted to the United States and the significant correctional issues that it faces including theories of punishment, the history of incarceration, the current state of corrections in the United States, international comparisons in prisons, as well as an investigation of the future of incarceration. ( $\mathrm{F}, \mathrm{Sp}$, Su )

CRJU 5403 Drug Enforcement Operations and Management 3 Credit Hours
Prerequisite: graduate standing, CAS 5003, and CRJU 5113; or permission of dean. This course will examine how criminal justice professionals administer and manage drug investigations. Administrative topics will include personnel issues, policy development, and budgeting. Operational management topics will include informant management, undercover operations, tactical operations, wire-intercepts, and money laundering investigations. (F, Sp, Su)

## CRJU 5413 Substance Abuse and Crime in the United <br> States <br> 3 Credit Hours

Prerequisite: graduate standing, CAS 5003, and CRJU 5113; or permission of dean. An examination of substance abuse trends in the United States. Topics include the interrelationship between substance abuse and dependency, substance abuse treatment and the criminal justice system, and the effectiveness of drug policies and programs. (F, Sp, Su)

CRJU 5423 Global Drug Trafficking, Narco-Terrorism, and United States Drug Policy 3 Credit Hours
Prerequisite: graduate standing, CAS 5003, and CRJU 5113; or permission of dean. An examination of the global nature of drug supply and demand, organizations involved in drug trafficking and narco-terrorism, and the implementation of US drug policies at the local, state, and federal levels. (F, Sp, Su)

CRJU 5463 Gangs in the United States
3 Credit Hours
Prerequisite: graduate standing, CAS 5003 and CRJU 5113; or permission of dean. Gang formation, risk factors for joining gangs, and the efficacy of different types of prevention, intervention and interdiction policies. The historical backgrounds of gangs, drugs, and violence in America, as well as current issues related to these subjects, will be explored. (F, Sp, Su)

CRJU 5513 Studies in Police Leadership
3 Credit Hours
Prerequisite: graduate standing, CAS 5003, and CRJU 5113; or permission of dean. An exploration of the dynamics of leadership within the law enforcement context, including the history and evolution of police administration, general leadership theories, management best practices, as well as contemporary issues confronting the profession. (F, Sp, Su)

CRJU 5533 Crime Analysis for Intelligence-Led Policing 3 Credit Hours Prerequisite: graduate standing, CAS 5003, and CRJU 5113; or permission of dean. Introduction to crime analysis and the use of data to intelligently prevent and/or interdict crime. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

CRJU 5583 Cyber-Forensics
3 Credit Hours
Prerequisite: graduate standing, CAS 5003, and CRJU 5113; or permission of dean. An examination of the legal, ethical and technical aspects of cyber-forensics. (F, Sp, Su)

CRJU 5700 Advanced Topics in Criminal Justice 2-9 Credit Hours 2 to 9 hours. Prerequisite: graduate standing. May be repeated with change of content; maximum credit 12 hours. Advanced studies in various criminal justice topics, offered under stated titles determined each semester by the instructor involved (F, Sp, Su)

CRJU 5920 Internship in Criminal Justice
2-6 Credit Hours
2 to 6 hours. Prerequisite: graduate standing, CAS 5003, and permission of dean. May be repeated; maximum credit six hours. 2-6 hours. Field experience directly related to study focus in the Criminal Justice program. Requirements include some combination of journal, progress reports, written summary of experiences, or academic paper, and a possible comprehensive examination over these materials. (F, Sp, Su)

CRJU 5953 Demonstration Project
Credit Hours
Prerequisite: Criminal Justice Majors only and graduate standing. The Demonstration Project is meant to be the culmination of the MS program in Criminal Justice. It gives students an opportunity to demonstrate the skills they have developed in the program, providing a "final experience" that fits with their specific interests. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

CRJU 5960 Directed Readings in Criminal Justice 2-9 Credit Hours 2 to 9 hours. Prerequisite: graduate standing, CAS 5003, and completion of first concentration course; or permission of dean. May be repeated with change of content; maximum credit 9 hours. In-depth study of iterature on a topic related to the student's program of study; variable content. (F, Sp, Su)

CRJU 5970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing, CAS 5003, and completion of first concentration course; or permission of dean. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

CRJU 5980 Research for Master's Thesis 2-9 Credit Hours 2 to 9 hours. Prerequisite: graduate standing, CAS 5003, CAS 5013, and completion of first concentration course; or permission of dean. May be repeated; maximum credit six hours. Research and writing of a thesis for completion of PACS graduate degrees. (F, Sp, Su)

CRJU 5990 Independent Study
1 to 3 hours. Prerequisite: graduate standing, CAS 5003, and completion of first concentration course; or permission of dean. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)

MST 5073 Technology for Museum Professionals 3 Credit Hours Prerequisite: Graduate Standing. Introduction to the theory and application of information technologies within museums including hardware, software, and the application of technology to the work of museum professionals. (F, Sp)
MST 5083 Qualitative Research Methods
3 Credit Hours
Prerequisite: Graduate Standing. This course is designed to acquaint students with qualitative research methods in library, archives, and museum settings. By the end of the course, students will be familiar with the most common methods and issues in qualitative research. Students will learn how to design a study; how to recognize and address ethical issues; and how to analyze qualitative data. (Sp)
MST 5113 The World of a Museum
3 Credit Hours
Prerequisite: graduate standing. Baseline course introducing all aspects of museums and museum careers including history, structure, operations, and theoretical underpinnings. (F, Sp, Su)

MST 5133 The History and Architecture of Museums 3 Credit Hours Prerequisite: graduate standing. The course explores the history of museums with special emphasis on the architectural development and the special facilities requirements of museums; it will look at the physical requirements in terms of museum missions, functions, collections, and operations. (F, Sp, Su)
MST 5143 Museum Studies Research Methods 3 Credit Hours Prerequisite: Graduate Standing. Methods of investigating museum studies problems; use of evaluation in planning for continuous quality assessment and improvement of museum policies, processes, and procedures; developing original research designs; evaluating research studies in museum topics. (F, Su)
MST 5163 Museum Management and Leadership 3 Credit Hours Prerequisite: graduate standing. In-depth study of the philosophy, policies, and practices of museum governance, including such topics as ethics, board development, institutional mission and organization. (F, Sp, Su )
MST 5173 Museums, Cultures, and Communities 3 Credit Hours Prerequisite: graduate standing. The course will focus on the complex issues among museums, diverse populations, and other public factors such as public and education programs, fundraising, public relations, marketing, etc. (F, Sp, Su)
MST 5183 Collections Management
3 Credit Hours
Prerequisite: graduate standing. This course will consider the place of collections in the life of a museum; how collections mesh with the museum mission; collections policies and stewardship. It will relate theoretical ideas on collection development and maintenance to the actualities of museum situations. (F, Sp, Su)
MST 5190 Museum Project
2-4 Credit Hours
2 to 4 hours. Prerequisite: graduate standing and permission of dean. May be repeated with change of subject; maximum credit four hours. Students will develop a project in their home museum or organization under the direction of an OU faculty member with an on-site supervisor or can come to OU for a project at one of the OU museums or special collections. (F, Sp, Su)

MST 5203 Historic Preservation
3 Credit Hours
Prerequisite: graduate standing. Introduction to the field of historic preservation, including identification, documentation, and presentation of historic buildings, sites, and structures. (F, Sp, Su)

## MST 5223 The House Museum

3 Credit Hours
Prerequisite: graduate standing. Examination of the house as a museum. Topics include identifying historical significance and architecture, conservation and interpretation, and developing community involvement. (F, Sp, Su)

MST 5243 The Small Museum 3 Credit Hours Prerequisite: graduate standing. Introduction to the history and nature of small museums in the United States. Topics include cultural significance, administration, finance, funding, staffing, program/exhibition development, community involvement, and partnership building. (F, Sp, Su )

MST 5313 Museum Education
3 Credit Hours
Prerequisite: graduate standing, CAS 5003 and MST 5113; or permission of dean. Introduction to museum education, including object-based learning environments, and theory, an understanding of which fosters the development of effective motivating educational programs in museums. (F, Sp, Su)

MST 5333 Introduction to Museum Interpretation 3 Credit Hours Prerequisite: Graduate standing; and CAS 5003 and MST 5113; or departmental permission. Introduces museum interpretation as a mode of communication to solicit informational experiences and inspire curiosity about a topic via media such as physical exhibits, educational programs, interactive designs, and virtual access. Given current demands for broader demographic inclusivity, the course also revisits conventional museum domains on who interprets what, with which sociocultural and ethnic background representing which segments of society. (F, Sp, Su)

## MST 5403 Museums and Native Cultures

3 Credit Hours
Prerequisite: graduate standing, CAS 5003 and MST 5113; or permission of dean. Designed for students to understand the representational history of native cultures in museums and the dynamic collaboration between a museum and a culture to accomplish an authentic and respectful presentation today. (F, Sp, Su)

MST 5423 Controversy and the World of the Museum 3 Credit Hours Prerequisite: graduate standing, CAS 5003 and MST 5113; or permission of dean. It is crucial that the museum professionals are acquainted with some of the most controversial exhibitions historically, as well as the ones from the 1990s along with an important discussion of the external legal, political, financial, and social forces that are crucial in influencing the course and the outcome of the examined cases. (F, Sp, Su)
MST 5443 Federal Laws and Museums
3 Credit Hours
Prerequisite: graduate standing. An examination of federal laws that impact decision-making for museum professionals. Course activities include the critique of museum collections and policies relating to federal laws such as the Archaeological Resources Protection Act, National Historic Preservation Act, Convention on Cultural Property Implementation Act, Native American Graves Protection and Repatriation Act (NAGPRA), and The Bald and Golden Eagle Protection Act. (F, Sp)
MST 5700 Advanced Topics in Museum Studies 2-9 Credit Hours 2 to 9 hours. Prerequisite: graduate standing, CAS 5003 and MST 5113; or permission of dean. May be repeated with a change of content; maximum credit 12 hours. Topics offered under this course number will include but not be limited to: education and public programs; legislation and museum policies; exhibitions; museum stores, volunteers, and associations. (F, Sp, Su )

## MST 5763 Capstone

3 Credit Hours
Prerequisite: Graduate standing; Museum Studies majors. The capstone is the comprehensive, end of program course where students engage in a project that applies the knowledge and skills learned in the program to professional topics. Under the supervision of the course instructor, the student will select a topic and project design. Projects may include, for example, in-depth literature reviews, research studies, or exhibit designs. The course should (F, Sp)

## MST 5920 Internship in Museum Studies

2-6 Credit Hours
2 to 6 hours. Prerequisite: graduate standing, CAS 5003, and permission of dean. May be repeated; maximum credit six hours. 2-6 hours. Field experience directly related to study focus in the Museum Studies program. Requirements include some combination of journal, progress reports, written summary of experiences, or academic paper, and a possible comprehensive examination over these materials. (F, Sp, Su)
MST 5930 Research Project in Museum Studies 1-3 Credit Hours 1 to 3 hours. Prerequisite: Graduate standing, Museum Studies majors only, MST 5143 or MST 5083 or equivalent; may be repeated, maximum credit 3 hours. Research under faculty supervision. Development a research project related to Museum Studies. The final project requires a written report. (F, Sp, Su)
MST 5960 Directed Readings in Museum Studies 2-9 Credit Hours 2 to 9 hours. Prerequisite: graduate standing, CAS 5003, and completion of first concentration course; or permission of dean. May be repeated with change of content; maximum credit 9 hours. In-depth study of literature on a topic related to the student's program of study; variable content. (F, Sp, Su)

MST 5970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing, CAS 5003, and completion of first concentration course; or permission of dean. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

## MST 5980 Research for Master's Thesis <br> 2-9 Credit Hours

2 to 9 hours. Prerequisite: graduate standing, CAS 5003, CAS 5013, and completion of first concentration core course; or permission of dean. May be repeated; maximum credit six hours. Research and writing of a thesis for completion of PACS graduate degrees. (F, Sp, Su)
MST 5990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing, CAS 5003, and completion of first concentration course; or permission of dean. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)
OL 5013 Interdisciplinary Foundations for Leadership 3 Credit Hours Prerequisite: Graduate standing. An introduction to the concept of interdisciplinarity as an organizing principle for understanding and interpreting models, theories, and applications of leadership in a variety of organizational settings. Provides selected readings designed to reinforce the interdisciplinary approach to graduate studies in leadership. (F, Sp, Su)
OL 5053 Research Methods in Organizations 3 Credit Hours Prerequisite: Graduate standing. Theories, techniques, and application of research designed to prepare leadership students to understand and respond to applied research involving organizational leadership and organizational settings. (F, Sp, Su)

OL 5113 Theories of Management and Leadership 3 Credit Hours
Prerequisite: graduate standing. This course explores and analyzes the concept of leadership including such topics as leadership theory, changing leadership roles, power, decision-making, empowerment, vision, communication, diversity, and ethics. (F, Sp, Su)

OL 5133 Cultures of Organizations
3 Credit Hours
Prerequisite: graduate standing. The course looks at the meaning of organizational culture and its significance for leadership behavior, ways of thinking about organizations and the structure of organizations, the implications for leaders, and other relationships between organizations and aspects of leadership. (F, Sp, Su)
OL 5153 Ethics in Leadership
3 Credit Hours
Prerequisite: Graduate standing. Students develop their leadership capacity by analyzing ethical considerations in global organizations. Students examine contemporary ethics cases, learning that many decisions fall into gray areas where the right answers may not be clear. By balancing the concepts of ethical reasoning with the organizational factors that influence ethical decision-making, students learn to make informed strategic decisions that affect global operations. (F, Sp, Su)

OL 5173 The Individual and Leadership 3 Credit Hours
Prerequisite: graduate standing. This course explores the social, psychological, and behavioral characteristics of leadership, personal skills that enhance leadership ability, and strategies for dealing with interpersonal problems in organizations. (F, Sp, Su)
OL 5193 Creating, Leading, and Managing Change 3 Credit Hours Prerequisite: Graduate standing. An examination of effective leadership skills necessary to create and manage change in a variety of organizational settings. Topics include leadership styles in change management, organizational change strategies, models, and frameworks, and the potential barriers to change in organizations. (F, Sp, Su)

OL 5203 Leadership Issues in Decision Making 3 Credit Hours
Prerequisite: graduate standing, CAS 5003, and OL 5113; or permission of dean. An interdisciplinary inquiry into the nature and attributes of rational and irrational decision making. Content will include research on how decisions must often be made with incomplete evidence, the use of cognitive psychology in decision making from a human intelligence perspective, and how decisions are made from a social and cultural process. Students will learn leadership decision making from individual, small group, and social environment contexts, as well as values of good decisions and the unintended consequences of poor decisions. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

OL 5223 Financial Leadership
3 Credit Hours
Prerequisite: Graduate standing. Introduces foundational accounting principles and financial concepts for non-financial managers. Topics include analysis of financial reports, communication of financial data to organizational leaders and stakeholders, and financial planning. (F, Sp, Su )

## OL 5243 Project Management

3 Credit Hours
Prerequisite: graduate standing, CAS 5003 and OL 5113; or permission of dean. An interdisciplinary inquiry to simulate as closely as possible the real-world experience of managing a project for a client; the client participates in the grading for the course. Topics include: project planning, project execution, project control, project communication, client relations, performance oriented design, collecting information in the field, current operations analysis, specifications for a proposed solution, devising and evaluating alternatives, and implementation. (F, Sp, Su)

OL 5283 Building High Performance Teams 3 Credit Hours
Prerequisite: Graduate standing. Provides students with the knowledge needed to identify a group's current functioning and build the necessary conditions to create a high-performance team. Explores components of teams and examines the qualities of one who is capable of leading groups of people effectively. (F, Sp, Su)
OL 5313 Organizational Communications 3 Credit Hours Prerequisite: graduate standing, CAS 5003 and OL 5113; or permission of dean. An interdisciplinary inquiry in the role information and knowledge management play in making decisions in organizations, fundamental issues in the management of information, how people in organizations exchange information, and ultimately how effective sharing of information leads to effective problem solving. (F, Sp, Su)

OL 5323 Fundraising and Budgeting
3 Credit Hours
Prerequisite: Graduate standing. Provides students with an overview of the history, philosophy, and ethics of fundraising and development. Students will learn about building relationships, goal setting,
communication, and how to build strategic fundraising plans to support a non-profit organization's vision. (F, Sp, Su)
OL 5333 Motivation in Work and Leadership
3 Credit Hours
Prerequisite: graduate standing. Exploration of personal and work motivation, including discussion of relevant theories and their application in leadership and the workplace. (F, Sp, Su)
OL 5353 Non-Profit Governance
3 Credit Hours
Prerequisite: Graduate standing. Provides students with an overview of key issues involved in the governance of nonprofit organizations and the role of nonprofit boards. Major governance models are examined and implications of using the different models are discussed. (F, Sp, Su)

## OL 5393 Followership

3 Credit Hours
Prerequisite: graduate standing. Introduction to the follower and the dynamics that result from followership in various organizational settings. Topics include theories and definitions of followership, categorization of follower types, and discussion of how followers can be a positive influence against ineffective or bad leadership. (F, Sp, Su)
OL 5403 Leadership in History
3 Credit Hours
Prerequisite: graduate standing. Analysis of leadership principles using prominent examples drawn from history to discern patterns and test categories and theoretical generalizations of leadership. Discussions aim to facilitate the understanding of leadership in different historical contexts. Consideration is given to success and failure, the relative importance of personality vs. circumstances, leadership characteristics and styles. (F, Sp, Su)
OL 5423 Women in Leadership 3 Credit Hours Prerequisite: graduate standing, CAS 5003 and OL 5113; or permission of dean. Exploration of women leaders and their influence on their respective societies, as well as contributions on a broader spectrum. Special attention is focused on how women leaders from different eras became change agents and what particular issues made them transformational leaders. (F, Sp, Su)
OL 5443 Religious Leaders for Social Justice 3 Credit Hours Prerequisite: graduate standing, CAS 5003 and OL 5113; or permission of dean. Focuses on the characteristics of leaders as individuals, and in particular as individuals of faith for causes pertaining to social justice. Explores individuals from the major faith traditions including Christianity, Judaism, Islam, Buddhism, and Native American religion and investigates the ways in which faith and the particular constellation of life experiences and social situations have inspired leadership for the cause of social justice. (F, Sp, Su)

OL 5463 US Military Leadership: Insights and Applications 3 Credit Hours
Prerequisite: graduate standing, CAS 5003 and OL 5113; or permission of dean. Studies leadership, both uniformed and civilian, in the United States military from 1775 to present within the context of the evolution of American military from a small 18th-century army and wooden ship-and-sail navy to the globe-dominating colossus of the late 20th-century. Includes the impact of technology, maturing military theory, and the changing position of the United States in the world that produced diverse leadership styles which are illustrated in the careers of military leaders such as George Washington, U.S. Grant, Robert E. Lee, David Farragut, John Pershing, Hap Arnold, George C. Marshall, and many others. (F, Sp, $\mathrm{Su})$
OL 5483 National Security Leadership
3 Credit Hours
Prerequisite: graduate standing. Discussion of leadership within the environment of the U.S. national security system. Course addresses the legislation that created the current national security system and examines the structure of the national security community, how it has evolved, and how it operates in practice. (F, Sp, Su)
OL 5553 Assessment-Based Coaching 3 Credit Hours
Prerequisite: Graduate standing. An examination of best practices for using assessment results to conduct data-driven leadership and executive coaching and to maximize coaching effectiveness. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

OL 5593 Development and Grant Writing
3 Credit Hours
Prerequisite: Graduate standing. An in-depth exploration of the grant attainment process, including practical exercises in proposal writing and the grant review process. $(\mathrm{F}, \mathrm{Sp}, \mathrm{Su})$

## OL 5700 Advanced Topics in Administrative Leadership 2-9 Credit Hours

2 to 9 hours. Prerequisite: graduate standing. May be repeated with change of content; maximum credit 12 hours. Advanced studies in various administrative leadership topics, offered under stated titles determined each semester by the instructor involved. Intensive research on a topic related to the student's program of study; variable topics. ( $F$, $\mathrm{Sp}, \mathrm{Su}$ )
OL 5903 Experiential Leadership I
3 Credit Hours
Prerequisite: Graduate standing, CAS 5003 and OL 5113; departmental permission and permission from graduate advisor. The course equips students with skills critical to developing strategy and maximizing their impact in leadership roles, and develops advanced leadership tools including those designed to increase an organization's leadership capacity. (F, Sp, Su)
OL 5913 Experiential Leadership II
3 Credit Hours
Prerequisite: Graduate standing, CAS 5003 and OL 5113; permission from graduate advisor. Corequisite: OL 5903. Students critique personal leadership skills, abilities, and strategies to build a productive team through effective planning, coaching, and decision making. (F, Sp, Su)
OL 5920 Internship in Administrative Leadership 2-6 Credit Hours 2 to 6 hours. Prerequisite: graduate standing, CAS 5003, and permission of dean. May be repeated; maximum credit six hours. 2-6 hours.Field experience directly related to study focus in the Administrative Leadership program. Requirements include some combination of journal, progress reports, written summary of experiences, or academic paper, and a possible comprehensive examination over these materials. (F, Sp, Su )

## OL 5953 Graduate Capstone in Organizational Leadership 3 Credit Hours

Prerequisite: Graduate standing, CAS 5003, OL 5903, OL 5113 and departmental permission. Experiential application of leadership development skills, abilities, and strategies to enhance individual leadership performance, build productive teams and organizations through effective strategic planning, employee selection, succession planning, talent management, and training and development. (F, Sp, Su)
OL 5960 Directed Readings in Administrative Leadership 2-9 Credit Hours
2 to 9 hours. Prerequisite: graduate standing, CAS 5003, and completion of first concentration course; or permission of dean. May be repeated with change of content; maximum credit 9 hours. In-depth study of literature on a topic related to the student's program of study; variable content. (F, Sp, Su)
OL 5970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing, CAS 5003, and completion of first concentration course; or permission of dean. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)
OL 5980 Research for Master's Thesis 2-9 Credit Hours 2 to 9 hours. Prerequisite: graduate standing, CAS 5003, CAS 5013, and completion of first concentration course; or permission of dean. May be repeated; maximum credit six hours. Research and writing of a thesis for completion of PACS graduate degrees. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
OL 5990 Independent Study 1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing, CAS 5003, and completion of first concentration course; or permission of dean. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)

## PHCH 2013 Introduction to Public and Community

## Health

3 Credit Hours
Introduction to fields of public and community health, including principles of population health, determinants of health, prevention of disease and disability, public health institutions and systems, essential health services, the US healthcare system, health policy, and the role of advocacy and politics in public health. (F,Sp)
PHCH 3113 Introduction to Epidemiology
3 Credit Hours
Prerequisite: ENGL 1213 or EXPO 1213; PHCH 2013 or concurrent enrollment. Principles of epidemiology, the systematic approach to collecting and evaluating information on distributions of health outcomes in populations; history of epidemiology, descriptive epidemiology, epidemiologic methods, association and causation, evidence-based public health and applications. (F)

## PHCH 3213 Health Policy, Law, and Ethics

3 Credit Hours
Prerequisite: ENGL 1213 or EXPO 1213; PHCH 2013 or concurrent enrollment. Examines the legal and ethical dimensions of public health, preparing students to make informed, ethical decisions in arenas such as policy development, clinical care, research, environmental health, occupational health, resource allocation, and genetics. (Sp)
PHCH 3313 Health Data and Statistics
3 Credit Hours
Prerequisite: ENGL 1213 or EXPO 1213; PHCH 2013 or concurrent enrollment. Introduction to the basic concepts, methods, and tools of public health data collection, use, and analysis. Specific topics may include biostatistical and epidemiological methods, informatics, and the use, management, and dissemination of big data. (Sp)

PHCH 3413 Health Communication
3 Credit Hours
Prerequisite: ENGL 1213 or EXPO 1213; PHCH 2013 or concurrent enrollment. Explores key concepts and strategies of communication specific to public health, including risk communication, the use of mass media for health communication, and evaluation of public health communication effectiveness. (F)
PHCH 3513 Public Health \& Healthcare Systems 3 Credit Hours Prerequisite: ENGL 1213 or EXPO 1213; PHCH 2013 or concurrent enrollment. Designed to introduce students from multiple disciplines to the fundamental characteristics of health care systems; the organization, financing, and delivery of services in the US health care system; the role of prevention and other non-medical factors in population health outcomes; key management and policy issues in contemporary health systems; and the process of public policy development. (F, Sp)

## PHCH 3613 Determinants of Health

3 Credit Hours
Prerequisite: ENGL 1213 or EXPO 1213; PHCH 2013 or concurrent enrollment. Explores key social determinants of health, including: socioeconomic status, race/ethnicity, neighborhood environments, social relationships, and political economy. Mechanisms through which these factors are hypothesized to influence health, such as stress and access to health resources and constraints, will be discussed, as well as the ways in which these mechanisms can operate across the lifecourse. ( $F$, Sp )
PHCH 3960 Honors Reading (HONORS) 1-3 Credit Hours
1 to 3 hours. Prerequisite: Admission to Honors Program; May be repeated; maximum credit six hours. Consists of topics designated by the instructor in keeping with the student's major program. The topics will cover materials not usually presented in the regular courses. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
PHCH 3980 Honors Research
1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Provides an opportunity for the gifted Honors candidate to work at a special project in the student's field. (F, Sp, Su)
PHCH 4013 Community Health Capstone
3 Credit Hours
Prerequisite: PHCH 2013, senior standing, and 9 additional hours of PHCH coursework. Integrates knowledge and skills developed in previous coursework to prepare students to become impactful community health practitioners. Students will work in groups to develop, implement, and evaluate a community health project. (Sp) [V].
PHCH 4103 Environmental Health
3 Credit Hours
Prerequisite: Admission to BPH degree program or permission of instructor. The effects of environment on health. Consideration is given to urban water supply and wastewater disposal, air quality control, solid and hazardous wastes, and sanitation. No students may earn credit for both PHCH 4103 and OEH 5013. (Sp)

## PHCH 4106 Cumulative and Experiential Public Health

## Activities

6 Credit Hours
Prerequisite: Admission to BPH program. Provides students with opportunities to integrate, synthesize, and apply knowledge through cumulative and experiential activities. Students will complete a cumulative applied or scholarly experience that may include either (a) an internship with a local-level public health professional and/or agency or
(b) a faculty-mentored research project. (F, Sp)

PHCH 4113 Public Health Capstone 3 Credit Hours
Prerequisite: Admission to Bachelors of Public Health Program; senior standing. A specialized project-based culminating course for students accepted to the Bachelor's of Public Health program. Students will use knowledge and skills they have developed in their major to complete a project to address a specific public health issue. (Sp) [V].
PHCH 4960 Directed Readings 1-4 Credit Hours
1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean. May be repeated; maximum credit four hours. Designed for upper-division students who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)

## PHCH 4970 Special Topics/Seminar 1-3 Credit Hours

1 to 3 hours. Prerequisite: Senior standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)
PHCH 4990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: three courses in general area to be studied, permission of instructor and department. May be repeated; maximum credit six hours. Contracted independent study for topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (F, Sp, Su)

## Community Health, B.A.

Minimum Total Credit Hours: 120
Major Hours: 33
Minimum Upper-Division Hours: 48

Overall GPA - Combined and OU: 2.00
Major GPA - Combined and OU: 2.00
Program Code: B217

## Major Requirements

- Some courses required for the major may also fulfill University General Education and/or Dodge College of Arts \& Sciences Requirements.
- 33 hours of major work must be completed. A grade of $C$ or better must be earned in each course presented for major and major support credit.

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Public Health Core |  |  |
| PHCH 2013 | Introduction to Public and Community <br> Health | 3 |
| PHCH 3113 | Introduction to Epidemiology | 3 |
| PHCH 3213 | Health Policy, Law, and Ethics | 3 |
| PHCH 3313 | Health Data and Statistics | 3 |
| PHCH 3413 | Health Communication | 3 |
| PHCH 3513 | Public Health \& Healthcare Systems | 3 |
| PHCH 3613 | Determinants of Health | 3 |
| PHCH 4013 | Community Health Capstone | 3 |
| Interdisciplinary | Health |  |

Choose 9 hours from the approved list of courses. (p. 189)

## Major Support Requirements

A grade of C or better must be earned in each course presented for major and major support credit.

| Code | Title |
| :--- | :--- |
|  | Credit |
|  | Hours |

## Personal Computing

B AD $1001 \quad$ Personal Computing Productivity Tools 1

## Total Credit Hours

## General Education and College Requirements

Courses for fulfillment of General Education and Dodge College of Arts \& Sciences requirements must be from the approved General Education course list published in the Class Schedule or at http://www.ou.edu/ gened/courses. Courses graded P/NP will not apply.

## UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS <br> Code Title Credit

Core Area I: Symbolic and Oral Communication
English Composition (6 hours)
ENGL 1113 Principles of English Composition ..... 3
ENGL 1213 Principles of English Composition ..... 3
or EXPO 1213 Expository Writing
Language (0-13 hours in the same language)
The college requirement cannot be met by high school
coursework.
Beginning Course ..... 0-5
Beginning Course, continued ..... 0-5
Intermediate Course (2000 level) ${ }^{1,2}$ ..... 0-3
Mathematics (3 hours)
Choose one course from the General Education Mathematics ..... 3

list

Core Area II: Natural Science (7 hours, including one laboratory component)
Biological Science
Choose an approved General Education Natural Science ..... 3-4course with one of the following prefixes: BIOL, HES, MBIO, orPBIO ${ }^{1}$
Physical Science
Choose an approved General Education Natural Science ..... 3-4
course with one of the following prefixes: AGSC, ASTR, CHEM,GEOG, GEOL, GPHY, METR, or PHYS ${ }^{1}$
Core Area III: Social Science (6 hours)
PSC 1113 American Federal Government ..... 3
Choose one course from the General Education Social ..... 3
Science list
Core Area IV: Arts and Humanities (18 hours)
Artistic Formslist


## Free Electives

Electives to bring total applicable hours to the minimum total required for the degree including 48 upper-division hours.

## Information Concerning General Rules, Regulations and Minimum Requirements

Arts and Sciences Hours: At least 80 semester hours of liberal arts and sciences courses are required for a BA degree. At least 55 semester hours of liberal arts and sciences courses are required for a BS degree. Pass/No Pass Enrollment: A maximum of 16 semester hours of free elective credit may be attempted under this option.
Individual Studies (e.g., courses titled "Independent Study"): A maximum of 12 total semester hours may be counted toward graduation, excluding Honors Reading and Honors Research.
P.E. Courses: No physical education activity courses will be counted toward the 120 semester hours of acceptable credit for graduation. Senior Institution Hours: A minimum of 60 semester hours applied toward graduation must be earned at senior (4-year) institutions.

## Residency:

- At least 15 of the final 30 hours applied toward the degree or at least 50 percent of the hours required by the institution in the major field must be satisfactorily completed at the awarding institution.
- At least 15 semester hours of upper-division major work must be completed in residence at OU.
- OU correspondence courses are not considered resident credit.

Grade Point Averages: Students must earn a minimum over all 2.00 for each of the following: Combined Retention GPA (all college grades), OU Retention GPA, GPA for all major courses, and GPA for all major courses taken at OU. Some schools and departments of the College have higher minimum grade point averages required for their students.

## 3 Suggested Semester Plan of Study

This plan shows one possible grouping of courses that would allow students to graduate in four years. Please refer to the front of the degree checksheet for official requirements. Students must consult with Dodge College of Arts and Sciences and/or Community Health academic advisors to verify that courses selected each semester fulfill the recommended plan and satisfy University, College of Arts and Sciences, and Community Health major requirements.

## Freshman

| First Semester |  | Credit <br> Hours |
| :--- | ---: | ---: |
| ENGL 1113 | Principles of English Composition (Core I) | 3 |
| HIST 1483 | United States to 1865 (Core IV) | 3 |
| or HIST 1493 | or United States, 1865 to the Present | 3 |
| Math (Core I) |  | 3 |
| First Year Experience (Core V) | 3 |  |
| Natural Science without Lab (Core II) | $\mathbf{3}$ |  |
|  | Credit Hours | $\mathbf{1 5}$ |

## Second Semester

Beginning Language (Core I) 5

| ENGL 1213 <br> or EXPO 1213 | Principles of English Composition (Core I) | or Expository Writing |
| :---: | :---: | :---: |

Natural Science with Lab (Core II) 4
Social Science (Core III) 3

Sophomore
First Semester

| PHCH 2013Introduction to Public and Community <br> Health | 3 |
| :--- | ---: |
| Beginning Language continued (Core I) | 5 |
| Artistic Forms (Core IV) | 3 |
| Western Culture (Core IV) | 3 |
| Credit Hours | $\mathbf{1 4}$ |

## Second Semester

| PHCH 3513 | Public Health \& Healthcare Systems | 3 |
| :--- | :--- | ---: |
| B AD 1001 | Personal Computing Productivity Tools | 1 |
| P SC 1113 | American Federal Government | 3 |
| Intermediate Language | 3 |  |
| World Culture (Core IV) | 3 |  |
| Free Elective (lower-division) | 3 |  |
| Credit Hours | $\mathbf{1 6}$ |  |

Junior
First Semester
PHCH 3113 Introduction to Epidemiology 3
PHCH 3413 Health Communication 3

Arts \& Humanities, upper-division (3000-4000-level), outside 3
major (Gen.Ed.)
Free Elective (Upper- or Lower-division) 3

| Free Elective (Upper- or Lower-division) | 3 |
| :---: | ---: |
| Credit Hours | 15 |

## Second Semester

PHCH 3213 Health Policy, Law, and Ethics 3
PHCH 33133

| Arts \& Humanities, upper-division (3000-4000-level), outside major (Gen.Ed.) | 3 |
| :---: | :---: |
| Free Elective (Upper- or Lower-division) | 3 |
| Free Elective (Upper- or Lower-division) | 3 |
| Credit Hours | 15 |
| Senior |  |
| First Semester |  |
| PHCH 3613 Determinants of Health | 3 |
| Approved Major Electives, Upper-division (3000-4000-level) | 3 |
| Approved Major Electives, Upper-division (3000-4000-level) | 3 |
| Free Elective (Upper-division) | 3 |
| Free Elective (Upper-division) | 3 |
| Credit Hours | 15 |
| Second Semester |  |
| PHCH 4013 Community Health Capstone | 3 |
| Approved Major Elective | 3 |
| Free Elective (Upper-division) | 3 |
| Free Elective (Upper-division) | 3 |
| Free Elective (Upper-division) | 3 |
| Credit Hours | 15 |
| Total Credit Hours | 120 |

## Community Health, B.S.

Minimum Total Credit Hours: 120
Major Hours: 30
Minimum Upper-Division Hours: 48
Overall GPA - Combined and OU: 2.00
Major GPA - Combined and OU: 2.00
Program Code: B218

## Major Requirements

- Some courses required for the major may also fulfill University General Education and/or Dodge College of Arts \& Sciences Requirements.
- 30 hours of major work must be completed. A grade of $\mathbf{C}$ or better must be earned in each course presented for major and major support credit.

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Public Health Core | 3 |  |
| PHCH 2013 | Introduction to Public and Community <br> Health | 3 |
| PHCH 3113 | Introduction to Epidemiology | 3 |
| PHCH 3213 | Health Policy, Law, and Ethics | 3 |
| PHCH 3313 | Health Data and Statistics | 3 |
| PHCH 3413 | Health Communication | 3 |
| PHCH 3513 | Public Health \& Healthcare Systems | 3 |
| PHCH 3613 | Determinants of Health | 3 |
| PHCH 4013 | Community Health Capstone |  |
| Major Electives |  |  |


| Choose 6 hours from the approved list of courses. (p. 189) |  | 6 |
| :---: | :---: | :---: |
| Total Credit Hours |  | 30 |
| Major Support Requirements |  |  |
| A grade of C or better must be earned in each course presented for major and major support credit. |  |  |
| Code | Title | Credit Hours |
| Chemistry |  |  |
| CHEM 1315 | General Chemistry | 5 |
| CHEM 1415 | General Chemistry (Continued) | 5 |
| CHEM 3053 | Organic Chemistry I: Biological Emphasis | 3 |
| CHEM 3152 | Organic Chemistry Laboratory: Biological Emphasis | 2 |
| CHEM 3153 or CHEM 3653 | Organic Chemistry II: Biological Emphasis Introduction to Biochemistry | 3 |
| Biology |  |  |
| BIOL 1124 | Intro Biol: Molecule/Cell/Phys | 4 |
| BIOL 1134 | Introductory Biology: Evolution, Ecology and Diversity | 4 |
| Mathematics |  |  |
| MATH 1743 | Calculus I for Business, Life and Social Sciences | 3 |
| or MATH 1823 | Calculus and Analytic Geometry I |  |

Total Credit Hours 29

## General Education and College Requirements

Courses for fulfillment of General Education and Dodge College of Arts \& Sciences requirements must be from the approved General Education course list published in the Class Schedule or at http://www.ou.edu/ gened/courses. Courses graded P/NP will not apply.

## UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND

 COLLEGE REQUIREMENTSCode Title Credit Hours
Core Area I: Symbolic and Oral Communication
English Composition (6 hours)
ENGL 1113 Principles of English Composition 3
ENGL 1213 Principles of English Composition 3
or EXPO 1213 Expository Writing
Language (0-13 hours in the same language)
The college requirement cannot be met by high school coursework.
Beginning Course 0-5
$\begin{array}{ll}\text { Beginning Course, continued } & 0-5\end{array}$
$\begin{array}{ll}\text { Intermediate Course (2000 level) }^{1,2} & 0-3\end{array}$
Mathematics (3 hours)
Choose one course from the General Education Mathematics 3
list
Core Area II: Natural Science (7 hours, including one
laboratory component)
Biological Science


## Free Electives

Electives to bring total applicable hours to the minimum total required for the degree including 48 upper-division hours.

## Information Concerning General Rules, Regulations and Minimum Requirements

Arts and Sciences Hours: At least 80 semester hours of liberal arts and sciences courses are required for a BA degree. At least 55 semester hours of liberal arts and sciences courses are required for a BS degree.
Pass/No Pass Enrollment: A maximum of 16 semester hours of free elective credit may be attempted under this option.
Individual Studies (e.g., courses titled "Independent Study"): A maximum of 12 total semester hours may be counted toward graduation, excluding Honors Reading and Honors Research.
P.E. Courses: No physical education activity courses will be counted toward the 120 semester hours of acceptable credit for graduation.

Senior Institution Hours: A minimum of 60 semester hours applied toward graduation must be earned at senior (4-year) institutions.
Residency:

- At least 15 of the final 30 hours applied toward the degree or at least 50 percent of the hours required by the institution in the major field must be satisfactorily completed at the awarding institution.
- At least 15 semester hours of upper-division major work must be completed in residence at OU.
- OU correspondence courses are not considered resident credit.

Grade Point Averages: Students must earn a minimum over all 2.00 for each of the following: Combined Retention GPA (all college grades), OU Retention GPA, GPA for all major courses, and GPA for all major courses taken at OU. Some schools and departments of the College have higher minimum grade point averages required for their students.

## Suggested Semester Plan of Study

This plan shows one possible grouping of courses that would allow students to graduate in four years. Please refer to the front of the degree checksheet for official requirements. Students must consult with Dodge College of Arts and Sciences and/or Community Health academic advisors to verify that courses selected each semester fulfill the recommended plan and satisfy University, College of Arts and Sciences, and Community Health major requirements.

## Freshman

| First Semester |  | Credit <br> Hours |
| :--- | :--- | ---: |
| ENGL 1113 | Principles of English Composition (Core I) | 3 |
| HIST 1483 | United States to 1865 (Core IV) |  |
| or HIST 1493 | or United States, 1865 to the Present |  |
| MATH 1743 | Calculus I for Business, Life and Social |  |
| or MATH 1823 | Sciences <br> or Calculus and Analytic Geometry I | 3 |
| BIOL 1124 | Intro Biol: Molecule/Cell/Phys | 3 |
| First Year Experience (Core V) | 4 |  |
|  | Credit Hours | 3 |

## Second Semester

| CHEM 1315 | General Chemistry | 5 |
| :--- | :--- | :--- |
| ENGL 1213 <br> or EXPO 1213 | Principles of English Composition (Core I) <br> or Expository Writing | 3 |
| BIOL 1134 | Introductory Biology: Evolution, Ecology <br> and Diversity | 4 |

Social Science (Core III) 3

## Sophomore

First Semester
CHEM 1415 General Chemistry (Continued) 5
PHCH 2013 Introduction to Public and Community 3
Beginning Language (Core I) 5

| Understanding Artistic Forms (Core IV) | 3 |
| :---: | ---: |
| Credit Hours | 16 |

## Second Semester

CHEM 3053 Organic Chemistry I: Biological Emphasis 3

| P SC 1113 | American Federal Government (Core III) | 3 |
| :---: | :---: | :---: |
| Beginning Language continued (Core I) |  | 5 |
|  | Credit Hours | 14 |
| Junior |  |  |
| First Semester |  |  |
| CHEM 3153 or CHEM 3653 | Organic Chemistry II: Biological Emphasis or Introduction to Biochemistry | 3 |
| CHEM 3152 | Organic Chemistry Laboratory. Biological Emphasis | 2 |
| PHCH 3113 | Introduction to Epidemiology | 3 |
| PHCH 3413 | Health Communication | 3 |
| Intermediate Language |  | 3 |
|  | Credit Hours | 14 |
| Second Semester |  |  |
| PHCH 3213 | Health Policy, Law, and Ethics | 3 |
| PHCH 3313 | Health Data and Statistics | 3 |
| World Culture (Core IV) |  | 3 |
| Arts \& Humanities, upper-division (3000-4000-level), outside major (Gen.Ed.) |  | 3 |
| Free Elective (Upper- or Lower-division) |  | 3 |
|  | Credit Hours | 15 |
| Senior |  |  |
| First Semester |  |  |
| PHCH 3613 | Determinants of Health | 3 |
| Arts \& Humanities, upper-division (3000-4000-level), outside major (Gen.Ed.) |  | 3 |
| Western Culture (Core IV) |  | 3 |
| Approved Major Elective, upper-division (3000-4000-level) |  | 3 |
| Free Electives (Upper-division) |  | 3 |
|  | Credit Hours | 15 |
| Second Semester |  |  |
| PHCH 4013 | Community Health Capstone | 3 |
| Approved Major Elective |  | 3 |
| Free Elective (Upper-division) |  | 3 |
| Free Elective (Upper-division) |  | 3 |
| Free Elective (Upper-division) |  | 3 |
|  | Credit Hours | 15 |
|  | Total Credit Hours | 120 |

## Latinx Studies, B.A.

Minimum Total Credit Hours: 120
Major Hours: 30
Minimum Upper-Division Hours: 48
Upper-Division Hours Within Major. 15
Overall GPA - Combined and OU: 2.00
Major GPA - Combined and OU: 2.00
Program Code: B631

## Major Requirements

- Some courses required for the major may also fulfill University General Education and /or Dodge College of Arts \& Sciences Requirements.


## - A grade of $C$ or better is required in all major requirements. <br> - The Dodge College of Arts \& Sciences General Education Language Requirement must be met with Spanish.

| Code | Title | Credit <br> Hours |
| :---: | :---: | :---: |
| Latinx Courses |  |  |
| HIST 2613 | Colonial Hispanic American History, 1492-1810 | 3 |
| HIST 2623 | Modern Latin America 1810-Present | 3 |
| $\begin{aligned} & \text { ENGL } 2273 \\ & \text { or HIST } 2573 \end{aligned}$ | Literary and Cultural Analysis The History Sleuth | 3 |
| ENGL 2883 | American Literature II | 3 |
| P SC 3073 | Immigration Politics | 3 |
| In-Depth Courses |  |  |
| Choose four cou Courses list, with courses in each | ses from the Latinx Studies In-Depth at least one course but no more than two ategory (p. 181) | 12 |
| Community Project, Research Project, Study Abroad, or Additional In-Depth Course |  |  |
| Choose one of th | following: | 3 |
| A community project for credit (to be approve by the program director) |  |  |
| A research project for credit (to be approved by the program director) |  |  |
| A study abroad experience in a Spanish-speaking country |  |  |
| An additional | pper-division course from In-Depth Courses |  |

## Total Credit Hours

## Latinx Studies In-Depth Courses

Some course options in In-Depth Courses may require additional hours of pre-requisite coursework.

| Code | Title | Credit Hours |
| :---: | :---: | :---: |
| Literature \& Culture |  |  |
| H R 3413 | Cultural Awareness in Human Relations | 3 |
| FMS 3243 | Hispanic Cinema | 3 |
| SPAN 3853 | Introduction to Hispanic Literature and Culture | 3 |
| SPAN 4143 | Transatlantic Literature and Culture | 3 |
| SPAN 4173 | Regional Literature and Cultures ${ }^{1}$ | 3 |
| SPAN 4503 | Hispanic Cinema Studies | 3 |
| Another 3000 or 4000 -level course with significant Latino literature or cultural content (with approval of the program director) |  |  |
| Race \& Gender |  |  |
| PHIL 3753 | Philosophy of Race | 3 |
| SOC 3623 | Sociology of Race and Ethnicity | 3 |
| SOC 3653 |  | 3 |
| SOC 3903 | The Sociology of Urban Street Gangs | 3 |
| WGS/LGBT 3263 | LGBTQ Movements | 3 |
| WGS 4970 | Special Topics in WGS (Latina Feminism/ Sexuality) ${ }^{1}$ | 1-4 |

Another 3000 or 4000-level course with significant race, gender, or sexuality content (with approval of the program director)

## Politics \& Society

ECON 4513 The Economics of Discrimination 3
HR 4013 Social Change Process 3
P SC $3020 \quad$ Problems in American Government and 1-3
P SC 3543 United States-Latin American Relations 3

P SC 4283 American Constitutional Law II: Civil Rights 3
and Civil Liberties
SOC 3353 Race, Class and Gender 3
S WK 3323 Human Diversity and Social Justice 3
WGS 3123 Social Justice and Social Change 3
Another 3000 or 4000-level course with significant political, social, or historical content (with approval of the program director)
${ }^{1}$ Courses with varying content must have topics approved by the program director.

## General Education and College Requirements

Courses for fulfillment of General Education and Dodge College of Arts \& Sciences requirements must be from the approved General Education course list published in the Class Schedule or at http://www.ou.edu/ gened/courses. Courses graded P/NP will not apply.

## UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS

Code Title Credit

Core Area I: Symbolic and Oral Communication
English Composition (6 hours)
ENGL 1113 Principles of English Composition 3
ENGL 1213 Principles of English Composition 3
or EXPO 1213 Expository Writing
Language (0-13 hours in the same language)
The college requirement cannot be met by high school
coursework.

Beginning Course 0-5
$\begin{array}{ll}\text { Beginning Course, continued } & 0-5\end{array}$
$\begin{array}{ll}\text { Intermediate Course (2000 level) }^{1,2} & 0-3\end{array}$
Mathematics (3 hours)
Choose one course from the General Education Mathematics
3 list

Core Area II: Natural Science (7 hours, including one laboratory component)

## Biological Science

Choose an approved General Education Natural Science

## course with one of the following prefixes: BIOL, HES, MBIO, or

PBIO ${ }^{1}$
Physical Science
Choose an approved General Education Natural Science 3-4 course with one of the following prefixes: AGSC, ASTR, CHEM, GEOG, GEOL, GPHY, METR, or PHYS ${ }^{1}$
Core Area III: Social Science (6 hours)
P SC 1113 American Federal Government ..... 3
Choose one course from the General Education Social ..... 3
Science list
Core Area IV: Arts and Humanities (18 hours)
Artistic Forms
Choose one course from the General Education Artistic Forms 3
list
Western Culture
HIST 1483 United States to 1865
or HIST 1493 United States, 1865 to the Present
Choose one course from the General Education Western 3
Culture list (excluding HIST 1483/1493)
World Culture
Choose one course from the General Education World Culture 3
list
Additional Core IV Upper-Division Arts \& Humanities courses
Choose one course from Artistic Forms, Western Culture, or
World Culture ${ }^{1,3}$
Choose one course from Artistic Forms, Western Culture, or 3
World Culture ${ }^{1,3}$
Core Area V: First Year Experience (3 hours)
Choose one course 3
Total Credit Hours 56
${ }^{1}$ College of Arts and Sciences Requirements: college requirements are not automatically fulfilled by a previous degree.
2 One course at the intermediate level or demonstrated competency at that level
${ }^{3} 6$ upper-division hours, 2 courses, at the 3000-4000-level. Must be outside the major.

## Free Electives

Electives to bring total applicable hours to the minimum total required for the degree including 48 upper-division hours.

## Information Concerning General Rules, Regulations and Minimum Requirements

Arts and Sciences Hours: At least 80 semester hours of liberal arts and sciences courses are required for a BA degree. At least 55 semester hours of liberal arts and sciences courses are required for a BS degree. Pass/No Pass Enrollment: A maximum of 16 semester hours of free elective credit may be attempted under this option.
Individual Studies (e.g., courses titled "Independent Study"): A maximum of 12 total semester hours may be counted toward graduation, excluding Honors Reading and Honors Research.
P.E. Courses: No physical education activity courses will be counted toward the 120 semester hours of acceptable credit for graduation. Senior Institution Hours: A minimum of 60 semester hours applied toward graduation must be earned at senior (4-year) institutions. Residency:

- At least 15 of the final 30 hours applied toward the degree or at least 50 percent of the hours required by the institution in the major field must be satisfactorily completed at the awarding institution.
- At least 15 semester hours of upper-division major work must be completed in residence at OU.
- OU correspondence courses are not considered resident credit.

Grade Point Averages: Students must earn a minimum over all 2.00 for each of the following: Combined Retention GPA (all college grades), OU Retention GPA, GPA for all major courses, and GPA for all major courses taken at OU. Some schools and departments of the College have higher minimum grade point averages required for their students.

## Suggested Semester Plan of Study

This plan shows one possible grouping of courses that would allow students to graduate in four years. Please refer to the front of the degree checksheet for official requirements. Students must consult with Dodge College of Arts and Sciences and/or Latinx Studies program academic advisors to verify that courses selected each semester fulfill the recommended plan and satisfy University, College of Arts and Sciences, and Latinx Studies major requirements.

## Freshman

| First Semester |  | Credit |
| :---: | :---: | :---: |
| ENGL 1113 | Principles of English Composition (Core I) | 3 |
| HIST 1483 or HIST 1493 | United States to 1865 (Core IV) or United States, 1865 to the Present | 3 |
| HIST 2613 | Colonial Hispanic American History, 1492-1810 (Core IV Western Culture) | 3 |
| SPAN 1115 | Beginning Spanish (Core I) | 5 |
| Free Elective, lower-division |  | 1 |
|  | Credit Hours | 15 |
| Second Semester |  |  |
| ENGL 1213 or EXPO 1213 | Principles of English Composition (Core I) or Expository Writing | 3 |
| SPAN 1225 | Beginning Spanish (Continued) (Core I) | 5 |
| First Year Experience (Core V) |  | 3 |
| Natural Science with lab (Core II) |  | 4 |
|  | Credit Hours | 15 |


| Sophomore |  |  |
| :--- | :--- | ---: |
| First Semester |  | 3 |
| Math (Core I) | Literary and Cultural Analysis |  |
| ENGL 2273 |  |  |
| or HIST 2573 | or The History Sleuth | 3 |
| ENGL 2883 | American Literature II | 3 |
| SPAN 2113 | Intermediate Spanish | 3 |
| P SC 1113 | American Federal Government (Core III) | 3 |
|  | Credit Hours | $\mathbf{1 5}$ |

## Second Semester

P SC 3073 Immigration Politics 3

HIST 2623 Modern Latin America 1810-Present 3
Natural Science without lab (Core II) 3
Social Science (Core III) 3
Artistic Forms (Core IV) 3

Credit Hours 15

## Junior

First Semester
In Depth Course

| In Depth Course | 3 |
| :---: | :---: |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Credit Hours | 15 |
| Second Semester |  |
| In Depth Course | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Credit Hours | 15 |
| Senior |  |
| First Semester |  |
| Community Project/Research Project/Study Abroad/In Depth Course | 3 |
| Arts \& Humanities, upper-division, outside major (Gen. Ed.) | 3 |
| World Culture (Core IV) | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Credit Hours | 15 |
| Second Semester |  |
| In Depth Course | 3 |
| Arts \& Humanities, upper-division, outside major (Gen. Ed.) | 3 |
| Free Elective, lower- or upper-division | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Credit Hours | 15 |
| Total Credit Hours | 120 |

## Planned Program, B.A.

Minimum Total Credit Hours: 120
Major Hours: 36
Minimum Upper-Division Hours: 48

Overall GPA - Combined and OU: 2.00
Major GPA - Combined and OU: 2.00
Program Code: B785 P511

## - 48 Upper-Division Hours Required.

- Some courses required for the major may also fulfill University General Education and/or Dodge College of Arts \& Sciences Requirements


## Major Requirements

Every candidate for this degree must select an area of concentration, which is a set of courses with a coherent theme that meets the student's professional and personal goals. These courses must total a minimum of 36 credit hours, with a minimum of 50 percent of those hours completed at the upper-division level (3000-4000-level). Courses selected as fulfilling the major requirements must be reviewed by an academic counselor in the College of Arts and Sciences and approved by the Dean.

## General Education and College Requirements

Courses for fulfillment of General Education and Dodge College of Arts \& Sciences requirements must be from the approved General Education course list published in the Class Schedule or at http://www.ou.edu/ gened/courses. Courses graded P/NP will not apply.

## UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS <br> Code Title Credit

Core Area I: Symbolic and Oral Communication
English Composition (6 hours)
ENGL 1113 Principles of English Composition 3
ENGL 1213 Principles of English Composition 3
or EXPO 1213 Expository Writing
Language (0-13 hours in the same language)
The college requirement cannot be met by high school coursework.
Beginning Course 0-5
Beginning Course, continued 0-5
Intermediate Course (2000 level) ${ }^{1,2} \quad 0-3$
Mathematics (3 hours)
Choose one course from the General Education Mathematics
list
Core Area II: Natural Science (7 hours, including one laboratory component)

Biological Science
Choose an approved General Education Natural Sciencecourse with one of the following prefixes: BIOL, HES, MBIO, or PBIO ${ }^{1}$
Physical Science
Choose an approved General Education Natural Science 3-4 course with one of the following prefixes: AGSC, ASTR, CHEM, GEOG, GEOL, GPHY, METR, or PHYS ${ }^{1}$

Core Area III: Social Science (6 hours)
P SC 1113 American Federal Government 3

Choose one course from the General Education Social 3 Science list

Core Area IV: Arts and Humanities (18 hours)
Artistic Forms
Choose one course from the General Education Artistic Forms
list
Western Culture
HIST $1483 \quad$ United States to 1865
or HIST 1493 United States, 1865 to the Present
Choose one course from the General Education Western
Culture list (excluding HIST 1483/1493)
World Culture
Choose one course from the General Education World Culture list

Additional Core IV Upper-Division Arts \& Humanities courses
Choose one course from Artistic Forms, Western Culture, or

Choose one course from Artistic Forms, Western Culture, or

Core Area V: First Year Experience (3 hours)
Choose one course
Total Credit Hours
${ }^{1}$ College of Arts and Sciences Requirements: college requirements are not automatically fulfilled by a previous degree.
${ }^{2}$ One course at the intermediate level or demonstrated competency at that level
${ }^{3} 6$ upper-division hours, 2 courses, at the 3000-4000-level. Must be outside the major.

## Free Electives

Electives to bring total applicable hours to the minimum total required for the degree including 48 upper-division hours.

## Information Concerning General Rules, Regulations and Minimum Requirements

Arts and Sciences Hours: At least 80 semester hours of liberal arts and sciences courses are required for a BA degree. At least 55 semester hours of liberal arts and sciences courses are required for a BS degree. Pass/No Pass Enrollment: A maximum of 16 semester hours of free elective credit may be attempted under this option.
Individual Studies (e.g., courses titled "Independent Study"): A maximum of 12 total semester hours may be counted toward graduation, excluding Honors Reading and Honors Research.
P.E. Courses: No physical education activity courses will be counted toward the 120 semester hours of acceptable credit for graduation. Senior Institution Hours: A minimum of 60 semester hours applied toward graduation must be earned at senior (4-year) institutions. Residency:

- At least 15 of the final 30 hours applied toward the degree or at least 50 percent of the hours required by the institution in the major field must be satisfactorily completed at the awarding institution.
- At least 15 semester hours of upper-division major work must be completed in residence at OU.
- OU correspondence courses are not considered resident credit.

Grade Point Averages: Students must earn a minimum over all 2.00 for each of the following: Combined Retention GPA (all college grades), OU Retention GPA, GPA for all major courses, and GPA for all major courses taken at OU. Some schools and departments of the College have higher minimum grade point averages required for their students.

## Suggested Semester Plan of Study

This plan shows one possible grouping of courses that would allow students to graduate in four years. Please refer to the front of the degree checksheet for official requirements. Students must consult with Dodge College of Arts and Sciences academic advisors to verify that courses selected each semester fulfill the recommended plan and satisfy University, College of Arts and Sciences, and Planned Program major requirements.

## Freshman

First Semester $\begin{array}{ll}\text { Credit } \\ & \text { Hours }\end{array}$
ENGL 1113 Principles of English Composition (Core I) 3
P SC 1113 American Federal Government (Core III) 3

| Math (Core I) | 3 |
| :---: | :---: |
| Artistic Forms (Core IV) | 3 |
| First Year Experience (Core V) | 3 |
| Credit Hours | 15 |
| Second Semester |  |
| $\begin{array}{ll} \text { ENGL } 1213 & \text { Principles of English Composition (Core I) } \\ \text { or EXPO 1213 } & \text { or Expository Writing } \end{array}$ | 3 |
| HIST 1483 United States to 1865 (Core IV) <br> or HIST 1493 or United States, 1865 to the Present | 3 |
| Major Requirement, lower-division | 3 |
| Social Science (Core III) | 3 |
| Natural Science without lab (Core II) | 3 |
| Credit Hours | 15 |
| Sophomore |  |
| First Semester |  |
| Beginning Language (Core I) | 5 |
| Natural Science with lab (Core II) | 4 |
| Major Requirement, lower-division | 3 |
| Western Culture (Core IV) | 3 |

## Second Semester

| Beginning Language continued (Core I) | 5 |
| :--- | :---: |
| Major Requirement, lower-division | 3 |
| Major Requirement, lower-division | 3 |
| World Culture (Core IV) | 3 |
| Free Elective, lower-division | $\mathbf{1}$ |
| Credit Hours | $\mathbf{1 5}$ |

## Junior

| First Semester |  |
| :--- | ---: |
| Intermediate Language | 3 |
| Arts \& Humanities, upper-division, outside major (Gen. Ed.) | 3 |
| Major Requirement, upper-division (3000-4000-level) | 3 |
| Major Requirement, upper-division (3000-4000-level) | 3 |
| Free Elective, lower-division | 3 |
| Credit Hours | $\mathbf{1 5}$ |

Second Semester

| Arts \& Humanities, upper-division, outside major (Gen. Ed.) | 3 |
| :--- | :--- |
| Major Requirement, upper-division (3000-4000-level) |  |


| Major Requirement, upper-division (3000-4000-level) | 3 |
| :--- | :--- |
| Major Requirement, upper-division (3000-4000-level) | 3 |

Free Elective, upper-division (3000-4000-level) 3

| Free Elective, upper-division (3000-4000-level) | 3 |
| :---: | ---: |
| Credit Hours | 15 |

## Senior

| First Semester |  |
| :--- | ---: |
| Major Requirement, upper-division (3000-4000-level) | 3 |
| Major Requirement, upper-division (3000-4000-level) | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Credit Hours | $\mathbf{1 5}$ |

## Second Semester

Major Requirement, upper-division (3000-4000-level)

| Major Requirement, upper-division (3000-4000-level) | 3 |
| :--- | ---: |
| Major Requirement, upper-division (3000-4000-level) | 3 |
| Free Elective, lower- or upper-division | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Credit Hours | $\mathbf{1 5}$ |
| Total Credit Hours | $\mathbf{1 2 0}$ |

## Planned Program, B.S.

Minimum Total Credit Hours: 120
Major Hours: 36
Minimum Upper-Division Hours: 48
Overall GPA - Combined and OU: 2.00
Major GPA - Combined and OU: 2.00

## Program Code: B786 P511

- 48 Upper-Division Hours Required.
- Some courses required for the major may also fulfill University General Education and/or Dodge College of Arts \& Sciences Requirements.


## Major Requirements

Every candidate for this degree must select an area of concentration, which is a set of courses with a coherent theme that meets the student's professional and personal goals. These courses must total a minimum of 36 credit hours, with a minimum of 50 percent of those hours completed at the upper-division level (3000-4000-level). Courses selected as fulfilling the major requirements must be reviewed by an academic counselor in the College of Arts and Sciences and approved by the Dean.

## General Education and College Requirements

Courses for fulfillment of General Education and Dodge College of Arts \& Sciences requirements must be from the approved General Education course list published in the Class Schedule or at http://www.ou.edu/ gened/courses. Courses graded P/NP will not apply.

## UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS

Code Title Credit

## Core Area I: Symbolic and Oral Communication

English Composition (6 hours)
ENGL 1113 Principles of English Composition 3
ENGL 1213 Principles of English Composition 3
or EXPO 1213 Expository Writing
Language (0-13 hours in the same language)
The college requirement cannot be met by high school coursework.
Beginning Course 0-5
$\begin{array}{ll}\text { Beginning Course, continued } & 0-5\end{array}$
$\begin{array}{ll}\text { Intermediate Course (2000 level) }{ }^{1,2} & 0-3\end{array}$
Mathematics (3 hours)
Choose one course from the General Education Mathematics 3
list
Core Area II: Natural Science (7 hours, including one
laboratory component)

| Biological Science |  |
| :---: | :---: |
| Choose an approved General Education Natural Science course with one of the following prefixes: BIOL, HES, MBIO, or PBIO ${ }^{1}$ | 3-4 |
| Physical Science |  |
| Choose an approved General Education Natural Science course with one of the following prefixes: AGSC, ASTR, CHEM, GEOG, GEOL, GPHY, METR, or PHYS ${ }^{1}$ | 3-4 |
| Core Area III: Social Science (6 hours) |  |
| P SC 1113 American Federal Government | 3 |
| Choose one course from the General Education Social Science list | 3 |
| Core Area IV: Arts and Humanities (18 hours) |  |
| Artistic Forms |  |
| Choose one course from the General Education Artistic Forms list | 3 |
| Western Culture |  |
| HIST 1483 United States to 1865 <br> or HIST 1493 United States, 1865 to the Present | 3 |
| Choose one course from the General Education Western Culture list (excluding HIST 1483/1493) | 3 |
| World Culture |  |
| Choose one course from the General Education World Culture list | 3 |
| Additional Core IV Upper-Division Arts \& Humanities courses |  |
| Choose one course from Artistic Forms, Western Culture, or World Culture ${ }^{1,3}$ | 3 |
| Choose one course from Artistic Forms, Western Culture, or World Culture ${ }^{1,3}$ | 3 |
| Core Area V: First Year Experience (3 hours) |  |
| Choose one course | 3 |
| Total Credit Hours | 6 |
| ${ }^{1}$ College of Arts and Sciences Requirements: college requirements are not automatically fulfilled by a previous degree. <br> ${ }^{2}$ One course at the intermediate level or demonstrated competency at that level <br> ${ }^{3} 6$ upper-division hours, 2 courses, at the 3000-4000-level. Must be outside the major. |  |
| Free Electives |  |
| Electives to bring total applicable hours to the minimum total required for the degree including 48 upper-division hours. |  |
| Information Concerning General Rules, Regulations and Minimum Requirements |  |
| Arts and Sciences Hours: At least 80 semester hours of liberal arts and sciences courses are required for a BA degree. At least 55 semester hours of liberal arts and sciences courses are required for a BS degree. |  |
| Individual Studies (e.g., courses titled "Independent Study"): A maximum of 12 total semester hours may be counted toward graduation, excluding Honors Reading and Honors Research. |  |

Senior Institution Hours: A minimum of 60 semester hours applied toward graduation must be earned at senior (4-year) institutions. Residency:

- At least 15 of the final 30 hours applied toward the degree or at least 50 percent of the hours required by the institution in the major field must be satisfactorily completed at the awarding institution.
- At least 15 semester hours of upper-division major work must be completed in residence at OU .
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## Suggested Semester Plan of Study

This plan shows one possible grouping of courses that would allow students to graduate in four years. Please refer to the front of the degree checksheet for official requirements. Students must consult with Dodge College of Arts and Sciences academic advisors to verify that courses selected each semester fulfill the recommended plan and satisfy University, College of Arts and Sciences, and Planned Program major requirements.

## Freshman

| First Semester |  | Credit <br> Hours |
| :--- | ---: | ---: |
| ENGL 1113 | Principles of English Composition (Core I) | 3 |
| P SC 1113 | American Federal Government (Core III) | 3 |
| Math (Core I) | 3 |  |
| Artistic Forms (Core IV) | 3 |  |
| First Year Experience (Core V) | 3 |  |
| Credit Hours | $\mathbf{3}$ |  |

Second Semester
ENGL $1213 \quad$ Principles of English Composition (Core I) 3
or EXPO 1213 or Expository Writing
HIST 1483 United States to 1865 (Core IV) 3
or HIST 1493 or United States, 1865 to the Present
Major Requirement, lower-division 3
Social Science (Core III) 3
Natural Science without lab (Core II) 3
Credit Hours 15

## Sophomore

First Semester
Beginning Language (Core I) 5
Natural Science with lab (Core II) 4
Major Requirement, lower-division 3
Western Culture (Core IV) 3
Credit Hours 15

## Second Semester

Beginning Language continued (Core I) 5
Major Requirement, lower-division 3
Major Requirement, lower-division 3
Free Elective, lower-division 1

| World Culture (Core IV) | 3 |
| :---: | :---: |
| Credit Hours | 15 |
| Junior |  |
| First Semester |  |
| Intermediate Language | 3 |
| Arts \& Humanities, upper-division, outside major (Gen. Ed.) | 3 |
| Major Requirement, upper-division (3000-4000-level) | 3 |
| Major Requirement, upper-division (3000-4000-level) | 3 |
| Free Elective, lower-division | 3 |
| Credit Hours | 15 |
| Second Semester |  |
| Arts \& Humanities, upper-division, outside major (Gen. Ed.) | 3 |
| Major Requirement, upper-division (3000-4000-level) | 3 |
| Major Requirement, upper-division (3000-4000-level) | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Credit Hours | 15 |
| Senior |  |
| First Semester |  |
| Major Requirement, upper-division (3000-4000-level) | 3 |
| Major Requirement, upper-division (3000-4000-level) | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Credit Hours | 15 |
| Second Semester |  |
| Major Requirement, upper-division (3000-4000-level) | 3 |
| Major Requirement, upper-division (3000-4000-level) | 3 |
| Major Requirement, upper-division (3000-4000-level) | 3 |
| Free Elective, lower- or upper-division | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Credit Hours | 15 |
| Total Credit Hours | 120 |

## Public Health, B.P.H.

Minimum Total Credit Hours: 120
Major Hours: 42
Minimum Upper-Division Hours: 48

Overall GPA - Combined and OU: 3.25
Major GPA - Combined and OU: 3.25

## Program Code: B810

- 48 Upper-Division Hours Required
- Some courses required for the major may also fulfill University General Education and/or Dodge College of Arts \& Sciences Requirements.


## Major Requirements

42 hours of major work must be completed. A grade of C or better must be earned in each course presented for major and major support credit.

| Code | Title | Credit <br> Hours |
| :---: | :---: | :---: |
| Public Health Core |  |  |
| PHCH 2013 | Introduction to Public and Community Health | 3 |
| PHCH 3113 | Introduction to Epidemiology | 3 |
| PHCH 3213 | Health Policy, Law, and Ethics | 3 |
| PHCH 3313 | Health Data and Statistics | 3 |
| PHCH 3413 | Health Communication | 3 |
| PHCH 3513 | Public Health \& Healthcare Systems | 3 |
| PHCH 3613 | Determinants of Health | 3 |
| PHCH 4103 | Environmental Health ${ }^{1}$ | 3 |
| PHCH 4113 | Public Health Capstone | 3 |
| PHCH 4106 | Cumulative and Experiential Public Health Activities | 6 |
| Major Electives |  |  |
| Choose 9 hours from the approved list of courses maintained by the PHCH Program (p. 189) ${ }^{2}$ |  | 9 |
| Total Credit Hours |  | 42 |
| ${ }^{2}$ Students may take up to 9 hours of electives from appropriate graduate courses in the College of Public Health, with permission of the College of Public Health advisor. |  |  |
| Major Support Requirements |  |  |
| A grade of $C$ or better must be earned in each course presented for major and major support credit. |  |  |
| Code | Title | Credit |
|  |  | Hours |
| Chemistry |  |  |
| CHEM 1315 | General Chemistry | 5 |
| CHEM 1415 | General Chemistry (Continued) | 5 |
| CHEM 3053 | Organic Chemistry I: Biological Emphasis | 3 |
| CHEM 3152 | Organic Chemistry Laboratory. Biological Emphasis | 2 |
| Biology |  |  |
| BIOL 1124 | Intro Biol: Molecule/Cell/Phys | 4 |
| BIOL 1134 | Introductory Biology: Evolution, Ecology and Diversity | 4 |
| Mathematics |  |  |
| MATH 1743 | Calculus I for Business, Life and Social Sciences | 3 |
| or MATH 1823 | Calculus and Analytic Geometry I |  |

Total Credit Hours

## General Education and College Requirements

Courses for fulfillment of General Education and Dodge College of Arts \& Sciences requirements must be from the approved General Education course list published in the Class Schedule or at http://www.ou.edu/ gened/courses. Courses graded P/NP will not apply.

## UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS <br> Code Title

Core Area I: Symbolic and Oral Communication

| English Composition (6 hours) |  |
| :---: | :---: |
| ENGL 1113 Principles of English Composition | 3 |
| $\begin{array}{ll}\text { ENGL } 1213 & \text { Principles of English Composition } \\ \text { or EXPO } 1213 & \text { Expository Writing }\end{array}$ | 3 |
| Language (0-13 hours in the same language) |  |
| The college requirement cannot be met by high school coursework. |  |
| Beginning Course | 0-5 |
| Beginning Course, continued | 0-5 |
| Intermediate Course (2000 level) ${ }^{1,2}$ | 0-3 |
| Mathematics (3 hours) |  |
| Choose one course from the General Education Mathematics list | 3 |
| Core Area II: Natural Science (7 hours, including one laboratory component) |  |
| Biological Science |  |
| Choose an approved General Education Natural Science course with one of the following prefixes: BIOL, HES, MBIO, or PBIO ${ }^{1}$ | 3-4 |
| Physical Science |  |
| Choose an approved General Education Natural Science course with one of the following prefixes: AGSC, ASTR, CHEM, GEOG, GEOL, GPHY, METR, or PHYS ${ }^{1}$ | 3-4 |
| Core Area III: Social Science (6 hours) |  |
| P SC 1113 American Federal Government | 3 |
| Choose one course from the General Education Social | 3 |

## Science list

Core Area IV: Arts and Humanities (18 hours)

## Artistic Forms

Choose one course from the General Education Artistic Forms 3
list

## Western Culture

| HIST 1483 | United States to 1865 |
| :---: | :--- |
| or HIST 1493 | United States, 1865 to the Present |

Choose one course from the General Education Western
Culture list (excluding HIST 1483/1493)

## World Culture

Choose one course from the General Education World Culture
Additional Core IV Upper-Division Arts \& Humanities courses
Choose one course from Artistic Forms, Western Culture, or

## World Culture ${ }^{1,3}$

Choose one course from Artistic Forms, Western Culture, or 3
World Culture ${ }^{1,3}$
Core Area V: First Year Experience (3 hours)
Choose one course

## Total Credit Hours

[^2]${ }^{2}$ One course at the intermediate level or demonstrated competency at that level
${ }^{3} 6$ upper-division hours, 2 courses, at the 3000-4000-level. Must be outside the major.

## Free Electives

Electives to bring total applicable hours to the minimum total required for the degree including 48 upper-division hours.

## Information Concerning General Rules, Regulations and Minimum Requirements

Arts and Sciences Hours: At least 80 semester hours of liberal arts and sciences courses are required for a BA degree. At least 55 semester hours of liberal arts and sciences courses are required for a BS degree. Pass/No Pass Enrollment: A maximum of 16 semester hours of free elective credit may be attempted under this option.
Individual Studies (e.g., courses titled "Independent Study"): A maximum of 12 total semester hours may be counted toward graduation, excluding Honors Reading and Honors Research.
P.E. Courses: No physical education activity courses will be counted toward the 120 semester hours of acceptable credit for graduation.
Senior Institution Hours: A minimum of 60 semester hours applied toward graduation must be earned at senior (4-year) institutions.
Residency:

- At least 15 of the final 30 hours applied toward the degree or at least 50 percent of the hours required by the institution in the major field must be satisfactorily completed at the awarding institution.
- At least 15 semester hours of upper-division major work must be completed in residence at OU.
- OU correspondence courses are not considered resident credit.

Grade Point Averages: Students must earn a minimum over all 2.00 for each of the following: Combined Retention GPA (all college grades), OU Retention GPA, GPA for all major courses, and GPA for all major courses taken at OU. Some schools and departments of the College have higher minimum grade point averages required for their students.

## Suggested Semester Plan of Study

This plan shows one possible grouping of courses that would allow students to graduate in four years. Please refer to the front of the degree checksheet for official requirements. Students must consult with Dodge College of Arts and Sciences and/or Public Health academic advisors to verify that courses selected each semester fulfill the recommended plan and satisfy University, College of Arts and Sciences, and Public Health major requirements.

## Freshman

First Semester Credit Hours
ENGL 1113 Principles of English Composition (Core I) 3
HIST 1483 United States to 1865 (Core IV) 3
or HIST 1493 or United States, 1865 to the Present
MATH 1743 Calculus I for Business, Life and Social or MATH 1823 Sciences
or Calculus and Analytic Geometry I
BIOL 1124 Intro Biol: Molecule/Cell/Phys 4

| First Year Experience (Core V) |  | 3 |
| :---: | :---: | :---: |
|  | Credit Hours | 16 |
| Second Semester |  |  |
| CHEM 1315 | General Chemistry | 5 |
| $\begin{aligned} & \text { ENGL } 1213 \\ & \text { or EXPO } 1213 \end{aligned}$ | Principles of English Composition (Core I) or Expository Writing | 3 |
| BIOL 1134 | Introductory Biology: Evolution, Ecology and Diversity | 4 |
| Social Science (Core III) |  | 3 |
|  | Credit Hours | 15 |
| Sophomore |  |  |
| First Semester |  |  |
| CHEM 1415 | General Chemistry (Continued) | 5 |
| PHCH 2013 | Introduction to Public and Community Health | 3 |
| Beginning Language (Core I) |  | 5 |
| Artistic Forms (Core IV) |  | 3 |
|  | Credit Hours | 16 |
| Second Semester |  |  |
| CHEM 3053 | Organic Chemistry I: Biological Emphasis | 3 |
| PHCH 3513 | Public Health \& Healthcare Systems | 3 |
| P SC 1113 | American Federal Government (Core III) | 3 |
| Beginning Language continued (Core I) |  | 5 |
|  | Credit Hours | 14 |
| Junior |  |  |
| First Semester |  |  |
| CHEM 3152 | Organic Chemistry Laboratory. Biological Emphasis | 2 |
| PHCH 3113 | Introduction to Epidemiology | 3 |
| PHCH 3413 | Health Communication | 3 |
| Intermediate Language |  | 3 |
| Free Elective (Upper- or Lower-Division) |  | 3 |
|  | Credit Hours | 14 |


| Second Semester |  |  |
| :---: | :---: | :---: |
| PHCH 3213 | Health Policy, Law, and Ethics | 3 |
| PHCH 3313 | Health Data and Statistics | 3 |
| World Culture (Core IV) |  | 3 |
| Arts \& Humanities, upper-division (3000-4000-level), outside major (Gen. Ed.) |  | 3 |
| Free Elective (Upper-division) |  | 3 |
|  | Credit Hours | 15 |

## Senior

| First Semester |  |
| :---: | :---: |
| PHCH 3613 Determinants of Health | 3 |
| Arts \& Humanities, upper-division (3000-4000-level), outside major (Gen. Ed.) | 3 |
| Western Culture (Core IV) | 3 |
| Approved Major Electives, upper-division (3000-4000-level) | 6 |
| Credit Hours | 15 |


| Second Semester |  |  |
| :--- | :--- | :--- |
| PHCH 4103 | Environmental Health | 3 |
| PHCH 4106 | Cumulative and Experiential Public Health | 6 |
|  | Activities |  |


| PHCH 4113 | Public Health Capstone |
| :---: | ---: |
| Approved Major Elective | 3 |
| Credit Hours | $\mathbf{1 5}$ |
| Total Credit Hours | $\mathbf{1 2 0}$ |

## Approved Public Health \& Community Health Major Electives

## - For the most current course list, please contact the Public Health \& Community Health Program.

| Code | Title | Credit <br> Hours |
| :---: | :---: | :---: |
| AFAM 4423 | African American Health Issues | 3 |
| AFAM 4443 | African American Mental Health | 3 |
| ANTH 1913 | Plagues and People: Health and Disease in Human Society | 3 |
| ANTH 4223 | The Anthropology of Childhood | 3 |
| ANTH 4323 | The Anthropology of Aging | 3 |
| ANTH 4423 | Introduction to Population Genetics | 3 |
| ANTH 4593 | Anthropology of Human Reproduction | 3 |
| ANTH 4643 | Psychiatric Anthropology | 3 |
| ANTH 4723 | Gender and Health | 3 |
| ANTH 4823 | Medical Anthropology | 3 |
| ANTH 4903 | Race and Ethnicity | 3 |
| BIOL 2913 | Intro to Quantitative Biology | 3 |
| CL C 2413 | Medical Vocabulary | 3 |
| COMM 3313 | Communication and Public Health | 3 |
| COMM 4413 | Issues in Health Communication | 3 |
| ECON 3213 | Environmental Economics | 3 |
| ECON 3523 | Health Economics | 3 |
| ENGL 1913 | Writing for the Health Professions | 3 |
| ENST 3423 | Anthropogenic Contaminants and Environmental Health | 3 |
| FR 2253 | Health, Medicine, and the Environment in French Culture | 3 |
| HES 1823 | Scientific Principles of Health and Disease | 3 |
| HES 2823 | Introductory Nutrition | 3 |
| HES 2913 | Personal Health | 3 |
| HES 3513 | Health Promotion Program Planning | 3 |
| HES 3523 | Human Sexuality | 3 |
| HES 3543 | Health and Wellness Coaching | 3 |
| HES 3553 | Wellness in Native Communities | 3 |
| HES 3583 | Sociocultural Aspects of Health | 3 |
| HES 4503 | Principles of Community Health | 3 |
| HES 4513 | Public Policy Impact on Health Promotion | 3 |
| HES 4523 | Human Sexuality II | 3 |
| HES 4573 | Chronic Disease Intervention | 3 |
| HIST 3273 | Of Acupuncture, Medicine Men \& Ayurveda: Indigenous \& Non-Western Medicine in Perspective | 3 |
| HMS 1113 | Introduction to Health, Medicine and Society | 3 |
| HSTM 3243 | Women and Medicine | 3 |


| HSTM 3263 | History of Public Health | 3 |
| :--- | :--- | ---: |
| HSTM 3413 | Biomedical Ethics | 3 |
| HSTM 3423 | Modern Medicine - A Historical Introduction | 3 |
| HSTM 3533 | Science and Global Politics in the Modern <br>  <br>  <br> Era: Cross-Cultural Perspectives | 3 |
| LSLC 3133 | Lifespan Health | 3 |
| MBIO 4823 | Pathogenic Microbiology and Infectious <br>  <br>  <br> Disease | 3 |
| NAS 4333 | American Indian Health Issues and <br>  <br> Concerns | 3 |
| PHIL 1263 | Introduction to Ethics in Health Care | 3 |
| P SC 3170 | Problems in Public Administration (Topic: | $1-3$ |
|  | Emergency Preparedness and Response) |  |
| P SC 3233 | Environmental Policy and Administration | 3 |
| PSY 1113 | Elements of Psychology | 3 |
| PSY 2603 | Lifespan Development | 3 |
| PSY 3703 | Social Psychology | 3 |
| PSY 3803 | Physiological Psychology | 3 |
| SOC 3643 | Population and Society | 3 |
| SOC 3893 | Environment, Ecology and Society | 3 |
| SPAN 3733 | Medical Spanish | 3 |
| WGS 3943 | Women's Health | 3 |
| WGS 4473 | Women and Mental Health | 3 |

## Applied Statistics, Minor

Minimum Total Credit Hours: 18
Minimum Upper-Division Hours: 9
Program Code: N031
The requirements for a minor must be completed concurrently with the major degree requirements.

## No minor may be added by completing courses after receiving the bachelor's degree.

At least six (6) credit hours must be earned in courses acceptable for residence credit by standards set forth by the Dodge College of Arts and Sciences, excluding transfer, correspondence, and examination (AP, CLEP, Advanced Standing) credit. Courses for the minor may not be taken Pass/ No Pass.

No single course may be used by a student to satisfy a major requirement and a minor requirement. A course may be used, however, to satisfy both a major support requirement and a minor requirement.

Requests to substitute a minor requirement must be approved in writing by the Dodge College of Arts and Sciences.

## Required Courses

- No more than 6 credits hours may be taken from courses offered by the Gallogly College of Engineering (i.e., CS and/or DSA courses).

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| MATH 1743 | Calculus I for Business, Life and Social | 3 |
| or MATH 1823 | Calculus and Analytic Geometry I |  |
| Sciences |  |  |


| Choose 3 hours in Introductory Statistics (p.190) ${ }^{1}$ | 3 |
| :---: | :---: |
| Choose 3 hours in Intermediate Statistics (p.190) ${ }^{1}$ | 3 |
| Choose 3 hours in Research Methods, Experimental Design, or Linear Algebra (p. 190) ${ }^{1}$ | 3 |
| Choose 3 hours in Statistical Computing (p. 190) ${ }^{1}$ | 3 |
| Choose 3 hours in Applied Statistics Experience or Advanced Elective (p. 190) ${ }^{1}$ | 3 |
| Total Credit Hours | 18 |
| ${ }^{1}$ Lists of courses approved for each of these categories are by the Data Scholarship Program. |  |
| Minors in the Dodge College of Arts \& Sciences are availabl undergraduate students at OU. If the minor is officially decl successfully completed, and noted on the graduation applic student's transcript will so indicate at the time the bachelor's is posted. |  |

## Applied Statistics Minor Course Lists

For the most current lists of approved courses in these categories, please consult the Data Scholarship Program.

## Introductory Statistics

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| 3, 4, or 5 on the Advanced Placement Statistics exam |  |  |
| ANTH 4713 | Statistical Concepts in Anthropology | 3 |
| BIOL 2913 | Intro to Quantitative Biology | 3 |
| COMM 2513 | Introduction to Statistics | 3 |
| ECON 2843 | Elements of Statistics | 3 |
| GEOG 3923 | Quantitative Methods | 3 |
| METR 4313 | Statistical Meteorology | 3 |
| PHCH 3313 | Health Data and Statistics | 3 |
| P SC 2013 | Introduction to Political Analysis | 3 |
| PSY 2003 | Understanding Statistics | 3 |
| SOC/P SC 3123 | Social Statistics | 3 |
| S WK 2223 | Statistics for Social Work | 3 |

## Intermediate Statistics

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| ECON 4223 | Econometric Analysis | 3 |
| MATH 4743 | Introduction to Mathematical Statistics | 3 |
| MATH 4773 | Applied Regression Analysis | 3 |
| PSY 3003 | Advanced Undergraduate Statistics | 3 |


| Experimental |  |  |
| :--- | :--- | ---: |
| Code | Design/Research Methods/Linear Algebra |  |
| Title | Credit <br> Hours |  |
| BIOL 4913 | Quantitative Biology | 3 |
| MATH 3333 | Linear Algebra I | 3 |
| PSY 3114 | Research Methods: Applications and <br> Experimental Design |  |
| SOC 3133 | Methods of Social Research | 4 |
|  |  | 3 |


| S WK 4083 | Undergraduate Social Work Research Methods I | 3 |
| :---: | :---: | :---: |
| S WK 4093 | Undergraduate Social Work Research Methods II | 3 |
| Statistical Computing |  |  |
| Code | Title | Credit |
| ASTR 3190 | Topics in Astronomy (topic: Introduction to Research) | Hours |
| C S 1213 | Programming for Non-Majors with Python | 3 |
| C S 1313 | Programming for Non-Majors with C | 3 |
| C S 1321 | Java for Programmers | 1 |
| C S 1323 | Introduction to Computer Programming for Programmers | 3 |
| C S 1324 | Introduction to Computer Programming for Non-Programmers | 4 |
| LIS 4643 | Introduction to Data Analytics | 3 |
| MBIO/PBIO 4783 | Introduction to Python Programming for Data Analytics | 3 |
| METR 1313 | Introduction to Programming for Meteorology | 3 |
| PSY 2503 | Computing for Behavioral Sciences | 3 |

## Applied Statistics Experience or Advanced Elective

Most of the advanced electives require instructor permission and many disciplinary-specific prerequisites that should be met or specifically discussed with the instructor prior to enrollment. Upon or before enrollment, students will need to identify a faculty member affiliated with the Data Scholarship Program who can supervise their internship, independent study, or research experience.

To fulfill this requirement, the course must include a data-related project with a written report. Students will submit a DSP Project Experience Course Approval Form for approval before the end of the free add/drop period. Alternatively, an additional course can be taken from among listed courses in the previous categories AND that includes a substantial project that includes data analysis, visualization, and interpretation and a discussion of any ethical considerations with respect to the topic and data. In this case, students will submit a DSP Project Experience Course Approval Form to describe the project in the course.

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| BIOL 4913 | Quantitative Biology | 3 |
| BIOL 4943 | Multivariate Analysis | 3 |
| CAS 4630 | CAS Internship | 3 |
| CAS 4990 | Independent Study (with a DSP faculty <br> affiliate or with an approved, applied <br> statistical research component) | 3 |
|  | Data Analytics and Applied Statistics | 3 |
| DSP 4983 | Research Experience | 3 |
| MATH 4743 | Spatial Statistics | 3 |
| MATH 4803 | Topics in Mathematics | 3 |
| MATH 4753 | Applied Statistical Methods | 3 |
| MATH 4773 | Applied Regression Analysis | 3 |


| MATH 4793 | Advanced Applied Statistics | 3 |
| :--- | :--- | :--- |
| PSY 4023 | Psychological Test and Measurements | 3 |

## Data Analytics, Minor

## Minimum Total Credit Hours: 18

Minimum Upper-Division Hours: 9
Program Code: N284
The requirements for a minor must be completed concurrently with the major degree requirements.

No minor may be added by completing courses after receiving the bachelor's degree.

At least six (6) credit hours must be earned in courses acceptable for residence credit by standards set forth by the Dodge College of Arts and Sciences, excluding transfer, correspondence, and examination (AP, CLEP, Advanced Standing) credit. Courses for the minor may not be taken Pass/ No Pass.

No single course may be used by a student to satisfy a major requirement and a minor requirement. A course may be used, however, to satisfy both a major support requirement and a minor requirement.

Requests to substitute a minor requirement must be approved in writing by the Dodge College of Arts and Sciences.

## Required Courses

- No more than 6 credits hours may be taken from courses offered by the Gallogly College of Engineering (i.e., CS and/or DSA courses).

| Code Title | Credit |
| :---: | :---: |
|  | Hours |
| Choose 3 hours in Introductory Statistics (p. 192) ${ }^{1}$ | 3 |
| Choose 3 hours in Programming for Data Analytics (p. 192) 1 | 3 |
| Choose 9 hours in Data-Oriented Electives (p. 192) ${ }^{1,2}$ | 9 |
| Choose 3 hours in Project-Oriented Data Analytics Experience (p. 192) ${ }^{1,3}$ | 3 |

Total Credit Hours
${ }^{1}$ Lists of courses approved for each of these categories are maintained by the Data Scholarship Program.
2 For students following the Data Science and Analytics Preparatory Track, the electives will include MATH 3333, and one of the following programming courses: C S 1213, C S 1323, C S 1324, or C S 2334.
${ }^{3}$ Completion or concurrent enrollment of all other minor requirements is required prior to enrollment in this course.
For students following the Data Science and Analytics Preparatory Track, the Project-Oriented Data Analytics Experience will be a codingintensive data analytics project.

- Minors in the Dodge College of Arts \& Sciences are available to all undergraduate students at OU. If the minor is officially declared, successfully completed, and noted on the graduation application, the student's transcript will so indicate at the time the bachelor's degree is posted.


## Data Analytics Minor Course Lists

For the most current lists of approved courses in these categories, please consult the Data Scholarship Program.

## Introductory Statistics

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| ANTH 4713 | Statistical Concepts in Anthropology | 3 |
| BIOL 2913 | Intro to Quantitative Biology | 3 |
| BIOL 4913 | Quantitative Biology | 3 |
| COMM 2513 | Introduction to Statistics | 3 |
| ECON 2843 | Elements of Statistics | 3 |
| GEOG 3923 | Quantitative Methods | 3 |
| MATH 4743 | Introduction to Mathematical Statistics | 3 |
| METR 4313 | Statistical Meteorology | 3 |
| PHCH 3313 | Health Data and Statistics | 3 |
| P SC 2013 | Introduction to Political Analysis | 3 |
| PSY 2003 | Understanding Statistics | 3 |
| SOC/P SC 3123 | Social Statistics | 3 |
| S WK 2223 | Statistics for Social Work | 3 |

## Programming for Data Analytics



## Data-Oriented Electives

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Qualitative Data-related Skills |  |  |
| ENGL 3163 | Rhetoric and the Digital Humanities | 3 |
| GEOG 3513 | Political Geography |  |
| LIS 3063 | Essentials of IT \& Informatics | 3 |
| LIS 4453 | Digital Collections | 3 |
| LIS 4613 | Dynamic Web Development | 3 |


| LIS 4673 | Introduction to Information Visualization | 3 |
| :---: | :---: | :---: |
| LIS 4683 | Database Design for Information Organizations | 3 |
| LIS 4693 | Information Retrieval and Text Mining | 3 |
| LIS 4970 | Special Topics/Seminar (topic: Data Stewardship) | 3 |
| LIS/WGS/LTRS/ HIST/HSTM 4970 | Special Topics/Seminar (topic: Cultural Heritage Data and Social Engagement) | 3 |
| LIS 4970 | Special Topics/Seminar (topic: Introduction to Mobile App Development) | 1-3 |
| MBIO/PBIO 3673 | Practical Bioinformatics * | 3 |
| NAS 4153 | Indigenous Mapping: Issues in Data Sovereignty and Security | 3 |
| Applied Computing |  |  |
| ASTR 3190 | Topics in Astronomy (topic: Introduction to Research) | 3 |
| C S 4033 | Machine Learning Fundamentals | 3 |
| GIS 4233 | Digital Image Processing | 3 |
| GIS 4453 | Advanced GIS and Spatial Analysis | 3 |
| ENGL 3163 | Rhetoric and the Digital Humanities | 3 |
| LIS 4623 | Advanced Data Analytics | 3 |
| LIS 4643 | Introduction to Data Analytics | 3 |
| LIS/WGS/LTRS/ HIST/HSTM 4970 | Special Topics/Seminar (topic: Cultural Heritage Data and Social Engagement) | 3 |
| MBIO/PBIO 4783 | Introduction to Python Programming for Data Analytics | 3 |
| METR 1313 | Introduction to Programming for Meteorology * | 3 |
| METR 4330 | Information Technology Skills for Meteorology | 3 |
| PSY 2503 | Computing for Behavioral Sciences | 3 |
| Mathematics and Computing Skills |  |  |
| C S 1213 | Programming for Non-Majors with Python | 3 |
| C S 1313 | Programming for Non-Majors with C | 3 |
| C S 1321 | Java for Programmers | 1 |
| C S 1323 | Introduction to Computer Programming for Programmers | 3 |
| C S 1324 | Introduction to Computer Programming for Non-Programmers | 4 |
| MATH 3333 | Linear Algebra I | 3 |
| Intermediate Statistics \& Experimental Design |  |  |
| BIOL 4913 | Quantitative Biology | 3 |
| ECON 4223 | Econometric Analysis | 3 |
| ECON 4773 | Economic Game Theory | 3 |
| GIS 4923 | Spatial Statistics | 3 |
| MATH 4743 | Introduction to Mathematical Statistics | 3 |
| MATH 4753 | Applied Statistical Methods | 3 |
| MATH 4773 | Applied Regression Analysis | 3 |
| PSY 3114 | Research Methods: Applications and Experimental Design | 4 |
| SOC 3133 | Methods of Social Research | 3 |
| S WK 4083 | Undergraduate Social Work Research Methods I ${ }^{*}$ | 3 |


| S WK 4093 | Undergraduate Social Work Research <br> Methods II |
| :--- | :--- | Methods II

* Designates introduction/gateway courses that would be good to take prior to others in the minor.


## Project/Applied Data Analytics Experience

Most of the advanced electives require instructor permission and many disciplinary-specific prerequisites that should be met or specifically discussed with the instructor prior to enrollment. Upon or before enrollment, students will need to identify a faculty member affiliated with the Data Scholarship Program who can supervise their internship, independent study, or research experience.

To fulfill this requirement, the course must include a data-related project with a written report. Students will submit a DSP Project Experience Course Approval Form for approval before the end of the free add/drop period. Alternatively, an additional course can be taken from among listed courses in the previous categories AND that includes a substantial project that includes data analysis, visualization, and interpretation and a discussion of any ethical considerations with respect to the topic and data. In this case, students will submit a DSP Project Experience Course Approval Form to describe the project in the course.

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| CAS 4630 CAS Internship <br> DSP 4983 Data Analytics and Applied Statistics <br> Research Experience <br> CAS 4990 Independent Study (with a DSP faculty <br> affiliate or with an approved, applied data <br> analytics component) <br> An additional course can be taken from among listed courses <br> in the previous categories AND that includes a substantial <br> project that includes data analysis, visualization, and <br> interpretation and a discussion of any ethical considerations <br> with respect to the topic and data. In this case, the project <br> report must be submitted to the Data Scholarship Program for <br> final approval. 3 |  |  |

## Enterprise Studies, Minor

Minimum Total Credit Hours: 18
Minimum Upper-Division Hours: 9

## Program Code: N390

The requirements for a minor must be completed concurrently with the major degree requirements.

No minor may be added by completing courses after receiving the bachelor's degree.

At least six (6) credit hours must be earned in courses acceptable for residence credit by standards set forth by the Dodge College of Arts and Sciences, excluding transfer, correspondence, and examination (AP, CLEP, Advanced Standing) credit. Courses for the minor may not be taken Pass/ No Pass.

No single course may be used by a student to satisfy a major requirement and a minor requirement. A course may be used, however, to satisfy both a major support requirement and a minor requirement.

Requests to substitute a minor requirement must be approved in writing by the Dodge College of Arts and Sciences.

## Required Courses

Students must successfully complete at least 18 credit hours, including at least nine (9) credit hours at the upper-division level.

A grade of $C$ or better must be earned in each course counted for minor credit.

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| B AD 2113 | Introduction to Business I | 3 |
| MGT 2013 | Introduction to Management <br> or MKT 2013 <br> Introduction to Marketing and Supply Chain <br> Management | 3 |
| COMM 2613 | Public Speaking |  |
| Choose 9 upper-division credit hours from the following: |  |  |

Total Credit Hours
${ }^{1}$ Note: students must meet pre-requisites for enrollment in upper-division classes.

- Minors in the Dodge College of Arts \& Sciences are available to all undergraduate students at OU. If the minor is officially declared, successfully completed, and noted on the graduation application, the student's transcript will so indicate at the time the bachelor's degree is posted.


## International Enterprise Studies, Minor

Minimum Total Credit Hours: 18
Minimum Upper-Division Hours: 9

## Program Code: N604

The requirements for a minor must be completed concurrently with the major degree requirements.

No minor may be added by completing courses after receiving the bachelor's degree.

At least six (6) credit hours must be earned in courses acceptable for residence credit by standards set forth by the Dodge College of Arts and Sciences, excluding transfer, correspondence, and examination (AP, CLEP,

Advanced Standing) credit. Courses for the minor may not be taken Pass/ No Pass.

No single course may be used by a student to satisfy a major requirement and a minor requirement. A course may be used, however, to satisfy both a major support requirement and a minor requirement.

Requests to substitute a minor requirement must be approved in writing by the Dodge College of Arts and Sciences.

## Required Courses

Students must successfully complete at least 18 credit hours, including at least nine (9) credit hours at the upper-division level.

A grade of $C$ or better must be earned in each course counted for minor credit.

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| B AD 2113 | Introduction to Business I | 3 |
| MGT 2013 | Introduction to Management |  |
| or MKT 2013 | Introduction to Marketing and Supply Chain <br>  <br> Management | 3 |
| COMM 2613 | Public Speaking | 3 |
| Choose 9 credit hours of pre-approved upper-division <br> coursework in enterprise studies completed at an institution <br> abroad | $\mathbf{9}$ |  |
| Total Credit Hours | $\mathbf{1 8}$ |  |

## Pre-Approved International Business Courses

The program in International Business with French at Blaise-Pascal University in Clermont Ferrand, France, offers the following courses that fulfill the international component requirement for the International Enterprise Studies minor:

- Doing Business in France
- International Marketing in Europe
- Negotiating in International Markets
- Web Globalization
- International Business Management
- International Trade

Minors in the Dodge College of Arts \& Sciences are available to all undergraduate students at OU. If the minor is officially declared, successfully completed, and noted on the graduation application, the student's transcript will so indicate at the time the bachelor's degree is posted.

## Latinx Studies, Minor

Minimum Total Credit Hours: 18
Minimum Upper-Division Hours: 9

## Program Code: N631

- The requirements for a minor must be completed concurrently with the major degree requirements.
- No minor may be added by completing courses after receiving the bachelor's degree.

At least six (6) credit hours must be earned in courses acceptable for residence credit by standards set forth by the Dodge College of Arts and Sciences, excluding transfer, correspondence, and examination (AP, CLEP, Advanced Standing) credit. Courses for the minor may not be taken Pass/ No Pass.

## No single course may be used by a student to satisfy a major requirement

and a minor requirement. A course may be used, however, to satisfy both a major support requirement and a minor requirement.

Requests to substitute a minor requirement must be approved in writing by the Latina/o/x Studies program.

## Required Courses

Students must successfully complete at least 18 hours of coursework, including at least nine (9) hours at the upper-division level.

A grade of $C$ or better must be earned in each course submitted for minor credit.

The Dodge College of Arts and Sciences language requirement must be met with Spanish.

| Code | Title | Credit <br> Hours |
| :---: | :---: | :---: |
| Core Courses |  |  |
| HIST 2613 | Colonial Hispanic American History, 1492-1810 | 3 |
| HIST 2623 | Modern Latin America 1810-Present | 3 |
| $\begin{aligned} & \text { ENGL } 2273 \\ & \text { or HIST } 2573 \end{aligned}$ | Literary and Cultural Analysis The History Sleuth | 3 |
| In-Depth Courses |  |  |
| Choose one course in each area from the In-Depth Courses list ( p .194 ) |  |  |
| Literature \& Culture |  |  |
| Race \& Gender |  |  |
| Politics \& Society |  |  |
| Total Credit Hours 18 |  |  |
| - Minors in the Dodge College of Arts \& Sciences are available to all undergraduate students at OU. If the minor is officially declared, successfully completed, and noted on the graduation application, the student's transcript will so indicate at the time the bachelor's degree is posted. |  |  |

## Latinx Studies Minor In-Depth Courses

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Literature \& | Culture |  |
| FMS 3243 | Hispanic Cinema | 3 |
| H R 3413 | Cultural Awareness in Human Relations | 3 |
| SPAN 3853 | Introduction to Hispanic Literature and | 3 |
| SPAN 4143 | Culture |  |
| SPAN 4173 | Regional Literature and Cultures |  |


| Another 3000 or 4000 -level course with significant Latino literature or cultural content (with approval of the program director) |  |  |
| :---: | :---: | :---: |
| Race \& Gender |  |  |
| PHIL 3753 | Philosophy of Race | 3 |
| SOC 3623 | Sociology of Race and Ethnicity | 3 |
| SOC 3653 |  | 3 |
| SOC 3903 | The Sociology of Urban Street Gangs | 3 |
| WGS 3263 | LGBTQ Movements | 3 |
| WGS 4970 | Special Topics in WGS ${ }^{1}$ | 1-4 |

Another 3000 or 4000-level course with significant race, gender, or sexuality content (with approval of the program director)

| Politics \& Society |  | 3 |
| :--- | :--- | ---: |
| ECON 4513 | The Economics of Discrimination | 3 |
| H R 4013 | Social Change Process | $1-3$ |
| P SC 3020 | Problems in American Government and <br> Politics ${ }^{1}$ | 3 |
| P SC 3543 | United States-Latin American Relations $^{\text {P SC 4283 }}$ | American Constitutional Law II: Civil Rights <br> and Civil Liberties |
| SOC 3353 | Race, Class and Gender | 3 |
| S WK 3323 | Human Diversity and Social Justice | 3 |
| WGS 3123 | Social Justice and Social Change | 3 |

${ }^{1}$ With varying content-approval of program director.

## Public and Community Health, Minor

Minimum Total Credit Hours: 18
Minimum Upper-Division Hours: 9
Program Code: N808

- The requirements for a minor must be completed concurrently with the major degree requirements.
- No minor may be added by completing courses after receiving the bachelor's degree.

At least six (6) credit hours must be earned in courses acceptable for residence credit by standards set forth by the Dodge College of Arts and Sciences, excluding transfer, correspondence, and examination (AP, CLEP, Advanced Standing) credit. Courses for the minor may not be taken Pass/ No Pass.

No single course may be used by a student to satisfy a major requirement and a minor requirement. A course may be used, however, to satisfy both a major support requirement and a minor requirement.

Requests to substitute a minor requirement must be approved in writing by the Public and Community Health program.

## Required Courses

Students must successfully complete at least 18 hours of coursework, including at least nine (9) hours at the upper-division level.

A grade of $C$ or better must be earned in each course submitted for minor credit.


Minimum Total Credit Hours: 15
Minimum Upper-Division Hours: 8
Program Code: 1028

## Certificate Requirements

- Students must maintain at least a 2.50 GPA for courses applied to the certificate.
- Courses for which a grade of less than C is earned will not apply toward the certificate.
- No more than 6 credits hours may be taken from courses offered by the Gallogly College of Engineering (i.e., C S and/or DSA courses).

The recommended order of course completion is the following: introductory statistics (I), experimental design/research methods/linear algebra (III) and statistical computing (IV), intermediate statistics (II), and applied statistics experience or advanced elective $(\mathrm{V})$.

| Code Title | Credit <br> Hours |
| :---: | :---: |
| Choose one course in Introductory (or more advanced) Statistics (p. 196) ${ }^{1}$ | 3 |
| Choose one upper-division course in Intermediate Statistics (p. 196) ${ }^{1}$ | 3 |
| Choose one upper-division course in Research Methods, Experimental Design, or Linear Algebra (p. 196) ${ }^{1}$ | 3 |
| Choose one course in Statistical Computing (p.196) ${ }^{1}$ | 3 |
| Choose one upper-division Applied Statistics Experience or Advanced Elective (p. 196) ${ }^{1}$ | 3 |

Total Credit Hours
${ }^{1}$ Lists of courses approved for each of these categories are maintained by the Data Scholarship Program.

## Applied Statistics Undergraduate Certificate Course Lists

For the most current lists of approved courses in these categories, please consult the Data Scholarship Program.

Introductory Statistics

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| 3, 4, or 5 on the Advanced Placement Statistics Exam |  |  |
| ANTH 4713 | Statistical Concepts in Anthropology | 3 |
| BIOL 2913 | Intro to Quantitative Biology | 3 |
| COMM 2513 | Introduction to Statistics | 3 |
| ECON 2843 | Elements of Statistics | 3 |
| PHCH 3313 | Health Data and Statistics | 3 |
| PSY 2003 | Understanding Statistics | 3 |
| P SC 2013 | Introduction to Political Analysis | 3 |
| SOC/P SC 3123 | Social Statistics | 3 |
| S WK 2223 | Statistics for Social Work | 3 |
| GEOG 3923 | Quantitative Methods | 3 |
| METR 4313 | Statistical Meteorology | 3 |
| Intermediate | StatisticS | Credit |
| Code | Title | Hours |
|  |  | 3 |
| ECON 4223 | Econometric Analysis | 3 |
| MATH 4743 | Introduction to Mathematical Statistics | 3 |
| MATH 4773 | Applied Regression Analysis | 3 |
| PSY 3003 | Advanced Undergraduate Statistics | 3 |

Research Methods/Experimental Design/Linear Algebra

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| BIOL 4913 | Quantitative Biology | 3 |
| MATH 3333 | Linear Algebra I | 3 |
| PSY 3114 | Research Methods: Applications and <br> Experimental Design | 4 |
| SOC 3133 | Methods of Social Research | 3 |
| S WK 4083 | Undergraduate Social Work Research <br> Methods I | 3 |
| S WK 4093 | Undergraduate Social Work Research <br> Methods II | 3 |

## Statistical Computing

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| C S 1213 | Programming for Non-Majors with Python | 3 |
| C S 1313 | Programming for Non-Majors with C | 3 |
| C S 1321 | Java for Programmers (note course does <br> not meet the 3 credit hours required) | 1 |
| C S 1323 | Introduction to Computer Programming for <br> Programmers | 3 |
| C S 1324 | Introduction to Computer Programming for <br> Non-Programmers | 4 |


| METR 1313 | Introduction to Programming for <br> Meteorology | 3 |
| :--- | :--- | :---: |
| PSY 2503 | Computing for Behavioral Sciences | 3 |
| ASTR 3190 | Topics in Astronomy (topic: Introduction to <br> Research) | 3 |
| LIS 4643 | Introduction to Data Analytics | 3 |
| MBIO/PBIO 4783 | Introduction to Python Programming for | 3 |
|  | Data Analytics |  |

## Applied Statistics Experience/Advanced Elective

Capstone-like course (CAS 4983), Internship, Mentored Research Experience, or Advanced Elective with a major applied statistical component and a written project report.

Most of the advanced electives require instructor permission and many disciplinary-specific prerequisites that should be met or specifically discussed with the instructor prior to enrollment.

To fulfill this requirement, the course must include a data-related project with a written report. Students will submit a DSP Project Experience Course Approval Form for approval before the end of the free add/drop period. Alternatively, an additional course can be taken from among listed courses in the previous categories AND that includes a substantial project that includes data analysis, visualization, and interpretation and a discussion of any ethical considerations with respect to the topic and data. In this case, students will submit a DSP Project Experience Course Approval Form to describe the project in the course.

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| BIOL 4943 | Multivariate Analysis | 3 |
| BIOL 4913 | Quantitative Biology | 3 |
| MATH 4743 | Introduction to Mathematical Statistics | 3 |
| CAS 4630 | CAS Internship | 3 |
| CAS 4990 | Independent Study (with DSP faculty <br> affiliate or with approved applied statistical <br> research component) | 3 |
|  | Data Analytics and Applied Statistics |  |
| DSP 4983 | Research Experience | 3 |
| MATH 4753 | Applied Statistical Methods | 3 |
| MATH 4773 | Applied Regression Analysis | 3 |
| MATH 4793 | Advanced Applied Statistics | 3 |
| MATH 4803 | Topics in Mathematics | 3 |
| PSY 4023 | Psychological Test and Measurements | 3 |
| GIS 4923 | Spatial Statistics | 3 |

## Data Analytics, Undergraduate Certificate

Minimum Total Credit Hours: 15<br>Minimum Upper-Division Hours: 8<br>Program Code: $\mathbf{T 0 9 8}$<br>\section*{Certificate Requirements}<br>- Students must have at least a 2.5 GPA for courses applied to the certificate to earn the certificate.<br>- Courses for which a grade of less than C is earned will not apply toward the certificate.

- Three courses (min 8 credit hours) must be upper division.
- No more than 6 credits hours may be taken from courses offered by the Gallogly College of Engineering (i.e., C S and/or DSA courses).

| Code $\quad$ Title | Credit <br> Hours |
| :--- | ---: | ---: |
| Choose one course in Introductory Statistics (p. 197) |  |${ }^{1} \quad 3$

## Data Analytics Undergraduate Certificate Course Lists

For the most current lists of approved courses in these categories, please consult the Data Scholarship Program.

## Statistics

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| ANTH 4713 | Statistical Concepts in Anthropology | 3 |
| BIOL 2913 | Intro to Quantitative Biology | 3 |
| BIOL 4913 | Quantitative Biology | 3 |
| COMM 2513 | Introduction to Statistics | 3 |
| ECON 2843 | Elements of Statistics | 3 |
| GEOG 3923 | Quantitative Methods | 3 |
| MATH 4743 | Introduction to Mathematical Statistics | 3 |
| METR 4313 | Statistical Meteorology | 3 |
| PHCH 3313 | Health Data and Statistics | 3 |
| P SC 2013 | Introduction to Political Analysis | 3 |
| PSY 2003 | Understanding Statistics | 3 |
| SOC/P SC 3123 | Social Statistics | 3 |
| S WK 2223 | Statistics for Social Work | 3 |

## Programming for Data Analytics

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| ASTR 3190 | Topics in Astronomy (topic: Introduction to <br> Research) | 3 |
| C S 1213 | Programming for Non-Majors with Python | 3 |
| C S 1313 | Programming for Non-Majors with C | 3 |


| C S 1321 | Java for Programmers | 1 |
| :--- | :--- | ---: |
| C S 1323 | Introduction to Computer Programming for <br> Programmers | 3 |
| C S 1324 | Introduction to Computer Programming for  <br>  Non-Programmers | 4 |
| GIS 4453 | Advanced GIS and Spatial Analysis | 3 |
| HSTM/LIS/HIST/ Introduction to Digital Humanities <br> WGS 2033  | 3 |  |
| LIS 4613 | Dynamic Web Development | 3 |
| LIS 4643 | Introduction to Data Analytics | 3 |
| LIS 4970 | Special Topics/Seminar (topic: Introduction <br> to Mobile App Development) | $1-3$ |
| LIS 4633 | Web Design and Implementation |  |
| MBIO/PBIO 4783 | Introduction to Python Programming for <br> Data Analytics | 3 |
| PSY 2503 | Computing for Behavioral Sciences | 3 |

## Data-Oriented Electives

| Code Title | Credit |
| :--- | :--- |
|  | Hours |

Qualitative Data-Related Skills
ENGL $3163 \quad$ Rhetoric and the Digital Humanities
GEOG 3513 Political Geography * 3
LIS 3063 Essentials of IT \& Informatics 3
LIS 4613 Dynamic Web Development 3
LIS 4453 Digital Collections 3
LIS 4673 Introduction to Information Visualization 3

| LIS 4683 | Database Design for Information <br> Organizations | 3 |
| :--- | :--- | :--- |

LIS 4693 Information Retrieval and Text Mining 3
LIS 4970 Special Topics/Seminar (topic: Data 3

Stewardship)
LIS/WGS/LTRS/ Special Topics/Seminar (topic: Cultural 3
HIST/HSTM 4970 Heritage Data and Social Engagement)
LIS 4970 Special Topics/Seminar (topic: Introduction 1-3 to Mobile App Development)
MBIO/PBIO 3673 Practical Bioinformatics * 3
NAS 4153 Indigenous Mapping: Issues in Data 3
Sovereignty and Security
Applied Computing

| ASTR 3190 | Topics in Astronomy (topic: Introduction to <br> Research) | 3 |
| :--- | :--- | :--- |
| C S 4033 | Machine Learning Fundamentals | 3 |
| GIS 4233 | Digital Image Processing | 3 |
| GIS 4453 | Advanced GIS and Spatial Analysis | 3 |
| ENGL 3163 | Rhetoric and the Digital Humanities | 3 |
| LIS 4623 | Advanced Data Analytics | 3 |
| LIS 4643 | Introduction to Data Analytics | 3 |

LIS/WGS/LTRS/ Special Topics/Seminar (topic: Cultural 3
HIST/HSTM 4970 Heritage Data and Social Engagement)
MBIO/PBIO 4783 Introduction to Python Programming for 3 Data Analytics
METR 1313 Introduction to Programming for 3 Meteorology *

| METR 4330 | Information Technology Skills for Meteorology | 3 |
| :---: | :---: | :---: |
| PSY 2503 | Computing for Behavioral Sciences | 3 |
| Mathematics \& Computing Skills |  |  |
| C S 1213 | Programming for Non-Majors with Python | 3 |
| C S 1313 | Programming for Non-Majors with C | 3 |
| C S 1321 | Java for Programmers | 1 |
| C S 1323 | Introduction to Computer Programming for Programmers | 3 |
| C S 1324 | Introduction to Computer Programming for Non-Programmers | 4 |
| MATH 3333 | Linear Algebra I | 3 |
| Intermediate Statistics \& Experimental Design |  |  |
| BIOL 4913 | Quantitative Biology | 3 |
| ECON 4223 | Econometric Analysis | 3 |
| ECON 4773 | Economic Game Theory | 3 |
| GIS 4923 | Spatial Statistics | 3 |
| MATH 4743 | Introduction to Mathematical Statistics | 3 |
| MATH 4753 | Applied Statistical Methods | 3 |
| MATH 4773 | Applied Regression Analysis | 3 |
| PSY 3114 | Research Methods: Applications and Experimental Design | 4 |
| SOC 3133 | Methods of Social Research | 3 |
| S WK 4083 | Undergraduate Social Work Research Methods I * | 3 |
| S WK 4093 | Undergraduate Social Work Research Methods II | 3 |

* Designates introduction/gateway courses that would be good to take prior to others in the minor/certificate.


## Project/Applied Data Analytics Experience

4000-level Instructor and program-approved, applied data analytics experience with an ethics component (e.g., Internship, Mentored Research Experience, Capstone-like course)

To fulfill this requirement, the course must include a data-related project with a written report. Students will submit a DSP Project Experience Course Approval Form for approval before the end of the free add/drop period. Alternatively, an additional course can be taken from among listed courses in the previous categories AND that includes a substantial project that includes data analysis, visualization, and interpretation and a discussion of any ethical considerations with respect to the topic and data. In this case, students will submit a DSP Project Experience Course Approval Form to describe the project in the course.

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| CAS 4630 | CAS Internship | 3 |
| DSP 4983 | Data Analytics and Applied Statistics <br> Research Experience | 3 |
| CAS 4990 | Independent Study (pre-approved <br> computing project) | 3 |

With approval, an additional course can be taken from among listed courses in the previous categories AND that includes a substantial project that includes data analysis, visualization, and interpretation and a discussion of any ethical considerations with respect to the topic and data. In this case, the project report must be submitted to the Data Scholarship Program for final approval.

## Community Health B.A./Epidemiology, M.P.H.

Minimum Total Credit Hours: 142
Major Hours: 33
Minimum Upper-Division Hours: 48
Overall GPA - Combined and OU: 3.00
Major GPA - Combined and OU: 3.00
Graduate GPA - Combined and OU: 3.00
Program Code: A216

## Major Requirements

- Some courses required for the major may also fulfill University General Education and/or Dodge College of Arts \& Sciences Requirements.
- 33 hours of major work must be completed. A grade of C or better must be earned in each course presented for major and major support credit.

| Code | Title | Credit Hours |
| :---: | :---: | :---: |
| Public Health Core |  |  |
| PHCH 2013 | Introduction to Public and Community Health | 3 |
| BSE 5113 | (Principles of Epidemiology substituting for PHCH 3113) ${ }^{1}$ | 3 |
| PHCH 3213 | Health Policy, Law, and Ethics | 3 |
| BSE 5163 | (Biostatistics Methods I, substituting for PHCH 3313) ${ }^{1}$ | 3 |
| PHCH 3413 | Health Communication | 3 |
| HAP 5453 | (U.S. Health Care Systems, substituting for PHCH 3513) ${ }^{1}$ | 3 |
| HPS 5213 | (Social and Behavioral Sciences in Public Health, substituting for PHCH 3613) ${ }^{1}$ | 3 |
| CPH 7003 | (Integrated Public Health Practice, substituting for PHCH 4013) ${ }^{1}$ | 3 |
| Major Electives |  |  |
| OEH 5013 | (Environmental Health, substituting for 3 hours approved major elective) ${ }^{1}$ | 3 |
| BSE 5363 | (Epidemiology \& Prevention of Chronic Diseases, substituting for 3 hours approved major elective) ${ }^{1}$ | 3 |
| Choose 3 hours from the approved list of courses. (p. 189) |  | 3 |
| Total Credit Hours |  | 33 |

${ }^{1}$ These courses, along with BSE 5363, are the 24 hours shared between the Graduate and Undergraduate degrees. BSE 5363 applies to the undergraduate degree as an upper-division free elective course.

## Major Support Requirements

A grade of C or better must be earned in each course presented for major and major support credit.

| Code | Title | Credit Hours |
| :---: | :---: | :---: |
| Personal Computing |  |  |
| B AD 1001 | Personal Computing Productivity Tools | 1 |
| Total Credit |  | 1 |
| Graduate Requirements |  |  |
| Code | Title | Credit Hours |
| MPH Core Courses |  |  |
| BSE 5113 | (Principles of Epidemiology) | 3 |
| BSE 5163 | (Biostatistics Methods I) | 3 |
| HAP 5453 | (U.S. Health Care System) | 3 |
| HPS 5213 | (Social and Behavioral Sciences in Public Health) | 3 |
| OEH 5013 | (Environmental Health) | 3 |
| HPS 5211 | (Qualitative Methods in Public Health) | 1 |


| Required Courses |  | 3 |
| :--- | :--- | :--- |
| CPH 7003 | (Integrated Public Health Practice) | 1 |
| CPH 7941 | (Practicum Preparation Seminar) | 1 |

Epidemiology Required Courses

| BSE 5001 | (Problems in Biostatistics and <br> Epidemiology) | 1 |
| :--- | :--- | ---: |
| BSE 5013 | (Applications of Microcomputers to Data <br> Analysis) | 3 |
| BSE 5193 | (Intermediate Epidemiologic Methods) | 3 |
| BSE 5303 | (Epidemiology of Infectious Diseases) | 3 |
| BSE 5363 | (Epidemiology \& Prevention of Chronic | 3 |


| BSE Elective Courses |  |
| :--- | ---: |
| Applied Biostatistics courses numbered above BSE 5163 (6 <br> hours) | 6 |
| Other Electives - BSE courses only (6 hours) | 6 |
| Total Credit Hours | $\mathbf{4 6}$ |

## General Education and College Requirements

Courses for fulfillment of General Education and Dodge College of Arts \& Sciences requirements must be from the approved General Education course list published in the Class Schedule or at http://www.ou.edu/ gened/courses. Courses graded P/NP will not apply.

\section*{UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS <br> | Code | Title | Credit |
| :--- | :--- | :--- |
|  | Hours |  |}

Core Area I: Symbolic and Oral Communication
English Composition (6 hours)
ENGL 1113 Principles of English Composition 3
ENGL 1213 Principles of English Composition 3
or EXPO 1213 Expository Writing
Language (0-13 hours in the same language)
The college requirement cannot be met by high school
coursework.
Beginning Course 0-5
Beginning Course, continued 0-5
Intermediate Course (2000 level) ${ }^{1,2}$ 0-3
Mathematics (3 hours)
Choose one course from the General Education Mathematics 3
list
Core Area II: Natural Science (7 hours, including one
laboratory component)
Biological Science
Choose an approved General Education Natural Science
course with one of the following prefixes: BIOL, HES, MBIO, or
PBIO ${ }^{1}$

Physical Science
Choose an approved General Education Natural Science 3-4
course with one of the following prefixes: AGSC, ASTR, CHEM,
GEOG, GEOL, GPHY, METR, or PHYS ${ }^{1}$
Core Area III: Social Science (6 hours)
P SC 1113 American Federal Government 3
Choose one course from the General Education Social 3
Science list
Core Area IV: Arts and Humanities (18 hours)
Artistic Forms
Choose one course from the General Education Artistic Forms 3
list
Western Culture
HIST 1483 United States to 1865
or HIST 1493 United States, 1865 to the Present
Choose one course from the General Education Western 3
Culture list (excluding HIST 1483/1493)
World Culture
Choose one course from the General Education World Culture 3
list
Additional Core IV Upper-Division Arts \& Humanities courses
Choose one course from Artistic Forms, Western Culture, or 3
World Culture ${ }^{1,3}$
Choose one course from Artistic Forms, Western Culture, or 3
World Culture ${ }^{1,3}$
Core Area V: First Year Experience (3 hours)
Choose one course 3

Total Credit Hours 56
${ }^{1}$ College of Arts and Sciences Requirements: college requirements are not automatically fulfilled by a previous degree.
${ }^{2}$ One course at the intermediate level or demonstrated competency at that level
${ }^{3} 6$ upper-division hours, 2 courses, at the 3000-4000-level. Must be outside the major.

## Free Electives

Electives to bring total applicable hours to the minimum total required for the degree including 48 upper-division hours. BSE 5013 Applications of Microcomputers to Data Analysis, substituting for 3 hours of upperdivision free elective.

## Information Concerning General Rules, Regulations and Minimum Requirements

Arts and Sciences Hours: At least 80 semester hours of liberal arts and sciences courses are required for a BA degree. At least 55 semester hours of liberal arts and sciences courses are required for a BS degree. Pass/No Pass Enrollment: A maximum of 16 semester hours of free elective credit may be attempted under this option.
Individual Studies (e.g., courses titled "Independent Study"): A maximum of 12 total semester hours may be counted toward graduation, excluding Honors Reading and Honors Research.
P.E. Courses: No physical education activity courses will be counted toward the 120 semester hours of acceptable credit for graduation. Senior Institution Hours: A minimum of 60 semester hours applied toward graduation must be earned at senior (4-year) institutions. Residency:

- At least 15 of the final 30 hours applied toward the degree or at least 50 percent of the hours required by the institution in the major field must be satisfactorily completed at the awarding institution.
- At least 15 semester hours of upper-division major work must be completed in residence at OU.
- OU correspondence courses are not considered resident credit.

Grade Point Averages: Students must earn a minimum over all 2.00 for each of the following: Combined Retention GPA (all college grades), OU Retention GPA, GPA for all major courses, and GPA for all major courses taken at OU. Some schools and departments of the College have higher minimum grade point averages required for their students.

## Suggested Semester Plan of Study

This plan shows one possible grouping of courses that would allow students to graduate in five years. Please refer to the front of the degree checksheet for official requirements. Students must consult with Dodge College of Arts and Sciences and/or Community Health academic advisors to verify that courses selected each semester fulfill the recommended plan and satisfy University, College of Arts and Sciences, and Community Health major requirements.

## Freshman

| First Semester |  | Credit <br> Hours |
| :--- | :---: | ---: |
| ENGL 1113 | Principles of English Composition (Core I) | 3 |
| HIST 1483 | United States to 1865 (Core IV) | 3 |
| or HIST 1493 | or United States, 1865 to the Present | 3 |
| Math (Core I) |  | 3 |
| First Year Experience (Core V) |  |  |


| Natural Science without Lab (Core II) |  | 3 |
| :---: | :---: | :---: |
|  | Credit Hours | 15 |
| Second Semester |  |  |
| Beginning Language (Core I) |  | 5 |
| $\begin{aligned} & \text { ENGL } 1213 \\ & \text { or EXPO } \end{aligned}$ | Principles of English Composition (Core I) or Expository Writing | 3 |
| Natural Scie | with Lab (Core II) | 4 |
| Social Scien | re III) | 3 |
|  | Credit Hours | 15 |
| Sophomore |  |  |
| First Semester |  |  |
| PHCH 2013 | Introduction to Public and Community Health | 3 |
| Beginning Language continued (Core I) |  | 5 |
| Artistic Forms (Core IV) |  | 3 |
| Western Culture (Core IV) |  | 3 |
| Credit Hours |  | 14 |
| Second Semester |  |  |
| PHCH 3413 | Health Communication | 3 |
| B AD 1001 | Personal Computing Productivity Tools | 1 |
| P SC 1113 | American Federal Government | 3 |
| Intermediate Language |  | 3 |
| World Culture (Core IV) |  | 3 |
| Free Elective (lower-division) |  | 3 |
| Credit Hours |  | 16 |
| Junior |  |  |
| First Semester |  |  |
| BSE 5113 | Principles of Epidemiology | 3 |
| HAP 5453 | U.S. Health Care Systems | 3 |
| Arts \& Humanities, upper-division (3000-4000-level), outside major (Gen.Ed.) |  | 3 |
| Free Elective (Upper- or Lower-division) |  | 3 |
| Free Elective (Upper- or Lower-division) |  | 3 |
|  | Credit Hours | 15 |
| Second Semester |  |  |
| PHCH 3213 | Health Policy, Law, and Ethics | 3 |
| BSE 5163 | Biostatistic Methods I | 3 |
| Arts \& Humanities, upper-division (3000-4000-level), outside major (Gen.Ed.) |  | 3 |
| OEH 5013 | Environmental Health | 3 |
| Free Elective (Upper- or Lower-division) |  | 3 |
| Free Elective (Upper- or Lower-division) |  | 3 |
|  | Credit Hours | 18 |
| Senior |  |  |
| First Semester |  |  |
| HPS 5213 | Social and Behavioral Sciences in Public Health | 3 |
| HPS 5211 | Qualitative Methods in PH | 1 |
| BSE 5363 | Epidemiology \& Prevention of Chronic Diseases | 3 |
| BSE 5013 | Applications of Microcomputers to Data Analysis | 3 |
| Free Elective | per-division) | 3 |


| Free Elective (Upper-division) | 3 |
| :---: | :---: |
| Credit Hours | 16 |
| Second Semester |  |
| Applied Biostatics course elective (above BSE 5163) | 3 |
| BSE 5001 Problems in Biostatistics and Epidemiology | 1 |
| Approved Major Elective | 3 |
| BSE 5193 Intermediate Epidemiologic Methods | 3 |
| Free Elective (Upper-division) | 3 |
| Free Elective (Upper-division) | 3 |
| Credit Hours | 16 |
| Fifth Year |  |
| First Semester |  |
| CPH 7003 Integrated Public Health Practice | 3 |
| CPH 7941 Practicum Preparation Seminar | 1 |
| BSE Elective | 3 |
| Applied Biostatic elective course (above BSE 5163) | 3 |
| Credit Hours | 10 |
| Second Semester |  |
| BSE 5303 Epidemiology of Infectious Diseases | 3 |
| BSE Course Elective (above BSE 5163) | 3 |
| CPH 7950 Public Health Practicum | 1 |
| Credit Hours | 7 |
| Total Credit Hours | 142 |

## Community Health, B.A./Health Promotion Sciences, M.P.H.

Minimum Total Credit Hours: 141
Major Hours: 33
Minimum Upper-Division Hours: 48
Overall GPA - Combined and OU: 3.00
Major GPA - Combined and OU: 3.00
Graduate GPA - Combined and OU: 3.00
Program Code: A217

## Major Requirements

- Some courses required for the major may also fulfill University General Education and/or Dodge College of Arts \& Sciences Requirements.
- 33 hours of major work must be completed. A grade of C or better must be earned in each course presented for major and major support credit.

| Code | Title | Credit <br> Hours |
| :---: | :---: | :---: |
| Public Health Core |  |  |
| PHCH 2013 | Introduction to Public and Community Health | 3 |
| BSE 5113 | (Principles of Epidemiology substituting for PHCH 3113) ${ }^{1}$ | 3 |
| PHCH 3213 | Health Policy, Law, and Ethics | 3 |
| BSE 5163 | (Biostatistics Methods I, substituting for PHCH 3313) ${ }^{1}$ | 3 |


| PHCH 3413 | Health Communication | 3 |
| :---: | :---: | :---: |
| HAP 5453 | (U.S. Health Care Systems, substituting for PHCH 35153$)^{1}$ | 3 |
| HPS 5213 | (Social and Behavioral Sciences in Public Health, substituting for PHCH 3613) ${ }^{1}$ | 3 |
| CPH 7003 | (Integrated Public Health Practice, substituting for PHCH 4013) ${ }^{1}$ | 3 |
| Major Electives |  |  |
| OEH 5013 | (Environmental Health, substituting for 3 hours approved major elective) ${ }^{1}$ | 3 |
| HPS 5543 | (Program Evaluation, substituting for 3 hours approved major elective) ${ }^{1}$ | 3 |
| Choose 3 hours from the approved list of courses. (p. 189) |  | 3 |
| Total Credit Hours |  | 33 |
| ${ }^{1}$ These courses, along with HPS 5563, are the 24 hours shared between the Graduate and Undergraduate degrees. HPS 5563 applies to the undergraduate degree as an upper-division free elective course. |  |  |

## Major Support Requirements

A grade of $C$ or better must be earned in each course presented for major and major support credit.

| CodeTitle | Credit <br> Hours |
| :--- | ---: | ---: |
| Personal Computing |  |
| B AD 1001 $\quad$ Personal Computing Productivity Tools | 1 |
| Total Credit Hours | $\mathbf{1}$ |

## Graduate Requirements

Code Title Credit

## MPH Core Courses

| BSE 5113 | (Principles of Epidemiology) | 3 |
| :--- | :--- | :--- |
| BSE 5163 | (Biostatistics Methods I) | 3 |
| HAP 5453 | (U.S. Health Care System) | 3 |
| HPS 5213 | (Social and Behavioral Sciences in Public <br> Health) | 3 |
| OEH 5013 | (Environmental Health) | 3 |
| HPS 5211 | (Qualitative Methods in Public Health) | 1 |

## Required Courses

| CPH 7003 | (Integrated Public Health Practice) | 3 |
| :--- | :--- | :--- |
| CPH 7941 | (Practicum Preparation Seminar) | 1 |
| CPH 7950 | (Public Health Practicum) | 1 |

HPS Required Course
HPS 5453 (Theoretical Concepts in Health Promotion) 3
HPS 5463 (Community Assessment, Organization, 3

|  |  |  |
| :--- | :--- | :--- |
| HPS 5563 | (Program Planning for Health Promotion) | 3 |
| HPS 5543 | (Program Evaluation) | 3 |

HPS Diversity Requirement Course (choose one of the
following)
HPS 5383 (Health and Illness in Old Age) 3
or HPS 5853 HE

| Elective Courses | 9 |
| :--- | ---: |
| Graduate-level courses | $\mathbf{4 5}$ |

## General Education and College Requirements

Courses for fulfillment of General Education and Dodge College of Arts \& Sciences requirements must be from the approved General Education course list published in the Class Schedule or at http://www.ou.edu/ gened/courses. Courses graded P/NP will not apply.

## UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS

| Code Title | Credit |
| :--- | :--- |
|  | Hours |

Core Area I: Symbolic and Oral Communication

| English Composition (6 hours) |  |
| :---: | :---: |
| ENGL 1113 Principles of English Composition | 3 |
| ENGL 1213 Principles of English Composition or EXPO 1213 Expository Writing | 3 |
| Language (0-13 hours in the same language) |  |
| The college requirement cannot be met by high school coursework. |  |
| Beginning Course | 0-5 |
| Beginning Course, continued | 0-5 |
| Intermediate Course (2000 level) ${ }^{1,2}$ | 0-3 |
| Mathematics (3 hours) |  |
| Choose one course from the General Education Mathematics list | 3 |
| Core Area II: Natural Science (7 hours, including one laboratory component) |  |
| Biological Science |  |
| Choose an approved General Education Natural Science course with one of the following prefixes: BIOL, HES, MBIO, or PBIO ${ }^{1}$ | 3-4 |
| Physical Science |  |
| Choose an approved General Education Natural Science course with one of the following prefixes: AGSC, ASTR, CHEM, GEOG, GEOL, GPHY, METR, or PHYS ${ }^{1}$ | 3-4 |
| Core Area III: Social Science (6 hours) |  |
| P SC 1113 American Federal Government | 3 |
| Choose one course from the General Education Social | 3 |

## Science list

Core Area IV: Arts and Humanities (18 hours)
Artistic Forms
Choose one course from the General Education Artistic Forms

## list

## Western Culture

| HIST 1483 | United States to 1865 |
| :--- | :--- |
| or HIST 1493 | United States, 1865 to the Present |

Choose one course from the General Education Western
Culture list (excluding HIST 1483/1493)
World Culture
Choose one course from the General Education World Culture

Additional Core IV Upper-Division Arts \& Humanities courses

Choose one course from Artistic Forms, Western Culture, or

Core Area V: First Year Experience (3 hours)
Choose one course 3

Total Credit Hours56
${ }^{1}$ College of Arts and Sciences Requirements: college requirements are not automatically fulfilled by a previous degree.
2 One course at the intermediate level or demonstrated competency at that level
${ }^{3} 6$ upper-division hours, 2 courses, at the 3000-4000-level. Must be outside the major.

## Free Electives

Electives to bring total applicable hours to the minimum total required for the degree including 48 upper-division hours. (HPS 5563 Program Planning for Health Promotion, substituting for 3 hours of upper-division free elective.)

## Information Concerning General Rules, Regulations and Minimum Requirements

Arts and Sciences Hours: At least 80 semester hours of liberal arts and sciences courses are required for a BA degree. At least 55 semester hours of liberal arts and sciences courses are required for a BS degree.
Pass/No Pass Enrollment: A maximum of 16 semester hours of free elective credit may be attempted under this option.
Individual Studies (e.g., courses titled "Independent Study"): A maximum of 12 total semester hours may be counted toward graduation, excluding Honors Reading and Honors Research.
P.E. Courses: No physical education activity courses will be counted toward the 120 semester hours of acceptable credit for graduation. Senior Institution Hours: A minimum of 60 semester hours applied toward graduation must be earned at senior (4-year) institutions.
Residency:

- At least 15 of the final 30 hours applied toward the degree or at least 50 percent of the hours required by the institution in the major field must be satisfactorily completed at the awarding institution.
- At least 15 semester hours of upper-division major work must be completed in residence at OU.
- OU correspondence courses are not considered resident credit.

Grade Point Averages: Students must earn a minimum over all 2.00 for each of the following: Combined Retention GPA (all college grades), OU Retention GPA, GPA for all major courses, and GPA for all major courses taken at OU. Some schools and departments of the College have higher minimum grade point averages required for their students.

## Suggested Semester Plan of Study

This plan shows one possible grouping of courses that would allow students to graduate in five years. Please refer to the front of the degree checksheet for official requirements. Students must consult with Dodge College of Arts and Sciences and/or Community Health academic advisors to verify that courses selected each semester fulfill the recommended plan and satisfy University, College of Arts and Sciences, and Community Health major requirements.

| Freshman |  |  |
| :---: | :---: | :---: |
| First Semester |  | Credit <br> Hours |
| ENGL 1113 | Principles of English Composition (Core I) | 3 |
| HIST 1483 or HIST 1493 | United States to 1865 (Core IV) or United States, 1865 to the Present | 3 |
| Math (Core I) |  | 3 |
| First Year Exper | nce (Core V) | 3 |
| Natural Science | without Lab (Core II) | 3 |
|  | Credit Hours | 15 |
| Second Semester |  |  |
| Beginning Language (Core I) |  | 5 |
| $\begin{aligned} & \text { ENGL } 1213 \\ & \text { or EXPO } 1213 \end{aligned}$ | Principles of English Composition (Core I) or Expository Writing | 3 |
| Natural Science | with Lab (Core II) | 4 |
| Social Science (C | ore III) | 3 |
|  | Credit Hours | 15 |
| Sophomore |  |  |
| First Semester |  |  |
| PHCH 2013 | Introduction to Public and Community Health | 3 |
| Beginning Language continued (Core I) |  | 5 |
| Artistic Forms (Core IV) |  | 3 |
| Western Culture (Core IV) |  | 3 |
|  | Credit Hours | 14 |
| Second Semester |  |  |
| PHCH 3413 | Health Communication | 3 |
| B AD 1001 | Personal Computing Productivity Tools | 1 |
| P SC 1113 | American Federal Government | 3 |
| Intermediate Language |  | 3 |
| World Culture (Core IV) |  | 3 |
| Free Elective (lower-division) |  | 3 |
|  | Credit Hours | 16 |
| Junior |  |  |
| First Semester |  |  |
| HPS 5213 | Social and Behavioral Sciences in Public Health | 3 |
| HAP 5453 | U.S. Health Care Systems | 3 |
| HPS 5211 | Qualitative Methods in Public Health | 1 |
| Arts \& Humanities, upper-division (3000-4000-level), outside major (Gen.Ed.) |  | 3 |
| Free Elective (Upper- or Lower-division) |  | 3 |
| Free Elective (Upper- or Lower-division) |  | 3 |
|  | Credit Hours | 16 |
| Second Semester |  |  |
| PHCH 3213 | Health Policy, Law, and Ethics | 3 |
| BSE 5113 | Principles of Epidemiology | 3 |
| OEH 5013 | Environmental Health | 3 |
| Arts \& Humanities, upper-division (3000-4000-level), outside major (Gen.Ed.) |  | 3 |
| Free Elective (Upper- or Lower-division) |  | 3 |
| Free Elective (Upper- or Lower-division) |  | 3 |
|  | Credit Hours | 18 |

## Senior

| First Semester |  |  |
| :---: | :---: | :---: |
| HPS 5453 | Theoretical Concepts in Health Promotion | 3 |
| HPS 5463 | Community Assessment, Organization, and Interventions | 3 |
| Free Elective (Upper-division) |  | 3 |
| Free Elective (Upper-division) |  | 3 |
| Free Elective (Upper-division) |  | 3 |
| Credit Hours |  | 15 |
| Second Semester |  |  |
| BSE 5163 | Biostatistics Methods I | 3 |
| HPS 5563 | Program Planning for Health Promotion | 3 |
| HPS 5543 | Health Program Evaluation | 3 |
| Approved Major Elective |  | 3 |
| Free Elective (Upper-division) |  | 3 |
|  | Credit Hours | 15 |

## Fifth Year

First Semester
CPH 7003 Integrated Public Health Practice 3

CPH 7941 Practicum Preparation Seminar 1
HPS Diversity Requirement Course 3
Graduate-level Elective 3

Credit Hours
10

## Second Semester

CPH 7950 Public Health Practicum 1
Graduate-level Elective 3
Graduate-level Elective 3

| Credit Hours | 7 |
| :--- | ---: |
| Total Credit Hours | 141 |

## Community Health, B.S./Epidemiology, M.P.H.

Minimum Total Credit Hours: 142
Major Hours: 30
Minimum Upper-Division Hours: 48
Overall GPA - Combined and OU: 3.00
Major GPA - Combined and OU: 3.00
Graduate GPA - Combined and OU: 3.00
Program Code: A218

## Major Requirements

- Some courses required for the major may also fulfill University General Education and/or Dodge College of Arts \& Sciences Requirements.
30 hours of major work must be completed. A grade of C or better must be earned in each course presented for major and major support credit.



## Total Credit Hours

${ }^{1}$ These courses, along with BSE 5013, are the 24 hours shared between the Graduate and Undergraduate degrees. BSE 5013 applies to the undergraduate degree as an upper-division free elective course.

## Major Support Requirements

A grade of $C$ or better must be earned in each course presented for major and major support credit.

| Code | Title | Credit Hours |
| :---: | :---: | :---: |
| Chemistry |  |  |
| CHEM 1315 | General Chemistry | 5 |
| CHEM 1415 | General Chemistry (Continued) | 5 |
| CHEM 3053 | Organic Chemistry I: Biological Emphasis | 3 |
| CHEM 3152 | Organic Chemistry Laboratory: Biological Emphasis | 2 |
| CHEM 3153 or CHEM 3653 | Organic Chemistry II: Biological Emphasis Introduction to Biochemistry | 3 |
| Biology |  |  |
| BIOL 1124 | Intro Biol: Molecule/Cell/Phys | 4 |
| BIOL 1134 | Introductory Biology: Evolution, Ecology and Diversity | 4 |
| Mathematics |  |  |
| MATH 1743 | Calculus I for Business, Life and Social Sciences | 3 |
| or MATH 1823 | Calculus and Analytic Geometry I |  |

## Total Credit Hours

## Graduate Requirements

| Code | Title | Credit |
| :---: | :---: | :---: |
| MPH Core Courses |  |  |
| BSE 5113 | (Principles of Epidemiology) | 3 |
| BSE 5163 | (Biostatistics Methods I) | 3 |
| HAP 5453 | (U.S. Health Care Systems) | 3 |
| HPS 5213 | (Social and Behavioral Sciences in Public Health) | 3 |
| OEH 5013 | (Environmental Health) | 3 |
| HPS 5211 | (Qualitative Methods in Public Health) | 1 |
| Required Courses |  |  |
| CPH 7003 | (Integrated Public Health Practice) | 3 |
| CPH 7941 | (Practicum Preparation Seminar) | 1 |
| CPH 7950 | (Public Health Practicum) | 1 |
| Epidemiology Required Courses |  |  |
| BSE 5001 | (Problems in Biostatistics and Epidemiology) | 1 |
| BSE 5013 | (Applications of Microcomputers to Data Analysis) | 3 |
| BSE 5193 | (Intermediate Epidemiology Methods) | 3 |
| BSE 5303 | (Epidemiology of Infectious Diseases) | 3 |
| BSE 5363 | (Epidemiology \& Prevention of Chronic Diseases) | 3 |
| BSE Elective Courses |  |  |
| Applied Bio | ics courses numbered above BSE 5163 | 6 |
| Other Elect | SE courses only | 6 |
| Total Credi |  | 46 |

## General Education and College Requirements

Courses for fulfillment of General Education and Dodge College of Arts \& Sciences requirements must be from the approved General Education course list published in the Class Schedule or at http://www.ou.edu/ gened/courses. Courses graded P/NP will not apply.

## UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS <br> Code Title Credit Hours

Core Area I: Symbolic and Oral Communication
English Composition (6 hours)
ENGL 1113 Principles of English Composition 3
ENGL 1213 Principles of English Composition 3
or EXPO 1213 Expository Writing
Language (0-13 hours in the same language)
The college requirement cannot be met by high school coursework.

Beginning Course 0-5
$\begin{array}{ll}\text { Beginning Course, continued } & 0-5\end{array}$
$\begin{array}{ll}\text { Intermediate Course (2000 level) }{ }^{1,2} & 0-3\end{array}$
Mathematics (3 hours)
Choose one course from the General Education Mathematics 3
list


## Free Electives

Electives to bring total applicable hours to the minimum total required for the degree including 48 upper-division hours. (BSE 5013 applies to the undergraduate degree as an upper-division free elective.)

## Information Concerning General Rules, Regulations and Minimum Requirements

Arts and Sciences Hours: At least 80 semester hours of liberal arts and sciences courses are required for a BA degree. At least 55 semester hours of liberal arts and sciences courses are required for a BS degree. Pass/No Pass Enrollment: A maximum of 16 semester hours of free elective credit may be attempted under this option.

Individual Studies (e.g., courses titled "Independent Study"): A maximum of 12 total semester hours may be counted toward graduation, excluding Honors Reading and Honors Research.
P.E. Courses: No physical education activity courses will be counted toward the 120 semester hours of acceptable credit for graduation. Senior Institution Hours: A minimum of 60 semester hours applied toward graduation must be earned at senior (4-year) institutions.

## Residency:

- At least 15 of the final 30 hours applied toward the degree or at least 50 percent of the hours required by the institution in the major field must be satisfactorily completed at the awarding institution.
- At least 15 semester hours of upper-division major work must be completed in residence at OU.
- OU correspondence courses are not considered resident credit.

Grade Point Averages: Students must earn a minimum over all 2.00 for each of the following: Combined Retention GPA (all college grades), OU Retention GPA, GPA for all major courses, and GPA for all major courses taken at OU. Some schools and departments of the College have higher minimum grade point averages required for their students.

## Suggested Semester Plan of Study

This plan shows one possible grouping of courses that would allow students to graduate in five years. Please refer to the front of the degree checksheet for official requirements. Students must consult with Dodge College of Arts and Sciences and/or Community Health academic advisors to verify that courses selected each semester fulfill the recommended plan and satisfy University, College of Arts and Sciences, and Community Health major requirements.

## Freshman

| First Semester |  | Credit |
| :---: | :---: | :---: |
|  |  | Hours |
| ENGL 1113 | Principles of English Composition (Core I) | 3 |
| HIST 1483 or HIST 1493 | United States to 1865 (Core IV) or United States, 1865 to the Present | 3 |
| MATH 1743 or MATH 1823 | Calculus I for Business, Life and Social Sciences or Calculus and Analytic Geometry I | 3 |
| BIOL 1124 | Intro Biol: Molecule/Cell/Phys | 4 |
| First Year Experience (Core V) |  | 3 |
|  | Credit Hours | 16 |

## Second Semester

CHEM 1315 General Chemistry 5

ENGL 1213 Principles of English Composition (Core I) 3
or EXPO 1213 or Expository Writing
BIOL 1134 Introductory Biology: Evolution, Ecology 4
and Diversity

| Social Science (Core III) | 3 |
| :---: | ---: |
| Credit Hours | 15 |

## Sophomore

First Semester

| CHEM 1415 | General Chemistry (Continued) | 5 |
| :--- | :--- | :--- |
| PHCH 2013 | Introduction to Public and Community | 3 |
|  | Health |  |

Beginning Language (Core I) 5

| Understanding Artistic Forms (Core IV) |  | 3 |
| :---: | :---: | :---: |
|  | Credit Hours | 16 |
| Second Semester |  |  |
| CHEM 3053 | Organic Chemistry I: Biological Emphasis | 3 |
| PHCH 3413 | Health Communication | 3 |
| P SC 1113 | American Federal Government (Core III) | 3 |
| Beginning Language continued (Core I) |  | 5 |
|  | Credit Hours | 14 |
| Junior |  |  |
| First Semester |  |  |
| CHEM 3153 or CHEM 3653 | Organic Chemistry II: Biological Emphasis or Introduction to Biochemistry | 3 |
| CHEM 3152 | Organic Chemistry Laboratory: Biological Emphasis | 2 |
| BSE 5113 | Principles of Epidemiology | 3 |
| HAP 5453 | U.S. Health Care Systems | 3 |
| Intermediate Language |  | 3 |
|  | Credit Hours | 14 |
| Second Semester |  |  |
| PHCH 3213 | Health Policy, Law, and Ethics | 3 |
| BSE 5163 | Biostatistics Methods I | 3 |
| OEH 5013 | Environmental Health | 3 |
| World Culture (Core IV) |  | 3 |
| Arts \& Humanities, upper-division (3000-4000-level), outside major (Gen.Ed.) |  | 3 |
| Free Elective (Upper- or Lower-division) |  | 3 |
|  | Credit Hours | 18 |

## Senior First Semester

| HPS 5213 | Social and Behavioral Sciences in Public Health | 3 |
| :---: | :---: | :---: |
| HPS 5211 | Qualitative Methods in PH | 1 |
| BSE 5363 | Epidemiology \& Prevention of Chronic Diseases | 3 |
| BSE 5013 | Applications of Microcomputers to Data Analysis | 3 |
| Arts \& Humanities, upper-division (3000-4000-level), outside major (Gen.Ed.) |  | 3 |
| Western Culture (Core IV) |  | 3 |
|  | Credit Hours | 16 |


| Second Semester |  |  |
| :--- | :--- | :--- |
| BSE 5001 | Problems in Biostatistics and Epidemiology | 1 |
| BSE 5193 | Intermediate Epidemiologic Methods | 3 |

Applied Biostatistics course \#1 3
Free Elective (Upper-division) 3
Free Elective (Upper-division) 3
Free Elective (Upper-division) 3

Fifth Year
First Semester
CPH 7003 Integrated Public Health Practice 3
CPH 7941 Practicum Preparation Seminar 1
Applied Biostatistics course \#2

| BSE Elective \#1 |  | 3 |
| :--- | :--- | ---: |
|  | Credit Hours | $\mathbf{1 0}$ |
| Second Semester |  |  |
| BSE 5303 | Epidemiology of Infectious Disease | 3 |
| CPH 7950 | Public Health Practicum | 1 |
| BSE Elective \#2 |  | 3 |
|  | Credit Hours | $\mathbf{7}$ |
|  | Total Credit Hours | $\mathbf{1 4 2}$ |

## Community Health, B.S./Health Promotion Sciences, M.P.H.

Minimum Total Credit Hours: 141
Major Hours: 30
Minimum Upper-Division Hours: 48

Overall GPA - Combined and OU: 3.00
Major GPA - Combined and OU: 3.00
Graduate GPA - Combined and OU: 3.00

## Program Code: A219

## Major Requirements

- Some courses required for the major may also fulfill University General Education and/or Dodge College of Arts \& Sciences Requirements.
- 30 hours of major work must be completed. A grade of C or better must be earned in each course presented for major and major support credit.

| Code | Title | Credit Hours |
| :---: | :---: | :---: |
| Public Health Core |  |  |
| PHCH 2013 | Introduction to Public and Community Health | 3 |
| BSE 5113 | (Principles of Epidemiology, substituting for PHCH 3113) ${ }^{1}$ | 3 |
| PHCH 3213 | Health Policy, Law, and Ethics | 3 |
| BSE 5163 | (Biostatistics Methods I, substituting for PHCH 3313) ${ }^{1}$ | 3 |
| PHCH 3413 | Health Communication | 3 |
| HAP 5453 | (U.S. Health Care Systems, substituting for PHCH 3513) ${ }^{1}$ | 3 |
| HPS 5213 | (Social and Behavioral Sciences in Public Health, substituting for PHCH 3613) ${ }^{1}$ | 3 |
| CPH 7003 | (Integrated Public Health Practice, substituting for PHCH 4013) ${ }^{1}$ | 3 |
| Major Electives |  |  |
| OEH 5013 | (Environmental Health, substituting for 3 hours approved major elective) ${ }^{1}$ | 3 |
| HPS 5543 | (Program Evaluation, substituting for 3 hours approved major elective) ${ }^{1}$ | 3 |

Total Credit Hours

1 These courses, along with HPS 5563, are the 24 hours shared between the Graduate and Undergraduate degrees. HPS 5563 applies to the undergraduate degree as an upper-division free elective course.

## Major Support Requirements

A grade of $C$ or better must be earned in each course presented for major and major support credit.

| Code | Title | Credit <br> Hours |
| :---: | :---: | :---: |
| Chemistry |  |  |
| CHEM 1315 | General Chemistry | 5 |
| CHEM 1415 | General Chemistry (Continued) | 5 |
| CHEM 3053 | Organic Chemistry I: Biological Emphasis | 3 |
| CHEM 3152 | Organic Chemistry Laboratory: Biological Emphasis | 2 |
| CHEM 3153 or CHEM 3653 | Organic Chemistry II: Biological Emphasis Introduction to Biochemistry | 3 |
| Biology |  |  |
| BIOL 1124 | Intro Biol: Molecule/Cell/Phys | 4 |
| BIOL 1134 | Introductory Biology: Evolution, Ecology and Diversity | 4 |
| Mathematics |  |  |
| MATH 1743 | Calculus I for Business, Life and Social Sciences | 3 |
| or MATH 1823 | Calculus and Analytic Geometry I |  |

## Total Credit Hours

## Graduate Requirements

| Code | Title | Credit Hours |
| :---: | :---: | :---: |
| MPH Core Courses |  |  |
| BSE 5113 | (Principles of Epidemiology) | 3 |
| BSE 5163 | (Biostatistics Methods I) | 3 |
| HAP 5453 | (U.S. Health Care Systems) | 3 |
| HPS 5213 | (Social and Behavioral Sciences in Public Health) | 3 |
| OEH 5013 | (Environmental Health) | 3 |
| HPS 5211 | (Qualitative Methods in Public Health) | 1 |
| Required Courses |  |  |
| CPH 7003 | (Integrated Public Health Practice) | 3 |
| CPH 7941 | (Practicum Preparation Seminar) | 1 |
| CPH 7950 | (Public Health Practicum) | 1 |
| HPS Required Courses |  |  |
| HPS 5453 | (Theoretical Concepts in Health Promotion) | 3 |
| HPS 5463 | (Community Assessment, Organization, and Intervention) | 3 |
| HPS 5563 | (Program Planning for Health Promotion) | 3 |
| HPS 5543 | (Program Evaluation) | 3 |
| HPS Diversity Requirement Course (choose one of the following) |  |  |
| HPS 5383 or HPS | (Health and Illness in Old Age) | 3 |

## Elective Courses

Graduate-level courses

## General Education and College Requirements

Courses for fulfillment of General Education and Dodge College of Arts \& Sciences requirements must be from the approved General Education course list published in the Class Schedule or at http://www.ou.edu/ gened/courses. Courses graded P/NP will not apply.
UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS

| Code Title | Credit |
| :--- | :--- |
|  | Hours |

Core Area I: Symbolic and Oral Communication
English Composition (6 hours)
ENGL 1113 Principles of English Composition 3
ENGL 1213 Principles of English Composition 3
or EXPO 1213 Expository Writing
Language (0-13 hours in the same language)
The college requirement cannot be met by high school coursework.
Beginning Course 0-5
Beginning Course, continued 0-5
${\text { Intermediate Course (2000 level) }{ }^{1,2}}^{10-3}$
Mathematics (3 hours)
Choose one course from the General Education Mathematics 3
list
Core Area II: Natural Science (7 hours, including one laboratory component)
Biological Science
Choose an approved General Education Natural Science 3-4
course with one of the following prefixes: BIOL, HES, MBIO, or PBIO ${ }^{1}$

Physical Science
Choose an approved General Education Natural Science 3-4
course with one of the following prefixes: AGSC, ASTR, CHEM,
GEOG, GEOL, GPHY, METR, or PHYS ${ }^{1}$
Core Area III: Social Science (6 hours)
P SC 1113 American Federal Government 3
Choose one course from the General Education Social 3
Science list
Core Area IV: Arts and Humanities (18 hours)
Artistic Forms
Choose one course from the General Education Artistic Forms 3
list
Western Culture
HIST 1483 United States to 1865
or HIST 1493 United States, 1865 to the Present
Choose one course from the General Education Western 3
Culture list (excluding HIST 1483/1493)
World Culture
Choose one course from the General Education World Culture 3
list
Additional Core IV Upper-Division Arts \& Humanities courses

Choose one course from Artistic Forms, Western Culture, or World Culture ${ }^{1,3}$
Choose one course from Artistic Forms, Western Culture, or 3
World Culture ${ }^{1,3}$
Core Area V: First Year Experience (3 hours)
Choose one course 3

Total Credit Hours
${ }^{1}$ College of Arts and Sciences Requirements: college requirements are not automatically fulfilled by a previous degree.
2 One course at the intermediate level or demonstrated competency at that level
${ }^{3} 6$ upper-division hours, 2 courses, at the 3000-4000-level. Must be outside the major.

## Free Electives

Electives to bring total applicable hours to the minimum total required for the degree including 48 upper-division hours. (HPS 5563 applies to the undergraduate degree as an upper-division free elective)

## Information Concerning General Rules, Regulations and Minimum Requirements

Arts and Sciences Hours: At least 80 semester hours of liberal arts and sciences courses are required for a BA degree. At least 55 semester hours of liberal arts and sciences courses are required for a BS degree. Pass/No Pass Enrollment: A maximum of 16 semester hours of free elective credit may be attempted under this option.
Individual Studies (e.g., courses titled "Independent Study"): A maximum of 12 total semester hours may be counted toward graduation, excluding Honors Reading and Honors Research.
P.E. Courses: No physical education activity courses will be counted toward the 120 semester hours of acceptable credit for graduation. Senior Institution Hours: A minimum of 60 semester hours applied toward graduation must be earned at senior (4-year) institutions.

## Residency:

- At least 15 of the final 30 hours applied toward the degree or at least 50 percent of the hours required by the institution in the major field must be satisfactorily completed at the awarding institution.
- At least 15 semester hours of upper-division major work must be completed in residence at OU.
- OU correspondence courses are not considered resident credit.

Grade Point Averages: Students must earn a minimum over all 2.00 for each of the following: Combined Retention GPA (all college grades), OU Retention GPA, GPA for all major courses, and GPA for all major courses taken at OU. Some schools and departments of the College have higher minimum grade point averages required for their students.

## Suggested Semester Plan of Study

This plan shows one possible grouping of courses that would allow students to graduate in five years. Please refer to the front of the degree checksheet for official requirements. Students must consult with Dodge College of Arts and Sciences and/or Community Health academic advisors to verify that courses selected each semester fulfill the recommended plan and satisfy University, College of Arts and Sciences, and Community Health major requirements.

| First Semester |  | Credit |
| :---: | :---: | :---: |
|  |  | Hours |
| ENGL 1113 | Principles of English Composition (Core I) | 3 |
| HIST 1483 or HIST 1493 | United States to 1865 (Core IV) or United States, 1865 to the Present | 3 |
| MATH 1743 or MATH 1823 | Calculus I for Business, Life and Social Sciences or Calculus and Analytic Geometry I | 3 |
| BIOL 1124 | Intro Biol: Molecule/Cell/Phys | 4 |
| First Year Experience (Core V) |  | 3 |
|  | Credit Hours | 16 |

## Second Semester

| CHEM 1315 | General Chemistry | 5 |
| :--- | :--- | :---: |
| ENGL 1213 <br> or EXPO 1213 | Principles of English Composition (Core I) <br> or Expository Writing | 3 |
| BIOL 1134 | Introductory Biology: Evolution, Ecology <br> and Diversity | 4 |


| Social Science (Core III) | 3 |
| :---: | ---: |
| Credit Hours | 15 |

## Sophomore

## First Semester

| CHEM 1415 | General Chemistry (Continued) | 5 |
| :--- | :--- | :--- |
| PHCH 2013 | Introduction to Public and Community | 3 |

Beginning Language (Core I) 5
Understanding Artistic Forms (Core IV) 3
Credit Hours ..... 16

## Second Semester

| CHEM 3053 | Organic Chemistry I: Biological Emphasis | 3 |
| :--- | :--- | ---: |
| PHCH 3413 | Health Communication | 3 |
| P SC 1113 | American Federal Government (Core III) | 3 |
| Beginning Language continued (Core I) | 5 |  |
| Credit Hours | $\mathbf{1 4}$ |  |

## Junior

First Semester

| CHEM 3153 <br> or CHEM 3653 | Organic Chemistry II: Biological Emphasis <br> or Introduction to Biochemistry |  |
| :--- | :--- | ---: |
| CHEM 3152 | Organic Chemistry Laboratory: Biological <br> Emphasis | 3 |
| HAP 5453 | U.S. Health Care Systems |  |
| HPS 5213 | Social and Behavioral Sciences in Public <br> Health | 3 |
| HPS 5213 | Qualitative Methods in PH | 3 |
| Intermediate Language | 1 |  |
|  | Credit Hours | 3 |

## Second Semester

PHCH 3213 Health Policy, Law, and Ethics 3
BSE 5113 Principles of Epidemiology 3
OEH 5013 Environmental Health 3
World Culture (Core IV) 3

Arts \& Humanities, upper-division (3000-4000-level), outside 3
major (Gen.Ed.)

| Free Elective (Upper- or Lower-division) | 3 |
| :---: | :---: |
| Credit Hours | 18 |
| Senior |  |
| First Semester |  |
| HPS 5453 Theoretical Concepts in Health Promotion | 3 |
| HPS 5463 Community Assessment, Organization, and | 3 |
| Arts \& Humanities, upper-division (3000-4000-level), outside major (Gen.Ed.) | 3 |
| Western Culture (Core IV) | 3 |
| Free Elective (Upper-division) | 3 |
| Credit Hours | 15 |
| Second Semester |  |
| BSE 5163 Biostatistics Methods I | 3 |
| HPS 5563 Program Planning for Health Promotion | 3 |
| HPS 5543 Health Program Evaluation | 3 |
| Free Elective (Upper-division) | 3 |
| Free Elective (Upper-division) | 3 |
| Credit Hours | 15 |
| Fifth Year |  |
| First Semester |  |
| CPH 7003 Integrated Public Health Practice | 3 |
| CPH 7941 Practicum Preparation Seminar | 1 |
| HPS Diversity Requirement Course | 3 |
| Graduate-level Elective | 3 |
| Credit Hours | 10 |
| Second Semester |  |
| CPH 7950 Public Health Practicum | 1 |
| Graduate-level Elective | 3 |
| Graduate-level Elective | 3 |
| Credit Hours | 7 |
| Total Credit Hours | 141 |

## Applied Statistics, M.S.

Minimum Total Hours (Non-Thesis): 30
Program Code: M035

## Program Requirements

This is a non-thesis program that will have a capstone at the end of the program. DSP 5873 serves as the capstone experience.

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Core Courses |  | 3 |
| DSP 5773 | Ethics in Statistical Practice | 3 |
| DSP 5873 | Statistical Consulting and Communication | 15 |
| Electives |  |  |
| Statistics: 15 hours from a list maintained by the Data <br> Scholarship Program and approved by the Graduate College. <br> (p. 209) | 3 |  |
| Statistics and Computing: 3 hours from a list maintained by <br> the Data Scholarship Program and approved by the Graduate <br> College. (p. 209) |  |  |

Data Analytics Techniques and Data Management: 6 hours from a list maintained by the Data Scholarship Program and approved by the Graduate College (p. 209)6
Total Credit Hours30
General Requirements for all Master's DegreesThe master's degree requires the equivalent of at least two semesters ofsatisfactory graduate work and additional work as may be prescribed forthe degree.

All coursework applied to the master's degree must carry graduate credit.
Master's degree programs which require a thesis consist of at least 30 credit hours. All non-thesis master's degree programs require at least 30 credit hours.

Credit transferred from other institutions must meet specific criteria and is subject to certain limitations.

Courses completed through correspondence study may not be applied to the master's degree.

To qualify for a graduate degree, students must achieve an overall grade point average of 3.0 or higher in the degree program coursework and in all resident graduate coursework attempted. A student must also have at least a 3.0 in all coursework (including undergraduate coursework if any).

Additional information for master's degree students may be found in the Graduate College Bulletin.

## Applied Statistics M.S. Approved Elective Courses

- For the most current approved list, please consult the Data Scholarsip Program in the Dodge College of Arts \& Sciences.

| Code | Title | Credit <br> Hours |
| :--- | :--- | :---: |
| Statistics Courses |  |  |
| MATH 4753 | Applied Statistical Methods (must be <br> taken for graduate credit) | 3 |
| MATH 5743 | Introduction to Mathematical Statistics | 3 |
| MATH 5773 | Applied Regression Analysis | 3 |
| MATH 5793 | Advanced Applied Statistics | 3 |
| DSA 5403 | Bayesian Statistics | 3 |

Statistics \& Computing Courses
DSP 5673 Introduction to Scientific Computing 3
Data Analytics Techniques and Data Management Courses
LIS 5623 Advanced Data Analytics 3

LIS 5683 Database Design for Information 3

## Criminal Justice (Online), M.S.

Overall GPA - Combined and OU: 3.00

Minimum Total Hours (Non-Thesis): 30

Program Code: M260

## Program Requirements

- This program is non-thesis only.

| Code | Title | Credit |
| :---: | :---: | :---: |
| Required Courses |  |  |
| CRJU 5013 | Introduction to Criminal Justice | 3 |
| CRJU 5063 | Research Methods for Criminal Justice | 3 |
| CRJU 5073 | Quantitative Research and Analysis | 3 |
| Project |  |  |
| CRJU 5953 | Demonstration Project | 3 |
| Electives |  |  |
| Choose eighteen hours of graduate electives from a list maintained by the academic unit and approved by the Graduate College (p. 210) |  | 18 |
| Total Credit Hours |  | 30 |

## General Requirements for all Master's Degrees

The master's degree requires the equivalent of at least two semesters of satisfactory graduate work and additional work as may be prescribed for the degree.

All coursework applied to the master's degree must carry graduate credit.
Master's degree programs which require a thesis consist of at least 30 credit hours. All non-thesis master's degree programs require at least 30 credit hours.

Credit transferred from other institutions must meet specific criteria and is subject to certain limitations.

Courses completed through correspondence study may not be applied to the master's degree.

To qualify for a graduate degree, students must achieve an overall grade point average of 3.0 or higher in the degree program coursework and in all resident graduate coursework attempted. A student must also have at least a 3.0 in all coursework (including undergraduate coursework if any).

Additional information for master's degree students may be found in the Graduate College Bulletin.

## Criminal Justice, Master of Science Elective Course List

- For the most current list of graduate-level Criminal Justice elective courses, please consult an advisor in the Dodge College of Arts and Sciences.

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Criminal Justice | Electives |  |
| CRJU 5063 | Research Methods for Criminal Justice | 3 |
| CRJU 5073 | Quantitative Research and Analysis | 3 |


| CRJU 5083 | Qualitative Research Methods in Criminal Justice | 3 |
| :---: | :---: | :---: |
| CRJU 5213 | Mediation \& Conflict Resolution for Criminal Justice Professionals | 3 |
| CRJU 5223 | Community Corrections in the 21 st Century | 3 |
| CRJU 5263 | Restorative Justice Programs for Drug Offenders | 3 |
| CRJU 5283 | Human Trafficking and Prostitution | 3 |
| CRJU 5303 | Correctional Leadership | 3 |
| CRJU 5343 | Mental Illness and the Criminal Justice System | 3 |
| CRJU 5353 | Women and Crime | 3 |
| CRJU 5403 | Drug Enforcement Operations and Management | 3 |
| CRJU 5413 | Substance Abuse and Crime in the United States | 3 |
| CRJU 5423 | Global Drug Trafficking, Narco-Terrorism, and United States Drug Policy | 3 |
| CRJU 5463 | Gangs in the United States | 3 |
| CRJU 5513 | Studies in Police Leadership | 3 |
| CRJU 5533 | Crime Analysis for Intelligence-Led Policing | 3 |
| CRJU 5583 | Cyber-Forensics | 3 |
| CRJU 5700 | Advanced Topics in Criminal Justice | 2-9 |
| CRJU 5920 | Internship in Criminal Justice | 2-6 |
| CRJU 5960 | Directed Readings in Criminal Justice | 2-9 |
| CRJU 5970 | Special Topics/Seminar | 1-3 |
| CRJU 5990 | Independent Study | 1-3 |

## Human \& Health Services Administration (Online), M.A.

Minimum Total Hours (Thesis): 33
Minimum Total Hours (Non-Thesis): 33
Program Code: M577

## Thesis Option

| Code | Title | Credit |
| :---: | :---: | :---: |
| Required Courses |  |  |
| LSTD 5003 |  | 3 |
| LSTD 5013 |  | 3 |
| LSHA 5113 | Strategic Planning and Evaluation in HHSA | 3 |
| LSHA 5133 | Cultural, Social and Diversity Issues in HHSA | 3 |
| LSHA 5153 | Ethics in Human and Health Services Administration | 3 |
| Research Methods |  |  |
| $\begin{aligned} & \text { LSTD } 5043 \\ & \text { or LSTD } 5083 \end{aligned}$ |  | 3 |
| Core Courses |  |  |
| Thesis |  |  |
| LSTD 5980 |  | 6 |
| Electives ${ }^{1}$ |  |  |

Choose nine hours with advisor approval. The following are some possible choices:

| LSAL 5113 |  |
| :--- | :--- |
| LSAL 5133 |  |
| LSAL 5173 |  |
| LSAL 5203 |  |
| LSAL 5423 | 33 |
| LSTD 5700 | 3 |
| LSTD 5960 |  |
| Total Credit Hours |  |

1 Some of the currently approved courses from which students might choose are listed. However, students are not limited to only these courses. They may choose, with approval of the advisor and Graduate Liaison, from any of the courses offered through Liberal Studies. In addition, and as appropriate, individual students may choose courses from outside the College of Professional and Continuing Studies, pending approval by both PACS and the department offering the specific course.

## Non-Thesis Option

| Code | Title | Credit Hours |
| :---: | :---: | :---: |
| Required Courses |  |  |
| LSTD 5003 |  | 3 |
| LSTD 5013 |  | 3 |
| LSHA 5113 | Strategic Planning and Evaluation in HHSA | 3 |
| LSHA 5133 | Cultural, Social and Diversity Issues in HHSA | 3 |
| LSHA 5153 | Ethics in Human and Health Services Administration | 3 |
| Research Methods |  |  |
| LSTD 5043 or LSTD 5083 |  | 3 |
| Core Courses |  |  |
| Completion (Non-Thesis) |  |  |
| Choose six hours in one of the following: |  | 6 |
| LSTD 5940 |  |  |
| LSTD 5920 |  |  |
| Six hours of advanced coursework as approved by advisor and Graduate Liaison |  |  |
| Electives ${ }^{1}$ |  |  |
| Choose nine hours with advisor approval. The following are some possible choices: |  |  |
| LSAL 5113 |  |  |
| LSAL 5133 |  |  |
| LSAL 5173 |  |  |
| LSAL 5203 |  |  |
| LSAL 5423 |  |  |
| LSTD 5700 |  |  |
| LSTD 5960 |  |  |
| Total Credit Hours |  | 33 |

1 Some of the currently approved courses from which students might choose are listed. However, students are not limited to only these courses. They may choose, with approval of the advisor and Graduate Liaison, from any of the courses offered through Liberal Studies. In addition, and as appropriate, individual students may choose courses from outside the College of Professional and Continuing Studies, pending approval by both PACS and the department offering the specific course.

## General Requirements for all Master's Degrees

The master's degree requires the equivalent of at least two semesters of satisfactory graduate work and additional work as may be prescribed for the degree.

All coursework applied to the master's degree must carry graduate credit.
Master's degree programs which require a thesis consist of at least 30 credit hours. All non-thesis master's degree programs require at least 30 credit hours.

Credit transferred from other institutions must meet specific criteria and is subject to certain limitations.

Courses completed through correspondence study may not be applied to the master's degree.

To qualify for a graduate degree, students must achieve an overall grade point average of 3.0 or higher in the degree program coursework and in all resident graduate coursework attempted. A student must also have at least a 3.0 in all coursework (including undergraduate coursework if any).

Additional information for master's degree students may be found in the Graduate College Bulletin.

## Integrative Studies (Online), M.A.

## Minimum Total Hours (Thesis): 33

Minimum Total Hours (Non-Thesis): 33
Program Code: M574

## Thesis Option



| Archaeoastronomy and Astronomy in Culture Track |
| :--- |
| (Concentration Code: Q038) (p. 212) |
| Diversity Track (Concentration Code: Q184) (p. 212) |
| Self-Design Track (Concentration Code: Q614) (p. 212) |
| Total Credit Hours |

## Non-Thesis Option

| Code | Title | Credit |
| :---: | :---: | :---: |
| Required Courses |  |  |
| LSTD 5003 |  | 3 |
| LSTD 5013 |  | 3 |
| LSTD 5043 |  | 3 |
| Required Integrative Study Courses |  |  |
| LSIS 5113 | Critical Readings in Interdisciplinary Studies | 3 |
| LSIS 5133 | Advanced Interdisciplinary Foundations | 3 |
| Completion |  |  |
| Choose 6 hour program's | advanced coursework as approved by the culty member and the Graduate Liaison | 6 |
| Intregrative Studies Tracks |  |  |
| All students hours (4 cour | elect one of the following tracks for 12 of concentrated study: | 12 |
| Archaeoastronomy and Astronomy in Culture Track (Concentration Code: Q038) (p. 212) |  |  |
| Diversity Track (Concentration Code: Q184) (p. 212) |  |  |
| Self-Design Track (Concentration Code: Q614) (p. 212) |  |  |

Total Credit Hours

## Archaeoastronomy and Astronomy in Culture Track (Concentration Code: Q038)

| Code | Title | Credit <br> Hours |
| :---: | :---: | :---: |
| LSIS 5403 | Introduction and Research Methods for Archaeoastronomy | 3 |
| LSIS 5423 | Archaeoastronomy of Chaco Canyon and Cahokia | 3 |
| LSIS 5443 | Latin American Archaeoastronomy | 3 |
| Archaeoastronomy Elective Course |  | 3 |
| Total Credit Hours |  | 12 |
| Diversity Track (Concentration Code: Q184) |  |  |
| Code | Title | Credit |
|  |  | Hours |
| LSIS 5203 | Diversity and Leadership in the United States | 3 |
| LSIS 5233 | Global Challenges in Leadership | 3 |
| LSIS 5253 | Cultural Communication in Leadership | 3 |
| Diversity Elective Course |  | 3 |
| Total Credi |  | 12 |


| Self-Design Track (Concentration Code: Q614) |  |
| :--- | ---: |
| Code $\quad$ Title | Credit |
|  | Hours |
| Self-Design Elective Courses | 12 |
| Total Credit Hours | $\mathbf{1 2}$ |

## General Requirements for all Master's Degrees

The master's degree requires the equivalent of at least two semesters of satisfactory graduate work and additional work as may be prescribed for the degree.

All coursework applied to the master's degree must carry graduate credit.
Master's degree programs which require a thesis consist of at least 30 credit hours. All non-thesis master's degree programs require at least 30 credit hours.

Credit transferred from other institutions must meet specific criteria and is subject to certain limitations.

Courses completed through correspondence study may not be applied to the master's degree.

To qualify for a graduate degree, students must achieve an overall grade point average of 3.0 or higher in the degree program coursework and in all resident graduate coursework attempted. A student must also have at least a 3.0 in all coursework (including undergraduate coursework if any).

Additional information for master's degree students may be found in the Graduate College Bulletin.

## Integrative Studies Master of Arts Elective Course List

- For the most current list of graduate-level Integrative Studies elective courses, please consult an advisor in the Dodge College of Arts and Sciences.

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| OL 5133 | Cultures of Organizations | 3 |
| OL 5223 | Financial Leadership | 3 |
| OL 5243 | Project Management | 3 |
| OL 5283 | Building High Performance Teams | 3 |
| OL 5313 | Organizational Communications | 3 |
| OL 5323 | Fundraising and Budgeting | 3 |
| OL 5353 | Non-Profit Governance | 3 |
| OL 5393 | Followership | 3 |
| OL 5423 | Women in Leadership | 3 |
| OL 5593 | Development and Grant Writing | 3 |
| OL 5700 | Advanced Topics in Administrative | 2 |
|  | Leadership | 3 |
| LSHA 5133 | Cultural, Social and Diversity Issues in | 3 |
| LSHA 5313 | Cross-Cultural Health Issues in Human and | 3 |


| LSIS 5033 | Ethnographic Field Research and Writing | 3 |
| :---: | :---: | :---: |
| LSIS 5093 | Literature Review Development | 3 |
| LSIS 5203 | Diversity and Leadership in the United States | 3 |
| LSIS 5233 | Global Challenges in Leadership | 3 |
| LSIS 5243 | LGBTQ Leadership | 3 |
| LSIS 5253 | Cultural Communication in Leadership | 3 |
| LSIS 5263 | Significance of Race in Society in the United States | 3 |
| LSIS 5273 | Overcoming Educational Inequality in the United States | 3 |
| LSIS 5293 | Exploring Race and Gender in Film | 3 |
| LSIS 5313 |  | 3 |
| LSIS 5333 | Volunteer Program Development | 3 |
| LSIS 5373 | Volunteer Management | 3 |
| LSIS 5403 | Introduction and Research Methods for Archaeoastronomy | 3 |
| LSIS 5423 | Archaeoastronomy of Chaco Canyon and Cahokia | 3 |
| LSIS 5443 | Latin American Archaeoastronomy | 3 |
| LSIS 5463 | Archaeoastronomy Beyond the Americas | 3 |
| LSIS 5483 | Ethnoastronomy | 3 |
| LSIS 5493 | Fieldwork in Archaeoastronomy | 3 |
| LSIS 5700 | Advanced Topics in Integrated Studies | 2-9 |
| LSIS 5920 | Internship in Integrated Studies | 2-6 |
| LSIS 5960 | Directed Readings | 2-9 |
| LSIS 5970 | Special Topics/Seminar | 1-3 |
| LSIS 5990 | Independent Study | 1-3 |
| MST 5173 | Museums, Cultures, and Communities | 3 |
| MST 5403 | Museums and Native Cultures | 3 |
| CAS 5073 | Quantitative Research Methods for Interdisciplinary Studies | 3 |
| CAS 5083 | Qualitative Research Methods in Interdisciplinary Studies | 3 |
| CAS 5700 | Advanced Topics in Interdisciplinary Studies | 2-9 |
| Other courses as approved by the program's lead faculty and the graduate liaison |  |  |

## Organizational Leadership (Online), M.A.

Minimum Total Hours (Non-Thesis): 33
Program Code: M762

## Program Requirements

- This program is Non-Thesis only.

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Core Required Courses | 3 |  |
| CAS 5003 | Introduction to Grad Studies | 3 |
| OL 5013 | Interdisciplinary Foundations for <br> Leadership | 3 |


| OL 5113 | Theories of Management and Leadership | 3 |
| :---: | :---: | :---: |
| OL 5133 | Cultures of Organizations | 3 |
| OL 5193 | Creating, Leading, and Managing Change | 3 |
| Completion |  |  |
| OL 5903 | Experiential Leadership I | 3 |
| OL 5953 | Graduate Capstone in Organizational Leadership | 3 |
| Leadership Tracks |  |  |
| Select one of the tracks below for 9 hours of focused study. Students will complete 2 required courses in their selected track and 1 additional track elective from a list of courses maintained by the academic unit and approved by the Graduate College ${ }^{1}$ |  |  |
| Organizational Leadership Track (Q491) |  |  |
| OL 5223 | Financial Leadership |  |
| OL 5283 | Building High Performance Teams |  |
| Elective Course |  |  |
| Volunteer \& Non-Profit Leadership Track (Q693) |  |  |
| OL 5323 | Fundraising and Budgeting |  |
| OL 5353 | Non-Profit Governance |  |
| Elective Course |  |  |
| Governmental and Military Leadership Track (Q298) |  |  |
| OL 5403 | Leadership in History |  |
| OL 5463 | US Military Leadership: Insights and Applications |  |
| Elective Course |  |  |
| Total Credit Hours |  | 33 |
| ${ }^{1}$ Examples of electives approved by the Organizational Leadership program may be found here (p. 214). |  |  |

## General Requirements for all Master's Degrees

The master's degree requires the equivalent of at least two semesters of satisfactory graduate work and additional work as may be prescribed for the degree.

All coursework applied to the master's degree must carry graduate credit.
Master's degree programs which require a thesis consist of at least 30 credit hours. All non-thesis master's degree programs require at least 30 credit hours.

Credit transferred from other institutions must meet specific criteria and is subject to certain limitations.

Courses completed through correspondence study may not be applied to the master's degree.

To qualify for a graduate degree, students must achieve an overall grade point average of 3.0 or higher in the degree program coursework and in all resident graduate coursework attempted. A student must also have at least a 3.0 in all coursework (including undergraduate coursework if any).

Additional information for master's degree students may be found in the Graduate College Bulletin.

## Organizational Leadership Approved Graduate Electives

Examples of track and completion elective courses available for the Organizational Leadership Master of Arts are as follows:

| Organizational Leadership Track (Q491) |  |  |
| :---: | :---: | :---: |
| Code | Title | Credit |
|  |  | Hours |
| OL 5173 | The Individual and Leadership | 3 |
| OL 5203 | Leadership Issues in Decision Making | 3 |
| OL 5243 | Project Management | 3 |
| OL 5313 | Organizational Communications | 3 |
| OL 5323 | Fundraising and Budgeting | 3 |
| OL 5333 | Motivation in Work and Leadership | 3 |
| OL 5353 | Non-Profit Governance | 3 |
| OL 5393 | Followership | 3 |
| OL 5403 | Leadership in History | 3 |
| OL 5423 | Women in Leadership | 3 |
| OL 5443 | Religious Leaders for Social Justice | 3 |
| OL 5463 | US Military Leadership: Insights and Applications | 3 |
| OL 5483 | National Security Leadership | 3 |
| OL 5553 | Assessment-Based Coaching | 3 |
| OL 5593 | Development and Grant Writing | 3 |
| OL 5700 | Advanced Topics in Administrative Leadership | 2-9 |
| OL 5920 | Internship in Administrative Leadership | 2-6 |

## Volunteer \& Non-Profit Leadership Track (Q693)

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| OL 5153 | Ethics in Leadership | 3 |
| OL 5173 | The Individual and Leadership | 3 |
| OL 5203 | Leadership Issues in Decision Making | 3 |
| OL 5223 | Financial Leadership | 3 |
| OL 5243 | Project Management | 3 |
| OL 5283 | Building High Performance Teams | 3 |
| OL 5313 | Organizational Communications | 3 |
| OL 5333 | Motivation in Work and Leadership | 3 |
| OL 5393 | Followership | 3 |
| OL 5403 | Leadership in History | 3 |
| OL 5423 | Women in Leadership | 3 |
| OL 5443 | Religious Leaders for Social Justice | 3 |
| OL 5463 | US Military Leadership: Insights and | 3 |
| OL 5483 | Applications | 3 |
| OL 5553 | National Security Leadership | 3 |
| OL 5593 | Assessment-Based Coaching | 3 |
| OL 5700 | Development and Grant Writing | $2-9$ |
| OL 5920 | Advanced Topics in Administrative | $2-6$ |
|  | Leadership | 3 |
|  | Internship in Administrative Leadership | 3 |


| Governmental \& Military Leadership Track (Q298) |  |  |
| :---: | :---: | :---: |
| Code | Title | Credit |
|  |  | Hours |
| OL 5153 | Ethics in Leadership | 3 |
| OL 5173 | The Individual and Leadership | 3 |
| OL 5203 | Leadership Issues in Decision Making | 3 |
| OL 5223 | Financial Leadership | 3 |
| OL 5243 | Project Management | 3 |
| OL 5283 | Building High Performance Teams | 3 |
| OL 5313 | Organizational Communications | 3 |
| OL 5323 | Fundraising and Budgeting | 3 |
| OL 5333 | Motivation in Work and Leadership | 3 |
| OL 5353 | Non-Profit Governance | 3 |
| OL 5393 | Followership | 3 |
| OL 5423 | Women in Leadership | 3 |
| OL 5443 | Religious Leaders for Social Justice | 3 |
| OL 5483 | National Security Leadership | 3 |
| OL 5553 | Assessment-Based Coaching | 3 |
| OL 5593 | Development and Grant Writing | 3 |
| OL 5700 | Advanced Topics in Administrative Leadership | 2-9 |
| OL 5920 | Internship in Administrative Leadership | 2-6 |

## Applied Statistics, Graduate Certificate

Minimum Total Hours: 15

Program Code: G215 (G216 Online)

## Certificate Requirements

- Students must have $a \geq 3.0$ GPA for courses applied to the graduate certificate to earn the graduate certificate.
- Courses for which a grade of less than C is earned will not apply toward the certificate.
- at least half of all credit hours must be at or above the 5000 -level.
- No more than 6 credits hours may be taken from courses offered by the Gallogly College of Engineering (i.e., C S and/or DSA courses).

The certificate courses require pre-requisites in Linear Algebra and Calculus, Coding, and basic Statistics.

| Code Title | Credit <br> Hours |
| :---: | :---: |
| Choose one course in Mathematical Statistics (p.215) ${ }^{1}$ | 3 |
| Choose one course in Intermediate Statistics (p.215) ${ }^{1}$ | 3 |
| Choose 2 courses in Statistics and Computing (p. 215) ${ }^{1}$ | 6 |
| Choose one course in Interdisciplinary Applied Statistics (p. 215) ${ }^{1}$ | 3 |
| Total Credit Hours | 15 |
| ${ }^{1}$ Lists of courses approved for each of these categories by the Data Scholarship Program. | ained |

A graduate certificate is not a graduate degree. A graduate degree represents a program of independent inquiry beyond the depth of coursework alone, while a graduate certificate represents a set of courses only.

- All courses must be taken at OU. No transfer credit will apply.
- No course substitutions are permitted for graduate certificates.
- Coursework applied to a graduate certificate cannot be more than five years old as of the semester the graduate certificate is awarded.
- Students must earn a grade point average of 3.00 or higher on all coursework applied to the graduate certificate.


## Applied Statistics Graduate Certificate Course Lists

For the most current lists of approved courses in these categories, please consult the Data Scholarship Program.

Mathematical Statistics

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| HES 5963 | Statistical Applications in Health and <br> Exercise Science | 3 |
| MATH 4753 | Applied Statistical Methods (taken for <br> graduate credit) | 3 |
| MATH 5743 | Introduction to Mathematical Statistics | 3 |

## Intermediate Statistics

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| BIOL 5943 | Multivariate Analysis | 3 |
| ECON 4223 | Econometric Analysis (taken for graduate <br> credit) | 3 |
| COMM 5033 | Advanced Statistics | 3 |
| MATH 4753 | Applied Statistical Methods (taken for | 3 |
| MATH 5773 | Applied Regression Analysis | 3 |
| HES 5903 | Sports Performance Analytics | 3 |
| P SC 5933 | Intermediate Analysis of Political Data | 3 |
| PSY 5013 | Psychological Statistics II | 3 |
| SOC 5483 | Advanced Regression Analysis | 3 |

Statistics and Computing

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Social Science Statistics |  |  |
| ECON 5023 | Statistics for Decision Making | 3 |
| ECON 5033 | Managerial Economics I | 3 |
| ECON 5043 | Managerial Economics II | 3 |
| ECON 5213 | Advanced Econometrics | 3 |
| ECON 5243 | Econometrics II | 3 |
| ECON 5253 | Data Science for Economists | 3 |
| ECON 5970 | Special Topics/Seminar (topic: Bayesian | 3 |
|  | Econometrics) | 3 |
| ECON 6343 | Econometrics III | 3 |


| SOC 5683 | Categorical, Panel, and Advanced Statistical Analyses | 3 |
| :---: | :---: | :---: |
| SOC 5823 | Social Demography | 3 |
| P SC 5913 | Introduction to Analysis of Political and Administrative Data | 3 |
| P SC 5940 | Advanced Research Methods: Special Topics (topic: Maximum Likelihood Estimation) | 3 |
| PSY 6013 | Factor Analysis and Structural Equation Models | 3 |
| PSY 6023 | Statistical Models of Tests Scores | 3 |
| PSY 6063 | Seminar in Quantitative Psychology (topic: Multivariate Statistics) | 3 |
| PSY 6063 | Seminar in Quantitative Psychology (topic: Multilevel Modeling) | 3 |
| PSY 6063 | Seminar in Quantitative Psychology (topic: Advanced Structural Equation Modeling) | 3 |
| PSY 6073 | Experimental Design for Psychology | 3 |
| Natural \& Appli | Sciences Statistics |  |
| ASTR 5970 | Special Topics/Seminar (topic: Machine Learning) | 3 |
| BIOL 4913 | Quantitative Biology (taken for graduate credit) | 3 |
| BIOL 5943 | Multivariate Analysis | 3 |
| BIOL 5970 | Special Topics in Biology (topic: Bayesian Models) | 3 |
| GEOG 5113 | Quantitative Methods in Geographic and Environmental Research | 3 |
| GIS 5923 | Spatial Statistics | 3 |
| HES 5283 | Sports Financial and Market Analytics | 3 |
| HES 5313 | Athlete Tracking and Monitoring in Sports | 3 |
| HES 5903 | Sports Performance Analytics | 3 |
| HES 5953 | Research Methods in Health and Exercise Science | 3 |
| HES 5963 | Statistical Applications in Health and Exercise Science | 3 |
| METR 5313 | Statistical Meteorology | 3 |
| METR 5433 | Advanced Statistical Meteorology | 3 |
| Math \& Engineering Statistics |  |  |
| C S 5033 | Machine Learning Fundamentals | 3 |
| DSA/ISE 5013 | Fundamentals of Engineering Statistical Analysis | 3 |
| DSA 5203 | Time Series Analysis | 3 |
| DSA 5403 | Bayesian Statistics | 3 |
| MATH 4733 | Mathematical Theory of Probability (taken for graduate credit) | 3 |
| MATH 4753 | Applied Statistical Methods (taken for graduate credit) | 3 |
| MATH 5173 | Advanced Numerical Analysis I | 3 |
| MATH 5183 | Advanced Numerical Analysis II | 3 |
| MATH 5763 | Introduction to Stochastic Processes | 3 |
| MATH 5773 | Applied Regression Analysis | 3 |
| MATH 5793 | Advanced Applied Statistics | 3 |
| MATH 5803 | Topics in Mathematics (topic: Bayesian Statistics) | 3 |


| Computing Skills |  | 3 |
| :--- | :--- | ---: |
| BIOL 5783 | Introduction to Python Programming for |  |
|  | Data Analytics | 3 |
| BIOL 5923 | Programming in R for Biology | $1-2$ |
| CHEM 5280 | Practicum in Biochemistry | 3 |
| C S 5293 | Text Analytics | 3 |
| C S 5593 | Data Mining | 3 |
| DSA/ISE 5103 | Intelligent Data Analytics | 3 |
| GIS 5003 | Spatial Data Management for GIS |  |
|  | Professionals | 3 |
| GRAD 5203 | EOS3 Data Analytics | 3 |
| HES 5903 | Sports Performance Analytics | 3 |
| LIS 5613 | Dynamic Web Development | 3 |
| LIS 5623 | Advanced Data Analytics |  |
| LIS 5643 | Introduction to Data Analytics | 3 |
| LIS 5970 | Special Topics/Seminar (topic: Data | 3 |
|  | Stewardship) |  |
| METR 5330 | Information Technology Skills for | 3 |
|  | Meteorology |  |

## Interdisciplinary Applied Statistics

Statistical Consulting, Internship, Mentored research experience with someone outside of your research area, or class outside of research area that includes a project. E.g., Applying an atypical method to your own research or applying a method from your discipline to a different problem/data set. Interdisciplinary experiences are highly encouraged. Must produce a report that includes the results and a discussion of decision-making, ethics, biases, and limitations that are part of the data set/study.

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| DSP 5633 | Data Analytics and Applied Statistics <br> Internship | 3 |
| CAS 5970 | Special Topics/Seminar | $1-3$ |
| CAS 5990 | Independent Study (with faculty outside of <br> your discipline, with an approved, applied <br> statistical component) | $1-3$ |
| Interdisciplinary Advanced Statistics Elective Course outside <br> of student's research area that includes a written project |  |  |
| Courses listed in the Advanced Statistics Electives list may be used. |  |  |

## Corrections Management (Online), Graduate Certificate

Minimum Total Hours: 12

Program Code: G033

## This program is in the process of deletion pending approval of the OU and State Regents.

The Corrections Management Certificate provides opportunity for individuals working in corrections, probation and parole, and rehabilitative services fields.

## Certificate Requirements

| Code | Title | Credit <br> Hours |
| :---: | :---: | :---: |
| Core Courses |  |  |
| CRJU 5153 | Ethical Decision Making in Criminal Justice | 3 |
| CRJU 5363 | Penology | 3 |
| Elective Courses ${ }^{1}$ |  |  |
| Choose six by the acad | of graduate electives from a list maintained unit and approved by the Graduate College. | 6 |
| Total Credit |  | 12 |
| ${ }^{1}$ Elective hours include courses such as Community Justice in the 21 st Century, Restorative Justice Programs for Drug Offenders, Mental Illness and the Criminal Justice System, and Gangs in the United States. |  |  |
| A graduate certificate is not a graduate degree. A graduate degree represents a program of independent inquiry beyond the depth of coursework alone, while a graduate certificate represents a set of courses only. |  |  |

- All courses must be taken at OU. No transfer credit will apply.
- No course substitutions are permitted for graduate certificates.
- Coursework applied to a graduate certificate cannot be more than five years old as of the semester the graduate certificate is awarded.
- Students must earn a grade point average of 3.00 or higher on all coursework applied to the graduate certificate.


## Corrections Management Graduate Certificate Approved Electives List

- For the most current list of approved electives, please consult the Dodge College of Arts \& Sciences Online Programs office.

| Code | Title | Credit |
| :---: | :---: | :---: |
| CRJU 5013 | Introduction to Criminal Justice | 3 |
| CRJU 5063 | Research Methods for Criminal Justice | 3 |
| CRJU 5073 | Quantitative Research and Analysis | 3 |
| CRJU 5083 | Qualitative Research Methods in Criminal Justice | 3 |
| CRJU 5113 | Theoretical Foundations of Criminal Justice | 3 |
| CRJU 5133 | Criminal Justice Policy Development | 3 |
| CRJU 5213 | Mediation \& Conflict Resolution for Criminal Justice Professionals | 3 |
| CRJU 5223 | Community Corrections in the 21 st Century | 3 |
| CRJU 5263 | Restorative Justice Programs for Drug Offenders | 3 |
| CRJU 5283 | Human Trafficking and Prostitution | 3 |
| CRJU 5303 | Correctional Leadership | 3 |
| CRJU 5343 | Mental Illness and the Criminal Justice System | 3 |
| CRJU 5353 | Women and Crime | 3 |
| CRJU 5403 | Drug Enforcement Operations and Management | 3 |


| CRJU 5413 | Substance Abuse and Crime in the United <br> States | 3 |
| :--- | :--- | ---: |
| CRJU 5423 | Global Drug Trafficking, Narco-Terrorism, <br> and United States Drug Policy | 3 |
| CRJU 5463 | Gangs in the United States | 3 |
| CRJU 5513 | Studies in Police Leadership | 3 |
| CRJU 5533 | Crime Analysis for Intelligence-Led Policing | 3 |
| CRJU 5583 | Cyber-Forensics | 3 |
| CRJU 5700 | Advanced Topics in Criminal Justice | $2-9$ |
| CRJU 5920 | Internship in Criminal Justice | $2-6$ |
| CRJU 5960 | Directed Readings in Criminal Justice | $2-9$ |
| CRJU 5970 | Special Topics/Seminar | $1-3$ |
| CRJU 5990 | Independent Study | $1-3$ |

## Criminal Justice Administration (Online), Graduate Certificate

Minimum Total Hours: 12
Program Code: G288

## This program is in the process of deletion pending approval of the OU and State Regents.

The Graduate Certificate in Criminal Justice Administration emphasizes leadership, as well as program and project development within the criminal justice system.

## Certificate Requirements

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Core Courses |  |  |
| CRJU 5133 | Criminal Justice Policy Development | 3 |
| CRJU 5153 | Ethical Decision Making in Criminal Justice | 3 |
| CRJU 5513 | Studies in Police Leadership | 3 |
| Elective Course |  | 3 |
| Complete three graduate elective hours from a list maintained |  |  |
| by the academic unit and approved by the Graduate College. | 3 |  |
| CRJU 5403 | Drug Enforcement Operations and | 3 |
| CRJU 5533 | Management | 3 |
| OL 5113 | Crime Analysis for Intelligence-Led Policing | 3 |
| OL 5133 | Cultures of Organizations | 3 |
| OL 5173 | The Individual and Leadership | 3 |
| OL 5313 | Organizational Communications | 3 |
| OL 5333 | Motivation in Work and Leadership | 3 |
| OL 5903 | Experiential Leadership I | 3 |
| OL 5913 | Experiential Leadership II | 3 |

Total Credit Hours

[^3]coursework alone, while a graduate certificate represents a set of courses only.

- All courses must be taken at OU. No transfer credit will apply.
- No course substitutions are permitted for graduate certificates.
- Coursework applied to a graduate certificate cannot be more than five years old as of the semester the graduate certificate is awarded.
- Students must earn a grade point average of 3.00 or higher on all coursework applied to the graduate certificate.


## Data Analytics, Graduate Certificate

Minimum Total Hours: 15
Program Code: G295 (G296 Online)

## Certificate Requirements

- Students must have $a \geq 3.0$ GPA for courses applied to the graduate certificate to earn the graduate certificate.
- Courses for which a grade of less than C is earned will not apply toward the certificate.
- At least half of all credit hours must be at or above the 5000-level
- No more than 6 credits hours may be taken from courses offered by the Gallogly College of Engineering (i.e., C S and/or DSA courses)

The certificate courses require pre-requisites in Linear Algebra, Calculus and Coding.

| Code Title | Credit Hours |
| :---: | :---: |
| Choose one course in Data Analytics Computing Skills (p. 218) ${ }^{1}$ | 3 |
| Choose one course in Statistics or Applied Math (p.218) ${ }^{1}$ | 3 |
| Choose one course in Data Management or Visualization (p. 218) ${ }^{1}$ | 3 |
| Choose one Statistics, Data, or Computing elective (p. 218) 1 | 3 |
| Choose one Project-based Advanced Applied Data Analytics Experience (p. 218) ${ }^{1}$ | 3 |

Total Credit Hours
15
${ }^{1}$ Lists of courses approved for each of these categories are maintained by the Data Scholarship Program.

A graduate certificate is not a graduate degree. A graduate degree represents a program of independent inquiry beyond the depth of coursework alone, while a graduate certificate represents a set of courses only.

- All courses must be taken at OU. No transfer credit will apply.
- No course substitutions are permitted for graduate certificates.
- Coursework applied to a graduate certificate cannot be more than five years old as of the semester the graduate certificate is awarded.
- Students must earn a grade point average of 3.00 or higher on all coursework applied to the graduate certificate.


## Data Analytics Graduate Certificate Course Lists

For the most current lists of approved courses in these categories, please consult the Data Scholarship Program.

## Data Analytics Computing Skills

Note that DSA 5001 and DSA 5011 are both one-hour courses. They cannot be used by themselves to satisfy the 3 credit-hour requirement.

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| ASTR 5970 | Special Topics/Seminar (topic: Machine <br> Learning) | 3 |
| BIOL 5923 | Programming in R for Biology | 3 |
| CHEM 5280 | Practicum in Biochemistry | $1-2$ |
| DSA 5001 | Data Analytics and Media | 1 |
| DSA 5011 | Introduction to R | 1 |
| DSA/ISE 5103 | Intelligent Data Analytics | 3 |
| DSA/ISE 5113 | Advanced Analytics and Metaheuristics | 3 |
| ECON 5253 | Data Science for Economists | 3 |
| GIS 5003 | Spatial Data Management for GIS <br> GIS 5453 | Professionals |

## Graduate Statistics and Applied Math

Note that DSA 5005/C S 5005 is a 5-credit-hour course and can be used to meet the 3-credit-hour requirement. However, the extra two credit hours from DSA 5005/C S 5005
cannot be carried over to meet another requirement.

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Social Sciences |  |  |
| ANTH 4713 | Statistical Concepts in Anthropology | 3 |
| ANTH 5083 | Quantitative Methods in Anthropology | 3 |
| COMM 5003 | Quantitative Research Methods | 3 |
| COMM 5023 | Introduction to Quantitative Research | 3 |
| COMM 5033 | Methods | 3 |


| COMM 6970 | Seminar in Communication (topic: Structural Equation Modeling) | 3 |
| :---: | :---: | :---: |
| ECON 4223 | Econometric Analysis | 3 |
| ECON 4773 | Economic Game Theory | 3 |
| ECON 5023 | Statistics for Decision Making | 3 |
| ECON 5033 | Managerial Economics I | 3 |
| ECON 5043 | Managerial Economics II | 3 |
| ECON 5213 | Advanced Econometrics | 3 |
| ECON 5243 | Econometrics II | 3 |
| ECON 5253 | Data Science for Economists | 3 |
| ECON 5970 | Special Topics/Seminar (topic: Bayesian Econometrics) | 3 |
| ECON 6343 | Econometrics III | 3 |
| P SC 5913 | Introduction to Analysis of Political and Administrative Data | 3 |
| P SC 5923 | Introduction to Analysis of Political Data | 3 |
| P SC 5933 | Intermediate Analysis of Political Data | 3 |
| P SC 5940 | Advanced Research Methods: Special Topics (topic: Maximum Likelihood Estimation) | 3 |
| PSY 5003 | Psychological Statistics I | 3 |
| PSY 5013 | Psychological Statistics II | 3 |
| PSY 6013 | Factor Analysis and Structural Equation Models | 3 |
| PSY 6023 | Statistical Models of Tests Scores | 3 |
| PSY 6063 | Seminar in Quantitative Psychology (topics: Multivariate Analysis, Multilevel Modeling, Advanced SEM) | 3 |
| PSY 6073 | Experimental Design for Psychology | 3 |
| SOC/P SC 5143 | Program Evaluation | 3 |
| SOC 5313 | Qualitative Research Methods | 3 |
| SOC 5283 | Fundamentals of Sociological Statistics | 3 |
| SOC 5293 | Advanced Methods of Social Research | 3 |
| SOC 5483 | Advanced Regression Analysis | 3 |
| SOC 5823 | Social Demography | 3 |
| SOC 5683 | Categorical, Panel, and Advanced Statistical Analyses | 3 |
| Natural Sciences | \& Interdisciplinary |  |
| ASTR 5970 | Special Topics/Seminar (topic: Machine Learning) | 3 |
| BIOL 4913 | Quantitative Biology (taken for graduate credit) | 3 |
| BIOL 5943 | Multivariate Analysis | 3 |
| BIOL 5970 | Special Topics in Biology (topic: Bayesian Models) | 3 |
| GEOG 5113 | Quantitative Methods in Geographic and Environmental Research | 3 |
| GIS 5923 | Spatial Statistics | 3 |
| HES 5283 | Sports Financial and Market Analytics | 3 |
| HES 5313 | Athlete Tracking and Monitoring in Sports | 3 |
| HES 5903 | Sports Performance Analytics | 3 |
| HES 5953 | Research Methods in Health and Exercise Science | 3 |


| HES 5963 | Statistical Applications in Health and Exercise Science | 3 |
| :---: | :---: | :---: |
| METR 5313 | Statistical Meteorology | 3 |
| METR 5433 | Advanced Statistical Meteorology | 3 |
| Math, Engineering, \& Computer Science |  |  |
| C S 4413 | Algorithm Analysis (taken for graduate credit) | 3 |
| C S 5033 | Machine Learning Fundamentals | 3 |
| C S 5293 | Text Analytics | 3 |
| DSA/C S 5005 | Computing Structures | 5 |
| DSA/ISE 5013 | Fundamentals of Engineering Statistical Analysis | 3 |
| DSA 5203 | Time Series Analysis | 3 |
| DSA 5303 | Financial Engineering Analytics | 3 |
| DSA 5403 | Bayesian Statistics | 3 |
| MATH 4073 | Numerical Analysis I (taken for graduate credit) | 3 |
| MATH 4733 | Mathematical Theory of Probability (taken for graduate credit) | 3 |
| MATH 4753 | Applied Statistical Methods (taken for graduate credit) | 3 |
| MATH 5093 | Applied Numerical Methods | 3 |
| MATH 5743 | Introduction to Mathematical Statistics | 3 |
| MATH 5793 | Advanced Applied Statistics | 3 |
| MATH 5763 | Introduction to Stochastic Processes | 3 |
| MATH 5773 | Applied Regression Analysis | 3 |
| MATH 5803 | Topics in Mathematics | 3 |

## Data Management and Visualization

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| C S 5093 | Visual Analytics | 3 |
| DSA/C S 4513 | Database Management Systems (taken for <br> graduate credit) | 3 |
| LIS 5673 | Introduction to Information Visualization | 3 |
| LIS 5683 | Database Design for Information <br> Organizations | 3 |
| LIS 5970 | Special Topics/Seminar (topic: Data <br> Stewardship) | 3 |
| LIS 5970 | Special Topics/Seminar (topic: Digital Life- <br> Cycle Management) | $1-3$ |
| LIS 5693 | Information Retrieval and Text Mining | 3 |
| P SC 5940 | Advanced Research Methods: Special <br> Topics (topic: Visualizing Data) | 3 |

## Statistics, Data, or Computing Electives

Recommended Course topics: Computing, Experimental Design, Bayesian Analysis, Measurement, Structural Equation Modeling (SEM), Multilevel Modeling, Categorical Analysis, Network Analysis.

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| An additional, non-redundant course from the categories |  |  |
| listed above |  |  |$\quad$| COMM 6573 | Social Network Analysis |
| :--- | ---: |
| C S 5593 | Data Mining |


| LIS 5453 | Digital Collections | 3 |
| :--- | :--- | :--- |
| LIS 5693 | Information Retrieval and Text Mining | 3 |
| LIS 5613 | Dynamic Web Development | 3 |
| NAS 5153 | Indigenous Mapping: Issues in Data <br> Sovereignty and Security | 3 |
| P SC 5953 | Qualitative Research Methods | 3 |
| Project-based Advanced Applied Data Analytics |  |  |
| Experience |  |  |

Interdisciplinary experience is encouraged.
Must produce a report with figures that includes a discussion of decision-making, ethics, biases, and limitations that are part of project.

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| DSP 5633 | Data Analytics and Applied Statistics <br> Internship | 3 |
| CAS 5990 | Independent Study (With faculty outside <br> of your research group's expertise. May <br> collaborate to apply a new method to your <br> data.) | 3 |
| HSTM 5623 | Practicum/Internship in the Digital <br> Humanities | 3 |
| LIS 5940 | Directed Project | 3 |

## Drug Policy Management (Online), Graduate Certificate

Minimum Total Hours: 12

Program Code: G328

## This program is in the process of deletion pending approval of the OU and State Regents. <br> The Graduate Certificate in Drug Policy Management emphasizes policy development within the rapidly evolving field of drug enforcement, offender diversion, decriminalization, and treatment.

## Certificate Requirements

| Code | Title | Credit |
| :---: | :---: | :---: |
| Core Courses |  |  |
| CRJU 5113 | Theoretical Foundations of Criminal Justice | 3 |
| CRJU 5133 | Criminal Justice Policy Development | 3 |
| CRJU 5413 | Substance Abuse and Crime in the United States | 3 |
| Elective Course |  |  |
| Complete three graduate elective hours from a list maintained by the academic unit and approved by the Graduate College. |  | 3 |
| CRJU 5203 | Victimology and Restorative Justice |  |
| CRJU 5223 | Community Corrections in the 21 st Century |  |
| CRJU 5263 | Restorative Justice Programs for Drug Offenders |  |
| CRJU 5283 | Human Trafficking and Prostitution |  |


| CRJU 5403 | Drug Enforcement Operations and <br> Management |
| :--- | :--- |
| CRJU 5423 | Global Drug Trafficking, Narco-Terrorism, <br> and United States Drug Policy |
| CRJU 5463 | Gangs in the United States |

Total Credit Hours

A graduate certificate is not a graduate degree. A graduate degree represents a program of independent inquiry beyond the depth of coursework alone, while a graduate certificate represents a set of courses only.

- All courses must be taken at OU. No transfer credit will apply.
- No course substitutions are permitted for graduate certificates.
- Coursework applied to a graduate certificate cannot be more than five years old as of the semester the graduate certificate is awarded.
- Students must earn a grade point average of 3.00 or higher on all coursework applied to the graduate certificate.


## Organizational Leadership (Online), Graduate Certificate

Minimum Total Hours: 12
Program Code: G770
The Graduate Certificate in Organizational Leadership equips students with a more specialized understanding of the discipline, including studies in the culture of organizations, theories of management and leadership, the individual's role in leadership and the intersection of ethics and leadership.

## Certificate Requirements

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Core Courses |  | 3 |
| OL 5113 | Theories of Management and Leadership | 3 |
| OL 5133 <br> Elective Course | Cultures of Organizations |  |
| Choose two elective courses from one of the following groups |  |  |
| of courses: |  |  |
| OL 5173 | The Individual and Leadership | 6 |
| OL 5193 | Creating, Leading, and Managing Change |  |
| OL 5293 |  |  |
| OL 5313 | Organizational Communications |  |
| OL 5463 | US Military Leadership: Insights and <br> Applications |  |
| OR |  |  |
| OL 5903 | Experiential Leadership I |  |
| OL 5913 | Experiential Leadership II |  |

Total Credit Hours

A graduate certificate is not a graduate degree. A graduate degree represents a program of independent inquiry beyond the depth of
coursework alone, while a graduate certificate represents a set of courses only.

- All courses must be taken at OU. No transfer credit will apply.
- No course substitutions are permitted for graduate certificates.
- Coursework applied to a graduate certificate cannot be more than five years old as of the semester the graduate certificate is awarded.
- Students must earn a grade point average of 3.00 or higher on all coursework applied to the graduate certificate.


## Restorative Justice Administration (Online), Graduate Certificate

Minimum Total Hours: 12
Program Code: G095

## This program is in the process of deletion pending approval of the OU and State Regents.

The Restorative Justice Certificate emphasizes leadership, program and project development, victim and offender services and communityoriented approaches to crime prevention and restoration.

## Certificate Requirements

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Core Courses |  |  |
| CRJU 5153 | Ethical Decision Making in Criminal Justice | 3 |
| CRJU 5203 | Victimology and Restorative Justice | 3 |
| Elective Courses |  | 6 |
| Complete six hours of graduate elective hours from a list <br> maintained by the academic unit and approved by the <br> Graduate College |  |  |

Total Credit Hours

A graduate certificate is not a graduate degree. A graduate degree represents a program of independent inquiry beyond the depth of coursework alone, while a graduate certificate represents a set of courses only.

- All courses must be taken at OU. No transfer credit will apply.
- No course substitutions are permitted for graduate certificates.
- Coursework applied to a graduate certificate cannot be more than five years old as of the semester the graduate certificate is awarded.
- Students must earn a grade point average of 3.00 or higher on all coursework applied to the graduate certificate.


## Restorative Justice Administration Graduate Certificate Approved Electives

- For the most current list of approved electives, please consult the Dodge College of Arts \& Sciences Online Programs office.

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| CRJU 5013 | Introduction to Criminal Justice | 3 |
| CRJU 5063 | Research Methods for Criminal Justice | 3 |


| CRJU 5073 | Quantitative Research and Analysis | 3 |
| :---: | :---: | :---: |
| CRJU 5083 | Qualitative Research Methods in Criminal Justice | 3 |
| CRJU 5113 | Theoretical Foundations of Criminal Justice | 3 |
| CRJU 5133 | Criminal Justice Policy Development | 3 |
| CRJU 5213 | Mediation \& Conflict Resolution for Criminal Justice Professionals | 3 |
| CRJU 5223 | Community Corrections in the 21 st Century | 3 |
| CRJU 5263 | Restorative Justice Programs for Drug Offenders | 3 |
| CRJU 5283 | Human Trafficking and Prostitution | 3 |
| CRJU 5303 | Correctional Leadership | 3 |
| CRJU 5343 | Mental Illness and the Criminal Justice System | 3 |
| CRJU 5353 | Women and Crime | 3 |
| CRJU 5363 | Penology | 3 |
| CRJU 5403 | Drug Enforcement Operations and Management | 3 |
| CRJU 5413 | Substance Abuse and Crime in the United States | 3 |
| CRJU 5423 | Global Drug Trafficking, Narco-Terrorism, and United States Drug Policy | 3 |
| CRJU 5463 | Gangs in the United States | 3 |
| CRJU 5513 | Studies in Police Leadership | 3 |
| CRJU 5533 | Crime Analysis for Intelligence-Led Policing | 3 |
| CRJU 5583 | Cyber-Forensics | 3 |
| CRJU 5700 | Advanced Topics in Criminal Justice | 2-9 |
| CRJU 5920 | Internship in Criminal Justice | 2-6 |
| CRJU 5960 | Directed Readings in Criminal Justice | 2-9 |
| CRJU 5970 | Special Topics/Seminar | 1-3 |
| CRJU 5990 | Independent Study | 1-3 |

## Clara Luper Department of African and African-American Studies

Greg A. Graham, Ph.D., Director
Physical Science Bldg room 517
601 Elm Avenue
Norman, OK 73019-3120
(405) 325-2327

FAX: (405) 325-3355
rsgomez@ou.edu
www.ou.edu/cas/afam

## General Information

The mission of the Clara Luper Department of African and African American Studies (AFAM) is first to exemplify excellence in research, teaching and service, in accordance with the mission of the University of Oklahoma (OU) and the Dodge College of Arts and Sciences (CAS). Specifically, AFAM has the mission to provide students with a broad, interdisciplinary education inclusive of a focus on Africa and the traditional areas of study of the African American Studies / Black Studies discipline.

The African \& African American Studies (AFAM) program offers the B.A. degree in African \& African American Studies. Students earning a B.A. degree in AFAM must also complete specified University and College of Arts \& Sciences degree requirements. Students may also choose to enroll with a minor in AFAM.

AFAM courses are exciting, challenging and offer students (from all racial and ethnic backgrounds) the opportunity to hear and discuss important content, essential to Africa and the African American experience, in a constructive learning environment. Students are exposed to different theoretical approaches, typically taught in Black Studies. All students should emerge from the program with a clearer understanding of Africancentered thought, as well as alternative paradigms articulated within the discipline.

In the 1960s, at the inception of the Black Studies discipline, Black Studies serviced both the campus and the community. Here at OU, we aim to facilitate dialogue between those on campus and in the community via education and civic engagement.

African \& African American courses are stimulating, thought provoking, and interdisciplinary. Courses in this program offer students from all racial and ethnic backgrounds the opportunity to hear and discuss important content, essential to Africa and the African American experience in a constructive learning environment.

## Career Opportunities

Majoring in African and African American Studies challenges students with a high level of critical thinking encouraging the growth of knowledge beyond the bounds of the traditional college program. Learning about and tackling important societal issues such as poverty and healthcare provides an understanding that will allow a graduate to stand out to potential employers.

Graduate of the program have entered graduate schools or the work force in the following areas:

- Community Service
- Education
- History
- Journalism
- Law
- Nonprofit organizations
- Social services
- The arts
- And many more...

All students should emerge from the program with a clearer understanding of African-centered thought, as well as alternative paradigms articulated within the discipline.

## Programs \& Facilities <br> AFAM Newsletter

AFAM has a mission to provide studies with a broad, interdisciplinary education inclusive of a focus on Africa and the traditional areas of study of the African American Studies/Black Studies Discipline. The AFAM newsletter highlights students, faculty, and staff on their accomplishments, as well as, other program news.

## AFAM Scholarships

- Raymond Gary Memorial Scholarship
- The Wayne C. Thompson Memorial Scholarship
- The Ashlee T. Madison Freedom Scholarship


## Undergraduate Study

The Department of African and African-American Studies (AFAM) provides students with the opportunity to engage in the scholarly and academic study of the African-American experience, using the study of Africa as a starting point. This interdisciplinary program is intended to help students develop understanding, perceptions, and attitudes for living more successfully in the increasingly multicultural world. The African and African-American Studies program helps prepare students for employment in many different settings.

## Programs Offered

- African and African-American Studies, B.A. (p. 225)
- African and African-American Studies, Minor (p. 227)


## Courses

AFAM 2003 Introduction to African and African-American

## Studies

3 Credit Hours
Introduces students to African and African-American Studies at the University of Oklahoma, and at other institutions of higher education in the United States. Students will study the major ideas, concepts, problems, issues, research and scholars in the field. Provides career focus and information for students who will major or minor in African and African-American Studies. (F, Sp) [IV-WDC].
AFAM 2113 Africa and the Diaspora
3 Credit Hours
The course introduces students to the study of Africa and the dispersion of African people throughout the New World. Focus is placed upon the geographical and historical understanding of the continent of Africa and the identification of central causes of underdevelopment within the continent. (Irreg.) [IV-WDC].
AFAM 2970 Special Topics/Seminar

## 1-3 Credit Hours

1 to 3 hours. Prerequisite: May be repeated; Maximum credit nine hours. Special topics course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research, and field projects. (Irreg.)
AFAM 3123 West African and African-American Experiences 3 Credit Hours
Prerequisite: any course that focuses on African or African American content, or English 1213. Provides a basis for understanding discourse concerning the future of West Africa and Africans in the American Diaspora. Examines significant issues concerning West African people, their past, their priorities, and prognoses. (Irreg.)
AFAM 3133 Introduction to African Aesthetics 3 Credit Hours Prerequisite: any course that focuses on African or African American content, or English 1213. Explores the philosophy, culture, and aesthetic expressions of African Americans before, during, and after enslavement through a comparison of African and African American culture. Emphasis is placed upon developing a body of knowledge and analytic skills that will enable students to deepen their understanding of traditional and contemporary culture practiced by the African American community. (Irreg.) [IV-WDC].

AFAM 3143 Gospel Music Past and Present 3 Credit Hours
Prerequisite: junior standing. African and African-American history as it relates to gospel music. The class correlates the climate and cultural history with various genres of music that led to gospel music. Individual artists are studied not in isolation but as part of the larger cultural context. (F, Sp) [IV-AF].

AFAM 3333 The Black West
3 Credit Hours
(Crosslisted with HIST 3333) Prerequisite: Junior standing, or any 2000level African and African American Studies class, or permission of instructor. Survey of Black history and experience in the American West. Students will learn about life in the region through primary documents, scholarly texts, literature, film, and popular culture. Emphasis on how identity, regionalism, and nationalism converge in North America. Particular attention will be paid to Oklahoma and the larger Great Plains. (Irreg.)
AFAM 3343 Black Greek Letter Organizations
3 Credit Hours
Prerequisite: junior standing or departmental permission and successful completion of at least one AFAM course. Examines the history and culture of black greek-letter organizations (BGLOs), the contributions of the BGLOs (also referred to as historically black fraternities and sororities) to the black community through leadership and service, and issues relevant to the future of BGLOs in the 21 st century. (Irreg.)

## AFAM 3413 African American Education in the United

## States

3 Credit Hours
Prerequisite: any course that focuses on African or African-American content, or English 1213. Examines two major historical features of African American education: the ways in which the African American community has sought to educate itself and the ways in which white Americans have sought to educate African Americans. Emphasis is placed on the purpose of education, and alternative visions of educational possibility. (Irreg.)
AFAM 3423 African-American Men 3 Credit Hours Prerequisite: any course the focuses on African and African-American content, or English 1213. Examines the status and role of the AfricanAmerican male, from the perspective of contemporary research and literature which should frame the extant disclosure and discussions, policy-making, and future research. (Irreg.)

## AFAM 3433 African American Women

3 Credit Hours
Prerequisite: any course the focuses on African or African American content, or English 1213. Examines the history and experience of African American women, focusing on race, gender, and socio-economic status and the corresponding effects of these forces in their lives. (Irreg.)

## AFAM 3440 Mentored Research Experiences

3 Credit Hours
0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)

AFAM 3453 The Black Athlete in America 3 Credit Hours Prerequisite: ENGL 1213 or EXPO 1213 or sophomore standing. Provides students with a historical and contemporary overview of the Black athlete in American society. This course will underscore and examine the Black athlete from a social, political, and cultural perspective. Many of the misconceptions and deep-seated stereotypes of Black athletes both in intercollegiate athletics and professional sports will be uncovered. Additionally, perspectives will be gained on the changing status of Black athletes and how those changes have engendered the changing of sport, American society, and critical triumphs within Black culture. (Irreg.)

## AFAM 3513 AFAM Research Methods <br> 3 Credit Hours

Prerequisite: AFAM major or minor, junior standing. This course is designed to introduce students to research methods in African and African American studies. Qualitative and quantitative research methods are studied, discussed, and undertaken. Course design stresses the importance of using both methods to cross-validate findings. (Irreg.)

## AFAM 3613 Visual Culture and African American Identity:

## 1895-1939

3 Credit Hours
Prerequisite: ENGL 1213 or EXPO 1213. Examines the visual commodities of black and white cultural producers to analyze issues of caste and class status, gender, and sexuality that historically and currently inform competing notions of blackness within the public sphere. (Irreg.) [IVWDC].
AFAM 3960 Honors Reading 1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Consists of topics designated by the instructor in keeping with the student's major program. Covers topics not usually presented in the regular courses.
AFAM 3970 Honors Seminar 1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Subjects covered vary. Deals with concepts not usually treated in regular courses.

## AFAM 3980 Honors Research <br> 1-3 Credit Hours

1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Provides an opportunity for the gifted Honors candidate to work at a special project in the student's field. (F, Sp, Su)
AFAM 3990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: permission of instructor and junior standing. May be repeated once with change of content. Independent study may be arranged to study a subject not available through regular course offerings. (F, Sp, Su)

## AFAM 4003 Senior Seminar in African and African-American Studies 3 Credit Hours

Prerequisite: completion of 12 hours of required AFAM or AFAM-related courses. Provides students the opportunity to review and integrate their study in African and African-American courses. Students will be involved in academic experiences that facilitate the translation from theory to practice. Experiences will vary depending on the instructor. (Sp) [V].

## AFAM 4010 Special Topics In African And African-American Studies <br> 1-3 Credit Hours

1 to 3 hours. Prerequisite: junior standing and any course covering African and African-American issues. May be repeated with change of content; maximum credit nine hours. Designed to permit the study of specific and changing issues and problems in AFAM Studies. Course will also be used for special workshops, conferences, seminars, etc. and individually planned and supervised activities focused on specific areas of concern. (Irreg.)

AFAM 4133 Contemporary Visual Art of Africa 3 Credit Hours
Prerequisite: junior standing and any 2000-level African and AfricanAmerican Studies (AFAM) class. This course explores current visual arts developments in Africa. The course traces the historical evolution, influences and status of contemporary African art, with special reference to established visual artists who either work within or outside of Africa. (Sp)
AFAM 4213 African Dance
3 Credit Hours
Prerequisite: any course that focuses on African or African American content, or English 1213. Examines various essential dance movements from the African Diaspora. Theory and praxis meet in an effort to better understand the culture and language of dance amongst African people. (Irreg.) [IV-AF].

## AFAM 4233 Blacks and the Movies: Hollywood and Black Independent Film <br> 3 Credit Hours

Prerequisite: any course that focuses on African or African American content, or English 1213. Historical overview of the development of African American cinema. Examines how film has been used to culturally define the parameters of black cultural identity and how black cultural producers promoted alternate constructions of black identity. (Irreg.)
AFAM 4243 The Black Arts Movement
3 Credit Hours
Prerequisite: ENGL 1213 or EXPO 1213, or permission of instructor, or junior standing. Examines the literature, art, music, film, and cultural commentary of the Black Arts Movement. Focuses on the notion of 'blackness' and the black experience as developed in the cultural expressions of key figures of the Black Arts Movement, and the subsequent connection of that movement to further changes in literature, drama, film, music and art. Also explores the emergence of a critical discourse specific to a "new" black aesthetic. (Irreg.)
AFAM 4413 Issues in the African American Family 3 Credit Hours Prerequisite: any course that focuses on African or African American content, or English 1213. The purpose of the class is to explore the interand intra-structural components of the African American family using an applied social systems and ecological approach. Great emphasis will be placed on historical and concurrent social, religious, political and economic factors that influence the psyche of both the family and in a broader sense a culture rooted in the Afrocentric paradigm. (Irreg.)
AFAM 4423 African American Health Issues 3 Credit Hours
Prerequisite: any course that focuses upon African or African American content, or English 1213. Examines health problems, health status, and health behavior of African American men and women. A life course perspective is emphasized from birth to later life. It is assumed that being African American predisposes persons to health problems that increase the risk of disease or that influence health based on the diversity of cultural beliefs, values, and practices. Access to health services will be addressed. (Irreg.)
AFAM 4443 African American Mental Health 3 Credit Hours Prerequisite: English 1213 or Expository Writing 1213. Introduces issues related to African American mental health in this country. Topics discussed and explored in this course will cover the past, present, and future states of mental health in the African American community. Students will investigate their personal history of mental health and uncover ways that those histories relate to and connect with the issues addressed throughout the course. (F)

AFAM 4493 Africa and the Atlantic Slave Trade 3 Credit Hours (Crosslisted with HIST 4493) Prerequisite: ENGL 1213 or EXPO 1213. About the changing nature of slavery in and the impact of slave trading on Africans in their homelands and in the diaspora. Origins in Africa; rise of the Atlantic trade; impact of the trade; middle passage, etc. (Irreg.) [IVWDC].

AFAM 4623 Hip Hop Culture and Contemporary America 3 Credit Hours Prerequisite: any course that focuses on African or African American content, or English 1213. Historical inquiry into behavioral and sociopolitical trends of hip hop culture. Attempts to codify and recognize dominant cultural attitudes, concepts and paradigms as global phenomenon shaping understanding of contemporary African American character, identity, and culture. (Irreg.)
AFAM 4633 African American Religious Traditions 3 Credit Hours Prerequisite: any course that focuses on African or African American content, or English 1213. An anthropological and historical inquiry into the nature of the religious experience of Africans enslaved and involuntarily brought to the United States. Emphasis is placed upon the identification and understanding of the central cultural and religious practices and products form black peoples' experiences of the holy. (Irreg.)
AFAM 4643 Black Feminism and Womanism 3 Credit Hours (Crosslisted with WGS 4643) Prerequisite: Junior standing and any 2000-level African and African-American Studies class. This course analyzes the way race, gender, sexuality, and socioeconomic status have historically dominated, intersected, and/or competed with the lives and experiences of Black women. This course examines the way Black women have drawn upon these internal struggles to serve as voices of power and agents of social change. Readings in this course will highlight activism, literature, and social justice. (Irreg.)

## AFAM 4713 Afrocentric Thinking and the Civil Rights

## Movement

3 Credit Hours
Prerequisite: any course that focuses on African or African American content, or English 1213. Examines afrocentric thinking and identifies key afrocentric patterns and strategies within the civil rights movement. Students will analyze African American leadership and how leaders brought afrocentric thinking to the forefront. (Irreg.)
AFAM 4733 Civil Rights Law: Employment and Education 3 Credit Hours Prerequisite: any course the focuses on African or African American content, or English 1213. Analyzes civil rights law in employment and education. Focuses on laws that address discrimination, equal employment opportunity, equal educational opportunity and affirmative action, as well as the legal foundation for diversity initiatives. Examines regulations of enforcement agencies, and agency grievance procedures, including selected court cases. (Irreg.)

## AFAM 4743 Black Women and Leadership 3 Credit Hours

 Prerequisite: ENGL 1213 or EXPO 1213 and junior standing. Explores issues and strategies related to the roles and responsibilities of women in leadership positions and public service. The focus will be on AfricanAmerican female leaders in diverse contexts. Do women have an identifiably different ways of leading? How does leadership manifest itself in the public arena? Why does women's public leadership matter? (Irreg.)
## AFAM 4763 The History of Lynching and Racial Violence in

 America
## 3 Credit Hours

Prerequisite: English 1213 or Expository Writing 1213 with a grade of $C$ or better. Explores the historical development of lynching, survey of lynching and its impact on American society; investigates the ways race, class, gender, and sexuality shaped particular lynching episodes, justifications for the practice and the historical legacy. (Irreg.)

AFAM 4813 Prison Industrial Complex
3 Credit Hours
Prerequisite: ENGL 1213 or EXPO 1213, or permission of instructor, or junior standing. The American prison industrial complex is a phenomenon with roots in American prison history, convict leasing, and the proliferation of prison industries. Designed to familiarize students with the phenomenon, how it came to exist, and the impact it has had and is having on American society in general, and on the African American community in particular. (Irreg.) [III-SS].

## AFAM 4823 African American Politics and Public Policy 3 Credit Hours

 Prerequisite: ENGL 1213 or EXPO 1213, or permission of instructor, or junior standing. Focuses on the African American experience and politics, examining the history and experience from the civil rights era to the election of President Barack Obama. Materials will discuss grassroots and national political agendas, and explore the politics of topics such as environmental justice, healthcare, literature, music, sexuality and voting. (Irreg.) [III-SS].
## AFAM 4960 Directed Readings <br> 1-4 Credit Hours

1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean. May be repeated; maximum credit four hours. Designed for upper-division students who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)
AFAM 4970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: Senior standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

## AFAM 4990 Independent Study

1-3 Credit Hours
Prerequisite: permission of instructor. Permits the student to study in depth, under the guidance of the instructor, particular and special African and African-American topics of interest to the student and within the expertise of the instructor. Generally, students and the instructor meet to determine the nature of independent study, schedule progress reports and meetings, timelines for the submission of assignments, nature of the evaluation process and culminating effort or activity. (F, Sp, Su)

## Faculty

| Last Name | First/Middle <br> Name | Middle init. | OU <br> Service start | Title(s), date(s) appointed | Degrees Earned, Schools, Dates Completed |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Davidson | Jeanette | R | 1997 | ADJUNCT <br> ASSOCIATE <br> PROFESSOR OF LIBERAL STUDIES, 2009; PROFESSOR OF AFRICAN AND AFRICAN-AMERICAN STUDIES, 2012 | PhD, Univ of Texas Arlington, 1991; MSW, Univ of Texas Arlington, 1983; BA, Univ of Strathclyde, 1975 |
| Graham | Greg | A | 2013 | ASSISTANT <br> PROFESSOR OF <br> AFRICAN AND <br> AFRICAN AMERICAN <br> STUDIES, 2013 | PhD, Temple Univ, 2013; MS, Univ of The West Indies, 2000; BA, Univ of The West Indies, 1998 |

ASSOCIATE PROFESSOR OF AFRICAN AND AFRICANAMERICAN STUDIES, 2015; DIRECTOR, DEPARTMENT OF AFRICAN AND AFRICAN-AMERICAN STUDIES, 2018

## African and African-American Studies, B.A.

Minimum Total Credit Hours: 120
Major Hours: 36
Minimum Upper-Division Hours: 48
Overall GPA - Combined and OU: 2.00
Major GPA - Combined and OU: 2.00
Program Code: B015
Major Requirements

| Code | Title | Credit |
| :---: | :---: | :---: |
| AFAM Core |  |  |
| AFAM 2003 | Introduction to African and AfricanAmerican Studies | 3 |
| AFAM 2113 | Africa and the Diaspora | 3 |
| HIST 3743 or HIST 3753 | African-American History to 1877 <br> African-American History Since 1877 | 3 |
| AFAM 3513 | AFAM Research Methods (or an alternative research course as approved by the Program Director) | 3 |
| AFAM 4003 | Senior Seminar in African and AfricanAmerican Studies (Capstone) | 3 |
| Major Electives |  |  |
| Choose one course from each of the three groups listed below: |  |  |
| Historical Issues (p. 225) |  |  |
| Contemporary Social Issues (p. 225) |  |  |
| Aesthetics (p. 225) |  |  |
| Additional Requirements |  |  |
| Choose twelve hours selected from courses not already used in Major Electives; courses listed below; or courses approved by the Program Director. ${ }^{1}$ |  |  |
| AFAM 4010 | Special Topics In African And AfricanAmerican Studies ${ }^{2}$ |  |
| AFAM 4990 | Independent Study ${ }^{3}$ |  |
| ENGL 2713 | Introduction to Black Literature in the United States |  |
| HIST 2713 | Survey of African Civilization |  |
| HIST 3743 | African-American History to $1877{ }^{4}$ |  |

PhD, Univ of Illinois, 2009; BA, Macalester College, 2002
$\qquad$

| AFAM 4213 | African Dance | 3 |
| :--- | :--- | :--- |
| AFAM 4233 | Blacks and the Movies: Hollywood and <br> Black Independent Film | 3 |
| AFAM 4243 | The Black Arts Movement | 3 |

## General Education and College Requirements

Courses for fulfillment of General Education and Dodge College of Arts \& Sciences requirements must be from the approved General Education course list published in the Class Schedule or at http://www.ou.edu/ gened/courses. Courses graded P/NP will not apply.

| UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND |  |
| :--- | :--- |
| COLLEGE REQUIREMENTS |  |
| Code $\quad$ Title | Credit |
|  |  |

Core Area I: Symbolic and Oral Communication
English Composition (6 hours)
ENGL 1113 Principles of English Composition 3
ENGL 1213 Principles of English Composition 3
or EXPO 1213 Expository Writing
Language (0-13 hours in the same language)

| The college requirement cannot be met by high school |  |
| :--- | :---: |
| coursework. |  |
| Beginning Course | $0-5$ |
| Beginning Course, continued | $0-5$ |
| Intermediate Course (2000 level) $^{1,2}$ | $0-3$ |
| Mathematics (3 hours) |  |
| Choose one course from the General Education Mathematics | 3 | list

Core Area II: Natural Science (7 hours, including one

## laboratory component)

Biological Science
Choose an approved General Education Natural Science 3-4 course with one of the following prefixes: BIOL, HES, MBIO, or PBIO ${ }^{1}$
Physical Science
Choose an approved General Education Natural Science 3-4 course with one of the following prefixes: AGSC, ASTR, CHEM, GEOG, GEOL, GPHY, METR, or PHYS ${ }^{1}$
Core Area III: Social Science (6 hours)
PSC 1113 American Federal Government 3
Choose one course from the General Education Social 3
Science list
Core Area IV: Arts and Humanities (18 hours)
Artistic Forms
Choose one course from the General Education Artistic Forms
list
Western Culture
HIST $1483 \quad$ United States to 1865
or HIST 1493 United States, 1865 to the Present
Choose one course from the General Education Western
Culture list (excluding HIST 1483/1493)
World Culture
Choose one course from the General Education World Culture


## Free Electives

Electives to bring total applicable hours to the minimum total required for the degree including 48 upper-division hours.

## Information Concerning General Rules, Regulations and Minimum Requirements

Arts and Sciences Hours: At least 80 semester hours of liberal arts and sciences courses are required for a BA degree. At least 55 semester hours of liberal arts and sciences courses are required for a BS degree. Pass/No Pass Enrollment: A maximum of 16 semester hours of free elective credit may be attempted under this option.
Individual Studies (e.g., courses titled "Independent Study"): A maximum of 12 total semester hours may be counted toward graduation, excluding Honors Reading and Honors Research.
P.E. Courses: No physical education activity courses will be counted toward the 120 semester hours of acceptable credit for graduation.
Senior Institution Hours: A minimum of 60 semester hours applied toward graduation must be earned at senior (4-year) institutions.
Residency:

- At least 15 of the final 30 hours applied toward the degree or at least 50 percent of the hours required by the institution in the major field must be satisfactorily completed at the awarding institution.
- At least 15 semester hours of upper-division major work must be completed in residence at OU.
- OU correspondence courses are not considered resident credit.

Grade Point Averages: Students must earn a minimum over all 2.00 for each of the following: Combined Retention GPA (all college grades), OU Retention GPA, GPA for all major courses, and GPA for all major courses taken at OU. Some schools and departments of the College have higher minimum grade point averages required for their students.

## Suggested Semester Plan of Study

This plan shows one possible grouping of courses that would allow students to graduate in four years. Please refer to the front of the degree checksheet for official requirements. Students must consult with Dodge College of Arts and Sciences and/or Department of African and African American Studies academic advisors to verify that courses selected each semester fulfill the recommended plan and satisfy University, College


## Electives

Choose 15 additional hours AFAM courses or courses from
other departments as listed on the AFAM major degree sheet, as approved by AFAM Program Director (9 of these hours must be upper division)

## Total Credit Hours

- Minors in the Dodge College of Arts \& Sciences are available to all undergraduate students at OU. If the minor is officially declared, successfully completed, and noted on the graduation application, the student's transcript will so indicate at the time the bachelor's degree is posted.


## Department of Anthropology

Dr. Patrick Livingood, Chair

Dr. Kermyt Anderson, Graduate Liaison
521 Dale Hall Tower
455 W Lindsey
Norman, OK 73019-2005
Phone: (405) 325-3261
FAX: (405) 325-7386
anthropology@ou.edu
www.ou.edu/cas/anthropology

## General Information

Anthropology is the holistic study of human beings, including the biological and cultural aspects of people in all times and all places. The Department of Anthropology's faculty research and teaching interests encompass archaeology, sociocultural anthropology, linguistic anthropology, and health and human biology (which integrates biological, molecular, and medical anthropology). We are particularly focused on the anthropology of Native America. We also have strengths in Latin America, the Caribbean, Africa, and the Pacific Islands. Our mission is to advance knowledge of and respect for human diversity. We are the only anthropology department in the state system of higher education.

The Department of Anthropology has vibrant graduate and undergraduate degree programs. Undergraduate students may earn an anthropology degree through either a B.A. in Anthropology or B.S. in Human Health \& Biology. Depending on the program, undergraduate degrees in anthropology require courses in one or more subfields, as well as course requirements in research methods, resulting in a well-rounded understanding of people in this country and around the world, both past and present. The department offers fieldwork opportunities and is active in the Undergraduate Research Opportunities Program and the Honors College, so that undergraduates who so desire can obtain actual experience in anthropology. We maintain close ties with the Oklahoma Archaeological Survey and the Sam Noble Oklahoma Museum of Natural History, and we encourage international study to augment these opportunities.

## Programs \& Facilities

The Department of Anthropology is located primarily in Dale Hall Tower. Some faculty have offices and/or labs in other buildings. Please check with individual faculty for their office locations.

## Undergraduate Research and Travel Opportunities

The Department of Anthropology encourages students to get involved in out-of-classroom research, which is discussed in the Cornerstone
class experience. The department hosts an annual archaeological field school, students are encouraged to partake in internship opportunities, and the department works with partners across campus to encourage and facilitate study abroad.

## Undergraduate Research Opportunities Program

UROP is a competitive program offering financial assistance to talented undergraduates for research, scholarly, and/or creative projects. Potential applicants must first coordinate their research with a faculty member willing to act as a sponsor.

## Undergraduate Research Day

Each spring semester, the Honors Program sponsors this opportunity for undergraduates, whether in the Honors Program or not, to present their research in a professional and supportive environment. Application forms are available from the OU Honors Program.

## Student Organizations

The Undergraduate Anthropology Society (UAS) is the undergraduate student organization that provides anthropology majors and minors an opportunity to meet, socialize, and learn more about anthropology.

The Anthropology Graduate Student Association (AGSA) brings together Anthropology graduate students for the purpose of aiding in their professional development within the discipline. AGSA's Speakers Bureau invites scholars to give public lectures related to the interests of the department and fundraises to be able to afford these events. AGSA also coordinates professional development workshops with graduate students and faculty on topics of interest to current graduate students.

## Undergraduate Study

Anthropology is a social science that covers the breadth of human experience and encompasses four subfields: archaeology, biological, cultural, and linguistic anthropology. One of the characteristics that distinguishes anthropology from many other disciplines is its adherence to the concept of cultural relativism, which states that each culture is viewed on its own terms and not ethnocentrically against the standards of others.

A major in anthropology provides a broad understanding of human beings and is a central part of a liberal arts education. The B.A. in Anthropology is the basis for obtaining certain kinds of jobs in archaeology, museums, or the human resources sector, as well as for graduate study in anthropology or other social science fields. The B.S. in Human Health \& Biology provides an awareness of biological and cultural diversity with an emphasis on biocultural and evolutionary perspectives on health and disease. It can enable students to obtain the foundation in chemistry, biology, and mathematics needed for medical school, for graduate study in health-related fields, and for a range of entry-level health professions.

## Programs Offered

- Anthropology, B.A. (p. 239)
- Human Health \& Biology, B.S. (p. 243)
- Anthropology, Minor (p. 245)
- Anthropology: Applied Medical Anthropology, M.A. (p. 249)


## Graduate Study

The Department of Anthropology offers both M.A. and Ph.D. degrees in anthropology. The department's geographical area of emphasis is the Americas. The department recognizes the historical relationship of
anthropology to other areas of the world and to other peoples, and we also have faculty with such research interests.

Because of its location in a state with 38 federally recognized tribes, important archaeological sites and museum collections, and many nationally prominent anthropological research facilities, graduate study at the University of Oklahoma offers unique educational opportunities. The department has a concentration of specialists in Native America. Complementing our focus on Native America are those of faculty in the departments, colleges and programs including Art History, English, Geography, Health Sciences, History, Linguistics, and Native American Studies. Faculty in the department have helped Oklahoma tribes design and implement studies that include health care, language education, ethnomedicine, federal recognition, genealogy, historical anthropology, politics, sociolinguistics, oral history, tribal histories and archives, and tribal cultural studies programs. The department and the affiliated Oklahoma Archeological Survey support several on-going archaeological research projects in Oklahoma and Kansas, the North American Southwest and Southeast, and northern Mexico. The projects include the earliest settlers in the New World, Paleoindian, Archaic, formative village agriculturalists, hierarchical societies, and historic peoples.

## Unique Research Opportunities

- Museum collections at the Sam Noble Oklahoma Museum of Natural History, the Fred Jones Museum of Art, and the Gilcrease Museum in Tulsa.
- The Oklahoma Archeological Survey, a state agency housed at the University of Oklahoma, conducts archaeological research in the state of Oklahoma and offers field and laboratory opportunities for research.
- Archival collections at OU's Western History Collection, the Oklahoma Historical Society, and the Regional Federal Archives.


## Master of Arts Degree

The Master of Arts (p. 249) provides a broad, generalized knowledge of anthropology, along with a field of specialization. A master's student will take courses in each of the fields of specialization and will concentrate the elective coursework in any one of those fields. Students may also choose from three additional areas of concentration within the M.A. in Anthropology, Socio-cultural Anthropology (p. 251), Applied Medical Anthropology (p. 249), or Linguistic Anthropology (p. 250).

## Bachelor of Arts/Master of Arts

The accelerated Bachelor of Arts/Master of Arts (p. 246) provides students with the opportunity to sequentially receive an Anthropology Bachelor of Arts and a Master of Arts degree with a specialization in Sociocultural Anthropology in 5 years. Admission to the program follows departmentally-determined guidelines for admission, including minimum GPA, excusing GRE scores, application materials, and application due date.

## Anthropology Doctoral Programs

There are three tracks in the Ph.D. Program in Anthropology: Archaeology (p. 251), Human Health and Biology (p. 252), and Sociocultural and Linguistic Anthropology (p. 252). There are specific additional required courses within each track. The tracks generally require 60 hours of coursework and 30 hours of dissertation research for a total of 90 credit hours.

The Ph.D. student's advisory committee will determine which courses, including core courses, may be used toward the 90 hours and will
define the plan of study. Each doctoral student will complete a General Examination and dissertation defense.

Detailed information is available from the Graduate Liaison.

## Courses

ANTH 1104 YES Oklahoma - A Primer for Cancer

## Research

## 4 Credit Hours

Prerequisite: Enrollment in OU's YES Oklahoma summer STEM program (instructor permission and concurrent high school student). Understanding cancer research and its societal and cultural contexts is vital for all. The course has a nature, life and social science perspective, yet the assignments are heavily social science methods. (Su) [III-SS].

## ANTH 1113 What Makes Us Human? Exploring Cultural and Biological Diversity <br> 3 Credit Hours

An introduction to the anthropological way of thinking about culture, language, social organization, religion, gender, prehistory, the rise of civilization, evolution and fossil hominins. Anthropological perspectives on the roles culture and biology play in influencing modern and ancient diversity of human behavior will be explored. (F, Sp, Su) [III-SS] .
ANTH 1124 YES Oklahoma: Cancer Research Training 4 Credit Hours Prerequisite: Enrollment in OU's YES Oklahoma summer STEM program (instructor permission and concurrent high school student). This is the natural science course for the concurrently enrolled students of YES Oklahoma; the focus is scientific methodology and an introduction to a body of foundational and factual knowledge about cancer. Included is an introduction to genomics, human variation and cancer biology, laboratory research experiences and professionalization. (Su) [II-NSL].
ANTH 1203 Language Across Cultures
3 Credit Hours
(Crosslisted with LING 1203) Theories of language family origins and their relationship to human migration; types of human languages; linguistic concept of genetic relatedness; writing systems development; non-Western sociolinguistic and usage phenomena; cultural and scientific importance of endangered languages; how languages become endangered; factors involved in preservation. This course may not count for major credit. (Sp) [IV-WDC].

ANTH 1253 Folklore and Folklife
3 Credit Hours
Introduces the academic study of folklore and folklife by introducing four key concepts: Tradition, community, art and performance. Verbal folklore, material culture, performance genres and customary knowledge will be examined. Issues of cultural diversity and historical change will be addressed. Special emphasis will be placed on exploring traditional cultures in the United States and Europe. (F) [IV-AF].

ANTH 1413 Great Discoveries in Archaeology 3 Credit Hours Introduces students to the accomplishments of ancient civilizations around the world. A brief overview of archaeological methods and research and of the precursors of civilizations. Concentrates on major civilizations of the world including Mesopotamia, Europe, Egypt, subSaharan Africa, India, China, Southeast Asia, Mesoamerica, South America, and the North American Midwest. (F) [IV-WDC].

ANTH 1823 Religion in Everyday Life 3 Credit Hours This course focuses on the variety of religious phenomena found throughout the world and the theoretical approaches anthropologists use to account for them. Using ethnographic studies of belief in practice, we will seek to understand the role that religions play in the human experience. (F, Sp) [IV-WDC] .

## ANTH 1913 Plagues and People: Health and Disease in Human Society <br> 3 Credit Hours

The study of the impact of diseases such as malaria, bubonic plague, and AIDS on human society, from their effects on populations to how they have influenced the course of history. Identification of social and cultural factors, conditions that influence and impede the spread of contagious diseases, ethical issues concerning the treatment of the sick, and policies designed to halt epidemics will be examined. The contemporary threat of biological weapons and the impact on local and national public health efforts in the U.S. will be discussed. (Irreg.) [III-SS] .

## ANTH 2203 Global Cultural Diversity 3 Credit Hours

A survey of global cultures, introducing students to the diversity of human organization, behavior, and worldviews, including modes of livelihood, political organization, religious practices, gender systems, kinship structures, social inequality, and the effects of globalization. (F, $\mathrm{Sp}, \mathrm{Su}$ ) [IV-WDC].

## ANTH 2253 Human and Animal Interaction Across

## Cultures

3 Credit Hours
Students will examine the varied ways we think, feel, and interact with animals across cultures, and moral quandaries/contradictions around animal treatment. Emphases include animals' roles; humans' ideas, attitudes, and emotions toward animals; and how these impact our behavior toward them. Our ultimate goal is to broaden notions of humananimal interaction and awaken curiosity about these frequently take-forgranted cross-species relationships. (Irreg.) [IV-WDC].
ANTH 2303 General Linguistics 3 Credit Hours (Crosslisted with LING 2303) Humanistic and formal study of natural languages: how they are similar to and different from one another in their use of speech sounds, logical structures and mechanisms that integrate events, objects and speakers in spatio-temporal contexts. The relationship between language and culture; language acquisition and language change. $(\mathrm{F}, \mathrm{Su})[\mathrm{l}-\mathrm{O}]$.

## ANTH 2613 Native Peoples of North America

3 Credit Hours
An introduction to the native societies and cultures north of Mexico from pre-Columbian times to the present. (Sp, Su) [IV-WDC] .
ANTH 2970 Special Topics/Seminar
1-3 Credit Hours
Special Topics. 1 to 3 hours. May be repeated; Maximum credit nine hours. Special topics course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research, and field projects. (Irreg.)

## ANTH 3011 Anthropology Cornerstone I: Introduction to the

Major
1 Credit Hour
Prerequisite: Anthropology major or minor. Recommended for students in their first year of the major. This provides an introduction to the Anthropology Major. Topics include: Introduction to the subfields of anthropology, introduction to the department, information on enhancement and hands-on research opportunities (field schools, internships, labwork, study abroad), and ethics. Emphasis on the opportunities within the department and on guiding students to relevant resources. (Sp)

ANTH 3021 Anthropology Cornerstone II: Research and Writing

1 Credit Hour
Prerequisite: Sophomore standing, enrollment in at least one ANTH upper-division elective, and the student is an Anthropology major or minor. Recommended when students start taking upper division Anthropology electives. This course provides a foundation in anthropological research and writing in order to develop student abilities as persuasive academic writers. Topics include: research literacy, crafting a written argument, citation and peer review, and critical analysis of published research. Emphasis is placed on developing students as advanced-level undergraduate researchers and persuasive writers. (Sp)
ANTH 3031 Anthropology Cornerstone III: Professionalization 1 Credit Hour
Prerequisite: Anthropology major or minor, and Senior standing, or Department Permission. Recommended for graduating seniors, OR juniors who are applying to postgraduate school in the next year (get Departmental permission to enroll). This course provides students with information about professionalizing their anthropology degree. Topics include: long-term goal setting, cultivating professional networks and faculty references, information about graduate school and non-academic employment, and generalized professional skills such as interviewing and public speaking. (F)
ANTH 3063 Language and Culture
3 Credit Hours
Prerequisite: sophomore standing. The relationships between language and the rest of culture, with emphasis on diachronic as well as synchronic problems. Such crucial issues as the limitation of language on thought and perception and language and conceptualization are also considered. ( $F, \mathrm{Sp}$ ) [IV-WDC].

## ANTH 3113 Principles of Archaeology <br> 3 Credit Hours

Prerequisite: sophomore standing or 3 credit hours in ANTH or concurrent enrollment in 3 credit hours of ANTH or permission of the instructor. To acquaint the beginning student with the discipline of archaeology as it is now practiced within the science of anthropology. No student may earn credit for both ANTH 2113 and ANTH 3113. (F, Sp) [III-SS].
ANTH 3203 Introduction to Biological Anthropology 3 Credit Hours
Prerequisite: Sophomore standing or 3 credit hours in ANTH or concurrent enrollment in 3 credit hours of ANTH or permission of the instructor. Examines human biology within an evolutionary context. Course content includes a history of evolutionary thought from before Darwin to present; basic genetics; primate biology and behavior; human evolution and the fossil record; human biological variation; and human adaptation. No student may earn credit for both ANTH 2503 and ANTH 3203. (F, Sp)
ANTH 3243 Anthropological Approaches to Health, Illness and Healing 3 Credit Hours
Prerequisite: Sophomore standing. An examination of illness, health, and healing processes in cross-cultural perspective within the framework of medical anthropology. Drawing on global examples, the course considers topics such as the body, biotechnologies, illness experience, health disparities, and the intersection of gender and health. (Irreg.) [IV-WDC].

## ANTH 3423 Anthropology of Religion

3 Credit Hours
Prerequisite: Junior standing or 3 hours of ANTH. A consideration of the nature and role of religion in small-scale societies. Emphasis will be given to the relationship of the various anthropological approaches to religion with the intellectual history of anthropology as a discipline. (Irreg.) [IVWDC].

ANTH 3440 Mentored Research Experience 3 Credit Hours
0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)
ANTH 3453 Contemporary Native American Issues 3 Credit Hours Prerequisite: English 1213/Expo 1213 or junior standing. A survey of the social, political and economic issues of modern Native American groups. The relationship between native tribal cultures and American economic and government interests will be examined. (Irreg.) [IV-WDC].
ANTH 3613 Community Archaeology 3 Credit Hours
Prerequisite: Junior standing or permission of the instructor. Community Archaeology is an approach that partners archaeologists with members of communities impacted by their work, including but not limited to members of descendant and local communities. Students will learn to conduct "community-based participatory research" (CBPR) and will partner with a community of their choice to conduct original CBPR that benefits their partner. Service-learning credit is available. (Irreg.)
ANTH 3783 The Anthropology of Slavery and Captivity 3 Credit Hours Prerequisite: junior standing or 3 hours of ANTH. Examines slavery from the anthropological and historical perspectives and specifically seeks to expand students' understanding of the experiences of slaves in Africa, North America, and in South Asia. The origins of slavery, how slavery in Africa and the Americas existed before and after colonization by Europeans, and issues of race, power, and resistance will be explored. (F, Sp) [IV-WDC].
ANTH 3810 Internship in Linguistic Anthropology 1-6 Credit Hours Prerequisite: 1113, 2303 and six additional credit hours in Anthropology. May be repeated. Maximum credit six hours. Designed to provide training in linguistic anthropology. Internships are arranged on an individual basis with professional linguistic anthropologists or with professionals working in a setting in which cultural linguistic research can be performed. Students must meet criteria for acceptable performance and submit a final paper. (F, Sp, Su)
ANTH 3833 Language and Power
3 Credit Hours
Prerequisite: Junior Standing. Students examine the intersection of language and power from a broadly sociolinguistic perspective. There are many false beliefs about the nature of language. This course uses the tools of linguistic science to interrogate those beliefs in order to better understand language in society, uncover the origins of popular (mis)conceptions about language variation, and nurture an appreciation for global linguistic diversity. (Irreg.) [III-SS].
ANTH 3853 Music, Language and Culture 3 Credit Hours Prerequisite: junior standing or permission of instructor. Explores the recent wave of literature on the common roots of language and music, covering everything from their foundations in social interaction to their biological expression and development in evolutionary terms. (Irreg.) [IVWDC].

## ANTH 3873 Primate Evolution and Behavior

3 Credit Hours
Prerequisite: ANTH 3203 or junior standing or permission of instructor. Course looks at primates, our closest living relatives, with particular emphasis on the evolution and ecology of primate behavior, and uses evolutionary theory as the underlying theoretical perspective. (Irreg.) [IINS].

ANTH 3893 Maya, Aztec and Inca: High Civilizations of Ancient America

3 Credit Hours
Prerequisite: junior standing or 3 hours of ANTH. An archaeological and ethnological study of the pre-Spanish cultures of Mesoamerica and the Central Andes giving primary emphasis to the Maya of Yucatan, the Aztec of Mexico and the Inca of Peru. (F, Sp) [IV-WDC] .
ANTH 3910 Internship in Biological Anthropology 6 Credit Hours Prerequisite: ANTH 3203 and six additional credit hours in anthropology. May be repeated; maximum credit six hours. Designed to provide field and/or laboratory training in biological anthropology. Internships are arranged on an individual basis with professional biological anthropologists. Students must meet criteria for acceptable performance and submit a final paper. (Sp, Su)
ANTH 3920 Internship in Museum Anthropology 1-6 Credit Hours Prerequisite: junior standing or 6 hours of ANTH. May be repeated; maximum credit six hours. Designed to provide hands-on training in anthropological museum work. Internships are arranged on an individual basis with professional museum anthropologists or with professionals working in a museum in which anthropology-oriented museum work is undertaken. Students must meet criteria for acceptable performance and submit a final report. (F, Sp, Su)

## ANTH 3930 Fieldwork in Archaeology

1-8 Credit Hours 1 to 8 hours. Prerequisite: ANTH 3113 or sophomore standing or permission of instructor. May be repeated; maximum credit eight hours. Designed to teach the student field methods in archaeology through actual participation in a field program using a combination of lectures, lab, discussion, and/or research. The subject matter depends upon the specific summer session and varies from year to year. The course is given during the summer session and the length of the class will vary with the project. (Su)

ANTH 3933 Archaeology Lab Practicum
3 Credit Hours
Prerequisite: ANTH 3113 or sophomore standing or permission of instructor. This course offers students hands-on experience working with real archaeological collections in a lab setting and is typically paired with a field school. Students will learn to accession, analyze, and interpret artifacts and records from an archaeological field project. (Su)
ANTH 3940 Internship in Archaeology
1-6 Credit Hours
Prerequisite: ANTH 3113. May be repeated; maximum credit six hours. Designed to provide advanced archaeological field and/or laboratory training for students who already have some archaeological field and/ or laboratory experience. Internships are arranged on an individual basis with professional archaeologists. Students must meet criteria for acceptable performance and submit a final report. (F, Sp, Su)
ANTH 3950 Internship in Cultural Anthropology 1-6 Credit Hours
Prerequisite: Six credit hours in cultural anthropology. May be repeated; maximum credit six hours. Designed to provide field training in cultural anthropology. Internships are arranged on an individual basis with professional cultural anthropologists or with professionals working in a setting in which cultural anthropology research can be performed. Students must meet criteria for acceptable performance and submit a final report. (F, Sp, Su)

## ANTH 3953 Proseminar in Anthropology

3 Credit Hours
Prerequisite: junior standing or 3 hours of ANTH. May be repeated; maximum credit six hours. Topics will vary and are intended to acquaint undergraduate majors with subdisciplines through specialized study involving anthropological theory, methodology, the preparation, development and writing of reports. (F, Sp)

ANTH 3960 Honors Reading 1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Honors Reading will provide students with the opportunity to develop an appropriate body of reading materials on topics not covered in detail in routine coursework. Students will be obliged to assume the primary initiative in selecting the topic, compiling the bibliography and completing the reading, and will report their progress in weekly sessions to their instructor. Credit will be given in this course only after an intensive oral examination. (F, Sp)

## ANTH 3970 Honors Seminar

1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. The topics addressed in this course will cover highly circumscribed areas of anthropological inquiry which are intensively investigated during the course of the semester. Originality of research and approach will be required and each student will be expected to contribute to the proceedings as a relatively mature scholar. (Irreg.)

## ANTH 3980 Honors Research <br> 1-3 Credit Hours

1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Provides an opportunity for the gifted Honors candidate to work at a special project under the guidance of a professor in the student's major department. (F, Sp)
ANTH 3990 Independent Study 1-3 Credit Hours
1 to 3 hours. Prerequisite: permission of instructor and junior standing. May be repeated once with change of content. Independent study may be arranged to study a subject not available through regular course offerings. (F, Sp, Su)

## ANTH 4023 Museum Anthropology

3 Credit Hours
Prerequisite: Junior standing or 3 hours of ANTH. This course takes a critical approach to examining the intertwined history of museums and anthropological practice. We pay special attention to the ethical and moral considerations endemic to museum work. The course also covers basic principles of collections management, acquisitions, and exhibition. The course seeks to familiarize students with professional career paths for anthropological work in museums. (Sp)

## ANTH 4053 Morphology

3 Credit Hours
(Slashlisted with ANTH 5053; Crosslisted with LING 4053) Prerequisite: 3053 and 3353. Introduces and develops theories and concepts of morphology including word formation, derivation, inflection, nonconcatenative morphs, covert categories, prosodic phenomena, morphosyntactic categories and clitics. Data from non-Western languages will be prominent. No student may earn credit for both 4053 and 5053. (Irreg.)
ANTH 4063 Language Contact, Loss, and Revitalization 3 Credit Hours Prerequisite: 2303 and junior standing. Covers the linguistic, social and cultural factors involved in contact-induced language change and language shift, and on the main trends and literature in revitalization and maintenance of endangered languages. Students gain experience in practical applications of language revitalization, focusing on languages of the Americas. No student may earn credit for both 4063 and 5063. (Irreg.)
ANTH 4073 Anthropology of Jews and Jewishness 3 Credit Hours Prerequisite: junior standing or 3 hours of ANTH. Explores major anthropological issues through the lens of ethnography conducted in Jewish communities around the world. The particular combinations of race, religion, ethnicity, identity, and gender as they are understood and expressed by Jews cross-culturally challenge our understanding of continuity and change in human societies. (Irreg.) [IV-WDC] .

ANTH 4093 Bodies and Materialities
3 Credit Hours
(Slashlisted with ANTH 5093) Prerequisite: Junior standing or 3 hours of ANTH. This course will examine the body and material culture as a focus for an anthropological investigation into past populations. To acquaint ourselves with: a) the historical background to contemporary theories on materiality and embodiment, and b) critical evaluation of application of these theories to the archaeological record, and their potential and limitations. No student may earn credit for both 4093 and 5093. (Irreg.)

## ANTH 4113 Anthropology Capstone <br> 3 Credit Hours

Prerequisite: ANTH 2203 or ANTH 2303 or ANTH 3113 or ANTH 3203, and Junior standing. Extensive research in anthropological sources relating to a special problem or topic selected by the instructor. Emphasis will be on synthesis of material presented in the course with previous material learned in Anthropology courses for the individual preparation of research papers. Content varies by section. (Irreg.) [V].
ANTH 4163 The Study of Material Culture
3 Credit Hours
(Slashlisted with ANTH 5163) Prerequisite: junior standing or 3 hours of ANTH. Focuses on the study of the things people make and the broader social contexts in which objects are used, circulated, made meaningful, and consumed. Methods and theories developed in geography, folklore, cultural anthropology, archeology, and related social sciences will be examined. No student may earn credit for both 4163 and 5163. (F)
ANTH 4223 The Anthropology of Childhood
3 Credit Hours
Prerequisite: English 1213/Expository Writing 1213. Explores global and deep historical perspectives on childhood, using methods from cultural anthropology. Specific attention is paid to beliefs and practices regarding reproduction and childbirth, infancy and toddlerhood, learning and school, adolescence and sexuality, and early adulthood and parenting. Course materials will emphasize understanding the role of social and cultural context in shaping the experiences of children and families. (Irreg.)[IVWDC].

ANTH 4253 The Anthropology of Communities 3 Credit Hours (Slashlisted with ANTH 5253) Prerequisite: junior standing or 3 hours of ANTH. Designed to introduce students to the community in applying anthropological field techniques and theory. while gaining training in method and theory in class, students will be given assignments to execute in community settings. Particular emphasis will be placed on ethnicity, gender and seniority as ethnological parameters. No student may earn credit for both 4253 and 5253. (Irreg.)

## ANTH 4283 Curriculum \& Teaching Materials Development for Endangered Languages <br> 3 Credit Hours

Prerequisite: ANTH/LING 2303 and junior standing. Provides tools to create maximally useful teaching and learning materials for under-studied languages. Focuses on teaching methods that emphasize language for actual day-to-day communication and language curricula that is culturally situated. (Irreg.)
ANTH 4303 Women and Development in Africa 3 Credit Hours (Slashlisted with ANTH 5303) Prerequisite: junior standing or 3 hours of ANTH. Examines women's involvement in economic development in Africa. Some consideration will be given to family structure and social stratification, as well as women's participation in the social, political and economic spheres. Avenues for viable social change will also be considered. No student may earn credit for both 4303 and 5303. (Irreg.) [IV-WDC].

ANTH 4323 The Anthropology of Aging 3 Credit Hours
(Slashlisted with ANTH 5323) Prerequisite: English 1213/Expository Writing 1213. Examines the process and experience of aging as it relates to culture, and what it means to get older in a variety of cultural contexts, including the United States. Special attention will be devoted to cultural ideas about aging, the roles of older people, illness, caregiving, dying, and what it means to age well in a variety of cultures. No student may earn credit for both 4323 and 5323. (Irreg.) [IV-WDC].

## ANTH 4333 Archaeologies of Movement and Migration in North America <br> 3 Credit Hours

Prerequisite: Junior standing or 3 hours of ANTH. This course will draw from the work of archaeologists to explore the long-term histories of human migration and movement in North America. We will investigate why movement has been so critical for our ancestors, the different types of movement, why people migrate, and consider the history of voluntary and forced migrations in our continent's history. (Irreg.) [IV-WDC].

ANTH 4423 Introduction to Population Genetics 3 Credit Hours (Slashlisted with ANTH 5423) Prerequisite: ANTH 3203 or 3 hours of BIOL. Population genetics is a classic course in biological anthropology sciences, and studies the fundamental forces that cause genetic change within and between populations. No student may earn credit for both 4423 and 5423. (Irreg.)
ANTH 4433 Ethnographic Writing
3 Credit Hours
(Slashlisted with ANTH 5433) Prerequisite: Junior standing or 3 hours of ANTH. This course is an immersion in creative ethnographic writing. It teaches students how to gather original ethnographic data and to translate their findings into an insightful, artfully written study. No student may earn credit for both 4433 and 5433. (Irreg.)
ANTH 4443 Visual Anthropology 3 Credit Hours
Prerequisite: junior standing or 3 hours of ANTH. Explores the historical and contemporary use of media to represent culture, and examines the changes in styles of ethnographic film from direct cinema and observational cinema to reflexivity, personal cinema, indigenous media, and collaboration between ethnographic filmmaker and film subject. (Irreg.) [IV-WDC].
ANTH 4463 Peopling of the New World 3 Credit Hours (Slashlisted with 5463) Prerequisite: ANTH 1413 or ANTH 3113 or permission of instructor. Introduces the dynamic domain of the earliest human colonization of the Americas. Focuses on such key "peopling" debates as the geographic origins of First Americans; when people first arrived in the New World; and if and how ancient human skeletal remains should be studied. No student may earn credit for both 4463 and 5463. (Irreg.)

## ANTH 4513 Applying Anthropology to Contemporary Social Problems <br> 3 Credit Hours

(Slashlisted with ANTH 5513) Prerequisite: ANTH 2203 or approval of instructor. Explores the application of anthropological knowledge and practice to contemporary societal challenges. How anthropological concepts, methods, and insights can be used to understand and solve problems. (Irreg.) No student may earn credit for both 4513 and 5513. (Irreg.)
ANTH 4593 Anthropology of Human Reproduction 3 Credit Hours Prerequisite: ANTH 3203 or junior standing. Examines the major features of human fertility and reproduction, exploring the interactions between physiology, ecology, and behavior. The course applies an anthropological perspective to such issues as cross-cultural patterns of fertility, the timing and probability of conception, age at first and last reproduction, and male reproductive physiology. (Irreg.) [II-NS] .

ANTH 4623 Approaches to Cross-Cultural Human Problems 3 Credit Hours
Prerequisite: junior standing or 3 hours of ANTH. Introduces students to the complex problems of contemporary global-scale cultures and helps them better understand their place on this global arena. This course will look at specific international issues or problems, and relate them to processes occurring in many parts of the world. (Irreg.) [IV-WDC].
ANTH 4643 Psychiatric Anthropology
3 Credit Hours
(Slashlisted with 5643) Prerequisite: junior standing or 3 hours of ANTH. Explores historical and contemporary thinking about culture and mental illness, and examines classic formulations of the relationship between anthropology and psychiatry. No student may earn credit for both 4643 and 5643. (Irreg.)

ANTH G4713 Statistical Concepts in Anthropology 3 Credit Hours Prerequisite: junior standing or 3 hours of ANTH. An introduction to anthropological statistics. Emphasis will be placed on anthropological research design and analysis of anthropological data. (Irreg.)
ANTH 4723 Gender and Health
3 Credit Hours
Prerequisite: junior standing or 3 hours of ANTH. Provides an overview of the complex scientific and cultural interface between sex, gender, and health. Topics covered include gender identity and biological sex, various life cycles issues such as birth, sexual maturity, reproduction, and postreproductive years. No student may earn credit for both 4723 and 5723. (Irreg.)
ANTH 4733 Bioarchaeology of Death \& Burials 3 Credit Hours
(Slashlisted with 5733) Prerequisite: Junior standing or 3 hours of ANTH. The dead can tell us many secrets if we know how to "listen" to their stories. We will explore the social significance of death, burial and commemoration among diverse groups around the world. Using cutting edge archaeological methods and theories, we will work to understand how death is materialized in the archaeological record. No student may earn credit for both 4733 and 5733. (F, Sp)

## ANTH 4753 Body, Culture, Power: Anthropologies of

## Flesh

3 Credit Hours
(Slashlisted with ANTH 5753) Prerequisite: Junior standing or 3 hours of ANTH. The body has come to occupy a central place in anthropological inquiry. This course looks at the body from different theoretical perspectives, offering a survey of recent scholarship on embodiment and biopower. We explore how the body is a medium for experience, and consider regulation of the "body politic" through immigration policy, reproductive governance, fertility control, and technological advancement. No student may earn credit for both 4753 and 5753. (Irreg.)

## ANTH 4783 Landscape Archaeology

3 Credit Hours
Prerequisite: junior standing or 3 hours of ANTH. Introduces the method and theory of landscape archaeology, which is the study of how humans experience, modify, and respond to their natural and social environments. Archaeological and contemporary case studies will be examined using methods like environmental reconstruction, geoarchaeology, remote sensing, and GIS, to examine human-natural systems, resilience and vulnerability, sacred landscapes, monumentality, and mobility. (Irreg.) [IVWDC].

## ANTH 4813 Archaeology of North America

3 Credit Hours
(Slashlisted with ANTH 5813) Prerequisite: junior standing or 3 hours of ANTH. A course in the prehistory of the American Indian. Study of the prehistory of North America north of Mexico. Consideration of the various archeological areas of the continent in terms of the prehistoric sequence of events from the earliest times up to European contact. No student may earn credit for both 4813 and 5813. (Irreg.) [IV-WDC] .

## ANTH 4823 Medical Anthropology

3 Credit Hours
(Slashlisted with ANTH 5823) Prerequisite: junior standing or permission of instructor. An introduction to the field of medical anthropology, the subfield of anthropology that focuses on the interaction of culture and biology in the areas of health, medicine and disease. Medical anthropology offers a unique perspective on how people cope with disease and how medical systems are constructed. Includes theoretical and topical overviews of the field. No student may earn credit for both 4823 and 5823. (F)
ANTH G4833 Archaeology of the Great Plains
3 Credit Hours
Prerequisite: junior standing or 3 hours of ANTH. A detailed survey of the archaeological remains from the Great Plains from the earliest occupation of the area until the reservation period. (Irreg.)
ANTH 4843 Cross-Cultural Study of Sex, Gender and Sexuality

3 Credit Hours
(Slashlisted with ANTH 5843) Prerequisite: junior standing or 3 hours of ANTH. A consideration of ethnographic material that challenges understandings of the relationships among sex, gender, and sexuality. Topics include language, socialization, segregation and inequality, gender variance and "third gender" categories, sexual practices and identities, and transsexual and transgender phenomena. No student may earn credit for both 4843 and 5843. (Irreg.) [IV-WDC].
ANTH G4853 Archaeology of the Greater Southwest 3 Credit Hours Prerequisite: junior standing or 3 hours of ANTH. A detailed survey of the prehistoric sequence in the American Southwest and northwestern Mexico from earliest times up to the time of European contact. (Irreg.)

ANTH 4863 Archaeology of the Southeast
3 Credit Hours
(Slashlisted with ANTH 5863) Prerequisite: junior standing or 3 hours of ANTH. A study of the prehistoric and early historic Native American culture histories. Some attention will be given to historic African and European cultures in the Southeast. Emphasis will be placed on longterm social change, pan-regional trends and colonial transformations. No student may earn credit for both 4863 and 5863. (Irreg.)
ANTH 4883 Dates, Compositions, and Ancestors: Scientific
Applications in Archaeology $\quad 3$ Credit Hours
(Slashlisted with ANTH 5883) Prerequisite: Junior standing or 3 hours of ANTH. Provides an overview of physical science applications in archaeological research. Topics include: dating objects, determining where an object was made, inferring the use of artifacts, and reconstructing genetic relationships between groups. Emphasis is placed on both how these techniques work and how they can be appropriately utilized to understand prehistoric social organization. No student may earn credit for both 4883 and 5883. (Irreg.)

## ANTH 4903 Race and Ethnicity

3 Credit Hours
Prerequisite: junior standing or 3 hours of ANTH. Introduces a broad spectrum of issues, concepts and methods in the anthropology of race and ethnicity. The goal is to teach students to think, read and write critically about race and ethnicity from a cross-cultural perspective, a strategy that encourages better understanding of the various forms of structural oppression that structure everyday lives. (Irreg.) [IV-WC] .
ANTH G4943 Human Osteology and Paleopathology 3 Credit Hours Prerequisite: ANTH 3203 or permission of instructor. Allows the student to develop a basic familiarity with human skeletal remains, standard anatomical terminology, and methods and techniques of data collection. In turn, these osteological skills will provide a means to explore questions of human adaptability, variation, evolution, patterns of health and disease in prehistory, and the applicability of these findings to contemporary problems. (Irreg.)

ANTH 4953 Special Topics in Anthropology
3 Credit Hours
Prerequisite: Junior standing or 3 hours of ANTH or permission of the instructor. May be repeated with change of content; maximum credit twelve hours. Topics will vary and are intended to acquaint the advanced anthropology major with subdisciplines through specialized study involving anthropological theory, methodology, the preparation, development and writing of reports. (Irreg.)
ANTH 4960 Directed Readings 1-4 Credit Hours
1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean. May be repeated; maximum credit four hours. Designed for upper-division students who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)
ANTH 4970 Special Topics/Seminar 1-3 Credit Hours
1 to 3 hours. Prerequisite: Senior standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)
ANTH 4973 Introduction to Faunal Analysis 3 Credit Hours (Slashlisted with ANTH 5973) Prerequisite: ANTH 3113. An introductorylevel look at animal bone analysis as performed by archaeologists and zooarchaeologists. The bones of birds, fish, reptiles, amphibians, and mammals, as well as mollusk shell, are discussed under the topics of taxonomy, taphonomy, age and sex determination, morphometrics, seasonality, and specialized techniques. No student may earn credit for both 4973 and 5973. (Irreg.)
ANTH 4990 Independent Study 1-3 Credit Hours
1 to 3 hours. Prerequisite: permission of instructor and junior standing. May be repeated; maximum credit six hours. Contracted independent study for topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)
ANTH 4993 Reconstruction of Life from the Skeleton 3 Credit Hours (Slashlisted with ANTH 5993) Prerequisite: Junior standing or 3 hours of ANTH. Bioarchaeology is the study of human skeletal remains. This includes a myriad of interconnected phenomena including mortuary contexts, paleopathology, and assessing human variation and adaptation. It also encompasses scientific approaches and applications of social theory, and ethical issues. Students will develop a historical perspective on bioarchaeology. Emphases also are placed on recent discoveries, new interpretations and theoretical approaches. No student may earn credit for both 4993 and 5993. (Irreg.)
ANTH 5001 Professionalization in Anthropology
1 Credit Hour
Prerequisite: graduate standing. Prepares students for graduate school and careers in Anthropology. Topics covered include publishing, grant writing, professional conduct, expectations in graduate school, and more. (F)

ANTH 5053 Morphology
3 Credit Hours
(Slashlisted with ANTH 4053) Prerequisite: Graduate standing. Introduces and develops theories and concepts of morphology including word formation, derivation, inflection, non-concatenative morphs, covert categories, prosodic phenomena, morphosyntactic categories, and clitics. Data from non-Western languages will be prominent. No student may earn credit for both 4053 and 5053. (Irreg.)

ANTH 5063 Language Contact, Loss, and Revitalization 3 Credit Hours Prerequisite: 2303 and graduate standing. Covers the linguistic, social and cultural factors involved in contact-induced language change and language shift, and on the main trends and literature in revitalization and maintenance of endangered languages. Students gain experience in practical applications of language revitalization, focusing on languages of the Americas. No student may earn credit for both 4063 and 5063. (Irreg.)
ANTH 5083 Quantitative Methods in Anthropology 3 Credit Hours
Prerequisite; graduate standing. Introduces students to the basics of quantitative analysis in the field of anthropology. Topics include parametric and non-parametric measurements of significance and association, mulitvariate techniques, and concepts useful to anthropologists such as spatial analysis and sampling. (Irreg.)
ANTH 5093 Bodies and Materialities
3 Credit Hours
(Slashlisted with 4093) Prerequisite: Graduate standing. This course will examine the body and material culture as a focus for an anthropological investigation into past populations. The course goals are to acquaint ourselves with the historical background to contemporary theories on materiality and embodiment, and critically evaluate the application of these theories to the archaeological record and their potentials and limitations. No student may earn credit for both 4093 and 5093. (Irreg.)
ANTH 5123 Contemporary Culture Theory
3 Credit Hours
Prerequisite: ANTH 5223. Introduces students to different unit and levels of sociocultural analysis. Students will be required to address a series of research problems as a means of understanding sociocultural analysis. (Sp)
ANTH 5153 Ethnography of Communication 3 Credit Hours
Prerequisite: graduate standing. This course focuses on language use in larger discourse and cultural contexts and how language is used to conduct the social life and the dynamics of culture. Topics include topic and focus, deixis, reported speech, speaking styles, strategies, and genres, and language and ethnicity. (F)

## ANTH 5163 The Study of Material Culture

3 Credit Hours
(Slashlisted with ANTH 4163) Prerequisite: graduate standing. Focuses on the study of the things people make and the broader social contexts in which objects are used, circulated, made meaningful, and consumed. Methods and theories developed in the fields of geography, folklore, cultural anthropology, archaeology, and related social sciences will be examined. No student may earn credit for both 4163 and 5163. (F)

## ANTH 5183 Contemporary Native American Ethnography 3 Credit Hours

 Prerequisite: graduate standing. Examines the impact of changes in the relationship between anthropologists and Native communities and the possibilities for an improved collaborative relationship between anthropologists and First Nations communities in the U.S. and Canada. Through readings, class discussion, and media we examine the ways in which Native people maintain cultural identity and sovereignty in response to ever-changing social conditions of life in the 21 st century. (Irreg.)
## ANTH 5203 Hunter-Gatherers

3 Credit Hours
Prerequisite: graduate standing. Considers the social, economic, ecological, and historical variation in hunter-gatherer societies. The history and theory of hunter-gatherer studies will be explored. Ethnographic and archaeological case studies will be used to examine settlement and mobility practices, architecture, subsistence, social organization, interaction, technology, and cosmology. (Irreg.)

ANTH 5213 Ethnographic Methods
3 Credit Hours
Prerequisite: graduate standing. Survey of ethnographic methods in anthropological research, with weekly fieldwork assignments and writing exercises. First half of class devoted to current theoretical debates, including the post-modern controversy and literary issues in classic ethnography. Second half of class devoted to hands-on research, including participant-observation, interviews, field notes, databases, and linguistic elicitation. (Irreg)

## ANTH 5223 Foundations of Social Thought

3 Credit Hours
Prerequisite: Graduate standing; majors only or permission of instructor. Survey of anthropological theorists and theories of culture (evolutionary, functional, cognitive, ecological, structural, symbolic, etc.) and their impact on research methods in each of the four fields of anthropology and related disciplines. Emphasis will be given to a discussion of primary texts written by the major theorists. (F)
ANTH 5253 The Anthropology of Communities 3 Credit Hours
(Slashlisted with ANTH 4253) Prerequisite: graduate standing. Designed to introduce students to the community in applying anthropological field techniques and theory. while gaining training in method and theory in class, students will be given assignments to execute in community settings. Particular emphasis will be placed on ethnicity, gender and seniority as ethnological parameters. No student may earn credit for both 4253 and 5253. (Irreg.)
ANTH 5273 Topics in Social Anthropology
3 Credit Hours May be repeated; maximum credit twelve hours. Topics vary. ( $\mathrm{F}, \mathrm{Sp}$ )
ANTH 5293 Origins of Complex Society
3 Credit Hours
Prerequisite: graduate standing. Examines the origins and development of complex society and the institutionalization of social inequalities. Complexity is examined along a changing scale of sociopolitical organization, from small "egalitarian" societies to middle-range "chiefdoms" to large archaic states, using both archaeological and ethnographic examples. (Sp)

## ANTH 5303 Women and Development in Africa 3 Credit Hours

(Slashlisted with ANTH 4303) Prerequisite: graduate-level social science course. Examines women's involvement in economic development in Africa. Some consideration will be given to family structure and social stratification, as well as women's participation in the social, political and economic spheres. Avenues for viable social change will also be considered. No student may earn credit for both 4303 and 5303. (Irreg.)

## ANTH 5323 The Anthropology of Aging <br> 3 Credit Hours

(Slashlisted with ANTH 4323) Prerequisite: ANTH 5223 and graduate standing. Examines the process and experience of aging as it relates to culture, and what it means to get older in a variety of cultural contexts, including the United States. Special attention will be devoted to cultural ideas about aging, the roles of older people, illness, caregiving, dying, and what it means to age well in a variety of cultures. No student may earn credit for both 4323 and 5323. (Irreg.)

## ANTH 5363 Linguistic Anthropology

3 Credit Hours Prerequisite: graduate standing in Anthropology or permission of instructor. Course covers the history of theory in linguistic anthropology, starting with the early work of Boas, Sapir, and Whorf, and continuing with the writings of Levi-Strauss, Hymes, Basso, Silverstein, Bakhtin, and Hill. Surveys contemporary trends in discourse analysis, sociolinguistics and cognitive linguistics. Course is a required core course for anthropology graduate students.(F, Sp)

## ANTH 5393 Anthropology and the Health of Indigenous <br> People <br> 3 Credit Hours

Prerequisite: graduate standing. Introduces graduate students to research in medical, biological, linguistic, and sociocultural anthropology and archaeology that relates to the health and well-being of global indigenous populations, with an emphasis on the native peoples of the Americas. (F)

## ANTH 5413 Public Archaeology

3 Credit Hours
Prerequisite: graduate standing, permission of instructor. Focus is on the articulation of graduate academic training in archaeology with current federal rules and regulations, and educational outreach concerning archaeological research and goals. Emphasis is on advanced training in the preservation and management of archaeological resources. (Irreg.)
ANTH 5423 Introduction to Population Genetics 3 Credit Hours
(Slashlisted with ANTH 4423) Prerequisite: graduate standing. Population genetics is a classic course in biological anthropology sciences, and studies the fundamental forces that cause genetic change within and between populations. No student may earn credit for both 4423 and 5423. (Irreg.)

ANTH 5433 Ethnographic Writing
3 Credit Hours
(Slashlisted with ANTH 4433) Prerequisite: Graduate standing. This course is an immersion in creative ethnographic writing. It teaches students how to gather original ethnographic data and to translate their findings into an insightful, artfully written study. No student may earn credit for both 4433 and 5433. (Irreg.)
ANTH 5463 Peopling of the New World
3 Credit Hours
(Slashlisted with ANTH 4463) Prerequisite: graduate standing. Introduces the dynamic domain of the earliest human colonization of the Americas. Focuses on such key "peopling" debates as the geographic origins of First Americans; when people first arrived in the New World; and if and how ancient human skeletal remains should be studied. No student may earn credit for both 4463 and 5463. (Irreg.)

## ANTH 5513 Applying Anthropology to Contemporary Social Problems <br> 3 Credit Hours

(Slashlisted with ANTH 4513) Prerequisite: Graduate standing in Anthropology or instructor approval. Explores the application of anthropological knowledge and practice to contemporary societal challenges. How anthropological concepts, methods, and insights can be used to understand and solve problems. (Irreg.) No student may earn credit for both 4513 and 5513. (Irreg.)

## ANTH 5543 Research Design

3 Credit Hours
Prerequisite: graduate standing and 5223. Studies ethnographic research methods and design. An overview of current practices and theoretical disputes, followed by group discussion of individual class members' unique research design problem. (Irreg.)

## ANTH 5593 Spatial Methods and Technologies in Anthropology 3 Credit <br> Hours

Prerequisite: graduate standing. Introduces the theory and techniques of GIS, remote sensing, mapping, and GPS as it relates to anthropological fieldwork. The emphasis will be on topics related to and management of spatial data that is aimed specifically at the archaeologist or cultural anthropologist expecting to use GIS in the course of their research or applied work. (Irreg.)

ANTH 5643 Psychiatric Anthropology 3 Credit Hours
(Slashlisted with ANTH 4643) Prerequisite: ANTH 5223 and graduate standing. Explores historical and contemporary thinking about culture and mental illness, and examines classic formulations of the relationship between anthropology and psychiatry. No student may earn credit for both 4643 and 5643.(Irreg.)
ANTH 5733 Bioarchaeology of Death \& Burials 3 Credit Hours (Slashlisted with 4733) Prerequisite: Graduate standing. The dead can tell us many secrets if we know how to "listen" to their stories. We will explore the social significance of death, burial, and commemoration among diverse groups around the world. Using cutting edge archaeological methods and theories, we will work to understand how death is materialized in the archaeological record. No student may earn credit for both 4733 and 5733. (F, Sp)
ANTH 5753 Body, Culture, Power. Anthropologies of Flesh

3 Credit Hours
(Slashlisted with ANTH 4753) Prerequisite: Graduate standing. The body has come to occupy a central place in anthropological inquiry. This course looks at the body from different theoretical perspectives, offering a survey of recent scholarship on embodiment and biopower. We explore how the body is a medium for experience and consider regulation of the "body politic" through immigration policy, reproductive governance, fertility control, and technological advancement. No student may earn credit for both 4753 and 5753. (Irreg.)

ANTH 5783 Ceramics in Archaeology
3 Credit Hours
Prerequisite: graduate standing. The theoretical frameworks surrounding the analysis of ceramics in archaeology are discussed. Topics considered may include analytic methods, origins, mobility and sedentism, function, production, gender, specialization, distribution, style, ethnicity, household size, ideology, and social identity. (Irreg.)
ANTH 5803 Theories of Identity
3 Credit Hours
Prerequisite: 5223 and graduate standing. Considers the relationship
between ethnicity and other social categories on processes such as race, peoplehood, culture, tradition, heritage, nationality, religion, gender, and class. (Sp)
ANTH 5813 Archaeology of North America 3 Credit Hours
(Slashlisted with ANTH 4813) Prerequisite: graduate standing. A course in the prehistory of the American Indian. Study of the prehistory of North America north of Mexico. Consideration of the various archeological areas of the continent in terms of the prehistoric sequence of events from the earliest times up to European contact. No student may earn credit for both 4813 and 5813. (Irreg.)
ANTH 5823 Medical Anthropology
3 Credit Hours
(Slashlisted with ANTH 4823) Prerequisite: graduate standing and permission of instructor. An introduction to the field of medical anthropology, the subfield of anthropology that focuses on the interaction of culture and biology in the areas of health, medicine and disease. Medical anthropology offers a unique perspective on how people cope with disease and how medical systems are constructed. Includes theoretical and topical overviews of the field. No student may earn credit for both 4823 and 5823.(F)

## ANTH 5843 Cross-Cultural Study of Sex, Gender and

Sexuality 3 Credit Hours
(Slashlisted with ANTH 4843) Prerequisite: graduate standing. A consideration of ethnographic material that challenges understandings of the relationships among sex, gender, and sexuality. Topics include language, socialization, segregation and inequality, gender variance and "third gender" categories, sexual practices and identities, and transsexual and transgender phenomena. No student may earn credit for both 4843 and 5843. (Irreg.)
ANTH 5863 Archaeology of the Southeast 3 Credit Hours (Slashlisted with ANTH 4863) Prerequisite: graduate standing. A study of the pre-contact and early post-contact Native American culture histories. Some attention will be given to historic African and European cultures in the Southeast. Emphasis will be placed on long-term social change, panregional trends and colonial transformations. No student may earn credit for both 4863 and 5863. (Sp)
ANTH 5883 Dates, Compositions, and Ancestors: Scientific
Applications in Archaeology 3 Credit Hours
(Slashlisted with ANTH 4883) Prerequisite: graduate standing. Provides an overview of physical science applications in archaeological research. Topics include: dating objects, determining where an object was made, inferring the use of artifacts, and reconstructing genetic relationships between groups. Emphasis is placed on both how these techniques work and how they can be appropriately utilized to understand prehistoric social organization. No student may earn credit for both 4883 and 5883. (Irreg.)
ANTH 5893 Topics in Archaeology
3 Credit Hours
May be repeated; maximum credit 12 hours. Topics will vary. Laboratory (F, Sp)
ANTH 5913 Topics in Biological Anthropology 3 Credit Hours
Prerequisite: graduate standing. May be repeated with change of topic; maximum credit 12 hours. An opportunity for a seminar of interest in biological anthropology. (F, Sp)

## ANTH 5923 Lithic Technology and Analysis

3 Credit Hours Prerequisite: graduate standing in Anthropology or permission of instructor. Instructs students in flint knapping, raw material properties, chipped stone analysis, and the application of analytical approaches to archaeological research problems. (Irreg.)

## ANTH 5960 Directed Readings

1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing and permission of department. May be repeated; maximum credit twelve hours. Directed readings and/or literature reviews under the direction of a faculty member. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
ANTH 5963 Writing for Anthropologists 3 Credit Hours
Prerequisite: graduate standing in Anthropology. Teaches students to be better and more efficient anthropological writers. Topics range from pragmatic approaches to increasing productivity; to understanding the peer-reviewed process; to the nuts and bolts of writing an effective research paper, literature review, and grant proposal. (Irreg.)
ANTH 5970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

ANTH 5973 Introduction to Faunal Analysis 3 Credit Hours (Slashlisted with ANTH 4973) Prerequisite: graduate standing. An introductory-level at animal bone analysis as performed by archaeologists and zoo archaeologists. The bones of birds, fish, reptiles, amphibians, and mammals, as well as mollusk shell are discussed under the topics of taxonomy, age and sex determination, morphometrics, seasonality, and specialized techniques. No student may earn credit for both 4973 and 5973. (Irreg.)
ANTH 5980 Research for Master's Thesis
2-9 Credit Hours
Variable enrollment, two to nine hours; maximum credit applicable toward degree, four hours. Laboratory (F, Sp, Su)
ANTH 5990 Special Anthropological Problems 1-3 Credit Hours
1 to 3 hours. May be repeated; maximum credit 12 hours. Permits the student to investigate a specific problem in terms of currently available data. It may be within any field of anthropology recommended by the instructor or adviser. (F, Sp, Su)
ANTH 5993 Reconstruction of Life from the Skeleton 3 Credit Hours (Slashlisted with ANTH 4993) Prerequisite: Graduate standing. Bioarchaeology is the study of human skeletal remains. This includes a myriad of interconnected phenomena including mortuary contexts, paleopathology, and assessing human variation and adaptation. It also encompasses scientific approaches, applications of social theory, and ethical issues. Students will develop a historical perspective on bioarchaeology. Emphases also are placed on recent discoveries, new interpretations and theoretical approaches. No student may earn credit for both 4993 and 5993. (Irreg.)

## ANTH 6203 Political Economy <br> 3 Credit Hours

Prerequisite: graduate standing. Examines the political-economic perspective in anthropology and explores its approach to the construction of knowledge, culture, the nature of social systems, social history, archaeology, ethnography (the remote and recent past), ethnicity, class, and gender. (F)
ANTH 6223 Community Engaged Anthropology
3 Credit Hours
Prerequisite: Graduate standing. This course examines communityengaged research from historical, methodological, and practical perspectives, and examines the many roles a community-engaged researcher assumes, the responsibilities of researchers to members of the communities in which they work, as well as the nature and limits of those responsibilities. Emphasis is placed on developing partnerships that blur the line between "research" and "researched." (Irreg.)

ANTH 6310 Internship in Applied Medical Anthropology 1-6 Credit Hours
1 to 6 hours. Prerequisite: Graduate standing in Anthropology or instructor approval. The internship in Applied Medical Anthropology provides an opportunity for students to apply anthropological theory and method to real-world health problems. Students work collaboratively with an organization/community on an agreed upon issue related to human health, contributing to its efforts, while learning how to put anthropological skills into practice. (F, Sp, Su)
ANTH 6590 Fieldwork in American Indian Languages 3-6 Credit Hours 3 to 6 hours. Prerequisite: Graduate standing. Advanced field experience in the recording and analysis of Native American languages, including a discussion of problems in selecting and effectively utilizing informants. (lrreg.)

## ANTH 6633 Method and Theory in Biological Anthropology 3 Credit Hours <br> Prerequisite: graduate standing in Anthropology or permission of instructor. The core course in biological anthropology. Historical development of biological (physical) anthropology; the development and application of method and theory in the major subfields of biological anthropology. (Sp)

ANTH 6650 Advanced Fieldwork in Anthropology 3-8 Credit Hours 3 to 8 hours. Prerequisite: permission of chairperson and dean of the Graduate College. Students interested in this summer program should request a Special Announcement from the Department of Anthropology Laboratory (Su)

## ANTH 6713 Archaeological Theory <br> 3 Credit Hours

Prerequisite: graduate standing in Anthropology or permission of instructor. This course explores archaeological theory, its evolution and context. As an anthropological core class, it stresses the articulation of archaeological theory within its wider parent discipline, anthropology. (F)
ANTH 6750 Research in Archaeology
1-4 Credit Hours
1 to 4 hours. Permits the student to undertake independent research. Such research is normally limited to original or unpublished work. (Problems to be solved by library research are properly within the scope of 5990.) Laboratory (F, Sp)

## ANTH 6803 Advanced Archaeological Theory 3 Credit Hours

Prerequisite; 6713. An advanced course in archaeological theory focusing especially on those theories prominent in the last decade. The course concentrates on theoretical frameworks that might form the students' dissertation research. (Irreg,)

ANTH 6810 Research in Ethnology
1-4 Credit Hours
1 to 4 hours. Permits the student to undertake independent fieldwork to study some problems in ethnology. (F, Sp, Su)

## ANTH 6843 Foundations of Biological and Medical Anthropology <br> 3 Credit Hours

Prerequisite: graduate standing in Anthropology. Introduces students to the theoretical foundations of biological and medical anthropology. (F)

ANTH 6960 Directed Readings 1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit six hours. Directed readings and/or literature review under the direction of a faculty member. (Irreg.)

ANTH 6970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor.
May be repeated; maximum credit 12 hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or research and field projects. (Irreg.)
ANTH 6980 Research for Doctoral Dissertation 2-16 Credit Hours 2 to 16 hours. Prerequisite: Graduate standing; may be repeated. Directed research culminating in the completion of the doctoral dissertation. ( $F$, $\mathrm{Sp}, \mathrm{Su}$ )

## ANTH 6990 Independent Study

1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)

## Faculty

| Last Name | First/Middle <br> Name | Middle init. | OU <br> Service start | Title(s), date(s) appointed | Degrees Earned, Schools, Dates Completed |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Anderson | Kermyt | G | 2002 | ASSOCIATE PROFESSOR OF ANTHROPOLOGY, 2017 | PhD, Univ of New Mexico, 1999; MS, Univ of New Mexico, 1996; BA, Univ of North Carolina, 1993 |
| Bessire | Lucas |  | 2011 | ASSOCIATE PROFESSOR OF ANTHROPOLOGY, 2017 | PhD, New York Univ, 2010; MA, New <br> York Univ, 2006; BA, Kansas State Univ, 2001 |
| Cerezo- <br> Roman | Jessica |  | 2018 | ASSISTANT PROFESSOR OF ANTHROPOLOGY | PhD, Univ of Arizona, 2014; MPA, Escuela Nacional de Antrophologia e Historia, 2004; BA, Universidad de Puerto Rico, 2000 |
| DeAngelo | Darcie |  | 2021 | ASSISTANT PROFESSOR OF ANTHROPOLOGY, 2021 | PhD, McGill Univ, 2018; MPhil, Univ of Troms $\varnothing$, 2011; BA, Harvard Univ, 2005. |
| Duwe | Samuel | G | 2014 | ASSOCIATE PROFESSOR OF ANTHROPOLOGY, 2021 | PhD, Univ of Arizona, 2011; MA, Univ of Arizona, 2005; BA, Univ of Michigan, 2003 |
| Fenn | Thomas |  | 2018 | ASSISTANT PROFESSOR OF ANTHROPOLOGY, 2018 | PhD, Univ of Arizona, 2011 |
| Harris | Betty | J | 1985 | PROFESSOR OF ANTHROPOLOGY, 2006 | PhD, Brown Univ, 1982; AM, Brown Univ, 1978; AB, Brandeis Univ, 1975 |
| Hirschfeld | Tassie | K | 2002 | PROFESSOR OF ANTHROPOLOGY, 2017; ADJUNCT ASSOCIATE PROFESSOR OF INTERNATIONAL AND AREA STUDIES, 2017 | PhD, Emory Univ, 2001; MA, Emory Univ, 1996; BA, Mass Amherst, 1991 |
| Hofman | Courtney | A | 2016 | ASSISTANT PROFESSOR OF ANTHROPOLOGY, 2016 | PhD, Univ of <br> Maryland, 2015; MS, Univ of Maryland, 2011; BA, BS, Univ of Notre Dame, 2009 |
| Honap | Tanvi Prasad |  | 2017 | RESEARCH <br> ASSISTANT <br> PROFESSOR, <br> 2017; ADJUNCT <br> ASSISTANT <br> PROFESSOR OF <br> ANTHROPOLOGY, <br> 2018 | PhD, Arizona State Univ, 2017; MS, Univ of Pune, 2012; BS, Univ of Pune, 2010 |
| Jervis | Lori | L | 2008 | ADJUNCT <br> ASSOCIATE <br> PROFESSOR OF <br> NATIVE AMERICAN <br> STUDIES, 2010; <br> PROFESSOR OF <br> ANTHROPOLOGY, <br> 2017; | PhD, Univ of Minnesota, 1998; MA, Univ of Minnesota, 1990; BA, Univ of Minnesota, 1987 |


| Kemp | Brian |  | 2016 | ASSOCIATE PROFESSOR OF ANTHROPOLOGY, 2016 | PhD, Univ of California Davis, 2006 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Klein | Misha |  | 2005 | ASSOCIATE PROFESSOR OF ANTHROPOLOGY, 2012; ADJUNCT ASSOCIATE PROFESSOR OF WOMEN'S AND GENDER STUDIES, 2012 | PhD, Univ of California-Berkeley, 2002; MA, Univ of California-Berkeley, 1989; BA, Univ of California-Berkeley, 1988 |
| Levine | Marc |  | 2013 | ASSOCIATE PROFESSOR OF ANTHROPOLOGY, 2019; ASSOCIATE CURATOR, SAM NOBLE OKLAHOMA MUSEUM OF NATURAL HISTORY, 2019 | PhD, Univ of Colorado, 2007; MA, Univ of Colorado, 2002; BA, Univ of Michigan, 1996 |
| Lewis | Cecil | M | 2007 | PRESIDENTIAL RESEARCH PROFESSOR, 2014; PROFESSOR OF ANTHROPOLOGY, 2017 | PhD, Univ of New Mexico, 2005; MA, Univ of New Mexico, 2000; BA, Univ of Washington, 1995 |
| Livingood | Patrick | C | 2006 | ASSOCIATE PROFESSOR OF ANTHROPOLOGY, 2012 | PhD, Univ of <br> Michigan, 2006; MA, <br> Univ of Michigan, 1999; BS, Univ of North Carolina, 1996 |
| Marshall | Kimberly |  | 2011 | ASSOCIATE PROFESSOR OF ANTHROPOLOGY, 2018 | PhD, Indiana Univ, 2011; MA, Indiana Univ, 2011; MA, Univ of Oregon, 2004; BA, Northwestern Univ, 2001 |
| Nicholas | Claire |  | 2021 | ASSISTANT <br> PROFESSOR OF <br> ANTHROPOLOGY, <br> 2021; ASSISTANT <br> CURATOR, SAM <br> NOBLE OKLAHOMA <br> MUSEUM OF <br> NATURAL HISTORY, <br> 2021 | PhD, Princeton Univ, 2014; DEA, L'Ecole des Hautes Etudes en Sciences Sociales, 2005; BA, Univ of Texas at Austin, 1999. |
| O Neill | Sean | P | 2001 | PROFESSOR OF ANTHROPOLOGY, 2021 | PhD, Univ of California Davis, 1997; MA, Univ of California Davis; BA, Humboldt State Univ, 1991 |
| Pailes | Matthew | C | 2016 | ASSISTANT PROFESSOR OF ANTHROPOLOGY, 2016 | PhD, Univ of Arizona, 2015; MA, Univ of Arizona, 2008; BA, Univ of Oklahoma 2005 |
| Pitblado | Bonnie | L | 2012 | PROFESSOR OF ANTHROPOLOGY, 2012; ROBERT E. AND VIRGINIA BELL CHAIR IN ANTHROPOLOGY, 2012 | PhD, Univ of Arizona, 1999; MA, Univ of Arizona, 1993; BA, Carleton College, 1990 |


| Randall | Asa | R | 2011 | ASSOCIATE <br> PROFESSOR OF <br> ANTHROPOLOGY, <br> 2017 | PhD, Univ of Florida, 2010; MA, Univ of Florida, 2002; BA, Boston Univ, 1999 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Sapien | Racquel | M | 2012 | ASSOCIATE PROFESSOR OF ANTHROPOLOGY, 2019 | PhD, Univ of Oregon, 2010; MA, Chapman Univ, 2001; BA, CUNYQueens College, 1994 |
| Singer | Elyse |  | 2018 | ASSISTANT PROFESSOR OF ANTHROPOLOGY, 2018 | PhD, Washington Univ, 2017 |
| Spicer | Paul | G | 2008 | PROFESSOR OF <br> ANTHROPOLOGY, <br> 2008; ADJUNCT <br> PROFESSOR <br> OF NATIVE <br> AMERICAN STUDIES, <br> 2010; ADJUNCT <br> PROFESSOR OF <br> LIBERAL STUDIES, <br> 2010; CIMMS <br> FELLOW, 2012 | PhD, Univ of Minnesota, 1995; MA, Univ of Minnesota, 1990; BA, Univ of Michigan, 1988 |
| Trabert | Sarah |  | 2015 | ASSOCIATE PROFESSOR OF ANTHROPOLOGY, 2021 | PhD, Univ of Iowa, 2015; MA, Univ of lowa, 2010; BA, Kansas State Univ, 2008 |

## Anthropology, B.A.

Minimum Total Credit Hours: 120
Major Hours: 36
Minimum Upper-Division Hours: 48
Overall GPA - Combined and OU: 2.00
Major GPA - Combined and OU: 2.00
Program Code: B025

## Major Requirements

- Some courses required for the major may also fulfill University General Education and/or Dodge College of Arts \& Sciences Requirements.

| Code Title | Credit |
| :--- | :--- |
|  | Hours |

## Anthropology Core ${ }^{1}$

| ANTH 2203 | Global Cultural Diversity | 3 |
| :--- | :--- | :--- |
| ANTH 2303 | General Linguistics | 3 |
| ANTH 3113 | Principles of Archaeology | 3 |
| ANTH 3203 | Introduction to Biological Anthropology | 3 |
| ANTH 4113 | Anthropology Capstone | 3 |

Anthropology Cornerstone Suite

| ANTH 3011 | Anthropology Cornerstone I: Introduction to <br> the Major | 1 |
| :--- | :--- | :--- | :--- |
| ANTH 3021 | Anthropology Cornerstone II: Research and <br> Writing | 1 |
| ANTH 3031 | Anthropology Cornerstone III: | 1 |
|  | Professionalization |  |

Anthropology Electives
Choose 18 hours of Anthropology electives (p. 240)

## Total Credit Hours

${ }^{1}$ A grade of $C$ or higher must be earned for each Anthropology Core class to fulfill the requirements for the Anthropology major.

## Anthropology MAJOR Electives

The 18 hours of Anthropology electives are subject to the following requirements and restrictions:

1. Methods Class: Must have at least 3 credit hours that are listed as Research Methods as defined by the Anthropology Elective List ${ }^{1}$ which may be obtained from the departmental website.
2. Three Subfields: Must have upper division (3000- or 4000-level) electives that span at least 3 different subfields as defined by the Anthropology Elective List ${ }^{1}$ which may be obtained from the departmental website. The four possible subfields are: Archaeological, HHB (Human Health \& Biology), Linguistic, and SocioCultural.
3. At least 12 hours of electives must be 3000 - and 4000 -level classes.
4. Up to 3 credit hours of these electives can be filled by Independent Study, Internship, Honors Research, or Mentored Research (ANTH $3810,3910,3920,3940,3950,3980,3990$, or 4990).
5. Up to 3 credit hours of electives can be filled by approved nonAnthropology courses. These allowable classes are listed on the Anthropology Elective List ${ }^{1}$. Any Study Abroad class on Anthropology or Anthropology-related topics may be approved with permission of the departmental adviser.
${ }^{1}$ The most current Anthropology Elective List (p. 242) can be found at: http://www.ou.edu/cas/anthropology/undergraduate/electives.

Some Anthropology electives may fulfill more than one subfield or can fulfill both subfield and research methods categories. In these cases, completing one course may satisfy two distribution requirements within the "Anthropology Electives" major requirement. For example, a student whose first class is designated Biological \& Research Methods and whose second class is Socio-Cultural \& Linguistic would fulfill requirements \#1 and \#2 above with those two classes alone.

Please consult with the Department advisor if you have any questions.

## General Education and College Requirements

Courses for fulfillment of General Education and Dodge College of Arts \& Sciences requirements must be from the approved General Education course list published in the Class Schedule or at http://www.ou.edu/ gened/courses. Courses graded P/NP will not apply.

## UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS

Code Title
Credit Hours

## Core Area I: Symbolic and Oral Communication

| English Composition (6 hours) |  |  |
| :--- | :--- | :--- |
| ENGL 1113 | Principles of English Composition | 3 |
| ENGL 1213 | Principles of English Composition | 3 |
| or EXPO 1213 | Expository Writing |  |

Language (0-13 hours in the same language)

The college requirement cannot be met by high school coursework.
Beginning Course 0-5
Beginning Course, continued 0-5
Intermediate Course (2000 level) $)^{1,2}$ 0-3
Mathematics (3 hours)
Choose one course from the General Education Mathematics 3
list
Core Area II: Natural Science (7 hours, including one laboratory component)
Biological Science
Choose an approved General Education Natural Science 3-4 course with one of the following prefixes: BIOL, HES, MBIO, or PBIO ${ }^{1}$
Physical Science
Choose an approved General Education Natural Science 3-4
course with one of the following prefixes: AGSC, ASTR, CHEM, GEOG, GEOL, GPHY, METR, or PHYS ${ }^{1}$
Core Area III: Social Science (6 hours)
PSC 1113 American Federal Government 3
Choose one course from the General Education Social 3

## Science list

## Core Area IV: Arts and Humanities (18 hours)

## Artistic Forms

Choose one course from the General Education Artistic Forms 3
list
Western Culture
HIST 1483 United States to 1865
or HIST 1493 United States, 1865 to the Present
Choose one course from the General Education Western
Culture list (excluding HIST 1483/1493)

## World Culture

Choose one course from the General Education World Culture
list
Additional Core IV Upper-Division Arts \& Humanities courses
Choose one course from Artistic Forms, Western Culture, or 3
World Culture ${ }^{1,3}$
Choose one course from Artistic Forms, Western Culture, or 3
World Culture ${ }^{1,3}$
Core Area V: First Year Experience (3 hours)
Choose one course 3
Total Credit Hours 56
${ }^{1}$ College of Arts and Sciences Requirements: college requirements are not automatically fulfilled by a previous degree.
${ }^{2}$ One course at the intermediate level or demonstrated competency at that level
${ }^{3} 6$ upper-division hours, 2 courses, at the 3000-4000-level. Must be outside the major.

## Free Electives

Electives to bring total applicable hours to the minimum total required for the degree including 48 upper-division hours.

## Information Concerning General Rules, Regulations and Minimum Requirements

Arts and Sciences Hours: At least 80 semester hours of liberal arts and sciences courses are required for a BA degree. At least 55 semester hours of liberal arts and sciences courses are required for a BS degree.
Pass/No Pass Enrollment: A maximum of 16 semester hours of free elective credit may be attempted under this option.
Individual Studies (e.g., courses titled "Independent Study"): A maximum of 12 total semester hours may be counted toward graduation, excluding Honors Reading and Honors Research.
P.E. Courses: No physical education activity courses will be counted toward the 120 semester hours of acceptable credit for graduation. Senior Institution Hours: A minimum of 60 semester hours applied toward graduation must be earned at senior (4-year) institutions. Residency:

- At least 15 of the final 30 hours applied toward the degree or at least 50 percent of the hours required by the institution in the major field must be satisfactorily completed at the awarding institution.
- At least 15 semester hours of upper-division major work must be completed in residence at OU.
- OU correspondence courses are not considered resident credit.

Grade Point Averages: Students must earn a minimum over all 2.00 for each of the following: Combined Retention GPA (all college grades), OU Retention GPA, GPA for all major courses, and GPA for all major courses taken at OU. Some schools and departments of the College have higher minimum grade point averages required for their students.

## Suggested Semester Plan of Study

This plan shows one possible grouping of courses that would allow students to graduate in four years. Please refer to the front of the degree checksheet for official requirements. Students must consult with Dodge College of Arts and Sciences and/or Department of Anthropology academic advisors to verify that courses selected each semester fulfill the recommended plan and satisfy University, College of Arts and Sciences, and Anthropology major requirements.

## Freshman

| First Semester |  | Credit |
| :---: | :---: | :---: |
|  |  | Hours |
| ANTH 2203 | Global Cultural Diversity (World Culture, Core IV) | 3 |
| ENGL 1113 | Principles of English Composition (Core I) | 3 |
| MATH (Core I) |  | 3 |
| Beginning Language (Core I) |  | 5 |
|  | Credit Hours | 14 |
| Second Semester |  |  |
| ANTH 3011 | Anthropology Cornerstone I: Introduction to the Major | 1 |
| Choose one of the following: |  | 3 |
| ANTH 3113 | Principles of Archaeology |  |
| ANTH 2303 | General Linguistics |  |
| ANTH 3203 | Introduction to Biological Anthropology |  |
| ENGL 1213 or EXPO 1213 | Principles of English Composition (Core I) or Expository Writing | 3 |
| First Year Experie | nce (Core V) | 3 |


| Beginning Language continued (Core I) |  | 5 |
| :---: | :---: | :---: |
|  | Credit Hours | 15 |
| Sophomore |  |  |
| First Semester |  |  |
| Choose two of the following: |  | 6 |
| ANTH 3113 | Principles of Archaeology |  |
| ANTH 2303 | General Linguistics |  |
| ANTH 3203 | Introduction to Biological Anthropology |  |
| HIST 1483 or HIST 1493 | United States to 1865 (Core IV) or United States, 1865 to the Present | 3 |
| Intermediate Language |  | 3 |
| Natural Science with lab (Core II) |  | 4 |
|  | Credit Hours | 16 |
| Second Semester |  |  |
| ANTH 3021 | Anthropology Cornerstone II: Research and Writing | 1 |
| Anthropology Elective |  | 3 |
| Anthropology Elective |  | 3 |
| P SC 1113 | American Federal Government | 3 |
| Natural Science without lab (Core II) |  | 3 |
| Free Elective, lower-division (additional foreign language recommended) |  | 3 |
|  | Credit Hours | 16 |
| Junior |  |  |
| First Semester |  |  |
| Anthropology Elective |  | 3 |
| Anthropology Elective (Make sure 3 subfield distribution is met) |  | 3 |
| Arts \& Humanities, upper-division, outside major (Gen.Ed.) |  | 3 |
| Western Culture (Core IV) |  | 3 |
| Free Elective, upper-division (3000-4000-level) |  | 3 |
|  | Credit Hours | 15 |
| Second Semester |  |  |
| Anthropology Elective |  | 3 |
| Anthropology Elective (Make sure 3 subfield distribution is met) |  | 3 |
| Arts \& Humanities, upper-division, outside major (Gen.Ed.) |  | 3 |
| Artistic Forms (Core IV) |  | 3 |
| Free Elective, upper-division (3000-4000-level) |  | 3 |
|  | Credit Hours | 15 |
| Senior |  |  |
| First Semester |  |  |
| ANTH 3031 | Anthropology Cornerstone III: Professionalization | 1 |
| ANTH Research Methods Elective |  | 3 |
| Free Elective, upper-division (3000-4000-level) |  | 3 |
| Free Elective, upper-division (3000-4000-level) |  | 3 |
| Free Elective, lower- or upper-division |  | 3 |
| Free Elective, lower- or upper-division |  | 1 |
| Credit Hours |  | 14 |
| Second Semester |  |  |
| ANTH 4113 | Anthropology Capstone | 3 |
| Free Elective, low | er- or upper-division | 3 |


| Free Elective, lower- or upper-division | 3 |
| :--- | ---: |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Credit Hours | $\mathbf{1 5}$ |
| Total Credit Hours | $\mathbf{1 2 0}$ |

## Anthropology Department Electives List

## - For the most current course list, please see the Department of Anthropology website.

For the Anthropology major, the choice of electives must satisfy these rules:

1. At least one of the major electives must be a Methods class. The list below indicates which classes are Methods classes.
2. At least three different subfields of Anthropology must be represented in the 3000 and 4000 -level electives. The 4 subfields to choose from are Archaeological, Human Health \& Biology (HHB), Linguistic, and Socio-Cultural. The list below indicates which subfield(s) the classes are associated with.
3. Students must have at least 15 hours of electives at the 3000- and 4000-levels.

Note that some Anthropology electives may fulfill more than one subfield, or can fulfill both subfield and research methods categories. In these cases, completing one course may satisfy two distribution requirements. For example, a student whose first class is designated Biological \& Research Methods and whose second class is Socio-Cultural \& Linguistic would fulfill requirements \#1 and \#2 above with those two classes alone.

The placement of rotating topics course numbers, independent study, unequated transfer courses, and study abroad will be decided by the adviser based on content.

## Methods Courses

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| ANTH 3930 | Fieldwork in Archaeology (also <br> Archaeology subfield) | $1-8$ |
| ANTH 4023 | Museum Anthropology | 3 |
| ANTH 4253 | The Anthropology of Communities (also <br> Socio-Cultural subfield) | 3 |
| ANTH 4283 | Curriculum \& Teaching Materials <br> Development for Endangered Languages <br> (also Linguistic subfield) | 3 |
| ANTH 4713 | Statistical Concepts in Anthropology  <br> ANTH 4943 Human Osteology and Paleopathology <br> (also HHB subfield) <br> ANTH 4973 Introduction to Faunal Analysis (also <br> Archaeology subfield) <br>  3 | 3 |

## Archaeology Courses

Code Title
Credit Hours
ANTH 3783 The Anthropology of Slavery and Captivity 3

| ANTH 3893 | Maya, Aztec and Inca: High Civilizations of <br> Ancient America | 3 |
| :--- | :--- | ---: |
| ANTH 3930 | Fieldwork in Archaeology (also Methods) | $1-8$ |
| ANTH 3940 | Internship in Archaeology | $1-6$ |
| ANTH 4163 | The Study of Material Culture (also Socio- <br> Cultural subfield) | 3 |
| ANTH 4463 | Peopling of the New World | 3 |
| ANTH 4783 | Landscape Archaeology | 3 |
| ANTH 4813 | Archaeology of North America | 3 |
| ANTH 4833 | Archaeology of the Great Plains | 3 |
| ANTH 4853 | Archaeology of the Greater Southwest | 3 |
| ANTH 4863 | Archaeology of the Southeast | 3 |
| ANTH 4973 | Introduction to Faunal Analysis (also | 3 |
|  | Methods) |  |

## Human Health \& Biology Courses

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| ANTH 3873 | Primate Evolution and Behavior | 3 |
| ANTH 3910 | Internship in Biological Anthropology | 6 |
| ANTH 4223 | The Anthropology of Childhood (also Socio- <br> Cultural subfield) | 3 |
| ANTH 4323 | The Anthropology of Aging (also Socio- <br> Cultural subfield) | 3 |
| ANTH 4423 | Introduction to Population Genetics | 3 |
| ANTH 4593 | Anthropology of Human Reproduction | 3 |
| ANTH 4643 | Psychiatric Anthropology (also Socio- <br> Cultural subfield) | 3 |
| ANTH 4723 | Gender and Health (also Socio-Cultural <br> subfield) | 3 |
| ANTH 4823 | Medical Anthropology (also Socio-Cultural <br> subfield) | 3 |
| ANTH 4943 | Human Osteology and Paleopathology <br> (also Methods) | 3 |

## Linguistic Anthropology Courses

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| ANTH 3063 | Language and Culture (also Socio-Cultural <br> subfield) | 3 |
| ANTH 3810 | Internship in Linguistic Anthropology | $1-6$ |
| ANTH 3853 | Music, Language and Culture (also Socio- <br> Cultural subfield) | 3 |
| ANTH 4053 | Morphology | 3 |
| ANTH 4063 | Language Contact, Loss, and Revitalization | 3 |
| ANTH 4283 | Curriculum \& Teaching Materials <br> Development for Endangered Languages <br> (also Methods) | 3 |
|  |  |  |

## Socio-Cultural Anthropology Courses

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| ANTH 3063 | Language and Culture (also Linguistic <br> subfield) | 3 |
| ANTH 3423 | Anthropology of Religion | 3 |


| ANTH 3453 | Contemporary Native American Issues | 3 |
| :---: | :---: | :---: |
| ANTH 3783 | The Anthropology of Slavery and Captivity (also Archaeology subfield) | 3 |
| ANTH 3853 | Music, Language and Culture (also Linguistic subfield) | 3 |
| ANTH 3950 | Internship in Cultural Anthropology | 1-6 |
| ANTH 4073 | Anthropology of Jews and Jewishness | 3 |
| ANTH 4163 | The Study of Material Culture (also Archaeology subfield) | 3 |
| ANTH 4223 | The Anthropology of Childhood (also HHB subfield) | 3 |
| ANTH 4253 | The Anthropology of Communities (also Methods) | 3 |
| ANTH 4303 | Women and Development in Africa | 3 |
| ANTH 4323 | The Anthropology of Aging (also HHB subfield) | 3 |
| ANTH 4443 | Visual Anthropology | 3 |
| ANTH 4623 | Approaches to Cross-Cultural Human Problems | 3 |
| ANTH 4643 | Psychiatric Anthropology (also HHB subfield) | 3 |
| ANTH 4723 | Gender and Health (also HHB subfield) | 3 |
| ANTH 4823 | Medical Anthropology (also HHB subfield) | 3 |
| ANTH 4843 | Cross-Cultural Study of Sex, Gender and Sexuality | 3 |
| ANTH 4903 | Race and Ethnicity | 3 |

## Lower-Division Electives

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| ANTH 1113 | What Makes Us Human? Exploring Cultural <br> and Biological Diversity | 3 |
| ANTH 1203 | Language Across Cultures | 3 |
| ANTH 1253 | Folklore and Folklife | 3 |
| ANTH 1413 | Great Discoveries in Archaeology | 3 |
| ANTH 1823 | Religion in Everyday Life | 3 |
| ANTH 1913 | Plagues and People: Health and Disease in | 3 |
| ANTH 2253 | Human Society | 3 |

## Human Health \& Biology, B.S.

Minimum Total Credit Hours: 120
Major Hours: 30
Minimum Upper-Division Hours: 48
Overall GPA - Combined and OU: 2.00
Major GPA - Combined and OU: 2.00
Program Code: B513

## Major Requirements

- Some courses required for the major may also fulfill University General Education and/or Dodge College of Arts \& Sciences Requirements.
- A grade of "C" or higher must be earned in each course presented for major credit.

| Code | Title | Credit <br> Hours |
| :---: | :---: | :---: |
| General Anthropology |  |  |
| ANTH 3011 | Anthropology Cornerstone I: Introduction to the Major | 1 |
| ANTH 3021 | Anthropology Cornerstone II: Research and Writing | 1 |
| ANTH 3031 | Anthropology Cornerstone III: Professionalization | 1 |
| ANTH 4113 | Anthropology Capstone | 3 |
| Biological Anthropology |  |  |
| ANTH 3203 | Introduction to Biological Anthropology | 3 |
| Anthropology Electives (21 hours, total) ${ }^{1}$ |  |  |
| Human Health \& Biology |  |  |
| Choose at least $(\text { p. } 242)^{2}$ | hours of upper division electives in HHB | 9 |
| History, Culture, \& Language |  |  |
| Choose 9 hours from the following: |  | 9 |
| ANTH 2203 | Global Cultural Diversity |  |
| ANTH 2303 | General Linguistics |  |
| ANTH 3113 | Principles of Archaeology |  |
| Upper division electives in Archaeology, Sociocultural, or Linguistic Anthropology (p. 242) ${ }^{2,3}$ |  |  |
| Additional Anthropology Elective |  |  |
| Choose one course |  | 3 |
| Total Credit Hours |  | 30 |
| 1 A total of 21 additional hours in Anthropology. |  |  |
| At least 15 hours must be from 3000 or 4000 level classes. |  |  |
| Internship, Thesis, Honors Research, or Mentored Research. (ANTH $3810,3910,3920,3940,3950,3980,3990,4980$, or 4990) |  |  |
| Up to 3 credit hours of electives can be filled by approved non- |  |  |
| www.ou.edu/cas/anthropology/undergraduate/electives. Any study abroad class on Anthropology or Anthropology-related topics may be approved with permission of departmental advisor. |  |  |
| ${ }^{2}$ As listed on http://www.ou.edu/cas/anthropology/undergraduate/ electives. |  |  |
| ${ }^{3}$ Note, these classes cannot also be listed in HHB. |  |  |

## Major Support Requirements

| Code | Title |
| :--- | :--- |
|  | Credit |
|  | Hours |

## Biology

Choose 8 hours of coursework in BIOL. Suggested courses 8
include BIOL 1124 and 1134.
Chemistry
Choose 18 hours of coursework in CHEM. Suggested courses 18
include CHEM 1315, 1415, 3053, 3152 and 3153.

## Math or Statistics

Choose one of the following: 3
ANTH 4713 Statistical Concepts in Anthropology

| BIOL 2913 | Intro to Quantitative Biology |
| :--- | :--- |
| ECON 2843 | Elements of Statistics |
| MATH 1743 | Calculus I for Business, Life and Social <br> Sciences |
| MATH 4753 | Applied Statistical Methods |
| PSY 2003 | Understanding Statistics |
| Total Credit Hours | $\mathbf{2 9}$ |

Total Credit Hours

## General Education and College Requirements

Courses for fulfillment of General Education and Dodge College of Arts \& Sciences requirements must be from the approved General Education course list published in the Class Schedule or at http://www.ou.edu/ gened/courses. Courses graded P/NP will not apply.

## UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS

| Code Title | Credit |
| :--- | :--- |
|  | Hours |

Core Area I: Symbolic and Oral Communication

| English Composition (6 hours) | 3 |  |
| :--- | :--- | :--- |
| ENGL 1113 | Principles of English Composition | 3 |

or EXPO 1213 Expository Writing
Language (0-13 hours in the same language)
The college requirement cannot be met by high school coursework.
Beginning Course 0-5
Beginning Course, continued 0-5
$\begin{array}{ll}\text { Intermediate Course (2000 level) }^{1,2} & \text { 0-3 }\end{array}$
Mathematics (3 hours)
Choose one course from the General Education Mathematics
3

## list

Core Area II: Natural Science (7 hours, including one laboratory component)
Biological Science
Choose an approved General Education Natural Science
course with one of the following prefixes: BIOL, HES, MBIO, or

## PBIO ${ }^{1}$

Physical Science
Choose an approved General Education Natural Science 3-4 course with one of the following prefixes: AGSC, ASTR, CHEM, GEOG, GEOL, GPHY, METR, or PHYS ${ }^{1}$
Core Area III: Social Science (6 hours)
PSC 1113 American Federal Government 3
Choose one course from the General Education Social 3

## Science list

Core Area IV: Arts and Humanities (18 hours)

## Artistic Forms

Choose one course from the General Education Artistic Forms

## list

## Western Culture

HIST $1483 \quad$ United States to 1865
3
or HIST 1493 United States, 1865 to the Present
Choose one course from the General Education Western

## World Culture

Choose one course from the General Education World Culture 3
list

Additional Core IV Upper-Division Arts \& Humanities courses
Choose one course from Artistic Forms, Western Culture, or
Choose one course from Artistic Forms, Western Culture, or

Core Area V: First Year Experience (3 hours)
Choose one course
Total Credit Hours56
${ }^{1}$ College of Arts and Sciences Requirements: college requirements are not automatically fulfilled by a previous degree.
2 One course at the intermediate level or demonstrated competency at that level
${ }^{3} 6$ upper-division hours, 2 courses, at the 3000-4000-level. Must be outside the major.

## Free Electives

Electives to bring total applicable hours to the minimum total required for the degree including 48 upper-division hours.

## Information Concerning General Rules, Regulations and Minimum Requirements

Arts and Sciences Hours: At least 80 semester hours of liberal arts and sciences courses are required for a BA degree. At least 55 semester hours of liberal arts and sciences courses are required for a BS degree. Pass/No Pass Enrollment: A maximum of 16 semester hours of free elective credit may be attempted under this option.
Individual Studies (e.g., courses titled "Independent Study"): A maximum of 12 total semester hours may be counted toward graduation, excluding Honors Reading and Honors Research.
P.E. Courses: No physical education activity courses will be counted toward the 120 semester hours of acceptable credit for graduation. Senior Institution Hours: A minimum of 60 semester hours applied toward graduation must be earned at senior (4-year) institutions. Residency:

- At least 15 of the final 30 hours applied toward the degree or at least 50 percent of the hours required by the institution in the major field must be satisfactorily completed at the awarding institution.
- At least 15 semester hours of upper-division major work must be completed in residence at OU.
- OU correspondence courses are not considered resident credit.

Grade Point Averages: Students must earn a minimum over all 2.00 for each of the following: Combined Retention GPA (all college grades), OU Retention GPA, GPA for all major courses, and GPA for all major courses taken at OU. Some schools and departments of the College have higher minimum grade point averages required for their students.

## Suggested Semester Plan of Study

This plan shows one possible grouping of courses that would allow students to graduate in four years. Please refer to the front of the degree checksheet for official requirements. Students must consult with Dodge College of Arts and Sciences and/or Department of Anthropology academic advisors to verify that courses selected each semester fulfill
the recommended plan and satisfy University, College of Arts and Sciences, and Human Health \& Biology major requirements.

| Freshman |  |  |
| :---: | :---: | :---: |
| First Semester |  | Credit |
|  |  | Hours |
| BIOL 1124 | Intro Biol: Molecule/Cell/Phys (Core II) | 4 |
| ENGL 1113 | Principles of English Composition (Core I) | 3 |
| MATH 1743 | Calculus I for Business, Life and Social Sciences (Core I) | 3 |
| First Year Experience (Core V) |  | 3 |
|  | Credit Hours | 13 |
| Second Semester |  |  |
| ANTH 3011 | Anthropology Cornerstone I: Introduction to the Major | 1 |
| ANTH 3203 | Introduction to Biological Anthropology | 3 |
| BIOL 1134 | Introductory Biology: Evolution, Ecology and Diversity | 4 |
| CHEM 1315 | General Chemistry | 5 |
| $\begin{aligned} & \text { ENGL } 1213 \\ & \text { or EXPO } 1213 \end{aligned}$ | Principles of English Composition (Core I) or Expository Writing | 3 |
|  | Credit Hours | 16 |

## Sophomore

## First Semester

| ANTH Elective |  | 3 |
| :--- | :--- | ---: |
| CHEM 1415 | General Chemistry (Continued) | 5 |
| P SC 1113 | American Federal Government (Core III) | 3 |
| Beginning Language | 5 |  |
|  | Credit Hours | $\mathbf{1 6}$ |

Second Semester
ANTH Elective
CHEM 3053 Organic Chemistry I: Biological Emphasis 3
Beginning Language 5
General Education Social Science (Core III) 3
General Education Western Culture (Core IV) 3

## Junior

| First Semester |  | 3 |
| :--- | :--- | ---: |
| ANTH Elective |  | 2 |
| CHEM 3152 | Organic Chemistry Laboratory: Biological <br>  <br>  <br> Emphasis | 3 |
| CHEM 3153 | Organic Chemistry II: Biological Emphasis | 3 |
| Intermediate Language | 3 |  |
| General Education World Culture (Core IV) | $\mathbf{1 4}$ |  |


| Second Semester |  |  |
| :---: | :---: | :---: |
| ANTH 3021 | Anthropology Cornerstone II: Research and Writing | 1 |
| ANTH Elective |  | 3 |
| ANTH Elective |  | 3 |
| HIST 1483 or HIST 1493 | United States to 1865 (Core IV) or United States, 1865 to the Present | 3 |
| General Education | Artistic Forms (Core IV) | 3 |


| Free Elective | 3 |
| :---: | :---: |
| Credit Hours | 16 |
| Senior |  |
| First Semester |  |
| ANTH $3031 \quad \begin{aligned} & \text { Anthropology Cornerstone III: } \\ & \\ & \text { Professionalization }\end{aligned}$ | 1 |
| ANTH Elective | 3 |
| Upper Division Gen. Ed. Arts \& Humanities outside the major (Core IV) | 3 |
| Free Elective | 3 |
| Free Elective | 3 |
| Credit Hours | 13 |
| Second Semester |  |
| ANTH 4113 Anthropology Capstone | 3 |
| ANTH Elective | 3 |
| Upper Division Gen. Ed. Arts \& Humanities outside the major (Core IV) | 3 |
| Free Elective | 3 |
| Free Elective | 3 |
| Credit Hours | 15 |
| Total Credit Hours | 120 |

## Anthropology, Minor

## Minimum Total Credit Hours: 15

Minimum Upper-Division Hours: 9

## Program Code: N025

The requirements for a minor must be completed concurrently with the major degree requirements.

## No minor may be added by completing courses after receiving the bachelor's degree.

At least six (6) credit hours must be earned in courses acceptable for residence credit by standards set forth by the Dodge College of Arts and Sciences, excluding transfer, correspondence, and examination (AP, CLEP, Advanced Standing) credit. Courses for the minor may not be taken Pass/ No Pass.

No single course may be used by a student to satisfy a major requirement and a minor requirement. A course may be used, however, to satisfy both a major support requirement and a minor requirement.

Requests to substitute a minor requirement must be approved in writing by the Anthropology Department.

## Required Courses

Students must successfully complete at least 15 hours of courses acceptable for major credit in Anthropology, including at least nine (9) hours at the upper-division level.

Choose one of the following Pathways:

| Code Title | Hours |  |  | Credit Hours |
| :---: | :---: | :---: | :---: | :---: |
| Pathway 1 |  | Anthropology Core Major Requirements ${ }^{1}$ |  |  |
| What Makes Us Human? Exploring Cultural and Biological Diversity | 3 | ANTH 2203 | Global Cultural Diversity | 3 |
|  |  | ANTH 2303 | General Linguistics | 3 |
| Choose at least 12 additional hours of course credit acceptable for major credit in Anthropology. At least nine (9) of these hours must be upper division. | 12 | ANTH 3113 | Principles of Archaeology | 3 |
|  |  | ANTH 3203 | Introduction to Biological Anthropology | 3 |
| Total Credit Hours | 15 | ANTH 3011 | Anthropology Cornerstone I: Introduction to the Major | 1 |
| Code Title | Credit <br> Hours | ANTH 3021 | Anthropology Cornerstone II: Research and Writing | 1 |
| Pathway 2 |  | ANTH 3031 | Anthropology Cornerstone III: Professionalization | 1 |
| Choose 15 hours of coursework acceptable for major credit in Anthropology with the following conditions: | 15 | ANTH 4113 | Anthropology Capstone | 3 |
| 1. At least nine (9) of these hours must be upper division (3000-4000 level). |  | Anthropology Electives |  |  |
|  |  | Choose 18 hours (see restrictions below) (p. 247) |  | 18 |
| 2. Must have electives that span at least three different subfields as defined by the Anthropology Elective Category list, which may be obtained from the Department website. The four possible subfields are: Archaeology, Health \& |  | 1 A grade of $C$ or higher must be earned for each Anthropology Core class to fulfill the requirements for the Anthropology major. |  |  |

## Anthropology, B.A./Sociocultural Anthropology, M.A.

Minimum Total Credit Hours: 137
Major Hours: 36
Minimum Upper-Division Hours: 48

Overall GPA - Combined and OU: 3.50
Major GPA - Combined and OU: 3.50
Program Code: A025/F025 Q615

- The 13 shared hours count as both Graduate and Upper-Division credit. ANTH 5001 is a free-elective for the Undergraduate degree.


## Undergraduate Major Requirements

- Some courses required for the major may also fulfill University General Education and/or Dodge College of Arts \& Sciences Requirements.

1 The most current Anthropology Elective Category (p. 242) list can be found at http://www.ou.edu/cas/anthropology/undergraduate/ electives. Please consult with the Department advisor if there are any questions.

- Minors in the Dodge College of Arts \& Sciences are available to all undergraduate students at OU. If the minor is officially declared, successfully completed, and noted on the graduation application, the student's transcript will so indicate at the time the bachelor's degree is posted.


## Graduate Requirements

| Code | Title | Credit Hours |
| :---: | :---: | :---: |
| Required Course |  |  |
| ANTH 5001 | Professionalization in Anthropology (shared) | 1 |
| Core Courses ${ }^{1}$ |  |  |
| ANTH 5123 | Contemporary Culture Theory (shared) | 3 |
| ANTH 5223 | Foundations of Social Thought (shared) | 3 |
| Choose one of the following: |  | 3 |
| ANTH 5363 | Linguistic Anthropology |  |
| ANTH 6633 | Method and Theory in Biological Anthropology |  |
| ANTH 6713 | Archaeological Theory |  |
| Research Methods (shared) |  |  |
| Choose from: |  | 3 |
| ANTH 5153 | Ethnography of Communication |  |
| ANTH 5213 | Ethnographic Methods |  |
| ANTH 5253 | The Anthropology of Communities |  |
| ANTH 5433 | Ethnographic Writing |  |
| ANTH 5513 | Applying Anthropology to Contemporary Social Problems |  |
| Thesis |  |  |
| ANTH 5980 | Research for Master's Thesis | 2-5 |
| Electives |  |  |
| Choose 12-15 hours ${ }^{2}$ |  | 12-15 |
| Total Credit Hours |  | 30 |

${ }^{1}$ Students must fulfill the two-course core course sequence, as well as a core course in one other subfield (linguistic anthropology would be the default and highly recommended course for most students) selected in consultation with the student's advisor and committee.
A grade of $C$ or higher must be earned for each Anthropology Core class to fulfill the requirements for the Anthropology major.
${ }^{2}$ 12-15 hours of coursework selected in consultation with the student's advisor and committee. No more than 6 hours from outside Anthropology may be applied. (3 hours shared)

## Undergraduate Anthropology Electives

The 18 hours of Anthropology electives for the undergraduate degree are subject to the following requirements and restrictions:

1. Methods Class: Must have at least 3 credit hours that are listed as Research Methods as defined by the Anthropology Elective List ${ }^{1}$ which may be obtained from the departmental website. (shared Graduate Research Methods course will meet this requirement)
2. Three Subfields ${ }^{2}$ : Must have upper division (3000- or 4000level) electives that span at least 3 different subfields as defined by the Anthropology Elective List ${ }^{1}$ which may be obtained from the departmental website. The four possible subfields are: Archaeological, HHB (Human Health \& Biology), Linguistic, and Socio-Cultural.
3. At least 15 hours of electives must be 3000 - and 4000 -level classes. Graduate-level courses may fulfill this requirement (Shared courses ANTH 5123, ANTH 5223, the Graduate Research Methods class, and the 3 hours of shared Graduate elective may be used for this requirement.)
4. Up to 3 credit hours of these electives can be filled by Independent Study, Internship, Honors Research, or Mentored Research (ANTH $3810,3910,3920,3940,3950,3980,3990$, or 4990).
5. Up to 3 credit hours of electives can be filled by approved nonAnthropology courses. These allowable classes are listed on the Anthropology Elective List ${ }^{1}$. Any study abroad course on Anthropology or Anthropology-related topics may be used with permission of the Department adviser.
${ }^{1}$ The most current Anthropology Elective List (p. 242) can be found at: http://www.ou.edu/cas/anthropology/undergraduate/electives.
${ }^{2}$ A graduate-level course may fulfill this requirement.

Some Anthropology electives may fulfill more than one subfield or can fulfill both subfield and research methods categories. In these cases, completing one course may satisfy two distribution requirements with the "Anthropology Electives" major requirement. For example, a student whose first class is designated Biological \& Research Methods and whose second class is Socio-Cultural \& Linguistics would fulfill requirements \#1 and \#2 above with those two classes alone.

Please consult with the Department advisor if you have any questions.

## General Education and College Requirements

Courses for fulfillment of General Education and Dodge College of Arts \& Sciences requirements must be from the approved General Education course list published in the Class Schedule or at http://www.ou.edu/ gened/courses. Courses graded P/NP will not apply.

## UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS

Code Title
Credit Hours

| ENGL 1213 | Principles of English Composition | 3 |
| :--- | :--- | :--- |
| or EXPO 1213 | Expository Writing |  |

Language ( $0-13$ hours in the same language)
The college requirement cannot be met by high school coursework.
Beginning Course 0-5

Beginning Course, continued 0-5
Intermediate Course (2000 level) ${ }^{1,2}$ 0-3
Mathematics (3 hours)
Choose one course from the General Education Mathematics 3
list
Core Area II: Natural Science (7 hours, including one laboratory component)
Biological Science
Choose an approved General Education Natural Science 3-4
course with one of the following prefixes: BIOL, HES, MBIO, or PBIO ${ }^{1}$
Physical Science
Choose an approved General Education Natural Science 3-4
course with one of the following prefixes: AGSC, ASTR, CHEM,
GEOG, GEOL, GPHY, METR, or PHYS ${ }^{1}$
Core Area III: Social Science (6 hours)
P SC 1113 American Federal Government 3
Choose one course from the General Education Social 3
Science list
Core Area IV: Arts and Humanities (18 hours)
Artistic Forms
Choose one course from the General Education Artistic Forms 3
list
Western Culture
HIST $1483 \quad 3$
or HIST 1493 United States, 1865 to the Present
Choose one course from the General Education Western 3
Culture list (excluding HIST 1483/1493)
World Culture
Choose one course from the General Education World Culture 3
list
Additional Core IV Upper-Division Arts \& Humanities courses
Choose one course from Artistic Forms, Western Culture, or 3
World Culture ${ }^{1,3}$
Choose one course from Artistic Forms, Western Culture, or 3 World Culture ${ }^{1,3}$
Core Area V: First Year Experience (3 hours)
Choose one course 3
Total Credit Hours 56
${ }^{1}$ College of Arts and Sciences Requirements: college requirements are not automatically fulfilled by a previous degree.
${ }^{2}$ One course at the intermediate level or demonstrated competency at that level
${ }^{3} 6$ upper-division hours, 2 courses, at the 3000-4000-level. Must be outside the major.

Core Area I: Symbolic and Oral Communication
English Composition (6 hours)
ENGL 1113 Principles of English Composition

## Free Electives

Electives to bring total applicable hours to the minimum total required for the degree including 48 upper-division hours.

## Information Concerning General Rules, Regulations and Minimum Requirements

Arts and Sciences Hours: At least 80 semester hours of liberal arts and sciences courses are required for a BA degree. At least 55 semester hours of liberal arts and sciences courses are required for a BS degree. Pass/No Pass Enrollment: A maximum of 16 semester hours of free elective credit may be attempted under this option.
Individual Studies (e.g., courses titled "Independent Study"): A maximum of 12 total semester hours may be counted toward graduation, excluding Honors Reading and Honors Research.
P.E. Courses: No physical education activity courses will be counted toward the 120 semester hours of acceptable credit for graduation. Senior Institution Hours: A minimum of 60 semester hours applied toward graduation must be earned at senior (4-year) institutions.

## Residency:

- At least 15 of the final 30 hours applied toward the degree or at least 50 percent of the hours required by the institution in the major field must be satisfactorily completed at the awarding institution.
- At least 15 semester hours of upper-division major work must be completed in residence at OU.
- OU correspondence courses are not considered resident credit.

Grade Point Averages: Students must earn a minimum over all 2.00 for each of the following: Combined Retention GPA (all college grades), OU Retention GPA, GPA for all major courses, and GPA for all major courses taken at OU. Some schools and departments of the College have higher minimum grade point averages required for their students.

## Suggested Semester Plan of Study

This plan shows one possible grouping of courses that would allow students to graduate in four years. Please refer to the front of the degree checksheet for official requirements. Students must consult with Dodge College of Arts and Sciences and/or Department of Anthropology academic advisors to verify that courses selected each semester fulfill the recommended plan and satisfy University, College of Arts and Sciences, and Anthropology major requirements.

## Freshman

| First Semester | Credit |  |
| :--- | :--- | ---: |
| ANTH 2203 | Global Cultural Diversity (World Culture, | 3 |
|  | Core IV) |  |
| ENGL 1113 | Principles of English Composition (Core I) | 3 |
| MATH (Core I) | 3 |  |
| Beginning Language (Core I) | 5 |  |
|  | Credit Hours | $\mathbf{1 4}$ |

## Second Semester

| ANTH 3011 | Anthropology Cornerstone I: Introduction to <br> the Major | 1 |
| :--- | :--- | :--- |
| Choose one of the following: | 3 |  |


| ANTH 3113 | Principles of Archaeology |
| :--- | :--- |
| ANTH 2303 | General Linguistics |
| ANTH 3203 | Introduction to Biological Anthropology |


| ENGL 1213 or EXPO 1213 | Principles of English Composition (Core I) or Expository Writing | 3 |
| :---: | :---: | :---: |
| P SC 1113 | American Federal Government (Core IIIPSC) | 3 |
| Beginning Language continued (Core I) |  | 5 |
| First Year Experience (Core V) |  | 3 |
|  | Credit Hours | 18 |
| Sophomore |  |  |
| First Semester |  |  |
| Choose two of the following: |  | 6 |
| ANTH 3113 | Principles of Archaeology |  |
| ANTH 2303 | General Linguistics |  |
| ANTH 3203 | Introduction to Biological Anthropology |  |
| HIST 1483 or HIST 1493 | United States to 1865 (Core IV) or United States, 1865 to the Present | 3 |
| Intermediate Language |  | 3 |
| Natural Science with lab (Core II) |  | 4 |
|  | Credit Hours | 16 |
| Second Semester |  |  |
| ANTH 3021 | Anthropology Cornerstone II: Research and Writing | 1 |
| Anthropology Elective |  | 3 |
| Anthropology Elective (3000-4000 level) |  | 3 |
| Natural Science without lab (Core II) |  | 3 |
| Free elective, lower division (additional foreign language recommended) |  | 3 |
| Artistic Forms (Core IV) |  | 3 |
|  | Credit Hours | 16 |

## Junior

## First Semester

| ANTH 3031 | Anthropology Cornerstone III: <br>  <br> Professionalization | 1 |
| :--- | :--- | :--- |

Anthropology Elective (3000-4000 level) ..... 3
Anthropology Elective (Make sure 3 subfield distribution is ..... 3
met)
Arts \& Humanities, upper-division, outside major (Gen.Ed.) ..... 3
Western Culture (Core IV) ..... 3
Free Elective, upper-division (3000-4000 level) ..... 3
Credit Hours ..... 16 ..... 16
Second Semester ..... 3
Anthropology Elective (3000-4000 level)
Anhropology Elective (3000-4000 level) ..... 3
Anthropology Elective (3000-4000 level) (Make sure 3 subfield ..... 3
distribution is met)
Arts \& Humanities, upper-division, outside major (Gen.Ed.) 3
Free Elective, upper-division (3000-4000 level) ..... 3
Senior
First Semester
Free Elective, upper-division (3000-4000 level) ..... 3
Free Elective, upper-division (3000-4000 level) ..... 3
Undergraduate, upper-division elective (3000-4000 level) ..... 3
ANTH $5223 \quad$ Foundations of Social Thought (shared) ..... 3

| ANTH 5001 | Professionalization in Anthropology (shared) | 1 |
| :---: | :---: | :---: |
|  | Credit Hours | 13 |
| Second Semester |  |  |
| Undergraduate, upper-division elective (3000-4000 level) |  | 3 |
| Graduate Research Methods course (shared) |  | 3 |
| ANTH 5123 | Contemporary Culture Theory (shared) | 3 |
| ANTH Graduate Elective (shared) |  | 3 |
|  | Credit Hours | 12 |
| Fifth Year |  |  |
| First Semester |  |  |
| ANTH 5980 | Research for Master's Thesis | 2 |
| Graduate Elective |  | 3 |
| Graduate Elective |  | 3 |
| Graduate Elective |  | 3 |
|  | Credit Hours | 11 |
| Second Semester |  |  |
| Choose one of the following (Core in One Outside Subfield): |  | 3 |
| ANTH 5363 | Linguistic Anthropology |  |
| ANTH 6713 | Archaeological Theory |  |
| ANTH 6633 | Method and Theory in Biological Anthropology |  |
| Choose one of the following: |  | 3 |
| ANTH 5980 | Research for Master's Thesis |  |
| Graduate Elective |  |  |
|  | Credit Hours | 6 |
|  | Total Credit Hours | 137 |

## Anthropology (Standard), M.A.

Minimum Total Hours (Thesis): 30
Program Code: M025 Q033

- This program is Thesis Only.


## Required Courses


${ }^{1}$ Students must fulfill the core course requirement in three out of four subfields, selected in consultation with the student's advisor and committee. A grade of B or higher is required in the Core courses.
2 15-18 hours of coursework selected in consultation with the student's advisor and committee. No more than 6 hours from outside Anthropology may be applied.

## General Requirements for all Master's Degrees

The master's degree requires the equivalent of at least two semesters of satisfactory graduate work and additional work as may be prescribed for the degree.

All coursework applied to the master's degree must carry graduate credit.
Master's degree programs which require a thesis consist of at least 30 credit hours. All non-thesis master's degree programs require at least 30 credit hours.

Credit transferred from other institutions must meet specific criteria and is subject to certain limitations.

Courses completed through correspondence study may not be applied to the master's degree.

To qualify for a graduate degree, students must achieve an overall grade point average of 3.0 or higher in the degree program coursework and in all resident graduate coursework attempted. A student must also have at least a 3.0 in all coursework (including undergraduate coursework if any).

Additional information for master's degree students may be found in the Graduate College Bulletin.

## Anthropology: Applied Medical Anthropology, M.A.

Minimum Total Hours (Non-Thesis): 34
Program Code: M025 Q035

- this program is Non-Thesis only


## Required Courses

| Code | Title | Credit |
| :---: | :---: | :---: |
|  |  | Hours |
| Core Courses ${ }^{1}$ |  |  |
| ANTH 5123 | Contemporary Culture Theory | 3 |
| ANTH 5223 | Foundations of Social Thought | 3 |
| ANTH 6633 | Method and Theory in Biological Anthropology | 3 |
| ANTH 6843 | Foundations of Biological and Medical Anthropology | 3 |
| Professionalization |  |  |
| ANTH 5001 | Professionalization in Anthropology | 1 |
| Applied Anthropological Methods |  |  |
| Choose from: |  | 3 |

ANTH 5513 Applying Anthropology to Contemporary
Or alternative as approved by the student's Chair and
Committee

| Ethnographic Methods |  |  |
| :---: | :---: | :---: |
| Choose from: |  | 3 |
| ANTH 5153 | Ethnography of Communication |  |
| ANTH 5213 | Ethnographic Methods |  |
| ANTH 5253 | The Anthropology of Communities |  |
| Or alternative as approved by the student's Chair and Committee |  |  |
| Statistical Methods |  |  |
| Choose from: |  | 3 |
| ANTH 4713 | Statistical Concepts in Anthropology (taken for Graduate Credit) |  |
| BSE 5163 | (Biostatistical Methods I-HSC course) |  |
| HES 5963 | Statistical Applications in Health and Exercise Science |  |
| SOC 5283 | Fundamentals of Sociological Statistics |  |
| Or alternative as approved by the student's Chair and Committee |  |  |
| Culture and Health |  |  |
| Choose from: |  | 3 |
| ANTH 5323 | The Anthropology of Aging |  |
| ANTH 5393 | Anthropology and the Health of Indigenous People |  |
| ANTH 5643 | Psychiatric Anthropology |  |
| ANTH 5823 | Medical Anthropology |  |
| Or alternative as approved by the student's Chair and Committee |  |  |
| Elective |  |  |
| 3 hours of coursework selected in consultation with the student's Chair and Committee |  |  |
| Internship |  |  |
| ANTH 6310 | Internship in Applied Medical Anthropology | 6 |
| Total Credit Hours |  | 34 |

## General Requirements for all Master's Degrees

The master's degree requires the equivalent of at least two semesters of satisfactory graduate work and additional work as may be prescribed for the degree.

All coursework applied to the master's degree must carry graduate credit.
Master's degree programs which require a thesis consist of at least 30 credit hours. All non-thesis master's degree programs require at least 30 credit hours.

Credit transferred from other institutions must meet specific criteria and is subject to certain limitations.

Courses completed through correspondence study may not be applied to the master's degree.

To qualify for a graduate degree, students must achieve an overall grade point average of 3.0 or higher in the degree program coursework and in
all resident graduate coursework attempted. A student must also have at least a 3.0 in all coursework (including undergraduate coursework if any).

Additional information for master's degree students may be found in the Graduate College Bulletin.

## Anthropology: Linguistic Anthropology, M.A.

Minimum Total Hours: 30
Program Code: M025 Q423

- This program is Thesis only.


## Required Courses



## General Requirements for all Master's Degrees

The master's degree requires the equivalent of at least two semesters of satisfactory graduate work and additional work as may be prescribed for the degree.

All coursework applied to the master's degree must carry graduate credit.
Master's degree programs which require a thesis consist of at least 30 credit hours. All non-thesis master's degree programs require at least 30 credit hours.

Credit transferred from other institutions must meet specific criteria and is subject to certain limitations.

Courses completed through correspondence study may not be applied to the master's degree.

To qualify for a graduate degree, students must achieve an overall grade point average of 3.0 or higher in the degree program coursework and in
all resident graduate coursework attempted. A student must also have at least a 3.0 in all coursework (including undergraduate coursework if any).

Additional information for master's degree students may be found in the Graduate College Bulletin.

## Anthropology: Socio-Cultural Anthropology, M.A.

Minimum Total Hours (Thesis): 30
Program Code: M025 Q615

- This program is Thesis Only.


## Required Courses

| Code | Title | Credit <br> Hours |
| :---: | :---: | :---: |
| Required Course |  |  |
| ANTH 5001 | Professionalization in Anthropology | 1 |
| Core Courses ${ }^{1}$ |  |  |
| ANTH 5123 | Contemporary Culture Theory | 3 |
| ANTH 5223 | Foundations of Social Thought | 3 |
| Choose one of the following (core course in one other subfield): |  | 3 |
| ANTH 5363 | Linguistic Anthropology |  |
| ANTH 6633 | Method and Theory in Biological Anthropology |  |
| ANTH 6713 | Archaeological Theory |  |
| Research Methods |  |  |
| Choose one of the following: |  | 3 |
| ANTH 5153 | Ethnography of Communication |  |
| ANTH 5213 | Ethnographic Methods |  |
| ANTH 5253 | The Anthropology of Communities |  |
| ANTH 5433 | Ethnographic Writing |  |
| ANTH 5513 | Applying Anthropology to Contemporary Social Problems |  |
| Thesis |  |  |
| ANTH 5980 | Research for Master's Thesis | 2-5 |
| Electives |  |  |
| Choose 12-15 h with the student hours from outs | urs of coursework selected in consultation advisor and committee (no more than 6 e Anthropology may be applied) | 12-15 |

Total Credit Hours
1 Students must fulfill the two-course core course sequence, as well as a core course in one other subfield (linguistic anthropology would be the default and highly recommended course for most students) selected in consultation with the student's advisor and committee. All three Core courses must be completed with a grade of $B$ or higher.

## General Requirements for all Master's Degrees

The master's degree requires the equivalent of at least two semesters of satisfactory graduate work and additional work as may be prescribed for the degree.

All coursework applied to the master's degree must carry graduate credit.
Master's degree programs which require a thesis consist of at least 30 credit hours. All non-thesis master's degree programs require at least 30 credit hours.

Credit transferred from other institutions must meet specific criteria and is subject to certain limitations.

Courses completed through correspondence study may not be applied to the master's degree.

To qualify for a graduate degree, students must achieve an overall grade point average of 3.0 or higher in the degree program coursework and in all resident graduate coursework attempted. A student must also have at least a 3.0 in all coursework (including undergraduate coursework if any).

Additional information for master's degree students may be found in the Graduate College Bulletin.

## Anthropology: Archaeology, Ph.D.

Minimum Total Hours: 90

Program Code: D025 R044

## Program Requirements

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| ANTH 5001 | Professionalization in Anthropology | 1 |
| ANTH 5223 | Foundations of Social Thought (core) | 3 |
| ANTH 5363 | Linguistic Anthropology (core) | 3 |
| ANTH 6713 | Archaeological Theory (core) | 3 |
| ANTH 6633 | Method and Theory in Biological | 3 |
|  | Anthropology (core) | 3 |
| ANTH 6803 | Advanced Archaeological Theory | 3 |
| ANTH 5543 | Research Design | 42 |
| Electives as approved by advisor and graduate liaison |  |  |
| ANTH 6980 | Research for Doctoral Dissertation | 29 |
| Total Credit Hours | 90 |  |

1 ANTH 5413, Public Archaeology is strongly encouraged.

## General Requirements for Doctoral Degrees

A student should expect to spend at least the equivalent of three full academic years beyond the bachelor's degree to obtain the doctoral degree. During this period the student will take appropriate graduate coursework, successfully complete the general examination, and successfully defend and submit the final dissertation.

All coursework applied to the doctoral degree must carry graduate credit.
The doctoral degree requires at least 90 post-baccalaureate hours, including both formal coursework and hours of research.

The minimum hour requirement for a specific doctoral degree program cannot be waived.

No more than one-half of the credit hours, both OU and overall, excluding Research for Doctoral Dissertation (6980), may be S/U-graded coursework.

The student must be in residence at OU for at least two consecutive 16week semesters during the pursuit of the doctoral degree while enrolled and engaged in coursework or research activities as prescribed by the major academic unit.

For more detailed regulations and requirements for Doctoral degrees, please consult the Graduate College Bulletin: http://www.ou.edu/ gradcollege/forms/bulletin

## Anthropology: Human Health \& Biology, Ph.D.

Minimum Total Hours: 90
Program Code: D025 R306

## Program Requirements

| Code | Title | Credit <br> Hours |
| :---: | :---: | :---: |
| ANTH 5001 | Professionalization in Anthropology | 1 |
| ANTH 5223 | Foundations of Social Thought (core) | 3 |
| ANTH 5363 | Linguistic Anthropology (core) | 3 |
| ANTH 6633 | Method and Theory in Biological Anthropology (core) | 3 |
| ANTH 6713 | Archaeological Theory (core) | 3 |
| ANTH 6843 | Foundations of Biological and Medical Anthropology | 3 |
| Choose two Methods courses from the following list or at advisor's discretion: |  | 6 |
| ANTH 5083 | Quantitative Methods in Anthropology |  |
| ANTH 5153 | Ethnography of Communication |  |
| ANTH 5213 | Ethnographic Methods |  |
| ANTH 5253 | The Anthropology of Communities |  |
| ANTH 5423 | Introduction to Population Genetics |  |
| ANTH 5543 | Research Design |  |
| ANTH 5593 | Spatial Methods and Technologies in Anthropology |  |
| BSE 5013 | (OUHSC-Application of Microcomputers to Data Analysis) |  |
| BSE 5163 | (OUHSC-Biostatistical Methods I) |  |
| BSE 5173 | (OUHSC-Biostatistics Methods II) |  |
| BSE 5663 | (OUHSC-Analysis of Frequency Data) |  |
| BSE 6643 | (OUHSC-Survival Data Analysis) |  |
| COMM 5313 | Qualitative Research Methods |  |
| Electives as approved by the graduate liaison and advisor |  | 25-39 |
| ANTH 6980 | Research for Doctoral Dissertation | 29-43 |
| Total Credit Hours |  | 90 |

## General Requirements for Doctoral Degrees

A student should expect to spend at least the equivalent of three full academic years beyond the bachelor's degree to obtain the doctoral
degree. During this period the student will take appropriate graduate coursework, successfully complete the general examination, and successfully defend and submit the final dissertation.

All coursework applied to the doctoral degree must carry graduate credit.
The doctoral degree requires at least 90 post-baccalaureate hours, including both formal coursework and hours of research.

The minimum hour requirement for a specific doctoral degree program cannot be waived.

No more than one-half of the credit hours, both OU and overall, excluding Research for Doctoral Dissertation (6980), may be $S / U$-graded coursework.

The student must be in residence at OU for at least two consecutive 16week semesters during the pursuit of the doctoral degree while enrolled and engaged in coursework or research activities as prescribed by the major academic unit.

For more detailed regulations and requirements for Doctoral degrees, please consult the Graduate College Bulletin: http://www.ou.edu/ gradcollege/forms/bulletin

## Anthropology: Sociocultural \& Linguistics, Ph.D.

Minimum Total Hours: 90
Program Code: D025 R618

## Program Requirements

| Code | Title | Credit |
| :---: | :---: | :---: |
| ANTH 5001 | Professionalization in Anthropology | 1 |
| ANTH 5223 | Foundations of Social Thought (core) | 3 |
| ANTH 5363 | Linguistic Anthropology (core) | 3 |
| ANTH 6713 or ANTH 6633 | Archaeological Theory (core) <br> Method and Theory in Biological Anthropology | 3 |
| ANTH 6223 | Community Engaged Anthropology | 3 |
| ANTH 5433 | Ethnographic Writing | 3 |
| ANTH 5543 | Research Design | 3 |
| Choose one of the | following sets of course options: | 6 |
| Sociocultural Anthropology |  |  |
| ANTH 5123 | Contemporary Culture Theory |  |
| ANTH 5213 or ANTH 525 | Ethnographic Methods <br> 3he Anthropology of Communities |  |
| Linguistic Anthropology |  |  |
| ANTH 5153 | Ethnography of Communication |  |
| ANTH 5053 | Morphology |  |
| At least 9 elective area outside of An committee. | hours must be taken in a convergent hthropology as approved by the student's | 9 |
| Additional elective committee. | as determined by the student's | 27 |
| ANTH 6980 | Research for Doctoral Dissertation | 29 |
| Total Credit Hours |  | 90 |

## General Requirements for Doctoral Degrees

A student should expect to spend at least the equivalent of three full academic years beyond the bachelor's degree to obtain the doctoral degree. During this period the student will take appropriate graduate coursework, successfully complete the general examination, and successfully defend and submit the final dissertation.

All coursework applied to the doctoral degree must carry graduate credit.
The doctoral degree requires at least 90 post-baccalaureate hours, including both formal coursework and hours of research.

The minimum hour requirement for a specific doctoral degree program cannot be waived.

No more than one-half of the credit hours, both OU and overall, excluding Research for Doctoral Dissertation (6980), may be $S / U$-graded coursework.

The student must be in residence at OU for at least two consecutive 16week semesters during the pursuit of the doctoral degree while enrolled and engaged in coursework or research activities as prescribed by the major academic unit.

For more detailed regulations and requirements for Doctoral degrees, please consult the Graduate College Bulletin: http://www.ou.edu/ gradcollege/forms/bulletin

## School of Biological Sciences

Jeff Kelly, Interim Director
J.P. Masly, Associate Director

Lara Souza, Associate Director of Graduate Community and Faculty Development

314 Richards Hall
730 Van Vleet Oval
Norman, OK 73019-6121
Phone: (405) 325-4821
FAX: (405) 325-7560
sbs@ou.edu
https://www.ou.edu/cas/sbs

## General Information

The School of Biological Sciences (SBS) was established in 2022 and brought together the formerly separate academic units of Biology and Microbiology and Plant Biology. The programs that are currently housed within the SBS began soon after the University of Oklahoma was founded, and the first Ph.D. degree awarded by OU was through the program in Biology. Faculty research and the graduate programs in the SBS have internationally-recognized strengths in areas of animal behavior, aquatic biology, biodiversity and conservation biology, cell signaling, development and regeneration, community ecology, evolutionary biology, genetics and genomics, life history and breeding systems, neural bases of behavior, organismal biology, organismal systems biology, plant ecology, anaerobic microbiology and ecology, molecular biology, ecosystem-scale processes, and environmental genomics. The SBS features several core research areas including Aquatic Biology, Biology of Behavior, Ecology and Evolutionary Biology (EEB), Geographical Ecology, Molecular, Cellular, and Developmental Biology, and Anaerobic Microbiology.

Research and training facilities at the OU Biological Station, the Sam Noble Museum, the Oklahoma Biological Survey, and the Stephenson Research and Technology Center enhance the research opportunities for faculty and graduate students.
The SBS takes special pride in its teaching at both the graduate and undergraduate levels. Courses at the undergraduate level provide a broad foundation in the biological sciences and allow students to pursue selected areas of interest in depth through research participation and advanced courses.

Undergraduate degree programs offered in the SBS are also popular options for students interested in a health professions career, and the curricula provide an excellent base of preparation for a wide variety of careers or for postgraduate study.

## Programs for Excellence

## Programs for Academic Excellence

We provide hands-on, authentic educational and research experiences that prepare our students for successful careers in science, technology, and medical professions. The SBS is actively involved in the Honors Program, and many undergraduate students carry out independent research projects under the guidance of faculty members with national and international reputations in their fields.

## Student Organizations

The Zoological Society, the Premed Club, the PreVet Club, the Minority Association of Pre-Health Students, Alpha Epsilon Delta, the OU Botanical Society, and the American Society for Microbiology Student Chapter are sponsored by SBS faculty members and allow students with common interests to take field trips and hear talks about career planning and other important topics. The Biology Aid Program is comprised of undergraduate students who volunteer to tutor other students in introductory biology courses. It is a rewarding experience for both the student volunteers and those with whom they work.

The Biology Graduate Student Organization works with the faculty to organize the weekly seminar program of visiting scholars and other educational enrichment opportunities for both graduate and undergraduate students. Additional weekly seminars in neurobiology, ecology and evolutionary biology, molecular, cell and developmental biology, and microbiology provide venues for graduate students and faculty to discuss research ideas and findings.

All of these clubs meet regularly and provide undergraduate and graduate students with opportunities for socializing, networking, and professional development.

## Research Opportunities

Undergraduate students can participate in research with SBS faculty in a number of ways, such as Independent Study courses and Honors Research courses. Original research is central to our graduate programs, and graduate student research in the department spans the entire range of biological inquiry from molecules to organisms to ecosystems. Graduate students are supported by stipends, and undergraduate research can be performed on a volunteer basis, for degree credit, or, in certain cases, as a paid employee. The School also partners with companies and foundations to provide internship opportunities for our students.

## Special Facilities and Programs

The SBS is housed in five buildings on the OU Norman campus (Richards, Sutton, and George Lynn Cross Halls, the Stephenson Research and Technology Center, and the Physical Sciences Center), which contain faculty and graduate student offices, research and teaching laboratories, multi-user molecular biology core facilities, maintenance shops, stockrooms, graphics and photography workrooms, and computer rooms. Support staff include academic advisors, a media preparation technician, a computer specialist, and a shop supervisor. The SBS also maintains facilities and equipment, including several boats and vehicles, for research in the field. Teaching and research opportunities are provided for students at the following locations.

## Biological Station and Other Research Units

The University of Oklahoma Biological Station, located on Lake Texoma, an impoundment of the Red River on the Oklahoma-Texas border, is a permanent year-round field station with a resident staff of research scientists that provides year-round facilities for faculty and students. A summer session with approximately ten courses is attended by undergraduate and graduate students from throughout the country.

Students also use the facilities of the Samuel Roberts Noble Microscopy Laboratory, the Sam Noble Oklahoma Museum of Natural History, and the Oklahoma Biological Survey.

## Laboratory Animal Facility

This facility contains breeding colonies of rodents and provides housing for a variety of other small mammals, fish, amphibians, and reptiles.

## Core Molecular Laboratory

The department's core molecular laboratory provides all the tools necessary to go from tissues to sequence to analysis.

## Tissue Culture Laboratory

This lab provides facilities for in vitro culture of vertebrate cells and tissues and for the production of monoclonal antibodies.

## Computer Facilities

Computer rooms located in all buildings contain several microcomputers with associated printing and graphics equipment. In addition, numerous computers are located in individual research laboratories. Supercomputing and other special applications computer facilities are available through the OU Supercomputing Center for Education \& Research (OSCER).

## Aquatic Research Facility

The 8-acre Aquatic Research Facility (ARF) on the south research campus supports researchers and student activities with 32 ponds, 4 climatecontrolled greenhouses, and a system of outdoor artificial streams.

## Animal Behavior Laboratory

A laboratory devoted to animal behavior and ecological studies, this facility provides indoor space and outdoor enclosures for the study of a wide variety of animals.

## Kessler Atmospheric and Ecological Field Station

Kessler Atmospheric and Ecological Field Station is a 350 -acre tract of mixed grass prairie donated to the University of Oklahoma for research and teaching in environmental studies.

## Oliver Wildlife Preserve

This wilderness area of 80 acres, situated just two miles south of the main campus, provides a natural laboratory for studies in ecology, natural history, and behavior.

## Scholarships and Financial Aid

The department has undergraduate scholarships and graduate scholarships available for academically outstanding students.

## M. Blanche and M. Frances Adams Scholarship

Scholarships of $\$ 1,000$ to $\$ 3,000$ per year for up to three years will be awarded on a competitive basis to undergraduate students majoring in SBS degree programs.

## George Miksch Sutton Scholarships

Scholarships of $\$ 500$ to $\$ 2,000$ or more are awarded to undergraduate and graduate students in the field of Ornithology. Selection is based on merit and financial need.

## GEORGE L. AND CLEO CROSS ENDOWED SCHOLARSHIPS

Scholarships of $\$ 1,500$ are awarded to full-time undergraduate students majoring in Plant Biology or Microbiology. Recipients must have completed the equivalent of 30 undergraduate hours of credit and have a GPA of at least 3.0 on a 4.0 scale.

PAUL G. RISSER SCHOLARSHIP
Scholarships of $\$ 1,700$ are awarded to full-time undergraduate students who are majoring in Plant Biology or Microbiology. Recipients must be residents of Oklahoma and preference is given to applicants who attended any Kay County High School. Selection is also based on financial need and a GPA of at least 3.0 on a 4.0 scale.

## MARGARET ROOT MCKINLEY SCHOLARSHIP

Scholarships of $\$ 650$ are awarded to full-time undergraduate students majoring in Microbiology. Recipients must be U.S. citizens and must have a GPA of at least 3.0 on a 4.0 scale.

## HARRISON L. CHANCE SCHOLARSHIP

Scholarships of \$1,500 are awarded to undergraduate or graduate students majoring in Microbiology. Undergraduate recipients must be in their penultimate year of their degree as this scholarship is intended for use during their final year in the program. Selection for both undergraduates and graduates is also based on financial need and academic excellence.

## DR. LARRY AND TERRI CARTMELL SCHOLARSHIP FOR MEDICAL TECHNOLOGY

Scholarships of \$2,500 are awarded to undergraduate students majoring in Microbiology who plan to pursue a career in medical technology. Recipients must be in their penultimate year of their degree as this scholarship is intended for use during their final year in the program. Selection is also based on financial need, students who have been engaged in research in a research laboratory, and a GPA of at least 3.0 on a 4.0 scale.

## MICHAEL J. MCINERNEY SCHOLARSHIP

Scholarships of $\$ 1,450$ are awarded to full-time undergraduate students majoring in Microbiology or Plant Biology. Recipients must demonstrate financial need and be in good academic standing.

Students are also encouraged to take advantage of the variety of scholarship and financial aid opportunities that are available. For
additional information, please visit Dodge Family College of Arts and Sciences Scholarship Opportunities and Financial Aid Services Office.

## Undergraduate Study <br> Biology

The biology major program is designed to meet the needs of students who plan to enter graduate school in the biological sciences, to enter medical, dental, or veterinary college, or to work in specialized paramedical fields, environmental programs, or other careers for which biology would serve as an academic background. The department strongly recommends that each student work closely with his or her advisor on a regular basis since not all courses are offered every semester. Each major or prospective major should work closely with the biology advisory office on a regular basis to plan a program which will meet their career goals. The advisory office can furnish information on courses, curricula and careers available to majors and will facilitate the assignment of a faculty advisor.

- Biology, Bachelor of Science (p. 274)

Biology majors may also work for the standard secondary teaching certificate in science. For information consult an academic advisor in the College of Arts and Sciences office.

## Microbiology

Microbiologists work in hospitals, universities, medical schools, government laboratories, and almost every industry, specializing in a wide variety of areas, from agriculture to the space industry. Our microbiology degrees are designed to promote development of the scientific, analytical, and problem-solving skills needed for our students to excel in these careers, as well as providing great preparation for and placement in medical, professional, and graduate schools.

- Microbiology (Standard) Bachelor of Science (p. 276)
- Microbiology: Biotechnology, Bachelor of Science (p. 278)
- Microbiology (Professional), Bachelor of Microbiology (p. 281)


## Plant Biology

Plant biologists work in universities, medical facilities, government laboratories, and a variety of industries (e.g., agricultural, chemical, and pharmaceutical). Plant science is a growing area and studying plant biology provides a solid scientific foundation to make you employable in a wide range of fields. Our plant biology degrees are great preparation for careers to address complex societal issues involving population growth, food supply, and environmental problems.

- Plant Biology, Bachelor of Science (p. 283)
- Plant Biology: Biotechnology, Bachelor of Science (p. 285)


## Minors

- Biology Minor (p. 288)
- Microbiology Minor (p. 288)
- Plant Biology Minor (p. 289)


## Graduate Study

## Biology Programs Offered

- Biology, M.S. (p. 289)
- Biology, Ph.D. (p. 292)
- Microbiology, M. S (p. 289).
- Microbiology: Bioinformatics, M.S. (p. 290)
- Microbiology, Ph.D. (p. 294)
- Plant Biology, M.S. (p. 291)
- Plant Biology. Bioinformatics, M.S. (p. 291)
- Plant Biology, Ph.D. (p. 295)
- Cellular \& Behavioral Neurobiology - Biology, Ph.D. (p. 293)
- Ecology \& Evolutionary Biology - Biology, Ph.D. (p. 293)
- Ecology \& Evolutionary Biology - Botany and Microbiology, Ph.D. (p. 294)


## Graduate Certificate

- Microscopic Imaging and Technology, Graduate Certificate (p. 292)


## Areas of Specialization

The graduate programs have internationally-recognized strengths in ecology/systematics, animal behavior, neurosciences, physiology, genetics/cell biology, and anaerobic microbiology. In addition to the core area M.S. and Ph.D. programs, many SBS faculty participate in two other Ph.D. programs on campus: Ecology and Evolutionary Biology and Cellular and Behavioral Neurobiology. Detailed information on all SBS graduate programs may be obtained from the Director of Graduate Studies or by contacting sbs@ou.edu.

Work leading to the Ph.D. degree is offered in most areas of research specialization. The Ph.D. programs require a satisfactory demonstration of knowledge in their research area. This proficiency will be determined by the dissertation advisory committee. The satisfactory completion and successful defense of original research as described in a dissertation is also required. Each student will, in consultation with the chairperson, select a dissertation advisory committee. A student must complete the general requirements of the Graduate College, appropriate research skills.

Each student will be assigned a specific dissertation committee whose functions are to aid in designing the degree program, provide advice on the dissertation research and conduct the oral dissertation defense examination.

## Courses

BIOL 1003 Contemporary Issues in Biology
3 Credit Hours
An introduction to biology, focusing on the scientific background needed to understand selected issues related to cells, genetics and inheritance, evolution and ecology. Not open to students with credit for BIOL 1005, BIOL 1013, BIOL 1114, BIOL 1124, BIOL 1134, or PBIO 1114. Cannot be used for major credit in Biology, Microbiology, or Plant Biology. (F, Sp) [IINS].
BIOL 1005 Concepts in Biology
5 Credit Hours
Prerequisite: None, but high school or college chemistry is recommended. An introduction to the life sciences, focusing on the structure and function of organisms and their relationship to the environment. Fulfills general education laboratory science requirement. Not open to students with credit for BIOL 1003 or BIOL 1134, or PBIO 1114, BIOL 1114 or BIOL 1124. Cannot be used for major credit in Biology, Plant Biology, or Microbiology. Field trips. (F, Sp) [II-NSL].
BIOL 1013 Introduction to Biology
3 Credit Hours
Introductory survey of the fundamental concepts that underlie biological phenomena from the cellular to the ecosystem level. Not open to students with credit for BIOL 1003, BIOL 1005, BIOL 1114, BIOL 1124, or BIOL 1134. Cannot be used for major credit in Biology, Plant Biology or Microbiology. (F, Sp) [II-NS].

BIOL 1114 Introductory Zoology
Major biological principles and concepts as illustrated in the structure, function and evolution of animals. Emphasis is on self-regulatory mechanisms, especially in the vertebrates, and their adaptive significance. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ ) [II-NS].
BIOL 1121 Introductory Zoology Lab
1 Credit Hour
Prerequisite: previous completion or concurrent enrollment in 1114. Laboratory study of structure and development of organ systems. Experiments on physiological process of selected vertebrates and invertebrates. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ ) [II-NSL].
BIOL 1124 Intro Biol: Molecule/Cell/Phys
4 Credit Hours
Major principles and concepts are presented in the function and physiology of animals, plants, fungi and microbes. Emphasis is on biological chemistry, cell structure and function, cellular energetics, molecular genetics, homeostasis and physiology. Includes biological laboratory experience with emphasis on critical thinking and problem solving. (F, Sp, Su) [II-NSL].

## BIOL 1134 Introductory Biology: Evolution, Ecology and

 Diversity4 Credit Hours
Prerequisite: Life science majors only. Major biological principles and concepts as illustrated in a survey of the diversity, behavior, and ecological functions of animals, plants, fungi, and microbes. Emphasis is on evolution, ecology, and diversity. Will include biological laboratory experience with emphasis on problem solving. Will include training in scientific procedures, including laboratory technical skills, writing skills, and introduction to statistical analysis. (Sp) [II-NSL].

## BIOL 1203 The Age of Dinosaurs

3 Credit Hours
(Crosslisted with GEOL 1203) Introduction to basic principles and theories in biology (evolution, systematics, vertebrate morphology and relationships) and geology (geologic time, earth history, plate tectonics, sedimentation and stratigraphy), focusing on the evolutionary history of Dinosauria. May not be counted for major coursework in Biology or Geology. (F) [II-NS].

## BIOL 2124 Human Physiology

4 Credit Hours
Prerequisite: BIOL 1114 and BIOL 1121 with a grade of C or better, or BIOL 1124 with a grade of $C$ or better; a course in chemistry with a grade of $C$ or better. May not be applied for biology major credit. Open only to majors in nursing, physical therapy, health and exercise science, and selected fields. Function of vertebrate organ systems in homeostasis. Circulation, digestion, endocrine and nervous control, metabolism, muscle action and respiration, with emphasis on humans. Laboratory. (F, Sp, Su)
BIOL 2234 Introduction to Human Anatomy 4 Credit Hours
Prerequisite: BIOL 1114 and BIOL 1121 with a grade of $C$ or better, or BIOL 1124 with a grade of $C$ or better, sophomore standing. (Cannot be enrolled concurrently with BIOL 2255). Open only to majors in health and exercise science, physical therapy, nursing and selected fields. An introduction to the gross morphology of the human body. The course will use a lab/lecture format with extensive use of models, videos, and computer-assisted instruction as well as prosected cadavers. Not for Biology major credit. (F)

## BIOL 2255 Human Anatomy

5 Credit Hours
Prerequisite: BIOL 1114 and BIOL 1121 with a grade of C or better, or BIOL 1124 with a grade of C or better, sophomore standing. (Cannot be enrolled concurrently with BIOL 2234). Open only to majors in health and exercise science, physical therapy, nursing and selected fields. See http:// biology.ou.edu/human_anatomy-physiology.htm for complete list. The development and gross morphology of the human body and its systems. Laboratory dissection of human cadavers. Not for biology major credit. Laboratory (F, Sp)

BIOL 2404 Ecology/Environmental Quality
4 Credit Hours
(Crosslisted with PBIO 2404) Prerequisite: sophomore standing. Study of ecological principles and their applications to human systems, study of population, air pollution, water pollution, energy issues, etc. Laboratory exercises focus on learning scientific methods of measurement of environmental quality factors. Laboratory (Sp) [II-NSL].

BIOL 2815 Introduction to Microbiology 5 Credit Hours
Prerequisite: one course in college chemistry. Introduction to microorganisms as biological entities. Survey of the roles of microorganisms in the ecosystem. Application of microorganisms to industrial and environmental problems. Discussion of microorganisms as causes of human disease and response of hosts to microbial invasion. This course does not count for major credit in Biology, Microbiology or Plant Biology. Laboratory (F, Sp, Su) [II-NSL].
BIOL 2913 Intro to Quantitative Biology
3 Credit Hours
Prerequisite: 1114 and 1121, or 1124, or Biology 1134, Mathematics 1523 or 1643 or higher, or permission of instructor. The connections between basic mathematics and how biological data are organized, tested, and interpreted. Includes review of probability theory, introduction to parametric and non-parametric biostatistics, fundamentals of experimental design, and sketches of how optimality theory can be used to generate biological questions. (Sp even-numbered years)
BIOL 2970 Special Topics 3 Credit Hours
0 to 3 hours. Prerequisite: BIOL 1134 and BIOL 1124; or BIOL 1134 and BIOL 1114 and BIOL 1121; or BIOL 1124, BIOL 1134, or BIOL 1114 and BIOL 1121, and either Plant Biology 1114 or Chemistry 1315; or permission of instructor; May be repeated with change of content, maximum credit nine hours. Seminar or special topics course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research, and field projects. (Irreg.)
BIOL 3001 Microbiology: the Discipline and Degree 1 Credit Hour Prerequisite: BIOL 1114 or BIOL 1124 or BIOL 1134. Introduce students to their discipline, degree and faculty. Allows students microbiology credit prior to MBIO 3813, which has a prerequisite of Chemistry 3053. By the end of the course students will have an introduction to use of the literature of microbiology and writing in scientific English, as well as familiarity with the discipline, progress towards degree completion and their faculty. (Sp)
BIOL 3013 Evolution
3 Credit Hours
Prerequisite: BIOL 1124 and BIOL 1134. Processes of evolution including natural selection and non-selective forces. Phylogenetics and the history of life. The nature and origin of species. Factors contributing to divergence of genes, populations, species, and higher taxa such as genetics, ecology, geography, and behavior. ( $\mathrm{F}, \mathrm{Sp}$ )

BIOL 3063 Veterinary Entomology
3 Credit Hours
Prerequisite: BIOL 1124, or BIOL 1114 and BIOL 1121; and BIOL 1134.
The study of insects and their near relatives, such as ticks, as they relate to the causation of economic loss and transmission of disease organisms in livestock and companion animals. Insect biology, disease transmission, and methods of control will be stressed in lecture. Laboratory emphasizes 1) collection, preservation, and pathogens, and 2) methods used to control/evaluate insecticides and acaricides. Laboratory.
BIOL 3073 Medical Entomology
3 Credit Hours
Prerequisite: 1114 and 1121, or Biology 1134. Medical entomology investigates the relationship of insects and other arthropods to the health of humans, domestic animals, and wildlife. Laboratory. (Sp)

BIOL 3083 Animal Behavior
3 Credit Hours
(Crosslisted with PSY 3083) Prerequisite: 2013 or permission of instructor. Animal behavior from an evolutionary perspective. The effects of natural selections on mechanisms underlying behavior and on diversity of behavior among and within species. (F, Sp)
BIOL 3101 Principles of Physiology Lab 1 Credit Hour Prerequisite: BIOL 3103 or concurrent enrollment. Provides students with an introduction to methods and procedures used in physiological research. Topics include data acquisition, analysis and basic statistics, effects of temperature on living systems, nervous system functions, muscle mechanics and physiology, and studies of metabolic rates. In addition to hands-on lab experience, library projects and research papers are used to introduce students to methods of scientific communication. (Sp)
BIOL 3103 Principles of Physiology 3 Credit Hours Prerequisite: ZOO/BIOL 1124, or ZOO/BIOL 1114 and ZOO/BIOL 1121; and Biology 1134, or permission of instructor. One semester of physics and organic chemistry strongly recommended. Introduction to basic concepts of physiology; relation of functions of organisms to physical and chemical principles, and to the environment; discussion of experimental design, constituents of tissues, energy, growth, homeostasis, cellular and organ functions. (F, Sp)
BIOL 3111 Undergraduate Professional Development 1 Credit Hour Prerequisite: permission of instructor. The Professional Development course is designed to assist our microbiology students in achieving their career goals by enhancing their ability to communicate their accomplishments effectively. Students will learn about the career opportunities in microbiology, how to prepare resumes and/or graduate and professional school applications, how to communicate effectively in an interview, and how to build a professional network. (Sp)
BIOL 3113 Cell Biology
3 Credit Hours
(Crosslisted with PBIO and MBIO 3113) Prerequisite: 1114, or 1124, or BIOL 1134, or PBIO 1114, and CHEM 3053. Introduction to the cell as a unit of life. A chemical and physical comparison of procaryotic and eucaryotic cells to include a discussion of cell metabolism, types of metabolic regulation, and an analysis of ultrastructure. Emphasis will be placed on the dynamic changes in metabolism and ultrastructure which occur during the life of a cell. $(\mathrm{F}, \mathrm{Sp})$
BIOL 3122 Cell Biology Laboratory
2 Credit Hours
Prerequisite: BIOL 1124; Prerequisite or Concurrent Enrollment:
BIOL 3113. This laboratory course introduces fundamental concepts of cellular biology through hands-on experience. The emphasis is to promote development of skills in formulating hypotheses, experimental design, data analysis and interpretation, and the ability to engage in ethical research, scientific writing, and communication. (F)
BIOL 3163 Economic Botany
3 Credit Hours
Prerequisite: BOT 1114 or BIOL 1114 or BIOL 1134 or BIOL 1005 or any introductory biology course. A survey of plants and plant products used in industry, drug plants and drugs, and especially food plants and food adjuncts. Origin of agriculture, domestication and evolution of crop plants, and uses of plants in different cultures are emphasized. (F) [IVWC].

## BIOL 3201 Animal Development Lab

1 Credit Hour
Prerequisite: 3203 or concurrent enrollment. Laboratory study of the development and embryology of a variety of animals. Developmental concepts and mechanisms will be illustrated through the use of prepared materials and hands-on experiments. Laboratory (F, Sp)

BIOL 3203 Animal Development
3 Credit Hours
Prerequisite: BIOL 1124, or BIOL 1114 and BIOL 1121; and BIOL 3333; and BIOL 1134. Study of animal development from gamete formation through organogenesis and postembryonic phases in different animal models. Concepts and mechanisms at the tissue, cellular and molecular levels will supplement descriptive analyses of development. (Sp)

BIOL 3214 Comparative Vertebrate Anatomy 4 Credit Hours Prerequisite: BIOL 1114 and BIOL 1121; or BIOL 1124; or BIOL 1134; or equivalent. A study of the anatomy and evolutionary development of vertebrate organ systems. Representative vertebrates are studied in laboratory. Laboratory (F)
BIOL 3333 Genetics
3 Credit Hours
(Crosslisted with PBIO 3333) Prerequisite: BIOL 1124, or BIOL 1114 and BIOL 1121; BIOL 1134 recommended. Principles of inheritance at gene, chromosome, and population levels; nature of the genetic material and its involvement in the determination of structure and function. (F, Sp)

BIOL 3342 Genetics Laboratory 2 Credit Hours
Prerequisite: BIOL 3333 or concurrent enrollment, or equivalent. The demonstrations, crosses and experiments are designed to illustrate various genetic phenomena, including Mendelian laws, recombination, mutation, natural and artificial selection, and interaction of genotype with environment. The primary organism studied is Drosophila, with some use of corn, Neurospora, and others. Laboratory (F)
BIOL 3403 Principles of Ecology
3 Credit Hours
Prerequisite: BIOL 1114 and BIOL 1121, or BIOL 1134, or PBIO 1114.
Patterns of environments and biological communities; the processes maintaining these patterns. Field trips. Some overnight trips. Laboratory (F, Sp)
BIOL 3440 Mentored Research Experience
3 Credit Hours
0 to 3 hours. Prerequisite: ENGL 1113 or equivalent, and permission of instructor; May be repeated, maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)

BIOL 3451 Methods in Plant Ecology
1 Credit Hour
Prerequisite: corequisite BIOL 3453. Methodology in plant physiological, population, community and ecosystem ecology will be covered. Emphasis will be on actual field or laboratory experience and the applicability of these methods to other areas of ecology. Laboratory. (F)
BIOL 3453 Principles of Plant Ecology 3 Credit Hours Prerequisite: BIOL 1114 or BIOL 1134. Introduction to physiological, population and community ecology. Emphasis is placed on environmental factors, disturbance and succession and how these factors affect species diversity and landscape patterns. One field trip. (F)
BIOL 3463 Water and Ecological Sustainability 3 Credit Hours (Crosslisted with ENST 3463) Prerequisite: junior standing and English 1213 or Expository Writing 1213, BIOL 1114 or BIOL 1124 or BIOL 1134, or permission of instructor. Objective of the course is to allow students to examine and discuss important historical and current issues relating to the interactions between socio-economic use of water resources and ecosystem biodiversity, function, and sustainability. (F) [II-NS].

BIOL 3563 Biological Conservation
3 Credit Hours
Prerequisite: BIOL 1114 and BIOL 1121, or BIOL 1134, or PBIO 1114.
Active learning format course for exploring ecological, legal, and societal issues affecting biodiversity at local, regional, and global scales. Offered Fall of even-numbered years. (Irreg.)

BIOL 3673 Practical Bioinformatics
Prerequisite: junior standing; BIOL 2815 or BIOL 3813 or BIOL 1114 or BIOL 1005 or equivalent introductory biology course or instructor permission. Study of the use of computers to analyze and interpret various types of biological data. Topics covered will include accessing genomics databases, aligning DNA and protein sequences, searching genomic databases for similar sequences, analyzing protein structure, and building molecular phylogenies. Classes will emphasize group work and in-class computer exercises in a highly interactive environment. (Sp)
BIOL 3812 Fundamentals of Microbiology Laboratory 2 Credit Hours Prerequisite: credit or concurrent enrollment in 3813 . Fundamental microbiological methods: aseptic technique, culture methods, microscopy, metabolic and physiological tests, bacterial isolation and identification, environmental microbiology. Laboratory. (F, Sp, Su)
BIOL 3813 Fundamentals of Microbiology 3 Credit Hours Prerequisite: BIOL 1005 or BIOL 1114 or BIOL 1124 or BIOL 1134; and CHEM 1315; and CHEM 1415 or CHEM 1335; and CHEM 1435. Cell structure and phylogeny of bacteria, archaea, and eukaryotic microorganisms; growth, metabolism and ecological roles; symbiotic relationships; gene expression, genetic exchange, genomics. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

## BIOL 3833 Introduction to Neurobiology

3 Credit Hours
Prerequisite: BIOL 1124. Introduction to cellular and behavioral neurobiology. Topics covered will include cellular neurobiology, neurophysiology, neuroanatomy, sensory processing, movement, and neurobiology of behavior. (Sp)
BIOL 3960 Honors Reading (HONORS)
1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program and departmental permission; May be repeated, maximum credit six hours. Will consist of topics designated by the instructor. The content will emphasize work not presented in other courses. (F, Sp, Su)

BIOL 3970 Honors Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program; May be repeated, maximum credit six hours. Discussion of recent and current research trends and significant developments in zoology. (Irreg.)
BIOL 3980 Honors Research (HONORS) 1-3 Credit Hours
1 to 3 hours. Prerequisite: Departmental permission and admission to Honors Program; May be repeated, maximum credit six hours. Will provide an opportunity for the gifted Honors candidate to work at a special project under the guidance of a professor in the student's field. Laboratory (F, Sp, Su)
BIOL 3990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: one course in general area to be studied and permission of instructor and department; May be repeated, maximum credit six hours. Contracted independent study for topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (F, Sp, Su)
BIOL 4003 Arthropod Vector Surveillance and Management 3 Credit Hours
Prerequisite: BIOL 1124 or BIOL 1134. Immerse yourself in a medicalveterinary field experience. Collect, preserve, and identify arthropod pests and vectors of pathogens that cause disease in humans and animals. Determine the risk associated with arthropod pests and vector borne diseases and develop an integrated pest (vector) management program to reduce that risk. Laboratory. (Sp)

BIOL 4023 Field Mammalogy
3 Credit Hours
(Slashlisted with BIOL 5023) Prerequisite: two college science courses that include a laboratory, one of which should be in biological sciences or permission of UOBS Director; Course taught at Biological Station, students must apply for enrollment into course. Study of mammals with emphasis on principle of mammalian ecology, conservation, biodiversity, techniques of field study, and methods of collection and preservation. Topics include characteristics of mammals, classification, natural history, ecology, biodiversity, conservation, and techniques in field study. Emphasis is given to mammals of southern Oklahoma and northern Texas. Laboratory. No student may earn credit for both 4023 and 5023. (Su)

## BIOL G4034 Mammalogy

4 Credit Hours
Prerequisite: BIOL 1124 and BIOL 1134. Classification, distribution, and natural history of mammals with emphasis on Oklahoma species. Mammals are collected and prepared for scientific collections. Field trips. Some overnight camping. Laboratory. Offered Fall even-numbered years. (Irreg.)
BIOL 4043 Research in Ecology
3 Credit Hours
Prerequisite: Two college sciences courses that include a laboratory; one of these courses must be focused within the field of biology. Field study of population and community dynamics in which students work collaboratively to design, conduct, and present the results of original experiments in an interactive and supportive setting. (Su)

BIOL G4044 Ornithology
4 Credit Hours
Prerequisite: BIOL 1124, or BIOL 1114 and 1121; and BIOL 1134. Biology of birds. Identification of birds in North America with emphasis on Oklahoma; relationships, natural history and behavior or birds. Field trips. Laboratory. Offered Sp odd-numbered years. (Irreg.)
BIOL 4053 Forensic Entomology
3 Credit Hours
Prerequisite: BIOL 1124, or BIOL 1114 and BIOL 1121; and BIOL 1134. Lecture will explore the use of insects in forensic entomology and its impact on death scene investigation, neglect or abuse; contamination of food products and other marketable goods and subsequent litigation. Lab will be centered on a "death scene investigation". Students will collect data from a pig carcass to determine factors that affect the rate of decomposition. Laboratory.

## BIOL 4063 Field Herpetology

3 Credit Hours
(Slashlisted with BIOL 5063) Prerequisite: two college science courses that include a laboratory, one of which should be in biological sciences or permission of UOBS Director. Overview of methods, techniques, and standards for the collection, management, and analysis of herpetological field data for various applications. Includes collection of amphibians and reptiles, and diagnostic (morphological, ecological, and behavioral) characteristics of species. Students design and complete individual projects that address current issues in biology and conservation in herpetology. Laboratory. No student may earn credit for both 4063 and 5063. (Su)

BIOL G4073 General Entomology
3 Credit Hours
Prerequisite: Sophomore standing, and BIOL 1114 and BIOL 1121, or BIOL 1134, or PBIO 1114, or BIOL 1005, or permission of instructor. Introduction to the world of insects. Morphological and physiological adaptations; taxonomy, life histories, and methods of collection. Field trips. Laboratory (F)

BIOL G4083 Herpetology
Prerequisite: 2013 and Biology 1134 or permission of instructor. An introduction to the study of amphibians and reptiles. Taxonomy, ecology, behavior and life histories of amphibians and reptiles, with emphasis on local forms. Field trips. Laboratory. Offered Fall of odd-numbered years. (Irreg.)

## BIOL 4113 Cellular Pathology

3 Credit Hours
(Slashlisted with BIOL 5113) Prerequisite: 3113 or permission of instructor. The course focus is on the molecular and cellular bases of disease and alterations in cellular processes that lead to the development of various pathological conditions. Topics include symptoms of cellular disease, pathology of organelles, cell injury, cell death, immunopathology, neoplasia and genetic disorders. No student may earn credit for both 4113 and 5113. (F)
BIOL G4114 Principles of Plant Physiology
4 Credit Hours
Prerequisite: BIOL 1114 and CHEM 3053, or permission of instructor. Plant Physiology is the study of how plants grow and develop, respond to biotic and abiotic factors in their environments, convert solar energy to chemical energy, and generally how plants go about their business. Modern plant physiology is a fairly all-inclusive discipline and incorporates plant anatomy and morphology, biochemistry, genetics, molecular biology, etc. Laboratory. (F)
BIOL 4153 Endocrinology
3 Credit Hours
(Slashlisted with BIOL 5153) Prerequisite: BIOL 3103; BIOL 3113 also strongly recommended. Endocrinology covers the structure and function of endocrine glands and the mechanisms of hormone action. Coverage of the endocrine glands includes biosynthesis of hormones, control and secretion of hormones, physiological, morphological, and behavioral actions of hormones, as well as a review of common endocrine disorders and clinical conditions. No student may earn credit for both 4153 and 5153. (Sp)

BIOL 4204 Vertebrate Paleobiology
4 Credit Hours
(Crosslisted with GEOL 4204) Prerequisite: BIOL 1114 and 1121, or 1124 or 1134; BIOL 3214; or permission of instructor. Systematics, relationships, zoogeography and evolutionary morphology of the major groups of vertebrates. Field trips. Laboratory. (Sp)
BIOL 4233 Neurobiology of Disease 3 Credit Hours
(Slashlisted with BIOL 5233) Prerequisite: BIOL 4833 (preferred), or BIOL 3113 and BIOL 3333, or BIOL 2124 or BIOL 3103; or permission of the instructor. Cellular and molecular mechanisms underlying both normal neuronal function and neuronal disorders. Includes a review of basic concepts in neuroscience through traditional lectures, and reading and discussion of original research articles. Students are required to give oral presentations, write critiques and term papers, and present research posters. No student may earn credit for both 4233 and 5233. (F)

## BIOL G4244 Animal Histology

4 Credit Hours
0 to 4 hours. Prerequisite: BIOL 3103 and BIOL 3113, or permission of instructor. Structure and function of animal tissues with emphasis on the cellular basis of tissue and organ function. Laboratory emphasizes the identification of cells and tissues with the use of the light microscope. Laboratory (Sp)

## BIOL 4264 Morphology of Vascular Plants

4 Credit Hours
Prerequisite: permission of instructor. Structural organization and phylogenetic relationships of vascular land plants are explored using living and extinct plants. Emphasis is given to understanding the origins, unique and common features of plant life histories, organography and morphogenesis. (Irreg.)

BIOL 4353 Molecular Tech-Field Biology
3 Credit Hours
(Slashlisted with BIOL 5353) Prerequisite: 1114 and 1121, or 1124 and permission of instructor; 3333 or 3403 recommended. Selected protocols and data interpretation using molecular techniques to study protein and DNA variation in natural populations and the application of molecular techniques to research problems in ecology, systematics, animal behavior, conservation biology, and related areas. Graduate students enrolled in 5353 will have additional project expectations and written work. Taught at the OU Biological Station. Field trips. Laboratory No student may earn credit for both 4353 and 5353. (Su)

BIOL 4361 Experimental Genetics and Cell Biology Lab 1 Credit Hour Prerequisite: BIOL 3333 or BIOL 3113 . Students will be introduced to experimental design and techniques including types of microscopy such as SEM and TEM, cell and tissue culture, DNA isolation, protein and DNA electrophoresis, PCR, and introductory bioinformatics. Offered Sp of odd numbered years. (Irreg.)

## BIOL 4423 Stream Ecology

3 Credit Hours
Prerequisite: BIOL 1124, or BIOL 1114 and BIOL 1121; and BIOL 1134; junior or senior standing, or permission of instructor. A combined lecture/ laboratory course that focuses on the physical, chemical, and biological features of stream ecosystems, including current theories explaining species interactions and stream function. Course requirements/ evaluation including a midterm and final examination, individual research papers and presentations, participation in group laboratory and field experiments, and reading and discussing the primary literature. Field trips. Laboratory. Offered Fa of odd-numbered years. (Irreg.)
BIOL G4463 Lake Ecology
3 Credit Hours
Prerequisite: BIOL 3403, or permission of instructor. An introduction to the biology, chemistry, physics, and geology of freshwater environments, with emphasis on ecology. (Sp)
BIOL 4483 Physiological Plant Ecology
3 Credit Hours
(Slashlisted with BIOL 5483) Prerequisite: BIOL 3453 or BIOL 4115, or permission of instructor. Study of energy budgets, plant water relations, carbon uptake and release, nutrient uptake and availability, and other factors as they affect plant growth, competition and ecosystem-level factors. In-depth analysis of current literature. (F, even-numbered years) No student may earn credit for both 4483 and 5483.

BIOL G4493 Ichthyology
3 Credit Hours
Prerequisite: BIOL 1124, or BIOL 1114 and BIOL 1121; and BIOL 1134.
Taxonomy, morphology, ecology and distribution of fishes, with emphasis on those of the region. Field trips. Some overnight trips. Laboratory. (Sp)
BIOL 4523 Biogeography and Macroecology 3 Credit Hours
(Slashlisted with BIOL 5523) Prerequisite: BIOL 3013: Evolution, or permission of instructor. This course will explore the causes and consequences of the geographic distribution of life on Earth. We will discuss the processes which shape individual species distributions, why some regions host more species than others, and how the evolution of biodiversity is tied to the history and geography of Earth itself. No student may earn credit for both 4523 and 5523. (F)

## BIOL 4534 Plant Systematics <br> 4 Credit Hours

(Slashlisted with BIOL 5534) Prerequisite: BIOL 1114 and BIOL 1134, or permission of instructor. Introduction to the evolution and identification of vascular plants with emphasis on the origin and evolution of the Oklahoma flora. Laboratory activities stress identification skills, terminology, field techniques, and family recognition for the flora of Oklahoma. Field trips. Laboratory. No student may earn credit for both 4534 and 5534. (Irreg.)

BIOL 4553 Wetlands Ecology
(Slashlisted with BIOL 5553) Prerequisite: Two college science courses that include a laboratory, one of which should be in biological sciences or permission of UOBS Director. Comprehensive field-based examination of wetland science and management. Biological, physical, chemical, and hydrological aspects of wetland ecosystem structure and function are explored through visits to several field sites. Major wetland types and resources are examined and the biogeochemical and ecological diversity of wetland waters, soils, vegetation, and fauna is investigated. Laboratory. No student may earn credit for both 4553 and 5553. (Su)
BIOL 4573 Conservation Genetics 3 Credit Hours Prerequisite: 3333 or permission of the instructor. This lecture/discussion course will examine the use of population genetic/ecological genetic principles in the study and management of populations of threatened and/or endangered species. No student may earn credit for both 4573 and 5573. (Sp)
BIOL 4633 Ecology and Evolution of Infectious Diseases 3 Credit Hours (Slashlisted with BIOL 5633) Prerequisite: Junior standing, and a course on foundations of ecology and evolution is strongly recommended. Basic biological principles in how parasites are transmitted in natural populations, coevolution of hosts and parasites, and how novel parasites emerge and impact their host populations, including zoonotic parasites. No student may earn credit for both 4633 and 5633. (Sp)

## BIOL G4653 Parasitology

3 Credit Hours
Prerequisite: BIOL 1124, or BIOL 1114 and BIOL 1121; and BIOL 1134. Parasitology is an introduction to the biological relationships known as parasitism. Although there are many different types of parasites, this course will focus on primarily protozoan and helminthes parasites that cause disease in humans and domestic animals. Field trips. Laboratory. (Sp)
BIOL 4663 Advanced Limnology
3 Credit Hours
(Slashlisted with BIOL 5663) Prerequisite: BIOL 4423 or BIOL 5423, or BIOL 4463, or permission of instructor; May be repeated with change of content, maximum credit 6 hours. Detailed study of fundamental or contemporary topics within limnology, such as biogeochemistry, nutrient cycling, ecological stoichiometry, biodiversity, and predatory-prey and food-web dynamics in aquatic communities. No student may earn credit for both 4663 and 5663. (Sp)

BIOL 4673 Microbiomes: Health \& Disease 3 Credit Hours
(Slashlisted with BIOL 5673) Prerequisite: Senior standing; BIOL 3812 and BIOL 3813 and CHEM 3013 or CHEM 3053, or permission of instructor. Introduces students to the modern-day characterization of microbiomes, from initial sequence information to the living organisms that make up these complex communities. Students will become familiar with the role microbiomes play in health and disease processes in addition to their role in personalized medicine. No student may earn credit for both 4673 and 5673. (Irreg.)

## BIOL 4703 Basic Virology

3 Credit Hours
Prerequisite: BIOL 3813 and CHEM 3653 or BIOL 4843, or permission of instructor. Introduction to the principles of viruses that infect animals, plants and bacteria. Topics will include viral structural and taxonomy, virus replication and disease pathogenesis, methods of viral detection and diagnosis, host resistance to viral infections, viruses and cancer and the used of viruses in gene therapy and vaccine applications. (Sp)

BIOL 4733 Microbial Genetics 3 Credit Hours
(Slashlisted with BIOL 5733) Prerequisite: BIOL 4843 or permission of instructor. Microbial genetics underlies important topics such as antibiotic resistance, genetic engineering, drug development, and many biotechnological advances. Explores the interesting world of microbial genetics by discussing molecular genetic methods and related aspects of bacterial and archaeal biology. Examples will include both traditional and recently developed microbial model systems. No student may earn credit for both 4733 and 5733. (Sp)
BIOL 4743 Case Studies in Medical Microbiology 3 Credit Hours Prerequisite: BIOL 3813; BIOL 4823 or concurrent enrollment; or instructor permission. Provides in-depth knowledge of infectious diseases utilizing an inquiry-based format. Case studies will be discussed in the context of patient symptoms as well as molecular- and culture-based test results. Case studies from standard textbooks and clinical microbiology journals will be utilized. Students will gain experience in identifying causative agents of numerous infections. Ideal course for pre-dental, pre-medical and pre-pharmacy students. (Irreg.)
BIOL 4753 Molecular Evolution and Phylogenetics 3 Credit Hours (Slashlisted with BIOL 5753) Prerequisite: BIOL 2013 or BIOL 3333 or permission of instructor. Theory and practice of inferring evolutionary history from molecular and morphological data. Applications of the phylogenetic approach in systematics, comparative biology, molecular evolution, and genomics will be covered. (F even-numbered years) No student may earn credit for both 4753 and 5753.

## BIOL 4783 Introduction to Python Programming for Data

 Analytics
## 3 Credit Hours

(Slashlisted with BIOL 5783) Prerequisite: senior standing. This course will introduce students, who have no prior programming experience, to Python programming. It will cover data analysis and visualization methods in Python. Real-world examples will be used to teach general concepts in data analytics and practical coding skills in Python. No student may earn credit for both 4783 and 5783.
BIOL 4793 Microbial Genetics
3 Credit Hours
(Slashlisted with BIOL 5793) Prerequisite: BIOL 4843 or permission of instructor. Microbial genetics underlies important topics such as antibiotic resistance, genetic engineering, drug development, and many biotechnological advances. Explores the interesting world of microbial genetics by discussing molecular genetic methods and related aspects of bacterial and archaeal biology. Examples will include both traditional and recently developed microbial model systems. No student may earn credit for both 4793 and 5793. (Sp)

BIOL 4810 Special Topics

## 3 Credit Hours

0 to 3 hours. (Slashlisted with BIOL 5810) Prerequisite: BIOL 3812
and BIOL 3813, and permission of instructor. Topics will include newly developing areas of the discipline. Taught at an upper-division level based on previous course background. May be repeated with change of content, maximum credit 3 hours per semester, 9 hours total. No student may earn credit for both 4810 and 5810. (Irreg.)
BIOL G4813 Pathogenic Microbiology Laboratory 3 Credit Hours Prerequisite: BIOL 3812 and BIOL 3813. This course will focus primarily on bacterial species that cause disease in humans. Emphasis will be placed on the use of selective/differential media for pathogen isolation; the key diagnostic features of pathogenic bacteria and the application of rapid technologies for pathogen identification. Scientific papers will also be used to highlight the virulence properties of various pathogens. (F)

BIOL G4823 Pathogenic Microbiology and Infectious Disease 3 Credit
Prerequisite: BIOL 3812 and BIOL 3813. Introduces the basic methods for pathogenic microbiology and infectious disease epidemiology. Topics covered include definitions and nomenclature, outbreak investigations, disease surveillance, case-studies, laboratory diagnosis, immunology, molecular epidemiology, dynamics of transmission, and vaccine effectiveness. Emerging pathogens, their effects on society and the health care services will also be addressed. (F)
BIOL 4833 Neurobiology
3 Credit Hours
(Slashlisted with BIOL 5833) Prerequisite: permission of instructor. Advanced examination of cellular and behavioral neurobiology. Topics covered will include membrane biophysics, cellular neurobiology, neurophysiology, neuroanatomy, sensory processing, movement, and neurobiology of behavior. No student may earn credit for both 4833 and 5833. (F)

BIOL 4843 Molecular Biology
3 Credit Hours
(Slashlisted with BIOL 5843) Prerequisite: BIOL 1114 or BIOL 1124 or BIOL 1134, BIOL 3812 and BIOL 3813, and one course in Organic Chemistry (CHEM 3053 or CHEM 3064). Introduction to the characteristics and biological functions of nucleic acids and proteins in living cells with emphasis on nucleic acid replication, transcription, translation and regulation; also emphasis on the molecular aspects of microbial genetics transformation, transduction and conjugation; and emphasis on molecular immunology and genetic engineering/ recombinant DNA technology. No student may earn credit for both 4843 and 5843. ( $\mathrm{F}, \mathrm{Sp}$ )
BIOL G4853 Physiology of Microorganisms 3 Credit Hours
Prerequisite: BIOL 3812 and BIOL 3813 and one course in Organic Chemistry. Diversity, metabolism, energetics and physiology of microorganisms. (Sp)
BIOL 4863 Neural Control of Movement
3 Credit Hours
(Slashlisted with BIOL 5863) Prerequisite: BIOL 3103, or BIOL 3113, or BIOL 3833, or BIOL 4833, or BIOL 5833, or permission of instructor. Introduction to neural control of movement through reading and discussion of key original research articles from the 19th century to the present. Students lead discussions and write essays addressing a general question, utilizing data from the articles. Topics include localization of function, sensory vs. central contributions, roles of single neurons, effects of neuromodulators, and motor learning. No student may earn credit for both 4863 and 5863. (Sp)

## BIOL 4871 Current Topics in Neurobiology <br> 1 Credit Hour

(Slashlisted with BIOL 5871) Prerequisite: BIOL 3833 or permission of instructor; May be repeated with change of content, maximum credit three hours. A seminar course designed to develop a student's abilities to interpret and critically evaluate research in cellular and behavioral neurobiology. Involves both public seminars and journal club style discussions of contemporary literature. No student may earn credit for both 4871 and 5871. (F, Sp)
BIOL 4873 Diversity of Biological Sex Characteristics 3 Credit Hours (Slashlisted with BIOL 5873) Prerequisite: BIOL 1124 and BIOL 1134. This course explores the diverse biological sex characteristics of nonhuman animals and people. We examine the evolution of sexual reproduction, sex-determining mechanisms, and hermaphroditic, parthenogenetic, intersex, and multiple-gender animal species, followed by the biology of intersex and transgender people. Finally, we discuss human infant genital surgeries and participation in athletic competitions. No student may earn credit for both 4873 and 5873. (F)

BIOL G4883 Water Microbiology Laboratory 3 Credit Hours Prerequisite: BIOL 3812 and BIOL 3813 . Focuses on the causes and prevention of waterborne microbial diseases and the use of microorganisms to improve water quality. Topics include: waterborne diseases, detection of waterborne pathogens, epidemiology, indicator organisms, water quality standards, treatment of drinking water and sewage, and groundwater contamination. The laboratory provides training in the standard methods used to detect microbial contamination. (F)

BIOL 4893 Behavioral Neurobiology
3 Credit Hours
(Slashlisted with BIOL 5893) Prerequisite: BIOL 3103, or BIOL 3113, or BIOL 3833, or BIOL 4833, or BIOL 5833, or permission of instructor. Examines neurobiological mechanisms of natural animal behaviors (i.e. neuroethology), utilizing textbook and lectures as well as in-depth reading, discussion, and student presentation of original research articles. No student may earn credit for both 4893 and 5893. (F)
BIOL 4903 Topics in Virology
3 Credit Hours
(Slashlisted with BIOL 5903) Prerequisite: CHEM 3653 or BIOL 4843 or permission of instructor. Aspects related to selected RNA viruses, such as HIV/AIDS and polio virus, will be studied and discussed. Topics will include the molecular structure of RNA viruses, the mechanisms of viral assembly and replication, viral disease pathogenosis, host responses to viral infections, vaccine development, anti-viral and RNA interference (RNAi) therapeutics. No student may earn credit for both 4903 and 5903. (F)

BIOL G4913 Quantitative Biology
3 Credit Hours
Prerequisite: BIOL 1124, or BIOL 1114 and BIOL 1121; and BIOL 1134; Permission of instructor required. Techniques for complex data analysis and experimental design. (F)
BIOL 4943 Multivariate Analysis
3 Credit Hours
(Slashlisted with BIOL 5943) Prerequisite: BIOL 4913 or permission of instructor. An introduction to the concepts and underpinnings of multivariate statistics used commonly in the life sciences. It includes sections on regression, central tendency, data reduction, cluster analyses, and ordination and treats both parametric and non-parametric approaches. No student may earn credit for both 4943 and 5943. (Sp)

## BIOL 4953 BioWriting

3 Credit Hours
(Slashlisted with BIOL 5953; Crosslisted with MBIO and PBIO 4953) Prerequisite: permission of instructor. This course provides students engaged in research with the information and skills needed to effectively communicate as professional biologists. Students will learn to report the results of their own research in the format of a journal article, conferencestyle presentation, and poster. No student may earn credit for both 4953 and 5953. (Irreg.)
BIOL 4960 Directed Readings
1-4 Credit Hours
1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean; May be repeated, maximum credit four hours. Designed for upper-division students who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)
BIOL 4961 Undergraduate Seminar 1 Credit Hour
Prerequisite: Senior standing in Zoology/Biology or permission of department; May be repeated, maximum credit two hours. Survey of current research programs in environmental biology, cell biology, physiology, animal behavior and other fields presented in weekly public seminars by visiting and local experts in biology. (F, Sp)

BIOL 4970 Special Topics in Biology
3 Credit Hours
0 to 3 hours. Prerequisite: permission of instructor and department; May be repeated with change of content, maximum credit nine hours. Seminar or special topic course; may include laboratory or field work. No student may earn credit for 4970 and 5970 on the same topic. (F, Sp, Su)

## BIOL 4981 Current Topics in Disease Ecology

1 Credit Hour
(Slashlisted with BIOL 5981) Prerequisite: Junior standing. This seminar course will involve discussion of recent empirical and theoretical literature in the field of disease ecology and evolution. No student may earn credit for both 4981 and 5981. (F, Sp)

## BIOL 4983 Senior Seminar

3 Credit Hours
Prerequisite: BIOL major with senior standing, or permission. An
interdisciplinary approach will be used to synthesize ideas from the major fields of zoology. Readings and discussion will focus on contemporary social, ethical and economic issues. ( $F, S p$ ) [V].

## BIOL 4990 Independent Study <br> 1-3 Credit Hours

1 to 3 hours. Prerequisite: three courses in general area to be studied and permission of instructor and department; May be repeated, maximum credit six hours. Contracted independent study for topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (F, Sp, Su)

## BIOL 5023 Field Mammalogy

3 Credit Hours
(Slashlisted with BIOL 4023) Prerequisite: graduate standing and two college science courses that include a laboratory, one of which should be in biological sciences or permission of UOBS Director. Study of mammals with emphasis on principle of mammalian ecology, conservation, biodiversity, techniques of field study, and methods of collection and preservation. Topics include characteristics of mammals, classification, natural history, ecology, biodiversity, conservation, and techniques in field study. Emphasis is given to mammals of southern Oklahoma and northern Texas. No student may earn credit for both 4023 and 5023. Laboratory. (Su)

## BIOL 5063 Field Herpetology

3 Credit Hours
(Slashlisted with BIOL 4063) Prerequisite: graduate standing and two college science courses that include a laboratory, one of which should be in biological sciences or permission of UOBS Director. Overview of methods, techniques, and standards for the collection, management, and analysis of herpetological field data for various applications. Includes collection of amphibians and reptiles, and diagnostic (morphological, ecological, and behavioral) characteristics of species. Students design and complete individual projects that address current issues in biology and conservation in herpetology. No student may earn credit for both 4063 and 5063. Laboratory. (Su)
BIOL 5113 Cellular Pathology
3 Credit Hours
(Slashlisted with BIOL 4113) Prerequisite: Graduate standing and BIOL 3113 or permission of instructor. The course focus is on the molecular and cellular bases of disease and alterations in cellular process that lead to the development of various pathological conditions. Topics include symptoms of cellular disease, pathology of organelles, cell injury, cell death, immunopathology, neoplasia and genetic disorders. No student may earn credit for both 4113 and 5113. (F)

BIOL 5153 Endocrinology
3 Credit Hours
(Slashlisted with BIOL 4153) Prerequisite: Graduate standing and BIOL 3103; BIOL 3113 also strongly recommended. Endocrinology covers the structure and function of endocrine glands and the mechanisms of hormone action. Coverage of the endocrine glands includes biosynthesis of hormones, control and secretion of hormones, physiological, morphological, and behavioral actions of hormones, as well as a review of common endocrine disorders and clinical conditions. No student may earn credit for both 4153 and 5153. (Sp)
BIOL 5233 Neurobiology of Disease
3 Credit Hours
(Slashlisted with BIOL 4233) Prerequisite: BIOL 4833 (preferred), or BIOL 3113 and BIOL 3333, or BIOL 2124 or BIOL 3103; or permission of the instructor. Cellular and molecular mechanisms underlying both normal neuronal function and neuronal disorders. Includes a review of basic concepts in neuroscience through traditional lectures, and reading and discussion of original research articles. Students are required to give oral presentations, write critiques and term papers, and present research posters. No student may earn credit for both 4233 and 5233. (F)
BIOL 5353 Molecular Tech-Field Biology
3 Credit Hours
(Slashlisted with BIOL 4353) Prerequisite: Graduate standing and permission of instructor. Selected protocols and data interpretation using molecular techniques to study protein and DNA variation in natural populations and the application of molecular techniques to research problems in ecology, systematics, animal behavior, conservation biology, and related areas. Graduate students enrolled in 5353 will have additional project expectations and written work. Taught at the OU Biological Station. Field trips. Laboratory No student may earn credit for both 4353 and 5353. (Su)
BIOL 5364 Transmissn Electron Microscopy
4 Credit Hours (Crosslisted with PBIO and MBIO 5364) Prerequisite: Graduate standing and permission of instructor. Introduction to the theory of transmission electron microscopy and practical instruction in specimen preparation, ultramicrotomy, instrument operation, photography and quantitative methods. Laboratory. (F)
BIOL 5374 Scanning Electron Microscopy
4 Credit Hours
(Crosslisted with PBIO and MBIO 5374) Prerequisite: basic chemistry; basic physics; demonstrated need; graduate standing and permission of instructor. Principles of scanning electron microscopy are combined with training in the operation of the SEM and ancillary equipment. Students will be certified in the operation of all equipment. Sample preparationon a variety of samples and darkroom procedures will be performed. Independent project with oral report and poster required. Laboratory (Irreg.)
BIOL 5394 Advanced Light Microscopy
4 Credit Hours
(Crosslisted with MBIO and PBIO 5394) Prerequisite: permission of instructor and graduate standing. Focuses on theory and techniques in light microscopy covering principles including confocal laser scanning microscopy, multiple photon imaging, FLIM/FCS, FRET, fluorescence microscopy, phase contrast, DIC, 3D rendering, and other advanced optical technologies. Also includes a lab section where students will learn to use advanced epifluorescence and confocal microscopes. (F)
BIOL 5403 Population Ecology
3 Credit Hours
Prerequisite: graduate standing. History, demography, environmental factors, density-dependent factors, genetics and population ecology, theories of population and community organization (ideas of Elton, Williams, Preston, MacArthur, Smith, Hairston, and Slodbodkin). No laboratory. Offered Sp of even-numbered years. (Irreg.)

BIOL 5413 Community Ecology
Prerequisite: Graduate standing, BIOL 3403 and MATH 1743 or 1823, or permission. Theoretical and empirical study of the structure and organization of natural communities. Topics include competition, predation, disturbance, abiotic gradients, species equilibria.

## BIOL 5423 Stream Ecology

3 Credit Hours
Prerequisite: graduate standing or permission of instructor. A combined lecture/laboratory course that focuses on the physical, chemical, and biological features of stream ecosystems, including current theories explaining species interactions and stream function. Course requirements/evaluation including a midterm and final examination, individual research papers and presentations, participation in group laboratory and field experiments, and reading and discussing the primary literature. Field trips. Laboratory. Offered Fa of odd-numbered years. (Irreg.)
BIOL 5453 Advanced Ecology/Evol Biology
3 Credit Hours
(Crosslisted with PBIO 5453) Prerequisite: Graduate standing and BIOL 3403. Required for students in the ecology and evolutionary biology doctoral program. An introduction to current research opportunities and research programs in ecology and evolutionary biology at the University of Oklahoma. Specific topics and lecturers will vary from week to week to give students a broad overview of ongoing research projects. (F)
BIOL 5471 Seminar in Ecology \& Evolutionary Biology 1 Credit Hour (Crosslisted with PBIO and MBIO 5471) Prerequisite: graduate standing; May be repeated, maximum credit 2 hours. Two semesters of enrollment are required for students in the ecology and evolutionary biology doctoral program. An intensive, student-based seminar in which students present both proposals and ongoing progress reports on doctoral level research projects in ecology and evolutionary biology. (F, Sp)
BIOL 5483 Physiological Plant Ecology
3 Credit Hours
(Slashlisted with BIOL 4483) Prerequisite: graduate standing; BIOL 3453 or BIOL 4115 , or permission of instructor. Study of energy budgets, plant water relations, carbon uptake and release, nutrient uptake and availability, and other factors as they affect plant growth, competition and other ecosystem-level factors. In-depth analysis of current literature. (F, even-numbered years). No student may earn credit for both 4483 and 5483.

## BIOL 5523 Biogeography and Macroecology

3 Credit Hours
(Slashlisted with BIOL 4523) Prerequisite: Graduate standing and BIOL 3013, or Permission of Instructor. This course will explore the causes and consequences of the geographic distribution of life on Earth. We will discuss the processes which shape individual species distributions, why some regions host more species than others, and how the evolution of biodiversity is tied to the history and geography of Earth itself. No student may earn credit for both 4523 and 5523. (F)

BIOL 5534 Plant Systematics
4 Credit Hours
(Slashlisted with BIOL 4534) Prerequisite: graduate standing. Introduction to the evolution and identification of vascular plants with emphasis on the origin and evolution of the Oklahoma flora. Laboratory activities stress identification skills, terminology, field techniques, and family recognition for the flora of Oklahoma. Field trips. Laboratory. No student may earn credit for both 4534 and 5534. (Irreg.)

BIOL 5553 Wetlands Ecology
3 Credit Hours
(Slashlisted with BIOL 4553) Prerequisite: graduate standing and two college science courses that include a laboratory, one of which should be in biological sciences or permission of UOBS Director. Comprehensive field-based examination of wetland science and management. Biological, physical, chemical, and hydrological aspects of wetland ecosystem structure and function are explored through visits to several field sites. Major wetland types and resources are examined and the biogeochemical and ecological diversity of wetland waters, soils, vegetation, and fauna is investigated. No student may earn credit for both 4553 and 5553. Laboratory. (Su)
BIOL 5573 Conservation Genetics
3 Credit Hours
Prerequisite: Graduate standing and BIOL 3333 or permission of the instructor. This lecture/discussion course will examine the use of population genetic/ecological genetic principles in the study and management of populations of threatened and/or endangered species. (Sp)
BIOL 5633 Ecology and Evolution of Infectious Diseases 3 Credit Hours (Slashlisted with BIOL 4633) Prerequisite: Graduate standing; a course on foundations of ecology and evolution is strongly recommended. Basic biological principles in how parasites are transmitted in natural populations, coevolution of hosts and parasites, and how novel parasites emerge and impact their host populations, including zoonotic parasites. No student may earn credit for both 4633 and 5633. (Sp)
BIOL 5663 Advanced Limnology 3 Credit Hours
(Slashlisted with BIOL 5663) Prerequisite: 4423 or 5423 , or 4463 and 4471, or permission of instructor; May be repeated with change of content, maximum credit 6 hours. Detailed study of fundamental or contemporary topics within limnology, such as biogeochemistry, nutrient cycling, ecological stoichiometry, biodiversity, and predator-prey and foodweb dynamics in aquatic communities. No student may earn credit for both 4663 and 5663. (Sp)
BIOL 5673 Microbiomes: Health \& Disease
3 Credit Hours
(Slashlisted with BIOL 4673) Prerequisite: graduate standing; and BIOL 3812 and BIOL 3813 and CHEM 3013 or CHEM 3053; or permission of instructor. Introduces students to the modern-day characterization of microbiomes, from initial sequence information to the living organisms that make up these complex communities. Students will become familiar with the role microbiomes play in health and disease processes in addition to their role in personalized medicine. No student may earn credit for both 4673 and 5673. (Irreg.)

BIOL 5733 Microbial Genetics
3 Credit Hours
(Slashlisted with BIOL 4733) Prerequisite: graduate standing; BIOL 4843 or 5843 , or permission of instructor. Microbial genetics underlies important topics such as antibiotic resistance, genetic engineering, drug development, and many biotechnological advances. Explores the interesting world of microbial genetics by discussing molecular genetic methods and related aspects of bacterial and archaeal biology. Examples will include both traditional and recently developed microbial model systems. No student may earn credit for both 4733 and 5733. (Sp)
BIOL 5753 Molecular Evolution and Phylogenetics 3 Credit Hours (Slashlisted with BIOL 4753) Prerequisite: BIOL 2013 or BIOL 3333 or permission of instructor and graduate standing. Theory and practice of inferring evolutionary history from molecular and morphological data. Applications of the phylogenetic approach in systematics, comparative biology, molecular evolution, and genomics will be covered. Offered Fa of even-numbered years. No student may earn credit for both 4753 and 5753. (Irreg.)

## BIOL 5783 Introduction to Python Programming for Data Analytics

3 Credit Hours
(Slashlisted with BIOL 4783) Prerequisite: graduate standing. This course will introduce students, who have no prior programming experience, to Python programming. It will cover data analysis and visualization methods in Python. Real-world examples will be used to teach general concepts in data analytics and practical coding skills in Python. No student may earn credit for both 4783 and 5783. (F)

## BIOL 5793 Microbial Genetics

3 Credit Hours
(Slashlisted with BIOL 4793) Prerequisite: graduate standing; BIOL 4843 or 5843, or permission of instructor. Microbial genetics underlies important topics such as antibiotic resistance, genetic engineering, drug development, and many biotechnological advances. Explores the interesting world of microbial genetics by discussing molecular genetic methods and related aspects of bacterial and archaeal biology. Examples will include both traditional and recently developed microbial model systems. No student may earn credit for both 4793 and 5793. (Sp)

BIOL 5810 Special Topics 3 Credit Hours
0 to 3 hours. (Slashlisted with BIOL 4810) Prerequisite: graduate standing and permission of instructor; BIOL 3812 and BIOL 3813. Topics will include newly developing areas of the discipline. Taught at graduate level based on previous course background. May be repeated with change of content, maximum credit 3 hours per semester, 9 hours total. No student may earn credit for both 4810 and 5810. (Irreg.)

## BIOL 5833 Neurobiology

3 Credit Hours
(Slashlisted with BIOL 4833) Prerequisite: graduate standing or permission of instructor. Advanced examination of cellular and behavioral neurobiology. Topics covered will include membrane biophysics, cellular neurobiology, neurophysiology, neuroanatomy, sensory processing, movement, and neurobiology of behavior. No student may earn credit for both 4833 and 5833. (F)

BIOL 5843 Molecular Biology
3 Credit Hours
(Slashlisted with BIOL 4843) Prerequisite: graduate standing or permission of instructor. Introduction to the characteristics and biological functions of nucleic acids and proteins in living cells with emphasis on nucleic acid replication, transcription, translation and regulation; also emphasis on the molecular aspects of microbial genetics transformation, transduction and conjugation; and emphasis on molecular immunology and genetic engineering/recombinant DNA technology. No student may earn credit for both 4843 and 5843. (F, Sp)
BIOL 5863 Neural Control of Movement
3 Credit Hours
(Slashlisted with BIOL 4863) Prerequisite: Graduate standing and BIOL 3103 or BIOL 3113 or BIOL 4833/5833, or permission of instructor. Introduction to neural control of movement through reading and discussion of key original research articles from the 19th century to the present. Students lead discussions and write essays addressing a general question, utilizing data from the articles. Topics include localization of function, sensory vs. central contributions, roles of single neurons, effects of neuromodulators, and motor learning. No student may earn credit for both 4863 and 5863. (Sp)
BIOL 5871 Current Topics in Neurobiology 1 Credit Hour (Slashlisted with BIOL 4871) Prerequisite: Graduate standing and permission of the instructor; May be repeated, maximum credit three hours. A seminar course designed to develop a student's abilities to interpret and critically evaluate research in cellular and behavioral neurobiology. Involves both public seminars and journal club style discussions of contemporary literature. No student may earn credit for both 4871 and 5871 concurrently. No student may earn credit for both 4871 and 5871. (F, Sp)

BIOL 5873 Diversity of Biological Sex Characteristics 3 Credit Hours (Slashlisted with BIOL 4873) Prerequisite: Graduate standing. This course explores the diverse biological sex characteristics of nonhuman animals and people. We examine the evolution of sexual reproduction, sex-determining mechanisms, and hermaphroditic, parthenogenetic, intersex, and multiple-gender animal species, followed by the biology of intersex and transgender people. Finally, we discuss human infant genital surgeries and participation in athletic competitions. No student may earn credit for both 4873 and 5873. (F)

BIOL 5893 Behavioral Neurobiology
3 Credit Hours
(Slashlisted with BIOL 4893) Prerequisite: Graduate standing and BIOL 3103 or BIOL 3113 , or BIOL 4833/5833 or permission of instructor. Examines neurobiological mechanisms of natural animal behaviors (i.e., neuroethology), utilizing textbook and lectures as well as in-depth reading, discussion, and student presentation of original research articles. No student may earn credit for both 4893 and 5893. (F)

## BIOL 5903 Topics in Virology

3 Credit Hours
(Slashlisted with BIOL 4903) Prerequisite: graduate standing; and CHEM 3653 or BIOL 4843 or permission of instructor. Aspects related to selected RNA viruses, such as HIV/AIDS and polio virus, will be studied and discussed. Topics will include the molecular structure of RNA viruses, the mechanisms of viral assembly and replication, viral disease pathogenosis, host responses to viral infections, vaccine development, anti-viral and RNA interference (RNAi) therapeutics. No student may earn credit for both 4903 and 5903. No student may earn credit for both 4903 and 5903. (F)
BIOL 5923 Programming in R for Biology
3 Credit Hours
Prerequisite: graduate standing or permission of instructor. R is a data analysis and graphics platform that has become increasingly popular in the sciences because of its power and versatility. This course provides an introduction to programming using $R$ for applications in the biological sciences, with an emphasis on implementation. (F)
BIOL 5943 Multivariate Analysis
3 Credit Hours
(Slashlisted with BIOL 4943) Prerequisite: Graduate standing and BIOL 4913 or permission of instructor. Introduces the concepts and underpinnings of multivariate statistics used commonly in the life sciences. The following topics will be included: regression, central tendency, data reduction, cluster analyses, and ordination and treats both parametric and non-parametric approaches. No student may earn credit for both 4943 and 5943. (Sp)
BIOL 5953 BioWriting
3 Credit Hours
(Slashlisted with BIOL 4953; Crosslisted with MBIO and PBIO 5953) Prerequisite: Graduate standing and permission of instructor. This course provides students engaged in research with the information and skills needed to effectively communicate as professional biologists. Students will learn to report the results of their own research in the format of a journal article, conference-style presentation, and poster. Graduate students have additional assignments beyond those completed by undergraduates. No student may earn credit for both 4953 and 5953. (Irreg.)
BIOL 5960 Directed Readings
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing and permission of department; May be repeated, maximum credit twelve hours. Directed readings and/or literature reviews under the direction of a faculty member. (F, Sp, Su)

BIOL 5970 Special Topics in Biology
3 Credit Hours
0 to 3 hours. Prerequisite: Graduate standing and permission of instructor; May be repeated with change of topic, maximum credit 12 hours. Special topics course; may include laboratory or field work. No student may earn credit for 4970 and 5970 on the same topic. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

## BIOL 5980 Research for Master's Thesis

2-9 Credit Hours
2 to 9 hours. Prerequisite: Graduate standing. Variable enrollment, two to nine hours; maximum credit applicable toward degree, six hours. Laboratory (F, Sp, Su)
BIOL 5981 Current Topics in Disease Ecology
1 Credit Hour
(Slashlisted with BIOL 4981) Prerequisite: Graduate standing; May be repeated, maximum credit 9 hours. This seminar course will involve discussion of recent empirical and theoretical literature in the field of disease ecology and evolution. No student may earn credit for both 4981 and 5981. (F, Sp)
BIOL 5990 Independent Study
1-6 Credit Hours
1 to 6 hours. Prerequisite: Graduate standing and permission. May be repeated in different fields; maximum credit 12 hours. Directed readings. Written report required. No laboratory. (F, Sp, Su)

BIOL 6960 Directed Readings
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor; May be repeated, maximum credit six hours. Directed readings and/or literature review under the direction of a faculty member. (Irreg.)
BIOL 6970 Seminar 1-4 Credit Hours
1 to 4 hours. Prerequisite: graduate standing and permission of instructor; May be repeated, maximum credit 12 hours; no more than six hours may be in any one field. No laboratory. (F, Sp, Su)

BIOL 6980 Research for Doctoral Dissertation 2-16 Credit Hours 2 to 16 hours. Prerequisites: Graduate standing and permission of instructor; may be repeated. Directed research culminating in the completion of the doctoral dissertation. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
BIOL 6990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing and permission of instructor; May be repeated, maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)

MBIO 2124 Cornerstone Research Experience
4 Credit Hours
Prerequisite: permission of instructor. Hands-on course targeted toward freshmen and sophomores; therefore there are no prerequisite courses required. The goal is to provide students with an authentic laboratory research experience building and experimentally testing hypotheses, collection and processing of data, and oral and written presentation of research results. The skills learned in this course will be beneficial during and beyond an undergraduate career. ( $\mathrm{F}, \mathrm{Sp}$ ) [II-NS].
MBIO 2815 Introduction to Microbiology 5 Credit Hours Prerequisite: one course in college chemistry. Introduction to microorganisms as biological entities. Survey of the roles of microorganisms in the ecosystem. Application of microorganisms to industrial and environmental problems. Discussion of microorganisms as causes of human disease and response of hosts to microbial invasion. This course does not count for major credit in Microbiology or Botany. Laboratory (F, Sp, Su) [II-NSL] .

## MBIO 2970 Special Topics/Seminar

1-3 Credit Hours
1 to 3 hours. Prerequisite: Permission of instructor; May be repeated, maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

MBIO 3113 Cell Biology
3 Credit Hours
(Crosslisted with BOT and BIOL 3113) Prerequisite: Botany 1114, or Biology 1134, or Biology 1114 and 1121, or Biology 1124; and Chemistry 3053. Introduction to the cell as a unit of life. A chemical and physical comparison of procaryotic and eucaryotic cells to include a discussion of cell metabolism, types of metabolic regulation and an analysis of ultrastructure. Emphasis will be placed on the dynamic changes in metabolism and ultrastructure which occur during the life of a cell. (F, Sp)
MBIO 3440 Mentored Research Experience
3 Credit Hours
0 to 3 hours. Prerequisite: ENGL 1113 or equivalent, and permission of instructor; May be repeated, maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)

MBIO 3673 Practical Bioinformatics
3 Credit Hours
(Crosslisted with PBIO 3673) Prerequisite: MBIO 2815, or MBIO 3813, or PBIO 1114, or BIOL 1005, or BIOL 1114, or equivalent introductory biology course, and junior standing, or instructor permission. Study of the use of computers to analyze and interpret various types of biological data. Topics covered will include accessing genomics databases, aligning DNA and protein sequences, searching genomic databases for similar sequences, analyzing protein structure, and building molecular phylogenies. Classes will emphasize group work and in-class computer exercises in a highly interactive environment. (Sp)
MBIO 3812 Fundamentals of Microbiology Laboratory 2 Credit Hours Prerequisite: credit or concurrent enrollment in 3813 . Fundamental microbiological methods: aseptic technique, culture methods, microscopy, metabolic and physiological tests, bacterial isolation and identification, environmental microbiology. Laboratory ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
MBIO 3813 Fundamentals of Microbiology 3 Credit Hours Prerequisite: BIOL 1005 or BIOL 1114 or BIOL 1124 or BIOL 1134 or PBIO 1114; and CHEM 1315 and CHEM 1415, or CHEM 1335 and CHEM 1435. Cell structure and phylogeny of bacteria, archaea, and eukaryotic microorganisms; growth, metabolism and ecological roles; symbiotic relationships; gene expression, genetic exchange, genomics. (F, $\mathrm{Sp}, \mathrm{Su}$ )
MBIO 3960 Honors Reading

## 1-3 Credit Hours

1 to 3 hours. Prerequisite: admission to Honors Program; May be repeated, maximum credit six hours. Consists of topics designated by the instructor in keeping with the student's major program. The topics will cover materials not usually presented in the regular courses. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

## MBIO 3970 Honors Seminar

1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program; May be repeated, maximum credit six hours. Projects covered will vary. Deals with concepts not usually presented in regular coursework. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
MBIO 3980 Honors Research 1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program and departmental permission; May be repeated, maximum credit six hours. (F, $\mathrm{Sp}, \mathrm{Su}$ )
MBIO 3990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: one course in general area to be studied and permission of instructor and department; May be repeated, maximum credit six hours. Contracted independent study for topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (F, Sp, Su)

MBIO 4313 Biotechnology Applications
3 Credit Hours
(Crosslisted with PBIO 4313) Prerequisite: PBIO/BIOL 3113, or PBIO/ BIOL 3333, or PBIO/BIOL/MBIO 4843, or PBIO/MBIO 4873, or CHEM 3653, or permission of instructor. For students who possess a working knowledge of molecular biology. Focus on developing familiarity with methods used in biotechnology to address societal challenges. Students will put into practice central methods of biotechnology, gaining practical skills for use in future careers in laboratory science, particularly methods relevant to pharmaceutical production, agricultural improvement, bio-fuel production, and medical and forensic diagnostics, among others. (Sp)

MBIO 4630 MBIO Internship 1-6 Credit Hours
1 to 6 hours. (Crosslisted with PBIO 4630) Prerequisite: MBIO major; must have completed at least 30 hours; permission of instructor. This course is a planned hands-on work experience that will provide students with the opportunity to earn college credit while engaging in a valuable learning opportunity within the field of microbiology. Through an internship, students can explore microbiology-related career paths prior to graduation and apply the knowledge obtained from their MBIO coursework. (F, Sp, Su)
MBIO 4693 Environmental Sampling Methods
3 Credit Hours
(Slashlisted with MBIO 5693; Crosslisted with METR and PBIO 4693) Prerequisite: diverse STEM background; permission of instructor; senior standing. The course gives students from diverse STEM backgrounds experience and knowledge of environmental sampling techniques, analysis of data generated, and interpretation of results in a scientific field outside their primary area of study. The multi-disciplinary structure helps students develop an understanding of different sampling techniques based on assumptions and perspectives on the environment at different spatial scales. No student may earn credit for both 4693 and 5693. (Sp)

## MBIO 4783 Introduction to Python Programming for Data

Analytics
3 Credit Hours
(Slashlisted with MBIO 5783; Crosslisted with PBIO 4783) Prerequisite: Senior standing. This course will introduce students, who have no prior programming experience, to Python programming. It will cover data analysis and visualization methods in Python. Real-world examples will be used to teach general concepts in data analytics and practical coding skills in Python. No student may earn credit for both 4783 and 5783. (F)

## MBIO 4810 Special Topics 3 Credit Hours

0 to 3 hours. (Slashlisted with MBIO 5810) Prerequisite: two courses in Microbiology and permission of instructor; May be repeated with change of content, maximum credit three hours per semester, nine hours total. Topics will include newly developing areas of the discipline. Taught at an upper-division level based on previous course background. No student may earn credit for both 4810 and 5810. (Irreg.)

## MBIO G4813 Pathogenic Microbiology Laboratory 3 Credit Hours

MBIO G4823 Pathogenic Microbiology and Infectious Disease 3 Credit Hours
Prerequisite: MBIO 3812 and MBIO 3813. Introduces the basic methods for pathogenic microbiology and infectious disease epidemiology. Topics covered include definitions and nomenclature, outbreak investigations, disease surveillance, case-studies, laboratory diagnosis, immunology, molecular epidemiology, dynamics of transmission, and vaccine effectiveness. Emerging pathogens, their effects on society and the health care services will also be addressed. (F)

MBIO 4833 Basic Immunology
3 Credit Hours
Prerequisite: one semester of organic chemistry, and an introductory biology course, plus one of the following: 3813 and 3812 , Zoology $2124,3113,3204,3333$ or biochemistry or graduate standing and permission. Fundamentals of immunochemistry, cellular immunology, immunogenetics and clinical immunology. ( Sp )
MBIO 4843 Molecular Biology
3 Credit Hours
(Slashlisted with MBIO 5843; Crosslisted with PBIO and BIOL 4843) Prerequisite: MBIO 3812 and MBIO 3813, or Plant Biology 1114, or Biology 1114, or Biology 1124, or Biology 1134, and one course in organic chemistry. Introduction to the characteristics and biological functions of nucleic acids and proteins in living cells with emphasis on nucleic acid replication, transcription, translation and regulation; also emphasis on the molecular aspects of microbial genetics transformation, transduction and conjugation; and emphasis on molecular immunology and genetic engineering/recombinant DNA technology. No student may earn credit for both 4843 and 5843. ( $\mathrm{F}, \mathrm{Sp}$ )

MBIO G4853 Physiology of Microorganisms 3 Credit Hours Prerequisite: MBIO 3813, MBIO 3812 and a course in organic chemistry, or graduate standing. Diversity, metabolism, energetics and physiology of microorganisms. (Sp)
MBIO 4864 Geomicrobiology
4 Credit Hours
(Slashlisted with MBIO 5864) Prerequisite: 3813 or permission of instructor. Life below the earth's surface. Bacterial degradation of pollutants. Petroleum microbiology. Role of microorganisms in geochemical cycling of carbon, sulfur, and metals. No student may earn credit for both 4864 and 5864. (F) [II-NS] .

## MBIO 4873 Microbial Physiology and Molecular Biology

## Laboratory

3 Credit Hours
Prerequisite: MBIO 3812 and MBIO 3813. Current techniques to explore molecular aspects of gene expression and regulation. Experiments include: plasmid and phage propagation, nucleic acid purification, DNA and protein manipulation, and gene analysis. (F, Sp) [II-NSL].
MBIO G4883 Water Microbiology Laboratory 3 Credit Hours Prerequisite: MBIO 3812 and MBIO 3813. Focuses on the causes and prevention of waterborne microbial diseases and the use of microorganisms to improve water quality. Topics include: waterborne diseases, detection of waterborne pathogens, epidemiology, indicator organisms, water quality standards, treatment of drinking water and sewage, and groundwater contamination. The laboratory provides training in the standard methods used to detect microbial contamination. (F)

MBIO 4893 Capstone in Microbiology
3 Credit Hours
Prerequisite: three hours of calculus; 3813,3812 and corequisite or prerequisite 4843. Combines laboratory research experiences, primarily in the areas of microbial diversity, physiology, and genetics, with an introduction to how research in microbiology is carried out. Laboratory ( $F$, $\mathrm{Sp})$ [V] .
MBIO 4950 Senior Thesis - Capstone
1-6 Credit Hours 1 to 6 hours. Prerequisite: MBIO 3813 and permission of instructor; May be repeated for credit; maximum credit six hours. A minimum of six hours is required. This is a capstone course allowing students to carry out individual research projects under a faculty mentor. Students will present research results orally in a poster session, and by writing a senior thesis. Honors research credit may substitute for some or all of the senior thesis credit hours. (F, Sp, Su) [V].

MBIO 4960 Directed Readings
1-4 Credit Hours
1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean; May be repeated, maximum credit four hours. Designed for upper-division students who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)

MBIO 4970 Special Topics/Seminar 1-3 Credit Hours 1 to 3 hours. Prerequisite: Senior standing or permission of instructor; May be repeated, maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)
MBIO 4990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: three courses in general area to be studied and permission of instructor and department; May be repeated, maximum credit six hours. Contracted independent study for topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (F, Sp, Su)
MBIO 5364 Transmission Electron Microscopy

## 4 Credit Hours

(Crosslisted with PBIO and BIOL 5364) Prerequisite: permission. Introduction to the theory of transmission electron microscopy and practical instruction in specimen preparation, ultramicrotomy, instrument operation, photography and quantitative methods. Laboratory (F)

MBIO 5374 Scanning Electron Microscopy
4 Credit Hours
(Crosslisted with PBIO and BIOL 5374) Prerequisite: basic chemistry; basic physics; demonstrated need; graduate standing and permission of instructor. Principles of scanning electron microscopy combined with training in the operation of the SEM and ancillary equipment. Students will be certified in the operation of all equipment. Sample preparation on a variety of samples and darkroom procedures will be performed. Independent project with oral report and poster required. Laboratory .

## MBIO 5394 Advanced Light Microscopy

4 Credit Hours
(Crosslisted with BIOL and PBIO 5394) Prerequisite: permission of instructor and graduate standing; Corequisite: Lab section. Focuses on theory and techniques in light microscopy covering principles including confocal laser scanning microscopy, multiple photon imaging, FLIM/ FCS, FRET, fluorescence microscopy, phase contrast, DIC, 3D rendering, and other advanced optical technologies. Also includes a lab section where students will learn to use advanced epifluorescence and confocal microscopes. (F)
MBIO 5471 Seminar in Ecology \& Evolutionary Biology 1 Credit Hour (Crosslisted with PBIO and BIOL 5471) Prerequisite: graduate standing; May be repeated, maximum credit 2 hours. Two semesters of enrollment are required for students in the ecology and evolutionary biology doctoral program. An intensive, student-based seminar in which students present both proposals and ongoing progress reports on doctoral level research projects in ecology and evolutionary biology. (F, Sp)
MBIO 5620 Investigations in Microbiology 1-6 Credit Hours 1 to 6 hours. Prerequisite: 15 hours of microbiology or permission of instructor; May be repeated with change of subject matter, maximum nine hours for a Masters student and twelve hours for a Ph.D. student. Maximum of six hours allowed with one professor, unless approved by Department Chair by petition. Fields of study: environmental microbiology, immunology, industrial microbiology, medical microbiology, medical mycology, microbial ecology, microbial genetics, microbial physiology, ultra-structural morphology, virology and molecular biology. (F, Sp, Su)

MBIO 5693 Environmental Sampling Methods 3 Credit Hours
(Slashlisted with MBIO 4693; Crosslisted with METR and PBIO 5693) Prerequisite: Graduate standing and permission of instructor. The course gives students from diverse STEM backgrounds experience and knowledge of environmental sampling techniques, analysis of data generated, and interpretation of results in a scientific field outside their primary area of study. The multi-disciplinary structure helps students develop an understanding of different sampling techniques based on assumptions and perspectives on the environment at different spatial scales. No student may earn credit for both 4693 and 5693. (Sp)

MBIO 5821 Graduate Professional Development Seminar 1 Credit Hour (Crosslisted with PBIO 5821) Prerequisite: Graduate standing and permission of instructor. This course will cover various topics and involve activities that are targeted at helping graduate students succeed in their first year of study, while also providing an opportunity to build a sense of community with other incoming students. (F)
MBIO 5864 Geomicrobiology
4 Credit Hours
(Slashlisted with MBIO 4864) Prerequisite: 3813 or permission of instructor. Life below the earth's surface. Bacterial degradation of pollutants. Petroleum microbiology. Role of microorganisms in geochemical cycling of carbon, sulfur, and metals. No student may earn credit for both 4864 and 5864. (F)
MBIO 5953 BioWriting
3 Credit Hours
(Slashlisted with MBIO 4953; Crosslisted with BIOL and PBIO 5953) Prerequisite: permission of instructor. This course provides students engaged in research with the information and skills needed to effectively communicate as professional biologists. Students will learn to report the results of their own research in the format of a journal article, conferencestyle presentation, and poster. Graduate students have additional assignments beyond those completed by undergraduates. No student may earn credit for both 4953 and 5953. (Irreg.)

MBIO 5960 Directed Readings 1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing and permission of department. May be repeated; maximum credit twelve hours. Directed readings and/or literature reviews under the direction of a faculty member. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
MBIO 5970 Special Topics/Seminar 1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor; May be repeated, maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)
MBIO 5971 Seminar in Microbiology 1 Credit Hour (Crosslisted with PBIO 5971) Prerequisite: graduate standing, permission of instructor. Required of all graduate students in microbiology. May be repeated; maximum credit two hours for the master's degree, three hours for the doctor's degree. Topics are selected from various areas of microbiology, and each student is called upon for discussion or formal presentations. No laboratory. (F, Sp)
MBIO 5980 Research for Master's Thesis
2-9 Credit Hours
2 to 9 hours. Variable enrollment, two to nine hours; maximum credit applicable toward degree, six hours. (F, Sp, Su)
MBIO 5990 Special Studies in Microbiology
1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing, 15 hours of microbiology, permission of instructor; May be repeated, Maximum credit of six hours with one professor, unless approved by Department Chair by petition. The student selects an area in which the student desires to read intensively, selects a staff member who is an authority in that field, and together they plan a program for investigation of the literature. (F, Sp, Su)

MBIO 6960 Directed Readings
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor; May be repeated, maximum credit six hours. Directed readings and/or literature review under the direction of a faculty member. (Irreg.)
MBIO 6970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor; May be repeated, maximum credit 12 hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or research and field projects. (Irreg.)

MBIO 6980 Research for Doctoral Dissertation 2-16 Credit Hours 2 to 16 hours. Prerequisite: Graduate standing and permission of instructor; may be repeated. Directed research culminating in the completion of the doctoral dissertation. (F, Sp, Su)
MBIO 6990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing and permission of instructor; May be repeated, maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)

PBIO 1114 General Botany
4 Credit Hours
Previous course in chemistry (high school or college) recommended.
Fulfills Arts and Sciences' biological science requirement. Basic processes and structures in plants; their relation to factors in the environment; reproduction; heredity, heritable and nonheritable variations in plants and their causes and consequences are studied. Scientific procedures are acquired through application and discussion. Laboratory (F, Sp, Su) [II-NSL].
PBIO 2404 Ecology \& Environmntl Quality
4 Credit Hours
(Crosslisted with BIOL 2404) Prerequisite: sophomore standing. Study of ecological principles and their applications to human systems, study of population, air pollution, water pollution, energy issues, etc. Laboratory exercises focus on learning scientific methods of measurement of environmental quality factors. This course does not count for major credit in Plant Biology. Laboratory. (Sp) [II-NSL].
PBIO 2503 Plant Care and Cultivation
3 Credit Hours
Prerequisite: PBIO 1114, or Biology 1005, or Biology 1114, or Biology 1134, or any introductory college Biology course. Application of the principles of botany to the cultivation, propagation, and maintenance of plants grown in home environments. Particular attention is given to the effects of light, water, minerals, and soil factors on plant growth; seed and vegetative propagation; pest control; and proper conditions for cultivated plants. (F) [II-NS].
PBIO 3113 Cell Biology
3 Credit Hours
(Crosslisted with MBIO and BIOL 3113) Prerequisite: 1114, or Biology 1134, or Biology 1114 and 1121, or Biology 1124; and Chemistry 3053. Introduction to the cell as a unit of life. A chemical and physical comparison of procaryotic and eucaryotic cells to include a discussion of cell metabolism, types of metabolic regulation and an analysis of ultrastructure. Emphasis will be placed on the dynamic changes in metabolism and ultrastructure which occur during the life of a cell. (F, Sp)

PBIO $3163 \quad 3$ Credit Hours
Prerequisite:1114, or Biology 1134, or Biology 1005, or any introductory biology course. A survey of plants and plant products used in industry, drug plants and drugs, and especially food plants and food adjuncts. Origin of agriculture, domestication and evolution of crop plants, and uses of plants in different cultures are emphasized. (F) [IV-WC].

PBIO 3333 Genetics
3 Credit Hours
(Crosslisted with BIOL 3333) Prerequisite: eight hours of ZOO/BIOL and/ or PBIO and/or MBIO, or five hours of ZOO/BIOL or PBIO or MBIO and permission of instructor. Principles of inheritance at gene, chromosome and population levels; nature of the genetic material and its involvement in the determination of structure and function. No laboratory. $(\mathrm{F}, \mathrm{Sp})$
PBIO 3440 Mentored Research Experience 3 Credit Hours 0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)
PBIO 3451 Methods in Plant Ecology
1 Credit Hour
Prerequisite: Corequisite: PBIO 3453. Methodology in plant physiological, population, community and ecosystem ecology will be covered. Emphasis will be on actual field or laboratory experience and the applicability of these methods to other areas of ecology. Laboratory. (F)

PBIO 3453 Principles of Plant Ecology
3 Credit Hours
Prerequisite: PBIO 1114 or BIOL 1134. Introduction to physiological, population and community ecology. Emphasis is placed on environmental factors, disturbance and succession and how these factors affect species diversity and landscape patterns. One field trip. (F)
PBIO 3673 Practical Bioinformatics
3 Credit Hours
(Crosslisted with MBIO 3673) Prerequisite: PBIO 1114, or MBIO 2815, or MBIO 3813, or BIOL 1005, or BIOL 1114, or equivalent introductory biology course, and junior standing, or instructor permission. Study of the use of computers to analyze and interpret various types of biological data. Topics covered will include accessing genomics databases, aligning DNA and protein sequences, searching genomic databases for similar sequences, analyzing protein structure, and building molecular phylogenies. Classes will emphasize group work and in-class computer exercises in a highly interactive environment. (Sp)
PBIO 3960 Honors Reading (HONORS) 1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. (F, Sp, Su)
PBIO 3970 Honors Seminar 1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program; May be repeated; maximum credit six hours. Subjects covered vary. Deals with concepts not usually treated in regular courses.
PBIO 3980 Honors Research (HONORS)
1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program; May be repeated; maximum credit six hours. Provides an opportunity for the gifted Honors candidate to work on a special project in the student's field. (F, Sp, Su)
PBIO 3990 Independent Study

## 1-3 Credit Hours

1 to 3 hours. Prerequisite: one course in general area to be studied; permission of instructor and department; May be repeated; maximum credit six hours. Contracted independent study for topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (F, Sp, Su)

PBIO G4114 Principles of Plant Physiology 4 Credit Hours
Prerequisite: PBIO 1114 and CHEM 3053 or permission of instructor. Plant Physiology is the study of how plants grow and develop, respond to biotic and abiotic factors in their environments, convert solar energy to chemical energy, and generally how plants go about their business. Modern plant physiology is a fairly all-inclusive discipline and incorporates plant anatomy and morphology, biochemistry, genetics, molecular biology, etc. Laboratory. (F)
PBIO G4283 Plant Anatomy
3 Credit Hours
Prerequisite: seven hours in biology or permission of instructor. The structure and development of the organs of vascular plants as revealed by observations of representative living and prepared specimens. Theories concerning the evolution of organs and internal structure. (Sp odd-numbered years)
PBIO 4313 Biotechnology Applications
3 Credit Hours
(Crosslisted with MBIO 4313) Prerequisite: PBIO/BIOL 3113 or PBIO/ BIOL 3333 or PBIO/MBIO/BIOL 4843 or PBIO/MBIO 4873 or Chemistry 3653 or permission of instructor. For students who possess a working knowledge of molecular biology. Focus on developing familiarity with methods used in biotechnology to address societal challenges. Students will put into practice central methods of biotechnology, gaining practical skills for use in future careers in laboratory science, particularly methods relevant to pharmaceutical production, agricultural improvement, bio-fuel production, and medical and forensic diagnostics, among others. (Sp)

## PBIO 4334 Horticulture

4 Credit Hours
Prerequisite: PBIO 1114 and BIOL 1134, or permission of the instructor. Application of botanical principles to the cultivation, propagation, and maintenance of plants. Attention is given to the evolutionary history of the plants and their needs in cultivation. Lab activities cover growth and propagation of plants in a greenhouse environment, constructing and testing hypotheses for how plant growth is affected by different conditions, and using R to examine resulting data. Laboratory. (Irreg.)
PBIO 4534 Plant Systematics
4 Credit Hours
(Slashlisted with PBIO 5534) Prerequisite: PBIO 1114 and BIOL 1134 or permission of the instructor. Introduction to the evolution and identification of vascular plants with emphasis on the origin and evolution of the Oklahoma flora. Laboratory activities stress identification skills, terminology, field techniques, and family recognition for the flora of Oklahoma. Field trips. Laboratory. No student may earn credit for both 4534 and 5534. (Irreg.)
PBIO 4630 PBIO Internship
1-6 Credit Hours
1 to 6 hours. (Crosslisted with MBIO 4630) Prerequisite: PBIO major; must have completed at least 30 hours; permission of instructor. This course is a planned hands-on work experience that will provide students with the opportunity to earn college credit while engaging in a valuable learning opportunity within the field of plant biology. Through an internship, students can explore plant biology career paths prior to graduation and apply the knowledge obtained from their PBIO coursework. (F, Sp, Su)

## PBIO 4693 Environmental Sampling Methods

3 Credit Hours
(Slashlisted with PBIO 5693; Crosslisted with METR and MBIO 4693) Prerequisite: diverse STEM background; permission of instructor; senior standing. The course gives students from diverse STEM backgrounds experience and knowledge of environmental sampling techniques, analysis of data generated, and interpretation of results in a scientific field outside their primary area of study. The multi-disciplinary structure helps students develop an understanding of different sampling techniques based on assumptions and perspectives on the environment at different spatial scales. No student may earn credit for both 4693 and 5693. (Sp)

PBIO 4733 Environmental Remote Sensing
3 Credit Hours
(Slashlisted with PBIO 5733; Crosslisted with GIS 4733) Prerequisite: either a course or hands-on experience in remote sensing, GIS, statistical analysis, computer programming, or permission of the instructor and adviser. Course develops comprehensive knowledge and advanced skills of remote sensing, to apply to the study of the structure, composition, and functions of vegetation, landscapes, and the biosphere. Students will learn hyperspectral data acquisition and analysis; field survey methods; land cover classification from multiple sensors, time series data; and estimation of biophysical and biochemical parameters. Includes image processing software and algorithms. No student may earn credit for both 4733 and 5733. (Sp)

## PBIO 4783 Introduction to Python Programming for Data

Analytics
3 Credit Hours
(Slashlisted with PBIO 5783; Crosslisted with MBIO 4783) Prerequisite: Senior standing. This course will introduce students, who have no prior programming experience, to Python programming. It will cover data analysis and visualization methods in Python. Real-world examples will be used to teach general concepts in data analytics and practical coding skills in Python. No student may earn credit for both 4783 and 5783. (F)
PBIO 4843 Molecular Biology
3 Credit Hours
(Slashlisted with PBIO 5843; Crosslisted with MBIO and BIOL 4843) Prerequisite: MBIO 3812 and MBIO 3813, or Plant Biology 1114, or Biology 1114, or Biology 1124, or Biology 1134, and one course in organic chemistry. Introduction to the characteristics and biological functions of nucleic acids and proteins in living cells with emphasis on nucleic acid replication, transcription, translation and regulation; also emphasis on the molecular aspects of microbial genetics transformation, transduction and conjugation; and emphasis on molecular immunology and genetic engineering/recombinant DNA technology. No student may earn credit for both 4843 and 5843. ( $\mathrm{F}, \mathrm{Sp}$ )
PBIO 4960 Directed Readings 1-4 Credit Hours
1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean; May be repeated; maximum credit four hours. Designed for upper-division students who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)
PBIO 4970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: Senior standing or permission of instructor; May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

## PBIO 4983 Senior Capstone: Plant Biol

3 Credit Hours
Prerequisite: Majors only, 12 hours of botany and senior standing. Interdisciplinary approach to synthesize ideas from the major areas of botany. Readings, research and discussions on the important issues in botany at the present and into the next century. A major written assignment required. [V].
PBIO 4990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: three courses in general area to be studied, permission of instructor and department; May be repeated; maximum credit six hours. Contracted independent study for topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (F, Sp, Su)
PBIO 5364 Transmis Electron Microscopy
4 Credit Hours
(Crosslisted with MBIO and ZOO 5364) Prerequisite: permission. Introduction to the theory of transmission electron microscopy and practical instruction in specimen preparation, ultramicrotomy, instrument operation, photography and quantitative methods. Laboratory (F)

PBIO 5374 Scanning Electron Microscopy
4 Credit Hours
(Crosslisted with MBIO and ZOO 5374) Prerequisite: basic chemistry; basic physics; demonstrated need; graduate standing and permission of instructor. Principles of scanning electron microscopy combined with training in the operation of the SEM and ancillary equipment. Students will be certified in the operation of all equipment. Sample preparation on a variety of samples and darkroom procedures will be performed. Independent project with oral report and poster required. Laboratory.
PBIO 5394 Advanced Light Microscopy
4 Credit Hours
(Slashlisted with PBIO 4394; Crosslisted with BIOL and MBIO 5394) Prerequisite: permission of instructor and graduate standing; Corequisite: Lab section. Focuses on theory and techniques in light microscopy covering principles including confocal laser scanning microscopy, multiple photon imaging, FLIM/FCS, FRET, fluorescence microscopy, phase contrast, DIC, 3D rendering, and other advanced optical technologies. Also includes a lab section where students will learn to use advanced epifluorescence and confocal microscopes. No student may earn credit for both 4394 and 5394. (F)
PBIO 5453 Advanced Ecology/Evolut Biol
3 Credit Hours
(Crosslisted with BIOL 5453) Prerequisite: Graduate standing, general ecology. Required for students in the ecology and evolutionary biology doctoral program. An introduction to current research opportunities and research programs in ecology and evolutionary biology at the University of Oklahoma. Specific topics and lecturers will vary from week to week to give students a broad overview of ongoing research projects. (F)
PBIO 5471 Seminar in Ecology \& Evolutionary Biology 1 Credit Hour (Crosslisted with MBIO and BIOL 5471) Prerequisite: graduate standing; May be repeated, maximum credit 2 hours. Two semesters of enrollment are required for students in the ecology and evolutionary biology doctoral program. An intensive, student-based seminar in which students present both proposals and ongoing progress reports on doctoral level research projects in ecology and evolutionary biology. (F, Sp)
PBIO 5620 Investigations in Botany
1-6 Credit Hours
1 to 6 hours. Prerequisite: 15 hours of BOT/PBIO and permission of instructor; May be repeated, maximum of nine hours for a masters student and twelve hours for Ph.D. student. Only six hours allowed with one professor, unless approved by Department Chair by petition. Fields: Ecology, morphology, physiology, systematics, mycology, anatomy, electron microscopy, plant molecular biology. (F, Sp, Su)
PBIO 5693 Environmental Sampling Methods 3 Credit Hours (Slashlisted with PBIO 4693; Crosslisted with MBIO and METR 5693) Prerequisite: Graduate standing and permission of instructor. The course gives students from diverse STEM backgrounds experience and knowledge of environmental sampling techniques, analysis of data generated, and interpretation of results in a scientific field outside their primary area of study. The multi-disciplinary structure helps students develop an understanding of different sampling techniques based on assumptions and perspectives on the environment at different spatial scales. No student may earn credit for both 4693 and 5693. (Sp)

PBIO 5733 Environmental Remote Sensing
3 Credit Hours
(Slashlisted with PBIO 4733; Crosslisted with GIS 5733) Prerequisite: Graduate standing, and either a course or hands-on experience in remote sensing, GIS, statistical analysis, computer programming, or permission of the instructor and adviser. Course develops comprehensive knowledge and advanced skills of remote sensing, to apply to the study of the structure, composition, and functions of vegetation, landscapes, and the biosphere. Students will learn hyperspectral data acquisition and analysis; field survey methods; land cover classification from multiple sensors, time series data; and estimation of biophysical and biochemical parameters. Includes image processing software and algorithms. No student may earn credit for both 4733 and 5733. (Sp)

## PBIO 5810 Special Topics

1-3 Credit Hours
1 to 3 hours. (Slashlisted with PBIO 4810) Prerequisite: two courses in plant biology, graduate standing, and permission of instructor; May be repeated with change of content, maximum credit three hours per semester, nine hours total. 1 to 3 hours. Topics will include newly developing areas of the discipline. Taught at the graduate level based on previous course background. No student may earn credit for both 4810 and 5810 for the same content. No student may earn credit for both 4810 and 5810. (Irreg.)
PBIO 5821 Graduate Professional Development Seminar 1 Credit Hour (Crosslisted with MBIO 5821) Prerequisite: Graduate standing and permission of instructor. This course will cover various topics and involve activities that are targeted at helping graduate students succeed in their first year of study, while also providing an opportunity to build a sense of community with other incoming students. (F)

## PBIO 5953 BioWriting

3 Credit Hours
(Slashlisted with PBIO 4953; Crosslisted with BIOL and MBIO 5953) Prerequisite: permission of instructor. This course provides students engaged in research with the information and skills needed to effectively communicate as professional biologists. Students will learn to report the results of their own research in the format of a journal article, conferencestyle presentation, and poster. Graduate students have additional assignments beyond those completed by undergraduates. No student may earn credit for both 4953 and 5953. (Irreg.)
PBIO 5960 Directed Readings
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing and permission of department; May be repeated, maximum credit twelve hours. Directed readings and/or literature reviews under the direction of a faculty member. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

PBIO 5970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing or permission of instructor; May be repeated, maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

## PBIO 5971 Seminar in Botany

1 Credit Hour
(Crosslisted with MBIO 5971) Prerequisite: graduate standing, majors only, and permission of instructor. Required of all graduate students in botany. May be repeated; maximum credit two hours for the master's degree, three hours for the doctor's degree. Selected topics in botany. Each student is called upon for discussion or formal presentations. No laboratory. (F, Sp)
PBIO 5980 Research for Master's Thesis
2-9 Credit Hours
2 to 9 hours. Prerequisite: Graduate standing. Variable enrollment, two to nine hours; maximum credit applicable toward degree, six hours. Preparation of an original research paper in one of the fields of botany. (F, Sp, Su)

PBIO $5990 \quad$ Special Studies in Botany
1 to 3 hours. Prerequisite: Graduate standing, 15 hours of BOT/PBIO
and permission of instructor; May be repeated, maximum credit 12 and permission of instructor; May be repeated, maximum credit 12 hours, with a limit of six hours with one professor unless approved by Department Chair by petition. The student selects an area in which the student desires to read intensively, then selects a staff member who is an authority in that field and together they plan a program for investigation of the literature. (F, Sp, Su)
PBIO 6960 Directed Readings
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor; May be repeated, maximum credit six hours. Directed readings and/or literature review under the direction of a faculty member. (Irreg.)

## PBIO 6970 Special Topics/Seminar

1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor; May be repeated, maximum credit 12 hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or research and field projects. (Irreg.)
PBIO 6980 Research for Doctoral Dissertation 2-16 Credit Hours 2 to 16 hours. Prerequisite: Graduate standing and permission of instructor; may be repeated. Preparation of a research paper consisting of a notable contribution to knowledge in one of the fields of botany. (F, Sp, Su)

## PBIO 6990 Independent Study

1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing and permission of instructor; May be repeated, maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)

## Faculty

| Last Name | First/Middle <br> Name | Middle init. | OU <br> Service start | Title(s), date(s) appointed | Degrees Earned, Schools, Dates Completed |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Becker | Daniel | J | 2021 | ASSISTANT PROFESSOR OF BIOLOGY, 2021 | Ph.D., University of Georgia, 2017; Bard College, 2010 |
| Bentz | Alexandra |  | 2021 | ASSISTANT PROFESSOR OF BIOLOGY, 2021 | Ph.D., University of Georgia, 2017; M.S., Appalachian State University, 2012; B.A., Appalachian State University, 2010 |
| Bergey | Elizabeth | A | 2000 | ASSOCIATE <br> HERITAGE <br> ZOOLOGIST OF <br> OKLAHOMA <br> BIOLOGICAL SURVEY, <br> 2006; PROFESSOR <br> OF BIOLOGY, 2017 | Ph.D., University of California-Berkeley, 1992; M.S., Colorado State University, 1981, B.S., University of Oklahoma 1977 |
| Berkowitz | Robert | A | 1997 | PROFESSOR OF BIOLOGY, 2010; PRESIDENT'S ASSOCIATES PRESIDENTIAL PROFESSOR, 2015 | Ph.D., Washington University, 1993; A.B., University of Chicago, 1984 |


| Bridge | Eli | S | 2012 | ADJUNCT <br> ASSISTANT <br> PROFESSOR <br> OF BIOLOGY, <br> 2012; CHAIR, <br> INSTITUTIONAL <br> ANIMAL CARE AND <br> USE COMMITTEE, <br> 2016; ASSOCIATE <br> PROFESSOR <br> OF OKLAHOMA <br> BIOLOGICAL SURVEY, <br> 2017 | Ph.D., University of Minnesota, 2004; B.A., Westminster College, 1997 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Bright | Eric | G |  | INSTRUCTOR OF BIOLOGY | Ph.D., University of Oklahoma, 2015 |
| Broughton | Richard | E | 2000 | PROFESSOR OF <br> BIOLOGY, 2014; <br> PROFESSOR OF BIOLOGICAL SURVEY, 2014 | Ph.D., Arizona State University, 1995; M.S., University of California-Chico; B.S., University of California-Chico, 1987 |
| De Leon | Kara | B | 2019 | ASSISTANT PROFESSOR OF MICROBIOLOGY, 2019 | Ph.D., Montana State University, 2013; B.S., Northwest Nazarene University, 2006 |
| Dunn | Anne | K | 2007 | ASSOCIATE PROFESSOR OF MICROBIOLOGY AND PLANT BIOLOGY, 2013 | Ph.D., University of Wisconsin, 2002; B.S., Iowa State University, 1996 |
| Eberle | Jess | R |  | INSTRUCTOR IN BIOLOGY | M.S., University of Oklahoma, 2015 |
| Everman | Elizabeth |  | 2017 | ASSISTANT PROFESSOR OF BIOLOGY, 2017 | Ph.D., Kansas State University, 2017 |
| Fornelli | Luca |  | 2019 | ASSISTANT PROFESSOR OF BIOLOGY, 2019 | Ph.D., Ecole <br> Polytechnique <br> Federale de <br> Lausanne, <br> Switzerland, 2014 |
| Gibson | J. | Phil |  | PROFESSOR OF BIOLOGY; PROFESSOR OF BOTANY AND MICROBIOLOGY | Ph.D., University of Colorado, 1995; M.S., University of Georgia, 1990; B.S., Oklahoma State University, 1988 |
| Gordon | Cynthia | L | 2003 | DIRECTOR, <br> HUMAN ANATOMY <br> PROGRAMS, <br> 2010; ASSOCIATE <br> PROFESSOR OF <br> BIOLOGY, 2011 | Ph.D., University of Oklahoma, 2003; M.S., Murray State University, 1998; B.S., Ohio State University, 1989 |
| Hewes | Randall | S | 2001 | PROFESSOR OF BIOLOGY, 2015; ADJUNCT PROFESSOR OF CELL BIOLOGY, COLLEGE OF MEDICINE, 2015 | Ph.D., University of Washington, 1993; B.S., Carleton College, 1988 |
| Hung | Keng-Lou James |  | 2021 | ASSISTANT PROFESSOR OF BIOLOGY, 2021 | Ph.D., University of California-San Diego, 2017; B.A., Dartmouth College, 2010 |
| Ibberson | Carolyn |  | 2021 | ASSISTANT PROFESSOR OF MICROBIOLOGY, 2021 | Ph.D., University of Iowa, 2015; B.S., University of Wisconsin-Madison, 2010 |


| Karr | Elizabeth | A | 2007 | ASSOCIATE PROFESSOR OF MICROBIOLOGY AND PLANT BIOLOGY, 2014 | Ph.D., Southern Illinois University, 2003; B.S., Murray State University, 1999 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Kaspari | Michael | E | 1995 | PRESIDENT'S <br> ASSOCIATES <br> PRESIDENTIAL <br> PROFESSOR, 2008; <br> GEORGE LYNN <br> CROSS RESEARCH <br> PROFESSOR OF <br> BIOLOGY, 2013 | Ph.D., University of Arizona, 1992; M.S., University of Nebraska, 1985; B.S., University of Nebraska, 1983 |
| Kelly | Jeffrey | F | 2002 | PROFESSOR OF <br> BIOLOGY, 2014; <br> PROFESSOR <br> OF OKLAHOMA <br> BIOLOGICAL SURVEY, <br> 2014; CORIX <br> ENDOWED CHAIR <br> IN WATER AND <br> SUSTAINABILITY, <br> 2018; DIRECTOR, <br> CORIX PLAINS <br> INSTITUTE, 2018 | Ph.D., Colorado State University, 1996; M.S., Oklahoma State University, 1991; B.S., University of Maine, 1987 |
| Ketchum | Heather | R | 2005 | ASSOCIATE <br> PROFESSOR <br> OF BIOLOGY, <br> 2012; ADJUNCT <br> ASSOCIATE <br> PROFESSOR OF <br> LIBERAL STUDIES, <br> 2012; PRESIDENTIAL <br> TEACHING FELLOW OF HONORS, 2018 | Ph.D., Texas A\&M University, 2002; M.S., California Polytechnic, 1996; B.S., University of California-Riverside, 1993 |
| Klawinski | Paul |  | 2022 | DISTINGUISHED LECTURER, DEPARTMENT OF BIOLOGY, 2022 |  |
| Lanier | Hayley |  | 2017 | ASSISTANT <br> PROFESSOR OF BIOLOGY, 2017; ASSISTANT CURATOR OF SAM NOBLE OKLAHOMA MUSEUM OF NATURAL HISTORY, 2017 | Ph.D., University of Alaska, 2010; B.S., University of Kansas, 2004 |
| Lawson | Paul | A | 2005 | PROFESSOR OF MICROBIOLOGY AND PLANT BIOLOGY, 2013 | Ph.D., University of London, 1993; B.S., University of London, 1984 |
| Lee | Eric | M |  | ASSISTANT PROFESSOR OF BIOLOGY, 2014 | Ph.D., University of Oklahoma, 2014 |
| Lemon | Christian | H | 2013 | ASSOCIATE PROFESSOR OF BIOLOGY, 2016 | Ph.D., Binghamton University, 2001; M.A., Binghamton University, 1998; B.S., University of Oklahoma, 1994 |
| Markham | Michael | R | 2011 | ROBERT G. AND BETTY GALE CASE-HOOPER PROFESSOR IN BIOLOGY, 2011; ASSOCIATE PROFESSOR OF BIOLOGY, 2015; SAM K. VIERSEN | Ph.D., University of New Mexico, 1994; B.A., University of New Mexico, 1990 |


|  |  |  |  | FAMILY FOUNDATION PRESIDENTIAL PROFESSOR, 2018 |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Marske | Katharine |  | 2017 | ASSISTANT PROFESSOR OF BIOLOGY, 2017 | Ph.D., University of Auckland, 2010; M.S., Montana State University, 2004; B.S., Luther College, 2001 |
| Martin | Wendy | M |  | LECTURER, 2016 | Ph.D., University of Oklahoma, 2016; M.A., University of Oklahoma, 2011; M.S. Univ of Oklahoma, 1997, B.S. Southwestern Oklahoma State University, 1991 |
| Masly | John | P | 2010 | ASSOCIATE PROFESSOR OF BIOLOGY, 2016 | Ph.D., University of Rochester, 2007; M.S., University of Rochester, 2001; B.S., Pennsylvania State University, 1998 |
| McCarthy | Heather | R | 2011 | ASSOCIATE <br> PROFESSOR OF <br> MICROBIOLOGY AND <br> PLANT BIOLOGY, $2017$ | Ph.D., Duke University, 2007; B.S., Oregon State University, 2000 |
| McCauley | David | w | 2006 | ASSOCIATE PROFESSOR OF BIOLOGY, 2012 | Ph.D., University of Texas, 1997; B.S., University of North Carolina, 1990 |
| Meysick | Karen |  | 2009 | ASSISTANT <br> PROFESSOR OF <br> MICROBIOLOGY AND <br> PLANT BIOLOGY, <br> 2017 | Ph.D., University of Ottawa, 1996; M.S., University of Ottawa, 1990; B.S., University of Windsor, 1987 |
| Moore | Abigail | J | 2016 | CURATOR, BEBB HERBARIUM, <br> 2016; ASSISTANT <br> PROFESSOR <br> OF OKLAHOMA <br> BIOLOGICAL SURVEY, <br> 2016; ASSISTANT <br> PROFESSOR OF <br> MICROBIOLOGY AND <br> PLANT BIOLOGY, <br> 2016 | Ph.D., University of California-Berkeley, 2010; B.S., University of Utah, 2004 |
| Padash <br> Barmchi | Mojgan |  | 2018 | ASSISTANT PROFESSOR OF BIOLOGY, 2018 | Ph.D., Lund Universty, 2006 |
| Pan | Chongle |  | 2018 | ASSOCIATE PROFESSOR OF MICROBIOLOGY AND PLANT BIOLOGY AND COMPUTER SCIENCE, 2018 | Ph.D., University of Tennessee, 2006; B.S., East China Normal University, 2001 |
| Qin | Wei |  | 2021 | ASSISTANT PROFESSOR OF MICROBIOLOGY AND PLANT BIOLOGY, 2021 | Ph.D., University of Washington; B.S., Beijing Normal University |
| Ross | Jeremy | D | 2017 | ASSISTANT <br> PROFESSOR OF <br> THE OKLAHOMA <br> BIOLOGICAL SURVEY, $2017$ | Ph.D., Bowling Green State University, 2011; B.S., Brandon University, 2002 |


| Rowe | Ashlee | A | 2018 | ASSISTANT PROFESSOR OF BIOLOGY, 2018 | Ph.D., North Carolina State University, 2004 | Thompson | James | N | 1975 | SAMUEL <br> ROBERTS NOBLE PRESIDENTIAL | Ph.D., University of Cambridge, 1973; <br> B.A., University of |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Rowe | Matt |  |  | $\begin{aligned} & \text { PROFESSOR OF } \\ & \text { BIOLOGY } \end{aligned}$ | Ph.D., University of California-Davis, 1984; M.S., University of California- |  |  |  |  | PROFESSOR, 1996; <br> DAVID ROSS BOYD PROFESSOR OF BIOLOGY, 2001 | Oklahoma, 1968 |
|  |  |  |  |  | Davis, 1979; BS in Psychology, University of California at Davis, 1976 | Uno | Gordon | E | 1979 | DAVID ROSS BOYD PROFESSOR OF MICROBIOLOGY AND PLANT BIOLOGY, 2001 | Ph.D., University of California-Berkeley, 1979; B.A., University of Colorado, 1983 |
| Safiejko- <br> Mroczka | Barbara |  | 1989 | ASSOCIATE PROFESSOR OF BIOLOGY, 2009 | Ph.D., Technical University of Dgansk, 1987; M.S., Warsaw University, 1974; B.S., Warsaw University, 1974 | Vaughn | Caryn | C | 1994 | PRESIDENT'S ASSOCIATES PRESIDENTIAL PROFESSOR, 2005; PROFESSOR OF OKLAHOMA | Ph.D., University of Oklahoma, 1984; M.S., University of Oklahoma, 1979; B.S., University of Oklahoma, 1977 |
| SavageAshlock | Kristen | N | 2014 | LECTURER, 2014 | Ph.D., University of Oklahoma, 2009; B.S., University of Oklahoma, 2003 |  |  |  |  | BIOLOGICAL SURVEY, <br> 2007; PROFESSOR <br> OF BIOLOGY, 2007; <br> GEORGE LYNN |  |
| Schlupp | Ingo | B | 2005 | PROFESSOR OF <br> BIOLOGY, 2011; <br> BRIAN E. AND <br> SANDRA O'BRIEN <br> PRESIDENTIAL | Ph.D., Hamburg <br> University, 1995; <br> Diploma Biology, <br> Hamburg University, $1991$ |  |  |  |  | CROSS RESEARCH <br> PROFESSOR <br> OF OKLAHOMA <br> BIOLOGICAL SURVEY, $2016$ |  |
|  |  |  |  | PROFESSOR, 2012 |  | Vitiello | Seasson |  | 2021 | LECTURER, 2021 | D.D., University of |
| Schroeder | Susan | J | 2010 | ASSOCIATE <br> PROFESSOR OF MICROBIOLOGY AND | Ph.D., University of Rochester, 2002; B.S., University of |  | Phillips |  |  |  | Rochester, 2008, B.S., <br> Nazareth College, <br> 1999 |
|  |  |  |  | PLANT BIOLOGY; ASSOCIATE PROFESSOR OF CHEMISTRY AND | Rochester, 1995 | Weider | Lawrence | J | 1999 | PROFESSOR OF <br> BIOLOGY, 2005 | Ph.D., University of Illinois, 1984; B.S., St. Bonaventure University, 1978 |
|  |  |  |  | BIOCHEMISTRY |  | Wellborn | Gary | A | 1996 | PROFESSOR OF | Ph.D., University of |
| Shaw | Tarren | J |  | LECTURER, 2013 | Ph.D., Oklahoma State University, 2009 |  |  |  |  | BIOLOGY, 2015 | Michigan, 1993; M.S., University of Texas, |
| Siler | Cameron | D | 2013 | ASSOCIATE <br> PROFESSOR OF | Ph.D., University of Kansas, 2011; B.S., |  |  |  |  |  | 1987; B.S., University <br> of Texas, 1984 |
|  |  |  |  | BIOLOGY, 2018; <br> ASSOCIATE CURATOR, HERPETOLOGY, SAM | University of Texas, 2004 | Willis | Katie | L | 2017 | LECTURER, 2017 | Ph.D., University of Maryland, 2014; B.S., University of Oklahoma, 2008 |
|  |  |  |  | NOBLE OKLAHOMA MUSEUM OF NATURAL HISTORY, 2018 |  | Woodruff | Gavin |  | 2020 | ASSISTANT PROFESSOR OF BIOLOGY, 2020 | Ph.D., University of Maryland, 2013; B.S., Georgia State University, 2007 |
| Souza | Lara | A | 2012 | ASSOCIATE | Ph.D., University | Xiao | Xiangming |  | 2008 | PROFESSOR OF | Ph.D., Colorado State |
|  |  |  |  | PROFESSOR OF | of Tennessee, |  |  |  |  | MICROBIOLOGY AND | University, 1994; M.S., |
|  |  |  |  | MICROBIOLOGY AND | 2008; M.S., |  |  |  |  | PLANT BIOLOGY, | University of Science |
|  |  |  |  | PLANT BIOLOGY, | Appalachian State |  |  |  |  | 2008; DIRECTOR, | \& Technology, |
|  |  |  |  | 2018; ASSOCIATE | University, 2003; B.S., |  |  |  |  | CENTER FOR EARTH | 1987; B.S., Xiamen |
|  |  |  |  | PROFESSOR | Appalachian State |  |  |  |  | OBSERVATION | University, 1982 |
|  |  |  |  | OF OKLAHOMA | University, 1999 |  |  |  |  | AND MODELING, |  |
|  |  |  |  | BIOLOGICAL |  |  |  |  |  | 2020; ADJUNCT |  |
|  |  |  |  | SURVEY, 2018; |  |  |  |  |  | PROFESSOR OF |  |
|  |  |  |  | DISTINGUISHED |  |  |  |  |  | BIOLOGY, 2011; |  |
|  |  |  |  | FACULTY FELLOW, |  |  |  |  |  | GEORGE LYNN |  |
|  |  |  |  | OFFICE OF THE VICE |  |  |  |  |  | CROSS RESEARCH |  |
|  |  |  |  | PRESIDENT FOR |  |  |  |  |  | PROFESSOR OF |  |
|  |  |  |  | RESEARCH, 2016 |  |  |  |  |  | MICROBIOLOGY AND |  |
| Stein | Laura |  |  | ASSISTANT <br> PROFESSOR OF BIOLOGY | Ph.D. University of Illinois: UrbanaChampaign, 2015; B.S., University of Arizona, 2009 |  |  |  |  | PLANT BIOLOGY, 2018 |  |


| Zhou | Jizhong | 2005 | PRESIDENT'S | Ph.D., Washington |
| :---: | :---: | :---: | :---: | :---: |
|  |  |  | ASSOCIATES | State University, |
|  |  |  | PRESIDENTIAL | 1993; M.S., Hunan |
|  |  |  | PROFESSOR, | Agricultural |
|  |  |  | 2005; DIRECTOR, | University, 1984; B.S., |
|  |  |  | INSTITUTE OF | Hunan Agricultural |
|  |  |  | ENVIRONMENTAL | University, 1981 |
|  |  |  | GENOMICS, 2005; |  |
|  |  |  | GEORGE LYNN |  |
|  |  |  | CROSS RESEARCH |  |
|  |  |  | PROFESSOR OF |  |
|  |  |  | MICROBIOLOGY AND |  |
|  |  |  | PLANT BIOLOGY, |  |
|  |  |  | 2014 |  |

## Biology, B.S.

Minimum Total Credit Hours: 120
Major Hours: 33
Minimum Upper-Division Hours: 48

Overall GPA - Combined and OU: 2.00
Major GPA - Combined and OU: 2.00
Program Code: B105

## Major Requirements

- Some courses required for the major may also fulfill University General Education and/or Dodge College of Arts \& Sciences Requirements
- Thirty-six hours of major coursework must be completed,exclusive of BIOL 1003, BIOL 1005, BIOL 1013, BIOL 1114, BIOL 1121, BIOL 1203, BIOL 2103, BIOL 2124, BIOL 2234, and BIOL 2255.
- A grade of $C$ or better must be earned in each course counted for major and major support credit.

| Code | Title | Credit Hours |
| :---: | :---: | :---: |
| Biology |  |  |
| BIOL 1124 | Intro Biol: Molecule/Cell/Phys | 4 |
| BIOL 1134 | Introductory Biology: Evolution, Ecology and Diversity | 4 |
| BIOL 3013 | Evolution | 3 |
| BIOL 3333 | Genetics | 3 |
| Electives |  |  |
| Choose 16 hours ${ }^{1}$ |  | 16 |
| Statistics |  |  |
| Choose one of the | following: | 3 |
| PSY 2003 | Understanding Statistics |  |
| BIOL 2913 | Intro to Quantitative Biology |  |
| BIOL 4913 | Quantitative Biology |  |
| ECON 2843 | Elements of Statistics |  |

## Total Credit Hours

1 Electives - (16 hours) to be chosen in consultation with departmental advisor; must include two upper-division laboratory courses.
(Independent study, honors reading or honors research cannot count toward laboratory course requirements.)

## Major Support Requirements

| Code | Title | Credit <br> Hours |
| :---: | :---: | :---: |
| Chemistry |  |  |
| CHEM 1315 | General Chemistry | 5 |
| CHEM 1415 | General Chemistry (Continued) | 5 |
| CHEM 3053 | Organic Chemistry I: Biological Emphasis | 3 |
| CHEM 3152 | Organic Chemistry Laboratory. Biological Emphasis | 2 |
| CHEM 3153 <br> or CHEM 3653 | Organic Chemistry II: Biological Emphasis Introduction to Biochemistry | 3 |
| History of Science, Technology \& Medicine |  |  |
| Choose one of the following: |  | 3 |
| HSTM 3013 | History of Science to the Age of Newton |  |
| HSTM 3023 | History of Science Since the Seventeenth Century |  |
| An approved HSTM course chosen from the list maintained by the Department of Biology |  |  |
| Physics |  |  |
| Choose one of the following: |  | 8 |
| PHYS 2414 <br> \& PHYS 2424 | General Physics for Life Science Oriented Majors and General Physics for Life Science Oriented Majors |  |
| PHYS 2514 \& PHYS 2524 | General Physics for Engineering and Science Majors and General Physics for Engineering and Science Majors |  |
| Math |  |  |
| MATH 1743 | Calculus I for Business, Life and Social Sciences | 3 |
| or MATH 1823 Calculus and Analytic Geometry I |  |  |
| Total Credit Hours |  | 32 |
| ${ }^{1}$ Fulfills 1 of the 2 upper-division Gen Ed Humanities required by the College of Arts \& Sciences |  |  |
| General Education and College Requirements |  |  |
| Courses for fulfillment of General Education and Dodge College of Arts \& Sciences requirements must be from the approved General Education course list published in the Class Schedule or at http://www.ou.edu/ gened/courses. Courses graded P/NP will not apply. |  |  |
| UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS |  |  |
| Code | Title | Credit <br> Hours |
| Core Area I: Symbolic and Oral Communication |  |  |
| English Composition (6 hours) |  |  |
| ENGL 1113 | Principles of English Composition | 3 |
| $\begin{aligned} & \text { ENGL } 1213 \\ & \text { or EXPO } 1213 \end{aligned}$ | Principles of English Composition Expository Writing | 3 |
| Language (0-13 hours in the same language) |  |  |
| The college requirement cannot be met by high school coursework. |  |  |



## Free Electives

Electives to bring total applicable hours to the minimum total required for the degree including 48 upper-division hours.

## Information Concerning General Rules, Regulations and Minimum Requirements

Arts and Sciences Hours: At least 80 semester hours of liberal arts and sciences courses are required for a BA degree. At least 55 semester hours of liberal arts and sciences courses are required for a BS degree.
Pass/No Pass Enrollment: A maximum of 16 semester hours of free elective credit may be attempted under this option.
Individual Studies (e.g., courses titled "Independent Study"): A maximum of 12 total semester hours may be counted toward graduation, excluding Honors Reading and Honors Research.
P.E. Courses: No physical education activity courses will be counted toward the 120 semester hours of acceptable credit for graduation. Senior Institution Hours: A minimum of 60 semester hours applied toward graduation must be earned at senior (4-year) institutions. Residency:

- At least 15 of the final 30 hours applied toward the degree or at least 50 percent of the hours required by the institution in the major field must be satisfactorily completed at the awarding institution.
- At least 15 semester hours of upper-division major work must be completed in residence at OU.
- OU correspondence courses are not considered resident credit.

Grade Point Averages: Students must earn a minimum over all 2.00 for each of the following: Combined Retention GPA (all college grades), OU Retention GPA, GPA for all major courses, and GPA for all major courses taken at OU. Some schools and departments of the College have higher minimum grade point averages required for their students.

## Suggested Semester Plan of Study

This plan shows one possible grouping of courses that would allow students to graduate in four years. Please refer to the front of the degree checksheet for official requirements. Students must consult with Dodge College of Arts and Sciences and/or Department of Biology academic advisors to verify that courses selected each semester fulfill the recommended plan and satisfy University, College of Arts and Sciences, and Biology major requirements.

## Freshman

| First Semester |  | Credit |
| :---: | :---: | :---: |
|  |  | Hours |
| ENGL 1113 | Principles of English Composition (Core I) | 3 |
| HIST 1483 or HIST 1493 | United States to 1865 (Core IV) or United States, 1865 to the Present | 3 |
| MATH 1523 | Precalculus and Trigonometry (Core I) | 3 |
| BIOL 1124 | Intro Biol: Molecule/Cell/Phys | 4 |
| First Year Experience (Core V) |  | 3 |
|  | Credit Hours | 16 |
| Second Semester |  |  |
| CHEM 1315 | General Chemistry | 5 |
| $\begin{aligned} & \text { ENGL } 1213 \\ & \text { or EXPO } 1213 \end{aligned}$ | Principles of English Composition (Core I) or Expository Writing | 3 |
| MATH 1743 or MATH 1823 | Calculus I for Business, Life and Social Sciences or Calculus and Analytic Geometry I | 3 |
| BIOL 1134 | Introductory Biology: Evolution, Ecology and Diversity | 4 |
|  | Credit Hours | 15 |


| Sophomore |  |  |
| :---: | :---: | :---: |
| First Semester |  |  |
| CHEM 1415 | General Chemistry (Continued) | 5 |
| PHYS 2414 or PHYS 2514 | General Physics for Life Science Oriented Majors <br> or General Physics for Engineering and Science Majors | 4 |
| BIOL 3013 | Evolution | 3 |
| P SC 1113 | American Federal Government (Core III) | 3 |
|  | Credit Hours | 15 |
| Second Semester |  |  |
| CHEM 3053 | Organic Chemistry I: Biological Emphasis | 3 |
| $\begin{aligned} & \text { PHYS } 2424 \\ & \text { or PHYS } 2524 \end{aligned}$ | General Physics for Life Science Oriented Majors or General Physics for Engineering and Science Majors | 4 |
| Statistics Requirement |  | 3 |
| Beginning Language (Core I) |  | 5 |
|  | Credit Hours | 15 |
| Junior |  |  |
| First Semester |  |  |
| $\begin{aligned} & \text { CHEM } 3153 \\ & \text { or CHEM } 3653 \end{aligned}$ | Organic Chemistry II: Biological Emphasis or Introduction to Biochemistry | 3 |
| CHEM 3152 | Organic Chemistry Laboratory. Biological Emphasis | 2 |
| BIOL 3333 | Genetics | 3 |
| Beginning Language continued (Core I) |  | 5 |
| Free Elective, upper-division (3000-4000-level) |  | 3 |
|  | Credit Hours | 16 |
| Second Semester |  |  |
| HSTM 3013 or HSTM 3023 | History of Science to the Age of Newton or History of Science Since the Seventeenth Century | 3 |
| Intermediate Language |  | 3 |
| World Culture (Core IV) |  | 3 |
| BIOL Major Group Requirement, upper-division (3000-4000level) |  | 3 |
| BIOL Major Group (3000-4000-level) | Requirement with Lab, upper-division | 4 |


| Senior |  |
| :---: | :---: |
| First Semester |  |
| BIOL Major Group Requirement, upper-division (3000-4000level) | 3 |
| BIOL Major Group Requirement with Lab, upper-division (3000-4000-level) | 3 |
| Arts \& Humanities, upper-division (3000-4000-level) outside major (Gen.Ed.) | 3 |
| Western Culture (Core IV) | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Credit Hours | 15 |


| Second Semester |  |
| :--- | :---: |
| Major Group Requirement, upper-division (3000-4000-level) | 3 |
| Artistic Forms (Core IV) | 3 |


| Social Science (Core III) | 3 |
| :--- | ---: |
| Free Electives, upper-division (3000-4000-level) | 3 |
| Credit Hours | $\mathbf{1 2}$ |
| Total Credit Hours | $\mathbf{1 2 0}$ |

## Microbiology (Standard), B.S.

Minimum Total Credit Hours: 120
Major Hours: 30
Minimum Upper-Division Hours: 48
Overall GPA - Combined and OU: 2.00
Major GPA - Combined and OU: 2.00
Program Code: B690 P459

- A grade of $C$ or better must be earned in each Microbiology course presented for major credit and in the required major support courses.


## Major Requirements

- Some courses required for the major may also fulfill University General Education and/or Dodge College of Arts \& Sciences Requirements.
- MBIO 2815 will not be accepted for major credit.


| MBIO 4893 | Capstone in Microbiology (3 hours) |  |
| :---: | :---: | :---: |
| MBIO 4950 | Senior Thesis - Capstone (2 semesters) |  |
| Choose two of the following: |  | 6 |
| MBIO 4313 | Biotechnology Applications |  |
| MBIO 4813 | Pathogenic Microbiology Laboratory |  |
| MBIO 4873 | Microbial Physiology and Molecular Biology Laboratory |  |
| MBIO 4883 | Water Microbiology Laboratory |  |
| CHEM 3753 | Introduction to Biochemical Methods |  |

## Major Electives

Choose MBIO electives to complete 30 hours required in the 4-7 major (Cornerstone Research Experience is recommended)

Total Credit Hours 30

## Major Support Requirements

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| CHEM 1315 | General Chemistry | 5 |
| CHEM 1415 | General Chemistry (Continued) | 5 |
| CHEM 3053 | Organic Chemistry I: Biological Emphasis | 3 |


| CHEM 3152 | Organic Chemistry Laboratory: Biological <br> Emphasis | 2 |
| :--- | :--- | ---: |
| CHEM 3153 | Organic Chemistry II: Biological Emphasis | 3 |
| CHEM 3653 | Introduction to Biochemistry | 3 |
| PHYS 1311 | General Physics Lab I | 1 |
| PHYS 1321 | General Physics Lab II | 1 |
| PHYS 2414 | General Physics for Life Science Oriented <br> Majors | 4 |
| PHYS 2424 | General Physics for Life Science Oriented <br> Majors | 4 |
| MATH 1743 | Calculus I for Business, Life and Social <br> Sciences | 3 |
| PBIO 1114 | General Botany <br> or BIOL 1134 | Introductory Biology: Evolution, Ecology and Diversity |

## Total Credit Hours

## General Education and College Requirements

Courses for fulfillment of General Education and Dodge College of Arts \& Sciences requirements must be from the approved General Education course list published in the Class Schedule or at http://www.ou.edu/ gened/courses. Courses graded P/NP will not apply.

UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS
Code Title Credit

## Core Area I: Symbolic and Oral Communication

English Composition (6 hours)
ENGL 1113 Principles of English Composition 3
ENGL 1213 Principles of English Composition 3
or EXPO 1213 Expository Writing
Language (0-13 hours in the same language)
The college requirement cannot be met by high school
coursework.
Beginning Course

Beginning Course, continued ..... 0-5
Intermediate Course (2000 level) ${ }^{1,2}$ ..... 0-3
Mathematics (3 hours)
Choose one course from the General Education Mathematics ..... 3

list

Core Area II: Natural Science (7 hours, including one laboratory component)
Biological Science
Choose an approved General Education Natural Science

## course with one of the following prefixes: BIOL, HES, MBIO, or

PBIO ${ }^{1}$

## Physical Science

Choose an approved General Education Natural Science 3-4 course with one of the following prefixes: AGSC, ASTR, CHEM, GEOG, GEOL, GPHY, METR, or PHYS ${ }^{1}$
Core Area III: Social Science (6 hours)
P SC 1113 American Federal Government
Choose one course from the General Education Social 3

## Science list

Core Area IV: Arts and Humanities (18 hours)


## Free Electives

Electives to bring total applicable hours to the minimum total required for the degree including 48 upper-division hours.

## Information Concerning General Rules, Regulations and Minimum Requirements

Arts and Sciences Hours: At least 80 semester hours of liberal arts and sciences courses are required for a BA degree. At least 55 semester hours of liberal arts and sciences courses are required for a BS degree. Pass/No Pass Enrollment: A maximum of 16 semester hours of free elective credit may be attempted under this option.
Individual Studies (e.g., courses titled "Independent Study"): A maximum of 12 total semester hours may be counted toward graduation, excluding Honors Reading and Honors Research.
P.E. Courses: No physical education activity courses will be counted toward the 120 semester hours of acceptable credit for graduation. Senior Institution Hours: A minimum of 60 semester hours applied toward graduation must be earned at senior (4-year) institutions.

## Residency:

- At least 15 of the final 30 hours applied toward the degree or at least 50 percent of the hours required by the institution in the major field must be satisfactorily completed at the awarding institution.
- At least 15 semester hours of upper-division major work must be completed in residence at OU.
- OU correspondence courses are not considered resident credit.

Grade Point Averages: Students must earn a minimum over all 2.00 for each of the following: Combined Retention GPA (all college grades), OU Retention GPA, GPA for all major courses, and GPA for all major courses
taken at OU. Some schools and departments of the College have higher minimum grade point averages required for their students.

## Suggested Semester Plan of Study

This plan shows one possible grouping of courses that would allow students to graduate in four years. Please refer to the front of the degree checksheet for official requirements. Students must consult with Dodge College of Arts and Sciences and/or Department of Microbiology and Plant Biology academic advisors to verify that courses selected each semester fulfill the recommended plan and satisfy University, College of Arts and Sciences, and Microbiology major requirements.

## Freshman

| First Semester |  | Credit <br> Hours |
| :--- | :--- | ---: |
| CHEM 1315 | General Chemistry | 5 |
| ENGL 1113 | Principles of English Composition (Core I) | 3 |
| MATH 1743 | Calculus I for Business, Life and Social | 3 |
|  | Sciences (Core I) | $\mathbf{5}$ |
| Beginning Language (Core I) | $\mathbf{1 6}$ |  |


| Second Semester |  |  |
| :--- | :--- | :--- |
| CHEM 1415 | General Chemistry (Continued) | 5 |
| ENGL 1213  <br> or EXPO 1213 Principles of English Composition (Core I) <br> or Expository Writing  | 3 |  |

Beginning Language continued (Core I) 5
First Year Experience (Core V) 3

|  | Credit Hours | $\mathbf{1 6}$ |
| :--- | :--- | ---: |
| Sophomore |  |  |
| First Semester |  | 3 |
| CHEM 3053 | Organic Chemistry I: Biological Emphasis | 1 |
| PHYS 1311 | General Physics Lab I | 4 |
| PHYS 2414 | General Physics for Life Science Oriented |  |
|  | Majors | 3 |
| P SC 1113 | American Federal Government | 3 |
| Intermediate Language | $\mathbf{1 4}$ |  |

## Second Semester

| BIOL 1134 <br> or PBIO 1114 | Introductory Biology: Evolution, Ecology <br> and Diversity <br> or General Botany | 4 |
| :--- | :--- | :--- |
| CHEM 3153 | Organic Chemistry II: Biological Emphasis | 3 |
| CHEM 3152 | Organic Chemistry Laboratory: Biological <br> Emphasis | 2 |
| PHYS 1321 | General Physics Lab II | 1 |
| PHYS 2424 | General Physics for Life Science Oriented | 4 |


| Social Science (Core III) | 3 |
| :---: | ---: |
| Credit Hours | 17 |

## Junior

| First Semester |  |  |
| :--- | :--- | :--- |
| CHEM 3653 | Introduction to Biochemistry | 3 |
| MBIO 3813 | Fundamentals of Microbiology | 3 |
| MBIO 3812 | Fundamentals of Microbiology Laboratory | 2 |
| MBIO Major Elective | 3 |  |


| World Culture (Core IV) |  | 3 |
| :---: | :---: | :---: |
|  | Credit Hours | 14 |
| Second Semester |  |  |
| CHEM 3753 | Introduction to Biochemical Methods | 3 |
| MBIO 4813 | Pathogenic Microbiology Laboratory | 3 |
| MBIO 4843 | Molecular Biology | 3 |
| MBIO Major Elective |  | 1 |
| Artistic Forms (Core IV) |  | 3 |
| Western Culture (Core IV) |  | 3 |
| Credit Hours |  | 16 |
| Senior |  |  |
| First Semester |  |  |
| HIST 1483 or HIST 1493 | United States to 1865 (Core IV) or United States, 1865 to the Present | 3 |
| MBIO 4823 | Pathogenic Microbiology and Infectious Disease | 3 |
| MBIO 4950 | Senior Thesis - Capstone (or MBIO Major Elective) | 3 |
| Arts \& Humanities, upper-division, outside major (Gen. Ed.) |  | 3 |
| Free Elective, lower- or upper-division |  | 3 |
| Credit Hours |  | 15 |
| Second Semester |  |  |
| MBIO 4853 | Physiology of Microorganisms | 3 |
| $\begin{aligned} & \text { MBIO } 4893 \\ & \text { or MBIO } 4950 \end{aligned}$ | Capstone in Microbiology or Senior Thesis - Capstone | 3 |
| Arts \& Humanities | s, upper-division, outside major (Gen. Ed.) | 3 |
| Free Elective, upp | er-division (3000-4000-level) | 3 |
|  | Credit Hours | 12 |
|  | Total Credit Hours | 120 |
| Microbiology (Standard): Biotechnology, |  |  |
| B.S. |  |  |
| Minimum Total Credit Hours: 120 |  |  |
| Major Hours: 30 |  |  |
| Minimum Upper-Division Hours: 48 |  |  |
| Overall GPA - Combined and OU: 2.00 |  |  |
| Major GPA - Combined and OU: 2.00 |  |  |
| Program Code: B690 P061 |  |  |
| - A grade of C or better must be earned in each Microbiology course presented for major credit and in the required major support. |  |  |
| Major Requirements |  |  |
| - Some courses required for the major may also fulfill University General Education and/or Dodge College of Arts \& Sciences Requirements. |  |  |
| - MBIO 2815 will not be accepted for major credit. |  |  |
| Code | Title | Credit <br> Hours |
| Major Courses |  |  |
| MBIO 3113 | Cell Biology | 3 |
| MBIO 3673 | Practical Bioinformatics | 3 |


| MBIO 3812 | Fundamentals of Microbiology Laboratory | 2 |
| :--- | :--- | ---: |
| MBIO 3813 | Fundamentals of Microbiology | 3 |
| MBIO 4823 | Pathogenic Microbiology and Infectious <br> Disease | 3 |
| MBIO 4843 | Molecular Biology | 3 |
| MBIO 4853 | Physiology of Microorganisms | 3 |
| Choose one of the following: | $3-6$ |  |


| MBIO 4893 | Capstone in Microbiology (3 hours) |  |
| :--- | :--- | :--- |
| MBIO 4950 | Senior Thesis - Capstone (2 semesters) |  |
| Laboratory Courses |  |  |
| MBIO 4313 | Biotechnology Applications | 3 |
| MBIO 4873 | Microbial Physiology and Molecular <br> Biology Laboratory | 3 |
| or CHEM 3753 | Introduction to Biochemical Methods |  |

## Major Electives

Choose MBIO electives to complete 30 hours required in the 0-1 major
Total Credit Hours

## Major Support Requirements

| Code | Title | Credit <br> Hours |
| :---: | :---: | :---: |
| CHEM 1315 | General Chemistry | 5 |
| CHEM 1415 | General Chemistry (Continued) | 5 |
| CHEM 3053 | Organic Chemistry I: Biological Emphasis | 3 |
| CHEM 3152 | Organic Chemistry Laboratory: Biological Emphasis | 2 |
| CHEM 3153 | Organic Chemistry II: Biological Emphasis | 3 |
| CHEM 3653 | Introduction to Biochemistry | 3 |
| PHYS 1311 | General Physics Lab I | 1 |
| PHYS 1321 | General Physics Lab II | 1 |
| PHYS 2414 | General Physics for Life Science Oriented Majors | 4 |
| PHYS 2424 | General Physics for Life Science Oriented Majors | 4 |
| MATH 1743 | Calculus I for Business, Life and Social Sciences | 3 |
| $\begin{aligned} & \text { PBIO } 1114 \\ & \quad \text { or BIOL } 1134 \end{aligned}$ | General Botany Introductory Biology: Evolution, Ecology and |  |
| HSTM 2423 | Social and Ethical Issues in Science, Technology, Environment and Medicine (also fulfills Gen. Ed. Western Civ.) | 3 |

or HSTM 3333 Technology and Society in World History

## Recommended Courses

The following are recommended:

| A second course in Biochemistry is strongly recommended |  |  |
| :--- | :--- | :--- |
| ECON 1113 | Principles of Economics-Macro |  |
| ECON 1123 | Principles of Economics-Micro |  |
| B AD 2113 | Introduction to Business I | $\mathbf{4 1}$ |

## General Education and College Requirements

Courses for fulfillment of General Education and Dodge College of Arts \& Sciences requirements must be from the approved General Education

## course list published in the Class Schedule or at http://www.ou.edu/ gened/courses. Courses graded P/NP will not apply. <br> UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS <br> Code Title Credit Hours

## Core Area I: Symbolic and Oral Communication

English Composition (6 hours)
ENGL 1113 Principles of English Composition 3
ENGL 1213 Principles of English Composition 3
or EXPO 1213 Expository Writing
Language (0-13 hours in the same language)
The college requirement cannot be met by high school coursework.
Beginning Course ..... 0-5
Beginning Course, continued ..... 0-5
Intermediate Course (2000 level) 1,2 ..... 0-3
Mathematics (3 hours)
Choose one course from the General Education Mathematics ..... 3

list

## Core Area II: Natural Science (7 hours, including one

 laboratory component)Biological Science
Choose an approved General Education Natural Science 3-4
course with one of the following prefixes: BIOL, HES, MBIO, or
PBIO ${ }^{1}$
Physical Science
Choose an approved General Education Natural Science 3-4
course with one of the following prefixes: AGSC, ASTR, CHEM,
GEOG, GEOL, GPHY, METR, or PHYS ${ }^{1}$
Core Area III: Social Science (6 hours)
PSC 1113 American Federal Government 3
Choose one course from the General Education Social 3
Science list

## Core Area IV: Arts and Humanities (18 hours)

Artistic Forms
Choose one course from the General Education Artistic Forms 3
list
Western Culture
HIST 1483 United States to 1865
or HIST 1493 United States, 1865 to the Present
Choose one course from the General Education Western 3
Culture list (excluding HIST 1483/1493)

## World Culture

Choose one course from the General Education World Culture 3
list
Additional Core IV Upper-Division Arts \& Humanities courses
Choose one course from Artistic Forms, Western Culture, or 3
World Culture ${ }^{1,3}$
Choose one course from Artistic Forms, Western Culture, or 3
World Culture ${ }^{1,3}$
Core Area V: First Year Experience (3 hours)
Choose one course
3

Total Credit Hours 56
${ }^{1}$ College of Arts and Sciences Requirements: college requirements are not automatically fulfilled by a previous degree.
2 One course at the intermediate level or demonstrated competency at that level
${ }^{3} 6$ upper-division hours, 2 courses, at the 3000-4000-level. Must be outside the major.

## Free Electives

Electives to bring total applicable hours to the minimum total required for the degree including 48 upper-division hours.

## Information Concerning General Rules, Regulations and Minimum Requirements

Arts and Sciences Hours: At least 80 semester hours of liberal arts and sciences courses are required for a BA degree. At least 55 semester hours of liberal arts and sciences courses are required for a BS degree.
Pass/No Pass Enrollment: A maximum of 16 semester hours of free elective credit may be attempted under this option.
Individual Studies (e.g., courses titled "Independent Study"): A maximum of 12 total semester hours may be counted toward graduation, excluding Honors Reading and Honors Research.
P.E. Courses: No physical education activity courses will be counted toward the 120 semester hours of acceptable credit for graduation. Senior Institution Hours: A minimum of 60 semester hours applied toward graduation must be earned at senior (4-year) institutions. Residency:

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- At least 15 semester hours of upper-division major work must be completed in residence at OU.
- OU correspondence courses are not considered resident credit.

Grade Point Averages: Students must earn a minimum over all 2.00 for each of the following: Combined Retention GPA (all college grades), OU Retention GPA, GPA for all major courses, and GPA for all major courses taken at OU. Some schools and departments of the College have higher minimum grade point averages required for their students.

## Suggested Semester Plan of Study

This plan shows one possible grouping of courses that would allow students to graduate in four years. Please refer to the front of the degree checksheet for official requirements. Students must consult with Dodge College of Arts and Sciences and/or Department of Microbiology and Plant Biology academic advisors to verify that courses selected each semester fulfill the recommended plan and satisfy University, College of Arts and Sciences, and Microbiology major requirements.

## Freshman

| First Semester |  | Credit <br> Hours |
| :--- | :--- | ---: |
| CHEM 1315 | General Chemistry | 5 |
| ENGL 1113 | Principles of English Composition (Core I) | 3 |
| MATH 1743 | Calculus I for Business, Life and Social | 3 |


| Beginning Language (Core I) |  | 5 |
| :---: | :---: | :---: |
|  | Credit Hours | 16 |
| Second Semester |  |  |
| CHEM 1415 | General Chemistry (Continued) | 5 |
| ENGL 1213 or EXPO 1213 | Principles of English Composition (Core I) or Expository Writing | 3 |
| First Year Experience (Core V) |  | 3 |
| Beginning Language continued (Core I) |  | 5 |
|  | Credit Hours | 16 |
| Sophomore |  |  |
| First Semester |  |  |
| CHEM 3053 | Organic Chemistry I: Biological Emphasis | 3 |
| PHYS 1311 | General Physics Lab I | 1 |
| PHYS 2414 | General Physics for Life Science Oriented Majors | 4 |
| P SC 1113 | American Federal Government | 3 |
| Intermediate Language |  | 3 |
|  | Credit Hours | 14 |
| Second Semester |  |  |
| BIOL 1134 or PBIO 1114 | Introductory Biology: Evolution, Ecology and Diversity or General Botany | 4 |
| CHEM 3153 | Organic Chemistry II: Biological Emphasis | 3 |
| CHEM 3152 | Organic Chemistry Laboratory: Biological Emphasis | 2 |
| PHYS 1321 | General Physics Lab II | 1 |
| PHYS 2424 | General Physics for Life Science Oriented Majors | 4 |
| Social Science (Core III) |  | 3 |
|  | Credit Hours | 17 |
| Junior |  |  |
| First Semester |  |  |
| CHEM 3653 | Introduction to Biochemistry | 3 |
| MBIO 3813 | Fundamentals of Microbiology | 3 |
| MBIO 3812 | Fundamentals of Microbiology Laboratory | 2 |
| MBIO 3113 | Cell Biology | 3 |
| World Culture (Core IV) |  | 3 |
|  | Credit Hours | 14 |
| Second Semester |  |  |
| CHEM 3753 | Introduction to Biochemical Methods | 3 |
| MBIO 4873 or CHEM 3753 | Microbial Physiology and Molecular Biology Laboratory or Introduction to Biochemical Methods | 3 |
| MBIO 4843 | Molecular Biology | 3 |
| MBIO 3673 | Practical Bioinformatics | 3 |
| HSTM 2423 or HSTM 3333 | Social and Ethical Issues in Science, Technology, Environment and Medicine (Core IV-WC) or Technology and Society in World History | 3 |
|  | Credit Hours | 15 |


| Senior |  |  |
| :---: | :---: | :---: |
| First Semester |  |  |
| HIST 1483 <br> or HIST 1493 | United States to 1865 (Core IV) or United States, 1865 to the Present | 3 |
| MBIO 4823 | Pathogenic Microbiology and Infectious Disease | 3 |
| MBIO 4950 | Senior Thesis - Capstone (or Free Elective) | 3 |
| MBIO Major Elective |  | 1 |
| Artistic Forms (Core IV) |  | 3 |
| Arts \& Humanities, upper-division, outside major (Gen. Ed.) |  | 3 |
|  | Credit Hours | 16 |
| Second Semester |  |  |
| MBIO 4853 | Physiology of Microorganisms | 3 |
| MBIO 4893 or MBIO 4950 | Capstone in Microbiology or Senior Thesis - Capstone | 3 |
| MBIO 4313 | Biotechnology Applications | 3 |
| Arts \& Humanities, upper-division, outside major (Gen. Ed.) |  | 3 |
|  | Credit Hours | 12 |
|  | Total Credit Hours | 120 |

## Microbiology (Professional), B. Mbio.

Minimum Total Credit Hours: 129
Major Hours: 32
Minimum Upper-Division Hours: 48

Overall GPA - Combined and OU: 2.00
Major GPA - Combined and OU: 2.00
Program Code: B691

## This program is in the process of deletion, pending final approval from the OU and State Regents.

- A grade of C or better must be earned in each Microbiology course presented for major credit and in the required major support.


## Major Requirements

- Some courses required for the major may also fulfill University General Education and/or Dodge College of Arts \& Sciences Requirements.
- MBIO 2815 will not be accepted for major credit.

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Major Courses |  | 2 |
| MBIO 3812 | Fundamentals of Microbiology Laboratory | 3 |
| MBIO 3813 | Fundamentals of Microbiology | 3 |
| MBIO 4823 | Pathogenic Microbiology and Infectious <br>  <br> MBIO 4843 Disease | 3 |
| MBIO 4853 | Molecular Biology | 3 |
| Choose one of the following: | 3 |  |

MBIO 4893 Capstone in Microbiology (3 hours)
MBIO 4950 Senior Thesis - Capstone (2 semesters)

| Choose two of the following: |  | 6 |
| :---: | :---: | :---: |
| MBIO 4313 | Biotechnology Applications |  |
| MBIO 4813 | Pathogenic Microbiology Laboratory |  |
| MBIO 4873 | Microbial Physiology and Molecular Biology Laboratory |  |
| MBIO 4883 | Water Microbiology Laboratory |  |
| Major Electives |  |  |
| Choose MBIO electives to complete 32 hours required in the major (Cornerstone Research Experience is recommended): |  | 6-9 |
| Total Credit Hours |  | 32 |


| Code | Title | Credit |
| :---: | :---: | :---: |
| CHEM 1315 | General Chemistry | 5 |
| CHEM 1415 | General Chemistry (Continued) | 5 |
| CHEM 3053 | Organic Chemistry I: Biological Emphasis | 3 |
| CHEM 3152 | Organic Chemistry Laboratory. Biological Emphasis | 2 |
| CHEM 3153 | Organic Chemistry II: Biological Emphasis | 3 |
| CHEM 3451 <br> \& CHEM 3453 | Basic Physical Chemistry Laboratory and Basic Physical Chemistry | 4 |
| CHEM 3653 | Introduction to Biochemistry | 3 |
| CHEM 3753 | Introduction to Biochemical Methods | 3 |
| PHYS 1311 | General Physics Lab I | 1 |
| PHYS 1321 | General Physics Lab II | 1 |
| PHYS 2414 | General Physics for Life Science Oriented Majors | 4 |
| PHYS 2424 | General Physics for Life Science Oriented Majors | 4 |
| MATH 1743 | Calculus I for Business, Life and Social Sciences | 3 |
| Choose one of the following: |  | 3 |
| BIOL 2913 | Intro to Quantitative Biology |  |
| ECON 2843 | Elements of Statistics |  |
| PSY 2003 | Understanding Statistics |  |
| $\begin{aligned} & \text { P SC/SOC } \\ & 3123 \end{aligned}$ | Social Statistics |  |
| $\begin{aligned} & \text { PBIO } 1114 \\ & \text { or BIOL } 1134 \end{aligned}$ | General Botany Introductory Biology: Evolution, Ecology and |  |
| Choose 3 hours (a second course in Biochemistry is strongly recommended): |  | 3 |
| Total Credit Hours |  | 51 |

## General Education and College Requirements

Courses for fulfillment of General Education and Dodge College of Arts \& Sciences requirements must be from the approved General Education course list published in the Class Schedule or at http://www.ou.edu/ gened/courses. Courses graded P/NP will not apply.

## UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS <br> Code Title

Core Area I: Symbolic and Oral Communication

| English Composition (6 hours) |  |
| :---: | :---: |
| ENGL 1113 Principles of English Composition | 3 |
| $\begin{array}{ll}\text { ENGL } 1213 & \text { Principles of English Composition } \\ \text { or EXPO } 1213 & \text { Expository Writing }\end{array}$ | 3 |
| Language (0-13 hours in the same language) |  |
| The college requirement cannot be met by high school coursework. |  |
| Beginning Course | 0-5 |
| Beginning Course, continued | 0-5 |
| Intermediate Course (2000 level) ${ }^{1,2}$ | 0-3 |
| Mathematics (3 hours) |  |
| Choose one course from the General Education Mathematics list | 3 |
| Core Area II: Natural Science (7 hours, including one laboratory component) |  |
| Biological Science |  |
| Choose an approved General Education Natural Science course with one of the following prefixes: BIOL, HES, MBIO, or PBIO ${ }^{1}$ | 3-4 |
| Physical Science |  |
| Choose an approved General Education Natural Science course with one of the following prefixes: AGSC, ASTR, CHEM, GEOG, GEOL, GPHY, METR, or PHYS ${ }^{1}$ | 3-4 |
| Core Area III: Social Science (6 hours) |  |
| P SC 1113 American Federal Government | 3 |
| Choose one course from the General Education Social | 3 |

## Science list

Core Area IV: Arts and Humanities (18 hours)

## Artistic Forms

Choose one course from the General Education Artistic Forms 3
list

## Western Culture

| HIST 1483 | United States to 1865 |
| :---: | :--- |
| or HIST 1493 | United States, 1865 to the Present |

Choose one course from the General Education Western
Culture list (excluding HIST 1483/1493)

## World Culture

Choose one course from the General Education World Culture
Additional Core IV Upper-Division Arts \& Humanities courses
Choose one course from Artistic Forms, Western Culture, or

## World Culture ${ }^{1,3}$

Choose one course from Artistic Forms, Western Culture, or 3
World Culture ${ }^{1,3}$
Core Area V: First Year Experience (3 hours)
Choose one course 3

## Total Credit Hours

[^4]${ }^{2}$ One course at the intermediate level or demonstrated competency at that level
${ }^{3} 6$ upper-division hours, 2 courses, at the 3000-4000-level. Must be outside the major.

## Free Electives

Electives to bring total applicable hours to the minimum total required for the degree including 48 upper-division hours.

## Information Concerning General Rules, Regulations and Minimum Requirements

Arts and Sciences Hours: At least 80 semester hours of liberal arts and sciences courses are required for a BA degree. At least 55 semester hours of liberal arts and sciences courses are required for a BS degree. Pass/No Pass Enrollment: A maximum of 16 semester hours of free elective credit may be attempted under this option.
Individual Studies (e.g., courses titled "Independent Study"): A maximum of 12 total semester hours may be counted toward graduation, excluding Honors Reading and Honors Research.
P.E. Courses: No physical education activity courses will be counted toward the 120 semester hours of acceptable credit for graduation. Senior Institution Hours: A minimum of 60 semester hours applied toward graduation must be earned at senior (4-year) institutions.
Residency:

- At least 15 of the final 30 hours applied toward the degree or at least 50 percent of the hours required by the institution in the major field must be satisfactorily completed at the awarding institution.
- At least 15 semester hours of upper-division major work must be completed in residence at OU.
- OU correspondence courses are not considered resident credit.

Grade Point Averages: Students must earn a minimum over all 2.00 for each of the following: Combined Retention GPA (all college grades), OU Retention GPA, GPA for all major courses, and GPA for all major courses taken at OU. Some schools and departments of the College have higher minimum grade point averages required for their students.

## Suggested Semester Plan of Study

This plan shows one possible grouping of courses that would allow students to graduate in four years. Please refer to the front of the degree checksheet for official requirements. Students must consult with Dodge College of Arts and Sciences and/or Department of Microbiology and Plant Biology academic advisors to verify that courses selected each semester fulfill the recommended plan and satisfy University, College of Arts and Sciences, and Microbiology major requirements.

## Freshman

| First Semester |  | Credit <br> Hours |
| :--- | :--- | ---: |
| CHEM 1315 | General Chemistry | 5 |
| ENGL 1113 | Principles of English Composition (Core I) | 3 |
| MATH 1743 | Calculus I for Business, Life and Social <br> Sciences (Core I) | 3 |
| BIOL 1134  <br> or PBIO 1114 Introductory Biology: Evolution, Ecology <br> and Diversity  <br> or General Botany  | 4 |  |
|  | Credit Hours | $\mathbf{1 5}$ |


| Second Semester |  |  |
| :---: | :---: | :---: |
| CHEM 1415 | General Chemistry (Continued) | 5 |
| $\begin{aligned} & \text { ENGL } 1213 \\ & \text { or EXPO } 1213 \end{aligned}$ | Principles of English Composition (Core I) or Expository Writing | 3 |
| P SC 1113 | American Federal Government (Core III) | 3 |
| First Year Experience (Core V) |  | 3 |
|  | Credit Hours | 14 |
| Sophomore |  |  |
| First Semester |  |  |
| CHEM 3053 | Organic Chemistry I: Biological Emphasis | 3 |
| PHYS 1311 | General Physics Lab I | 1 |
| PHYS 2414 | General Physics for Life Science Oriented Majors | 4 |
| Beginning Language (Core I) |  | 5 |
| Social Science (Core III) |  | 3 |
|  | Credit Hours | 16 |
| Second Semester |  |  |
| HIST 1483 or HIST 1493 | United States to 1865 (Core IV) or United States, 1865 to the Present | 3 |
| CHEM 3153 | Organic Chemistry II: Biological Emphasis | 3 |
| CHEM 3152 | Organic Chemistry Laboratory: Biological Emphasis | 2 |
| PHYS 1321 | General Physics Lab II | 1 |
| PHYS 2424 | General Physics for Life Science Oriented Majors | 4 |
| Beginning Language continued (Core I) |  | 5 |
|  | Credit Hours | 18 |
| Junior |  |  |
| First Semester |  |  |
| CHEM 3653 | Introduction to Biochemistry | 3 |
| MBIO 3813 | Fundamentals of Microbiology | 3 |
| MBIO 3812 | Fundamentals of Microbiology Laboratory | 2 |
| Choose one of the following: |  | 3 |
| ECON 2843 | Elements of Statistics |  |
| PSY 2003 | Understanding Statistics |  |
| $\begin{aligned} & \text { P SC } 3123 \\ & \text { or } \\ & \text { SOC } 3123 \end{aligned}$ | Social Statistics or Social Statistics |  |
| BIOL 2913 | Intro to Quantitative Biology |  |
| World Culture (Core IV) |  | 3 |
| Intermediate Language |  | 3 |
|  | Credit Hours | 17 |
| Second Semester |  |  |
| CHEM 3753 | Introduction to Biochemical Methods | 3 |
| MBIO 4843 | Molecular Biology | 3 |
| MBIO Major Laboratory requirement |  | 3 |
| MBIO Major Elective |  | 3 |
| Western Culture (Core IV) |  | 3 |
| Major Support Elective (Biochemistry Recommended) |  | 3 |
|  | Credit Hours | 18 |


| Senior |  |  |
| :---: | :---: | :---: |
| First Semester |  |  |
| MBIO 4823 | Pathogenic Microbiology and Infectious Disease | 3 |
| MBIO 4950 | Senior Thesis - Capstone (or MBIO Major Elective) | 3 |
| MBIO Major Laboratory requirement |  | 3 |
| Arts \& Humanities, upper-division, outside major (Gen. Ed.) |  | 3 |
| Artistic Forms (Core IV) |  | 3 |
|  | Credit Hours | 15 |
| Second Semester |  |  |
| CHEM 3451 | Basic Physical Chemistry Laboratory | 1 |
| CHEM 3453 | Basic Physical Chemistry | 3 |
| MBIO 4853 | Physiology of Microorganisms | 3 |
| MBIO 4893 or MBIO 4950 | Capstone in Microbiology or Senior Thesis - Capstone | 3 |
| MBIO Major Elective |  | 3 |
| Arts \& Humanities, upper-division, outside major (Gen. Ed.) |  | 3 |
|  | Credit Hours | 16 |
|  | Total Credit Hours | 129 |

## Plant Biology, B.S.

Minimum Total Credit Hours: 120
Major Hours: 32
Minimum Upper-Division Hours: 48
Overall GPA - Combined and OU: 2.00
Major GPA - Combined and OU: 2.00

## Program Code: B787 P521

- Some courses required for the major may also fulfill University General Education and/or Dodge College of Arts \& Sciences Requirements.
- A grade of $C$ or better must be earned in each course presented for Major credit and in the required Major Support courses.


## Major Requirements

- Minimum of 32 hours of major work including twenty-four (24) upperdivision hours.
- BIOL 1005, PBIO 2404, and MBIO 2815 will not be accepted for major credit.

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Required Major Courses | 4 |  |
| BIOL 1134 | Introductory Biology: Evolution, Ecology <br> and Diversity | 4 |
| PBIO 1114 | General Botany | 4 |
| PBIO 4114 | Principles of Plant Physiology | 4 |
| PBIO 4983 | Senior Capstone: Plant Biol | 3 |
| PBIO 3451 | Methods in Plant Ecology | 1 |
| PBIO 3453 | Principles of Plant Ecology | 3 |
| PBIO 4534 | Plant Systematics | 4 |


| Choose Plant Biology electives to complete 32 hours (with 24 Upper-Division) required in the major |  | 9 |
| :---: | :---: | :---: |
| Total Credit Hou |  | 32 |
| Major Support Requirements |  |  |
| Code | Title | Credit |
| PHYS 2414 | General Physics for Life Science Oriented Majors | 4 |
| PHYS 2424 | General Physics for Life Science Oriented Majors | 4 |
| $\text { BIOL } 2913$ <br> or BIOL 4913 | Intro to Quantitative Biology Quantitative Biology | 3 |
| MATH 1743 | Calculus I for Business, Life and Social Sciences (or equiv.) | 3 |
| CHEM 1315 | General Chemistry (or equiv.) | 5 |
| CHEM 1415 | General Chemistry (Continued) (or equiv.) | 5 |
| CHEM 3053 | Organic Chemistry I: Biological Emphasis (or equiv.) | 3 |
| CHEM 3152 | Organic Chemistry Laboratory: Biological Emphasis (or equiv.) | 2 |

## Total Credit Hours

## General Education and College Requirements

Courses for fulfillment of General Education and Dodge College of Arts \& Sciences requirements must be from the approved General Education course list published in the Class Schedule or at http://www.ou.edu/ gened/courses. Courses graded P/NP will not apply.

## UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS <br> Code Title Credit

## Core Area I: Symbolic and Oral Communication

English Composition (6 hours)
ENGL 1113 Principles of English Composition 3
or EXPO 1213 Expository Writing

## Language (0-13 hours in the same language)

The college requirement cannot be met by high school
coursework.
Beginning Course

Beginning Course, continued ..... 0-5
Intermediate Course (2000 level) 1,2 ..... 0-3
Mathematics (3 hours)

Choose one course from the General Education Mathematics

## list

Core Area II: Natural Science (7 hours, including one laboratory component)
Biological Science
Choose an approved General Education Natural Science 3-4 course with one of the following prefixes: BIOL, HES, MBIO, or PBIO ${ }^{1}$

Physical Science

Choose one cou
World Culture ${ }^{1,3}$
Core Area V: First Year Experience (3 hours)
Choose one course 3

Total Credit Hours
${ }^{1}$ College of Arts and Sciences Requirements: college requirements are not automatically fulfilled by a previous degree.
${ }^{2}$ One course at the intermediate level or demonstrated competency at that level
${ }^{3} 6$ upper-division hours, 2 courses, at the 3000-4000-level. Must be outside the major.

## Free Electives

Electives to bring total applicable hours to the minimum total required for the degree including 48 upper-division hours.

## Information Concerning General Rules, Regulations and Minimum Requirements

Arts and Sciences Hours: At least 80 semester hours of liberal arts and sciences courses are required for a BA degree. At least 55 semester hours of liberal arts and sciences courses are required for a BS degree. Pass/No Pass Enrollment: A maximum of 16 semester hours of free elective credit may be attempted under this option.
Individual Studies (e.g., courses titled "Independent Study"): A maximum of 12 total semester hours may be counted toward graduation, excluding Honors Reading and Honors Research.
P.E. Courses: No physical education activity courses will be counted toward the 120 semester hours of acceptable credit for graduation. Senior Institution Hours: A minimum of 60 semester hours applied toward graduation must be earned at senior (4-year) institutions.
Residency:

- At least 15 of the final 30 hours applied toward the degree or at least 50 percent of the hours required by the institution in the major field must be satisfactorily completed at the awarding institution.
- At least 15 semester hours of upper-division major work must be completed in residence at OU.
- OU correspondence courses are not considered resident credit.

Grade Point Averages: Students must earn a minimum over all 2.00 for each of the following: Combined Retention GPA (all college grades), OU Retention GPA, GPA for all major courses, and GPA for all major courses taken at OU. Some schools and departments of the College have higher minimum grade point averages required for their students.

## Suggested Semester Plan of Study

This plan shows one possible grouping of courses that would allow students to graduate in four years. Please refer to the front of the degree checksheet for official requirements. Students must consult with Dodge College of Arts and Sciences and/or Department of Microbiology and Plant Biology academic advisors to verify that courses selected each semester fulfill the recommended plan and satisfy University, College of Arts and Sciences, and Plant Biology major requirements.

## Freshman

| First Semester |  | Credit <br> Hours |
| :--- | :--- | ---: |
| PBIO 1114 | General Botany (Core II) | 4 |
| ENGL 1113 | Principles of English Composition (Core I) | 3 |
| MATH 1743 | Calculus I for Business, Life and Social | 3 |
|  | Sciences (Core I) | 5 |
| Beginning Foreign Language (Core I) | $\mathbf{1 5}$ |  |


| Second Semester |  | 4 |
| :--- | :--- | :---: |
| BIOL 1134 | Introductory Biology: Evolution, Ecology <br> and Diversity | 4 |
| ENGL 1213 | Principles of English Composition (Core I) | 3 |

or EXPO 1213 or Expository Writing
First Year Experience (Core V) 3
Beginning Foreign Language continued (Core I) 5

## Sophomore

## First Semester

CHEM 1315
General Chemistry (Major Support \& Core
HIST 1483 United States to 1865 (Core IV) 3

| or HIST $1493 \quad$ or United States, 1865 to the Present |  |
| :--- | ---: |
| Intermediate Foreign Language | 3 |
| Non-Western Culture (Core IV) | 3 |
| Credit Hours | $\mathbf{1 4}$ |


| Second Semester |  |  |
| :--- | :--- | ---: |
| PBIO 4534 | Plant Systematics |  |
| BIOL 2913 <br> or BIOL 4913 | Intro to Quantitative Biology <br> or Quantitative Biology | 4 |
| CHEM 1415 | General Chemistry (Continued) (Major <br> Support) | 3 |
| P SC 1113 | American Federal Government | 5 |
|  | Credit Hours | $\mathbf{3}$ |

## Junior

First Semester

| PBIO 3451 | Methods in Plant Ecology | 1 |  |  |
| :--- | :--- | ---: | :---: | :---: |
| PBIO 3453 | Principles of Plant Ecology | 3 |  |  |
| PBIO Major Elective, upper-division (3000-4000-level) | 3 |  |  |  |
| Understanding Artistic Forms (Core IV) | 3 |  |  |  |
| Western Civilization \& Culture (Core IV) | 3 |  |  |  |
| Free Elective, upper-division (3000-4000-level) | 3 |  |  |  |
| Credit Hours |  |  |  | $\mathbf{1 6}$ |

## Second Semester

PBIO Major Elective, upper-division (3000-4000-level) 3

| CHEM 3053 | Organic Chemistry I: Biological Emphasis <br> (Major Support) | 3 |
| :--- | :--- | :--- |

Social Science (Core III) 3
Free Elective, upper-division (3000-4000-level) 3

| Free Elective, upper-division (3000-4000-level) | 3 |
| :--- | ---: |

Senior

| First Semester |  | 4 |
| :--- | :--- | ---: |
| PBIO 4114 | Principles of Plant Physiology |  |
| CHEM 3152 | Organic Chemistry Laboratory: Biological <br> Emphasis (Major Support) | 2 |
| PHYS 2414 | General Physics for Life Science Oriented <br> Majors (Major Support) | 4 |
| Humanities, upper-division, outside major (Gen. Ed.) | 3 |  |
| Free Elective, upper-division (3000-4000-level) | 3 |  |
| Credit Hours | $\mathbf{1 6}$ |  |

Second Semester
PBIO $4983 \quad$ Senior Capstone: Plant Biol
PBIO Major Elective, upper-division (3000-4000-level) 3
PHYS 2424 General Physics for Life Science Oriented 4
Humanities, upper-division, outside major (Gen. Ed.) 3
Free Elective, upper-division (3000-4000-level) 1
Credit Hours 14

Total Credit Hours
120

## Plant Biology: Biotechnology, B.S.

Minimum Total Credit Hours: 122
Major Hours: 34
Minimum Upper-Division Hours: 48

Overall GPA - Combined and OU: 2.00
Major GPA - Combined and OU: 2.00

## Program Code: B787 P061

## This concentration is in the process of deletion, pending approval from the Provost's Office and OU Board of Regents.

- Some courses required for the major may also fulfill University General Education and/or Dodge College of Arts \& Sciences Requirements.
- A grade of $C$ or better must be earned in each course presented for major credit and in the required major support courses.


## Major Requirements

- Minimum of 34 hours of major work including twenty-six (26) upperdivision hours.
- BIOL 1005, PBIO 2404, and MBIO 2815 will not be accepted for major credit.

| Code | Title | Credit Hours |
| :---: | :---: | :---: |
| Required Major Courses |  |  |
| BIOL 1134 | Introductory Biology: Evolution, Ecology and Diversity | 4 |
| PBIO 1114 | General Botany | 4 |
| PBIO 3453 | Principles of Plant Ecology | 3 |
| PBIO 3673 | Practical Bioinformatics | 3 |
| PBIO 4114 | Principles of Plant Physiology | 4 |
| PBIO 4313 | Biotechnology Applications | 3 |
| PBIO 4534 | Plant Systematics | 4 |
| PBIO 4983 | Senior Capstone: Plant Biol | 3 |
| Choose 3 hours from the following: |  | 3 |
| PBIO 3113 | Cell Biology |  |
| PBIO 3333 | Genetics |  |
| PBIO 4843 | Molecular Biology |  |
| Choose 3 hours of additional Upper-Division laboratory coursework in PBIO or MBIO, or research with approval of advisor |  | 3 |

Total Credit Hours

## Major Support Requirements

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| PHYS 2414 | General Physics for Life Science Oriented <br> Majors | 4 |
| PHYS 2424 | General Physics for Life Science Oriented <br> Majors | 4 |
| PHYS 1311 | General Physics Lab I | 1 |
| PHYS 1321 | General Physics Lab II | 1 |
| MATH 1743 | Calculus I for Business, Life and Social <br> CHEM 1315 | General Chemistry (or equiv.) |

[^5]
## General Education and College Requirements

Courses for fulfillment of General Education and Dodge College of Arts \& Sciences requirements must be from the approved General Education course list published in the Class Schedule or at http://www.ou.edu/ gened/courses. Courses graded P/NP will not apply.

## UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS <br> Code Title Credit

Core Area I: Symbolic and Oral Communication
English Composition (6 hours)
ENGL 1113 Principles of English Composition 3
ENGL 1213 Principles of English Composition 3
or EXPO 1213 Expository Writing
Language ( $0-13$ hours in the same language)
The college requirement cannot be met by high school
coursework.
Beginning Course 0-5
Beginning Course, continued 0-5
Intermediate Course (2000 level) ${ }^{1,2} \quad 0-3$
Mathematics (3 hours)
Choose one course from the General Education Mathematics 3
list
Core Area II: Natural Science (7 hours, including one laboratory component)
Biological Science
Choose an approved General Education Natural Science 3-4
course with one of the following prefixes: BIOL, HES, MBIO, or PBIO ${ }^{1}$
Physical Science
Choose an approved General Education Natural Science 3-4
course with one of the following prefixes: AGSC, ASTR, CHEM,
GEOG, GEOL, GPHY, METR, or PHYS ${ }^{1}$
Core Area III: Social Science (6 hours)
P SC 1113 American Federal Government 3
Choose one course from the General Education Social 3
Science list
Core Area IV: Arts and Humanities (18 hours)
Artistic Forms
Choose one course from the General Education Artistic Forms 3
list
Western Culture
HIST 1483 United States to 1865
or HIST 1493 United States, 1865 to the Present
Choose one course from the General Education Western 3
Culture list (excluding HIST 1483/1493)
World Culture
Choose one course from the General Education World Culture 3
list
Additional Core IV Upper-Division Arts \& Humanities courses

Choose one course from Artistic Forms, Western Culture, or World Culture ${ }^{1,3}$
Choose one course from Artistic Forms, Western Culture, or
World Culture ${ }^{1,3}$
Core Area V: First Year Experience (3 hours)
Choose one course

Total Credit Hours
${ }^{1}$ College of Arts and Sciences Requirements: college requirements are not automatically fulfilled by a previous degree.
2 One course at the intermediate level or demonstrated competency at that level
${ }^{3} 6$ upper-division hours, 2 courses, at the 3000-4000-level. Must be outside the major.

## Free Electives

Electives to bring total applicable hours to the minimum total required for the degree including 48 upper-division hours.

## Information Concerning General Rules, Regulations and Minimum Requirements

Arts and Sciences Hours: At least 80 semester hours of liberal arts and sciences courses are required for a BA degree. At least 55 semester hours of liberal arts and sciences courses are required for a BS degree. Pass/No Pass Enrollment: A maximum of 16 semester hours of free elective credit may be attempted under this option.
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P.E. Courses: No physical education activity courses will be counted toward the 120 semester hours of acceptable credit for graduation. Senior Institution Hours: A minimum of 60 semester hours applied toward graduation must be earned at senior (4-year) institutions.
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- OU correspondence courses are not considered resident credit.

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## Suggested Semester Plan of Study

This plan shows one possible grouping of courses that would allow students to graduate in four years. Please refer to the front of the degree checksheet for official requirements. Students must consult with Dodge College of Arts and Sciences and/or Department of Microbiology and Plant Biology academic advisors to verify that courses selected each semester fulfill the recommended plan and satisfy University, College of Arts and Sciences, and Plant Biology major requirements.


| Beginning Foreign Language (Core I) | 5 |
| :--- | ---: |
| 15 |  |

## Second Semester

| CHEM 1315 | General Chemistry | 5 |
| :--- | :--- | :--- |
| ENGL 1213 | Principles of English Composition (Core I) | 3 |
| or EXPO 1213 | or Expository Writing |  |

First Year Experience (Core V) ..... 3
Beginning Foreign Language continued (Core I) ..... 5
Credit Hours ..... 16

## Sophomore

## First Semester

| CHEM 1415 | General Chemistry (Continued) | 5 |
| :--- | :--- | ---: |
| HIST 1483 <br> or HIST 1493 | United States to 1865 (Core IV) <br> or United States, 1865 to the Present | 3 |
| PHYS 2414 | General Physics for Life Science Oriented <br> Majors | 4 |
| PHYS 1311 | General Physics Lab I | 1 |
| Intermediate Foreign Language | $\mathbf{1}$ |  |
|  | Credit Hours | $\mathbf{1 6}$ |

## Second Semester

| BIOL 1134 | Introductory Biology: Evolution, Ecology <br> and Diversity | 4 |
| :--- | :--- | ---: |
| CHEM 3053 | Organic Chemistry I: Biological Emphasis | 3 |
| PHYS 2424 | General Physics for Life Science Oriented <br> Majors | 4 |
| PHYS 1321 | General Physics Lab II | 1 |
| Humanities, upper-division, outside major (Gen. Ed.) | 3 |  |
|  | Credit Hours | $\mathbf{1 5}$ |

## Junior

First Semester

| CHEM 3152 | Organic Chemistry Laboratory: Biological <br> Emphasis | 2 |
| :--- | :--- | ---: |
| CHEM 3153 | Organic Chemistry II: Biological Emphasis | 3 |
| MBIO 3812 | Fundamentals of Microbiology Laboratory | 2 |
| MBIO 3813 | Fundamentals of Microbiology | 3 |
| Non-Western Culture (Core IV) | 3 |  |
| Social Science (Core III) | 3 |  |
| Credit Hours | $\mathbf{1 6}$ |  |

Second Semester

| PBIO 3113 | Cell Biology ( or PBIO 3333 Genetics, or <br> PBIO 4843 Molecular Bio) | 3 |
| :--- | :--- | :--- |
| PBIO 3673 | Practical Bioinformatics | 3 |
| PBIO 4534 | Plant Systematics | 4 |
| HSTM 3333 | Technology and Society in World History <br> (Core IV- Western Civ.) | 3 |


| P SC 1113 | American Federal Government | 3 |
| :---: | :---: | :---: |
|  | Credit Hours | 16 |
| Senior |  |  |
| First Semester |  |  |
| PBIO 3453 | Principles of Plant Ecology | 3 |
| PBIO 4114 | Principles of Plant Physiology | 4 |
| CHEM 3653 | Introduction to Biochemistry | 3 |
| Humanities, upper-division, outside major (Gen. Ed.) |  | 3 |
|  | Credit Hours | 13 |
| Second Semester |  |  |
| PBIO 4313 | Biotechnology Applications | 3 |
| PBIO 4983 | Senior Capstone: Plant Biol | 3 |
| Advisor-approved upper-division lab course in PBIO/MBIO, or research |  | 3 |
| Understanding Artistic Forms (Core IV) |  | 3 |
| Free Elective, upper-division (3000-4000-level) |  | 3 |
|  | Credit Hours | 15 |
|  | Total Credit Hours | 122 |

## Biology, Minor

Minimum Total Credit Hours: 20
Minimum Upper-Division Hours: 9
Program Code: N105
The requirements for a minor must be completed concurrently with the major degree requirements.

No minor may be added by completing courses after receiving the bachelor's degree.

At least six (6) credit hours must be earned in courses acceptable for residence credit by standards set forth by the Dodge College of Arts and Sciences, excluding transfer, correspondence, and examination (AP, CLEP, Advanced Standing) credit. Courses for the minor may not be taken Pass/ No Pass.

No single course may be used by a student to satisfy a major requirement and a minor requirement. A course may be used, however, to satisfy both a major support requirement and a minor requirement.

Requests to substitute a minor requirement must be approved in writing by the Department of Biology.

## Required Courses

Students must successfully complete at least 20 hours of courses, including at least 15 hours of courses acceptable for major credit in Biology ${ }^{1}$ and including at least nine (9) hours at the upper-division level.

A grade of C or better must be earned in each course counted for minor credit.

| Code $\quad$ Title | Credit |
| :--- | :--- |
|  | Hours |

## Required Courses

| BIOL 1114 | Introductory Zoology | 4 |
| :--- | :--- | :--- |
| BIOL 1121 | Introductory Zoology Lab | 1 |
| Electives |  |  |

Choose at least 15 hours of courses acceptable for major credit in Biology, including: ${ }^{1}$

At least nine (9) hours at the upper-division level
At least two (2) laboratory courses (or courses with
laboratory components)
Total Credit Hours

1 BIOL 2124, BIOL 2234, and BIOL 2255 are acceptable for the minor although they do not meet the major credit requirement.

- Minors in the Dodge College of Arts \& Sciences are available to all undergraduate students at OU. If the minor is officially declared, successfully completed, and noted on the graduation application, the student's transcript will so indicate at the time the bachelor's degree is posted.


## Microbiology, Minor

Minimum Total Credit Hours: 15
Minimum Upper-Division Hours: 9

## Program Code: N690

- The requirements for a minor must be completed concurrently with the major degree requirements.
- No minor may be added by completing courses after receiving the bachelor's degree.

At least six (6) credit hours must be earned in courses acceptable for residence credit by standards set forth by the Dodge College of Arts and Sciences, excluding transfer, correspondence, and examination (AP, CLEP, Advanced Standing) credit. Courses for the minor may not be taken Pass/ No Pass.

## No single course may be used by a student to satisfy a major requirement

 and a minor requirement. A course may be used, however, to satisfy both a major support requirement and a minor requirement.Requests to substitute a minor requirement must be approved in writing by the Department of Microbiology and Plant Biology.

## Required Courses

Students must successfully complete at least 15 hours of courses acceptable for major credit in Microbiology, including at least nine (9) hours at the upper-division level. Note that introductory courses are not counted toward this total.

A grade of $C$ or better must be earned in each course counted for minor credit.

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| MBIO 3812 | Fundamentals of Microbiology Laboratory | 2 |
| MBIO 3813 | Fundamentals of Microbiology | 3 |
| MBIO 4833 | Basic Immunology | 3 |
| or MBIO 4843 Molecular Biology <br> Choose additional upper division hours to meet the specified  <br> requirements  | $\mathbf{7}$ |  |
| Total Credit Hours | $\mathbf{1 5}$ |  |

- Minors in the Dodge College of Arts \& Sciences are available to all undergraduate students at OU. If the minor is officially declared, successfully completed, and noted on the graduation application, the student's transcript will so indicate at the time the bachelor's degree is posted.


## Plant Biology, Minor

Minimum Total Credit Hours: 15
Minimum Upper-Division Hours: 9

## Program Code: N787

- The requirements for a minor must be completed concurrently with the major degree requirements.
- No minor may be added by completing courses after receiving the bachelor's degree.

At least six (6) credit hours must be earned in courses acceptable for residence credit by standards set forth by the Dodge College of Arts and Sciences, excluding transfer, correspondence, and examination (AP, CLEP, Advanced Standing) credit. Courses for the minor may not be taken Pass/ No Pass.

No single course may be used by a student to satisfy a major requirement and a minor requirement. A course may be used, however, to satisfy both a major support requirement and a minor requirement.

Requests to substitute a minor requirement must be approved in writing by the Department of Microbiology and Plant Biology.

## Required Courses

Students must successfully complete at least 15 hours of courses acceptable for major credit in Plant Biology, including at least nine (9) hours at the upper-division level. No more than one 1000 -level course and one 2000-level course will apply toward the required 15 hours.

A grade of $C$ or better must be earned in each course counted for minor credit.

| Code | Title | Credit |
| :--- | :--- | :--- |
|  | Hours |  |

Choose 15 hours of courses acceptable for major credit in Hours Plant Biology, to include no more than one 1000-level and one 2000- level course

## Total Credit Hours

## 15

- Minors in the Dodge College of Arts \& Sciences are available to all undergraduate students at OU. If the minor is officially declared, successfully completed, and noted on the graduation application, the student's transcript will so indicate at the time the bachelor's degree is posted.


## Biology, M.S.

Minimum Total Hours (Thesis): 30
Program Code: M105 Q064

- This program is Thesis Only.

Required Courses

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Program Core | Quantitative Biology | 3 |
| BIOL 4913 |  | $2-6$ |
| Thesis | Research for Master's Thesis ${ }^{1}$ | $21-25$ |
| BIOL 5980 |  | $\mathbf{3 0}$ |
| Electives <br> Choose 21-25 hours of coursework selected in consultation <br> with the student's advisor and committee |  |  |
| Total Credit Hours |  |  |
| 1 The Department of Biology requires the completion of a thesis. |  |  |

- The comprehensive final examination over all of the work offered for the degree, including the thesis, is oral.


## General Requirements for all Master's Degrees

The master's degree requires the equivalent of at least two semesters of satisfactory graduate work and additional work as may be prescribed for the degree.

All coursework applied to the master's degree must carry graduate credit.
Master's degree programs which require a thesis consist of at least 30 credit hours. All non-thesis master's degree programs require at least 30 credit hours.

Credit transferred from other institutions must meet specific criteria and is subject to certain limitations.

Courses completed through correspondence study may not be applied to the master's degree.

To qualify for a graduate degree, students must achieve an overall grade point average of 3.0 or higher in the degree program coursework and in all resident graduate coursework attempted. A student must also have at least a 3.0 in all coursework (including undergraduate coursework if any).

Additional information for master's degree students may be found in the Graduate College Bulletin.

## Microbiology, M.S.

Minimum Total Hours (Thesis): 30
Minimum Total Hours (Non-Thesis): 32
Program Code: M690 Q451

## Thesis Track

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Required Courses | 2 |  |
| MBIO 5971 | Seminar in Microbiology (1 hour course, <br> two credits required) | 2 |
| MBIO 5980 | Research for Master's Thesis | $2-6$ |
| Outside Courses |  |  |

Choose a minimum of 3 hours selected from 5000- or 6000level courses outside the Microbiology program (Microbiology may use Plant Biology as long as they are not cross-listed)

## Electives

Choose other 5000-and/or 6000-level courses, as approved by advisory committee
Total Credit Hours

## Non-Thesis Track <br> Code Title

## Required Courses

| MBIO 5971Seminar in Microbiology (maximum of one <br> credit required) | 1 |  |
| :--- | :---: | :---: |
| Choose MBIO 5000-and/or 6000-level courses (Must be <br> regularly-scheduled classes as approved by the Graduate <br> Advisor) | 15 |  |
| Outside Courses | Choose a minimum of 3 hours selected from 5000- or 6000- <br> level courses outside the Microbiology program (Microbiology <br> may use Plant Biology as long as they are not cross-listed.) | 3 |
| Electives <br> Choose other 5000- and/or 6000-level courses, as approved <br> by advisory committee | 13 |  |

Total Credit Hours
Non-Thesis students must pass a Comprehensive Written Examination administered by a committee of three faculty (two of whom must be Microbiology faculty) in the last year of study.

## Notes

> - No more than 6 hours of Independent Research may be completed with the same instructor. No more than 12 total hours of Independent Research may be applied to the degree.
> - With department approval, up to 8 hours of transfer credit may be applied to the degree. Courses must have grades of A, B, or S; be less than 5 years old at the time of admission to the program; and not previously applied to a completed degree.

## General Requirements for all Master's Degrees

The master's degree requires the equivalent of at least two semesters of satisfactory graduate work and additional work as may be prescribed for the degree.

All coursework applied to the master's degree must carry graduate credit.
Master's degree programs which require a thesis consist of at least 30 credit hours. All non-thesis master's degree programs require at least 30 credit hours.

Credit transferred from other institutions must meet specific criteria and is subject to certain limitations.

Courses completed through correspondence study may not be applied to the master's degree.

To qualify for a graduate degree, students must achieve an overall grade point average of 3.0 or higher in the degree program coursework and in

3 all resident graduate coursework attempted. A student must also have at least a 3.0 in all coursework (including undergraduate coursework if any).

Additional information for master's degree students may be found in the Graduate College Bulletin.

# Microbiology: Bioinformatics, M.S. 

Minimum Total Hours (Thesis): 30
Program Code: M690 Q061

## This concentration is in the process of deletion, pending approval from the Provost's Office and OU Board of Regents.

- This program is Thesis Only.


## Required Courses

| Code | Title | Credit <br> Hours |
| :---: | :---: | :---: |
| Required Courses |  |  |
| BIOL 5903 | Topics in Virology | 3 |
| BIOL 5913 |  | 3 |
| MBIO 5971 | Seminar in Microbiology (1 hour course, two semesters required) | 2 |
| Core Courses |  |  |
| Non-Host Departm level courses selec department ${ }^{1}$ | ment Courses: Choose two 5000- or 6000cted from outside the Microbiology | 6 |
| Electives |  |  |
| Choose 10 hours from 5000-and/or 6000-level courses, which may include the following: |  | 10 |
| MBIO 5620 | Investigations in Microbiology |  |
| MBIO 5990 | Special Studies in Microbiology |  |
| Thesis |  |  |
| MBIO 5980 | Research for Master's Thesis | 6 |
| Total Credit Hours |  | 30 |

1 Note: The two bioinformatics courses (BIOL 5903 and BIOL 5913) may not be used to satisfy the non-host department requirement.

## General Requirements for all Master's Degrees

The master's degree requires the equivalent of at least two semesters of satisfactory graduate work and additional work as may be prescribed for the degree.

All coursework applied to the master's degree must carry graduate credit.
Master's degree programs which require a thesis consist of at least 30 credit hours. All non-thesis master's degree programs require at least 30 credit hours.

Credit transferred from other institutions must meet specific criteria and is subject to certain limitations.

Courses completed through correspondence study may not be applied to the master's degree.

To qualify for a graduate degree, students must achieve an overall grade point average of 3.0 or higher in the degree program coursework and in all resident graduate coursework attempted. A student must also have at least a 3.0 in all coursework (including undergraduate coursework if any).

Additional information for master's degree students may be found in the Graduate College Bulletin.

## Plant Biology, M.S.

Minimum Total Hours (Thesis): 30
Minimum Total Hours (Non-Thesis): 32
Program Code: M787 Q524
Required Courses
Thesis Track


Total Credit Hours

| Non-Thesis Track |  |
| :--- | :--- |
| Code | Title |

## Required Courses

| PBIO 5971 | Seminar in Botany (maximum of one credit <br> required) |
| :--- | :---: |
| Choose PBIO 5000-and/or 6000-level courses (Must be <br> regularly-scheduled classes as approved by the Graduate <br> Advisor) | 15 |
| Outside Courses | 15 |
| Choose a minimum of 3 hours selected from 5000- or 6000- <br> level courses outside the Plant Biology program (Plant <br> Biology may use Microbiology as long as they are not cross- <br> listed.) | 3 |
| Electives <br> Choose other 5000- and/or 6000-level courses, as approved <br> by advisory committee | 13 |

Total Credit Hours
32
Non-Thesis students must pass a Comprehensive Written Examination administered by a committee of three faculty (two of whom must be Plant Biology faculty) in the last year of study.

## Notes

- No more than 6 hours of Independent Research may be completed with the same instructor. No more than 12 total hours of Independent Research may be applied to the degree.
- With Department approval, up to 8 hours of transfer credit may be applied to the degree. Courses must have grades of $\mathrm{A}, \mathrm{B}$, or S ; be less than 5 years old at the time of admission to the program; and not previously applied to a completed degree.


## General Requirements for all Master's Degrees

The master's degree requires the equivalent of at least two semesters of satisfactory graduate work and additional work as may be prescribed for the degree.

All coursework applied to the master's degree must carry graduate credit.
Master's degree programs which require a thesis consist of at least 30 credit hours. All non-thesis master's degree programs require at least 30 credit hours.

Credit transferred from other institutions must meet specific criteria and is subject to certain limitations.

Courses completed through correspondence study may not be applied to the master's degree.

To qualify for a graduate degree, students must achieve an overall grade point average of 3.0 or higher in the degree program coursework and in all resident graduate coursework attempted. A student must also have at least a 3.0 in all coursework (including undergraduate coursework if any).

Additional information for master's degree students may be found in the Graduate College Bulletin.

## Plant Biology: Bioinformatics, M.S.

Minimum Total Hours (Thesis): 30
Program Code: M787 Q061

## This concentration is in the process of deletion, pending approval from the Provost's Office and OU Board of Regents. Required Courses <br> - This program is Thesis Only.

| Code | Title | Credit |
| :---: | :---: | :---: |
| Required Courses |  |  |
| BIOL 5903 | Topics in Virology | 3 |
| BIOL 5913 |  | 3 |
| PBIO 5971 | Seminar in Botany (1 hour course, two semesters required) | 2 |
| Core Courses |  |  |
| Non-Host courses s | ment Courses: Choose 5000- or 6000-level from outside the Botany department ${ }^{1}$ | 6 |
| Electives |  |  |


| Choose 5000-and/or 6000-level courses, which may include the following: |  | 10 |
| :---: | :---: | :---: |
| PBIO 5620 | Investigations in Botany |  |
| PBIO 5990 | Special Studies in Botany |  |
| Thesis |  |  |
| PBIO 5980 | Research for Master's Thesis | 6 |
| Total Credit Hours |  | 30 |
| ${ }^{1}$ Note: The two b not be used to | ioinformatics courses (BIOL 5903 and BIOL satisfy the non-host department requiremen |  |

## General Requirements for all Master's Degrees

The master's degree requires the equivalent of at least two semesters of satisfactory graduate work and additional work as may be prescribed for the degree.

All coursework applied to the master's degree must carry graduate credit.
Master's degree programs which require a thesis consist of at least 30 credit hours. All non-thesis master's degree programs require at least 30 credit hours.

Credit transferred from other institutions must meet specific criteria and is subject to certain limitations.

Courses completed through correspondence study may not be applied to the master's degree.

To qualify for a graduate degree, students must achieve an overall grade point average of 3.0 or higher in the degree program coursework and in all resident graduate coursework attempted. A student must also have at least a 3.0 in all coursework (including undergraduate coursework if any).

Additional information for master's degree students may be found in the Graduate College Bulletin.

# Microscopic Imaging and Technology, Graduate Certificate 

Minimum Total Hours: 15

Program Code: G619
The Certificate Program in Microscopic Imaging and Technology is designed for graduate students with a strong interest in the investigation of using advanced imaging technology to characterize biological, materials and physical science specimens at a range of resolutions that can reach to a near atomic level. Students who may be interested in this certificate come from a wide range of interests (e.g., Biology, Microbiology, Plant Biology, Biomedical Engineering, Biotechnology, Chemistry, Biochemistry, Materials Sciences, Nanotechnology, Physics).

## Certificate Requirements

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| MBIO 5364 | Transmission Electron Microscopy <br> (crosslisted with PBIO and BIOL) | 4 |
| MBIO 5374 | Scanning Electron Microscopy (crosslisted <br> with PBIO and BIOL) | 4 |


| MBIO $5394 \quad$Advanced Light Microscopy (crosslisted <br> with PBIO and BIOL) | 4 |
| :--- | ---: | ---: |
| Choose 3 hours of Independent Research selected from a <br> list maintained by the Department of Microbiology and Plant | 3 |
| Biology | 15 |
| Total Credit Hours |  |
| A graduate certificate is not a graduate degree. A graduate degree |  |
| represents a program of independent inquiry beyond the depth of |  |
| coursework alone, while a graduate certificate represents a set of courses |  |
| only. |  |

- All courses must be taken at OU. No transfer credit will apply.
- No course substitutions are permitted for graduate certificates.
- Coursework applied to a graduate certificate cannot be more than five years old as of the semester the graduate certificate is awarded.
- Students must earn a grade point average of 3.00 or higher on all coursework applied to the graduate certificate.


## Biology, Ph.D.

Minimum Total Hours: 90
Program Code: D105 R064

## Program Requirements

| Code Title | Credit <br> Hours |
| :--- | ---: |
| Statistics | 3 |
| Choose from one of the following: | 3 |

BIOL $4913 \begin{aligned} & \text { Quantitative Biology (taken for graduate } \\ & \text { credit) }\end{aligned}$
An equivalent graduate-level statistics course as approved by advisory committee

## Biology Electives

$30+$ hours of graduate-level coursework as specified by the 30 advisory committee
Dissertation Research

BIOL $6980 \quad$| Research for Doctoral Dissertation (30 |
| :--- | :--- | :--- |
| hours minimum) |$\quad 30$

## Additional Coursework

Additional courses as needed to complete 90 post- 27 baccalaureate hours, with approval from advisory committee
Total Credit Hours

## General Requirements for Doctoral Degrees

A student should expect to spend at least the equivalent of three full academic years beyond the bachelor's degree to obtain the doctoral degree. During this period the student will take appropriate graduate coursework, successfully complete the general examination, and successfully defend and submit the final dissertation.

All coursework applied to the doctoral degree must carry graduate credit.
The doctoral degree requires at least 90 post-baccalaureate hours, including both formal coursework and hours of research.

The minimum hour requirement for a specific doctoral degree program cannot be waived.

No more than one-half of the credit hours, both OU and overall, excluding Research for Doctoral Dissertation (6980), may be S/U-graded coursework.

The student must be in residence at OU for at least two consecutive 16week semesters during the pursuit of the doctoral degree while enrolled and engaged in coursework or research activities as prescribed by the major academic unit.

For more detailed regulations and requirements for Doctoral degrees, please consult the Graduate College Bulletin: http://www.ou.edu/ gradcollege/forms/bulletin

## Cellular and Behavioral Neurobiology: Biology, Ph.D.

Minimum Total Hours: 90
Program Code: D146
Program Requirements


Total Credit Hours

## General Requirements for Doctoral Degrees

A student should expect to spend at least the equivalent of three full academic years beyond the bachelor's degree to obtain the doctoral degree. During this period the student will take appropriate graduate coursework, successfully complete the general examination, and successfully defend and submit the final dissertation.

All coursework applied to the doctoral degree must carry graduate credit.
The doctoral degree requires at least 90 post-baccalaureate hours, including both formal coursework and hours of research.

The minimum hour requirement for a specific doctoral degree program cannot be waived.

No more than one-half of the credit hours, both OU and overall, excluding Research for Doctoral Dissertation (6980), may be S/U-graded coursework.

The student must be in residence at OU for at least two consecutive 16week semesters during the pursuit of the doctoral degree while enrolled and engaged in coursework or research activities as prescribed by the major academic unit.

For more detailed regulations and requirements for Doctoral degrees, please consult the Graduate College Bulletin: http://www.ou.edu/ gradcollege/forms/bulletin

## Ecology and Evolutionary Biology Biology, Ph.D.

Minimum Total Hours: 90
Program Code: D289
Program Requirements

| Code | Title | Credit Hours |
| :---: | :---: | :---: |
| Required Courses |  |  |
| BIOL 5453 | Advanced Ecology/Evol Biology | 3 |
| BIOL 5471 | Seminar in Ecology \& Evolutionary Biology (2 hours, including two presentations) | 2 |
| Choose one of the following: |  | 3 |
| BIOL 4913 | Quantitative Biology (taken for graduate credit) |  |
| Equivalent graduate-level statistics course as approved by doctoral advisory committee |  |  |
| Dissertation Research |  |  |
| BIOL 6980 | Research for Doctoral Dissertation (30 hours minimum) | 30 |
| Additional Hours |  |  |
| Additional coursework needed to reach 90 post-baccalaureate hours, as approved by the doctoral advisory committee |  | 52 |
| Total Credit Hour |  | 90 |

## General Requirements for Doctoral Degrees

A student should expect to spend at least the equivalent of three full academic years beyond the bachelor's degree to obtain the doctoral degree. During this period the student will take appropriate graduate coursework, successfully complete the general examination, and successfully defend and submit the final dissertation.

All coursework applied to the doctoral degree must carry graduate credit.
The doctoral degree requires at least 90 post-baccalaureate hours, including both formal coursework and hours of research.

The minimum hour requirement for a specific doctoral degree program cannot be waived.

No more than one-half of the credit hours, both OU and overall, excluding Research for Doctoral Dissertation (6980), may be S/U-graded coursework.

The student must be in residence at OU for at least two consecutive 16week semesters during the pursuit of the doctoral degree while enrolled and engaged in coursework or research activities as prescribed by the major academic unit.

For more detailed regulations and requirements for Doctoral degrees, please consult the Graduate College Bulletin: http://www.ou.edu/ gradcollege/forms/bulletin

## Ecology and Evolutionary Biology - Botany and Microbiology, Ph.D.

Minimum Total Hours: 90
Program Code: D290

## Program Requirements

| Code Title | Credit <br> Hours |
| :---: | :---: |
| Required Courses |  |
| MBIO/PBIO 5453 | 3 |
| MBIO/PBIO 5471 Seminar in Ecology \& Evolutionary Biology (including 2 presentations) | 2 |
| MBIO/PBIO 5971 Seminar in Microbiology (2 hours of 5971 taken for the master's degree may be applied) | 3 |
| Outside Courses: 3 credit hours of non-major coursework as approved by the dissertation advisory committee | 3 |
| Additional 5000 and/or 6000 level coursework |  |
| Up to 49 hours of coursework as approved by the dissertation advisory committee. These may include transfer credits from an accredited college or university. | 49 |
| Dissertation Research |  |
| MBIO/PBIO 6980 Research for Doctoral Dissertation (minimum 30 hours) | 30 |

## Total Credit Hours

## NOTES:

- Students must present 2 undergraduate courses that enhance written and oral communication skills, and/or quantitative skills. Does not count towards degree program.
- Independent Research course limitations: Maximum of 6 hours with one instructor, and not more than 12 hours combined under one course number.


## General Requirements for Doctoral Degrees

A student should expect to spend at least the equivalent of three full academic years beyond the bachelor's degree to obtain the doctoral degree. During this period the student will take appropriate graduate coursework, successfully complete the general examination, and successfully defend and submit the final dissertation.

All coursework applied to the doctoral degree must carry graduate credit.
The doctoral degree requires at least 90 post-baccalaureate hours, including both formal coursework and hours of research.

The minimum hour requirement for a specific doctoral degree program cannot be waived.

No more than one-half of the credit hours, both OU and overall, excluding Research for Doctoral Dissertation (6980), may be S/U-graded coursework.

The student must be in residence at OU for at least two consecutive 16week semesters during the pursuit of the doctoral degree while enrolled and engaged in coursework or research activities as prescribed by the major academic unit.

For more detailed regulations and requirements for Doctoral degrees, please consult the Graduate College Bulletin: http://www.ou.edu/ gradcollege/forms/bulletin

## Microbiology, Ph.D.

Minimum Total Hours: 90
Program Code: D690 R451
Program Requirements

| Code | Title | Credit |
| :---: | :---: | :---: |
| Required Courses |  |  |
| Outside Co coursework committee they are no | 3 credit hours of non-microbiology proved by the dissertation advisory Biology courses may be used as long as -listed with MBIO. | 3 |
| MBIO 5971 | Seminar in Microbiology (up to 2 hours taken for the master's degree may be applied) | 3 |
| Additional 5000 and/or 6000 level coursework |  |  |
| Up to 54 hou advisory com an accredite | coursework as approved by the dissertation ee. These may include transfer credits from lege or university. | 54 |
| Dissertation Research |  |  |
| MBIO 6980 | Research for Doctoral Dissertation (30 hours minimum) | 30 |
| Total Credi |  | 90 |
| NOTES: |  |  |
| - Students must present 2 undergraduate courses that enhance written and oral communication skills, and/or quantitative skills. Does not count towards degree program. |  |  |
| - Independent Research course limitations: Maximum of 6 hours with one instructor, and not more than 12 hours combined under one course number. |  |  |

## General Requirements for Doctoral Degrees

A student should expect to spend at least the equivalent of three full academic years beyond the bachelor's degree to obtain the doctoral degree. During this period the student will take appropriate graduate coursework, successfully complete the general examination, and successfully defend and submit the final dissertation.

All coursework applied to the doctoral degree must carry graduate credit.
The doctoral degree requires at least 90 post-baccalaureate hours, including both formal coursework and hours of research.

The minimum hour requirement for a specific doctoral degree program cannot be waived.

No more than one-half of the credit hours, both OU and overall, excluding Research for Doctoral Dissertation (6980), may be S/U-graded coursework.

The student must be in residence at OU for at least two consecutive 16week semesters during the pursuit of the doctoral degree while enrolled and engaged in coursework or research activities as prescribed by the major academic unit.

For more detailed regulations and requirements for Doctoral degrees, please consult the Graduate College Bulletin: http://www.ou.edu/ gradcollege/forms/bulletin

## Plant Biology, Ph.D.

Minimum Total Hours: 90
Program Code: D787 R524

## Program Requirements

| Code Title | Credit Hours |
| :---: | :---: |
| Required Courses |  |
| PBIO $5971 \quad \begin{aligned} & \text { Seminar in Botany (up to } 2 \text { hours taken for } \\ & \text { the master's degree may be applied) }\end{aligned}$ | 3 |
| Outside Courses: 6 credit hours of non-plant biology coursework as approved by the dissertation advisory committee. Microbiology courses may be used as long as they are not cross-listed with PBIO. | 6 |
| Additional 5000 and/or 6000 level coursework |  |
| Up to 51 hours of coursework as approved by the dissertation advisory committee. These may include transfer credits from an accredited college or university. | 51 |
| Dissertation Research |  |
| PBIO 6980 Research for Doctoral Dissertation (30 <br> hours minimum) | 30 |

## Total Credit Hours

## Notes:

- Students must present 2 undergraduate courses that enhance written and oral communication skills, and/or quantitative skills. Does not count towards degree program.
- Independent Research course limitations: Maximum of 6 hours with one instructor, and not more than 12 hours combined under one course number.


## General Requirements for Doctoral Degrees

A student should expect to spend at least the equivalent of three full academic years beyond the bachelor's degree to obtain the doctoral degree. During this period the student will take appropriate graduate coursework, successfully complete the general examination, and successfully defend and submit the final dissertation.

All coursework applied to the doctoral degree must carry graduate credit.
The doctoral degree requires at least 90 post-baccalaureate hours, including both formal coursework and hours of research.

The minimum hour requirement for a specific doctoral degree program cannot be waived.

No more than one-half of the credit hours, both OU and overall, excluding Research for Doctoral Dissertation (6980), may be S/U-graded coursework.

The student must be in residence at OU for at least two consecutive 16week semesters during the pursuit of the doctoral degree while enrolled and engaged in coursework or research activities as prescribed by the major academic unit.

For more detailed regulations and requirements for Doctoral degrees, please consult the Graduate College Bulletin: http://www.ou.edu/ gradcollege/forms/bulletin

## Department of Chemistry and Biochemistry

John Peters, Chair
1000 Stephenson Life Sciences Research Center
101 Stephenson Parkway
Norman, OK 73019-5251
Phone: (405) 325-4811
FAX: (405) 325-6111
chembiochemchair@ou.edu
www.ou.edu/cas/chemistry

## General Information

The mission of the Department of Chemistry and Biochemistry is to serve the citizens of the State of Oklahoma and the nation through instructing our undergraduate majors, those in cognate disciplines and as part of the general education programs of the Dodge College of Arts and Sciences to understand the role of chemistry and biochemistry in the natural world, through professional training of graduate students and postdoctoral researchers, through creating and disseminating new research-based understanding of chemistry and biochemistry, through providing expert advice and consultation to educational, industrial and governmental units, and through participating in service to the university and professional communities.

## Special Facilities and Programs

The Department of Chemistry and Biochemistry currently has an exchange program with the Department of Chemistry at the Technical University of Berlin. The program is open to chemistry majors in their junior or senior year. Students must have compiled a 3.25 grade point average and have had the equivalent of two years of college-level German. The department also has an exchange program with Blaise Pascal University in France for a collaborative M.S./Engineering degree.

## Programs for Academic Excellence

As part of the University-wide Honors Program, the Department of Chemistry and Biochemistry offers special sections of General Chemistry and Organic Chemistry specifically designed for participants in the Honors College. Smaller class sizes allow students to receive more individualized attention.

## Opportunities for Undergraduate Research

Students who show particular ability are strongly encouraged to undertake a research problem as early as possible. Research problems are available in all areas of chemistry (analytical, inorganic, organic,
physical, biochemistry, and chemical education). The research is carried out under supervision of the faculty member who agrees to direct the student's research.

## Scholarships and Financial Aid

Students majoring in chemistry are eligible to apply for any of the general scholarships awarded by the University Scholarship Committee. Further information and applications for the general scholarships and other financial aid, such as Educational Opportunity Grants, may be obtained from the University of Oklahoma Office of Financial Aid Services.

## Undergraduate Study

Students majoring in chemistry receive instruction, including laboratory experience, in all areas of chemistry. This provides necessary background for postgraduate studies or employment in the chemical industry or research laboratories.

## Programs Offered

- Bachelor of Science - Biochemistry (p. 303)

The Biochemistry major is appropriate for premedical and pre-dental students or students with a strong interest in biomedical research. It includes advanced biochemistry coursework as well as a molecular biology course.

- Bachelor of Science - Chemistry (p. 311)

The Chemistry (Professional) major is most suitable for majors who plan to pursue a graduate degree after obtaining their baccalaureate degree. It is the most rigorous in its chemistry course requirements. The professional degree program also is a very good choice for students who begin their chemical studies unsure of their ultimate degree goal. This is because it is much easier to switch from the Professional degree program to either the Chemistry Standard or Biochemistry degree programs, even as late as the senior year, than it is to switch to the professional option from the standard option or biochemistry degree program. This degree is certified by the American Chemical Society as appropriate for students wanting to pursue graduate studies.

- Bachelor of Science - Chemistry and Biochemistry (p. 308) The Chemistry and Biochemistry (Standard) major is the most flexible degree program offered by the department, as it allows for some choice among the advanced courses. It allows students with other interests to develop a curriculum that best suits them. The resulting degree is Bachelor of Science.
- Bachelor of Science - Chemical Biosciences (p. 306) Aimed at students who are specifically focused on a career in a healthcare profession, the requirements overlap with the prerequisites for medical, pharmacy, dental and other health-related programs. As such, it does not adequately prepare students for a traditional graduate program in chemistry or biochemistry, but might prepare them for a graduate program in biomedical studies (depending on the entry requirements for the individual program, since these can vary). And it will not prepare students for a wide variety of careers in the chemical industry. Students would be prepared for work in medical labs and related opportunities. So students entering this program should be very focused on these types of careers and not considering a traditional graduate program in chemistry or biochemistry.
- Chemistry Minor (p. 313)

The Chemistry Minor is available to students majoring in other subjects.

## Graduate Study

## Master of Science Degree

The general requirements for the master's degree in the Graduate College must be met. Within these limits the student works under the supervision of the research director, the graduate liaison, and the departmental Graduate Committee.

- Chemistry and Biochemistry (p. 313)
- Chemistry: Bioinformatics (p. 314)

Thesis Option - Students interested in developing research capability in a particular area of chemistry and biochemistry usually select this option. If desired, students may take an interdisciplinary approach in their thesis.

Non-Thesis Option - This degree is generally selected by those students interested in obtaining an advanced degree in chemistry and biochemistry without research specialization.

## Areas of Specialization

Students may specialize in one of the following major areas of chemistry (analytical, biological, inorganic, organic, physical and chemical education) or in any combination.

## Chemistry Doctoral Programs

The Ph.D. degree in chemistry and biochemistry is awarded for excellence in research scholarship. It signifies the attainment of independently acquired and comprehensive learning attesting to general professional competence.

The Chemistry and Biochemistry Ph.D. is offered under the following concentrations:

- Analytical Chemistry (p. 315)
- Biochemistry (p. 315)
- Inorganic Chemistry (p. 316)
- Materials Chemistry (p. 316)
- Organic Chemistry (p. 317)
- Physical Chemistry (p. 317)
- Structural Biology (p. 317)

The Cellular and Behavioral Neurobiology Graduate Program is a campuswide interdisciplinary program whose faculty members are from Biology, Aerospace \& Mechanical Engineering (AME), Chemistry \& Biochemistry (Chem/Biochem), Health and Exercise Science (HES), and Psychology.

- Cellular and Behavioral Neurobiology: Chemistry and Biochemistry, Ph.D. (p. 318)


## Courses

CHEM 1305 Fundamentals of General Chemistry 5 Credit Hours Prerequisite: MATH 1503 or MATH 1643 or a Math ACT score of 23 or higher. This course covers topics from both semesters of the traditional general chemistry series and is geared towards students who need only one semester of general chemistry. Topics to be covered may range from biochemistry, inorganic, organic, and environmental chemistry. Not open to students with credit for CHEM 1315, CHEM 1335, CHEM 1415, or CHEM 1435. (F) [II-NSL].

CHEM 1315 General Chemistry 5 Credit Hours
Prerequisite: MATH 1503 or MATH 1643, or Math ACT equal to or greater than 25. General Chemistry is an overview of the chemical basis of natural phenomena. First of a two-semester sequence in general chemistry. Topics covered: basic measurement, atomic theory, electron configuration, periodicity, chemical reactivity and energetics, stoichiometry, gas laws and changes in state, bonding and molecular structure. A student may not receive credit for this course and CHEM 1335. Laboratory. (F, Sp, Su) [II-NSL] .

CHEM 1335 General Chemistry I: Signature Course 5 Credit Hours Prerequisite: MATH 1503 or MATH 1643, or Math ACT equal to or greater than 25 AND 2 years high school chemistry OR AP Chemistry. General Chemistry is an overview of the chemical basis of natural phenomena. First of a two-semester sequence which prepares students for higherlevel courses and research. Topics include atomic and molecular structure, chemical reactions, basic thermodynamics, properties of gases, liquids, solids and solutions, including select stoichiometric and quantitative analysis. A student may not receive credit for this course and CHEM 1315. (F, Sp) [II-NSL].
CHEM 1415 General Chemistry (Continued) 5 Credit Hours Prerequisite: CHEM 1305 with a minimum grade of B or CHEM 1315 with a minimum grade of C or CHEM 1335 with a minimum grade of C or a satisfactory score on the chemistry placement examination. Topics covered include thermochemistry, equilibrium, thermodynamics, acid and base properties, kinetics and electrochemistry. A student may not receive credit for this course and CHEM 1435. Laboratory. (F, Sp, Su) [II-NSL].
CHEM 1425 Advanced General Chemistry (HONORS) 5 Credit Hours Prerequisite: Admission to Honors Program; STEM major and four years of high school math and 1 year high school chemistry, or permission of instructor. Designed for STEM majors well prepared in high school chemistry and math. Topics covered at an advanced level of understanding. The topics include: nature of solutions, equilibrium, thermodynamics, acid and base properties, kinetics and electrochemistry, gas laws and changes in state, molecular structure. Laboratory. (F) [IINSL].

CHEM 1435 General Chemistry II: Signature Course 5 Credit Hours Prerequisite: grade of C or better in CHEM 1315 or CHEM 1335 or satisfactory score on the chemistry placement examination. General Chemistry is an overview of the chemical basis of natural phenomena. Second of a two-semester sequence which prepares students for higher-level courses and research. Topics include chemical kinetics and thermodynamics including calorimetry, equilibria, electrochemistry, nuclear chemistry, ionic salts, properties of acids and bases, and acidbase reactions including buffers. Students may not receive credit for 1435 and 1415. Laboratory. (F, Sp) [II-NSL].

## CHEM 2970 Special Topics/Seminar

1-3 Credit Hours
Special Topics. 1 to 3 hours. May be repeated; Maximum credit nine hours. Special topics course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research, and field projects. (Irreg.)

## CHEM 3005 Quantitative Analysis

5 Credit Hours
Prerequisite: CHEM 1415 or CHEM 1425 or CHEM 1435 or equivalent. Analysis by quantitative procedures. Laboratory. (F, Sp)
CHEM 3053 Organic Chemistry I: Biological Emphasis 3 Credit Hours Prerequisite: CHEM 1415 or CHEM 1425 or CHEM 1435. Intended for life science majors. First course in a two-semester sequence (3053 and 3153 ). This course will cover the concepts of organic structure, nomenclature, and reactivity with an emphasis on biological applications. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

CHEM 3064 Organic Chemistry I
4 Credit Hours
Prerequisite: CHEM 1415 or CHEM 1425 or CHEM 1435. Intended for chemistry and biochemistry majors. First course in a two-semester sequence (3064 and 3164). This course will cover the concepts of organic structure, nomenclature, reactivity, and synthesis. The laboratory will use selected experiments to develop the fundamental techniques used in organic research including utilization of spectroscopy and to demonstrate the application of the scientific approach to laboratory work. Laboratory. (F)
CHEM 3152 Organic Chemistry Laboratory: Biological Emphasis 2 Credit Hours
Prerequisite: CHEM 3053 or concurrent enrollment. Intended for life science majors. Laboratory course designed to accompany CHEM 3053 and CHEM 3153. Selected experiments designed to illustrate the fundamental techniques used in organic chemistry, to develop familiarity with the properties of organic compounds and to introduce analytical techniques including spectroscopy. (F, Sp, Su)

CHEM 3153 Organic Chemistry II: Biological Emphasis 3 Credit Hours Prerequisite: CHEM 3053 with a grade of C or better. Intended for life science majors. Second course in a two-semester sequence (3053 and 3153). This course will cover the concepts of organic chemical reactivity with an emphasis on carbohydrates, lipids, and proteins. (F, Sp, Su)
CHEM 3164 Organic Chemistry II
4 Credit Hours
Prerequisite: CHEM 3064, or both CHEM 3053 and CHEM 3152; with a grade of C or better. Intended for chemistry and biochemistry majors. Second course in a two-semester sequence (3064 and 3164). This course will continue the development of organic chemical reactivity, with an emphasis on synthesis, polymers, and biomolecules. The laboratory will use selected experiments to continue the development of techniques used in organic research with an emphasis on synthesis. Laboratory (Sp)

CHEM 3421 Physical Chemistry Laboratory
1 Credit Hour
Prerequisite: 3423 or concurrent enrollment. Physiochemical
measurements and calculations. (F, Sp, Su)
CHEM 3423 Physical Chemistry I
3 Credit Hours
Prerequisite: CHEM 1415 or CHEM 1425 or CHEM 1435; MATH 2423 or MATH 2924 or concurrent enrollment. Kinetic theory of ideal gases and properties of real gases; first, second, and third laws of thermodynamics; chemical and phase equilibria; and chemical kinetics and reaction mechanisms. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
CHEM 3440 Mentored Research Experience
3 Credit Hours
0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)

CHEM 3451 Basic Physical Chemistry Laboratory 1 Credit Hour Prerequisite: 3453 or concurrent enrollment. Laboratory application of physical chemical principles and techniques. (F, Sp)

CHEM 3453 Basic Physical Chemistry 3 Credit Hours
Prerequisite: CHEM 1415 or CHEM 1425 or CHEM 1435; MATH 1823 or MATH 1914; PHYS 2424 or PHYS 2524. The application of physical chemical principles and methods. (F, Sp)
CHEM 3521 Physical Chemistry Laboratory
1 Credit Hour
Prerequisite: CHEM 3523 or concurrent enrollment and CHEM 3421 with a grade of C or better. To perform experiments which illustrate important principles in physical chemistry. (F, Sp, Su)

CHEM 3523 Physical Chemistry II
3 Credit Hours
Prerequisite: 3423 with a grade of "C" or above. Continuation of 3423.
Kinetics, electrochemistry, atomic and molecular states of matter, etc. (F, Sp )
CHEM 3653 Introduction to Biochemistry
3 Credit Hours
Prerequisite: CHEM 3013, CHEM 3053, or CHEM 3064, with a grade of C or better. Chemistry of proteins, carbohydrates, lipids, and nucleic acids; enzyme kinetics; biochemical energetics; intermediary metabolism; regulatory processes. A Student may not receive credit for this course and CHEM 3853. (F)
CHEM 3753 Introduction to Biochemical Methods 3 Credit Hours Prerequisite: CHEM 3653 or CHEM 3853 or concurrent enrollment. A survey of current and routinely used methods in biochemistry. Students attend lecture twice weekly and a three-hour lab per week. Laboratory (Sp)

## CHEM 3853 Biochemistry I

3 Credit Hours
Prerequisite: CHEM 3153 or CHEM 3164 with a grade of C or better. Course 1 of a 2 course progression with focus on Biochemistry. Provides an overview of the cell as an elaborate chemical reactor. Serves as a foundation for further in-depth studies of cellular metabolism. Topics include: structure and function of major biomolecules, catalysis, energy generation, biosynthesis, and information processing. A student may not receive credit for this course and CHEM 3653. (F)

CHEM 3953 Biochemistry II 3 Credit Hours
Prerequisite: CHEM 3853 with a grade of C of better, or CHEM 3653 with a grade of B or better. Course 2 of a 2 course progression with focus on Biochemistry. Topics include information metabolism, biochemical aspects of cell organization, and primary molecular biology reactions. Special emphasis on inhibition of various pathways and drug design and discovery. (Sp)

CHEM 3960 Honors Reading
1-3 Credit Hours
1 to 3 hours. Prerequisite: permission of instructor and permission of Honors College. May be repeated; maximum credit six hours. Consists of topics designated by the instructor in keeping with the student's major program. The topics will cover materials not usually presented in the regular courses. (F, Sp, Su)

## CHEM 3970 Honors Seminar <br> 1-3 Credit Hours

1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. The projects covered in this course will vary. The content will deal with concepts not usually presented in regular coursework. (Irreg.)
CHEM 3980 Honors Research
1-3 Credit Hours
1 to 3 hours. Prerequisite: permission of instructor and permission of Honors College. May be repeated; maximum credit six hours. Provides an opportunity for the gifted Honors candidate to work at a special project in the student's field. (F, Sp, Su)

CHEM 3990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: permission of instructor. May be repeated; maximum credit six hours. Contracted independent study for topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (F, Sp, Su)
CHEM 4023 Instrumental Methods of Chemical Analysis 3 Credit Hours Prerequisite: CHEM 3005. Introduction to instrumental methods of analysis, with emphasis upon electrometric and spectroscopic techniques and instruments. Includes sampling procedures, requirements of reagents and standards, and evaluation of errors. (F)

CHEM 4033 Instrumental Methods of Chemical Analysis Laboratory

3 Credit Hours
Prerequisite: 4023. Selected experiments illustrating the principles developed in 4023. Two four and a half hour laboratories per week. Laboratory (Sp)

CHEM 4053 Culinary Chemistry and Culture in Italy 3 Credit Hours Prerequisite: CHEM 1415 or CHEM 1435 with a grade of $C$ or better. The overall objectives are to understand the chemicals in major chemical processes that occur in the production of wine, cheese, pasta, and gelato and the importance of the traditional meal in Italian culture and knowledge of the varieties of wine and cheese in Italy, making direct and integrated connections between the Organic Chemistry covered in and outside of the classroom. (Su)

CHEM 4232 Laboratory Glassblowing

## 2 Credit Hours

Prerequisite: Departmental permission. Discussion of materials and techniques with demonstrations of procedures. Exercises will be performed in the laboratory with a special emphasis upon the different types of seals required in the construction of glass apparatus. One hour of lecture and three hours of laboratory will be scheduled each week. (F, Sp)
CHEM 4333 Advanced Inorganic Chemistry-Periodic System 3 Credit
Prerequisite: CHEM 3053 or CHEM 3064. A survey of all elements and important compounds based on atomic structure and position in the Periodic System; effect of atomic size, ionic size and charge on the properties of elements. Inorganic nomenclature. (F)
CHEM 4444 Advanced Synthesis and Spectral Characterization 4 Credit

Hours
Prerequisite: CHEM 3164, or both CHEM 3152 and CHEM 3153. Lectures cover spectroscopic analysis, thermodynamics of synthesis and fundamentals of advanced techniques, and hands-on spectroscopic identification of reaction products. Two lecture and six laboratory hours per week. Laboratory (Sp)

CHEM 4753 Principles of Biochemistry I
3 Credit Hours
Prerequisite: CHEM 3153 or CHEM 3164, CHEM 3423 or CHEM 3453,
CHEM 3653 or CHEM 3853 or equivalent. The first semester of a two-semester sequence covering the fundamental principles of protein structure and function, enzymology, carbohydrate and lipid metabolism, biochemical energetics, membranes, nucleic acid and protein metabolism, information transfer and the genetic code, and the interdependence of biochemical pathways. (F)

## CHEM 4913 Senior Thesis

3 Credit Hours
Prerequisite: permission of instructor and permission of department. Capstone Course. Research project, theoretical or experimental, to be arranged with individual faculty member, leading to a senior thesis. Each student will present an oral report in a lecture presentation or poster format to an audience of students and faculty. Laboratory (F, Sp) [V].

CHEM 4923 Senior Project
3 Credit Hours
Prerequisite: Permission of instructor and permission of department. Capstone Course. Topics of current interest and importance in chemistry or biochemistry, requiring in-depth reading, extensive literature search, group work, and report writing. (F, Sp) [V].
CHEM 4933 Current Topics in Biochemistry
3 Credit Hours
Prerequisite: Either CHEM 3653 or CHEM 3853; CHEM 3753; and one semester of physical chemistry with lab. Capstone course for biochemistry majors. Topics of current interest in biochemistry. Students will attend lectures and will be involved in literature search, group discussion, oral presentation, and report writing. (Sp) [V].

CHEM 4960 Directed Readings
1-4 Credit Hours
1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean. May be repeated; maximum credit four hours. Designed for upper-division students who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)

CHEM 4970 Special Topics/Seminar 1-3 Credit Hours
1 to 3 hours. Prerequisite: Senior standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)
CHEM 4980 Undergraduate Research
1-4 Credit Hours
Prerequisite: permission of instructor. May be repeated; maximum credit six hours. Provides an opportunity for student to work on a special project under the supervision of faculty in the student's field. (F, Sp, Su)
CHEM 4990 Independent Study 1-3 Credit Hours 1 to 3 hours. Prerequisite: permission of instructor. May be repeated; maximum credit six hours. Contracted independent study for topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (F, Sp, Su)
CHEM 5001 Practicum in General Chemistry Education 1 Credit Hour Prerequisite: graduate standing in the Department of Chemistry and Biochemistry or permission of instructor. Explores the pedagogical issues associated with teaching general chemistry at the undergraduate level. Includes administration of instruction, student and teacher behavior, goals of instruction, instructional strategies, student thinking processes, problem solving, and grading. (F)
CHEM 5011 Fundamentals I
1 Credit Hour
Prerequisite: graduate standing in the Department of Chemistry and Biochemistry or permission of instructor. Designed to provide all students entering the graduate program with the skills required to succeed in the Ph.D. program. (F)

CHEM 5021 Fundamentals II
1 Credit Hour
Prerequisite: graduate standing in the Department of Chemistry and Biochemistry or permission of instructor. Designed to provide all firstyear graduate students with the skills required to succeed in the Ph.D. program. (Sp)
CHEM 5080 Laboratory Rotations
1-2 Credit Hours
1 to 2 hours. Prerequisite: graduate standing in the Department of Chemistry and Biochemistry. May be repeated; maximum credit 3 hours. Seven-week rotations per credit hour in research laboratories, normally during the first semester of graduate school. (F, Sp)

CHEM 5090 Departmental Colloquium 0 Credit Hours
Prerequisite: graduate standing in the Department of Chemistry and Biochemistry or permission of instructor. Enrollment is expected during each semester of graduate study. Oral presentations on recent developments in chemistry and biochemistry by invited speakers, faculty, advanced graduate students, and postdoctoral fellows. (F, Sp)

CHEM 5100 Instrumental Methods of Analysis 1-3 Credit Hours 1 to 3 hours. Prerequisite: graduate standing in the Department of Chemistry and Biochemistry or permission of instructor. May be repeated with change of content; maximum credit 4 hours. Core course for the Analytical Program. Topics will provide an overview of various instrumental methods employed for qualitative and quantitative chemical analysis. (F, Sp)

CHEM 5110 Spectroscopic Chemical Analysis
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing in the Department of Chemistry and Biochemistry or permission of instructor. May be repeated with change of content; maximum credit 4 hours. Core course for the Analytical Program. Theory and operation of instruments employed for optical spectroscopy. (F, Sp)

## CHEM 5120 Separation Methods

1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing in the Department of Chemistry and Biochemistry or permission of instructor. May be repeated with change of content; maximum credit 4 hours. Core course for the Analytical Program. Basic principles underlying methods employed for chemical separations with emphasis on chromatographic methods. (F, Sp)

CHEM 5160 Special Topics in Analytical Chemistry:

## Instrumentation

1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing in the Department of Chemistry and Biochemistry and CHEM 5100, or permission of instructor. May be repeated with change of content; maximum credit 12 hours. Selected topics will focus on instrumentation and applications of selected chemical analysis techniques. (Irreg.)

## CHEM 5170 Special Topics in Analytical Chemistry:

 Methodology1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing in the Department of Chemistry and Biochemistry and CHEM 5100, or permission of the instructor. May be repeated with change in subject matter for a maximum of 12 credit hours. Selected topics will focus on details of specific methodologies employed for chemical analysis. (Irreg)
CHEM 5180 Practicum in Analytical Chemistry $\quad$ 1-2 Credit Hours 1 to 2 hours. Prerequisite: Graduate standing in the Department of Chemistry and Biochemistry and CHEM 5100, or permission of the instructor. May be repeated with change of content; maximum credit four hours. Study and training in practical methods relevant to analytical chemistry. (F, Sp)

CHEM 5191 Seminar in Analytical Chemistry
1 Credit Hour
Prerequisite: graduate standing in the Department of Chemistry and Biochemistry or permission of instructor. May be repeated; maximum credit 12 hours. Oral presentations and discussions of topics relevant to the current state-of-the-art in analytical chemistry research. (F, Sp)
CHEM 5200 Principles of Biochemistry
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing in the Department of Chemistry and Biochemistry or permission of instructor. May be repeated with change of content; maximum credit 4 hours. Core course for graduate Biochemistry Program. Fundamental principles of biomolecules, protein structure and function, enzymology, carbohydrate and lipid metabolism, nucleic acid and protein metabolism, membranes and signal transduction, expression and transmission of genetic information, and the interdependence of biochemical pathways. (F, Sp)

CHEM 5210 Molecular Biology 1-3 Credit Hours 1 to 3 hours. Prerequisite: graduate standing in the Department of Chemistry and Biochemistry or permission of instructor. May be repeated with change of content; maximum credit 4 hours. Core course for graduate Biochemistry Program. Characteristics and biological functions of nucleic acids and proteins in living cells with emphasis on nucleic acid replication, transcription, translation and regulation; also emphasis on the molecular aspects of genetic engineering/recombinant DNA technology. (F, Sp)

CHEM 5240 Biochemical and Biophysical Methods 1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing in the Department of Chemistry and Biochemistry and CHEM 5200, or permission of the instructor. Basic principles and practical applications of the analytical and preparative techniques used in current biochemical and biophysical research. ( $\mathrm{F}, \mathrm{Sp}$ )

CHEM 5260 Special Topics in Biochemistry I 1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing in the Department of Chemistry and Biochemistry and CHEM 5240, or permission of the instructor. May be repeated with change of content; maximum credit 12 hours. Selected contemporary topics that investigate the frontiers of knowledge in biochemistry. (Irreg.)

CHEM 5270 Special Topics in Biochemistry II 1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing in the Department of Chemistry and Biochemistry and CHEM 5240, or permission of the instructor. May be repeated with change of content; maximum credit 12 hours. Selected contemporary topics that focus on applications of biochemical knowledge. (Irreg.)
CHEM 5280 Practicum in Biochemistry
1-2 Credit Hours
1 to 2 hours. Prerequisite: Graduate standing in the Department of Chemistry and Biochemistry and CHEM 5240, or permission of the instructor. May be repeated with change of content; maximum credit four hours. Study and training in practical methods relevant to biochemistry. ( $\mathrm{F}, \mathrm{Sp}$ )
CHEM 5291 Seminar in Biochemistry
1 Credit Hour
Prerequisite: graduate standing in the Department of Chemistry and Biochemistry or permission of instructor. May be repeated; maximum credit 12 hours. Research seminar in which graduate students and invited speakers present and discuss current advances in biochemical research. ( $\mathrm{F}, \mathrm{Sp}$ )
CHEM 5300 Intermediate Inorganic Chemistry 1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing in the Department of Chemistry and Biochemistry or permission of instructor. May be repeated with change of content; maximum credit 4 hours. Fundamental concepts and an introduction to modern inorganic chemistry. Topics may include: atomic structure and relation to properties of the elements, bonding theory, coordination and bioinorganic compounds, organometallic compounds and catalysis, symmetry and applications to spectroscopy, magnetic materials. ( $\mathrm{F}, \mathrm{Sp}$ )
CHEM 5330 Advanced Inorganic Chemistry 1-3 Credit Hours 1 to 3 hours. Prerequisite: Graduate standing in the Department of Chemistry and Biochemistry and CHEM 5300, or permission of instructor. May be repeated with change of content; maximum credit 12 hours. For students majoring in inorganic chemistry. Selected topics for this course may include: physical and experimental methods in inorganic chemistry, modern spectroscopic methods in inorganic chemistry, bioinorganic and organometallic reactions, advanced kinetics and inorganic reaction mechanisms, catalysis, and advanced experimental design for mechanistic evaluation. (F, Sp)

CHEM 5360 Frontiers in Inorganic Chemistry
1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing in the Department of Chemistry and Biochemistry and CHEM 5300, or permission of instructor. May be repeated with change of content; maximum credit 12 hours. Selected topics concerning the theory, synthesis, reactivity and applications of inorganic and coordination compounds. Topics may include: computational chemistry, electrochemistry, metals in biology and medicine, industrial and biological main group chemistry, environmental chemistry, applications of inorganic compounds in alternative energy (nuclear cycle, hydrogen cycle, photovoltaics), and inorganic materials science (metal-organic frameworks, metallopolymers, inorganic polymers). ( $\mathrm{F}, \mathrm{Sp}$ )
CHEM 5380 Practicum in Inorganic Chemistry
1-2 Credit Hours
1 to 2 hours. Prerequisite: Graduate standing in the Department of Chemistry and Biochemistry and CHEM 5300, or permission of instructor. May be repeated with change of content; maximum credit 4 hours. Study and training in practical methods relevant to inorganic chemistry. (F, Sp)
CHEM 5391 Seminar in Inorganic Chemistry 1 Credit Hour
Prerequisite: Graduate standing in the Department of Chemistry and Biochemistry and CHEM 5300, or permission of instructor. May be repeated; maximum credit 12 hours. Graduate student research seminar and related activities, with a selection of topics related to research preparation and research outcomes. (F, Sp)
CHEM 5400 Organic Chemistry I: Mechanisms and

## Reactivity

1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing in the Department of Chemistry and Biochemistry or permission of instructor. May be repeated with change of content; maximum credit 4 hours. Core course for graduate Program of Study in Organic Chemistry. Introduction to the study of organic reaction mechanisms and reactivity. ( $F, S p$ )
CHEM 5430 Organic Chemistry II: Reactions and Synthesis 1-3 Credit

Hours
1 to 3 hours. Prerequisite: Graduate standing in the Department of Chemistry and Biochemistry and CHEM 5400, or permission of instructor. May be repeated with change of content; maximum credit 4 hours. Core course for graduate Program of Study in Organic Chemistry. Detailed treatment of reactions used in organic synthesis and the design of synthetic strategy. (F, Sp)

CHEM 5450 Structural Characterization of Organic Compounds 1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing in the Department of Chemistry and Biochemistry and CHEM 5400, or permission of instructor. May be repeated with change of content; maximum credit 4 hours. Application of current methods to problems of structure determination in organic chemistry. (F, Sp)

## CHEM 5460 Special Topics in Chemical Reactivity and Physical

 Organic Chemistry 1-3 Credit Hours1 to 3 hours. Prerequisite: Graduate standing in the Department of Chemistry and Biochemistry and CHEM 5400, or permission of instructor. May be repeated with change of content; maximum credit 12 hours. Selected topics in the study and application of specialized chemical reaction methods. Topics may include: theoretical or computational aspects of organic chemistry; advanced study of reaction mechanisms; study and application of novel chemical methods such as photochemical methods, organometallic chemistry, chemical catalysis, reagent design and application. (Irreg.)

CHEM 5470 Special Topics in Bioorganic and Specialized Organic Compounds

1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing in the Department of Chemistry and Biochemistry and CHEM 5400, or permission of instructor. May be repeated with change of content; maximum credit 12 hours. Selected topics in the study and preparation of specialized classes of organic compounds including biologically related aspects of organic chemistry. Topics may include: specialized synthesis and design strategies; medicinal chemistry; study and application of biosynthetic methods; advanced synthetic design for targeted organic compounds; study of specialized classes of compounds including natural products, medicinal compounds, bioactive compounds, polymers, functional materials and devices. (Irreg.)
CHEM $5480 \quad$ Practicum in Organic Chemistry 1-2 Credit Hours 1 to 2 hours. Prerequisite: Graduate standing in the Department of Chemistry and Biochemistry and CHEM 5400, or permission of instructor. May be repeated with change of content; maximum credit 4 hours. Study and training in practical methods relevant to organic chemistry. Topics may include: use of modern instrumental methods for organic structural determination; acquisition and interpretation of spectral data for structural determination; optimization of measurement techniques; specialized preparative laboratory methods; specialized methods for separation and analysis of organic compounds. (F, Sp)
CHEM 5491 Seminar in Organic Chemistry 1 Credit Hour
Prerequisite: Graduate standing in the Department of Chemistry and Biochemistry and CHEM 5400, or permission of instructor. May be repeated; maximum credit 12 hours. Research and literature seminar for presenting and discussing a selection of topics from current literature or research in organic chemistry. ( $\mathrm{F}, \mathrm{Sp}$ )
CHEM 5500 Topics in Quantum Chemistry 1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing in the Department of Chemistry and Biochemistry or permission of instructor. May be repeated with change of content; maximum credit 6 hours. Review of classical mechanics; introduction to wave mechanics and applications to atoms and molecules. This is a core course for graduate majors. (F, Sp)

CHEM 5530 Topics in Statistical Thermodynamics 1-3 Credit Hours 1 to 3 hours. Prerequisite: Graduate standing in the Department of Chemistry and Biochemistry and CHEM 5500 or concurrent enrollment, or permission of the instructor. May be repeated with change of content; maximum credit 6 hours. Chemical thermodynamics, statistical thermodynamics, chemical kinetics, applications of quantum chemistry, structure of matter. This is a core course for graduate majors. ( $\mathrm{F}, \mathrm{Sp}$ )
CHEM 5570 Selected Topics in Physical Chemistry 1-3 Credit Hours 1 to 3 hours. Prerequisite: Graduate standing in the Department of Chemistry and Biochemistry and CHEM 5500 or CHEM 5520, or permission of instructor. May be repeated with change of content; maximum credit 12 hours. Studies in special areas of physical chemistry not covered in the regular course curriculum. (F, Sp)

CHEM 5580 Practicum in Physical Chemistry 1-2 Credit Hours 1 to 2 hours. Prerequisite: Graduate standing in the Department of Chemistry and Biochemistry and CHEM 5500 or CHEM 5520, or permission of instructor. May be repeated with change of content; maximum credit 4 hours. Study and training in practical methods relevant to physical chemistry. (F, Sp)

CHEM 5591 Seminar in Physical Chemistry
1 Credit Hour
Prerequisite: Graduate standing in the Department of Chemistry and Biochemistry and CHEM 5500 or CHEM 5520, or permission of instructor. May be repeated; maximum credit 12 hours. Participation is required of all graduate students majoring in physical chemistry. Research seminar, with a selection of topics from current or projected research at the University of Oklahoma. Discussion of contemporary topics in physical chemistry and related disciplines. (F, Sp)
CHEM 5730 Macromolecular Crystallography
1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing in the Department of Chemistry and Biochemistry and CHEM 5210, or permission of instructor. May be repeated with change of content; maximum credit 4 hours. Principles of diffraction, symmetry, reciprocal space, data collection, data reduction and absorption corrections; methods for structure solution and refinement; and interpretation of data and limitations thereof. (F, Sp)
CHEM 5750 Macromolecular Structure and Function 1-3 Credit Hours 1 to 3 hours. Prerequisite: Graduate standing in the Department of Chemistry and Biochemistry and CHEM 5200, or permission of instructor. May be repeated with change of content; maximum credit 4 hours. Principles of protein architecture and levels of organization, nucleic acid structure, functional roles of intermolecular interactions, structurefunction in protein and nucleic acid complexes. ( $F, S p$ )
CHEM 5760 Special Topics in Structural Biology 1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing in the Department of Chemistry and Biochemistry and CHEM 5200, or permission of instructor. May be repeated with change of content; maximum credit 12 hours. Content may include the structural basis of signal transduction, structural dynamics, computational methods for biological macromolecules, microscopy, structural basis for gene regulation, and structure-guided drug discovery and design. (Irreg.)
CHEM 5780 Practicum in Structural Biology
1-2 Credit Hours
1 to 2 hours. Prerequisite: Graduate standing in the Department of Chemistry and Biochemistry and CHEM 5730 or CHEM 5740, or permission of instructor. May be repeated; maximum credit four hours. The X-ray practicum (prerequisite: 5730) includes crystallization, advanced checkout and operation of X-ray diffractometers, data collection using research samples, structure solution and refinement, and evaluation of crystal structure quality. The NMR practicum (prerequisite: 5740) includes sample preparation of biological macromolecule on a research sample, advanced checkout and operation of NMR spectrometers, structure determination and dynamics, and evaluation of structure quality. (F, Sp)
CHEM 5960 Directed Readings in Chemistry
1-2 Credit Hours
1 to 2 hours. Prerequisite: permission. May be repeated with change of content; maximum credit six hours. Selected from topics of current interest in any of the areas of chemistry. (F, Sp, Su)
CHEM 5970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

CHEM 5980 Research for Master's Thesis
2-9 Credit Hours
Variable enrollment, two to nine hours; maximum credit applicable toward degree, six hours. (F, Sp, Su)

CHEM 5990 Independent Studies 1-3 Credit Hours
1 to 3 hours. May be repeated with change of subject matter; maximum credit nine hours. Staff members in the student's field of interest supervise research and/or library studies which closes gaps in student's training or builds on this training in specialized areas. ( $F, S p, S u$ )

CHEM 6960 Directed Readings
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit six hours. Directed readings and/or literature review under the direction of a faculty member. (Irreg.)

CHEM 6980 Research for Doctoral Dissertation 2-16 Credit Hours
2 to 16 hours. Prerequisite: Graduate standing; may be repeated. Directed research culminating in the completion of the doctoral dissertation. ( $F$, Sp, Su)
CHEM 6990 Independent Study

## 1-3 Credit Hours

1 to 3 hours. Prerequisite: Graduate standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)

## Faculty

| Last Name | First/Middle <br> Name | Middle init. | OU <br> Service start | Title(s), date(s) appointed | Degrees Earned, Schools, Dates Completed |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Ashby | Michael | T | 1990 | DAVID ROSS BOYD <br> PROFESSOR OF CHEMISTRY AND BIOCHEMISTRY, 2016 | PhD, Univ of Arizona, 1988; BS, Univ of Arizona, 1982 |
| Biggs | Robyn |  | 2013 | ASSISTANT PROFESSOR OF CHEMISTRY AND BIOCHEMISTRY, 2013 | PhD, Univ of Ottawa, 2013; BS, Univ of Ottawa, 2009 |
| Bourne | Christina |  | 2014 | ASSISTANT <br> PROFESSOR OF <br> CHEMISTRY AND <br> BIOCHEMISTRY, 2014 | PhD, Univ of Oklahoma, 2003; BS, Univ of Oklahoma, 1997 |
| Burgett | Anthony | w | 2012 | ASSISTANT <br> PROFESSOR OF <br> CHEMISTRY AND <br> BIOCHEMISTRY, 2012 | PhD, Univ of Texas Southwest Med Ctr, 2006; BS, Univ of Oklahoma, 1999 |
| Cao | Binrui |  | 2016 | RESEARCH <br> ASSISTANT <br> PROFESSOR OF <br> CHEMISTRY AND <br> BIOCHEMISTRY, 2016 | PhD, Univ of Oklahoma, 2010; BS, Univ of Science \& Tech, 2005 |
| Cichewicz | Robert | H | 2005 | REGENTS' <br> PROFESSOR OF <br> CHEMISTRY AND <br> BIOCHEMISTRY, <br> 2012; PROFESSOR <br> OF CHEMISTRY AND <br> BIOCHEMISTRY, 2014 | PhD, Michigan State Univ, 2002; MS, Univ of Louisiana at Monroe, 1999; BS, Grand Valley State Univ, 1994 |
| Clifford | Laura | J | 2005 | ASSISTANT PROFESSOR OF CHEMISTRY AND BIOCHEMISTRY, 2005 | PhD, Michigan State Univ, 2002; MS, Iowa State Univ, 1998; BS, Iowa State Univ, 1994 |
| Du | Lin |  | 2015 | RESEARCH <br> ASSISTANT <br> PROFESSOR OF <br> CHEMISTRY AND <br> BIOCHEMISTRY, 2015 | PhD, Ocean Univ of China, 2009; BS, Ocean Univ of China, 2004 |


| Duerfeldt | Adam | S | 2014 | ASSISTANT <br> PROFESSOR OF <br> CHEMISTRY AND <br> BIOCHEMISTRY, 2014 | PhD, Univ of Kansas, 2011; BA, Central College, 2006 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Glatzhofer | Daniel | T | 1988 | PRESIDENT'S ASSOCIATES PRESIDENTIAL PROFESSOR, 2004; PROFESSOR OF CHEMISTRY AND BIOCHEMISTRY, 2005; DAVID ROSS BOYD PROFESSOR OF CHEMISTRY AND BIOCHEMISTRY, 2015 | PhD Univ of Michigan, 1984; MS, Univ of Michigan, 1982; BS, Denison, 1979 |
| Halterman | Ronald | L | 1991 | PROFESSOR OF CHEMISTRY AND BIOCHEMISTRY, 1995 | PhD, Univ of California Berkeley, 1985; BS, University of California Riverside, 1980 |
| Hansmann | Ulrich | HE | 2011 | PROFESSOR OF CHEMISTRY AND BIOCHEMISTRY, 2011 | PhD, Freie Universitat <br> Berlin, 1990; MS, <br> Freie Universitat <br> Berlin, 1985; MA, <br> Freie Universitat <br> Berlin, 1983 |
| Kothapalli | Naga Rama |  | 2013 | ASSISTANT PROFESSOR OF CHEMISTRY AND BIOCHEMISTRY, 2017 | PhD Univ of Nebraska, 2006; MS, Univ of Mumbai, 2000; BS, Univ of Mumbai, 1998 |
| Liu | Shaorong |  | 2008 | PROFESSOR OF CHEMISTRY AND BIOCHEMISTRY, 2008 | PhD, Texas Tech Univ 1995; M Eng, Peking Univ, 1985; BS, Huazhong Normal Univ, 1982 |
| Mao | Chuanbin |  | 2005 | EDITH KINNEY <br> GAYLORD <br> PRESIDENTIAL <br> PROFESSOR, 2010; <br> GEORGE LYNN <br> CROSS RESEARCH <br> PROFESSOR OF <br> CHEMISTRY AND <br> BIOCHEMISTRY, 2015 | PhD, Northeastern Univ, 1997; BS, Northeastern Univ, 1992 |
| McCall | Laura-Isobel |  | 2017 | ASSISTANT <br> PROFESSOR OF <br> CHEMISTRY AND <br> BIOCHEMISTRY, <br> 2017; ADJUNCT <br> ASSISTANT <br> PROFESSOR OF MICROBIOLOGY AND PLANT BIOLOGY, 2018 | PhD, McGill Univ, 2013 |
| Menon | Smita | K | 2014 | RESEARCH <br> ASSISTANT <br> PROFESSOR OF <br> CHEMISTRY AND <br> BIOCHEMISTRY, 2014 | PhD, Montana State Univ, 2009; MS, Univ of Mumbai, 2000 |
| Morvant | Mark | C | 2006 | PROFESSOR OF CHEMISTRY AND BIOCHEMISTRY, 2012; ASSOCIATE PROVOST, TEACHING AND TECHNOLOGY, 2014; SENIOR FELLOW, DUNHAM COLLEGE, 2017 | PhD, Univ of Oklahoma, 1996; BS, Tarleton State Univ, 1990 |


| Nelson | Donna | J | 1983 | PROFESSOR OF CHEMISTRY AND BIOCHEMISTRY, 2010 | PhD, Univ of Texas, 1979; BS, Univ of Oklahoma, 1974 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Odeleye | Oluwatobi |  | 2017 | ASSISTANT PROFESSOR OF CHEMISTRY AND BIOCHEMISTRY, 2017 | PhD, South Dakota State Univ, 2017; MS, Eastern Michigan Univ, 2013; BS, Eastern Michigan Univ, 2011 |
| Petrushenko | Zoya | M | 2001 | RESEARCH <br> ASSISANT <br> PROFESSOR OF <br> CHEMISTRY AND <br> BIOCHEMISTRY, 2010 | PhD, Kiev State Univ, 1989 |
| Qiu | Penghe |  | 2005 | RESEARCH <br> ASSISTANT <br> PROFESSOR OF <br> CHEMISTRY AND <br> BIOCHEMISTRY, 2016 | PhD, Univ of Oklahoma, 2010; BS, Univ of Science \& Tech, 2004 |
| Rajan | Rakhi |  | 2014 | ASSISTANT PROFESSOR OF CHEMISTRY AND BIOCHEMISTRY, 2014 | PhD, Ohio State Univ, 2007; MS, Tamil Nadu Agricultural Univ, 2000; BS, Kerala Agricultural Univ, 1998 |
| Rice | Charles | V | 2002 | ASSOCIATE PROFESSOR OF CHEMISTRY AND BIOCHEMISTRY, 2008; ADJUNCT ASSOCIATE PROFESSOR OF FRESHMAN PROGRAMS, 2015 | PhD, Purdue Univ, 2000; MS, Illinois State, 1995; BS, Illinois State, 1993 |
| Richter- <br> Addo | George | B | 1993 | PRESIDENT'S <br> ASSOCIATES <br> PRESIDENTIAL <br> PROFESSOR, 2000; <br> PROFESSOR OF <br> CHEMISTRY AND <br> BIOCHEMISTRY, <br> 2001; ADJUNCT <br> PROFESSOR <br> OF FRESHMAN <br> PROGRAMS, 2015; <br> GEORGE LYNN <br> CROSS RESEARCH <br> PROFESSOR, 2017 | PhD, Univ of British Columbia, 1988; BS, Univ of Cape Coast, 1982 |
| Rybenkov | Valentin | v | 2000 | PROFESSOR OF CHEMISTRY AND BIOCHEMISTRY, 2016 | PhD, Moscow Inst of Physics \& Tech, 1992; MS, Moscow Inst of Physics \& Tech, 1989 |
| Saparov | Bayrammurad |  | 2016 | ASSISTANT PROFESSOR OF CHEMISTRY AND BIOCHEMISTRY, 2016 | PhD, Univ of <br> Delaware, 2011; <br> Diploma, Lomonosov <br> Moscow State Univ, <br> 2006 |
| Schroeder | Susan | J | 2010 | ASSOCIATE PROFESSOR OF MICROBIOLOGY AND PLANT BIOLOGY; ASSOCIATE PROFESSOR OF CHEMISTRY AND BIOCHEMISTRY | Ph.D., University of Rochester, 2002; B.S., University of Rochester, 1995 |
| Shao | Yihan |  | 2016 | ASSISTANT <br> PROFESSOR OF <br> CHEMISTRY AND <br> BIOCHEMISTRY, 2016 | PhD, Univ of California, 2002; BS, Nanjing Univ, 1993 |


| Sharma | Indrajeet |  | 2014 | ASSISTANT <br> PROFESSOR OF <br> CHEMISTRY AND <br> BIOCHEMISTRY, 2014 | PhD, Wayne State Univ, 2011; MS, Indian Inst of Tech, 2006; BS, Univ of Delhi, 2004 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Sims | Paul | A | 2007 | ASSOCIATE <br> PROFESSOR OF <br> CHEMISTRY AND <br> BIOCHEMISTRY, 2013 | PhD, Univ of <br> Wisconsin, 2005; MS, <br> Colorado State Univ, <br> 1999; BA, Adams <br> State College, 1994; <br> BA, Adams State <br> College, 1989 |
| Singh | Shanteri |  | 2015 | ASSISTANT PROFESSOR OF CHEMISTRY AND BIOCHEMISTRY, 2015 | PhD, Tata Inst of Fundamnt Research, 1996; BS, Mangalore Univ, 1990 |
| West | Ann | H | 1996 | EDITH GAYLORD <br> HARPER <br> PRESIDENTIAL <br> PROFESSOR, 2001; <br> PROFESSOR OF <br> CHEMISTRY AND <br> BIOCHEMISTRY, <br> 2016; JOSEPH <br> BRANDT <br> PROFESSOR, 2008; <br> GRAYCE B. KERR <br> CENTENNIAL CHAIR, <br> 2015 | PhD, Yale Univ, 1991; <br> BA, Wesleyan Univ, 1983 |
| White | Robert | L | 1985 | PROFESSOR OF CHEMISTRY AND BIOCHEMISTRY, 1998 | PhD, Univ of Nebraska, 1982; BS, Purdue Univ, 1978 |
| Wu | Si |  | 2015 | ASSISTANT <br> PROFESSOR OF <br> CHEMISTRY AND <br> BIOCHEMISTRY, 2015 | PhD, Washington <br> State Univ, 2006; BS, <br> Anhui Univ, 1997 |
| Yang | Zhibo |  | 2012 | ASSOCIATE <br> PROFESSOR OF <br> CHEMISTRY AND <br> BIOCHEMISTRY, 2018 | PhD, Wayne State Univ, 2005; MS, Univ of Sci \& Tech, 2000; BS, Univ of Sci \& Tech, 1997 |
| Yip | Wai Tak |  | 2000 | ASSOCIATE <br> PROFESSOR OF <br> CHEMISTRY AND <br> BIOCHEMISTRY, 2006 | PhD, Univ of Chicago, 1996; BS, Univ of Hong Kong, 1989 |
| You | JianLan |  | 2011 | RESEARCH <br> ASSISTANT <br> PROFESSOR OF <br> CHEMISTRY AND <br> BIOCHEMISTRY, 2016 | PhD, Sun Yat-Sen Univ of Med Sci, 2005; BS, Sun YatSen Univ of Med Sci, 2000 |
| Zgurskaya | Elena | 1 | 2000 | PROFESSOR OF CHEMISTRY AND BIOCHEMISTRY, 2010 | PhD, Russian Acad of Science, 1992; BS, Dnipropetrovsk State, 1989 |

## Biochemistry, B.S.

Minimum Total Credit Hours: 120
Major Hours: 33
Minimum Upper-Division Hours: 48
Overall GPA - Combined and OU: 2.00
Major GPA - Combined and OU: 2.00
Program Code: B100

## Major Requirements

- Some courses required for the major may also fulfill University General Education and/or Dodge College of Arts \& Sciences Requirements.
- A grade of $C$ or better must be earned in each Chemistry course presented for major credit. No grade below a C made in Chemistry courses at the upper-division level may be made up elsewhere without prior written approval by the OU Chemistry Department.
- The introductory CHEM courses
(CHEM 1315, CHEM 1335, CHEM 1415, CHEM 1425, \& CHEM 1435) do not count towards the 33 required major hours.

| Code | Title |
| :--- | :--- |
|  | Credit |
|  | Hours |

## Major Requirements

CHEM 1315 General Chemistry
or CHEM 13乏General Chemistry I: Signature Course
Choose one of the following:
CHEM 1415 General Chemistry (Continued)
CHEM 1425 Advanced General Chemistry (HONORS)
CHEM 1435 General Chemistry II: Signature Course
Choose one of the following groups: 8
Group A:
CHEM 3064 Organic Chemistry I
CHEM 3164 Organic Chemistry II
Group B:

| CHEM 3053 | Organic Chemistry I: Biological Emphasis |  |
| :--- | :--- | :--- |
| CHEM 3152 | Organic Chemistry Laboratory: Biological |  |
|  | Emphasis |  |
| CHEM 3153 | Organic Chemistry II: Biological Emphasis |  |
| CHEM 3005 | Quantitative Analysis | 5 |
| CHEM 3421 | Physical Chemistry Laboratory | 1 |
| CHEM 3423 | Physical Chemistry I | 3 |
| CHEM 3521 | Physical Chemistry Laboratory | 1 |
| CHEM 3523 | Physical Chemistry II | 3 |
| CHEM 3753 | Introduction to Biochemical Methods | 3 |
| CHEM 3853 | Biochemistry I | 3 |
| CHEM 3953 | Biochemistry II | 3 |
| BIOL/MBIO/PBIO | Molecular Biology | 3 |
| 4843 |  |  |

Total Credit Hours

## Major Support Requirements

| Code | Title | Credit <br> Hours |
| :--- | :--- | :---: |
| Math | Calculus and Analytic Geometry I |  |
| MATH 1823 |  |  |
| or MATH 1914 | Differential and Integral Calculus I |  |
| MATH 2423 | Calculus and Analytic Geometry II |  |
| or MATH 2924 | Differential and Integral Calculus II | $3-4$ |
| Physics  <br> Choose one of the following: $3-4$ |  |  |


| PHYS 2414 | General Physics for Life Science Oriented |
| :--- | :--- |
| \& PHYS 2424 | Majors <br> and General Physics for Life Science <br> Oriented Majors |
| PHYS 2514 | General Physics for Engineering and <br> \& PHYS 2524 <br> Science Majors <br> and General Physics for Engineering and <br> Science Majors |

## Total Credit Hours

## General Education and College Requirements

Courses for fulfillment of General Education and Dodge College of Arts \& Sciences requirements must be from the approved General Education course list published in the Class Schedule or at http://www.ou.edu/ gened/courses. Courses graded P/NP will not apply.

## UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS <br> Code <br> Title <br> Credit Hours <br> Core Area I: Symbolic and Oral Communication <br> English Composition (6 hours) <br> ENGL 1113 Principles of English Composition 3 <br> ENGL 1213 Principles of English Composition 3 <br> or EXPO 1213 Expository Writing

Language (0-13 hours in the same language)
The college requirement cannot be met by high school coursework.
Beginning Course 0-5

Beginning Course, continued 0-5
Intermediate Course (2000 level) ${ }^{1,2} \quad 0-3$
Mathematics (3 hours)
Choose one course from the General Education Mathematics 3
list
Core Area II: Natural Science (7 hours, including one laboratory component)
Biological Science
Choose an approved General Education Natural Science 3-4
course with one of the following prefixes: BIOL, HES, MBIO, or PBIO ${ }^{1}$
Physical Science
Choose an approved General Education Natural Science 3-4
course with one of the following prefixes: AGSC, ASTR, CHEM,
GEOG, GEOL, GPHY, METR, or PHYS ${ }^{1}$
Core Area III: Social Science (6 hours)
PSC 1113 American Federal Government 3
Choose one course from the General Education Social 3
Science list
Core Area IV: Arts and Humanities ( 18 hours)
Artistic Forms
Choose one course from the General Education Artistic Forms 3
list
Western Culture
HIST 1483 United States to 1865
or HIST 1493 United States, 1865 to the Present


## Free Electives

Electives to bring total applicable hours to the minimum total required for the degree including 48 upper-division hours.

## Information Concerning General Rules, Regulations and Minimum Requirements

Arts and Sciences Hours: At least 80 semester hours of liberal arts and sciences courses are required for a BA degree. At least 55 semester hours of liberal arts and sciences courses are required for a BS degree.
Pass/No Pass Enrollment: A maximum of 16 semester hours of free elective credit may be attempted under this option.
Individual Studies (e.g., courses titled "Independent Study"): A maximum of 12 total semester hours may be counted toward graduation, excluding Honors Reading and Honors Research.
P.E. Courses: No physical education activity courses will be counted toward the 120 semester hours of acceptable credit for graduation. Senior Institution Hours: A minimum of 60 semester hours applied toward graduation must be earned at senior (4-year) institutions. Residency:

- At least 15 of the final 30 hours applied toward the degree or at least 50 percent of the hours required by the institution in the major field must be satisfactorily completed at the awarding institution.
- At least 15 semester hours of upper-division major work must be completed in residence at OU.
- OU correspondence courses are not considered resident credit.

Grade Point Averages: Students must earn a minimum over all 2.00 for each of the following: Combined Retention GPA (all college grades), OU Retention GPA, GPA for all major courses, and GPA for all major courses taken at OU. Some schools and departments of the College have higher minimum grade point averages required for their students.

## Suggested Semester Plan of Study

This plan shows one possible grouping of courses that would allow students to graduate in four years. Please refer to the front of the degree checksheet for official requirements. Students must consult with Dodge

3 College of Arts and Sciences and/or Department of Chemistry and Biochemistry academic advisors to verify that courses selected each semester fulfill the recommended plan and satisfy University, College of Arts and Sciences, and Biochemistry major requirements.

## Freshman

| First Semester | Credit <br> Hours |
| :---: | :---: |
| $\begin{array}{ll}\text { CHEM } 1315 & \text { General Chemistry } \\ \text { or CHEM } 1335 & \text { or General Chemistry I: Signature Course }\end{array}$ | 5 |
| ENGL 1113 Principles of English Composition (Core I) | 3 |
| MATH 1823 Calculus and Analytic Geometry I (Core I) | 3 |
| First Year Experience (Core V) | 3 |
| Credit Hours | 14 |
| Second Semester |  |
| CHEM 1415 General Chemistry (Continued) <br> or CHEM 1435 or General Chemistry II: Signature <br>  <br> Course | 5 |
| ENGL 1213 Principles of English Composition (Core I) <br> or EXPO 1213 or Expository Writing | 3 |
| MATH 2423 Calculus and Analytic Geometry II | 3 |
| Artistic Forms (Core IV) | 3 |
| Credit Hours | 14 |

## Sophomore

## First Semester

| CHEM 3064 | Organic Chemistry I |  |
| :--- | :--- | :--- |
| PHYS 2514 |  |  |
| or PHYS 2414 | General Physics for Engineering and <br> Science Majors <br> or General Physics for Life Science <br> Oriented Majors | 4 |
| Biological Science (Core II) |  |  |
| HIST 1483 <br> or HIST 1493 | United States to 1865 (Core IV) <br> or United States, 1865 to the Present | 4 |
|  | Credit Hours | 3 |


| Second Semester |  |
| :--- | ---: |
| CHEM 3005 | Quantitative Analysis |
| CHEM 3164 | Organic Chemistry II |
| PHYS 2524 | General Physics for Engineering and <br> or PHYS 2424 |
| Science Majors <br> or General Physics for Life Science <br> Oriented Majors | 5 |
| World Culture (Core IV) | 4 |
| Credit Hours | $\mathbf{4}$ |

## Junior

First Semester

| CHEM 3421 | Physical Chemistry Laboratory | 1 |
| :--- | :--- | ---: |
| CHEM 3423 | Physical Chemistry I | 3 |
| CHEM 3853 | Biochemistry I | 3 |
| Western Culture (Core IV) | 3 |  |
| Beginning Language (Core I) |  | 5 |
| Credit Hours |  | $\mathbf{1 5}$ |

## Second Semester

CHEM $3521 \quad$ Physical Chemistry Laboratory 1
CHEM 3523 Physical Chemistry II 3
CHEM 3753 Introduction to Biochemical Methods 3

| P SC 1113 American Federal Government (Core III) | 3 |
| :---: | :---: |
| Beginning Language continued (Core I) | 5 |
| Credit Hours | 15 |
| Senior |  |
| First Semester |  |
| CHEM 3953 Biochemistry II | 3 |
| MBIO 4843 Molecular Biology | 3 |
| Arts \& Humanities, upper-division, outside major (Gen. Ed.) | 3 |
| Intermediate Language | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Free Elective | 1 |
| Credit Hours | 16 |
| Second Semester |  |
| Arts \& Humanities, upper-division, outside major (Gen. Ed.) | 3 |
| Social Science (Core III) | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Free Elective | 3 |
| Free Elective | 3 |
| Credit Hours | 15 |
| Total Credit Hours | 120 |

${ }^{1}$ CHEM 4913 and CHEM 4933 and are not offered every semester. Students should plan accordingly.

## Chemical Biosciences, B.S.

Minimum Total Credit Hours: 120
Major Hours: 37-39
Minimum Upper-Division Hours: 48

Overall GPA - Combined and OU: 2.00
Major GPA - Combined and OU: 2.00

## Program Code: B155

## Major Requirements

- Some courses required for the major may also fulfill University General Education and/or Dodge College of Arts \& Sciences Requirements.
- A grade of $C$ or better must be earned in each Chemistry course presented for major credit. No grade below a C made in Chemistry courses at the upper-division level may be made up elsewhere without prior written approval by the OU Chemistry Department.
- The introductory courses
(CHEM 1315, CHEM 1335, CHEM 1415, CHEM 1425, \& CHEM 1435) do not count towards the 37-39 required major hours.

| Code | Title | Credit <br> Hours |
| :--- | :--- | :--- |
| Chemistry |  |  |
| CHEM 1315 | General Chemistry |  |
| or CHEM 13ミGeneral Chemistry I: Signature Course |  |  |
| Choose one of the following: |  |  |
| CHEM 1415 | General Chemistry (Continued) |  |
| CHEM 1425 | Advanced General Chemistry (HONORS) |  |
| CHEM 1435 | General Chemistry II: Signature Course |  |


| CHEM 3053 | Organic Chemistry I: Biological Emphasis | 3 |
| :---: | :---: | :---: |
| CHEM 3152 | Organic Chemistry Laboratory: Biological Emphasis | 2 |
| CHEM 3153 | Organic Chemistry II: Biological Emphasis | 3 |
| CHEM 3451 | Basic Physical Chemistry Laboratory | 1 |
| CHEM 3453 | Basic Physical Chemistry | 3 |
| CHEM 3653 | Introduction to Biochemistry | 3 |
| CHEM 3753 | Introduction to Biochemical Methods | 3 |
| Biological Sciences |  |  |
| BIOL 1124 | Intro Biol: Molecule/Cell/Phys | 4 |
| MBIO 3812 | Fundamentals of Microbiology Laboratory | 2 |
| MBIO 3813 | Fundamentals of Microbiology | 3 |
| $\begin{aligned} & \text { BIOL/MBIO/PBIO } \\ & 4843 \end{aligned}$ | Molecular Biology | 3 |
| Choose a minimu combinations: | m of 4 hours from the following lecture/lab | 4-5 |
| BIOL 3101 <br> \& BIOL 3103 | Principles of Physiology Lab and Principles of Physiology |  |
| BIOL 3201 <br> \& BIOL 3203 | Animal Development Lab and Animal Development |  |
| BIOL 3333 <br> \& BIOL 3342 | Genetics and Genetics Laboratory |  |
| BIOL 4244 | Animal Histology |  |
| Choose a minimum of 3 hours from the following: |  | 3-4 |
| BIOL 2124 | Human Physiology |  |
| BIOL 2234 | Introduction to Human Anatomy |  |
| BIOL/MBIO/ PBIO 3113 | Cell Biology |  |
| BIOL 3214 | Comparative Vertebrate Anatomy |  |
| MBIO 4823 | Pathogenic Microbiology and Infectious Disease |  |
| MBIO 4833 | Basic Immunology |  |
| Total Credit Hours |  | -39 |

## Major Support Requirements

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| MATH 1823 | Calculus and Analytic Geometry I |  |
| or MATH 1914 | Differential and Integral Calculus I |  |
| PHYS 1311 | General Physics Lab I |  |
| PHYS 1321 | General Physics Lab II | 1 |
| Choose one of the following: | 1 |  |
| PHYS 2414  <br> \& PHYS 2424 General Physics for Life Science Oriented <br> Majors  <br> and General Physics for Life Science  <br> Oriented Majors  | 8 |  |
| PHYS 2514 | General Physics for Engineering and <br> \& PHYS 2524 | Science Majors <br> and General Physics for Engineering and <br> Science Majors |

Total Credit Hours

## General Education and College Requirements

Courses for fulfillment of General Education and Dodge College of Arts \& Sciences requirements must be from the approved General Education course list published in the Class Schedule or at http://www.ou.edu/ gened/courses. Courses graded P/NP will not apply.

| UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND |  |
| :--- | :--- |
| COLLEGE REQUIREMENTS |  |
| Code $\quad$ Title | Credit |
|  |  |

Core Area I: Symbolic and Oral Communication
English Composition (6 hours)
ENGL $1113 \quad$ Principles of English Composition
ENGL 1213 Principles of English Composition 3
or EXPO 1213 Expository Writing
Language (0-13 hours in the same language)
The college requirement cannot be met by high school
coursework.

Beginning Course 0-5
Beginning Course, continued 0-5

| Intermediate Course (2000 level) $^{1,2}$ | $0-3$ |
| :--- | :--- |

## Mathematics (3 hours)

Choose one course from the General Education Mathematics

## list

Core Area II: Natural Science ( 7 hours, including one laboratory component)
Biological Science
Choose an approved General Education Natural Science

## course with one of the following prefixes: BIOL, HES, MBIO, or

## PBIO ${ }^{1}$

Physical Science
Choose an approved General Education Natural Science 3-4 course with one of the following prefixes: AGSC, ASTR, CHEM, GEOG, GEOL, GPHY, METR, or PHYS ${ }^{1}$
Core Area III: Social Science (6 hours)
P SC 1113 American Federal Government 3

Choose one course from the General Education Social 3

## Science list

Core Area IV: Arts and Humanities (18 hours)

## Artistic Forms

Choose one course from the General Education Artistic Forms

## list

## Western Culture

HIST $1483 \quad$ United States to 1865
or HIST 1493 United States, 1865 to the Present
Choose one course from the General Education Western
Culture list (excluding HIST 1483/1493)

## World Culture

Choose one course from the General Education World Culture
list
Additional Core IV Upper-Division Arts \& Humanities courses
Choose one course from Artistic Forms, Western Culture, or World Culture ${ }^{1,3}$
Choose one course from Artistic Forms, Western Culture, or World Culture ${ }^{1,3}$

Core Area V: First Year Experience (3 hours)
Choose one course
Total Credit Hours
${ }^{1}$ College of Arts and Sciences Requirements: college requirements are not automatically fulfilled by a previous degree.
${ }^{2}$ One course at the intermediate level or demonstrated competency at that level
${ }^{3} 6$ upper-division hours, 2 courses, at the 3000-4000-level. Must be outside the major.

## Free Electives

Electives to bring total applicable hours to the minimum total required for the degree including 48 upper-division hours.

## Information Concerning General Rules, Regulations and Minimum Requirements

Arts and Sciences Hours: At least 80 semester hours of liberal arts and sciences courses are required for a BA degree. At least 55 semester hours of liberal arts and sciences courses are required for a BS degree. Pass/No Pass Enrollment: A maximum of 16 semester hours of free elective credit may be attempted under this option.
Individual Studies (e.g., courses titled "Independent Study"): A maximum of 12 total semester hours may be counted toward graduation, excluding Honors Reading and Honors Research.
P.E. Courses: No physical education activity courses will be counted toward the 120 semester hours of acceptable credit for graduation. Senior Institution Hours: A minimum of 60 semester hours applied toward graduation must be earned at senior (4-year) institutions. Residency:

- At least 15 of the final 30 hours applied toward the degree or at least 50 percent of the hours required by the institution in the major field must be satisfactorily completed at the awarding institution.
- At least 15 semester hours of upper-division major work must be completed in residence at OU.
- OU correspondence courses are not considered resident credit.

Grade Point Averages: Students must earn a minimum over all 2.00 for each of the following: Combined Retention GPA (all college grades), OU Retention GPA, GPA for all major courses, and GPA for all major courses taken at OU. Some schools and departments of the College have higher minimum grade point averages required for their students.

## Suggested Semester Plan of Study

This plan shows one possible grouping of courses that would allow students to graduate in four years. Please refer to the front of the degree checksheet for official requirements. Students must consult with Dodge College of Arts and Sciences and/or Department of Chemistry and Biochemistry academic advisors to verify that courses selected each semester fulfill the recommended plan and satisfy university, College of Arts and Sciences, and Chemical Biosciences major requirements.

| Course | Title | Credit |
| :--- | :--- | :--- |
|  | Hours |  |

## Freshman

First Semester
CHEM 1315 General Chemistry

| ENGL 1113 | Principles of English Composition (Core I) | 3 |
| :---: | :---: | :---: |
| MATH 1823 or MATH 1914 | Calculus and Analytic Geometry I (Core I) or Differential and Integral Calculus I | 3-4 |
| First Year Experience (Core V) |  | 3 |
|  | Credit Hours | 14-15 |
| Second Semester |  |  |
| CHEM 1415 | General Chemistry (Continued) | 5 |
| $\begin{aligned} & \text { ENGL } 1213 \\ & \quad \text { or EXPO } 1213 \end{aligned}$ | Principles of English Composition (Core I) or Expository Writing | 3 |
| PHYS 2514 or PHYS 2414 | General Physics for Engineering and Science Majors or General Physics for Life Science Oriented Majors | 4 |
| PHYS 1311 | General Physics Lab I | 1 |
| Artistic Forms (Core IV) |  | 3 |
|  | Credit Hours | 16 |
| Sophomore |  |  |
| First Semester |  |  |
| CHEM 3053 | Organic Chemistry I: Biological Emphasis | 3 |
| PHYS 2524 or PHYS 2424 | General Physics for Engineering and Science Majors or General Physics for Life Science Oriented Majors | 4 |
| PHYS 1321 | General Physics Lab II | 1 |
| BIOL 1124 | Intro Biol: Molecule/Cell/Phys (Core II) | 4 |
| HIST 1483 or HIST 1493 | United States to 1865 (Core IV) or United States, 1865 to the Present | 3 |
|  | Credit Hours | 15 |
| Second Semester |  |  |
| CHEM 3152 | Organic Chemistry Laboratory. Biological Emphasis | 2 |
| CHEM 3153 | Organic Chemistry II: Biological Emphasis | 3 |
| MBIO 3813 | Fundamentals of Microbiology | 3 |
| Beginning Language (Core I) |  | 5 |
| World Culture (Core IV) |  | 3 |
|  | Credit Hours | 16 |
| Junior |  |  |
| First Semester |  |  |
| CHEM 3653 | Introduction to Biochemistry | 3 |
| MBIO 3812 | Fundamentals of Microbiology Laboratory | 2 |
| Choose one of the following: |  | 3 |
| BIOL 4843 | Molecular Biology |  |
| MBIO 4843 | Molecular Biology |  |
| PBIO 4843 | Molecular Biology |  |
| Western Culture (Core IV) |  | 3 |
| Beginning Language continued (Core I) |  | 5 |
|  | Credit Hours | 16 |
| Second Semester |  |  |
| CHEM 3453 | Basic Physical Chemistry | 3 |
| CHEM 3451 | Basic Physical Chemistry Laboratory | 1 |
| Arts \& Humanities, upper-division, outside major (Gen. Ed.) |  | 3 |
| P SC 1113 | American Federal Government (Core III) | 3 |
| Intermediate Lan | guage | 3 |


| Free Elective | 2 |
| :---: | :---: |
| Credit Hours | 15 |
| Senior |  |
| First Semester |  |
| CHEM 3753 Introduction to Biochemical Methods | 3 |
| BIOL/MBIO, Major Group, Lecture | 3 |
| Social Science (Core III) | 3 |
| Arts \& Humanities, upper-division, outside major (Gen. Ed.) | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Credit Hours | 15 |
| Second Semester |  |
| BIOL, Major Group, Lecture with Lab | 4 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Free Elective | 3 |
| Free Elective | 3 |
| Credit Hours | 13 |
| Total Credit Hours | 120 |

${ }^{1}$ CHEM 4913, CHEM 4923, and CHEM 4933 are not all offered every semester. Students should plan accordingly.

## Chemistry and Biochemistry (Standard Option), B.S.

Minimum Total Credit Hours: 120
Major Hours: 33-34
Minimum Upper-Division Hours: 48

Overall GPA - Combined and OU: 2.00
Major GPA - Combined and OU: 2.00
Program Code: B170

## Major Requirements

- Some courses required for the major may also fulfill University General Education and/or Dodge College of Arts \& Sciences Requirements
- A grade of C or better must be earned in each Chemistry course presented for major credit. No grade below a C made in Chemistry courses at the upper-division level may be made up elsewhere without prior written approval by the OU Chemistry Department.
- The introductory courses
(CHEM 1315, CHEM 1335, CHEM 1415, CHEM 1425, \& CHEM 1435) do not count towards the 33-34 required major hours.
$\left.\begin{array}{llr}\text { Code } & \text { Title } & \begin{array}{c}\text { Credit } \\ \text { Hours }\end{array} \\ \text { Chemistry } & \\ \hline \text { CHEM 1315 } & \text { General Chemistry } \\ \text { or CHEM 13ミGeneral Chemistry I: Signature Course }\end{array}\right]$

| CHEM 3164 | Organic Chemistry II | 4 |
| :--- | :--- | ---: |
| CHEM 3005 | Quantitative Analysis | 5 |
| CHEM 3421 <br> \& CHEM 3423 | Physical Chemistry Laboratory <br> and Physical Chemistry I | 4 |
| CHEM 3521 | Physical Chemistry Laboratory |  |
| CHEM 3523 | and Physical Chemistry II | 4 |
| CHEM 3653 | Introduction to Biochemistry | 3 |
| CHEM 4023 | Instrumental Methods of Chemical <br> Analysis | 3 |
| CHEM 4033 | Instrumental Methods of Chemical <br> or CHEM 4444 | Advanced Synthesis and Spectral Characterization |
| Choose 3 hours from the following: |  |  |
| CHEM 3753 | Introduction to Biochemical Methods |  |
| CHEM 4333 | Advanced Inorganic Chemistry-Periodic <br> System | 3 |
| CHEM 4753 | Principles of Biochemistry I |  |
| CHEM 4970 | Special Topics/Seminar |  |

## Total Credit Hours

## Major Support Requirements

| Code | Title | Credit Hours |
| :---: | :---: | :---: |
| Math |  |  |
| Choose one of the following: |  | 6-8 |
| MATH 1823 \& MATH 2423 | Calculus and Analytic Geometry I and Calculus and Analytic Geometry II |  |
| MATH 1914 \& MATH 2924 | Differential and Integral Calculus I and Differential and Integral Calculus II |  |
| Physics |  |  |
| Choose one of the following: |  | 8 |
| PHYS 2414 \& PHYS 2424 | General Physics for Life Science Oriented Majors and General Physics for Life Science Oriented Majors |  |
| PHYS 2514 \& PHYS 2524 | General Physics for Engineering and Science Majors and General Physics for Engineering and Science Majors |  |
| Total Credit Hours |  | 14-16 |

## General Education and College Requirements

Courses for fulfillment of General Education and Dodge College of Arts \& Sciences requirements must be from the approved General Education course list published in the Class Schedule or at http://www.ou.edu/ gened/courses. Courses graded P/NP will not apply.

## UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS

Code Title

Core Area I: Symbolic and Oral Communication

| English Composition (6 hours) |  |  |
| :--- | :--- | :--- |
| ENGL 1113 | Principles of English Composition | 3 |
| ENGL 1213 | Principles of English Composition | 3 |

or EXPO 1213 Expository Writing

Language ( $0-13$ hours in the same language)

The college requirement cannot be met by high school
coursework.

Beginning Course 0-5
Beginning Course, continued ..... 0-5
Intermediate Course (2000 level) ${ }^{1,2}$ ..... 0-3
Choose one course from the General Education Mathematics ..... 3

## list

Core Area II: Natural Science (7 hours, including one

## laboratory component)

Biological Science
Choose an approved General Education Natural Science 3-4 course with one of the following prefixes: BIOL, HES, MBIO, or PBIO ${ }^{1}$
Physical Science
Choose an approved General Education Natural Science 3-4 course with one of the following prefixes: AGSC, ASTR, CHEM, GEOG, GEOL, GPHY, METR, or PHYS ${ }^{1}$
Core Area III: Social Science (6 hours)
P SC 1113 American Federal Government 3
Choose one course from the General Education Social 3
Science list

## Core Area IV: Arts and Humanities (18 hours)

## Artistic Forms

Choose one course from the General Education Artistic Forms 3
list

## Western Culture

HIST $1483 \quad 3$
or HIST 1493 United States, 1865 to the Present
Choose one course from the General Education Western 3
Culture list (excluding HIST 1483/1493)

## World Culture

Choose one course from the General Education World Culture 3
list
Additional Core IV Upper-Division Arts \& Humanities courses
Choose one course from Artistic Forms, Western Culture, or 3
World Culture ${ }^{1,3}$
Choose one course from Artistic Forms, Western Culture, or 3
World Culture ${ }^{1,3}$
Core Area V: First Year Experience (3 hours)
Choose one course 3
Total Credit Hours 56
${ }^{1}$ College of Arts and Sciences Requirements: college requirements are not automatically fulfilled by a previous degree.
${ }^{2}$ One course at the intermediate level or demonstrated competency at that level
${ }^{3} 6$ upper-division hours, 2 courses, at the 3000-4000-level. Must be outside the major.

## Free Electives

Electives to bring total applicable hours to the minimum total required for the degree including 48 upper-division hours.

## Information Concerning General Rules, Regulations and Minimum Requirements

Arts and Sciences Hours: At least 80 semester hours of liberal arts and sciences courses are required for a BA degree. At least 55 semester hours of liberal arts and sciences courses are required for a BS degree. Pass/No Pass Enrollment: A maximum of 16 semester hours of free elective credit may be attempted under this option.
Individual Studies (e.g., courses titled "Independent Study"): A maximum of 12 total semester hours may be counted toward graduation, excluding Honors Reading and Honors Research.
P.E. Courses: No physical education activity courses will be counted toward the 120 semester hours of acceptable credit for graduation. Senior Institution Hours: A minimum of 60 semester hours applied toward graduation must be earned at senior (4-year) institutions.
Residency:

- At least 15 of the final 30 hours applied toward the degree or at least 50 percent of the hours required by the institution in the major field must be satisfactorily completed at the awarding institution.
- At least 15 semester hours of upper-division major work must be completed in residence at OU.
- OU correspondence courses are not considered resident credit.

Grade Point Averages: Students must earn a minimum over all 2.00 for each of the following: Combined Retention GPA (all college grades), OU Retention GPA, GPA for all major courses, and GPA for all major courses taken at OU. Some schools and departments of the College have higher minimum grade point averages required for their students.

## Suggested Semester Plan of Study

This plan shows one possible grouping of courses that would allow students to graduate in four years. Please refer to the front of the degree checksheet for official requirements. Students must consult with Dodge College of Arts and Sciences and/or Department of Chemistry and Biochemistry academic advisors to verify that courses selected each semester fulfill the recommended plan and satisfy University, College of Arts and Sciences, and Chemistry and Biochemistry major requirements.

## Freshman

| First Semester |  | Credit |
| :---: | :---: | :---: |
|  |  | Hours |
| CHEM 1315 or CHEM 1335 | General Chemistry or General Chemistry I: Signature Course | 5 |
| ENGL 1113 | Principles of English Composition (Core I) | 3 |
| MATH 1823 or MATH 1914 | Calculus and Analytic Geometry I (Core I) or Differential and Integral Calculus I | 3-4 |
| First Year Experience (Core V) |  | 3 |
|  | Credit Hours | 14 |
| Second Semester |  |  |
| Choose one of the following: |  | 5 |
| CHEM 1415 | General Chemistry (Continued) |  |
| CHEM 1425 | Advanced General Chemistry (HONORS) |  |
| CHEM 1435 | General Chemistry II: Signature Course |  |


| ENGL 1213 or EXPO 1213 | Principles of English Composition (Core I) or Expository Writing | 3 |
| :---: | :---: | :---: |
| MATH 2423 or MATH 2924 | Calculus and Analytic Geometry II or Differential and Integral Calculus II | 3-4 |
| Artistic Forms (Core IV) |  | 3 |
|  | Credit Hours | 14 |
| Sophomore |  |  |
| First Semester |  |  |
| CHEM 3064 | Organic Chemistry I | 4 |
| $\text { PHYS } 2514$ <br> or PHYS 2414 | General Physics for Engineering and Science Majors or General Physics for Life Science Oriented Majors | 4 |
| Biological Science without lab (Core II) |  | 3 |
| HIST 1483 or HIST 1493 | United States to 1865 (Core IV) or United States, 1865 to the Present | 3 |
|  | Credit Hours | 14 |
| Second Semester |  |  |
| CHEM 3005 | Quantitative Analysis | 5 |
| CHEM 3164 | Organic Chemistry II | 4 |
| PHYS 2524 <br> or PHYS 2424 | General Physics for Engineering and Science Majors or General Physics for Life Science Oriented Majors | 4 |
| World Culture (Core IV) |  | 3 |
|  | Credit Hours | 16 |
| Junior |  |  |
| First Semester |  |  |
| CHEM 3421 | Physical Chemistry Laboratory | 1 |
| CHEM 3423 | Physical Chemistry I | 3 |
| CHEM 4023 | Instrumental Methods of Chemical Analysis | 3 |
| Beginning Language (Core I) |  | 5 |
| Western Culture (Core IV) |  | 3 |
|  | Credit Hours | 15 |
| Second Semester |  |  |
| CHEM 3521 | Physical Chemistry Laboratory | 1 |
| CHEM 3523 | Physical Chemistry II | 3 |
| CHEM 4033 | Instrumental Methods of Chemical Analysis Laboratory | 3 |
| P SC 1113 | American Federal Government (Core III) | 3 |
| Beginning Language continued (Core I) |  | 5 |
|  | Credit Hours | 15 |
| Senior |  |  |
| First Semester |  |  |
| CHEM 3653 | Introduction to Biochemistry | 3 |
| CHEM 4333 | Advanced Inorganic Chemistry-Periodic System | 3 |
| Intermediate Language |  | 3 |
| Arts \& Humanities, upper-division, outside major (Gen. Ed.) |  | 3 |
| Free Elective |  | 3 |
| Free Elective |  | 1 |
|  | Credit Hours | 16 |


| Second Semester |  |
| :--- | ---: |
| Social Science (Core III) | 3 |
| Arts \& Humanities, upper-division, outside major (Gen. Ed.) | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Free Elective | 3 |
| Free Elective | $\mathbf{3}$ |
| Credit Hours | $\mathbf{1 6}$ |
| $\quad$ Total Credit Hours | $\mathbf{1 2 0}$ |

${ }^{1}$ CHEM 4913, CHEM 4923, and CHEM 4933 are not all offered every semester. Students should plan accordingly.

## Chemistry (Professional), B.S.

Minimum Total Credit Hours: 120
Major Hours: 37
Minimum Upper-Division Hours: 48

Overall GPA - Combined and OU: 2.00
Major GPA - Combined and OU: 2.00

## Program Code: B175

## Major Requirements

- Some courses required for the major may also fulfill University General Education and/or Dodge College of Arts \& Sciences Requirements.
- A grade of $C$ or better must be earned in each Chemistry course presented for major credit. No grade below a C made in a Chemistry course at OU may be made up elsewhere without prior written approval by the OU Chemistry Department.
- The introductory courses
(CHEM 1315, CHEM 1335, CHEM 1415, CHEM 1425, \& CHEM 1435) do not count towards the 37 required major hours.

| Code | Title | Credit Hours |
| :---: | :---: | :---: |
| Chemistry |  |  |
| CHEM 1315 or CHEM | General Chemistry <br> EGeneral Chemistry I: Signature Course |  |
| Choose one of the following: |  |  |
| CHEM 1415 | General Chemistry (Continued) |  |
| CHEM 1425 | Advanced General Chemistry (HONORS) |  |
| CHEM 1435 | General Chemistry II: Signature Course |  |
| CHEM 3064 | Organic Chemistry I | 4 |
| CHEM 3164 | Organic Chemistry II | 4 |
| CHEM 3005 | Quantitative Analysis | 5 |
| CHEM 3421 | Physical Chemistry Laboratory | 1 |
| CHEM 3423 | Physical Chemistry I | 3 |
| CHEM 3521 | Physical Chemistry Laboratory | 1 |
| CHEM 3523 | Physical Chemistry II | 3 |
| CHEM 4023 | Instrumental Methods of Chemical Analysis | 3 |
| CHEM 4033 | Instrumental Methods of Chemical Analysis Laboratory | 3 |


| CHEM 4333 | Advanced Inorganic Chemistry-Periodic System | 3 |
| :---: | :---: | :---: |
| CHEM 4444 | Advanced Synthesis and Spectral Characterization | 4 |
| CHEM 3653 | Introduction to Biochemistry | 3 |
| Total Credit Hours |  | 37 |
| Major Support Requirements |  |  |
| Code | Title | Credit |
|  |  | Hours |
| Math |  |  |
| Select one of the | following pairs: | 6-8 |
| MATH 1823 \& MATH 2423 | Calculus and Analytic Geometry I and Calculus and Analytic Geometry II |  |
| MATH 1914 <br> \& MATH 2924 | Differential and Integral Calculus I and Differential and Integral Calculus II |  |
| Physics |  |  |
| Choose one of the | following groups: | 10 |
| Group A: |  |  |
| PHYS 2414 <br> \& PHYS 1311 | General Physics for Life Science Oriented Majors and General Physics Lab I |  |
| PHYS 2424 <br> \& PHYS 1321 | General Physics for Life Science Oriented Majors and General Physics Lab II |  |
| Group B: |  |  |
| PHYS 2514 <br> \& PHYS 1311 | General Physics for Engineering and Science Majors and General Physics Lab I |  |
| PHYS 2524 <br> \& PHYS 1321 | General Physics for Engineering and Science Majors and General Physics Lab II |  |

Total Credit Hours 16-18

## General Education and College Requirements

Courses for fulfillment of General Education and Dodge College of Arts \& Sciences requirements must be from the approved General Education course list published in the Class Schedule or at http://www.ou.edu/ gened/courses. Courses graded P/NP will not apply.

UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS

| Code | Title | Credit |
| :--- | :--- | :--- |
|  | Hours |  |


| Core Area I: Symbolic and Oral Communication |  |  |
| :---: | :---: | :---: |
| English Composition (6 hours) |  |  |
| ENGL 1113 | Principles of English Composition | 3 |
| ENGL 1213 or EXPO 1213 | Principles of English Composition Expository Writing | 3 |

Language (0-13 hours in the same language)
The college requirement cannot be met by high school coursework.
Beginning Course 0-5
$\begin{array}{ll}\text { Beginning Course, continued } & 0-5\end{array}$
$\begin{array}{ll}\text { Intermediate Course (2000 level) }^{1,2} & 0-3\end{array}$

| Mathematics (3 hours) |  |
| :---: | :---: |
| Choose one course from the General Education Mathematics list | 3 |
| Core Area II: Natural Science (7 hours, including one laboratory component) |  |
| Biological Science |  |
| Choose an approved General Education Natural Science course with one of the following prefixes: BIOL, HES, MBIO, or PBIO ${ }^{1}$ | 3-4 |
| Physical Science |  |
| Choose an approved General Education Natural Science course with one of the following prefixes: AGSC, ASTR, CHEM, GEOG, GEOL, GPHY, METR, or PHYS ${ }^{1}$ | 3-4 |
| Core Area III: Social Science (6 hours) |  |
| P SC 1113 American Federal Government | 3 |
| Choose one course from the General Education Social Science list | 3 |
| Core Area IV: Arts and Humanities (18 hours) |  |
| Artistic Forms |  |
| Choose one course from the General Education Artistic Forms list | 3 |
| Western Culture |  |
| HIST 1483 United States to 1865 <br> or HIST 1493 United States, 1865 to the Present | 3 |
| Choose one course from the General Education Western Culture list (excluding HIST 1483/1493) | 3 |
| World Culture |  |
| Choose one course from the General Education World Culture list | 3 |
| Additional Core IV Upper-Division Arts \& Humanities courses |  |
| Choose one course from Artistic Forms, Western Culture, or World Culture ${ }^{1,3}$ | 3 |
| Choose one course from Artistic Forms, Western Culture, or World Culture ${ }^{1,3}$ | 3 |
| Core Area V: First Year Experience (3 hours) |  |
| Choose one course | 3 |
| Total Credit Hours | 56 |
| ${ }^{1}$ College of Arts and Sciences Requirements: college requirements are not automatically fulfilled by a previous degree. |  |
| ${ }^{2}$ One course at the intermediate level or demonstrated competency that level <br> ${ }^{3} 6$ upper-division hours, 2 courses, at the 3000-4000-level. Must be outside the major. |  |

## Free Electives

Electives to bring total applicable hours to the minimum total required for the degree including 48 upper-division hours.

## Information Concerning General Rules, Regulations and Minimum Requirements

Arts and Sciences Hours: At least 80 semester hours of liberal arts and sciences courses are required for a BA degree. At least 55 semester hours of liberal arts and sciences courses are required for a BS degree.

Pass/No Pass Enrollment: A maximum of 16 semester hours of free elective credit may be attempted under this option.
Individual Studies (e.g., courses titled "Independent Study"): A maximum of 12 total semester hours may be counted toward graduation, excluding Honors Reading and Honors Research.
P.E. Courses: No physical education activity courses will be counted toward the 120 semester hours of acceptable credit for graduation.
Senior Institution Hours: A minimum of 60 semester hours applied toward graduation must be earned at senior (4-year) institutions. Residency:

- At least 15 of the final 30 hours applied toward the degree or at least 50 percent of the hours required by the institution in the major field must be satisfactorily completed at the awarding institution.
- At least 15 semester hours of upper-division major work must be completed in residence at OU.
- OU correspondence courses are not considered resident credit.

Grade Point Averages: Students must earn a minimum over all 2.00 for each of the following: Combined Retention GPA (all college grades), OU Retention GPA, GPA for all major courses, and GPA for all major courses taken at OU. Some schools and departments of the College have higher minimum grade point averages required for their students.

## Suggested Semester Plan of Study

This plan shows one possible grouping of courses that would allow students to graduate in four years. Please refer to the front of the degree checksheet for official requirements. Students must consult with Dodge College of Arts and Sciences and/or Department of Chemistry and Biochemistry academic advisors to verify that courses selected each semester fulfill the recommended plan and satisfy University, College of Arts and Sciences, and Chemistry and Biochemistry major requirements.

## Freshman

| First Semester |  | Credit |
| :---: | :---: | :---: |
|  |  | Hours |
| CHEM 1315 or CHEM 1335 | General Chemistry or General Chemistry I: Signature Course | 5 |
| ENGL 1113 | Principles of English Composition (Core I) | 3 |
| MATH 1823 or MATH 1914 | Calculus and Analytic Geometry I (Core I) or Differential and Integral Calculus I | 3-4 |
| First Year Experience (Core V) |  | 3 |
|  | Credit Hours | 14 |

## Second Semester

Choose one of the following: 5
CHEM 1415 General Chemistry (Continued)
CHEM 1425 Advanced General Chemistry (HONORS)
CHEM 1435 General Chemistry II: Signature Course
ENGL 1213 Principles of English Composition (Core I) 3
or EXPO 1213 or Expository Writing
MATH 2423 Calculus and Analytic Geometry II 3-4
or MATH 2924 or Differential and Integral Calculus II
Artistic Forms (Core IV) 3
Credit Hours 14

## Sophomore

First Semester
CHEM 3064 Organic Chemistry I 4

| PHYS 2514 or PHYS 2414 | General Physics for Engineering and Science Majors or General Physics for Life Science Oriented Majors | 4 |
| :---: | :---: | :---: |
| PHYS 1311 | General Physics Lab I | 1 |
| Biological Scienc | without lab (Core II) | 3 |
| HIST 1483 or HIST 1493 | United States to 1865 (Core IV) or United States, 1865 to the Present | 3 |
|  | Credit Hours | 15 |
| Second Semester |  |  |
| CHEM 3005 | Quantitative Analysis | 5 |
| CHEM 3164 | Organic Chemistry II | 4 |
| $\begin{aligned} & \text { PHYS } 2524 \\ & \text { or PHYS } 2424 \end{aligned}$ | General Physics for Engineering and Science Majors or General Physics for Life Science Oriented Majors | 4 |
| PHYS 1321 | General Physics Lab II | 1 |
| World Culture (Core IV) |  | 3 |
|  | Credit Hours | 17 |
| Junior |  |  |
| First Semester |  |  |
| CHEM 3421 | Physical Chemistry Laboratory | 1 |
| CHEM 3423 | Physical Chemistry I | 3 |
| CHEM 4023 | Instrumental Methods of Chemical Analysis | 3 |
| Western Culture ( | Core IV) | 3 |
| Beginning Langua | ge (Core I) | 5 |
|  | Credit Hours | 15 |
| Second Semester |  |  |
| CHEM 3521 | Physical Chemistry Laboratory | 1 |
| CHEM 3523 | Physical Chemistry II | 3 |
| CHEM 4033 | Instrumental Methods of Chemical Analysis Laboratory | 3 |
| P SC 1113 | American Federal Government (Core III) | 3 |
| Beginning Language continued (Core I) |  | 5 |
|  | Credit Hours | 15 |
| Senior |  |  |
| First Semester |  |  |
| CHEM 3653 | Introduction to Biochemistry | 3 |
| CHEM 4333 | Advanced Inorganic Chemistry-Periodic System | 3 |
| CHEM 4444 | Advanced Synthesis and Spectral Characterization | 4 |
| Arts \& Humanities, upper-division, outside major (Gen. Ed.) |  | 3 |
| Intermediate Language |  | 3 |
|  | Credit Hours | 16 |
| Second Semester |  |  |
| Social Science (Core III) |  | 3 |
| Arts \& Humanities, upper-division, outside major (Gen. Ed.) |  | 3 |
| Free Elective, upper-division (3000-4000-level) |  | 2 |
| Free Elective, lower- or upper-division |  | 3 |


| Free Elective, lower- or upper-division | 3 |
| :---: | ---: |
| Credit Hours | $\mathbf{1 4}$ |
| Total Credit Hours | $\mathbf{1 2 0}$ |

${ }^{1}$ CHEM 4913, CHEM 4923, and CHEM 4933 are not all offered every semester. Students should plan accordingly.

## Chemistry, Minor

Minimum Total Credit Hours: 15
Minimum Upper-Division Hours: 15
Program Code: N175
The requirements for a minor must be completed concurrently with the major degree requirements.

No minor may be added by completing courses after receiving the bachelor's degree.

At least six (6) credit hours must be earned in courses acceptable for residence credit by standards set forth by the College of Arts and Sciences, excluding transfer, correspondence, and examination (AP, CLEP, Advanced Standing) credit. Courses for the minor may not be taken Pass/ No Pass.

No single course may be used by a student to satisfy a major requirement and a minor requirement. A course may be used, however, to satisfy both a major support requirement and a minor requirement.

Requests to substitute a minor requirement must be approved in writing by the Department of Chemistry and Biochemistry.

## Required Courses

Students must successfully complete at least 15 hours of upperdivision course work acceptable for major credit in Chemistry. No more than three (3) hours may be completed through Independent Study (CHEM 3990 or CHEM 4990). CHEM 4232, does not apply toward the Chemistry major or minor.

| Code Title |
| :--- |
| Choose 15 hours of upper-division course work acceptable for <br> major credit in Chemistry |
| Total Credit Hours |
| 15 |
| No more than three (3) hours may be completed through Independent |
| Study (CHEM 3990 or CHEM 4990). CHEM 4232 does not apply toward |
| the Chemistry major or minor. |
|  |
| - Minors in the Dodge College of Arts \& Sciences are available to all |
| undergraduate students at OU. If the minor is officially declared, |
| successfully completed, and noted on the graduation application, the |
| student's transcript will so indicate at the time the bachelor's degree |
| is posted. |

## Chemistry \& Biochemistry, M.S.

Minimum Total Hours (Thesis): 30
Minimum Total Hours (Non-Thesis): 32

## Program Code: M170 Q101 <br> Thesis Option

| Code | Title | Credit Hours |
| :---: | :---: | :---: |
| Choose at least 14 hours in letter graded CHEM courses at the $5 X Y Z$ level ( $X \neq 0, Y=0-8$ ). These courses must be from at least two different disciplinary areas (different $X s$ ) |  | 14 |
| CHEM 5980 | Research for Master's Thesis | 2-6 |
| Choose the remainder of the 30 required hours from the following: |  | 10-14 |
| CHEM 5011 | Fundamentals I |  |
| CHEM 5021 | Fundamentals II |  |
| CHEM 5080 | Laboratory Rotations |  |
| CHEM 5960 | Directed Readings in Chemistry |  |
| CHEM 5990 | Independent Studies ${ }^{1}$ |  |
| Disciplinary Seminars (CHEM 5X91) |  |  |
| Any other courses carrying graduate credit |  |  |

Total Credit Hours
1 Up to 9 hours may be taken as CHEM 5990.

## Non-Thesis Option

Code Title

Choose at least 16 hours in letter graded CHEM courses at the $5 X Y Z$ level $(X \neq 0, Y=0-8)$. These courses must be from at least two different disciplinary areas (different $X$ s)
Choose the remainder of the 32 required hours from any 16 combination of the following:

| CHEM 5011 | Fundamentals I |
| :--- | :--- |
| CHEM 5021 | Fundamentals II |
| CHEM 5080 | Laboratory Rotations |
| CHEM 5960 | Directed Readings in Chemistry |
| CHEM 5990 | Independent Studies $^{1}$ |
| Disciplinary Seminars (CHEM 5X91) |  |
| Any other courses carrying graduate credit |  |

## Total Credit Hours

1 Up to 8 hours may be taken as CHEM 5990.

## Notes

- A maximum of two core courses may be taken in department(s) outside of the Department of Chemistry as substitution(s); however, all outside courses must be approved in writing by the departmental graduate committee and must be written as such on the candidacy form.
- All graduate students must also enroll and participate in the Departmental Colloquium, CHEM 5090, for zero credit hours (these do not have to be on the candidacy form) throughout the entire period of their graduate studies (excluding summer semesters).


## General Requirements for all Master's Degrees

The master's degree requires the equivalent of at least two semesters of satisfactory graduate work and additional work as may be prescribed for the degree.

All coursework applied to the master's degree must carry graduate credit.
Master's degree programs which require a thesis consist of at least 30 credit hours. All non-thesis master's degree programs require at least 30 credit hours.

Credit transferred from other institutions must meet specific criteria and is subject to certain limitations.

Courses completed through correspondence study may not be applied to the master's degree.

To qualify for a graduate degree, students must achieve an overall grade point average of 3.0 or higher in the degree program coursework and in all resident graduate coursework attempted. A student must also have at least a 3.0 in all coursework (including undergraduate coursework if any).

Additional information for master's degree students may be found in the Graduate College Bulletin.

## Chemistry: Bioinformatics, M.S.

Minimum Total Hours (Thesis): 36<br>Minimum Total Hours (Non-Thesis): 38<br>Program Code: M170 Q061<br>\section*{Thesis Option}

| Code Title | Credit |
| :---: | :---: |
| Required Courses |  |
| BIOL 5903 Topics in Virology | 3 |
| BIOL 5913 | 3 |
| Core Courses |  |
| Select a minimum of fifteen hours in lecture courses at the $5 / 6000$ level selected from at least two of the five divisions of Chemistry and Biochemistry (Analytical, Biochemistry, Inorganic, Organic and Physical) | 15 |
| Thesis |  |
| CHEM 5980 Research for Master's Thesis | 6 |
| Electives |  |
| Choose any other graduate level courses, as approved by the graduate liason | 9 |

Total Credit Hours
36

- The comprehensive final examination over all of the work offered for the degree, including the thesis, is oral.

Non-Thesis Option

| Code | Title | Credit <br> Hours |
| :--- | ---: | ---: |
| Required Courses |  |  |
| BIOL 5903 | Topics in Virology | 3 |
| BIOL 5913 |  | 3 |

## Core Courses

Choose a minimum of twenty-one hours in lecture courses at the $5 / 6000$ level selected from at least three of the five divisions of Chemistry and Biochemistry (Analytical, Biochemistry, Inorganic, Organic and Physical):

No more than six of the hours may be taken at the 4000G level
At least one three hour lecture course from the three divisions must be taken at the $5 / 6000$ level

## Electives

Choose any other graduate level courses, as approved by the
graduate liason

Total Credit Hours

## Notes

- A maximum of two core courses may be taken in department(s) outside of the Department of Chemistry as substitution(s); however, all outside courses must be approved in writing by the departmental graduate committee and must be written as such on the candidacy form.
- A maximum of nine hours of Independent Study, CHEM 5990, may be applied to the master's degree.
- All graduate students must also enroll and participate in the Departmental Colloquium, CHEM 5090, for zero credit hours (these do not have to be on the candidacy form) throughout the entire period of their graduate studies (excluding summer semesters).
- Bioinformatics students are required to take at least two courses from non-host departments. The two bioinformatics courses (BIOL 5903 and BIOL 5913) may not be used to satisfy the non-host department requirement.


## General Requirements for all Master's Degrees

The master's degree requires the equivalent of at least two semesters of satisfactory graduate work and additional work as may be prescribed for the degree.

All coursework applied to the master's degree must carry graduate credit.
Master's degree programs which require a thesis consist of at least 30 credit hours. All non-thesis master's degree programs require at least 30 credit hours.

Credit transferred from other institutions must meet specific criteria and is subject to certain limitations.

Courses completed through correspondence study may not be applied to the master's degree.

To qualify for a graduate degree, students must achieve an overall grade point average of 3.0 or higher in the degree program coursework and in all resident graduate coursework attempted. A student must also have at least a 3.0 in all coursework (including undergraduate coursework if any).

Additional information for master's degree students may be found in the Graduate College Bulletin.

## Chemistry and Biochemistry: Analytical Chemistry, Ph.D.

Minimum Total Credit Hours: 90

Program Code: D170 R034

## Program Requirements

- Continuous enrollment in CHEM 5090 Departmental Colloquium is required for all Doctoral students.

| Code | Title | Credit |
| :---: | :---: | :---: |
|  |  | Hours |
| Required Coursework |  |  |
| CHEM 5011 | Fundamentals I | 1 |
| CHEM 5021 | Fundamentals II | 1 |
| CHEM 5080 | Laboratory Rotations | 2 |
| CHEM 5191 | Seminar in Analytical Chemistry (Continuous enrollment, up to 12 credit hours, is required after the first semester) | 1-12 |
| Core Courses |  |  |
| CHEM 5100 | Instrumental Methods of Analysis | 2 |
| CHEM 5110 | Spectroscopic Chemical Analysis | 3 |
| CHEM 5120 | Separation Methods | 3 |
| Dissertation Research |  |  |
| CHEM 6980 | Research for Doctoral Dissertation (minimum 2 credits) | 2 |
| Elective Coursework |  |  |
| Electives as bring studen include up to up to 6 credi | roved by doctoral advisory committee to 90 post-baccalaureate hours. This may edits of CHEM 5990, Independent Study or HEM 5960, Directed Readings in Chemistry. | 64-75 |

## Total Credit Hours

1 The total number of letter-graded hours of Core and Electives combined must total at least 16 hours.
The additional coursework may include other concentrations in CHEM; out-of-department coursework; or transfer credits from an accredited college or university.
At least 1 course ( 2 credit hours) must come from within the department (CHEM), but from a concentration outside the student's core courses.

## Chemistry and Biochemistry: Biochemistry, Ph.D.

Minimum Total Hours: 90

## Program Code: D170 R058

## Program Requirements

- Continuous enrollment in CHEM 5090 Departmental Colloquium is required for all Doctoral students.

| Code | Title | Credit <br> Hours |
| :---: | :---: | :---: |
| Required Coursework |  |  |
| CHEM 5011 | Fundamentals I | 1 |
| CHEM 5021 | Fundamentals II | 1 |
| CHEM 5080 | Laboratory Rotations | 2 |
| CHEM 5291 | Seminar in Biochemistry (Continuous enrollment, up to 12 credit hours, is required after the first semester) | 1-12 |
| Core Courses |  |  |
| CHEM 5200 | Principles of Biochemistry | 2 |
| CHEM 5210 | Molecular Biology | 2 |
| CHEM 5240 | Biochemical and Biophysical Methods | 2 |
| Dissertation Research |  |  |
| CHEM 6980 | Research for Doctoral Dissertation (minimum 2 credits) | 2 |
| Elective Coursework |  |  |
| Electives as bring student include up to up to 6 credit | ved by doctoral advisory committee to 0 post-baccalaureate hours. This may edits of CHEM 5990, Independent Study HEM 5960, Directed Readings in Chemis | 66-77 |
| Total Credit |  | 90 |
| ${ }^{1}$ The total number of letter-graded hours of Core and Electives combined must total at least 16 hours. <br> The additional coursework may include other concentrations in CHEM; out-of-department coursework; or transfer credits from an accredited college or university. <br> At least 1 course ( 2 credit hours) must come from within the department (CHEM), but from a concentration outside the student's core courses. The Structural Biology concentration (57YZ, except CHEM 5730 - Macromolecular Crystallography) cannot fulfill this 1 course requirement, but can fill other elective hours. |  |  |

## Chemistry and Biochemistry: Inorganic Chemistry, Ph.D.

Minimum Total Hours: 90

Program Code: D170 R354

## Program Requirements

- Continuous enrollment in CHEM 5090 Departmental Colloquium is required for all Doctoral students.

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Required Coursework |  |  |
| CHEM 5011 | Fundamentals I | 1 |
| CHEM 5021 | Fundamentals II | 1 |
| CHEM 5080 | Laboratory Rotations | 2 |
| CHEM 5391 | Seminar in Inorganic Chemistry <br> (Continuous enrollment, up to 12 credit <br> hours, is required after the first semester) | $1-12$ |
| Core Courses |  | 2 |
| CHEM 5300 | Intermediate Inorganic Chemistry |  |


| CHEM 5330 | Advanced Inorganic Chemistry | 2-3 |
| :---: | :---: | :---: |
| CHEM 5360 | Frontiers in Inorganic Chemistry | 2-3 |
| Dissertation Research |  |  |
| CHEM 6980 | Research for Doctoral Dissertation (minimum 2 credits) | 2 |
| Elective Coursework |  |  |
| Electives as approved by doctoral advisory committee to bring student to 90 post-baccalaureate hours. This may include up to 9 credits of CHEM 5990, Independent Study or up to 6 credits CHEM 5960, Directed Readings in Chemistry. ${ }^{1}$ |  |  |
| Total Credit |  | 90 |
| The total number of letter-graded hours of Core and Electives combined must total at least 16 hours. <br> The additional coursework may include other concentrations in CHEM; out-of-department coursework; or transfer credits from an accredited college or university. <br> At least 1 course ( 2 credit hours) must come from within the department (CHEM), but from a concentration outside the student's core courses. |  |  |

## Chemistry and Biochemistry: Materials Chemistry, Ph.D.

Minimum Total Hours: 90
Program Code: D170 R434

## Program Requirements

- Continuous enrollment in CHEM 5090 Departmental Colloquium is required for all Doctoral students.

| Code | Title |
| :--- | :--- |
|  | Credit |
|  | Hours |

## Required Coursework

| CHEM 5011 | Fundamentals I | 1 |
| :--- | :--- | ---: |
| CHEM 5021 | Fundamentals II | 1 |
| CHEM 5080 | Laboratory Rotations | 2 |
| CHEM 5391 | Seminar in Inorganic Chemistry <br> (Continuous enrollment in 5391 or 5591, up <br> to 12 credit hours, is required after the first <br> semester) | $1-12$ |
|  |  |  |

or CHEM 5591 Seminar in Physical Chemistry
Core Courses
CHEM $5300 \quad$ Intermediate Inorganic Chemistry 2

CHEM 5330 Advanced Inorganic Chemistry 2-3
CHEM 5500 Topics in Quantum Chemistry 2
Dissertation Research
CHEM 6980 Research for Doctoral Dissertation 2
(minimum 2 credits)
Elective Coursework

Electives as approved by doctoral advisory committee to 65-77 bring student to 90 post-baccalaureate hours. This may include up to 9 credits of CHEM 5990, Independent Study or up to 6 credits CHEM 5960, Directed Readings in Chemistry. ${ }^{1}$

## Total Credit Hours

1 The total number of letter-graded hours of Core and Electives combined must total at least 16 hours.
The additional coursework may include other concentrations in CHEM; out-of-department coursework; or transfer credits from an accredited college or university.
At least 1 course ( 2 credit hours) must come from within the department (CHEM), but from a concentration outside the student's core courses.

## Chemistry and Biochemistry: Organic Chemistry, Ph.D.

Minimum Total Hours: 90

Program Code: D170 R484

## Program Requirements

- Continuous enrollment in CHEM 5090 Departmental Colloquium is required for all Doctoral students.

| Code | Title | Credit Hours |
| :---: | :---: | :---: |
| Required Coursework |  |  |
| CHEM 5011 | Fundamentals I | 1 |
| CHEM 5021 | Fundamentals II | 1 |
| CHEM 5080 | Laboratory Rotations | 2 |
| CHEM 5491 | Seminar in Organic Chemistry (Continuous enrollment, up to 12 credit hours, is required after the first semester) | 1-12 |
| Core Courses |  |  |
| At least 6 hours from the following: |  | 6 |
| CHEM 5400 | Organic Chemistry I: Mechanisms and Reactivity (2 hours) |  |
| CHEM 5430 | Organic Chemistry II: Reactions and Synthesis (2-3 hours) |  |
| CHEM 5460 | Special Topics in Chemical Reactivity and Physical Organic Chemistry (1-3 hours) |  |


| Dissertation Research |  |
| :---: | :---: |
| CHEM 6980Research for Doctoral Dissertation <br> (minimum 2 credits) | 2 |
| Elective Coursework |  |
| Electives as approved by doctoral advisory committee to bring student to 90 post-baccalaureate hours. This may include up to 9 credits of CHEM 5990, Independent Study or up to 6 credits CHEM 5960, Directed Readings in Chemistry. | 66-77 |

## Total Credit Hours

1 The total number of letter-graded hours of Core and Electives combined must total at least 16 hours.

The additional coursework may include other concentrations in CHEM; out-of-department coursework; or transfer credits from an accredited college or university.
At least 1 course ( 2 credit hours) must come from within the department (CHEM), but from a concentration outside the student's core courses.

## Chemistry and Biochemistry: Physical Chemistry, Ph.D.

Minimum Total Hours: 90
Program Code: D170 R520

## Program Requirements

- Continuous enrollment in CHEM 5090 Departmental Colloquium is required for all Doctoral students.

| Code | Title | Credit |
| :--- | :--- | ---: |
| Hours |  |  |

## Total Credit Hours

1 The total number of letter-graded hours of Core and Electives combined must total at least 16 hours.
The additional coursework may include other concentrations in CHEM; out-of-department coursework; or transfer credits from an accredited college or university.
At least 1 course ( 2 credit hours) must come from within the department (CHEM), but from a concentration outside the student's core courses.

## Chemistry and Biochemistry: Structural Biology, Ph.D.

Minimum Total Hours: 90
Program Code: D170 R628

## Program Requirements

- Continuous enrollment in CHEM 5090 Departmental Colloquium is
required for all Doctoral students.

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Required Coursework | 1 |  |
| CHEM 5011 | Fundamentals I | 1 |
| CHEM 5021 | Fundamentals II | 2 |
| CHEM 5080 | Laboratory Rotations | $1-12$ |
| CHEM 5291 | Seminar in Biochemistry (Continuous <br> enrollment, up to 12 credit hours, is |  |
|  | required after the first semester) |  |
| Core Courses | Biochemical and Biophysical Methods |  |
| CHEM 5240 | Macromolecular Crystallography | 2 |
| CHEM 5730 | Macromolecular Structure and Function | 2 |
| CHEM 5750 | Macticum in Structural Biology | 2 |
| CHEM 5780 | Pract | 1 |

## Dissertation Research

CHEM 6980 | Research for Doctoral Dissertation |
| :--- |
| (minimum 2 credits) |

## Elective Coursework

Electives as approved by doctoral advisory committee to
bring student to 90 post-baccalaureate hours. This may include up to 9 credits of CHEM 5990, Independent Study or up to 6 credits CHEM 5960, Directed Readings in Chemistry. ${ }^{1}$

## Total Credit Hours

${ }^{1}$ The total number of letter-graded hours of Core and Electives combined must total at least 16 hours.
The additional coursework may include other concentrations in CHEM; out-of-department coursework; or transfer credits from an accredited college or university.
At least 1 course ( 2 credit hours) must come from within the department (CHEM), but from a concentration outside the student's core courses.

## Cellular and Behavioral Neurobiology: Chemistry \& Biochemistry, Ph.D.

Minimum Total Hours: 90

## Program Code: D147

## Program Requirements

- Students must have completed undergraduate Physical and Organic Chemistry courses, or pass proficiency exams.
- Students must meet specific requirements of their chemistry/ biochemistry division.
- Continuous enrollment in CHEM 5090, Departmental Colloquium (0 hours) each semester is required.


## Code <br> Title <br> Credit <br> Hours

## Course Requirements

5000/6000-level, letter-graded lecture courses 21

| 5000/6000-level courses outside the students's major <br> 'division' (but within chemistry/biochemistry for 6 of these <br> hours) | 9 |
| :--- | :--- | ---: |
| BIOL 5833 Neurobiology |  |
| BIOL 5871 Current Topics in Neurobiology (including 2 <br> presentations) <br> CHEM 5990 Independent Studies (2-3 lab rotations) | 1 |

## Dissertation Research

CHEM 6980 Research for Doctoral Dissertation 30 (minimum 30 hours)
Additional Coursework
Additional coursework as needed to reach 90 post- 17-20
baccalaureate hours, with approval of advisory committee
Total Credit Hours
90

## General Requirements for Doctoral Degrees

A student should expect to spend at least the equivalent of three full academic years beyond the bachelor's degree to obtain the doctoral degree. During this period the student will take appropriate graduate coursework, successfully complete the general examination, and successfully defend and submit the final dissertation.

All coursework applied to the doctoral degree must carry graduate credit.
The doctoral degree requires at least 90 post-baccalaureate hours, including both formal coursework and hours of research.

The minimum hour requirement for a specific doctoral degree program cannot be waived.

No more than one-half of the credit hours, both OU and overall, excluding Research for Doctoral Dissertation (6980), may be $S / U$-graded coursework.

The student must be in residence at OU for at least two consecutive 16week semesters during the pursuit of the doctoral degree while enrolled and engaged in coursework or research activities as prescribed by the major academic unit.

For more detailed regulations and requirements for Doctoral degrees, please consult the Graduate College Bulletin: http://www.ou.edu/ gradcollege/forms/bulletin

## Department of Classics and Letters

## Scott Johnson, Chair

110 Carnegie Building
Norman, OK 73019-4042
Phone: (405) 325-6921
FAX: (405) 325-7713
classicsandletters@ou.edu
www.ou.edu/cas/classicsandletters

## General Information

## History

In keeping with the wisdom and tradition of placing the study of ancient Greece and Rome at the heart of a strong curriculum the liberal arts and
sciences, President David Ross Boyd selected a classicist, William N. Rice, as the first member of the University of Oklahoma's faculty in 1890.

Rice's successor, Joseph Paxton, wrote the university's motto, Civi et Reipublicae ("for the benefit of the citizen and the state"), stating in nuce the university's institutional mission of providing the "best possible educational experience for our students through excellence in teaching, research and creative activity, and service to the state and society."

From the Athenian drachma and the Roman sestertius featured above the south doorway of Adams Hall, to the Ionic columns on the front of the Boyd House, the Classical tradition has always been an important part of the University of Oklahoma, and the Department of Classics and Letters has always supported the University's mission through research and teaching in the languages and cultures of ancient Greece and Rome and their enduring influence on the modern world.

In 1937, the School of Letters was organized to "provide systematic instruction in ancient and modern languages, history, philosophy and comparative literature," (Oklahoma Daily, August 4, 1937).

A few years later, the School of Letters became a planned program of the College of Arts and Sciences, under the guidance of a committee of faculty members from the core departments of Classics, English, History, Modern Languages, and Philosophy. In 1953, under the direction of Philip J. Nolan, the Classics Department became the administrative home of the Letters program. Since then, the Chair of the Department of Classics also serves as the Director of the Letters program.

To reflect the department's long-standing commitment to the Letters program and the outstanding job it has done administering it, the department's name was changed to the Department of Classics and Letters in 1996.

In 2009, President David L. Boren established the Institute for the American Constitutional Heritage (IACH) within the Department of Classics and Letters because he wanted the IACH to promote an interdisciplinary, humanistic approach to the study of the Constitution and constitutionalism.

From its earliest days, the Department of Classics and Letters has supported, and continues to support, OU's institutional mission by promoting free inquiry and the perpetuation of the humanistic tradition.

## Mission

Through teaching, scholarly and creative activity, and service, the Department of Classics and Letters seeks to preserve and promote the study of the culture, history, languages, literature, and philosophy of Greco-Roman antiquity and the enduring influence of Classical ideals on the modern world.

## Expanded Statement of Institutional Purpose

The principal mission of the Department of Classics and Letters' curricular program is to provide a traditional liberal arts education that will prepare students to adapt to a variety of settings after graduation. Our programs are based upon the assumption that cultivated intelligence, good judgment, and artistic expression in speech and writing are desirable in and for themselves.

## Goals

To build on the strength and reputation for excellence that the department has enjoyed since the earliest history of the University of Oklahoma, our goals are:

- To advance scholarship in the humanities through research, presentations, publication, and creative activity.
- To support and promote the University's educational mission by creating and offering courses not only in the College of Arts \& Sciences' general education program, but also in specialized areas of study in support of the department's major and minor programs.
- To promote wider interest in the humanities through public lectures, presentations, and other outreach events.


## Research

Faculty members in the Department of Classics and Letters are actively engaged in the research mission of the University. Faculty members' scholarship reflects the department's diverse range of scholarly interests, which include digital humanities, history, language, literature, philosophy, politics, and religion.

Classics and Letters majors have many opportunities for participating in research initiatives with faculty in the department, including Honors Reading, Honors Research, and Mentored Undergraduate Research. Students interested in these opportunities should contact professors or speak with the department's academic advisor.

## Scholarships and Financial Aid

The Department of Classics and Letters annually awards scholarships to our outstanding junior and senior majors. The scholarships are open to Letters or Classics majors who have accrued 60 hours (including hours tested out of) and a minimum 3.5 GPA. Some scholarships are for Letters majors only; some for Letters or Classics majors, some for study abroad; one is reserved for students pursing a teaching career in Latin.

## The Peggy Chambers Scholarship

Established by an OU alumnus in recognition of Peggy Chambers' outstanding contributions to the Classics and Letters programs. Awarded to outstanding junior or senior Letters major. Number and stipend varies.

## The Charles and Julie Daniels Study Abroad Scholarship

Established by a Letters alumna and her husband, both graduates of the University of Oklahoma, for study abroad scholarships. Awarded to outstanding junior or senior Letters major. Number and stipend varies.

## The Philip J. Nolan Scholarship

Established by a former student of Philip Nolan. Awarded to outstanding junior or senior Letters major. Number and stipend varies.

## The Philip Nolan Memorial Scholarship

Established by the former students, colleagues and friends of Dr. Philip Nolan. Awarded to outstanding senior Letters or major Classics. Number and stipend varies.

## The Mary Enod Williams Scholarship

Established by Charles Williams for his mother, Mary Enod Williams a long time public school teacher who graduated from OU with a degree in Latin. Awarded to outstanding Letters or Classics major. Stipend varies.

## The Jean Herrick Scholarship

Jean Herrick was a long time member of the Classics Faculty. Awarded annually to a senior Classics major who intends to pursue a teaching career in Latin.

## The Danney Glenn Goble Memorial Scholarship

Established by family and friends in memory of Dr. Goble, distinguished teacher and scholar. Any eligible deserving undergraduate Letters major is qualified for either an initial award or a subsequent award if, in the opinion of the selection committee, the student is making satisfactory progress toward graduation and the student needs supplemental financial assistance. For purposes of this scholarship, satisfactory progress shall be deemed to be the achievement of and maintenance of at least a 3.0 overall grade point average on a 4.0 scale.

## The Cheryl Walker-Esbaugh Scholarship

Established by an OU alumnus in recognition of Cheryl Walker-Esbaugh's outstanding contributions to the Classics and Letters programs. Awarded to a junior or senior Classics or Letters major with financial need.

## The J. Rufus Fears Scholarship

J. Rufus Fears was an exceptionally gifted and respected teacher of Classics at the University of Oklahoma who influenced the lives and shaped the careers of many students. This award was established by donors to recognize Dr. Fears' many contributions to the University of Oklahoma, the immediate community and the state. The Fears Scholarship is for deserving Letters or Classics majors with financial need who have maintained a minimum 3.0 GPA.

## The John H. Hanzen Prize for Future Teachers of Latin

This scholarship was established by John Hansen, an instructor in the Department of Classics and Latin, in honor of his father. This prize is awarded to students who have demonstrated a commitment to the teaching of Latin at the high school level in Oklahoma.

## The Jack Catlin Scholarship

This scholarship was established by the many students, friends, and colleagues of John S. Catlin, who was chair of the Department of Classics and Letters for over two decades. During that time he taught and advised countless students, and this scholarship honors his devotion to them. This scholarship is awarded to a junior or senior Classics or Letters major with financial need.

## The Walker Family Endowed Scholarship

This scholarship was established by Luke Walker (Letters 1994) and his family for deserving Classics or Letters majors who intend to go into a scientific or medical field, including public health and public health policy.

## Undergraduate Study

## Bachelor of Arts

- Classical Studies (p. 330): The Classical Studies major is a traditional liberal arts major for undergraduates with an interest in ancient Greece and Rome. This option is ideal for students who have an interest in ancient Greece and Rome but do not wish to pursue the training in the Greek and Latin languages necessary for admission to graduate school in Classics. With the exception of the required courses in either Latin or Greek, the course materials are in English.
- Classical Languages (p. 328): Classical Languages students pursue a more traditional curriculum that emphasizes the study of the Greek and Latin languages. This option is ideal for preparing students to enter upon advanced study in graduate school or seminary, but it will also benefit those desiring solid training in the liberal arts for a variety of careers, such as law, medicine, business, education and government. Students who select this option study both Greek and

Latin literature in the original languages and in translation, and they also take courses on all aspects of the ancient world.

- Latin (p. 333): The Latin degree option is intended for those who wish to teach Latin at the high school level.
- Letters (p. 335): The Letters degree is interdisciplinary, and the curriculum is flexible enough to accommodate most students' interests. The program is based upon the assumption that cultivated intelligence, good judgment, and artistic expression in speech and writing are desirable in and for themselves. The Letters major provides an excellent preparation for advanced study in a variety of academic disciplines.
- Constitutional Studies (p. 337): Letters students may pursue a concentration in Constitutional Studies under the supervision of the Institute for the American Constitutional Heritage.


## Minors

- Classical Culture Minor (p. 342)
- Classical Greek Minor (p. 342)
- Constitutional Studies Minor (p. 342)
- Latin Minor (p. 343)


## Courses

## CL C 1123 Gods and Heroes in Art

3 Credit Hours
Students will be introduced to stories of ancient gods, goddesses, heroes, and lovers as they have been depicted by various art forms through the ages. Examples of these art forms will include sculptures, mosaics, frescoes, paintings, theater, and motion pictures. Through exposure to a variety of art, students will craft educated opinions about artistic works, both ancient and modern. (F, Sp) [IV-AF].

CL C 1133 The Roman War Machine
3 Credit Hours
This course examines the history and archaeology of the Roman army in times of war and peace, and in doing so provides an introduction to ancient history, classical studies, and Mediterranean archaeology. Drawing on a diverse range of materials, including art, artifacts, and primary source documents, this course explores warfare from Pre-Roman times to Late Antiquity. ( $\mathrm{F}, \mathrm{Sp}$ )
CL C 2143 Women in Antiquity
3 Credit Hours
Prerequisite: ENGL 1213 or EXPO 1213. Survey of the roles of women in Ancient Greece from the Bronze Age through the Hellenistic Period. Primary and secondary sources are utilized to provide students with both a literary and historical perspective of women in this time frame. (Irreg.)
CL C 2213 Introduction to Classical Archaeology 3 Credit Hours Introductory survey of the archaeological discovery of the ancient civilizations of the Near and Middle East and the Mediterranean World, including the Mesopotamian, Egyptian, Hebrew, Roman, Minoan, Mycenaean, and Greek civilizations. Attention is given to principal sites for each civilization, their discovery, and the techniques and methodology of classical archaeology. (F, Sp) [IV-WC].
CL C 2383 Classical Mythology
3 Credit Hours
Lectures, with assigned readings. The origin and development of Greek and Roman myths indispensable for the understanding of ancient and modern literature; with allusion to their influence on art and religion. (F, $\mathrm{Sp}, \mathrm{Su})$ [IV-WC] .

CL C 2413 Medical Vocabulary
3 Credit Hours
Prerequisite: sophomore standing. Designed to be of special use to students of the biological sciences. Study of basic Greek and Latin elements of medical terminology through the analysis of select vocabularies and word lists. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

CL C 2603 The Rise and Fall of Greece 3 Credit Hours
Prerequisite: English 1213/Expository Writing 1213. Traces the development of the democratic ideal in Greece through the classical period. Aspects of culture such as literature, religion, art and architecture, education, science and technology, intellectual life and the role of women are emphasized. (F) [IV-WC].
CL C 2613 The Rise and Fall of Rome
3 Credit Hours
Prerequisite: English 1213/Expository Writing 1213. Examines the development and dissemination of Roman civilization in ancient times and its influence on the modern world. Aspects of Roman culture such as literature, law, religion, art and architecture, education, intellectual life, popular entertainment, and the role of women are emphasized. (Sp) [IVWC].
CL C 2970 Special Topics/Seminar
1-3 Credit Hours
Special Topics. 1 to 3 hours. May be repeated; Maximum credit nine hours. Special topics course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research, and field projects. (Irreg.)
CL C 3033 Latin Literature in English Translation 3 Credit Hours Prerequisite: sophomore standing. May be repeated; maximum credit six hours. readings in a selected genre (e.g. epic, drama, satire, lyric) with lectures on the history and development of latin literature. The Greek background to Latin literature and the Romans' influence on later works. [IV-WC].
CL C 3053 Origins of Christianity: Jesus to Augustine 3 Credit Hours Prerequisite: English 1213. A survey of early Christian history that aims to set the Christian scriptures in their cultural and political context. Canonical, non-canonical, Jewish, and pagan sources are read alongside one another in order to consider the interrelationships among various religious ideas in the Roman world. (F) [IV-WC].

CLC 3103 States in Crisis in Greek and Roman Literature3 Credit Hours Prerequisite: ENGL 1213/EXPO 1213; Course is not open to freshmen. The framers of the Constitution looked to ancient Athens, with its democracy, and Rome, with its republic, as models for a form of government that could withstand the vagaries of time. This course examines how those ancient governments fared during critical moments in their history. (Irreg.) [IV-WC].
CL C 3113 Gods and Heroes of Ancient Epic
3 Credit Hours
Prerequisite: English 1213/Expository Writing 1213. The epic poetry of Homer, Hesiod, Vergil and other Greek and Roman writers in its literary and historical context. The epic tradition in later European literature. (F) [IV-WC].
CL C 3123 Ancient Drama in English Translation 3 Credit Hours Prerequisite: junior standing or permission of the instructor. Lectures on the development of the ancient Greek and Roman drama. Lectures with readings and discussion from the works of Aeschulus, Sophocles, Euripides, Aristophanes, Plautus, Terence, and Seneca and from Aristole's poetics. The influence of ancient drama on European literature. (F) [IVWC].
CL C 3133 Plato and the Platonic Tradition 3 Credit Hours A study of the major ideas in the central works of Plato and of their influence on the Neoplatonists. (Sp) [IV-WC].

CL C 3163 Visions of Heaven and Hell: Virgil, Dante, and Milton

3 Credit Hours
Prerequisite: sophomore standing. Focuses on Virgil's influence on Dante. Virgil celebrates, in both The Georgics and The Aeneid, the outcome of the struggle against external furor and passion and those elements within the individual. Dante, with Virgil as his spiritual guide in The Inferno, presents a series of spiritual exercises. (F, Sp) [IV-WC].
CL C 3183 Hellas, the Civilization of Ancient Greece 3 Credit Hours Prerequisite: junior standing and permission of instructor. Hellas examines the human factor dominating western history, philosophy, literature and political science as Greek civilization chronologically evolves. Responsible behavior, balance and control are the lessons of all Greek literature, art, philosophy and social institutions. (Sp) [IV-WC].

## CL C 3213 Classical Art \& Archaeology: Greek Art to the Death of Alexander 3 Credit Hours

Prerequisite: sophomore standing. Lectures, occasionally illustrated and assigned readings. Survey of the architecture, sculpture, painting and minor arts in the Greek regions of the Eastern Mediterranean in the successive stages of their development; with analyses of dominant styles and detailed study of select masterpieces and monuments. (F) [IV-AF].
CL C 3223 Classical Art \& Archaeology: Hellenistic Greek Art; Roman Art

3 Credit Hours
(Crosslisted with A HI 3223) Prerequisite: sophomore standing.
Continuation of 3213 . Survey of Hellenistic art with particular attention to the individuality of style and diversity of matter. Early Etruscan and Roman art. The development of Roman art in native and assimilated forms; studies in domestic and national monuments. (Sp) [IV-AF].
CL C 3233 The Roman Forum and its Monuments 3 Credit Hours Focus on the excavation of the Roman Forum, the central part of ancient Rome. concentrate study on archaeological methodology, specific excavations, topography of Rome, and the cultural significance of Roman urban development on the ancient world.
CL C 3243 Food and Drink in the Ancient Mediterranean 3 Credit Hours Prerequisite: English 1213/Expo 1213. You are what you eat. You are how you eat. You are when and where and with whom you eat. This was as true in the ancient Mediterranean world of Greece and Rome as it remains in our own. To explore the foodways in the past, we will draw on a wide menu of ancient texts, images, and material culture. ( $\mathrm{F}, \mathrm{Sp}$ )

## CL C 3253 Ancient Athletics: Fun and Games in the Mediterranean

 World3 Credit Hours
Prerequisite: English 1213/Expository Writing 1213. Athletic activities, and games of all kinds, were just as popular and significant in the ancient Greek and Roman worlds as they are today. We will use primary texts, artistic representations, archaeological discoveries, and modern analogies to explore topics ranging from the rise of the Olympic Games and gladiatorial combats, to just what people considered 'fun' in the ancient world. (F, Sp)
CL C 3283 Roma: The Civilization of Ancient Rome 3 Credit Hours Prerequisite: junior standing and permission of instructor. This course surveys the Roman nation from its legendary origins in 753 BCE to the collapse of the Western Empire in 476 CE. Through readings from standard texts and historical fiction, students will learn about Roman history, literature and philosophy and its influence on the modern world. (Sp) [IV-WC].
CL C 3403 Law and Justice
3 Credit Hours
Prerequisite: junior standing or permission of the instructor. With Aristotle's politics as the principal guide, course follows development of justice throughout the Greco-Roman experience. (F) [IV-WC].

CL C 3413 Archaeologies of Ancient Espionage 3 Credit Hours Prerequisite: English 1213/Expository Writing 1213. Spies, surveillance, security - these concepts loom large today, but have their origins in the distant past. This course examines archaeological remains, material and visual culture, and ancient texts to understand espionage, border security, signals intelligence, and surveillance systems in ancient Greece and Rome. We examine intelligence activities from the perspective of ancient empires and resistance to them. (F)
CL C 3440 Mentored Research Experience 3 Credit Hours 0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)

CL C 3510 Selected Topics in Classical Culture 2-3 Credit Hours 2 to 3 Hours. May be repeated; maximum credit nine Hours. A study of selected topics in the civilizations and cultures of the Romans, Greeks and Hebrews. (F, Sp, Su)

CL C 3613 Classical Influence on Modern Literature 3 Credit Hours Prerequisite: ENGL 1213 or EXPO 1213. May be repeated with change of content; maximum credit 6 hours. Identifies the continuing importance of the classical tradition in modern literature. (F, Sp, Su) [IV-WC].

## CL C 3803 The World of Late Antiquity: From Rome to Baghdad <br> 3 Credit Hours

Prerequisite: English/Expository Writing 1213. This course introduces students to the historical period of Late Antiquity (circa 300 to 800 CE). The Mediterranean will be the center of attention, but Mesopotamia, Arabia, the Caucasus, the Balkans, and Western Europe will also be considered in turn, along with the rise and development of Christianity and the emergence of Islam as a permanent presence in the East. (F, Sp) [IV-WC].

CL C 3960 Honors Reading 1-3 Credit Hours
1 to 3 Hours. Prerequisite: admission to honors program. May be repeated; maximum credit six hours. Consists of topics designated by the instructor in keeping with the student's major program. The topics will cover materials not usually presented in the regular courses. (F, Sp, Su)

## CL C 3970 Honors Seminar

1-3 Credit Hours
1 to 3 Hours. Prerequisite: admission to honors program. May be repeated; maximum credit six hours. The projects covered will vary. The content will deal with concepts not usually presented in regular coursework. (F, Sp)

CL C 3980 Honors Research
1-3 Credit Hours
1 to 3 Hours. Prerequisite: admission to honors program. May be repeated; maximum credit six hours. Will provide an opportunity for the gifted Honors candidate to work at a special project in the student's field. (F, Sp, Su)
CL C 3990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: permission of instructor and junior standing. May be repeated once with change of content. Independent study may be arranged to study a subject not available through regular course offerings. (F, Sp, Su)

CL C 4503 Classics Capstone
3 Credit Hours
Prerequisite: senior standing in major. Students review major facts, figures, and events of Greco-Roman antiquity and write a senior paper on a topic to be chosen in consultation with the instructor, using primary and secondary sources to demonstrate a comprehensive understanding of one of the major areas of Greco-Roman civilization. (Sp) [V].
CL C 4960 Directed Readings
1-4 Credit Hours
1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean. May be repeated; maximum credit four hours. Designed for upper-division students who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)
CL C 4970 Special Topics/Seminar 1-3 Credit Hours
1 to 3 hours. Prerequisite: Senior standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)
CL C 4990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: three courses in general area to be studied; permission of instructor and department. May be repeated; maximum credit six hours. Contracted independent study for topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (F, Sp, Su)
CLC5990 Special Studies
1-3 Credit Hours
1 to 3 Hours. Prerequisite: graduate standing. May be repeated; maximum credit six hours. Reading and research, arranged and directed in consultation with the instructor, in specified areas of classical civilization and culture. (F, Sp, Su)
GRK 1115 Beginning Greek
5 Credit Hours
Introductory study of the vocabulary and grammar of the Greek language.
Some practice in the reading of simple Attic prose; usually excerpts from Xenophon's Anabasis. (F, Sp, Su) [I-FL].

GRK 1215 Beginning Greek
5 Credit Hours
Prerequisite: 1115, or first year Greek in high school. Introductory study of the vocabulary and grammar of the Greek language. Some practice in the reading of simple Attic prose; usually excerpts from Xenophon's Anabasis. (Sp) [I-FL].
GRK 2103 Intermediate Ancient Greek
3 Credit Hours
Prerequisite: GRK 1215 or equivalent, with a grade of C of better; May be repeated with a change of content; maximum credit six hours. This course moves from basic grammatical principles to translating authentic, unaltered texts. Students will fine-tune their knowledge of Attic Greek prose and begin reading poetry and lonic texts. Authors will include, among others, Plato, Euripides, Thucydides, and Homer. (F, Sp)
GRK 2113 Biblical Greek 3 Credit Hours
Prerequisite: 1215 or equivalent, with a grade of $C$ of better. May be repeated with a change of content; maximum credit six hours. Reading designed mainly to increase the student's proficiency in rapid translation, in excerpts from the New Testament. (F)

GRK 2213 Homer
3 Credit Hours
1215 or equivalent, with a grade of $C$ or better. May be repeated with change of content; maximum credit six hours. Reading selections from Homer; designed to improve the student's proficiency in translation and the understanding of Greek poetic techniques. (Sp)

GRK 2970 Special Topics/Seminar
1-3 Credit Hours
Special Topics. 1 to 3 hours. May be repeated; Maximum credit nine hours. Special topics course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research, and field projects. (lrreg.)

## GRK 3113 Advanced Prose

3 Credit Hours
May be repeated with change of subject matter; maximum credit six hours. Readings in Plato: Crito and Apology; Lysias: Select Orations; Demosthenes: De Corona. (Sp)
GRK 3213 Ancient Greek Drama 3 Credit Hours
Prerequisite: GRK 2103, or equivalent, with a grade of $C$ or better; May be repeated with change of subject matter; maximum credit six hours. Not only serving as the primary form of entertainment, the theater in ancient Greece was a diverse forum for exploring social morality, politics, and religion. By reading works from dramatists such as Aristophanes, Euripides, Menander, and Sophocles, students will observe the lasting influence of comedy and tragedy throughout history. (F, Sp)
GRK 3313 Ancient Greek Prose Composition 3 Credit Hours
Prerequisite: GRK 2103 or 2203 or the equivalent. In this course, students will fully revise all of Attic Greek grammar and syntax and translate sentences and connected prose passages into Greek. By the end of the course, students should have a better grasp of the Greek language, be able to use and identify proper Greek idiom, and appreciate the style and linguistic nuances of prose authors. (F, Sp)

## GRK 3413 Greek New Testament

3 Credit Hours
Prerequisite: GRK 2103, or equivalent, with a grade of $C$ or better; May be repeated with change of subject matter; maximum credit six hours. This course will introduce students to Koine Greek through translating texts from the New Testament and works of Apostolic or Patristic Fathers. By translating a variety of impactful and controversial texts, students will observe the importance of reading these works in their original language and note that English translations often obscure or dilute meaning. ( $\mathrm{F}, \mathrm{Sp}$ )
GRK 3440 Mentored Research Experience
3 Credit Hours
0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)

## GRK 3513 Ancient Greek Philosophers

3 Credit Hours
Prerequisite: GRK 2103, or equivalent, with a grade of $C$ or better; May be repeated with change of subject matter; maximum credit six hours. The works of Greek philosophers, primarily Plato and Socrates, are foundational to the intellectual tradition that applies rational thought to the discovery of knowledge in the natural world, ethical matters, and happiness. By reading a variety of works from Greek philosophers, students will develop a better understanding of the intricacies of Greek philosophical tenets and how they evolved throughout history. (F, Sp)
GRK 3613 Greek Epic Poetry 3 Credit Hours
Prerequisite: GRK 2103 or equivalent, with a grade of $C$ or better; May be repeated with change of subject matter; maximum credit six hours. The tales of Greek gods and heroes come to life in the poetry of authors such as Homer, Hesiod, and Apollonius. By reading some of the most cherished texts from antiquity, students will marvel at the ability of these authors to entertain ancient and modern audiences while exploring concepts of heroism, love, morality, theology, and the afterlife. (F, Sp)

GRK 3960 Honors Reading
1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program and one intermediate Greek course. May be repeated; maximum credit six hours. Consists of topics designated by the instructor in keeping with the student's major program. The topics will cover materials not usually presented in the regular courses. (F, Sp, Su)

GRK 3970 Honors Special Topics

## 1-3 Credit Hours

Prerequisite: 2113 or 2213 or the equivalent. May be repeated with change of content; Maximum credit six hours. A study of selected topics in Greek literature on subjects not offered in regularly scheduled courses. (Irreg.)
GRK 3980 Honors Research
1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to the Honors Program and one intermediate Greek course. May be repeated; maximum credit six hours. Will provide an opportunity for the Honors candidate to work at a special project in the student's field. (F, Sp, Su)

GRK 3990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: one course in general area to be studied; permission of instructor and department. May be repeated; maximum credit six hours. Contracted independent study for topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (F, Sp, Su)

GRK 4113 Greek Historiography
3 Credit Hours
Prerequisite: GRK 2103 or equivalent, with a grade of C or better; May be repeated with change of subject matter; maximum credit six hours. Inspired by epic poems from the past, Greek historians were at the forefront of exploring and defining the genre now simply known as "history". By reading various works from authors of Greek history, such as Herodotus, Thucydides, and Xenophon, and even Greek historians of the Roman empire, students will observe how the genre evolved throughout antiquity. (Irreg.)
GRK 4213 Greek Lyric \& Bucolic Poetry
3 Credit Hours
Prerequisite: GRK 2103 or equivalent, with a grade of $C$ or better; May be repeated with change of subject matter; maximum credit six hours. Ancient Greeks passionately consumed lyric and bucolic poetry as forms of entertainment and personal expression. Exploring themes of love, death, beauty, and the good life, these poets give modern audiences insight into ancient desires and dilemmas through beautifully constructed verse. By translating works from authors, such as Pindar, Sappho, and Theocritus, students will improve their understanding of the ancient Greeks. (F)

GRK 4313 Attic Oratory
3 Credit Hours
Prerequisite: GRK 2103, or equivalent, with a grade of $C$ or better; May be repeated with change of subject matter; maximum credit six hours. Extensive reading from the masterpieces of classical oratory, chosen both to illustrate the types and styles of public discourse and to provide some familiarity with the social and political milieu of the age. Authors include among others, Demosthenes, Lysias, Andocides, Aeschines, Antiphon, and Isocrates. Supplementary studies in Greek legal procedure, and the theory of rhetoric and its importance in antiquity. (F, Sp)
GRK 4960 Directed Readings 1-4 Credit Hours
1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean. May be repeated; maximum credit four hours. Designed for upper-division students who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)

GRK 4970 Special Topics/Seminar
1 to 3 hours. Prerequisite: Senior standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

## GRK 4990 Independent Study

1-3 Credit Hours
1 to 3 hours. Prerequisite: three courses in general area to be studied; permission of instructor and department. May be repeated; maximum credit six hours. Contracted independent study for topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (F, Sp, Su)
GRK 5960 Directed Readings
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing and permission of department. May be repeated; maximum credit twelve hours. Directed readings and/or literature reviews under the direction of a faculty member. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
GRK 5970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)
GRK 5980 Research for Master's Thesis 2-9 Credit Hours
2 to 9 hours. Prerequisite: graduate standing. Variable enrollment, two to nine hours; maximum credit applicable toward degree, four hours.(F)

## GRK 5990 Special Studies

1-4 Credit Hours
1 to 4 hours. May be repeated; maximum credit eight hours. Reading and research, arranged and directed in consultation with the instructor, in specified areas of Greek language and literature. ( $\mathrm{F}, \mathrm{Sp}$ )

## LAT 1115 Beginning Latin

5 Credit Hours
Introductory study of the vocabulary and grammar of the Latin language,
with practice in the reading of sentences and connected prose from selected Latin authors. (F, Sp) [I-FL] .
LAT 1215 Beginning Latin 5 Credit Hours
Prerequisite: 1115, or the equivalent, with a grade of $C$ or better.
Introductory study of the vocabulary and grammar of the Latin language, with practice in the reading of sentences and connected prose from selected Latin authors. ( $F, S p$ ) [I-FL] .

## LAT 1315 Intensive Introductory Latin

5 Credit Hours
Prerequisite: permission of Honors Program. Alternative to the Latin 1115 and 1215 introductory sequence. Covers in one semester the essentials of the material in Latin 1115 and 1215. Students who have completed 1115 and 1215 may not enroll in 1315. (F) [l-FL] .

## LAT 2113 Intermediate Latin Prose

3 Credit Hours
Prerequisite: LAT 1215 or equivalent, with a grade of $C$ or better; May be repeated with change of content; maximum credit six hours. This course moves from basic grammatical principles to translating authentic, unaltered texts. Students will hone their knowledge of Latin prose and compare stylistic differences between authors. With the assistance of supplementary commentaries, students will translate works from authors such as Caesar, Livy, Cicero, and Cornelius Nepos. (F, Sp, Su)

## LAT 2213 Intermediate Latin Poetry

3 Credit Hours
Prerequisite: LAT 1215 or LAT 1315, or equivalent, with a grade of C or better; May be repeated with change of content; maximum credit six hours. Reading selections from the works of Latin poets, including Catullus, Horace, and Ovid; designed to improve the student's proficiency in translation and understanding of the Latin poetic technique. (F, Sp)

LAT 3113 Advanced Prose: Cicero, Pliny the Elder, Pliny the Younger

3 Credit Hours
Prerequisite: 2113 and 2213. May be repeated with change of subject matter; maximum credit six hours. Readings from the works of Cicero or Pliny, representing the height of prose style in the Republican and Imperial periods, respectively. (Irreg.)

LAT 3313 Latin Prose Composition

## 3 Credit Hours

Prerequisite: LAT 2113 or LAT 2213 or equivalent. In the tradition of classical education, one of the culminating emphases was the ability to compose elegant, stylistic prose in the ancient language of study. In this course, students will set off toward this pinnacle and learn to compose sentences and continuous passages in Latin. This will be accompanied by a thorough review of Latin grammar and syntax. (F, Sp)

LAT 3413 Early Christian Authors
3 Credit Hours
Prerequisite: ENGL 1213 or EXPO 1213; LAT 2113 or LAT 2213 with a grade of $C$ or better; May be repeated with change of subject matter; maximum credit six hours. Leaders of the early Christian church were tasked with chronicling Jesus' life, defining the biblical canon, providing exegetical explanations for theological tenets, battling heresies, and defending their beliefs against persecution. By reading selections from the Vulgate and authors such as Tertullian, Jerome, Ambrose, and Augustine, students will improve their Latin fluency and understanding of how these works shaped Christian doctrine. (F, Sp)
LAT 3440 Mentored Research Experience
3 Credit Hours
0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)
LAT 3513 Roman Philosophers

## 3 Credit Hours

Prerequisite: LAT 2113 or LAT 2213 with a grade of C or better; May be repeated with change of subject matter; maximum credit six hours. Roman philosophers, driven to respond to the ideas of their Greek predecessors, molded prevailing philosophical concepts to fit the ethical, moral, and cultural identity of Rome. By reading a variety of works from Cicero, Lucretius, and Seneca, students will develop a better understanding of Roman philosophy and its the reception throughout history. (F, Sp)
LAT 3613 Latin Epic Poetry
3 Credit Hours
Prerequisite: LAT 2113 or LAT 2213 with a grade of C or better; May be repeated with change of subject matter; maximum credit six hours. In this course, students will focus on selected readings from Latin epic poetry. Texts may include, among others, Vergil's Aeneid, Ovid's Metamorphoses, Lucan's Pharsalia, and Statius' Thebaid. At the end of the course, students will also appreciate the generic conventions of epic and its place in Roman society. (Irreg.)
LAT 3960 Honors Reading
1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Consists of topics designated by the instructor in keeping with the student's major program. Covers materials not usually presented in the regular courses. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
LAT 3980 Honors Research 1-3 Credit Hours 1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Provides an opportunity for the gifted Honors candidate to work at a special project in the student's field. ( $\mathrm{F}, \mathrm{Sp}$ )

LAT 3990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: one course in general area to be studied; permission of instructor and department. May be repeated; maximum credit six hours. Contracted independent study for topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (F, Sp, Su)

## LAT 4113 Roman Historiography <br> 3 Credit Hours

Prerequisite: LAT 2113 or LAT 2213 with a grade of C or better; May be repeated with change of subject matter; maximum credit six hours. Indebted to the great historians of ancient Greece, the Romans built their historiographical tradition on more than just reporting the facts. By reading various works from Sallust, Livy, Suetonius, Pliny, and Tacitus in their original language, students will develop an understanding of how history was often used as propaganda to curb morality, educate children, and increase national pride. (Irreg.)

## LAT 4213 Latin Lyric \& Bucolic Poetry 3 Credit Hours

Prerequisite: LAT 2113 or LAT 2213 with a grade of $C$ or better; sophomore standing; May be repeated with change of subject matter; maximum credit six hours. In contrast to the dense social and moral themes explored in epic poetry, lyric and bucolic poetry traditionally served as a medium for Roman poets to express intimate and personal notions. By translating works from authors such as Horace, Catullus, and Vergil, students will discover a diversity of themes and constructions expressed in these genres. (Irreg.)

## LAT 4313 Roman Oratory

3 Credit Hours
Prerequisite: LAT 2113 or LAT 2213 with a grade of C or better; May be repeated with change of subject matter; maximum credit six hours. In Rome, matters of war and peace, praise and blame, and life and death all depended upon the persuasive power of the Roman orator. In this course, students will not only read the greatest examples of Roman oratory but also understand the rhetorical secrets they conceal. Authors include Cicero, fragmentary Roman orators, Quintilian and the anonymous Rhetorica ad Herennium. (F, Sp)
LAT 4413 Roman Comedy and Satire
3 Credit Hours
Prerequisite: LAT 2113 or LAT 2213 with a grade of C or better; May be repeated with change of subject matter; maximum credit six hours. Romans valued humor as a method of expressing social criticism. From the Greeks, they inherited the ribald and implausible conventions of comedy, but satire, the Romans claimed, was a genre of their own invention. By translating authors such as Horace, Juvenal, Plautus, and Terence, students will gain insight into the social concerns and preoccupations of ancient Romans. (Irreg.)

## LAT 4613 Foundations of the Latin Language 3 Credit Hours

Prerequisite: Course is not open to freshman, ENGL 1213 or EXPO 1213, and LAT 2113 or LAT 2213 with a grade of C or better. Once widely spoken, Latin has long been considered a "dead" language. By first considering why Latin is still taught, students will investigate the evolution of Latin pedagogy, including objectives and methodology. Through this inquiry into how Latin is taught, students will reinforce and bolster their knowledge of the most complex aspects of Latin syntax. (F, Sp)

## LAT 4960 Directed Readings

1-4 Credit Hours
1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean. May be repeated; maximum credit four hours. Designed for upper-division students who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)

LAT 4970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: Senior standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

## LAT 4990 Independent Study

1-3 Credit Hours
1 to 3 hours. Prerequisite: three courses in general area to be studied; permission of instructor and department. May be repeated; maximum credit six hours. Contracted independent study for topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (F, Sp, Su)
LAT 5960 Directed Readings
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing and permission of department. May be repeated; maximum credit twelve hours. Directed readings and/or literature reviews under the direction of a faculty member. (F, Sp, Su)

LAT 5970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)
LAT 5980 Research for Master's Thesis 2-9 Credit Hours
2 to 9 hours. Prerequisite: graduate standing. Variable enrollment two to nine hours; maximum credit applicable toward degree, four hours. (F, Sp, $\mathrm{Su})$

LAT 5990 Special Studies
1-4 Credit Hours
1 to 4 hours. May be repeated; maximum credit eight hours. Reading and research, arranged and directed in consultation with the instructor, in specified areas of Classical philology. (F, Sp)
LTRS 1113 Introduction to Letters 3 Credit Hours
Introduction to Letters major, OU's interdisciplinary humanities degree which provides a traditional liberal arts education. Modeled around a "Great-Books" approach that there is a canon of texts that has transcendent value because certain works are able to speak to the human condition across time and space. The curriculum is distinct through its insistence on combining history, philosophy, and literature as ways of asking the same fundamental questions through the record of actual human experience. A sequence of topics address perennial human concerns: reason and passion, love, death, work, God, freedom, time, and so on. (F, Sp) [IV-WC].
LTRS 1123 Word Power
3 Credit Hours
We use words every day, but what can we discover about the origins of our language and how it can empower us? This course presents an introductory survey of the history and usage of English, including the significant influence other languages have had. The course also entails analysis of developments in repositories of knowledge, including libraries, encyclopedias, and dictionaries. (Sp) [IV-WC].
LTRS 1203 Horror Literature
3 Credit Hours
Vampires, ghosts, monstrous women, haunted houses and murderous video tapes--Gothic horror has terrified us for two centuries. This course studies horror literature from across the world from the nineteenthcentury to the present. (Sp) [IV-AF].
LTRS 2003 Fantasy Literature
3 Credit Hours
This class focuses on a movement or writer within the literary subgenre of fantasy fiction. Subjects could include prominent authors such as Tolkien, Lewis, Rowling or Martin, but also hybrid or experimental writers, nineteenth-century figures such as Lewis Carroll or William Morris, or authors working outside the English-speaking world. (Irreg.)

LTRS 2103 Introduction to Constitutional Studies 3 Credit Hours Provides a broad introduction to the theory and history of constitutional governance. Includes the classical roots of constitutional thought, the contribution of the English common law tradition, the origins and structure of the U.S. Constitution, along with a sense of the constitutional basis of contemporary political controversies. (F, Sp) [IV-WC].

## LTRS 2203 World Epic

3 Credit Hours
This course studies world epics from many time periods and places. We will study the religious, mythical, political and social themes in these texts and the formal aspects of epic. (Irreg.)
LTRS 2213 Crime and Detective Fiction
3 Credit Hours
This course studies the forms, contexts, and themes of the Crime and Detective Fiction genre. (Irreg.)
LTRS 2223 Jane Austen in the World 3 Credit Hours
In this course we will read three of Jane Austen's most beloved novels together with several adaptations of her work from across the world. Austen's novels have inspired countless adaptations. Her novels have been reimagined with Muslim characters living in Canada today or with Haitian characters in Brooklyn or with marriage plots set in India and Pakistan. (Irreg.) [IV-WC].

## LTRS 2970 Special Topics

1-3 Credit Hours
Prerequisite: none. May be repeated with change of content; maximum credit six hours. Special topics course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

## LTRS 3013 Sacred Texts as Literature

3 Credit Hours
Prerequisite: English 1213 or Expository Writing 1213. This course will take a literary approach one or more of the sacred texts from major world religions, examining such issues as narrative and poetic structure, character or the use of imagery or figurative language. It may also incorporate poets, novelists or dramatists whose work draws upon or investigates the sacred texts in question. (F,Sp)

LTRS 3043 Poetry, Society, Politics
3 Credit Hours
Prerequisite: ENGL 1213 or EXPO 1213. A study of movements in poetry, with a special emphasis on political and socio-cultural issues. May be focused on a historical period or organized thematically, and may include authors outside of the European tradition. (Irreg.)
LTRS 3113 The Examined Life I: Antiquity
3 Credit Hours
Prerequisite: junior standing or permission of instructor. Survey of the great books of Greece and Rome, with emphasis on understanding the impact of classical texts on modern day thought. Can be applied to the Letters major's requirement in history, literature, or philosophy. (F) [IVWC].
LTRS 3123 The Examined Life II: Middle Ages and

## Renaissance <br> 3 Credit Hours

Prerequisite: junior standing or permission of instructor. Survey of the great books of the Middle Ages and Renaissance, with emphasis on the impact of these texts on modern thought. Can be applied toward the Letters major's requirement in history, literature, or philosophy. (Sp) IVWC].
LTRS 3133 Examined Life III: Enlightenment 3 Credit Hours
Prerequisite: junior standing or permission of instructor. Survey of the great books of The Enlightenment, with emphasis on understanding the impact of these texts on modern thought. Can be applied toward the Letters Major's requirement in history, literature, or philosophy. (F) [IVWC].

LTRS 3153 Challenging Leadership
3 Credit Hours
Prerequisite: Prerequisite: ENGL 1213 or EXPO 1213. This course examines historical figures who had a marked impact on the western world. Each unit introduces students to some of the problems faced by the society in which these influential individuals lived. Students explore how these seminal figures proposed solutions. (Sp) [IV-WC].

LTRS 3163 The History and Philosophy of Philanthropy 3 Credit Hours Prerequisite: ENGL/EXPO 1213 and Junior standing, or permission of instructor; Repeatable with change of content, maximum credit 6 hours. This course examines ideologies, historical events, and literary descriptions related to philanthropic and charitable endeavors. Students will gain a broader understanding of how modern organizations have evolved and consider what counts as "best practices" in philanthropy. The class can be applied toward the Letters major's requirement in history, literature, or philosophy. (Sp) [IV-WC].
LTRS 3213 Monsters \& Modernity: The Gothic Genre 3 Credit Hours Prerequisite: English 1213 or Expository Writing 1213. It is a strange fact of literary history that the "Age of Reason" becomes obsessed with monsters. The Gothic becomes a genre in its own right and the supernatural, the monstrous, and the magical permeate the modern imagination. The course considers works from various national literary traditions and periods. (F, Sp) [IV-WC].
LTRS 3223 Revolutions
3 Credit Hours
Prerequisite: ENGL 1213 or EXPO 1213. This course studies the "Age of Revolutions" and focuses on different revolutionary traditions which may include, for example, the French, Haitian, American and English Revolutions from C 17 to C 19. Readings will cover the work of historians, philosophers, and literary writers as well as speeches and writings of important historical figures. (F, Sp) [IV-WC].
LTRS 3233 The Novel: Comedy, Romance and Realism 3 Credit Hours Prerequisite: ENGL 1213 or EXPO 1213. This course studies prose fictions and theories of the novel. It will cover a variety of genres such as realism, romance and science fiction; a variety of forms such as narrative structure and characterization; as well as a variety of periods and literary traditions such as American, African American, and European. (F, Sp) [IVAF].
LTRS 3243 Women and Literature
3 Credit Hours
Prerequisite: ENGL 1213/EXPO 1213. In this course we will encounter extraordinary female characters from queens to chivalric ladies, to Gothic heroines and young women coming out into society. We will follow their adventures in a variety of literary traditions from antiquity to the present. (F,Sp) [IV-WC].
LTRS 3263 Drama, Society, Politics
3 Credit Hours
Prerequisite: ENGL 1213 or EXPO 1213. This is a genre course focused on the forms of drama as well as on how drama represents major social and political questions about the state, the nation, the family, colonialism, empire, and capitalism. (Irreg.) [IV-AF].

LTRS 3273 The Sublime: Literature and Philosophy 3 Credit Hours Prerequisite: ENGL 1213 or EXPO 1213. The course studies the concept of the sublime in literature and philosophy from antiquity to the present. (Irreg.)
LTRS 3303 Origins of Rights in Early America 3 Credit Hours Prerequisite: ENGL 1213 or EXPO 1213. Explores the historical, rather than the philosophical, origins of ideas of individual and group rights in the European settlement of the New World. (F) [IV-WC].

LTRS 3323 Violence: Political Theory, Film, Literature 3 Credit Hours Prerequisite: ENGL 1213 or EXPO 1213. This course studies political and social theories of violence together with filmic and literary representations of various forms of violence in a variety of historical periods and artistic traditions. The course examines the work of theorists who consider the causes and forms of violence in relation to several major topics such as empire and revolution. (Irreg.) [IV-WC].
LTRS 3353 Interpreting the American Founding 3 Credit Hours Prerequisite: ENGL 1213 or EXPO 1213. Examines the various ways that scholars have interpreted the Founding over the past two hundred years. It is a study, then, of the historiographic interpretations of the events of the American Founding era rather than a study of the events and historical figures themselves. (F) [IV-WC].

## LTRS 3440 Mentored Research Experience <br> 3 Credit Hours

0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)
LTRS 3510 Topics in Letters
2-3 Credit Hours
Prerequisite: Junior standing. May be repeated with change of content; maximum credit nine hours. Discussion of selected interdisciplinary topics in letters. (Irreg.)
LTRS 3603 Debating Constitutional Controversies 3 Credit Hours Prerequisite: English 1213 or Expository Writing 1213. This course transforms the classroom into a courtroom. Students become lawyers and judges, arguing and deciding cases that hinge on our most important Constitutional controversies. Working in teams, students grapple with these contentious issues in the context of the Constitution, the common law, and legal theory. ( $\mathrm{F}, \mathrm{Sp}$ )

## LTRS 3613 Constitutional Narratives

3 Credit Hours
Prerequisite: ENGL 1213/EXPO 1213. This course will explore the many ways that the art of narrative intersects with constitutional history. Students will fashion their own narratives about major constitutional episodes or figures of their choosing. (F)

## LTRS 3623 First Freedoms

3 Credit Hours
Prerequisite: English 1213/Expo 1213. The First Amendment enshrines freedoms of the highest order--of religion, of speech, of the press, among others. This course delves into the history and current state of First Amendment law in America. (F, Sp)

## LTRS 3633 Famous Trials

3 Credit Hours
Prerequisite: English 1213/Expo 1213. From the Salem Witch Trials to our modern moment, the spectacle of a public tribunal determining questions of life and liberty has long captured the imagination of the country. Students will revisit the evidentiary records from iconic trials in American history and relitigate closing arguments. (F, Sp)
LTRS 3703 Law and Social Movements
3 Credit Hours
Prerequisite: English/Expository Writing 1213. Examines the history of the interaction between the law and social movements in the United States from the Civil War to the present day. Topics include the struggles for racial and gender equality and the histories of immigrant and gay rights movements. (F, Sp)

LTRS 3713 Gender and the Constitution
3 Credit Hours
Prerequisite: English/Expository Writing 1213. Examines how ideas about gender, sexuality, and the family have shaped the privileges and obligations of American citizenship. Topics covered in this class include feminism, masculinity, women's suffrage, interracial marriage, affirmative action, and sexual orientation. In addition, it will examine how women have shaped the law as plaintiffs, lawyers, and judges. (F, Sp)
LTRS 3803 Fate \& The Individual in European Literature I 3 Credit Hours Prerequisite: English 1213 or Expository Writing 1213. Based on a course designed by W.H. Auden, this is part one of an intensive examination of classic texts of western literature, exploring questions of freedom, fate, and human responsibility. Texts introduce students to an ongoing conversation about what it means to be human. Begins in ancient Greece and ends in the seventeenth century. (F) [IV-WC].
LTRS 3813 Fate \& The Individual in European Literature II3 Credit Hours Prerequisite: English 1213 or Expository Writing 1213. Based on a course designed by W.H. Auden, this is part two of an intensive examination of classic texts of western literature, exploring questions of freedom, fate, and human responsibility. Texts introduce students to an ongoing conversation about what it means to be human. Texts cover the early modern period to the twentieth century. (Sp) [IV-WC].
LTRS 3960 Honors Reading 1-3 Credit Hours 1 to 3 hours. Prerequisite: Admission to Honors Program. May be repeated; maximum credit six hours. Consists of topics designated by the instructor in keeping with the student's major program. The topics will cover materials not usually presented in the regular courses. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

## LTRS 3970 Honors Seminar

1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Subjects covered vary. Deals with concepts not usually treated in regular courses. (Irreg.)
LTRS 3980 Honors Research 1-3 Credit Hours
1 to 3 hours. Prerequisite: Admission to Honors Program. May be repeated; maximum credit six hours. Will provide an opportunity for the gifted Honors candidate to work at a special project in the student's field. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

LTRS 3990 Independent Study 1-3 Credit Hours
1 to 3 hours. Prerequisite: permission of instructor and junior standing. May be repeated once with change of content. Independent study may be arranged to study a subject not available through regular course offerings. (F, Sp, Su)
LTRS 4503 Letters Capstone Course
3 Credit Hours
Prerequisite: senior standing in major. May be repeated with change of content; maximum credit six hours. Students will write a senior paper on a topic chosen in consultation with the instructor. Papers will demonstrate students' abilities to synthesize material drawn from among two or more of the areas included in the Letters program. ( $F, S p$ ) $[V]$.

## LTRS 4960 Directed Readings

1-4 Credit Hours
1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean. May be repeated; maximum credit four hours. Designed for upper-division students who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)

## LTRS 4970 Special Topics/Seminar

2-3 Credit Hours
1 to 3 hours. Prerequisite: Senior standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

LTRS 4990 Independent Study 1-3 Credit Hours
Prerequisite: junior standing or permission of instructor or department. May be repeated; Maximum credit six hours. Contracted independent study for topic not currently offered in regularly scheduled courses. (F, Sp )

## LTRS 5960 Directed Readings

1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing and permission of department. May be repeated; maximum credit twelve hours. Directed readings and/or literature reviews under the direction of a faculty member. (F, Sp, Su)
LTRS 5970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

## LTRS 5990 Independent Study

1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing and permission of instructor. May be repeated; maximum credit six hours. Reading and research arranged and directed in consultation with the instructor, in specified areas of classical civilization and culture. (F, Sp, Su)

## Faculty

| Last Name | First/Middle <br> Name | Middle init. | OU <br> Service start | Title(s), date(s) appointed | Degrees Earned, Schools, Dates Completed |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Greene | Ellen | S | 1991 | JOSEPH PAXTON PRESIDENTIAL PROFESSOR, 2003; PROFESSOR OF CLASSICS AND LETTERS, 2003; JOSEPH PAXTON PRESIDENTIAL PROFESSOR, 2018 | PhD, Univ of California Berkeley, 1991; MA, SUNY at Binghamton, 1976; BA, Rutgers Univ, 1972 |
| Harper | Kyle |  | 2007 | PROFESSOR OF CLASSICS AND LETTERS, 2014 | PhD, Harvard Univ, 2007; MA, Harvard Univ, 2003; BA, Univ of Oklahoma, 2001 |
| Huskey | Rebecca |  | 2007 | ASSOCIATE PROFESSOR OF CLASSICS AND LETTERS, 2013 | PhD, Univ of lowa, 2005; BA, Univ of Oklahoma 1994 |
| Huskey | Samuel | J | 2002 | JOSEPH PAXTON <br> PRESIDENTIAL <br> PROFESSOR, <br> 2007; ASSOCIATE <br> PROFESSOR OF <br> CLASSICS AND <br> LETTERS, 2008 | PhD, Univ of lowa, 2002; BA, Univ of Oklahoma, 1994 |
| Johnson | Scott |  | 2015 | ASSOCIATE PROFESSOR OF CLASSICS AND LETTERS, 2017; JOSEPH F. PAXTON PRESIDENTIAL PROFESSOR, 2018 | PhD, Oxford Univ, 2005; MPhil, Oxford Univ, 2001; BA, Vanderbilt Univ, 1999 |
| McClay | Wildred |  | 2013 | G.T. \& LIBBY <br> BLANKENSHIP CHAIR; DIRECTOR OF THE CENTER FOR THE HISTORY OF LIBERTY; PROFESSOR OF CLASSICS AND LETTERS, 2013 | PhD, Johns Hopkins University, 1987; BA, St. John's College, 1974 |


| Porwancher | Andrew | R | 2011 | WICK CARY <br> PROFESSOR IN THE <br> INSTITUTE FOR <br> THE AMERICAN CONSTITUTIONAL <br> HERITAGE, 2011; <br> ASSOCIATE <br> PROFESSOR OF <br> CLASSICS AND <br> LETTERS, 2017 | PhD, Univ of <br> Cambridge, 2011; MA, <br> Brown Univ, 2008; BA, <br> Northwestern Univ, <br> 2008 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Russell | Craig | M | 2015 | ASSISTANT PROFESSOR OF CLASSICS AND LETTERS, 2015 | PhD, Univ of <br> California Los <br> Angeles, 2013; MA, <br> Uni of California Los <br> Angeles, 2006; BA, <br> Univ of Oregon, 2003 |
| Schumaker | Kathryn | A | 2013 | ASSOCIATE <br> PROFESSOR OF HISTORY, <br> 2021; EDITH <br> KINNEY GAYLORD <br> PRESIDENTIAL <br> PROFESSOR, 2018 | PhD, Univ of Chicago, 2013; MA, Univ of Chicago, 2008; BA, Northwestern Univ, 2005 |
| Stanley | Farland | H | 1985 | BRIAN E. AND <br> SANDRA O'BRIEN <br> PRESIDENTIAL <br> PROFESSOR, 1996; <br> PROFESSOR OF <br> CLASSICS AND <br> LETTERS, 2003 | PhD, Univ of Missouri, 1984; MA, Univ of Oklahoma 1976; BA, Univ of Oklahoma 1973 |
| Watson | Charles | B | 2014 | ASSISTANT <br> PROFESSOR <br> OF CLASSICS <br> AND LETTERS, <br> 2014; ADJUNCT <br> ASSISTANT <br> PROFESSOR OF <br> INTERNAITONAL <br> AND AREA STUDIES, <br> 2018 | PhD, Univ of Oxford, 2014; MSt, Univ of Oxford, 2004; AB, Harvard Univ, 2003 |

## Classics: Classical Languages, B.A.

Minimum Total Credit Hours: 120
Major Hours: 33
Minimum Upper-Division Hours: 48
Upper-Division Hours Within Major. 15

Overall GPA - Combined and OU: 2.00
Major GPA - Combined and OU: 2.00

## Program Code: B205 P122

## This program has changes for 2024 pending approval of

 the OU Board of Regents which are not reflected here. Major Requirements[^6]- Courses in related subjects must have prior approval of the Classics Department.

| Code | Title | Credit |
| :---: | :---: | :---: |
| LAT 1115 \& LAT 1215 or LAT 131 | Beginning Latin and Beginning Latin Intensive Introductory Latin |  |
| GRK 1115 <br> \& GRK 1215 | Beginning Greek and Beginning Greek |  |
| LAT 2113 | Intermediate Latin Prose | 3 |
| LAT 2213 | Intermediate Latin Poetry | 3 |
| GRK 2113 | Biblical Greek | 3 |
| GRK 2213 | Homer | 3 |
| Choose 6 hours from LAT or GRK courses numbered 3000 or above |  | 6 |
| Choose 6 hours from CL C, LAT, or GRK courses numbered 2000 or above |  | 6 |
| Choose 9 hours from CL C, LAT, or GRK courses numbered 3000 or above |  | 9 |

## Total Credit Hours

## General Education and College Requirements

Courses for fulfillment of General Education and Dodge College of Arts \& Sciences requirements must be from the approved General Education course list published in the Class Schedule or at http://www.ou.edu/ gened/courses. Courses graded P/NP will not apply.

## UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS

Code Title Credit

Core Area I: Symbolic and Oral Communication

| English Composition (6 hours) |  |  |
| :--- | :--- | :--- |
| ENGL 1113 | Principles of English Composition | 3 |
| ENGL 1213 | Principles of English Composition | 3 |

## or EXPO 1213 Expository Writing

Language ( $0-13$ hours in the same language)
The college requirement cannot be met by high school coursework.
Beginning Course 0-5
Beginning Course, continued 0-5
Intermediate Course (2000 level) ${ }^{1,2}$ 0-3
Mathematics (3 hours)
Choose one course from the General Education Mathematics

list
Core Area II: Natural Science (7 hours, including one laboratory component)

## Biological Science

Choose an approved General Education Natural Science
course with one of the following prefixes: BIOL, HES, MBIO, or PBIO ${ }^{1}$
Physical Science
Choose an approved General Education Natural Science 3-4 course with one of the following prefixes: AGSC, ASTR, CHEM, GEOG, GEOL, GPHY, METR, or PHYS ${ }^{1}$

Core Area III: Social Science (6 hours)
PSC 1113 American Federal Government 3

Choose one course from the General Education Social 3
Science list
Core Area IV: Arts and Humanities (18 hours)

## Artistic Forms

Choose one course from the General Education Artistic Forms 3
list
Western Culture
HIST 1483 United States to 1865
or HIST 1493 United States, 1865 to the Present
Choose one course from the General Education Western 3
Culture list (excluding HIST 1483/1493)
World Culture
Choose one course from the General Education World Culture 3
list
Additional Core IV Upper-Division Arts \& Humanities courses
Choose one course from Artistic Forms, Western Culture, or 3
World Culture ${ }^{1,3}$
Choose one course from Artistic Forms, Western Culture, or 3 World Culture ${ }^{1,3}$
Core Area V: First Year Experience (3 hours)
Choose one course 3
Total Credit Hours 56
${ }^{1}$ College of Arts and Sciences Requirements: college requirements are not automatically fulfilled by a previous degree.
2 One course at the intermediate level or demonstrated competency at that level
${ }^{3} 6$ upper-division hours, 2 courses, at the 3000-4000-level. Must be outside the major.

## Free Electives

Electives to bring total applicable hours to the minimum total required for the degree including 48 upper-division hours.

## Information Concerning General Rules, Regulations and Minimum Requirements

Arts and Sciences Hours: At least 80 semester hours of liberal arts and sciences courses are required for a BA degree. At least 55 semester hours of liberal arts and sciences courses are required for a BS degree. Pass/No Pass Enrollment: A maximum of 16 semester hours of free elective credit may be attempted under this option.
Individual Studies (e.g., courses titled "Independent Study"): A maximum of 12 total semester hours may be counted toward graduation, excluding Honors Reading and Honors Research.
P.E. Courses: No physical education activity courses will be counted toward the 120 semester hours of acceptable credit for graduation. Senior Institution Hours: A minimum of 60 semester hours applied toward graduation must be earned at senior (4-year) institutions.

## Residency:

- At least 15 of the final 30 hours applied toward the degree or at least 50 percent of the hours required by the institution in the major field must be satisfactorily completed at the awarding institution.
- At least 15 semester hours of upper-division major work must be completed in residence at OU.
- OU correspondence courses are not considered resident credit.

Grade Point Averages: Students must earn a minimum over all 2.00 for each of the following: Combined Retention GPA (all college grades), OU Retention GPA, GPA for all major courses, and GPA for all major courses taken at OU. Some schools and departments of the College have higher minimum grade point averages required for their students.

## Suggested Semester Plan of Study

This plan shows one possible grouping of courses that would allow students to graduate in four years. Please refer to the front of the degree checksheet for official requirements. Students must consult with Dodge College of Arts and Sciences and/or Department of Classics academic advisors to verify that courses selected each semester fulfill the recommended plan and satisfy University, College of Arts and Sciences, and Classical Languages major requirements.

| Freshman |  |  |
| :--- | :--- | ---: |
| First Semester |  | Credit <br> Hours |
| ENGL 1113 | Principles of English Composition (Core I) | 3 |
| HIST 1483 | United States to 1865 (Core IV) |  |
| or HIST 1493 | or United States, 1865 to the Present | 3 |
| LAT 1115 | Beginning Latin | 5 |
| P SC 1113 | American Federal Government (Core III) | 3 |
| Math (Core I) |  | 3 |
|  | Credit Hours | $\mathbf{1 7}$ |

## Second Semester

| $\begin{aligned} & \text { ENGL } 1213 \\ & \text { or EXPO } 1213 \end{aligned}$ | Principles of English Composition (Core I) or Expository Writing | 3 |
| :---: | :---: | :---: |
| LAT 1215 | Beginning Latin (continued) | 5 |
| Social Science (Core III) |  | 3 |
| Artistic Forms (Core IV) |  | 3 |
| First Year Experience (Core V) |  | 3 |
| Credit Hours |  | 17 |
| Sophomore |  |  |
| First Semester |  |  |
| LAT 2113 | Intermediate Latin Prose | 3 |
| GRK 1115 | Beginning Greek | 5 |
| Natural Science with lab (Core II) |  | 4 |
| World Culture (Core IV) |  | 3 |
|  | Credit Hours | 15 |

## Second Semester

| LAT 2213 | Intermediate Latin Poetry | 3 |
| :--- | :--- | :--- |
| GRK 1215 | Beginning Greek (continued) | 5 |

CL C, LAT, or GRK, lower- or upper-division 3

| Natural Science without lab (Core II) | 3 |
| :---: | ---: |
| Credit Hours | $\mathbf{1 4}$ |

## Junior

$\begin{array}{ll}\text { First Semester } & \\ \text { GRK } 2113 & \text { Biblical Greek }\end{array}$
CL C, LAT, or GRK, lower- or upper-division 3
Arts \& Humanities, upper-division, outside major (Gen. Ed.) 3

| Free Elective, upper-division (3000-4000-level) | 3 |
| :---: | :---: |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Credit Hours | 15 |
| Second Semester |  |
| GRK 2213 Homer | 3 |
| CL C, LAT, or GRK, upper-division (3000-4000-level) | 3 |
| CL C, LAT, or GRK, upper-division (3000-4000-level) | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Credit Hours | 15 |
| Senior |  |
| First Semester |  |
| GRK or LAT Major Elective, upper-division (3000-4000-level) | 3 |
| CL C, LAT, or GRK, upper-division (3000-4000-level) | 3 |
| Arts \& Humanities, upper-division, outside major (Gen. Ed.) | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Credit Hours | 15 |
| Second Semester |  |
| GRK or LAT Major Elective, upper-division (3000-4000-level) | 3 |
| Western Culture (Core IV) | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Credit Hours | 12 |
| Total Credit Hours | 120 |

## Classics: Classical Studies, B.A.

Minimum Total Credit Hours: 120
Major Hours: 33
Minimum Upper-Division Hours: 48
Upper-Division Hours Within Major: 24

Overall GPA - Combined and OU: 2.50
Major GPA - Combined and OU: 2.50

## Program Code: B205 P123

## Major Requirements

- Some courses required for the major may also fulfill University General Education and/or Dodge College of Arts \& Sciences Requirements.
- The major requires 33 hours in the Department of Classics (CL C, GRK, LAT, LTRS) beyond LAT 1115, LAT 1215 (or LAT 1315), or GRK 1115 and GRK 1215.
- CL C 2413 will not be accepted for major credit.

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Introductory Coursework |  |  |
| CL C 2603 | The Rise and Fall of Greece | 3 |
| CL C 2613 | The Rise and Fall of Rome | 3 |
| CL C 2383 | Classical Mythology | 3 |
| or CL C 2213 | Introduction to Classical Archaeology |  |



## Major Support Requirements

| Code | Title |
| :--- | ---: | | Credit |
| ---: |
| Hours |

## General Education and College Requirements

Courses for fulfillment of General Education and Dodge College of Arts \& Sciences requirements must be from the approved General Education course list published in the Class Schedule or at http://www.ou.edu/ gened/courses. Courses graded P/NP will not apply.

| UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND |  |
| :--- | :--- |
| COLLEGE REQUIREMENTS |  |
| Code $\quad$ Title | Credit |
|  |  |

Core Area I: Symbolic and Oral Communication

| English Composition (6 hours) |  |  |
| :--- | :--- | :--- |
| ENGL 1113 | Principles of English Composition | 3 |
| ENGL 1213 | Principles of English Composition | 3 |


| ENGL 1213 | Principles of English Composition |
| :--- | :--- |
| or EXPO 1213 | Expository Writing |

Language ( $0-13$ hours in the same language)
The college requirement cannot be met by high school
coursework.
Beginning Course 0-5
Beginning Course, continued 0-5
Intermediate Course (2000 level) ${ }^{1,2} \quad 0-3$

Mathematics (3 hours)
Choose one course from the General Education Mathematics 3 list
Core Area II: Natural Science (7 hours, including one
laboratory component)
Biological Science
Choose an approved General Education Natural Science
3-4 course with one of the following prefixes: BIOL, HES, MBIO, or PBIO ${ }^{1}$
Physical Science

Choose an approved General Education Natural Science 3-4 course with one of the following prefixes: AGSC, ASTR, CHEM, GEOG, GEOL, GPHY, METR, or PHYS ${ }^{1}$
Core Area III: Social Science (6 hours)
PSC 1113 American Federal Government 3
Choose one course from the General Education Social 3

## Science list

## Core Area IV: Arts and Humanities (18 hours)

## Artistic Forms

Choose one course from the General Education Artistic Forms 3
list
Western Culture
HIST $1483 \quad 3$
or HIST 1493 United States, 1865 to the Present
Choose one course from the General Education Western 3
Culture list (excluding HIST 1483/1493)

## World Culture

Choose one course from the General Education World Culture 3
list
Additional Core IV Upper-Division Arts \& Humanities courses
Choose one course from Artistic Forms, Western Culture, or 3
World Culture ${ }^{1,3}$
Choose one course from Artistic Forms, Western Culture, or 3 World Culture ${ }^{1,3}$
Core Area V: First Year Experience (3 hours)
Choose one course
3

Total Credit Hours
${ }^{1}$ College of Arts and Sciences Requirements: college requirements are not automatically fulfilled by a previous degree.
${ }^{2}$ One course at the intermediate level or demonstrated competency at that level
${ }^{3} 6$ upper-division hours, 2 courses, at the 3000-4000-level. Must be outside the major.

## Free Electives

Electives to bring total applicable hours to the minimum total required for the degree including 48 upper-division hours.

## Information Concerning General Rules, Regulations and Minimum Requirements

Arts and Sciences Hours: At least 80 semester hours of liberal arts and sciences courses are required for a BA degree. At least 55 semester hours of liberal arts and sciences courses are required for a BS degree. Pass/No Pass Enrollment: A maximum of 16 semester hours of free elective credit may be attempted under this option.
Individual Studies (e.g., courses titled "Independent Study"): A maximum of 12 total semester hours may be counted toward graduation, excluding Honors Reading and Honors Research.
P.E. Courses: No physical education activity courses will be counted toward the 120 semester hours of acceptable credit for graduation. Senior Institution Hours: A minimum of 60 semester hours applied toward graduation must be earned at senior (4-year) institutions.
Residency:

- At least 15 of the final 30 hours applied toward the degree or at least 50 percent of the hours required by the institution in the major field must be satisfactorily completed at the awarding institution.
- At least 15 semester hours of upper-division major work must be completed in residence at OU.
- OU correspondence courses are not considered resident credit.

Grade Point Averages: Students must earn a minimum over all 2.00 for each of the following: Combined Retention GPA (all college grades), OU Retention GPA, GPA for all major courses, and GPA for all major courses taken at OU. Some schools and departments of the College have higher minimum grade point averages required for their students.

## Suggested Semester Plan of Study

This plan shows one possible grouping of courses that would allow students to graduate in four years. Please refer to the front of the degree checksheet for official requirements. Students must consult with Dodge College of Arts and Sciences and/or Department of Classics academic advisors to verify that courses selected each semester fulfill the recommended plan and satisfy University, College of Arts and Sciences, and Classical Studies major requirements.

## Freshman

| First Semester |  | Credit |
| :---: | :---: | :---: |
|  |  | Hours |
| ENGL 1113 | Principles of English Composition (Core I) | 3 |
| HIST 1483 or HIST 1493 | United States to 1865 (Core IV) or United States, 1865 to the Present | 3 |
| P SC 1113 | American Federal Government (Core III) | 3 |
| Natural Science without lab (Core II) |  | 3 |
| First Year Experience (Core V) |  | 3 |
|  | Credit Hours | 15 |
| Second Semester |  |  |
| ENGL 1213 or EXPO 1213 | Principles of English Composition (Core I) or Expository Writing | 3 |
| LAT 1115 or GRK 1115 | Beginning Latin or Beginning Greek | 5 |
| Math (Core I) |  | 3 |
| Social Science (Core III) |  | 3 |
| Free Elective, lower-division |  | 1 |
|  | Credit Hours | 15 |

## Sophomore

## First Semester

Choose one of the following: 5

| LAT 1215 | Beginning Latin (continued) |
| :--- | :--- |
| GRK 1215 | Beginning Greek (continued) |


| Artistic Forms (Core IV) | 3 |  |
| :--- | :--- | :--- |
| Natural Science with lab (Core II) | 4 |  |
| CL C 2603 | The Rise and Fall of Greece (Core IV <br>  <br>  <br>  <br>  <br> Western Culture) | 3 |
|  | $\mathbf{1 5}$ |  |

## Second Semester

| LAT 2113 <br> or GRK 2113 | Intermediate Latin Prose <br> or Biblical Greek | 3 |
| :---: | :---: | :---: |
| CL C 2613 | The Rise and Fall of Rome | 3 |


| $\begin{array}{cc}\text { CL C } 2213 & \text { Introduction to Classical Archaeology } \\ \text { or CL C } 2383 & \text { or Classical Mythology }\end{array}$ | 3 |
| :---: | :---: |
| Arts \& Humanities, upper-division, outside major (Gen. Ed.) | 3 |
| World Culture (Core IV) | 3 |
| Credit Hours | 15 |
| Junior |  |
| First Semester |  |
| LAT 2213 Intermediate Latin Poetry <br> or GRK 2213 or Homer | 3 |
| History/Literature/Philosophy course | 3 |
| Culture course | 3 |
| Free Elective, lower- or upper-division | 3 |
| Free Elective, lower- or upper-division | 3 |
| Credit Hours | 15 |
| Second Semester |  |
| History/Literature/Philosophy course | 3 |
| Culture course | 3 |
| Perception course | 3 |
| Free Elective, lower- or upper-division | 3 |
| Free Elective, lower- or upper-division | 3 |
| Credit Hours | 15 |
| Senior |  |
| First Semester |  |
| History/Literature/Philosophy course | 3 |
| Culture course | 3 |
| Perception course | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Credit Hours | 15 |
| Second Semester |  |
| Arts \& Humanities, upper-division, outside major (Gen. Ed.) | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Credit Hours | 15 |
| Total Credit Hours | 120 |

## Classical Studies Distribution Course Lists

- For the most current course lists, please contact the Department of Classics \& Letters.


## History, Literature, or Philosophy of the Ancient GrecoRoman World

Code Title Credit

CL C 3033 Latin Literature in English Translation 3
CL C 3053 Origins of Christianity: Jesus to Augustine 3
CL C 3113 Gods and Heroes of Ancient Epic 3
CL C 3123 Ancient Drama in English Translation 3
CL C 3133 Plato and the Platonic Tradition 3

| CL C 3163 | Visions of Heaven and Hell: Virgil, Dante, <br> and Milton | 3 |
| :--- | :--- | ---: |
| CL C 3403 | Law and Justice | 3 |
| CL C 3803 | The World of Late Antiquity: From Rome to <br> Baghdad | 3 |
| LAT 3113 | Advanced Prose: Cicero, Pliny the Elder, <br> Pliny the Younger | 3 |
| LAT 3613 | Latin Epic Poetry | 3 |
| LAT 4113 | Roman Historiography |  |
| LAT 4213 | Latin Lyric \& Bucolic Poetry | 3 |
| GRK 3113 | Advanced Prose | 3 |
| GRK 3213 | Ancient Greek Drama | 3 |

Culture of the Ancient Greco-Roman World

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| CL C 3183 | Hellas, the Civilization of Ancient Greece | 3 |
| CL C 3213 | Classical Art \& Archaeology: Greek Art to <br> the Death of Alexander | 3 |
| CL C 3223 | Classical Art \& Archaeology: Hellenistic | 3 |
| CL C 3233 | Greek Art; Roman Art |  |
| CL C 3403 Forum and its Monuments | 3 |  |
| CL C 3283 | Law and Justice | 3 |
| CL C 3183 | Roma: The Civilization of Ancient Rome | 3 |
| CL C 3510 | Hellas, the Civilization of Ancient Greece | 3 |
|  | Selected Topics in Classical Culture | $2-3$ |

Perception of the Ancient Greco-Roman World in the Modern World

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| CL C 3613 | Classical Influence on Modern Literature | 3 |
| LTRS 3113 | The Examined Life I: Antiquity | 3 |
| LTRS 3123 | The Examined Life II: Middle Ages and | 3 |
|  | Renaissance |  |
| LTRS 3133 | Examined Life III: Enlightenment | 3 |
| LTRS 3213 | Monsters \& Modernity: The Gothic Genre | 3 |
| LTRS 3803 | Fate \& The Individual in European Literature | 3 |

## Classics: Latin, B.A.

Minimum Total Credit Hours: 120
Major Hours: 33
Minimum Upper-Division Hours: 48
Overall GPA - Combined and OU: 2.00
Major GPA - Combined and OU: 2.00
Program Code: B205 P411
This program has changes for 2024 pending approval of
the OU Board of Regents which are not reflected here.
Major Requirements

- Some courses required for the major may also fulfill University
General Education and/or Dodge College of Arts \& Sciences
Requirements.
- The major requires 33 hours beyond LAT 1115, LAT 1215 (or
LAT 1315 ).
- At least 24 hours must be in courses numbered 3000 or above.
CL C 2413 will not be accepted for major credit.
$\left.\begin{array}{llr}\text { Code } & \text { Title } & \begin{array}{r}\text { Credit } \\ \text { Hours }\end{array} \\ \text { LAT 1115 } & \text { Beginning Latin } & \\ \text { \& LAT 1215 } & \begin{array}{l}\text { and Beginning Latin }\end{array} \\ \text { or LAT } 1315 & \text { Intensive Introductory Latin }\end{array}\right)$


## General Education and College Requirements

Courses for fulfillment of General Education and Dodge College of Arts \& Sciences requirements must be from the approved General Education course list published in the Class Schedule or at http://www.ou.edu/ gened/courses. Courses graded P/NP will not apply.

## UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS <br> Code Title Credit Hours

Core Area I: Symbolic and Oral Communication
English Composition (6 hours)
ENGL 1113 Principles of English Composition 3
ENGL 1213 Principles of English Composition 3
or EXPO 1213 Expository Writing
Language ( $0-13$ hours in the same language)
The college requirement cannot be met by high school coursework.
Beginning Course 0-5
Beginning Course, continued 0-5
Intermediate Course (2000 level) ${ }^{1,2} \quad 0-3$
Mathematics (3 hours)
Choose one course from the General Education Mathematics 3
list
Core Area II: Natural Science (7 hours, including one laboratory component)
Biological Science
Choose an approved General Education Natural Science 3-4 course with one of the following prefixes: BIOL, HES, MBIO, or PBIO ${ }^{1}$

Physical Science


## Free Electives

Electives to bring total applicable hours to the minimum total required for the degree including 48 upper-division hours.

## Information Concerning General Rules, Regulations and Minimum Requirements

Arts and Sciences Hours: At least 80 semester hours of liberal arts and sciences courses are required for a BA degree. At least 55 semester hours of liberal arts and sciences courses are required for a BS degree. Pass/No Pass Enrollment: A maximum of 16 semester hours of free elective credit may be attempted under this option. Individual Studies (e.g., courses titled "Independent Study"): A maximum of 12 total semester hours may be counted toward graduation, excluding Honors Reading and Honors Research.
P.E. Courses: No physical education activity courses will be counted toward the 120 semester hours of acceptable credit for graduation.
Senior Institution Hours: A minimum of 60 semester hours applied toward graduation must be earned at senior (4-year) institutions.
Residency:

- At least 15 of the final 30 hours applied toward the degree or at least 50 percent of the hours required by the institution in the major field must be satisfactorily completed at the awarding institution.
- At least 15 semester hours of upper-division major work must be completed in residence at OU.
- OU correspondence courses are not considered resident credit.

Grade Point Averages: Students must earn a minimum over all 2.00 for each of the following: Combined Retention GPA (all college grades), OU Retention GPA, GPA for all major courses, and GPA for all major courses taken at OU. Some schools and departments of the College have higher minimum grade point averages required for their students.

## Suggested Semester Plan of Study

This plan shows one possible grouping of courses that would allow students to graduate in four years. Please refer to the front of the degree checksheet for official requirements. Students must consult with Dodge College of Arts and Sciences and/or Department of Classics academic advisors to verify that courses selected each semester fulfill the recommended plan and satisfy University, College of Arts and Sciences, and Latin major requirements.

## Freshman

| First Semester |  | Credit <br> Hours |
| :--- | :--- | ---: |
| ENGL 1113 | Principles of English Composition (Core I) | 3 |
| HIST 1483 | United States to 1865 (Core IV) | 3 |
| or HIST 1493 | or United States, 1865 to the Present |  |
| LAT 1115 | Beginning Latin | 5 |
| Math (Core I) |  | 3 |
| P SC 1113 | American Federal Government (Core III) | 3 |
|  | Credit Hours | $\mathbf{1 7}$ |

## Second Semester

ENGL 1213 Principles of English Composition (Core I) 3
or EXPO 1213 or Expository Writing
LAT 1215 Beginning Latin (continued) 5
Social Science (Core III) 3
Artistic Forms (Core IV) 3
First Year Experience (Core V) 3
Credit Hours
17

## Sophomore

First Semester
LAT 2113 Intermediate Latin Prose 3
CL C Major Elective, 2000-level or above 3
Natural Science with lab (Core II) 4
Free Elective, lower-division 3

| Second Semester |  |
| :--- | ---: |
| LAT $2213 \quad$ Intermediate Latin Poetry | 3 |
| CL C Major Elective, 2000-level or above | 3 |
| Natural Science without lab (Core II) | 3 |
| World Culture (Core IV) | 3 |
| Credit Hours | $\mathbf{1 2}$ |

Junior
First Semester
LAT Major Elective, upper-division (3000-4000-level)

| LAT Major Elective, upper-division (3000-4000-level) | 3 |
| :---: | :---: |
| Arts \& Humanities, upper-division, outside major (Gen. Ed.) | 3 |
| Free Elective, lower- or upper-division | 3 |
| Free Elective, lower- or upper-division | 3 |
| Credit Hours | 15 |
| Second Semester |  |
| LAT Major Elective, upper-division (3000-4000-level) | 3 |
| LAT 3313 Latin Prose Composition | 3 |
| CL C, or LAT Major Elective, 2000-level or above | 3 |
| Free Elective, lower-division | 3 |
| Free Elective, lower-division | 3 |
| Credit Hours | 15 |
| Senior |  |
| First Semester |  |
| LAT Major Elective, upper-division (3000-4000-level) | 3 |
| Arts \& Humanities, upper-division, outside major (Gen. Ed.) | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Free Elective, lower-division | 1 |
| Credit Hours | 16 |
| Second Semester |  |
| LAT 4313 Roman Oratory | 3 |
| Western Culture (Core IV) | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Credit Hours | 15 |
| Total Credit Hours | 120 |

## Letters (Standard), B.A.

Minimum Total Credit Hours: 120
Major Hours: 36
Minimum Upper-Division Hours: 48
Upper-Division Hours Within Major: 27
Overall GPA - Combined and OU: 2.00
Major GPA - Combined and OU: 2.00
Last 90 Hours GPA: 3.00
Program Code: B635 P416

## Major Requirements

- Some courses required for the major may also fulfill University General Education and/or Dodge College of Arts \& Sciences Requirement.
- The major requires 36 hours in history (including history of science), literature (including classical culture and MLLL), and philosophy, at least 27 of which must be upper-division, and including at least 9 hours in each division.
- Graduation in Letters requires a 3.00 GPA in the last 90 credit hours.

| Code Title | Credit <br> Hours |
| :--- | ---: | ---: |
| History | 9 |
| Choose 9 hours | 9 |
| Literature | 9 |
| Choose 9 hours | 9 |
| Chilosophy <br> Additional History, Literature, and Philosophy <br> Choose 9 hours of History, Literature and/or Philosophy to <br> bring total major hours to 36, with 27 at the upper-division <br> level | 9 |
| Total Credit Hours | $\mathbf{3 6}$ |

## Major Support Requirements

Code Title Credit

## Hours

Supporting courses, secondary or collegiate, in one ancient and one modern language ( 3 courses in one and 4 in the other)
Choose one course in the appreciation or history of one of the fine arts

## General Education and College Requirements

Courses for fulfillment of General Education and Dodge College of Arts \& Sciences requirements must be from the approved General Education course list published in the Class Schedule or at http://www.ou.edu/ gened/courses. Courses graded P/NP will not apply.

## UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS <br> Code Title Credit

 Hours
## Core Area I: Symbolic and Oral Communication

English Composition (6 hours)
ENGL 1113 Principles of English Composition 3
ENGL 1213 Principles of English Composition 3
or EXPO 1213 Expository Writing
Language (0-13 hours in the same language)
The college requirement cannot be met by high school coursework.
Beginning Course 0-5

Beginning Course, continued 0-5
$\begin{array}{ll}\text { Intermediate Course (2000 level) }^{1,2} & 0-3\end{array}$
Mathematics (3 hours)
Choose one course from the General Education Mathematics 3
list
Core Area II: Natural Science (7 hours, including one

## laboratory component)

Biological Science
Choose an approved General Education Natural Science


## Free Electives

Electives to bring total applicable hours to the minimum total required for the degree including 48 upper-division hours.

## Information Concerning General Rules, Regulations and Minimum Requirements

Arts and Sciences Hours: At least 80 semester hours of liberal arts and sciences courses are required for a BA degree. At least 55 semester hours of liberal arts and sciences courses are required for a BS degree. Pass/No Pass Enrollment: A maximum of 16 semester hours of free elective credit may be attempted under this option. Individual Studies (e.g., courses titled "Independent Study"): A maximum of 12 total semester hours may be counted toward graduation, excluding Honors Reading and Honors Research.
P.E. Courses: No physical education activity courses will be counted toward the 120 semester hours of acceptable credit for graduation.
Senior Institution Hours: A minimum of 60 semester hours applied toward graduation must be earned at senior (4-year) institutions.
Residency:

- At least 15 of the final 30 hours applied toward the degree or at least 50 percent of the hours required by the institution in the major field must be satisfactorily completed at the awarding institution.
- At least 15 semester hours of upper-division major work must be completed in residence at OU.
- OU correspondence courses are not considered resident credit.

Grade Point Averages: Students must earn a minimum over all 2.00 for each of the following: Combined Retention GPA (all college grades), OU Retention GPA, GPA for all major courses, and GPA for all major courses taken at OU. Some schools and departments of the College have higher minimum grade point averages required for their students.

## Suggested Semester Plan of Study

This plan shows one possible grouping of courses that would allow students to graduate in four years. Please refer to the front of the degree checksheet for official requirements. Students must consult with Dodge College of Arts and Sciences and/or Department of Classics academic advisors to verify that courses selected each semester fulfill the recommended plan and satisfy University, College of Arts and Sciences, and Letters major requirements.

## Freshman

| First Semester |  | Credit <br> Hours |
| :--- | :---: | ---: |
| ENGL 1113 | Principles of English Composition (Core I) | 3 |
| HIST 1483 | United States to 1865 (Core IV) | 3 |
| or HIST 1493 | or United States, 1865 to the Present |  |
| P SC 1113 | American Federal Government (Core III) | 3 |
| Natural Science without lab (Core II) | 3 |  |
| Artistic Forms (Core IV) |  |  |

## Second Semester

ENGL $1213 \quad$ Principles of English Composition (Core I) 3 or EXPO 1213 or Expository Writing
Math (Core I) 3
Social Science (Core III) 3
Beginning Language (Core I) 5
First Year Experience (Core V) 3
Credit Hours
17

## Sophomore

First Semester
Beginning Language, continued (Core I) 5
Arts \& Humanities, upper-division (3000-4000-level) (Gen. Ed.) 3
Literature Major Elective, lower-division 3
Natural Science with lab (Core II) 4
Philosophy Major Elective, lower-division 3
Credit Hours 18

## Second Semester

Intermediate Language 3
History Major Elective, lower-division 3
Arts \& Humanities, upper-division (Gen. Ed.) 3
Literature Major Elective, upper-division (3000-4000-level) 3
World Culture (Core IV) 3
Credit Hours

## Junior

| First Semester |  |
| :---: | :---: |
| Intermediate Language continued | 3 |
| History Major Elective, upper-division (3000-4000-level) | 3 |
| Literature Major Elective, upper-division (3000-4000-level) | 3 |
| Philosophy Major Elective, upper-division (3000-4000-level) | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Credit Hours | 15 |
| Second Semester |  |
| Beginning Language (Core I) ${ }^{2}$ | 5 |
| History Major Elective, upper-division (3000-4000-level) | 3 |
| Philosophy Major Elective, upper-division (3000-4000-level) | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Credit Hours | 14 |
| Senior |  |
| First Semester |  |
| Beginning Language (Core I) ${ }^{2}$ | 5 |
| History, Literature, or Philosophy Major Elective, upperdivision | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Credit Hours | 14 |
| Second Semester |  |
| Intermediate Language ${ }^{2}$ | 3 |
| History, Literature, or Philosophy Major Elective, upperdivision | 3 |
| History, Literature, or Philosophy Major Elective, upperdivision | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Credit Hours | 12 |
| Total Credit Hours | 120 |

1 This course may also fulfill the major support requirement for a course in the appreciation or history of one of the fine arts.
2 Students must complete one modern and one ancient language

This plan assumes that one of the major courses, or one of the UpperDivision Free Electives, is an approved Western Culture Core IV general education course.

## Letters: Constitutional Studies, B.A.

Minimum Total Credit Hours: 120<br>Major Hours: 36<br>Minimum Upper-Division Hours: 48<br>Upper-Division Hours Within Major. 27<br>Overall GPA - Combined and OU: 2.00<br>Major GPA - Combined and OU: 2.00<br>Last 90 Hours GPA: 3.00

Program Code: B635 P136

## Major Requirements

- Some courses required for the major may also fulfill University General Education and/or Dodge College of Arts \& Sciences Requirements
- The major requires 36 hours in history (including history of science), literature (including classical culture and MLLL), and philosophy, at least 27 of which must be upper-division, and including at least 9 hours in each division.
- Courses taken to fulfill the History, Literature \& Philosophy requirements may also be used to fulfill Constitutional Studies requirements and vice versa.
- Graduation in Letters: Constitutional Studies requires a 3.00 GPA in the last 90 credit hours.



## Major Support Requirements

Code Title Credit

Supporting courses, secondary or collegiate, in one ancient and one modern language ( 3 courses in one and 4 in the other)
Choose one course in the appreciation or history of one of the fine arts

## General Education and College Requirements

Courses for fulfillment of General Education and Dodge College of Arts \& Sciences requirements must be from the approved General Education
course list published in the Class Schedule or at http://www.ou.edu/ gened/courses. Courses graded P/NP will not apply.

## UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS

| Code Title | Credit Hours |
| :---: | :---: |
| Core Area I: Symbolic and Oral Communication |  |
| English Composition (6 hours) |  |
| ENGL 1113 Principles of English Composition | 3 |
| ENGL 1213 Principles of English Composition or EXPO 1213 Expository Writing | 3 |
| Language (0-13 hours in the same language) |  |
| The college requirement cannot be met by high school coursework. |  |
| Beginning Course | 0-5 |
| Beginning Course, continued | 0-5 |
| Intermediate Course (2000 level) ${ }^{1,2}$ | 0-3 |
| Mathematics (3 hours) |  |
| Choose one course from the General Education Mathematics list | 3 |
| Core Area II: Natural Science (7 hours, including one laboratory component) |  |
| Biological Science |  |
| Choose an approved General Education Natural Science course with one of the following prefixes: BIOL, HES, MBIO, or PBIO ${ }^{1}$ | 3-4 |
| Physical Science |  |
| Choose an approved General Education Natural Science course with one of the following prefixes: AGSC, ASTR, CHEM, GEOG, GEOL, GPHY, METR, or PHYS ${ }^{1}$ | 3-4 |
| Core Area III: Social Science (6 hours) |  |
| P SC 1113 American Federal Government | 3 |
| Choose one course from the General Education Social Science list | 3 |

## Science list

Core Area IV: Arts and Humanities (18 hours)

## Artistic Forms

Choose one course from the General Education Artistic Forms 3
list

Western Culture

| HIST 1483 | United States to 1865 |
| :---: | :--- |
| or HIST 1493 | United States, 1865 to the Present |

Choose one course from the General Education Western 3

Culture list (excluding HIST 1483/1493)

## World Culture

Choose one course from the General Education World Culture
list

| Additional Core IV Upper-Division Arts \& Humanities courses |  |
| :--- | ---: |
| Choose one course from Artistic Forms, Western Culture, or | 3 |
| World Culture 1,3 | 3 |
| Choose one course from Artistic Forms, Western Culture, or <br> World Culture <br> Core Area V: First Year Experience (3 hours) | 3 |
| Choose one course | 3 |

## Total Credit Hours

${ }^{1}$ College of Arts and Sciences Requirements: college requirements are not automatically fulfilled by a previous degree.
${ }^{2}$ One course at the intermediate level or demonstrated competency at that level
${ }^{3} 6$ upper-division hours, 2 courses, at the 3000-4000-level. Must be outside the major.

## Free Electives

Electives to bring total applicable hours to the minimum total required for the degree including 48 upper-division hours.

## Information Concerning General Rules, Regulations and Minimum Requirements

Arts and Sciences Hours: At least 80 semester hours of liberal arts and sciences courses are required for a BA degree. At least 55 semester hours of liberal arts and sciences courses are required for a BS degree. Pass/No Pass Enrollment: A maximum of 16 semester hours of free elective credit may be attempted under this option.
Individual Studies (e.g., courses titled "Independent Study"): A maximum of 12 total semester hours may be counted toward graduation, excluding Honors Reading and Honors Research.
P.E. Courses: No physical education activity courses will be counted toward the 120 semester hours of acceptable credit for graduation. Senior Institution Hours: A minimum of 60 semester hours applied toward graduation must be earned at senior (4-year) institutions.
Residency:

- At least 15 of the final 30 hours applied toward the degree or at least 50 percent of the hours required by the institution in the major field must be satisfactorily completed at the awarding institution.
- At least 15 semester hours of upper-division major work must be completed in residence at OU.
- OU correspondence courses are not considered resident credit.

Grade Point Averages: Students must earn a minimum over all 2.00 for each of the following: Combined Retention GPA (all college grades), OU Retention GPA, GPA for all major courses, and GPA for all major courses taken at OU. Some schools and departments of the College have higher minimum grade point averages required for their students.

## Suggested Semester Plan of Study

This plan shows one possible grouping of courses that would allow students to graduate in four years. Please refer to the front of the degree checksheet for official requirements. Students must consult with Dodge College of Arts and Sciences and/or Department of Classics academic advisors to verify that courses selected each semester fulfill the recommended plan and satisfy University, College of Arts and Sciences, and Letters major requirements.

## Freshman

First Semester Credit Hours
ENGL 1113 Principles of English Composition (Core I) 3
HIST $1483 \quad 3$
or HIST 1493 or United States, 1865 to the Present
P SC 1113 American Federal Government (Core III) 3
Natural Science without lab (Core II) 3

| Artistic Forms (Core IV) ${ }^{1}$ | 3 |
| :---: | :---: |
| Credit Hours | 15 |
| Second Semester |  |
| ENGL 1213 Principles of English Composition (Core I) or EXPO 1213 or Expository Writing | 3 |
| Math (Core I) | 3 |
| Social Science (Core III) | 3 |
| Beginning Language (Core I) | 5 |
| First Year Experience (Core V) | 3 |
| Credit Hours | 17 |


| Sophomore |  |
| :--- | ---: |
| First Semester |  |
| Beginning Language (Core I) | 5 |
| Arts \& Humanities, upper-division, outside major (Gen. Ed.) | 3 |
| Literature Major Elective, lower-division | 3 |
| Natural Science with lab (Core II) | 4 |
| Philosophy Major Elective, lower-division | 3 |
| Credit Hours | $\mathbf{1 8}$ |

Second Semester

Intermediate Language 3
History Major Elective, lower-division 3

Arts \& Humanities, upper-division, outside major (Gen. Ed.) 3
Literature Major Elective, upper-division (3000-4000-level) 3

| World Culture (Core IV) | 3 |
| :---: | ---: |
| Credit Hours | 15 |

## Junior

| First Semester |  |
| :---: | :---: |
| Intermediate Language continued | 3 |
| Ancient Foundations of Law, Liberty \& Justice Elective, upperdivision (3000-4000-level) | 3 |
| History Major Elective, upper-division (3000-4000-level) | 3 |
| Literature Major Elective, upper-division (3000-4000-level) | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Credit Hours | 15 |

## Second Semester

| Beginning Language (Core I) ${ }^{2}$ | 5 |
| :---: | :---: |
| The Philosophical Background of American Constitutionalism Elective, upper-division (3000-4000-level) | 3 |
| The American Founding Elective, upper-division (3000-4000level) | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Credit Hours | 14 |


| Senior |  |
| :---: | :---: |
| First Semester |  |
| Beginning Language, continued (Core I) ${ }^{2}$ | 5 |
| The Constitutional Legacy in Modern America Elective, upperdivision (3000-4000-level) | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Credit Hours | 14 |

## Second Semester

Intermediate Language ${ }^{2}$


- For the most current course lists, please contact the Department of
Classics and Letters.

| 1. ANCIENT FOUNDATIONS OF LAW, LIBERTY, \& JUSTICE |  |  |
| :---: | :---: | :---: |
| Code | Title | Credit |
|  |  | Hours |
| CL C 2603 | The Rise and Fall of Greece | 3 |
| CL C 2613 | The Rise and Fall of Rome | 3 |
| CL C 3183 | Hellas, the Civilization of Ancient Greece | 3 |
| CL C 3283 | Roma: The Civilization of Ancient Rome | 3 |
| CL C 3403 | Law and Justice | 3 |
| HIST 3823 | Law and Punishment | 3 |
| HON 3993 | Honors Colloquium (Topic: Roots of Democracy I) | 3 |
| HON 3993 | Honors Colloquium (Topic: Roots of Democracy II) | 3 |
| LTRS 2103 | Introduction to Constitutional Studies | 3 |
| LTRS 3510 | Topics in Letters (approved topics) | 2-3 |
| LTRS 3970 | Honors Seminar (approved topics) | 1-3 |
| LTRS 4503 | Letters Capstone Course (approved topics) | 3 |
| P SC 2703 | Justice, Liberty and the Good Society | 3 |
| P SC 3643 | Democracies and Democratization: A Comparative Inquiry | 3 |
| P SC 3703 | From Plato to Machiavelli, the Classic Art of Politics | 3 |

## 2. THE PHILOSOPHICAL BACKGROUND OF AMERICAN CONSTITUTIONALISM

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| CL C 3403 | Law and Justice | 3 |
| HIST 3363 | Legal And Constitutional History Of | 3 |
|  | England I | $1-5$ |
| HIST 3430 | Topics in United States History (Topic: |  |
|  | Crisis in the Republic: Hannah Arendt) |  |


| HON 3993 | Honors Colloquium (Topic: Roots of Democracy I) | 3 |
| :---: | :---: | :---: |
| HON 3993 | Honors Colloquium (Topic: Roots of Democracy II) | 3 |
| LTRS 2103 | Introduction to Constitutional Studies | 3 |
| LTRS 3303 | Origins of Rights in Early America | 3 |
| LTRS 3510 | Topics in Letters (approved topics) | 2-3 |
| LTRS 3970 | Honors Seminar (approved topics) | 1-3 |
| LTRS 4503 | Letters Capstone Course (approved topics) | 3 |
| LTRS 4970 | Special Topics/Seminar (approved topics) | 2-3 |
| PHIL 3713 | History of Social and Political Philosophy | 3 |
| PHIL 3763 | Law and Society | 3 |
| P SC 2703 | Justice, Liberty and the Good Society | 3 |
| P SC 3643 | Democracies and Democratization: A Comparative Inquiry | 3 |
| P SC 3703 | From Plato to Machiavelli, the Classic Art of Politics | 3 |
| P SC 3713 | The Idea of a Liberal Society | 3 |
| P SC 3723 | Foundations of American Politics | 3 |
| P SC 3970 | Honors Seminar (Topic: The Roots of Democracy from Ancient Greece to the American Founding) | 1-3 |
| SOC 3553 | Sociology of Law | 3 |

## 3. THE AMERICAN FOUNDING

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| HIST 3083 | The American Colonies | 3 |
| HIST 3093 | The Revolutionary Era | 3 |
| HIST 3430 | Topics in United States History (Topic: U.S. | $1-5$ |
|  | Constitution 1776-1791) |  |
| HIST 3593 | Women in the American West | 3 |
| HIST 3663 | The American Presidency \& the Presidents, | 3 |
|  | Washington-Trump |  |
| HON 2973 | Perspectives on the American Experience | 3 |
| HON 3993 | Honors Colloquium (approved topics) | 3 |
| LTRS 2103 | Introduction to Constitutional Studies | 3 |
| LTRS 3303 | Origins of Rights in Early America | 3 |
| LTRS 3353 | Interpreting the American Founding | 3 |
| LTRS 3510 | Topics in Letters (approved topics) | $2-3$ |
| LTRS 3713 | Gender and the Constitution | 3 |
| LTRS 4970 | Special Topics/Seminar (approved topics) | $2-3$ |
| NAS 5970 | Special Topics/Seminar (Topic: | $1-3$ |
| P SC 3203 | Comparative Indigenous Peoples' Law) | 3 |
| P SC 3213 | Sexuality, Gender, and the Law | 3 |
| P SC 3723 | Foundations of American Politics | 3 |
| P SC 4263 | American Constitutional Law l: Governance | 3 |

## 4. THE CONSTITUTIONAL LEGACY IN MODERN AMERICA

Code Title Credit Hours
AFAM 4733
Civil Rights Law: Employment and Education

| AFAM 4813 | Prison Industrial Complex | 3 |
| :---: | :---: | :---: |
| COMM 3003 | Political Campaign Processes | 3 |
| HIST 3423 | War, Prosperity and Depression | 3 |
| HIST 3430 | Topics in United States History (approved topics) | 1-5 |
| HIST 3553 | Slavery and the Civil War Era | 3 |
| HIST 3573 | Special Topics Colloquium (approved topics) | 3 |
| HIST 3593 | Women in the American West | 3 |
| HIST 3623 | Conformity and Dissent in the 1950s and 1960s | 3 |
| HIST 3753 | African-American History Since 1877 | 3 |
| HIST 3663 | The American Presidency \& the Presidents, Washington-Trump | 3 |
| HIST 4313 | American Foreign Policy, 1900-45 | 3 |
| HIST 4343 | The Vietnam War | 3 |
| HON 2973 | Perspectives on the American Experience (approved topics) | 3 |
| HON 3993 | Honors Colloquium (approved topics) | 3 |
| IAS 3003 | Topics in International and Area Studies (Topic: Law and Globalization) | 3 |
| LTRS 2103 | Introduction to Constitutional Studies | 3 |
| LTRS 3510 | Topics in Letters (approved topics) | 2-3 |
| LTRS 3603 | Debating Constitutional Controversies | 3 |
| LTRS 3703 | Law and Social Movements | 3 |
| LTRS 3713 | Gender and the Constitution | 3 |
| LTRS 3970 | Honors Seminar (approved topics) | 1-3 |
| LTRS 4970 | Special Topics/Seminar (approved topics) | 2-3 |
| P SC 3020 | Problems in American Government and Politics (approved topics) | 1-3 |
| P SC 3023 | Law and Courts | 3 |
| P SC 3113 | Bureaucracy and Citizenship | 3 |
| P SC 3203 | Sexuality, Gender, and the Law | 3 |
| P SC 3213 | Law, Politics, and Society | 3 |
| P SC 4020 | Problems in American Government (Topic: 1937: Roosevelt vs. the Supreme Court) | 1-3 |
| P SC 4263 | American Constitutional Law I: Governance | 3 |
| P SC 4283 | American Constitutional Law II: Civil Rights and Civil Liberties | 3 |
| SOC 3553 | Sociology of Law | 3 |
| WGS 3513 | Gender, Law and Human Rights | 3 |
| WGS 3953 | Women and the Law | 3 |

## Classical Archaeology, Minor

Minimum Total Credit Hours: 15
Minimum Upper-Division Hours: 9
Program Code: N200
The requirements for a minor must be completed concurrently with the major degree requirements.

No minor may be added by completing courses after receiving the bachelor's degree.

At least six (6) credit hours must be earned in courses acceptable for residence credit by standards set forth by the Dodge College of Arts and Sciences, excluding transfer, correspondence, and examination (AP, CLEP, Advanced Standing) credit. Courses for the minor may not be taken Pass/ No Pass.

No single course may be used by a student to satisfy a major requirement and a minor requirement. A course may be used, however, to satisfy both a major support requirement and a minor requirement.

Requests to substitute a minor requirement must be approved in writing by the Department of Classics.

- CL C 2413 may not be counted toward the Classical Archaeology minor.


## Required Courses

Students must successfully complete at least at least fifteen (15) hours of classical archaeology courses approved for minor credit from a list maintained by the Department. Up to six (6) hours of coursework from outside Classics and Letters (Anthropology, History, Religious Studies, or Art History) may be substituted for work in classical archaeology. A list of approved outside courses is maintained by the Department of Classics and Letters.

| Code | Title | Credit |
| :---: | :---: | :---: |
| Core Course |  |  |
| CL C 2213 | Introduction to Classical Archaeology | 3 |
| Minor Electives |  |  |
| Choose at least at least twelve (12) hours of classical archaeology courses approved for minor credit from a list maintained by the Department. At least nine (9) of these twelve (12) hours must be upper-division courses. (p. 341) |  |  |
| Total Credi |  | 15 |
| - Minors in the Dodge College of Arts \& Sciences are available to all undergraduate students at OU. If the minor is officially declared, successfully completed, and noted on the graduation application, the student's transcript will so indicate at the time the bachelor's degree is posted. |  |  |

## Approved Classical Archaeology Electives

- For the most current list of approved electives, please consult the Department of Classics and Letters.

List of courses approved for this minor from within the Department of Classics and Letters:

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| CL C 2603 | The Rise and Fall of Greece | 3 |
| CL C 2613 | The Rise and Fall of Rome | 3 |
| CL C 3183 | Hellas, the Civilization of Ancient Greece | 3 |
| CL C 3213 | Classical Art \& Archaeology: Greek Art to <br> the Death of Alexander | 3 |
| CL C 3223 | Classical Art \& Archaeology: Hellenistic <br> Greek Art; Roman Art | 3 |
| CL C 3233 | The Roman Forum and its Monuments | 3 |


| CL C 3243 | Food and Drink in the Ancient <br> Mediterranean | 3 |
| :--- | :--- | :---: |
| CL C 3253 | Ancient Athletics: Fun and Games in the <br> Mediterranean World | 3 |
| CL C 3283 | Roma: The Civilization of Ancient Rome | 3 |
| CL C 3413 | Archaeologies of Ancient Espionage | 3 |
| CL C 3803 | The World of Late Antiquity: From Rome to <br> Baghdad | 3 |
| CL C 3510 | Selected Topics in Classical Culture | $2-3$ |

List of courses approved for this minor in other departments and colleges for up to six (6) hours:

| Code | Title | Credit Hours |
| :---: | :---: | :---: |
| ANTH 3113 | Principles of Archaeology | 3 |
| ANTH 3613 | Community Archaeology | 3 |
| ANTH 3783 | The Anthropology of Slavery and Captivity | 3 |
| ANTH 3893 | Maya, Aztec and Inca: High Civilizations of Ancient America | 3 |
| ANTH 3930 | Fieldwork in Archaeology | 1-8 |
| ANTH 3933 | Archaeology Lab Practicum | 3 |
| ANTH 3940 | Internship in Archaeology | 1-6 |
| ANTH 4023 | Museum Anthropology | 3 |
| ANTH 4093 | Bodies and Materialities | 3 |
| ANTH 4163 | The Study of Material Culture | 3 |
| ANTH 4333 | Archaeologies of Movement and Migration in North America | 3 |
| ANTH 4463 | Peopling of the New World | 3 |
| ANTH 4733 | Bioarchaeology of Death \& Burials | 3 |
| ANTH 4783 | Landscape Archaeology | 3 |
| ANTH 4813 | Archaeology of North America | 3 |
| ANTH 4833 | Archaeology of the Great Plains | 3 |
| ANTH 4853 | Archaeology of the Greater Southwest | 3 |
| ANTH 4863 | Archaeology of the Southeast | 3 |
| ANTH 4883 | Dates, Compositions, and Ancestors: Scientific Applications in Archaeology | 3 |
| ANTH 4953 | Special Topics in Anthropology | 3 |
| ANTH 4973 | Introduction to Faunal Analysis | 3 |
| HIST 3003 | History of Sparta | 3 |
| HIST 3023 | Classical Greece | 3 |
| HIST 3063 | The Ancient Art of War | 3 |
| HIST 3613 | Roman Religion | 3 |
| HIST 3833 | Archaeology of the Lands of the Bible | 3 |
| HIST 3893 | Greek Religion | 3 |
| RELS 3613 | Roman Religion | 3 |
| RELS 3833 | Archaeology of the Lands of the Bible | 3 |
| RELS 3893 | Greek Religion | 3 |
| A HI 3213 | Classical Art and Archaeology: Greek Art to the Death of Alexander | 3 |
| A HI 3223 | Classical Art and Archaeology: Hellenistic Greek Art; Roman Art | 3 |
| A HI 3233 | Medieval Art I | 3 |
| A HI 3263 | Survey of Byzantine Art and Architecture | 3 |

## Classical Culture, Minor

Minimum Total Credit Hours: 15
Minimum Upper-Division Hours: 9
Program Code: N205
The requirements for a minor must be completed concurrently with the major degree requirements.

No minor may be added by completing courses after receiving the bachelor's degree.

At least six (6) credit hours must be earned in courses acceptable for residence credit by standards set forth by the Dodge College of Arts and Sciences, excluding transfer, correspondence, and examination (AP, CLEP, Advanced Standing) credit. Courses for the minor may not be taken Pass/ No Pass.

No single course may be used by a student to satisfy a major requirement and a minor requirement. A course may be used, however, to satisfy both a major support requirement and a minor requirement.

Requests to substitute a minor requirement must be approved in writing by the Department of Classics.

- CL C 2413 may not be counted toward the Classical Culture minor.
- With prior approval of the Classics Department Chair, the following substitutions may be made:
a. Three (3) hours of upper-division work in Latin or Greek courses.
b. Three (3) hours of upper-division credit in Ancient History, Ancient Philosophy, or in other related courses.


## Required Courses

Students must successfully complete at least 15 hours of courses acceptable for major credit in Classical Culture. At least 9 hours must be earned in upper-division Classical Culture (CL C) courses.

| Code $\quad$ Title | Credit <br> Hours |
| :--- | ---: |
| Select at least 15 hours of courses acceptable for major | 15 |
| credit in Classical Culture. At least nine (9) of these hours |  |
| must be upper division Classical Culture (CL C) courses |  |

Total Credit Hours

- Minors in the Dodge College of Arts \& Sciences are available to all undergraduate students at OU. If the minor is officially declared, successfully completed, and noted on the graduation application, the student's transcript will so indicate at the time the bachelor's degree is posted.


## Classical Greek, Minor

Minimum Total Credit Hours: 15
Minimum Upper-Division Hours: 9
Program Code: N491
The requirements for a minor must be completed concurrently with the major degree requirements.

No minor may be added by completing courses after receiving the bachelor's degree.

At least six (6) credit hours must be earned in courses acceptable for residence credit by standards set forth by the Dodge College of Arts and Sciences, excluding transfer, correspondence, and examination (AP, CLEP, Advanced Standing) credit. Courses for the minor may not be taken Pass/ No Pass.

## No single course may be used by a student to satisfy a major requirement

 and a minor requirement. A course may be used, however, to satisfy both a major support requirement and a minor requirement.Requests to substitute a minor requirement must be approved in writing by the Greek program in the Department of Classics.

## Required Courses

Students must successfully complete at least 15 hours of coursework in Greek at the 2000-level or above, including at least nine (9) hours at the upper-division level. Note that introductory courses (GRK 1115 and GRK 1215) are not counted toward this total.

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Choose 15 hours from the following: ${ }^{1}$ | 15 |  |
| GRK 2113 | Biblical Greek (max 6 hours) |  |
| GRK 3113 | Advanced Prose (max 6 hours) |  |
| GRK 3213 | Ancient Greek Drama (max 6 hours) |  |
| GRK 3990 | Independent Study (max 6 hours) |  |
| GRK 4990 | Independent Study (max 6 hours) |  |
| Total Credit Hours | $\mathbf{1 5}$ |  |

1 Students may also use up to 3 hours of upper-division Classical Culture (CL C) or related area.

- Minors in the Dodge College of Arts \& Sciences are available to all undergraduate students at OU. If the minor is officially declared, successfully completed, and noted on the graduation application, the student's transcript will so indicate at the time the bachelor's degree is posted.


## Constitutional Studies, Minor

Minimum Total Credit Hours: 15<br>Minimum Upper-Division Hours: 12

## Program Code: N240

The requirements for a minor must be completed concurrently with the major degree requirements.

No minor may be added by completing courses after receiving the bachelor's degree.

At least six (6) credit hours must be earned in courses acceptable for residence credit by standards set forth by the Dodge College of Arts and Sciences, excluding transfer, correspondence, and examination (AP, CLEP, Advanced Standing) credit. Courses for the minor may not be taken Pass/ No Pass.

No single course may be used by a student to satisfy a major requirement and a minor requirement. A course may be used, however, to satisfy both a major support requirement and a minor requirement.

Requests to substitute a minor requirement must be approved in writing by the Department of Classics and Letters.

## Required Courses

Students must successfully complete at least 15 hours of courses acceptable for credit in Constitutional Studies including at least 12 hours at the upper-division level.

Qualifying courses in each category (p. 339) will be approved by the
Department of Classics and Letters. The most up to date list of qualifying
courses is available in the Department. courses is available in the Department.

| Code $\quad$ Title | Credit <br> Hours |
| :--- | ---: |
| I. Ancient Foundations of Law, Liberty, and Justice: Choose <br> one course <br> II. The Philosophical Background of American <br> Constitutionalism: Choose one course | 3 |
| III. The American Founding: Choose one course <br> IV. The Constitutional Legacy in Modern America: Choose one <br> course | 3 |
| Choose one additional course from the categories listed <br> above | 3 |

## Total Credit Hours

- Minors in the Dodge College of Arts \& Sciences are available to all undergraduate students at OU. If the minor is officially declared, successfully completed, and noted on the graduation application, the student's transcript will so indicate at the time the bachelor's degree is posted.


## Latin, Minor

Minimum Total Credit Hours: 15
Minimum Upper-Division Hours: 9

## Program Code: N629

- The requirements for a minor must be completed concurrently with the major degree requirements.
- No minor may be added by completing courses after receiving the bachelor's degree.

At least six (6) credit hours must be earned in courses acceptable for residence credit by standards set forth by the Dodge College of Arts and Sciences, excluding transfer, correspondence, and examination (AP, CLEP, Advanced Standing) credit. Courses for the minor may not be taken Pass/ No Pass.

No single course may be used by a student to satisfy a major requirement and a minor requirement. A course may be used, however, to satisfy both a major support requirement and a minor requirement.

Requests to substitute a minor requirement must be approved in writing by the Latin program in the Department of Classics.

## Required Courses

Students must successfully complete at least 15 hours of coursework in Latin at the 2000-level or above, including at least nine (9) hours at the upper-division level. Note that introductory courses (LAT 1115, LAT 1215, and LAT 1315) are not counted toward this total.

| Code | Title | Credit Hours |
| :---: | :---: | :---: |
| 15 hours of coursework in Latin at the 2000-level or above, including at least nine (9) hours at the upper-division level. |  | 15 |
| Total Credi |  | 15 |
| Students may choose from the following list of courses ${ }^{1}$ : |  |  |
| Code | Title | Credit |
|  |  | Hours |
| LAT 2113 | Intermediate Latin Prose (max 6 hours) | 3 |
| LAT 2213 | Intermediate Latin Poetry (max 6 hours) | 3 |
| LAT 3113 | Advanced Prose: Cicero, Pliny the Elder, Pliny the Younger (max 6 hours) | 3 |
| LAT 3213 | (max 6 hours) | 3 |
| LAT 3990 | Independent Study (max 6 hours) | 1-3 |
| LAT 4133 | (max 6 hours) | 3 |
| LAT 4213 | Latin Lyric \& Bucolic Poetry (max 6 hours) | 3 |
| LAT 4990 | Independent Study (max 6 hours) | 1-3 |
| ${ }^{1}$ Students may also use up to 3 hours of upper-division Classical Culture (CL C) or related area. |  |  |

- Minors in the Dodge College of Arts \& Sciences are available to all undergraduate students at OU. If the minor is officially declared, successfully completed, and noted on the graduation application, the student's transcript will so indicate at the time the bachelor's degree is posted.


## Department of Communication

Ioana A. Cionea, Interim Chair
101 Burton Hall
610 Elm Avenue
Norman, OK 73019-2081
Phone: (405) 325-3111
FAX: (405) 325-7625
icionea@ou.edu
www.ou.edu/cas/comm

## General Information

The OU Department of Communication provides a broad-based liberal arts education and promotes communication research and development. The ability to communicate clearly, eloquently, and effectively has been the hallmark of an educated person since the beginning of recorded history. At the University of Oklahoma, the study of communication has been a part of the curriculum since 1896. Offering B.A. degrees starting in 1935, M.A. degrees in 1937, and Ph.D. degrees in 1952, OU's Department of Communication views communicative behavior as basic to human activity - to individual development, to interpersonal and social relationships, and to the functioning of political, economic, cultural, and social institutions. Through research and theory-building, we seek to interpret how individuals use symbols to understand and act within their environment.

The department's role as one of the communication discipline's most prestigious departments in a domain of great pragmatic importance commits us to a multi-level teaching program. Our Ph.D. and M.A. programs seek to place graduates in both academic settings with research and educational responsibilities and in non-academic settings
in business and industry. Our undergraduate program seeks to prepare majors for diverse career opportunities, prepare gifted students for advanced work, and develop the communication skills that contribute to the long-term advancement and happiness of all students.

## Special Facilities and Programs

Students acquire meaningful job experience while earning college credit through the Department of Communication's internship program. The program allows students to apply their communication knowledge in the working world and enhance their college and career opportunities. Students have the option of choosing positions offered through the department's internship director or arranging for their own internships with the assistance of the internship advisor. The University also provides internship and career counseling through its office of Career Services.

Participation in communication organizations gives students an opportunity to meet others in their major as well as gain increased access to faculty, alumni and other professionals in the field. The Undergraduate Communication Association is open to all communication majors and minors, and Lambda Pi Eta, the department's honor society, recognizes outstanding students in communication.

## Undergraduate Study <br> Programs Offered

- Communication, Bachelor of Arts (p. 350)
- Communication, Minor (p. 352)


## Theory and Practice

The goal of our undergraduate program is sharing the best available theories of communication and facilitating the application of these theories for.

- the improvement of the student's communication skills,
- increased understanding of the communication process, and
- development of the student's ability to analyze and interpret the elements of the communication process as they occur in society.

The department strives to achieve these objectives through varied coursework designed to prepare students for diverse career opportunities, prepare gifted students for advanced work, and develop the communication skills that contribute to the long- term advancement and happiness of all students.

## Graduate Study

## Master of Arts

- Communication, Master of Arts (p. 353)
- Organizational Communication, Master of Arts (p. 354)


## Doctoral Programs

- Communication, Doctor of Philosophy (p. 354)

Most of our doctoral graduates apply their degrees toward careers in academic teaching and research, or communication-related fields making use of their research skills and expertise.

## Areas of Specialization

Our students, both at the masters and doctoral levels, generally enter the program with interests focusing on one of our six areas of specialization or a combination of them:

- Intercultural/International Communication
- Interpersonal Communication/Social Influence
- Political/Mass Communication
- Health Communication
- Organizational Communication
- Communication Technology/CMC

Within our department, students tend to concentrate in one area while exploring and incorporating key empirical and theoretical concerns in other areas, often combining research objectives at the intersection of several sub-disciplines; for example, intercultural and health communication; social influence and mass media; or organizational communication and international health, to name but a few possibilities.

## Courses

COMM 1113 Principles of Communication 3 Credit Hours Introductory study of human communication emphasizing both theoretic understanding of the process as well as skillful application of communication principles and techniques within a variety of settings. (F, $\mathrm{Sp}, \mathrm{Su})[\mathrm{l}-\mathrm{O}]$.
COMM 2003 Communication in Non-Western Culture 3 Credit Hours Designed to broaden students' perspectives on human communication beyond the boundaries of Western cultural traditions. Patterns of perception, language, verbal behavior, nonverbal behavior, and interpersonal orientation in Asian, Middle Eastern, African and Latin American traditions are studied. (F, Sp) [IV-WDC].

## COMM 2111 Practicum in Forensics

1 Credit Hour
May be repeated; maximum credit four hours. Develop performance materials (speeches, interpretive cuttings, debate briefs) for use in speech/debate contests. Practice sessions with critiques of performances are given. ( $F, S p$ )
COMM 2113 Business and Professional Communication 3 Credit Hours Seeks to enhance the student's awareness and appreciation of communication processes in business and professional settings. An emphasis is placed on improving skills in interpersonal relations, professional oral presentations, interviews, and group processes. Career opportunities in business and professional contexts are discussed. (F, Sp) [l-O].
COMM 2213 Interpersonal Communication 3 Credit Hours
This course surveys theory and research related to interpersonal communication. The course focuses on effectively managing personal (e.g., romantic, family, roommates, and friends) and professional relationships (e.g., work and classroom). The course's format consists of lectures, group discussions, experiential activities, and written assignments. ( $F, S p$ )
COMM 2323 Survey of Health Communication 3 Credit Hours An introduction to one of the fastest-growing areas of the communication discipline: health communication. Surveys current issues, theory, and research surrounding health communication and it will focus on a variety of issues, such as perceptions of health, provider-patient relationships, health organizations, health campaigns, intercultural issues, and the use of new communication technologies in health care. (Irreg.) [III-SS].
COMM 2413 Media Literacy 3 Credit Hours
Students will develop the ability to question media content and to think critically about how media generate meaning and affect our lives. Topics include: social impact of popular culture, influence of advertising on media content, mass media as a global industry, how to read the news, and media as a source of information and entertainment. (Irreg.) [III-SS].

COMM 2513 Introduction to Statistics 3 Credit Hours
Prerequisite: Mathematics 0123 or a satisfactory score on the math placement test. This course introduces statistics with the purpose of providing tools for interpreting and conducting social science research. Topics include; central tendency, variability, normal distributions, sampling distributions, correlation, regression, T-tests, anovas, and nonparametric statistics. (F, Sp) [I-M].
COMM 2613 Public Speaking 3 Credit Hours
Develops skill in the composition and delivery of speeches suitable to various common speech situations and criteria for judging speeches heard or read. Topics include: nature of public speaking; choosing and presenting a topic; analyzing an audience; organizing and outlining. ( $F$, $\mathrm{Sp}, \mathrm{Su}$ ) [I-O].

## COMM 2713 Communication Theory 3 Credit Hours

Prerequisite: 1113. Examines the formats, roles, strategies and constraints of human communication in varied social contexts. (F, Sp)
COMM 2970 Special Topics/Seminar 1-3 Credit Hours
Special Topics. 1 to 3 hours. May be repeated; Maximum credit nine hours. Special topics course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research, and field projects. (Irreg.)

## COMM 3003 Political Campaign Processes 3 Credit Hours

Prerequisite: COMM 1113 or P SC 1113 and junior standing or permission of instructor. Teaches students to apply communication skills including public speaking, debating, mass media news and advertising to political campaigns. (F, Sp)
COMM 3023 Communication Research Methods 3 Credit Hours Prerequisite: COMM 1113 and COMM 2513. Studies the goals, objects and methods of communication research. Emphasis is on the student's role as a critical consumer of research; exploration of vocational/ professional applications of communication study. (F, Sp)

## COMM 3223 Small Group Communication

3 Credit Hours
Prerequisite: COMM 1113 and junior standing or permission of instructor. Examination of communication principles in the small group setting. Includes consideration of task and interpersonal dimensions, cohesiveness, conformity and approaches to leadership. (F, Sp)
COMM 3243 Communication and Social Change 3 Credit Hours Prerequisite: COMM 1113 and junior standing or permission of instructor. Critical analysis and evaluation of persuasive strategies employed in historical and contemporary social movements, especially situations involving agitation and counter-agitation. (F,Sp)

COMM 3253 Persuasion Principles
3 Credit Hours
Prerequisite: COMM 1113 and junior standing or permission of instructor. This course investigates various communication and social science theories dealing with cognitive, affective, emotional, and motivational processes associated with persuasion and social influence. The primary focus is on the psychological means and methods different sources use to manipulate communication to influence people within various contexts, as well as the means receivers have for accepting or resisting that influence. (Irreg.)
COMM 3263 Organizational Communication 3 Credit Hours Prerequisite: COMM 1113 and junior standing or permission of instructor. Focus on the communication patterns and strategies of private and governmental organizations, including most recent research on problems in management, motivation and communication systems. (F, Sp)

COMM 3283 Communication and Emotion
3 Credit Hours
Prerequisite: COMM 1113 and junior standing or permission of instructor. Communication and emotion is an advanced course designed to examine the interrelationships between human communication and affective, emotional, and cognitive processes. Emphasis is on theory and research regarding the function of affect and emotion as they impact thinking, feeling, mood, memory, and expression in communication and social interaction. (Irreg.)
COMM 3313 Communication and Public Health 3 Credit Hours Prerequisite: COMM 1113 and junior standing or permission of instructor. Introduction to concepts fundamental to understanding human health behavior and health promotion. Describes prevalent health behavior, psychosocial, and psychological theories of behavior change used by health educators and researchers in a variety of contexts. Examines several individual-based, social-based, organization-based, and eco-social theories, including the health belief model, the theory of planned behavior, the transtheoretical model, decision-making, and social support. (F, Sp)
COMM 3413 Interethnic Communication
3 Credit Hours
Prerequisite: COMM 1113 and junior standing or permission of instructor. Examines the nature of communication between individuals of differing ethnic/racial backgrounds. Identifies behaviors that impede or facilitate the development of positive interethnic relationships. Explores various societal, situational, and psychological forces that influence the communication process. (F, Sp)
COMM 3440 Mentored Research Experience
3 Credit Hours
0 to 3 hours. Prerequisites: COMM 1113 and permission of instructor.
May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Project (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)
COMM 3443 Deception
3 Credit Hours
Prerequisite: COMM 1113 and junior standing or permission of instructor. This course explores the varieties of deceptive communication, their causes and consequences in a wide range of contexts, as well as strategies that can be used to detect their occurrence. (F, Sp)

COMM 3483 Communication and Argumentation 3 Credit Hours Prerequisite: COMM 1113 and junior standing or permission of instructor. Seeks to acquaint the student with ways of constructing valid arguments, with application to such communication contexts as policy making, legal decision-making, organizational decision-making and personal inquiry. Fundamentals of argumentation are explored, along with methods of argument construction and numerous contextual applications. (F, Sp)

COMM 3513 Intercultural Communication 3 Credit Hours Prerequisite: COMM 1113 and junior standing or permission of instructor. Introduction to intercultural communication theory, research, and application addressing the challenges and the promise of communicating with people with differing cultural/subcultural backgrounds. Topics include cross-cultural variations in communication behavior, intercultural communication effectiveness, intercultural relationship development, cross-cultural adaptation, and intercultural community building. (F, Sp) [IV-WC].

COMM 3523 Communication in Relationships 3 Credit Hours
Prerequisite: COMM 1113 and junior standing or permission of instructor. Introduces and discusses various theoretical approaches (social exchange, pragmatism, social cognition, etc.) toward understanding human interaction. In addition, the following topics are covered: relationship development and termination, life-span communication, the family, friendship relationships, therapeutic relationships, and interpersonal relationships in various organizational settings. (F, Sp)
COMM 3543 Conflict Management and Negotiation 3 Credit Hours Prerequisite: COMM 1113 and junior standing or permission of instructor. Expands understanding and practical experience with negotiation and conflict management. Provides an understanding of negotiation and conflict management processes in a wide range of contexts and from a communication perspective. Also examines factors that influence communication in negotiation and conflict, types of strategies used, and their outcomes for the management of such situations. (Sp)

COMM 3563 Risk and Crisis Communication
3 Credit Hours
Prerequisite: COMM 1113 and junior standing or permission of instructor. Provides an understanding of the theory, research, and practice related to risk and crisis communication. The course's format consists of lectures, group discussions, experiential activities, and written assignments that require your active involvement. (Irreg.)
COMM 3573 Communication and Humor
3 Credit Hours
Prerequisite: COMM 1113 and junior standing or permission of instructor. Provides an understanding of the role of humor in communication. Students will learn about theories and ideas related to humor and its effects on a variety of issues, including: relationships, persuasion, identity, media, and politics. Insight will be gained into humor and communication in a way that illuminates important issues in life. (Irreg.)
COMM 3643 Media and Society
3 Credit Hours
Prerequisite: COMM 1113 and junior standing or permission of instructor. Examines the role of the mass media in social life. Topics include the impact of technology, economics, law, work routines, and culture on media content, and the relationship between the messages created and the audiences that receive them. Competing theories about information dissemination and reception are considered. Emphasis on providing students a framework for thinking critically about mass media content. (Irreg.)

COMM 3653 Computer Mediated Communication 3 Credit Hours Prerequisite: COMM 1113 and junior standing or permission of instructor. An introduction to the area of computer-mediated communication (CMC). Will look at a number of contexts for CMC, including CMC and interpersonal communication, on-line communities, CMC within organizations, and CMC as mass communication. Will introduce students to the history of computer-mediated communication, theories of computer-mediated communication, and will explore communication within a variety of internet-based populations. (Irreg.)
COMM 3810 Variable Topics in Communication 1-6 Credit Hours 1 to 6 hours. Prerequisite: COMM 1113 and junior standing or permission of instructor. May be repeated with change of content; maximum credit six hours. Content will vary, but will cover a specific aspect or issue in Communication. Designed to present content not currently offered in regularly scheduled courses. (Irreg.)
COMM 3960 Honors Reading
1-3 Credit Hours
1 to 3 hours. Prerequisite: 1113, 2713 or junior standing with permission of instructor, and admission to Honors Program. May be repeated; maximum credit six hours. Consists of topics designated by the instructor in keeping with the student's major program. The topics will cover materials not usually presented in the regular courses. (Irreg.)

COMM 3980 Honors Research
1-3 Credit Hours
1 to 3 hours. Prerequisite: 1113, 2713 or junior standing with permission of instructor, and admission to Honors Program. May be repeated; maximum credit six hours. Will provide an opportunity for the gifted honors candidate to work at a special project in the student's field. (Irreg.)

## COMM 3990 Independent Study

1-3 Credit Hours
1 to 3 hours. Prerequisite: permission of instructor and junior standing. May be repeated once with change of content. Independent study may be arranged to study a subject not available through regular course offerings. (F, Sp, Su)
COMM G4010 Communication Internship
1-3 Credit Hours
1 to 6 hours. Prerequisite: junior or senior who has completed two-thirds of the communication courses required for graduation, plus permission of instructor. Applicants must have minimum overall GPA of 2.50 or higher and a minimum GPA of 2.75 in communication courses. May be repeated; maximum credit six hours. A planned work experience related to personal career and academic goals, integrated into the student's academic schedule. It includes working in an assigned workplace several hours a week in addition to completing academic assignments and meeting regularly with organizational and academic supervisors. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
COMM 4153 Nonverbal Communication 3 Credit Hours Prerequisite: COMM 1113 and junior standing or permission of instructor. Seeks to expose students to recent research on nonverbal behavior, emphasizing those properties of communication which characterize social and cultural group memberships. (Irreg.)

## COMM G4233 Free Speech: Responsible Communication Under Law 3 Credit Hours

 Prerequisite: COMM 1113 and junior standing or permission of instructor. A study of the interaction between communication and the law. A consideration of the role of law as both deterrent and protector of the communicator's efforts. Attempts to provide a better understanding of the pervasiveness of regulation of communication. (Irreg.)COMM 4243 Family Communication
3 Credit Hours
Prerequisite: COMM 1113 and junior standing or permission of instructor. Examines social science research related to communication processes in family relationships. Focuses on the impact of communication in the development, maintenance, and dissolution of family relationships. Topics include: research methods and theory, stage models of family development, diversity issues related to families, and communication patterns related to different family forms including single-parent families, nuclear families, stepfamilies, and extended families. (Irreg.)

COMM 4253 Strategic Communication Campaigns 3 Credit Hours Prerequisite: COMM 1113 and junior standing or permission of instructor. Course focus is on the use of influence in modern campaigns. The course attempts to apply theories and strategies of persuasion to applied campaign settings. The broad objectives of the course includes fostering a student's ability to understand and to use the theories, strategies, and methods involved in persuasive campaigns in a generic sense and in terms of specific contexts. (Irreg.)
COMM 4323 Political Communication 3 Credit Hours (Crosslisted with P SC 4323) Prerequisite: COMM 1113 or P SC 1113 and junior standing or permission of instructor. This course considers the role of communication in democracy. Topics include the kinds of information necessary to sustain democratic systems, the ways in which citizens are informed about public affairs, the function of news media in democratic systems, and how citizens, media and political leaders interact. ( $\mathrm{F}, \mathrm{Sp}$ )

COMM 4413 Issues in Health Communication 3 Credit Hours
Prerequisite: COMM 1113 and junior standing or permission of instructor. Communication theories and principles in various contexts. Will be a thematic course, which focuses on in-depth, context-specific, health-related research and theories. Introduces various themes that are important in health communication, with particular focuses on interpersonal (e.g., social support, uncertainty management, providerpatient communication), cross-cultural (e.g., cross-cultural health care and illness ideology), and organizational (e.g., HMOs and risk communication) contexts. (Irreg.)
COMM 4423 Communication and Public Opinion 3 Credit Hours Prerequisite: COMM 1113 or P SC 1113 and junior standing or permission of instructor. Examines the concept and measurement of public opinion. Students learn critical and analytical tools for evaluating the current role of public opinion in democratic societies. Topics include how to measure public opinion, interpreting polling data, social and psychological aspects of public opinion, impacts of media and interpersonal communication on public opinion, and public opinion as group behavior. (Irreg.)
COMM 4513 International Communication 3 Credit Hours
Prerequisite: COMM 1113 and junior standing or permission of instructor.
Presentation and discussion of academic analyses of culture, politics, and ethics in various non-USA media systems. Issues covered include media ownership and concentration, ethnicity and gender in the media, media and international conflict, non-western media industries, global media audiences, and new information and communication technologies. (F, Sp)
COMM 4643 Mass Media Effects
3 Credit Hours
Prerequisite: COMM 1113 and junior standing or permission of instructor. Examines theories and research that informs conclusions about mass communication effects. Focuses on media use patterns, social effects (violence, pornography, and stereotyping) and effects on children, public opinion, political effects (election campaigns), economic effects (advertising), cultural effects, new communication technologies, and long-term effects. The course also seeks to enhance the skills of critical reading, logical thinking, and use of media. (F)

## COMM 4713 Issues in Communication Study

3 Credit Hours
Prerequisite: Departmental permission, COMM 1113, COMM 2613, COMM 2713 (with a grade of C or better), COMM 3023 (with a grade of C or better), COMM 2513 and nine hours of Communication electives at the upper-division level; Must have earned senior standing ( 90 hours or more) prior to the semester of enrollment. Provides the opportunity to integrate knowledge about communication and apply it to a project culminating in a speech and senior paper. The project will develop a selected problem, issue, or controversy in communication. (F, Sp, Su) [V].
COMM 4960 Directed Readings 1-4 Credit Hours
1 to 4 hours. Prerequisite: good standing in University; permission of instructor. May be repeated; maximum credit four hours. Designed for upper-division students who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)

COMM 4970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: Senior standing or permission of instructor.
May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

COMM 4990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: COMM 1113 and COMM 2713 or junior standing with permission of instructor. May be repeated; maximum credit six hours. Contracted independent study for topic not currently offered in regularly scheduled courses. Independent study may include library and/ or laboratory research and field projects. (F, Sp, Su)
COMM 5003 Quantitative Research Methods 3 Credit Hours
Prerequisite: Graduate standing. This course introduces students to social-behavioral science processes of inquiry about human communication phenomena. It Examines the relationship of theory and method, looks at various research paradigms and designs, and provides an introduction to descriptive and inferential statistics. (Sp)

COMM 5013 Introduction to Graduate Study
3 Credit Hours
Prerequisite: graduate standing or permission. Traces the development of research and professions in communication, providing an integrative conception of the discipline and an introduction to research and theory formulation. Students are exposed to those skills critical to success in graduate training in communication. (F)
COMM 5023 Introduction to Quantitative Research Methods 3 Credit Hours
Prerequisite: graduate standing. Introduction to social-behavioral science processes of inquiry about human communication phenomena for graduate students not pursuing a Ph.D. Examines the relationship of theory and method, between research paradigms and designs, and provides an introduction to descriptive and inferential statistics. (F, Sp, $\mathrm{Su})$

COMM 5033 Advanced Statistics
3 Credit Hours
Prerequisite: graduate standing and COMM 5003, or permission of instructor. Advanced statistics covering topics which include: ANOVA, ANCOVA, MANOVA, multiple regression, path analysis, and confirmatory and exploratory factor analysis. (F)
COMM 5043 Organizational Research Practicum 3 Credit Hours
Prerequisite: graduate student major who has completed two-thirds of the communication courses required for graduation, plus permission.
Applicants must have an overall grade point average of 3.25 or higher. Provides practical research experience in an organization. Student adviser and organization's sponsor must agree through a written contract about the goals, plan, and activities associated with the research project. (Irreg.)
COMM 5053 Introduction to Qualitative Research Methods 3 Credit

## Hours

Prerequisite: graduate standing. Introduction to various qualitative methodological strategies used in the social sciences for students not pursuing a Ph.D. Examines the relationship of method and theory and the process of collecting, coding, and analyzing data. (F, Sp, Su)
COMM 5213 Interpersonal Communication 3 Credit Hours Prerequisite: graduate standing or permission. Studies the research and theories in interpersonal communication with emphasis on dyads and small groups, public address, message analysis and nonverbal communication. (Irreg.)

COMM 5233 Communication and Social Change 3 Credit Hours Prerequisite: graduate standing or permission. Studies alternative theories of social change, both historical and modern, with emphasis on the role played by communication at the interpersonal, group and social levels. (F)

## COMM 5253 Cross-Cultural Communication: Theory and

Research
3 Credit Hours
Prerequisite: graduate standing or permission. Study of theory of crosscultural communication with special attention to language, stereotyping, perception, role, power and nonverbal communication as such variables operate in cross-cultural situations. (Irreg.)

## COMM 5263 Health Communication in Interpersonal Contexts 3 Credit Hours

Prerequisite: graduate standing or permission of instructor. Provides a broad overview of theoretical and applied approaches to health communication. A variety of health communication topics including doctor-patient communication, health information campaigns, mass media influences on health, role of culture in health and disease, health care organizations, and group influences on well-being will be presented. (F)

COMM 5313 Qualitative Research Methods
3 Credit Hours
Prerequisite: graduate standing. Survey of different qualititative methodological strategies used in the social sciences to collect, code, and analyze information. (Sp)

COMM 5323 Advanced Qualitative Research 3 Credit Hours
Prerequisite: 5313. Designed to immerse students in the actual experience of conducting qualitative research in the field. Emphasis on participatory observation, ethnographic research, and textual analysis. (F)
COMM 5333 Organizational Communication 3 Credit Hours
Prerequisite: graduate standing. Focuses on the communication environment of organizations, both internal and external, emphasizing implications of organizational designs for communication, communication principles to motivate employees, and the role of communication for productivity and the quality of life. (Irreg.)

COMM 5353 Conflict Management
3 Credit Hours
Prerequisite: graduate standing. Examines theory and research about conflict management in various communication contexts. Takes a social scientific approach to conflict management with emphasis on cognitive processes, affective systems, interaction sequences and strategies and tactics related to how people negotiate the meaning and management/ resolution of conflict. (Irreg.)

COMM 5363 Communication and Technology 3 Credit Hours Prerequisite: graduate standing or permission. Provides a comprehensive overview of emerging technologies (e.g., teleconferencing, electronic mail, videotext, electronic bulletin boards, telecommuting, distance education, media richness, voice messaging, invisible technologies, etc.) and analyzes some of the social and behavioral effects of these technologies on human interaction in interpersonal, organizational, small group, and international contexts. (F)
COMM 5373 Communication and Leadership 3 Credit Hours Prerequisite: graduate standing. Examines theory and research related to the philosophy and behaviors associated with leadership communication in various contexts. Emphasis placed on unique aspects of messages as individuals enact leadership roles. Scholarship from several areas of the social sciences will be considered, but communication theory will be given primary emphasis. (F)

COMM 5383 Survey of Political Communication 3 Credit Hours
(Crosslisted with P SC 5383) Prerequisite: graduate standing. Embraces the premise that meaningful democracy requires an effective political communication system. Examines some of the tensions between the requirements of democracy and the forms of communication that have emerged to meet them, exploring the roles of political leaders, citizens, and the media in the evolution of a democratic political information system. (Irreg.)
COMM 5393 Risk and Crisis Communication
3 Credit Hours
Prerequisite: graduate standing. The term "risk communication" refers to a body of knowledge and a set of practical skills that can be used in characterizing and managing issues, disseminating information, and communicating effectively in crises or emergency situations. Examines key concepts of risk communication, investigates risk communication theories and approaches as well as implements practical application in learning about communicating in risk situations. (Irreg.)

## COMM 5453 Social Influence

3 Credit Hours
Prerequisite: graduate standing. A social scientific approach to the study of influence (persuasion), emphasizing scholarship drawn from speech communication, mass communication and social psychology. (F)
COMM 5553 Survey of Communication Campaigns 3 Credit Hours
Prerequisite: graduate standing. Theory and research about persuasive communication campaigns which involve conscious sustained communication efforts designed to influence the thinking, feelings and/or behaviors of targeted receiver groups. (Sp)
COMM 5810 Special Topics in Communication 1-4 Credit Hours
1 to 4 hours. Prerequisite: graduate standing or permission of instructor. May be repeated with change of content; maximum credit nine hours. Topics will vary and are intended to acquaint the graduate communication major with specialized study involving communication theory, methodology and research. (F, Sp, Su)
COMM 5960 Directed Readings 1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate Standing and permission of instructor; May be repeated; maximum credit three hours for the master's degree and nine hours for the Ph.D. Intensive survey of the literature in a selected area of communication under the direction of a graduate faculty member. (F, Sp, Su)
COMM 5970 Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing; others vary by topic. May be repeated with change of content; maximum credit nine hours. Varied special topics in communication. (Irreg.)
COMM 5980 Research for Master's Thesis
2-9 Credit Hours
2 to 9 hours. Prerequisite: Graduate standing, majors only, and permission of instructor. Variable enrollment, two to nine hours; maximum credit applicable toward degree, four hours. (F, Sp, Su)

COMM 5990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing and permission of instructor; May be repeated; maximum credit eight hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (F, Sp, Su)
COMM 6023 Communication Research Task Groups 3 Credit Hours Prerequisite: Graduate standing and permission of instructor; May be repeated; maximum credit 15 hours. Designed to explore numerous topics in communication study, including the development and execution of research in communication. (F, Sp, Su)

COMM 6233 Small Group Processes
3 Credit Hours
Prerequisite: graduate standing. Considers current status of small group theory and research, emphasizing leadership. Includes both the development of a tentative theory of leadership and the application of small group theory to the process of decision making. ( $F, S p$ )

COMM 6314 History and Theory of Communication 4 Credit Hours Prerequisite: 5003,5013, and 5313 or permission of instructor. Presents the evolution of communication theory from ancient rhetorical traditions to the present. Topics covered include: classical origins of communication; enlightenment contributions to theory; interdisciplinary roots of communication study; and contemporary theories of communication. (Sp)

## COMM 6323 International Communication

3 Credit Hours
Prerequisite: graduate standing or permission. An interdisciplinary survey of theory and research pertaining to issues of mass media and information and communication technologies and their interaction with culture, identity, politics, and ethics. (Irreg.)
COMM 6413 Interethnic Communication Seminar 3 Credit Hours Prerequisite: graduate standing or permission. An interdisciplinary survey of theory and research pertaining to issues of interethnic/interracial communication. Specific verbal and nonverbal communication behaviors are examined in conjunction with salient contextual factors of the macro-societal, situational, and psychological milieu surrounding the communication process. (Irreg.)
COMM 6423 Communication in Health Organizations 3 Credit Hours Prerequisite: graduate standing. Examines delivery and exchange of messages within health organizations with emphasis on conflict, bargaining, and negotiating, communication networks and environments, virtual systems of communication, etc. (Sp)

COMM 6433 Seminar in Intercultural Communication 3 Credit Hours Prerequisite: graduate standing. Studies communication across cultural boundaries with emphasis on comparative analysis of communication systems of various cultures, factors involved in predicting intercultural communication patterns and effects, and the role of communication in cultural and technological development. Special attention is given to communication problems between subcultures in American society. (Irreg.)
COMM 6453 Seminar in Social Influence

## 3 Credit Hours

Prerequisite: graduate standing. May be repeated with change of content; maximum credit six hours. Seminar on specialized topic in social influence. Content focus varies with instructor. (Sp)
COMM 6463 Media and Political Behavior 3 Credit Hours
Prerequisite: graduate standing. Examines the interplay of mediated communication and political behavior. Focuses on individual-level psychological processes that shed light on how news, political campaigns, new media, and entertainment programming may influence socialization, attitude formation, political decision-making and participation. (Irreg.)
COMM 6473 Communication and Public Opinion 3 Credit Hours Prerequisite: graduate standing. Focuses on how collective and individual opinions are formed, communicated, and deployed to make decisions. Examines different conceptions of public opinion, such as the aggregation of individual citizens' opinions, the development of shared values and beliefs, and the active negotiation of opinion in the public sphere. (Irreg.)

COMM 6483 Media and Civic Life
3 Credit Hours
Prerequisite: graduate standing. Focuses on the relationship between media and civic life, including campaigns and engagement in the electoral arena, as well as broader perspectives of life as part of the general body politic. Examines the changing news and media landscape, including the affordances and limitations of contemporary and emerging communication platforms in democratic politics. (Irreg.)
COMM 6523 Health, Culture, and Communication 3 Credit Hours
Prerequisite: graduate standing and permission of department. Examines the complex definitions and dimensions of culture and the various pathways in which culture can shape patients' illness experiences and providers' behaviors. This course focuses on three general areas: culture and health behaviors; healthcare delivery in cross-cultural contexts, and minority health. (Irreg.)
COMM 6563 Structural Equation Modeling 3 Credit Hours
Prerequisites: graduate standing and COMM 5033. Introduction to the analysis of covariance structures. Topics covered include confirmatory factor analysis, structural equation modeling, multi-group analyses, and latent means models. (Irreg.)

COMM 6573 Social Network Analysis
3 Credit Hours
Prerequisites: graduate standing and COMM 5033. Reviews theoretical, conceptual, and analytic issues associated with network perspectives on communicating and organizing. The course will review scholarship on the science of networks in communication, economics, organizational science, public health, political science, psychology, and sociology, in order to take an in-depth look at theories, methods, and tools to examine the structure and dynamics of networks. (Irreg.)
COMM 6960 Directed Readings 1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing and permission of instructor; May be repeated; maximum credit three hours for the master's degree and nine hours for the Ph.D. degree. Directed readings and/or literature review under the direction of a faculty member. (F, Sp, Su)
COMM 6970 Seminar in Communication 1-4 Credit Hours
1 to 4 hours. Prerequisite: graduate standing. May be repeated with change of content; maximum credit 15 hours. (F, Sp, Su)
COMM 6980 Research for Doctoral Dissertation 2-16 Credit Hours 2 to 16 hours. Prerequisite: Graduate standing and permission of instructor; may be repeated. Maximum credit applicable toward degree, 15 hours. Directed research culminating in the completion of the doctoral dissertation. (F, Sp, Su)
COMM 6990 Independent Study
1-4 Credit Hours
1 to 4 hours. Prerequisite: Graduate standing and permission of instructor; May be repeated; maximum credit eight hours. An individual course of intensive study with the area and problem to be determined by the student and the instructor responsible for supervising the study. $(\mathrm{F}$, $\mathrm{Sp}, \mathrm{Su}$ )

## Faculty

| Last Name | First/Middle <br> Name | Middle <br> init. | OU <br> Service <br> start | Title(s), date(s) <br> appointed | Degrees Earned, <br> Schools, Dates |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Banas | John | A | 2006 | PROFESSOR OF <br> Completed | PhD, University of |
|  |  |  |  | COMMUNICATION, | Texas Austin, 2005; |
|  |  |  |  |  | MA, University of |


| Bessarabov | Elena |  | 2011 | ADJUNCT LECTURER OF LIBERAL STUDIES, 2009; ASSOCIATE PROFESSOR OF COMMUNICATION, 2017 | PhD, University of Maryland, 2010; MA, University of Texas Austin, 2004 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Bisel | Ryan | S | 2008 | PROFESSOR OF COMMUNICATION, 2019; ADJUNCT ASSOCIATE PROFESSOR OF LIBERAL STUDIES, 2013 | PhD, University of Kansas, 2008; MA, University of Kansas, 2005 |
| Cionea | Ioana | A | 2013 | ASSOCIATE PROFESSOR OF COMMUNICATION, 2019; VICE CHAIR, INSTITUTIONAL REVIEW BOARD, 2016 | PhD, University of Maryland, 2013; MA, Northern Illinois University, 2006 |
| Edy | Jill | A | 2002 | ASSOCIATE <br> PROFESSOR OF COMMUNICATION, 2006 | PhD, Northwestern University, 1998; MA, University of Leicester, 1990 |
| Guan | Mengfei |  | 2022 | ASSISTANT PROFESSOR OF COMMUNICATION, 2022 | PhD, University of Georgia, 2018; MA, University of Alabama, 2014 |
| Johnson | Amy | J | 1999 | PROFESSOR OF COMMUNICATION, 2015 | PhD, Michigan State University, 1999; MA, Michigan State University, 1997 |
| Meeks | Lindsey | M | 2014 | ASSOCIATE <br> PROFESSOR OF COMMUNICATION, 2020 | PhD, University of Washington, 2013; MA, University of Washington, 2010 |
| Meirick | Patrick | C | 2002 | PROFESSOR OF COMMUNICATION, 2024 | PhD, University of Minnesota, 2002; MA, University of Minnesota, 1998 |
| Miller | Claude | H | 2002 | PROFESSOR OF COMMUNICATION, 2019; DIRECTOR OF GRADUATE STUDIES, 2017 | PhD, Univ of Arizona, 2000; MA, Univ of Arizona, 1986; BA, American Univ, 1978 |
| Montgomer Vestecka | -Gretchen |  | $\begin{aligned} & \text { Fall } \\ & 2020 \end{aligned}$ | ASSISTANT PROFESSOR OF COMMUNICATION | PhD, University of Kansas, 2019; MA, University of Kansas, 2015 |
| Olufowote | James |  | 2012 | ASSOCIATE <br> PROFESSOR OF COMMUNICATION, 2018; ADJUNCT ASSISTANT PROFESSOR OF INTERNATIONAL AND AREA STUDIES, 2014 | PhD, Purdue Univ, 2005; MA, Michigan State Univ, 2000; BS, Ithaca College, 1998 |
| Reedy | Justin |  | 2013 | ASSOCIATE PROFESSOR OF COMMUNICATION, 2020 | PhD, Univ of Washington, 2013; MA, Univ of Washington, 2008; BS, Georgia Inst of Tech, 2000 |
| Wong | Norman | C. H | 2007 | ASSOCIATE PROFESSOR OF COMMUNICATION, 2013 | PhD, Univ of Georgia, 2005; MA, Univ of Hawaii, 2000; BA, Univ of Hawaii, 1997 |


| Zhu $\quad$ Faguang | Fall | ASSISTANT | PhD, University of |
| :--- | :--- | :--- | :--- |
|  | 2022 | PROFESSOR OF | Georgia, 2018; MA, |
|  |  | COMMUNICATION | University of Texas |
|  |  |  | Austin, 2014 |

## Communication, B.A.

Minimum Total Credit Hours: 120
Major Hours: 36
Minimum Upper-Division Hours: 48
Overall GPA - Combined and OU: 2.00
Major GPA - Combined and OU: 2.00

## Program Code: B210

## Major Requirements

- The Department of Communication does not permit major coursework to also fulfill General Education or Dodge College of Arts and Sciences Requirements.
- COMM 2513 may be used to satisfy General Education Mathematics requirement if not used for major credit.
- COMM 2713, COMM 3023, and COMM 4713 must be completed with a grade of $C$ or better, with a maximum of two attempts per course. These courses are not available through correspondence or transfer credit.

| Code | Title | Credit Hours |
| :---: | :---: | :---: |
| Required Courses |  |  |
| COMM 1113 | Principles of Communication | 3 |
| COMM 2613 | Public Speaking | 3 |
| Choose one of the following: |  | 3 |
| COMM 2513 | Introduction to Statistics |  |
| ECON 2843 | Elements of Statistics |  |
| PSY 2003 | Understanding Statistics |  |
| SOC 3123 | Social Statistics |  |
| COMM 2713 | Communication Theory | 3 |
| COMM 3023 | Communication Research Methods | 3 |
| COMM 4713 | Issues in Communication Study ${ }^{1}$ | 3 |
| Communication Electives |  |  |
| Choose 18-21 hours, including 12-15 at the upper-division level |  | 18-21 |
| Total Credit Hours |  | 36 |
| 1 Students must complete a minimum of nine hours of upper-division COMM electives before taking COMM 4713. |  |  |

## General Education and College Requirements

Courses for fulfillment of General Education and Dodge College of Arts \& Sciences requirements must be from the approved General Education course list published in the Class Schedule or at http://www.ou.edu/ gened/courses. Courses graded P/NP will not apply.

## UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS <br> Code Title

Core Area I: Symbolic and Oral Communication

| English Composition (6 hours) | 3 |
| :--- | :--- |
| ENGL 1113 | Principles of English Composition |
| ENGL 1213 | Principles of English Composition |
| or EXPO 1213 Expository Writing |  |
| Language (0-13 hours in the same language) <br> The college requirement cannot be met by high school <br> coursework. |  |

Beginning Course 0-5
Beginning Course, continued 0-5
Intermediate Course (2000 level) ${ }^{1,2}$ 0-3

## Mathematics (3 hours)

Choose one course from the General Education Mathematics
list

Core Area II: Natural Science (7 hours, including one laboratory component)
Biological Science
Choose an approved General Education Natural Science 3-4 course with one of the following prefixes: BIOL, HES, MBIO, or PBIO ${ }^{1}$

## Physical Science

Choose an approved General Education Natural Science 3-4
course with one of the following prefixes: AGSC, ASTR, CHEM,
GEOG, GEOL, GPHY, METR, or PHYS ${ }^{1}$
Core Area III: Social Science (6 hours)
PSC 1113 American Federal Government 3
Choose one course from the General Education Social 3

## Science list

Core Area IV: Arts and Humanities (18 hours)

## Artistic Forms

Choose one course from the General Education Artistic Forms 3

## list

## Western Culture

| HIST 1483 | United States to 1865 |
| :---: | :--- |
| or HIST 1493 | United States, 1865 to the Present |

Choose one course from the General Education Western
Culture list (excluding HIST 1483/1493)

## World Culture

Choose one course from the General Education World Culture
Additional Core IV Upper-Division Arts \& Humanities courses
Choose one course from Artistic Forms, Western Culture, or

## World Culture ${ }^{1,3}$

Choose one course from Artistic Forms, Western Culture, or 3
World Culture ${ }^{1,3}$
Core Area V: First Year Experience (3 hours)
Choose one course 3
Total Credit Hours 56

[^7]${ }^{2}$ One course at the intermediate level or demonstrated competency at that level
${ }^{3} 6$ upper-division hours, 2 courses, at the 3000-4000-level. Must be outside the major.

## Free Electives

Electives to bring total applicable hours to the minimum total required for the degree including 48 upper-division hours.

## Information Concerning General Rules, Regulations and Minimum Requirements

Arts and Sciences Hours: At least 80 semester hours of liberal arts and sciences courses are required for a BA degree. At least 55 semester hours of liberal arts and sciences courses are required for a BS degree. Pass/No Pass Enrollment: A maximum of 16 semester hours of free elective credit may be attempted under this option.
Individual Studies (e.g., courses titled "Independent Study"): A maximum of 12 total semester hours may be counted toward graduation, excluding Honors Reading and Honors Research.
P.E. Courses: No physical education activity courses will be counted toward the 120 semester hours of acceptable credit for graduation. Senior Institution Hours: A minimum of 60 semester hours applied toward graduation must be earned at senior (4-year) institutions.

## Residency:

- At least 15 of the final 30 hours applied toward the degree or at least 50 percent of the hours required by the institution in the major field must be satisfactorily completed at the awarding institution.
- At least 15 semester hours of upper-division major work must be completed in residence at OU .
- OU correspondence courses are not considered resident credit.

Grade Point Averages: Students must earn a minimum over all 2.00 for each of the following: Combined Retention GPA (all college grades), OU Retention GPA, GPA for all major courses, and GPA for all major courses taken at OU. Some schools and departments of the College have higher minimum grade point averages required for their students.

## Suggested Semester Plan of Study

This plan shows one possible grouping of courses that would allow students to graduate in four years. Please refer to the front of the degree checksheet for official requirements. Students must consult with Dodge College of Arts and Sciences and/or Department of Communication academic advisors to verify that courses selected each semester fulfill the recommended plan and satisfy University, College of Arts and Sciences, and Communication major requirements.

## Freshman

First Semester Credit
Hours
COMM 1113 Principles of Communication 3
ENGL 1113 Principles of English Composition (Core I) 3
Beginning Language (Core I) 5
Natural Science without lab (Core II) 3
Social Science (Core III) 3
Credit Hours
17

## Second Semester

COMM 2513 Introduction to Statistics ${ }^{1}$

| $\begin{aligned} & \text { ENGL } 1213 \\ & \text { or EXPO } 1213 \end{aligned}$ | Principles of English Composition (Core I) or Expository Writing | 3 |
| :---: | :---: | :---: |
| Beginning Language continued (Core I) |  | 5 |
| First Year Experience (Core V) |  | 3 |
| Credit Hours |  | 14 |
| Sophomore |  |  |
| First Semester |  |  |
| COMM 2613 | Public Speaking | 3 |
| HIST 1483 or HIST 1493 | United States to 1865 (Core IV) or United States, 1865 to the Present | 3 |
| Intermediate Language |  | 3 |
| World Culture (Core IV) Social Science (Core III) |  | 3 |
| Credit Hours |  | 12 |
| Second Semester |  |  |
| COMM 2713 | Communication Theory ${ }^{2}$ | 3 |
| P SC 1113 | American Federal Government | 3 |
| Natural Science with lab (Core II) |  | 4 |
| Artistic Forms (Core IV) |  | 3 |
| Western Culture (Core IV) |  | 3 |
| Credit Hours |  | 16 |
| Junior |  |  |
| First Semester |  |  |
| COMM 3023 | Communication Research Methods ${ }^{2}$ | 3 |
| COMM Elective, lower- or upper-division |  | 3 |
| COMM Elective, lower- or upper-division |  | 3 |
| Arts \& Humanities, upper-division, outside major (Gen. Ed.) |  | 3 |
| Free Elective, upper-division (3000-4000-level) |  | 3 |
|  | Credit Hours | 15 |

## Second Semester COMM Elective, upper-division (3000-4000-level)

COMM Elective, upper-division (3000-4000-level) 3

Arts \& Humanities, upper-division, outside major (Gen. Ed.) 3
Free Elective, upper-division (3000-4000-level) 3
Free Elective, upper-division (3000-4000-level) 3

| Senior |  |
| :--- | ---: |
| First Semester |  |
| COMM Elective, upper-division (3000-4000-level) | 3 |
| COMM Elective, upper-division (3000-4000-level) | 3 |
| COMM Elective, lower- or upper-division | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Free Elective, upper-division (3000-4000-level) | 2 |
| Credit Hours | $\mathbf{1 7}$ |


| Second Semester |  |
| :--- | :--- |
| COMM $4713 \quad$ Issues in Communication Study ${ }^{2}$ | 3 |
| Free Elective, lower- or upper-division | 3 |
| Free Elective, lower- or upper-division | 3 |
| Free Elective, lower- or upper-division | 2 |


| Free Elective, upper-division (3000-4000-level) | 3 |
| :--- | ---: |
| Credit Hours | $\mathbf{1 4}$ |
| Total Credit Hours | $\mathbf{1 2 0}$ |

${ }^{1}$ COMM 2513 is included as fulfilling the General Education Math requirement. This course may not be double-counted as both General Education and major course hours.
2 COMM 2713, COMM 3023, and COMM 4713 comprise the three core Communication courses; a grade of C or better is required with a maximum of two attempts per course. These courses may not be completed through transfer credit or correspondence.

## Communication, Minor

Minimum Total Credit Hours: 21
Minimum Upper-Division Hours: 9
Program Code: N210
The requirements for a minor must be completed concurrently with the major degree requirements.

## No minor may be added by completing courses after receiving the

 bachelor's degree.At least six (6) credit hours must be earned in courses acceptable for residence credit by standards set forth by the Dodge College of Arts and Sciences, excluding transfer, correspondence, and examination (AP, CLEP, Advanced Standing) credit. Courses for the minor may not be taken Pass/ No Pass.

## No single course may be used by a student to satisfy a major requirement

 and a minor requirement. A course may be used, however, to satisfy both a major support requirement and a minor requirement.Requests to substitute a minor requirement must be approved in writing by the Department of Communication.

## Required Courses

Students must successfully complete at least 21 hours of courses acceptable for major credit in Communication, including at least nine (9) hours at the upper-division level.

${ }^{1}$ This course must be taken before the other courses for the minor.
${ }^{2}$ A grade of C or better must be earned, with a maximum of two (2) attempts allowed for this course.
. 3023 and COMM 4713 are taken, a grade of $C$ or better must for these courses.
${ }^{4}$ No more than six (6) credit hours of COMM 3810 and no more than three (3) credit hours of COMM 4990 may count toward the total required for the minor.

- Minors in the Dodge College of Arts \& Sciences are available to all undergraduate students at OU. If the minor is officially declared, successfully completed, and noted on the graduation application, the student's transcript will so indicate at the time the bachelor's degree is posted.


## Communication, M.A.

Minimum Total Hours (Thesis): 30
Minimum Total Hours (Non-Thesis): 30
Program Code: M210 Q131

## Thesis Option

Code Title

Credit Hours

## Required Courses

| COMM 5013 | Introduction to Graduate Study | 3 |
| :--- | :--- | :--- |
| COMM 5980 | Research for Master's Thesis | 4 |

Choose one of the following:

| COMM 5003 | Quantitative Research Methods |
| :--- | :--- |
| COMM 5023 | Introduction to Quantitative Research <br> Methods |
| COMM 5053 | Introduction to Qualitative Research <br> Methods |
| COMM 5313 | Qualitative Research Methods |
| Electives |  |
| Choose 20 hours from a list maintained by the department |  |
| and approved by the Graduate College. Up to 6 hours may be |  |
| courses outside of COMM. (p. 353) |  |

## Total Credit Hours

## Non-Thesis Option

| Code | Title | Credit |
| :---: | :---: | :---: |
| Required Courses |  |  |
| COMM 5013 | Introduction to Graduate Study | 3 |
| Choose one of the following: |  | 3 |
| COMM 5003 | Quantitative Research Methods |  |
| COMM 5023 | Introduction to Quantitative Research Methods |  |
| COMM 5053 | Introduction to Qualitative Research Methods |  |
| COMM 5313 | Qualitative Research Methods |  |
| Electives |  |  |
| Choose 24 hours and approved by courses outside | from a list maintained by the department he Graduate College. Up to 6 hours may be f COMM. (p. 353) | 24 |

Total Credit Hours ..... 30

## General Requirements for all Master's Degrees

The master's degree requires the equivalent of at least two semesters of satisfactory graduate work and additional work as may be prescribed for the degree.

All coursework applied to the master's degree must carry graduate credit.
Master's degree programs which require a thesis consist of at least 30 credit hours. All non-thesis master's degree programs require at least 30 credit hours.

Credit transferred from other institutions must meet specific criteria and is subject to certain limitations.

Courses completed through correspondence study may not be applied to the master's degree.

To qualify for a graduate degree, students must achieve an overall grade point average of 3.0 or higher in the degree program coursework and in all resident graduate coursework attempted. A student must also have at least a 3.0 in all coursework (including undergraduate coursework if any).

Additional information for master's degree students may be found in the Graduate College Bulletin.

## Communication Approved Graduate Electives

- For the most current list of approved electives for the M.A. program, please consult the Department of Communication.

| Code | Title | Credit <br> Hours |
| :---: | :---: | :---: |
| COMM 5003 | Quantitative Research Methods | 3 |
| COMM 5023 | Introduction to Quantitative Research Methods | 3 |
| COMM 5033 | Advanced Statistics | 3 |
| COMM 5043 | Organizational Research Practicum | 3 |
| COMM 5053 | Introduction to Qualitative Research Methods | 3 |
| COMM 5213 | Interpersonal Communication | 3 |
| COMM 5233 | Communication and Social Change | 3 |
| COMM 5253 | Cross-Cultural Communication: Theory and Research | 3 |
| COMM 5263 | Health Communication in Interpersonal Contexts | 3 |
| COMM 5313 | Qualitative Research Methods | 3 |
| COMM 5323 | Advanced Qualitative Research | 3 |
| COMM 5333 | Organizational Communication | 3 |
| COMM 5353 | Conflict Management | 3 |
| COMM 5363 | Communication and Technology | 3 |
| COMM 5373 | Communication and Leadership | 3 |
| COMM 5383 | Survey of Political Communication | 3 |
| COMM 5393 | Risk and Crisis Communication | 3 |
| COMM 5453 | Social Influence | 3 |
| COMM 5553 | Survey of Communication Campaigns | 3 |
| COMM 5810 | Special Topics in Communication | 1-4 |
| COMM 5960 | Directed Readings | 1-3 |


| COMM 5970 | Seminar | $1-3$ |
| :--- | :--- | ---: |
| COMM 5990 | Independent Study | $1-3$ |
| COMM 6023 | Communication Research Task Groups | 3 |
| COMM 6233 | Small Group Processes | 3 |
| COMM 6314 | History and Theory of Communication | 4 |
| COMM 6323 | International Communication | 3 |
| COMM 6413 | Interethnic Communication Seminar | 3 |
| COMM 6423 | Communication in Health Organizations | 3 |
| COMM 6433 | Seminar in Intercultural Communication | 3 |
| COMM 6453 | Seminar in Social Influence | 3 |
| COMM 6463 | Media and Political Behavior | 3 |
| COMM 6473 | Communication and Public Opinion | 3 |
| COMM 6483 | Media and Civic Life | 3 |
| COMM 6523 | Health, Culture, and Communication | 3 |
| COMM 6563 | Structural Equation Modeling | 3 |
| COMM 6573 | Social Network Analysis | 3 |
| COMM 6960 | Directed Readings | $1-3$ |
| COMM 6970 | Seminar in Communication | $1-4$ |
| COMM 6990 | Independent Study | $1-4$ |

## Communication: Organizational Communication, M.A.

Minimum Total Hours (Non-Thesis): 30

## Program Code: M210 Q486

- This program is Non-Thesis Only.


## Required Courses

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Core Courses |  | 3 |
| COMM 5013 | Introduction to Graduate Study | 3 |
| COMM 5043 | Organizational Research Practicum | 3 |
| COMM 5333 | Organizational Communication | 3 |
| Choose one of the following: |  |  |


| COMM 5003 | Quantitative Research Methods |
| :--- | :--- | :--- |
| COMM 5023 | Introduction to Quantitative Research <br> Methods |
| COMM 5053 | Introduction to Qualitative Research <br> Methods |
| COMM 5313 | Qualitative Research Methods |
| Electives |  |
| Choose 18 hours from a list maintained by the department |  |
| and approved by the Graduate College. (p. 353) |  |

Total Credit Hours

## General Requirements for all Master's Degrees

The master's degree requires the equivalent of at least two semesters of satisfactory graduate work and additional work as may be prescribed for the degree.

All coursework applied to the master's degree must carry graduate credit.

Master's degree programs which require a thesis consist of at least 30 credit hours. All non-thesis master's degree programs require at least 30 credit hours.

Credit transferred from other institutions must meet specific criteria and is subject to certain limitations.

Courses completed through correspondence study may not be applied to the master's degree.

To qualify for a graduate degree, students must achieve an overall grade point average of 3.0 or higher in the degree program coursework and in all resident graduate coursework attempted. A student must also have at least a 3.0 in all coursework (including undergraduate coursework if any).

Additional information for master's degree students may be found in the Graduate College Bulletin.

## Communication, Ph.D.

## Minimum Total Hours: 96

Program Code: D210

## Program Requirements

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| COMM 5003 | Quantitative Research Methods | 3 |
| COMM 5013 | Introduction to Graduate Study | 3 |
| COMM 5313 | Qualitative Research Methods | 3 |
| COMM 6023 | Communication Research Task Groups | $6-9$ |
| COMM 6314 | History and Theory of Communication | 4 |
| COMM 5033 | Advanced Statistics | 3 |
| or COMM 5323 Advanced Qualitative Research |  |  |
| COMM 6980 | Research for Doctoral Dissertation | $2-15$ |
| Up to 30 credit hours from a previous master's degree, as <br> approved by advisor and doctoral advisory committee | $0-30$ |  |
| Electives as required to reach 96 post-baccalaureate hours | $26-72$ |  |
| Total Credit Hours | 96 |  |

## General Requirements for Doctoral Degrees

A student should expect to spend at least the equivalent of three full academic years beyond the bachelor's degree to obtain the doctoral degree. During this period the student will take appropriate graduate coursework, successfully complete the general examination, and successfully defend and submit the final dissertation.

All coursework applied to the doctoral degree must carry graduate credit.
The doctoral degree requires at least 90 post-baccalaureate hours, including both formal coursework and hours of research.

The minimum hour requirement for a specific doctoral degree program cannot be waived.

No more than one-half of the credit hours, both OU and overall, excluding Research for Doctoral Dissertation (6980), may be S/U-graded coursework.

The student must be in residence at OU for at least two consecutive 16week semesters during the pursuit of the doctoral degree while enrolled and engaged in coursework or research activities as prescribed by the major academic unit.

For more detailed regulations and requirements for Doctoral degrees, please consult the Graduate College Bulletin: http://www.ou.edu/ gradcollege/forms/bulletin

## Department of Economics

Greg Burge, Chair
308 Cate Center Drive
Cate 1, Room 158
Norman, OK 73019
Phone: (405) 325-2861
FAX: (405) 325-5842
kellibroome@ou.edu
www.ou.edu/cas/economics

## General Information

An Economics major is one of the most useful in preparing students for careers in the business world as well as graduate study. The exposure to economic analysis (theoretical and empirical) makes Economics majors attractive to many job recruiters and graduate schools because of the exposure to rigorous analytical thinking.

The skills taught to Economics majors provide a solid foundation and preparation for many business occupations. Economic majors are also attractive to various branches of the Federal, State, and Local governments. These agencies offer extensive employment opportunities for undergraduate Economics majors. Economics majors are very wellsuited and prepared for advanced degrees in Economics, Business and Law. Many law school representatives believe that Economics is one of the best and most desired pre-law majors because of the analytical training and logical thinking involved in the discipline. The wide range of theoretical, analytical, and empirical courses offered ensure that our undergraduate program equips students with the skills to successfully pursue advanced degrees in Economics.

## Programs \& Facilities

## Student Journal of Economics

The Journal of Economics is an on-going student-led publication at the University of Oklahoma dedicated to developing scholarship in Economics and related fields at the undergraduate and graduate levels.

## Student Organizations

## Omicron Delta Epsilon

Both undergraduate and graduate students who have demonstrated their scholastic excellence are eligible for membership in this international economics honor society.

## OU Economics Club

The Economics Club seeks to enhance economic knowledge within the OU community through fun and relevant events. Econ Club promotes economics as a field of study to potential majors/minors, hosts events for students of all majors to see different applications of the economic perspective, and provides opportunities for those with a shared interest in economics to meet and network.

We host a weekly speaker series as well as social outings, company information sessions, an annual trip to the Dallas Federal Reserve, and more. Econ Club also gives OU students the chance to learn more about OU Economics professor's research, locate informal peer advising and tutoring, and sometimes discuss various current events as they pertain to economics.

Email economics.club@ou.edu for more information.

## Scholarships

## Alexander B. Holmes Scholarships

The Holmes scholarships are merit scholarships with the following criteria: Full-time, regularly enrolled students in the Department of Economics; any eligible deserving undergraduate student is qualified for either an initial award or a subsequent award if the student is making satisfactory progress toward graduation and has achieved a high level of academic excellence; must maintain at least a 3.0 GPA.

## Robert Dean Bass Memorial Scholarships

The Bass scholarships are merit scholarships for which undergraduate students in Economics and Political Science are eligible. Students must have a minimum 3.65 GPA , at least 40 hours completed at OU, and no more than 90 completed hours. Students must be planning on a career in government.

## Internships

The Department of Economics has an active internship program with some state agencies and other local businesses (consulting firms and utility companies). The internship program exposes students to the practical aspects of Economics. Also, some of these internships have turned into permanent positions. Students who participate in an internship may enroll in 3 hours of directed readings and receive credit, under the supervision of a professor. A research paper is required to receive credit for the internship.

## Undergraduate Study

## Programs Offered

- Economics, Bachelor of Arts (p. 360)
- Economics, Bachelor of Arts/Master of Arts (p. 363) accelerated program
- Economics, Minor (p. 362)

Students may major in economics either through the College of Arts and Sciences or the Price College of Business. Students interested in majoring in economics through the Price College of Business follow the degree plan leading to the Economics Bachelor of Business Administration (p. 871)

## Graduate Study

## Master of Arts Degree

Each candidate for the Master of Arts degree in economics can choose the econometrics track (p. 365), the applied economics track (p. 366) or the managerial economics track (p.366). The applied economics track is designed for students seeking jobs in either the private or public sectors. The first year coursework of this program coincides with the first year coursework of the Ph.D. program, so this track is also appropriate for students who might wish to purse a Ph.D. degree. The managerial economics track is designed for those students who expect to pursue a managerial career in business or government and prefer a course of study that emphasizes the applications of economics to the problems of these
areas. It is a terminal degree. Those students who have the objective of further graduate study to the doctoral level should choose the applied track of the master's program.

## Economics Doctoral Program

The doctoral program (p. 367) is designed with the goal of providing students with maximum support in the pursuit of their career objectives. This process culminates in a significant work of original research in the form of a dissertation. Having completed all requirements, students are fully qualified to pursue academic, professional, or governmental careers.

## Courses

ECON 1113 Principles of Economics-Macro 3 Credit Hours
Prerequisite: Satisfactory score on the Math placement test, or, for incoming freshmen direct from high school, satisfactory score on the ACT/SAT. The functioning and current problems of the aggregate economy. determination and analysis of national income, employment, inflation and stabilization; money and banking, monetary and fiscal policy; and aspects of international interdependence. Laboratory ( $\mathrm{F}, \mathrm{Sp}$, Su ) [III-SS].
ECON 1123 Principles of Economics-Micro 3 Credit Hours
Prerequisite: Satisfactory score on the Math placement test, or, for incoming freshmen direct from high school, satisfactory score on the ACT/SAT. Goals, incentives and allocation of resources resulting from economic behavior with applications and illustrations from current issues: operation of markets for goods, services and factors of production; the behavior of firms and industries in different types of competition and income distribution. Laboratory ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ ) [III-SS].

## ECON 2033 Your Guide to a Crazy World

3 Credit Hours
Have you ever wondered "What job is right for me?" or "Why do I do weird things?" Together, we'll explore the exciting world of economics in ways you've never imagined. From how we behave, to laws, health, cities, making a difference, politics, and much more. So, buckle up, and let's uncover the mysteries of life in our wild, wacky world! (F, Sp) [III-SS].
ECON 2843 Elements of Statistics 3 Credit Hours
Prerequisite: ALEKS math assessment score of 040 or higher, or Math Offer of MATH 1523 or higher, or completion of MATH 1503 or higher. Basic statistical techniques emphasizing business and economic applications. Topics covered include data summary techniques, elementary probability theory, estimation, hypothesis testing, simple regression, time-series and index numbers. Laboratory (F, Sp, Su) [l-M].

## ECON 2970 Special Topics

1-3 Credit Hours
Special Topics. 1 to 3 hours. May be repeated; Maximum credit nine hours. Special topics course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research, and field projects. (Irreg.)

ECON 3113 Intermediate Microeconomic Theory 3 Credit Hours Prerequisite: ECON 1113 and ECON 1123 with a grade of C or better and Mathematics 1743 or 1823 or 1914. Fundamental economic concepts and principles; value and distribution theories under conditions of competition, monopoly and monopolistic competition. Appraisal of modern problems in terms of these theories. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ ) [III-SS] .
ECON 3133 Intermediate Macroeconomic Theory 3 Credit Hours Prerequisite: a grade of C or better in ECON 1113, ECON 1123, and MATH 1743 or 1823 or 1914. National income concepts; aggregate demand by household, business, government, and foreign sectors; determination of national income, interest rate, price, output, and employment levels. (F, Sp, Su)

ECON 3213 Environmental Economics
3 Credit Hours
Prerequisite: a grade of $C$ or better in ECON 1123. Economic approach to environmental protection; analysis focuses on property rights and externalities. Examines strategies for addressing externalities including command-and-control regulation, emissions taxes, and tradable discharge permits. Topics include air pollution, water pollution, waste disposal and recycling, and endangered species protection. (Irreg.)
ECON 3440 Mentored Research Experience 3 Credit Hours
0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)
ECON 3513 Labor Problems
3 Credit Hours
Prerequisite: a grade of $C$ or better in 1113 and 1123. Problems of labor in an industrial society; wages, hours, working conditions, child labor. Conflicts between management and labor. (F)

## ECON 3523 Health Economics

3 Credit Hours
Prerequisite: ECON 1113 and ECON 1123 with a grade of C or higher. Overall view of health economics. Covers health insurance markets, externalities in health and medical care, health and labor markets, government intervention in health care provision, current health programs in the United States and models of health production. (Irreg.)
ECON 3613 International Trade Theory and Problems 3 Credit Hours Prerequisite: a grade of $C$ or better in 1113 and 1123. Benefits of trade, determination of the direction and level of trade, commercial policy and trade barriers, international trade problems and issues. (F, Sp)

ECON 3633 International Finance Theory and Problems 3 Credit Hours Prerequisite: a grade of $C$ or better in 1113 and 1123. Effects of international trade on employment, inflation, the exchange rate, effects of devaluation, types of international monetary arrangements, effects of foreign transfers, open economy macroeconomic policy. ( $\mathrm{F}, \mathrm{Sp}$ )
ECON 3713 Governmental Relations to Business 3 Credit Hours Prerequisite: a grade of C or better in ECON 1113 and ECON 1123. Analysis of economic aspects of government regulation and direction of business enterprise; controls affecting managerial discretion in the determination of prices and other basic business policies. (F, Sp, Su) [IIISS].

## ECON 3880 Directed Readings

1-3 Credit Hours
1 to 3 hours. Prerequisite: permission of instructor. May be repeated; maximum credit six hours. Readings will consist of topics designated by the instructor in keeping with student's specialization within major program. Topics will cover materials not usually presented in regular courses. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
ECON 3960 Honors Reading
1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to the Honors Program. May be repeated; maximum credit six hours. Consists of topics designated by the instructor in keeping with the student's major program. The topics will cover materials not usually presented in the regular courses. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
ECON 3970 Honors Seminar 1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. The projects covered will vary. The content deals with concepts not usually presented in regular coursework. (Sp)

ECON 3980 Honors Research
1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Provides an opportunity for the gifted Honors candidate to work at a special project in the student's field. (F, Sp, Su)
ECON 3990 Independent Study 1-3 Credit Hours
1 to 3 hours. Prerequisite: permission of instructor and junior standing. May be repeated once with change of content. Independent study may be arranged to study a subject not available through regular course offerings. (F, Sp, Su)

## ECON G4223 Econometric Analysis

3 Credit Hours
Prerequisite: a grade of $C$ or better in 1113,1123 , and 2843. Classical statistical inference; means, proportions, variances, analysis of variance and covariance; regression and correlation analysis; normal, binomial, chi-square, t, F, Poisson, exponential distributions. (F, Sp) [I-M] .

ECON G4313 Industrial Organization 3 Credit Hours
Prerequisite: ECON 1113 and ECON 1123 with a grade of C or better. Industrial organization studies the way firms interact and compete with each other. Covers pricing strategies (price discrimination, bundling and tie-in sales); product strategies (product variety, quality, advertising); and mergers and acquisitions. Can be taken for graduate credit. (Irreg.)
ECON G4353 Public Finance: Issues and Taxation 3 Credit Hours Prerequisite: a grade of $C$ or better in 1113 and 1123. Public expenditures, their nature, cause of the increase, and classification; sources of public revenue; methods of distributing the tax burdens; public debts and debt management; introduction to fiscal theory and policy. (F, Sp)
ECON G4363 Sports Economics 3 Credit Hours Prerequisite: ECON 1113 and ECON 1123 with a grade of $C$ or higher, or permission of instructor. Application of economics principles and techniques to sports-related topics and problems. (Irreg.)
ECON 4413 International Trade, Laws and Institutions 3 Credit Hours Prerequisite: a grade of C or better in ECON 3613. Explores the interface of the economics and legal professions' analysis of international trade. The class will explore some of the issues and topics of common interest from the perspective of each profession. (F)
ECON G4453 Urban Economics
3 Credit Hours
Prerequisite: ECON 3113 with a grade of $C$ or better. Study of economic models of urban location, including firm location and residential location models. Public policy topics of urban taxation, residential housing discrimination, urban renewal, etc., will also be discussed from an economic perspective. Can be taken for graduate credit. (Irreg.)

## ECON G4513 The Economics of Discrimination

3 Credit Hours
Prerequisite: a grade of $C$ or better in 1113 and 1123. This course will focus on discrimination in the labor market. Topics to be covered include wage discrimination, employment discrimination, and occupational segregation. Examples will be drawn frequently from current events and public policies. (F, Sp)
ECON G4523 Economics of Education 3 Credit Hours
Prerequisite: Sophomore standing; ECON 1123 and ECON 2843. This course will focus on policy analysis of the market for education in the United States, including production and consumption of education services. Students will discuss and critically evaluate scientific studies related to key questions in the policy debate, and will learn tools for understanding how to distinguish between correlation and causation in the world of education policy. ( $F, S p$ )

ECON G4673 Economics-Money \& Banking
3 Credit Hours
Prerequisite: ECON 3133 with a grade of $C$ or better. Introduces the role of money, banks and financial institutions in the economy. Topics include banking and financial intermediation, financial market regulation, monetary economics and economic fluctuations, and monetary policy. Can be taken for graduate credit. (F)

ECON G4733 Economic Development in the Middle East 3 Credit Hours Prerequisites: ECON 1113 and ECON 1123 with a grade of $C$ or higher; ECON 3133 and/or ECON 3633 recommended. An introduction to the existing debates on comparative economic development in the Middle East and North Africa region during the post-independence period. (Irreg.)
ECON G4773 Economic Game Theory
3 Credit Hours
Prerequisite: ECON 3113 with a grade of C or better, and Mathematics 2123 or Mathematics 2423. Develops the fundamental concept of the Nash equilibrium, advancing to refinements such as subgame perfection and Bayesian perfection. Applications include oligopoly, adverse selection in insurance markets, and moral hazard in agency. May be taken for graduate credit (Sp)
ECON G4783 Behavioral and Experimental Economics 3 Credit Hours Prerequisite: ECON 1113 , ECON 1123 and ECON 2843 with a grade of C or better. Analysis of behavioral economics models and factors using experimental approaches; investigation of where human behavior does not always fit standard economic models; experiments and theory covering game theory, market equilibrium, public choices, auctions, and bargaining. Can be taken for graduate credit. (Irreg.)
ECON 4853 World Economic Development
3 Credit Hours
(Slashlisted with 5853) Prerequisite: a grade of $C$ or better in 1113 and 1123. The economics of the developing nations; a review and analysis of common problems and issues. (Irreg.)

ECON 4960 Directed Readings
1-4 Credit Hours
1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean. May be repeated; maximum credit four hours. Designed for upper-division students who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)

ECON 4970 Special Topics/Seminar 1-3 Credit Hours
1 to 3 hours. Prerequisite: Senior standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)
ECON 4983 Economics as Social Science 3 Credit Hours
Prerequisite: a grade of C or better in 2843, 3113 and 3133 , or permission of instructor. Examination of selected topics in various subdisciplines within economics e.g., international trade and finance, econometrics, energy economics, public finance, labor economics, economic history and development, etc. [V] .

ECON 4990 Independent Study

## 1-3 Credit Hours

1 to 3 hours. Prerequisite: Senior standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)

ECON 5023 Statistics for Decision Making
3 Credit Hours
Prerequisite: admission to Master of Business Administration program or permission of instructor. Covers basic probability density functions, the parametric estimating techniques of linear multivariate regression analysis and the elements of statistical decision making under uncertainty. (F, Sp, Su)

ECON 5033 Managerial Economics I
3 Credit Hours
Prerequisite: graduate standing. Practical applications of economic theory and techniques to business problems. Topics include: demand theory and estimation; production and cost theory; empirical cost analysis; pricing practices, market structure and antitrust policy; corporate strategies for dealing with risk; long-term investment decisions with emphasis on plant size, technological change and investment requirements. ( $\mathrm{F}, \mathrm{Sp}$ )
ECON 5043 Managerial Economics II
3 Credit Hours
Prerequisite: 5033, 5073. Emphasizes current topics in several areas including: regulation, business and government, antitrust economics, the economics of intellectual capital markets, and the economics of technological change. Strategies for management will also be discussed. (Irreg.)
ECON 5073 Contemporary Economic Methods and Analysis 3 Credit Hours
A review of contemporary economic methodology and theory and their application to the analysis of macroeconomic questions and problems in the American economy. Techniques of economic forecasting will also be covered. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

ECON 5123 Advanced Price and Welfare Theory 3 Credit Hours
Prerequisite: 3113 or equivalent, senior standing or permission. An intensive study of the static and dynamic welfare and efficiency properties of the price and market system method of social organization. Topics include: theory of markets, game theory, capital theory and intertemporal equilibrium, general equilibrium and employment, welfare theory. (Sp)
ECON 5153 Mathematical Economics I
3 Credit Hours
Prerequisite: 2843, 3113, 3133. Investigation of several important models of economic activity. Emphasis on methods of analysis and interpretation involving construction of mathematical models reflecting the economic substance of these models. Implications for economic policy considered.

## ECON 5163 Advanced Macroeconomic and Growth Theory 3 Credit

## Hours

Prerequisite: 3113, 3133. Comparison of static macroeconomic systems; introduction to dynamic macroeconomic systems; post-Keynesian and modern theories of economic growth. (F)

## ECON 5173 Urban and Regional Analysis

## 3 Credit Hours

(Crosslisted with RCPL 5173) Prerequisite: Regional and City Planning 5113 or equivalent. A lecture-seminar-problems-oriented course designed to acquaint the student with the scientific techniques used to analyze urban and regional social, economic, political and environmental problems. Oriented to reflect requirements for studies leading to the preparation of goals, policies, and plans for urban and regional scale development. (Sp)

## ECON 5213 Advanced Econometrics

3 Credit Hours
Prerequisite: graduate standing. Measurement of micro- and macroeconomic relations, both static and dynamic. Comparative statics and dynamics; practical use of inference from non-experimental data. Identification and estimation problems. (Irreg.)

ECON 5223 Bayesian Econometrics
3 Credit Hours
Prerequisite: Graduate standing and permission of instructor. Bayesian inference is the process of fitting probability models to datasets, resulting in probability distributions of model parameters and other unobserved quantities. The course will emphasize estimation of regression and parametric models, model checking, evaluation and extension, and fundamentals of Markov Chain simulation. Recurring comparisons to frequentist methods will permit assessments of the strengths and weaknesses of the Bayesian approach. (Irreg.)

## ECON 5243 Econometrics II

3 Credit Hours
Prerequisite: 5213. Examines topics and techniques in applied econometric analysis. Course topics include limited dependent variables, sample selection bias, systems of equations and the use of econometric software. (Sp)
ECON 5253 Data Science for Economists 3 Credit Hours
Prerequisite: Graduate standing and ECON 4223, ECON 5213 or
ECON 5023; or permission of instructor. This class will provide an overview of the data science workflow, from collecting raw data to drawing a set of insights from which a decision maker can make informed decisions. The course will broadly cover a variety of advances in data collection, data storage, visualization, machine learning, and econometrics topics, as well as teaching and reinforcing good programming practices. (F,Sp)

## ECON 5263 Econometrics Seminar

3 Credit Hours
Prerequisite: Graduate standing; ECON 5213 and ECON 5243. This course introduces how to write a research paper that meets the standards of peer-reviewed economics journals. It emphasizes the importance of basic concepts required when a researcher submits a journal article. The main goal is to learn a set of research concepts and tools which an economics graduate student should be able to use for applied research in economics. (F, Sp)
ECON 5283 Data Visualization and Analysis with Python 3 Credit Hours Prerequisite: Graduate Standing. Students will acquire essential skills for transforming data into meaningful visualizations and performing data analysis using Python. Emphasizing the creation of clear and elegant graphs from data, students will delve into the art of exploratory data visualization. Additionally, the course covers regression analysis and fundamental classification methods, demonstrating their real-world applications through hands-on experience with real data sets. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
ECON 5293 Machine Learning with Causal Inference 3 Credit Hours Prerequisite: Graduate Standing. This course explores the convergence of machine learning and causal inference, equipping students with the necessary skills to leverage the power of machine learning while investigating causal relationships in their analyses. It encompasses core machine learning techniques such as model selection, prediction, treebased classification, and neural networks. (F, Sp, Su)
ECON 5313 Advanced Industrial Organization 3 Credit Hours Prerequisite: graduate standing. Examines the market structure, conduct and performance of various industries. Topics include: theory and empirical results regarding structure, conduct and performance; the structure of U.S. industry versus other countries; recent developments; and antitrust policy. (Irreg.)
ECON 5353 Public Finance II
3 Credit Hours
Prerequisite: 4353 or permission of instructor. Teach advanced principles of public finance. The chief topics are market failure and public goods, public choice and principles of expenditure analysis.

ECON 5453 Advanced Urban Economics 3 Credit Hours
Prerequisite: graduate standing. Study of economic models of urban location, including firm location and residential location models. Public policy topics of urban taxation, residential housing discrimination, urban renewal, etc. will also be discussed from an economic perspective. (Irreg.)
ECON 5613 International Economics-Trade
3 Credit Hours
Prerequisite: 3613 and Mathematics 1743 or permission of instructor. Causes and effects of international trade; gain from trade; theory of tariff and effective protection; economic growth and trade; intermediate products; optimal trade policies; factor market imperfections; theory of integration. (Sp)
ECON 5633 International Economics--Finance 3 Credit Hours
Prerequisite: 3613 and Mathematics 1743 or permission of instructor. Foreign exchange rates; balance of payments; alternative international monetary systems; international reserves. (F)
ECON 5853 World Economic Development 3 Credit Hours
(Slashlisted with ECON 4853) Prerequisite: graduate standing. The economics of the developing nations; a review and analysis of common problems and issues. No student may earn credit for both 4853 and 5853. (Irreg.)
ECON 5940 Research in Economic Problems 1-3 Credit Hours
1 to 3 hours. May be repeated; maximum credit six hours. (F, Sp, Su)
ECON 5960 Readings in Selected Fields of Economics 1-4 Credit Hours 1 to 4 hours. May be repeated; maximum graduate credit eight hours. The only passing grade given in this course is the neutral grade of $S$. Directed readings under staff supervision for advanced students. A comprehensive report or examination is required. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

ECON 5970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)
ECON 5980 Research for Master's Thesis
2-9 Credit Hours
Variable enrollment, two to nine hours; maximum credit applicable toward degree, four hours. (F, Sp, Su)
ECON 5990 Special Studies
1-3 Credit Hours
1 to 3 hours. May be repeated with change of topic; maximum credit twelve hours. Advanced studies in various areas of economics. Given under stated titles determined each semester by the instructor involved. (F, Sp)
ECON 6213 Seminar in Price and Welfare Theory 3 Credit Hours
Prerequisite: 5123 or equivalent, graduate standing. Current theoretical issues and research developments are explored. Attention is given to externalities, social welfare functions, market and nonmarket choice mechanisms, capital theory and analysis of intertemporal adjustments, general equilibrium under dynamic growth conditions. (F)

ECON 6313 Seminar in Macro and Growth Theory 3 Credit Hours Prerequisite: 5163. Detailed analysis of static and dynamic macroeconomic systems; macrostatic and macrodynamic policy issue. (Irreg.)
ECON 6333 Seminar in Industrial Organization 3 Credit Hours Prerequisite: graduate standing or permission of instructor. Survey of recent industrial organization, public utility and regulation literature.

ECON 6343 Econometrics III
3 Credit Hours
Prerequisite: 5243. Topics and techniques in advanced econometric methods including time-series analysis and/or panel data analysis. May include applications in time-series econometrics such as ARMA models and VAR techniques; and applications in panel data econometrids including fixed effects, random effects and dynamic models. (F)

ECON 6433 Labor Economics I
3 Credit Hours
Prerequisite: Graduate standing. This course is the first of a twocourse sequence. Students will learn current research and theory at the frontier of labor economics. The basics of labor supply, demand, and equilibrium to build a basic theoretical foundation for research in labor economics will be covered. Field topics including immigration, education, discrimination, and marijuana legalization will be introduced. (Irreg.)

## ECON 6533 Labor Economics II

3 Credit Hours
Prerequisite: Graduate standing and ECON 6433. This course is the second of the two-course sequence. Students will learn about traditional and contemporary topics in labor economics and will be encouraged to develop independent research interests. The course will emphasize the importance of research design for the identification of casual effects, as well as writing an academic research paper suitable for economics journal publication. (Irreg.)

## ECON 6653 Seminar in Growth

## 3 Credit Hours

Prerequisite: graduate standing and permission of instructor.
Endogenous growth theory, recent work on growth success and failures, regime switching models of growth, the effects of crises on long run performance, and the role of the IMF and World bank in development. Other topics may include financial crises, corruption, etc. (Irreg.)
ECON 6693 Seminar in Economic Development 3 Credit Hours Problems of economic development with special emphasis on the developing nations. Theoretical as well as policy issues concerning the process of economic development are examined. (Irreg.)
ECON 6773 Seminar in Public Economics 3 Credit Hours
Prerequisite: 5313 or permission of instructor. Survey of recent literature in the economics of public finance. Recent theoretical and empirical research will be examined. (Irreg.)

ECON 6960 Directed Readings 1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit six hours. Directed readings and/or literature review under the direction of a faculty member. (Irreg.)

ECON 6970 Special Topics/Seminar 1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit 12 hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or research and field projects. (Irreg.)
ECON 6980 Research for Doctoral Dissertation 2-16 Credit Hours 2 to 16 hours. Prerequisite: Graduate standing; may be repeated. Directed research culminating in the completion of the doctoral dissertation. (F, Sp, Su)

ECON 6990 Independent Study 1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)

## Faculty

| Last Name | First/Middle <br> Name | Middle init. | OU <br> Service start | Title(s), date(s) appointed | Degrees Earned, Schools, Dates Completed |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Burge | Gregory | S | 2006 | Department Chair, <br> Professor of Economics | PhD, Florida State Univ, 2005; BA, Florida State Univ, 2000 |
| Demir | Firat |  | 2006 | Professor of Economics, Director of Graduate Studies | PhD, Univ of Notre Dame, 2006; MA, Univ of Notre Dame, 2002; BA, Bogazici Univ, 1999 |
| Ghosh | Pallab | K | 2014 | Associate Professor of Economics | PhD, Syracuse Univ, 2007; MS, Indian Stat Inst, 2005; BS, Univ of Calcutta, 2004 |
| Hamory | Joan | R | 2018 | Associate Professor of Economics | PhD, Univ of California Berkeley, 2009; BA, Tufts Univ, 2002 |
| Holmes | Alexander | B | 1974 | Regents Professor of Economics | PhD, SUNY at Binghamton, 1974; MA, Univ of Kansas, 1972; BA, Univ of Kansas, 1970 |
| Johnson | Samantha |  | 2021 | Lecturer of Economics | Ph.D., Washington State University, 2021 |
| Keen | Benjamin | D | 2005 | Associate Professor of Economics | PhD, Univ of Virginia, 2002; MA, Miami Univ, 1994; BS, Miami Univ, 1993 |
| Kekec | Ibrahim |  | 2023 | Lecturer of Economics | Ph.D., Michigan State University, 2021 |
| Kim | Myongjin |  | 2013 | Associate Professor of Economics | PhD, Boston Univ, 2013; BA, Hankuk Univ of Foreign Studies, 2003 |
| Kosmopoulo | Georgia |  | 1997 | Professor of Economics, Associate Dean for Research, College of Arts and Sciences Edith Kinney Gaylord Presidential Professor of Economics | PhD, Univ of Illinois, 1996; MS, Univ of Illinois, 1992; BA, Univ of Piraeus, 1989 |
| Liu | Qihong |  | 2005 | Professor of Economics | PhD, SUNY at Stony Brook, 2003; MS, China Univ of Mining \& Tech, 1997; BS, Anhui Polytechnic Univ, 1994 |
| Liu | Judith |  | 2022 | Assistant Professor of Economics | Ph.D., Syracuse University, 2019 |
| Malloy | Chris |  | 2023 | Assistant Professor of Economics | Ph.D., University of California Santa Barbara, 2023 |
| Nedelescu | Daniel |  | 2018 | Assistant Professor of Economics | PhD, Purdue Univ, 2013 |
| Norwood | Brent |  | 2021 | Lecturer of Economics | Ph.D., University of Oklahoma, 2020 |
| Paudel | Jayash |  | 2022 | Assistant Professor of Economics | Ph.D., University of Massachusetts Amherst, 2019 |

Ransom Tyler 2017 Associate Professor PhD, Duke Univ, 2015;

|  |  |  | of Economics | MA, Duke Univ, 2010; BA, Brigham Young Univ, 2009 |
| :---: | :---: | :---: | :---: | :---: |
| Rogers | Cynthia | 1997 | Professor of Economics | PhD, Univ of Pittsburgh, 1994; BA, Kent State Univ, 1986 |
| Shen | Hewei | 2018 | Assistant Professor of Economics | PhD, Ohio State, 1998; MS, Tsinghua Univ, 1988; BE, Beijing Univ of Science \& Tech, 1985 |
| Yang | Mu-Jeung | 2021 | Assistant Professor of Economics | Ph.D., University of California, Berkeley, 2012 |

## Economics, B.A.

Minimum Total Credit Hours: 120
Minimum Upper-Division Hours: 48
Overall GPA - Combined and OU: 2.00
Major GPA - Combined and OU: 2.00
Program Code: B300

- Grades of $C$ or better must be earned in each course in the major requirements and major support requirements.


## Major Requirements

- Some courses required for the major may also fulfill University General Education and/or Dodge College of Arts \& Sciences Requirements.

| Code | Title | Credit <br> Hours |
| :---: | :---: | :---: |
| Economics |  |  |
| ECON 1113 | Principles of Economics-Macro | 3 |
| ECON 1123 | Principles of Economics-Micro | 3 |
| ECON 2843 | Elements of Statistics | 3 |
| ECON 3113 | Intermediate Microeconomic Theory | 3 |
| ECON 3133 | Intermediate Macroeconomic Theory | 3 |
| Choose 15 hours above ${ }^{1}$ | of Economics courses at the 3000-level or | 15 |
| Total Credit Hours |  | 30 |
| ${ }^{1}$ FIN 3403 may be used as a major elective and counted as major credit in Economics. |  |  |

## Major Support Requirements

| Code | Title | Credit <br> Hours |
| :---: | :--- | ---: |
| MATH 1743 | Calculus I for Business, Life and Social <br> Sciences ${ }^{1}$ | 3 |
| or MATH 1823 | Calculus and Analytic Geometry I |  |
| MATH 2123 | Calculus II for Business, Life and Social <br> Sciences ${ }^{1}$ | 3 |

or MATH 2423 Calculus and Analytic Geometry II
Total Credit Hours
${ }^{1}$ May also substitute MATH 1914 and MATH 2924 to fulfill calculus requirements.

## General Education and College Requirements

Courses for fulfillment of General Education and Dodge College of Arts \& Sciences requirements must be from the approved General Education course list published in the Class Schedule or at http://www.ou.edu/ gened/courses. Courses graded P/NP will not apply.

## UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS

## Code Title

Core Area I: Symbolic and Oral Communication

| English Composition (6 hours) |  |  |
| :--- | :--- | :--- |
| ENGL 1113 | Principles of English Composition | 3 |
| ENGL 1213 | Principles of English Composition | 3 |

$$
\text { or EXPO } 1213 \text { Expository Writing }
$$

Language (0-13 hours in the same language)
The college requirement cannot be met by high school
coursework.

Beginning Course 0-5
$\begin{array}{ll}\text { Beginning Course, continued } & 0-5\end{array}$
$\begin{array}{ll}\text { Intermediate Course (2000 level) }^{1,2} & 0-3\end{array}$

## Mathematics (3 hours)

Choose one course from the General Education Mathematics

## list

Core Area II: Natural Science (7 hours, including one laboratory component)

## Biological Science

Choose an approved General Education Natural Science

## course with one of the following prefixes: BIOL, HES, MBIO, or

 PBIO ${ }^{1}$Physical Science
Choose an approved General Education Natural Science
course with one of the following prefixes: AGSC, ASTR, CHEM,
GEOG, GEOL, GPHY, METR, or PHYS ${ }^{1}$
Core Area III: Social Science (6 hours)
P SC 1113 American Federal Government 3

Choose one course from the General Education Social 3

## Science list

Core Area IV: Arts and Humanities (18 hours)

## Artistic Forms

Choose one course from the General Education Artistic Forms
list
Western Culture
HIST $1483 \quad$ United States to 1865
or HIST 1493 United States, 1865 to the Present
Choose one course from the General Education Western
Culture list (excluding HIST 1483/1493)

## World Culture

Choose one course from the General Education World Culture 3 list
Additional Core IV Upper-Division Arts \& Humanities courses
Choose one course from Artistic Forms, Western Culture, or

## World Culture ${ }^{1,3}$

Choose one course from Artistic Forms, Western Culture, or 3
World Culture ${ }^{1,3}$
Core Area V: First Year Experience (3 hours)
Choose one course 3

Total Credit Hours 56
${ }^{1}$ College of Arts and Sciences Requirements: college requirements are not automatically fulfilled by a previous degree.
2 One course at the intermediate level or demonstrated competency at that level
${ }^{3} 6$ upper-division hours, 2 courses, at the 3000-4000-level. Must be outside the major.

## Free Electives

Electives to bring total applicable hours to the minimum total required for the degree including 48 upper-division hours.

## Information Concerning General Rules, Regulations and Minimum Requirements

Arts and Sciences Hours: At least 80 semester hours of liberal arts and sciences courses are required for a BA degree. At least 55 semester hours of liberal arts and sciences courses are required for a BS degree. Pass/No Pass Enrollment: A maximum of 16 semester hours of free elective credit may be attempted under this option.
Individual Studies (e.g., courses titled "Independent Study"): A maximum of 12 total semester hours may be counted toward graduation, excluding Honors Reading and Honors Research.
P.E. Courses: No physical education activity courses will be counted toward the 120 semester hours of acceptable credit for graduation. Senior Institution Hours: A minimum of 60 semester hours applied toward graduation must be earned at senior (4-year) institutions.

## Residency:

- At least 15 of the final 30 hours applied toward the degree or at least 50 percent of the hours required by the institution in the major field must be satisfactorily completed at the awarding institution.
- At least 15 semester hours of upper-division major work must be completed in residence at OU.
- OU correspondence courses are not considered resident credit.

Grade Point Averages: Students must earn a minimum over all 2.00 for each of the following: Combined Retention GPA (all college grades), OU Retention GPA, GPA for all major courses, and GPA for all major courses taken at OU. Some schools and departments of the College have higher minimum grade point averages required for their students.

## Suggested Semester Plan of Study

This plan shows one possible grouping of courses that would allow students to graduate in four years. Please refer to the front of the degree checksheet for official requirements. Students must consult with Dodge College of Arts and Sciences and/or Department of Economics academic advisors to verify that courses selected each semester fulfill
the recommended plan and satisfy University, College of Arts and Sciences, and Economics major requirements.

## Freshman

| First Semester |  | Credit |
| :---: | :---: | :---: |
| ECON 1113 | Principles of Economics-Macro | 3 |
| ENGL 1113 | Principles of English Composition (Core I) | 3 |
| MATH 1743 or MATH 1823 | Calculus I for Business, Life and Social Sciences (Core I) <br> or Calculus and Analytic Geometry I | 3 |
| General Education | Western Culture (Core IV) | 3 |
| General Education | First Year Experience (Core V) | 3 |
|  | Credit Hours | 15 |
| Second Semester |  |  |
| ECON 1123 | Principles of Economics-Micro | 3 |
| $\begin{aligned} & \text { ENGL } 1213 \\ & \text { or EXPO } 1213 \end{aligned}$ | Principles of English Composition (Core I) or Expository Writing | 3 |
| $\begin{aligned} & \text { HIST } 1483 \\ & \text { or HIST } 1493 \end{aligned}$ | United States to 1865 (Core IV) or United States, 1865 to the Present | 3 |
| MATH 2123 or MATH 2423 | Calculus II for Business, Life and Social Sciences or Calculus and Analytic Geometry II | 3 |


| General Education Artistic Forms (Core IV) | 3 |
| :---: | ---: |
| Credit Hours | 15 |

## Sophomore

## First Semester

| ECON $2843 \quad$ Elements of Statistics | 3 |
| :--- | ---: |
| Beginning Language (Core I) | 5 |
| General Education Natural Science with Lab (Core II) | 4 |
| Free Elective, lower-division | 3 |
| Credit Hours | $\mathbf{1 5}$ |


| Second Semester |  |  |
| :--- | ---: | ---: |
| ECON 3113 | Intermediate Microeconomic Theory | 3 |
| P SC 1113 $\quad$ American Federal Government | 3 |  |
| Beginning Language continued (Core I) | 5 |  |
| General Education Natural Science without lab (Core II) | 3 |  |
| Free Elective, lower-division | 2 |  |
| Credit Hours |  |  |


| Junior |  |
| :--- | ---: |
| First Semester |  |
| ECON $3133 \quad$ Intermediate Macroeconomic Theory | 3 |
| General Education Arts \& Humanities (Core IV), upper-division <br> and outside major | 3 |
| Intermediate Language | 3 |
| Free Elective, lower- or upper-division | 3 |
| Free Elective, upper-division (3000-4000 level) | 3 |
| $\quad$ Credit Hours | $\mathbf{1 5}$ |

## Second Semester

| ECON Major Elective, upper-division (3000-4000 level) | 3 |
| :--- | :---: |
| ECON Major Elective, upper-division (3000-4000 level) | 3 |
| Free Elective, upper-division (3000-4000 level) | 3 |
| Free Elective, upper-division (3000-4000 level) | 3 |


| Free Elective, upper-division (3000-4000 level) | 3 |
| :---: | :---: |
| Credit Hours | 15 |
| Senior |  |
| First Semester |  |
| ECON Major Elective, upper-division (3000-4000 level) | 3 |
| General Education Arts \& Humanities (Core IV), upper-division and outside major | 3 |
| Free Elective, upper-division (3000-4000 level) | 3 |
| Free Elective, upper-division (3000-4000 level) | 3 |
| Free Elective, upper-division (3000-4000 level) | 3 |
| Credit Hours | 15 |
| Second Semester |  |
| ECON Major Elective, upper-division (3000-4000 level) | 3 |
| ECON Major Elective, upper-division (3000-4000 level) | 3 |
| General Education World Culture (Core IV) | 3 |
| Free Elective, lower- or upper-division | 3 |
| Free Elective, lower- or upper-division | 2 |
| Credit Hours | 14 |
| Total Credit Hours | 120 |

## Economics, Minor

Minimum Total Credit Hours: 15
Minimum Upper-Division Hours: 9
Program Code: N300
The requirements for a minor must be completed concurrently with the major degree requirements.

No minor may be added by completing courses after receiving the bachelor's degree.

At least six (6) credit hours must be earned in courses acceptable for residence credit by standards set forth by the Dodge College of Arts and Sciences, excluding transfer, correspondence, and examination (AP, CLEP, Advanced Standing) credit. Courses for the minor may not be taken Pass/ No Pass.

No single course may be used by a student to satisfy a major requirement and a minor requirement. A course may be used, however, to satisfy both a major support requirement and a minor requirement.

Requests to substitute a minor requirement must be approved in writing by the Department of Economics.

## Required Courses

Students must successfully complete at least 15 hours of courses acceptable for major credit in Economics, including at least nine (9) hours at the upper-division level.

A grade of $C$ or better must be earned in each course counted for minor credit.

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| ECON 1113 | Principles of Economics-Macro | 3 |
| ECON 1123 | Principles of Economics-Micro | 3 |
| ECON 3113 | Intermediate Microeconomic Theory | 3 |

or ECON 3133 Intermediate Macroeconomic Theory
Choose 6 additional hours of courses acceptable for major
6 credit in Economics

## Total Credit Hours

- Minors in the Dodge College of Arts \& Sciences are available to all undergraduate students at OU. If the minor is officially declared, successfully completed, and noted on the graduation application, the student's transcript will so indicate at the time the bachelor's degree is posted.


## Economics, B.A./M.A.

Minimum Total Credit Hours: 140
Minimum Upper-Division Hours: 48

Overall GPA - Combined and OU: 3.00
Major GPA - Combined and OU: 3.00
Program Code: A300/F300 Q431

- Grades of $C$ or better must be earned in each course in the major requirements and major support requirements.


## UNDERGRADUATE REQUIREMENTS

- Some courses required for the major may also fulfill University General Education and/or Dodge College of Arts \& Sciences Requirements.


## Major Requirements

| Code | Title | Credit |
| :---: | :---: | :---: |
| ECON 1113 | Principles of Economics-Macro | 3 |
| ECON 1123 | Principles of Economics-Micro | 3 |
| ECON 2843 | Elements of Statistics | 3 |
| ECON 3113 | Intermediate Microeconomic Theory | 3 |
| ECON 3133 | Intermediate Macroeconomic Theory | 3 |
| Economics Electives |  |  |
| Chose four courses (12 hours) from the Accelerated Economics Electives course list ( 9 hours shared with Graduate Component) (p. 363) |  | 12 |
| Research Component ${ }^{1}$ |  |  |
| Choose one of the following (hours shared with Graduate component): |  | 2-3 |
| ECON 5940 | Research in Economic Problems |  |
| A course includ Graduate Ad | ding a research paper to be submitted to sor |  |

## Total Credit Hours

1 The combined BA/MA requires 11-12 hours of work shared between the Undergraduate and Graduate degrees so that students have a total of at least 30 hours in their undergraduate major work, and at least 32 hours of graduate work to apply towards the MA. If only 2 hours of ECON 5940 are taken, or if not all 9 hours of Economics electives are shared, additional graduate-level ECON electives not listed on this check sheet may be required to reach the minimum degree totals.

Shared courses will count in both the Undergraduate and Graduate GPAs.

## Major Support Requirements



## GRADUATE REQUIREMENTS



| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| ECON 4223 | Econometric Analysis | 3 |
| ECON 4353 | Public Finance: Issues and Taxation | 3 |
| ECON 4513 | The Economics of Discrimination | 3 |
| ECON 5123 | Advanced Price and Welfare Theory | 3 |
| ECON 5153 | Mathematical Economics I | 3 |
| ECON 5173 | Urban and Regional Analysis | 3 |
| ECON 5213 | Advanced Econometrics | 3 |
| ECON 5243 | Econometrics II | 3 |
| ECON 5313 | Advanced Industrial Organization | 3 |
| ECON 5853 | World Economic Development | 3 |

## General Education and College Requirements

Courses for fulfillment of General Education and Dodge College of Arts \& Sciences requirements must be from the approved General Education
course list published in the Class Schedule or at http://www.ou.edu/ gened/courses. Courses graded P/NP will not apply.

## UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS

| Code Title | Credit <br> Hours |
| :---: | :---: |
| Core Area I: Symbolic and Oral Communication |  |
| English Composition (6 hours) |  |
| ENGL 1113 Principles of English Composition | 3 |
| $\begin{array}{cl}\text { ENGL } 1213 & \text { Principles of English Composition } \\ \text { or EXPO } 1213 & \text { Expository Writing }\end{array}$ | 3 |
| Language (0-13 hours in the same language) |  |
| The college requirement cannot be met by high school coursework. |  |
| Beginning Course | 0-5 |
| Beginning Course, continued | 0-5 |
| Intermediate Course (2000 level) ${ }^{1,2}$ | 0-3 |
| Mathematics (3 hours) |  |
| Choose one course from the General Education Mathematics list | 3 |
| Core Area II: Natural Science (7 hours, including one laboratory component) |  |
| Biological Science |  |
| Choose an approved General Education Natural Science course with one of the following prefixes: BIOL, HES, MBIO, or PBIO ${ }^{1}$ | 3-4 |
| Physical Science |  |
| Choose an approved General Education Natural Science course with one of the following prefixes: AGSC, ASTR, CHEM, GEOG, GEOL, GPHY, METR, or PHYS ${ }^{1}$ | 3-4 |
| Core Area III: Social Science (6 hours) |  |
| P SC 1113 American Federal Government | 3 |
| Choose one course from the General Education Social Science list | 3 |

Core Area IV: Arts and Humanities (18 hours)

## Artistic Forms

Choose one course from the General Education Artistic Forms 3
list

Western Culture
HIST 1483 United States to 1865
or HIST 1493 United States, 1865 to the Present
Choose one course from the General Education Western
Culture list (excluding HIST 1483/1493)
World Culture
Choose one course from the General Education World Culture
list
Additional Core IV Upper-Division Arts \& Humanities courses
Choose one course from Artistic Forms, Western Culture, or 3
World Culture ${ }^{1,3}$

Choose one course from Artistic Forms, Western Culture, or 3

## World Culture ${ }^{1,3}$

Core Area V: First Year Experience (3 hours)
Choose one course
Total Credit Hours

1 College of Arts and Sciences Requirements: college requirements are not automatically fulfilled by a previous degree.
2 One course at the intermediate level or demonstrated competency at that level
${ }^{3} 6$ upper-division hours, 2 courses, at the 3000-4000-level. Must be outside the major.

## Free Electives

Electives to bring total applicable hours to the minimum total required for the degree including 48 upper-division hours.

## Information Concerning General Rules, Regulations and Minimum Requirements

Arts and Sciences Hours: At least 80 semester hours of liberal arts and sciences courses are required for a BA degree. At least 55 semester hours of liberal arts and sciences courses are required for a BS degree. Pass/No Pass Enrollment: A maximum of 16 semester hours of free elective credit may be attempted under this option.
Individual Studies (e.g., courses titled "Independent Study"): A maximum of 12 total semester hours may be counted toward graduation, excluding Honors Reading and Honors Research.
P.E. Courses: No physical education activity courses will be counted toward the 120 semester hours of acceptable credit for graduation. Senior Institution Hours: A minimum of 60 semester hours applied toward graduation must be earned at senior (4-year) institutions.
Residency:

- At least 15 of the final 30 hours applied toward the degree or at least 50 percent of the hours required by the institution in the major field must be satisfactorily completed at the awarding institution.
- At least 15 semester hours of upper-division major work must be completed in residence at OU.
- OU correspondence courses are not considered resident credit.

Grade Point Averages: Students must earn a minimum over all 2.00 for each of the following: Combined Retention GPA (all college grades), OU Retention GPA, GPA for all major courses, and GPA for all major courses taken at OU. Some schools and departments of the College have higher minimum grade point averages required for their students.

## Suggested Semester Plan of Study

This plan shows one possible grouping of courses that would allow students to graduate in four years. Please refer to the front of the degree checksheet for official requirements. Students must consult with Dodge College of Arts and Sciences and/or Department of Economics academic advisors to verify that courses selected each semester fulfill the recommended plan and satisfy University, College of Arts and Sciences, and Economics major requirements.

## Freshman

First Semester Credit Hours
ECON 1113 Principles of Economics-Macro 3
ENGL 1113 Principles of English Composition (Core I) 3
Math Major Support (Core I Math) 3
General Education Western Culture (Core IV) 3

| General Education First Year Experience (Core V) |  | 3 |
| :---: | :---: | :---: |
|  | Credit Hours | 15 |
| Second Semester |  |  |
| ECON 1123 | Principles of Economics-Micro | 3 |
| ENGL 1213 or EXPO 1213 | Principles of English Composition (Core I) or Expository Writing | 3 |
| HIST 1483 or HIST 1493 | United States to 1865 (Core IV) or United States, 1865 to the Present | 3 |
| Math Major Support |  | 3 |
| General Education Artistic Forms (Core IV) |  | 3 |
|  | Credit Hours | 15 |
| Sophomore |  |  |
| First Semester |  |  |
| ECON 2843 | Elements of Statistics | 3 |
| Beginning Language (Core I) |  | 5 |
| General Education Natural Science with Lab (Core II) |  | 4 |
| Free Elective, lower-division |  | 3 |
|  | Credit Hours | 15 |
| Second Semester |  |  |
| ECON 3113 | Intermediate Microeconomic Theory | 3 |
| P SC 1113 | American Federal Government | 3 |
| Beginning Language continued (Core I) |  | 5 |
| General Education Natural Science without lab (Core II) |  | 3 |
| Free Elective, lower-division |  | 2 |
|  | Credit Hours | 16 |
| Junior |  |  |
| First Semester |  |  |
| ECON 3133 | Intermediate Macroeconomic Theory | 3 |
| General Education Arts \& Humanities (Core IV), upper-division and outside major |  | 3 |
| Intermediate Language |  | 3 |
| Free Elective, lower- or upper-division |  | 3 |
| Free Elective, lower- or upper-division |  | 2 |
| Free Elective, upper-division (3000-4000 level) |  | 1 |
| Credit Hours |  | 15 |
| Second Semester |  |  |
| ECON Elective, (3000-4000 level) |  | 3 |
| Free Elective, lower- or upper-division |  | 3 |
| Free Elective, upper-division (3000-4000 level) |  | 3 |
| Free Elective, upper-division (3000-4000 level) |  | 3 |
| Free Elective, upper-division (3000-4000 level) |  | 3 |
| Credit Hours |  | 15 |
| Senior |  |  |
| First Semester |  |  |
| ECON 5033 | Managerial Economics I | 3 |
| Shared ECON Elective, (4000-5000 level, with graduate credit) |  | 3 |
| General Education Arts \& Humanities (Core IV), upper-division and outside major |  | 3 |
| Free Elective, upper-division (3000-4000 level) |  | 3 |
| Free Elective, upper-division (3000-4000 level) |  | 3 |
|  | Credit Hours | 15 |


| Second Semester |  |
| :--- | ---: |
| ECON $5023 \quad$ Statistics for Decision Making | 3 |
| Shared ECON Elective, (4000-5000 level, with graduate credit) | 3 |
| General Education World Culture (Core IV) | 3 |
| Free Elective, upper-division (3000-4000 level) | 3 |
| Free Elective, upper-division (3000-4000 level) | $\mathbf{2}$ |
| Credit Hours | $\mathbf{1 4}$ |

Fifth Year
First Semester
ECON 5043 Managerial Economics II 3
ECON 5940 Research in Economic Problems 2
Shared ECON Elective, (4000-5000 level, with graduate credit) 3

| Graduate Elective (5000-6000 level) | 3 |
| :---: | ---: |
| Credit Hours | $\mathbf{1 1}$ |

Second Semester
Graduate Elective (5000-6000 level) 3
Graduate Elective (5000-6000 level) 3
Graduate Elective (5000-6000 level) 3

| Credit Hours | 9 |
| :--- | ---: |
| Total Credit Hours | 140 |

1 ECON 5940 is shared between the undergraduate and graduate degrees.

## Econometrics, M.A.

Minimum Total Hours (Non-Thesis): 30
Program Code: M297
Major Requirements

| Code | Title | Credit Hours |
| :---: | :---: | :---: |
| Required Courses |  |  |
| ECON 5153 | Mathematical Economics I | 3 |
| ECON 5213 | Advanced Econometrics | 3 |
| ECON 5283 | Data Visualization and Analysis with Python | 3 |
| ECON 5293 | Machine Learning with Causal Inference | 3 |
| Major Electives |  |  |
| Students will maintained from the dep approved by | ose 18 hours of ECON electives from a list academic unit or seek additional approval ent for a course outside of ECON and raduate College. (p. 366) | 18 |

Total Credit Hours
30

## General Requirements for all Master's Degrees

The master's degree requires the equivalent of at least two semesters of satisfactory graduate work and additional work as may be prescribed for the degree.

All coursework applied to the master's degree must carry graduate credit.

Master's degree programs which require a thesis consist of at least 30 credit hours. All non-thesis master's degree programs require at least 30 credit hours.

Credit transferred from other institutions must meet specific criteria and is subject to certain limitations.

Courses completed through correspondence study may not be applied to the master's degree.

To qualify for a graduate degree, students must achieve an overall grade point average of 3.0 or higher in the degree program coursework and in all resident graduate coursework attempted. A student must also have at least a 3.0 in all coursework (including undergraduate coursework if any).

Additional information for master's degree students may be found in the Graduate College Bulletin.

## Econometrics, M.A. Approved Electives

- For the most current list of approved electives, please consult the Department of Economics.

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| ECON 5243 | Econometrics II | 3 |
| ECON 5253 | Data Science for Economists | 3 |
| ECON 6343 | Econometrics III | 3 |
| ECON 6433 | Labor Economics I | 3 |
| ECON 6653 | Seminar in Growth | 3 |
| ECON 6773 | Seminar in Public Economics | 3 |

## Economics: Applied Economics, M.A.

Minimum Total Hours (Non-Thesis): 32
Program Code: M300 Q036

- This program is Non-Thesis Only.


## Required Courses



## General Requirements for all Master's Degrees

The master's degree requires the equivalent of at least two semesters of satisfactory graduate work and additional work as may be prescribed for the degree.

All coursework applied to the master's degree must carry graduate credit.
Master's degree programs which require a thesis consist of at least 30 credit hours. All non-thesis master's degree programs require at least 30 credit hours.

Credit transferred from other institutions must meet specific criteria and is subject to certain limitations.

Courses completed through correspondence study may not be applied to the master's degree.

To qualify for a graduate degree, students must achieve an overall grade point average of 3.0 or higher in the degree program coursework and in all resident graduate coursework attempted. A student must also have at least a 3.0 in all coursework (including undergraduate coursework if any).

Additional information for master's degree students may be found in the Graduate College Bulletin.

## Economics: Managerial Economics, M.A.

## Minimum Total Hours (Non-Thesis): 32

Program Code: M300 Q431

- This program is Non-Thesis Only.


## Required Courses



All coursework applied to the master's degree must carry graduate credit.
Master's degree programs which require a thesis consist of at least 30 credit hours. All non-thesis master's degree programs require at least 30 credit hours.

Credit transferred from other institutions must meet specific criteria and is subject to certain limitations.

Courses completed through correspondence study may not be applied to the master's degree.

To qualify for a graduate degree, students must achieve an overall grade point average of 3.0 or higher in the degree program coursework and in all resident graduate coursework attempted. A student must also have at least a 3.0 in all coursework (including undergraduate coursework if any).

Additional information for master's degree students may be found in the Graduate College Bulletin.

## Economics, Ph.D.

Minimum Total Hours: 90
Program Code: D300

## Program Requirements

| Code | Title | Credit Hours |
| :---: | :---: | :---: |
| Required Courses (27 Hours) |  |  |
| ECON 5153 | Mathematical Economics I | 3 |
| ECON 5123 | Advanced Price and Welfare Theory | 3 |
| ECON 5163 | Advanced Macroeconomic and Growth Theory | 3 |
| ECON 6313 | Seminar in Macro and Growth Theory | 3 |
| ECON 6213 | Seminar in Price and Welfare Theory | 3 |
| ECON 5213 | Advanced Econometrics | 3 |
| ECON 5243 | Econometrics II | 3 |
| ECON 6343 | Econometrics III | 3 |
| ECON 5960 | Readings in Selected Fields of Economics (3 hours) | 3 |
| Field Coursework (12 hours) |  |  |
| 2 courses requir | in 2 of the following fields: | 12 |
| Development Economics |  |  |
| ECON 6653 | Seminar in Growth |  |
| ECON 6693 | Seminar in Economic Development |  |
| Industrial Organization |  |  |
| ECON 5313 | Advanced Industrial Organization |  |
| ECON 6333 | Seminar in Industrial Organization |  |
| International Economics |  |  |
| ECON 5613 | International Economics-Trade |  |
| ECON 5633 | International Economics--Finance |  |
| Public Economics |  |  |
| ECON 5353 | Public Finance II |  |
| ECON 6773 | Seminar in Public Economics |  |

Field/Elective Coursework (15 hours)

Electives may be taken from the remaining field courses
above, or as approved by the student's committee and graduate liaison
Dissertation (36 Hours)

| ECON 6980 | Research for Doctoral Dissertation | 36 |
| :--- | :--- | :--- |
| Total Credit Hours | $\mathbf{9 0}$ |  |

## General Requirements for Doctoral Degrees

A student should expect to spend at least the equivalent of three full academic years beyond the bachelor's degree to obtain the doctoral degree. During this period the student will take appropriate graduate coursework, successfully complete the general examination, and successfully defend and submit the final dissertation.

All coursework applied to the doctoral degree must carry graduate credit.
The doctoral degree requires at least 90 post-baccalaureate hours, including both formal coursework and hours of research.

The minimum hour requirement for a specific doctoral degree program cannot be waived.

No more than one-half of the credit hours, both OU and overall, excluding Research for Doctoral Dissertation (6980), may be S/U-graded coursework.

The student must be in residence at OU for at least two consecutive 16week semesters during the pursuit of the doctoral degree while enrolled and engaged in coursework or research activities as prescribed by the major academic unit.

For more detailed regulations and requirements for Doctoral degrees, please consult the Graduate College Bulletin: http://www.ou.edu/ gradcollege/forms/bulletin

## Department of English

Roxanne Mountford, Ph.D., Chair
316 Cate Center Dr
Cate Center 2, Room 414
Norman, OK 73019
Phone: (405) 325-4661
FAX: (405) 325-0831
mountford@ou.edu
www.ou.edu/cas/english

## General Information

The English Department houses undergraduate and graduate programs in two broad subject areas: Literature and Cultural Studies and Rhetoric and Writing Studies.

## Programs \& Facilities

## Awards and Funding: Students and Faculty

- English Department Undergraduate Student Awards
- English Department Graduate Student Awards
- University Awards and Scholarships (Undergraduate or Graduate)
- English Department Graduate Student Funding
- Graduate Student Support
- Fellowships
- Graduate College and University Fellowships
- Graduate Student Travel Grants
- Faculty Grant Opportunities


## Resources

For students, the English Department has extensive resources in the form of its own media library as well as through our relationship with the University of Oklahoma's Bizzell Library.

## Undergraduate Study

## Bachelor of Arts

- Literary \& Cultural Studies (p. 377)

Students study literary works, movements, genres, themes, and writers in their cultural contexts. Courses emphasize reading, story, communication, language, and historical and cultural events.

## - Writing (p. 380)

Students study theories of written communication, practice them extensively in various writing contexts, and explore issues concerning literacy, language, and the relation of writing to different cultures.

## Accelerated B.A./M.A. Degree

The Department of English offers an accelerated degree program (BA/ MA) to qualified undergraduate students. The program allows students to pursue a graduate degree in conjunction with the undergraduate degree requirements.

- English: Literary \& Cultural Studies. B.A./M.A. (p. 385)
- English: Writing, B.A./M.A. (p. 388)


## Minors

Students majoring in other subjects may elect to complete a minor in English either in literary and cultural studies, and/or writing.

- Editing and Publishing Minor (p. 383)
- Literary \& Cultural Studies Minor (p. 383)
- Writing Minor (p. 384)
- Irish Studies Minor (p. 385)


## Language Arts Education Teaching Certificate

Students majoring in English may also work for the standard teaching certificate in language arts. Students in the language arts program must meet all of the requirements of the English major, and a few additional specifications. Information concerning the teaching certificate programs is available from the College of Education. Detailed checksheets of degree requirements and advisors with whom students can discuss programs of study are available in the college office.

## Courses for Non-majors

Since its subject matter has wide appeal to non-majors as well as majors, the Department of English devotes a substantial portion of its staff and budget to the instruction of those who are majors in other fields. In addition to the first-year English courses, the department offers courses in literary and cultural studies as well as writing.

## Graduate Study

## Master of Arts Degree

As the M.A. in English is a research degree as well as a teaching apprenticeship, all students are expected to choose fields of specialization, in close consultation with the chair of their committee.

The choice ranges from well-established areas defined by nation and/ or historical period through theoretical approaches, media studies, more recent areas of scholarly interest, to unique areas defined by the student in consultation with his or her chair.

- Literary Studies (p. 391)
- Rhetoric \& Writing Studies (p. 391)


## English Doctoral Programs

As the Ph.D. in English is a research degree as well as a teaching apprenticeship, all students are expected to choose fields of specialization, in close consultation with the chair of their committee. The choice ranges from well-established areas defined by nation and/ or historical period through theoretical approaches, media studies, more recent areas of scholarly interest, to unique areas defined by the student in consultation with his or her chair.

- Literary Studies (p. 392)
- Rhetoric \& Writing Studies (p. 392)


## Courses

## ENGL 0999 Remedial English

## 10 Credit Hours

ENGL 1013 English for Exchange Students

## 3 Credit Hours

Designed to meet the needs of international students who are studying at OU for a semester or a year. Review all English skills including pronunciation, vocabulary, listening, writing, and grammar as well as expand students' knowledge of American cultures. (F, Sp)
ENGL 1023 English for Exchange Students II 3 Credit Hours Prerequisite: ENGL 1013. Designed to build on students' experience in English 1013. Includes units that will 1) introduce new vocabulary, 2) provide opportunities for collaborating with fellow students, 3) explore relationships among American and other cultures, and 4) invite students to practice reading, writing, speaking, and listening in English. As in English 1013, focus will be on exploring writing processes as students compose and revise essays for each unit. Devotes increased attention to comprehension and analysis as well as more rigorous attention to each draft of student papers. Students will complete two essay exams and present them to the class for discussion. ( $F, S p$ )
ENGL 1111 Principles of Composition I Stretch Corequisite 1 Credit Hour
Prerequisite: Placement according to University College placement testing guidelines: Accuplacer of <255 as prerequisite; Corequisite: ENGL 1113 with a 50 x section number. ENGL 1111 is designed as a corequisite supplement to ENGL 1113, Principles of Composition I. The course gives students time to work on assignments while also expanding on and providing opportunities to practice concepts from ENGL 1113, including inquiry, rhetoric, research, writing and revision. ( $F, S p$ )
ENGL 1113 Principles of English Composition 3 Credit Hours Systematic analysis of the components of effective writing, with regular practice and close individual assistance. Study of expository prose models. (F, Sp, Su) [I-ENGL].
ENGL 1213 Principles of English Composition 3 Credit Hours
Prerequisite: 1113. Systematic analysis of effective argumentative discourse with regular practice and close individual assistance. Study of argumentative prose models. Library research paper required. (F,Sp) [IENGL].
ENGL 1913 Writing for the Health Professions 3 Credit Hours Prerequisite: 1213. Prepares pre-professionals in the health professions for writing they will do in later coursework and in practice. (F, Sp)

ENGL 2113 Intermediate Writing
3 Credit Hours
Prerequisite: 1213, application and departmental permission. Writing of non-fiction prose in a workshop setting. Reading and analysis of prose models for analysis. (Irreg.)
ENGL 2123 Creative Writing
3 Credit Hours
Prerequisite: ENGL/EXPO 1213 or EXPO 1223. Introduction to imaginative writing, especially short stories and poems; some analysis of literary models, but major emphasis is on student writing. ( $F, \mathrm{Sp}$ )
ENGL 2133 Autobiographical Writing
3 Credit Hours
Prerequisite: ENGL 1213 or EXPO 1213. Writing essays from personal experience. Reading and analysis of journals, diaries, letters and autobiographies as models for writing. (Irreg.)
ENGL 2143 Analyzing Digital Culture 3 Credit Hours
Prerequisite: ENGL 1213 or EXPO 1213. Introduces students to the cultural analysis of digital technology, including social media, virality, gaming, digital celebrity, and more. Students will build skills in rhetorical analysis and writing through experimentation with new forms of technology. (Irreg.)

## ENGL 2213 Fiction

3 Credit Hours Introduces fiction as a historical genre in literature. Covered will be sub-genres such as the novel, short story, memoir, travel sketch, etc. Discussion will cover such topics as character, plot and myth in narrative. The emphasis will be on close reading in light of the possibilities of fiction as a genre. (Irreg.) [IV-AF].

## ENGL 2223 Poetry

3 Credit Hours
Gives an introduction to the elements and rhetoric of verse. The focus will be on the canon of American and British verse. (Irreg.) [IV-AF].

## ENGL 2233 Drama

3 Credit Hours
A study of major Western plays (from Aeschylus to contemporary playwrights) with emphasis on literary dimensions: design, language, characterization, individual forms (such as tragedy, comedy and pastoral). May include consideration of social and literary contexts as well as acting and theatrical conventions. (Irreg.) [IV-AF].
ENGL 2243 Film Narrative
3 Credit Hours
Introduction to basic visual terminology, filmmaking concerns, film theory and aesthetics. Survey of different approaches to narrative filmmaking (for example, genre or auteur). Also discussion of film and society in regards to how one influences the other. (Irreg.) [IV-AF].

ENGL 2273 Literary and Cultural Analysis 3 Credit Hours
Prerequisite: ENGL 1213; majors only. This course offers an introduction to literary and cultural analysis focusing on textual explication, interpretation, and critique. Subjects may include poetic forms (including prosody and scansion, narrative techniques, introduction to genre, and a grounding in basic literary terms. The course emphasizes writing analytically about literature and culture. (F, Sp) [IV-AF].
ENGL 2283 Critical Methods: Texts/Contexts/Theories /Critics Credit
Prerequisite: ENGL 1213 and ENGL 2273; majors only. This course examines literary and cultural texts in conjunction with texts of theory, criticism or history. The course explores how to read literary texts within relevant frameworks, whether they be historical or other contexts such as gender, race, or colonialism. (F, Sp)
ENGL 2413 Introduction to Literature 3 Credit Hours Concentrates on close readings of masterpieces in fiction, drama and poetry. The readings are drawn from periods ancient to modern and may be American, British or Continental. (Irreg.) [IV-AF].

ENGL 2433 World Literature to 1700
3 Credit Hours
A reading of literary works, by types, from classical antiquity to 1700. (F) [IV-WC].
ENGL 2443 World Literature, 1700 to Present 3 Credit Hours Prerequisite: ENGL 1213/EXPO 1213. Masterpieces of world literature from 1700 to the modern period. Courses can either be a broad survey of world literature covering classics by authors such as Goethe, Dostoyevsky, Ghalib, Duras, Kawabata, Kafka, Djebar and Conde or focused around a specific theme, such as rewrites of colonial texts. (Sp)
ENGL 2543 English Literature from 1375 to $1700 \quad 3$ Credit Hours A survey of major writers and literary movements from Chaucer through Dryden. (F) [IV-WC].
ENGL 2653 English Literature from 1700 to the Present 3 Credit Hours A survey of major writers and literary movements from Pope to the present. (Sp) [IV-WC].

## ENGL 2713 Introduction to Black Literature in the United

## States

3 Credit Hours
Prerequisite: 1213 or equivalent. An introduction to Black writing
produced in the United States. Introduces students to important texts and their major concerns. Attention is given to the struggle between literature that criticizes racial injustice and literature that celebrates Black cultural identity. (Irreg.)
ENGL 2733 American Indian Literature: Early and Traditional 3 Credit Hours
Prerequisite: 1113,1213 and one course in American literature, history or anthropology. A study of earliest forms of American Indian expression in the oral tradition and beginnings of its literature as written in English up to 1945. Special emphasis on understanding particular tribal world-views in order to appreciate the literature and problems inherent in translating from native languages. (Irreg.)
ENGL 2743 American Indian Literature: Modern and Contemporary

3 Credit Hours
Prerequisite: 1113,1213 and one course in American literature or history. Features the literature of American Indians written since 1945. Attention is directed to early writers such as Will Rogers and D'Arcy McNickle and to the recent renaissance of contemporary Indian writings by N. Scott Momaday, Leslie Marmon Silko, James Welch and others. (Irreg.)
ENGL 2773 American Literature I 3 Credit Hours
Prerequisite: ENGL 1213 or EXPO 1213. A survey of major American writers and literary movements from the colonial period to the Civil War. (F) [IV-WC].

ENGL 2883 American Literature II
3 Credit Hours
Prerequisite: ENGL 1213 or EXPO 1213. A survey of major American writers and literary movements from the Civil War to present. (Sp) [IV-WC].

ENGL 2970 Special Topics 1-3 Credit Hours
1 to 3 hours. Prerequisite: May be repeated; Maximum credit nine hours. 1 to 3 hours. Special topics course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research, and field projects. (Irreg.)
ENGL 3013 Interdisciplinary Approaches to Literature 3 Credit Hours May be repeated with change of subject matter; maximum credit six hours. The study of two or more disciplines, focusing on a narrow historical period, a single major author and other discipline, or a circumscribed topic. (Irreg.)

ENGL 3023 Thematic Approaches to Literature II 3 Credit Hours
May be repeated with change of subject matter; maximum credit six hours. Close study of a major theme or preoccupation of a literary period in important works of the period. Attention to the relationship of the theme to relevant philosophical, sociological, political, religious and/or scientific thought. (Irreg.)

ENGL 3053 Irish Literary Revival 3 Credit Hours
Prerequisite: ENGL 1213 or EXPO 1213. The Irish Literary Revival is a course designed to explore the cultural phenomena of modern Ireland and its effects on "modernist" literature and culture in the early the twentieth century. It will examine the historical context of literature and culture at the beginning of the century and follow both chronological and thematic developments throughout the century. (Irreg.)

ENGL 3063 Autobiographical Writing 3 Credit Hours
Prerequisite: ENGL 1213 or EXPO 1213. Introduction to autobiographical writing in a range of forms; analysis of literary models, but major emphasis is on student writing with attention to writing process, style, technique, revision, and contemporary developments in genre. (Irreg.)
ENGL 3073 Writing about Place
3 Credit Hours
Prerequisite: ENGL 1213 or EXPO1213. Intensive study and practice of place-based writing. Coursework includes reading published writing about place and examining such elements as history, geography, language, and culture. Students will consider and practice various literary and rhetorical techniques to convey a sense of place in their writing. (Irreg.)
ENGL 3103 Topics in Advanced Composition
3 Credit Hours
Prerequisite: ENGL 1213 or EXPO 1213. May be repeated with change of content; maximum credit nine hours. Advanced practice in writing; focus varies. (Irreg.)

ENGL 3113 Nature/Environment/Science Writing 3 Credit Hours Prerequisite: ENGL 1213 or EXPO 1213. Interdisciplinary advanced composition course offers students a chance to read and write about the natural world and the environment from a variety of angles. This is a designated writing course. (Irreg.) [IV-WC].
ENGL 3123 Fiction Writing
3 Credit Hours
Prerequisite: 2123, application and departmental permission. Intensive writing of short stories, with class attention to writing process, style, technique, revision and contemporary developments in the genre. (Irreg.)
ENGL 3133 Poetry Writing
3 Credit Hours
Prerequisite: 2123, application and departmental permission. Conducted in workshop format; emphasizes the preparation of a coherent, chapbook-length manuscript of poems. Students are also required to formulate a personal poetics and to complete selected exercises in translation or adaptation. (Irreg.)
ENGL 3143 Studies in Literacy and Rhetoric
3 Credit Hours
Prerequisite: ENGL 1213 or EXPO 1213. Introduces students to current and historical knowledge about literacy and its place in modern society. Students explore the forces (political, economic, racial, cultural) that shape the way literacy functions. (Irreg.) [IV-WC].
ENGL 3153 Technical Writing 3 Credit Hours Prerequisite: 1213 and Engineering or hard science majors only. For students of the pure and applied sciences. Focuses on the forms of report writing most frequently encountered in research and industry. (F, Sp, Su)

ENGL 3163 Rhetoric and the Digital Humanities 3 Credit Hours Prerequisite: ENGL 1213 or EXPO 1213. Advanced study and practice of digital humanities in the context of rhetoric studies. The course explores techniques that can be used to explore texts (in the broadest sense) using techniques developed in the digital humanities. (Irreg.)

ENGL 3173 Histories of Writing, Rhetoric and Technology 3 Credit

## Hours

Prerequisite: ENGL 1213 or EXPO1213. Investigates how computers and other digital technologies have changed the ways we write and think.
How video and television have changes the ways we write and think; and how aspects of the history of written communication, visual rhetoric, and other forces change the ways we write and think. (Irreg.)

ENGL 3183 Digital Composing
3 Credit Hours
Prerequisite: ENGL 1213 or EXPO 1213. A composition course in which students analyze and compose digital media texts (short films, websites, podcasts, infographics, etc.) while studying complex forms and practices of textual production. (Irreg.)
ENGL 3193 Working with Writers
3 Credit Hours
Prerequisite: 1213 or EXPO 1213. Students will investigate how texts are produced, revised, and edited, with a focus on response and feedback strategies that help writers improve. Course will allow students to practice strategies to improve writing and learn how to work with other writers. (Irreg.)

ENGL 3203 Rhetoric and Sexuality 3 Credit Hours (Crosslisted with WGS 3203) Prerequisite: ENGL 1213/EXPO 1213 or the equivalent. Investigates the intersections of rhetoric and sexuality as they function socially, politically, and personally. Development and application of research methods from the field of rhetoric and writing studies with a focus on writing, inquiry and revision. (Irreg.) [I-O].

ENGL 3213 Special Topics in Fiction
3 Credit Hours
May be repeated with change of subject matter; maximum credit six hours. Presents a fictional type or problem in fiction for extensive study within a specified historical period: works by a single author in a special genre (e.g., Henry James' fantastic stories), works by several authors in a genre (e.g., violence in post-World War II novels), topics such as myth in a period of fiction and the consideration of recent developments in novel writing. (Irreg.)
ENGL 3223 Oklahoma Writers/Writing Oklahoma 3 Credit Hours Prerequisite: 1213 or EXPO 1213, application and departmental permission. An introduction to regional writing about Oklahoma. Focus on Oklahoma culture as a source of literature, and the creative work of course participants. (Irreg.) [IV-WC].
ENGL 3243 Special Topics in Film 3 Credit Hours
May be repeated with change of subject matter; maximum credit six hours. Sophisticated concerns involving film: the works of specific directors (Bergmann, Fel- Lini, Kubrick, etc.); the relationship of film to literature; the writings of notable film theorists (Bazin, Eisenstein, etc.) or critics (Mast, Kael, Sarris). (Irreg.)
ENGL 3253 Special Topics in American Indian Literature 3 Credit Hours May be repeated twice with change in subject matter. Explores a major literary or cultural aspect of American Indian literature such as the Five Civilized Tribes, Eastern Tribes, the Literature of Massacre, autobiographical writing, fiction and poetry. (Irreg.)

ENGL 3343 The Literature of Empire
Survey of literary and nonliterary discourse about and relating to European colonies since the Renaissance. Study of colonial and postcolonial fiction, poetry, drama and criticism from Asia, Africa, the Americas, Australasia and Europe, concentrating on English-language sources. (Irreg.)
ENGL 3353 American Indian Nonfiction Writing 3 Credit Hours Examines the various forms of recorded oratory, nonfiction writing by American Indians. Includes autobiography, political and social writing, newspaper reportage, philosophy, anthropological and historical writings, humor and other kinds of writings by early and present-day American Indians. (Irreg.)
ENGL 3363 Films and Context
3 Credit Hours
Prerequisite: ENGL 1213 or EXPO 1213. Explores film within a particular period or milieu. Attention is given to production styles, prominent actors and studio influence within a definable setting such as American films in the 1930s. (Irreg.) [IV-WDC].
ENGL 3403 The Graphic Novel
3 Credit Hours
The graphic novel. study of the works of Spiegelman, Pekar, Moore/ Gibbons, Gaiman/Mckean, Crumb and other graphic novel authors. Comparison with prose fictions having a strong visual element and possibly with films. (Irreg.) [IV-AF].

ENGL 3423 Film and Other Expressive Forms
3 Credit Hours
Examines from practical and theoretical perspectives the relationship between film and another area of creative expression such as the novel, theatre, painting and photography. (Irreg.)
ENGL 3440 Mentored Research Experience
3 Credit Hours
0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)

## ENGL 3453 Afro-Caribbean Lit/Cult Consciousness: from Alienation to Voice <br> 3 Credit Hours

Prerequisite: 1213. Explores select Afro-Caribbean writings by male and female writers through the historical and cultural influences that have shaped the production of this literature. Attention will be given to the literary style of the writers who represent various aspects of Caribbean experience. (Irreg.)
ENGL 3463 American Fiction
3 Credit Hours
Prerequisite: 1213. Historical survey of major American fiction, both novels and shorter fictional forms, from the Federal period to the present. Special attention is given to the uniqueness and diversity of themes and forms during the nineteenth and twentieth centuries when fiction came to dominate American literary production and consumption. (Irreg.) [IV-WC].
ENGL 3483 Native American Writers
3 Credit Hours
Prerequisite: 1213. May be repeated once with change of content; maximum credit six hours. Investigates the ways native American writers reflect their cultural histories and thought systems through their writing. By focusing on the emergence of native literature over the past three decades or on native writers of Oklahoma, students will learn how native traditions have been translated into literature. (Irreg.) [IV-WDC].

ENGL 3513 Medieval English Literature
3 Credit Hours
Intensive study of some of the major literary works of medieval England with attention to the relation between the literature and its social, intellectual and cultural contexts. Readings in various genres will include such works as Gawain and the Green Knight, Everyman, Piers Plowman, Morte d'Arthur, and The Canterbury Tales. (Irreg.) [IV-WC].
ENGL 3523 Sixteenth-Century English Literature 3 Credit Hours Intensive study of some of the major literary works of sixteenth-century England with attention to the relation between the literature and its social, intellectual and cultural contexts. Readings will include works in various genres by such writers as Spenser, Sidney, Shakespeare, Marlowe, More. (Irreg.)
ENGL 3533 Seventeenth-Century English Literature 3 Credit Hours Prerequisite: ENGL 1213 or EXPO 1213. Intensive study of some of the major literary works of seventeenth-century England with attention to the relation between the literature and its social, intellectual and cultural contexts. Readings will include works in various genres by such writers as Donne, Herbert, Milton, Marvell, Bacon, Jonson and Webster. (Irreg.) [IV-WC].

ENGL 3573 Arthurian Legend and Literature
3 Credit Hours
(Crosslisted with MLLL 3573) Examination of the legend of King Arthur in European literature. Concentrate on the historical Arthur, followed by major portion of semester on medieval and modern literary texts concerning Arthur and the Round Table. All texts read in English. (Irreg.) [IV-WC].
$\begin{array}{lll}\text { ENGL } 3613 & \text { Nineteenth-Century British Literature and Culture } & 3 \\ \text { Credit } & \text { Hours }\end{array}$
Prerequisite: ENGL 1213/EXPO 1213. An introduction to notable works of Romantic and Victorian literature, with attention to issues such as imperialism, gender, race, sexuality, nation and capitalism. Readings will include writings in various genres by authors such as William Wordsworth, Jane Austen, Charles Dickens, Robert Browning, George Eliot, and Thomas Carlyle. (Irreg.)
ENGL 3623 Twentieth-Century British Literature and Culture 3 Credit Hours
Prerequisite: ENGL 1213/EXPO 1213. Intensive study of some of the major literary works of twentieth-century Britain with attention to the relation between the literature and its social, intellectual and cultural contexts. Individual courses can cover (among others) the Modernist period (writers like Conrad, Yeats, Woolf, Eliot), Post-War Literature (Osborne, Delaney, Sillitoe), Contemporary British Literature (Carter, Ishiguro, Rushdie) and/or Black British Literature (James, Selvon, Smith). (Irreg.)

## ENGL 3643 Special Topics in Non-Western Literature and

Culture
3 Credit Hours
Prerequisite: 1213. Examines a broad range of potential topics, including particular practices in the context of global cultures and/or minority groups in the West. Course readings draw on a variety of critical or theoretical work regarding culture, discourse, history, or institutions. (Irreg.)
ENGL 3653 The Bible as Literature
3 Credit Hours
Interpreting the Bible as literature. Although much class time will be spent developing readings of individual books, a number of critical issues that affect the ways to approach the project of understanding the Bible will also be considered. (Irreg.)

ENGL 3693 Literature and Medicine
3 Credit Hours
Prerequisite: English 1213 or Expo 1213. This course focuses on the ways that training in literary narrative can make healthcare workers more effective and satisfied in their work. The aim of the course is to instill definite skills in interacting with patient storytelling - skills in listening, in rapport, in balancing empathy and professionalism, etc. - in a clinical situation to widen the study of literature. (Irreg.)

ENGL 3823 Women's Rhetorics \& Writing Practices 3 Credit Hours Prerequisite: ENGL 1213 or EXPO 1213. Analysis of selected historical and current work by women according to histories and theories of written composition theory, rhetorical theory, and literacy practices. These issues are studied by analyzing how women interact with different forms of communication (e.g., speaking, print, film, video, computer graphics). (Irreg.)
ENGL 3960 Honors Reading 1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Will consist of topics designated by the instructor in keeping with the student's major program. The topics will cover materials not usually presented in the regular classes. (Irreg.)

ENGL 3970 Honors Seminar 1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. The projects covered will vary. The content will deal with concepts not usually presented in regular coursework. (Irreg.)

ENGL 3980 Honors Research
1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Will provide an opportunity for the gifted Honors candidate to work at a special project in the student's field. (Irreg.)

ENGL 3990 Independent Study 1-3 Credit Hours
1 to 3 hours. Prerequisite: permission of instructor and junior standing. May be repeated once with change of content. Independent study may be arranged to study a subject not available through regular course offerings. (F, Sp, Su)
ENGL 4003 Movements in World Literature 3 Credit Hours (Crosslisted with MLLL 4003) Prerequisite: junior standing. May be repeated with change of subject matter; maximum credit nine hours. Focuses on texts within a literary movement (literature other than canonical American or British). Also attention to critical and theoretical questions about concepts such as genre, nation, national building, national identity, etc. (Irreg.) [IV-WC].
ENGL 4013 Major Figure (With Subtitle)
3 Credit Hours
(Slashlisted with ENGL 5013) Prerequisite: ENGL 1213 or EXPO 1213. May be repeated with change of content; maximum credit 9 hours. This course will focus on a major figure in literature, criticism, rhetoric, or theory. No student may earn credit for both 4013 and 5013. (Irreg.)
ENGL G4023 Literary Movements 3 Credit Hours May be repeated with change of subject matter; maximum credit six hours. A course on literary movements or groups of authors who are related through their particular interests in certain distinct or philosophical ideas: the Metaphysical Poets, the Fugitive Writers, etc. (Irreg.)

ENGL G4033 Indigenous Political Writing
3 Credit Hours
Prerequisite: 2733 or 2743 or permission of the instructor. Examines key issues of American Indian politics and literature, exploring how they continue to shape the American Indian world in the present. Also considers how North American Indian politics relate to broader discussions of indigenous peoples and literatures around the world. (Irreg.)
ENGL 4053 Topics in Technical Writing
3 Credit Hours
Prerequisite: English 1213 or EXPO 1213; Repeatable for credit, maximum credit 6 hours. Advanced study of contemporary principles and practices in technical communication, technical editing, social media marketing, visual rhetoric, writing for the web, and design research. Topics vary. (Irreg.)
ENGL 4113 Magazine Editing and Publishing in the Humanities

## 3 Credit Hours

Prerequisite: 1213 or EXPO 1213. Introduction to magazine writing, editing, and publishing - scholarly and otherwise - in the humanities. (F)
ENGL G4133 History Of the English Language 3 Credit Hours Traces the development of the English language from its Indo-European origins through its present state. Special attention will be paid to changes in grammar and vocabulary. (Irreg.)

## ENGL 4203 Special Topics in Literary and Rhetorical

## Forms

## 3 Credit Hours

(Slashlisted with ENGL 5203) Prerequisite: ENGL 1213 or EXPO 1213.
May be repeated with change of content; maximum credit 9 hours. Genrebased approach to literary and rhetorical forms. No student may earn credit for both 4203 and 5203. (Irreg.)
ENGL G4233 Major Figures in Theory
3 Credit Hours
Intensive exploration of the work and influence of one or a small number of literary or cultural theorists. Texts typically will encompass primary reading in a theorist or group of theorists and ancillary readings in the work of writers or other theorists who show the theorist(s). (Irreg.)

ENGL 4273 Women Writers
3 Credit Hours
Prerequisite: ENGL/EXPO 1213. May be repeated twice with change of content; maximum credit 9 hours. A study of women's art and culture in British, American, Native American and/or African American contexts. Typically incorporating a feminist approach and raising questions about gender, race, and sexuality, the course engages the often forgotten or marginalized experiences of women as represented in literature, film and/ or other texts. (Irreg.)
ENGL G4283 Hip Hop as Poetry, Literature and Cultural
Expression
3 Credit Hours
Prerequisite: 1213. Hip Hop will be examined from three different angles: the message, the history, and the performance. There are required film viewings. Students will analyze the lyrics of literary texts and music albums, and will be required to write, memorize and perform their own poetry. (Irreg.) [IV-AF].
ENGL 4303 Special Topics
3 Credit Hours
(Slashlisted with 5303) Prerequisite: ENGL 1213 or EXPO 1213. May be repeated with change of content; maximum credit 9 hours. Selected topics in literature, film, and rhetoric. No student may earn credit for both 4303 and 5303. (Irreg.)

ENGL G4323 The Harlem Renaissance
3 Credit Hours
Prerequisite: 1213. Examines the literature, culture, and politics of the Harlem renaissance. In addition to texts of the 1920s, the course considers the contexts out of which the movement emerged, as well as its effects in the U.S. and abroad. (Irreg.)

ENGL G4333 Black Arts/Black Power 3 Credit Hours
Prerequisite: 1213 or EXPO 1213. Examines the formation of the black arts and black power movements of the 1960s and 1970s in the united states. Focus on cultural exchanges and ideological engagements between local struggles for civil rights and larger global movements. Studies include a variety of literary and critical texts and genres, film and music. (Irreg.)
ENGL G4343 The Indian in American Popular Culture 3 Credit Hours Prerequisite: 1213 or equivalent. Explores the various appearances and roles, stereotyped or otherwise, American Indians have traditionally been pigeon-holed into throughout America's five centuries of recorded history. Covers Captain John Smith, Colonial era, Romantic period of Cooper and Longfellow, and modern writers Waters and Berger. (Irreg.) [IV-WDC].
ENGL G4373 Black Literary Form and Cultural Expression 3 Credit Hours
Prerequisite: 1213. Compare and contrast the relationship between literary form and cultural expression by analyzing Black literature produced in two different contexts: the United States and the Caribbean. Examine writing from the literary movements knows as the "Harlem Renaissance," "Negritude," and the "Black Arts." (Irreg.)
ENGL G4513 Chaucer 3 Credit Hours
Prerequisite: English 1213 or Expo 1213. Examines the poetry of The Canterbury Tales and one or two of Chaucer's earlier narrative poems. Special emphasis will be given to the social, literary and cultural backgrounds to Chaucer's work. (Irreg.)
ENGL G4523 Shakespeare Comedies 3 Credit Hours
Prerequisite: junior or senior standing. Close reading and analysis of Shakespeare's comedies and histories. Selected criticism, 1600 to the present. Historical background and Shakespeare's theatre. Dramatic traditions, movie interpretations, performance theory and acting. Emphases and reading lists vary from year to year. (Irreg.) [IV-WC].
ENGL G4533 Shakespeare Tragedies 3 Credit Hours
Prerequisite: junior or senior standing. Close reading and analysis of Shakespeare's tragedies and lyric poetry. Selected criticism, 1600 to the present. Historical background and Shakespeare's theatre. Dramatic traditions, movie interpretations, performance theory and acting. Emphases and reading lists vary from year to year. (Irreg.) [IV-WC].
ENGL G4553 Milton
3 Credit Hours
Close reading and analysis of selected poetry and prose, with emphasis on Paradise Lost. Study of literary forms, cultural myths, theology, ethics. Themes of loss, guilt, free will, male-female relationships. (Irreg.)
ENGL G4593 Topics in Medieval Literature and Culture 3 Credit Hours Prerequisite: ENGL 1213; May be repeated with change of content; maximum credit six hours. Specialized study in selected topics in medieval literary culture. Students will be expected to be able to read middle English. (Irreg.)

## ENGL G4603 Topics in Early Modern Literature and

## Culture

3 Credit Hours
Prerequisite: 1213. May be repeated with change of content; maximum credit six hours. Specialized study in selected topics in early modern literary culture. (Irreg.)
ENGL 4613 Nineteenth-Century British Novel 3 Credit Hours Prerequisite: ENGL 1213/EXPO 1213. An exploration of novels by authors such as Jane Austen, Charles Dickens, Charlotte Bronte, and Thomas Hardy, in relation to their social, intellectual, and cultural contexts, focusing on selected topics (such as industrialism), themes (such as the conflict between passion and convention), or types (such as "the novel of education"). (Irreg.)

ENGL 4623 British Romantic Literature and Culture 3 Credit Hours Prerequisite: ENGL 1213/EXPO 1213. The Romantic literary movement from the late eighteenth to the early nineteenth century, a time of revolution in politics, human rights, literature, sexuality, and more. The course may focus on major poets, such as Keats, on Gothic literature, and novelists such as Jane Austen. (Irreg.)

ENGL G4653 Twentieth-Century English Poetry 3 Credit Hours
A survey with emphasis on Yeats, Pound, Eliot, Lawrence, Graves, Auden and Dylan Thomas. (Irreg.)

## ENGL G4713 Major Authors in Nineteenth-Century American

 Literature3 Credit Hours
Prerequisite: 1213. May be repeated with change of subject; maximum credit six hours. Intensive study of one or more major 19th century American authors such as James Fenimore Cooper, Catharine Maria Sedgwick, Frederick Douglass, Walt Whitman, Nathaniel Hawthorne, Ralph Waldo Emerson, Harriet Beecher Stowe, Emily Dickinson, or Mark Twain. (Irreg.)
ENGL G4733 American Naturalism and Realism 3 Credit Hours Major American novelists from the Civil War to the end of World War I, including Howells, James, Twain, Crane, Dreiser, Norris and Wharton. (Irreg.)
ENGL G4823 American Novel Since 1920
3 Credit Hours
Major authors and schools in American fiction including Fitzgerald, Hemingway, Faulkner, Steinbeck and others selected by the instructor. (Irreg.)
ENGL G4833 Twentieth-Century American Poetry 3 Credit Hours A survey from Frost to the present with emphasis on major figures in each of three generations. (Irreg.)
ENGL 4853 The English Capstone Course 3 Credit Hours
Prerequisite: 1113,1213 , and 2433 and 2443 or 2543 and 2653 or 2773 and 2883, plus twelve hours. Combine English majors from diverse tracks to work on a topic involving major cultural issues, artifacts and texts. Projects include a significant amount of writing demonstrating the students' accomplishments in analyzing literature. (F, Sp) [V].
ENGL 4883 Puterbaugh/Neustadt International Literature 3 Credit Hours
(Slashlisted with ENGL 5883; Crosslisted with MLLL 4883) Prerequisite: ENGL 1213 and permission of department; May be repeated with a change of content, maximum credit nine hours. In-depth study of selected contemporary international writers/jurors who visit OU campus as part of the Neustadt and/or Puterbaugh symposia for World Literature Today. No student may earn credit for both 4883 and 5883. (Irreg.)
ENGL 4923 Advanced Fiction Writing 3 Credit Hours (Slashlisted with 5923) Prerequisite: six hours of creative writing, application and departmental permission. May be repeated; maximum credit six hours. Work at an advanced level for qualified students. Intensive writing, peer criticism, revision, and reading in current markets with the goal of producing publishable work. No student may earn credit for both 4923 and 5923. (Irreg.)
ENGL G4933 Advanced Poetry Writing 3 Credit Hours Prerequisite: ENGL 2123 and ENGL 3123, or departmental permission; May be repeated, maximum credit six hours. Intensive writing, peer criticism, revision, and reading in current markets with the goal of producing publishable work. (Irreg.)

ENGL 4943 Advanced Creative Nonfiction Writing 3 Credit Hours
(Slashlisted with 5943) Prerequisite: six hours of 2000-3000-level writing courses, application and departmental permission. May be repeated; maximum credit six hours. Intensive writing, peer criticism, revision, and reading in current markets with the goal of producing publishable creative nonfiction. No student may earn credit for both 4943 and 5943. (Irreg.)

ENGL 4950 Special Topics in World Literature Today 1-3 Credit Hours 1 to 3 hours. Prerequisite: 1213 and permission of instructor. May be repeated with a change of topic, maximum credit six hours. In-depth study of selected contemporary international writers/jurors who visit campus as part of the Neustadt and/or Puterbaugh symposiums for World Literature Today. (Irreg.)
ENGL 4953 Special Topics in Advanced Creative Writing 3 Credit Hours (Slashlisted with 5953) Prerequisite: ENGL 2123; ENGL 3123 or ENGL 3133 or ENGL 3223. May be repeated with change of subject matter; maximum credit nine hours. In-depth writing in a variety of literary genres. Focus varies: practice in advanced creative writing with emphasis on style and strategies for creating work in specific genres such as historical fiction, indigenous-centered fiction and poetry, regional fiction, graphic novels, screenplays, literary translation, poetic forms. No student may earn credit for both 4953 and 5953. (Irreg.)
ENGL 4960 Directed Readings
1-4 Credit Hours
1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean. May be repeated; maximum credit four hours. Designed for upper-division students who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)
ENGL 4970 Special Topics in World Literature Today 1-3 Credit Hours 1 to 3 hours. Prerequisite: 1213 and permission of instructor. May be repeated with a change of topic; maximum credit six hours. In-depth study of selected contemporary international writers/jurors who visit campus as part of the Neustadt and/or Puterbaugh symposiums of World Literature Today. (Irreg.)

## ENGL 4990 Independent Study

1-3 Credit Hours 1 to 3 hours. Prerequisite: three courses in general area to be studied; permission of instructor and department. May be repeated; maximum credit six hours. Contracted independent study for topics not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (F, Sp, Su)
ENGL 5003 Seminar--Special Topics in English, American or Comparative Lit

3 Credit Hours
Prerequisite: graduate standing and permission of department. May be repeated three times with change of subject matter; maximum credit 12 hours. Topics in theoretical and historical problems of English, American or comparative literature in different periods. (Irreg.)
ENGL 5013 Major Figure (With Subtitle) 3 Credit Hours (Slashlisted with ENGL 4013) Prerequisite: Graduate standing. May be repeated with change of content; maximum credit 9 hours. This course will focus on a major figure in literature, criticism, rhetoric, or theory. No student may earn credit for both 4013 and 5013. (Irreg.)
ENGL 5113 Teaching College Composition 3 Credit Hours
Prerequisite: Graduate standing and departmental permission. In this proseminar, students will apply readings in the field of rhetoric and writing to the teaching of first-year composition. (F)

ENGL 5133 Teaching Technical Writing
3 Credit Hours
Prerequisite: graduate standing and permission of department. Introduction to the types of writing professional engineers and scientists are expected to do and methods of teaching these forms of writing. In addition, students will attend classes being taught by the professor and have the opportunity to design and teach some workshops as well as evaluate the undergraduates' work. (Irreg.)
ENGL 5203 Special Topics in Literary and Rhetorical Forms

## 3 Credit Hours

(Slashlisted with ENGL 4203) Prerequisite: Graduate standing. May be repeated with change of content; maximum credit 9 hours. Generic approach to literary and rhetorical forms. No student may earn credit for both 4203 and 5203. (Irreg.)

ENGL 5223 Seminar--Film

## 3 Credit Hours

Prerequisite: graduate standing and permission of department. Will involve reading and analyzing the works of the more sophisticated film theorists and critics as well as studying approaches to the teaching of film (the auteur theory; film history; film genres; visual literacy; film and society; film as narrative; non-narrative forms). (Irreg.)
ENGL 5303 Special Topics
3 Credit Hours
(Slashlisted with ENGL 4303) Prerequisite: Graduate standing. May be repeated with change of content; maximum credit 9 hours. Selected topics in literature, film, and rhetoric. No student may earn credit for both 4303 and 5303. (Irreg.)
ENGL 5313 Literary Criticism
3 Credit Hours
Prerequisite: graduate standing and department permission. May
be repeated with change of content; maximum credit nine hours. A comprehensive history of literary criticism, the study of a particular movement or related movements in literary criticism; or a study of a particular issue or related issues in literary criticism. (Sp)
ENGL 5343 Native American Fiction 3 Credit Hours Prerequisite: graduate standing and permission of department. May be repeated twice with change of subject matter; maximum credit nine hours. Study of fiction written by Native American authors in the nineteenth and twentieth century. The course may include native authors from throughout the Americas and study the cultural contexts of Native American fiction. This course may also focus on particular themes and authors. (Irreg.)
ENGL 5353 Native American Poetry
3 Credit Hours
Prerequisite: graduate standing and permission of department. May be repeated twice with change of content; maximum credit nine hours. Study of poetry written by Native American authors in twentieth century. Course may include native authors from throughout the Americas (including poetry in indigenous languages) and study the cultural contexts of Native American poetry. This course may also focus on particular themes and authors. (Irreg.)
ENGL 5373 Graduate Topics in Native American Literature 3 Credit Hours
Prerequisite: graduate standing and permission of department. May be repeated up to three times with change of subject matter; maximum credit twelve hours. Special topics focusing on Native American cultures, including literature, drama, philosophy, and thematic approaches to the subject. Course may also focus on particular themes, movements, and authors. (Irreg.)
ENGL 5403 Introduction to Rhetoric and Writing Studies 3 Credit Hours Prerequisite: Graduate standing and permission of department. This proseminar introduces students to contemporary research and theory in rhetoric and writing studies. (Irreg.)

ENGL 5423 Classical Rhetorical Theory 3 Credit Hours
Prerequisite: graduate standing and permission of department.
Historicizing of rhetoric from ancient Egyptians to Greek sophists, Plato, Aristotle to Rome and Augustine. Includes examination of the ways "history" and cultural studies comprise the area. (Irreg.)
ENGL 5433 18th and 19th Century Rhetorical Theory 3 Credit Hours Prerequisite: graduate standing and permission of department. An introduction to the rhetorical thought of eighteenth and nineteenthcentury Britain and America, focusing on the development of rhetorical theories within the contexts of (1) eighteenth-century Scottish moral philosophy, (2)English romanticism, and (3) the emergence and development of higher education in nineteenth-century America. (Irreg.)

ENGL 5443 Twentieth-Century Rhetoric and Composition Theory 3 Credit Hours
Prerequisite: graduate standing and permission of department. A survey of twentieth-century scholarship on rhetoric and composition theory, beginning with the rhetorical theories of Kenneth Burke, with emphasis on the mid-century revival of rhetoric and composition through current changes brought about by technology and feminism. (Irreg.)
ENGL 5453 Special Topics in Rhetoric, Composition, and

## Literacy

3 Credit Hours
Prerequisite: graduate standing and permission of department. May be repeated two times with change of content; maximum credit nine hours. Addresses topical issues being debated within the profession. (Irreg.)
ENGL 5463 Rhetoric \& Technology 3 Credit Hours Prerequisite: graduate standing and permission of department. May be repeated once with change of content; maximum credit six hours. A graduate seminar designed to explore the impact of computer technology on rhetorical theory. Examines electronic literacy in terms of the following themes: history and writing technologies; the politics of writing instruction in computer-mediated classrooms; rhetoric and issues of difference; and intellectual property in a computer age. (Irreg.)
ENGL 5473 Women's Rhetorics and Writing Practices 3 Credit Hours Prerequisite: graduate standing and permission of department. Analysis of selected historical and current work by women according to histories and theories of written composition theory, rhetorical theory, and literacy practices. These issues are studied by analyzing how women interact with different forms of communication (e.g., speaking, print, film, video, computer graphics). (Irreg.)
ENGL 5513 Major Medieval Authors
3 Credit Hours
Prerequisite: graduate standing and permission of department. May be repeated twice with a change of content; maximum credit nine hours. Topics vary. Focus on an outstanding medieval author such as Geoffrey Chaucer, Margery Kempe, or Thomas Malory, read in his or her literary, historical, and social context. (Irreg.)
ENGL 5543 Topics in Early Modern Literature and Culture 3 Credit Hours Prerequisite: graduate standing and permission of department. May be repeated twice with change of content; maximum credit nine hours. Topics vary. Special studies in major figures, genres, themes and movements of the early modern period. (Irreg.)

ENGL 5553 Post-Colonial Theory and Writing 3 Credit Hours Prerequisite: graduate standing and permission of department. Theories of postcolonialism as they have emerged from poststructuralist theory in the west, and from various political-literary movements in the nonWestern world. Also focuses on the literatures of postcolonial cultures in Asia, Africa, Latin American, the Caribbean, Australia, and North America. (Irreg.)

ENGL 5613 Seminar--Nineteenth Century English Literature 3 Credit Hours
Prerequisite: graduate standing and permission of department. May be repeated twice with change of subject matter; maximum credit nine hours. Special studies in the Romantic and Victorian periods designed to promote original research and criticism. (Irreg.)
ENGL 5703 Special Topics in American Literature 3 Credit Hours Prerequisite: graduate standing and permission of department. May be repeated two times with change of subject matter; maximum credit 9 hours. Intensive study of a major theme, issue, genre or figure in American literature and culture that is not limited to any single historical period. (Irreg.)
$\begin{array}{lll}\text { ENGL } 5803 & \text { Seminar--Twentieth-Century American Literature } & 3 \\ \text { Credit } & \text { Hours }\end{array}$
Prerequisite: graduate standing and permission of department. May be repeated twice with change of subject matter; maximum credit 9 hours. Topics vary. Special studies in American authors, ideas and literary types. (Irreg.)

## ENGL 5813 Blackness, Coloniality, Gender <br> 3 Credit Hours

Prerequisite: graduate standing and permission of department. Taking an historical and cultural approach to Black U.S. and Caribbean female writing, explore the struggle between the "official" cultural contexts and the spaces of counter-cultural resistance. Analyze the terminology "colonial" and "postcolonial" and the current theoretical landscape in which these terms are used. (Irreg.)
ENGL 5883 Puterbaugh/Neustadt International Literature 3 Credit Hours
(Slashlisted with ENGL 4883; Crosslisted with MLLL 5883) Prerequisite: Graduate standing and permission of department; May be repeated with a change of content; maximum credit nine hours. In-depth study of selected contemporary international writers/jurors who visit OU campus as part of the Neustadt and/or Puterbaugh symposia for World Literature Today. No student may earn credit for both 4883 and 5883. (Irreg.)

ENGL 5923 Advanced Fiction Writing 3 Credit Hours
(Slashlisted with 4923) Prerequisite: graduate standing, six hours of creative writing, application and departmental permission. May be repeated; maximum credit six hours. Work at an advanced level for qualified students. Intensive writing, peer criticism, revision, and reading in current markets with the goal of producing publishable work. No student may earn credit for both 4923 and 5923. (Irreg.)

ENGL 5943 Advanced Creative Nonfiction Writing 3 Credit Hours
(Slashlisted with 4943) Prerequisite: graduate standing, six hours of 2000-3000-level writing courses, application and departmental permissions. May be repeated; maximum credit six hours. Intensive writing, peer criticism, revision, and reading in current markets with the goal of producing publishable creative nonfiction. No student may earn credit for both 4943 and 5943. (Irreg.)

ENGL 5953 Special Topics in Advanced Creative Writing 3 Credit Hours (Slashlisted with ENGL 4953) Prerequisite: Graduate standing and permission of instructor. May be repeated with change of subject matter; maximum credit nine hours. In-depth writing in a variety of literary genres. Focus varies: practice in advanced creative writing with emphasis on style and strategies for creating work in specific genres such as historical fiction, indigenous-centered fiction and poetry, regional fiction, graphic novels, screenplays, literary translation, poetic forms. No student may earn credit for both 4953 and 5953. (Irreg.)

ENGL 5963 Directed Readings in Research 3 Credit Hours
Prerequisite: Graduate standing and departmental permission. May be repeated with change of content; maximum credit 9 hours. An individual intensive research course which may not duplicate regular course offerings. Area and problem to be determined by student and directing professor. (Irreg.)

ENGL 5970 Special Topics/Seminar

## 1-3 Credit Hours

1 to 3 hours. Prerequisite: Graduate standing and permission of department. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

## ENGL 5980 Research for Master's Thesis

2-9 Credit Hours
Prerequisite: Graduate standing and permission of department. 2 to 9 hours. Variable enrollment; maximum credit applicable toward degree, six hours. (F, Sp, Su)
ENGL 6013 Research Seminars in Composition, Rhetoric or Literacy 3 Credit Hours Prerequisite: graduate standing and permission of department. Topics vary. Issues of the historical/philosophical in composition and rhetorical studies; issues of empirical research in composition/rhetorical studies; issues of literacy in composition/rhetorical studies. (Irreg.)

ENGL 6103 Research Methods in Rhetoric and Writing 3 Credit Hours Prerequisite: Graduate standing and departmental permission. A survey of research methods in rhetoric and writing studies. (Irreg.)

## ENGL 6880 Research for PhD Exam <br> 1-3 Credit Hours

1 to 3 hours. Prerequisite: Graduate standing and departmental permission. The doctoral candidate will take up to three credits in preparation for their qualifying exam. (Irreg.)
ENGL 6960 Directed Readings
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor.
May be repeated; maximum credit six hours. Directed readings and/or literature review under the direction of a faculty member. (Irreg.)
ENGL 6970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit 12 hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or research and field projects. (Irreg.)
ENGL 6980 Research for Doctoral Dissertation 2-16 Credit Hours 2 to 16 hours. Prerequisite: Graduate standing and permission of instructor; may be repeated. Directed research culminating in the completion of the doctoral dissertation. (F, Sp, Su)
ENGL 6990 Independent Study 1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)

## Faculty

| Last Name | First/Middle <br> Name | Middle <br> init. | OU <br> Service <br> start | Title(s), date(s) <br> appointed | Degrees Earned, <br> Schools, Dates <br> Completed |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Askew | Rilla | J | 2015 | ASSOCIATE | MFA, Brooklyn |
|  |  |  |  | PROFESSOR | College, 1989; BFA, |
|  |  |  |  | OF ENGLISH, | Univ of Tulsa, 1980 |
|  |  |  |  | 2020; ASSISTANT |  |


| Baishya | Amit | R | 2014 | ASSOCIATE <br> PROFESSOR OF <br> ENGLISH 2020; <br> ASSISTANT <br> PROFESSOR OF <br> ENGLISH, 2014 | PhD, Univ of Iowa, 2010; MA, Jawaharlal <br> Nehru Univ, 2003 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Bennett | Kristin |  | 2024 | ASSISTANT PROFESSOR OF ENGLISH, 2024 | PhD, Arizona State University, 2022; MA, College of New Jersey, 2011; BA, College of New Jersey, 2009 |
| Davis | Robert | C | 1980 | PROFESSOR OF ENGLISH, 1995; PRESIDENT'S ASSOCIATES PRESIDENTIAL PROFESSOR, 1999; DELORES K. AND WALTER NEUSTADT JR., PROFESSOR OF COMPARATIVE LITERATURE, 1999; ADJUNCT PROFESSOR OF LIBERAL STUDIES, 2009 | PhD, Univ of California Davis, 1979; MA, Univ of California Davis, 1973; BA, Univ of California Hayward, 1971 |
| Dean Kyncl | Rhonda | C | 1998 | ADJUNCT <br> ASSISTANT <br> PROFESSOR OF LIBERAL STUDIES, 2010; ADJUNCT ASSISTANT PROFESSOR OF ARTS AND SCIENCES ONLINE PROGRAM, 2011; ASSISTANT PROFESSOR OF ENGLISH, 2015; ADJUNCT ASSISTANT PROFESSOR OF ARTS AND SCIENCES INTERNATIONAL PROGRAMS, 2016 | PhD, Univ of Oklahoma, 2009; MS, Pittsburg State Univ, 1994; MA, Kansas State Teachers Coll, 1991; BS, Evangel Univ, 1986 |
| Endres | William |  | 2015 | ASSOCIATE PROFESSOR, 2021; ASSISTANT PROFESSOR OF ENGLISH, 2015 | PhD, Arizona State Univ, 2008; MA, Univ of New Hampshire, 1993; MA, Ohio State Univ, 1990; BS, Ohio Univ, 1982; BS, Ohio State Univ, 1979 |
| Gomez | Anthony |  | 2024 | ASSISTANT PROFESSOR OF ENGLISH, 2024 | PhD, Stony Brook University, 2024; MA, New York University, 2019; BA, New York University, 2016. |
| Jackson | Rachel | C | 2019 | ASSISTANT PROFESSOR OF ENGLISH, 2019. | PhD, Univ of Oklahoma, 2016; MA, Univ of Tulsa, 1999; BA, Univ of Central Oklahoma, 1996 |
| Jeffers | Honoree | F | 2002 | PROFESSOR OF ENGLISH, 2016 | MFA, Univ of <br> Alabama, 1996; BA, <br> Talladega College, <br> 1989 |


| Kates | Susan | L | 1995 | PROFESSOR OF <br> ENGLISH, 2015; <br> PROFESSOR OF <br> WOMEN'S AND GENDER STUDIES, 2015 | PhD, Oho State Univ, 1995; MA, Ohio State Univ, 1987; BA, Ohio State Univ, 1983 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Keresztesi | Rita |  | 2000 | PROFESSOR OF ENGLISH, 2022; ASSOCIATE PROFESSOR OF ENGLISH, 2003; ADJUNCT ASSOCIATE PROFESSOR OF INTERNATIONAL AND AREA STUDIES, 2018 | PhD, Univ of California Santa Cruz, 1999; BA, Janus Pannonius Univ, 1983 |
| Mansky | Joseph |  | 2019 | ASSISTANT PROFESSOR OF ENGLISH, 2019 | PhD, University of California, Berkeley, 2018; BA, English and Math, Cornel University, 2012 |
| McDonald | William | H |  | ASSOCIATE PROFESSOR OF ENGLISH | PhD, Graduate Center, City Univ of New York, 1991 |
| Mountford | Roxanne |  | 2015 | PROFESSOR OF ENGLISH, 2015; DIRECTOR, PROGRAM IN COMPOSITION, RHETORIC, AND LITERACY STUDIES, 2015; DIRECTOR, FIRST-YEAR COMPOSITION, 2016 | PhD, Ohio State Univ, 1991; MA, Ohio State Univ, 1989; BA, Malone College, 1984 |
| Nelson | Joshua |  | 2009 | ASSOCIATE <br> PROFESSOR OF ENGLISH, 2015; ADJUNCT ASSOCIATE PROFESSOR OF NATIVE AMERICAN STUDIES, 2015; PRESIDENT'S ASSOCIATES PRESIDENTIAL PROFESSOR, 2018 | PhD, Cornell Univ, 2010; MA, Cornell Univ, 2006; BA, Yale Univ, 1996 |
| Schleifer | Ronald |  | 1975 | GEORGE LYNN CROSS RESEARCH PROFESSOR OF ENGLISH, 2001 | PhD, Johns Hopkins, 1974; MA, Johns Hopkins, 1973; BA, Brandeis, 1970 |
| Sider | Justin |  | 2018 | ASSOCIATE PROFESSOR, 2024; ASSISTANT PROFESSOR OF ENGLISH, 2018 | PhD, Yale Univ, 2014; MFA, Univ of Virginia, 2008; BA, Univ of Connecticut, 2005 |
| Skeets | Matthew Jake |  | 2022 | ASSISTANT PROFESSOR OF ENGLISH, 2022 | BA, University of New Mexico, 2014; MFA, Institute of American Indian Arts, 2018 |
| Tarabochia | Sandra | L | 2011 | ASSOCIATE PROFESSOR OF ENGLISH, 2018 | PhD, Univ of <br> Nebraska, 2010; MA, <br> Univ of Houston, <br> 2005; BA, King's <br> College, 2001 |


| Tolliver | Cedric | R | 2022 | ASSOCIATE PROFESSOR OF ENGLISH, 2022 | PhD, Univ of Pennsylvania, 2010; MA, Univ of Pennsylvania, 2007; BA, Sarah Lawrence College, 1998 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Tolliver | Julie | F | 2022 | ASSOCIATE PROFESSOR OF ENGLISH, 2022 | PhD, Univ of <br> Pennsylvania, 2009; MA, Univ of Pennsylvania, 2006; BA, Hamilton College, 2002. |
| Welch | Kathleen | E | 1982 | PROFESSOR OF <br> ARTS AND SCIENCES <br> DEAN DIRECT, <br> 2018; SAMUEL <br> ROBERTS NOBLE <br> PRESIDENTIAL <br> PROFESSOR, 2001 | PHD, Univ of lowa, 1982; MA, Univ of lowa, 1977; AB, Augustana, 1974 |
| Wieser | Kimberly | G | 2009 | PROFESSOR OF ENGLISH, 2023; ADJUNCT ASSISTANT PROFESSOR OF NATIVE AMERICAN STUDIES, 2010; ASSOCIATE PROFESSOR OF ENGLISH, 2017 | PhD, Baylor <br> University, 2002; MA, <br> Baylor University, <br> 1999; BA, Baylor <br> Univ., 1993. |
| Zeigler | James | J | 2007 | ASSOCIATE PROFESSOR OF ENGLISH, 2015 | PhD, Univ of California Irvine; MA, Univ of Illinois; BA, Butler, 1992 |

## English: Literary \& Cultural Studies, B.A.

Minimum Total Credit Hours: 120
Major Hours: 36
Minimum Upper-Division Hours: 48
Upper-Division Hours Within Major: 15

Overall GPA - Combined and OU: 2.00
Major GPA - Combined and OU: 2.00
Program Code: B375 P421

## This program has changes for 2024 pending approval of the OU Board of Regents which are not displayed here. Major Requirements

| - Some courses required for the major may also fulfill University General Education and/or Dodge College of Arts \& Sciences Requirements. <br> - A grade of $C$ or better must be earned in each English course presented for major credit. |  |  |
| :---: | :---: | :---: |
| Code | Title | Credit <br> Hours |
| Core Courses |  |  |
| ENGL 2273 | Literary and Cultural Analysis | 3 |
| ENGL 2283 | Critical Methods: Texts/Contexts/ Theories /Critics | 3 |
| Choose one of the following early survey courses: |  |  |


| ENGL 2543 | English Literature from 1375 to 1700 |  |
| :---: | :---: | :---: |
| ENGL 2733 | American Indian Literature: Early and Traditional |  |
| ENGL 2773 | American Literature I |  |
| Choose one of the following late survey courses: |  | 3 |
| ENGL 2443 | World Literature, 1700 to Present |  |
| ENGL 2653 | English Literature from 1700 to the Present |  |
| ENGL 2713 | Introduction to Black Literature in the United States |  |
| ENGL 2743 | American Indian Literature: Modern and Contemporary |  |
| ENGL 2883 | American Literature II |  |
| Capstone Course |  |  |
| ENGL 4853 | The English Capstone Course | 3 |
| Literary \& Cultural Studies Distribution Requirements |  |  |
| Choose one course in ENGL Pre-1700 ${ }^{1}$ |  | 3 |
| Choose one course in ENGL Post-1700 ${ }^{1}$ |  | 3 |
| Multicultural Course |  |  |
| All English majors must complete one Multicultural course. This course may be used to satisfy either one of the LCS Distribution requirements or one of the additional Major Electives. Consult the Department of English website and the Undergraduate Advisor for current courses that meet the Multicultural requirement. |  |  |
| Major Electives |  |  |
| Choose 5 additional ENGL courses |  | 15 |
| Total Credit Hours |  | 36 |
| ${ }^{1}$ Consult the Department of English website and the Undergraduate Advisor for current offerings in these areas. |  |  |
| Major Support Requirements |  |  |
| Code | Title | Credit <br> Hours |
| Proficiency in one language is required as demonstrated by proficiency examination or successful completion of 1 semester of intermediate coursework in a language taught in Classics, Native American Studies, or Modern Languages departments (Successful completion $=$ grade of C or better in the intermediate-level course.) |  | 0-3 |

## Total Credit Hours

## General Education and College Requirements

Courses for fulfillment of General Education and Dodge College of Arts \& Sciences requirements must be from the approved General Education course list published in the Class Schedule or at http://www.ou.edu/ gened/courses. Courses graded P/NP will not apply.

## UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS

| Code Title | Credit |
| :--- | :--- |
|  | Hours |

Core Area I: Symbolic and Oral Communication
English Composition (6 hours)
ENGL 1113 Principles of English Composition
ENGL 1213 Principles of English Composition ..... 3
or EXPO 1213 Expository Writing
Language (0-13 hours in the same language)
The college requirement cannot be met by high schoolcoursework.
Beginning Course ..... 0-5
Beginning Course, continued ..... 0-5
Intermediate Course (2000 level) ${ }^{1,2}$ ..... 0-3
Mathematics (3 hours)
Choose one course from the General Education Mathematics ..... 3
list
Core Area II: Natural Science (7 hours, including one
laboratory component)
Biological Science
Choose an approved General Education Natural Science ..... 3-4
PBIO ${ }^{1}$

Physical Science
Choose an approved General Education Natural Science ..... 3-4
course with one of the following prefixes: AGSC, ASTR, CHEM,Core Area III: Social Science (6 hours)
P SC 1113 American Federal Government ..... 3
Choose one course from the General Education Social ..... 3
Science list
Core Area IV: Arts and Humanities (18 hours)
Artistic Forms
Choose one course from the General Education Artistic Forms ..... 3
list
Western Culture
HIST $1483 \quad$ United States to 1865 ..... 3
or HIST 1493 United States, 1865 to the Present
Choose one course from the General Education Western ..... 3
Culture list (excluding HIST 1483/1493)
World Culture
Choose one course from the General Education World Culture ..... 3
list
Additional Core IV Upper-Division Arts \& Humanities courses
Choose one course from Artistic Forms, Western Culture, or ..... 3
World Culture ${ }^{1,3}$
Choose one course from Artistic Forms, Western Culture, or ..... 3World Culture ${ }^{1,3}$

Core Area V: First Year Experience (3 hours)

| Choose one course | 3 |
| :--- | ---: |
| Total Credit Hours | 56 |

${ }^{1}$ College of Arts and Sciences Requirements: college requirements are not automatically fulfilled by a previous degree.
${ }^{2}$ One course at the intermediate level or demonstrated competency at that level
${ }^{3} 6$ upper-division hours, 2 courses, at the 3000-4000-level. Must be outside the major.

## Free Electives

Electives to bring total applicable hours to the minimum total required for the degree including 48 upper-division hours.

## Information Concerning General Rules, Regulations and Minimum Requirements

Arts and Sciences Hours: At least 80 semester hours of liberal arts and sciences courses are required for a BA degree. At least 55 semester hours of liberal arts and sciences courses are required for a BS degree. Pass/No Pass Enrollment: A maximum of 16 semester hours of free elective credit may be attempted under this option.
Individual Studies (e.g., courses titled "Independent Study"): A maximum of 12 total semester hours may be counted toward graduation, excluding Honors Reading and Honors Research.
P.E. Courses: No physical education activity courses will be counted toward the 120 semester hours of acceptable credit for graduation. Senior Institution Hours: A minimum of 60 semester hours applied toward graduation must be earned at senior (4-year) institutions. Residency:

- At least 15 of the final 30 hours applied toward the degree or at least 50 percent of the hours required by the institution in the major field must be satisfactorily completed at the awarding institution.
- At least 15 semester hours of upper-division major work must be completed in residence at OU.
- OU correspondence courses are not considered resident credit.

Grade Point Averages: Students must earn a minimum over all 2.00 for each of the following: Combined Retention GPA (all college grades), OU Retention GPA, GPA for all major courses, and GPA for all major courses taken at OU. Some schools and departments of the College have higher minimum grade point averages required for their students.

## Suggested Semester Plan of Study

This plan shows one possible grouping of courses that would allow students to graduate in four years. Please refer to the front of the degree checksheet for official requirements. Students must consult with Dodge College of Arts and Sciences and/or Department of English academic advisors to verify that courses selected each semester fulfill the recommended plan and satisfy University, College of Arts and Sciences, and English major requirements.

## Freshman

| First Semester |  | Credit |
| :---: | :---: | :---: |
|  |  | Hours |
| ENGL 1113 | Principles of English Composition (Core I) | 3 |
| HIST 1483 or HIST 1493 | United States to 1865 (Core IV) or United States, 1865 to the Present | 3 |
| Math (Core I) |  | 3 |
| Beginning Language (Core I) |  | 5 |
| Free Elective, lower-division |  | 1 |
|  | Credit Hours | 15 |
| Second Semester |  |  |
| ENGL 1213 or EXPO 1213 | Principles of English Composition (Core I) or Expository Writing | 3 |
| Beginning Language continued (Core I) |  | 5 |
| First Year Experience (Core V) |  | 3 |



## Sophomore

First SemesterENGL Literary \& Cultural Studies Requirement, multicultural3
Natural Science without lab (Core II)3Second Semester
3(upper-division)
lective, upper-division3
Free Elective, lower- or upper-division3First SemesterFree Elective, lower- or upper-division 3Free Elective, upper-division (3000-4000-level) 3Second Semester
ENGL 4853 The English Capstone Course ..... 3
Arts \& Humanities, upper-division, outside major (Gen. Ed.)3
Free Elective, upper-division (3000-4000-level)3

120| Credit Hours |
| :--- |
| Total Credit Hours |

${ }^{1}$ A grade of $C$ or better is required in the intermediate-level language course.

## English Literary \& Cultural Studies Distribution Lists

- For the most current course lists, please contact the Department of English.
- Variable topic courses may be assigned to pre-1700, post-1700, or Multicultural categories based on topic with approval of the Department's Director of Undergraduate Studies.

| Pre-1700 Courses |  |  |
| :--- | :--- | ---: |
| Code | Title | Credit <br> Hours |
|  |  | 3 |
| ENGL 3513 | Medieval English Literature | 3 |
| ENGL 3523 | Sixteenth-Century English Literature | 3 |
| ENGL 3533 | Seventeenth-Century English Literature | 3 |
| ENGL 3573 | Arthurian Legend and Literature | 3 |
| ENGL 3653 | The Bible as Literature | 3 |
| ENGL 4133 | History Of the English Language | 3 |
| ENGL 4513 | Chaucer | 3 |
| ENGL 4523 | Shakespeare Comedies | 3 |
| ENGL 4533 | Shakespeare Tragedies | 3 |
| ENGL 4553 | Milton | 3 |
| ENGL 4593 | Topics in Medieval Literature and Culture | 3 |
| ENGL 4603 | Topics in Early Modern Literature and |  |

## Post-1700 Courses

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| ENGL 3053 | Irish Literary Revival | 3 |
| ENGL 3363 | Films and Context | 3 |
| ENGL 3403 | The Graphic Novel | 3 |
| ENGL 3463 | American Fiction | 3 |
| ENGL 3613 | Nineteenth-Century British Literature and | 3 |
| ENGL 3623 | Twentieth-Century British Literature and | 3 |
| ENGL 4283 | Culture | 3 |
| ENGL 4323 | Expression | 3 |
| ENGL 4333 | Black Arts/Black Power | 3 |
| ENGL 4343 | The Indian in American Popular Culture | 3 |
| ENGL 4613 | Nineteenth-Century British Novel | 3 |
| ENGL 4623 | British Romantic Literature and Culture | 3 |
| ENGL 4653 | Twentieth-Century English Poetry | 3 |
| ENGL 4713 | Major Authors in Nineteenth-Century | 3 |
| ENGL 4733 | American Literature | 3 |
| ENGL 4823 | American Naturalism and Realism | 3 |
| ENGL 4833 | Twerican Novel Since 1920 | 3 |


| ENGL 4883 | Puterbaugh/Neustadt International <br> Literature | 3 |
| :--- | :--- | :---: |
| ENGL 4950 | Special Topics in World Literature Today | $1-3$ |

Multicultural Courses

| Code | Title | Credit Hours |
| :---: | :---: | :---: |
| ENGL 2713 | Introduction to Black Literature in the United States | 3 |
| ENGL 2733 | American Indian Literature: Early and Traditional | 3 |
| ENGL 2743 | American Indian Literature: Modern and Contemporary | 3 |
| ENGL 3253 | Special Topics in American Indian Literature | 3 |
| ENGL 3343 | The Literature of Empire | 3 |
| ENGL 3353 | American Indian Nonfiction Writing | 3 |
| ENGL 3363 | Films and Context | 3 |
| ENGL 3453 | Afro-Caribbean Lit/Cult Consciousness: from Alienation to Voice | 3 |
| ENGL 3483 | Native American Writers | 3 |
| ENGL 3643 | Special Topics in Non-Western Literature and Culture | 3 |
| ENGL 4033 | Indigenous Political Writing | 3 |
| ENGL 4283 | Hip Hop as Poetry, Literature and Cultural Expression | 3 |
| ENGL 4323 | The Harlem Renaissance | 3 |
| ENGL 4333 | Black Arts/Black Power | 3 |
| ENGL 4343 | The Indian in American Popular Culture | 3 |
| ENGL 4373 | Black Literary Form and Cultural Expression | 3 |
| ENGL 4883 | Puterbaugh/Neustadt International Literature | 3 |

## English: Writing, B.A.

Minimum Total Credit Hours: 120
Major Hours: 36
Minimum Upper-Division Hours: 48
Upper-Division Hours Within Major. 15
Overall GPA - Combined and OU: 2.00
Major GPA - Combined and OU: 2.00
Program Code: B375 P696
THIS PROGRAM HAS CHANGES FOR 2024 PENDING APPROVAL OF THE OU BOARD OF REGENTS which are not displayed here.
Major Requirements

[^8]| Code | Title | Credit Hours |
| :---: | :---: | :---: |
| Major Requirements |  |  |
| Core Courses |  |  |
| ENGL 2273 | Literary and Cultural Analysis | 3 |
| ENGL 2283 | Critical Methods: Texts/Contexts/ Theories /Critics | 3 |
| Choose one of the following early survey courses: |  | 3 |
| ENGL 2433 | World Literature to 1700 |  |
| ENGL 2543 | English Literature from 1375 to 1700 |  |
| ENGL 2733 | American Indian Literature: Early and Traditional |  |
| ENGL 2773 | American Literature I |  |
| Choose one of the following late survey courses: |  | 3 |
| ENGL 2443 | World Literature, 1700 to Present |  |
| ENGL 2653 | English Literature from 1700 to the Pres |  |
| ENGL 2713 | Introduction to Black Literature in the United States |  |
| ENGL 2743 | American Indian Literature: Modern and Contemporary |  |
| ENGL 2883 | American Literature II |  |
| Capstone Course |  |  |
| ENGL 4853 | The English Capstone Course | 3 |
| Writing Courses |  |  |
| Choose four courses from the Writing Courses list, three of which must be upper-division (p. 381) |  | 12 |
| Major Electives |  |  |
| Choose three additional ENGL courses |  | 9 |
| Total Credit Hours |  | 36 |
| Multicultural Course |  |  |
| All English majors must complete one Multicultural course. This course may be used to satisfy either one of the Writing course requirements, or one of the additional Major Electives. Consult the Department of English website and the Undergraduate Adviser for current courses that meet the Multicultural requirement. |  |  |

## Major Support Requirements

Code Title Credit

Proficiency in one language is required as demonstrated Hours by proficiency examination or successful completion of 1 semester of intermediate coursework in a language taught in Classics, Native American Studies, or Modern Languages departments. (Successful completion $=$ grade of C or better in the intermediate-level course.)

## Total Credit Hours

## English Writing Courses List

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| ENGL 2113 | Intermediate Writing | 3 |
| ENGL 2123 | Creative Writing | 3 |
| ENGL 2133 | Autobiographical Writing | 3 |
| ENGL 3103 | Topics in Advanced Composition | 3 |


| ENGL 3113 | Nature/Environment/Science Writing | 3 |
| :--- | :--- | :--- |
| ENGL 3123 | Fiction Writing | 3 |
| ENGL 3133 | Poetry Writing | 3 |
| ENGL 3143 | Studies in Literacy and Rhetoric | 3 |
| ENGL 3163 | Rhetoric and the Digital Humanities | 3 |
| ENGL 3173 | Histories of Writing, Rhetoric and | 3 |
|  | Technology | 3 |
| ENGL 3183 | Digital Composing | 3 |
| ENGL 3193 | Working with Writers | 3 |
| ENGL 3223 | Oklahoma Writers/Writing Oklahoma | 3 |
| ENGL 4923 | Advanced Fiction Writing | 3 |
| ENGL 4933 | Advanced Poetry Writing | 3 |

## General Education and College Requirements

Courses for fulfillment of General Education and Dodge College of Arts \& Sciences requirements must be from the approved General Education course list published in the Class Schedule or at http://www.ou.edu/ gened/courses. Courses graded P/NP will not apply.

## UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS

Code Title Credit

Core Area I: Symbolic and Oral Communication
English Composition (6 hours)
ENGL 1113 Principles of English Composition 3
ENGL 1213 Principles of English Composition 3
or EXPO 1213 Expository Writing
Language (0-13 hours in the same language)
The college requirement cannot be met by high school coursework.
Beginning Course 0-5
Beginning Course, continued 0-5
$\begin{array}{ll}\text { Intermediate Course (2000 level) }^{1,2} & 0-3\end{array}$
Mathematics (3 hours)
Choose one course from the General Education Mathematics 3

## list

Core Area II: Natural Science (7 hours, including one laboratory component)
Biological Science
Choose an approved General Education Natural Science 3-4 course with one of the following prefixes: BIOL, HES, MBIO, or PBIO ${ }^{1}$
Physical Science
Choose an approved General Education Natural Science 3-4
course with one of the following prefixes: AGSC, ASTR, CHEM,
GEOG, GEOL, GPHY, METR, or PHYS ${ }^{1}$
Core Area III: Social Science (6 hours)
PSC 1113 American Federal Government 3
Choose one course from the General Education Social 3
Science list
Core Area IV: Arts and Humanities (18 hours)
Artistic Forms


## Free Electives

Electives to bring total applicable hours to the minimum total required for the degree including 48 upper-division hours.

## Information Concerning General Rules, Regulations and Minimum Requirements

Arts and Sciences Hours: At least 80 semester hours of liberal arts and sciences courses are required for a BA degree. At least 55 semester hours of liberal arts and sciences courses are required for a BS degree.
Pass/No Pass Enrollment: A maximum of 16 semester hours of free elective credit may be attempted under this option.
Individual Studies (e.g., courses titled "Independent Study"): A maximum of 12 total semester hours may be counted toward graduation, excluding Honors Reading and Honors Research.
P.E. Courses: No physical education activity courses will be counted toward the 120 semester hours of acceptable credit for graduation. Senior Institution Hours: A minimum of 60 semester hours applied toward graduation must be earned at senior (4-year) institutions.

## Residency:

- At least 15 of the final 30 hours applied toward the degree or at least 50 percent of the hours required by the institution in the major field must be satisfactorily completed at the awarding institution.
- At least 15 semester hours of upper-division major work must be completed in residence at OU.
- OU correspondence courses are not considered resident credit.

Grade Point Averages: Students must earn a minimum over all 2.00 for each of the following: Combined Retention GPA (all college grades), OU Retention GPA, GPA for all major courses, and GPA for all major courses
taken at OU. Some schools and departments of the College have higher minimum grade point averages required for their students.

## Suggested Semester Plan of Study

This plan shows one possible grouping of courses that would allow students to graduate in four years. Please refer to the front of the degree checksheet for official requirements. Students must consult with Dodge College of Arts and Sciences and/or Department of English academic advisors to verify that courses selected each semester fulfill the recommended plan and satisfy University, College of Arts and Sciences, and English major requirements.

## Freshman

| First Semester |  | Credit <br> Hours |
| :--- | ---: | ---: |
| ENGL 1113 | Principles of English Composition (Core I) | 3 |
| HIST 1483 | United States to 1865 (Core IV) | 3 |
| or HIST 1493 | or United States, 1865 to the Present |  |
| Math (Core I) |  | 3 |
| Beginning Language (Core I) | 5 |  |
| Free Elective, lower-division | $\mathbf{2}$ |  |
|  | Credit Hours | $\mathbf{1 6}$ |

## Second Semester

| ENGL 1213 | Principles of English Composition (Core I) | 3 |
| :---: | :---: | :---: |
| or EXPO 1213 | or Expository Writing |  |

Beginning Language continued (Core I) 5
First Year Experience (Core V) 3
Natural Science with lab (Core II) 4
Credit Hours 15

## Sophomore

First Semester

| ENGL 2273 | Literary and Cultural Analysis (Core IV <br>  <br> Artistic Forms) | 3 |
| :--- | :--- | :--- |

ENGL Early Survey Elective 3

PSC 1113 American Federal Government 3
Intermediate Language ${ }^{1} 3$
World Culture (Core IV) 3
Credit Hours 15
Second Semester
$\begin{array}{lll}\text { ENGL } 2283 & \begin{array}{l}\text { Critical Methods: Texts/Contexts/ } \\ \text { Theories /Critics }\end{array} & 3\end{array}$
ENGL Late Survey Elective 3
ENGL Writing Requirement, lower- or upper-division 3
Natural Science without lab (Core II) 3
Social Science (Core III) 3
Credit Hours 15

## Junior

First Semester
ENGL Writing Requirement, upper-division 3
ENGL Major Elective, upper-division 3
Western Culture (Core IV) or Free Elective 3
Free Elective, lower- or upper-division 3
Free Elective, upper-division (3000-4000-level) 3

| Second Semester |  |
| :--- | :---: |
| ENGL Major Elective, upper-division | 3 |
| ENGL Writing Requirement, upper-division | 3 |
| Arts \& Humanities, upper-division, outside major (Gen. Ed.) | 3 |
| Free Elective, lower- or upper-division | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Credit Hours | $\mathbf{1 5}$ |

## Senior

## First Semester

ENGL Major Elective, upper-division 3
ENGL Writing Requirement, upper-division 3
Free Elective, upper-division (3000-4000-level) 3
Free Elective, upper-division (3000-4000-level) 3
Free Elective, upper-division (3000-4000-level) 3
Credit Hours ..... 15
ENGL 4853 The English Capstone Course 3$\begin{array}{ll}\text { Arts \& Humanities, upper-division, outside major (Gen. Ed.) } & 3 \\ \text { Free Elective, lower- or upper-division } & 2\end{array}$
Free Elective, upper-division (3000-4000-level) ..... 3
Free Elective, upper-division (3000-4000-level) 3

| Credit Hours | 14 |
| :--- | ---: |
| Total Credit Hours | 120 |

${ }^{1}$ A grade of $C$ or better is required in the intermediate-level language course.

## English Writing Distribution Lists

- For the most current course lists, please contact the Department of English.
- Variable topic courses may be assigned to Multicultural categories based on topic with approval of the Department's Director of Undergraduate Studies.


## MULTICULTURAL COURSES

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| ENGL 2713 | Introduction to Black Literature in the <br> United States | 3 |
| ENGL 2733 | American Indian Literature: Early and <br> Traditional | 3 |
| ENGL 2743 | American Indian Literature: Modern and <br> Contemporary | 3 |
| ENGL 3253 | Special Topics in American Indian <br> Literature | 3 |
| ENGL 3343 | The Literature of Empire | 3 |
| ENGL 3353 | American Indian Nonfiction Writing | 3 |
| ENGL 3363 | Films and Context | 3 |
| ENGL 3453 | Afro-Caribbean Lit/Cult Consciousness: <br> from Alienation to Voice | 3 |
| ENGL 3483 | Native American Writers | 3 |
| ENGL 3643 | Special Topics in Non-Western Literature <br> and Culture | 3 |


| ENGL 4033 | Indigenous Political Writing | 3 |
| :--- | :--- | :---: |
| ENGL 4283 | Hip Hop as Poetry, Literature and Cultural <br> Expression | 3 |
| ENGL 4323 | The Harlem Renaissance | 3 |
| ENGL 4333 | Black Arts/Black Power | 3 |
| ENGL 4343 | The Indian in American Popular Culture | 3 |
| ENGL 4373 | Black Literary Form and Cultural <br> Expression | 3 |
| ENGL 4883 | Puterbaugh/Neustadt International <br> Literature | 3 |

## English: Literary \& Cultural Studies, Minor

## Minimum Total Credit Hours: 15 <br> Minimum Upper-Division Hours: 9

Program Code: N376
The requirements for a minor must be completed concurrently with the major degree requirements.

No minor may be added by completing courses after receiving the bachelor's degree.

At least six (6) credit hours must be earned in courses acceptable for residence credit by standards set forth by the Dodge College of Arts and Sciences, excluding transfer, correspondence, and examination (AP, CLEP, Advanced Standing) credit. Courses for the minor may not be taken Pass/ No Pass.

No single course may be used by a student to satisfy a major requirement and a minor requirement. A course may be used, however, to satisfy both a major support requirement and a minor requirement.

Requests to substitute a minor requirement must be approved in writing by the Department of English.

## Required Courses

Students must successfully complete at least 15 hours of courses acceptable for major credit in English, including nine (9) hours at the upper-division level.

Students may not apply hours from first-year English
(ENGL 1113, ENGL 1213) or from English courses designated as writing courses to a minor in literary and cultural studies.

| Code Title | Credit <br> Hours |
| :--- | ---: |
| Choose 15 hours of courses acceptable for major credit in | 15 |
| English (9 of these hours must be upper division) |  | English (9 of these hours must be upper division)


| Total Credit Hours | 15 |
| :--- | :--- |

- Minors in the Dodge College of Arts \& Sciences are available to all undergraduate students at OU. If the minor is officially declared, successfully completed, and noted on the graduation application, the student's transcript will so indicate at the time the bachelor's degree is posted.


## Editing and Publishing, Minor

Minimum Total Credit Hours: 15

## Minimum Upper-Division Hours: 9

Program Code: N310
The requirements for a minor must be completed concurrently with the major degree requirements.

No minor may be added by completing courses after receiving the bachelor's degree.

At least six (6) credit hours must be earned in courses acceptable for residence credit by standards set forth by the Dodge College of Arts and Sciences, excluding transfer, correspondence, and examination (AP, CLEP, Advanced Standing) credit. Courses for the minor may not be taken Pass/ No Pass.

No single course may be used by a student to satisfy a major requirement and a minor requirement. A course may be used, however, to satisfy both a major support requirement and a minor requirement.

Requests to substitute a minor requirement must be approved in writing by the Dodge College of Arts and Sciences.

## Required Courses

Students must successfully complete at least 15 hours of courses, including at least 9 hours at the upper-division level.

- A grade of $C$ or better must be earned in each course counted for minor credit.

| Code Title | Credit |
| :--- | :--- |
|  | Hours |

## Language Skills

Students must earn a passing grade on a test of Englishlanguage skills administered by the College of Journalism or the OU Writing Center.
Interdisciplinary Methods
$\left.\begin{array}{l}\text { Choose two courses (6 hours) from the following: }{ }^{1} \\ \hline \text { ARTC 2813 }\end{array} \begin{array}{ll}\text { Introduction to Visual Culture and Media } \\ \text { Literacy }\end{array}\right]$

| DES 3663 | Typography II |
| :--- | :--- |
| DES 4993 | Visual Communication Topics |
| COMM 3653 | Computer Mediated Communication |
| ENGL 3183 | Digital Composing |
| ENGL 3193 | Working with Writers |
| ENGL 4113 | Magazine Editing and Publishing in the <br>  |


| ENGL 4950 | Special Topics in World Literature Today <br> (publishing-related topics) |
| :--- | :--- |
| ENGL 4990 | Independent Study (publishing-related <br> topics) |
| HIST 3573 | Special Topics Colloquium |
| JMC 3023 | Long Form Storytelling |
| JMC 3103 | News Editing |
| JMC 3153 | Advancing Cultural Proficiency in Media <br> Leadership |

Total Credit Hours
${ }^{1}$ If a student wishes to use a course not listed here to fulfill the disciplinary methods requirement, it must be pre-approved.
2 Up to three hours of upper-division independent study coursework may count for the minor.
Up to three hours of internship with a journal or magazine at OU, the OU Daily (JMC 3011), the OU Press, or another publishing company, may count toward the minor.
Up to three hours of variable topics courses in any discipline, provided they have a publishing focus, may count toward the minor; however, they must be pre-approved.

- Minors in the Dodge College of Arts \& Sciences are available to all undergraduate students at OU. If the minor is officially declared, successfully completed, and noted on the graduation application, the student's transcript will so indicate at the time the bachelor's degree is posted.


## English: Writing, Minor

Minimum Total Credit Hours: 15
Minimum Upper-Division Hours: 9
Program Code: N377
The requirements for a minor must be completed concurrently with the major degree requirements.

## No minor may be added by completing courses after receiving the

 bachelor's degree.At least six (6) credit hours must be earned in courses acceptable for residence credit by standards set forth by the Dodge College of Arts and Sciences, excluding transfer, correspondence, and examination (AP, CLEP, Advanced Standing) credit. Courses for the minor may not be taken Pass/ No Pass.

No single course may be used by a student to satisfy a major requirement and a minor requirement. A course may be used, however, to satisfy both a major support requirement and a minor requirement.

Requests to substitute a minor requirement must be approved in writing by the Department of English.

## Required Courses

Students must successfully complete at least 15 hours in writing courses beyond the first-year level, at least nine (9) hours at the upper-division level.

| Code Title | Credit <br> Hours |
| :--- | ---: |
| Choose fifteen (15) hours in writing courses beyond the | 15 |
| first-year level, including at least nine (9) hours at the upper- |  |
| division level. |  |

## Total Credit Hours

Writing courses that fulfill the requirements for the minor in writing include:

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| ENGL 2113 | Intermediate Writing | 3 |
| ENGL 2123 | Creative Writing | 3 |
| ENGL 2133 | Autobiographical Writing | 3 |
| ENGL 3103 | Topics in Advanced Composition | 3 |
| ENGL 3123 | Fiction Writing | 3 |
| ENGL 3133 | Poetry Writing | 3 |
| ENGL 3143 | Studies in Literacy and Rhetoric | 3 |
| ENGL 3153 | Technical Writing | 3 |
| ENGL 3163 | Rhetoric and the Digital Humanities | 3 |
| ENGL 3173 | Histories of Writing, Rhetoric and | 3 |
| ENGL 3223 | Technology |  |
| ENGL 4943 | Advanoma Writers/Writing Oklahoma | 3 |

- Minors in the Dodge College of Arts \& Sciences are available to all undergraduate students at OU. If the minor is officially declared, successfully completed, and noted on the graduation application, the student's transcript will so indicate at the time the bachelor's degree is posted.


## Irish Studies, Minor

Minimum Total Credit Hours: 15
Minimum Upper-Division Hours: 9
Program Code: N575
The requirements for a minor must be completed concurrently with the major degree requirements.

## No minor may be added by completing courses after receiving the bachelor's degree.

At least six (6) credit hours must be earned in courses acceptable for residence credit by standards set forth by the College of Arts and Sciences, excluding transfer, correspondence, and examination (AP, CLEP, Advanced Standing) credit. Courses for the minor may not be taken Pass/ No Pass.

No single course may be used by a student to satisfy a major requirement and a minor requirement. A course may be used, however, to satisfy both a major support requirement and a minor requirement.

Requests to substitute a minor requirement must be approved in writing by the Department of English.

## Required Courses

Students must successfully complete at least 15 hours of coursework, including at least nine (9) hours at the upper-division level.

## Students must earn a grade of $C$ or better in all courses taken to fulfill

 requirements for the minor.| Code | Title | Credit <br> Hours |
| :---: | :---: | :---: |
| Disciplinary Methods Course |  |  |
| Choose one of the following: |  | 3 |
| ANTH 1113 | What Makes Us Human? Exploring Cultural and Biological Diversity |  |
| EXPO 1223 | Expository Writing |  |
| GEOG 2603 | World Regional Geography |  |
| HIST 2573 | The History Sleuth |  |
| IAS 2003 | Understanding the Global Community |  |
| P SC 2013 | Introduction to Political Analysis |  |
| SOC 1113 | Introduction to Sociology |  |
| Upper-Division Courses |  |  |
| Choose four ad | ional 3000-4000-level courses: | 12 |
| Up to 3 hours of coursework taken in Ireland, regardless of the course focus, may count for the minor; other courses must focus primarily on some aspect of Irish culture |  |  |
| Up to 3 hours of upper-division independent study coursework may count for the minor |  |  |
| Variable topics courses in any discipline, provided they have an Irish focus, may count towards the minor |  |  |

Total Credit Hours
The courses listed below have been offered with an Irish focus and may be used for the minor; however, they must be pre-approved:

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| ANTH 3953 | Proseminar in Anthropology | 3 |
| CAS 3900 | Study Abroad | $1-6$ |
| ENGL 4023 | Literary Movements | 3 |
| HIST 3283 | History of Ireland, Part II (Does not require | 3 |
|  | pre-approval) | $1-3$ |
| P SC 3600 | Topics in Comparative Politics | $1-3$ |
| SOC 3900 | Special Topics in Sociology |  |

- Minors in the College of Arts \& Sciences are available to all undergraduate students at OU. If the minor is officially declared, successfully completed, and noted on the graduation application, the student's transcript will so indicate at the time the bachelor's degree is posted.


## English: Literary \& Cultural Studies, B.A./ M.A.

## Minimum Total Credit Hours: 144

Major Hours: 36
Minimum Upper-Division Hours: 54

Overall GPA - Combined and OU: 3.25

## Major GPA - Combined and OU: 3.25 <br> Program Code: A375 P421 <br> Undergraduate Requirements

- Some courses required for the major may also fulfill University General Education and/or College of Arts \& Sciences Requirements.
- A grade of $C$ or better must be earned in each English course presented for major credit.


## Major Requirements

| Code Title | Credit |
| :--- | :--- | :--- |
|  | Hours |


| Core Courses |  | 3 |
| :--- | :--- | :--- |
| ENGL $2273 \quad$ Literary and Cultural Analysis | 3 |  |

Choose one of the following early survey courses: 3

| ENGL 2433 | World Literature to 1700 |
| :--- | :--- |
| ENGL 2543 | English Literature from 1375 to 1700 |
| ENGL 2733 | American Indian Literature: Early and <br> Traditional |
| ENGL 2773 | American Literature I |
| Choose one of the following late survey courses: | 3 |


| ENGL 2443 | World Literature, 1700 to Present |
| :--- | :--- |
| ENGL 2653 | English Literature from 1700 to the Present |
| ENGL 2713 | Introduction to Black Literature in the <br> United States |
| ENGL 2743 | American Indian Literature: Modern and <br> Contemporary |
| ENGL 2883 | American Literature II |
| Capstone Course | The English Capstone Course |
| ENGL 4853 <br> Literary \& Cultural Studies Courses |  |
| Choose one course in ENGL Pre-1700 |  |

Choose one course in ENGL Post-1700 ${ }^{1} 3$

## Major Electives

Choose 6 additional ENGL courses (18 hours)
Multicultural Course Requirement ${ }^{1}$
All English majors must complete one Multicultural course.
This course may be used to satisfy either one of the LCS
Distribution requirements or one of the additional Major
Electives.

## Total Credit Hours

1 Distribution course lists: (p. 380) Consult the Department of English website and Undergraduate Advisor for current course offerings in these areas.

## Major Support Requirements <br> Cod <br> Title

Credit Hours
Proficiency in one language is required as demonstrated
by proficiency examination or successful completion of 1 semester of intermediate coursework in a language taught in Classics, Native American Studies, or Modern Languages departments. Successful completion $=$ grade of C or better in the intermediate-level course.

## M.A. Component

Choose one of the following options:

## LiteraRY Studies Option

| Code | Title | Credit |
| :---: | :---: | :---: |
|  |  | Hours |
| ENGL 5113 | Teaching College Composition | 3 |
| ENGL 5313 | Literary Criticism | 3 |
| ENGL 5980 | Research for Master's Thesis | 3 |
| Choose seven elective courses in consultation with advisor (two graduate 4000/5000 level classes can be shared) |  | 21 |
| Total Credit Hours |  | 30 |
| Rhetoric and Writing Studies Option |  |  |
| Code | Title | Credit |
|  |  | Hours |
| ENGL 5113 | Teaching College Composition | 3 |
| ENGL 5403 | Introduction to Rhetoric and Writing Studies | 3 |
| ENGL 5980 | Research for Master's Thesis | 3 |
| ENGL 6103 | Research Methods in Rhetoric and Writing | 3 |
| Choose six elective courses in consultation with advisor (two graduate 4000/5000 classes can be shared) |  | 18 |

Total Credit Hours ..... 30

## General Education and College Requirements

Courses for fulfillment of General Education and College of Arts \& Sciences requirements must be from the approved General Education course list published in the Class Schedule or at http://www.ou.edu/ gened/courses. Courses graded P/NP will not apply.

## UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS <br> Code Title Credit Hours

Core Area I: Symbolic and Oral Communication
English Composition (6 hours)
ENGL 1113 Principles of English Composition 3
ENGL 1213 Principles of English Composition 3
or EXPO 1213 Expository Writing
Language (0-13 hours in the same language)
The college requirement cannot be met by high school coursework.

Beginning Course 0-5
$\begin{array}{ll}\text { Beginning Course, continued } & 0-5\end{array}$
$\begin{array}{ll}\text { Intermediate Course (2000 level) }{ }^{1,2} & 0-3\end{array}$

| Mathematics (3 hours) |  |
| :---: | :---: |
| Choose one course from the General Education Mathematics list | 3 |
| Core Area II: Natural Science (7 hours, including one laboratory component) |  |
| Biological Science |  |
| Choose an approved General Education Natural Science course with one of the following prefixes: BIOL, HES, MBIO, or PBIO ${ }^{1}$ | 3-4 |
| Physical Science |  |
| Choose an approved General Education Natural Science course with one of the following prefixes: AGSC, ASTR, CHEM, GEOG, GEOL, GPHY, METR, or PHYS ${ }^{1}$ | 3-4 |
| Core Area III: Social Science (6 hours) |  |
| P SC 1113 American Federal Government | 3 |
| Choose one course from the General Education Social Science list | 3 |
| Core Area IV: Arts and Humanities (18 hours) |  |
| Artistic Forms |  |
| Choose one course from the General Education Artistic Forms list | 3 |
| Western Culture |  |
| HIST 1483 United States to 1865 <br> or HIST 1493 United States, 1865 to the Present | 3 |
| Choose one course from the General Education Western Culture list (excluding HIST 1483/1493) | 3 |
| World Culture |  |
| Choose one course from the General Education World Culture list | 3 |
| Additional Core IV Upper-Division Arts \& Humanities courses |  |
| Choose one course from Artistic Forms, Western Culture, or World Culture ${ }^{1,3}$ | 3 |
| Choose one course from Artistic Forms, Western Culture, or World Culture ${ }^{1,3}$ | 3 |
| Core Area V: First Year Experience (3 hours) |  |
| Choose one course | 3 |
| Total Credit Hours | 56 |
| ${ }^{1}$ College of Arts and Sciences Requirements: college requirements are not automatically fulfilled by a previous degree. |  |
| ${ }^{2}$ One course at the intermediate level or demonstrated competency that level <br> ${ }^{3} 6$ upper-division hours, 2 courses, at the 3000-4000-level. Must be outside the major. |  |

## Free Electives

Electives to bring total applicable hours to the minimum total required for the degree including 48 upper-division hours.

## Information Concerning General Rules, Regulations and Minimum Requirements

Arts and Sciences Hours: At least 80 semester hours of liberal arts and sciences courses are required for a BA degree. At least 55 semester hours of liberal arts and sciences courses are required for a BS degree.

Pass/No Pass Enrollment: A maximum of 16 semester hours of free elective credit may be attempted under this option.
Individual Studies (e.g., courses titled "Independent Study"): A maximum of 12 total semester hours may be counted toward graduation, excluding Honors Reading and Honors Research.
P.E. Courses: No physical education activity courses will be counted toward the 120 semester hours of acceptable credit for graduation.
Senior Institution Hours: A minimum of 60 semester hours applied toward graduation must be earned at senior (4-year) institutions. Residency:

- At least 15 of the final 30 hours applied toward the degree or at least 50 percent of the hours required by the institution in the major field must be satisfactorily completed at the awarding institution.
- At least 15 semester hours of upper-division major work must be completed in residence at OU.
- OU correspondence courses are not considered resident credit.

Grade Point Averages: Students must earn a minimum over all 2.00 for each of the following: Combined Retention GPA (all college grades), OU Retention GPA, GPA for all major courses, and GPA for all major courses taken at OU. Some schools and departments of the College have higher minimum grade point averages required for their students.

## Suggested Semester Plan of Study

This plan shows one possible grouping of courses that would allow students to graduate in five years. Please refer to the front of the degree checksheet for official requirements. Students must consult with Dodge College of Arts and Sciences and/or Department of English academic advisors to verify that courses selected each semester fulfill the recommended plan and satisfy University, College of Arts and Sciences, Graduate College, and English requirements.

## Freshman

| First Semester |  | Credit |
| :---: | :---: | :---: |
|  |  | Hours |
| ENGL 1113 | Principles of English Composition (Core I) | 3 |
| HIST 1483 <br> or HIST 1493 | United States to 1865 (Core IV) or United States, 1865 to the Present | 3 |
| MATH (Core I) |  | 3 |
| Beginning Language (Core I) |  | 5 |
| First Year Experience (Core V) |  | 3 |
|  | Credit Hours | 17 |

## Second Semester

ENGL 1213 Principles of English Composition (Core I) 3
or EXPO 1213 or Expository Writing
P SC 1113 American Federal Government (Core III) 3
Beginning Language Continued (Core I) 5
Natural Science with Lab (Core II) 4
Credit Hours15

## Sophomore

## First Semester

ENGL 2273 Literary and Cultural Analysis (Core IV-AF) 3
ENGL Core Elective (Early Survey) 3
Intermediate Language (grade of C or better) 3
World Culture (Core IV-WDC) 3

| Free Elective, lower-division | 3 |
| :--- | :--- |


| Second Semester |  |
| :---: | :---: |
| ENGL Core Elective (Late Survey) | 3 |
| ENGL Literary \& Cultural Studies Major Requirement, multicultural | 3 |
| Natural Science without lab (Core II) | 3 |
| Social Science (Core III-SS) | 3 |
| Free Elective, lower division | 3 |
| Credit Hours | 15 |
| Junior |  |
| First Semester |  |
| ENGL Literary \& Cultural Studies Pre-1700, upper-division | 3 |
| ENGL Major Elective, lower or upper division | 3 |
| ENGL Major Elective, upper-division | 3 |
| Western Culture (Core IV-WC) or Free Elective | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Credit Hours | 15 |
| Second Semester |  |
| ENGL Literary \& Cultural Studies Post-1700, upper-division | 3 |
| ENGL Major Elective, upper-division | 3 |
| Arts \& Humanities, upper-division, outside major (Gen. Ed.) | 3 |
| Free Elective, lower or upper division | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Credit Hours | 15 |
| Senior |  |
| First Semester |  |
| ENGL Major Graduate Elective (Shared; G4000-5000-level) | 3 |
| Free Elective, lower or upper division | 1 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Credit Hours | 13 |
| Second Semester |  |
| ENGL 4853 The English Capstone Course | 3 |
| ENGL Major Graduate Elective (Shared; G4000-5000-level) | 3 |
| Arts \& Humanities, upper-division, outside major (Gen. Ed.) | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Credit Hours | 15 |
| Fifth Year |  |
| First Semester |  |
| ENGL 5313 Literary Criticism | 3 |
| ENGL 5113 Teaching College Composition | 3 |
| ENGL Graduate elective (4000-5000-level) course | 3 |
| ENGL Graduate elective (4000-5000-level) course | 3 |
| Credit Hours | 12 |
| Second Semester |  |
| ENGL 5980 Research for Master's Thesis | 3 |
| ENGL Graduate elective (4000-5000-level) course | 3 |
| ENGL Graduate elective (4000-5000-level) course | 3 |


| ENGL Graduate elective (4000-5000-level) course | 3 |
| :--- | ---: |
| Credit Hours | $\mathbf{1 2}$ |
| Total Credit Hours | $\mathbf{1 4 4}$ |

## English: Writing, B.A./M.A.

Minimum Total Credit Hours: 144
Major Hours: 36
Minimum Upper-Division Hours: 54

Overall GPA - Combined and OU: 3.25
Major GPA - Combined and OU: 3.25
Program Code: A375 P696

## Major Requirements

- Some courses required for the major may also fulfill University General Education and/or College of Arts \& Sciences Requirements.
- A grade of $C$ or better must be earned in each English course presented for major credit.

| Code | Title |  |
| :---: | :---: | :---: |
| Core Courses |  |  |
| ENGL 2273 | Literary and Cultural Analysis | 3 |
| Choose one of the following early survey courses: |  | 3 |
| ENGL 2433 | World Literature to 1700 |  |
| ENGL 2543 | English Literature from 1375 to 1700 |  |
| ENGL 2733 | American Indian Literature: Early and Traditional |  |
| ENGL 2773 | American Literature I |  |
| Choose one of the following late survey courses: |  | 3 |
| ENGL 2443 | World Literature, 1700 to Present |  |
| ENGL 2653 | English Literature from 1700 to the Present |  |
| ENGL 2713 | Introduction to Black Literature in the United States |  |
| ENGL 2743 | American Indian Literature: Modern and Contemporary |  |
| ENGL 2883 | American Literature II |  |
| Capstone Course |  |  |
| ENGL 4853 | The English Capstone Course | 3 |
| Writing Courses |  |  |
| Choose 4 cour must be upper | from the Writing Courses list, 3 of which vision | 12 |
| Major Electives |  |  |
| Choose four ad | tional ENGL courses (12 hours) | 12 |
| Multicultural Course Requirement (p. 383) |  |  |
| All English majors must complete one Multicultural course. This course may be used to satisfy either one of the Writing course requirements, or one of the additional Major Electives. Consult the Department of English website and the Undergraduate Advisor for current courses that meet the Multicultural requirement. |  |  |

## Major Support Requirements

Code Title

Proficiency in one language is required as demonstrated by proficiency examination or successful completion of 1 semester of intermediate coursework in a language taught in Classics, Native American Studies, or Modern Languages departments. Successful completion $=$ grade of C or better in the intermediate-level course.

## M.A. Component

Choose one of the following options:

## Literary Studies Option

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| ENGL 5113 | Teaching College Composition | 3 |
| ENGL 5313 | Literary Criticism | 3 |
| ENGL 5980 | Research for Master's Thesis | 3 |
| Choose seven elective courses in consultation with advisor | 21 |  |
| (two graduate 4000/5000 level classes can be shared) |  |  |

Total Credit Hours ..... 30

Rhetoric And Writing Studies Option

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| ENGL 5113 | Teaching College Composition | 3 |
| ENGL 5403 | Introduction to Rhetoric and Writing <br> Studies | 3 |
| ENGL 5980 | Research for Master's Thesis | 3 |
| ENGL 6103 | Research Methods in Rhetoric and Writing | 3 |
| Choose six elective courses in consultation with advisor (two | 18 |  |
| graduate 4000/5000 classes can be shared) |  |  |

## Total Credit Hours

## English Undergraduate Course Lists

The Multicultural Course list is maintained by the department. Consult the Department of English website and the Undergraduate Adviser for current courses that meet the Multicultural requirement.

## Writing Courses

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| ENGL 2113 | Intermediate Writing | 3 |
| ENGL 2123 | Creative Writing | 3 |
| ENGL 2133 | Autobiographical Writing | 3 |
| ENGL 3103 | Topics in Advanced Composition | 3 |
| ENGL 3113 | Nature/Environment/Science Writing | 3 |
| ENGL 3123 | Fiction Writing | 3 |
| ENGL 3133 | Poetry Writing | 3 |
| ENGL 3143 | Studies in Literacy and Rhetoric | 3 |
| ENGL 3163 | Rhetoric and the Digital Humanities | 3 |
| ENGL 3173 | Histories of Writing, Rhetoric and | 3 |
|  | Technology |  |
| ENGL 3183 | Digital Composing | 3 |


| ENGL 3193 | Working with Writers | 3 |
| :--- | :--- | :--- |
| ENGL 3223 | Oklahoma Writers/Writing Oklahoma | 3 |
| ENGL 4923 | Advanced Fiction Writing | 3 |
| ENGL 4933 | Advanced Poetry Writing | 3 |
| ENGL 4943 | Advanced Creative Nonfiction Writing | 3 |

## General Education and College Requirements

Courses for fulfillment of General Education and College of Arts \& Sciences requirements must be from the approved General Education course list published in the Class Schedule or at http://www.ou.edu/ gened/courses. Courses graded P/NP will not apply.

\section*{UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS <br> Code Title |  | Credit |
| :--- | :--- |
|  | Hours |}

Core Area I: Symbolic and Oral Communication
English Composition (6 hours)
ENGL 1113 Principles of English Composition 3
ENGL 1213 Principles of English Composition 3
or EXPO 1213 Expository Writing
Language ( $0-13$ hours in the same language)
The college requirement cannot be met by high school coursework.
Beginning Course 0-5
Beginning Course, continued 0-5
Intermediate Course (2000 level) ${ }^{1,2} \quad 0-3$
Mathematics (3 hours)
Choose one course from the General Education Mathematics 3
list
Core Area II: Natural Science (7 hours, including one
laboratory component)
Biological Science
Choose an approved General Education Natural Science 3-4
course with one of the following prefixes: BIOL, HES, MBIO, or PBIO ${ }^{1}$
Physical Science
Choose an approved General Education Natural Science 3-4
course with one of the following prefixes: AGSC, ASTR, CHEM,
GEOG, GEOL, GPHY, METR, or PHYS ${ }^{1}$
Core Area III: Social Science (6 hours)
P SC 1113 American Federal Government 3

Choose one course from the General Education Social 3
Science list
Core Area IV: Arts and Humanities (18 hours)
Artistic Forms
Choose one course from the General Education Artistic Forms 3
list
Western Culture
HIST 1483 United States to 1865
or HIST 1493 United States, 1865 to the Present
Choose one course from the General Education Western 3
Culture list (excluding HIST 1483/1493)
World Culture

Choose one course from the General Education World Culture list
Additional Core IV Upper-Division Arts \& Humanities courses
Choose one course from Artistic Forms, Western Culture, or World Culture ${ }^{1,3}$
Choose one course from Artistic Forms, Western Culture, or World Culture ${ }^{1,3}$
Core Area V: First Year Experience (3 hours)
Choose one course 3

Total Credit Hours
${ }^{1}$ College of Arts and Sciences Requirements: college requirements are not automatically fulfilled by a previous degree.
${ }^{2}$ One course at the intermediate level or demonstrated competency at that level
${ }^{3} 6$ upper-division hours, 2 courses, at the 3000-4000-level. Must be outside the major.

## Free Electives

Electives to bring total applicable hours to the minimum total required for the degree including 48 upper-division hours.

## Information Concerning General Rules, Regulations and Minimum Requirements

Arts and Sciences Hours: At least 80 semester hours of liberal arts and sciences courses are required for a BA degree. At least 55 semester hours of liberal arts and sciences courses are required for a BS degree.
Pass/No Pass Enrollment: A maximum of 16 semester hours of free elective credit may be attempted under this option.
Individual Studies (e.g., courses titled "Independent Study"): A maximum of 12 total semester hours may be counted toward graduation, excluding Honors Reading and Honors Research.
P.E. Courses: No physical education activity courses will be counted toward the 120 semester hours of acceptable credit for graduation. Senior Institution Hours: A minimum of 60 semester hours applied toward graduation must be earned at senior (4-year) institutions.

## Residency:

- At least 15 of the final 30 hours applied toward the degree or at least 50 percent of the hours required by the institution in the major field must be satisfactorily completed at the awarding institution.
- At least 15 semester hours of upper-division major work must be completed in residence at OU.
- OU correspondence courses are not considered resident credit.

Grade Point Averages: Students must earn a minimum over all 2.00 for each of the following: Combined Retention GPA (all college grades), OU Retention GPA, GPA for all major courses, and GPA for all major courses taken at OU. Some schools and departments of the College have higher minimum grade point averages required for their students.

## Suggested Semester Plan of Study

This plan shows one possible grouping of courses that would allow students to graduate in five years. Please refer to the front of the degree checksheet for official requirements. Students must consult with Dodge College of Arts and Sciences and/or Department of English academic advisors to verify that courses selected each semester fulfill

3 the recommended plan and satisfy University, College of Arts and Sciences, Graduate College, and English requirements.

## Freshman

| First Semester |  | Credit |
| :---: | :---: | :---: |
| ENGL 1113 | Principles of English Composition (Core I) | 3 |
| HIST 1483 or HIST 1493 | United States to 1865 (Core IV) or United States, 1865 to the Present | 3 |
| MATH (Core I) |  | 3 |
| Beginning Language (Core I) |  | 5 |
| First Year Experience (Core V) |  | 3 |

## Second Semester

| ENGL 1213 <br> or EXPO 1213 | Principles of English Composition (Core I) <br> or Expository Writing | 3 |
| :--- | ---: | ---: |
| P SC 1113 | American Federal Government (Core III) | 3 |
| Beginning Language continued (Core I) | 5 |  |
| Natural Science with lab (Core II) | 4 |  |
| Credit Hours |  | $\mathbf{1 5}$ |

## Sophomore

First Semester
ENGL 2273 Literary and Cultural Analysis (Core IV-AF) 3

ENGL Core Elective (Early Survey) 3
Intermediate Language (Grade of C or better required) 3
World Culture (Core IV-WDC) 3
Free Elective, lower division 3
Credit Hours 15
Second Semester
ENGL Core Elective (Late Survey) 3
ENGL Writing Major Requirement, lower-division 3
Natural Science without lab (Core II) 3
Social Science (Core III-SS) 3
Free Elective, lower division 3

Credit Hours
15

## Junior

## First Semester

ENGL Writing Major Requirement, upper-division 3
ENGL Writing Major Requirement, upper-division 3
ENGL Major Elective, lower or upper division 3
Western Culture (Core IV-WC) or Free Elective 3
Free Elective, upper-division (3000-4000-level) 3

## Second Semester

ENGL Writing Major Requirement, upper-division 3
ENGL Major Elective, upper-division 3
Arts \& Humanities, upper-division, outside major (Gen. Ed.) 3
Free Elective, lower or upper-division 3
Free Elective, upper-division (3000-4000-level) 3
Credit Hours

## Senior

First Semester
ENGL Major Graduate Elective (Shared; G4000-5000-level)

| Free Elective, lower or upper division | 1 |
| :---: | :---: |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Credit Hours | 13 |
| Second Semester |  |
| ENGL 4853 The English Capstone Course | 3 |
| ENGL Major Graduate Elective (Shared; G4000-5000-level) | 3 |
| Arts \& Humanities, upper-division, outside major (Gen. Ed.) | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Credit Hours | 15 |
| Fifth Year |  |
| First Semester |  |
| ENGL 5403 Introduction to Rhetoric and Writing | 3 |
| ENGL 5113 Teaching College Composition | 3 |
| ENGL 6103 Research Methods in Rhetoric and Writing | 3 |
| ENGL Graduate elective (4000-5000-level) course | 3 |
| Credit Hours | 12 |
| Second Semester |  |
| ENGL 5980 Research for Master's Thesis | 3 |
| ENGL Graduate elective (4000-5000-level) course | 3 |
| ENGL Graduate elective (4000-5000-level) course | 3 |
| ENGL Graduate elective (4000-5000-level) course | 3 |
| Credit Hours | 12 |
| Total Credit Hours | 144 |

## English: Literary Studies, M.A.

Minimum Total Hours (Thesis): 30
Program Code: M375 Q426

## Required Courses

Reading proficiency in one foreign language as determined by the department is required.

| Thesis Option Only |  |  |
| :--- | :--- | :--- |
| Code | Title | Credit |
|  |  | Hours |


| Core Courses ${ }^{1}$ |  |  |
| :--- | :--- | ---: |
| ENGL 5313 | Literary Criticism | 3 |
| ENGL 5113 | Teaching College Composition | 3 |
| Electives |  | 21 |
| Choose seven courses in the Literary Studies Concentration, <br> as approved by the Graduate Liaison and the student's <br> advisor |  |  |
| Required Courses | Research for Master's Thesis |  |
| ENGL 5980 | $\mathbf{3 0}$ |  |
| Total Credit Hours |  |  |

department, and one Directed Readings (ENGL 5963), with permission from the student's chair and the departmental graduate committee.

## General Requirements for all Master's Degrees

The master's degree requires the equivalent of at least two semesters of satisfactory graduate work and additional work as may be prescribed for the degree.

All coursework applied to the master's degree must carry graduate credit.
Master's degree programs which require a thesis consist of at least 30 credit hours. All non-thesis master's degree programs require at least 30 credit hours.

Credit transferred from other institutions must meet specific criteria and is subject to certain limitations.

Courses completed through correspondence study may not be applied to the master's degree.

To qualify for a graduate degree, students must achieve an overall grade point average of 3.0 or higher in the degree program coursework and in all resident graduate coursework attempted. A student must also have at least a 3.0 in all coursework (including undergraduate coursework if any).

Additional information for master's degree students may be found in the Graduate College Bulletin.

## English: Rhetoric \& Writing Studies, M.A.

Minimum Total Hours (Thesis): 30
Program Code: M375 Q576

## Required Courses

Thesis Option Only

| Code | Title | Credit <br> Hours |
| :---: | :---: | :---: |
| Core Courses ${ }^{1}$ |  |  |
| ENGL 5403 | Introduction to Rhetoric and Writing Studies | 3 |
| ENGL 5113 | Teaching College Composition | 3 |
| ENGL 6103 | Research Methods in Rhetoric and Writing | 3 |
| Required Course |  |  |
| ENGL 5980 | Research for Master's Thesis | 3 |
| Electives |  |  |
| Choose six courses in consultation with advisor ${ }^{2}$ |  | 18 |
| Total Credit Hours |  | 30 |
| ${ }^{1}$ Courses must be taken at the 5000 or 6000 level. |  |  |
| ${ }^{2}$ Students must ta may take one gradu department, and from the student | ake most courses at the 5000 - or 6000 -leve aduate 4000 -level class, and one course out one directed reading (ENGL 5963), with pe t's chair and the departmental graduate com |  |

${ }^{1}$ Courses must be taken at the 5000 or 6000 level.
${ }^{2}$ Students must take most courses at the 5000- or 6000-level, but may take one graduate 4000-level class, and one course outside the

## General Requirements for all Master's Degrees

The master's degree requires the equivalent of at least two semesters of satisfactory graduate work and additional work as may be prescribed for the degree.

All coursework applied to the master's degree must carry graduate credit.
Master's degree programs which require a thesis consist of at least 30 credit hours. All non-thesis master's degree programs require at least 30 credit hours.

Credit transferred from other institutions must meet specific criteria and is subject to certain limitations.

Courses completed through correspondence study may not be applied to the master's degree.

To qualify for a graduate degree, students must achieve an overall grade point average of 3.0 or higher in the degree program coursework and in all resident graduate coursework attempted. A student must also have at least a 3.0 in all coursework (including undergraduate coursework if any).

Additional information for master's degree students may be found in the Graduate College Bulletin.

## English: Literary Studies, Ph.D.

Minimum Total Hours: 90
Program Code: D375 R426
Program Requirements

| Code Title | Credit |
| :---: | :---: |
|  | Hours |
| Required Courses (5000-6000 level) ${ }^{1}$ |  |
| ENGL 5113 Teaching College Composition | 3 |
| ENGL 5313 Literary Criticism | 3 |
| Electives: Seven courses ( 21 hours) in Literary Studies as approved by graduate liaison and the student's advisor. ${ }^{2}$ | 21 |
| PhD Exam Hours |  |
| ENGL 6880 Research for PhD Exam | 3 |
| Dissertation Hours |  |
| ENGL $6980 \quad \begin{aligned} & \text { Research for Doctoral Dissertation } \\ & \text { (minimum } 2 \text { hours, maximum 30) }\end{aligned}$ | 2-30 |
| Additional Coursework |  |
| Additional courses and/or transfer coursework from a previous master's degree to reach 90 post-baccalaureate hours | 30-58 |

## Foreign Language Requirement

Candidate must have reading proficiency in one foreign
language
Total Credit Hours
90

1 If these courses have already been taken at the MA level, then students will take additional electives.
2 Electives may include one directed reading (ENGL 5963) with approval of the departmental graduate committee.

## General Requirements for Doctoral Degrees

A student should expect to spend at least the equivalent of three full academic years beyond the bachelor's degree to obtain the doctoral degree. During this period the student will take appropriate graduate coursework, successfully complete the general examination, and successfully defend and submit the final dissertation.

All coursework applied to the doctoral degree must carry graduate credit.
The doctoral degree requires at least 90 post-baccalaureate hours, including both formal coursework and hours of research.

The minimum hour requirement for a specific doctoral degree program cannot be waived.

No more than one-half of the credit hours, both OU and overall, excluding Research for Doctoral Dissertation (6980), may be S/U-graded coursework.

The student must be in residence at OU for at least two consecutive 16week semesters during the pursuit of the doctoral degree while enrolled and engaged in coursework or research activities as prescribed by the major academic unit.

For more detailed regulations and requirements for Doctoral degrees, please consult the Graduate College Bulletin: http://www.ou.edu/ gradcollege/forms/bulletin

## English: Rhetoric \& Writing Studies, Ph.D.

Minimum Total Hours: 90
Program Code: D375 R577

## Program Requirements



## Additional Coursework

Additional courses and/or transfer coursework from a hours

## Total Credit Hours

1 If these courses have already been taken at the MA level, then students will take additional electives.
${ }^{2}$ Students must take these electives at the 5000 or 6000 level, but may take one graduate 4000-level class, one course outside the department,
and one directed reading (ENGL 5963) with permission from the student's chair and the departmental graduate committee.

## General Requirements for Doctoral Degrees

A student should expect to spend at least the equivalent of three full academic years beyond the bachelor's degree to obtain the doctoral degree. During this period the student will take appropriate graduate coursework, successfully complete the general examination, and successfully defend and submit the final dissertation.

All coursework applied to the doctoral degree must carry graduate credit.
The doctoral degree requires at least 90 post-baccalaureate hours, including both formal coursework and hours of research.

The minimum hour requirement for a specific doctoral degree program cannot be waived.

No more than one-half of the credit hours, both OU and overall, excluding Research for Doctoral Dissertation (6980), may be S/U-graded coursework.

The student must be in residence at OU for at least two consecutive 16week semesters during the pursuit of the doctoral degree while enrolled and engaged in coursework or research activities as prescribed by the major academic unit.

For more detailed regulations and requirements for Doctoral degrees, please consult the Graduate College Bulletin: http://www.ou.edu/ gradcollege/forms/bulletin

## Environmental Studies

Zev Trachtenberg, Director and Professor
625 Elm Ave
Norman, OK 73019-3126
Phone: (405) 325-0595
environmentalstudies@ou.edu
www.ou.edu/cas/environmentalstudies

## General Information

Formerly the Interdisciplinary Perspectives on the Environment program, Environmental Studies is a collaborative teaching and research program with a student-guided curriculum designed to create the leadership and workforce with the skills needed to help meet global challenges relating to water security and other pressing environmental issues, such as pollution, climate change, and deforestation.

The Environmental Studies program provides an undergraduate curriculum that leverages water and other environmentally-related strengths and expertise across the University of Oklahoma, and provides for scholarly specialization in water-related and other environmental disciplines, in order to prepare students to participate effectively in socially-responsible solutions to some of the greatest environmental problems facing humanity.

Environmental Studies prepares students for environmentally-related jobs, including those in federal, state, and tribal government agencies, environmental consulting firms, corporate, professional, and industrial
enterprises, environmentally-related NGOs, journalism, public service, law, advocacy, and legislative lobbying efforts.

## Programs \& Facilities

## Environmental Research Experience for Students (ERES)

ERES is designed to provide undergraduate students with meaningful experience in scholarly research and creative activity focused on important environmental issues of the day.

## Environmental Studies Related Internships

Internship experience with course credit is possibly for any student interested in getting a headstart on their career. See Internships for more information

## Undergraduate Study Programs Offered

- Environmental Studies, Bachelor of Arts (p. 396)
- Environmental Studies Minor (p. 400)


## Graduate Study Programs Offered

- Environmental Studies, Master of Science (p. 400)

Admission to the Environmental Studies graduate programs is based on the standards for admission established by the Graduate College. See How to Apply information for more details concerning the admission process.

## Courses

ENST 1013 Consumption and the Environment 3 Credit Hours An introduction to the interdisciplinary aspects of human consumption and the environment. Aspect of the production and consumption of food, energy, transportation, and housing are considered for their contributions to global climate change, air and water pollution, and habitat alteration, as well as other relevant topics regarding the environment. Students will learn how complex interactions between natural processes and human activities shape aspects of the global, regional and local environment. (F, Sp) [III-SS].

## ENST 2003 Water Resources Advocacy

3 Credit Hours
Water is commonly considered the world's "new oil." Experts vow that water scarcity may ultimately lead to the next world war. This course will provide insight and understanding of challenges, decisions, and advocacy in ecologically and economically sustainable management of water resources, as well as the seriousness of what water scarcity means using national and global case studies. (F)

ENST 2023 American Environmental Perspectives 3 Credit Hours Prerequisite: sophomore standing or permission of instructor. Based on the relationships between people and the natural world, with a focus on natural, social, and institutional systems in the US, and our shared goals for sustainability, this course explores the role of nature in fulfilling human needs, as well as how American society influences and impacts nature at local, regional, national, and global scales. (F)

ENST 2203 Ecosystem Impacts of Climate Change 3 Credit Hours
Rising temperatures, changing rainfall patterns, rising sea levels and increasing atmospheric carbon dioxide have direct effects on living creatures and the Earth's climate system, which also spawn many indirect changes in ecological systems. This non-majors course will cover the basic of why climate is changing, its effects on plant and animal physiology and behavior, and its impact on the ecosystem. (Su) [II-NS].
ENST 2623 Human-Wildlife Interactions
3 Credit Hours
Prerequisite: sophomore standing or permission of instructor. Examines various aspects of human-wildlife interactions, including issues pertaining to habitat destruction, poaching, and forced sharing of space between humans and wildlife. Species will be studied through examination of case studies, evaluation of their efficacy, and development of additional solutions to these and similar problems arising in wildlife conservation, with particular emphasis on large African mammals. (Sp)
ENST 2813 Environmental Studies Cornerstone 3 Credit Hours
Prerequisite: ENST majors and minors only; departmental permission required; Corequisite: ENST 3891. This course introduces students to the Environmental Studies program. It offers students an overview of environmental teaching and research at OU, and emphasizes the importance of integrating disciplinary perspectives on environmental topics. (F, Sp)

## ENST 2970 Special Topics

1-3 Credit Hours
Special Topics. 1 to 3 hours. May be repeated; Maximum credit nine hours. Special topics course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research, and field projects. (Irreg.)
ENST 3023 Environmental Psychology
3 Credit Hours
Prerequisite: junior standing or permission of instructor. Examines the interplay between human behavior and the environment, both natural and built. Topics include place identity and place attachment, the cognitive hierarchy and human behavior, the influence of design on behavior, biophilia and behavioral inheritance, the psychology of crowding, environment and health, and research applications. (Sp)
ENST 3203 Sprawl and the Environment
3 Credit Hours
Prerequisite: junior standing or permission of instructor. The built environment, in particular our pattern of cities surrounded by suburbs, has impacts on the environment. These impacts are both direct and indirect. Direct effects include impact on water quality, habitat fragmentation, endangered species and the covering of natural habitat with impervious surfaces. Indirect impacts include increased reliance on automobiles and subsequent increases in air pollution and greenhouse gasses. Students will examine patterns in land use and their impacts and how different development patterns and practices can minimize environmental impacts. (Irreg.)
ENST 3213 Law and the Environment
3 Credit Hours
Prerequisite: junior standing or permission of instructor. Examines the general underlying foundations of the United States constitutional principles. Study of the constitutional and structural conflicts when environmental law is at issue. The focus of the class will shift to practical information and exercises regarding environmental law. Finally, the class will study the three sections of specialized law and their interrelationship with the environment. (Irreg.)

ENST 3223 Environmental Justice
3 Credit Hours
Prerequisite: junior standing or permission of instructor. Examines the impact of industrial societies on human beings, especially minority and low income populations. Students are introduced to evidence of disproportionate impact in certain populations, potential causes of the problems, theoretical concepts of environmental justice and how some of these concepts may be implemented to solve problems affecting the various communities. Additionally, students will review the legal and social implications, as well as potential methodology that is defining, refining, and shaping the environmental justice landscape. (Irreg.)
ENST 3243 Introduction to Water Law 3 Credit Hours Prerequisite: English 1213/Expository Writing 1213, junior standing or permission of instructor. Provides an understanding of the fundamental tenets of water allocation in the United States. Topics include the Clean Water Act and its effect on resolving complex pollution issues, competing uses of water, riparian doctrine, prior appropriation, the public trust doctrine, nonpoint source pollution, and oil spills and hydraulic fracturing. (Sp)

## ENST 3263 Ecotourism: Sustainable Wildlife and Nature

Tourism
3 Credit Hours
Prerequisite: ENST 1013 or ENST 2623, junior standing, or permission of instructor. Using case studies and small student group projects, this course explores ecotourism or sustainable wildlife and nature tourism across the broad array of beneficial features, such as protection for a species and income generation for local people, as well as some of ecotourism's less-sustainable and potentially harmful aspects. (F)
ENST 3303 Food, Agriculture, and the Environment 3 Credit Hours
Prerequisite: junior standing or permission of the instructor. Food production, both large scale and small scale, has impacts on the environment. From erosion to water pollution to intensive use of fossil fuels, these impacts affect a variety of environmental elements. Since most of us buy our food pre-packaged at the supermarket, we do not see these impacts, nor typically are these impacts reflected in the price we pay. Most of our food arrives from far away, transported over long distances, in many cases from the southern hemisphere. This class will examine the impact of our food production systems on all aspects of the environment including air, soil, and water, as well as its demands and impacts on energy production. (Irreg.)

ENST 3313 Gardening, Community, and the Environment 3 Credit Hours Prerequisite: junior standing or permission of instructor. Explores fundamental concepts and styles of gardening with an emphasis on edibles and organic methods. Class assignments help students connect gardening to environmental and community issues at the personal, local, regional, and global levels. A service learning component promotes handon experiences and responsibility to the community. (Irreg.)

## ENST 3423 Anthropogenic Contaminants and Environmental Health <br> 3 Credit Hours

Prerequisite: junior standing or permission of instructor. Human progress has allowed us to live comfortable, well-fed lives, free from many diseases and environmental fluctuations. This progress has degraded many of the ecosystem goods and services on which we depend. This course will examine human environmental impacts, with a focus on water pollution, and the consequences of human activities on ecosystem goods and services. (Su)

ENST 3440 Mentored Research Experience 3 Credit Hours
0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)
ENST 3463 Water and Ecological Sustainability 3 Credit Hours (Crosslisted with BIOL 3463) Prerequisite: junior standing and English 1213 or Expository Writing 1213, Biology 1114 or Biology 1124 or Biology 1134, or permission of instructor. Objective of the course is to allow students to examine and discuss important historical and current issues relating to the interactions between socio-economic use of water resources and ecosystem biodiversity, function, and sustainability. (F) [IINS ].

## ENST 3503 Energy Use, Climate Change, and the

Environment
3 Credit Hours
Prerequisite: junior standing or permission of instructor. The way we live in the modern industrialized world is extremely energy intensive. We will examine our energy use across all sectors, from the fuels used to generate the electricity to run our computers to the energy we are most familiar with, that which we use to fill our cars. (Irreg.)
ENST 3603 Global Perspectives of Wildlife Conservation 3 Credit Hours Prerequisite: junior standing or permission of instructor. A conservation biology course with primary attention aimed at wildlife. Explores the complex relationships that exist between humans and wildlife throughout the world. Group activities and detailed assessment of case studies will introduce students to finding solutions to threats that can provide wildlife conservation in a way that is also beneficial (or at least not harmful) to humans. (F)

ENST 3613 The Politics of Wildlife Conservation 3 Credit Hours Prerequisite: junior standing or permission of instructor. Exploration of the politics of wildlife conservation from a variety of perspectives. Review the history of our own species' impact on the lives of free-ranging animals and examine the many ways that human-wildlife symbiotic relationships have influenced biodiversity loss and growth. Students will learn about the process of implementing national laws and international treaties aimed at conserving wildlife, while also practicing methods of working with local people and key decision makers. Through a series of problemsolving activities and assessment of several relevant case studies, we will focus on the more general "politics" of wildlife conservation. (Irreg.)

## ENST 3633 Wilderness Philosophy

3 Credit Hours
Prerequisite: junior standing or permission of instructor. Explores the concept of wilderness as a human construct. Provides an overview of the various Western perspectives of wilderness; from the early prehistoric and colonial American views of wilderness, through the inception and designation of federally recognized Wilderness, to the current debate regarding the role of wilderness in contemporary society. (Su)

ENST 3653 Community Conservation
3 Credit Hours
Prerequisite: junior standing or permission of instructor. Community conservation involves local people, often working with conservation scientists, protecting and conserving their natural resources. The principles of community conservation are similar globally, but each community conservation project will differ depending on location, habitat type, and the status of wildlife species involved. Select case studies of successful programs will be examined as bases for hypothetical student community conservation projects. (Sp)

ENST 3663 Hot Topics in Wildlife Conservation 3 Credit Hours
Prerequisite: ENST 2623 or ENST 3613 or permission of adviser or instructor. Examines the latest technologies used in the field of conservation, new advances in human-wildlife conflict mitigation, updates on political approaches to conservation, and other current conservation news, with emphasis on large African mammals. Provides an opportunity to learn more about how interested stakeholders come together to develop national wildlife policies and conservation action plans. (Su)
ENST 3713 Nature in the City
3 Credit Hours
Prerequisite: junior standing or permission of instructor. Given that the vast majority of the Earth's land area has had some kind of human impact, this class will examine how we can maximize the potential of human-altered habitats to support native species, facilitate population exchange, and support wildlife conservation. Additionally, we'll examine how urban plant and animal populations affect people.

ENST 3723 Issues in Ecological Restoration
3 Credit Hours
Prerequisite: ENGL 1213 or EXPO 1213, junior standing or permission of instructor. This introduction to the field of restoration ecology will cover philosophical, societal, and scientific aspects of restoring habitats and ecosystems. (Sp)
ENST 3743 Biological Invasions and Society 3 Credit Hours Prerequisite: junior standing or permission of instructor. New species arrive on our shores daily; some of these species become so problematic that we label them "invasive." Explores some of our views of invasive species, what makes a species invasive, how they spread, what their impacts are on human and natural systems, whether or not all invasive species are bad, and what can be done to control them. (Sp)
ENST 3800 Environmental Internship
1-3 Credit Hours
1 to 3 hours. Prerequisite: junior standing and permission of IPE coordinator. Supervised work experience at a business, government or non-profit agency, dealing with an environmental issue. May require specific preparation, as appropriate. S/U grade based on completion of advance preparation, if any; evaluation by workplace supervisors; and coordinator's evaluation of a report on the issue dealt with during the internship. (F, Sp, Su)
ENST 3891 Environmental Studies Learning Community 1 Credit Hour Prerequisite: ENST 2813 (or concurrent enrollment); ENST majors and minors only; departmental permission required; may be repeated; maximum credit 3 hours. The Learning Community course gives Environmental Studies majors the opportunity to enrich their classroom experience, through a variety of activities including structured interactions with other students; presentations on academic and policy topics; workshops on career planning; and environmentally related service projects. (F, Sp)
ENST 3893 Environmental Studies Research Project 3 Credit Hours Prerequisite: ENST 2813; ENST majors and minors only; departmental permission required; Corequisite for majors: ENST 3891, if offered. An independent study into an environmental issue with one or more faculty researchers. This class provides experience with academic inquiry, and the integration of multiple disciplinary perspectives. ENST 2813 (Environmental Studies Cornerstone) is a prerequisite because in that class students will choose and plan research projects matching their own interests. (F, Sp, Su)
ENST 3913 Special Topics in Environmental Studies 3 Credit Hours Prerequisite: junior standing or permission of instructor. May be repeated with change of content; maximum credit nine hours. Designed to permit the study of specific and changing issues and problems in environmental studies. (Irreg.)

ENST 3950 Environmental Research Experiences for Students (ERES): Practical Research 1-3 Credit Hours
1 to 3 hours. Prerequisite: ENST 3940 or concurrent enrollment. A semester-long course in which a student works independently with a faculty researcher to gain experience and understanding in active research within a specific discipline. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

ENST 3960 Honors Reading 1-3 Credit Hours
Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Consists of topics designated by the instructor in keeping with the student's major program. The topics will cover materials not usually presented in regular course work. (Irreg.)
ENST 3970 Honors Seminar 1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Subjects covered vary. Deals with concepts not usually treated in regular courses. (Irreg.)

ENST 3980 Honors Research 1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors program. May be repeated; maximum credit six hours. Provides an opportunity for the Honors candidate to work at a special project under the guidance of a professor on a specific environmental related issue. (Irreg.)
ENST 3990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: permission of instructor and junior standing. May be repeated once with change of content. Independent study may be arranged to study a subject not available through regular course offerings. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

ENST 4883 Environmental Studies Seminar 3 Credit Hours
Prerequisite: ENST 2813, ENST 3893, ENGL 1213 or EXPO 1213, and permission of department; Majors only; Repeatable with change of content; maximum credit 6 hours. Intensive study of interdisciplinary approaches to environmental issues, typically through close reading of major academic works that integrate multiple disciplines. Content will vary by instructor. (F)
ENST 4893 Environmental Studies Capstone 3 Credit Hours
Prerequisite: Majors only; ENST 4883. Students will work in interdisciplinary teams to propose a scientifically informed and ethically justified policy response to a local or regional environmental concern. Content will vary by semester. (Sp) [V].
ENST 4960 Directed Readings 1-4 Credit Hours
1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean. May be repeated; maximum credit four hours. Designed for upper-division students who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)
ENST 4970 Seminar
1-3 Credit Hours
Prerequisite: junior standing or permission of instructor. May be repeated with a change of content; maximum credit six hours. Interdisciplinary topics with regard to the environment; May include field work, special presentations, or other activities not covered in regularly scheduled courses. (Irreg.)
ENST 4990 Independent Study 1-3 Credit Hours
1 to 3 hours. Prerequisite: junior standing or permission of instructor. May be repeated; maximum credit six hours. Contracted independent study for a topic not currently offered in regularly scheduled coursework. May include library and/or research and field projects. (Irreg.)

ENST 5053 Advanced Environmental Studies 3 Credit Hours
Prerequisite: graduate standing. An interactive seminar featuring discussions of assigned readings, student presentations, and guest lectures. Topics covered will cross the environmental studies spectrum, from basic ecological principles and approaches to public and agency communication, and will include treatment of historical, policy, and legal perspectives of environmental issues. (Sp)
ENST 5960 Directed Readings
1-3 Credit Hours
1 to 3 hours. Prerequisites: graduate standing and permission of department. May be repeated; maximum credit twelve hours. Directed readings and/or literature reviews under the direction of a faculty member affiliated with the Environmental Studies program. (F, Sp, Su)

ENST 5980 Research for Master's Thesis 2-9 Credit Hours
Prerequisite: graduate standing. Variable enrollment, two to nine hours; maximum credit applicable toward degree, six hours. (F, Sp, Su)
ENST 5990 Independent Study 1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)

## Faculty

| Last Name | First/Middle <br> Name | Middle <br> init. | OU <br> Service <br> start | Title(s), date(s) <br> appointed |
| :--- | :--- | :--- | :--- | :--- | | Degrees Earned, |
| :--- |
| Trachtenberg Zev |

## Environmental Studies, B.A.

Minimum Total Credit Hours: 120
Major Hours: 30
Minimum Upper-Division Hours: 48
Overall GPA - Combined and OU: 2.00
Major GPA - Combined and OU: 2.00
Program Code: B406

## Major Requirements

- Some courses required for the major may also fulfill University General Education and/or Dodge College of Arts \& Sciences Requirements.
- A Grade of C or better must be earned in each course counted for major credit.

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Core |  | 3 |
| ENST 2813 | Environmental Studies Cornerstone | 3 |
| ENST 3891 | Environmental Studies Learning <br> Community (three semesters) |  |
| ENST 3893 | Environmental Studies Research Project | 3 |
| ENST 4883 | Environmental Studies Seminar | 3 |
| ENST 4893 | Environmental Studies Capstone | 3 |


| Major Electives |
| :--- |
| Group I - Interdisciplinary (p. 398) <br> Choose two courses that span two or more disciplines ${ }^{2}$ <br> Group II - Single Discipline (p. 398) <br> Choose three courses, one each from three of these four <br> categories: ${ }^{2}$ <br> $\quad$ Natural Sciences <br> Social Sciences <br> Humanities <br> $\quad$ Applied Disciplines <br> Total Credit Hours <br> 1 ENST 3891 is taken as a corequisite with ENST 2813 and ENST 3893, <br> 2 end one additional semester, for a total of three semesters. <br> Chosen from an approved course list (p. 398) posted by the <br> department or as approved by faculty advisor. |

## General Education and College Requirements

Courses for fulfillment of General Education and Dodge College of Arts \& Sciences requirements must be from the approved General Education course list published in the Class Schedule or at http://www.ou.edu/ gened/courses. Courses graded P/NP will not apply.
UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND
COLLEGE REQUIREMENTS

| Code | Title | Credit |
| :--- | :--- | :--- |
|  |  | Hours |

Core Area I: Symbolic and Oral Communication

| English Composition (6 hours) |  |  |
| :--- | :--- | :--- |
| ENGL 1113 | Principles of English Composition | 3 |
| ENGL 1213 | Principles of English Composition | 3 |

or EXPO 1213 Expository Writing
Language (0-13 hours in the same language)
The college requirement cannot be met by high school coursework.
Beginning Course 0-5
$\begin{array}{ll}\text { Beginning Course, continued } & 0-5\end{array}$
$\begin{array}{ll}\text { Intermediate Course (2000 level) }^{1,2} & \text { 0-3 }\end{array}$
Mathematics (3 hours)
Choose one course from the General Education Mathematics
3

## list

Core Area II: Natural Science (7 hours, including one laboratory component)

## Biological Science

Choose an approved General Education Natural Science
course with one of the following prefixes: BIOL, HES, MBIO, or PBIO ${ }^{1}$

Physical Science
Choose an approved General Education Natural Science 3-4 course with one of the following prefixes: AGSC, ASTR, CHEM, GEOG, GEOL, GPHY, METR, or PHYS ${ }^{1}$
Core Area III: Social Science (6 hours)
P SC 1113 American Federal Government
Choose one course from the General Education Social 3

Science list


## Free Electives

Electives to bring total applicable hours to the minimum total required for the degree including 48 upper-division hours.

## Information Concerning General Rules, Regulations and Minimum Requirements

Arts and Sciences Hours: At least 80 semester hours of liberal arts and sciences courses are required for a BA degree. At least 55 semester hours of liberal arts and sciences courses are required for a BS degree. Pass/No Pass Enrollment: A maximum of 16 semester hours of free elective credit may be attempted under this option.
Individual Studies (e.g., courses titled "Independent Study"): A maximum of 12 total semester hours may be counted toward graduation, excluding Honors Reading and Honors Research.
P.E. Courses: No physical education activity courses will be counted toward the 120 semester hours of acceptable credit for graduation. Senior Institution Hours: A minimum of 60 semester hours applied toward graduation must be earned at senior (4-year) institutions.

## Residency:

- At least 15 of the final 30 hours applied toward the degree or at least 50 percent of the hours required by the institution in the major field must be satisfactorily completed at the awarding institution.
- At least 15 semester hours of upper-division major work must be completed in residence at OU.
- OU correspondence courses are not considered resident credit.

Grade Point Averages: Students must earn a minimum over all 2.00 for each of the following: Combined Retention GPA (all college grades), OU

Retention GPA, GPA for all major courses, and GPA for all major courses taken at OU. Some schools and departments of the College have higher minimum grade point averages required for their students.

## Suggested Semester Plan of Study

This plan shows one possible grouping of courses that would allow students to graduate in four years. Please refer to the front of the degree checksheet for official requirements. Students must consult with Dodge College of Arts and Sciences academic advisers to verify that courses selected each semester fulfill the recommended plan and satisfy University, College of Arts and Sciences, and Environmental Studies major requirements.

## Freshman

| First Semester | Credit <br> Hours |
| :---: | :---: |
| ENGL 1113 Principles of English Composition (Core I) | 3 |
| Gen Ed Biological Science (Core II) | 4 |
| First Year Experience (Core V) | 3 |
| Beginning Language (Core I) | 5 |
| Credit Hours | 15 |
| Second Semester |  |
| ENGL 1213 Principles of English Composition (Core I) <br> or EXPO 1213 or Expository Writing | 3 |
| Gen Ed Physical Science (Core II) | 4 |
| Beginning Language continued (Core I) | 5 |
| Gen Ed Math (Core I) | 3 |
| Credit Hours | 15 |

## Sophomore

## First Semester

| ENST 2813 | Environmental Studies Cornerstone | 3 |
| :---: | :---: | :---: |
| ENST 3891 | Environmental Studies Learning Community | 1 |
| Major Elective, Group I ${ }^{1}$ |  | 3 |
| HIST 1483 or HIST 1493 | United States to 1865 (Core IV) or United States, 1865 to the Present | 3 |
| P SC 1113 | American Federal Government (Core III) | 3 |
| Intermediate Language |  | 3 |
|  | Credit Hours | 16 |

Second Semester
ENST $3893 \quad$ Environmental Studies Research Project

| ENST 3891 | Environmental Studies Learning | 1 |
| :--- | :--- | :--- |$\begin{array}{ll}\text { Social Sciences (Core III) } & 3 \\ \text { World Culture (Core IV) } & 3\end{array}$

Western Culture (Core IV) 3
Credit Hours ..... 16

## Junior

## First Semester

| Major Elective, Group II ${ }^{2}$ | 3 |
| :--- | :--- |
| Major Elective, Group II |  |
| Arts \& Humanities, upper-division, outside major (Gen. Ed.) | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |



| Group II: Single Discipline |  |  |
| :---: | :---: | :---: |
| Code | Title | Credit <br> Hours |
| Category I: Natural Sciences |  |  |
| BIOL 1005 | Concepts in Biology | 5 |
| BIOL 1013 | Introduction to Biology | 3 |
| BIOL 1134 | Introductory Biology: Evolution, Ecology and Diversity | 4 |
| BIOL/PBIO 2404 | Ecology/Environmental Quality | 4 |
| BIOL 3083 | Animal Behavior | 3 |
| BIOL 3403 | Principles of Ecology | 3 |
| BIOL 3463 | Water and Ecological Sustainability | 3 |
| BIOL 3563 | Biological Conservation | 3 |
| BIOL 4423 | Stream Ecology | 3 |
| BIOL 4463 | Lake Ecology | 3 |
| BIOL 4523 | Biogeography and Macroecology | 3 |
| BIOL 4553 | Wetlands Ecology | 3 |
| BIOL 4573 | Conservation Genetics | 3 |
| GEOG 1114 | Physical Geography | 4 |
| GEOG 3023 | Principles of Physical Geography | 3 |
| GEOG 4183 | Patterns and Processes in Landscape Ecology | 3 |
| GEOG 4273 | Regional Climatology | 3 |
| GEOG 4283 | Biogeography | 3 |
| GEOL 1024 | The History of the Earth and Life | 4 |
| $\begin{aligned} & \text { GEOL/METR } \\ & 1034 \end{aligned}$ | Native Science and Earth Systems of North America | 4 |
| GEOL 1104 | The Dynamic Earth (Geology for nonScience Majors) | 4 |
| GEOL 1114 | Physical Geology for Science and Engineering Majors | 4 |
| GEOL 2014 | The Earth System | 4 |
| GEOL 3013 | The Geology of Oklahoma | 3 |
| GEOL 3033 | Earth Resources and the Environment | 3 |
| $\begin{aligned} & \text { GEOL/METR } \\ & 4533 \end{aligned}$ | Earth's Past Climate | 3 |
| MBIO/PBIO/ METR 4693 | Environmental Sampling Methods | 3 |
| METR 1014 | Introduction to Weather and Climate | 4 |
| METR 4543 | Global Climate Change | 3 |
| METR 4553 | Climate and Renewable Energy | 3 |
| PBIO 3453 | Principles of Plant Ecology | 3 |
| Category II: Social Sciences |  |  |
| ANTH 1913 | Plagues and People: Health and Disease in Human Society | 3 |
| ANTH 3203 | Introduction to Biological Anthropology | 3 |
| ANTH 4783 | Landscape Archaeology | 3 |
| ECON 3213 | Environmental Economics | 3 |
| ENST 3023 | Environmental Psychology | 3 |
| ENST 3653 | Community Conservation | 3 |
| GEOG 1103 | Human Geography | 3 |
| GEOG 1203 | Global Environmental Issues | 3 |
| GEOG 3213 | Principles of Human Geography | 3 |


| GEOG 3233 | Principles of Sustainability | 3 |
| :---: | :---: | :---: |
| GEOG 3243 | Principles of Economic Geography | 3 |
| GEOG 3253 | Environmental Conservation | 3 |
| GEOG 3443 | Environment and Society | 3 |
| GEOG 4123 | Cities and Society | 3 |
| GEOG 4343 | Climate, History, and Society | 3 |
| GEOG 4423 | Environmental Justice | 3 |
| GEOG 4583 | Energy Systems and Sustainability | 3 |
| GEOG 4653 | Urban Sustainability: Nature, Justice, and the City | 3 |
| GEOG 4663 | Water and Society | 3 |
| GEOG 4943 | Natural Hazards | 3 |
| IAS 3863 | Global Environment | 3 |
| NAS 3313 | Introduction to Native Peoples and Sustainability | 3 |
| P SC 3233 | Environmental Policy and Administration | 3 |
| SOC 3893 | Environment, Ecology and Society | 3 |
| Category III: Humanities |  |  |
| A HI 2803 | Introduction to Native American Art | 3 |
| A HI 4853 | American Indian Women Artists | 3 |
| A HI 4943 | Fieldwork for Art History | 3 |
| ENGL 3113 | Nature/Environment/Science Writing | 3 |
| ENST 3633 | Wilderness Philosophy | 3 |
| GEOG 3843 | Gender and Environment | 3 |
| HIST 2063 | History of Activism | 3 |
| HIST 3383 | The American West | 3 |
| HIST 3443 | Early North American West | 3 |
| HIST 3453 | The Modern North American West | 3 |
| HIST 3493 | American Environmental History | 3 |
| HIST 4553 | Environmental History of Latin America | 3 |
| HSTM 1113 | Science, Nature and Society: Historical Perspectives | 3 |
| HSTM 1313 | Disasters | 3 |
| HSTM 2423 | Social and Ethical Issues in Science, Technology, Environment and Medicine | 3 |
| HSTM 3293 | Environment and Health | 3 |
| HSTM/P E 3343 | Revolution in Power: the Evolution of Energy Systems from Fossil Fuels to Renewables | 3 |
| HSTM 3473 | History of Ecology and Environmentalism | 3 |
| IAS 3193 | Environment and Disease Crises in China | 3 |
| NAS 3113 | Native American Philosophy | 3 |
| PHIL 3293 | Environmental Ethics | 3 |
| WGS 3493 | Bodies, Nature, and Justice | 3 |
| Category IV: Applied Disciplines |  |  |
| CEES 2313 | Water Quality Fundamentals | 3 |
| CEES 3213 | Water Resources Engineering | 3 |
| CEES 4243 | Water Technologies for Emerging Regions | 3 |
| COMM 3563 | Risk and Crisis Communication | 3 |
| ENST 3203 | Sprawl and the Environment | 3 |
| ENST 3213 | Law and the Environment | 3 |
| ENST 3243 | Introduction to Water Law | 3 |


| ENST 3263 | Ecotourism: Sustainable Wildlife and Nature Tourism | 3 |
| :---: | :---: | :---: |
| ENST 3313 | Gardening, Community, and the Environment | 3 |
| ENST 3663 | Hot Topics in Wildlife Conservation | 3 |
| ENST 3723 | Issues in Ecological Restoration | 3 |
| $\begin{aligned} & \text { GEOG/METR } \\ & 3523 \end{aligned}$ | Managing for a Changing Climate | 3 |
| GEOG/RCPL 4003 | The Global City and Planning Issues | 3 |
| GEOG 4513 | Real-world Applications of Climate and Weather Information | 3 |
| GEOG 4713 | Dynamic Modeling of Socio-Environmental Systems | 3 |
| GIS 4733 | Environmental Remote Sensing | 3 |
| L A 4103 | Introduction to Landscape Architecture | 3 |
| L A 4423 | Human Experience of the Environment | 3 |
| L A 4743 | Garden History from Ancient to Contemporary | 3 |
| L A 4943 | History and Theory of Landscape Architecture | 3 |
| PHCH 4103 | Environmental Health (Instructor will give permission to ENST majors for summer term only; spring term is restricted to BPH majors) | 3 |

## Environmental Studies, Minor

Minimum Total Credit Hours: 16<br>Minimum Upper-Division Hours: 9

## Program Code: N408

- The requirements for a minor must be completed concurrently with the major degree requirements.
- No minor may be added by completing courses after receiving the bachelor's degree.

At least six (6) credit hours must be earned in courses acceptable for residence credit by standards set forth by the Dodge College of Arts and Sciences, excluding transfer, correspondence, and examination (AP, CLEP, Advanced Standing) credit. Courses for the minor may not be taken Pass/ No Pass.

No single course may be used by a student to satisfy a major requirement and a minor requirement. A course may be used, however, to satisfy both a major support requirement and a minor requirement.

At the discretion of the program director and departmental advisor, ad hoc electives (such as new courses, special offerings, and one-time courses) may be approved in writing to fulfill minor requirements.

## Required Courses

16 hours, including at least 9 upper-division level (a minimum of 13 hours must be from courses within the Dodge College of Arts and Sciences):

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| ENST 2813 | Environmental Studies Cornerstone | 3 |
| ENST 3891 | Environmental Studies Learning | 1 |



Minimum Total Hours (Thesis): 30
Program Code: M409

- This program is Thesis Only.


## Required Courses



## Notes:

- The comprehensive final examination over all of the work offered for the degree, including the thesis, is oral.
- Students who seek an M.S. degree in Environmental Studies will designate a faculty member from the natural sciences as committee chair (subject to approval by the Environmental Studies Graduate Studies Committee), and a majority of the committee will consist of faculty in the natural sciences.


## General Requirements for all Master's Degrees

The master's degree requires the equivalent of at least two semesters of satisfactory graduate work and additional work as may be prescribed for the degree.

All coursework applied to the master's degree must carry graduate credit.
Master's degree programs which require a thesis consist of at least 30 credit hours. All non-thesis master's degree programs require at least 30 credit hours.

Credit transferred from other institutions must meet specific criteria and is subject to certain limitations.

Courses completed through correspondence study may not be applied to the master's degree.

To qualify for a graduate degree, students must achieve an overall grade point average of 3.0 or higher in the degree program coursework and in all resident graduate coursework attempted. A student must also have at least a 3.0 in all coursework (including undergraduate coursework if any).

Additional information for master's degree students may be found in the Graduate College Bulletin.

## Department of Film and Media Studies

Man Fung Yip, Ph.D., Director<br>302 Wallace Old Science Hall<br>640 Parrington Oval<br>Norman, OK 73019-2009<br>Phone: (405) 325-3020<br>FAX: (405) 325-7135<br>fms@ou.edu<br>www.ou.edu/cas/fms

## General Information

Film and Media Studies (FMS) is an interdisciplinary program in the Dodge College of Arts and Sciences designed to give students a broad understanding of film and media history, theory, and criticism along with developing creative skills in film and media production. The curriculum consists of a core of FMS courses plus a rich variety of FMS electives, as well as offerings from the Departments of Anthropology, African and African American Studies, English, Communication, History, Modern Languages, and courses in the Gaylord College of Journalism and Mass Communication and the Weitzenhoffer College of Fine Arts. The comprehensive undergraduate degree provides students with the knowledge and skills required for careers in media-related fields, film production, academics, or other jobs in the liberal arts and humanities.

## Programs \& Facilities <br> Digital Media Lab \& Library

## Media Lab

The FMS Ned Hockman Memorial Media Lab is housed within the FMS Library. The Media Lab has several pro Apple video editing stations available for student and faculty use, which are loaded with Adobe Creative Cloud and screenwriting software. The Media Lab has a wide variety of production equipment including Canon cinema cameras, cine lenses, HD camcorders, tripods, lighting, and audio recording equipment available for check-out to OU faculty, FMS majors and minors and those enrolled in FMS production courses. The Media Lab is the heart of
production activities within FMS and students are encouraged to visit during open lab hours. The lab manager is available for workshops and tutorials on gear use and techniques.

## Film Library

The FMS Film Library holds a large collection of screenplays, DVDs, and Blu-ray Discs for reference. Students can schedule appointments to watch films on the library's HD television by calling (405) 325-6639, or emailing the library/media lab manager. Many of the library's holdings can be checked out by FMS majors and minors as well as students enrolled in FMS courses.

## Student Organizations

## Student Film Production Club

The Student Film Production Club works to promote student productions, educate its members, and develop their skills in the field of film and video production. Although sponsored by the Film and Media Studies program, the club is open to all OU students and provides its members a place to develop production projects and meet other like-minded people. In addition to holding regularly scheduled meetings and special events, the club also maintains information on this Facebook page to facilitate student contact.

## Festivals \& Symposia

## Native Crossroads Film Festival

Native Crossroads is a unique film festival and symposium that focuses on international Indigenous media. The annual event puts academics, media creators, and community and tribal organization representatives into dialogue to advance our discussions in all these fields. At once entertaining, scholarly, and educational, each year's event explores a particular theme of pressing importance to Native people, globally and locally, Through the generous support of our many sponsors, all events are free and open to the public. More information can be found here.

## Undergraduate Study

## Programs Offered

- Film and Media Studies, Bachelor of Arts (p. 405)

The undergraduate degree in Film and Media Studies is an interdisciplinary course of study that provides a comprehensive background to both the scholarly and practical study of the moving image. The curriculum covers the history, theory, criticism, art, and practice of film and other screen media through its core course requirements. Students will learn the skills needed to interpret film and other screen media critically, and "to read" and write about them creatively and analytically. Courses will also focus on social, political, cultural, and economic contexts. Interdisciplinary electives in the major allow students the flexibility to pursue their specific interests, be they film and media studies, writing about film, screenwriting, or production.

## - Film and Media Studies Minor (p. 408)

Students can also minor in Film and Media Studies.

## Graduate Study

Graduate programs in Film and Media Studies may be constructed according to the standard interdisciplinary degree procedures of the Graduate College. Participating members of the Film and Media Studies faculty are available to assist with degree planning at the master's or doctoral levels.

## Courses

FMS 1013 Introduction to Film and Media Studies 3 Credit Hours An examination of the history, role, impact, nature and delivery systems of film and media in the United States and the international community. (F, $\mathrm{Sp}, \mathrm{Su})$ [IV-AF].
FMS 1113 Introduction to New Media
3 Credit Hours
Provides students with an overview of new media studies, focusing on digital culture and computerized technology. Focuses on issues including convergence, the blurring of producer and consumer, and social aspects of media. (F,Sp) [III-SS].

FMS 1123 History of Video Games 3 Credit Hours
Presents the history of video games as an expressive and artistic medium. Focuses on the technological, cultural, and economic factors that influence game production and reception. (F, Sp) [IV-AF].
FMS 1313 Narrative Production Basics 3 Credit Hours
Prerequisite: FMS 1013 or concurrent enrollment. Students will be introduced to common American strategies for fictional narrative digital cinema production from development and preproduction through distribution. Emphasis is placed on application of practical knowledge of production techniques, technologies, protocols and aesthetic conventions for narrative storytelling. (F)
FMS 2013 Film and Media History to 1960
3 Credit Hours
Prerequisite: FMS 1013. Survey of world film and media history from the origins of cinema through 1960, including silent cinema, the transition to sound, classical Hollywood and important international film movements. Emphasizes an understanding of cinema in aesthetic, technological, economic and social terms. (F)
FMS 2023 Film and Media History: 1960 to Present 3 Credit Hours Prerequisite: FMS 1013. Survey of Hollywood, independent and world film and media since 1960, including various new cinema movements, New Hollywood, media conglomeration and globalization. Emphasizes an understanding of the aesthetic, economic and social dimensions of film and media at the end of the twentieth and the beginning of the twentyfirst centuries. (Sp)
FMS 2033 Writing About Film 3 Credit Hours
Prerequisite: 1013, English 1213 or Expository Writing 1213. This course teaches specialized writing skills for writing about film. Topics covered will include the vocabulary of film writing, basic cinema research skills and techniques to write for academic and general audiences. ( $F, S p$ )
FMS 2970 Special Topics/Seminar 1-3 Credit Hours
Special Topics. 1 to 3 hours. May be repeated; Maximum credit nine hours. Special topics course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research, and field projects. (Irreg.)
FMS 3023 Chinese Martial Arts Cinema 3 Credit Hours Prerequisite: ENGL 1213 or EXPO 1213. This course examines the historical development of Chinese martial arts cinema and its influence on today's transnational film culture through attention to the aesthetics of the genre and recurrent themes/issues, including the chivalric code of xia, cultural nationalism, social uses and meanings of screen violence, changing representations of masculinity and femininity, and the interplay of the body with technology. (Irreg.) [IV-WDC].

FMS 3033 The Hollywood Musical
3 Credit Hours
Prerequisite: FMS 1013, ENGL 1213, or EXPO 1213. This course will examine the Hollywood musical as a genre that, while positioned as "escapist entertainment," remains a product of distinct cultural and institutional forces. We will study the film musical's distinct conventions (drawing on minstrel shows, vaudeville, and Broadway), its social and ideological meanings, as well as how it functions as entertainment. (Irreg.)
FMS 3043 Science Fiction and Cultural Modernity 3 Credit Hours Prerequisite: FMS 1013 or ENGL/EXPO 1213. Science Fiction addresses many issues central to the concept of "cultural modernity": utopian/ dystopian visions, technological developments/disasters, mass media/ mass culture, and encounters with the alien "other." In this course we will think and write critically about these and other key themes from a range of science-fiction films and television series. (Irreg.)
FMS 3123 Scorsese and the Coen Brothers 3 Credit Hours
Prerequisite: FMS 1013, ENGL 1213, or EXPO 1213. In this course we will study selected works, first from Martin Scorsese and then from the Coen Brothers, in relation to a range of topics, including American filmmaking since the 1960s; independent vs. mainstream American filmmaking; the concept of auteur filmmakers; and recurrent themes such as the problem of violence, masculinity in crisis, alienation and isolation, and genre revisionism. (Irreg.)

FMS 3213 Media Theories \& Methodologies
3 Credit Hours
Prerequisite: 2013 or 2023. Familiarize students with classical film theory that evolved during the early days of cinema up through contemporary film and media theory, as a foundation for understanding and analyzing the way media shape and reflect culture. (F)
FMS 3223 Topics in Film Genre
3 Credit Hours
Prerequisite: 1013. May be repeated once with different genres; maximum credit six hours. Offers students a systematic in-depth study of one or two specific genres such as westerns, romantic comedy, horror, film noir, and melodrama. (Irreg.)
FMS 3233 Filmmakers up Close
3 Credit Hours
Prerequisite: 1013. May be repeated once with change of filmmakers; maximum credit six hours. An in-depth study of one or two filmmakers through the study of their films. Filmmakers include directors, screenwriters, actors, and others who have a significant role in making movies. (lrreg.)
FMS 3243 Hispanic Cinema
3 Credit Hours
Prerequisite: ENGL 1213 or EXPO 1213. Analytical study of exemplary motion pictures from the Hispanic world: Spain, Mexico, Cuba, Brazil, and Argentina. (Irreg.) [IV-AF].

FMS 3313 Digital Cinema Production
3 Credit Hours
Prerequisite: FMS 1013. Film and media production with narrative structure. Students will learn to handle equipment and edit in-camera. (F, Sp)
FMS 3323 Editing: History, Theory, Practice 3 Credit Hours
Prerequisite: FMS 1013. Combines the history, theory, and practice of digital editing in a narrative context. Explores early experimentation in film editing, the evolution of equipment and techniques, major montage/ editing theories, and famous editors, while also providing hands-on shooting and editing experience. (Irreg.)

FMS 3333 Advanced Narrative Production 3 Credit Hours
Prerequisite: FMS 1013 or FMS 1313. This course offers a workshop environment for the development and refinement of fictional narrative approaches and techniques for a single camera production. Assignments will refine and explore narrative strategy skills that relate to development, preproduction, production, and postproduction with audience, genre, and format in mind. (Irreg.)
FMS 3343 Film Directing
3 Credit Hours
Prerequisite: FMS 1013 or FMS 1313. This course will explore practices of fictional narrative direction for a single camera approach. Students will be introduced to concepts that prepare students to discuss and apply practical strategies for directing actors, fiction narrative and a technical crew. Assignments will include script analysis, rehearsals, director's preparation, and on-set direction of fictional material. (Irreg.)
FMS 3440 Mentored Research Experience
3 Credit Hours
0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)
FMS 3443 East Asian Cinema
3 Credit Hours
Prerequisite: ENGL 1213 or EXPO 1213. An introduction to East Asian cinema, 1980 to present (Japan, South Korea, China, Taiwan, Hong Kong). Focuses on individual films and larger social, political, and cultural contexts of production and reception. Considers films' unique formal and stylistic characteristics and as cultural reflections of the historical experiences and perspectives of peoples within East Asian. (Irreg.) [IVWDC].

## FMS 3453 Global Indigenous Media

3 Credit Hours
Prerequisite: ENGL 1213 or EXPO 1213. Traces historical and contemporary issues of Indigenous self-representation in film and media using theoretical frameworks to examine historical, regional, and digital productions including, but not limited to, Indigenous peoples of the Americas, Canada, Australia, Aotearoa, and Circumpolar Communities. Topics include Indigenous methodologies, political sovereignty, feminisms, futurisms, activism, as well as Indigenous experimentalism, animation, genre play, digital storytelling, and documentary forms. (Irreg.) [IV-WDC].
FMS 3463 Classical Hollywood Cinema 3 Credit Hours
Prerequisite: ENGL 1213 or EXPO 1213. This course will examine Classical Hollywood, a style and method associated with the studioera of filmmaking in the U.S., roughly the 1920's through the 1950's. Specific topics will include the industrial conditions and stylistic specifics of this era, Classical Hollywood genres and cycles, censorship and the Production Code, technological innovations, and the social impact of popular films. (Irreg.) [IV-AF].

FMS 3513 Cinemas of Childhood
3 Credit Hours
Prerequisite: ENGL 1213 or EXPO 1213. This course examines the figure of the child in world cinema. Specific topics will include the function of fairy tales and fantasy, representations of gender socialization and childhood sexuality, and how films represent children as political actors in stories of social change and environmental crises. (Irreg.)

FMS 3663 The History and Theory of Animation 3 Credit Hours
Prerequisite: ENGL 1213/EXPO 1213. This course will survey the history of animation, with attention to theoretical and critical discussions of authorship, style, technological developments, industrial and independent production, issues in representation, and reception. The focus will be on the development of animation within the Hollywood studio system, and on global trends including Indigenous animation, Japanese anime, and animation traditions in Africa, Europe, and elsewhere. (Irreg.)
FMS 3673 Anime: the World of Japanese Animation 3 Credit Hours (Crosslisted with MLLL 3673) Prerequisite: Junior standing. This course explores the history and development of Japanese animation, or "anime". It examines how animation was brought to Japan, and how it developed prior to the Second World War, and then further in the postwar decades. We will highlight how despite being influenced by foreign sources, Japanese animators create a uniquely Japanese mode of image-making. (Irreg.) [IV-WDC].

FMS 3683 Social Issues and Film
3 Credit Hours
Prerequisite: 1013. Analytical study of films that engage one or more social issues such as race relations, gender roles, class conflict, nationalism and imperialism. Focus will be on their various aesthetic approaches such as social realism, anti-realist techniques, and satire. (Irreg.) [IV-AF].
FMS 3693 Gender and Media
3 Credit Hours
Prerequisite: ENGL 1213 or EXPO 1213. Course Description: This course will use the tools and methodologies of the humanities to examine how film, television, and other contemporary entertainment media reflect and inform popular attitudes about sex and gender, primarily in a US context. Special attention will be given to how gender intersects with other key identity axes, including race, sexuality, class, and ethnicity. (Irreg.) [IV-WC].
FMS 3703 Topics in Film and Media Production 3 Credit Hours
Prerequisite: FMS 1013. May be repeated once with change of content; maximum credit six hours. An in-depth critical and applied study of a particular type of production, with topics such as Advanced SingleCamera Production, Aesthetics and Practice of the Short Film, and Making the Feature Film. (Irreg.)
FMS 3713 Topics in Writing for the Screen 3 Credit Hours
Prerequisite: FMS 1013. May be repeated once with change of content; maximum credit six hours. An in-depth critical and applied study of a particular screenwriting topic such as "Writing for Television," "Writing the Short Film," and "Advanced Screenwriting." (Irreg.)

## FMS 3800 Internship

## 1-4 Credit Hours

1 to 4 hours. Prerequisite: FMS 1013, junior standing, and permission of instructor. May be repeated with change of internship; maximum credit four hours. Participation in supervised internship with submission of journals describing work performed, regular reports, on-site supervisor evaluation, assigned readings, and final assessment of experience. (F, Sp, Su )
FMS 3801 Career Planning in Film and Media Studies 1 Credit Hour Prerequisite: FMS 1013. Designed to help students professionalize themselves by gaining general career skills (developing a resume, interviewing skills), information specific to careers in film and media (on-set etiquette and performance expectations), and introductions to industry professionals (through guest lectures and informational interviews with FMS alumni). (Irreg.)

FMS 3810 Variable Topics
1-3 Credit Hours
1 to 3 hours. Prerequisite: FMS 1013 or permission of instructor. May be repeated with change of content; maximum credit twelve hours. Varied projects concerning particular aspects of film and media history, genre, and methods of film or digital cinema production. (Irreg.)

FMS 3833 Masterpieces of World Cinema
3 Credit Hours
Prerequisite: 1013. May be repeated with change of content; maximum credit six hours. Survey of world film and the principles underlying historical and critical approaches to the cinema, emphasizing an appreciation of international cinema as an aesthetic, economic, and social factor in the twentieth century. (Irreg.)
FMS 3843 Topics in National Cinema
3 Credit Hours
Prerequisite: 1013. May be repeated with change of content; maximum credit six hours. Analytical study of exemplary motion pictures in terms of major periods, themes, and formal parameters in relation to national cultural histories, such as the French New Wave, Film Noir or American silent film. (Irreg.)
FMS 3853 Feature Screenwriting
3 Credit Hours
Prerequisite: 1013 and permission of instructor. An introduction to writing for the screen, including a variety of assignments leading up to developing and writing a feature screenplay. (F, Sp)
FMS 3903 Topics in New Media
3 Credit Hours
Prerequisite: FMS 1113; May be repeated with change of content; maximum credit 6 hours. Analytical study of digital new media, focusing on a specific venue (YouTube, Twitch, Podcasting, FaceBook), genre (fashion vlogging, "let's play" videos, true crime podcasts), or analytical lens (political economy, critical studies, cultural studies, feminist critique, visual culture, aesthetics). (Irreg.)
FMS 3913 Video Game Analysis and Critique

## 3 Credit Hours

Prerequisite: FMS 2033 or FMS 1123. Analytical study of video games as media objects, whose formal and aesthetic aspects convey artistic, cultural, and symptomatic meanings. Focus will be on the numerous ways that video games convey meaning and the various ways that scholars, media theorists, and journalists explore meaningful video game content. (Irreg.)
FMS 3923 Video Games and Culture 3 Credit Hours
Prerequisite: FMS 1123. Analytical study of video games and their relationship to wider cultural norms and practices. Focus will be on the subcultures that congregate around video games (developers, fan communities) and the ways that wider cultural issues (gender, sexuality, violence) intersect with video games. (Irreg.)
FMS 3933 Media Controversies
3 Credit Hours
Prerequisite: FMS 1013 or FMS 1113. Analytical study of media (including film) that faced banning or censorship in some way, and the public discourse surrounding it. Focus will be on comparing the media's content and artistic meaning, using public discourse about it as a lens through which to examine wider culture. (Irreg.)
FMS 3960 Honors Reading (HONORS)
1-3 Credit Hours
1 to 3 hours. Prerequisite: FMS 1013, permission of the Honors Program. May be repeated with change in content; maximum credit 6 hours. Independent study in film and media history, theory, and production for students enrolled in the Honors Program. In-depth analysis of specialized topics. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

FMS 3970 Honors Seminar 1-3 Credit Hours 1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Subjects covered vary. Deals with concepts not usually treated in regular courses. (Irreg.)

FMS 3980 Honors Research (HONORS)
1-3 Credit Hours
1 to 3 hours. Prerequisite: FMS 1013, permission of the Honors Program. May be repeated with change of content; maximum credit 6 hours. Open only to students enrolled in the Honors Program. Individualized research with a Film and Media Studies faculty member leading toward work for the Honors thesis. In-depth research of specialized topic in film and media theory, history, or production. (F, Sp, Su)
FMS 3990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: permission of instructor and junior standing. May be repeated once with change of content. Independent study may be arranged to study a subject not available through regular course offerings. (F, Sp, Su)

FMS 4013 Capstone in Film and Media
3 Credit Hours
Prerequisite: Majors only; 24 hours of major credit; senior standing.
Special problems or topics in film and media studies selected by the instructor and indicated by its particular title. Emphasis will be on the individual preparation of a research paper and/or creative project in the topic area. (Sp) [V].
FMS 4960 Directed Readings
1-4 Credit Hours
1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean. May be repeated; maximum credit four hours. Designed for upper-division students who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)
FMS 4970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: Senior standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

FMS 4990 Independent Study
1-4 Credit Hours
Prerequisite: 1013, permission of the instructor. Specialized study in film and media history, theory, and production, or other topic mutually agreed upon by the student and the instructor. The course enables the student to pursue in-depth analysis of special interest topics in Film and Media Studies. (F, Sp, Su)

## Faculty

| Last Name | First/Middle Name | Middle init. | OU <br> Service <br> start | Title(s), date(s) appointed | Degrees Earned, Schools, Dates Completed |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Bingham | Christopher | M | 2016 | LECTURER, 2017 | PhD, Univ of Oklahoma, 2017; MA, Washington State Univ, 2011; BA, Indiana Univ, 2006; BA, Indiana Univ, 2004 |
| Boyd | Katrina | G | 2007 | ASSISTANT <br> PROFESSOR OF FILM <br> AND MEDIA STUDIES, 2011 | PhD, Indiana Univ, 2001; MA, Indiana Univ, 1990; BA, Univ of Texas, 1986 |
| He | Belinda | Qian | 2021 | LECTURER, 2021 | PhD, Univ of Washington, 2020; MA, The Chinese Univ of Hong Kong, 2012; BA Beijing Normal Univ, 2010 |
| Hearne | Joanna |  | 2021 | THE JEANNE H SMITH PROFESSOR OF FILM AND MEDIA STUDIES, 2021 | PhD, Univ of Arizona, 2004; Utah State Univ, 1996; BA, Oberlin College, 1991 |


| Horton | Andrew | Steele | 1998 | THE JEANNE H SMITH PROFESSOR OF FILM \& MEDIA STUDIES, EMERITUS, 1998 | PhD, Univ of Illinois, 1973; MA, Colgate Univ 1969; BA, Hamilton College, 1966 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Rueda | M. Carolina |  | 2011 | ASSOCIATE <br> PROFESSOR OF FILM <br> AND MEDIA STUDIES, $2014$ | PhD, Univ of Pittsburgh, 2012; MA, Univ of Cincinnati, 2007; BA, Univ of Oklahoma, 1990 |
| Sturtevant | Victoria | M | 2002 | ASSOCIATE <br> PROFESSOR OF FILM <br> AND MEDIA STUDIES, <br> 2008; ADJUNCT <br> ASSOCIATE <br> PROFESSOR OF <br> WOMEN'S AND <br> GENDER STUDIES, $2008$ | PhD, Emory Univ, 2002; MA, Emory Univ, 1999; BA, Toledo Univ, 1995 |
| Tippeconnie | Sunrise |  | 2010 | LECTURER, 2010 | MFA, Temple Univ, 2006; BFA, Univ of Oklahoma, 2001 |
| Yip | Man Fung |  | 2011 | ASSOCIATE <br> PROFESSOR OF FILM AND MEDIA STUDIES, 2017 | PhD, Univ of Chicago, 2011; MPhil, Hong Kong Univ Sci \& Tech, 2001; BS, Chinese Univ of Hong Kong, 1995 |

## Film \& Media Studies, B.A.

Minimum Total Credit Hours: 120
Major Hours: 39
Minimum Upper-Division Hours: 48
Upper-Division Hours Within Major: 18

Overall GPA - Combined and OU: 2.00
Major GPA - Combined and OU: 2.50
Program Code: B429

## Major Requirements

- Some courses required for the major may also fulfill University General Education and/or Dodge College of Arts \& Sciences Requirements
- A grade of "C" or higher must be earned in each course presented for major credit.

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Core Requirements |  |  |
| FMS 1013 | Introduction to Film and Media Studies | 3 |
| FMS 2013 | Film and Media History to 1960 | 3 |
| FMS 2023 | Film and Media History: 1960 to Present | 3 |
| FMS 2033 | Writing About Film | 3 |
| FMS 3213 | Media Theories \& Methodologies | 3 |
| FMS 4013 | Capstone in Film and Media | 3 |

## Creative Skills Requirement

Choose one of the following:

| FMS 1313 | Narrative Production Basics |
| :--- | :--- |
| FMS 3313 | Digital Cinema Production |
| FMS 3323 | Editing: History, Theory, Practice |


| FMS 3703 | Topics in Film and Media Production |  |
| :--- | :--- | :--- |
| FMS 3713 | Topics in Writing for the Screen |  |
| FMS 3853 | Feature Screenwriting |  |
| Electives |  |  |
| Choose six courses from any FMS course not used to satisfy | 18 |  |
| Core or Creative Skill Requirements (p. 407) |  |  |

Total Credit Hours

Appropriate ART, DRAM, or JMC courses may be used to fulfill this requirement with approval of the FMS Academic Advisor.
${ }^{2}$ Additionally, FMS maintains a list of Guided Electives (p. 407), courses offered in other departments that have been approved for FMS Major credit. The list may be accessed online at http://www.ou.edu/ cas/fms.html or in the FMS office.

## Notes

- At least 12 hours of courses in Creative Skills and Electives for FMS Major must be taken at the Upper Division level.
- No more than 15 JMC credit hours may be counted toward the Film and Media Studies major.


## General Education and College Requirements

Courses for fulfillment of General Education and Dodge College of Arts \& Sciences requirements must be from the approved General Education course list published in the Class Schedule or at http://www.ou.edu/ gened/courses. Courses graded P/NP will not apply.

## UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS <br> Code Title Credit Hours <br> Core Area I: Symbolic and Oral Communication <br> English Composition (6 hours) <br> ENGL 1113 Principles of English Composition 3 <br> ENGL 1213 Principles of English Composition 3

or EXPO 1213 Expository Writing
Language (0-13 hours in the same language)
The college requirement cannot be met by high school coursework.
Beginning Course 0-5

Beginning Course, continued 0-5

| Intermediate Course (2000 level) ${ }^{1,2}$ | $0-3$ |
| :--- | :--- |

Mathematics (3 hours)
Choose one course from the General Education Mathematics 3
list
Core Area II: Natural Science (7 hours, including one laboratory component)

Biological Science
Choose an approved General Education Natural Science 3-4 course with one of the following prefixes: BIOL, HES, MBIO, or PBIO ${ }^{1}$
Physical Science
Choose an approved General Education Natural Science 3-4
course with one of the following prefixes: AGSC, ASTR, CHEM,
GEOG, GEOL, GPHY, METR, or PHYS ${ }^{1}$
Core Area III: Social Science (6 hours)


## Free Electives

Electives to bring total applicable hours to the minimum total required for the degree including 48 upper-division hours.

## Information Concerning General Rules, Regulations and Minimum Requirements

Arts and Sciences Hours: At least 80 semester hours of liberal arts and sciences courses are required for a BA degree. At least 55 semester hours of liberal arts and sciences courses are required for a BS degree. Pass/No Pass Enrollment: A maximum of 16 semester hours of free elective credit may be attempted under this option.
Individual Studies (e.g., courses titled "Independent Study"): A maximum of 12 total semester hours may be counted toward graduation, excluding Honors Reading and Honors Research.
P.E. Courses: No physical education activity courses will be counted toward the 120 semester hours of acceptable credit for graduation. Senior Institution Hours: A minimum of 60 semester hours applied toward graduation must be earned at senior (4-year) institutions. Residency:

- At least 15 of the final 30 hours applied toward the degree or at least 50 percent of the hours required by the institution in the major field must be satisfactorily completed at the awarding institution.
- At least 15 semester hours of upper-division major work must be completed in residence at OU.
- OU correspondence courses are not considered resident credit.

Grade Point Averages: Students must earn a minimum over all 2.00 for each of the following: Combined Retention GPA (all college grades), OU Retention GPA, GPA for all major courses, and GPA for all major courses taken at OU. Some schools and departments of the College have higher minimum grade point averages required for their students.

## Suggested Semester Plan of Study

This plan shows one possible grouping of courses that would allow students to graduate in four years. Please refer to the front of the degree checksheet for official requirements. Students must consult with Dodge College of Arts and Sciences and/or Department of Film and Media Studies academic advisors to verify that courses selected each semester fulfill the recommended plan and satisfy University, College of Arts and Sciences, and Film and Media Studies major requirements.

## Freshman

| First Semester |  | Credit <br> Hours |
| :--- | :--- | ---: |
| ENGL 1113 | Principles of English Composition (Core I) | 3 |
| FMS 1013 | Introduction to Film and Media Studies <br> (Core IV - Artistic Forms) | 3 |
| Math (Core I) |  | 3 |
| P SC 1113 | American Federal Government (Core III) | 3 |
| Beginning Language (Core I) | 5 |  |
|  | Credit Hours | $\mathbf{1 7}$ |

## Second Semester

| ENGL 1213 <br> or EXPO 1213 | Principles of English Composition (Core I) <br> or Expository Writing | 3 |  |  |
| :--- | ---: | ---: | :---: | :---: |
| FMS 2023 | Film and Media History: 1960 to Present | 3 |  |  |
| Beginning Language continued (Core I) | 5 |  |  |  |
| First Year Experience (Core V) | 3 |  |  |  |
| Credit Hours |  |  |  | $\mathbf{1 4}$ |

## Sophomore

First Semester
FMS 2013 Film and Media History to 1960
Intermediate Language ..... 3
Natural Science with lab (Core II) ..... 4
World Culture (Core IV) ..... 3
Free Elective, lower-division ..... 14
Second Semester
FMS 2033 Writing About Film 3
HIST $1483 \quad 3$
or HIST 1493 or United States, 1865 to the Present
Natural Science without lab (Core II) 3
Western Culture (Core IV) 3

| Social Science (Core III) | 3 |
| :---: | ---: |
| Credit Hours | 15 |

## Junior

First Semester
FMS 3213 Media Theories \& Methodologies

| Film \& Media Studies Major Requirement: Guided Elective ${ }^{1}$ | 3 |
| :--- | ---: |
| Arts \& Humanities, upper-division, outside major (Gen. Ed.) | 3 |
| Free Elective, lower-division | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Credit Hours | $\mathbf{1 5}$ |


| Second Semester |  |
| :--- | ---: |
| Film \& Media Studies Major Requirement: Creative Skills |  |
| Film \& Media Studies Major Requirement: Guided Elective | 3 |
| Arts \& Humanities, upper-division, outside major (Gen. Ed.) | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Credit Hours | 3 |

## Senior

## First Semester

Film \& Media Studies Major Requirement: Guided Elective, 3 upper-division ${ }^{1}$

| Film \& Media Studies Major Requirement: Guided Elective, | 3 |
| :--- | ---: |
| upper-division 1 | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Free Elective, upper-division (3000-4000-level) | $\mathbf{1 5}$ |

## Second Semester

FMS 4013 Capstone in Film and Media 3

Film \& Media Studies Major Requirement: Guided Elective, 3 upper-division ${ }^{1}$
Film \& Media Studies Major Requirement: Guided Elective, 3 upper-division ${ }^{1}$
Free Elective, upper-division (3000-4000-level) 3
Free Elective, upper-division (3000-4000-level) 3

| Credit Hours | 15 |
| :--- | ---: |
| Total Credit Hours | 120 |

${ }^{1}$ Film \& Media Studies Major Requirement: Guided Electives - 18 hours chosen from the list of Guided Electives maintained by the department. At least 12 hours of the Creative Skills and Guided Electives courses must be Upper Division. No more than 15 credit hours of JMC coursework may be used in the FMS major.

## Film and Media Studies Guided Electives

- For the most current course list, please contact the Department of Film and Media Studies.

Any course with the FMS prefix, or from the list below, not used to satisfy Core or Creative skills requirements in the major may be used as a Major Elective.

No more than 15 hours of JMC courses may be used towards the FMS major work and no JMC courses may be used towards the FMS minor.
Approved Film \& Media Studies Guided Electives

| Code | Title |
| :--- | :--- |
| AFAM 4233 | Blacks and the Movies: Hollywood and <br> Black Independent Film |

Credit Hours Black Independent Film

| ANTH 4443 | Visual Anthropology | 3 |
| :---: | :---: | :---: |
| ART 2873 | Video for the Artist I * | 3 |
| ART 3823 | Concepts in Electronic Media * | 3 |
| ART 3853 | Intermediate Traditional Photography * | 3 |
| ART 3863 | Intermediate Digital Photography * | 3 |
| ART 3873 | Video for the Artist II * | 3 |
| ART 4973 | Film and Video Studio Topics * | 3 |
| ATC 2853 | Image - Introductory Studio Practice * | 3 |
| ATC 2873 | Time - Introductory Studio Practice * | 3 |
| ATC 3883 | 2D Computer Animation * | 3 |
| ATC 4883 | Narrative Animation * | 3 |
| COMM 4643 | Mass Media Effects | 3 |
| DRAM 2503 | On-Camera Acting for Non-Majors * | 3 |
| ENGL 2243 | Film Narrative | 3 |
| ENGL 3023 | Thematic Approaches to Literature II (film topic) | 3 |
| ENGL 3243 | Special Topics in Film | 3 |
| ENGL 3363 | Films and Context | 3 |
| ENGL 3423 | Film and Other Expressive Forms | 3 |
| ENGL 4013 | Major Figure (With Subtitle) (film topic) | 3 |
| HIST 3313 | Israeli Culture Through Film | 3 |
| HIST 3430 | Topics in United States History (Topic: 20th C. U.S. in Film) | 1-5 |
| HIST 3430 | Topics in United States History (Topic: Jews \& Hollywood) | 1-5 |
| HSTM 3493 | The History of Media | 3 |
| JMC 2643 | Sound, Light, and Motion | 3 |
| JMC 3011 | Practicum (broadcast topics) * | 1 |
| JMC 3143 | Photojournalism * | 3 |
| JMC 3504 | Introduction to Professional Writing * | 4 |
| JMC 3613 | Single Camera Production * | 3 |
| JMC 3633 | Audio Production * | 3 |
| JMC 3703 | Backpack Reporting * | 3 |
| JMC 3723 | Introduction to Documentary | 3 |
| JMC 3753 | Electronic Media Criticism | 3 |
| JMC 3763 | Narrative Screenwriting * | 3 |
| JMC 4623 | Multi-Camera Production * | 3 |
| JMC 4633 | Advanced Single Camera Production * | 3 |
| JMC 4643 | Advanced Audio Production * | 3 |
| JMC 4683 | Multimedia Content Management * | 3 |
| JMC 4733 | Advanced Narrative Screenwriting * | 3 |
| JMC 4753 | Documentary Research and Writing * | 3 |
| JMC 4763 | Documentary Production * | 3 |
| JMC 4773 | After Effects * | 3 |
| JMC 4813 | Media Law | 3 |
| JMC 4853 | Race, Gender, Class and the Media | 3 |
| MLLL 3133 | Soviet and Post-Soviet Cinema | 3 |
| MLLL 3223 | Japan Through Film and Literature | 3 |
| MLLL 3373 | Italian Cinema | 3 |
| MLLL 3763 | Chinese Cinema | 3 |
| MLLL 3993 | Contemporary Brazilian Film | 3 |
| MUNM 2413 | Music in Film | 3 |


| MUSC 4970 | Undergraduate Seminar (Topic: Hollywood <br> Movie Musical) | $1-3$ |
| :--- | :--- | :--- |
| SOC 3993 | Sociology of Gender and Sexuality in the <br> Media | 3 |
| WGS 3703 | Female Heroism in Hollywood | 3 |
| WGS 3713 | Gender and James Bond | 3 |
| * These courses are adviser-approved Creative Skills. If used to meet |  |  |
| the Creative Skills requirement, they cannot also be used as a major |  |  |
| elective. |  |  |

## Film \& Media Studies, Minor

Minimum Total Credit Hours: 18

Minimum Upper-Division Hours: 9

## Program Code: N429

- The requirements for a minor must be completed concurrently with the major degree requirements.
- No minor may be added by completing courses after receiving the bachelor's degree.

At least six (6) credit hours must be earned in courses acceptable for residence credit by standards set forth by the Dodge College of Arts and Sciences, excluding transfer, correspondence, and examination (AP, CLEP, Advanced Standing) credit. Courses for the minor may not be taken Pass/ No Pass.

No single course may be used by a student to satisfy a major requirement and a minor requirement. A course may be used, however, to satisfy both a major support requirement and a minor requirement.

Requests to substitute a minor requirement must be approved in writing by the Department of Film \& Media Studies.

## Required Courses

Students must successfully complete at least 18 hours of courses acceptable for major credit in Film and Media Studies. All courses with the FMS prefix are acceptable for minor credit. Consult the FMS department for the list of optional interdisciplinary Guided Electives (p. 407). At least nine (9) hours must be taken at the upper-division level. Note: JMC courses may NOT be used to satisfy requirements for the minor.

A minimum grade of $C$ or better is required in all courses presented for FMS minor credit.

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Required Courses |  |  |
| FMS 1013 | Introduction to Film and Media Studies | 3 |
| FMS 2013 | Film and Media History to 1960 | 3 |
| or FMS 2023 Film and Media History: 1960 to Present |  |  |
| Electives |  | 12 |
| Choose four courses from coursework approved for FMS <br> major credit, including at least 9 upper-division hours |  |  |
| Total Credit Hours | $\mathbf{1 8}$ |  |

1 JMC courses may NOT be used to satisfy requirements for the FMS minor.

- Minors in the Dodge College of Arts \& Sciences are available to all undergraduate students at OU. If the minor is officially declared, successfully completed, and noted on the graduation application, the student's transcript will so indicate at the time the bachelor's degree is posted.


## Department of Health and Exercise Science

## S.J. Sarkeys Complex

1401 Asp Avenue, Room 104
Norman, OK 73019-6081
Phone: (405) 325-5211
FAX: (405) 325-0594
hesdept@ou.edu
www.ou.edu/cas/hes

## General Information

The Department of Health and Exercise Science's interdisciplinary program is one of the largest in the Dodge College of Arts and Sciences. The program integrates the biological, physiological, medical, and behavioral sciences as they relate to physiological responses to exercise and other aspects of human health.

The mission of the Department of Health and Exercise Science is to lead the state and nation in exercise science and health promotion education and research by providing a rich and diverse undergraduate and graduate curriculum which draws from the life sciences, social sciences, health and exercise sciences, and the humanities; and to contribute to the enhancement of quality of life for various populations.

## Faculty

Health and Exercise Science faculty are some of the foremost scholars and researchers in their fields. Their cutting-edge research is published in journals and many are invited to speak at national and international conferences. In addition to a Ph.D., many hold certifications such as Certified Strength and Conditioning Specialists (CSCS), Certified Health Education Specialists (CHES), National Strength and Conditioning Association Certified Personal Trainer (NSCA-CPT), and are members of organizations such as Fellow of the American College of Sports Medicine (FACSM), Fellow of the Research Consortium, Fellow of the Gerontological Society of America and Fellow of the National Academy of Kinesiology, American Public Health Association, and the American Academy of Health Behavior. Most importantly, they genuinely enjoy teaching and are accessible to undergraduate and graduate students alike.

## Research

At any given time, HES faculty, graduate students, and undergraduate students have multiple research projects ongoing, focusing on the areas of bone density, nutrition, resistance training, aging, community interventions, health disparities, sports performance, and business analytics. Our state-of-the-art laboratories are conveniently located in the HES and Collums buildings. As a HES student, research opportunities will be an integral part of your educational experience.

## Curriculum

Whether you are an undergraduate or graduate student studying Health Promotion or Exercise Physiology, you will have a broad educational experience that includes biological, physical, medical, and behavioral sciences as they relate to human health and physiological response. These multidisciplinary experiences will prepare you for many exercise physiology and health promotion related careers.

## Programs \& Facilities

## Programs for Academic Excellence

The Department of Health and Exercise Science supports the position that students should receive both broad educational preparation and disciplinary specialization to prepare effectively for future professional demands. This includes strong general education preparation with an emphasis on biological and behavioral sciences, a core of requisite coursework in HES, and an individualized block of elective coursework.

The department is equally proud of its preparation and academic standards at the graduate level. The graduate program is demanding and comparable to programs at peer institutions that have much larger student populations.

## Facilities

The Department of Health and Exercise Science is located in the west wing of the S. J. Sarkeys Complex and includes modern classrooms, a student computer lab, a conference room, and offices for our faculty, staff, and graduate students, providing easy access to all members of our department. Laboratories are housed on the lower floor of the department or in the Collums Building which is within proximity to the S. J. Sarkeys Complex. For more information about faculty members, their laboratories, research experiences, and current students, please visit https://www.ou.edu/cas/hes/research/research-laboratories.

## Undergraduate Study

The undergraduate program integrates the biological, physiological, medical, and behavioral sciences as they relate to physiological responses to exercise and other aspects of human health.

- Health and Exercise Science, Bachelor of Science (p. 416) The Bachelor of Science is designed to train students who plan to work in the health promotion, fitness, allied health, and sports fields or to prepare students for graduate studies in Health and Exercise Science. The undergraduate program consists of a single core curriculum emphasizing applied science and professional preparation in combination with an elective block sufficiently broad to allow students to develop strong preparation in an area of personal interest related to health and exercise.
- Health and Exercise Science Minor (p. 418) A minor in Health and Exercise Science is available to students completing their major requirements in other departments.


## Lifetime Skill Activity Courses

HES courses numbered below 2000 (except HES 1823) are basic skills courses that include the teaching of specific skills, rules, and regulations when appropriate and the nomenclature of a sport or recreational activity. The basic skills courses represent lifetime health, fitness, and leisure activities to enhance the lifestyle of all participants. All basic skills courses are graded $S / U$ and have attendance requirements.

## Scholarships and Financial Aid

The department offers the Mary Anne Price and Virginia Morris undergraduate merit scholarships to HES majors who meet the eligibility criteria. Eligible HES majors may apply for these scholarships through the university's centralized academic scholarship hub.

## Health and Exercise Science Student Association

HESSA strives to support HES students, improve relationships across the department (faculty, staff, students), and increase awareness of the HES major across the university. Each year, HESSA provides opportunities for students to learn about HES-related professions and network with professionals and recruiters across health disciplines. HESSA also awards a community service scholarship to two HESSA members who distinguish themselves in service to the mission of the HES department and HESSA.

## Graduate Study

## Master of Science Degree

## Program Options

- Health and Exercise Science (p. 419) - An interdisciplinary, hybrid program integrating health education/health promotion, applied exercise physiology, and nutrition, which is designed to prepare students for health/fitness professions, working in a variety of settings.
- Health and Exercise Science: Exercise Physiology (p. 419) - A disciplinary program integrating coursework from a range of research areas in applied exercise physiology, which is designed to prepare students for doctoral training, research, and/or practice in these areas.
- Health and Exercise Science: (p. 420)Health Promotion - A disciplinary program integrating coursework from a range of research areas in health education/health promotion, which is designed to prepare students for doctoral training, research, and/or practice in these areas.
- Health and Exercise Science: Sports Data Analytics (p. 420) - A program for students seeking additional professional development and training in the use of data science and data analytics within sports organizations.


## Health and Exercise Science Doctoral Programs

The Doctor of Philosophy degree (Ph.D.) can be awarded in either Health and Exercise Science: Exercise Physiology (p. 422) or Health and Exercise Science: Health Promotion (p. 422). The doctoral degree in Health and Exercise Science is awarded for excellence in research scholarship in combination with successful completion of an approved program of study consisting of coursework within and external to the Department of Health and Exercise Science. It signifies the attainment of independently acquired and comprehensive learning which evidences general professional competence.

## Cellular and Behavioral Neurobiology Doctoral Programs

The Cellular and Behavioral Neurobiology Graduate Program is a campuswide interdisciplinary program whose faculty members are from Biology, Aerospace \& Mechanical Engineering (AME), Chemistry \& Biochemistry (Chem/Biochem), Health and Exercise Science (HES), and Psychology.

- Cellular and Behavioral Neurobiology: Exercise Physiology, Ph.D. (p. 421)


## Scholarships and Financial Aid

The department offers the Glen Michael Sims graduate merit scholarship, the Helen Riddle doctoral research scholarship, the Travis Beck Memorial Scholarship for doctoral and master's students, and the Helen Riddle Travel Award. Students should contact the department for further information and applications.

Graduate assistantships are annually available for M.S. and Ph.D. students in the Department of Health and Exercise Science contingent upon available faculty and departmental funding. Students who have been admitted to the graduate program in the Department of Health and Exercise Science are eligible for consideration.

## Courses

HES 1011 Indoor Cycling
1 Credit Hour
Designed to teach specific skills of indoor cycling and form. Indoor cycling is a form of exercise with classes focusing on cardiovascular endurance, strength, intervals, sprints, hills, lifts and recovery, and involves using a special stationary exercise bicycle. Individuals will learn the fundamentals of indoor cycling, skills and techniques, as well as accurate terms and etiquette. ( $\mathrm{F}, \mathrm{Sp}$ )

HES 1041 Yoga 1 Credit Hour
Yoga. Beginning Level Yoga Class Focusing On Basic Asanas (Poses), Breathing, Relaxation And Meditation. Students Will Improve Their Flexibility And Body Awareness. (F,Sp,Su).
HES 1121 Beginning Weight Training 1 Credit Hour
To learn basic skills of weight training, i.e., warm-up, lifting techniques, training programs, etc.; to condition and strengthen the body through a continuous weight training program; to learn and appreciate the ability of correct weight training to enhance personal fitness and the carry-over value into other sports and activities. (F, Sp, Su)
HES 1221 Individual Fitness
1 Credit Hour
May be repeated; maximum credit eight hours. Exercise designed to condition the body for maximum health and fitness; special emphasis on cardiovascular fitness. (F, Sp, Su)
HES 1321 Wall Climbing 1 Credit Hour
The purpose of this class is to learn and practice the basic techniques and safety concerns for rock climbing and bouldering. (F, Sp, Su)
HES 1331 Roller Skating
1 Credit Hour
The course is designed to develop a working knowledge of roller skating fundamentals and their application. Promotes knowledge and awareness of popular sports involving roller skating, and students will increase strength, stamina, balance and coordination. (F, Sp)
HES 1351 Recreational Activities 1 Credit Hour
May be repeated with change of subject matter; maximum credit three hours. (F, Sp, Su)
HES 1823 Scientific Principles of Health and Disease 3 Credit Hours Students will be exposed to the basic science-based principles needed to develop an interdisciplinary understanding of human health. The course is designed to assist students in the development of a basic understanding of the anatomical structures and physiological process that are critical to understanding the development of various diseased/ disorders. (F, Sp, Su) [II-NS].

HES 1921 Basketball
1 Credit Hour
Teach a basic understanding of the game of basketball; skills and analysis of skills, nature and rules of the game, and strategies for game situations. (F, Sp, Su)
HES 1941 Soccer
1 Credit Hour
Teach a basic understanding of the game of soccer; skills and analysis of skills, nature and rules of the game, and strategies in game situations. (F, Sp )

HES 1981 Volleyball
1 Credit Hour
Basic understanding of the game of volleyball; skills and analysis of skills, nature and rules of the game, and strategies for game situations. (F, Sp, Su)
HES 2131 Introduction to Health and Exercise Science 1 Credit Hour Designed to introduce major students to the fundamentals of HES, including curricular disciplines, basic terminology, career opportunities, and professional associations. Students will also learn basic library research skills and a working knowledge of the support services and technologies available at the University. (F, Sp)

HES 2212 First Aid
2 Credit Hours
Includes the theory related to causes and prevention of accidents, as well as development of sufficient knowledge to determine the nature and extent of injuries. Training focuses on taking proper procedural steps at the proper times. Upon successful completion of the course and its specific requirements, students are awarded the American Red Cross Community First Aid and CPR Certificates. Lecture and laboratory combined. May include online components. (F, Sp, Su)
HES 2823 Introductory Nutrition 3 Credit Hours (Crosslisted with CLINICAL DIETETICS - AN HSC COURSE 2823)
Evaluation of basic composition of nutrients and accessory factors required for adequate human nutrition. Application of nutritional principles to the planning of normal and special dietary regimen. [II-NS].

## HES 2913 Personal Health

3 Credit Hours
Emphasizes the health knowledge and practices needed for effective living. The course has a holistic focus on personal health and provides both an informational and behavioral basis for health promotion and disease prevention. Topics include: mental health, stress management; fitness; nutrition; alcohol, tobacco, and other drug education; sexuality; and chronic/infectious disease. ( $F, S p$ )

HES 2970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: May be repeated; Maximum credit nine hours. Special topics course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research, and field projects. (Irreg.)
HES 3000 Special Topics in Health and Exercise

## Science

1-3 Credit Hours
1 to 3 hours. Prerequisite: junior standing or permission of instructor.
May be repeated with change of content; maximum credit nine hours. Topics in health and exercise science not accommodated by the existing curriculum. Example: psychological factors in exercise adherence, i.e., personality traits of select exercise individuals, reinforcement procedures, personal goals as related to exercise needs, etc. (Irreg.)
HES 3021 Sports Officiating: Football and Volleyball 1 Credit Hour Prerequisite: ENGL 1213 or EXPO 1213. Standards and principles involved in the art of officiating with emphasis on football and volleyball. Laboratory experience required. (F)

HES 3031 Sports Officiating: Basketball, Softball, and
Baseball 1 Credit Hour
Prerequisite: English 1213 or Expository Writing 1213. Standards and principles involved in the art of officiating with emphasis on basketball, softball, baseball, and track and field. (Sp)
HES 3213 Principles and Practice of Sport Management for Non-HES Majors 3 Credit Hours
Prerequisite: Non-HES major and junior standing. Survey course covering fundamental management functions, structural components of sport organizations, management and leadership techniques commonly employed in effective sport organizations, human resource management strategies, and current trends in sport management. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
HES 3430 Field Experiences in Health and Exercise

## Science

1-4 Credit Hours
1 to 4 hours. Prerequisite: junior standing or permission of department. May be repeated with change of activity or advanced position; maximum credit four hours. Field study related to student's area of interest (athletic coaching, athletic training, exercise science, health promotion, sport management) as approved by the department's field supervisor of adviser. A contract is required prior to beginning the field experience. The contract will address: statement of purpose, process of submitting reports, on-site evaluations, and written evaluations by student and site supervisor. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
HES 3440 Mentored Research Experience
3 Credit Hours
0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)
HES 3502 Care and Prevention of Athletic Injuries 2 Credit Hours Prerequisite: HES 2212 or equivalent CPR/AED/First Aid certification; three hours of biological science and three credit hours of social science. Recognition, cause, prevention, treatment, rehabilitation of athletic injuries; taping methods, protective equipment, and doctor's recommendations; equipping the training room, conditioning the athlete, practice routines and the athlete's diet. Laboratory ( $\mathrm{F}, \mathrm{Sp}$ )
HES 3513 Health Promotion Program Planning 3 Credit Hours Prerequisite: HES major or permission of instructor. Discussion of health promotion programming in disease prevention, risk reduction, and wellness. Understanding the theoretical issues related to the development and evaluation of health promotion programs and the behavioral dimensions of health promotion. (F, Sp)

## HES 3523 Human Sexuality

3 Credit Hours
Prerequisite: 2913, Psychology 1113. An introduction to biological, psychological, and sociological concepts which form the interdisciplinary foundation for studying human sexuality. Current research findings in all areas will be emphasized. Areas of emphasis will include: personal, social, sexual, and gender identity development across the lifespan, interaction and communication within social and intimate relationships, and reproductive and other health-related sexuality issues. ( $F, \mathrm{Sp}$ )

## HES 3543 Health and Wellness Coaching <br> 3 Credit Hours

Prerequisite: junior standing and HES 2913. Encourages participants to successfully adopt healthier lifestyle behavior. Explores the development and efficacy of health and wellness coaching and develops the ability to implement basic coaching skills when working with patients and wellness clients. (Sp)

HES 3553 Wellness in Native Communities 3 Credit Hours
Prerequisite: junior standing and HES 1823 or HES 2913. Designed to explore and understand the principles of individual and community wellness from the perspective of both mainstream society and from within the cultural frame of native beliefs and values. (F)
HES 3563 Lifestyle Intervention
3 Credit Hours
Prerequisite: HES major or permission. Examines the relationship between individual behavior and the health status of a community. Current lifestyle intervention literature will be the focus. Application of intervention strategies will be presented for school, worksite, and community settings. (Irreg.)
HES 3573 Obesity and Weight Management
3 Credit Hours
Prerequisite: junior standing and HES 2913 and either HES 1823 or
BIOL 2124. Provides students with knowledge of the physiology and psychology of obesity and overweight. Designed to educate students not only on the scientific background of obesity but how to apply this knowledge to management of obesity in the general and specific populations they will be serving. (F)
HES 3583 Sociocultural Aspects of Health
3 Credit Hours
Prerequisite: junior standing. Designed to offer a comprehensive approach to understanding social injustice and its impact on health. Particular attention will be given to research emphasizing social determinants as the underlying causes of ill health in the American society. (F, Sp)
HES 3813 Principles of Health and Fitness 3 Credit Hours
Prerequisite: HES major or permission of instructor. Study of the underlying principles of life sciences that contribute to an understanding of the role of physical activity in health, fitness, and sports medicine. Specific reference to an overview of public health and disease, anatomy and biomechanics, exercise physiology, health appraisal and fitness testing and programming, human development and behavior, and program management. Laboratory (F, Sp, Su)
HES 3823 Physiology of Exercise
3 Credit Hours
Prerequisite: 3813 and Health and Exercise Science major or permission of instructor. Introductory study of principles and concepts of exercise physiology. Theoretical and scientifically established mechanisms are explored that explain the body's response, adaptation, and concomitant regulation during acute and chronic exercise. Applications presented in the clinical, sport, occupational, and normal exercise settings.
Focus is on an understanding of the body's function from the cellular to systemic level during exercise. An understanding of assessment and physical training principles to explain health and performance is emphasized. Specific factors that affect the physiological bases of human performance are investigated. (Irreg.)

HES 3843 Biomechanics
3 Credit Hours
Prerequisite: MATH 1523 or MATH 1743 or PHYS 2414, and BIOL 2255 or BIOL 2234, and junior standing. The integrated study of anatomy, physiology, and mechanics with emphasis on understanding the anatomical and functional aspects of human movement in the area of health and exercise science, such as in clinical, daily living, and sport applications. ( $\mathrm{F}, \mathrm{Sp}$ )

HES 3853 Exercise Testing and Prescription 3 Credit Hours
Prerequisite: HES 3813 and Health and Exercise Science major or permission of instructor. Introduces the exercise science student to the theoretical and functional techniques of graded exercise testing for functional and/or diagnostic assessment. Equal time will be spent between lecture and lab as students will be provided the theoretical background for all testing methods commonly used in both a health and fitness scenario as well as an introduction to how these methods can be used clinically. This course is designed to prepare exercise science students for the American College of Sports Medicine's Health/Fitness Instruction Certification. Laboratory ( $\mathrm{F}, \mathrm{Sp}$ )
HES 3873 Principles of Personal Training 3 Credit Hours Prerequisite: junior standing. Designed to prepare individuals who are interested in becoming certified personal trainers (CPT) through the National Strength and Conditioning Association. Instruction is provided describing basic exercise physiology as well as the principles of developing a personal training regimen for a typical gym trainee. Course experiences will reinforce training principles and teach the basic skills necessary for certification. (F, Sp)
HES 3883 Principles of Endurance Training 3 Credit Hours Prerequisite: BIOL 2124 and BIOL 2255 or 2234 with a grade of C or better, and junior standing. Emphasis will be placed on understanding physiology related to endurance performance and principles of endurance training. Performance testing procedures for predicting endurance performance will be conducted throughout the semester. In addition, it will be required that an endurance training program utilizing the information covered in class will be designed. (F, Sp)
HES 3893 Facts and Fallacies of Exercise and Nutrition 3 Credit Hours Prerequisite: Non-majors only and English 1213 or Expository Writing 1213. Provides meaningful and practical guidelines on how to recognize and dispel many of today's popular myths regarding exercise and nutrition. Course concepts will emphasize the proper use of scientific evidence to either dispel current topics as fallacy or confirm as fact. Sample current topics may include fads, infomercial products, weight loss, aerobic exercise, resistance exercise, dietary supplements, and exercise/sport nutrition, along with the effect of media and advertising and marketing ploys on these topics. (Irreg.)
HES 3960 Honors Reading 1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Study of current research developments in health and sport sciences. An opportunity for the Honors' candidate to work with a faculty mentor on a research project of special interest to the student in the health and sport sciences. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

## HES 3970 Honors Seminar

1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. An opportunity for the Honors' candidate to work with a faculty mentor on a research project of special interest to the student. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

## HES 3980 Honors Research

1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Will provide an opportunity for the gifted Honors candidate to work at a special project in the student's field. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
HES 3990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: one course in general area to be studied; permission of instructor and department. May be repeated; maximum credit six hours. Contracted independent study for topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (F, Sp, Su)

HES 4213 Management in Health and Exercise Science 3 Credit Hours Prerequisite: junior standing. Concentration on the following course topics: defining facility types, management and employees, facility systems, equipment and maintenance, programming and targeting audience, for profit -- not for profit, marketing and sales, finance, budgeting and funding sources, legal responsibilities, safety and quality control. Class will regularly visit a wide range of health clubs, sports facilities, fitness, golf and recreational environments. (Irreg.)
HES 4273 Sport Finance
3 Credit Hours
Prerequisite: HES 3213 or ACCT 2113 or permission of instructor. Discussion and study of methods and techniques for funding sport programs, professional and amateur sports. Topics include financial challenges faced by sport organizations and the garnering of resources from the public sector, external sources, and enterprise activity. Emphasis will be placed on present valuations, financial risk management, the capital budgeting process, and exercising sound financial decisionmaking. (Sp)
HES 4283 Sports Economics and Policy 3 Credit Hours Prerequisite: HES 3213 or ECON 1123. Analyzes the unique features of the sport industry relative to the principles of economics. Sport is one of the top twenty industries in the United States, with over eighty billion consumer dollars being spent on an annual basis. Students will review the basics of economic theory and apply these principles to the management decisions of modern and global sport organizations. Emphasis will also be placed on the economic aspects of public finance for sport facility construction and other forms of subsidization within the sports industry. In addition, important current economic issues will be discussed as they relate to the governance of professional sports leagues and intercollegiate athletics. (F, Sp)
HES 4430 Internship in Health and Exercise Science 1-4 Credit Hours 1 to 4 hours. Prerequisite: HES major and nine credit hours of HES major core, and departmental permission. May be repeated; maximum credit 4 hours. Practical experience in administration, techniques, organizational structure and appropriate materials used with health, fitness or sportrelated occupations. (F, Sp, Su)
HES 4503 Principles of Community Health 3 Credit Hours Prerequisite: Health and Exercise Science major or permission of instructor. Examines the importance of maintaining, protecting, and improving the health of people through organized community efforts. Basic concepts in community health and a review of the historical foundations of community health will be presented. (F, Sp)
HES 4513 Public Policy Impact on Health Promotion 3 Credit Hours Prerequisite: junior standing and HES 1823 or HES 2913. As health promotion becomes more popular in the workplace, many organizations are struggling with existing and new regulations that help guide and ensure that compliant programs are being created. Examines existing policies and new policies that will have an impact on the delivery of health promotion programs. Topics include, but are not limited to, Healthy People 2020, CDC, State of Oklahoma Health Department, and Economic Theories on Wellness, Health Care Reform Impact and Tobacco Free Policies. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

HES 4523 Human Sexuality II
3 Credit Hours
Prerequisite: 3523 or permission. Indepth study of human sexuality from a biopsychosocial perspective which emphasizes the roles of biology, psychological factors, and social learning. Area studies will include sexual and gender development across the life span; interaction and communication within intimate relationships; reproductive and healthrelated sexuality topics; and a historical look at the evolution of mating and love relationships. In addition, students will examine the integration of human sexuality issues and education in health-related occupations. (Irreg.)
HES 4543 Comprehensive Stress Management 3 Credit Hours
Prerequisite: BIOL 2234 or BIOL 2255 and BIOL 2124 and a course in Psychology. Helps students gain an awareness of stress and its effects, practice management techniques to reduce personal stress, and implement those techniques in their daily lives as well as the lives of others (school, community, corporation, etc.). Topics include: psychophysiology of stress, stress and disease, nutrition, personal planning and time management, cognitive restructuring, relaxation, and biofeedback. (Irreg.)
HES 4573 Chronic Disease Intervention
3 Credit Hours
Prerequisite: Health and Exercise Science major or permission of instructor. Provides a basic understanding of disease process in selected chronic diseases and intervention strategies for risk reduction and chronic disease prevention. Basic principles of epidemiology and chronic disease surveillance will also be covered. (Irreg.)
HES 4823 Sport and Exercise Nutrition
3 Credit Hours
Prerequisite: junior standing, HES 2823 and CHEM 1315. Provides a basic understanding of the influence of nutrition on sport and exercise performance. Requires students to integrate their knowledge of nutritional physiology, biochemistry and intermediary metabolism with that of exercise physiology and to apply this knowledge to develop a critical understanding of the nutritional and practical dietary needs of individuals participating in sport and exercise. ( $\mathrm{F}, \mathrm{Sp}$ )
HES 4833 Physiology of Exercise Laboratory
3 Credit Hours
Prerequisite: HES Major and HES 3813 or permission of instructor. Laboratory experiments emphasizing the understanding of fundamental physiological mechanisms, regulating responses, and adaptation to exercise. Basic analytical methodologies pertaining to the energy, muscular and circulatorespiratory systems. Includes factors affecting physiological performance capacities and experimental basis of exercise assessment and training. Laboratory ( $\mathrm{F}, \mathrm{Sp}$ )

HES 4863 Physical Activity and Aging
3 Credit Hours
Prerequisite: permission of instructor. Discussion of general concepts of aging and the issues related to dying, the expected changes related to aging in the various physiological systems, i.e., body composition, cardiovascular, bone, and skeletal muscle. In addition, exercise programming concerns for the aged as well as the possible benefits of exercise during aging will be discussed. (Irreg.)

HES 4883 Advanced Strength and Conditioning 3 Credit Hours Prerequisite: BIOL 2124, and BIOL 2255 or 2234 with a grade of C or better, and junior standing. Advances knowledge of strength and conditioning concepts in an applied setting. Prepares students to confidently and specifically design strength and conditioning programs for all populations including athletes, elderly and children, as well as to successfully demonstrate and teach all lifts and conditioning drills. (F, Sp)

HES 4933 Drug Education
3 Credit Hours
Prerequisite: 2913. Beneficial and harmful uses and effects of drugs. Motivations behind drug abuse, especially among youth, and implications of this problem on the individual, school and society. Consideration given to legislative and educational efforts. Investigation of interpersonal skills and communication interaction techniques. The use of valuesclarification techniques. (Irreg.)
HES 4953 Senior Capstone
3 Credit Hours
Prerequisite: Health and Exercise Science major, senior standing and permission of instructor. An integration and synthesis of the major disciplines of study in the health and exercise science. Readings, discussions and research methods will focus on applications and problem solving approaches related to contemporary policy, economic, social and ethical issues. (F, Sp) [V] .
HES 4960 Directed Readings
1-4 Credit Hours
1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean. May be repeated; maximum credit four hours. Designed for upper-division students who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)
HES 4970 Special Topics/Seminar

## 1-3 Credit Hours

1 to 3 hours. Prerequisite: Senior standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)
HES 4973 Mediterranean Diet \& Culture
3 Credit Hours
Prerequisite: Application and acceptance to this specific study abroad program through OU Education Abroad. Taught on the OU-Arezzo campus. Students will experience the culture of Tuscany, including the eating habits of people from the region. Students will tour farms and food production facilities for ham, cheese, olive oil, and wine. Cooking classes introduce students to making pasta and other traditional Tuscan foods. The culture is also experienced through visits to areas that surround Arezzo. (Su)
HES 4990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: three courses in general area to be studied; permission of instructor and department. May be repeated; maximum credit six hours. Contracted independent study for topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (F, Sp, Su)

## HES 5000 Issues and Procedures in Health and Exercise

Science
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated with change of content; maximum credit six hours. Current topics such as the following: exercise prescription for the elderly; adherence to physical activity, exercise/sport. (Irreg.)
HES 5283 Sports Financial and Market Analytics 3 Credit Hours Prerequisite: graduate standing and one of the following: HES 5953, MIT 5742, EIPT 6023, ECON 4233, PSY 5013, MATH 5773; or permission of instructor. The objective of this course is to analyze the unique features of the sports industry relative to principles of financial management and economics. Students will employ basic financial and econometric modeling to the management of sports organizations. Emphasis will be placed on labor markets, sports consumer demand, public finance for facilities/events, and other forms of subsidization of the sports industry. (F)

HES 5313 Athlete Tracking and Monitoring in Sports 3 Credit Hours Prerequisite: graduate standing and permission of instructor. The objective of this course is to analyze methodologies used to track/ monitor the loads imposed on athletes during training and competition. The validity, reliability, and efficacy of methodologies will be evaluated. Students will review performance testing, data acquisition, and data analysis and will develop data visualizations that relay the status of an athlete to the sports performance team. (F)
HES 5430 Internship in Health and Exercise Science 1-3 Credit Hours 1 to 3 hours. Prerequisite: graduate standing and successful completion of course requirements in HES area of study; student must have completed a minimum of 12 course hours, including all core requirements, before enrolling in internship. May be repeated; maximum credit six hours. Internship hours will be counted as elective hours towards the normal course requirement (i.e., 30-32 hours). Field experience in area of study. Participation in on-the-job experiences in a wide range of hosting agencies, businesses and institutions. ( $F, \mathrm{Sp}, \mathrm{Su}$ )
HES 5513 Perspectives in Global Health 3 Credit Hours Prerequisite: graduate standing. Examines major global health challenges, programs and policies. Students will be introduced to the world's vast diversity of determinants of health and disease, and current and emerging global health priorities will be discussed, including: emerging infectious diseases, poverty, conflicts and emergencies, health inequity, health systems reforms, and major global initiatives for disease prevention and health promotion.(F, Sp)
HES 5523 Health Promotion Strategies
3 Credit Hours Prerequisite: graduate standing. Will provide students with a basic introduction to the principles of health promotion. Specific topics will include risk appraisal and risk reduction, behavior change theories, program planning and management, holistic health/wellness, and others. (F)

HES 5553 Health Promotion Evaluation 3 Credit Hours
Prerequisite: graduate standing and permission of instructor.
Examination of the processes used to evaluate health promotion and health education programs. Includes: needs assessment, quality assurance evaluation, summarative evaluation, data analysis, and cost benefit analysis strategies. (Irreg.)

HES 5563 Health Behavior I: Individual and Group

## Influences

3 Credit Hours
Prerequisite: Graduate standing or permission of instructor. Focuses on behavioral theories and research which are pertinent to understanding factors/conditions that influence the development of and change processes related to health behavior in individuals or small groups such as family units. It is designed to provide a knowledge and theoretical base for integration of behavioral principles into research design and health promotion programming. (Sp)
HES 5823 Exercise Physiology 3 Credit Hours (Crosslisted with I E 5823) Prerequisite: Industrial Engineering 4824; Zoology 3104 or 3133 ; Physiology 5016 or 5019; or permission. Advanced study of physiological responses, regulatory mechanisms and adaptations of human performance and health; factors affecting performance and health; and training and evaluative techniques. (F)
HES 5833 Advanced Exercise Physiology Laboratory 3 Credit Hours Prerequisite: 5823 or permission. Laboratory experiments of a theoretical and applied nature emphasizing advanced concepts of physiological mechanisms, regulating responses and adaptation to exercise. Analytical and prescriptive methodologies pertaining to the energy, muscular and cardiorespiratory systems, including body composition techniques. Laboratory (Sp)

HES 5853 Health Fitness: Theory and Application 3 Credit Hours Prerequisite: 3513 or 4513 and Zoology 3133, or equivalent; graduate standing. A multidisciplinary study of health-fitness theories and their applications in preventive health. Emphases are threefold: first, to understand the underlying theoretical framework of epidemiological, biological and behavioral concepts; second, to develop skills to implement programs emphasizing physical fitness assessment and prescription; third, to critically examine the role of physical activity and fitness strategies in preventive and therapeutic health settings.

## HES 5863 Physiology of Aging <br> 3 Credit Hours

Prerequisite: Physiology 2124, 3104 or Zoology 3133, or permission of instructor. Discuss the various theories of aging as well as the age expected changes in the various physiological systems (cardiovascular, respiratory, muscle, bone, nerve and body composition). In addition, exercise programming concerns for the aged as well as the possible benefits of exercise during aging will be discussed. (F)

## HES 5883 Exercise Endocrinology

3 Credit Hours
Prerequisite: 5823 or permission of instructor. In-depth examination of the role of the endocrine system on regulating acute and chronic metabolic responses to exercise. Special endocrine issues related to exercise physiology (i.e., diabetes) will be studied. (Irreg.)
HES 5903 Sports Performance Analytics
3 Credit Hours
Prerequisite: graduate standing, and one or more of the following: HES 5953, MIT 5742, EIPT 6023, ECON 4233, PSY 5013, or MATH 5773; or permission of instructor. Sports analytics refers to the use of data and quantitative methods to measure performance and make decisions within a sports business. This course builds on statistics courses and is designed to help students develop and apply analytical skills using various sports contexts. The primary objective is to help students understand what data can and cannot do for sport organizations. (Sp)

## HES 5940 Intensive Studies in Health and Exercise

Science
1-6 Credit Hours
1 to 6 hours. Prerequisite: graduate standing or permission. Completion of research project under faculty supervision. Meets research requirement for non-thesis option. (F, Sp, Su)

## HES 5953 Research Methods in Health and Exercise

## Science

3 Credit Hours
Prerequisite: graduate standing. Methods and techniques used in the design and interpretation of health promotion and exercise science research. Emphasis on scientific writing and library use. (Sp)

## HES 5960 Directed Readings in Health and Exercise

## Science

1-6 Credit Hours
1 to 6 hours. Prerequisite: graduate standing, permission. Designed for graduate students to provide them with an opportunity to investigate selected problems in the field. Thirty hours library and research work for each credit hour. Consultations with instructor required. Written report. Required for all students in a nonthesis program. (F, Sp, Su)

## HES 5963 Statistical Applications in Health and Exercise

 Science
## 3 Credit Hours

Prerequisite: graduate standing or permission of instructor. The application of techniques used to organize, analyze, and interpret statistical data unique to health and exercise science. Topics include measures of central tendency, measures of variability, percentiles, sampling, correlation, regression, standard scores, and tests of significance through repeated measures ANOVA and including parametric, non-parametric tests. (Irreg.)

HES 5970 Seminar in Health and Exercise Science 1-4 Credit Hours 1 to 4 hours. Prerequisite: graduate standing. May be repeated with change of subject matter; maximum credit six hours. Study of pertinent and current problems of research. Students may use seminars to identify and develop thesis projects. Required written paper and research. (Sp)

HES 5980 Research for Master's Thesis
2-9 Credit Hours
Variable enrollment, two to nine hours; maximum credit applicable toward degree, four hours. Required of all students writing master's thesis. Consultations with major professor required as thesis progresses. ( $\mathrm{F}, \mathrm{Sp}$, Su )

## HES 5990 Independent Study in Health and Exercise

Science
1-6 Credit Hours
1 to 6 hours. Prerequisite: graduate standing or permission. A study of selected problems under guidance of instructor. At least twenty-five hours of library and research time required for each hour of credit carried. Final paper required. (F, Sp, Su)

## HES 6000 Variable Topics in Health and Exercise

## Science

## 1-3 Credit Hours

Prerequisite: graduate standing or permission of instructor. Course will consist of variable topics in health and exercise science. (Irreg.)

## HES 6513 Qualitative Research Methods in Health

## Promotion

3 Credit Hours
Prerequisite: graduate standing. Designed to provide students with a theoretical and skill base to apply basic qualitative research methods(observation,interviewing and focus groups)to a wide range of health promotion areas and to critically evaluate the application of qualitative skills to a community setting. Over the semester, a community-based qualitative research project will be conducted. Heavily emphasizes application of concepts and student participation in the learning process. (Irreg.)
HES 6523 Social Marketing in Health Promotion 3 Credit Hours Prerequisite: 5523 or permission of instructor. Focuses on the incorporation of basic marketing principles into strategies for behavioral and social change. Targeted outcomes include individual behaviors, group/population norms, environmental supports and policies pertinent to health promotion and/or public health issues. (Su)

HES 6553 Advanced Measurement and Evaluation 3 Credit Hours Prerequisite: HES 5553 or permission of instructor. Issues related to measurement and evaluation in health promotion will be discussed. Different measurement techniques and instruments used in health promotion will be examined and critiqued, and principles of instrument development will be addressed. Issues related to the evaluation of health promotion program outcomes will serve as a context for the course. (Irreg.)
HES 6563 Health Behavior II: Community, Organizational and Population Influences

3 Credit Hours
Prerequisite: HES 5563 or permission of instructor and graduate standing. Focuses on examining new and emerging theories used in health promotion to conduct research in organizational/community/ individual change, and to improve health and quality of life. Emphasis on exploring the conceptual and methodological issues associated with theory-based research. (Sp)
HES 6583 Chronic Disease Assessment and Intervention 3 Credit Hours Prerequisite: graduate standing and permission of instructor. Provides basic understanding of selected chronic diseases including assessment, disease process, pharmacological and medical treatment and intervention strategies for reducing risk. (Irreg.)

HES 6823 Cardiorespiratory Exercise Physiology 3 Credit Hours Prerequisite: 5823 or permission of instructor. This course covers a variety of topics in cardiorespiratory exercise physiology, including factors that regulate fatigue during endurance exercise, factors that limit maximal aerobic power, regulation of heart rate and blood flow during isometric and dynamic exercise, and cardiovascular adaptations to aerobic training programs. Assessment techniques for cardiorespiratory function will be discussed in depth. Laboratory (Irreg.)
HES 6833 Human Body Composition 3 Credit Hours
Prerequisite: 5823 or permission of instructor. Theoretical and applied aspects of body composition assessment. Topics include limitations and usefulness of laboratory and field methods for assessing body composition in research, clinical and health/fitness settings. Evaluation of body composition research and application to health and clinical populations. Laboratory (Irreg.)

## HES 6843 Neuromuscular Physiology

3 Credit Hours
Prerequisite: 5823 or permission of instructor. This course examines the structure and function of the central and peripheral nervous systems and skeletal muscle. Emphasis will be placed on how the central nervous system and motor units respond to conditions such as fatigue, exercise training, vibration, stretching, injury and disease. Laboratory (Irreg.)
HES 6883 Endocrinology and Metabolism of Exercise 3 Credit Hours Prerequisite: 5823 or permission of instructor. Provide in-depth examination of the energy metabolism during exercise and the role of endocrine system in regulating acute and chronic metabolic responses to exercise. Special endocrine issues related to physiology (i.e. diabetes) will be studied. Laboratory (Irreg.)

## HES 6960 Directed Readings in Health and Exercise

Science 1-6 Credit Hours
Prerequisite: graduate standing and permission of instructor. May be repeated; maximum credit six hours. Special reading programs are designed to enable graduate students (1) to extend their study to fields that are not covered in other courses and/or (2) to provide an opportunity for more intensive study of subjects covered in other courses. (F, Sp, Su)
HES 6970 Seminar in Health and Exercise Science 1-4 Credit Hours 1 to 4 hours. Prerequisite: graduate standing in HES or permission of instructor. May be repeated with change of subject matter; maximum credit four hours. Study of pertinent and current problems of research. Students may use seminars to identify and develop area of dissertation research. (Irreg.)

HES 6980 Research for Doctoral Dissertation 2-12 Credit Hours 2 to 12 hours. Prerequisite: Graduate standing and permission of instructor; may be repeated. Directed research culminating in the completion of the doctoral dissertation. (F, Sp, Su)
HES 6990 Independent Study in Health and Exercise
Science 1-3 Credit Hours
1 to 3 hours. Prerequisite: master's degree and permission of instructor. May be repeated; maximum credit 12 hours. Supervised research for advanced graduate students on major projects with a faculty member. ( F , $\mathrm{Sp}, \mathrm{Su}$ )

## Faculty

| Last Name | First/Middle <br> Name | Middle init. | OU <br> Service start | Title(s), date(s) appointed | Degrees Earned, Schools, Dates Completed |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Black | Christopher | D | 2013 | ASSOCIATE <br> PROFESSOR OF <br> HEALTH AND <br> EXERCISE SCIENCE, <br> 2019 | PhD, Univ of Georgia, 2007; MA, Univ of Georgia, 2003; BA, Hendrix College, 2000 |
| Cheney | Marshall | K | 2012 | ASSOCIATE <br> PROFESSOR OF <br> HEALTH AND <br> EXERCISE SCIENCE, <br> 2018 | PhD, Univ of Oklahoma, 2010; MA, Washington Univ, 1990; BA, Rhodes College, 1987 |
| Kellawan | Jeremy | M | 2017 | ASSOCIATE <br> PROFESSOR OF <br> HEALTH AND <br> EXERCISE SCIENCE, <br> 2023 | PhD, Queen's Univ, 2012; MS, Univ of Victoria, 2005; BS, Univ of Guelph, 2005 |
| Larson | Daniel | J | 2012 | ASSOCIATE <br> PROFESSOR OF <br> HEALTH AND <br> EXERCISE SCIENCE, <br> 2021; ADJUNCT <br> ASSISTANT <br> PROFESSOR OF <br> MANAGEMENT AND <br> INTERNATIONAL <br> BUSINESS, 2017 | PhD, Univ of Georgia, <br> 2011; MS, Univ of <br> Florida, 2006; BS, <br> Univ of Florida, 1998 |
| Larson | Rebecca | D | 2012 | ASSOCIATE <br> PROFESSOR OF <br> HEALTH AND <br> EXERCISE SCIENCE, $2018$ | PhD, Univ of Georgia, 2011; MS, Univ of Florida, 2007; BS, Univ of Florida, 2004 |
| Lee | Jeong Kyu |  | 2022 | ASSISTANT PROFESSOR OF HEALTH AND EXERCISE SCIENCE, 2022 | Ph.D., Pennsylvania <br> State Univ; MA, <br> Michigan State <br> Univ; BS, Hanyang <br> University |
| Lu | Yu |  | 2019 | ASSISTANT PROFESSOR OF HEALTH AND EXERCISE SCIENCE, 2019 | Ph.D., Pennsylvania State Univ, 2015; MA, Georgia State Univ, 2009; BA, Sichuan Norman Univ, 2005 |
| Maxwell <br> Pereira | Hugo |  | 2018 | ASSISTANT <br> PROFESSOR OF <br> HEALTH AND <br> EXERCISE SCIENCE, <br> 2018 | PhD, Marquette Univ; MS, Universidade Estadual de Londrina; BS, Universidade Estadual de Londrina |
| Ober Allen | Julie |  | 2020 | ASSISTANT PROFESSOR OF HEALTH AND EXERCISE SCIENCE, 2020 | Ph.D., Univ of <br> Michigan, 2018; MPH, <br> Univ of Michigan, <br> 2004; BA, Amherst <br> College, 1998 |
| Pincu | Yair |  | 2023 | ASSISTANT <br> PROFESSOR OF <br> HEALTH AND <br> EXERCISE SCIENCE, <br> 2023 | Ph.D., Exercise <br> Physiology, University of Illinois; M.A., <br> Gerontology, BenGurion University; B.Ed., Physical Education, Kaye College for Education |


| Tall Bear $\quad$ Donna | 2007 | RENEWABLE TERM | M.S, Health |
| :--- | :--- | :--- | :--- |
|  |  | INSTRUCTOR | Promotion and |
|  | OF HEALTH AND | Disease Prevention, |  |
|  |  | EXERCISE SCIENCE, | Springfield College; |
|  | 2007 |  | B.S., Exercise and |
|  |  | Movement Sciences, <br> City University of New |  |
|  |  | York |  |

# Health \& Exercise Science, B.S. 

Minimum Total Credit Hours: 120
Major Hours: 43
Minimum Upper-Division Hours: 48
Overall GPA - Combined and OU: 2.00
Major GPA - Combined and OU: 2.00
Program Code: B500

## Admission Requirements for the Bachelor of Science in Health and Exercise Science

Students interested in entering the HES undergraduate degree program must apply for matriculation into the upper division HES core curriculum. Final admission to HES is a competitive process that is based on the following criteria: prerequisite course GPA and combined retention GPA. Students will be selected for admission from a pool of applicants who have completed all prerequisite coursework, have both prerequisite and combined retention GPA of 2.75 or higher, and have submitted all required HES application materials. Please note that due to limited resources for this program not all students with the minimum 2.75 GPA are admitted. Depending on the number of applicants and their GPA distributions, the minimum GPA required for consideration may not be competitive and does not guarantee admission.

Admission to this major is a selective process. Not all students with the minimum 2.75 are admitted due to limited resources for this program. Contact the Department of Health \& Exercise Science for information about the HES admission process.

A grade of $C$ or better is required in all HES courses and in all major support requirements.

## Major Requirements

- Some courses required for the major may also fulfill University General Education and/or Dodge College of Arts \& Sciences Requirements.

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Health \& Exercise | Science |  |
| HES 2131 | Introduction to Health and Exercise | 1 |
|  | Science | 3 |
| HES 2823 | Introductory Nutrition | 3 |
| HES 2913 | Personal Health | 3 |
| HES 3513 | Health Promotion Program Planning | 3 |
| HES 3563 | Lifestyle Intervention | 3 |
| HES 3813 | Principles of Health and Fitness | 3 |
| HES 3823 | Physiology of Exercise | 3 |


| or HES 4833 | Physiology of Exercise Laboratory |  |
| :---: | :---: | :---: |
| HES 4503 or HES 4573 | Principles of Community Health Chronic Disease Intervention | 3 |
| HES 4953 | Senior Capstone (Core V) | 3 |
| HES Electives |  |  |
| Choose 15 upper-diver | division hours | 15 |
| Total Credit Hours |  | 43 |
| Major Support Requirements |  |  |
| Code | Title | Credit |
| CHEM 1315 or CHEM 1335 | General Chemistry (Core II) <br> General Chemistry I: Signature Course | 5 |
| MATH 1503 | College Algebra (Core I, Math) (or higher) | 3 |
| PSY 1113 | Elements of Psychology (Core III) | 3 |
| SOC 1113 | Introduction to Sociology (Core III) | 3 |
| BIOL 1124 | Intro Biol: Molecule/Cell/Phys | 4 |
| BIOL 2124 | Human Physiology | 4 |
| BIOL 2234 <br> or BIOL 2255 | Introduction to Human Anatomy Human Anatomy | 4-5 |

## Total Credit Hours

## General Education and College Requirements

Courses for fulfillment of General Education and Dodge College of Arts \& Sciences requirements must be from the approved General Education course list published in the Class Schedule or at http://www.ou.edu/ gened/courses. Courses graded P/NP will not apply.

## UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS

Code Title Credit

Core Area I: Symbolic and Oral Communication
English Composition (6 hours)

| ENGL 1113 | Principles of English Composition | 3 |
| :--- | :--- | :--- |
| ENGL 1213 | Princip |  |

ENGL 1213 Principles of English Composition 3
or EXPO 1213 Expository Writing
Language (0-13 hours in the same language)
The college requirement cannot be met by high school
coursework.
Beginning Course 0-5

| Beginning Course, continued | $0-5$ |
| :--- | :--- |


| Intermediate Course (2000 level) $^{1,2}$ | $0-3$ |
| :--- | :--- |

Mathematics (3 hours)
Choose one course from the General Education Mathematics 3

## list

Core Area II: Natural Science (7 hours, including one

## laboratory component)

Biological Science
Choose an approved General Education Natural Science
3-4
course with one of the following prefixes: BIOL, HES, MBIO, or PBIO ${ }^{1}$
Physical Science

Choose an approved General Education Natural Science
3-4

course with one of the following prefixes: AGSC, ASTR, CHEM,
GEOG, GEOL, GPHY, METR, or PHYS ${ }^{1}$

Core Area III: Social Science (6 hours)

P SC 1113 American Federal Government 3

Choose one course from the General Education Social 3

Science list

Core Area IV: Arts and Humanities (18 hours)

## Artistic Forms

Choose one course from the General Education Artistic Forms 3 list
Western Culture
HIST $1483 \quad 3$
or HIST 1493 United States, 1865 to the Present
Choose one course from the General Education Western 3
Culture list (excluding HIST 1483/1493)
World Culture
Choose one course from the General Education World Culture 3
list
Additional Core IV Upper-Division Arts \& Humanities courses
Choose one course from Artistic Forms, Western Culture, or 3
World Culture ${ }^{1,3}$
Choose one course from Artistic Forms, Western Culture, or 3
World Culture ${ }^{1,3}$
Core Area V: First Year Experience (3 hours)
Choose one course $\quad 3$

Total Credit Hours 56
${ }^{1}$ College of Arts and Sciences Requirements: college requirements are not automatically fulfilled by a previous degree.
${ }^{2}$ One course at the intermediate level or demonstrated competency at that level
${ }^{3} 6$ upper-division hours, 2 courses, at the 3000-4000-level. Must be outside the major.

## Free Electives

Electives to bring total applicable hours to the minimum total required for the degree including 48 upper-division hours.

## Information Concerning General Rules, Regulations and Minimum Requirements

Arts and Sciences Hours: At least 80 semester hours of liberal arts and sciences courses are required for a BA degree. At least 55 semester hours of liberal arts and sciences courses are required for a BS degree. Pass/No Pass Enrollment: A maximum of 16 semester hours of free elective credit may be attempted under this option.
Individual Studies (e.g., courses titled "Independent Study"): A maximum of 12 total semester hours may be counted toward graduation, excluding Honors Reading and Honors Research.
P.E. Courses: No physical education activity courses will be counted toward the 120 semester hours of acceptable credit for graduation. Senior Institution Hours: A minimum of 60 semester hours applied toward graduation must be earned at senior (4-year) institutions.
Residency:

- At least 15 of the final 30 hours applied toward the degree or at least 50 percent of the hours required by the institution in the major field must be satisfactorily completed at the awarding institution.
- At least 15 semester hours of upper-division major work must be completed in residence at OU.
- OU correspondence courses are not considered resident credit.

Grade Point Averages: Students must earn a minimum over all 2.00 for each of the following: Combined Retention GPA (all college grades), OU Retention GPA, GPA for all major courses, and GPA for all major courses taken at OU. Some schools and departments of the College have higher minimum grade point averages required for their students.

## Suggested Semester Plan of Study

This plan shows one possible grouping of courses that would allow students to graduate in four years. Please refer to the front of the degree checksheet for official requirements. Students must consult with Dodge College of Arts and Sciences and/or Department of Health \& Exercise Science academic advisors to verify that courses selected each semester fulfill the recommended plan and satisfy University, College of Arts and Sciences, and Health \& Exercise Science major requirements.

Students who have completed prerequisites and meet the minimum grade point average requirement must file an application to be admitted to the program. Because admission is competitive, not every applicant will be admitted.

## Freshman

| First Semester |  | Credit <br> Hours |
| :--- | :--- | ---: |
| ENGL 1113 | Principles of English Composition (Core I) | 3 |
| MATH 1503 | College Algebra (Core I) (or higher) | 3 |
| PSY 1113 | Elements of Psychology (Core III) | 3 |
| BIOL 1124 | Intro Biol: Molecule/Cell/Phys (Core II) | 4 |
| First Year Experience (Core V) |  | $\mathbf{3}$ |
|  | Credit Hours | $\mathbf{1 6}$ |

## Second Semester

| ENGL 1213 or EXPO 1213 | Principles of English Composition (Core I) or Expository Writing | 3 |
| :---: | :---: | :---: |
| CHEM 1315 or CHEM 1335 | General Chemistry (Core II) or General Chemistry I: Signature Course | 5 |
| HES 2913 | Personal Health | 3 |
| SOC 1113 | Introduction to Sociology (Core III) | 3 |
| Artistic Forms (Core IV) |  | 3 |
|  | Credit Hours | 17 |

## Sophomore

| First Semester |  |  |
| :--- | :--- | ---: |
| HES 2131 | Introduction to Health and Exercise <br> Science | 1 |
| HES 2823 | Introductory Nutrition | 3 |
| HIST 1483 <br> or HIST 1493 | United States to 1865 (Core IV) <br> or United States, 1865 to the Present | 3 |
| BIOL 2234 <br> or BIOL 2255 | Introduction to Human Anatomy <br> or Human Anatomy | $4-5$ |


| Beginning Language (Core I) | 5 |
| :--- | :--- |

Credit Hours

## Second Semester

| P SC 1113 | American Federal Government (Core III) | 3 |
| :--- | ---: | ---: |
| BIOL 2124 | Human Physiology | 4 |
| Beginning Language continued (Core I) | 5 |  |
| Western Culture (Core IV) | $\mathbf{3}$ |  |
| Credit Hours | $\mathbf{1 5}$ |  |

## Junior

| First Semester |  |
| :---: | :---: |
| HES Major Elective, upper-division | 3 |
| HES Major Elective, upper-division | 3 |
| Intermediate Language | 3 |
| World Culture (Core IV) | 3 |
| Arts \& Humanities, upper-division, outside major (Core IV) | 3 |
| Credit Hours | 15 |
| Second Semester |  |
| HES 3563 Lifestyle Intervention | 3 |
| HES 3813 Principles of Health and Fitness | 3 |
| $\begin{array}{cc}\text { HES } 4503 & \text { Principles of Community Health } \\ \text { or HES } 4573 & \text { or Chronic Disease Intervention }\end{array}$ | 3 |
| HES Major Elective, upper-division | 3 |
| Credit Hours | 12 |

## Senior

First Semester

| HES 3513 | Health Promotion Program Planning | 3 |
| :--- | :--- | ---: |
| HES 3823 | Physiology of Exercise | 3 |
| HES 3853 <br> or HES 4833 <br> Free Elective, upper-division (3000-4000-level) <br> Free Elective, upper-division (3000-4000-level) | 3 |  |
| Credit Hours | 3 |  |

## Second Semester

HES 4953 Senior Capstone 3
HES Major Elective, upper-division 3

HES Major Elective, upper-division 3
Arts \& Humanities, upper-division (Core IV) 3

| Free Elective, lower- or upper-division | $1-2$ |
| :--- | :--- |


| Credit Hours | 14 |
| :--- | ---: |
| Total Credit Hours | 120 |

## Health \& Exercise Science, Minor

Minimum Total Credit Hours: 18
Minimum Upper-Division Hours: 12

## Program Code: N500

- The requirements for a minor must be completed concurrently with the major degree requirements.
- No minor may be added by completing courses after receiving the bachelor's degree.

At least six (6) credit hours must be earned in courses acceptable for residence credit by standards set forth by the Dodge College of Arts and Sciences, excluding transfer, correspondence, and examination (AP, CLEP,

Advanced Standing) credit. Courses for the minor may not be taken Pass/ No Pass.

No single course may be used by a student to satisfy a major requirement and a minor requirement. A course may be used, however, to satisfy both a major support requirement and a minor requirement.

Requests to substitute a minor requirement must be approved in writing by the Department of Health \& Exercise Science.

## Required Courses

Students must successfully complete, with the grade of C or better, at least 18 hours of courses acceptable for major credit in Health and Exercise Science, including at least 12 hours at the upper-division level. In addition to HES 1823 and HES 2913, students must complete twelve (12) additional upper division hours, which can consist of four 3-hour upper-division electives, or any combination of appropriate upper-division electives that will total twelve (12) hours.

A grade of C or better must be earned in each course counted for minor credit.

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| HES 1823 | Scientific Principles of Health and Disease | 3 |
| HES 2913 | Personal Health | 3 |
| Choose 12 hours of courses acceptable for major credit in | 12 |  |
| HES ${ }^{1,2}$ |  |  |

Total Credit Hours
${ }^{1}$ HES 3893 may be used for HES minor credit.
2 Students obtaining a minor in HES are not eligible for Internship or Independent Study hours.

- Minors in the Dodge College of Arts \& Sciences are available to all undergraduate students at OU. If the minor is officially declared, successfully completed, and noted on the graduation application, the student's transcript will so indicate at the time the bachelor's degree is posted.


## Health \& Exercise Science, M.S.

Minimum Total Hours (Non-Thesis): 32
Program Code: M500

- This program is Non-Thesis only.
Required Courses

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Core Courses |  | 3 |
| HES 5523 | Health Promotion Strategies | 3 |
| HES 5553 | Health Promotion Evaluation | 3 |
| HES 5563 | Health Behavior I: Individual and Group <br> Influences | 3 |
| HES 5823 | Exercise Physiology | 3 |
| HES 5833 | Advanced Exercise Physiology Laboratory | 3 |


| HES 5953 | Research Methods in Health and Exercise <br> Science | 3 |
| :--- | :--- | :---: |
| HES 5963 | Statistical Applications in Health and <br> Exercise Science (or approved substitute) | 3 |
| HES 5940 | Intensive Studies in Health and Exercise <br> Science 1 | 2 |
| Electives | Choose 6 hours of coursework selected in consultation with <br> the student's advisor and committee | 6 |

Total Credit Hours
32
${ }^{1}$ Directed Reading required in conjunction with comprehensive exam.

## General Requirements for all Master's Degrees

The master's degree requires the equivalent of at least two semesters of satisfactory graduate work and additional work as may be prescribed for the degree.

All coursework applied to the master's degree must carry graduate credit.
Master's degree programs which require a thesis consist of at least 30 credit hours. All non-thesis master's degree programs require at least 30 credit hours.

Credit transferred from other institutions must meet specific criteria and is subject to certain limitations.

Courses completed through correspondence study may not be applied to the master's degree.

To qualify for a graduate degree, students must achieve an overall grade point average of 3.0 or higher in the degree program coursework and in all resident graduate coursework attempted. A student must also have at least a 3.0 in all coursework (including undergraduate coursework if any).

Additional information for master's degree students may be found in the Graduate College Bulletin.

## Health and Exercise Science: Exercise Physiology, M.S.

Minimum Total Hours (Thesis): 30
Program Code: M501

## Required Courses

| • This program is Thesis Only. |  |  |
| :--- | ---: | ---: |
| Code | Title | Credit <br> Hours |
| Required Courses |  |  |
| HES 5823 | Exercise Physiology | 3 |
| HES 5833 | Advanced Exercise Physiology Laboratory | 3 |
| HES 5853 | Health Fitness: Theory and Application | 3 |
| Core Courses |  |  |
| Research Technology |  |  |

Research Technology

| HES 5953 | Research Methods in Health and Exercise <br> Science |
| :--- | :--- |
| HES 5963 | Statistical Applications in Health and <br> Exercise Science (or approved substitute) |
| Thesis | Research for Master's Thesis |
| HES 5980 |  |
| Electives <br> Choose 9 hours of coursework selected in consultation with <br> the student's advisor and committee |  |
| Total Credit Hours |  |
| General Requirements for all Master's Degrees |  |

The master's degree requires the equivalent of at least two semesters of satisfactory graduate work and additional work as may be prescribed for the degree.

All coursework applied to the master's degree must carry graduate credit.
Master's degree programs which require a thesis consist of at least 30 credit hours. All non-thesis master's degree programs require at least 30 credit hours.

Credit transferred from other institutions must meet specific criteria and is subject to certain limitations.

Courses completed through correspondence study may not be applied to the master's degree.

To qualify for a graduate degree, students must achieve an overall grade point average of 3.0 or higher in the degree program coursework and in all resident graduate coursework attempted. A student must also have at least a 3.0 in all coursework (including undergraduate coursework if any).

Additional information for master's degree students may be found in the Graduate College Bulletin.

## Health and Exercise Science: Health Promotion, M.S.

Minimum Total Hours (Thesis): 30
Program Code: M502

- This program is Thesis Only.


## Required Courses

| Code | Title | Credit <br> Hours |
| :---: | :---: | :---: |
| Required Courses |  |  |
| HES 5523 | Health Promotion Strategies | 3 |
| HES 5563 | Health Behavior I: Individual and Group Influences | 3 |
| HES 5553 | Health Promotion Evaluation | 3 |
| Core Courses |  |  |
| Research Technology |  |  |
| HES 5953 | Research Methods in Health and Exercise Science | 3 |
| HES 5963 | Statistical Applications in Health and Exercise Science (or approved substitute) | 3 |


| Thesis |  |
| :---: | :---: |
| HES 5980 Research for Master's Thesis | 6 |
| Electives |  |
| Choose 9 hours of coursework selected in consultation with the student's advisor and committee | 9 |
| Total Credit Hours | 30 |

## General Requirements for all Master's Degrees

The master's degree requires the equivalent of at least two semesters of satisfactory graduate work and additional work as may be prescribed for the degree.

All coursework applied to the master's degree must carry graduate credit.
Master's degree programs which require a thesis consist of at least 30 credit hours. All non-thesis master's degree programs require at least 30 credit hours.

Credit transferred from other institutions must meet specific criteria and is subject to certain limitations.

Courses completed through correspondence study may not be applied to the master's degree.

To qualify for a graduate degree, students must achieve an overall grade point average of 3.0 or higher in the degree program coursework and in all resident graduate coursework attempted. A student must also have at least a 3.0 in all coursework (including undergraduate coursework if any).

Additional information for master's degree students may be found in the Graduate College Bulletin.

## Health and Exercise Science: Sports Data Analytics, M.S.

Minimum Total Hours (Thesis): 36
Minimum Total Hours (Non-Thesis): 36
Program Code: M858

## Required Courses

## Thesis Option

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Core Courses | Research Methods in Health and Exercise <br> HES 5953 | 3 |
| HES 5963 | Statistical Applications in Health and <br> Exercise Science (or approved substitute) | 3 |
| HES 5980 | Research for Master's Thesis |  |
| Required Courses | 4 |  |
| HES 5283 | Sports Financial and Market Analytics |  |
| or HES 5313 | Athlete Tracking and Monitoring in Sports | 3 |
| HES 5430 | Internship in Health and Exercise Science | 3 |
| HES 5903 | Sports Performance Analytics | 3 |
| HES 6553 | Advanced Measurement and Evaluation |  |


| Choose a minimum of 8 credit hours of graduate-level Data <br> Science and/or Advanced Statistics courses (approved by <br> faculty advisor and graduate liason) | 8 |
| :--- | ---: |
| Electives <br> Choose 6 credit hours at the graduate-level and approved by <br> faculty advisor and graduate liason | 6 |
| Total Credit Hours | 36 |
| Non-Thesis Option |  |
| Code $\quad$ Title | Credit |


| Core Courses |  |  |
| :--- | :--- | ---: |
| HES 5953 | Research Methods in Health and Exercise <br> Science | 3 |
| HES 5963 | Statistical Applications in Health and <br> Exercise Science (or approved substitute) | 3 |
| HES 5940 | Intensive Studies in Health and Exercise <br> Science | 2 |

## Required Courses

| HES 5283 <br> or HES 5313 | Sports Financial and Market Analytics <br> Athlete Tracking and Monitoring in Sports | 3 |
| :--- | :--- | :--- |
| HES 5430 | Internship in Health and Exercise Science | 3 |
| HES 5903 | Sports Performance Analytics | 3 |
| HES 6553 Advanced Measurement and Evaluation | 3 |  |
| Choose a minimum of 8 credit hours of graduate-level Data <br> Science and/or Advanced Statistics courses (approved by <br> faculty advisor and graduate liason) | 8 |  |
| Electives <br> Choose 8 credit hours at the graduate-level and approved by <br> faculty advisor and graduate liason | 8 |  |

## Total Credit Hours

${ }^{1}$ with faculty approval, HES 5553, Health Promotion Evaluation may substitute if HES 6553 is not offered.

## General Requirements for all Master's Degrees

The master's degree requires the equivalent of at least two semesters of satisfactory graduate work and additional work as may be prescribed for the degree.

All coursework applied to the master's degree must carry graduate credit.
Master's degree programs which require a thesis consist of at least 30 credit hours. All non-thesis master's degree programs require at least 30 credit hours.

Credit transferred from other institutions must meet specific criteria and is subject to certain limitations.

Courses completed through correspondence study may not be applied to the master's degree.

To qualify for a graduate degree, students must achieve an overall grade point average of 3.0 or higher in the degree program coursework and in all resident graduate coursework attempted. A student must also have at least a 3.0 in all coursework (including undergraduate coursework if any).

Additional information for master's degree students may be found in the Graduate College Bulletin.

## Cellular \& Behavioral Neurobiology: Exercise Physiology, Ph.D.

Minimum Total Hours: 90
Program Code: D148
Program Requirements


Total Credit Hours

## General Requirements for Doctoral Degrees

A student should expect to spend at least the equivalent of three full academic years beyond the bachelor's degree to obtain the doctoral degree. During this period the student will take appropriate graduate coursework, successfully complete the general examination, and successfully defend and submit the final dissertation.

All coursework applied to the doctoral degree must carry graduate credit.
The doctoral degree requires at least 90 post-baccalaureate hours, including both formal coursework and hours of research.

The minimum hour requirement for a specific doctoral degree program cannot be waived.

No more than one-half of the credit hours, both OU and overall, excluding Research for Doctoral Dissertation (6980), may be S/U-graded coursework.

The student must be in residence at OU for at least two consecutive 16week semesters during the pursuit of the doctoral degree while enrolled and engaged in coursework or research activities as prescribed by the major academic unit.

For more detailed regulations and requirements for Doctoral degrees, please consult the Graduate College Bulletin: http://www.ou.edu/ gradcollege/forms/bulletin

# Health and Exercise Science: Exercise Physiology, Ph.D. 

Minimum Total Hours: 90
Program Code: D500
Program Requirements

| Code Title | Credit <br> Hours |
| :---: | :---: |
| Interdisciplinary Research Core (9 hours) |  |
| HES 6970 Seminar in Health and Exercise Science | 3 |
| Graduate Statistics | 6 |
| Dissertation Research (24 hours) |  |
| HES 6980 Research for Doctoral Dissertation | 24 |
| Extended Core for Exercise Physiology (12 hours) |  |
| HES 6823 Cardiorespiratory Exercise Physiology | 3 |
| HES 6833 Human Body Composition | 3 |
| HES 6843 Neuromuscular Physiology | 3 |
| HES 6883 Endocrinology and Metabolism of Exercise | 3 |
| Electives |  |
| Electives: Electives and transfer credit (including credit from a completed master's degree) as approved by the doctoral advisory committee and as needed to complete 90 hours beyond the baccalaureate degree | 45 |

Total Credit Hours

## General Requirements for Doctoral Degrees

A student should expect to spend at least the equivalent of three full academic years beyond the bachelor's degree to obtain the doctoral degree. During this period the student will take appropriate graduate coursework, successfully complete the general examination, and successfully defend and submit the final dissertation.

All coursework applied to the doctoral degree must carry graduate credit.
The doctoral degree requires at least 90 post-baccalaureate hours, including both formal coursework and hours of research.

The minimum hour requirement for a specific doctoral degree program cannot be waived.

No more than one-half of the credit hours, both OU and overall, excluding Research for Doctoral Dissertation (6980), may be S/U-graded coursework.

The student must be in residence at OU for at least two consecutive 16week semesters during the pursuit of the doctoral degree while enrolled
and engaged in coursework or research activities as prescribed by the major academic unit.

For more detailed regulations and requirements for Doctoral degrees, please consult the Graduate College Bulletin: http://www.ou.edu/ gradcollege/forms/bulletin

## Health and Exercise Science: Health Promotion, Ph.D.

Minimum Total Hours: 90
Program Code: D501
Program Requirements


## General Requirements for Doctoral Degrees

A student should expect to spend at least the equivalent of three full academic years beyond the bachelor's degree to obtain the doctoral degree. During this period the student will take appropriate graduate coursework, successfully complete the general examination, and successfully defend and submit the final dissertation.

All coursework applied to the doctoral degree must carry graduate credit.
The doctoral degree requires at least 90 post-baccalaureate hours, including both formal coursework and hours of research.

The minimum hour requirement for a specific doctoral degree program cannot be waived.

No more than one-half of the credit hours, both OU and overall, excluding Research for Doctoral Dissertation (6980), may be $S / U$-graded coursework.

The student must be in residence at OU for at least two consecutive 16week semesters during the pursuit of the doctoral degree while enrolled and engaged in coursework or research activities as prescribed by the major academic unit.

For more detailed regulations and requirements for Doctoral degrees, please consult the Graduate College Bulletin: http://www.ou.edu/ gradcollege/forms/bulletin

## Department of History

Elyssa Faison, Chair
Jennifer Davis, Director of Graduate Studies
Rhona SeideIman, Director of Undergraduate Studies
403-A Dale Hall Tower
455 W. Lindsey Street
Norman, OK 73019-2004
Phone: (405) 325-6002
FAX: (405) 325-4503
www.ou.edu/cas/history

## General Information

The study of History has always claimed a place at the center of a liberal arts education. By understanding the experiences of people who lived in the near and distant past, students gain a far sharper perspective on their own place in the world. Knowing the past enhances our capacity to understand the present and imagine the future. History also sharpens our research and writing skills and hones our ability to think critically and imaginatively.

Studying the past -- whether it's near or distant, foreign or familiar -- is fascinating. History Majors at the University of Oklahoma work closely with faculty distinguished for both teaching and research. The research, analytical, and writing skills that History majors develop help them advance in a wide range of careers. History majors pursue careers in fields such as law, public service, business, journalism, information management, military service, or medicine. Others use their historical expertise and knowledge of other cultures more directly as teachers, museum curators, public historians, workers in non-profit agencies, or Peace Corps volunteers. Some go on to graduate school to become professional historians. Numerous government agencies such as the Foreign Service, CIA, FBI, national and state parks, the Peace Corps, and social services have positions for history graduates. Other hiring institutions include business corporations, educational institutions, the travel and tourism industry, the media (newspapers, journals, TV and film), museums, foundations, and public relations firms. History is an excellent major for students wishing to go on to law school. Graduates with liberal arts degrees (including history) are prime candidates for executive training programs in private business. They may become archivists, curators, consultants, analysts, criminologists, genealogists, librarians, lawyers, teachers, researchers, writers, or publishers. In addition to the many career benefits, history majors will discover that their studies give them the perspective to participate more fully in the world around them.

## Programs \& Facilities

## Schusterman Center for Judaic and Israel Studies

The Schusterman Center (p. 476) is housed within the Department of History. The center offers an undergraduate major in Judaic Studies and a minor in Judaic \& Israel Studies through the Department of History, and a Hebrew language minor through the Department of Modern Languages, Literatures and Linguistics. Graduate students may select a major field in Judaic/Israel History through the Department of History's graduate program. The programming and scholarship opportunities of the Schusterman Center are interdisciplinary and serve as bridge from history to other departments and colleges at the University.

## Internship Program

The History Department's Service Learning Internship Program is one of only six service learning credit opportunities on the OU Norman campus. The program's mission is to provide History majors with handson experience analyzing, organizing, preserving and/or presenting history for and to the public. We place undergraduate interns at local historical organizations and agencies every spring, summer and fall semester. We are proud to coordinate with our site sponsors at organizations such as the Oklahoma City National Memorial and Museum, the Oklahoma Historical Society, the Oklahoma Department of Libraries and on-campus opportunities with Bizzell Memorial Library.

## Scholarships and Financial Aid

- Annual Awards and Fellowships - for outstanding undergraduate and graduate students
- Other Funds - for conference travel and research are available on a competitive basis from the Department of History, the Graduate College, the Dodge College of Arts and Sciences, and the Graduate Student Senate. Students should consult those offices or (in the case of graduate students) the Director of Graduate Studies for application information.


## Undergraduate Study

The History Department allows majors to tailor their upper-division coursework to reflect their historical interests. As a major, you will choose from two tracks: The Traditional Major offers a variety of geographic, chronological, and thematic perspectives. The Field of Concentration major allows you to focus on a particular region (like the U.S. or Asia) or theme (like Women's and Gender History or History of War, Revolution, and Diplomacy). Whichever track you choose, you will progress through three small seminars designed to teach you the skills that are central to our discipline: HIST 2573 (History Sleuth); HIST 3573 (The Junior Colloquium); and HIST 4973 (The Senior Capstone). Because each of these courses builds on its predecessor, you are strongly encouraged to take them in order.

If you have any questions about majoring or minoring in history, please contact our Director of Undergraduate Studies, Dr. Rhona Seidelman. You can also visit the Undergraduate Studies page of our website.

- History, Bachelor of Arts (p. 436)

History majors choose from two tracks: the Traditional Major offers a variety of geographic, chronological, and thematic perspectives; and the Field of Concentration major focuses on a particular region or theme.

- History Minor (p. 438)

Students majoring in other subjects may elect to minor in history.

## Graduate Study

The Department of History at the University of Oklahoma offers premier graduate programs in the history of the American West, Native American History, Latin American History, Environmental History, Transnational Women's and Gender History, and Judaic History. Our faculty are leaders: They publish books and articles that help define their fields. They serve as officers in professional organizations. And they offer close, one-to-one mentoring to students working toward both the M.A. and Ph.D. degrees.

Our graduate students benefit from special fellowships, travel and research support, innovative lecture series, and a dynamic sense of purpose. They have garnered an impressive range of nationally and internationally competitive research fellowships and pre- and postdoctoral fellowships. Our program also boasts an excellent placement record: Our graduates have built successful careers as tenure-track professors at research universities and liberal arts colleges; public historians; and scholarly editors.

We offer our students unparalleled research resources. The University of Oklahoma's Bizzell Library has over 2.5 million books, more than 1.6 million government publications, over 3 million pieces of microform, and subscribes to 16,000 journals. The University is also home to the Western History Collections, one of the most important facilities in the world for the study of Native American, Western American, and Environmental History. It contains 65,000 books, 10,000 cubic feet of manuscripts, and nearly 2 million photographic images. The manuscript collection of the Carl Albert Center houses the papers of many public figures important to the American West. The Charles M. Russell Center for the Study of the Art of the American West provides access to an extensive collection of books, manuscripts, theses and dissertations, periodicals and journals, artist files, and slides on western American and Native American art. The Sam Noble Natural History Museum, one of the nation's largest connected to either a public or private university, offers rich research opportunities for those interested in studying Native American, Western American, and environmental history. Finally, the Oklahoma Historical Society, in Oklahoma City, offers access to thousands of documents.

## Master of Arts

The department offers a thesis and a non-thesis option for the Master of Arts (p. 439) degree in History.

## Doctor of Philosophy (PhD)

The Doctor of Philosophy Degree (p. 439) is offered primarily in one of the department's core areas. Detailed information may be obtained from the graduate liaison of the department and by visiting our website.

## Courses

HIST 1113 History of Medieval Europe
3 Credit Hours History of Europe from the fall of Rome to the end of the 15 th century. Emphasis on the development of social structures and culture forms, and the sociocultural background of political and religious developments. (F, Sp)
HIST 1223 Europe, 1500 to 1815
3 Credit Hours
An introductory survey of Europe in the early modern period. Topics include the Reformation, development of the nation-state, the Enlightenment, and the French Revolution and Napoleon. (F, Sp) [IV-WC].

HIST 1233 Europe since 1815
3 Credit Hours
An introductory survey of Europe from 1815 to the present. Examines the major political, economic, social and cultural trends in the major countries and European foreign affairs and overseas expansion. (F, Sp) [IV-WC].

HIST 1303 The History of Disease
3 Credit Hours
Prerequisite: English 1213/Expository Writing 1213 or permission of instructor. Examines contagious disease in the 20th century. It explores a time period-- following the discovery of antibiotics-- in which biomedicine seemed invincible. The course, as it moves later into the 20th century, when the AIDS virus and resistance to antibiotics turned contagion into a new, and thoroughly modern, threat. (Irreg.) [IV-WC].

HIST 1483 United States to 1865
3 Credit Hours
A general survey of United States history to the end of the Civil War, with emphasis upon national political, diplomatic, economic, constitutional, social and intellectual developments. (F, Sp, Su) [IV-US].
HIST 1493 United States, 1865 to the Present 3 Credit Hours A general survey of United States history from the Civil War to the present day, with emphasis upon national political, diplomatic, economic, constitutional, social and intellectual developments. (F, Sp, Su) [IV-US].
HIST 1543 Introduction to American Indian History 3 Credit Hours A history of American Indian people in North America and their role in shaping American history through the early 1970's. Emphasis will be on how cultural values influenced Indian-European interactions and how cultures change over time. (F, Sp) [IV-WDC].

HIST 1563 The Jews: From Abraham to Zionism 3 Credit Hours Introduces students to both the basics of Jewish history and the different disciplinary inquiries into the Jewish experience. The course covers biblical, rabbinic, medieval and modern Jewries in the ways in the ancestral homeland (e.g. Israel) and in the diaspora (e.g. other lands in which Jews settled). (Irreg.) [IV-WC].

## HIST 1573 The Artists' Bible - From Mosaics to Graphic <br> Novels <br> 3 Credit Hours

The Artists' Bible presents major artistic movements. Students explore mosaics, paintings, architecture, sculpture, graphic novels that expand the Bible's compact language. We begin with Genesis and end with Revelation. We focus primarily on western art with Middle Eastern counterexamples. Female and male characters will be analyzed. Overviews the Bible and artistic tradition. Involves analysis of biblical passages that invited visualization. (F) [IV-AF].
HIST 1613 Western Civilization I
3 Credit Hours
History and culture of western civilization from origins of Greek society to end of religious wars in seventeenth century. (F) [IV-WC].
HIST 1623 Western Civilization II 3 Credit Hours
History and culture of western civilization between 1660 and the present.
Emphasis will be placed on western institutions and ideas, their evolution, and their influence elsewhere. (Sp) [IV-WC].
HIST 1723 East Asia to 1600
3 Credit Hours
A general survey of the histories of China and Japan with the history of Korea included as it bears upon the historyof Japan. The focus is on the political, social, economic, and intellectual aspects of China and Japan, and their points of contact. (Irreg.) [IV-WDC].
HIST 1733 East Asia Since 1600
3 Credit Hours
A general survey of the histories of China, Japan, and Korea from 1600 to the present. Focus is on the political, social, and economic systems of these countries, major historical events and intra-Asian interactions. (Irreg.) [IV-WDC].

HIST 1923 World Civilization 1600-Present 3 Credit Hours
Deals with the entire globe rather than with one country or region; deals with all peoples, not just with so-called Western or non-Western peoples. Focuses on historical forces or movements of worldwide influence. Comparative history. (Irreg.) [IV-WC].

HIST 2013 Ancient Near Eastern Civilizations 3 Credit Hours A study of the major civilizations of the Ancient Near East from the last Pluvial period (ca. 8400 B.C.) through the first millennium B.C., with particular emphasis on the historic periods (ca. 3000 B.C. onwards). (Irreg.) [IV-WDC].
HIST 2033 Introduction to Digital Humanities 3 Credit Hours (Crosslisted with LIS, WGS and HSTM 2033) This course introduces students to digital and/or computational methods in the humanities and addresses critical questions about the role of digital technology in society. This is a collaborative, hands-on, project-based course. (Sp) [IVWC ].

## HIST 2063 History of Activism

3 Credit Hours
This course explores the history of activism in the twentieth century, paying particular attention to the ways race, ethnicity, class, and gender have shaped political, economic, environmental and health injustices and community responses to them. (Irreg.) [IV-WC].

## HIST 2103 Genocides in Modern History <br> 3 Credit Hours

Globally comparative course introduces students to the types and causes of genocide in the modern era. Focus is on various case studies of exterminatory mass violence, in order to analyze evolutions and patterns in transnational historical contexts, as well as consider methods of resistance and prevention. (Irreg.)
HIST 2123 The Holocaust 3 Credit Hours
Discussion of the Holocaust, how it could happen and how it is remembered today in different European and non-European countries. (Irreg.) [IV-WC].
HIST 2333 The British Empire
3 Credit Hours
A survey of the development of the British Empire and Commonwealth to the present day. Emphasis upon the period after the American Revolution; includes extension of control in Asia and Africa, movements of independence, the emergence of the Commonwealth and mid-twentieth-century challenges to the Commonwealth. (Irreg.) [IV-WC].
HIST 2503 American Jews/Jewish Americans 3 Credit Hours
Through a case study of American Jewry, this class will ask: How to define a minority (religion, race, ethnicity)?. How does a group create lasting institutions? How does a group become American yet retain communal identity? How can a minority shape majority culture? What constitutes "success"? (Irreg.) [IV-WC].
HIST 2573 The History Sleuth 3 Credit Hours
Prerequisite: majors only or permission of department. Introduces students to the craft of history. Students will explore the many types of sources available to reconstruct the past and learn how historians collect, select, and evaluate historical evidence. (F, Sp)

HIST 2613 Colonial Hispanic American History, 1492-1810 3 Credit Hours
The founding and development of the Spanish and Portuguese empires in America with special attention to the conquest of native civilizations and to the political, economic, social and intellectual institutions of the colonial period. (F, Su) [IV-WC].

HIST 2623 Modern Latin America 1810-Present 3 Credit Hours
The emancipation and development of the Spanish-American nations (and of Brazil) with special attention to the movements for national independence, political unification, economic developments and social welfare. (Irreg.) [IV-WC].

HIST 2703 African Societies and Cultures 3 Credit Hours
Explores the complexity and divergence of African societies and cultures, political organizations, social structures, traditions and artistic expressions created by Africans over time and introduces Africa's history after 1500, its cultural diversity, and political transformation. (Irreg.) [IVWDC].

HIST 2713 Survey of African Civilization
3 Credit Hours
Survey of the social, economic, political and cultural development of subSaharan African peoples from the emergence of human society to the present. (F) [IV-WDC].

HIST 2723 History of South Asia
3 Credit Hours
The course examines South Asia, which refers to the vast geographical space stretching from the Himalayan mountain ranges in the north to the Indian Ocean in the south and from the valley of the Indus in the west to the plains of the Brahmaputra in the east. Students examine the histories, cultures and societies of these spaces. (Irreg.) [IV-WDC].
HIST 2803 Survey of Russia 3 Credit Hours
An introduction to the history of Russia from its beginnings to the present day. Intended primarily for nonspecialists. (F) [IV-WC].

HIST 2970 Special Topics
3 Credit Hours
1 to 3 hours. Prerequisite: sophomore standing or permission of instructor. May be repeated; maximum credit six hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)
HIST 3003 History of Sparta
3 Credit Hours
Traces the history of Sparta from its antecedents in the Heroic Age through the Dorian Invasion to the Roman conquest.(Sp) [IV-WC].

HIST 3013 Indigenous Politics in Modern Latin American History

3 Credit Hours
Prerequisite: ENGL 1213 or EXPO 1213. This course traces the history of Latin America's indigenous peoples during the 19th and 20th centuries, moving from the Andes to the Southern Cone to Brazil to Mexico and Central America. Considering indigenous people's experiences as well as policies and ideas that affected them, students read a variety of sources, from scholarly books to primary sources like letters and literature. (Irreg.) [IV-WDC].
HIST 3023 Classical Greece
3 Credit Hours
An examination of the history of ancient Greece during its "Classical" Period, the fifth and fourth centuries B.C., with emphasis upon Athens, Sparta and Alexander the Great (C. 500-300 B.C.). (Irreg.) [IV-WC].
HIST 3033 Black Britain in the Long Nineteenth Century 3 Credit Hours Prerequisite: HIST 1483 or HIST 1493 or junior standing, or permission of instructor. This course explores the history of Black people in Britain from the late eighteenth century to the end of the First World War. Through this, students uncover the ways those of African descent shaped British history and yet were excluded from its narratives. (Irreg.) [IV-WC].
HIST 3053 Medieval Italy 3 Credit Hours
Prerequisite: 1113 or 1613 or junior standing. A survey of Italy from circa 400-1350 CE, emphasizing the mix of Roman, Christian, and barbarian traditions, relations between the church and empire, and the role of cities and commerce. (Sp) [IV-WC].

HIST 3063 The Ancient Art of War
Traces the history of warfare from its origins through the ancient world to the beginning of the Middle Ages. (Sp) [IV-WC].
HIST 3073 The Renaissance 3 Credit Hours
Prerequisite: HIST 1223 or HIST 1613 or junior standing or permission of instructor. Examines the European Renaissance, a time period that was crucial to the development of western European culture, intellectual thought, and state formation. By reviving classical antiquity, the Renaissance created both the classical canon of intellectual study and modern political units. (Irreg.) [IV-WC].
HIST 3083 The American Colonies 3 Credit Hours
A history of the British colonies in North America from the earliest discoveries and of the United States from the Second Continental
Congress to the inauguration of Washington in 1789. (Irreg.) [IV-WC].
HIST 3093 The Revolutionary Era 3 Credit Hours
Prerequisite: HIST 1483 or HIST 1493 or junior standing or permission of instructor. The American Revolution and the development of political institutions under the Articles of Confederation and the Constitution; innovations of the Federalists; domestic and foreign affairs. (Irreg.) [IVWC].

## HIST 3103 Slavery in World History

3 Credit Hours
Prerequisite: ENGL 1213 or EXPO 1213. Examines slavery and unfree labor from the earliest times in Mesopotamia to the present and includes an analysis of slavery in the American South and Latin America. Also traces the history of the Abolition Movement. (Irreg.) [IV-WDC].

## HIST 3113 The Crusades <br> 3 Credit Hours

Prerequisite: 1113 or 1613 or junior standing. Covers crusades to the Holy Land and Europe against Moors, pagans, heretics, and enemies of the Pope. Topics include crusade ideology, relations between Latins, Byzantines, Jews and Muslims, crusader states, techniques of warfare, and the experience of crusading. (F) [IV-WC].

HIST 3120 Topics in Modern European History 1-5 Credit Hours 1 to 5 hours. May be repeated for credit with change of content. Discussion of a selected special problem or problems in modern European history. (Irreg.)
HIST 3123 War in European History 3 Credit Hours Prerequisite: ENGL/EXPO 1213 or junior standing or permission of instructor. A study of the impact of war on European history and the interaction of armies and society in the period from the fourteenth century to the present. (Irreg.) [IV-WC].
HIST 3133 Medieval Women 3 Credit Hours
(Crosslisted with WGS 3133) Prerequisite: 1113 or 1613 or junior standing. Covers social history of women in western Europe from late Antiquity to the late Middle Ages. Topics include stages of life, marriage, families, occupation, law, power, health, religion, love, and education. (F) [IV-WC].
HIST 3143 The Era of the Reformation
3 Credit Hours
An analysis of the forces leading to the religious upheaval in the sixteenth century and the spread of Protestantism in Northern European countries; the Catholic Reformation or Reaction; Thirty Years War; and the relation of the Reformation Era to medieval and modern civilization. (F) [IV-WC].

HIST 3153 The Great War, 1914-18
3 Credit Hours
Prerequisite: 1233 or 1623. Examines the causes, conduct, and
consequences of World War I, with primary emphasis on its cultural
impact. (F) [IV-WC].

HIST 3163 Europe from the French Revolution to
Napoleon

## 3 Credit Hours

A social, political, military and cultural treatment of Europe from 1789 to 1815. Appropriate attention will also be given to causes of the French Revolution. (Sp) [IV-WC].

HIST 3173 The Early U.S. Republic
3 Credit Hours
Prerequisite: HIST 1483 or HIST 1493 or junior standing or permission of instructor. This course surveys the 35 years of U.S. history after the War of 1812. We will examine the rise of a modern political parties; the creation of an American empire; the expansion of slavery; the violence of Indian removal; the dramatic political battles of Jacksonian America; the far-reaching impact of evangelical Christianity; and the development and evolution of American prosperity. (Irreg.) [IV-WC].

HIST 3183 Italy: Making a Nation?
3 Credit Hours
Prerequisite: HIST 1233 or junior standing or permission of instructor. Course examines the creation of modern Italy from the late Renaissance, Enlightenment, nationalism, the unification movement, World War I and World War II. (Irreg.) [IV-WC].
HIST 3193 Modern France: Gender, Religion and Nation 3 Credit Hours Prerequisite: HIST 1623 or HIST 1233 or junior standing or permission of instructor. This course surveys key events and ideals that have shaped the modern nation of France. We will engage literature, history, film, and sociology to develop a more nuanced understanding of France and its place in the world. We will focus particularly on the roles played by gender and religious identities in constructing or complicating definitions of French citizenship. (F) [IV-WC].

## HIST 3203 Transformation of Jews

3 Credit Hours
Prerequisite: Junior standing or permission of instructor. Introduces students to the era of emancipation in modern Europe and will discuss Jewish approaches to become integrated and assimilated in the different emerging nation states. (Irreg.) [IV-WC].
HIST 3213 Intellectual History of Nineteenth-Century Europe 3 Credit

Hours
Examination of the impact on European social and political development of concepts such as Nationalism, Imperialism, Socialism and Darwinism. (Irreg.) [IV-WC].
HIST 3223 Intellectual History of Twentieth-Century Europe 3 Credit Hours
A general survey of the major intellectual developments in Western Europe since 1900, including the areas of social thought, religious thought, political philosophy, scientific thought, literature and drama. In each area the relationship of intellectual expression will be related to the historical context from which it emerged. (Irreg.) [IV-WC].
HIST 3233 Modern Spain 3 Credit Hours Prerequisite: junior standing. Examines the political, economic, social, and cultural aspects of modern Spanish history (1808-present) and will attempt to place Spain within the context of European history, where it has often been ignored by European historians. (F, Su) [IV-WC].
HIST 3243 European Women \& Gender Relations 3 Credit Hours Prerequisite: HIST 1233 or HIST 1623 or junior standing or permission of the instructor. Explores the social, cultural, political, and economic history of European women and gender relations from the Scientific Revolution to the present. (Irreg.) [IV-WC].

HIST 3253 Germany: From Bismarck to Hitler 3 Credit Hours
Prerequisite: HIST 1233 or junior standing or permission of instructor. History of Germany during the 19th and 20th centuries, from the unification era to the rise of Hitler and the Nazi Party. Topics include the Congress of Vienna, German unification, World War I, the rise of Nazism, and World War II. (Irreg.) [IV-WC].

HIST 3263 History of Public Health 3 Credit Hours
(Crosslisted with HSTM 3263) Prerequisite: Junior Standing or a lower division HSCI course or HIST 1733 or HIST 2723 or Permission of Instructor. Taking an historical perspective students explore and analyze the social, economic, political and scientific events and processes that have shaped modern public health. (F) [IV-WC].

## HIST 3273 Of Acupuncture, Medicine Men \& Ayurveda: Indigenous \& Non-Western Medicine in Perspective 3 Credit Hours

(Crosslisted with HSTM 3273) Prerequisite: Junior standing or a lower division HSTM course or HIST 1733 or HIST 2723 or Permission of Instructor. Introduces histories of practices and systems of medicine and healing that are variously deemed "indigenous," "traditional", "nonwestern," "alternative," and "complementary" in historical context.
Students critique the historical and cultural meaning of these terms, as well as their attendant conceptions of health, disease, and the body. (Sp) [IV-WDC].

## HIST 3283 History of Ireland, Part II

3 Credit Hours
Examines the history of Ireland from 1600 to the present day. Looks at the British conquest of Ireland, subsequent Anglo-Irish relations, events leading to Irish independence, and the origins and causes of present day sectarian violence. (Sp-alternate) [IV-WC].
HIST 3290 Topics in British History 1-5 Credit Hours
1 to 5 hours. May be repeated for credit with change of content.
Discussion of a selected special problem or problems in British history. (Irreg.)

## HIST 3293 Antisemitism

3 Credit Hours
Prerequisite: HIST 1483 or HIST 1493 or junior standing or permission of instructor. Covers the world's oldest prejudice from ancient times to the present. Topics include Christian Antisemitism; medieval demonization of the Jews; Inquisition; Dreyfus case; pogroms; American Antisemitism; Nazism and Holocaust; Arab and Muslim Antisemitism; and African American Antisemitism. (Irreg.) [IV-WC].
HIST 3303 Mexico and the United States 3 Credit Hours
Prerequisite: Junior standing or permission of instructor. Explores the long and complicated relationship between these two nations. Explores economic investment, war, immigration, bilingualism, and culture. (Irreg.) [IV-WC].
HIST 3313 Israeli Culture Through Film 3 Credit Hours
Prerequisite: ENGL 1213 or EXPO 1213. Introduces students to the Israeli culture in its modern day context of the young Jewish state. Focuses on the dynamic mosaic of this multi-faceted society which is still evolving. (Sp) [IV-WDC].
HIST 3323 Tudor England 3 Credit Hours
A study of England from 1485 to 1603. Topics covered include the establishment of the Tudor dynasty, Tudor administrative and political development, the English Reformation, foreign and colonial relations, economic growth, and sixteenth-century social and cultural life. (F) [IVWC].

HIST 3333 The Black West
3 Credit Hours
(Crosslisted with AFAM 3333) Prerequisite: Junior standing, or any 2000-level African and African American Studies class, or permission of instructor. Survey of Black history and experience in the American West. Students will learn about life in the region through primary documents, scholarly texts, literature, film, and popular culture. Emphasis on how identity, regionalism, and nationalism converge in North America. Particular attention will be paid to Oklahoma and the larger Great Plains. (Irreg.)
HIST 3343 Eighteenth-Century England
3 Credit Hours
A discussion of the domestic politics, society, economy, foreign affairs and constitutional and imperial development of England from the accession of the Hanoverians in 1714 to the passage of the First Reform Act of 1832. (Irreg.) [IV-WC].
HIST 3353 England Since 1832
3 Credit Hours
Topical analysis of major developments in British life since 1832, including growth of political democracy, adaptation to industrialism, social and cultural change, foreign affairs, imperialism, growth of the welfare state. Britain's changed role in the twentieth century. (Irreg.) [IVWC].

HIST 3363 Legal And Constitutional History Of England I 3 Credit Hours
The first part of a course of lectures on the development of the English constitution, and of legal concepts, institutions and procedures from the Anglo-Saxons to the present. (Irreg.) [IV-WC].
HIST 3373 The Long Civil Rights Movement in America 3 Credit Hours Prerequisite: HIST 1483 or HIST 1493 or junior standing, or permission of instructor. This course treats the Civil Rights Movement as a centurylong struggle. Using court cases as historical documents alongside other secondary and primary sources, it examines both the legal concept of civil rights as well as the activism of people who sought such rights. It concludes with an examination of the modern notions of civil rights. (Irreg.) [IV-WC].
HIST 3383 The American West
3 Credit Hours
A survey of the economic, political, social and cultural development of the American West. Particular attention will be paid to the West as a frontier process and as a causative factor in historical change.(F) [IV-WC].

HIST 3393 History of Oklahoma 3 Credit Hours Meets the requirement in Oklahoma history for teacher's certificate. A survey of Oklahoma history from its beginning to the present, including its Indian background, formation into territories, achievement of statehood, and general cultural, economic and political development. (F, Sp, Su)
HIST 3403 Modern Israel
3 Credit Hours
Prerequisite: HIST 1483 or HIST 1493 or junior standing or permission of instructor. Introduces students to the history of modern Israel. They will learn about the Israeli people, politics \& culture. The course will cover 100 years (1882-1982). (Irreg.)[IV-WDC].
HIST 3413 The History of Ancient Israel
3 Credit Hours
A topical survey from 1400 B.C. to 425 A.D., dealing critically with the main institutions and their historical background from early tribal theocracy to the end of the Rabbinic Patriarchate under Rome. (Sp) [IVWC].

HIST 3423 War, Prosperity and Depression
3 Credit Hours
Prerequisite: HIST 1483 or HIST 1493 or junior standing or permission of the instructor. Covers United States involvement in the two world wars; decline of socialism; youth culture; changing gender roles and relations; crisis of masculinity; transformation of work; consumerism; racism; antisemitism; depression and New Deal; and America's response to the Holocaust. (Irreg.) [IV-WC].
HIST 3430 Topics in United States History 1-5 Credit Hours
1 to 5 hours. May be repeated for credit with change of content.
Discussion of a selected problem or problems in United States history. (F, Sp, Su)

## HIST 3433 The United States in the Cold War Era,

## 1945-1980

3 Credit Hours
Prerequisite: HIST 1483 or HIST 1493 or junior standing or permission of instructor. Examines changes taking place in American life during the second half of the twentieth century. Topics include the Cold War, McCarthyism, the New Frontier, Civil Rights Movement, protest in the 60s, the Vietnam War, and adaptations to a global economy. (Irreg.) [IV-WC].
HIST 3440 Mentored Research Experience
3 Credit Hours
0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)

HIST 3443 Early North American West
3 Credit Hours
Prerequisite: HIST 1483. This course examines the early history (1200 CE to about 1850 CE) of North America. Topics include early indigenous societies, exploration and conquest, systems of slavery, and colonial and federal policies that led, finally, to the removal and relocation of indigenous nations from the early United States. The course concludes with an analysis of the west in the era sectionalism. (Irreg.) [IV-WC].

## HIST 3453 The Modern North American West

3 Credit Hours Prerequisite: HIST 1483 or HIST 1493. This course focuses upon the different peoples, resources, landscapes, and ideas that collided in the recent American West. Sometimes that contact was violent, sometimes loving, but always the the collision created an American story that has enormous influence today. This course concludes with an analysis of how the western past appears in the present. (Irreg.) [IV-WC].

HIST 3483 Gilded Age and Progressive Era, 1877-1917 3 Credit Hours Prerequisite: HIST 1483 or HIST 1493 or junior standing or permission of instructor. The period from 1877 to 1917 included the fastest and most extensive industrial revolution in world history, the worst economic depression in U.S. history, the most violent episodes of industrial violence, the most radical agrarian protests, the greatest racial violence in the nation's history, the acquisition of an overseas empire, and intervention in the First World War. (Irreg.) [IV-WC].
HIST 3493 American Environmental History 3 Credit Hours Examine American attitudes toward the environment since the founding of American colonies, evolution of natural resource policies, and lives of prominent figures in the "conservation" and "ecology" movements of the late nineteenth and twentieth centuries. (F) [IV-WC].

## HIST 3500 Special Topics in History

1-6 Credit Hours
Prerequisite: junior standing. May be repeated with change of content; maximum credit six hours. Covers topics not covered in current course listings or specific geographic area topics courses. (F, Sp)

HIST 3503 The World War II Era, 1918-1945
3 Credit Hours
Prerequisite: HIST 1483 or HIST 1493 or junior standing or permission of instructor. Treats origins, conduct and outcome of World War II in global setting. Emphasis on roles of national interest, policy making, relations of states, and effects of war on societies involved. (F) [IV-WC].
HIST 3523 History after the Internet: Exploring Digital History

## 3 Credit Hours

(Crosslisted with HSTM 3523) Prerequisite: Junior Standing. Examines major themes, issues, and developments affecting the research, writing, analysis, preservation and presentation of history in the digital age. Includes hands-on engagement with and critical assessment of the use of digital tools for conducting historical inquiry, and exploration of the circulation of historical knowledge in such venues as social media, blogs, podcasts, digital archives, online collections and historically-themed gaming. (Sp) [IV-WC].
HIST 3533 The History of Early American Women 3 Credit Hours Prerequisite: 1483 or 1493 , or junior standing. Explores the history of American women from the seventeenth century to the mid-nineteenth century by focusing on women's lives from a wide variety of perspectives including demographic change, sexuality, work patterns, and political involvement. (F) [IV-WC].
HIST 3543 The History of Modern American Women 3 Credit Hours Prerequisite: 1483 or 1493 , or junior standing. Explores the history of American women from the mid-nineteenth century to the present by focusing on women's lives from a wide variety of perspectives including demographic change, family life, sexuality, work patterns, and political involvement. (Sp) [IV-WC].

HIST 3553 Slavery and the Civil War Era 3 Credit Hours
Prerequisite: HIST 1483 or HIST 1493, or junior standing, or permission of instructor. A course of lectures on the social, economic, political, intellectual and military aspects of the Civil War era. (Irreg.) [IV-WC].
HIST 3563 Jerusalem
3 Credit Hours
Prerequisite: HIST 1483 or HIST 1493 or junior standing or permission of instructor. Examines how Jerusalem has been shaped by subjects as different as King David, Jesus, and Muhammed to soccer hooligans, suicide bombers, artists, and refugees. Also examines the Middle East conflict; the relationships between Jews, Christians, and Muslims; and historical and contemporary Israel. (Irreg.) [IV-WDC].
HIST 3573 Special Topics Colloquium
3 Credit Hours
Prerequisite: History major and junior standing or permission of instructor. May be repeated with change of topic, maximum credit 15 hours. A writing-intensive, open topic, seminar designed to improve students' research and writing abilities and introduce them to basic methodological issues in history. While the course is specifically meant to prepare students for their senior capstone course, the emphasis on research and writing will enhance their preparation for all upper-division history course. This course must be completed prior to enrolling for the senior capstone. (F, Sp)
HIST 3583 History of Sport in America
3 Credit Hours
Prerequisite: ENGL 1213 or EXPO 1213 or junior standing or permission of instructor. Examines the role of sport in American society, and uses sport as a device to explore social, historical and political topics like the commercialization of leisure, changing conceptions of masculinity, violence, racism, labor relations, gender relations, and working-class culture. (Irreg.) [IV-WC].

HIST 3593 Women in the American West 3 Credit Hours
Prerequisite: 1483 or 1493 . Nineteenth-century gender ideologies, multicultural interaction and exchange, work roles and community building, participation in politics, and reform movements of women in TransMississippi West. (Irreg.) [IV-WC].

HIST 3603 The Spiritual Conquest of Latin America 3 Credit Hours Prerequisite: ENGL 1213 or EXPO 1213. This course deals with orthodoxy and its discontents in the golden age of Catholic empire. The Church was central to the spread of the Spanish and Portuguese empires across the globe, and in the policing of their subject peoples. This course will explore church and popular religion in this time, as well as some of its rich documents. (Irreg.)

## HIST 3613 Roman Religion

3 Credit Hours
(Crosslisted with RELS 3613) Prerequisite: junior standing or permission of instructor. The course examines religious practices and beliefs in the Roman world from the founding of the Roman Republic to Late Antiquity, including conceptions of the divine, ways of worshiping the gods, civic and private religion, conceptions of the afterlife, magic, the mystery religions and salvation, and philosophical religions, through a survey of literary and archaeological evidence. (Irreg.)

HIST 3623 Conformity and Dissent in the 1950s and 1960s

## 3 Credit Hours

Examines conformity and dissent in the 1950s and 1960s. Topics include the consumer culture, suburbia, the impact of television, 'McCarthyism', the Beats and the 1960s counterculture, student protest, civil rights and black nationalism, and women's liberation. (Irreg.) [IV-WC].

HIST 3633 American Indian History to $1880 \quad 3$ Credit Hours Prerequisite: ENGL 1213 or EXPO 1213, or junior standing, or permission of instructor. Examines the ways in which native societies in North America responded to European invasions between 1492 and 1890. Emphasis will be placed on Indian culture, the way in which it changed, and the various governmental attempts to destroy it. (Irreg.) [IV-WDC] .

## HIST 3643 American Indian History Since 1865 Credit Hours

Prerequisite: ENGL 1213 or EXPO 1213; or junior standing, or permission of instructor. Examines American Indian history since the 19th century reservation era. Major themes include life patterns, cultural survival patterns, pan-Indian movements, the Indian Reorganization Act, relocation and termination policies, and self-determination issues. (Irreg.) [IV-WC].
HIST 3653 American Jewish History 3 Credit Hours
Prerequisite: HIST 1483 or HIST 1493 or junior standing or permission of instructor. The course examines American Jewish experiences from 1654 to the present, and the ways in which Jews adapted to American life, constructed American-Jewish identities, and contributed to American politics and culture. Topics include: immigration, assimilation, gender norms, antisemitism, McCarthyism, suburbanization, the Holocaust, Israel, the civil rights movement, and political behavior, among others. (Irreg.) [IV-WC].
HIST 3663 The American Presidency \& the Presidents, WashingtonTrump

3 Credit Hours
Prerequisite: HIST 1483 or HIST 1493 or junior standing or permission of instructor. Provides an examination of the most important presidents in US history. Topics include the limits of presidential power, the separation of powers, leadership in war and peace, and the changing role of political parties, the press, and campaign contributions in shaping the office and those who fill it. (Irreg.) [IV-WC].

HIST 3673 Arguing over America, 1917-2001
3 Credit Hours
Prerequisite: HIST 1483 or HIST 1493 or junior standing or permission of instructor. Examines how Americans argued over the nature of contemporary American society and culture, especially as applied to minority groups, from World War I until 9/11. (Irreg.) [IV-WC].

HIST 3683 Capitalism and Socialism
3 Credit Hours
Prerequisite: ENGL/EXPO 1213 or junior standing or permission of instructor. This course will focus on the development of socialism and capitalism in Europe and the United States. We study ideas and practice-the vision and the reality-of the two systems, examining their implications for economic and political organization, class and family relationships, and culture broadly defined. (Irreg.)

HIST 3690 Topics in Latin American History 1-5 Credit Hours 1 to 5 hours. May be repeated for credit with change of content. Discussion of a selected special problem or problems in the history of Latin America. (F)

HIST 3693 Spanish Borderlands 3 Credit Hours
Prerequisite: ENGL 1213 or EXPO 1213. Examines the region made up roughly of what are now the states of California (Baja and Alta), Arizona, New Mexico, Texas, Chihuahua, Coahuila, and Sonora; the colonial period. The peoples of the Southwest have responded to the challenges of coexistence both through violence and creative mutual adaptation. Students will gain knowledge of the varieties of colonial experience in the region. (Irreg.) [IV-WDC].
HIST 3703 Native Peoples of Latin America 3 Credit Hours Prerequisite: ENGL 1213 or EXPO 1213. Explores the history of Latin America's indigenous peasantry and the issue of ethnicity in the modern world. Focus is on the people of Mexico, Guatemala, Peru and Brazil. (Irreg.) [IV-WDC].

HIST 3713 History of Mexico, 1800-Present 3 Credit Hours Explores the history of Mexico from independence to the present. Particular attention is paid to the issues of statebuilding, dependency, revolution, and post-revolutionary change. (Irreg.) [IV-WC].

## HIST 3723 Africa Since 1945

3 Credit Hours
Prerequisite: ENGL 1213 or EXPO 1213. Thematically and chronologically examines social, political, cultural and economic developments in Africa from the end of World War II to the contemporary period. The growth of millenarian religious movements, nationalism, decolonization, and the post-colonial nation states are among the topics examined. (Irreg.) [IVWDC].
HIST 3733 History of Heaven and Hell in Judaism and Christianity

3 Credit Hours
Prerequisite: junior standing or permission of instructor. Traces the evolution of the concept of the afterlife, eternal reward and punishment in Judaism and Christianity from late Antiquity to the high Middle Ages. (Irreg.) [IV-WC].
HIST 3743 African-American History to $1877 \quad 3$ Credit Hours Prerequisite: HIST 1483 or HIST 1493 or junior standing or permission of instructor. Traces the history of African-Americans from their African origins to the end of the Reconstruction of the southern United States in 1877. (Irreg.) [IV-WC].

HIST 3753 African-American History Since 1877 Credit Hours Prerequisite: HIST 1483 or HIST 1493 or junior standing or permission of instructor. Considers African-American history in its national and international contexts from the post-emancipation South until the twentieth century. Topics include the African-American political traditions and activism. (Irreg.) [IV-WC].

HIST 3763 Genesis Through Jewish Eyes
3 Credit Hours
Prerequisite: junior standing or permission of instructor. Through a close reading of Genesis and its Jewish interpreters, this class takes one mode of reading to ask: How a minority tradition understands key passages, terms \& theologies. It also addresses how deducing the Bible's message depends on one's own presuppositions, and how another tradition can enhance one's own reading of Scripture. (Irreg.) [IV-WC].
HIST 3773 Jews and Christians--Middle Ages 3 Credit Hours Prerequisite: HIST 1113 or HIST 1223 or HIST 1613 or junior standing or permission of instructor. Traces the development of the relationship between the Jewish minority and the Christian majority in medieval Europe, from the fifth century to the early modern period. Discusses how Jews and Christians dealt with and imagined each other. (Irreg.) [IV-WC].

## HIST 3783 Slavery and the Atlantic World

3 Credit Hours
Prerequisite: HIST 1483 or HIST 1493 or equivalent. Exploring Atlantic slavery from the 15th to 19th centuries, and moving from Africa to the Caribbean to the colonies of the Americas, this course centers the lives and voices of the enslaved. We also explore the growth of the Atlantic slave trade, how early modern people thought about racial difference, anti-slavery activism, and the challenges of studying this history. (Irreg.)
HIST 3793 Imperial Russia
3 Credit Hours
A study of the origins and growth of the Russian Empire, origins and development of autocracy and serfdom, Russia's emergence as a great power, its reforms and revolutions. (Sp, Su) [IV-WC].
HIST 3803 The Era of the Russian Revolutions 3 Credit Hours Deals specifically with the conditions and events of change in Russia between 1905 and 1921. Seeks to take into account the broad questions of industrialization and backwardness, the popular responses to these matters and the rise of radical groups. Beyond this setting, major attention will be placed on the dissolution of the old regime during World War I and the two revolutions of March and November 1917, as well as the civil wars and the NEP. (Sp)
HIST 3813 Twentieth-Century Russian History 3 Credit Hours Detailed study of political, social, cultural and economic developments in the Soviet Union in world affairs. (F) [IV-WC].
HIST 3823 Law and Punishment
3 Credit Hours
Prerequisite: junior standing or permission of instructor. Examines how four ancient polities-classical Athens, imperial Rome, early China,and the Hebrew tribes, as represented in the Hebrew Bible--meted out, and justified, punishment. Where possible, we willprobe contemporary debates about punishment, but we will also closely scrutinize portions of the still extant codes and commandments from these polities relating to various criminal activities of interest. (Irreg.) [IV-WC].

HIST 3833 Archaeology of the Lands of the Bible 3 Credit Hours (Crosslisted with RELS 3833) Prerequisite: junior standing. Examines the lands, cultures, and people associated with the Hebrew Bible and the New Testament through a chronological survey of archaeological evidence and investigates the relationship between archaeology and biblical texts. The course also investigates archaeological evidence for Jewish and Christian practices in late Roman Palestine as well as archaeological and architectural evidence for early Islamic Jerusalem. (Sp) [IV-WC].
HIST 3843 Latin American Independence 1750-1880 3 Credit Hours (Crosslisted with IAS 3843) Prerequisite: HIST 2613 or HIST 2623 or junior standing or permission of instructor. Covers history of Latin America from the crisis and dissolution of the Iberian empires through the consolidation of independent republics, a period bridging the colonial and modern periods in the region's history. (Irreg.)

HIST 3853 Japan to 1850
3 Credit Hours
Prerequisite: ENGL 1213 or EXPO 1213. Traces the history of Japan beginning with the earliest Jomon and Yayoi cultures and ending with the unraveling of the last feudal regime in the nineteenth century. (Irreg.) [IVWDC].

HIST 3863 Japan Since 1850
3 Credit Hours
Prerequisite: ENGL 1213 or EXPO 1213. Designed to introduce students to the history of Japan from the 1850's to the present. Will include the Meiji restoration, industrial development, imperial expansion, wartime mobilization, the U.S. occupation, economic recovery and high growth, and the changing political and popular culture of the 1980s and 1990s. (Irreg.) [IV-WDC].
HIST 3873 Early Imperial China
3 Credit Hours
Prerequisite: ENGL 1213 or EXPO 1213. The cultural, political, economic, and social transformations China underwent during the period from the Sui to the Song dynasties. (Alt. F) (Irreg.) [IV-WDC].

HIST 3883 Late Imperial China 3 Credit Hours Prerequisite: ENGL 1213 or EXPO 1213. The cultural, political, economic, and social transformations China underwent during the rule of its later dynasties from the 13th-century Mongol conquest to the final struggles and collapse of China's existence as an empire with the Revolution of 1911. (Irreg.) [IV-WDC].

HIST 3893 Greek Religion
3 Credit Hours
(Crosslisted with RELS 3893) Prerequisite: junior standing or permission of instructor. Examines the religious rituals, beliefs, and sacred sites of the ancient Greeks. Considers such topics as the relationship between myths and ritual, sacred time and space, concepts of the afterlife, and the role of religion in the family and city-state. (Irreg.)
HIST 3913 Jews \& Hollywood
3 Credit Hours
Prerequisite: HIST 1483 or HIST 1493 or equivalent. This class examines how Jewish immigrants helped found the motion picture industry; the role of Jews in the industry as it evolved over the course of the 20th century; the representation (and invisibility) of Jews on film; how that representation has changed over time; and how Americans have interpreted the large presence of Jews in the American film industry. (Irreg.)
HIST 3923 China Since 1911
3 Credit Hours
Prerequisite: ENGL 1213 or EXPO 1213. An examination of Chinese history since the Revolution of 1911, including the development of Republican and Communist thought, warlord rule, China's tumultuous wartime period, and the rise of the People's Republic of China (PRC). Also covers the history of the PRC, China after Mao, Taiwan and China's changing position in the world. (Irreg.) [IV-WDC].

HIST 3933 U.S. Queer History
3 Credit Hours
(Crosslisted with WGS 3933) Prerequisite: Junior standing. The last 130 years have been a time of incredible change for LBGTQ people and the meanings of sexuality in the United States. We will trace LGBTQ experience and community formation, the policing of queer communities, and the constructions of queerness in pop culture, medicine, the law, and politics, as well as how these histories inform our own time. (Irreg.) [IVWC].
HIST 3943 Muslim Societies in Africa
3 Credit Hours
Prerequisite: ENGL 1213 or EXPO 1213. Explores the history, nature, and dynamics of Islam in Africa -- Early Islam; Muslin Societies/Groups; Islamic fundamentalism; Women and Islam; Religious practices/ education; prayers/rituals; Africanization of Islam. (Irreg.) [IV-WDC].

HIST 3950 Topics in Middle Eastern History 1-3 Credit Hours
1 to 3 hours. Prerequisite: junior standing. May be repeated with change of content; maximum credit nine hours. Discussion of a selected problem or problems in Middle Eastern history. (Irreg.)
HIST 3953 The Modern Middle East
3 Credit Hours
Prerequisite: ENGL 1213 or EXPO 1213. Explores the political and social history of the modern countries of Egypt, Iraq, Israel, Jordan, Lebanon, Saudi Arabia, Syria and Turkey and areas affected by them from 1500 to the present. (F) [IV-WDC].

HIST 3960 Honors Reading
1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program and permission.
May be repeated; maximum credit six hours. Will consist of topics designated by the instructor in keeping with the student's major program. The topics will cover materials not usually presented in the regular courses. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
HIST 3963 From Zionism to Modern Israel 3 Credit Hours
Prerequisite: junior standing. Examines the historical evolution of the Zionist movement in the second half of the 19th century through the establishment of the State of Israel in the mid-20th century within the framework of Jewish modernization, antisemitism, and conflicting modern nationalisms. (Irreg.) [IV-WC].
HIST 3970 Honors Seminar 1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. The projects covered will vary. The content will deal with concepts not usually presented in regular coursework. (Sp, Su)
HIST 3973 Judaism - A Religious History 3 Credit Hours
Prerequisite: ENGL 1213 or EXPO 1213. Introductory survey of Judaism from its earliest origins in the ancient Near East to the present. Development of ideas, forms of worship, and religious expression as well as sectarian trends and variations will be examined. (Irreg.) [IV-WDC].

## HIST 3980 Honors Research

1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Provides an opportunity for the gifted Honors candidate to work at a special project in the student's field. (F, Sp, Su)

## HIST 3990 Independent Study

1-3 Credit Hours
1 to 3 hours. Prerequisite: permission of instructor and junior standing. May be repeated once with change of content. Independent study may be arranged to study a subject not available through regular course offerings. (F, Sp, Su)

## HIST 3993 The Evolution of Martyrdom in the Judeo-Christian Civilization 3 Credit Hours

Prerequisite: junior standing. Traces the historical development of martyrdom in Judaism and Christianity to understand what motivated individuals and communities to give up their lives for their convictions. Compare the evolution of the idea of martyrdom in Judaism and Christianity to identify differences and similarities between these two faiths. (Irreg.) [IV-WC].

HIST 4003 Jews and Other Germans
3 Credit Hours
Prerequisite: Junior standing or permission of instructor. Discusses the history and culture of the Jews in Germany from 1750 until the Nazi period. Focuses on the internal dimension of the German-Jewish experience and analyze the contribution of Jews to the German culture. (Irreg.) [IV-WC].

HIST 4023 Inquisitions
3 Credit Hours
Prerequisite: 1223 or 1233 or junior standing or permission of the instructor. Examines the historical roots of inquisitions in order to better understand how they have shaped modern conflicts. The mechanisms people used for disciplining themselves, for imposing control on others, and for evaluating who has the right to participate in society reveals people's fears, priorities, and weaknesses. (Irreg.) [IV-WC].
HIST 4073 Cultural Heritage Data and Social Engagement 3 Credit Hours
(Slashlisted with HIST 5073; Crosslisted with WGS, HSTM and LIS 4073) Prerequisite: Junior standing. This course uses methods from digital humanities, media studies, and data science to explore cultural heritage -- the histories, literature, art, and artifacts of our world's cultures. It particularly focuses on cultural heritage in digital public spaces: websites, social media, etc. No prior background in computer programming is necessary. No student may earn credit for both 4073 and 5073. (F)

HIST 4083 Museums, Monuments, Memory 3 Credit Hours Prerequisite: HIST 1223 or HIST 1233 or HIST 1613 or HIST 1623 or HIST 1923 or junior standing or permission of instructor. Globally oriented course that explores how national and ethnic memory play a key role in the formation of social and cultural identities. Emphasis is placed on rituals, "sites of memory," monuments, museums and their publics. (Irreg.)

## HIST 4203 Classical China

3 Credit Hours
Prerequisite: ENGL 1213 or EXPO 1213. Examines the roots of Chinese civilization, from its pre-historical origins through its emergence as a formidable empire to its devolution during a lengthy period of civil war after the end of the Han dynasty. (Irreg.) [IV-WDC].
HIST 4213 China's Art of War
3 Credit Hours
Prerequisite: ENGL 1213 or EXPO 1213. Scope of course is both the theory and practice of warfare in China's pre-modern eras; discussion of some of the most renowned texts on military strategy, and the theoretical issues that are involved in strategizing about and preparing for war. Study of the cause and effect of various wars from the earliest periods to just before the modern period. (Irreg.) [IV-WDC].
HIST 4313 American Foreign Policy, 1900-45 3 Credit Hours Prerequisite: HIST 1483 or HIST 1493 or junior standing or permission of instructor. Explores the globalization of American foreign relations, from the origins of late 19th century expansion to the diplomacy culminating in the creation of the United Nations at the end of World War II. (Irreg.)

## HIST 4343 The Vietnam War

3 Credit Hours
Prerequisites: 1483 or 1493 or junior standing or permission of instructor. This course explores the origins of the Vietnam War, how the United States waged the war, the impact of the war on American culture, and the meaning of the United States defeat in Vietnam. (Irreg.) [IV-WC].
HIST 4393 American Working Class
3 Credit Hours
Prerequisite: HIST 1483 or HIST 1493 or junior standing or permission of instructor. This course examines the working- and lower-class experience in America from the colonial period to the present. Topics include: social banditry and piracy, slavery, rise of the factory, scientific management, women and work, 19th and 20th century labor movement, radicalism, prostitution, and working-class masculinity. (Irreg.) [IV-WC].

HIST 4403 Mussolini, Fascism, \& America
3 Credit Hours
Prerequisite: HIST 1483 or HIST 1493, or junior standing, or permission of instructor. Explores the nature of fascism \& Mussolini's rule from 1922 until his death in 1945, including the cult of II Duce, fascist architecture and the fascist aesthetic in general, fascism and youth, fascism and conquest, and the American response to Italian fascism in the 1920s and 1930s. (Irreg.) \{IV-WC\}
HIST 4453 American Military History 1860-Present 3 Credit Hours Prerequisite: HIST 1483 or HIST 1493 or junior standing or permission of instructor. Explores United States military history from the Civil War through the modern age. With a special emphasis on politics, culture, and rapidly changing technology, this class focuses on the evolution of the American way of war as well as the transformative nature of war on the nation. (Irreg.)
HIST 4493 Africa and the Atlantic Slave Trade 3 Credit Hours (Crosslisted with AFAM 4493) Prerequisite: ENGL 1213 or EXPO 1213. About the changing nature of slavery in and the impact of slave trading on Africans in their homelands and in the diaspora. Origins in Africa; rise of the Atlantic trade; impact of the trade; middle passage, etc. (Irreg.) [IVWDC].
HIST 4503 Brazil, 1500-2000
3 Credit Hours
Prerequisite: 2613 or 2623 or junior standing or permission of instructor. Surveys the history of Brazil from contact to 2000. Touches on the preColumbian period, but focuses on the social, cultural, economic and political transformation of the region under Portuguese and Brazilian rule. (Irreg.) [IV-WC].

## HIST 4513 Intellectuals \& Artists in Modern Latin America <br> 3 Credit Hours

(Crosslisted with IAS 4513) Prerequisite: 2613 or 2623 or junior standing or permission of instructor. Examines both the history of ideas in modern Latin America as well as the history of intellectuals as a social group. We will consider intellectuals in the process of independence and the consolidation of nation states, the role of "race" in Latin American thought, and the relationship between European and Latin American thought. (Irreg.) [IV-WC].

## HIST 4523 Latin American Left

3 Credit Hours
(Crosslisted with IAS 4523) Prerequisite: 2613 or 2623 or junior standing or permission of instructor. This course examines the shifting political tactics and theoretical positions of a variety of leftist movements in Latin America since the early 20th century. We will examine leftist thought on the nature of Latin American development, approaches to commercial culture, and labor organizing, among other topics. (Irreg.) [IV-WC].
HIST 4533 Populism in 20th-Century South America 3 Credit Hours (Crosslisted with IAS 4533) Prerequisite: 2613 or 2623 or junior standing or permission of instructor. This course examines the phenomenon of Latin American "populism," a set of political movements that held a central place in 20th-century Latin American history. We will focus on three cases as they relate to the broader economic and social processes in the region as a whole: Brazil; Argentina; and Chile. (Irreg.) [IV-WC].

## HIST 4543 Latin America in the Age of the Cuban

## Revolution <br> 3 Credit Hours

(Crosslisted with IAS 4543) Prerequisite: 2613 or 2623 or junior standing or permission of instructor. This course is an in-depth examination of Latin American history of the period 1955-1973. We cover changes in politics, economics, literature, film, music, and theology in what many Latin Americans called the "revolutionary process" of the period. (Irreg.) [IV-WC].

HIST 4553 Environmental History of Latin America 3 Credit Hours Prerequisite: ENGL 1213 or EXPO 1213. Serves as a broad-based study of the environmental history of Latin America. We will examine the history of human interactions with the natural world in this region from pre-Colombian and colonial eras through contemporary times. Heavy emphasis will be placed on comparing native life-ways with the changes wrought by European colonization and the results on the land (Irreg.) [IVWDC].
HIST 4563 History of India
3 Credit Hours
Prerequisite: HIST 2723 or junior standing or permission of instructor. This course will survey the social, cultural, political and colonial histories of India beginning with the emergence of one of the earliest human civilizations in the Indus valley. Topics include: politics and culture before, during and after colonization; religion; and economic and social history. (Irreg.) [IV-WDC].
HIST 4950 History Internship
1-3 Credit Hours
1 to 3 hours. Prerequisite: History major and junior standing, and permission of instructor. May be repeated; maximum credit six hours. Allows history majors to receive credit for qualifying internships appropriate to the subject. Students who complete the course engage in service learning that focuses on historical content. (F, Sp, Su)
HIST 4960 Directed Readings
1-4 Credit Hours
1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean. May be repeated; maximum credit four hours. Designed for upper-division students who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)
HIST 4970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: Senior standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)
HIST 4973 Undergraduate Seminar in History 3 Credit Hours Prerequisite: History majors may enroll only after completing 75 credit hours of undergraduate coursework, 24 hours of which must be history. Non-majors may enroll with permission of instructor. May be repeated with change of content; maximum credit nine hours. Extensive research in historical sources and literature relating to a special problem or topic selected by the instructor. Emphasis will be on the individual preparation of research papers. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ ) [V].

HIST 4990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: three courses in general area to be studied; permission of instructor and department. May be repeated; maximum credit six hours. Contracted independent study for topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (F, Sp, Su)
HIST 5001 Navigating The History Profession 1 Credit Hour Prerequisite: graduate standing or permission of instructor. Introduction to the various fields of historical inquiry, resources for historical research, and how to navigate the history profession -- conferences, grants, the job market --and the OU graduate programs, M.A. and Ph.D. (F)
HIST 5050 Directed Readings in History
1-4 Credit Hours
Prerequisite: graduate standing. Graduate-level independent study for master's candidates only. (Irreg.)

HIST 5073 Cultural Heritage Data and Social Engagement 3 Credit Hours
(Slashlisted with HIST 4073; Crosslisted with WGS, LIS and HSTM 5073) Prerequisite: Graduate standing. This course uses methods from digital humanities, media studies, and data science to explore cultural heritage -- the histories, literature, art, and artifacts of our world's cultures. It particularly focuses on cultural heritage in digital public spaces: websites, social media, etc. No prior background in computer programming is necessary. No student may earn credit for both 4073 and 5073. (F)

HIST 5110 Independent Studies in European History 1-4 Credit Hours 1 to 4 hours. Prerequisite: permission of instructor. May be repeated with change of content; maximum credit 15 hours. Independent study, arranged between the professor and student, in the history of Europe. (F, $\mathrm{Sp}, \mathrm{Su}$ )
HIST 5210 Independent Studies in American History 1-4 Credit Hours 1 to 4 hours. Prerequisite: permission of instructor. May be repeated with change of content, maximum credit 15 hours. Independent study, arranged between the professor and student, in the history of America. (F, $\mathrm{Sp}, \mathrm{Su}$ )

## HIST 5310 Independent Studies in Latin American

 History1-4 Credit Hours
1 to 4 hours. Prerequisite: permission of instructor. May be repeated with change of content, maximum credit 15 hours. Independent study, arranged between the professor and student, in the history of Latin America. (F, Sp, Su)
HIST 5410 Independent Studies in African History 1-4 Credit Hours 1 to 4 hours. Prerequisite: permission of instructor. May be repeated with change of content; maximum credit 15 hours. Independent study, arranged between the professor and student, in the history of Africa. ( $F$, Sp, Su)
HIST 5510 Independent Studies in Asian History 1-4 Credit Hours 1 to 4 hours. Prerequisite: permission of instructor. May be repeated with change of content; maximum credit 15 hours. Independent study, arranged between the professor and student, in the history of Asia. (F, Sp)
HIST 5960 Directed Readings 1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing and permission of department. May be repeated; maximum credit twelve hours. Directed readings and/or literature reviews under the direction of a faculty member. (F, Sp, Su)
HIST 5970 Special Topics
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or research and field projects. (Irreg.)

HIST 5980 Research for Master's Thesis
2-9 Credit Hours
Variable enrollment, two to nine hours; maximum credit applicable toward degree, four hours. (F, Sp, Su)

HIST 5990 Independent Study 1-3 Credit Hours 1 to 3 hours. Prerequisite: Graduate standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)

HIST 6050 Research Problems
2-5 Credit Hours
2 to 5 hours. Prerequisite: 12 hours of history and permission. May be repeated with change of content; maximum credit 15 hours. An individual course of intensive research with the area and problem to be determined by the student and directing instructor. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

HIST 6160 Advanced Readings in European History 1-4 Credit Hours 1 to 4 hours. Prerequisite: permission of instructor; student must be at Ph.D. level. May be repeated with change of content; maximum credit 15 hours. Independent study in the history of Europe; designed to give students the opportunity to do intensive readings in his/her major fields of study under direct guidance of his/her advisory committee. (F, Sp, Su)
HIST 6200 Seminar in European History 2-4 Credit Hours
2 to 4 hours. Prerequisite: Graduate standing with permission; May be repeated with change of content, maximum credit 18 hours. Training in historical research, bibliography and historiography, featuring reports and criticism. (F, Sp)
HIST 6230 Advanced Directed Readings in Medieval

## History

1-5 Credit Hours
1 to 5 hours. Prerequisite: master's degree or equivalent in history,
reading knowledge of French and German and permission of instructor.
May be repeated with change of content and permission; maximum credit 18 hours. A supervised program of readings on a selected special problem in medieval history. (F)
HIST 6260 Advanced Readings in American History 1-4 Credit Hours 1 to 4 hours. Prerequisite: permission of instructor; student must be at Ph.D. level. May be repeated with change of content; maximum credit 15 hours. Independent study in American history; designed to give students the opportunity to do intensive readings in his/her major fields of study under direct guidance of his/her advisory committee. (F, Sp)

HIST 6300 Seminar in Latin American History 1-4 Credit Hours 1 to 4 hours. Prerequisite: Graduate standing and permission; May be repeated with change of content, maximum credit 18 hours. Training in historical research, bibliography and historiography. Features reports and criticism. (Irreg.)

## HIST 6360 Advanced Readings in Latin American History 1-4 Credit Hours

1 to 4 hours. Prerequisite: permission of instructor; student must be at Ph.D. level. May be repeated with change of content; maximum credit 15 hours. Independent study in Latin American history; designed to give students the opportunity to do intensive readings in his/her major fields of study under direct guidance of his/her advisory committee. (F, Sp)
HIST 6400 Seminar in American History 1-4 Credit Hours
1 to 4 hours. Prerequisite: Graduate standing with permission; May be repeated with change of content, maximum credit 24 hours. Training in historical research, bibliography and historiography. Features reports and criticism. (F, Sp)

HIST 6460 Advanced Readings in African History 1-4 Credit Hours 1 to 4 hours. Prerequisite: permission of instructor; student must be at Ph.D. level. May be repeated with change of content; maximum credit 15 hours. Independent study in African history; designed to give students the opportunity to do intensive readings in his/her major fields of study under direct guidance of his/her advisory committee. ( $\mathrm{F}, \mathrm{Sp}$ )

## HIST 6500 Seminar in Transnational Women's and Gender

 History1-4 Credit Hours
1 to 4 hours. Prerequisite: Graduate standing; May be repeated with change of content; maximum credits 8 hours. The course introduces students to the theoretical foundations and research methods in transnational women's and gender history. Students will develop competency in feminist theories and build expertise in the historiographies of women and gender in their subfields. (Irreg.)
HIST 6560 Advanced Readings in Asian History 1-4 Credit Hours 1 to 4 hours. Prerequisite: permission of instructor; student must be at Ph.D. level. May be repeated with change of content; maximum credit 15 hours. Independent study in Asian history; designed to give students the opportunity to do intensive readings in his/her major fields of study under direct guidance of his/her advisory committee. (F, Sp, Su)

HIST 6600 Seminar in Middle Eastern History 1-4 Credit Hours 1 to 4 hours. Prerequisite: graduate standing with permission. May be repeated with change of content; maximum credit 12 hours. Training in historical research, bibliography and historiography. Features reports and criticism. (Irreg.)

## HIST 6700 Seminar in Transnational History <br> 1-4 Credit Hours

1 to 4 hours. Prerequisite: graduate standing. May be repeated with change of content; maximum credit nine hours. The course aims to engage the histories and legacies of nationalism, colonialism, and other transnational historical phenomena. Particular emphasis will be given to discussing national, transnational, and colonial systems and how those systems shaped identities, race, ethnicities, national and transnational dynamics, and created transnational subjectivities. (Irreg.)

HIST 6800 Seminar in Modern Japanese History 1-4 Credit Hours 1 to 4 hours. Prerequisite: graduate standing with permission. May be repeated with change of content; maximum credit 12 hours. Training in historical research, bibliography, and historiography. Features reports and criticism. (Irreg.)

HIST 6880 Readings and Research in Public History 1-4 Credit Hours 1 to 4 hours. Prerequisite: Graduate standing; May be repeated with change of content; maximum credits 8 hours. This course introduces the practice of public history. Students will meet with practicing public historians; have a reasonable writing component with relatively brief individual assignments across the semester; and work in teams with a client and produce a final product that addresses the client's needs and a final report that summarizes the team's objectives, research strategies, challenges, and conclusions. (Irreg.)

HIST 6960 Directed Readings
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor.
May be repeated; maximum credit six hours. Directed readings and/or literature review under the direction of a faculty member. (Irreg.)
HIST 6970 Special Topics
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit 12 hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or research and field projects. (Irreg.)

HIST 6980 Research for Doctoral Dissertation 2-16 Credit Hours 2 to 16 hours. Prerequisite: Graduate standing and permission of instructor; may be repeated. Directed research culminating in the completion of the doctoral dissertation. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

HIST 6990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)

## Faculty

| Last Name | First/Middle Name | Middle init. | OU <br> Service start | Title(s), date(s) appointed | Degrees Earned, Schools, Dates Completed |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Bradford | Alfred | S | 1994 | PROFESSOR OF HISTORY, 1994; JOHN SAXON CHAIR OF ANCIENT HISTORY, 2002 | PhD, Univ of Chicago, 1973; MA, Univ of Chicago, 1966; BA, Univ of Wisconsin, 1964 |
| Brosnan | Kathleen | A | 2012 | ASSOCIATE <br> PROFESSOR OF HISTORY, 2012; PAUL H. \& DORIS TRAVIS CHAIR IN MODERN AMERICAN HISTORY, 2012 | PhD, Univ of Chicago, 1999; JD, Univ of Illinois, 1985; BA, Knox College, 1982 |
| Browning | Elizabeth | Grennan | 2022 | ASSISTANT PROFESSOR OF HISTORY, 2022 | PhD, Univ of California, Davis, 2017; MA, Univ of California, Davis, 2015; BA, Northwestern Univ, 2007 |
| Cane <br> Carrasco | James | A | 2002 | ASSOCIATE <br> PROFESSOR <br> OF HISTORY, <br> 2008; AFFILIATE <br> ASSOCIATE <br> PROFESSOR OF <br> INTERNATIONAL <br> AND AREA STUDIES, $2008$ | PhD, Univ of California-Berkeley, 2000; MA, Univ of California-Berkeley, 1994; BSc, Univ of Wisconsin, 1990 |
| Casey | Jay |  | 2019 | LECTURER IN HISTORY, 2019 | PhD, Univ. of Houston, 2005; MA, Univ. of Houston, 2000; MA, Louisiana State Univ, 1995 |
| Chappell | David | L | 2007 | PROFESSOR OF HISTORY, 2007; IRENE AND JULIAN J. ROTHBAUM PROFESSOR OF HISTORY, 2007 | PhD, Univ of <br> Rochester, 1992; BA, Yale Univ, 1982 |
| Davis Cline | Jennifer | J | 2007 | ASSOCIATE PROFESSOR OF HISTORY, 2013; ADJUNCT ASSOCIATE PROFESSOR OF WOMEN'S AND GENDER STUDIES, 2013 | PhD, Penn State Univ, 2004; BA, Carleton College, 1996 |
| Duval | Lauren |  | 2019 | ASSISTANT PROFESSOR OF HISTORY, 2019 | PhD, American Univ, 2018; MA, American Univ, 2016; BA, Colby College, 2009 |



| Seidelman | Rhona |  | 2015 | ASSOCIATE PROFESSOR OF HISTORY, 2021; SCHUSTERMAN CHAIR IN MODERN ISRAEL STUDIES | PhD, Ben-Gurion Univ of Negev, 2009; MA, Hebrew Univ of Jerusalem, 2001; BA, Hebrew Univ of Jerusalem, 1998 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Shepkaru | Shmuel |  | 1997 | ASSOCIATE PROFESSOR OF HISTORY, 2005; SCHUSTERMAN PROFESSOR OF JEWISH RELIGIOUS AND INTELLECTUAL HISTORY, 2015; ASSOCIATE PROFESSOR IN JUDAIC AND ISRAEL STUDIES | PhD, New York Univ, 1997; MA, New York Univ, 1993; BA, Haifa Univ, 1985 |
| Simon | Cori | L | 2020 | ASSISTANT PROFESSOR OF HISTORY, 2020 | PhD, Univ of Wisconsin-Madison, 2019; MA, University of WisconsinMadison, 2014; BA, Macalester College, 2012 |
| Stockdale | Melissa |  | 1989 | PROFESSOR OF HISTORY, 2016; BRIAN E. AND SANDRA O'BRIEN PRESIDENTIAL PROFESSOR, 2006 | PhD, Harvard Univ; 1989; MA, Harvard Univ, 1981; BA, Univ of Tulsa, 1979 |
| Ward | Janet | A | 2011 | PROFESSOR OF HISTORY, 2011; <br> L.R. BRAMMER <br> JR PRESIDENTIAL <br> PROFESSOR, 2019 | PhD, Univ of Virginia, 1993; MA, Univ of Pennsylvania, 1989; BA, Royal Holloway Univ of London, 1985 |
| Wickersham | Jane | K | 2006 | ADJUNCT <br> ASSISTANT <br> PROFESSOR OF LIBERAL STUDIES, 2010; ASSOCIATE PROFESSOR OF HISTORY, 2012 | PhD, Indiana Univ, 1996; MA, Indiana Univ, 1996; BA, Univ of Georgia, 1994 |
| Wrobel | David | M | 201 | MERRICK CHAIR <br> IN WESTERN <br> AMERICAN HISTORY, <br> 2011; PROFESSOR <br> OF HISTORY, 2011; <br> DAVID L. BOREN <br> PROFESSOR OF <br> HISTORY, 2016 | PhD, Ohio Univ, 1991; MA, Ohio Univ, 1987; BA, Univ of Kent, 1985 |

## History, B.A.

Minimum Total Credit Hours: 120
Major Hours: 36
Minimum Upper-Division Hours: 48

Overall GPA - Combined and OU: 2.00
Major GPA - Combined and OU: 2.00
Program Code: B505

## Major Requirements

[^9]| Code | Title | Credit <br> Hours |
| :---: | :---: | :---: |
| Required Surveys |  |  |
| HIST 1483 or HIST 1493 | United States to 1865 <br> United States, 1865 to the Present | 3 |
| HIST 2573 | The History Sleuth | 3 |
| Lower-Division Survey Requirements |  |  |
| Choose one cou categories: (p. 4 | e each from three of the following 6) | 9 |
| Premodern Western Civilization |  |  |
| Modern Western Civilization |  |  |
| Premodern Non-Western Civilization |  |  |
| Modern Non-Western Civilization |  |  |
| Additional History Requirements |  |  |
| Choose 21 elective hours, which must include at least one Colloquium course and one Capstone course: ${ }^{1,2}$ |  |  |
| HIST 3573 | Special Topics Colloquium |  |
| HIST 4973 | Undergraduate Seminar in History (Senior Capstone) |  |

## Total Credit Hours

121 major elective hours of HIST courses at the 2000-level or above. At least 15 of these hours must be taken at OU at the 3000-level or above. Fifteen (15) of these hours must be taught by History Department faculty. Six (6) of these hours may be taught by affiliated faculty in other departments.
Fifteen (15) of these hours must fall within a departmentally approved geographic or thematic field. Lists of fields and of the courses approved for each field may be obtained in the History Department or on the departmental website.
2 A 2000-level course that has been used to fulfill a survey requirement can not be used toward the 21 additional history requirements hours.

| Lower-Division Survey Requirement Course |  |  |
| :---: | :---: | :---: |
| Lists |  |  |
| PREMODERN WESTERN CIVILIZATION |  |  |
| Code | Title | Credit |
|  |  | Hours |
| HIST 1113 | History of Medieval Europe | 3 |
| HIST 1613 | Western Civilization I | 3 |

MODERN WESTERN CIVILIZATION

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| HIST 1223 | Europe, 1500 to 1815 | 3 |
| HIST 1233 | Europe since 1815 | 3 |
| HIST 1563 | The Jews: From Abraham to Zionism | 3 |
| HIST 1623 | Western Civilization II | 3 |

PREMODERN NON-WESTERN CIVILIZATION

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| HIST 1723 | East Asia to 1600 | 3 |
| HIST 2013 | Ancient Near Eastern Civilizations | 3 |

## MODERN NON-WESTERN CIVILIZATION

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| HIST 1543 | Introduction to American Indian History | 3 |
| HIST 1733 | East Asia Since 1600 | 3 |
| HIST 1923 | World Civilization 1600-Present | 3 |
| HIST 2623 | Modern Latin America 1810-Present | 3 |
| HIST 2703 | African Societies and Cultures | 3 |
| HIST 2713 | Survey of African Civilization | 3 |

## General Education and College Requirements

Courses for fulfillment of General Education and Dodge College of Arts \& Sciences requirements must be from the approved General Education course list published in the Class Schedule or at http://www.ou.edu/ gened/courses. Courses graded P/NP will not apply.

| UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND |  |
| :--- | :--- |
| COLLEGE REQUIREMENTS |  |
| Code $\quad$ Title | Credit |
|  |  |

Core Area I: Symbolic and Oral Communication
English Composition (6 hours)
ENGL 1113 Principles of English Composition 3
ENGL 1213 Principles of English Composition 3
or EXPO 1213 Expository Writing
Language (0-13 hours in the same language)
The college requirement cannot be met by high school coursework.
Beginning Course 0-5
Beginning Course, continued 0-5
Intermediate Course (2000 level) ${ }^{1,2} \quad$ 0-3

Mathematics (3 hours)
Choose one course from the General Education Mathematics 3

## list

Core Area II: Natural Science (7 hours, including one
laboratory component)

## Biological Science

Choose an approved General Education Natural Science
course with one of the following prefixes: BIOL, HES, MBIO, or

$$
\text { PBIO }^{1}
$$

Physical Science
Choose an approved General Education Natural Science 3-4 course with one of the following prefixes: AGSC, ASTR, CHEM, GEOG, GEOL, GPHY, METR, or PHYS ${ }^{1}$
Core Area III: Social Science (6 hours)
PSC 1113 American Federal Government 3
Choose one course from the General Education Social 3

## Science list

Core Area IV: Arts and Humanities (18 hours)

## Artistic Forms

Choose one course from the General Education Artistic Forms 3
list
Western Culture


## Free Electives

Electives to bring total applicable hours to the minimum total required for the degree including 48 upper-division hours.

## Information Concerning General Rules, Regulations and Minimum Requirements

Arts and Sciences Hours: At least 80 semester hours of liberal arts and sciences courses are required for a BA degree. At least 55 semester hours of liberal arts and sciences courses are required for a BS degree. Pass/No Pass Enrollment: A maximum of 16 semester hours of free elective credit may be attempted under this option.
Individual Studies (e.g., courses titled "Independent Study"): A maximum of 12 total semester hours may be counted toward graduation, excluding Honors Reading and Honors Research.
P.E. Courses: No physical education activity courses will be counted toward the 120 semester hours of acceptable credit for graduation. Senior Institution Hours: A minimum of 60 semester hours applied toward graduation must be earned at senior (4-year) institutions.

## Residency:

- At least 15 of the final 30 hours applied toward the degree or at least 50 percent of the hours required by the institution in the major field must be satisfactorily completed at the awarding institution.
- At least 15 semester hours of upper-division major work must be completed in residence at OU.
- OU correspondence courses are not considered resident credit.

Grade Point Averages: Students must earn a minimum over all 2.00 for each of the following: Combined Retention GPA (all college grades), OU Retention GPA, GPA for all major courses, and GPA for all major courses taken at OU. Some schools and departments of the College have higher minimum grade point averages required for their students.

## Suggested Semester Plan of Study

This plan shows one possible grouping of courses that would allow students to graduate in four years. Please refer to the front of the degree checksheet for official requirements. Students must consult with Dodge College of Arts and Sciences and/or Department of History academic advisors to verify that courses selected each semester fulfill the recommended plan and satisfy University, College of Arts and Sciences, and History major requirements.

## Freshman

| First Semester |  | Credit |
| :---: | :---: | :---: |
|  |  | Hours |
| ENGL 1113 | Principles of English Composition (Core I) | 3 |
| HIST 1483 or HIST 1493 | United States to 1865 (Core IV) or United States, 1865 to the Present | 3 |
| First Year Experience (Core V) |  | 3 |
| Math (Core I) |  | 3 |
| Beginning Language (Core I) |  | 5 |
|  | Credit Hours | 17 |
| Second Semester |  |  |
| ENGL 1213 or EXPO 1213 | Principles of English Composition (Core I) or Expository Writing | 3 |
| P SC 1113 | American Federal Government (Core III) | 3 |
| Beginning Language continued (Core I) |  | 5 |
| Natural Science with lab (Core II) |  | 4 |
|  | Credit Hours | 15 |

## Sophomore

First Semester

| HIST 2573 The History Sleuth | 3 |
| :---: | :---: |
| HIST II. Additional Survey Requirement ${ }^{1}$ | 3 |
| HIST II. Additional Survey Requirement ${ }^{1}$ | 3 |
| Intermediate Language | 3 |
| Free Elective, lower-division | 1 |
| Credit Hours | 13 |

Second Semester
HIST II. Additional Survey Requirement ${ }^{1} \quad 3$
Natural Science without lab (Core II) 3
Social Science (Core III) 3
Artistic Forms (Core IV) 3

| Free Elective, lower- or upper-division | 3 |
| :---: | ---: |
| Credit Hours | $\mathbf{1 5}$ |


| Junior |  |
| :--- | ---: |
| First Semester |  |
| HIST III. Additional History Requirement $^{2}$ | 3 |
| HIST III. Additional History Requirement $^{2}$ | 3 |
| HIST III. Additional History Requirement $^{2}$ | 3 |
| Free Elective, upper-division (3000-4000-level) $^{\text {Free Elective, upper-division (3000-4000-level) }} \quad 3$ |  |
| Credit Hours | 3 |

## Second Semester

HIST 3573 Special Topics Colloquium ${ }^{2} 3$

HIST III. Additional History Requirement, upper-division ${ }^{2} 3$
Free Elective, upper-division (3000-4000-level) 3

| Free Elective, upper-division (3000-4000-level) 3 |  |
| :---: | :---: |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Credit Hours | 15 |
| Senior |  |
| First Semester |  |
| HIST III. Additional History Requirement, upper-division ${ }^{2}$ | 3 |
| Arts \& Humanities, upper-division, outside major (Gen. Ed.) | 3 |
| Free Elective, lower- or upper-division | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Credit Hours | 15 |
| Second Semester |  |
| HIST 4973 Undergraduate Seminar in History | 3 |
| Arts \& Humanities, upper-division, outside major (Gen. Ed.) | 3 |
| Free Elective, lower- or upper-division | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Credit Hours | 15 |
| Total Credit Hours | 120 |
| 1 At least one of these courses must be an approved World General Education course and selected from the survey r course lists. <br> 2 Twenty-one major elective hours of HIST courses at the 20 above. At least 15 of these hours must be taken at OU at level or above. These hours must include at least one Col (HIST 3573) and a Senior Capstone Seminar (HIST 4973) of these hours must fall within a departmentally approved or thematic field. Lists of fields and of the courses approv field may be obtained in the History Department or on the website | t <br> or <br> 5) <br> ic <br> h <br> ental |

## History, Minor

Minimum Total Credit Hours: 15
Minimum Upper-Division Hours: 9

## Program Code: N505

- The requirements for a minor must be completed concurrently with the major degree requirements.
- No minor may be added by completing courses after receiving the bachelor's degree.

At least six (6) credit hours must be earned in courses acceptable for residence credit by standards set forth by the Dodge College of Arts and Sciences, excluding transfer, correspondence, and examination (AP, CLEP, Advanced Standing) credit. Courses for the minor may not be taken Pass/ No Pass.

No single course may be used by a student to satisfy a major requirement and a minor requirement. A course may be used, however, to satisfy both a major support requirement and a minor requirement.

Requests to substitute a minor requirement must be approved in writing by the Department of History.

## Required Courses

Students must successfully complete at least 15 hours of courses acceptable for major credit in History, including at least nine (9) hours at the upper-division level. The US History survey course (HIST 1483 or HIST 1493) taken for Gen Ed credit can be counted toward this total.

| Code Title | Credit <br> Hours |
| :--- | ---: |
| Choose at least 15 hours of courses acceptable for major <br> credit in History, including at least 9 hours at the upper- <br> division level | 15 |

Total Credit Hours

- Minors in the Dodge College of Arts \& Sciences are available to all undergraduate students at OU. If the minor is officially declared, successfully completed, and noted on the graduation application, the student's transcript will so indicate at the time the bachelor's degree is posted.


## History, M.A.

Minimum Total Hours (Thesis): 30
Minimum Total Hours (Non-Thesis): 34
Program Code: M505
Required Courses
Thesis Option

| Code | Title | Credit |
| :--- | :--- | :--- |
|  | Hours |  |

## Required Course

| HIST $5001 \quad$ Navigating The History Profession | 1 |
| :--- | ---: |
| Core Courses | 12 |
| Choose four courses in the student's major field, one course <br> of which must be a research seminar <br> Choose three courses in a minor or comparative field <br> HIST $5980 \quad$ Research for Master's Thesis <br> Electives <br> Choose one elective course <br> Total Credit Hours | 9 |

Notes: For thesis students coursework should include at least five graduate seminars (from HIST 6200, HIST 6300, HIST 6400, HIST 6700, HIST 6800 or HIST 6880; 3 hours each, total of 15); remaining 9 hours may be other graduate courses or directed readings. 9-12 hours of graduate coursework can be substituted for the seminar requirement with the approval of the Graduate Studies Committee.

## Non-Thesis Option

## Code Title

## Required Course

HIST 5001 Navigating The History Profession 1

## Core Courses

Choose six or seven graduate courses (3 hours each),
18-21
including one that must be a research seminar in the
student's major field

| Choose three or four courses in a minor or comparative field | 9-12 |
| :---: | :---: |
| Electives |  |
| Choose at least one elective course which may be in a cognate field like Education ${ }^{1}$ | 3-6 |

Total Credit Hours
1 There could be more than one course required if the student elects to take fewer courses in the major or minor history fields.

## General Requirements for all Master's Degrees

The master's degree requires the equivalent of at least two semesters of satisfactory graduate work and additional work as may be prescribed for the degree.

All coursework applied to the master's degree must carry graduate credit.
Master's degree programs which require a thesis consist of at least 30 credit hours. All non-thesis master's degree programs require at least 30 credit hours.

Credit transferred from other institutions must meet specific criteria and is subject to certain limitations.

Courses completed through correspondence study may not be applied to the master's degree.

To qualify for a graduate degree, students must achieve an overall grade point average of 3.0 or higher in the degree program coursework and in all resident graduate coursework attempted. A student must also have at least a 3.0 in all coursework (including undergraduate coursework if any).

Additional information for master's degree students may be found in the Graduate College Bulletin.

## History, Ph.D.

Minimum Total Hours: 90

## Program Code: D505

## Program Requirements

- Students must demonstrate a reading competency in at least one language other than English, as determined by the student's major professor and advisory committee. Competency may be demonstrated through successful completion of undergraduate language courses or reading examinations or by other methods as approved by the graduate liaison.

| Code Title | Credit |
| :---: | :---: |
| 30 credit hours of elective credits and/or Master's credit hours from an accredited university (26-36 credit hours may be accepted with the approval of the Graduate Studies Committee) | 30 |
| HIST 5001 Navigating The History Profession |  |
| Three courses (9 hours) in Specialized Field ${ }^{1}$ | 9 |
| Three courses (9 hours) in Comparative Field ${ }^{1}$ | 9 |
| Three courses (9 hours) in General Area Field ${ }^{1}$ | 9 |
| HIST 6050 Research Problems | 3 |

HIST 6980 Research for Doctoral Dissertation ${ }^{2}$

Total Credit Hours
${ }^{1}$ Six of the nine required Field courses (18 of the 27 hours) must be seminars from this list: HIST 6200, HIST 6300, HIST 6400, HIST 6700, HIST 6800, HIST 6880. Of these 6 required seminar courses, a minimum of three courses (at least one in each of the three fields) must be taken during the doctoral program. Others may be transferred from a completed OU MA degree. This transfer applies only to the PhD seminar requirement, and does not change the total number of credit hours required for the PhD. A maximum of 9 hours of graduate coursework can be substituted for the seminar requirement with the approval of the Graduate Studies Committee.
2 Between 23-33 Dissertation hours may be accepted with the approval of the Graduate Studies Committee.

## General Requirements for Doctoral Degrees

A student should expect to spend at least the equivalent of three full academic years beyond the bachelor's degree to obtain the doctoral degree. During this period the student will take appropriate graduate coursework, successfully complete the general examination, and successfully defend and submit the final dissertation.

All coursework applied to the doctoral degree must carry graduate credit.
The doctoral degree requires at least 90 post-baccalaureate hours, including both formal coursework and hours of research.

The minimum hour requirement for a specific doctoral degree program cannot be waived.

No more than one-half of the credit hours, both OU and overall, excluding Research for Doctoral Dissertation (6980), may be S/U-graded coursework.

The student must be in residence at OU for at least two consecutive 16week semesters during the pursuit of the doctoral degree while enrolled and engaged in coursework or research activities as prescribed by the major academic unit.

For more detailed regulations and requirements for Doctoral degrees, please consult the Graduate College Bulletin: http://www.ou.edu/ gradcollege/forms/bulletin

## Department of History of Science, Technology, and Medicine

Stephen Weldon, Chair
Peter Soppelsa, Director of Graduate Studies
Kathleen Crowther, Director of Undergraduate Studies
625 Physical Sciences Center
601 Elm Street
Norman, OK 73019-0315
Phone: (405) 325-2213
hofsci@ou.edu
www.ou.edu/cas/hsci

## General Information

The History of Science, Technology, and Medicine Department was established in 1971 by the University President's Committee on the History of Science. Since its inception, the program has been closely tied to the History of Science Collections in the University Libraries, which dates from a gift of rare books by University of Oklahoma alumnus Everette L. DeGolyer. In 1954 Duane H. D. Roller became the first Curator of the Collections (then called the DeGolyer Collection), and Professor Roller presided over the growth of an undergraduate and graduate teaching program in history of science. Since this beginning, the history of science program at the University of Oklahoma has grown to ten faculty members appointed in the department, along with one faculty in the History of Science Collections, two faculty in the Honors College, and two in the History Department, teaching a program of undergraduate courses and conferring master's and doctoral degrees. The department's mission is three-fold: to offer instruction to undergraduates; to offer instruction and guidance for graduate students; and to contribute to research in the history of science.

Our graduate program, established in 1954, is specifically designed for students who are interested in research and teaching careers in higher education, or professional positions in specialized libraries, museums, and other institutions. Students work closely with faculty in a graduate training program designed to produce historians who are scholarly, productive in research, effective in the classroom, and who have high standards of professional conduct and responsibility. Students are encouraged to adapt program materials to the wider discipline of the history of science.

Since 1983 students have had the opportunity to complete requirements for a Minor in the History of Science. In 2011, the BA in the History of Science, Technology and Medicine was approved, thereby offering OU students an undergraduate program in which to inquire into the development of scientific thought from its origins in the cultural and intellectual efforts of the ancient civilizations of Egypt, Mesopotamia, Greece and Rome, through the Islamic and Christian civilizations of the Middle Ages, to the modern period. History of science courses place strong emphasis upon both the internal growth of scientific ideas and their development within the wider political, social, economic, religious, and cultural context of Western history.

## Programs \& Facilities <br> History of Science Collections

The History of Science Collections, located on the 5th floor of Bizzell Memorial Library, is a premier research collection in its field. Holdings of nearly 100,000 volumes from every field and subject area of science, technology and medicine range chronologically from Hrabanus Maurus, Opus de universo (1467) to current publications in the history of science. The Darwin collection consists of all of Darwin's works in their first editions and several autographed letters, as well as hundreds of subsequent editions and translations.

## OU Lynx

The educational arm of the History of Science Collections of OU Libraries is the OU Academy of the Lynx. We seek to collaborate with educators in exhibit-based learning by creating, field-testing and sharing Open Educational Resources (OER's). We invite researchers, graduate students, and others to join us as a participating educator, museum worker, amateur astronomer, student, scholar, sponsor or docent.

## Programs for Academic Excellence

The history of science has been designated an area of future emphasis within the Dodge College of Arts and Sciences, in the University's Strategy for Excellence. The foundations of the University's commitment to emphasis in this field are the superb History of Science Collections and a department of twelve historians of science dedicated to a comprehensive program of teaching and research.

Through a generous endowment made by the Andrew W. Mellon Foundation, the History of Science program provides travel fellowships for visitors to make use of its resources for research in the history of science. In addition to working in the Collections, visiting fellows interact with students and faculty in the program and frequently present the results of their research to the university community.

## Scholarships and Financial Aid

The Department of History of Science offers the undergraduate Corliss E. and Esther C. Livesey Endowed Scholarship carrying a cash stipend to outstanding history of science, technology and medicine full-time major students who have earned 15 hours of major coursework and who have a minimum overall grade point average of 3.25 . Eligible students submit applications for the award.

To honor Everette L. DeGolyer, and to recognize his affiliation with the History of Science Program at the University of Oklahoma, the University awards the Everette Lee DeGolyer History of Science Fellowship to a graduate student in the Department of the History of Science. The Department of the History of Science nominates eligible applicants during the annual recruitment and application cycle.

The History of Science Department offers graduate assistantships as available each year. For information on scholarships and graduate assistantships, students should contact the chair of the department.

## History of Science Association

The History of Science Association (HSA) is an organization comprised of the current students in the History of Science Department at the University of Oklahoma. Every graduate student in the department is a member of HSA, and undergraduate majors and minors are welcome to participate as well. Membership is also open to interested students in other graduate programs across campus. The HSA promotes history of science courses at OU through a variety of efforts, including sponsoring speakers, coordinating a tutoring service, assisting with department participation in University undergraduate recruitment events, and arranging informal social get-togethers for students enrolled in the major or in the minor program.

## Undergraduate Study

## Bachelor of Arts

- Health, Medicine \& Society, Bachelor of Arts (p. 446)
- History of Science, Technology \& Medicine, Bachelor of Arts (p. 449)


## Minor

- History of Medicine Minor (p. 452)
- History of Science Minor (p. 453)


## Graduate Study

## Areas of Specialization

The History of Science Program is especially strong in the following areas of specialization, because of the concentration of faculty working in the area, the availability of material resources in support of the field, and by institutional linkages with other departments and programs in allied specializations: pre-modern science; biological and social sciences in the modern world; science and religion; American science; history of technology; science, the public and popular culture; medicine, public health and biomedical science; and new media in history of science, technology and medicine.

The programs of study leading to the M.A. and Ph.D. degrees will entail the student's enrollment in history of science courses, history courses, other approved courses outside the department, and extensive use of the materials contained in the History of Science Collections.

## Master of Arts

The History of Science, Technology \& Medicine (p. 453), Master or Arts program has a thesis option and a non-thesis option.

## Dual MA-MLIS Degree Program

The Graduate College approves proposals for dual degree programs. A dual degree allows a student to receive master's degrees in two departments. The programs may be designed for a specific student or established by agreement between departments. The Master of Library and Information Studies/History of Science, Technology and Medicine Master of Arts program is an example of a dual degree program established by a department and the School of Library and Information Studies. Students must be admitted to both degrees before twelve hours are completed in one or the other. The purpose of the dual Master of Library and Information Studies and Master of Arts in the History of Science, Technology and Medicine program is to provide a course of study for those individuals planning for a career in librarianship as a science librarian, as a curator of a rare book and manuscript collection in the history of science/health sciences, or as a public historian or archivist in the history of science.

## History of Science Doctoral Program

The History of Science Ph.D. (p. 454) program calls for a total of 90 approved credit hours beyond the baccalaureate degree, or 60 hours beyond the Masters degree, including dissertation hours. Students matriculating for the doctoral degree must demonstrate reading proficiency in at least two appropriate world languages (usually chosen from French, German, and Latin) before being admitted to candidacy.

## Courses

HMS 1113 Introduction to Health, Medicine and Society 3 Credit Hours Class explores health and disease in different cultural and historical contexts. In the first half of the class we focus on the ways individuals experience disease, examining how gender, race, ethnicity, class and sexuality shape medical knowledge about disease, individuals' lived experience, and social perceptions of sufferers. In the second half, we focus on epidemic diseases. (F, Sp) [IV-WC].
HMS 3980 Honors Research 1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Provides an opportunity for the gifted Honors candidate to work at a special project in the student's field. (F, Sp, Su)

HMS 4430 Health, Medicine, and Society Internship 1-4 Credit Hours
1 to 4 hours. Prerequisite: Student must be HMS major with Junior standing; have a minimum 2.5 GPA ; and have permission of HMS internship liaison, supervising faculty, and internship granting agency. The purpose of the HMS Internship Program is to provide a planned experience in the community that is relevant to the student's major program of study. This can be work in a facility or with an organisation that is engaged in the delivery of health care to the community, or another relevant aspect of service learning. (Irreg.)

## HMS 4993 Health, Medicine and Society Capstone 3 Credit Hours

 Prerequisite: Senior standing. This is the senior capstone for the Health, Medicine and Society Major. We will discuss important works in the history, anthropology and sociology of medicine. You will develop a research project on a topic of your choosing and work on it throughout the course. (F) [V].
## HSTM 1113 Science, Nature and Society: Historical Perspectives

## 3 Credit Hours

An introduction to the study of science, technology, and medicine in light of historical, philosophical, and cultural analysis. Focusing on the relationships between science, nature, and society, this class introduces some of the big questions about who we are, who we have been, and who we might become. (Irreg.) [IV-WC] .

## HSTM 1313 Disasters

3 Credit Hours
How have technologies both increased and mitigated risks from natural disasters? How have human societies responded to human-made disasters and assessed the potential risks raised by new technologies? Taking a global perspective, we will examine responses to both natural and human disasters and consider the challenges to formulating fair and effective policies that minimize the risks posed by emerging technology. (Sp) [IV-WC].
HSTM 2033 Introduction to Digital Humanities 3 Credit Hours
(Crosslisted with LIS, WGS and HIST 2033) This course introduces students to digital and/or computational methods in the humanities and addresses critical questions about the role of digital technology in society. This is a collaborative, hands-on, project-based course. (Sp) [IVWC].

## HSTM 2133 Science and Popular Culture <br> 3 Credit Hours

Draws on interdisciplinary perspectives to examine the interplay between science and popular culture from the Scientific Revolution to the present. Topics include representations of science, scientists, and nature in popular literature, television, films, and documentaries; the development of zoos and science museums; children and science, and science journalism. (Sp) [IV-WC].
HSTM 2213 The Darwinian Revolution
3 Credit Hours
The "Darwinian Revolution" was a revolution in culture as well as biology. We consider the history of the social, political, and theological issues associated with the development of evolutionary thought from the early nineteenth century to the present. (Irreg.) [IV-WC].
HSTM 2423 Social and Ethical Issues in Science, Technology, Environment and Medicine

3 Credit Hours
An introduction to a range of social and ethical issues in the history of science, technology, environment and medicine. Including the social, political and ethical implications of technology and scientific knowledge, and the role they play in shaping our environment and our selves. (Irreg.) [IV-WC].

HSTM 2970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: May be repeated; Maximum credit nine hours. Special Topics. 1 to 3 hours. Special topics course for content not currently offered in regularly scheduled courses. May include library and/ or laboratory research, and field projects. (Irreg.)

HSTM 3013 History of Science to the Age of Newton 3 Credit Hours Prerequisite: junior standing, or completion of one History of Science lower-division course, or permission of instructor. A survey of Western people's efforts to understand the natural world, from earliest historical times to the seventeenth century. (F, Sp, Su) [IV-WC].

## HSTM 3023 History of Science Since the Seventeenth

Century 3 Credit Hours

Prerequisite: junior standing, or completion of one History of Science lower-division course, or permission of instructor. A survey of the historical and intellectual development of modern science. (F, Sp, Su) [IVWC].

HSTM 3223 Gender Issues in Science, Technology and Medicine

3 Credit Hours
Prerequisite: junior standing, or completion of one History of Science lower-division course, or permission of instructor. Historical analysis of gender issues in science, technology and medicine, and in comparison with current practices. Topics will include questions in scientific method, particularly the concept of "objectivity", bio-social theories of gender; gender issues in scientific inquiry, in the development of and engagement with technologies, and in medical thought and practice; media images; and feminist science fiction. (Irreg.) [IV-WC].

## HSTM 3243 Women and Medicine

3 Credit Hours
Prerequisite: junior standing, or completion of one History of Science lower-division course, or permission of instructor. Surveys the relationship between women and medicine in the modern period (roughly between 1750 and the present). Examines the interrelated histories of women as medical practitioners, patients and objects of medical knowledge. Also includes discussion on how women experienced illness in the past and the expectations and norms that shaped their illness experiences. Finally, a look at medical knowledge about (Sp) [IV-WC].
HSTM 3253 Race and Science
3 Credit Hours
Prerequisite: junior standing or completion of one History of Science course or permission of instructor. Examines the rise and fall of scientific conceptions of race from 1800 to the present, paying particular attention to its connections to 19th Century evolutionary theory, eugenics, the modern evolutionary synthesis, and recent genetics and genomics. Also looks at the role of cultural values associated with race in science more broadly. Course materials include films and novels as well as (F, Sp) [IVWC].

HSTM 3263 History of Public Health
3 Credit Hours
(Crosslisted with HIST 3263) Prerequisite: Junior Standing or a lower division HSTM course or HIST 1733 or HIST 2723 or Permission of Instructor. Taking an historical perspective students explore and analyze the social, economic, political and scientific events and processes that have shaped modern public health. (F) [IV-WC].

## HSTM 3273 Of Acupuncture, Medicine Men \& Ayurveda: Indigenous \&

 Non-Western Medicine in Perspective 3 Credit Hours(Crosslisted with HIST 3273) Prerequisite: Junior Standing or a lower division HSTM course or HIST 1733 or HIST 2723 or Permission of Instructor. Introduces histories of practices and systems of medicine and healing that are variously deemed 'indigenous', traditional', 'nonwestern,' 'alternative' and 'complementary' in historical context. Students critique the historical and cultural meaning of these terms, as well as their attendant conceptions of health, disease and the body. (F) [IV-WDC].

HSTM 3283 Introduction to Disability Studies 3 Credit Hours
Prerequisite: junior standing or permission of instructor or completion of one lower-division History of Science course. Students engage text, audio and video sources to examine the social and cultural experience of disability in different times and cultures to critically assess how culture (mis)represents disability and corporeal difference. (F) [IV-WC].

HSTM 3293 Environment and Health
3 Credit Hours
Prerequisite: Junior standing or permission of instructor. This course explores the complex and changing relationship between the environment and health over the past 500 years, blending environmental history, the history of ecological science, and the history of environmental movements. Because the human-made environmental changes of the twentieth century could spell our own extinction, understanding the connections between environment and health is ever more urgent. (Sp) [IV-WC].
HSTM 3313 Science and Technology in Asian History 3 Credit Hours Prerequisite: junior standing, or completion of one History of Science lower-division course, or permission of instructor. Examines science and technology in east, south, and southeast Asia from 1000 A.D. to the present. We examine the influence and interaction of knowledge traditions (especially Chinese, south Asian and Islamic), how they circulate around and beyond Asia, and interactions with European knowledge traditions, culminating in examinations of political and ethical dimensions of science and technology in contemporary Asia. (Irreg.) [IVWDC].
HSTM 3333 Technology and Society in World History 3 Credit Hours Prerequisite: junior standing, or completion of one History of Science lower-division course, or permission of instructor. A survey of the history of technology since 1500. Emphasizes historical contexts and cultural meanings, not technical details, as it explores the key steps in the construction of our modern technological world. Materials include literature and film as well as non-fiction. (Sp) [IV-WC].

## HSTM 3343 Revolution in Power: the Evolution of Energy Systems from Fossil Fuels to Renewables <br> 3 Credit Hours

(Crosslisted with P E 3343) Prerequisite: Junior standing, or completion of one History of Science lower-division course, or permission of instructor. This course provides an interdisciplinary perspective on energy systems in both their technical and human contexts, from fossil fuels to renewables, with particular focus on their social, culture, and environmental implications for Western society and the world. The history and evolution of the associated technologies will be discussed, with attention to non-western and indigenous perspectives on these global technological systems. (F) [IV-WC].
HSTM 3353 Science and Empire
3 Credit Hours
Prerequisite: junior standing or one previous HSCl course or permission of instructor. Examines the contested history of science and empire from both western and non-western perspectives, learning about colonial and post-colonial encounters in science, both imagined and lived. Materials include travelers' tales, explorers' accounts, fiction, and films as well as nonfiction. (Sp) [IV-WC].

## HSTM 3413 Biomedical Ethics 3 Credit Hours

Prerequisite: Junior standing, or completion of one History of Science lower-division course, or permission of instructor. Introduces key concepts in biomedical ethics. Topics may include: the doctor/patient relationship; medical research on humans and animals; reproductive rights and technologies; medical decisions at the end of life; and the allocation of scarce resources. (Irreg.) [IV-WC].

HSTM 3423 Modern Medicine - A Historical Introduction 3 Credit Hours Prerequisite: junior standing, or completion of one History of Science lower-division course, or permission of instructor. Examines the history of modern medicine in Europe and America. Aims to connect medical ideas and practices to the broader social and cultural contexts in which they were developed. (Irreg.) [IV-WC].
HSTM 3440 Mentored Research Experience 3 Credit Hours 0 to 3 hours. Prerequisite: ENGL 1113 or equivalent, and permission of instructor; May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)
HSTM 3443 Science in a Religious World 3 Credit Hours Prerequisite: junior standing, or completion of one History of Science lower-division course, or permission of instructor. An overview of major events in the intersection of science and religion from the Middle Ages to the present. A detailed look at the historical record and exploration of the background of the people involved, the social and political context, and the reasons why certain issues mattered so much. (Sp) [IV-WC].
HSTM 3453 Science and Civilization in Islam 3 Credit Hours Prerequisite: junior standing or permission. History of scientific traditions and ideas in Islamic civilization, from the origins of Islam to the early modern period. Emphasis is on the derivation, development and transmission of Islamic science, as well as on the assimilation and influence of science within Islamic culture. (Sp) [IV-WDC].
HSTM 3463 Cold War Science 3 Credit Hours
Prerequisite: junior standing or permission. Science and technology during the Cold War, including strategic weapons and SDI, medical experiments, the space race, science in popular culture, and science and foreign policy. (Irreg.) [IV-WC].
HSTM 3473 History of Ecology and Environmentalism 3 Credit Hours Prerequisite: junior standing, or completion of one History of Science lower-division course, or permission of instructor. Explores the historical development of ecology as a science and as a political stance, from the eighteenth through the twentieth century. Topics may include: climate change, population control, deforestation, globalization, resource management, and environmental ethics. (Irreg.) [IV-WC].

## HSTM 3483 Technology, Politics, and International Development 3 Credit

Hours
Prerequisite: Junior standing, or completion of one History of Science lower-division course, or permission of instructor. Explores the interactions between politics and technology that have informed efforts to produce "developed" industrial societies around the world. Examines the emergence of development thinking and practice in Japan and the colonized world, international development and the technopolitics of decolonization, and contemporary issues in technology and development. (Irreg.) [IV-WDC].

## HSTM 3493 The History of Media

3 Credit Hours
Prerequisite: junior standing, or completion of one History of Science lower-division course, or permission of instructor. An introduction to the history of informational technologies and communications media from the printing press to the internet. Topics will include the print revolution, the advent of electronic communications, the growth of broadcast media, the development of the digital computer, and the internet boom. Course materials include novels and films as well as non-fiction. (Irreg.) [IV-WC].

## HSTM 3523 History After the Internet: Exploring Digital

 History3 Credit Hours
(Crosslisted with HIST 3523) Prerequisite: Junior Standing. Examines major themes, issues, and developments affecting the research, writing, analysis, preservation, and presentation of history in the digital age. Includes hands-on engagement with, and critical assessment of, the use of digital tools for conducting historical inquiry, and exploration of the circulation of historical knowledge in such venues as social media, blogs, podcasts, digital archives, online collections, and historically-themed gaming. (Sp) [IV-WC].

HSTM 3533 Science and Global Politics in the Modern Era: CrossCultural Perspectives 3 Credit Hours
Prerequisite: Junior standing. Focuses on interactions between professional scientists, corporate entities, advocacy groups, NGOs, the public, and the state, with case studies drawn from different national contexts in order to make cross-cultural comparisons. Students will develop an international perspective on this topic by focusing on both western and non-western national contexts. Topics may include such issues as public health; biotechnology; bioprospecting; organ trafficking; (Irreg.) [IV-WC].

## HSTM 3543 Balloons, Barometers, and Ice Cores: History of Weather and Climate Science <br> 3 Credit Hours

(Crosslisted with METR 3543) Prerequisite: Junior standing or completion of one other course in HSTM or permission of instructor. This course explores the history of meteorology and climate sciences from 1500 to the present. We investigate the role of science in humanity's relationship with weather and climate, the social and political contexts of weather sciences as they have changed over time, and contributions of these sciences to sustainability and survival on a rapidly warming planet. No science background required. (F)

## HSTM 3813 Science in the Ancient World 3 Credit Hours

Prerequisite: junior standing, or completion of one History of Science lower-division course, or permission. An examination of science in antiquity. Topics include the origins of ancient science, the transmission and interaction of various scientific traditions, the relation between science and philosophy, the development of a concept of science, and the place of science within the cultures of the period. (Irreg.) [IV-WC].
HSTM 3823 Science in Medieval Culture 3 Credit Hours Prerequisite: junior standing, or completion of one History of Science lower-division course, or permission. A survey of the historical development of medieval scientific, mathematical, medical, and philosophical thought. (Irreg.) [IV-WC].

## HSTM 3833 The Scientific Revolution

3 Credit Hours
Prerequisite: junior standing, or completion of one History of Science lower-division course, or permission of instructor. Explores the history of the "scientific revolution" of the sixteenth and seventeenth centuries. Study includes understanding debates not just about what happened in the past but about how we today define science and how we understand the place of science in the modern world. (Irreg.) [IV-WC].

HSTM 3960 Honors Reading
1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program; May be repeated; maximum credit six hours. Will consist of topics designated by the instructor. The topics will cover materials not usually presented in regular coursework. (F, Sp, Su)
HSTM 3970 Honors Seminar 1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program; May be repeated; maximum credit six hours. The projects covered will vary. The content will deal with concepts not usually presented in regular coursework. (Irreg.)

HSTM 3980 Honors Research
1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program; May be repeated; maximum credit six hours. Will provide an opportunity for the gifted Honors candidate to work at a special project. (Irreg.)
HSTM 3990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: permission of instructor and junior standing. May be repeated once with change of content; Maximum credit 6 hours. Independent study may be arranged to study a subject not available through regular course offerings. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

HSTM 3993 Junior Seminar
3 Credit Hours
Prerequisite: 9 hours of history of science classes and permission of instructor; if repeating course, permission of undergraduate academic adviser; May be repeated with change of content; maximum credit 6 hours. Offers students the chance to work on an extended research topic in the history of science, technology, environment and medicine. The themed seminar format will allow for small group discussion and close supervision of student projects. Students will be introduced to the methods and tools of advanced research. Seminar themes will vary. (Sp)
HSTM 4053 History of Magic
3 Credit Hours
(Crosslisted with RELS 4053) Prerequisite: Junior standing or permission of instructor. This course is an investigation of the category of magic, magical practices, and the place of magic in society from antiquity to the modern world. (Irreg.) [IV-WC].
HSTM 4073 Cultural Heritage Data and Social Engagement 3 Credit Hours
(Slashlisted with HSTM 5073; Crosslisted with WGS, HIST and LIS 4073) Prerequisite: Junior standing. This course uses methods from digital humanities, media studies, and data science to explore cultural heritage -- the histories, literature, art, and artifacts of our world's cultures. It particularly focuses on cultural heritage in digital public spaces: websites, social media, etc. No prior background in computer programming is necessary. No student may earn credit for both 4073 and 5073. (F)

HSTM 4133 Science and Literature
3 Credit Hours
(Slashlisted with HSTM 5133) Prerequisite: ENGL 1213 or EXPO 1213 or HSCl 1113 , or another HSCl course, junior standing and permission of instructor; May be repeated with change of content; maximum credit 6 hours. Explore the relationship between science and literature in the Victorian period from historical and literary perspectives. Students read and contextualize select historical works of fiction and of science in order to better understand the historical relationship between science and society, and between contemporary scientific and literary cultures. No student may earn credit for both 4133 and 5133. (Irreg.) [IV-WC].

## HSTM 4430 History of Science, Technology, \& Medicine

 Internship1-4 Credit Hours
1 to 4 hours. Prerequisite: Student must be HSCI major with Junior standing; have a minimum 2.5 GPA ; and have permission of departmental internship liaison, supervising faculty, and internship granting agency. The HSCI Internship Program is to provide a planned experience in the community that is relevant to the student's major program of study. This can be work in a facility or with an organization, a library or archive, which is engaged in the provision of products or services that relate to the student's academic field of study. (Irreg.)
HSTM 4960 Directed Readings
1-4 Credit Hours
1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean; May be repeated, maximum credit four hours. Designed for upper-division students who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)

HSTM 4970 Special Topics/Seminar 1-3 Credit Hours
1 to 3 hours. Prerequisite: Senior standing or permission of instructor; May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

## HSTM 4990 Independent Study

1-3 Credit Hours
1 to 3 hours. Prerequisite: three courses in general area to be studied; permission of instructor and department; May be repeated; maximum credit six hours. Contracted independent study for topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (F, Sp, Su)

## HSTM 4993 Capstone in History of Science, Technology, and Medicine <br> 3 Credit Hours

Prerequisite: junior standing and permission of instructor. This course fulfills the capstone requirement for a major in the history of science, technology and medicine. The goal of this seminar-format course is to provide students with the opportunity to further develop their skills in research, writing, and critical analysis with respect to the historical study of science. The course provides the opportunity for in-depth individualized research within the (F) [V].
HSTM 5073 Cultural Heritage Data and Social Engagement 3 Credit Hours
(Slashlisted with HSTM 4073; Crosslisted with WGS, HIST and LIS 5073) Prerequisite: Graduate standing. This course uses methods from digital humanities, media studies, and data science to explore cultural heritage -- the histories, literature, art, and artifacts of our world's cultures. It particularly focuses on cultural heritage in digital public spaces: websites, social media, etc. No prior background in computer programming is necessary. No student may earn credit for both 4073 and 5073. (F)

## HSTM 5133 Science and Literature

3 Credit Hours
(Slashlisted with HSTM 4133) Prerequisite: Graduate standing and permission of instructor; May be repeated with change of content; maximum credit 6 hours. Explores the relationship between science and literature in the Victorian period from historical and literary perspectives. Students read and contextualize select historical works of fiction and of science in order to better understand the historical relationship between science and society, and between contemporary scientific and literary cultures. No student may earn credit for both 4133 and 5133. (Irreg.)
HSTM 5513 Advanced Studies in the History of Ancient and Medieval Science

3 Credit Hours
Prerequisite: HSTM 3013 or equivalent, or permission of instructor. May be repeated with change of content; maximum credit 12 hours. Thematic historical analyses of ancient and/or medieval foundations of science, focusing on the development of particular disciplines or scientific institutions, the relationship between science and religion, or transmission of science. Includes examination of sources and critical assessment of scholarly interpretations. (Irreg.)
HSTM 5523 Adv. Stds. In The History Of Renaissance \& Early Modern Sci. 3 Credit Hours
Prerequisite: 3013 Or 3023, Or Equivalent; Or Permission Of Instructor. Advanced Studies In The History Of Renaissance And Early Modern Science.May Be Repeated With Change Of Content; Maximum Credit 12 Hours. Thematic Historical Analyses Of Scientific Ideas And Practices In The Scientific Revolution And The Enlightenment, 16th-18th Cen- Turies. Includes Examination Of Sources And Critical Assessment Of Scholarly Interpretations. (Irreg.)

HSTM 5533 Advanced Studies In The History Of Modern
Science
3 Credit Hours
Prerequisite: 3023, Or Equivalent Or Permission Of Instructor. Advanced Studies In The History Of Modern Science.May Be Repeated With Change Of Content; Maximum Credit 12 Hours. Thematic Historical Analyses Of Modern Science And Culture Focus- Ing On The European And American Development And Professional- Ization Of Scientific Disciplines, Interdisciplinary Relationships Among The Sciences, And Intersections Between Scientific And Pub- Lic Culture. Includes Examination Of Sources And Critical Assess- (Irreg.)

HSTM 5550 Topics In The History Of Science 1-3 Credit Hours 1 to 3 hours. Prerequisite: Graduate Standing Or Permission Of Instructor. Topics In The History Of Science. 1 To 3 Hours.May Be Repeated With Change Of Content; Maximum Credit Twelve Hours. Topics Of Scholarly Interest In The History Of Science.

## HSTM 5613 Issues and Methods in the Digital

Humanities
3 Credit Hours
Prerequisite: Graduate standing or permission of instructor. Provides a graduate-level introduction to the central issues, methods, and tools in the emerging field of the digital humanities. Digital humanities is an interdisciplinary set of methods, concepts, values, and practices that enable scholars to create and apply new technologies to answer social, cultural, and historical questions. (Irreg.)
HSTM 5623 Practicum/Internship in the Digital Humanities 3 Credit Hours
Prerequisite: Graduate standing or permission of instructor. May be repeated; maximum credit 9 hours. A practical, project-based internship, focused on the design and development of a project in the digital humanities under the close supervision of a faculty member. (F, Sp)
HSTM 5713 History of Medicine Seminar 3 Credit Hours
Prerequisite: Graduate standing. This seminar is a graduate-level introduction to the history of medicine. We will begin with an examination of the origins and development of the history of medicine as an academic discipline, then delve into some of the big themes and questions that have shaped the field. (Irreg.)
HSTM 5723 History of Technology Seminar 3 Credit Hours Prerequisite: Graduate standing. This course introduces graduate students to the study of technology in its historical contexts. Based in the history of technology, it also introduces students to tools and concepts from cognate fields, such as environmental history, urban studies, mobility studies, and more. (Irreg.)

## HSTM 5960 Directed Readings in the History of

 Science $\quad$ 1-4 Credit Hours1 to 4 hours. Prerequisite: graduate standing and permission of instructor. May be repeated with change of content; maximum credit six hours toward M.A. degree, 12 hours toward Ph.D. degree. Intensive readings in a selected area of the history of science, under the direction of a graduate faculty member. (F, Sp, Su)
HSTM 5970 Seminar. Research, Criticism and Analysis 2-3 Credit Hours 2 to 3 hours. Prerequisite: permission of instructor. May be repeated with change of content; maximum credit 15 hours. Fundamentals of investigation and exposition in the history of science. (F, Sp)
HSTM 5980 Research for Master's Thesis 2-9 Credit Hours
2 to 9 hours. Variable enrollment, two to nine hours; maximum credit applicable toward degree, four hours. (F, Sp, Su)

HSTM 5990 Special Studies
3-5 Credit Hours
3 to 5 hours. Prerequisite: permission of instructor; May be repeated with change of content; maximum credit nine hours. Specialized studies in the history of science. Individual research culminating in the preparation of a research paper. (F, Sp, Su)

HSTM 6960 Directed Readings
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit six hours. Directed readings and/or literature review under the direction of a faculty member. (Irreg.)

HSTM 6970 Seminar in the History of Science 2-3 Credit Hours
2 to 3 hours. Prerequisite: permission of instructor; May be repeated with change of content; maximum credit 15 hours. Advanced study and historical criticism in specialized areas. (F,Sp)
HSTM 6980 Research for Doctoral Dissertation 2-16 Credit Hours 2 to 16 hours. Prerequisite: Graduate standing and permission of instructor; may be repeated. Directed research culminating in the completion of the doctoral dissertation. (F, Sp, Su)

HSTM 6990 Independent Study 1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)

## Health, Medicine, and Society, B.A.

Minimum Total Credit Hours: 120
Major Hours: 30
Minimum Upper-Division Hours: 48
Upper-Division Hours Within Major: 21
Overall GPA - Combined and OU: 2.50
Major GPA - Combined and OU: 2.50
Program Code: B502

## Major Requirements

- Some courses required for the major may also fulfill University General Education and/or Dodge College of Arts \& Sciences Requirements.
- Thirty hours of major coursework must be completed, and 21 of the 30 hours must be upper division courses.
- A grade of C or better must be earned in each course for major credit.


Choose an additional course from Historical/Humanistic or
Social Scientific Perspectives ${ }^{1}$

## Capstone

HMS 4993 Health, Medicine and Society Capstone 3
$\begin{array}{ll}\text { Total Credit Hours } & 30\end{array}$
${ }^{1}$ Choose courses from an approved list of courses (p. 448) maintained by the department. Other courses that meet program criteria may be counted towards the major with the written approval of the program advisor.

## Major Support Requirements

A grade of C or better must be earned in each course for major support credit

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| PSY 1113 | Elements of Psychology (meets Core III <br> additional Social Science) <br> or SOC 1113 | 3 |
| Introduction to Sociology |  |  |
| Choose a course in statistics, such as the following: |  |  |
| BIOL 2913 | Intro to Quantitative Biology | 3 |
| ECON 2843 | Elements of Statistics |  |
| MATH 4753 | Applied Statistical Methods |  |
| Choose at least 9 hours of coursework (including labs) in life <br> or natural sciences in addition to those taken to meet Gen Ed <br> requirements (p. 448) | 9 |  |
| Total Credit Hours | $\mathbf{1 5}$ |  |

## General Education and College Requirements

Courses for fulfillment of General Education and Dodge College of Arts \& Sciences requirements must be from the approved General Education course list published in the Class Schedule or at http://www.ou.edu/ gened/courses. Courses graded P/NP will not apply.

## UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS

Code Title | Credit |
| :--- |

Core Area I: Symbolic and Oral Communication
English Composition (6 hours)
ENGL 1113 Principles of English Composition 3

ENGL 1213 Principles of English Composition 3
or EXPO 1213 Expository Writing
Language (0-13 hours in the same language)
The college requirement cannot be met by high school
coursework.
Beginning Course 0-5
Beginning Course, continued 0-5
${\text { Intermediate Course (2000 level) }{ }^{1,2}}^{10-3}$
Mathematics (3 hours)
Choose one course from the General Education Mathematics
list
Core Area II: Natural Science (7 hours, including one
laboratory component)
Biological Science


## Free Electives

Electives to bring total applicable hours to the minimum total required for the degree including 48 upper-division hours.

## Information Concerning General Rules, Regulations and Minimum Requirements

Arts and Sciences Hours: At least 80 semester hours of liberal arts and sciences courses are required for a BA degree. At least 55 semester hours of liberal arts and sciences courses are required for a BS degree.
Pass/No Pass Enrollment: A maximum of 16 semester hours of free elective credit may be attempted under this option.
Individual Studies (e.g., courses titled "Independent Study"): A maximum of 12 total semester hours may be counted toward graduation, excluding Honors Reading and Honors Research.
P.E. Courses: No physical education activity courses will be counted toward the 120 semester hours of acceptable credit for graduation.

3-4 Senior Institution Hours: A minimum of 60 semester hours applied toward graduation must be earned at senior (4-year) institutions.

## Residency:

- At least 15 of the final 30 hours applied toward the degree or at least 50 percent of the hours required by the institution in the major field must be satisfactorily completed at the awarding institution.
- At least 15 semester hours of upper-division major work must be completed in residence at OU.
- OU correspondence courses are not considered resident credit.

Grade Point Averages: Students must earn a minimum over all 2.00 for each of the following: Combined Retention GPA (all college grades), OU Retention GPA, GPA for all major courses, and GPA for all major courses taken at OU. Some schools and departments of the College have higher minimum grade point averages required for their students.

## Suggested Semester Plan of Study

This plan shows one possible grouping of courses that would allow students to graduate in four years. Please refer to the front of the degree checksheet for official requirements. Students must consult with Dodge College of Arts and Sciences and/or Health, Medicine \& Society academic advisors to verify that courses selected each semester fulfill the recommended plan and satisfy University, College of Arts and Sciences, and HMS major requirements.

## Freshman



## Second Semester

HIST $1483 \quad$ United States to 1865 (Core IV)
or HIST 1493 or United States, 1865 to the Present


| ENGL 3113 | Nature/Environment/Science Writing | 3 |
| :---: | :---: | :---: |
| HIST 1303 | The History of Disease | 3 |
| HSTM 1113 | Science, Nature and Society: Historical Perspectives | 3 |
| HSTM 2423 | Social and Ethical Issues in Science, Technology, Environment and Medicine | 3 |
| HSTM 3223 | Gender Issues in Science, Technology and Medicine | 3 |
| HSTM 3243 | Women and Medicine | 3 |
| HSTM 3253 | Race and Science | 3 |
| HSTM 3263 | History of Public Health | 3 |
| HSTM 3273 | Of Acupuncture, Medicine Men \& Ayurveda: Indigenous \& Non-Western Medicine in Perspective | 3 |
| HSTM 3283 | Introduction to Disability Studies | 3 |
| HSTM 3293 | Environment and Health | 3 |
| HSTM 3353 | Science and Empire | 3 |
| HSTM 3423 | Modern Medicine - A Historical Introduction | 3 |
| HSTM 3453 | Science and Civilization in Islam | 3 |
| HON 2973 | Perspectives on the American Experience (Topic: Food \& Culture) | 3 |
| HON 3993 | Honors Colloquium (with approved medical topic) | 3 |
| IAS 3193 | Environment and Disease Crises in China | 3 |
| WGS 3943 | Women's Health | 3 |

## SOCIAL SCIENTIFIC PERSPECTIVES

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| AFAM 4423 | African American Health Issues | 3 |
| AFAM 4443 | African American Mental Health | 3 |
| ANTH 1913 | Plagues and People: Health and Disease in | 3 |
|  | Human Society | 3 |
| ANTH 4093 | Bodies and Materialities | 3 |
| ANTH 4323 | The Anthropology of Aging | 3 |
| ANTH 4643 | Psychiatric Anthropology | 3 |
| ANTH 4723 | Gender and Health | 3 |
| ANTH 4823 | Medical Anthropology | 3 |
| ANTH 4943 | Human Osteology and Paleopathology | 3 |
| COMM 2323 | Survey of Health Communication | 3 |
| COMM 3313 | Communication and Public Health | 3 |
| COMM 4413 | Issues in Health Communication | 3 |
| ECON 3523 | Health Economics | 3 |
| ENST 3423 | Anthropogenic Contaminants and | 3 |
| HES 3553 | Environmental Health | 3 |
| HES 4513 | Publiness in Native Communities | 3 |
| SOC 3683 | Wealth, Power, and Prestige | 3 |
| SOC 3713 | Medical Sociology | 3 |
| S WK 3233 | Human Behavior: Individuals and Families | 3 |
| W WK 3323 | Human Diversity and Social Justice | 3 |
| WGS 4473 | Women and Mental Health | 3 |

## IN-MAJOR ELECTIVE

Students can meet this requirement by taking any of the courses in the lists above

## Major Support

The department intends that the science courses required for any of the pre-med/health-related programs can be counted toward the 9 hours of coursework in the "life or natural sciences" category under Major Support Requirements for the HMS BA degree. Besides the general education courses required for pre-degree programs, the following courses are acceptable as science major support electives:

| Code | Title | Credit Hours |
| :---: | :---: | :---: |
| BIOL 2124 | Human Physiology | 4 |
| BIOL 2234 | Introduction to Human Anatomy | 4 |
| BIOL 2255 | Human Anatomy | 5 |
| BIOL 3083 | Animal Behavior | 3 |
| BIOL 3103 | Principles of Physiology | 3 |
| BIOL 3113 | Cell Biology | 3 |
| BIOL 3201 | Animal Development Lab | 1 |
| BIOL 3203 | Animal Development | 3 |
| BIOL 3214 | Comparative Vertebrate Anatomy | 4 |
| BIOL 3333 | Genetics | 3 |
| BIOL 3342 | Genetics Laboratory | 2 |
| BIOL 3833 | Introduction to Neurobiology | 3 |
| BIOL 4034 | Mammalogy | 4 |
| BIOL 4233 | Neurobiology of Disease | 3 |
| BIOL 4244 | Animal Histology | 4 |
| BIOL 4843 | Molecular Biology | 3 |
| BIOL 4893 | Behavioral Neurobiology | 3 |
| BIOL 4970 | Special Topics in Biology (Topic: Epigenetic) | 3 |
| MBIO 3812 | Fundamentals of Microbiology Laboratory | 2 |
| MBIO 3813 | Fundamentals of Microbiology | 3 |
| MBIO 4823 | Pathogenic Microbiology and Infectious Disease | 3 |
| MBIO 4833 | Basic Immunology | 3 |
| MBIO 4903 | (Topics in Virology) |  |
| CHEM 3053 | Organic Chemistry I: Biological Emphasis | 3 |
| CHEM 3152 | Organic Chemistry Laboratory: Biological Emphasis | 2 |
| CHEM 3153 | Organic Chemistry II: Biological Emphasis | 3 |
| CHEM 3064 | Organic Chemistry I | 4 |
| CHEM 3164 | Organic Chemistry II | 4 |
| CHEM 3653 | Introduction to Biochemistry | 3 |
| HES 3523 | Human Sexuality | 3 |
| HES 4523 | Human Sexuality II | 3 |
| PHYS 2424 | General Physics for Life Science Oriented Majors | 4 |
| PHYS 2524 | General Physics for Engineering and Science Majors | 4 |

# History of Science, Technology, and Medicine, B.A. 

Minimum Total Credit Hours: 120
Major Hours: 36
Minimum Upper-Division Hours: 48
Upper-Division Hours Within Major. 21
Overall GPA - Combined and OU: 2.00
Major GPA - Combined and OU: 2.00
Program Code: B510

## Major Requirements

- Some courses required for the major may also fulfill University General Education and/or Dodge College of Arts \& Sciences Requirements.
- A grade of "C" or higher must be earned in each course presented for major credit.

A minimum of 36 hours of HSTM courses, 21 of which must be upperdivision, are required. The 21 upper-division hours includes the capstone course. Up to six hours ( 2 courses) taught in other departments (i.e., Honors College) may be counted towards the major, subject to written prior approval of the HSTM departmental undergraduate advisor.

Students may choose a specific emphasis within the major. technology \& society; biology, medicine \& society; or, a traditional history of science emphasis.

| Code Title | Credit Hours |
| :---: | :---: |
| Choose one HSTM Global course ${ }^{1}$ | 3 |
| Choose one HSTM Pre-1750 Period course ${ }^{1}$ | 3 |
| Choose one HSTM Post-1750 Period course ${ }^{1}$ | 3 |
| Choose one HSTM survey/introductory course from two of the three areas listed below: ${ }^{1}$ | 6 |
| History of Medicine |  |
| History of Technology |  |
| History of Science |  |
| HSTM 3993 Junior Seminar | 3 |
| HSTM $4993 \begin{aligned} & \text { Capstone in History of Science, Technology, } \\ & \text { and Medicine }\end{aligned}$ | 3 |
| Choose five additional HSTM courses from any of the categories listed above, or from any HSTM course listed in the OU catalog | 15 |
| Total Credit Hours | 36 |
| ${ }^{1}$ A list of the courses approved for each category (p. 451) may be obtained from the History of Science, Technology, and Medicine Department, or in the OU General Catalog. |  |

## General Education and College Requirements

Courses for fulfillment of General Education and Dodge College of Arts \& Sciences requirements must be from the approved General Education course list published in the Class Schedule or at http://www.ou.edu/ gened/courses. Courses graded P/NP will not apply.

## UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS <br> Code Title

Core Area I: Symbolic and Oral Communication

| English Composition (6 hours) |  |
| :---: | :---: |
| ENGL 1113 Principles of English Composition | 3 |
| $\begin{array}{ll}\text { ENGL } 1213 & \text { Principles of English Composition } \\ \text { or EXPO } 1213 & \text { Expository Writing }\end{array}$ | 3 |
| Language (0-13 hours in the same language) |  |
| The college requirement cannot be met by high school coursework. |  |
| Beginning Course | 0-5 |
| Beginning Course, continued | 0-5 |
| Intermediate Course (2000 level) ${ }^{1,2}$ | 0-3 |
| Mathematics (3 hours) |  |
| Choose one course from the General Education Mathematics list | 3 |
| Core Area II: Natural Science (7 hours, including one laboratory component) |  |
| Biological Science |  |
| Choose an approved General Education Natural Science course with one of the following prefixes: BIOL, HES, MBIO, or PBIO ${ }^{1}$ | 3-4 |
| Physical Science |  |
| Choose an approved General Education Natural Science course with one of the following prefixes: AGSC, ASTR, CHEM, GEOG, GEOL, GPHY, METR, or PHYS ${ }^{1}$ | 3-4 |
| Core Area III: Social Science (6 hours) |  |
| P SC 1113 American Federal Government | 3 |
| Choose one course from the General Education Social | 3 |

## Science list

Core Area IV: Arts and Humanities (18 hours)

## Artistic Forms

Choose one course from the General Education Artistic Forms 3
list

## Western Culture

| HIST 1483 | United States to 1865 |
| :---: | :--- |
| or HIST 1493 | United States, 1865 to the Present |

Choose one course from the General Education Western 3

Culture list (excluding HIST 1483/1493)

## World Culture

Choose one course from the General Education World Culture
Additional Core IV Upper-Division Arts \& Humanities courses
Choose one course from Artistic Forms, Western Culture, or

## World Culture ${ }^{1,3}$

Choose one course from Artistic Forms, Western Culture, or 3
World Culture ${ }^{1,3}$
Core Area V: First Year Experience (3 hours)
Choose one course 3
Total Credit Hours 56

[^10]${ }^{2}$ One course at the intermediate level or demonstrated competency at that level
${ }^{3} 6$ upper-division hours, 2 courses, at the 3000-4000-level. Must be outside the major.

## Free Electives

Electives to bring total applicable hours to the minimum total required for the degree including 48 upper-division hours.

## Information Concerning General Rules, Regulations and Minimum Requirements

Arts and Sciences Hours: At least 80 semester hours of liberal arts and sciences courses are required for a BA degree. At least 55 semester hours of liberal arts and sciences courses are required for a BS degree. Pass/No Pass Enrollment: A maximum of 16 semester hours of free elective credit may be attempted under this option.
Individual Studies (e.g., courses titled "Independent Study"): A maximum of 12 total semester hours may be counted toward graduation, excluding Honors Reading and Honors Research.
P.E. Courses: No physical education activity courses will be counted toward the 120 semester hours of acceptable credit for graduation. Senior Institution Hours: A minimum of 60 semester hours applied toward graduation must be earned at senior (4-year) institutions.
Residency:

- At least 15 of the final 30 hours applied toward the degree or at least 50 percent of the hours required by the institution in the major field must be satisfactorily completed at the awarding institution.
- At least 15 semester hours of upper-division major work must be completed in residence at OU.
- OU correspondence courses are not considered resident credit.

Grade Point Averages: Students must earn a minimum over all 2.00 for each of the following: Combined Retention GPA (all college grades), OU Retention GPA, GPA for all major courses, and GPA for all major courses taken at OU. Some schools and departments of the College have higher minimum grade point averages required for their students.

## Suggested Semester Plan of Study

This plan shows one possible grouping of courses that would allow students to graduate in four years. Please refer to the front of the degree checksheet for official requirements. Students must consult with Dodge College of Arts and Sciences and/or Department of History of Science academic advisors to verify that courses selected each semester fulfill the recommended plan and satisfy University, College of Arts and Sciences, and History of Science, Technology and Medicine major requirements.

## Freshman

First Semester Credit

| ENGL 1113 | Principles of English Composition (Core I) | 3 |
| :--- | :--- | :--- |
| HSTM 1113 | Science, Nature and Society: Historical <br> Perspectives | 3 |

First Year Experience (Core V) 3
Beginning Language (Core I) 5
Free Elective, lower-division $\quad 1$

| Second Semester |  |  |
| :---: | :---: | :---: |
| $\begin{aligned} & \text { ENGL } 1213 \\ & \text { or EXPO } 1213 \end{aligned}$ | Principles of English Composition (Core I) or Expository Writing | 3 |
| Beginning Language continued (Core I) |  | 5 |
| Natural Science with lab (Core II) |  | 4 |
| HSTM 2000-level course ${ }^{1}$ |  | 3 |
| Credit Hours |  | 15 |
| Sophomore |  |  |
| First Semester |  |  |
| P SC 1113 | American Federal Government (Core III) | 3 |
| HIST 1483 or HIST 1493 | United States to 1865 (Core IV) or United States, 1865 to the Present | 3 |
| Math (Core I) |  | 3 |
| Intermediate Language |  | 3 |
| HSTM 2000-level course ${ }^{2}$ |  | 3 |


| Second Semester |  |
| :--- | ---: |
| Natural Science without lab (Core II) | 3 |
| Artistic Forms (Core IV) | 3 |
| Social Science (Core III) | 3 |
| World Culture (Core IV) | 3 |
| HSTM 2000-level course |  |
| Credit Hours | $\mathbf{1 5}$ |


| Junior |  |  |
| :---: | :---: | :---: |
| First Semester |  |  |
| HSTM 3013 | History of Science to the Age of Newton | 3 |
| HSTM 3000-level non-survey course ${ }^{4}$ |  | 3 |
| Arts \& Humanities, upper-division, outside major (Gen. Ed.) |  | 3 |
| Free Elective, lower- or upper-division |  | 3 |
| Free Elective, lower- or upper-division |  | 3 |
| Credit Hours |  | 15 |
| Second Semester |  |  |
| HSTM 3023 | History of Science Since the Seventeenth Century | 3 |
| HSTM 3993 | Junior Seminar | 3 |
| Arts \& Humanities, upper-division, outside major (Gen. Ed.) |  | 3 |
| Free Elective, lower- or upper-division |  | 3 |
| Free Elective, lower- or upper-division |  | 3 |
|  | Credit Hours | 15 |

## Senior

| First Semester |  |  |
| :--- | :--- | :--- |
| HSTM 3000-level non-survey course |  |  |
| HSTM 4993 | Capstone in History of Science, Technology, <br> and Medicine | 3 |

Free Elective, upper-division (3000-4000-level) 3
Free Elective, upper-division (3000-4000-level) 3
Free Elective, upper-division (3000-4000-level) 3

## Credit Hours

## Second Semester

HSTM 3000-level non-survey course ${ }^{5}$
HSTM 3000-level non-survey course 3
Free Elective, upper-division (3000-4000-level) 3
Free Elective, upper-division (3000-4000-level)


## History of Science, Technology, and Medicine Course Lists

- For the most current course lists, please contact the Department of History of Science, Technology, and Medicine.

| Code | Title | Credit |
| :---: | :---: | :---: |
| GLOBAL COURSES |  |  |
| HSTM 3273 | Of Acupuncture, Medicine Men \& Ayurveda: Indigenous \& Non-Western Medicine in Perspective | 3 |
| HSTM 3283 | Introduction to Disability Studies | 3 |
| HSTM 3313 | Science and Technology in Asian History | 3 |
| HSTM 3353 | Science and Empire | 3 |
| HSTM 3453 | Science and Civilization in Islam | 3 |
| HSTM 3483 | Technology, Politics, and International Development | 3 |
| HSTM 3533 | Science and Global Politics in the Modern Era: Cross-Cultural Perspectives | 3 |

PRE-1750 COURSES

| HSTM 3013 | History of Science to the Age of Newton | 3 |
| :--- | :--- | :--- |
| HSTM 3453 | Science and Civilization in Islam | 3 |
| HSTM 3813 | Science in the Ancient World | 3 |
| HSTM 3823 | Science in Medieval Culture | 3 |
| HSTM 3833 | The Scientific Revolution | 3 |

POST-1750 COURSES
HSTM 2133 Science and Popular Culture 3
HSTM 2213 The Darwinian Revolution 3
HSTM 2423 Social and Ethical Issues in Science, 3

|  | Technology, Environment and Medicine |
| :--- | :--- | :--- |
| HSTM 3023 | History of Science Since the Seventeenth |

HSTM 3223 Gender Issues in Science, Technology and 3 Medicine
HSTM 3243 Women and Medicine 3
HSTM 3253 Race and Science 3

HSTM 3263 History of Public Health 3
HSTM 3283 Introduction to Disability Studies 3

HSTM 3313 Science and Technology in Asian History 3
HSTM 3333 Technology and Society in World History 3
HSTM 3353 Science and Empire 3
HSTM 3413 Biomedical Ethics 3
HSTM 3423 Modern Medicine - A Historical Introduction 3

| HSTM 3443 | Science in a Religious World | 3 |
| :--- | :--- | :--- |
| HSTM 3463 | Cold War Science | 3 |
| HSTM 3473 | History of Ecology and Environmentalism | 3 |
| HSTM 3483 | Technology, Politics, and International <br>  <br> HSTM 3493 | Development | 3

## SURVEY/INTRODUCTORY COURSES

| HSTM 3243 | Women and Medicine | 3 |
| :---: | :---: | :---: |
| HSTM 3263 | History of Public Health | 3 |
| HSTM 3273 | Of Acupuncture, Medicine Men \& Ayurveda: Indigenous \& Non-Western Medicine in Perspective | 3 |
| HSTM 3283 | Introduction to Disability Studies | 3 |
| HSTM 3293 | Environment and Health | 3 |
| HSTM 3413 | Biomedical Ethics | 3 |
| HSTM 3423 | Modern Medicine - A Historical Introduction | 3 |
| History of Science |  |  |
| HSTM 1113 | Science, Nature and Society. Historical Perspectives | 3 |
| HSTM 2133 | Science and Popular Culture | 3 |
| HSTM 2213 | The Darwinian Revolution | 3 |
| HSTM 3013 | History of Science to the Age of Newton | 3 |
| HSTM 3023 | History of Science Since the Seventeenth Century | 3 |
| HSTM 3343 | Revolution in Power. the Evolution of Energy Systems from Fossil Fuels to Renewables | 3 |
| HSTM 3443 | Science in a Religious World | 3 |
| HSTM 3453 | Science and Civilization in Islam | 3 |
| HSTM 3463 | Cold War Science | 3 |
| HSTM 3533 | Science and Global Politics in the Modern Era: Cross-Cultural Perspectives | 3 |
| HSTM 3813 | Science in the Ancient World | 3 |
| HSTM 3823 | Science in Medieval Culture | 3 |
| HSTM 3833 | The Scientific Revolution | 3 |
| HSTM 4133 | Science and Literature | 3 |


| History of Technology | 3 |  |
| :--- | :--- | :--- |
| HSTM 1313 | Disasters | 3 |
| HSTM 3313 | Science and Technology in Asian History | 3 |
| HSTM 3333 | Technology and Society in World History |  |
| HSTM 3343 | Revolution in Power. the Evolution of <br> Energy Systems from Fossil Fuels to <br>  <br>  <br>  <br> Renewables | 3 |
| HSTM 3463 | Cold War Science | 3 |
| HSTM 3483 | Technology, Politics, and International <br> HSTM 3493 | Development |

## Electives

Gender, Race, and Diversity
HSTM 3223 Gender Issues in Science, Technology and Medicine

| HSTM 3243 | Women and Medicine | 3 |
| :--- | :--- | ---: |
| HSTM 3253 | Race and Science | 3 |
| HSTM 3273 | Of Acupuncture, Medicine Men \& Ayurveda: <br> Indigenous \& Non-Western Medicine in <br> Perspective | 3 |
| HSTM 3283 | Introduction to Disability Studies |  |
| Environmental Histories | 3 |  |
| HSTM 1113 | Science, Nature and Society: Historical <br> Perspectives | 3 |
| HSTM 1313 | Disasters |  |
| HSTM 2423 | Social and Ethical Issues in Science, <br> Technology, Environment and Medicine | 3 |
| HSTM 3293 | Environment and Health | 3 |
| HSTM 3343 | Revolution in Power: the Evolution of <br> Energy Systems from Fossil Fuels to | 3 |
| HSTM 3473 | Renewables | 3 |

## History of Medicine, Minor

Minimum Total Credit Hours: 15
Minimum Upper-Division Hours: 9

## Program Code: N508

## - The requirements for a minor must be completed concurrently with the major degree requirements. <br> - No minor may be added by completing courses after receiving the bachelor's degree.

At least six (6) credit hours must be earned in courses acceptable for residence credit by standards set forth by the Dodge College of Arts and Sciences, excluding transfer, correspondence, and examination (AP, CLEP, Advanced Standing) credit. Courses for the minor may not be taken Pass/ No Pass.

## No single course may be used by a student to satisfy a major requirement

 and a minor requirement. A course may be used, however, to satisfy both a major support requirement and a minor requirement.Requests to substitute a minor requirement must be approved in writing by the Department of History of Science, Technology, and Medicine.

## Required Course

Students must successfully complete at least 15 hours of coursework, including at least nine (9) hours at the upper-division level.

## A grade of $C$ or better must be earned for each course presented for minor

 credit.| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Choose 15 hours from the following: | 15 |  |
| HMS 1113 | Introduction to Health, Medicine and <br> Society |  |
| HSTM 1113 | Science, Nature and Society: Historical <br> Perspectives |  |
| HSTM 3223 | Gender Issues in Science, Technology and <br> Medicine |  |
| HSTM 3243 | Women and Medicine |  |


| HSTM 3253 | Race and Science |  |
| :--- | :--- | :--- |
| HSTM 3263 | History of Public Health |  |
| HSTM 3273 | Of Acupuncture, Medicine Men \& Ayurveda: <br> Indigenous \& Non-Western Medicine in <br> Perspective |  |
| HSTM 3283 | Introduction to Disability Studies |  |
| HSTM 3413 | Biomedical Ethics |  |
| HSTM 3423 | Modern Medicine - A Historical Introduction |  |
| HMS 4993 | Health, Medicine and Society Capstone |  |
| Total Credit Hours | $\mathbf{1 5}$ |  |

## Notes

- A list of HSTM/HMS courses with variable content is available in the department that may also count with the prior approval of the HSTM undergraduate studies committee.
- Up to six hours of non-HSTM or HMS courses from a list of approved courses maintained in the department may be applied to the minor.
- Courses not previously listed, which are deemed to have appropriate content, may be applied towards the minor with the prior approval of the HSTM undergraduate committee.

Minors in the Dodge College of Arts \& Sciences are available to all undergraduate students at OU. If the minor is officially declared, successfully completed, and noted on the graduation application, the student's transcript will so indicate at the time the bachelor's degree is posted.

## History of Science, Minor

Minimum Total Credit Hours: 15
Minimum Upper-Division Hours: 9
Program Code: N510

- The requirements for a minor must be completed concurrently with the major degree requirements.
- No minor may be added by completing courses after receiving the bachelor's degree.

At least six (6) credit hours must be earned in courses acceptable for residence credit by standards set forth by the Dodge College of Arts and Sciences, excluding transfer, correspondence, and examination (AP, CLEP, Advanced Standing) credit. Courses for the minor may not be taken Pass/ No Pass.

No single course may be used by a student to satisfy a major requirement and a minor requirement. A course may be used, however, to satisfy both a major support requirement and a minor requirement.

Requests to substitute a minor requirement must be approved in writing by the Department of History of Science, Technology and Medicine.

## Required Courses

Students must successfully complete at least 15 hours of coursework in HSTM, including at least nine (9) hours at the upper-division level.

## Credit

 HoursChoose at least 15 hours of coursework in HSTM, including at 15 least 9 hours at the upper-division level

## Total Credit Hours

- Minors in the Dodge College of Arts \& Sciences are available to all undergraduate students at OU. If the minor is officially declared, successfully completed, and noted on the graduation application, the student's transcript will so indicate at the time the bachelor's degree is posted.


## History of Science, Technology, and Medicine, M.A.

Minimum Total Hours (Thesis): 30
Minimum Total Hours (Non-Thesis): 32
Program Code: M511

## Program Requirements <br> RESEARCH TOOLS

- All students are required to demonstrate reading proficiency in an appropriate foreign language.


## THESIS OPTION

| Code | Title | Credit Hours |
| :---: | :---: | :---: |
| Required Courses |  |  |
| HSTM 5970 | Seminar: Research, Criticism and Analysis | 3 |
| HSTM 5550 | Topics In The History Of Science | 3 |
| HSTM 5713 or HSTM 5723 | History of Medicine Seminar History of Technology Seminar | 3 |
| Choose two of the following: |  | 6 |
| HSTM 5513 | Advanced Studies in the History of Ancient and Medieval Science |  |
| HSTM 5523 | Adv. Stds. In The History Of Renaissance \& Early Modern Sci. |  |
| HSTM 5533 | Advanced Studies In The History Of Modern Science |  |
| Choose 12 hours from: |  | 12 |
| HSTM 5550 | Topics In The History Of Science |  |
| HSTM 5960 | Directed Readings in the History of Science |  |
| HSTM 5613 | Issues and Methods in the Digital Humanities |  |
| HSTM 5623 | Practicum/Internship in the Digital Humanities |  |
| HSTM 5990 | Special Studies |  |
| HSTM 5513, or HSTM 5523, or HSTM 5533 (students must take two of the courses in this sequence and may take the third as an elective) |  |  |
| HSTM 5713 or HSTM 5723 (students must take one of these two courses and may take the other as an elective) |  |  |
| Other approved graduate course (may be outside the Department) |  |  |
| Thesis |  |  |


| HSTM 5980 | Research for Master's Thesis | 3 |
| :---: | :---: | :---: |
| Total Credit Hours |  | 30 |
| NON-THESIS OPTION |  |  |
| Code | Title | Credit Hours |
| Required Courses |  |  |
| HSTM 5970 | Seminar. Research, Criticism and Analysis | 3 |
| HSTM 5550 | Topics In The History Of Science | 3 |
| HSTM 5713 or HSTM 5723 | History of Medicine Seminar History of Technology Seminar | 3 |
| Choose two of the following: |  | 6 |
| HSTM 5513 | Advanced Studies in the History of Ancient and Medieval Science |  |
| HSTM 5523 | Adv. Stds. In The History Of Renaissance \& Early Modern Sci. |  |
| HSTM 5533 | Advanced Studies In The History Of Modern Science |  |
| Choose 17 hours from: |  | 17 |
| HSTM 5550 | Topics In The History Of Science |  |
| HSTM 5960 | Directed Readings in the History of Science |  |
| HSTM 5613 | Issues and Methods in the Digital Humanities |  |
| HSTM 5623 | Practicum/Internship in the Digital Humanities |  |
| HSTM 5990 | Special Studies |  |
| HSTM 5513, HSTM 5523, or HSTM 5533 (students must take two of the courses in this sequence and may take the third as an elective) |  |  |
| HSTM 5713 or HSTM 5723 (students must take one of these two courses and may take the other as an elective) |  |  |
| Other approved Department) | d graduate course (may be outside the |  |

## Total Credit Hours

## NOTES

- All requirements are to be satisfied by the student's fourth semester in the program. If special circumstances warrant an exception, the department may extend this deadline.
- For thesis students, the thesis should be a single, sustained piece of writing modeled on a scholarly journal article. With regard to to length and quality, it is expected that the thesis will be presented to the department as a pre-circulated paper and discussed as a part of the colloquium series. At the discretion of the thesis committee, this presentation may take the place of the oral defense of the thesis.
- For non-thesis students, a portfolio of three research papers prepared as part of your regular graduate course work should be submitted to your committee.


## General Requirements for all Master's Degrees

The master's degree requires the equivalent of at least two semesters of satisfactory graduate work and additional work as may be prescribed for the degree.

All coursework applied to the master's degree must carry graduate credit.
Master's degree programs which require a thesis consist of at least 30 credit hours. All non-thesis master's degree programs require at least 30 credit hours.

Credit transferred from other institutions must meet specific criteria and is subject to certain limitations.

Courses completed through correspondence study may not be applied to the master's degree.

To qualify for a graduate degree, students must achieve an overall grade point average of 3.0 or higher in the degree program coursework and in all resident graduate coursework attempted. A student must also have at least a 3.0 in all coursework (including undergraduate coursework if any).

Additional information for master's degree students may be found in the Graduate College Bulletin.

# History of Science, Technology, and Medicine, Ph.D. 

Minimum Total Hours: 90

Program Code: D511

## Program Requirements

The Ph.D. degree calls for a total of 90 approved credit hours beyond the baccalaureate degree, or 60 hours beyond the master's degree, including dissertation hours.

| Code | Title |  |
| :---: | :---: | :---: |
| Doctoral students will be expected to complete the following minimum course requirements (not counting dissertation hours) before completion of the General Examination: |  |  |
| Approved course of study consisting of 30 credit hours for the master's degree or its equivalent |  | 30 |
| At least 18 ho must include: | fost-Master's degree coursework, which | 18 |
| One three hour course to complete the sequence: |  |  |
| HSTM 5513 | Advanced Studies in the History of Ancient and Medieval Science |  |
| HSTM 5523 | Adv. Stds. In The History Of Renaissance \& Early Modern Sci. |  |
| HSTM 5533 | Advanced Studies In The History Of Modern Science |  |
| One three hour course to complete both of: |  |  |
| HSTM 5713 History of Medicine Seminar |  |  |
| HSTM 5723 History of Technology Seminar |  |  |
| 12 additional elective course hours beyond the MA before general exams. If students have completed either or both of the specific course requirements above, they will need to take sufficient additional elective courses to bring their total to 18 hours beyond the MA. |  |  |
| Students must complete a minimum of 2 hours of Dissertation Research: |  |  |
| HSTM 6980 | Research for Doctoral Dissertation | 2 |
| Additional Cour | ork for completion: |  |

Additional coursework as needed to reach 90 post-

## NOTES:

- Language requirements: Students admitted to the doctoral program are assumed to have satisfied the course distribution and language requirement for the master's. If not, additional coursework or language study may be required. The doctoral degree requires demonstrated competence in a second approved foreign language (beyond the language requirement for the master's).
- Doctoral field requirements: Students must satisfy the requirements for four distinct fields. Three of these fields will be examined and will be closely related to the student's doctoral research. The fourth field may be satisfied without an examination and will differ from the student's specialization enough to ensure a breadth of competence sufficient to teach survey courses and to participate as an active and informed member of the history of science community. 1. The doctoral field, designed by the student and their committee chair, supports the student's dissertation research. 2 . The second field is typically (but not necessarily) supervised by a member of the student's committee other than the committee chair. 3. The outside field is typically (but not necessarily) supervised by a faculty member outside of the department, presumably a member of the student's committee. This field is intended to support the student's research interests by providing a different perspective on or a different context for the student's research topic. 4. The complementary field may be satisfied by means other than a written examination, as determined by the student's committee.

Outside courses: Students are strongly encouraged to take one or more courses outside the department, especially (but not solely) to fulfill the requirements of the outside field. These courses normally, though not necessarily, will be in the history department.

## General Requirements for Doctoral Degrees

A student should expect to spend at least the equivalent of three full academic years beyond the bachelor's degree to obtain the doctoral degree. During this period the student will take appropriate graduate coursework, successfully complete the general examination, and successfully defend and submit the final dissertation.

All coursework applied to the doctoral degree must carry graduate credit.
The doctoral degree requires at least 90 post-baccalaureate hours, including both formal coursework and hours of research.

The minimum hour requirement for a specific doctoral degree program cannot be waived.

No more than one-half of the credit hours, both OU and overall, excluding Research for Doctoral Dissertation (6980), may be $S / U$-graded coursework.

The student must be in residence at OU for at least two consecutive 16week semesters during the pursuit of the doctoral degree while enrolled and engaged in coursework or research activities as prescribed by the major academic unit.

For more detailed regulations and requirements for Doctoral degrees, please consult the Graduate College Bulletin: http://www.ou.edu/ gradcollege/forms/bulletin

## Department of Human Relations

Wesley Long, Chair<br>601 Elm Avenue room 730<br>Norman, OK 73019-0315<br>Phone: (405) 325-1756<br>FAX: (405) 325-4402<br>stacy@ou.edu<br>www.ou.edu/cas/humanrelations

## General Information

The Department of Human Relations was founded in 1970 with a mission to train graduate students to be agents of social change. The department has grown to include a Bachelor of Arts (BA) in Human Relations in Norman and a Master's degree in Human Relations (MHR) on the University of Oklahoma campuses in Norman and Tulsa, as well as through OU's Extended Campus.

Human Relations is a multi-disciplinary field of study and professional practice combining theoretical perspectives from the social sciences and humanities, organizational studies, the world of work and service, and from multicultural studies. The BA and the MHR degrees prepare students to meet the challenge of working in an increasingly diverse and global workplace.

## Programs \& Facilities Student Society for Human Relations

The mission of the Student Society for Human Relations is to promote social justice, principles of tolerance, inclusion, dignity, and equal respect for all groups of people; to serve as social agents of change for the betterment of society; to develop leadership skills as future human relations professionals, and to actively seek ways to build relationships through service with the entire university and with the community at large.

## Undergraduate Study

Human Relations degrees prepares graduates for careers focusing on social change and resolution of human relations problems. Students focus on areas of study such as counseling, non-profits, volunteerism, women's issues, race relations, and organizational studies. Many HR undergraduates pursue a Master in Human Relations as a professional degree.

- Human Relations, Bachelor of Arts (p. 466)
- Human Relations Minor (p. 469)


## Graduate Study

The Master of Human Relations degree prepares graduates for careers focusing on research and/or resolution of human relations problems.

Particular attention is given to students who work part-time and fulltime. To accommodate both traditional and nontraditional students, courses are offered on the Norman campus, at the Schusterman Center in Tulsa, and through Extended Campus in day, evening and week-end formats. Since its inception, the department has graduated a large
number of ethnic minorities, women, older persons returning to college, and international students.

Each student pursuing a Master of Human Relations degree is expected to initiate curriculum planning with a major advisor within the first semester. This planning will identify course sequences which seem most likely to lead to mastery in one or more areas of concentration. Some students may not need to design a unique program but may select from concentration options in which the course sequences have been designed by the faculty.

## Areas of Specialization

Human relations, human resources, and clinical mental health counseling.

## Masters' Degree Programs

- Diversity, Equity and Strategic Impact, Master of Human Relations (p. 471)
- Human Relations (Standard), Master of Human Relations (p. 472)
- Inclusive Leadership, Master of Human Relations (p. 474)
- Human Resource Studies, Master of Arts (p. 475)
- Master of Clinical Mental Health Counseling (p. 469)
- Clinical Mental Health Counseling, M.S. (p. 471)


## Human Relations Graduate Certificates

- Graduate Certificate in Helping Skills in Human Relations (p. 476)
- Graduate Certificate in Human Resource Development and Workforce Diversity (p. 476)


## Courses

## H R 1113 Human Relations and Community Engagement: Make an Impact 3 Credit Hours

Through this interactive course, students will learn various concepts/ theories related to community engagement, social change, and inclusion. This course is taught with a human relations (HR) lens and we discuss topics as they relate to our values and concepts. Students will write critical reflection papers over course lectures, readings, and community involvement to develop a deeper understanding of community engagement. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
HR 2013 Understanding American Social Problems 3 Credit Hours The course will introduce students to social problems in the United States and how they impact human relations and interactions. The course will discuss topics that polarize, unite, or make people indifferent to social problems and issues that impact their daily lives. Human Relations encourages social advocacy and being a change agent when dealing with social problems and issues. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
HR2443 Introduction to International Human Relations 3 Credit Hours The goal of this course will be to familiarize you with key international issues relevant to human relations. These include, but are not limited to, gender, nation of origin, culture, etc. ( $F, S p$ )
H R 3003 Human Relations Theory
3 Credit Hours
Prerequisite: junior standing or permission of instructor. Emphasizes key ideas of theorists who have contributed to the interdisciplinary field of human relations. Students are introduced to selected primary readings by influential scholars with the goals of understanding and integrating the various perspectives, and of developing critical thinking skills. (Irreg.)

HR 3013 Introduction to Human Relations
3 Credit Hours
Prerequisite: Sophomore standing. Designed to introduce students to the breadth and depth of the field of human relations. Emphasis is on the processes of communication, problem solving, decision making, conflict and change as they occur in individuals, interpersonal, group and intergroup relations. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
H R 3033 Writing for Human Relations Professionals 3 Credit Hours Prerequisite: junior standing or permission of instructor. Familiarizes students with the fundamental skills of professional writing and presentation. Student skill development emphasized in the course includes critical thinking, information gathering, comprehensive planning, precise writing, and effective presentations. (Irreg.)
HR 3043 Interpersonal Skills and Group Dynamics 3 Credit Hours Prerequisite: 3013 or permission of instructor. Students explore interpersonal dynamics that characterize effective communication in families, the workplace, community organizations, and social settings. Focuses on ways to improve relationships and emphasizes observation, analysis, and skill training in relationship development. (Irreg.)
HR 3203 Introduction to Organizational Studies 3 Credit Hours
Prerequiste:3013 or junior standing, or permission of instructor. This course surveys the basic concepts of organizational studies, including organizational behavior, motivation, leadership, teams, change and development, conflict, organizational structure and design, and innovation. (Irreg.)
HR3233 Presentation Skills in Human Relations 3 Credit Hours Prerequisite: 3013 or junior standing, or permission of instructor. This course is designed to provide students with the skills, knowledge, and strategies to prepare and deliver effective presentations in human relations settings. In this course, students will receive opportunities to plan, develop, deliver and evaluate presentations. (Irreg.)
H R 3253 Personality and Human Relations 3 Credit Hours Prerequisite: H R 3013 or junior standing, or departmental permission. This course will introduce students to theories of personality, communication and how they intersect with human relations in both personal and professional relationships. (F)
HR 3303 Family Issues in Human Relations 3 Credit Hours Prerequisite: 3013 or junior standing, or permission of instructor. This course will focus on contemporary issues challenging families and couples. The text and instruction will explore the ideas of why humans seek intimacy, different forms of human coupling, variations of marriage and family life, parenting, and problems faced by families. (Irreg.)
H R 3313 Ethical Issues in Intercollegiate Athletics 3 Credit Hours Prerequisite: 3013 or junior standing, or permission of instructor. This course is designed to survey intercollegiate athletics in America and contemporary ethical issues related to major college sports and its place within higher education. Such topics as character development, criminal activity, gender equity, academic scandal, extra benefits, illegal inducements, and compensation of college athletes, etc., are explored in depth. (Irreg.)

H R 3403 History of Racism
3 Credit Hours
Prerequisite: 3013 or junior standing, or permission of instructor. Racism is the single most critical barrier to building effective coalitions for social change. Racism has been consciously and systematically erected, and it can be undone only if people understand what it is, where it comes from, how it functions, and why it is perpetuated. This course will examine history and culture to look at racism within the United States of America. (Irreg.)

H R 3413 Cultural Awareness in Human Relations 3 Credit Hours
Prerequisite: junior standing or permission of instructor. Course explores theory and applications of cross-cultural communication from both practical and academic viewpoints through scholarly internet and multimedia resources. The course will provide an understanding of the possible variations in language, culture, and communication styles that affect human relations work and life in general. (F, Sp)
H R 3960 Honors Reading 1-3 Credit Hours 1 to 3 hours. Prerequisite: Admission to Honors Program. May be repeated; maximum credit six hours. Consists of topics designated by the instructor in keeping with the student's major program. The topics will cover materials not usually presented in the regular courses. (F, Sp, Su)

## H R 3970 Honors Seminar <br> 1-3 Credit Hours

1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Subjects covered vary. Deals with concepts not usually treated in regular courses. (Irreg.)
H R 3980 Honors Research 1-3 Credit Hours
1 to 3 hours. Prerequisite: Admission to Honors Program. May be repeated; maximum credit six hours. Will provide an opportunity for the gifted Honors candidate to work at a special project in the student's field. (F, Sp, Su)
H R 3990 Independent Study 1-3 Credit Hours
1 to 3 hours. Prerequisite: permission of instructor and junior standing. May be repeated once with change of content. Independent study may be arranged to study a subject not available through regular course offerings. (F, Sp, Su)

## H R 4013 Social Change Process

3 Credit Hours
Prerequisite: 3013 or permission of instructor. Utilizing interdisciplinary behavioral sciences literatures, students will gain knowledge of selected laws and community programs that characterize social change activities. Through case studies, guest lectures, and field trips, the students will acquire the skills needed to design and carry out a community project that may positively impact the lives of a target population. (Irreg.)
H R G4113 Practicum in Human Relations 3 Credit Hours Prerequisite: junior standing, two courses in social sciences and permission of instructor. May be repeated with change of content; maximum credit nine hours. Practica are designed for undergraduate and graduate students who wish to acquire experiences in human resources agencies. While directly participating in the helping process, students will learn about the function of professionals in different disciplines, the nature of agencies, their relation to one another and to the community. ( $F$, $\mathrm{Sp}, \mathrm{Su}$ )

## HR 4123 Diversity in the Workplace

3 Credit Hours
Prerequisite: H R 3013 or junior standing, or departmental permission. Prepare students as professionals for the essential understanding, empathic communication skills, ethical practice, and professional competencies to engage in appropriate and positive diversity understanding. Focus on empowering future business leaders/owners/ managers to understand significance of inclusion and diversity in the workforce, addresses diversity in personal and global manners, assisting to reflect on complex paradigm shifts within workplaces. (F, Sp, Su)

H R 4143 Theories of The Oppressed
3 Credit Hours
Prerequisite: H R 3013 or junior standing, or departmental permission. Introduction and deeper exploration of cultural, racial, ethnic, gendered and sexual oppression throughout the US and globally. Explore the theoretical underpinnings of oppression from a critical cultural perspective and the themes of hegemony, unequal distribution of power, the role of activism/resistance to literal and symbolic oppression by marginalized people both political/personal in nature, exploring effects of oppression on marginalized/hegemonic communities. (F, Sp, Su)
HR 4153 Introduction to Counseling in Human Relations 3 Credit Hours Prerequisite: H R 3013 or junior standing, or departmental permission. Introduction to the field of Human Relations Counseling. Provides overview of the field and explores the struggles, uncertainties, demands, and stresses of the helping professions. Students will examine whether the helping professions are right for them, their values, and their belief systems and introduces the helping process, with special attention to the ethics/diversity/stress/burnout, and working in communities. (F, Sp, Su)

H R 4163 Making Men: Media, Violence and Misogyny 3 Credit Hours Prerequisite: H R 3013 or junior standing, or departmental permission. Introduce students to theories of misogyny, homophobia and violence through lens of developmental sociological/human relational perspective. Will take queer/feminist approach while looking at specific issues men face in the development of social, intrapersonal sexual and professional identities in the presence of negative and limited media, and societal messages about masculinity, boyhood and manhood while utilizing communication/human relation theories. (F, Sp, Su)
HR 4170 Special Topics in Human Relations
1-3 Credit Hours
1 to 3 hours. Prerequisite: 3013 or junior standing, or permission of instructor. May be repeated with change of content; maximum credit nine hours. The course is designed to permit the study of topical human relations issues. (Irreg.)

## H R 4183 Criminal Justice in Human Relations 3 Credit Hours

Prerequisite: H R 3013 or junior standing, or departmental permission. Course focuses on three parts: policing, the courts system, and corrections. The general theme addresses the establishment of and the adaptation to the ever-changing balance between expectations of the community, in terms of safety, and the rights of the individual, in terms of civil liberties and looks at where the criminal justice system succeeds-and where it fails. (F, Sp, Su)
H R 4203 Social Issues in the Workplace
3 Credit Hours
Prerequisite: 3013 or junior standing, or permission of instructor. This course will provide students with an interdisciplinary examination of human relations, social issues, and the workplace. Historical social change will be examined as it is impacted by workplace dynamics. The course will employ a case study approach to explore social justice concerns and sociocultural dynamics in the American workplace. (Irreg.)
H R 4223 International Human Relations 3 Credit Hours Prerequisite: H R 3013 or junior standing, or departmental permission; course is not open to freshmen. Course familiarizes students with significant international issues relevant to human relations. Explores the meaning of being a Human Relations professional in an increasingly globalized world, including, but not limited to, the role of human relations in addressing issues such as warfare, terrorism, gender discrimination, international issues affecting children, and the protection of human rights.

## H R 4303 Human Relations in Action

Prerequisite: H R 3013 or sophomore standing. Course designed to provide an overview of how individuals, grassroots organizations, and structured groups orchestrate local/community/state/national/ international societal/political change. Class will review historical and current events and realities that have sparked both peaceful and violent uprisings with the demand and hope for better treatment and social justice. Focus on both famous and current grassroots movements throughout the US and abroad. (F, Sp, Su)

## HR 4313 Intercollegiate Athletic Administration 3 Credit Hours

Prerequisite: 3013 or junior standing, or permission of instructor. Intercollegiate athletics has many constituencies with differing perceptions about its value to higher education and the community. This course is designed to survey intercollegiate athletics in America and its place within higher education. The contributions of college athletics to higher education will be discussed in depth as well as its values to student-athletes. In addition, the organizational structure and roles of the college athletics department are explored in depth. (Irreg.)
H R 4323 Sexism in Modern America 3 Credit Hours Prerequisite: H R 3013 or Junior standing or departmental permission. This course is designed to take a critical look at sexism in the modern United States. We will examine feminist theories, intersectionality, and gender. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

## H R 4413 Adolescent Issues in the African-American

## Community

## 3 Credit Hours

Prerequisite: 3013 or junior standing, or permission of instructor.
This course is designed to introduce students to adolescent issues facing African-Americans. The course will examine development of all adolescents, as well as critically analyze the major issues and challenges facing African-American youth. Students will also identify possible solutions to these issues. (Irreg.)

H R 4423 Women's Issues in Human Relations 3 Credit Hours
Prerequisite: 3013 or junior standing, or permission of instructor. This course examines a perspective on women's development that accurately reflects women's experiences rather than society's traditional view of women. We will explore the effect on women of being silenced, sexualized, and subordinated in a patriarchal culture. Particular attention will be given to self-in-relation theory, a developmental theory proposing that women develop their sense of self through relationships, but eventually discover that this is not valued or required. Since so many of our attitudes are determined in early life, we will explore the construction of identity in adolescent female development. Views of women's experiences in different cultures will also be examined. (Irreg.)

## H R 4433 Gender and War

3 Credit Hours
Prerequisite: junior standing or permission of instructor. Course will cover theoretical issues relevant to gender and war as well as applied topics such as child soldiers, refugees, rape as a tool of war, and definitions of human rights. Where relevant, case studies will be used to illustrate the gendered dimensions of warfare. ( $F, S p$ )
H R 4503 Applied Research 3 Credit Hours
Prerequisite: COMM 2513 or ECON 2843 or P SC 3123 or PSY 2003 or PSY 2113 or S WK 2223 or SOC 3123. Introduces students to the theoretical and methodological skills necessary to conduct an applied research program. Methodological approaches are varied and emphasize a range of social science orientations. (Irreg.)

H R 4513 Service Learning
3 Credit Hours
Prerequisite: $3003,3013,3043$, and 4013 . Capstone course to be taken in the final semester. Students apply learning from other courses to a project of significant community need. Classes are held both on campus and on-site, and group work, evaluative discussion, and written reflection are integral parts of the course. (Irreg.) [V] .

H R 4523 Civil Rights Movement
3 Credit Hours
Prerequisite: Junior standing or departmental permission. This course will examine the United States civil rights movement in a broad context of twentieth-century social movements, in particular emphasis on how the African American freedom movement intersected with and influenced other social movements through analysis of the structure and dynamics of the civil rights movement from the viewpoints of history, sociology, and political science. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
H R G4613 Human Relations in Law
3 Credit Hours
Prerequisite: Junior standing or departmental permission. Students learn central issues found when exploring principles of human relations as seen in various areas of law. Students will gain a general framework of law and guidance of human relations principles found within the framework exploring different areas of law where rich examples include constitutional, health, family, criminal, immigration and employment laws. (F, Sp, Su)

## H R 4723 Sexism and Homophobia

3 Credit Hours
(Slashlisted with H R 5723) Prerequisite: H R 3013 or junior standing, or departmental permission. Designed to introduce students to the intersection between homophobia, sexism, transphobia and gender/ sexual violence. Surveys important theories of gender, homophobia and misogyny and how these social phenomena effect those who they target and those who practice them. Will cover psychological/interpersonal and sociological/political exploration of the associated nature of each area. No student may earn credit for both 4723 and 5723. (F, Sp, Su)

## H R 4960 Directed Readings

1-3 Credit Hours
1 to 3 hours. Prerequisite: Junior standing and permission of instructor. May be repeated; Maximum credit 6 hours. Faculty supervised exploration of an area of human relations not covered in regularly offered courses. (F, Sp, Su)

## H R 4970 Special Topics/Seminar <br> 1-3 Credit Hours

1 to 3 hours. Prerequisite: Senior standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

## H R 4973 Advanced Research and Writing for Human

## Relations

3 Credit Hours
Prerequisite: Majors only or departmental permission. Prepares students in Human Relations to produce clear, effective, and well-argued academic writing. Students will conduct online searches, evaluate sources, think critically about issues, and write various types of papers, including a literature review. Expressing clear thoughts in a way that reflects respect for gender, difference, and inclusion will be part of all written exercises. ( $F$, $\mathrm{Sp}, \mathrm{Su}$ )
H R 4990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: three courses in general area to be studied; permission of instructor and department. May be repeated; maximum credit six hours. Contracted independent study for topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (F, Sp, Su)

HR 5003 Theoretical Foundations Of Human Relations 3 Credit Hours Prerequisite: admission to the degree program in human relations or permission of department. An analysis of human relations theories and concepts from the perspectives of the social sciences, the humanities and education. ( F )

## H R 5013 Current Problems In Human Relations 3 Credit Hours

Prerequisite: admission to the degree program in human relations or permission of department. In-depth studies of outstanding problems facing social practitioners, including racism, sexism, poverty and human rights. Strategies for change and ethics of intervention also will be discussed. (F)
H R 5022 Research in Human Relations I-Quantitative 2 Credit Hours Prerequisite: Graduate standing and majors only. Designed to provide basic skills in statistical methods, data analysis and evaluation, introduction to the concepts of research design, methodology, sampling techniques, measurement, and internal/external validity. Special focus: designing/implementing a research project to HR. Methodological approaches are varied ranges of social science orientations. Emphasis on understanding of research methods, critical consumers of research, critical analysis of statistics and research methods. (F, Sp)

## H R 5023 Research in Human Relations <br> 3 Credit Hours

Prerequisite: admission to the degree program in human relations or permission of department. Special focus will be upon designing and implementing a research project related to the student's area of concentration in human relations. (Sp)

## HR 5033 Introduction to Inclusive Leadership in Organizations 3 Credit Hours

Prerequisite: Graduate standing or permission of instructor; Inclusive Leadership M.H.R. students only. Examines how leaders formulate complex and effective strategies for equitable policies, practices, and procedures. LO equips students with the framework to develop skills that will allow them to analyze and navigate current organizations, using past, current, and potential work experiences. The analytical frameworks will help students to understand leadership; the practical experience will help students put that understanding into action.
H R 5043 Seminar in Organizational Change and Development 3 Credit

Hours
Prerequisite: graduate standing or permission of instructor. Focus will be upon the change process and a survey of major approaches used to bring about organizational change, such as confrontation meetings, survey feedback, job enrichment, process consultation and third party intervention. (Sp)
HR 5053 Diversity and Justice in Organizations 3 Credit Hours
Prerequisite: graduate standing or permission of instructor. Focuses on concepts of justice in organizations, and the changing demographics of our society, especially related to race and culture, gender, age, disability, and socio-economic status. The course emphasizes the implications of these factors for effective organizational management. (Irreg.)
H R 5063 Seminar in Strategies of Social Change 3 Credit Hours Prerequisite: graduate standing or permission of department. A study of techniques for bringing about individual, group or organizational changes. Special focus will be placed on philosophies and results of violent and nonviolent tactics. (F)

H R 5073 Creative Problem Solving
3 Credit Hours
Surveys the nature of creative thinking and creative problem solving.
Topics to be covered include creative thinking obstacles, creativity, readiness, major stages of the creative problem-solving process (fact finding, problem finding, idea finding, solution finding and acceptance finding) and use of a variety of individual and group techniques for different stages in the process. ( Sp )

## HR 5083 Seminar in Group Dynamics

3 Credit Hours
Prerequisite: graduate standing or permission of department and graduate dean. An intensive study and critical evaluation of socialpsychological concepts related to sensitivity training as a human relations technique. (CE)

## H R 5093 Introduction to Graduate Studies in Human

## Relations

3 Credit Hours
Prerequisite: admission to degree program in human relations or permission of instructor. Designed to acquaint graduate students with human relations theory and practice in various contexts. Emphasis is placed on the role of human relations professionals as agents of persistence and change at the interpersonal, group, organizational and societal levels of analysis. (F)
H R 5100 Advanced Theories in Human Relations 1-3 Credit Hours 1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated with change of content; maximum credit six hours. Additional in-depth studies of human relations theories and their implications for human relations practitioners will focus on topics such as, but not limited to: affirmative action and reverse discrimination; spiritual aspects of recovery in chemical dependency; conceptual models of violence and nonviolence as a basis for peace curriculum; human relations in the twenty-first century; human values in sexuality; and women and men in organizations. ( $F, S p$ )
HR 5110 Advanced Seminar in Current Problems 1-3 Credit Hours 1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated with change of content; maximum credit six hours. Additional in-depth studies of current social problems and strategies for intervention and change on topics such as, but not limited to: chemical dependency and society; ethnic and gender discrimination issues; disadvantaged children; domestic violence; sexual/physical abuse; physically and emotionally handicapped populations. (F, Sp)
H R 5113 Seminar in Local Issues in Human Relations 3 Credit Hours Prerequisite: graduate standing or permission of instructor. May be repeated with change of topic; maximum credit nine hours. Variable topics and content related to human relations problems and solutions. ( F , $\mathrm{Sp}, \mathrm{Su}$ )
HR 5122 Research in Human Relations II-Qualitative 2 Credit Hours Prerequisite: Graduate standing and majors only. Course introduces students to the field of qualitative research and its multiple epistemological approaches that inform the understanding of human behavior, interaction, and structure. Qualitative research is a rigorous process of data collection and analysis that requires a unique skill set. The course will equip students to explore activities relevant to the conduction of qualitative methodology. ( $\mathrm{F}, \mathrm{Sp}$ )

## H R 5133 Change, Challenge and Creativity in the Workplace

Prerequisite: graduate standing or permission of instructor. This course examines ways to enhance creativity and the creative problem solving process within the context of a rapidly changing workplace. The major changes occurring in today's workplace and the management of change at both the personal and organizational level will also be considered. Particular emphasis will also be placed on examining the creative process, common barriers to creativity, and a variety of individual and group techniques that foster or facilitate the creative process. (Irreg.)

## H R 5143 Human Resources for the Human Relations

## Professional

## 3 Credit Hours

Prerequisite: graduate standing or permission of department. This course serves as an introduction to the Human Resource Management (HRM) discipline. Specifically, this course is designed to assist students in discovering what HRM is (and is not), recognizing its' multifaceted and ever evolving nature, and how HRM fits into the total organization. An awareness and understanding of the central HRM topics, competencies, terminology, and ethical issues is foundational to the course. In addition, the highly influential nature of federal and state law on HRM is highlighted. Additionally, this course will illuminate the many rewarding career opportunities available within the HRM discipline. (Irreg.)

## H R 5153 Human Emotions

3 Credit Hours
Prerequisite: graduate standing. Goal is to become familiar with some of the major conceptualizations of emotions and the evidence used to validate them; to examine a number of emotions such as attachment, love, loss and grief, depression, anxiety, joy, anger, fear, etc. Will be both didactic and experiential. Skills in self-disclosure, active listening, empathy, confrontation, etc. will be used to increase the understanding of emotions and to increase the ability to communicate emotional content. (Irreg.)

## H R 5163 Seminar in Nonverbal Behavior in Human

Relations
3 Credit Hours
Prerequisite: graduate standing or permission of instructor. Topics include research methods, cross-cultural studies, proxemics, kinesics, vocalics, emotions, touch and human development, dress and appearance, attractiveness and social order. (F or Sp)
HR 5183 Seminar in Issues in Human Relations Training 3 Credit Hours Prerequisite: 5083 or 5173 . Focuses on theory and research in group dynamics (group development, membership, goals, conformity, power, leadership, essentials in laboratory design); ethics, values and professionalism in human relations; and criticisms of human relations training. (CE)
HR5193 Intervention and Practice in Training 3 Credit Hours Prerequisite: $3013,5003,5013,5023,5083$ or 5173 . Specifically designed to enable advanced students to explore their skills in working with others from both a theoretical and pragmatic perspective. Students are required, through course content, to develop a clear picture of facilitation, leadership, consultant or teacher style. (Sp)

## H R 5200 Internship In Human Relations 1-6 Credit Hours

1 to 6 hours. Prerequisite: admission to the degree program in human relations and permission of department. Field experience in and outside Oklahoma. Each student must have both types of experiences. Agency roles and responsibilities will be learned by on-the-job practice. (F)

## H R 5203 Graduate Research and Writing for Human

Relations 3 Credit Hours
Prerequisite: graduate standing, majors only, or permission of department. Prepares students in Human Relations to produce clear, effective, and well-argued graduate-level academic writing. Students will conduct online searches, evaluate sources, think critically about issues, and write various types of papers, including a literature review. Expressing clear thoughts in a way that reflects respect for gender, difference, and inclusion will be part of all written exercises. (Irreg.)

## H R 5213 Organizational Behavior for Leaders <br> 3 Credit Hours

Prerequisite: Graduate standing and departmental permission.
Organizational behavior (OB) represents the behavioral approach to management. OB is concerned with human behavior at work and how various structures and work processes influence such behavior. This course will address several important organizational issues and processes, including organizational culture, group behavior and teamwork, and leadership. (F, Sp, Su)

H R 5223 Leadership for Systemic Change
3 Credit Hours
Prerequisite: Graduate standing and departmental permission. Systemic change is the change that can impact policies, processes, structures, organizational culture, or other ways that an organization's system exists and functions. This course will explore the competencies needed for inclusive leaders to understand the overall alignment of the organization's system to plan, implement, and guide the process, and then assess the effectiveness of the outcomes. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
H R 5233 Strategic Leadership for Intercultural Awareness 3 Credit Hours
Prerequisite: Graduate Standing and Departmental Permission. Strategic Leadership (SL) requires a humanist touch and effective management of people. This course moves progressively through individual, community, organizational, and global leadership. SL will enhance your ability to comprehend, communicate, and construct innovative skill sets to become a successful leader in any field you choose. (F, Sp, Su)
H R 5243 Developing Inclusive Leaders in a Diverse

## World

3 Credit Hours
Prerequisite: Graduate standing and departmental permission. Inclusive leaders promote inclusionary principles and values at the individual, group, and broader organizational levels. In order for inclusion to become an embedded norm, leaders will need to develop cognitive competencies to effectively create, convey, implement, and sustain an inclusive environment. Students will learn to apply principles of inclusion as a lens to view relationships, processes, and interacting systems. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

## H R 5253 International Conflict Resolution <br> 3 Credit Hours

Prerequisite: Graduate standing or departmental permission. Course will explore key concepts, chart the development of the field, evaluate successes/failures, assess challenges/debates, discuss environmental conflict resolution in the arts and popular culture, and discuss conflict resolution in the media and the communications revolution. Macro view: integrate demographic factors of religion, politics, geography, history, and economics as conceptual frames of analyses. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
HR 5263 International/Intercultural Awareness 3 Credit Hours Prerequisite: Graduate standing and departmental permission. Understand diverse cultures using a multidisciplinary approach of how cultures are different and what factors contribute to cultural distinctiveness. Use the tools of history, geography, economics, sociology, and other social/physical sciences for the whys behind cultural distinctiveness. Study how to adapt to cultural differences and work with people from other cultures, domestically and internationally. (Irreg.)

HR 5273 Athletics in Higher Education 3 Credit Hours
(Crosslisted with EDAH 5273) Prerequisite: Graduate Standing.
Provide Students With An Understanding Of The History, Structure And Administration Of Intercollegiate Athletics, As Well As An Opportunity To Discuss A Wide Variety Of Related Contemporary Issues. (Irreg.)
H R 5283 Clinical Practicum
3 Credit Hours
Prerequisite: Graduate standing, admission to the Master of Clinical Mental Health Counseling degree program, and departmental permission. This course includes supervised practical experience at approved practicum sites. Emphasis on counseling theory, practice skills, professional identity, and theory and technique integration. Weekly conferences on counseling issues, practice development, and professional identity. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
H R 5293 Multicultural Issues in Human Relations 3 Credit Hours Prerequisite: Graduate standing or departmental permission. This course focuses on the historical, social, cultural, economic, and political situation of selected populations in the USA. It examines complex issues in workplace diversity, and skills, policies, and processes that foster a culture that affirms diversity in the workplace and scrutinizes potential barriers to culturally competent practices. (Irreg.)

H R 5303 Stress Management 3 Credit Hours Prerequisite: Graduate standing or departmental permission. The course will teach human relations professionals various methods of stress management and prevention that can be used with clients, employees, co-workers, and family. It offers an examination of one's stressors and how to find a balance of mental, emotional, physical, and environmental stress management techniques for leading healthier and more productive lives. (Irreg.)
HR5313 Leadership in the Legal Environment 3 Credit Hours Prerequisite: Graduate standing and departmental permission. Leaders should be highly competent in concepts relevant to discrimination and harassment law. In this course, students will explore federal constitutional and federal statutory legal protections related to discrimination, which supersede state and local protections. 14th Amendment equal protection as it is applied to laws via strict scrutiny for suspect classifications and related due process will be examined. (F, Sp, $\mathrm{Su})$
H R 5323 Organizational Behavior in Human Relations 3 Credit Hours Prerequisite: graduate standing. Organizational behavior (OB) represents the behavioral approach to management. $O B$ is concerned with human behavior at work and how various structures and work processes influence such behavior. This course will address a number of important organizational issues and processes, including organizational culture, group behavior and teamwork, and leadership. (Su)

## H R 5333 Mediation

3 Credit Hours Prerequisite: graduate standing. Studies how the acceptable third party assists parties in resolving disputes. There will be considerable attention paid to the mediation process and the activities of mediators. Also focuses on negotiations because mediators help parties complete negotiations they are unable to settle on their own. (F)

## H R 5343 Conflict Resolution 3 Credit Hours

Prerequisite: graduate standing or permission of instructor. This course will explore the nature and origins of human conflict in modern life. It will emphasize an understanding of conflict and resolution methods useful in professional counseling and other HR settings such as organizational development and interpersonal facilitation. (Irreg.)

H R 5353 Organizational Communication in Human Relations 3 Credit Hours
Prerequisite: graduate standing or permission of instructor. This course will explore organizational communication concepts, theories, research, and practical applications for human relations professionals. (Irreg.)
HR5363 Program Training \& Development
3 Credit Hours
Prerequisite: Graduate standing and Departmental Permission. This course explores the process of program training and development with an emphasis on DEI and social justice. Specifically, this course examines the individual and organization strategies designed to foster inclusive and diverse environments using program training and examines the application of theoretical frameworks used in today's organization, as well as developing needs assessment, planning/budgeting, goal setting/ evaluation methods. (F, Sp, Su)
HR 5373 Grant Writing

## 3 Credit Hours

Prerequisite: graduate standing or permission of instructor. This course will explore fundraising as a dynamic process through which an organization or an individual becomes financially able to accomplish a specific goal by using writing skills, management skills, and solicitation. Students will acquire the skills needed to prepare grant proposals. (Irreg.)
H R 5383 Public Policy for Human Relations Professionals 3 Credit Hours
Prerequisite: graduate standing or permission of instructor. This course examines how public policy is made at various levels of government and how these policies affect society. Particular emphasis will be given to public policy issues that affect human relations professionals, their clients, and the public and private agencies in which they work. (Irreg.)

## H R 5393 Team Building

3 Credit Hours
Prerequisite: Graduate standing or departmental permission. The course content is devoted to team success. It focuses upon three major areas for teamwork: basic team concepts, internal team dynamics, and external team dynamics. Learn concepts, ponder thought-provoking questions, participate in the class exercises, assess a case study involving a team experience, and write a critique of a journal article. (Irreg.)
H R 5403 Psycho-Social Development
3 Credit Hours
Prerequisite: graduate standing or permission of instructor. Covers human psycho-social development. Discussion of the expanding social realm of the developing individual. Theories and research in a variety of areas related to social development will include: attachment, aggression, sex typing, moral development, and parent-child interaction. ( $\mathrm{F}, \mathrm{Sp}$ )

HR 5413 Addiction Counseling
3 Credit Hours
Prerequisite: HR 5533, HR 5453, HR 5463, Graduate standing and Departmental Permission; Clinical Mental Health Counseling students only. Explores how addiction affects physical, psychological, and social functioning in individuals and communities. The dynamics of addiction, treatment, and the recovery process are explored. Attention is given to the emotional, physical, psychological, and sociocultural aspects of addiction. (F)
H R 5423 Family Systems and Family Reconstruction 3 Credit Hours Prerequisite: permission of instructor. Teaches students how to impact family systems. Through didactic and experiential learning, students will learn how students function in systems and explore their own rules for living in systems. (CE)
H R 5433 Group Counseling in Human Relations
3 Credit Hours
Prerequisite: graduate standing or permission of instructor. Examines a variety of group counseling models, types of groups (process, solutionfocused, action-oriented), the role of the group counselor, group members, and techniques and strategies for facilitating group work. (Irreg.)

H R 5443 Adolescent Issues in Human Relations 3 Credit Hours
Prerequisite: graduate standing or permission of instructor. Designed to acquaint human relations professionals with issues facing teens today. The pressures confronting youth along with various adaptive and maladaptive coping behaviors will be studied. (F, Sp, Su)

H R 5453 Ethical Issues in H R Counseling 3 Credit Hours
Prerequisite: graduate standing or permission of instructor. Surveys ethical, legal, and professional issues facing human services workers. (F, $\mathrm{Sp}, \mathrm{Su}$ )

## H R 5463 Counseling Skills in Human Relations 3 Credit Hours

Prerequisite: graduate standing or permission of instructor. Introduce students to the helping professions and provide them with a basic mastery of important counseling skills in human relations. (Irreg.)
H R 5473 Women and Mental Health 3 Credit Hours
Prerequisite: graduate standing or permission of instructor. Examines psychological theory and practice as it pertains to women. This course will look at traditional theories and practice, new approaches to working with women, and topical issues. (Irreg.)

HR 5483 Diagnosis in Human Relations Counseling 3 Credit Hours Prerequisite: graduate standing or permission of instructor. Introduces students to the diagnostic systems of mental disorders outlined by the American Psychiatric Association and the World Health Organization. Also covers principles and techniques of interviewing which produce a correct diagnosis. (F, Sp)
HR 5493 Assessment and Evaluation in Human Relations 3 Credit

## Hours

Prerequisite: graduate standing or permission of instructor. Provides an overview of clinical and social assessment procedures used in counseling settings including career and life planning, personality, and mental health assessments. Emphasis is placed on a thorough examination of diagnostic classifications for mental disorders. Also develops a working knowledge of assessment skills along with a bias-free multicultural perspective, and ethical issues applicable to assessment. (F, Sp)
H R 5503 Research for Counseling
3 Credit Hours
Prerequisite: Graduate Standing and Departmental Permission; Clinical Mental Health Counseling students only. This course examines techniques involving quantitative, qualitative, and mixed methods methodology will be introduced and applied to clinical mental health counseling settings. Special attention will be given to program evaluation and techniques in applying research methods to clinical practice. (F, Sp, Su )
HR 5513 Couples and Family Counseling 3 Credit Hours
Prerequisite: HR 5533, HR 5453, HR 5463, Graduate standing and Departmental Permission; Clinical Mental Health Counseling students only. This course explores different methods and theoretical approaches for counseling with intimate interpersonal relationships and families. (F, Sp, Su)

## H R 5523 Counseling With Children, Adolescents, and

## Families <br> 3 Credit Hours

Prerequisite: graduate standing or permission of instructor. This course will explore various theories, modalities and practices working with young children, adolescents and their families. Students will be introduced to theories of development; individual, group and family therapies, and a meta-theoretical framework of social construction. (Irreg.)

H R 5533 Counseling Theories in Clinical Mental Health Counseling

3 Credit Hours
Prerequisite: Graduate Standing and Clinical Mental Health Counseling students only, or Departmental Permission. This course emphasizes skills training in counseling approaches utilized by human relations practitioners. The skills training is organized according to basic counseling and psycho-therapy theories, including psychodynamic, behavioral, cognitive, existential-humanistic, multicultural, systemic and integrative approaches. (F, Sp, Su)

H R 5543 Counseling with Diverse Populations 3 Credit Hours Prerequisite: graduate standing or permission of instructor. This course addresses four populations: women, persons of sexual/gender minority identification, persons with disabilities, and aging persons. Students will examine the special issues of each population and consider appropriate counseling approaches. (Irreg.)
H R 5553 Marital and Family Assessment
3 Credit Hours
Prerequisite: graduate standing or permission of instructor. This course will explore various approaches to conceptualizing assessment of couples and families. (Irreg.)

H R 5563 Career Counseling
3 Credit Hours
Prerequisite: graduate standing or permission of instructor. Explores conceptual and functional tools for enhancing career development of children, youth and adults in both counseling and corporate human resource relationships. Class participants have the opportunity to experience a variety of career assessment tools including interest inventories, personality assessments and values clarification exercises. Career counseling strategies for a variety of life situations are discussed. (Irreg.)
H R 5573 Personality and Personality Disorders 3 Credit Hours Prerequisite: graduate standing or permission of instructor. This course will explore the historical and contemporary concepts of personality development, personality styles and personality disorders, as well as examine personality disorders and their treatment. (Irreg.)

H R 5583 Social Justice Counseling 3 Credit Hours
Prerequisite: Graduate standing or permission of instructor. This course emphasizes theory and methods to promote social justice in human relations. The ethics of social justice in counseling will also be addressed. Various social justice and counseling theories will be explored, as well as strategies for integrating into human relations counseling. Concepts and skills will be studied through readings, discussion, case studies, exercise, videos, and class projects. (Irreg.)

## H R 5593 Multicultural Counseling 3 Credit Hours

Prerequisite: Graduate standing or permission of instructor. The model of multicultural understanding followed in this course is intended to increase the understanding of culturally diverse groups. This class is both practice and theory oriented. Emphasis will be placed on providing a broader knowledge base and developing the skills to counsel individuals from various cultures. (Irreg.)
H R 5603 Play Therapy with Children 3 Credit Hours
Prerequisite: graduate standing, majors only, or permission of department. Provides a basis for the use of play in assessing and intervention with children and their families. History, techniques, and issues in play therapy will be addressed in class reading and discussions. (Irreg.)

H R 5613 Assessment and Evaluation in Counseling 3 Credit Hours Prerequisite: Graduate Standing and Clinical Mental Health Counseling students only. An examination of the major individual, marital, and family assessment strategies and instruments. Students will receive training in the use of both testing and non-testing approaches to assessment and appraisal. Attention will be given to the relationship between assessment, diagnosis, and treatment planning. (F, Sp, Su)
H R 5623 Post-Traumatic Stress Disorder 3 Credit Hours Prerequisite: graduate standing, majors only; or permission of department. Concentrates on what constitutes post-traumatic stress, its assessment, diagnosis, and therapeutic intervention. Covers different sources of post-traumatic stress, as well as different methods of evidence-based treatment modalities. Special populations are also addressed. (Irreg.)
H R 5633 Advanced Counseling Skills 3 Credit Hours Prerequisite: graduate standing, majors only, or permission of department. An advanced study of various counseling approaches with opportunities for demonstration and evaluation of each student's counseling skills. Designed to provide the student with advanced exploration and analysis of current counseling practice. Students will be expected to demonstrate the ability to analyze, synthesize, critique, and discuss, in verbal and written form, the key concepts of traditional and contemporary counseling practice. (Irreg.)
H R 5643 Crisis Intervention and Trauma Counseling 3 Credit Hours Prerequisite: HR 5533, HR 5453, HR 5463, and graduate standing; Clinical Mental Health Counseling majors only. Designed to facilitate knowledge and skills related to crisis intervention and trauma counseling. Focuses on individuals, families, and groups facing mental, physical, developmental, occupational, residential, and environmental crises, as well as the methods of assessment and intervention. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

## H R 5653 Grief, Death and Dying

3 Credit Hours
Prerequisite: graduate standing, majors only or permission of department. Explores grief counseling throughout the human life cycle with particular attention paid to the aspects of death and dying. (Irreg.)

## H R 5663 Psychopathology

3 Credit Hours
Prerequisite: graduate standing, majors only, or permission of department. Provides an in-depth review of a broad spectrum of psychopathological conditions. The focus of the review will include the etiology, prevalence and incidence, signs and symptoms, and criteria for differential diagnoses. The emphasis of this review will be on comparing and contrasting different theoretical perspectives of each disorder. (Irreg.)
H R 5673 LPC Clinical Supervision 3 Credit Hours
Prerequisite: graduate standing, majors only, or permission of department. Students will become familiar with models of counseling supervision; become familiar with the Oklahoma LPC Supervision requirements and become acquainted with the research in counselor training and supervision. (Irreg.)
HR 5683 Working with Divorcing Families 3 Credit Hours Prerequisite: graduate standing, majors only, or permission of department. Designed to prepare students for counseling with families experiencing separation, divorce and remarriage. Provides students with current information concerning divorce as well and options for helping children and adults cope with divorce in a constructive way. (Irreg.)

H R 5693 Issues in Aging
3 Credit Hours
Prerequisite: graduate standing, majors only, or permission of department. Designed to acquaint students with the interdisciplinary field of gerontology. Provides students with the opportunity to explore current topics associated with the aging process. Also examines contemporary issues that impact individuals, families and society during the later years. Finally, provides an overview of theory, policies and practices associated with aging and counseling with elderly clients. (Irreg.)
H R 5703 International Human Relations
3 Credit Hours
Prerequisite: graduate standing or permission of instructor. This course will examine ways to understand people of different cultures. It uses a multidisciplinary approach to look at the roots and explanations of differences between cultures and what these differences mean for working with people of different backgrounds. This course utilizes the tools of history, geography, economics, sociology, and other social and physical sciences to understand why people are different in order to identify strategies for building effective human relations. (Irreg.)

H R 5713 Women, Work, and the Family
3 Credit Hours
Prerequisite: graduate standing or permission of instructor. A creative exploration of the dynamics of women's issues in both the family and in the workplace. It examines the societal conditioning creating the "Superwoman," mother-blaming, balancing roles, the time bind of home and work, discrimination in the workplace, relational practice at work, and companies that care for and about women and families. Exploration will include strategies for innovative planned change. (Irreg.)
H R 5723 Sexism and Homophobia
3 Credit Hours
(Slashlisted with H R 4723) Prerequisite: graduate standing or permission of instructor. Designed to introduce students to the intersection between homophobia, sexism, transphobia and gender/sexual violence. Surveys important theories of gender, homophobia and misogyny and how these social phenomena effect those who they target and those who practice them. Will cover psychological/interpersonal and sociological/political exploration of the associated nature of each area. No student may earn credit for both 4723 and 5723. (Irreg.)

H R 5733 Program Assessment and Evaluation
3 Credit Hours
Prerequisite: Graduate standing and departmental permission. Students will be introduced to the evaluation design process; learn how to engage stakeholders in crafting evaluation designs; study the fundamentals of designing exploratory, process, and outcome evaluations; and learn how to select an evaluation design that best meets a client's information needs. The focus of this course is on the contexts/purposes/techniques for assessing and evaluating social policy implications (F, Sp, Su)
H R 5743 Violence Against Women and Children 3 Credit Hours Prerequisite: graduate standing or permission of instructor. The effects of violence on women, children and families will be presented within an academic and clinical framework for purposes of developing skills for assessment, intervention, and prevention. Students will discuss various strategies for crisis intervention, safety planning, and preferred counseling methods for abuse victims. Students will discuss the historical implications of violence against women and the effects on human relationships in contemporary society. (Irreg.)
H R 5753 Advanced Theories: Diversity and Justice 3 Credit Hours Prerequisite: Graduate standing and departmental permission. This course is designed to make meaning of diversity and justice from a sociological perspective. Students will actively explore how categories of race, class, gender, sex, sexual orientation, political ideology, and disability (not exhaustive) shape the human experience and are critical to the formation of social structures, cultural understandings, group and organizational processes, and identities. (F, Sp, Su)

H R 5763 Human Sexuality 3 Credit Hours
Prerequisite: graduate standing, majors only, or permission of instructor.
Examines sexuality in the context of current research, culture and opposing perspectives. The various definitions, experiences, and expressions of sexuality will be explored and debated in order for students to develop individual perspectives on human sexuality. Willingness to openly discuss topics of sexuality and relationship is critical for this course. (Irreg.)
H R 5773 Policy, Program, and Practice
3 Credit Hours
Prerequisite: Graduate standing and departmental permission. This course explores the relationship between policy, programs, and practices that support equity, inclusion, social justice, access, and diversity. Students will examine notable policy in the U.S. that was designed to address access and equity issues for marginalized and minoritized communities. Students will identify and discuss key programs that have been designed as a response to policy and transformative practices. ( $F$, $\mathrm{Sp}, \mathrm{Su}$ )

## H R 5783 Advanced Theories: Strategies of Social

Change
3 Credit Hours
Prerequisite: Graduate standing and departmental permission. Course is designed to expose students to contemporary strategies of social and political change and its impact on policies and relationships such as in civil rights movements. Strategies are traditionally argued in relation to violence or non-violence methodology and whether such methodology is isolated to reality and structural make-up. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
HR 5793 Social Change and the Law 3 Credit Hours Prerequisite: Graduate standing and departmental permission. Explore social justice as seen in various areas of law to include general framework of law and guidance of human relations principals found within the framework. Explore different areas of law with examples of human relations and social justice, to include but not limited to: constitutional law, health law, family law, criminal law, immigration law, and employment law. (F, Sp, Su)

## H R 5803 Total Rewards: Compensations and Benefits for HR Management Professionals for the HR Prof 3 Credit Hours

Prerequisite: H R 5143 or graduate standing or permission of the department. A core Human Resource Management competency, Total Rewards: Compensation and Benefits will provide students with an introduction to compensation and benefit programs. Specifically, students will explore the forms of direct (compensation) and indirect (benefits) compensation used to attract, reward, and retain employees. The design, administration, and evaluation of compensation systems and benefit programs are also examined. Further, students will also analyze the legal and regulatory factors affecting total rewards planning and delivery. Additionally, this course will illuminate the many rewarding career opportunities available in the Total Rewards discipline. (Irreg.)

## HR 5813 Business Management and Strategic Planning 3 Credit Hours

Prerequisite: H R 5143 or graduate standing or permission of department. Introduction to the overall strategic planning process of organizations. Students will explore organizational strategic planning processes to include but not limited to: development of mission, vision, values, goals and objectives; policy formation, enforcement, and evaluation. In addition, evaluation of organizational strategic planning is analyzed. Further, students will understand how employees contribute to the overall effectiveness of an organization by studying how organizations assess and deploy human capital. (Irreg.)

H R 5823 Workforce Planning \& Employment, A Component of Human Resource Management for the HR Prof 3 Credit Hours
Prerequisite: H R 5143 or graduate standing or permission of department. Workforce Planning and Employment is one of the courses applied to the area of Human Resource Management for the Human Relations Professional. Workforce Planning and Employment highlights the activities necessary to ensure the workforce's ability to achieve the organization's goals and objectives. Specific areas covered include: key laws and regulations (ADA, Title VII, Affirmative Action, etc.), organizational staffing requirements and methods, job analysis and documentation, recruitment, flexible staffing, selection and retention, organizational exit, and employee records and retention. (Irreg.)

## H R 5833 Human Resource Development <br> 3 Credit Hours

Prerequisites: HR 5143 or graduate standing or permission of department. Learning and Development (L\&D) is a broad discipline utilized in a number of fields. Designated as a core course for the Human Resource certificate program, L\&D offers learners an examination of key legislation affecting L\&D activities, L\&D theory, role of technology in L\&D, and the intricacies of Human Resource L\&D. In addition, examines the analysis, development, design, implementation, and evaluation of learning and development programs. (Irreg.)

## H R 5853 Employee and Labor Relations for HR Management Professions in Human Relations <br> 3 Credit Hours

Prerequisites: H R 5143 or graduate standing or permission of department. Examines the employer/employee relationship. Introduces students to the key employment law, i.e., state, local, and federal laws and regulations that govern organizational structure and operations and help to maintain an ethical, healthy, and safe work environment. Among the ideas analyzed include: how workplace relationships are managed and maintained; how organizations balance employer/employee needs and rights while supporting organizational goals and objectives. A broad overview, students will become familiar with a plethora of employee relations issues such as termination, policy development, and interpretation of the most significant laws that affect HRM. (Irreg.)

## H R 5863 Human Resources for the HR Prof Fundamentals of Human Resource Information Systems

3 Credit Hours
Prerequisites: HR 5143 or graduate standing or permission of department. This course examines the ever growing field that is Human Resource Information Systems (HRIS). Specifically, students will explore the metamorphosis of human resource technology; how it has gone from situational asset to mandatory strategic business partner across the Human Resource Management gamut. Designed to develop an awareness and appreciation of the nature and use of data and information systems in organizations, this course will introduce students to the various HRIS systems utilized by organizations and the associated analysis, design, and implementation of those systems. Additionally, this course will illuminate the many rewarding career opportunities available within the HRIS discipline. (Irreg.)
HR5873 Organizational Ethics
3 Credit Hours
Prerequisite: Graduate standing or departmental permission. Course focuses on professional values, integrity, and ethical decision-making processes in organizations. Students will discover theoretical and practical ways to approach moral/ethical dilemmas in organizational life and improve skills in moral reasoning/ethical decision-making. A case study approach is used to analyze/resolve ethical dilemmas/situations from a practitioner, human relations perspective. Emphasis placed on ethical leadership in organizations' social justice outcomes. (F, Sp, Su)

H R 5880 Human Relations Capstone
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing and permission of department and instructor. May be repeated; maximum credit 3 hours. Human Relations capstone is designed as a culminating experience for students electing the non-thesis track. Students will develop, under the direction of their advisor or approved faculty, a capstone project centered in Human Relations. The project shall be specific to student's elected H R concentration. (F, Sp, Su)

HR 5883 Introduction to the Counseling Profession 3 Credit Hours Prerequisite: Graduate standing and departmental permission. This course introduces the graduate student to the practice of Licensed Professional Counselors (LPC), utilizing instructor(s) from the LPC field. This course covers the history, development, and implementation of licensed counselors. (F, Sp, Su)
H R 5893 Psychopharmacology
3 Credit Hours
Prerequisite: Graduate standing; departmental permission or permission of instructor. This course serves as an introduction to psychopharmacology for mental health counselors and the commonly prescribed psychotropic medications used to address mental health disorders as defined in the Diagnostic and Statistical Manual of Mental Disorders (DSM - 5). Emphasis will be placed on the use of medications from a biopsychosocial perspective and the therapeutic role of the counselor. (F, Sp, Su)

H R 5903 Counseling Internship I
3 Credit Hours
Prerequisite: HR 5883, HR 5533, HR 5453, HR 5463, HR 5483, HR 5433, HR 5593, HR 5613, Clinical Mental Health Counseling students only, Graduate standing and Departmental Permission. The internship is 300 total hours of direct and indirect on-site work experience at an agency, organization, business firm, institution or other professional or industry setting to fulfill the requirement for a Master of Clinical Mental Health Counseling. The Internship provides extensive supervised on-the-job experience in a setting within the counseling profession. (F, Sp, Su)
H R 5913 Counseling Internship II 3 Credit Hours Prerequisite: HR 5903, Clinical Mental Health Counseling students only, Graduate standing and Departmental Permission. The internship is 300 total hours of direct and indirect on-site work experience at an agency, organization, business firm, institution or other professional or industry setting to fulfill the requirement for a Master of Clinical Mental Health Counseling. The Internship provides extensive supervised on the job experience in a setting that is within the counseling profession.
H R 5923 Human Growth and Development 3 Credit Hours Prerequisite: Graduate Standing and Clinical Mental Health Counseling students only. This course will explore development through the human life span from a psycho-social approach and will examine theoretical approaches from the mid-twentieth century to recent theoretical perspectives. In this context, the expanding social realm of the developing individual will be discussed along with research in a variety of areas related to social development including cognitive and social neurosciences. (F, Sp, Su)
H R 5960 Directed Readings in Human Relations 1-6 Credit Hours 1 to 6 hours. Prerequisite: graduate standing, permission of instructor. May be repeated; maximum credit six hours. Individual investigations and report of findings on selected problems in human relations education. (F, $\mathrm{Sp}, \mathrm{Su}$ )

## H R 5963 Leadership in Organizations

3 Credit Hours
Prerequisite: Graduate standing and departmental permission. This graduate level course is designed to explore the conceptual, theoretical, and practical aspects of leadership in organizational settings. This course is useful for future as well as current managers. (F, Sp, Su)

H R 5970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing or permission of instructor. May be repeated; maximum credit six hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

H R 5980 Research for Master's Thesis
2-9 Credit Hours Prerequisite: admitted to candidacy for a Master of Human Relations. Variable enrollment, two to nine hours; maximum credit applicable toward degree, four hours. Original paper in an area of concentration in human relations. (F, Sp, Su)
HR 5990 Independent Study
1-4 Credit Hours
1 to 4 hours. Prerequisite: 5023 or equivalent and permission of instructor. May be repeated; maximum credit six hours. Individual investigation of special research topics in human relations. (F, Sp, Su)
H R 6980 Research for Doctoral Dissertation 2-16 Credit Hours
2 to 16 hours. Prerequisite: Graduate standing and permission of instructor; may be repeated. Directed research culminating in the completion of the doctoral dissertation. (F, Sp, Su)

## Faculty

| Last Name | First/Middle Name | Middle init. | OU <br> Service <br> start | Title(s), date(s) appointed | Degrees Earned, Schools, Dates Completed |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Allen | Katie | R | 2013 | ASSISTANT <br> PROFESSOR OF HUMAN RELATIONS, 2013 | PhD, Texas Tech Univ, 2010; MA, Duke Univ, 2006; BA, Texas Tech Univ, 2004 |
| Bert | Shannon | S.C | 2010 | ADJUNCT <br> ASSISTANT <br> PROFESSOR OF <br> LIBERAL STUDIES, <br> 2010; ASSOCIATE <br> PROFESSOR OF <br> HUMAN RELATIONS, $2012$ | PhD, Univ of Notre Dame, 2006; MA, Univ of Notre Dame, 2004; BA, Univ of Oklahoma, 2001 |
| Byrd | Marilyn | Y | 2014 | ASSOCIATE <br> PROFESSOR OF <br> HUMAN RELATIONS, 2018; ADJUNCT ASSISTANT | PhD, Texas A\&M <br> Univ, 2008; MBA, <br> Sam Houston State <br> Univ, 1999; BBA, Sam <br> Houston State Univ, |

PROFESSOR OF 1991
WOMEN'S AND
GENDER STUDIES,
2015

|  |  |  |  | 2015 |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Davidson | Tim |  | 1997 | ASSOCIATE <br> PROFESSOR OF HUMAN RELATIONS, 1997 | PhD, Univ of <br> Edinburgh, 1982; BA, <br> Southwest Baptist <br> Univ, 1973 |
| Deacon | Zermarie |  | 2013 | ASSOCIATE <br> PROFESSOR OF HUMAN RELATIONS, 2013; ADJUNCT ASSOCIATE PROFESSOR OF WOMEN'S AND GENDER STUDIES, 2013 | PhD, Michigan State Univ, 2007; MA, Michigan State Univ, 2003; BA, Rhodes Univ, 1997; BA, Rhodes Univ, 1996 |
| Habashi | Janette | E | 2005 | PROFESSOR OF HUMAN RELATIONS, 2018 | PhD, Kent State Univ, 2003; Med, Univ of Newcastle Upon Tyne, 1994; BSW, Bethlehem Univ, 1991 |


| Johnson | Chad | V | 2011 | ASSOCIATE <br> PROFESSOR OF <br> HUMAN RELATIONS, $2011$ | PhD, Pennsylvania <br> State Univ, 2004; MA, <br> Trinity University, <br> 2008; BA, Texas A\&M <br> Univ, 1995 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Lloyd-Jones | Brenda |  | 2001 | ASSOCIATE CHAIR, DEPARTMENT OF HUMAN RELATIONS, 2008; ASSOCIATE PROFESSOR OF HUMAN RELATIONS AT TULSA, 2015 | PhD, Univ of Tulsa, 1992; MS, Illinois State Univ, 1982; BS, Northern Illinois Univ, 1981 |
| Long | Wesley | C | 1987 | ASSOCIATE <br> PROFESSOR OF <br> HUMAN RELATIONS, $2010$ | PhD, Univ of Oklahoma, 1998; MA, Univ of Oklahoma, 1988; BA, Univ of Oklahoma, 1987 |
| Marcus- <br> Mendoza | Susan | T | 1991 | PROFESSOR OF HUMAN RELATIONS, 2011; PROFESSOR OF WOMEN'S AND GENDER STUDIES, 2011 | PhD, Texas A\&M Univ, 1990; MS, Texas A\&M Univ, 1987; BS, Univ of Houston, 1983 |
| Mosley | Sterlin | L | 2017 | ASSISTANT <br> PROFESSOR OF HUMAN RELATIONS, 2018; ADJUNCT ASSISTANT PROFESSOR OF PROFESSIONAL AND CONTINUING STUDIES, 2018; ADJUNCT ASSISTANT PROFESSOR OF WOMEN'S AND GENDER STUDIES, 2017 | MA, Univ of Oklahoma, 2009; BA, Univ of Oklahoma, 2006 |
| Worley | Jody | A | 2011 | ASSOCIATE <br> PROFESSOR OF <br> HUMAN RELATIONS <br> AT TULSA, 2011 | PhD, Oklahoma State Univ, 2006 |

## Human Relations, B.A.

Minimum Total Credit Hours: 120
Major Hours: 36
Minimum Upper-Division Hours: 48
Overall GPA - Combined and OU: 2.00
Major GPA - Combined and OU: 2.00
Program Code: B515

## Major Requirements

- Some courses required for the major may also fulfill University
General Education and/or Dodge College of Arts \& Sciences
Requirements.
- A grade of C or better is required in each major course.

| Code | Title | Credit |
| :--- | :--- | ---: |
| Hours |  |  |


| Core Requirements | Human Relations Theory | 3 |
| :--- | :--- | :--- |
| H R 3003 | Introduction to Human Relations | 3 |


| H R 3033 | Writing for Human Relations Professionals | 3 |
| :--- | :--- | :--- |
| H R 3043 | Interpersonal Skills and Group Dynamics | 3 |
| H R 3413 | Cultural Awareness in Human Relations | 3 |
| H R 4013 | Social Change Process | 3 |
| H R 4503 | Applied Research | 3 |
| H R 4513 | Service Learning | 3 |
| Major Electives |  | 12 |
| Choose four Upper-Division (3000-4000-level) H R courses | $\mathbf{3 6}$ |  |

## Major Support Requirements

Students must choose one course from each of the following areas based on career interest and professional development. Substitutions are allowed only through consultation and permission from advisor.

| Code $\quad$ Title | Credit <br> Hours |
| :--- | ---: |
| Choose one course from each of the following areas: | 15 |
| Global/Multicultural Perspectives (p. 466) |  |
| Personal/Social Development (p. 466) |  |
| Social Responsibility/Ethical Living (p. 466) |  |
| Organizational (p. 466) | $\mathbf{1 5}$ |
| Statistics (p. 466) |  |
| Total Credit Hours |  |

## Major Support Area Course Lists GLOBAL/MULTICULTURAL PERSPECTIVES

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| AFAM 2003 | Introduction to African and African- | 3 |
|  | American Studies | 3 |
| AFAM 2113 | Africa and the Diaspora | 3 |
| AFAM 3133 | Introduction to African Aesthetics | 3 |
| AFAM 4713 | Afrocentric Thinking and the Civil Rights | 3 |
| ANTH 2203 | Global Cultural Diversity | 3 |
| ANTH 4623 | Approaches to Cross-Cultural Human | 3 |
| ANTH 4903 | Rroblems | 3 |
| REOG 1103 | Human Geography | 3 |
| IAS 2003 | Understanding the Global Community | 3 |
| IAS 3033 | International Human Rights | 3 |
| NAS 1013 | Introduction to Native American Studies | 3 |
| NAS 3113 | Native American Philosophy | 3 |
| RELS 2403 |  | 3 |
| SOC 3623 | Sociology of Race and Ethnicity | 3 |
| SOC 3803 | Inequality in A Global Perspective | 3 |
| WGS 1003 | Introduction to Women's and Gender | 3 |
| WGS 3233 | Studies | 3 |


| PERSONAL/SOCIAL DEVELOPMENT |  |  |
| :--- | :--- | ---: |
| Code | Title | Credit <br> Hours |
| ANTH 1823 | Religion in Everyday Life | 3 |
| COMM 1113 | Principles of Communication | 3 |
| COMM 2213 | Interpersonal Communication | 3 |
| COMM 2613 | Public Speaking | 3 |
| PSY 1113 | Elements of Psychology | 3 |
| RELS 1113 | Introduction to Religious Studies | 3 |
| RELS 2413 |  | 3 |
| SOC 1113 | Introduction to Sociology | 3 |
| SOC 3683 | Wealth, Power, and Prestige | 3 |
| SOC 3723 | Sociology of Family | 3 |
| SOC 3733 | Sociology of Gender | 3 |
| SOC 3843 | Sociology of Aging | 3 |
| SOC 3923 | Alcohol, Drugs and Society | 3 |

SOCIAL RESPONSIBILITY/ETHICAL LIVING

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| GEOG 1203 | Global Environmental Issues | 3 |
| GEOG 3233 | Principles of Sustainability | 3 |
| IAS 3083 | International Activism | 3 |
| PHIL 1203 |  | 3 |
| PHIL 1213 | Introduction to Ethics | 3 |
| PHIL 1263 | Introduction to Ethics in Health Care | 3 |
| PHIL 1713 |  | 3 |
| PHIL 3293 | Environmental Ethics | 3 |
| PHIL 3743 | Feminist Philosophy | 3 |
| PHIL 3753 | Philosophy of Race | 3 |
| P SC 3113 | Bureaucracy and Citizenship | 3 |
| P SC 3213 | Law, Politics, and Society | 3 |
| WGS 3123 | Social Justice and Social Change | 3 |

ORGANIZATIONAL

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| B AD 2113 | Introduction to Business I | 3 |
| B C 2813 | Strategic Communication for Business <br> Professionals | 3 |
| COMM 2113 | Business and Professional Communication | 3 |
| ECON 1113 | Principles of Economics-Macro | 3 |
| ECON 1123 | Principles of Economics-Micro | 3 |
| LSAL 3113 |  | 3 |
| LSAL 4123 |  | 3 |
| MKT 2013 | Introduction to Marketing and Supply Chain | 3 |
| PHIL 3273 | Management | 3 |

## STATISTICS

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| COMM 2513 | Introduction to Statistics | 3 |
| ECON 2843 | Elements of Statistics | 3 |


| P SC/SOC 3123 | Social Statistics | 3 |
| :--- | :--- | :--- |
| PSY 2003 | Understanding Statistics | 3 |
| S WK 2223 | Statistics for Social Work | 3 |

## General Education and College Requirements

Courses for fulfillment of General Education and Dodge College of Arts \& Sciences requirements must be from the approved General Education course list published in the Class Schedule or at http://www.ou.edu/ gened/courses. Courses graded P/NP will not apply.

## UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND

## COLLEGE REQUIREMENTS

| Code Title | Credit |
| :--- | :--- |
|  | Hours |

Core Area I: Symbolic and Oral Communication
English Composition (6 hours)
ENGL 1113 Principles of English Composition 3
ENGL 1213 Principles of English Composition 3
or EXPO 1213 Expository Writing
Language (0-13 hours in the same language)
The college requirement cannot be met by high school
coursework.
Beginning Course 0-5
$\begin{array}{ll}\text { Beginning Course, continued } & 0-5\end{array}$
$\begin{array}{ll}\text { Intermediate Course (2000 level) }{ }^{1,2} & 0-3\end{array}$
Mathematics (3 hours)
Choose one course from the General Education Mathematics 3
list
Core Area II: Natural Science (7 hours, including one laboratory component)
Biological Science
Choose an approved General Education Natural Science 3-4
course with one of the following prefixes: BIOL, HES, MBIO, or
PBIO ${ }^{1}$
Physical Science
Choose an approved General Education Natural Science 3-4
course with one of the following prefixes: AGSC, ASTR, CHEM,
GEOG, GEOL, GPHY, METR, or PHYS ${ }^{1}$
Core Area III: Social Science (6 hours)
P SC 1113 American Federal Government 3
Choose one course from the General Education Social 3
Science list
Core Area IV: Arts and Humanities (18 hours)
Artistic Forms
Choose one course from the General Education Artistic Forms 3
list
Western Culture
HIST 1483 United States to 1865
or HIST 1493 United States, 1865 to the Present
Choose one course from the General Education Western 3
Culture list (excluding HIST 1483/1493)
World Culture
Choose one course from the General Education World Culture 3
list
Additional Core IV Upper-Division Arts \& Humanities courses

| Choose one course from Artistic Forms, Western Culture, or World Culture ${ }^{1,3}$ |  |
| :---: | :---: |
|  | Choose one course from Artistic Forms, Western Culture, or World Culture ${ }^{1,3}$ |
| Core Area V: First Year Experience (3 hours) |  |
| Choose one course |  |
|  | Total Credit Hours |
|  | College of Arts and Sciences Requirements: college requirements are not automatically fulfilled by a previous degree. |
|  | ${ }^{2}$ One course at the intermediate level or demonstrated competency at that level |
|  | 6 upper-division hours, 2 courses, at the 3000-4000-level. Must be outside the major. |

## Free Electives

Electives to bring total applicable hours to the minimum total required for the degree including 48 upper-division hours.

## Information Concerning General Rules, Regulations and Minimum Requirements

Arts and Sciences Hours: At least 80 semester hours of liberal arts and sciences courses are required for a BA degree. At least 55 semester hours of liberal arts and sciences courses are required for a BS degree. Pass/No Pass Enrollment: A maximum of 16 semester hours of free elective credit may be attempted under this option.
Individual Studies (e.g., courses titled "Independent Study"): A maximum of 12 total semester hours may be counted toward graduation, excluding Honors Reading and Honors Research
P.E. Courses: No physical education activity courses will be counted toward the 120 semester hours of acceptable credit for graduation. Senior Institution Hours: A minimum of 60 semester hours applied toward graduation must be earned at senior (4-year) institutions.
Residency:

- At least 15 of the final 30 hours applied toward the degree or at least 50 percent of the hours required by the institution in the major field must be satisfactorily completed at the awarding institution.
- At least 15 semester hours of upper-division major work must be completed in residence at OU.
- OU correspondence courses are not considered resident credit.

Grade Point Averages: Students must earn a minimum over all 2.00 for each of the following: Combined Retention GPA (all college grades), OU Retention GPA, GPA for all major courses, and GPA for all major courses taken at OU. Some schools and departments of the College have higher minimum grade point averages required for their students.

## Suggested Semester Plan of Study

This plan shows one possible grouping of courses that would allow students to graduate in four years. Please refer to the front of the degree checksheet for official requirements. Students must consult with Dodge College of Arts and Sciences and/or Department of Human Relations academic advisors to verify that courses selected each semester fulfill the recommended plan and satisfy University, College of Arts and Sciences, and Human Relations major requirements

## 3 Freshman

| First Semester | Credit <br> Hours |  |
| :--- | ---: | ---: |
| ENGL 1113 | Principles of English Composition (Core I) | 3 |
| P SC 1113 | American Federal Government (Core III) | 3 |
| Beginning Language (Core I) | 5 |  |
| First Year Experience (Core V) | 3 |  |
| Free Elective, lower-division | 3 |  |
| Credit Hours | $\mathbf{1 7}$ |  |

Second Semester
ENGL 1213 Principles of English Composition (Core I) 3 or EXPO 1213 or Expository Writing
Choose one of the following (Core I): ${ }^{1} 3$

| COMM 2513 | Introduction to Statistics |
| :--- | :--- |
| ECON 2843 | Elements of Statistics |
| PSY 2003 | Understanding Statistics |
| S WK 2223 | Statistics for Social Work |

Artistic Forms (Core IV) ..... 3
Beginning Language continued (Core I) ..... 5
Free Elective, lower-division ..... 3
Credit Hours ..... 17
Sophomore
First Semester
Social Science Elective (Core III) ..... 3
Intermediate Language ..... 3
Natural Science with lab (Core II) ..... 4
World Culture (Core IV) ${ }^{2}$ ..... 3
Free Elective, lower-division ..... 3
Credit Hours ..... 16
Second Semester
HIST 1483 United States to 1865 (Core IV) ..... 3
Western Culture Elective (Core IV) ..... 3
Natural Science without lab (Core II) ..... 3
Free Elective, lower-division ..... 3
Free Elective, Iower-division ..... 3
Credit Hours ..... 15

## Junior

## First Semester

| H R 3003 | Human Relations Theory | 3 |
| :--- | :--- | ---: |
| H R 3013 | Introduction to Human Relations | 3 |
| H R 3033 | Writing for Human Relations Professionals | 3 |
| Arts \& Humanities, upper-division, outside major (Gen. Ed.) | 3 |  |
| Free Elective, upper-division (3000-4000-level) | 3 |  |
| Credit Hours | $\mathbf{1 5}$ |  |

## Second Semester

| H R 3043 | Interpersonal Skills and Group Dynamics | 3 |
| :--- | :--- | ---: |
| H R 3413 | Cultural Awareness in Human Relations | 3 |
| H R 4503 | Applied Research | 3 |
| H R Major Elective, upper-division | 3 |  |
| Arts \& Humanities, upper-division, outside major (Gen. Ed.) | 3 |  |
|  | Credit Hours | $\mathbf{1 5}$ |



## Human Relations, Minor

Minimum Total Credit Hours: 15
Minimum Upper-Division Hours: 9

## Program Code: N515

- The requirements for a minor must be completed concurrently with the major degree requirements.
- No minor may be added by completing courses after receiving the bachelor's degree.

At least six (6) credit hours must be earned in courses acceptable for residence credit by standards set forth by the Dodge College of Arts and Sciences, excluding transfer, correspondence, and examination (AP, CLEP, Advanced Standing) credit. Courses for the minor may not be taken Pass/ No Pass.

No single course may be used by a student to satisfy a major requirement and a minor requirement. A course may be used, however, to satisfy both a major support requirement and a minor requirement.

Requests to substitute a minor requirement must be approved in writing by the Department of Human Relations.

## Required Courses

Students must successfully complete at least 15 hours of coursework in Human Relations, including at least nine (9) hours at the upper-division level.

| Code $\quad$ Title | Credit <br> Hours |
| :--- | ---: | ---: |
| H R 3013 | 3 |
| Choose four courses from any undergraduate Human <br> Relations coursework | 12 |
| Total Credit Hours | $\mathbf{1 5}$ |
| - Minors in the Dodge College of Arts \& Sciences are available to all |  |

## Clinical Mental Health Counseling (Online), M.C.M.H.C.

Minimum Total Hours (Non-Thesis): 60

## Program Code: M202

This program has pending 2024 changes that have not yet been approved by the OU Board of Regents which are not reflected here.
Program Requirements

| Code | Title | Credit |
| :---: | :---: | :---: |
|  |  | Hours |
| Core Courses (24 hours) |  |  |
| H R 5433 | Group Counseling in Human Relations | 3 |
| H R 5453 | Ethical Issues in H R Counseling | 3 |
| H R 5503 | Research for Counseling | 3 |
| H R 5533 | Counseling Theories in Clinical Mental Health Counseling | 3 |
| H R 5563 | Career Counseling | 3 |
| H R 5593 | Multicultural Counseling | 3 |
| H R 5613 | Assessment and Evaluation in Counseling | 3 |
| H R 5923 | Human Growth and Development | 3 |
| Required Focused Courses (36 hours) |  |  |
| H R 5283 | Clinical Practicum | 3 |
| H R 5413 | Addiction Counseling | 3 |
| H R 5463 | Counseling Skills in Human Relations | 3 |
| H R 5483 | Diagnosis in Human Relations Counseling | 3 |
| H R 5513 | Couples and Family Counseling | 3 |
| H R 5633 | Advanced Counseling Skills | 3 |
| H R 5643 | Crisis Intervention and Trauma Counseling | 3 |
| H R 5663 | Psychopathology | 3 |
| H R 5883 | Introduction to the Counseling Profession | 3 |
| H R 5893 | Psychopharmacology | 3 |
| H R 5903 | Counseling Internship I | 3 |
| H R 5913 | Counseling Internship II | 3 |
| Total Credit Hours |  | 60 |

## NOTES

- For Non-Thesis students, the comprehensive exam will be completed during the last two semesters of the program concurrently with Counseling Internship I and, if needed, Counseling Internship II.


## CMHC TRANSFER CREDIT GUIDELINEs

Transfer credits are not accepted for the online Master of Clinical Mental Health Counseling program.

## General Requirements for all Master's Degrees

The master's degree requires the equivalent of at least two semesters of satisfactory graduate work and additional work as may be prescribed for the degree.

All coursework applied to the master's degree must carry graduate credit.
Master's degree programs which require a thesis consist of at least 30 credit hours. All non-thesis master's degree programs require at least 30 credit hours.

Credit transferred from other institutions must meet specific criteria and is subject to certain limitations.

Courses completed through correspondence study may not be applied to the master's degree.

To qualify for a graduate degree, students must achieve an overall grade point average of 3.0 or higher in the degree program coursework and in all resident graduate coursework attempted. A student must also have at least a 3.0 in all coursework (including undergraduate coursework if any).

Additional information for master's degree students may be found in the Graduate College Bulletin.

## Clinical Mental Health Counseling, M.H.R.

Minimum Total Hours (Non-Thesis): 60
Program Code: M200

- This program is Non-Thesis Only.


## Requirements

$\left.\begin{array}{lll}\text { Code } & \text { Title } & \begin{array}{c}\text { Credit } \\ \text { Hours }\end{array} \\ \text { Core Courses } & \text { (9 hours, shared with standard MHR program) }\end{array}\right)$

| H R 5200 | Internship In Human Relations ${ }^{1}$ | 6 |
| :---: | :---: | :---: |
| Electives |  |  |
| Choose 27 | nal hours of counseling electives ${ }^{2}$ | 27 |
| Total Cred |  | 60 |
| ${ }^{1}$ Students must complete 9 hours of core requirements, 18 hours of required counseling courses, and 18 hours of electives prior to enrolling in internship. |  |  |
| ${ }^{2}$ These electives must come from the LPC course list and will be approved by the graduate liason. |  |  |

## Notes

- No more than $1 / 2$ of course work can be S/U graded.
- For Non-Thesis students, at least $75 \%$ of your course work ( 27 hours), including the two core courses, must be completed before you take your comprehensive exam.


## MHR Transfer Credit Guidelines

- MHR students may transfer no more than 9 hours of graduate credit from other universities. These credits must be evaluated by the university. They may not be applied toward individual course requirements without prior graduate liaison approval.
- Other OU Graduate Classes: No more than 9 hours of graduate credit taken in other OU programs may be used toward the MHR degree. These hours must be approved by the MHR graduate liaison.
- MHR students may not apply more than 9 combined hours of transfer credit and OU credit outside the HR program.
- A letter must accompany all transfer hours from the school-of-origin stating which LPC course requirement the course(s) fulfill. These transfer hours will then get departmental approval.
- At least 39 hours of a student's coursework must be in classroombased HR classes. Internship is not classroom-based and therefore cannot be counted as part of the 39 hours of classroom-based work. Other University of Oklahoma courses and transfer hours do not count as part of these 39 hours.


## General Requirements for all Master's Degrees

The master's degree requires the equivalent of at least two semesters of satisfactory graduate work and additional work as may be prescribed for the degree.

All coursework applied to the master's degree must carry graduate credit.
Master's degree programs which require a thesis consist of at least 30 credit hours. All non-thesis master's degree programs require at least 30 credit hours.

Credit transferred from other institutions must meet specific criteria and is subject to certain limitations.

Courses completed through correspondence study may not be applied to the master's degree.

To qualify for a graduate degree, students must achieve an overall grade point average of 3.0 or higher in the degree program coursework and in all resident graduate coursework attempted. A student must also have at least a 3.0 in all coursework (including undergraduate coursework if any).

Additional information for master's degree students may be found in the Graduate College Bulletin.

## Clinical Mental Health Counseling, M.S.

Minimum Total Hours (Non-Thesis): 60<br>Program Code: M205<br>\section*{Program Requirements}<br>- This program is Non-Thesis Only.

| Code | Title | Credit <br> Hours |
| :---: | :---: | :---: |
| Core Requirements |  |  |
| H R 5883 | Introduction to the Counseling Profession | 3 |
| H R 5533 | Counseling Theories in Clinical Mental Health Counseling | 3 |
| H R 5503 | Research for Counseling | 3 |
| H R 5923 | Human Growth and Development | 3 |
| H R 5453 | Ethical Issues in H R Counseling | 3 |
| H R 5613 | Assessment and Evaluation in Counseling | 3 |
| H R 5593 | Multicultural Counseling | 3 |
| H R 5463 | Counseling Skills in Human Relations | 3 |
| H R 5483 | Diagnosis in Human Relations Counseling | 3 |
| H R 5663 | Psychopathology | 3 |
| H R 5283 | Clinical Practicum ${ }^{1}$ | 3 |
| H R 5633 | Advanced Counseling Skills | 3 |
| H R 5563 | Career Counseling | 3 |
| H R 5903 | Counseling Internship I ${ }^{1}$ | 3 |
| H R 5913 | Counseling Internship II | 3 |
| Electives |  |  |
| 15 additio the LPC cou liaison. | rs of counseling electives are required from st and will be approved by the graduate | 15 |

Total Credit Hours 60

1 Students must complete 30 hours of core counseling courses prior to enrolling in practicum (H R 5283), and 48 hours of core counseling courses prior to enrolling in internship (H R 5903).

## NOTES

- For Non-Thesis students, the comprehensive exam will be completed during the last two semesters of the program concurrently with Counseling Internship I and, if needed, Counseling Internship II.


## Human Relations Transfer Credit Guidelines:

- Students may transfer no more than 9 hours of graduate counselingbased credit from other universities. These credits must be evaluated by the university. They may not be applied toward individual course requirements without prior graduate liaison approval.
- Other OU Graduate Classes: No more than 9 hours of graduate counseling-based credit taken in other OU programs may be used toward the CMHC degree. These hours must be approved by the HR graduate liaison.
- Students may not apply more than 9 combined hours of transfer credit and OU credit outside the HR program.
- A letter must accompany all transfer hours from the school-oforigin outside of the State of Oklahoma stating which LPC course requirement the course(s) fulfill(s). These transfer hours will then get departmental approval.
- At least 30 hours of a student's coursework must be in classroombased H R classes. Practicum and Internship is not classroom-based and therefore cannot be counted as part of the 30 hours of classroom based work. Also, other University of Oklahoma courses and transfer hours do not count as part of these 30 hours.
- Transfer courses cannot be older than 5 years old at the time of graduation.


## General Requirements for all Master's Degrees

The master's degree requires the equivalent of at least two semesters of satisfactory graduate work and additional work as may be prescribed for the degree.

All coursework applied to the master's degree must carry graduate credit.
Master's degree programs which require a thesis consist of at least 30 credit hours. All non-thesis master's degree programs require at least 30 credit hours.

Credit transferred from other institutions must meet specific criteria and is subject to certain limitations.

Courses completed through correspondence study may not be applied to the master's degree.

To qualify for a graduate degree, students must achieve an overall grade point average of 3.0 or higher in the degree program coursework and in all resident graduate coursework attempted. A student must also have at least a 3.0 in all coursework (including undergraduate coursework if any).

Additional information for master's degree students may be found in the Graduate College Bulletin.

# Diversity, Equity, and Strategic Impact (Online), M.H.R. 

Minimum Total Hours (Non-Thesis): 33
Program Code: M271
Program Requirements

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Core |  | 3 |
| H R 5003 | Theoretical Foundations Of Human <br> Relations | 2 |
| H R 5022 | Research in Human Relations I - <br> Quantitative |  |
| H R 5122 | Research in Human Relations II - <br> Qualitative | 2 |
| Required Courses | Current Problems In Human Relations | 3 |
| H R 5013 | Graduate Research and Writing for Human  <br> H R 5203 Relations | 3 |


| HR5363 | Program Training \& Development | 3 |
| :--- | :--- | ---: |
| HR 5733 | Program Assessment and Evaluation | 3 |
| HR5753 | Advanced Theories: Diversity and Justice | 3 |
| HR5773 | Policy, Program, and Practice | 3 |
| HR 5783 | Advanced Theories: Strategies of Social <br>  <br>  <br> Change | 3 |
| HR5793 | Social Change and the Law | 3 |
| HR 5880 | Human Relations Capstone (2 hours) | 2 |
| Total Credit Hours | $\mathbf{3 3}$ |  |

## NOTES:

- MHR students may transfer no more than 9 hours of graduate credit from other universities. These credits must be evaluated by the university. They may not be applied toward individual course requirements without prior graduate liaison approval. MHR students may not apply more than 9 combined hours of transfer credit and OU credit outside the HR program.
- Other OU Graduate Classes: No more than 9 hours of graduate credit taken in other OU programs may be used toward the MHR degree. These hours must be approved by the graduate liaison.


## General Requirements for all Master's Degrees

The master's degree requires the equivalent of at least two semesters of satisfactory graduate work and additional work as may be prescribed for the degree.

All coursework applied to the master's degree must carry graduate credit.
Master's degree programs which require a thesis consist of at least 30 credit hours. All non-thesis master's degree programs require at least 30 credit hours.

Credit transferred from other institutions must meet specific criteria and is subject to certain limitations.

Courses completed through correspondence study may not be applied to the master's degree.

To qualify for a graduate degree, students must achieve an overall grade point average of 3.0 or higher in the degree program coursework and in all resident graduate coursework attempted. A student must also have at least a 3.0 in all coursework (including undergraduate coursework if any).

Additional information for master's degree students may be found in the Graduate College Bulletin.

## Human Relations (Standard), M.H.R.

Minimum Total Hours (Thesis): 36
Minimum Total Hours (Non-Thesis): 36
Program Code: M515 Q325 (M516 Q325 Online)

## Requirements

All MHR students (M515) must take the same 6 hours of core coursework and choose from one of two concentrations, Standard (Q325) or Human Resources (Q326).


## Non-Thesis Option

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Core Courses |  |  |
| H R 5023 | Research in Human Relations |  |
| H R 5093 | Introduction to Graduate Studies in Human <br>  <br>  <br> Relations | 3 |
| Standard Concentration | 3 |  |
| H R 5003 | Theoretical Foundations Of Human |  |
|  | Relations | 3 |
| H R 5013 | Current Problems In Human Relations |  |
| H R 5200 | Internship In Human Relations | 3 |
| Electives |  | 6 |
| Choose 18 hours ${ }^{1}$ | 18 |  |
| Total Credit Hours | 36 |  |

1 No more than six hours of HR5100, six hours of HR5110, six hours of H R 5990, and nine hours of H R 5113 may count towards degree; No more than a combined total of six hours of H R 5960 and H R 5970 may count towards the degree.

## Notes

- At least 15 hours of a student's coursework (except students in the $100 \%$ online program) must be in classroom-based H R classes. Internship, independent study, directed reading, and practicum are not classroom-based and therefore cannot be counted as part of the 15 hours of classroom-based work. Also, other University of Oklahoma courses and transfer hours do not count as part of these 15 hours. Students facing circumstances which prevent them from meeting this requirement may petition the graduate liaison for an exception, with good cause. The graduate liaison has the
discretion to approve fewer than 15 classroom-based HR hours, with appropriate justification and in limited circumstances.
- MHR students may transfer no more than 9 hours of graduate credit from other universities. These credits must be evaluated by the university. They may not be applied toward individual course requirements without prior graduate liaison approval. MHR students may not apply more than 9 combined hours of transfer credit and OU credit outside the HR program.
- Other OU Graduate Classes: No more than 9 hours of graduate credit taken in other OU programs may be used toward the MHR degree. These hours must be approved by the graduate liaison.


## General Requirements for all Master's Degrees

The master's degree requires the equivalent of at least two semesters of satisfactory graduate work and additional work as may be prescribed for the degree.

All coursework applied to the master's degree must carry graduate credit.
Master's degree programs which require a thesis consist of at least 30 credit hours. All non-thesis master's degree programs require at least 30 credit hours.

Credit transferred from other institutions must meet specific criteria and is subject to certain limitations.

Courses completed through correspondence study may not be applied to the master's degree.

To qualify for a graduate degree, students must achieve an overall grade point average of 3.0 or higher in the degree program coursework and in all resident graduate coursework attempted. A student must also have at least a 3.0 in all coursework (including undergraduate coursework if any).

Additional information for master's degree students may be found in the Graduate College Bulletin.

## Human Relations: Human Resources, <br> M.H.R.

Minimum Total Hours (Thesis): 36
Minimum Total Hours (Non-Thesis): 36
Program Code: M515 Q326

## Requirements

All MHR students (M515) must take the same 6 hours of core coursework and choose from one of two concentrations, Standard (Q325) or Human Resources (Q326).

## Thesis Option

| Code Title | Credit |
| :--- | :--- |
|  | Hours |

## Core Courses

| H R 5023 | Research in Human Relations | 3 |
| :--- | :--- | :--- |
| H R 5093 | Introduction to Graduate Studies in Human | 3 |
|  | Relations |  |

## Human Resources Concentration

| H R 5143 | Human Resources for the Human Relations Professional | 3 |
| :---: | :---: | :---: |
| H R 5803 | Total Rewards: Compensations and Benefits for HR Management Professionals for the HR Prof | 3 |
| H R 5813 | Business Management and Strategic Planning | 3 |
| H R 5823 | Workforce Planning \& Employment, A Component of Human Resource Management for the HR Prof | 3 |
| H R 5833 | Human Resource Development | 3 |
| H R 5853 | Employee and Labor Relations for HR Management Professions in Human Relations | 3 |
| H R 5863 | Human Resources for the HR Prof Fundamentals of Human Resource Information Systems | 3 |
| Diversity \& Inclusion |  |  |
| Choose one with approva | se on the topic of Diversity and Inclusion he graduate liaison and advisor | 3 |
| Research \& Application |  |  |
| H R 5980 | Research for Master's Thesis (3 hours) | 3 |
| Choose one of the following: |  | 3 |
| H R 5200 | Internship In Human Relations (3 hours) |  |
| 3 hours of elective as approved by liaison and advisor |  |  |

## Total Credit Hours

36

## Non-Thesis Option

| Code | Title |
| :--- | :--- |
|  | Credit |
|  | Hours |


| Core Courses |  |  |
| :---: | :---: | :---: |
| H R 5023 | Research in Human Relations | 3 |
| H R 5093 | Introduction to Graduate Studies in Human Relations | 3 |
| Human Resources Concentration |  |  |
| H R 5143 | Human Resources for the Human Relations Professional | 3 |
| H R 5803 | Total Rewards: Compensations and Benefits for HR Management Professionals for the HR Prof | 3 |
| H R 5813 | Business Management and Strategic Planning | 3 |
| H R 5823 | Workforce Planning \& Employment, A Component of Human Resource Management for the HR Prof | 3 |
| H R 5833 | Human Resource Development | 3 |
| H R 5853 | Employee and Labor Relations for HR Management Professions in Human Relations | 3 |
| H R 5863 | Human Resources for the HR Prof Fundamentals of Human Resource Information Systems | 3 |
| Diversity \& Inclusion |  |  |
| Choose on with appr | e on the topic of Diversity and Inclusion he graduate liaison and advisor | 3 |

Research \& Application - Choose one of the following non-thesis completion tracks:
Comprehensive Examination Track: Choose one of the following:

| H R $5200 \quad$ Internship In Human Relations (6 hours) |
| :--- |
| 6 hours of elective as approved by liaison and advisor |
| Capstone Project Track: |
| H R $5880 \quad$ Human Relations Capstone (3 hours) |
| Chose one of the following: |
| H R $5200 \quad$ Internship In Human Relations (3 hours) |
| 3 hours of elective as approved by liaison and advisor |

Notes

- At least 15 hours of a student's coursework must be classroombased HR courses. Internship, Independent Study, Directed Reading, and Practicum are not classroom-based and therefore cannot be counted as part of these 15 hours of classroom-based work. Also, other University of Oklahoma courses and transfer hours do not count as part of these 15 hours.
- No more than $1 / 2$ of course work can be S/U graded.
- MHR students may transfer no more than 9 hours of graduate credit from other universities. These credits must be evaluated by the university. They may not be applied toward individual course requirements without prior graduate liaison approval.
- MHR students may not apply more than 9 combined hours of transfer credit and OU credit outside the HR program.
- Other OU Graduate Classes: No more than 9 hours of graduate credit taken in other OU programs may be used toward the MHR degree. These hours must be approved by the graduate liaison.
- For Non-Thesis students, at least 75\% of your course work (27 hours), including the two core courses, must be completed before you take your comprehensive exam.


## General Requirements for all Master's Degrees

The master's degree requires the equivalent of at least two semesters of satisfactory graduate work and additional work as may be prescribed for the degree.

All coursework applied to the master's degree must carry graduate credit.
Master's degree programs which require a thesis consist of at least 30 credit hours. All non-thesis master's degree programs require at least 30 credit hours.

Credit transferred from other institutions must meet specific criteria and is subject to certain limitations.

Courses completed through correspondence study may not be applied to the master's degree.

To qualify for a graduate degree, students must achieve an overall grade point average of 3.0 or higher in the degree program coursework and in all resident graduate coursework attempted. A student must also have at least a 3.0 in all coursework (including undergraduate coursework if any).

Additional information for master's degree students may be found in the Graduate College Bulletin.

## ${ }^{6}$ Inclusive Leadership, M.H.R.

Minimum Total Hours (Non-Thesis): 33

Program Code: M523 (online)

- This program is online only.


## Requirements

| Code | Title | Credit <br> Hours |
| :---: | :---: | :---: |
| Core |  |  |
| H R 5003 | Theoretical Foundations Of Human Relations | 3 |
| H R 5022 | Research in Human Relations IQuantitative | 2 |
| H R 5122 | Research in Human Relations II Qualitative | 2 |
| Required Courses |  |  |
| H R 5033 | Introduction to Inclusive Leadership in Organizations | 3 |
| H R 5203 | Graduate Research and Writing for Human Relations | 3 |
| H R 5880 | Human Relations Capstone (2 hours) | 2 |
| H R 5873 | Organizational Ethics | 3 |
| H R 5100 | Advanced Theories in Human Relations (Topic Strategic Leadership for Intercultural Awareness) | 3 |
| H R 5100 | Advanced Theories in Human Relations (Topic: Leadership in the Legal Environment) | 3 |
| H R 5110 | Advanced Seminar in Current Problems (Topic: Developing Inclusive Leaders in a Diverse World) | 3 |
| H R 5110 | Advanced Seminar in Current Problems (Topic: Leadership for Systemic Change) | 3 |
| H R 5113 | Seminar in Local Issues in Human <br> Relations (Topic: Organizational Behavior for Leaders) | 3 |

Total Credit Hours

## NOTES:

- MHR students may transfer no more than 9 hours of graduate credit from other universities. These credits must be evaluated by the university. They may not be applied toward individual course requirements without prior graduate liaison approval. MHR students may not apply more than 9 combined hours of transfer credit and OU credit outside the HR program.
- Other OU Graduate Classes: No more than 9 hours of graduate credit taken in other OU programs may be used toward the MHR degree. These hours must be approved by the graduate liaison.


## General Requirements for all Master's Degrees

The master's degree requires the equivalent of at least two semesters of satisfactory graduate work and additional work as may be prescribed for the degree.

All coursework applied to the master's degree must carry graduate credit.
Master's degree programs which require a thesis consist of at least 30 credit hours. All non-thesis master's degree programs require at least 30 credit hours.

Credit transferred from other institutions must meet specific criteria and is subject to certain limitations.

Courses completed through correspondence study may not be applied to the master's degree.

To qualify for a graduate degree, students must achieve an overall grade point average of 3.0 or higher in the degree program coursework and in all resident graduate coursework attempted. A student must also have at least a 3.0 in all coursework (including undergraduate coursework if any).

Additional information for master's degree students may be found in the Graduate College Bulletin.

## Human Resource Studies, M.A.

| Minimum Total Hours (Thesis): 36 |  |  |
| :---: | :---: | :---: |
| Minimum Total Hours (Non-Thesis): 36 |  |  |
| Program Code: M519 (M520 online) |  |  |
| Requirements |  |  |
| Thesis Option |  |  |
| Code | Title | Credit Hours |
| Human Relations Core (6 hours) |  |  |
| H R 5023 | Research in Human Relations | 3 |
| H R 5093 | Introduction to Graduate Studies in Human Relations | 3 |
| Human Resources Core (21 hours) |  |  |
| H R 5143 | Human Resources for the Human Relations Professional | 3 |
| H R 5803 | Total Rewards: Compensations and Benefits for HR Management Professionals for the HR Prof | 3 |
| H R 5813 | Business Management and Strategic Planning | 3 |
| H R 5823 | Workforce Planning \& Employment, A Component of Human Resource Management for the HR Prof | 3 |
| H R 5833 | Human Resource Development | 3 |
| H R 5853 | Employee and Labor Relations for HR Management Professions in Human Relations | 3 |
| H R 5863 | Human Resources for the HR Prof Fundamentals of Human Resource Information Systems | 3 |
| Diversity, Equity, and Inclusion (3 hours) |  |  |

Choose one course on the topic of Diversity and Inclusion with approval of the graduate liaison and advisor
Research and Application (6 hours)
H R 5980 Research for Master's Thesis 3
Choose one of the following: 3
H R 5200 Internship In Human Relations
3 hours of graduate elective as approved by graduate
liaison and advisor
Total Credit Hours

## Non-Thesis Option

| Code | Title | Credit <br> Hours |
| :---: | :---: | :---: |
| Human Relations Core (6 hours) |  |  |
| H R 5023 | Research in Human Relations | 3 |
| H R 5093 | Introduction to Graduate Studies in Human Relations | 3 |
| Human Resources Core (21 hours) |  |  |
| H R 5143 | Human Resources for the Human Relations Professional | 3 |
| H R 5803 | Total Rewards: Compensations and Benefits for HR Management Professionals for the HR Prof | 3 |
| H R 5813 | Business Management and Strategic Planning | 3 |
| H R 5823 | Workforce Planning \& Employment, A Component of Human Resource Management for the HR Prof | 3 |
| H R 5833 | Human Resource Development | 3 |
| H R 5853 | Employee and Labor Relations for HR Management Professions in Human Relations | 3 |
| H R 5863 | Human Resources for the HR Prof Fundamentals of Human Resource Information Systems | 3 |
| Diversity, Equity, and Inclusion (3 hours) |  |  |
| Choose on | se on the topic of Diversity and Inclusion | 3 |

with approval of the graduate liaison and advisor
Research and Application (6 hours) - Choose one of the 6
following Non-Thesis completion tracks:
Comprehensive Examination Track - Choose one of the following:
6 hours of H R 5200
3 hours of H R 5200 AND 3 hours of graduate elective as approved by graduate liaison and advisor
6 hours of graduate elective as approved by graduate liaison and advisor
Capstone Project Track
H R $5880 \quad$ Human Relations Capstone (3 hours)
Choose one of the following:
H R 5200 Internship In Human Relations (3 hours)
3 hours of graduate elective as approved by graduate
liaison and advisor
Total Credit Hours
36

## General Requirements for all Master's Degrees

The master's degree requires the equivalent of at least two semesters of satisfactory graduate work and additional work as may be prescribed for the degree.

All coursework applied to the master's degree must carry graduate credit.
Master's degree programs which require a thesis consist of at least 30 credit hours. All non-thesis master's degree programs require at least 30 credit hours.

Credit transferred from other institutions must meet specific criteria and is subject to certain limitations.

Courses completed through correspondence study may not be applied to the master's degree.

To qualify for a graduate degree, students must achieve an overall grade point average of 3.0 or higher in the degree program coursework and in all resident graduate coursework attempted. A student must also have at least a 3.0 in all coursework (including undergraduate coursework if any).

Additional information for master's degree students may be found in the Graduate College Bulletin.

## Helping Skills in Human Relations, Graduate Certificate

Minimum Total Hours: 12

Program Code: G047
The certificate provides professionals in a wide variety of helping professions with the knowledge and skills to improve relationships, and to be effective and ethical helpers.
Certificate Requirements

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| H R 5003 | Theoretical Foundations Of Human <br> Relations | 3 |
| H R 5463 | Counseling Skills in Human Relations |  |
| or H R 5633 | Advanced Counseling Skills | 3 |
| H R 5453 | Ethical Issues in H R Counseling | 3 |
| Choose one 3-credit elective as approved by the chairperson <br> or graduate liaison for the Department of Human Relations | 3 |  |

Total Credit Hours
A graduate certificate is not a graduate degree. A graduate degree represents a program of independent inquiry beyond the depth of coursework alone, while a graduate certificate represents a set of courses only.

- All courses must be taken at OU. No transfer credit will apply.
- No course substitutions are permitted for graduate certificates.
- Coursework applied to a graduate certificate cannot be more than five years old as of the semester the graduate certificate is awarded.
- Students must earn a grade point average of 3.00 or higher on all coursework applied to the graduate certificate.


# Human Resource Development and Workforce Diversity, Graduate Certificate 

Minimum Total Hours: 12

Program Code: G058 (Online:G059)
The certificate helps students develop the skills and knowledge needed to be successful in the contemporary workplace. Students will learn how to develop human resources and address social justice and diversity issues in work settings.

## Certificate Requirements

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| H R 5143 | Human Resources for the Human Relations <br> Professional | 3 |
| H R 5323 | Organizational Behavior in Human <br> Relations | 3 |
| H R 5053 | Diversity and Justice in Organizations | 3 |
| H R 5833 | Human Resource Development | 3 |
| Total Credit Hours | $\mathbf{1 2}$ |  |

A graduate certificate is not a graduate degree. A graduate degree represents a program of independent inquiry beyond the depth of coursework alone, while a graduate certificate represents a set of courses only.

- All courses must be taken at OU. No transfer credit will apply.
- No course substitutions are permitted for graduate certificates.
- Coursework applied to a graduate certificate cannot be more than five years old as of the semester the graduate certificate is awarded.
- Students must earn a grade point average of 3.00 or higher on all coursework applied to the graduate certificate.


## Schusterman Program in Judaic and Israel Studies

Alan T. Levenson, Director
455 W. Lindsey, Room 403A
Norman, Oklahoma 73019
Phone: (405) 325-6508
FAX: (405) 325-6521
judaicstudies@ou.edu
Website: http://judaicstudies.ou.edu

## General Information

The Schusterman Center for Judaic and Israel Studies at OU offers an exceptionally wide variety of courses, including Jewish history in all periods and places, Hebrew Language and Literature at all levels, the Bible and Its Interpretation, Israel Studies, the Holocaust/Genocide, Jewish Literature in translation, as well as anthropological, sociological, and political perspectives on the Jewish experience.

Judaic Studies explores the history and culture of the Jewish people over a period of four millennia in the Land of Israel and in the Diaspora (Dispersion) through the tools of the humanities and the social sciences. The field began as an academic discipline in Europe during the nineteenth century and developed within universities and research centers the world
over during the twentieth and twenty-first. Israel Studies is a much more recent field dedicated to interpreting the culture, politics and society of the modern State of Israel.

## Scholarships \& Facilities

## Scholarships and Awards

## Schusterman Center Study in Israel Scholarship

Scholarships are offered for semester-long study abroad programs in Israel; and for those wishing to study in Israel during the summer. The scholarships are open to full-time University of Oklahoma undergraduate and graduate students during the period for which application is made. Students must have completed a minimum of 15 hours of college coursework. Priority will be given to graduate students concentrating in Jewish History and undergraduate students who have officially declared a major or a minor in Judaic Studies or a minor in Hebrew. Applicants must have maintained a 3.0 GPA in Jewish History, Judaic Studies or Hebrew courses and a 2.5 GPA overall.

## Schusterman Center Domestic Scholarships

The Schusterman Center awards merit-based scholarships each academic year:

## Esther Rose Shnier Scholarship

The Schusterman Center annually offers two Shnier Scholarships. The scholarships are open to any individual who, having completed at least 30 credit hours of college coursework, is a full-time, regularly enrolled student of the University of Oklahoma during the period in which application is made, and who has officially declared a major or minor in Judaic Studies and/or a minor in Hebrew. Applicants must have maintained a 3.0 grade average on a scale of 4.0 in Judaic Studies/Hebrew courses. The number of completed hours in the major or minors will also be taken into consideration by the selection committee. Any eligible, deserving undergraduate student is qualified for either an initial award or a subsequent award if, in the opinion of the selection committee, the student is making satisfactory progress toward graduation and the student needs supplemental financial assistance. Applicants will be chosen chiefly on college performance with financial need assuming a secondary role.

## Rosalyn Price Scholarship

The Price Memorial Scholarship is open to any individual who is a full-time, regularly enrolled student of the University of Oklahoma majoring in Judaic Studies. Applicants must have maintained a 2.8 grade point average on a scale of 4.0 . The overall grade point average may also be taken into consideration by the selection committee as well as the number of completed hours in the major. Any eligible, deserving undergraduate or graduate student is qualified for either an initial award or a subsequent award if, in the opinion of the selection committee, the student is making satisfactory progress toward graduation.

## Zarrow Family Scholarship

The Zarrow Scholarship is open to any individual who, having completed at least three Judaic Studies and/or Hebrew courses, is a full-time, regularly enrolled undergraduate or graduate student of the University of Oklahoma during the period in which application is made. Preference will be given to declared majors or minors in Judaic Studies or minors in Hebrew. Applicants must have maintained a 3.0 grade point average in the minor on a scale of 4.0. The overall grade point average may also be taken into consideration by the selection committee as well as the number of
completed hours in the major and/or minors. Any eligible, deserving undergraduate or graduate student is qualified for either an initial award or a subsequent award if, in the opinion of the selection committee, the student is making satisfactory progress toward graduation.

## Norman Stillman Prize for Excellence in Judaic Studies

Established in 2016 in honor of the Schusterman Center's founding director, the Norman Stillman Prize for Excellence in Judaic Studies is awarded annually to an outstanding undergraduate or graduate student scholar at the University of Oklahoma. Prospective winners are nominated by our faculty and the awardees selected by committee.

## Film Library, Videos and Recordings

The Schusterman Center has a large collection of DVDs, including recorded lectures. Please contact the departmental office for individual availability. The Schusterman Center for Judaic and Israel Studies also offers a variety of recorded lectures, available on their YouTube channel.

## Undergraduate Study

## Bachelor of Arts

The Bachelor of Arts in Judaic Studies (p. 478) provides students with: a solid grounding in the history and culture of one of the seminal components of modern civilization; in-depth familiarity with one of the most significant countries of the Middle East; and proficiency in the language of present-day Israel and of Jewish historical creativity.

## Minor

The Judaic \& Israel Studies Minor (p. 480) allows for each student to select what interests them. Students can mix and match from three focus areas: Israel: Ancient and Modern, European Jewry: Medieval to the Holocaust Bible, Jewish Culture \& Literature.

A Hebrew Language Minor (p. 574) is offered through the Department of Modern Languages, Literatures, and Linguistics.

## Graduate Study

Students who wish to pursue a master's or doctoral degree may select a Judaic/Israel History major field through the Department of History's graduate programs.

## Core Faculty

| Last Name | First/Middle Name | Middle init. | OU Service start | Title(s), date(s) appointed | Degrees Earned, Schools, Dates Completed |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Grinberg | Ronnie | A | 2015 | ASSISTANT <br> PROFESSOR <br> OF HISTORY, <br> 2015; ASSISTANT <br> PROFESSOR IN <br> JUDAIC AND ISRAEL <br> STUDIES | PhD, Northwestern <br> Univ, 2010; MA, <br> Northwestern Univ, 2004; BA, Barnard College-Columbia Univ, 2001 |
| Kritz | Ori |  | 2004 | PROFESSOR <br> OF MODERN <br> LANGUAGES, <br> LITERATURES, AND <br> LINGUISTICS, 2015; <br> PROFESSOR IN JUDAIC AND ISRAEL <br> STUDIES, 2017; HEAD <br> OF THE HEBREW <br> PROGRAM | PhD, Columbia Univ, 1993; MPhil, Columbia Univ, 1990; MA, Tel-Aviv Univ, 1986; BA, Tel-Aviv Univ, 1981 |


| Levenson | Alan | T | 2008 | PROFESSOR OF HISTORY, 2008; SCHUSTERMANJOSEY CHAIR IN JUDAIC HISTORY, 2015; DIRECTOR, SCHUSTERMAN CENTER OF JUDAIC AND ISRAEL STUDIES, 2015 | PhD, Ohio State uNiv, 1990; MS, Brown Univ, 1982; BA, Brown Univ, 1982 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Schapkow | Carsten |  | 2005 | ASSOCIATE <br> PROFESSOR OF <br> HISTORY, 2012; <br> ASSOCIATE <br> PROFESSOR IN JUDAIC AND ISRAEL <br> STUDIES; L.R. <br> BRAMMER JR <br> PRESIDENTIAL <br> PROFESSOR, 2018 | PhD, Freie Universität <br> Berlin, 2000; MA, <br> Freie Universität <br> Berlin, 1995 |
| Seidelman | Rhona |  | 2015 | ASSOCIATE <br> PROFESSOR OF HISTORY, 2021; <br> SCHUSTERMAN <br> CHAIR IN MODERN ISRAEL STUDIES | PhD, Ben-Gurion Univ of Negev, 2009; MA, Hebrew Univ of Jerusalem, 2001; BA, Hebrew Univ of Jerusalem, 1998 |
| Shepkaru | Shmuel |  | 1997 | ASSOCIATE <br> PROFESSOR OF HISTORY, 2005; SCHUSTERMAN PROFESSOR OF JEWISH RELIGIOUS AND INTELLECTUAL HISTORY, 2015; ASSOCIATE PROFESSOR IN JUDAIC AND ISRAEL STUDIES | PhD, New York Univ, 1997; MA, New York Univ, 1993; BA, Haifa Univ, 1985 |

## Judaic Studies, B.A.

Minimum Total Credit Hours: 120
Major Hours: 33
Minimum Upper-Division Hours: 48

Overall GPA - Combined and OU: 2.00
Major GPA - Combined and OU: 2.00
Program Code: B615

## Major Requirements

- Some courses required for the major may also fulfill University General Education and/or Dodge College of Arts \& Sciences Requirements.

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Core Courses |  | 3 |
| HIST 3973 | Judaism - A Religious History | 12 |
| Choose four of the following: |  |  |
| HIST 3413 | The History of Ancient Israel |  |
| HIST 3430 | Topics in United States History |  |
| HIST 3950 | Topics in Middle Eastern History (Modern <br> Jewish History) |  |
| HIST 3963 | From Zionism to Modern Israel |  |

HIST 3983
Major Electives
Choose five courses from the Judaic Studies Major Electives

course list (p. 478) \begin{tabular}{l}
Capstone <br>
Choose one of the following: <br>

HIST 4973 \begin{tabular}{ll}
Undergraduate Seminar in History (Militant <br>

HIST 4973 \& | Religion in the Middle East) |
| :--- | <br>

\hline | Undergraduate Seminar in History (Jewish |
| :--- |
| Historiography) | \& 3

\end{tabular}

\end{tabular}

Total Credit Hours33

## Major Support Requirements

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| HEBR 1115 | Beginning Hebrew | 5 |
| HEBR 1225 | Beginning Hebrew (continued) | 5 |
| HEBR 2113 | Intermediate Hebrew | 3 |
| HEBR 2213 | Intermediate Hebrew II | $\mathbf{3}$ |
| Total Credit Hours | $\mathbf{1 6}$ |  |

## Judaic Studies Major Elective Course List

| Code | Title | Credit Hours |
| :---: | :---: | :---: |
| ANTH 4953 | Special Topics in Anthropology | 3 |
| ENGL 3653 | The Bible as Literature | 3 |
| HEBR 3113 | Advanced Hebrew | 3 |
| HIST 2013 | Ancient Near Eastern Civilizations | 3 |
| HIST 3120 | Topics in Modern European History (History of the Holocaust) | 1-5 |
| HIST 3203 | Transformation of Jews | 3 |
| HIST 3293 | Antisemitism | 3 |
| HIST 3313 | Israeli Culture Through Film | 3 |
| HIST 3413 | The History of Ancient Israel | 3 |
| HIST 3430 | Topics in United States History (American Jewish History) | 1-5 |
| HIST 3500 | Special Topics in History (Historical Study of Religion) | 1-6 |
| HIST 3733 | History of Heaven and Hell in Judaism and Christianity | 3 |
| HIST 3950 | Topics in Middle Eastern History (Archaeology of Israel) | 1-3 |
| HIST 3950 | Topics in Middle Eastern History (Jews Under Islam) | 1-3 |
| HIST 3950 | Topics in Middle Eastern History (Mideast Minorities in Modern Times) | 1-3 |
| HIST 3950 | Topics in Middle Eastern History (Modern Jewish History) | 1-3 |
| HIST 3960 | Honors Reading | 1-3 |
| HIST 3963 | From Zionism to Modern Israel | 3 |
| HIST 3980 | Honors Research | 1-3 |
| HIST 3993 | The Evolution of Martyrdom in the JudeoChristian Civilization | 3 |
| HIST 4003 | Jews and Other Germans | 3 |


| HIST 4990 | Independent Study | $1-3$ |
| :--- | :--- | ---: |
| MLLL 3063 | Survey of Jewish Literature from Antiquity | 3 |
|  | to the Present |  |

## General Education and College Requirements

Courses for fulfillment of General Education and Dodge College of Arts \& Sciences requirements must be from the approved General Education course list published in the Class Schedule or at http://www.ou.edu/ gened/courses. Courses graded P/NP will not apply.

| UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND |  |
| :--- | :--- |
| COLLEGE REQUIREMENTS |  |
| Code $\quad$ Title | Credit |
|  |  |

Core Area I: Symbolic and Oral Communication
English Composition (6 hours)
ENGL 1113 Principles of English Composition 3
ENGL 1213 Principles of English Composition 3
or EXPO 1213 Expository Writing
Language ( $0-13$ hours in the same language)
The college requirement cannot be met by high school
coursework.
Beginning Course 0-5
Beginning Course, continued 0-5
Intermediate Course (2000 level) $)^{1,2} \quad$ 0-3

Mathematics (3 hours)
Choose one course from the General Education Mathematics 3

## list

Core Area II: Natural Science (7 hours, including one

## laboratory component)

## Biological Science

Choose an approved General Education Natural Science 3-4 course with one of the following prefixes: BIOL, HES, MBIO, or PBIO ${ }^{1}$
Physical Science
Choose an approved General Education Natural Science 3-4 course with one of the following prefixes: AGSC, ASTR, CHEM, GEOG, GEOL, GPHY, METR, or PHYS ${ }^{1}$
Core Area III: Social Science (6 hours)
PSC 1113 American Federal Government 3

Choose one course from the General Education Social 3

## Science list

Core Area IV: Arts and Humanities (18 hours)

## Artistic Forms

Choose one course from the General Education Artistic Forms

## list

## Western Culture

HIST $1483 \quad$ United States to 1865
or HIST 1493 United States, 1865 to the Present
Choose one course from the General Education Western
Culture list (excluding HIST 1483/1493)

## World Culture

Choose one course from the General Education World Culture

## list

Additional Core IV Upper-Division Arts \& Humanities courses

Choose one course from Artistic Forms, Western Culture, or
Choose one course from Artistic Forms, Western Culture, or 3 World Culture ${ }^{1,3}$
Core Area V: First Year Experience (3 hours)
Choose one course 3

Total Credit Hours 56
${ }^{1}$ College of Arts and Sciences Requirements: college requirements are not automatically fulfilled by a previous degree.
2 One course at the intermediate level or demonstrated competency at that level
${ }^{3} 6$ upper-division hours, 2 courses, at the 3000-4000-level. Must be outside the major.

## Free Electives

Electives to bring total applicable hours to the minimum total required for the degree including 48 upper-division hours.

## Information Concerning General Rules, Regulations and Minimum Requirements

Arts and Sciences Hours: At least 80 semester hours of liberal arts and sciences courses are required for a BA degree. At least 55 semester hours of liberal arts and sciences courses are required for a BS degree. Pass/No Pass Enrollment: A maximum of 16 semester hours of free elective credit may be attempted under this option.
Individual Studies (e.g., courses titled "Independent Study"): A maximum of 12 total semester hours may be counted toward graduation, excluding Honors Reading and Honors Research.
P.E. Courses: No physical education activity courses will be counted toward the 120 semester hours of acceptable credit for graduation. Senior Institution Hours: A minimum of 60 semester hours applied toward graduation must be earned at senior (4-year) institutions.

## Residency:

- At least 15 of the final 30 hours applied toward the degree or at least 50 percent of the hours required by the institution in the major field must be satisfactorily completed at the awarding institution.
- At least 15 semester hours of upper-division major work must be completed in residence at OU .
- OU correspondence courses are not considered resident credit.

Grade Point Averages: Students must earn a minimum over all 2.00 for each of the following: Combined Retention GPA (all college grades), OU Retention GPA, GPA for all major courses, and GPA for all major courses taken at OU. Some schools and departments of the College have higher minimum grade point averages required for their students.

## Suggested Semester Plan of Study

This plan shows one possible grouping of courses that would allow students to graduate in four years. Please refer to the front of the degree checksheet for official requirements. Students must consult with Dodge College of Arts and Sciences and/or Department of History, Center for Judaic and Israel Studies academic advisors to verify that courses selected each semester fulfill the recommended plan and satisfy University, College of Arts and Sciences, and Judaic Studies major requirements.

| Freshman |  |  |
| :---: | :---: | :---: |
| First Semester |  |  |
|  |  | Hours |
| ENGL 1113 | Principles of English Composition (Core I) | 3 |
| HIST 1483 <br> or HIST 1493 | United States to 1865 (Core IV) or United States, 1865 to the Present | 3 |
| HEBR 1115 | Beginning Hebrew (Core I) | 5 |
| Math (Core I) |  | 3 |
| Free Elective, lower-division |  | 1 |
|  | Credit Hours | 15 |
| Second Semester |  |  |
| ENGL 1213 <br> or EXPO 1213 | Principles of English Composition (Core I) or Expository Writing | 3 |
| HEBR 1225 | Beginning Hebrew (continued) (Core I) | 5 |
| P SC 1113 | American Federal Government (Core III) | 3 |
| First Year Experience (Core V) |  | 3 |
|  | Credit Hours | 14 |
| Sophomore |  |  |
| First Semester |  |  |
| HEBR 2113 | Intermediate Hebrew | 3 |
| Natural Science without lab (Core II) |  | 3 |
| Social Science (Core III) |  | 3 |
| Free Elective, lower-division |  | 3 |
| Free Elective, lower-division |  | 3 |
|  | Credit Hours | 15 |
| Second Semester |  |  |
| HEBR 2213 | Intermediate Hebrew II | 3 |
| Natural Science with lab (Core II) |  | 4 |
| Free Elective, lower-division |  | 3 |
| Free Elective, lower-division |  | 3 |
| Artistic Forms (Core IV) |  | 3 |
|  | Credit Hours | 16 |
| Junior |  |  |
| First Semester |  |  |
| HIST 3973 | Judaism - A Religious History (Core IVWorld Culture) | 3 |
| Judaic Studies Core Course ${ }^{1}$ |  | 3 |
| Judaic Studies Major Elective ${ }^{1}$ |  | 3 |
| Arts \& Humanities, upper-division, outside major (Gen. Ed.) |  | 3 |
| Free Elective, lower-division |  | 3 |
|  | Credit Hours | 15 |
| Second Semester |  |  |
| Judaic Studies Core Course ${ }^{1}$ |  | 3 |
| Judaic Studies Major Elective ${ }^{1}$ |  | 3 |
| Judaic Studies Major Elective ${ }^{1}$ |  | 3 |
| Free Elective, lower-division |  | 3 |
| Free Elective, upper-division (3000-4000-level) |  | 3 |
| Credit Hours |  | 15 |
| Senior |  |  |
| First Semester |  |  |
| Judaic Studies Core Course ${ }^{1}$ |  | 3 |
| Judaic Studies Major Elective ${ }^{1}$ |  | 3 |
| Arts \& Humanities, upper-division, outside major (Gen. Ed.) |  | 3 |


| Free Elective, lower- or upper-division | 3 |
| :---: | :---: |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Credit Hours | 15 |
| Second Semester |  |
| Judaic Studies Capstone | 3 |
| Judaic Studies Core Course ${ }^{1}$ | 3 |
| Judaic Studies Major Elective ${ }^{1}$ | 3 |
| Free Elective, lower-division | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Credit Hours | 15 |
| Total Credit Hours | 120 |
| ${ }^{1}$ At least one of these courses must also be an approved Western Culture General Education course. |  |
| Judaic \& Israel Studies, Minor |  |

Minimum Total Credit Hours: 15-19
Minimum Upper-Division Hours: 9
Program Code: N608

- The requirements for a minor must be completed concurrently with the major degree requirements.
- No minor may be added by completing courses after receiving the bachelor's degree.

At least six (6) credit hours must be earned in courses acceptable for residence credit by standards set forth by the Dodge College of Arts and Sciences, excluding transfer, correspondence, and examination (AP, CLEP, Advanced Standing) credit. Courses for the minor may not be taken Pass/ No Pass.

No single course may be used by a student to satisfy a major requirement and a minor requirement. A course may be used, however, to satisfy both a major support requirement and a minor requirement.

Requests to substitute a minor requirement must be approved in writing by the Judaic \& Israel Studies program.

## Required Courses

Students must successfully complete 15-19 hours from courses designated for the Judaic \& Israel Studies minor, including at least nine (9) hours at the upper-division level.

A grade of $C$ or better must be earned in each course counted for minor credit.

| Code | Title | Credit |
| :---: | :---: | :---: |
|  |  | Hours |
| Required Course |  |  |
| HIST 3973 | Judaism - A Religious History | 3 |
| Electives |  |  |
| Choose four courses from the Judaic \& Israel Studies Minor Electives list (p. 481) |  | 12-16 |
| Total Credit Hours |  | 15-19 |
| - Minors in the Dodge College of Arts \& Sciences are available to all undergraduate students at OU. If the minor is officially declared, |  |  |

successfully completed, and noted on the graduation application, the student's transcript will so indicate at the time the bachelor's degree is posted.

## Judaic \& Israel Studies Minor Elective Course List

| Code | Title | Credit <br> Hours |
| :---: | :---: | :---: |
| ANTH 4953 | Special Topics in Anthropology (approved topic) | 3 |
| ENGL 3653 | The Bible as Literature | 3 |
| HEBR 1115 | Beginning Hebrew | 5 |
| HEBR 1225 | Beginning Hebrew (continued) | 5 |
| HEBR 2113 | Intermediate Hebrew | 3 |
| HEBR 2213 | Intermediate Hebrew II | 3 |
| HIST 2013 | Ancient Near Eastern Civilizations | 3 |
| HIST 2123 | The Holocaust | 3 |
| HIST 2503 | American Jews/Jewish Americans | 3 |
| HIST 3120 | Topics in Modern European History (approved topic) | 1-5 |
| HIST 3203 | Transformation of Jews | 3 |
| HIST 3313 | Israeli Culture Through Film | 3 |
| HIST 3403 | Modern Israel | 3 |
| HIST 3563 | Jerusalem | 3 |
| HIST 3653 | American Jewish History | 3 |
| HIST 3733 | History of Heaven and Hell in Judaism and Christianity | 3 |
| HIST 3953 | The Modern Middle East | 3 |
| HIST 3963 | From Zionism to Modern Israel | 3 |
| HIST 3993 | The Evolution of Martyrdom in the JudeoChristian Civilization | 3 |
| HIST 4003 | Jews and Other Germans | 3 |
| HIST 4083 | Museums, Monuments, Memory | 3 |
| HIST 4313 | American Foreign Policy, 1900-45 | 3 |
| IAS 3003 | Topics in International and Area Studies (approved topic) | 3 |
| IAS 3203 | The Middle East Since World War I | 3 |
| IAS 3473 | The Arab-Israeli Conflict | 3 |
| MLLL 3063 | Survey of Jewish Literature from Antiquity to the Present | 3 |
| MLLL 3073 | The Hebrew Bible as Literature | 3 |
| RELS 4640 | Field Study in Religious Studies | 1-6 |

## School of Library and Information Studies

June Abbas, Director
401 W. Brooks, Room 120
Norman, OK 73019-6032
Phone: (405) 325-3921
slisinfo@ou.edu
www.ou.edu/cas/slis

## General Information

The department was founded in 1929 within the College of Arts and Science by Jesse Lee Rader. The first degree programs offered were the

Bachelor of Arts in Library Science, Master of Library Science, and the Master of Arts in Library Science. Both Master's programs were conferred accreditation by the American Library Association in 1956. The name was changed to the School of Library and Information Studies in 1990 to reflect the expanding role of the School in the information age. The School continues to offer the only ALA-accredited Library and Information Studies program in Oklahoma.

The University of Oklahoma School of Library and Information Studies (OU SLIS) educates professionals qualified to meet the challenges of the information society. The ability to generate, access, and use information has become the key factor in personal, social, and economic growth. The expanding global information society requires the free flow of information; and the impact of rapidly changing information and communications technologies is reshaping our personal, educational, and social activities, our organizational and political practices, and our local, national, and international institutions.

Roles, responsibilities, and career opportunities for professionals who can function as creative, information resource managers; act as culturally sensitive guides, navigators and interpreters for local and global users; and produce customized, culturally relevant, value-added services and products for diverse clienteles are expanding.

These professionals will play an increasingly vital role in empowering individuals, organizations, and communities to maximize the benefits of the information age.

Through a forward-looking curriculum and diverse learning environments, the School prepares graduates who have the knowledge, skills, and attitudes necessary to be ethical, culturally aware, and transformative leaders.

## Programs \& Facilities

## Scholarships

Scholarships are awarded competitively on the basis of demonstrated academic merit and potential for leadership. The SLIS Admissions and Scholarships Committee considers all applications for scholarships in the spring of each school year. Applications for student scholarships are due annually on February $1^{\text {st }}$. Current students are notified of the deadline for scholarships via the School's student email distribution list. Most of the SLIS scholarships are for master's students, but there is one undergraduate scholarship and one doctoral scholarship.

## Undergraduate Student Organization

The Information Sciences and Technology (IST) Hub supports undergraduate students in both the BSIST and BAIS programs offering opportunities for hands-on learning, networking, and collaboration in the field of Library and Information Science (LIS). Their mission is to create an encouraging environment for OU students who wish to connect, aspire to spread ideas, inspire, and implement solutions to reflect the expanding role of information sciences and technology in our world. Connect with the IST Hub on OU Engage.

## Graduate Student Organization

OLISSA is an American Library Association Student Chapter at the School of Library and Information Studies and a recognized student organization at the University of Oklahoma. OLISSA's mission is to bring library students together with other students, faculty, and library and information professionals. We strive to provide information on the various career paths possible with a library and information studies degree. We provide students with an opportunity to be active participants in
the SLIS program and University of Oklahoma Student Association. The organization's primary purpose is to represent and serve the SLIS student body. Officers are either elected or volunteer to serve each spring. They serve as liaisons between the SLIS students and faculty. Connect with OLISSA on OU Engage.

## Undergraduate Study

## Bachelor of Arts, Information Studies

The Information Studies, Bachelor of Arts is an interdisciplinary degree that offers a core of technology and data science coursework upon which students can then focus their interests through guided elective categories. Opportunities in these categories include numerous technology, data science, and communications electives for students who plan to go into information technology careers; or a variety of libraries, archives, museums (LAMs), and digital humanities electives for students more interested in careers in cultural heritage institutions. For these students, the technology foundation builds the skills that students need to work in today's LAMs' environments of digital collections, digital preservation, and virtual exhibits while serving diverse user groups.

## Bachelor of Science, Information Science and Technology

Information Science as a discipline revolves around the interactions of people, technology, and information. The Information Science and Technology, Bachelor of Science (p. 489) prepares graduates to be innovative information and technology leaders who can solve current and evolving information problems using the latest technologies in data analytics, text mining, interaction design, as well as other emerging application fields.

## Bachelor's/Master's Accelerated Program

The Bachelor of Arts/Master of Library and Information Studies (p. 496) accelerated program is designed for exceptional students who wish to begin earning the MLIS in their senior year of the BAIS program. The program is open to all OU students who qualify.

## Information Studies Minor

The Information Studies Minor (p. 496) focuses on how information impacts and is influenced by societal issues, governmental regulation, policy, and economics, as well as I.T. systems design, implementation, and management.

## Graduate Study

## Master of Library and Information Studies (MLIS)

The Master of Library and Information Studies (p. 499) program is designed to educate students at the graduate, professional, and postgraduate levels to provide information services and products in an information-based, pluralistic, global society; prepare graduates to effectively participate in and promote evidence-based practice; and provide leadership, consultation, and guidance to the professional/ information communities. The program offers specialized tracks within traditional library settings and supports the development of skills, knowledge, and attitudes required in information agencies and in positions of information management, storage, organization, access, and use within profit and not-for-profit institutions.

## Museum Studies, Master of Arts

The Museum Studies (p. 500) program serves the career-development needs of individuals who work in museums and related institutions.

Students initially trained in museum work and those entering the profession from other disciplines receive a focused, integrated approach to museum studies with practical application for the various dimensions of museum work. Students will learn from a variety of professionals and faculty members about museum responsibilities such as curatorship, exhibit management, fund raising, administration, education, conservation, and public relations.

## Dual Master's Degree Programs

The OU Graduate College allows dual master's degrees to be pursued with any two master's programs that agree to it. In its quest to provide alternative educational opportunities for students wishing to specialize in a variety of areas, the School of Library and Information Studies has developed a number of specialized programs. In addition, the Generic Dual Master's degree program is available for students who wish to earn dual master's degrees not specified by the School.

## Graduate Certificates

Graduate certificates can add additional job credentials to those seeking particular types of positions. They signal to employers that the holders of the certificates have concentrated coursework in that specialty.

- Graduate Certificate in Archival Studies (p. 500)
- Graduate Certificate in Digital Humanities (p. 501)
- Graduate Certificate in Data Analytics for Information Professionals (p. 501)


## Doctoral Programs

The Information Studies Ph.D. (p. 502) expands SLIS' mission and vision by educating students to thoroughly understand the discipline of information studies; develop expertise in using the various research methods necessary for investigation in the field; conduct effective, sustained research; and understand the ways in which information in all its forms is produced, recorded, organized, preserved, retrieved, communicated, managed, and used. Additionally SLIS seeks to educate researchers that are able to understand the ways in which people's information-related activity shapes - and is shaped by - information technologies, information structures, and information institutions such as libraries, archives, and museums. The answers to the research questions posed in information studies help to improve information systems and services, to guide information policy, and to enrich life in today's information society.

## Courses

LIS 1013 Information and Digital Literacy 3 Credit Hours In this era of "alternative facts" and "fake news" information literacy can help students learn to identify information from disinformation. This course is intended to make students more knowledgeable consumers of information, particularly when using internet resources and social media. Exercises in the use and evaluation of information resources, online searching, information ethics, visual literacy, and copyright/fair use are emphasized. (F, Sp) [I-O].
LIS 2003 Introduction to Information Science 3 Credit Hours Explores the definition, impact, and history of information and information transmission. Introduces technology used to create, read, store, retrieve and transmit information. Analyzes societal institutions, techniques, and processes for the creation, distribution and management of information. Assesses the role of the information professions and information systems in culture and society. (F,Sp) [III-SS].

LIS 2033 Introduction to Digital Humanities
3 Credit Hours
(Crosslisted with HIST, WGS and HSTM 2033) This course introduces students to digital and/or computational methods in the humanities and addresses critical questions about the role of digital technology in society. This is a collaborative, hands-on, project-based course. (Sp) [IVWC].

## LIS 3063 Essentials of IT \& Informatics <br> 3 Credit Hours

Prerequisite: sophomore standing. Students will learn the fundamentals of information technology concepts and applications, understand and utilize emerging technologies to meet society's rapidly changing information needs, and apply these in solving various information problems. (F, Sp)

## LIS 3440 Mentored Research Experience

3 Credit Hours
0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)

## LIS 3960 Honors Reading

1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Consists of topics designated by the instructor in keeping with the student's major or program. The topics will cover materials not usually presented in the regular courses. (F, Sp, Su)
LIS 3970 Honors Seminar 1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Subjects covered vary. Deals with concepts not usually treated in regular courses. (Irreg.)
LIS 3980 Honors Research 1-3 Credit Hours 1 to 3 hours. Prerequisite: admission to the Honors Program. May be repeated; maximum credit six hours. Will provide an opportunity for the gifted Honors candidate to work at a special project in the student's field of study. (F, Sp, Su)
LIS 3990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: permission of instructor and junior standing. May be repeated once with change of content. Independent study may be arranged to study a subject not available through regular course offerings. (F, Sp, Su)
LIS 4073 Cultural Heritage Data and Social Engagement 3 Credit Hours (Slashlisted with LIS 5073; Crosslisted with WGS, HIST and HSTM 4073) Prerequisite: Junior standing. This course uses methods from digital humanities, media studies, and data science to explore cultural heritage -- the histories, literature, art, and artifacts of our world's cultures. It particularly focuses on cultural heritage in digital public spaces: websites, social media, etc. No prior background in computer programming is necessary. No student may earn credit for both 4073 and 5073. (F)

## LIS 4143 Government Information

3 Credit Hours
(Slashlisted with LIS 5143) Prerequisite: junior standing. Introduces students to current policy, technology, and social factors that drive government resource and information production, distribution, and access. Topics include transformation of government information; information discovery skill sets, models, and techniques; evaluation of information use and value; and government information issues (e.g. access, authentication, privatization, preservation). No student may earn credit for both 4143 and 5143. (F)

LIS 4213 Social Informatics
3 Credit Hours
(Slashlisted with LIS 5213) Prerequisite: LIS 2003. Social Informatics analyzes interactions among people and information/communication technologies (ICTs). Issues covered include basic concepts of social systems, ICTs, and their interactions; uses of mobile information technology devices; online interaction and virtual community; information technology and work; and laws and policies related to information technologies. No student may earn credit for both 4213 and 5213. (Sp)
LIS 4223 Project Planning and Management
3 Credit Hours
(Slashlisted with LIS 5223) Prerequisite: LIS 3063 or permission of instructor. Fundamentals of planning, designing, and managing information technology solutions; market and trend analysis; planning and assessment techniques and tolls; human factors in technology management. No student may earn credit for both 4223 and 5223. (Su)
LIS 4303 Children's Literature 3 Credit Hours
Prerequisite: junior standing. Survey, evaluation and selection of materials for children; interests and needs of various age groups; methods of stimulating reading and listening. Reading of books for children is emphasized. (Correspondence)

LIS 4453 Digital Collections
3 Credit Hours
(Slashlisted with LIS 5453) Prerequisite: junior standing. Introduction to the creation and development of digital collections and to the technical requirements for storage and dissemination of digital materials. Topics will include creation, development, organization, maintenance, and use of digital collections. Students will explore a variety of techniques and technologies for digitizing materials; evaluate the strengths and limitations of current efforts in creating, collecting and organizing digital materials; and explore the different opportunities and challenges of digital libraries, repositories, and archives. No student may earn credit for both 4453 and 5453. (Sp)
LIS 4483 Introduction to Health Informatics
3 Credit Hours
(Slashlisted with LIS 5483) Prerequisite: Majors only; repeatable for credit, maximum credit 6 hours. Introduction to healthcare industry, data management in healthcare, foundation concepts in health informatics, and information search in healthcare. The student will gain a solid understanding of the fundamentals of health informatics to maximize the use of information, the source of health information, and the retrieval of health information in the delivery of efficient health information services to the users. No student may earn credit for both 4483 and 5483. (Sp)
LIS 4493 Data Stewardship
3 Credit Hours
(Slashlisted with LIS 5493) Prerequisite: Junior standing or permission of instructor. Data is being produced at an unprecedented rate in many forms and within many contexts. Information professionals play a vital role as ethical data stewards by organizing, curating, preserving, storing, proving access to, and repurposing data for varying purposes. Understanding the complex issues associated with ethical data stewardship is increasingly important in today's data saturated world. No student may earn credit for both 4493 and 5493. (F)

LIS 4523 Online Information Retrieval
3 Credit Hours
(Slashlisted with LIS 5523) Prerequisite: junior standing. Structure, content, and application of online databases for education, research, business, and public use. Principles and techniques for the evaluation of online databases and services. Document representation, information need specification and query formulation for online information retrieval. No student may earn credit for both 4523 and 5523. (F)

LIS 4613 Dynamic Web Development
3 Credit Hours
(Slashlisted with LIS 5613) Prerequisite: LIS 3063 and junior standing. The interactive web design server interaction with special emphasis on database connectivity and application development on the internet. No student may earn credit for both 4613 and 5613. (F)

## LIS 4623 Advanced Data Analytics

3 Credit Hours
(Slashlisted with LIS 5623) Prerequisite: LIS 4643. Application of data analytic theories and models to solve real world problems using various unsupervised and supervised models. Topics include cluster analysis, association rule mining, random forest classifier, neural networks, and naive Bayesian classifiers. No student may earn credit for both 4623 and 5623. (F)

LIS 4633 Web Design and Implementation 3 Credit Hours
(Slashlisted with LIS 5633) Prerequisite: junior standing. Students will learn how to design contemporary websites and web pages using current design thinking, techniques and best practices, and how to implement the websites using front-end programming languages including HTML, CSS, and Javascript. No student may earn credit for both 4633 and 5633. (F)
LIS 4643 Introduction to Data Analytics
3 Credit Hours
(Slashlisted with LIS 5643) Prerequisite: LIS 2003. Introduces foundational concepts for data analytics. Topics include basic computer programming, statistical understanding and application, data structure, data types, data retrieval from various sources and forms, data cleaning/ processing, data visualization, and group manipulations. No student may earn credit for both 4643 and 5643. (F)
LIS 4663 Information Studies Capstone 3 Credit Hours Prerequisite: 2003, 3003, 4003, 4103, and senior standing. Capstone course for the Bachelor of Arts in Information Studies; design and development of an operational prototype information system in a selected organizational setting. Introduces project management terms, techniques, and effect on the success of information technology projects. (F, Sp, Su) [V] .
LIS 4673 Introduction to Information Visualization 3 Credit Hours (Slashlisted with LIS 5673) Prerequisite: junior or senior standing. Information visualization is becoming key to LIS, due to the growing need for visual literacy and to the growing demand for data resources in almost all disciplines. Covers basics of developing and evaluating information visualizations and the importance of data accuracy. No student may earn credit for both 4673 and 5673. (F)
LIS 4683 Database Design for Information Organizations 3 Credit Hours (Slashlisted with LIS 5683) Prerequisite: LIS 3063. This course has two major components: (1) conceptual foundations of database design and theory and (2) practical applications of design and theory to real-world database designs. For the conceptual and theoretical design component, this class covers data definition and type, entity relationship diagram (ERD) and data normalization. The practical application uses emerging database tools to cover industry critical functions. No student may earn credit for both 4683 and 5683. (Sp)
LIS 4693 Information Retrieval and Text Mining 3 Credit Hours (Slashlisted with LIS 5693) Prerequisite: LIS 3063 and LIS 4643, or instructor or advisor permission. Identify various sources of textual information in the society and learn different textual data collection methods, understand text analytic processes, understand textual information retrieval models and different text analytic methods to analyze textual information and interpret text analysis results for users' information needs. No student may earn credit for both 4693 and 5693. (Sp)

LIS 4723 Cybersecurity Essentials
3 Credit Hours
(Slashlisted with LIS 5723) Prerequisite: Junior standing and majors only. Covers the developments in cybersecurity by discussing and analyzing problems that security designers and security administrators address. Students will be provided hands-on experience with common tools and techniques used by security analysts and white/black hat hackers today. Students will be able to identify threats, assess the relative risk of the threats and develop cost effective countermeasures. No student may earn credit for both 4723 and 5723. (Sp)
LIS 4823 Internship in Information Studies
3 Credit Hours
Prerequisite: LIS 3063, LIS 4643, LIS 4143, LIS 4223, LIS 4633 or permission of instructor and adviser. Provides an opportunity for student synthesis of principles and theories acquired in coursework and application of these principles and theories in a working environment. Under professional supervision, the student will complete 135 hours emphasizing general understanding of the specific assignment and completion of a focused project. ( $\mathrm{F}, \mathrm{Sp}$ )

LIS 4920 Directed Research
1-3 Credit Hours
1 to 3 hours. Prerequisite: LIS 3063, LIS 4643, LIS 4143, LIS 4223, LIS 4633, or permission of instructor and adviser. May be repeated; maximum credit three hours. Faculty supervised research; requires written report. (Irreg.)
LIS 4940 Directed Project
1-3 Credit Hours
1 to 3 hours. Prerequisite: LIS 3063, LIS 4643, LIS 4143, LIS 4223, and LIS 4633 and senior standing, or permission of instructor and adviser; May be repeated; maximum credit three hours. Faculty supervised design and implementation of an information project that applies principles and theories acquired in coursework to solution of information problems in practical settings. Requires a project prospectus and written report. (Irreg.)
LIS 4960 Directed Readings
1-3 Credit Hours
1 to 3 hours. Prerequisite: Junior standing and permission of instructor.
May be repeated; maximum credit three hours. Faculty supervised exploration of an area of information studies not covered in regularly offered courses. (Irreg.)
LIS 4970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: Senior standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)
LIS 4990 Independent Study 1-3 Credit Hours
1 to 3 hours. Prerequisite: junior standing and permission of instructor. May be repeated; maximum credit nine hours. Examination and discussion of current problems in information studies. (F, Sp, Su)
LIS 5023 Management in Information Organizations 3 Credit Hours Prerequisite: Graduate standing, and LIS 5033 or concurrent enrollment. Introduction to managerial principles and practices for information organizations such as libraries and archives, emphasizing financial administration, legal and ethical practices, organizational communication, operational efficiencies, personnel development, and planning processes. (F, Sp)
LIS 5033 Information and Society
3 Credit Hours
Prerequisite: Graduate standing or permission of instructor. Introduction to conceptual foundations of the information society, including the nature of data, information, and knowledge; the evolution of national and global organizational information infrastructures; and ethical, legal, and social considerations for LIS professionals. (F, Sp)

LIS 5043 Organization of Information
3 Credit Hours
Prerequisite: Graduate standing, and LIS 5033 or concurrent enrollment. Introduction to the organization of internal and external sources of information, information services and tools, basic concepts of information storage and retrieval systems, and design and structure of information systems. Students will become familiar with organization methods such as classification, cataloging, taxonomies and metadata, and how the organization of information is connected to information retrieval. (F, Sp)
LIS 5053 Information Seeking and Use
3 Credit Hours
Prerequisite: Graduate standing, and LIS 5033 or concurrent enrollment. The course teaches information seeking and use by people in various roles, situations, and contexts, individually and in groups. The course examines information behavior through psychological, sociological, and political perspectives, examining theory and applying it to practical, reallife information environments. ( $F, S p$ )

LIS 5063 Fundamentals of Information Technology 3 Credit Hours Prerequisite: Graduate standing, and LIS 5033 or concurrent enrollment. Students will learn the fundamentals of information technology concepts and applications, understand and utilize emerging technologies to meet society's rapidly changing information needs, and apply these in solving various information problems. No student may earn credit for both 4063 and 5063. (F, Sp)
LIS 5073 Cultural Heritage Data and Social Engagement 3 Credit Hours (Slashlisted with LIS 4073; Crosslisted with WGS, HIST and HSTM 5073) Prerequisite: Graduate standing. This course uses methods from digital humanities, media studies, and data science to explore cultural heritage -- the histories, literature, art, and artifacts of our world's cultures. It particularly focuses on cultural heritage in digital public spaces: websites, social media, etc. No prior background in computer programming is necessary. No student may earn credit for both 4073 and 5073. (F)

## LIS 5123 Literature and Methods For Readers' Advisory

## Services

3 Credit Hours
Prerequisites: 5033 and 5053. Examination of value and role of leisure reading in U.S. public libraries; interview techniques, support processes, and bibliographic resources for providing services to adults and older adolescent readers. (Irreg.)
LIS 5133 Biomedical Bibliography and Reference Materials 3 Credit Hours
Prerequisite: LIS 5033 or permission of instructor. Provides an indepth study of the organization of medical reference departments; reference sources in the health sciences; and the major textbooks in the basic sciences, clinical sciences, and related specialties. Medical audiovisuals, periodicals, indexes and abstracts are included as is automated searching of medical literature. Basic medical terminology is an integral part of the course and given special consideration. (F)
LIS 5143 Government Information 3 Credit Hours
(Slashlisted with LIS 4143) Prerequisite: LIS 5033 or permission of instructor. Introduces students to current policy, technology, and social factors that drive government resource and information production, distribution, and access. Topics include transformation of government information; information discovery skill sets, models, and techniques; evaluation of information use and value; and government information issues (e.g. access, authentication, privatization, preservation). No student may earn credit for both 4143 and 5143. (F)

LIS 5163 Biomedical Databases
3 Credit Hours
Prerequisite: LIS 5133 or permission of instructor. An in-depth approach to the on-line databases supplied by the National Library of Medicine and to the biomedical databases supplied by commercial companies. Deals with all aspects of searching, including the development of effective policies and procedures. Differences and similarities among the databases are emphasized. (F)
LIS 5173 Diversity Fundamentals in LIS
3 Credit Hours
Prerequisite: LIS 5033. Awareness of, and sensitivity to, diverse groups and multicultural heritages; information needs of multiethnic and diverse populations; information needs assessment and analysis; program and service planning. (Su)

LIS 5183 Information Resources and Services for Children 3 Credit

## Hours

Prerequisite: LIS 5033. Course covers childhood development and information needs of children; children's information behavior, learning, and reading; contemporary children's literature; digital media and technology; early literacy, information literacy, and 21 st-century skills; selection/evaluation of information resources; information services for children; and 21 st-century trends in children's services. (F)

## LIS 5193 Information Resources and Services for Young

 Adults3 Credit Hours
Prerequisite: LIS 5033. Covers developmental characteristics and information needs of young adults; young adults' information behavior, learning, and reading; contemporary young adult literature; digital media and technology; information literacy and 21 st-century skills; selection/ evaluation of information resources; information services for young adults; and 21 st-century trends in youth services. (Sp)
LIS 5203 Leadership in Information Organizations 3 Credit Hours Prerequisite: Graduate standing, and LIS 5023, LIS 5033 or concurrent enrollment; or permission of instructor. Advanced leadership skills for information organizations such as libraries and archives, emphasizing organizational analysis, planning, and assessment, as well as the development of appropriate organizational leadership styles. (F, Sp)
LIS 5213 Social Informatics
3 Credit Hours
(Slashlisted with LIS 4213) Prerequisite: graduate standing. Social Informatics analyzes interactions among people and information/ communication technologies (ICTs). Issues covered include basic concepts of social systems, ICTs, and their interactions; uses of mobile information technology devices; online interaction and virtual community; information technology and work; and laws and policies related to information technologies. No student may earn credit for both 4213 and 5213. (Sp)

LIS 5223 Project Planning and Management 3 Credit Hours (Slashlisted with LIS 4223) Prerequisite: Graduate standing, LIS 5033, and LIS 5063; or permission of instructor. Fundamentals of planning, designing, implementing, and managing information technology solutions; market and trend analysis; planning and assessment techniques and tools; human factors in technology management. No student may earn credit for both 4223 and 5223. (Su)
LIS 5233 Oklahoma Information Environment
3 Credit Hours
Prerequisite: LIS 5033 or permission of school. Interaction between information and culture in the state of Oklahoma with emphasis on information needs, resources, and challenges; research collections; public libraries; tribal libraries and tribal colleges; digital technologies; in-depth exploration of library, museum, archival, and other information services and resources for Oklahomans. (Su)

LIS 5243 Comics and Graphic Novels
3 Credit Hours Prerequisite: Graduate standing and majors only. The course has 3 major components. History \& Language of Comics with focus on the period of the Golden Age to the modern day; Comics \& the Community, which will examine the relationships between comic book fans and the medium; and Libraries \& the Role of Comics, which will focus on the relationship libraries have with comics \& graphic novels. (Sp)
LIS 5253 Community Relations and Advocacy 3 Credit Hours Prerequisite: LIS 5023, LIS 5033. Examination of the communication process by which the library/information center personnel satisfy user needs and provide/transmit information about the program objectives and functions to develop public awareness and support. Involves as audiences: the users, the library/information center staff, general public, governance entities, political representatives, educational and service agencies, and professional organizations. (F)
LIS 5283 School Library Administration
3 Credit Hours
Prerequisite: LIS 5023 and LIS 5033. History and role of school libraries in the educational program; planning, organizing and administering library programs in the elementary and secondary schools. (Sp)

LIS 5343 Archival Concepts and Traditions 3 Credit Hours
Prerequisite: LIS 5033. Introduction to the principles and practice of collecting, servicing, and arranging archival holdings. Includes appraisal, acquisition, arrangement and description, preservation, and administration of institutional archives. Attention to issues of preservation, intellectual property, and service in both physical and digital environments. (Sp alternating semesters)

## LIS 5403 Cataloging and Classification

3 Credit Hours Prerequisite: 5033,5043. Detailed study of principles and practices of cataloging and classification according to current standards. Instruction covers original descriptive cataloging, subject analysis and classification. (alt. F, irreg. Su)

## LIS 5443 Collection Development and Management 3 Credit Hours

Prerequisite: LIS 5033 and LIS 5043. Examination of the acquisition and evaluation processes used for building and maintaining collections in all formats. Formulation and implementation of collection development policies, identification of user needs, selection methods and tools, storage alternatives, publishing and intellectual freedom, administrative and legal issues including licensing and contract negotiation. (F)

## LIS 5453 Digital Collections

3 Credit Hours
(Slashlisted with LIS 4453) Prerequisite: LIS 5033, LIS 5043, LIS 5063. Introduction to the creation and development of digital collections and to the technical requirements for storage and dissemination of digital materials. Topics will include creation, development, organization, maintenance, and use of digital collections. Students will explore a variety of techniques and technologies for digitizing materials; evaluate the strengths and limitations of current efforts in creating, collecting and organizing digital materials; and explore the different opportunities and challenges of digital libraries, repositories, and archives. No student may earn credit for both 4453 and 5453. (Sp)

## LIS 5463 Archival Representation and Use 3 Credit Hours

Prerequisite: LIS 5033 or permission of instructor. Introduction to the principles and practices of collecting, servicing, and arranging archival holdings. Includes elements of appraisal, acquisition, and preservation with significant focus on archival arrangement, description, and administration of institutional archives. (Sp)

LIS 5473 Document and Records Management
3 Credit Hours
Prerequisite: graduate standing, LIS 5033 and LIS 5043. The systematic capture, acquisition, and processing, storage, and control of documents in all formats, including their management as records throughout the life cycle from creation to final disposition. Introduction to principles, methodologies, administration, tools, and techniques in various settings. (Irreg.)
LIS 5483 Introduction to Health Informatics 3 Credit Hours (Slashlisted with LIS 4483 ) Prerequisite: Graduate standing, majors only; repeatable for credit, maximum credit 6 hours. Introduction to healthcare industry, data management in healthcare, foundation concepts in health informatics, and information search in healthcare. The student will gain a solid understanding of the fundamentals of health informatics to maximize the use of information, the source of health information, and the retrieval of health information in the delivery of efficient health information services to the users. No student may earn credit for both 4483 and 5483. (Sp)

LIS 5493 Data Stewardship
3 Credit Hours
(Slashlisted with LIS 4493) Prerequisite: Graduate standing. Data is being produced at an unprecedented rate in many forms and within many contexts. Information professionals play a vital role as ethical data stewards by organizing, curating, preserving, storing, providing access to, and repurposing data for varying purposes. Understanding the complex issues associated with ethical data stewardship is increasingly important in today's data saturated world. No student may earn credit for both 4493 and 5493. (F)
LIS 5503 Information Literacy and Instruction
3 Credit Hours
Prerequisites: 5033 and 5053. Instructional methods and materials for the acquisition and development of information literacy skills; theories of instruction and current trends in information literacy instruction. (Irreg.)

## LIS 5513 Information Sources and Services

3 Credit Hours
Prerequisite: 5033, 5053. Characteristics and use of information sources and systems; policies and procedures for the provision of user-centered service in libraries and other information agencies. Introduction to basic reference tools in both print and electronic formats. (F, Sp, irreg. Su)
LIS 5523 Online Information Retrieval 3 Credit Hours (Slashlisted with LIS 4523) Prerequisite: LIS 5033 and LIS 5053. Structure, content, and application of online databases for education, research, business, and public use. Principles and techniques for the evaluation of online databases and services. Document representation, information need specification and query formulation for online information retrieval. No student may earn credit for both 4523 and 5523. (F)

LIS 5533 Foundations of Learning Sciences
3 Credit Hours
(Crosslisted with EIPT 5533) Prerequisite: Graduate standing or permission of instructor. Learning Sciences is an interdisciplinary approach to investigating, understanding, and supporting learning. It draws on diverse fields and methodologies. The goal of this class is to develop a critical orientation with regard to how we use them in integrated, meaningful, contextual, and ethical ways, in service to learners and society. (F)

LIS 5563 Archival Appraisal
3 Credit Hours Prerequisite: LIS 5033. Evaluation and examination of contributions of key figures in development of archival appraisal theory; identification and evaluation of distinct movements in archival appraisal; identification of cultural, political, sociological, and technological movements that can have impact on appraisal methodologies; and development of effective appraisal strategies for a variety of communities. (F even-numbered years)

LIS 5573 Makerspaces: Theory and Practice
3 Credit Hours
Prerequisite: Graduate standing and permission of instructor; Repeatable for credit, maximum credit 6 hours. An overview of theories and practice of makerspaces in libraries and museums. Students will learn theories behind the maker movement, hands-on tools and technologies, and issues on the design and implementation of a makerspace, such as assessing the needs of community, managing a space, facilitating making and learning, and evaluating the impact. (F)
LIS 5613 Dynamic Web Development
3 Credit Hours
(Slashlisted with LIS 4613) Prerequisite: Graduate standing, and LIS 4063 or LIS 5063. The interactive web design server interaction with special emphasis on database connectivity and application development on the internet. No student may earn credit for both 4613 and 5613. (F)

## LIS 5623 Advanced Data Analytics

3 Credit Hours
(Slashlisted with LIS 4623) Prerequisite: Graduate standing and LIS 5643. Application of data analytic theories and models to solve real world problems using various unsupervised and supervised models. Topics include cluster analysis, association rule mining, random forest classifier, neural networks, and naive Bayesian classifiers. No student may earn credit for both 4623 and 5623. (F)
LIS 5633 Web Design and Implementation
3 Credit Hours
(Slashlisted with LIS 4633) Prerequisite: LIS 5033. Students will learn how to design contemporary websites and web pages using current design thinking, techniques and best practices, and how to implement the websites using front-end programming languages including HTML, CSS, and JavaScript. No student may earn credit for both 4633 and 5633. (F)

## LIS 5643 Introduction to Data Analytics

3 Credit Hours
(Slashlisted with LIS 4643) Prerequisite: LIS 5033. Introduces foundational concepts for data analytics. Topics include basic computer programming, statistical understanding and application, data structure, data types, data retrieval from various sources and forms, data cleaning/ processing, data visualization, and group manipulations. No student may earn credit for both 4643 and 5643. (F)

LIS 5653 Preservation of Information Materials 3 Credit Hours Prerequisite: graduate standing and LIS 5033. Theory and practice of the preservation and conservation of intellectual content and physical artifacts, including paper, microform, and digital records. Emphasis on planning and administering disaster prevention and recovery, preservation, and digitization programs. (Alt. Sp, Irreg. Su)
LIS 5673 Introduction to Information Visualization 3 Credit Hours (Slashlisted with LIS 4673) Prerequisite: graduate standing and LIS 5033. Information visualization is becoming key to LIS, due to the growing need for visual literacy and to the growing demand for data resources in almost all disciplines. Covers the basics of developing and evaluating information visualizations and the importance of data accuracy. (F)

## LIS 5683 Database Design for Information Organizations 3 Credit Hours

 (Slashlisted with LIS 4683) Prerequisite: graduate standing and LIS 5033. This course has two major components: (1) conceptual foundations of database design and theory and (2) practical applications of design and theory to real-world database designs. For the conceptual and theoretical design component, this class covers data definition and type, entity relationship diagram (ERD) and data normalization. The practical application uses emerging database tools to cover industry critical functions. No student may earn credit for both 4683 and 5683. (Sp)LIS 5693 Information Retrieval and Text Mining 3 Credit Hours (Slashlisted with LIS 4693) Prerequisite: Graduate standing; LIS 5063 and LIS 5643, or permission of instructor. Identify various sources of textual information in the society and learn different textual data collection methods. Understand text analytic processes, textual information retrieval models, and different text analytic methods to analyze textual information and interpret text analysis results for users' information needs. No student may earn credit for both 4693 and 5693. (Sp)
LIS 5713 Research and Evaluation Methods
3 Credit Hours
Prerequisites: LIS 5033. Methods of investigating library and information (LIS) problems; use of evaluation in planning for continuous quality assessment and improvement of LIS policies, processes, and procedures; development of original research designs; evaluation of research studies in LIS. (F, Sp)
LIS 5723 Cybersecurity Essentials
3 Credit Hours
(Slashlisted with LIS 4723) Prerequisite: Graduate standing. Covers the developments in cybersecurity by discussing and analyzing problems that security designers and security administrators address. Students will be provided hands-on experience with common tools and techniques used by security analysts and white/black hat hackers today. Students will be able to identify threats, assess the relative risk of the threats, and develop cost effective countermeasures. No student may earn credit for both 4723 and 5723. (Sp)

## LIS 5743 Digital Curation

3 Credit Hours
Prerequisite: Graduate standing. This course provides an introduction to the appraisal, processing, storage, maintenance, and use of born-digital collections and the technical requirements for their storage, preservation, and dissemination. Students will gain an in-depth look into archival practices focused on best practices for creation, selection, storage, and long-term discoverability of digital objects and policy development. (Irreg.)
LIS 5753 Archives in the Museum Setting
3 Credit Hours
Prerequisite: Graduate standing. This course teaches students to analyze and evaluate the range of recordkeeping systems, policies, and practical workflows which have been used by various institutions to document their collections, and the physical and intellectual environment in which records are created, used, and maintained. The course will focus on the records of natural history museums, Native American museums, and history museums. (Irreg.)
LIS 5823 Internship in Library/Information Centers 3 Credit Hours Prerequisite: 18 hours of LIS coursework, including one-half of the required courses, permission of the supervising instructor. Provides an opportunity for student synthesis of principles and theories acquired in coursework and application of these principles and theories in an outstanding library/information center. Under professional supervision, the student will complete 135 hours. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
LIS 5920 Directed Research
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing and LIS 5713, permission of instructor and adviser. May be repeated; maximum credit six hours. Research under faculty supervision; requires a written report. (F, Sp, Su)
LIS 5940 Directed Project
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing and 24 hours of LIS coursework and permission of instructor and adviser. May be repeated; maximum credit three hours. Design and implementation of a professional project that applies principles and theories acquired in coursework to the solution of professional problems in practical settings. Requires a project prospectus and a written report at conclusion of the project. Conducted under faculty supervision. May not be taken for credit toward the MLIS degree by students electing thesis option. (Irreg.)

LIS 5960 Directed Readings
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing and 15 hours of LIS coursework and permission of instructor and adviser. May be repeated; maximum credit six hours. Exploration of an area of library and information studies not covered in regularly offered course. (F, Sp, Su)

## LIS 5970 Special Topics/Seminar

1-3 Credit Hours
Prerequisite: 1 to 3 hours. Prerequisite: Graduate standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg).
LIS 5980 Research for Master's Thesis
2-9 Credit Hours
Prerequisite: graduate standing and permission of instructor. Variable enrollment, two to nine hours; maximum credit applicable toward degree, six hours. (F, Sp, Su)

LIS 5990 Special Problems
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing and permission of instructor. May be repeated; maximum credit nine hours. Examination and discussion of current problems in librarianship. (Irreg.)
LIS 6033 Intellectual Traditions in Information Studies 3 Credit Hours Prerequisite: graduate standing and permission of school. Introduces students to the main philosophical traditions of research and scholarship that currently inform inquiry in Information Studies. (F)
LIS 6503 Information Behavior 3 Credit Hours Prerequisite: graduate standing and permission of school. Information use by individuals and groups in various roles, situations, and contexts. Influences of learning and cognitive processes; value systems; and situational, psychological, sociological, and political perspectives on information behavior. Application of user studies to textual, graphical, and visual representation of information. Study of theoretical models and practical methodologies in information systems. (Sp)
LIS 6543 Social and Community Informatics 3 Credit Hours Prerequisite: graduate standing and permission of school. Analysis of interactions among people, information/communication technologies (ICTs), and local social settings. Effects of social and technical contexts on the design, implementation, and evaluation of ICTs. Social systems and community contexts, ICTs, and their interactions; uses of mobile information technologies; online interaction and virtual community; information technology and work; and, organizational/institutional information technologies laws and policies. (F)
LIS 6553 Critical Information Studies 3 Credit Hours
Prerequisite: graduate standing and permission of school. Introduces students to Critical Theory. It examines the idea of immanent critique developed within the Frankfurt School and how critical theory informs inquiry in Information Studies. (Sp)
LIS 6713 Research Methods and Design in Information

## Studies

3 Credit Hours
Prerequisite: graduate standing and permission of school. A survey of quantitative, qualitative, and historical research designs. Topics covered include ethical issues; conceptualization and measurement; sampling; surveys; and data analysis. (Sp)
LIS 6920 Directed Research 1-3 Credit Hours 1 to 3 hours. Prerequisite: graduate standing and permission of school. May be repeated; maximum credit 12 hours. Students will prepare a proposal and have it approved by the SLIS faculty member who will direct the study and their SLIS faculty adviser prior to registration. (F, Sp)

LIS 6962 Doctoral Seminar
2 Credit Hours
Prerequisite: Graduate standing, majors only, and departmental permission. May be repeated with change of content; maximum credit 8 hours. Serves as a venue for the development of a variety of skills and capacities to succeed as a scholar. Offers a mix of sessions on progression through the Ph.D. degree program, the research process, guidance on the academic profession, and written and oral presentation of scholarly research. (F, Sp)

## LIS 6970 Special Topics in the Theory of Information

## Studies

## 1-3 Credit Hours

1 to 3 hours. Prerequisite: graduate standing and permission of school.
May be repeated with change of subject matter; maximum credit six hours. Topics in information studies for content not currently offered in regularly scheduled courses. May include library and/or research and field projects. (F)
LIS 6980 Research for Doctoral Dissertation 2-16 Credit Hours 2 to 16 hours. Prerequisite: Graduate standing and permission of instructor; may be repeated. Directed research culminating in the completion of the doctoral dissertation. (F, Sp, Su)

## Faculty

| Last Name | First/Middle Middle | OU | Title(s), date(s) | Degrees Earned |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
|  | Name | init. | Service <br> start |  | Sppointed |

Abbas June M 2008
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LIBRARY AND

PhD, Univ of North
Texas, 2001; MLS,
Emporia State, 1998;
STUDIES, 2013, BA, Saint Mary
DIRECTOR, SCHOOL College, 1996
OF LIBRARY AND
INFORMATION
STUDIES, 2023

|  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Burke | Susan | K | 2004 | ASSOCIATE | PhD, Texas Woman's |
|  |  |  |  | PROFESSOR OF | Univ, 2001; MS, Univ |
|  |  |  |  | LIBRARY AND | of Illinois, 1988; AB, |
|  |  |  |  | INFORMATION | Univ of Illinois, 1984 |
|  |  |  |  | STUDIES, 2010; |  |
|  |  |  |  | PROGRAM |  |
|  |  |  |  | DIRECTOR, MUSEUM |  |
|  |  |  |  | STUDIES, 2017 |  |

STUDIES, 2017
LECTURER OF PhD Univ of
LIBRARY AND Oklahoma 2008, MLIS INFORMATION Univ of Oklahoma, STUDIES; INTERNSHIP COORDINATOR 1989, BS Vocal and Instrumentational Music, Mayville State Univ (ND) 1985

|  |  |  |  | Univ (ND) 1985 |
| :---: | :---: | :---: | :---: | :---: |
| Jung | Yong Ju | 2020 | ASSISTANT <br> PROFESSOR OF <br> LIBRARY AND <br> INFORMATION <br> STUDIES, 2020 | PhD, Pennsylvania <br> State Univ, 2020; MA, <br> Korea Univ, 2013; BA, <br> Korea Univ, 2011 |
| Kim | Yong-Mi | 2006 | ASSOCIATE <br> PROFESSOR OF <br> LIBRARY AND <br> INFORMATION <br> STUDIES AT TULSA, <br> 2012 | PhD, Univ of <br> Oklahoma, 2005; PhD, Florida Atlantic Univ, 1998; MPA, Univ of Southern California, 1994; MPA, Ewha Womans Univ, 1989; BS, Han Nam Univ, 1986 |


| Liu | Jiqun |  | 2020 | ASSISTANT <br> PROFESSOR OF <br> LIBRARY AND <br> INFORMATION <br> STUDIES, 2020 | PhD, Information Science, Rutgers Univ, 2020; MS. Information Science, Peking Univ, 2016; BA. Library Science; Finance, Nankai Univ, 2014 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Lu | Kun |  | 2013 | ASSOCIATE <br> PROFESSOR OF <br> LIBRARY AND <br> INFORMATION <br> STUDIES, 2019 | PhD, Univ of Wisconsin, 2012; MS, Wuhan Univ, 2008; BS, Wuhan Univ, 2006 |
| Monobe | DH |  | 2022 | MLIS COORDINATOR AND LECTURER, 2022 | MLS, Emporia State Univ, 2011; Ph.D., Univ of Northern Colorado, 1990; M.Ed., Univ of Utah, 1987 |
| Rubenstein | Ellen | L | 2011 | ASSOCIATE <br> PROFESSOR OF <br> LIBRARY AND <br> INFORMATION <br> STUDIES, 2018 | PhD, Univ of Illinois, 2011; MA, Indiana Univ, 2006; BA, SUNY at Fredonia, 1978 |
| White | Kelvin | L | 2014 | SENIOR ASSOC. DEAN FOR FACULTY DEVELOPMENT AND COMMUNITY, DODGE FAMILY COLLEGE OF ARTS AND SCIENCES; ASSOCIATE PROFESSOR OF LIBRARY AND INFORMATION STUDIES, 2014 | PhD, Univ of <br> California Los <br> Angeles, 2008; MA, <br> Univ of California Los <br> Angeles; BA, Texas <br> Southern Univ |
| Youssef | Yasser | M | 2022 | LECTURER OF <br> LIBRARY AND <br> INFORMATION <br> STUDIES AT TULSA, <br> 2022 | PhD in Biomedical Engineering, Cairo Univ, 2006; Master of Electrical Engineering MTC, 2001; B.Sc of in Computer of Engineering MTC, 1996 |

## Information Science and Technology, B.S.

Minimum Total Credit Hours: 120
Major Hours: 42
Minimum Upper-Division Hours: 48
Upper-Division Hours Within Major. 24
Overall GPA - Combined and OU: 2.00
Major GPA - Combined and OU: 2.00
Program Code: B557

## Major Requirements

Some courses required for the major may also fulfill University General Education and/or Dodge College of Arts \& Sciences Requirements.

A grade of C or better is required in each major course. LIS prefix courses must be completed within a maximum of two attempts per course.

| Code | Title | Credit Hours |
| :---: | :---: | :---: |
| Information Science and Technology Core |  |  |
| LIS 2003 | Introduction to Information Science | 3 |
| LIS 3063 | Essentials of IT \& Informatics | 3 |
| LIS 4643 | Introduction to Data Analytics | 3 |
| LIS 4683 | Database Design for Information Organizations | 3 |
| LIS 4823 | Internship in Information Studies | 3 |
| Data Science \& Analytics |  |  |
| Choose 6 hours (p. 491) ${ }^{1}$ |  | 6 |
| Design \& Development |  |  |
| Choose 6 hours (p. 491) ${ }^{1}$ |  | 6 |
| Information \& People |  |  |
| Choose 6 hours (p. 491) ${ }^{1}$ |  | 6 |
| Information Science \& Technology in Context |  |  |
| Choose 6 hours (p. 491) ${ }^{1}$ |  | 6 |
| Technical Writing |  |  |
| Choose 3 hours (p. 491) ${ }^{1}$ |  | 3 |
| Total Credit Hours |  | 42 |
| ${ }^{1}$ The list of approved courses for this category is available from the School of Library \& Information Studies. |  |  |

## Major Support Requirements

| Code | Title | Credit |
| :---: | :---: | :---: |
| Economics |  |  |
| ECON 1113 | Principles of Economics-Macro | 3 |
| ECON 1123 | Principles of Economics-Micro | 3 |
| Math Prerequisite (3 hours) ${ }^{1}$ |  |  |
| MATH 1643 | Functions and Modeling for Business, Life and Social Sciences | 3 |
| Calculus |  |  |
| MATH 1743 | Calculus I for Business, Life and Social Sciences | 3 |
| Public Speaking |  |  |
| COMM 2613 | Public Speaking | 3 |
| Programming Concepts |  |  |
| C S 1313 | Programming for Non-Majors with C | 3 |
| Statistics |  |  |
| Choose 3 ho | . 491$)^{2}$ | 3 |
| Additional Math or Statistics |  |  |
| Choose 3 ho | (.491) ${ }^{2}$ | 3 |
| Total Credit |  | 24 |
| 1 Students <br> MATH 174 <br> 2 The list of School of | est out of the prerequisite course and take on ved courses for this category is available from y \& Information Studies. |  |

## General Education and College Requirements

Courses for fulfillment of General Education and Dodge College of Arts \& Sciences requirements must be from the approved General Education course list published in the Class Schedule or at http://www.ou.edu/ gened/courses. Courses graded P/NP will not apply.

## UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS <br> Code Title Credit

Core Area I: Symbolic and Oral Communication
English Composition (6 hours)
ENGL 1113 Principles of English Composition 3
ENGL 1213 Principles of English Composition 3
or EXPO 1213 Expository Writing
Language (0-13 hours in the same language)
The college requirement cannot be met by high school coursework
Beginning Course 0-5
Beginning Course, continued 0-5
Intermediate Course (2000 level) $^{1,2} \quad$ 0-3

Mathematics (3 hours)
Choose one course from the General Education Mathematics

Core Area II: Natural Science (7 hours, including one laboratory component)

Biological Science
Choose an approved General Education Natural Sciencecourse with one of the following prefixes: BIOL, HES, MBIO, or PBIO ${ }^{1}$

Physical Science
Choose an approved General Education Natural Science 3-4 course with one of the following prefixes: AGSC, ASTR, CHEM, GEOG, GEOL, GPHY, METR, or PHYS ${ }^{1}$

Core Area III: Social Science (6 hours)
P SC 1113 American Federal Government
Choose one course from the General Education Social
Science list
Core Area IV: Arts and Humanities (18 hours)
Artistic Forms
Choose one course from the General Education Artistic Forms list

Western Culture
HIST $1483 \quad$ United States to 1865
or HIST 1493 United States, 1865 to the Present
Choose one course from the General Education Western
Culture list (excluding HIST 1483/1493)
World Culture
Choose one course from the General Education World Culture list

Additional Core IV Upper-Division Arts \& Humanities courses
Choose one course from Artistic Forms, Western Culture, or

Choose one course from Artistic Forms, Western Culture, or
World Culture ${ }^{1,3}$

| Freshman |  |  |
| :---: | :---: | :---: |
| First Semester |  |  |
|  |  | Hours |
| ENGL 1113 | Principles of English Composition (Core I) | 3 |
| MATH 1643 | Functions and Modeling for Business, Life and Social Sciences | 3 |
| Beginning Language (Core I) |  | 5 |
| First Year Experience (Core V) |  | 3 |
| Free Elective, lower-division |  | 1 |
|  | Credit Hours | 15 |
| Second Semester |  |  |
| COMM 2613 | Public Speaking | 3 |
| C S 1313 | Programming for Non-Majors with C | 3 |
| ENGL 1213 or EXPO 1213 | Principles of English Composition (Core I) or Expository Writing | 3 |
| MATH 1743 | Calculus I for Business, Life and Social Sciences | 3 |
| Beginning Language continued (Core I) |  | 5 |
|  | Credit Hours | 17 |
| Sophomore |  |  |
| First Semester |  |  |
| LIS 1013 | Information and Digital Literacy | 3 |
| LIS 2003 | Introduction to Information Science | 3 |
| ECON 1113 | Principles of Economics-Macro (Social Sciences Core III) | 3 |
| Gen Ed Natural Science with Lab (Core II) |  | 4 |
| Intermediate Language |  | 3 |
|  | Credit Hours | 16 |
| Second Semester |  |  |
| LIS 4643 | Introduction to Data Analytics | 3 |
| ECON 1123 | Principles of Economics-Micro | 3 |
| Statistics Major Support |  | 3 |
| Gen Ed Natural Science without lab (Core II) |  | 3 |
| World Culture (Core IV) |  | 3 |
|  | Credit Hours | 15 |
| Junior |  |  |
| First Semester |  |  |
| LIS 3063 | Essentials of IT \& Informatics | 3 |
| LIS 4683 | Database Design for Information Organizations | 3 |
| HIST 1483 <br> or HIST 1493 | United States to 1865 (Core IV) or United States, 1865 to the Present | 3 |
| Technical Writing Major Course, upper-division |  | 3 |
| Design \& Development Major Course, upper-division |  | 3 |
|  | Credit Hours | 15 |
| Second Semester |  |  |
| P SC 1113 | American Federal Government (Core III) | 3 |
| Design \& Development Major Course, upper-division |  | 3 |
| Data Science \& Analytics Major Course, upper-division |  | 3 |
| Additional Math or Statistics Major Support |  | 3 |
| Artistic Forms (Core IV) |  | 3 |
|  | Credit Hours | 15 |

## Senior

| First Semester |  |
| :---: | :---: |
| LIS 4523 Online Information Retrieval | 3 |
| Data Science \& Analytics Major Course, upper-division | 3 |
| Info Science \& Technology in Context Major Course, upperdivision | 3 |
| Upper-division Arts \& Humanities outside the major (Gen Ed) | 3 |
| Credit Hours | 12 |
| Second Semester |  |
| LIS 4823 Internship in Information Studies | 3 |
| Info Science \& Technology in Context Major Course, upperdivision | 3 |
| Western Culture (Core IV) | 3 |
| Upper-division Arts \& Humanities outside the major (Gen Ed) | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Credit Hours | 15 |
| Total Credit Hours | 120 |

## Information Science and Technology Course Lists

- For the most current course lists, please contact the School of Library \& Information Studies.
Data Science \& Analytics

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| LIS 4673 | Introduction to Information Visualization | 3 |
| LIS 4623 | Advanced Data Analytics | 3 |
| LIS 4970 | Special Topics/Seminar (Topic: Machine <br> Learning) | 3 |
| LIS 4970 | Special Topics/Seminar (Topic: Data <br> Stewardship) | 3 |
| LIS 4693 | Information Retrieval and Text Mining | 3 |

## Design \& Development

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| LIS 4633 | Web Design and Implementation | 3 |
| LIS 4613 | Dynamic Web Development | 3 |
| LIS 4453 | Digital Collections | 3 |
| LIS 4970 | Special Topics/Seminar (Mobile | 3 |

## Information \& People

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| LIS 1013 | Information and Digital Literacy | 3 |
| LIS 4213 | Social Informatics | 3 |
| LIS 4523 | Online Information Retrieval | 3 |
| LIS 4970 | Special Topics/Seminar (Topic: Consumer | 3 |
|  | Health Information) |  |

$\left.\begin{array}{llr}\begin{array}{ll}\text { Information Science \& Technology in Context } \\ \text { Code }\end{array} & \text { Title }\end{array} \begin{array}{r}\text { Credit } \\ \text { Hours }\end{array}\right\}$

## Technical Writing

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| ENGL 3153 | Technical Writing | 3 |
| ENGL 3173 | Histories of Writing, Rhetoric and | 3 |
|  | Technology | 3 |

Statistics Major SUpport

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| ANTH 4713 | Statistical Concepts in Anthropology | 3 |
| BIOL 2913 | Intro to Quantitative Biology | 3 |
| COMM 2513 | Introduction to Statistics | 3 |
| ECON 2843 | Elements of Statistics | 3 |
| MATH 4753 | Applied Statistical Methods | 3 |
| SOC 3123 | Social Statistics | 3 |
| PSY 2003 | Understanding Statistics | 3 |

Additional Math or Statistics Major Support

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| ECON 4223 | Econometric Analysis | 3 |
| MATH 2123 | Calculus II for Business, Life and Social | 3 |
|  | Sciences |  |
| MATH 4793 | Advanced Applied Statistics | 3 |

## Information Studies, B.A.

Minimum Total Credit Hours: 120

## Major Hours: 36

Minimum Upper-Division Hours: 48
Upper-Division Hours Within Major. 24

Overall GPA - Combined and OU: 2.00
Major GPA - Combined and OU: 2.00
Program Code: B560 (online: B561)

## Major Requirements

- Some courses required for the major may also fulfill University
General Education and/or Dodge College of Arts \& Sciences
Requirements.
- A grade of C or better is required in each major course. Information
Studies category courses must be completed within a maximum of
two attempts per course.

| Code | Title | Credit <br> Hours |
| :---: | :---: | :---: |
| LIS 2003 | Introduction to Information Science | 3 |
| LIS 3063 | Essentials of IT \& Informatics | 3 |
| LIS 4643 | Introduction to Data Analytics | 3 |
| LIS 4683 | Database Design for Information Organizations | 3 |
| LIS 4823 | Internship in Information Studies | 3 |
| Choose one course from each of the following areas: ${ }^{1}$ |  | 21 |
| Information and Enterprise (p. 494) |  |  |
| Interpersonal Communication (p. 494) |  |  |
| Organizational Communication (p. 494) |  |  |
| Leadership (p. 494) |  |  |
| Information in Society (p. 494) |  |  |
| Information Technology (p. 494) |  |  |
| Technical Writing (p. 494) |  |  |
| Total Cred |  | 36 |

1 The lists of approved courses for these categories are available from the School of Library \& Information Studies.

## Major Support Requirements



## General Education and College Requirements

Courses for fulfillment of General Education and Dodge College of Arts \& Sciences requirements must be from the approved General Education course list published in the Class Schedule or at http://www.ou.edu/ gened/courses. Courses graded P/NP will not apply.

| UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND |  |
| :--- | :--- |
| COLLEGE REQUIREMENTS |  |
| Code $\quad$ Title | Credit |
|  |  |

Core Area I: Symbolic and Oral Communication
English Composition (6 hours)
ENGL $1113 \quad$ Principles of English Composition
ENGL 1213 Principles of English Composition 3
or EXPO 1213 Expository Writing
Language (0-13 hours in the same language)
The college requirement cannot be met by high school
coursework.

Beginning Course 0-5
Beginning Course, continued 0-5
$\begin{array}{ll}\text { Intermediate Course (2000 level) }{ }^{1,2} & 0-3\end{array}$
Mathematics (3 hours)
Choose one course from the General Education Mathematics
3

## list

Core Area II: Natural Science ( 7 hours, including one laboratory component)
Biological Science
Choose an approved General Education Natural Science

## course with one of the following prefixes: BIOL, HES, MBIO, or

## PBIO ${ }^{1}$

Physical Science
Choose an approved General Education Natural Science 3-4 course with one of the following prefixes: AGSC, ASTR, CHEM, GEOG, GEOL, GPHY, METR, or PHYS ${ }^{1}$
Core Area III: Social Science (6 hours)
P SC 1113 American Federal Government 3

Choose one course from the General Education Social 3

## Science list

Core Area IV: Arts and Humanities (18 hours)

## Artistic Forms

Choose one course from the General Education Artistic Forms
list
Western Culture
HIST $1483 \quad$ United States to 1865
or HIST 1493 United States, 1865 to the Present
Choose one course from the General Education Western
Culture list (excluding HIST 1483/1493)

## World Culture

Choose one course from the General Education World Culture

Additional Core IV Upper-Division Arts \& Humanities courses
Choose one course from Artistic Forms, Western Culture, or 3

## World Culture ${ }^{1,3}$

Choose one course from Artistic Forms, Western Culture, or 3

Core Area V: First Year Experience (3 hours)
Choose one course
Total Credit Hours
${ }^{1}$ College of Arts and Sciences Requirements: college requirements are not automatically fulfilled by a previous degree.
${ }^{2}$ One course at the intermediate level or demonstrated competency at that level
${ }^{3} 6$ upper-division hours, 2 courses, at the 3000-4000-level. Must be outside the major.

## Free Electives

Electives to bring total applicable hours to the minimum total required for the degree including 48 upper-division hours.

## Information Concerning General Rules, Regulations and Minimum Requirements

Arts and Sciences Hours: At least 80 semester hours of liberal arts and sciences courses are required for a BA degree. At least 55 semester hours of liberal arts and sciences courses are required for a BS degree. Pass/No Pass Enrollment: A maximum of 16 semester hours of free elective credit may be attempted under this option.
Individual Studies (e.g., courses titled "Independent Study"): A maximum of 12 total semester hours may be counted toward graduation, excluding Honors Reading and Honors Research.
P.E. Courses: No physical education activity courses will be counted toward the 120 semester hours of acceptable credit for graduation. Senior Institution Hours: A minimum of 60 semester hours applied toward graduation must be earned at senior (4-year) institutions. Residency:

- At least 15 of the final 30 hours applied toward the degree or at least 50 percent of the hours required by the institution in the major field must be satisfactorily completed at the awarding institution.
- At least 15 semester hours of upper-division major work must be completed in residence at OU.
- OU correspondence courses are not considered resident credit.

Grade Point Averages: Students must earn a minimum over all 2.00 for each of the following: Combined Retention GPA (all college grades), OU Retention GPA, GPA for all major courses, and GPA for all major courses taken at OU. Some schools and departments of the College have higher minimum grade point averages required for their students.

## Suggested Semester Plan of Study

This plan shows one possible grouping of courses that would allow students to graduate in four years. Please refer to the front of the degree checksheet for official requirements. Students must consult with Dodge College of Arts and Sciences and/or School of Library and Information Studies academic advisors to verify that courses selected each semester fulfill the recommended plan and satisfy University, College of Arts and Sciences, and Information Studies major requirements.

| Freshman |  |  |
| :---: | :---: | :---: |
| First Semester |  | Credit |
|  |  | Hours |
| ENGL 1113 | Principles of English Composition (Core I) | 3 |
| MATH 1643 | Functions and Modeling for Business, Life and Social Sciences | 3 |
| Beginning Foreign Language (Core I) |  | 5 |
| First Year Experience (Core V) |  | 3 |
|  | Credit Hours | 14 |
| Second Semester |  |  |
| COMM 2613 | Public Speaking | 3 |
| $\begin{aligned} & \text { ENGL } 1213 \\ & \quad \text { or EXPO } 1213 \end{aligned}$ | Principles of English Composition (Core I) or Expository Writing | 3 |
| MATH 1743 | Calculus I for Business, Life and Social Sciences | 3 |
| Beginning Foreign Language continued (Core I) |  | 5 |
|  | Credit Hours | 14 |
| Sophomore |  |  |
| First Semester |  |  |
| LIS 2003 | Introduction to Information Science | 3 |
| Interpersonal Communication Requirement ${ }^{1}$ |  | 3 |
| ECON 1113 | Principles of Economics-Macro | 3 |
| Intermediate Foreign Language |  | 3 |
| Natural Science with lab (Core II) |  | 4 |

Second Semester
ECON $1123 \quad$ Principles of Economics-Micro
Organizational Communication Requirement ${ }^{1} 3$
Statistics Major Support course 3
Natural Science without lab (Core II) 3

Non-Western Culture (Core IV) 3
Free Elective, lower-division 1

| Junior |  |  |
| :---: | :---: | :---: |
| First Semester |  |  |
| LIS 3063 | Essentials of IT \& Informatics | 3 |
| LIS 4643 | Introduction to Data Analytics | 3 |
| Information and Enterprise Requirement ${ }^{1}$ |  | 3 |
| HIST 1483 or HIST 1493 | United States to 1865 (Core IV) or United States, 1865 to the Present | 3 |
| P SC 1113 | American Federal Government (Core III) | 3 |
|  | Credit Hours | 15 |


| Second Semester |  |  |
| :---: | :---: | :---: |
| LIS 4683 | Database Design for Information Organizations | 3 |
| Technical Writing Requirement ${ }^{1}$ |  | 3 |
| Information in Society Requirement ${ }^{1}$ |  | 3 |
| Information Technology Requirement ${ }^{1}$ |  | 3 |
| Understanding Artistic Forms (Core IV) |  | 3 |
|  | Credit Hours | 15 |

## Senior

First Semester
Leadership Requirement ${ }^{1}$3

| Western Culture (Core IV) | 3 |
| :---: | :---: |
| Humanities, upper-division, outside major (Gen. Ed.) | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Credit Hours | 15 |
| Second Semester |  |
| LIS 4823 Internship in Information Studies | 3 |
| Humanities, upper-division, outside major (Gen. Ed.) | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Credit Hours | 15 |
| Total Credit Hours | 120 |
| 1 The School of Library and Information Studies requires a minimum of 27 upper-division hours within the major; therefore, some of the approved major courses must be chosen at the upper-division level to ensure this requirement is met. |  |

## Information Studies Major Category Lists

- For the most current course lists, please contact the Department of Library and Information Studies.


## INFORMATION \& ENTERPRISE

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| ANTH 4023 | Museum Anthropology | 3 |
| A HI 4953 | Museum Studies | 3 |
| ECON 3713 | Governmental Relations to Business | 3 |
| ECON 4313 | Industrial Organization | 3 |
| HSTM 3483 | Technology, Politics, and International | 3 |
| HSTM 3533 | Development | 3 |
| Science and Global Politics in the Modern | 3 |  |
| LS 3053 3323 | Globalization: The Politics of Global | 3 |
| NAS 4133 | Governance | 3 |
| NPNG 2033 | Legal Environment of Business | 3 |
| NPNG 4203 | Introduction to Nonprofits | 3 |

## INTERPERSONAL COMMUNICATION

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| COMM 2213 | Interpersonal Communication | 3 |
| COMM 3223 | Small Group Communication | 3 |
| COMM 3413 | Interethnic Communication | 3 |
| COMM 3513 | Intercultural Communication | 3 |
| COMM 3523 | Communication in Relationships | 3 |
| COMM 4153 | Nonverbal Communication | 3 |
| H R 3013 | Introduction to Human Relations | 3 |
| H R 3043 | Interpersonal Skills and Group Dynamics | 3 |


| LIS 1013 | Information and Digital Literacy | 3 |
| :---: | :---: | :---: |
| NPNG 4533 | Donor Stewardship and Grant Writing | 3 |
| ORGANIZATIONAL COMMUNICATION |  |  |
| Code | Title | Credit |
| B C 2813 | Strategic Communication for Business Professionals | Hours |
| COMM 2113 | Business and Professional Communication | 3 |
| COMM 3263 | Organizational Communication | 3 |
| COMM 3483 | Communication and Argumentation | 3 |
| COMM 3810 | Variable Topics in Communication (Collective Memory and Communication) | 3 |
| HIST 4083 | Museums, Monuments, Memory | 3 |
| H R 4203 | Social Issues in the Workplace | 3 |
| PSOL 3133 | Conflict Resolution | 3 |
| PSBA 4123 | Quality Initiatives in Organizations | 3 |
| NAS 4513 | Native Cultural Aesthetics \& the Heritage Industry | 3 |
| NPNG 4303 | Communications and Public Relations in Nonprofit Organizations (pre-req: NPNG 2033) | 3 |
| PHIL 3533 | Language, Communication, and Knowledge | 3 |
| PSY 4313 | Motivation | 3 |
| PSY 4793 | Psychology of Groups | 3 |
| LEADERSHIP |  |  |
| Code | Title | Credit |
|  |  | Hours |
| LIS 4223 | Project Planning and Management | 3 |
| MGT 3013 | Principles of Organization and Management | 3 |
| NPNG 2033 | Introduction to Nonprofits | 3 |
| PHIL 3273 | Ethics and Business | 3 |
| PSOL 3113 | Leadership in Organizations | 3 |
| PSOL 3153 | Ethics in Leadership | 3 |
| PSSC 3223 | Social Justice Leadership | 3 |

INFORMATION IN SOCIETY
Code Title

| COMM 3243 | Communication and Social Change | 3 |
| :--- | :--- | :--- |
| COMM 3413 | Interethnic Communication | 3 |
| COMM 3513 | Intercultural Communication | 3 |
| COMM 3643 | Media and Society | 3 |
| COMM 4323 | Political Communication | 3 |
| COMM 4513 | International Communication | 3 |
| COMM 4643 | Mass Media Effects | 3 |
| HIST 2573 | The History Sleuth | 3 |
| HIST/HSTM 3523 | History after the Internet: Exploring Digital | 3 |
| H R 3413 | History | 3 |
| HSTM 3493 | Cultural Awareness in Human Relations | 3 |
| LIS 4143 | The History of Media | 3 |


| LIS 4303 | Children's Literature | 3 |
| :--- | :--- | ---: |
| LIS 4970 | Special Topics/Seminar (Topic: Social <br> Informatics) | $1-3$ |
| PHIL 3273 | Ethics and Business | 3 |
| P SC 3443 | Mass Media and American Politics | 3 |
| P SC 3493 | Congress: Politics, Policy and the <br> Constitution | 3 |
| SOC 3683 | Wealth, Power, and Prestige | 3 |
| WGS 3123 | Social Justice and Social Change | 3 |
| LIS 2033 | Introduction to Digital Humanities | 3 |
| LIS 4970 | Special Topics/Seminar (Topic: Data <br> Stewardship) | 3 |
| ANTH 3953 | Proseminar in Anthropology (Topic: | 3 |

## INFORMATION TECHNOLOGY

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| C S 1313 | Programming for Non-Majors with C | 3 |
| COMM 3653 | Computer Mediated Communication | 3 |
| ENGL 3163 | Rhetoric and the Digital Humanities | 3 |
| FMS 1113 | Introduction to New Media | 3 |
| GIS 2023 | Introduction to Spatial Thinking and | 3 |
| LIS 4453 | Computer Mapping | 3 |
| LIS 4523 | Online Information Retrieval | 3 |
| LIS 4613 | Dynamic Web Development | 3 |
| LIS 4623 | Advanced Data Analytics | 3 |
| LIS 4643 | Introduction to Data Analytics | 3 |
| LIS 4673 | Introduction to Information Visualization | 3 |
| LIS 4633 | Web Design and Implementation | 3 |
| LIS 4693 | Information Retrieval and Text Mining | 3 |
| LIS 4723 | Cybersecurity Essentials | 3 |
| LIS 4970 | Special Topics/Seminar (Topic: Machine | 3 |

## TECHNICAL WRITING

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| ENGL 3153 | Technical Writing | 3 |
| ENGL 3173 | Histories of Writing, Rhetoric and | 3 |
|  | Technology | 3 |
| ENGL 3183 | Digital Composing | 3 |
| ENGL 4113 | Magazine Editing and Publishing in the |  |
|  | Humanities |  |

## Major Support Approved Statistics Courses

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| ANTH 4713 | Statistical Concepts in Anthropology | 3 |
| BIOL 2913 | Intro to Quantitative Biology | 3 |
| COMM 2513 | Introduction to Statistics | 3 |
| ECON 2843 | Elements of Statistics | 3 |
| MATH 4753 | Applied Statistical Methods | 3 |


| P SC/SOC 3123 | Social Statistics | 3 |
| :--- | :--- | :--- |
| PSY 2003 | Understanding Statistics | 3 |

## Information Studies, Minor

Minimum Total Credit Hours: 18
Minimum Upper-Division Hours: 9

## Program Code: N560

- The requirements for a minor must be completed concurrently with the major degree requirements.
- No minor may be added by completing courses after receiving the bachelor's degree.

At least six (6) credit hours must be earned in courses acceptable for residence credit by standards set forth by the Dodge College of Arts and Sciences, excluding transfer, correspondence, and examination (AP, CLEP, Advanced Standing) credit. Courses for the minor may not be taken Pass/ No Pass.

No single course may be used by a student to satisfy a major requirement and a minor requirement. A course may be used, however, to satisfy both a major support requirement and a minor requirement.

Requests to substitute a minor requirement must be approved in writing by the School of Library and Information Studies.

## Required Courses

Students must successfully complete at least 18 hours of coursework, including at least nine (9) hours at the upper-division level.

A grade of $C$ or better must be earned in each course presented for minor credit.

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Required Courses |  |  |
| LIS 2003 | Introduction to Information Science | 3 |
| LIS 3063 | Essentials of IT \& Informatics | 3 |
| LIS 4643 | Introduction to Data Analytics | 3 |
| LIS 4683 | Database Design for Information <br> Organizations | 3 |
| Electives | Choose one course each from two of the following groups: |  |

## Total Credit Hours

1 The lists of approved courses for these groups are available from the School of Library \& Information Studies.

- Minors in the Dodge College of Arts \& Sciences are available to all undergraduate students at OU. If the minor is officially declared, successfully completed, and noted on the graduation application, the student's transcript will so indicate at the time the bachelor's degree is posted.


## Information Studies Minor Category Course Lists

The most current lists of approved courses for these groups are available from the School of Library \& Information Studies.

## INFORMATION TECHNOLOGY CORE COURSES

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| C S 1313 | Programming for Non-Majors with C | 3 |
| LIS 4223 | Project Planning and Management | 3 |
| LIS 4453 | Digital Collections | 3 |
| LIS 4633 | Web Design and Implementation | 3 |
| LIS 4683 | Database Design for Information | 3 |

## INFORMATION AND SOCIETY CORE COURSES

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| COMM 2713 | Communication Theory | 3 |
| COMM 3243 | Communication and Social Change | 3 |
| COMM 3413 | Interethnic Communication | 3 |
| COMM 3513 | Intercultural Communication | 3 |
| COMM 4323 | Political Communication | 3 |
| COMM 4513 | International Communication | 3 |
| COMM 4643 | Mass Media Effects | 3 |
| LIS 4303 | Children's Literature | 3 |
| PHIL 3273 | Ethics and Business | 3 |
| P SC 3443 | Mass Media and American Politics | 3 |
| SOC 3683 | Wealth, Power, and Prestige | 3 |


| ORGANIZATIONAL COMMUNICATION CORE COURSES |  |  |
| :--- | :--- | ---: |
| Code | Title | Credit <br> Hours |
|  |  | 3 |
| COMM 2113 | Business and Professional Communication | 3 |
| COMM 3243 | Communication and Social Change | 3 |
| COMM 3253 | Persuasion Principles | 3 |
| COMM 3263 | Organizational Communication | 3 |
| COMM 3483 | Communication and Argumentation | 3 |
| PHIL 3533 | Language, Communication, and Knowledge | 3 |
| PSY 4313 | Motivation | 3 |
| PSY 4793 | Psychology of Groups |  |

## Information Studies, B.A./M.L.I.S.

Minimum Total Credit Hours: 144
Major Hours: 36
Minimum Upper-Division Hours: 48
Upper-Division Hours Within Major. 24
Overall GPA - Combined and OU: 3.00
Major GPA - Combined and OU: 3.00
Program Code: A560/F651

## Undergraduate Requirements

- Some courses required for the major may also fulfill University General Education and/or Dodge College of Arts \& Sciences Requirements.
- A grade of $C$ or better is required in each major course. Information Studies category courses must be completed within a maximum of two attempts per course.


## MAJOR REQUIREMENTS

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| LIS 2003 | Introduction to Information Science | 3 |
| LIS 3063 | Essentials of IT \& Informatics | 3 |
| LIS 4823 | Internship in Information Studies | 3 |
| LIS 5643 | Introduction to Data Analytics (shared) | 3 |
| LIS 5683 | Database Design for Information | 3 |
| Choose one course from each of the following areas: |  |  |
| Information and Enterprise (p. 494) | 21 |  |
| Interpersonal Communication (p. 494) |  |  |
| Organizational Communication (p. 494) |  |  |
| Leadership (p. 494) |  |  |
| Information in Society (p. 494) |  |  |
| Information Technology (p. 494) |  |  |
| Technical Writing (p. 494) |  |  |

## Total Credit Hours

1 The list of approved courses for this category is available from the School of Library \& Information Studies.

## MAJOR SUPPORT REQUIREMENTS

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| ECON 1113 | Principles of Economics-Macro | 3 |
| ECON 1123 | Principles of Economics-Micro |  |
| MATH 1643 | Functions and Modeling for Business, Life <br> and Social Sciences (Math Prerequisite <br> Course) $^{1}$ | 3 |
| MATH 1743 | Calculus I for Business, Life and Social <br> Sciences | 3 |
| COMM 2613 | Public Speaking | 3 |
| Choose one statistics course $\left(\right.$ p. 494) ${ }^{2}$ | 3 |  |
| Total Credit Hours | $\mathbf{1 8}$ |  |

${ }^{1}$ Students may test out of the prerequisite course and take only MATH 1743.

2 The list of approved courses for this category is available from the School of Library \& Information Studies.

## MLIS Component

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| MLIS Core |  |  |
| LIS 5023 | Management in Information Organizations | 3 |


| LIS 5033 | Information and Society | 3 |
| :---: | :---: | :---: |
| LIS 5043 | Organization of Information | 3 |
| LIS 5053 | Information Seeking and Use | 3 |
| LIS 5063 | Fundamentals of Information Technology | 3 |
| LIS 5713 | Research and Evaluation Methods | 3 |
| MLIS Graduate Electives |  |  |
| LIS 5643 | Introduction to Data Analytics (in undergrad major work, shared) | 3 |
| LIS 5683 | Database Design for Information Organizations (in undergrad major work, shared) | 3 |
| Choose two additional shared courses ${ }^{1}$ |  | 6 |
| Additional electives: 0-4 hours for thesis students, 6 hours for non-thesis students ${ }^{2}$ |  | 0-6 |
| End of Program Assessment Options |  |  |
| Choose one of the following options: ${ }^{3}$ |  |  |
| Thesis: 2-6 hours of LIS 5980 |  |  |
| Non-Thesis: ePortfolio |  |  |

Total Credit Hours
1 With approval of LIS advisor, select from a list maintained by the School of Library \& Information Studies and approved by the Graduate College.
${ }^{2}$ With approval of LIS advisor, select from a list of elective courses maintained by the School of Library \& Information Studies and approved by the Graduate College.
${ }^{3}$ In addition to course requirements, the Graduate College requires all candidates for an advanced degree to complete an end of program assessment.

## General Education and College Requirements

Courses for fulfillment of General Education and Dodge College of Arts \& Sciences requirements must be from the approved General Education course list published in the Class Schedule or at http://www.ou.edu/ gened/courses. Courses graded P/NP will not apply.

## UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS <br> Code Title Credit Hours

Core Area I: Symbolic and Oral Communication
English Composition (6 hours)
ENGL 1113 Principles of English Composition 3
ENGL 1213 Principles of English Composition 3
or EXPO 1213 Expository Writing
Language (0-13 hours in the same language)
The college requirement cannot be met by high school
coursework.
Beginning Course 0-5
Beginning Course, continued 0-5
$\begin{array}{ll}\text { Intermediate Course (2000 level) }^{1,2} & 0-3\end{array}$
Mathematics (3 hours)
Choose one course from the General Education Mathematics
list
Core Area II: Natural Science (7 hours, including one laboratory component)
Biological Science

| Choose an approved General Education Natural Science course with one of the following prefixes: BIOL, HES, MBIO, or PBIO ${ }^{1}$ | 3-4 |
| :---: | :---: |
| Physical Science |  |
| Choose an approved General Education Natural Science course with one of the following prefixes: AGSC, ASTR, CHEM, GEOG, GEOL, GPHY, METR, or PHYS ${ }^{1}$ | 3-4 |
| Core Area III: Social Science (6 hours) |  |
| P SC 1113 American Federal Government | 3 |
| Choose one course from the General Education Social Science list | 3 |
| Core Area IV: Arts and Humanities (18 hours) |  |
| Artistic Forms |  |
| Choose one course from the General Education Artistic Forms list | 3 |
| Western Culture |  |
| HIST 1483 United States to 1865 <br> or HIST 1493 United States, 1865 to the Present | 3 |
| Choose one course from the General Education Western Culture list (excluding HIST 1483/1493) | 3 |
| World Culture |  |
| Choose one course from the General Education World Culture list | 3 |
| Additional Core IV Upper-Division Arts \& Humanities courses |  |
| Choose one course from Artistic Forms, Western Culture, or World Culture ${ }^{1,3}$ | 3 |
| Choose one course from Artistic Forms, Western Culture, or World Culture ${ }^{1,3}$ | 3 |
| Core Area V: First Year Experience (3 hours) |  |
| Choose one course | 3 |
| Total Credit Hours | 56 |
| ${ }^{1}$ College of Arts and Sciences Requirements: college requirements are not automatically fulfilled by a previous degree. |  |
| ${ }^{2}$ One course at the intermediate level or demonstrated compe that level <br> ${ }^{3} 6$ upper-division hours, 2 courses, at the 3000-4000-level. Mu outside the major. |  |

## Free Electives

Electives to bring total applicable hours to the minimum total required for the degree including 48 upper-division hours.

## Information Concerning General Rules, Regulations and Minimum Requirements

Arts and Sciences Hours: At least 80 semester hours of liberal arts and sciences courses are required for a BA degree. At least 55 semester hours of liberal arts and sciences courses are required for a BS degree.
Pass/No Pass Enrollment: A maximum of 16 semester hours of free elective credit may be attempted under this option.
Individual Studies (e.g., courses titled "Independent Study"): A maximum of 12 total semester hours may be counted toward graduation, excluding Honors Reading and Honors Research.
P.E. Courses: No physical education activity courses will be counted toward the 120 semester hours of acceptable credit for graduation.
nstitution Hours. A minimum of 60 semester hours applied toward graduation must be earned at senior (4-year) institutions.
Residency:

- At least 15 of the final 30 hours applied toward the degree or at least 50 percent of the hours required by the institution in the major field must be satisfactorily completed at the awarding institution.
- At least 15 semester hours of upper-division major work must be completed in residence at OU.
- OU correspondence courses are not considered resident credit.

Grade Point Averages: Students must earn a minimum over all 2.00 for each of the following: Combined Retention GPA (all college grades), OU Retention GPA, GPA for all major courses, and GPA for all major courses taken at OU. Some schools and departments of the College have higher minimum grade point averages required for their students.

## Suggested Semester Plan of Study

This plan shows one possible grouping of courses that would allow students to graduate in five years. Please refer to the front of the degree checksheet for official requirements. Students must consult with Dodge College of Arts and Sciences and/or School of Library and Information Studies academic advisors to verify that courses selected each semester fulfill the recommended plan and satisfy University, College of Arts and Sciences, and Information Studies major requirements.

## Freshman

| First Semester |  | Credit |
| :---: | :---: | :---: |
|  |  | Hours |
| ENGL 1113 | Principles of English Composition (Core I) | 3 |
| MATH 1643 | Functions and Modeling for Business, Life and Social Sciences | 3 |
| Beginning Language (Core I) |  | 5 |
| First Year Experience (Core V) |  | 3 |
|  | Credit Hours | 14 |
| Second Semester |  |  |
| COMM 2613 | Public Speaking | 3 |
| ENGL 1213 or EXPO 1213 | Principles of English Composition (Core I) or Expository Writing | 3 |
| MATH 1743 | Calculus I for Business, Life and Social Sciences | 3 |
| Beginning Langua | age (Core I) | 5 |

## Sophomore

## First Semester

ECON 1113 Principles of Economics-Macro 3
LIS 2003 Introduction to Information Science 3
Interpersonal Communication Requirement ${ }^{1} 3$

Intermediate Language 3

| Natural Science with lab (Core II) | 4 |
| :--- | :--- |

## Second Semester

ECON 1123 Principles of Economics-Micro 3
Organizational Communication Requirements (1 of 6 options 3
to share with MLIS elective) ${ }^{1}$
Statistics Major Support course

| Natural Science without lab (Core II) | 3 |
| :--- | ---: | ---: |
| World Culture (Core IV) | 3 |
| Free Elective, lower-division Credit Hours <br> Junior  <br> First Semester  <br> LIS 3063 Essentials of IT \& Informatics <br> LIS 5643 Introduction to Data Analytics (shared with <br> MLIS elective) <br> Information and Enterprise Requirement ${ }^{1}$  <br> HIST 1483 United States to 1865 (Core IV) <br> or HIST 1493 or United States, 1865 to the Present 3 <br> P SC 1113 American Federal Government (Core III) 3 <br>  Credit Hours | 3 |

## Second Semester

| LIS 5683 | Database Design for Information <br> Organizations (shared with MLIS elective) | 3 |
| :--- | :--- | :--- |

Information Technology Requirement (1 of 6 options to share 3 with MLIS elective) ${ }^{1}$
Technical Writing Requirement 3

Arts \& Humanities, upper-division, outside major (Gen. Ed.) 3
Artistic Forms (Core IV) 3

Credit Hours 15

| Senior |  |
| :---: | :---: |
| First Semester |  |
| Leadership Requirement ${ }^{1}$ | 3 |
| Western Culture (Core IV) | 3 |
| Arts \& Humanities, upper-division, outside major (Gen. Ed.) | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Credit Hours | 15 |
| Second Semester |  |
| LIS 4823 Internship in Information Studies | 3 |
| Information in Society Requirement (1 of 6 options to share with MLIS elective) ${ }^{1}$ | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Credit Hours | 15 |

## Fifth Year

| First Semester |  | 3 |
| :--- | :--- | ---: |
| LIS 5033 | Information and Society | 3 |
| LIS 5023 | Management in Information Organizations | 3 |
| LIS 5043 | Organization of Information $^{\text {MLIS Graduate Level Elective }}$ 2 | $\mathbf{3}$ |
| Credit Hours |  | $\mathbf{1 2}$ |


| Second Semester |  | 3 |
| :--- | :--- | :--- |
| LIS 5713 | Research and Evaluation Methods | 3 |
| LIS 5053 | Information Seeking and Use | 3 |


| MLIS Graduate Level Elective $^{2}$ | 3 |
| :---: | ---: |
| Credit Hours | $\mathbf{1 2}$ |
| Total Credit Hours | $\mathbf{1 4 4}$ |

1 The School of Library and Information Studies requires a minimum of 27 upper-division hours within the major; therefore, some of the approved major courses must be chosen at the upper-division level to ensure this requirement is met.
2 Students that choose the non-thesis ePortfolio completion option will complete 6 hours of graduate electives. Students that choose the thesis completion option will complete 2-6 hours of LIS 5980 Research for Master's Thesis and 0-4 hours of graduate electives to meet the 6 hour requirement.

## Library \& Information Studies, M.L.I.S.

Minimum Total Hours (Thesis): 36
Minimum Total Hours (Non-Thesis): 36
Program Code: M650 (Online: M651)

## Required Courses

- Students must earn a grade of "B" or better in each required course or repeat the course.


## Thesis Option

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Required Courses |  |  |
| LIS 5023 | Management in Information Organizations | 3 |
| LIS 5033 | Information and Society | 3 |
| LIS 5043 | Organization of Information | 3 |
| LIS 5053 | Information Seeking and Use | 3 |
| LIS 5063 | Fundamentals of Information Technology | 3 |
| LIS 5713 | Research and Evaluation Methods | 3 |
| Thesis |  | $2-6$ |
| LIS 5980 | Research for Master's Thesis |  |
| Electives |  | $12-16$ |
| Choose 12-16 hours as determined by the School of Library |  |  |
| and Information Studies | 36 |  |

Total Credit Hours 36

## Non-Thesis Option

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Required Courses |  |  |
| LIS 5023 | Management in Information Organizations | 3 |
| LIS 5033 | Information and Society | 3 |
| LIS 5043 | Organization of Information | 3 |
| LIS 5053 | Information Seeking and Use | 3 |
| LIS 5063 | Fundamentals of Information Technology | 3 |
| LIS 5713 | Research and Evaluation Methods | 3 |
| Electives |  |  |

Choose 18 hours as determined by the School of Library and

Total Credit Hours

## General Requirements for all Master's Degrees

The master's degree requires the equivalent of at least two semesters of satisfactory graduate work and additional work as may be prescribed for the degree.

All coursework applied to the master's degree must carry graduate credit.
Master's degree programs which require a thesis consist of at least 30 credit hours. All non-thesis master's degree programs require at least 30 credit hours.

Credit transferred from other institutions must meet specific criteria and is subject to certain limitations.

Courses completed through correspondence study may not be applied to the master's degree.

To qualify for a graduate degree, students must achieve an overall grade point average of 3.0 or higher in the degree program coursework and in all resident graduate coursework attempted. A student must also have at least a 3.0 in all coursework (including undergraduate coursework if any).

Additional information for master's degree students may be found in the Graduate College Bulletin.

## Museum Studies (Online), M.A.

Minimum Total Hours (Non-Thesis): 33
Program Code: M700

| Program Requirements |  |  |
| :--- | ---: | ---: |
| Code | Title |  |
| Required Core Courses | Credit <br> Hours |  |
| MST 5113 | The World of a Museum |  |
| MST 5163 | Museum Management and Leadership | 3 |
| MST 5183 | Collections Management | 3 |
| MST 5073 | Technology for Museum Professionals | 3 |
| MST 5763 | Capstone | 3 |

## Research Methods

Choose one:
MST 5143 Museum Studies Research Methods

MST 5083 Qualitative Research Methods
Independent Project Guided Electives
Choose one (3 hours):

| MST 5190 | Museum Project |
| :--- | :--- |
| MST 5920 | Internship in Museum Studies |

MST 5930 Research Project in Museum Studies

## General Electives:

Choose 12 hours ( 4 courses) of electives from a list
maintained by the academic unit and approved by the
Graduate College: (p. 500)
Total Credit Hours

## General Requirements for all Master's Degrees

The master's degree requires the equivalent of at least two semesters of satisfactory graduate work and additional work as may be prescribed for the degree.

All coursework applied to the master's degree must carry graduate credit.
Master's degree programs which require a thesis consist of at least 30 credit hours. All non-thesis master's degree programs require at least 30 credit hours.

Credit transferred from other institutions must meet specific criteria and is subject to certain limitations.

Courses completed through correspondence study may not be applied to the master's degree.

To qualify for a graduate degree, students must achieve an overall grade point average of 3.0 or higher in the degree program coursework and in all resident graduate coursework attempted. A student must also have at least a 3.0 in all coursework (including undergraduate coursework if any).

Additional information for master's degree students may be found in the Graduate College Bulletin.

## Museum Studies Graduate Elective List

- For the most current approved elective list, please contact the School of Library \& Information Studies.

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| MST 5133 | The History and Architecture of Museums | 3 |
| MST 5173 | Museums, Cultures, and Communities | 3 |
| MST 5203 | Historic Preservation | 3 |
| MST 5223 | The House Museum | 3 |
| MST 5243 | The Small Museum | 3 |
| MST 5313 | Museum Education | 3 |
| MST 5333 | Introduction to Museum Interpretation | 3 |
| MST 5403 | Museums and Native Cultures | 3 |
| MST 5423 | Controversy and the World of the Museum | 3 |
| MST 5443 | Federal Laws and Museums | 3 |
| MST 5700 | Advanced Topics in Museum Studies | $2-9$ |
| MST 5960 | Directed Readings in Museum Studies | $2-9$ |
| MST 5970 | Special Topics/Seminar | $1-3$ |
| MST 5990 | Independent Study | $1-3$ |

## Archival Studies, Graduate Certificate

Minimum Total Hours: 12

Program Code: G021
The graduate certificate is a 12-credit hour (four course) program that provides a focused specialization and an indication of expertise in archival theory and practice. It provides a formal indication of training which endorses the abilities and knowledge of the certificate holders.

# Certificate Requirements 

Code Title
Choose 4 courses (12 hours) from the approved list of archive
courses maintained by the academic unit and approved by the
Graduate College. (p. 501)

Total Credit Hours
A graduate certificate is not a graduate degree. A graduate degree represents a program of independent inquiry beyond the depth of coursework alone, while a graduate certificate represents a set of courses only.

- All courses must be taken at OU. No transfer credit will apply.
- No course substitutions are permitted for graduate certificates.
- Coursework applied to a graduate certificate cannot be more than five years old as of the semester the graduate certificate is awarded.
- Students must earn a grade point average of 3.00 or higher on all coursework applied to the graduate certificate.


## Archival Studies Elective Course List

The most current list of approved courses is maintained in the School of Library and Information Studies.

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| LIS 5343 | Archival Concepts and Traditions | 3 |
| LIS 5463 | Archival Representation and Use | 3 |
| LIS 5473 | Document and Records Management | 3 |
| LIS 5563 | Archival Appraisal | 3 |
| LIS 5653 | Preservation of Information Materials | 3 |
| LIS 5970 | Special Topics/Seminar (Topic: Digital <br> Curation) | $1-3$ |
| LIS 5970 | Special Topics/Seminar (Topic: Archives in <br> the Museum Setting) | $1-3$ |
| LIS 5970 | Special Topics/Seminar (Topic: Archives in <br> the Digital Age) | $1-3$ |

## Data Analytics for Information <br> Professionals (Online), Graduate Certificate

Minimum Total Hours: 12
Program Code: G300
The graduate certificate is a 12-credit hour (four course) program embedded within the Master of Library and Information Studies. The certificate provides a formal indicator of skills and affirms the holder's capabilities to manage big data, analyze data, and interpret the findings.

## Certificate Requirements

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| LIS 5643 | Introduction to Data Analytics | 3 |
| LIS 5623 | Advanced Data Analytics | 3 |

Select 6 hours from a list of approved electives maintained by
the School of Library \& Information Studies (p. 501)
Total Credit Hours

Data Analytics for Information Professionals Elective List

For the most current list of approved electives for this Graduate Certificate, please consult with the School of Library and Information Studies.

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| LIS 5063 | Fundamentals of Information Technology | 3 |
| LIS 5673 | Introduction to Information Visualization | 3 |
| LIS 5683 | Database Design for Information <br> Organizations | 3 |
| LIS 5970 | Special Topics/Seminar (Topic: Data <br> Stewardship) | 3 |
| LIS 4693 | Information Retrieval and Text Mining | 3 |

## Digital Humanities, Graduate Certificate

Minimum Total Hours: 12
Program Code: G315
The Graduate Certificate in Digital Humanities provides a pathway for individuals working in the humanities, social sciences, and the sciences to advance their understanding of how potentially transformative methods, tools, models, applications, and theoretical frameworks are being put to use in expanding the scope and scale of inquiry in the humanities disciplines. The certificate consists of 12 credit hours (four courses).

## Certificate Requirements

| Code $\quad$ Title | Credit <br> Hours |
| :--- | ---: | ---: |
| Required Introductory Course <br> HSTM $5613 \quad$ Issues and Methods in the Digital <br> Humanities | 3 |
| Guided Electives |  |
| Choose two electives from a list of approved courses <br> maintained by the SLIS (p. 502) | 6 |
| Required Independent Course <br> Choose one of the following: | 3 |


| HSTM 5623 | Practicum/Internship in the Digital <br> Humanities |
| :--- | :--- |
| LIS 5823 | Internship in Library/Information Centers |
| LIS 5940 | Directed Project |

Total Credit Hours
1 One course other than the independent course will be outside of the student's home academic unit.

A graduate certificate is not a graduate degree. A graduate degree represents a program of independent inquiry beyond the depth of coursework alone, while a graduate certificate represents a set of courses only.

- All courses must be taken at OU. No transfer credit will apply.
- No course substitutions are permitted for graduate certificates.
- Coursework applied to a graduate certificate cannot be more than five years old as of the semester the graduate certificate is awarded.
- Students must earn a grade point average of 3.00 or higher on all coursework applied to the graduate certificate.


## Approved Digital Humanities Elective Courses

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| A HI 6423 | Topics in American Art History (Topic: | 3 |
|  | Visual Culture in Theory \& Practice) | 3 |
| C S 5093 | Visual Analytics | 3 |
| ENGL 5463 | Rhetoric \& Technology | 3 |
| LIS 5343 | Archival Concepts and Traditions | 3 |
| LIS 5453 | Digital Collections | 3 |
| LIS 5613 | Dynamic Web Development | 3 |
| LIS 5643 | Introduction to Data Analytics | 3 |
| LIS 5673 | Introduction to Information Visualization | 3 |
| LIS 5970 | Special Topics/Seminar (Topic: Digital |  |
|  | Curation) |  |

## Information Studies, Ph.D.

Minimum Total Hours: 90

Program Code: D535

## Program Requirements

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Major Core (9 hours) | 3 |  |
| LIS 6033 | Intellectual Traditions in Information <br> Studies | 3 |
| LIS 6713 | Research Methods and Design in <br> Information Studies | 3 |
| LIS 6970 | Special Topics in the Theory of Information <br> Studies |  |

Additional Methodology Courses Outside SLIS (6 hours)

| Two additional methodology courses selected from a list maintained by the School of Library \& Information Studies | 6 |
| :---: | :---: |
| Major Specialization (12 hours) |  |
| Four courses focused on creating a major area of specialization, as approved by committee chair and graduate liaison. ${ }^{1}$ | 12 |
| Doctoral Seminar (8 hours) |  |
| LIS 6962 Doctoral Seminar (2 hours per semester for | 8 |
| Guided Electives (12 hours) ${ }^{2}$ |  |
| 6 hours from 6000-level LIS courses | 6 |
| 6 hours of graduate coursework offered outside of SLIS | 6 |
| General Electives (30-33 hours) | 30-33 |
| Must be approved by committee and graduate liaison. Up to 30 hours may be credited from a prior master's degree in a related field (with permission of committee chair and graduate liaison). |  |
| Dissertation Research (10-13 hours) |  |
| LIS 6980 Research for Doctoral Dissertation | 10-13 |
| Total Credit Hours | 90 |

1 This can be 4 semesters of LIS 6920, Directed Research, to create a specialization in research.
${ }^{2}$ It is recommended that these courses are chosen carefully with a view to (a) acquiring the knowledge and skills necessary for designing and implementing a research study in the student's area of interest, and/or (b) exploring a particular cognate area relating to the student's research interests and becoming acquainted with faculty who may serve as external dissertation committee members.

## General Requirements for Doctoral Degrees

A student should expect to spend at least the equivalent of three full academic years beyond the bachelor's degree to obtain the doctoral degree. During this period the student will take appropriate graduate coursework, successfully complete the general examination, and successfully defend and submit the final dissertation.

All coursework applied to the doctoral degree must carry graduate credit.
The doctoral degree requires at least 90 post-baccalaureate hours, including both formal coursework and hours of research.

The minimum hour requirement for a specific doctoral degree program cannot be waived.

No more than one-half of the credit hours, both OU and overall, excluding Research for Doctoral Dissertation (6980), may be S/U-graded coursework.

The student must be in residence at OU for at least two consecutive 16week semesters during the pursuit of the doctoral degree while enrolled and engaged in coursework or research activities as prescribed by the major academic unit.

For more detailed regulations and requirements for Doctoral degrees, please consult the Graduate College Bulletin: http://www.ou.edu/ gradcollege/forms/bulletin

# David and Judi Proctor Department of Mathematics 

Nikola Petrov, Chair

Max Forester, Graduate Liaison
423 Physical Sciences Center
Norman, OK 73019-3103
Phone: (405) 325-6711
npetrov@ou.edu
www.math.ou.edu/full.php

## General Information

Mathematics students are well trained for a number of career fields, including architecture, economics, computer programming, education, meteorology and financial planning. The variety of coursework in the Mathematics program prepares students to work for companies such as Microsoft, IBM Global, NASA and Proctor and Gamble as well as the U.S. government. The David and Judi Proctor Department of Mathematics offers students a flexible liberal arts education with multiple degree options. The Mathematics degree is perfect for students who have a general interest in math, because it gives them the opportunity to study an array of math-related topics.

## Programs \& Facilities

## Math Club

The Math Club meets throughout each semester to host a variety of talks, campus visits, and field trips.

## Scholarships

The Mathematics Department has a number of endowed scholarship funds to support its undergraduate majors. All math majors are encouraged to apply. Application forms will be accepted in March each year.

## Graduate Student Support

Extensive support is available for students enrolled in a graduate program in Mathematics. The department has a limited number of fellowships available; all students are automatically considered for these fellowships. Although both teaching and research assistantships are available, incoming students are generally considered only for graduate teaching assistant appointments.

## Undergraduate Study <br> Major Programs

The student whose major interest is in mathematics may work either for the standard degree of Bachelor of Arts (p.511) or the professional degree of Bachelor of Science (p. 513). The Bachelor of Arts degree provides a well-rounded liberal arts degree preparing students for a wide variety of career paths. The Bachelor of Science in Mathematics Professional Degree is a rigorous undergraduate mathematics degree. This challenging program will prepare student to pursue graduate studies in mathematics or mathematically intensive subjects.

## Accelerated Programs

- Mathematics, B.A./Master of Business Administration (p. 515)
- Mathematics, B.A./Finance, M.S. (p. 519)

The Mathematics \& Biostatistics, Bachelor of Science/Master of Science (p. 521)is a five-year dual-degree program in conjunction with the Department of Biostatistics and Epidemiology at the OU Health Sciences Center. The program leads to a Mathematics Bachelor of Science and a Biostatistics Master of Science.

## Minor in Mathematics

Students may also pursue a Minor in Mathematics (p. 515).

## Teacher Certification

Students who wish to pursue a career teaching mathematics may be interested in the Bachelor of Science in Education (p. 1155) degree from the College of Education specializing in Mathematics. This program can also be combined with your teaching certification for middle and high school.

## Graduate Study

## Master's Programs

The department has two different master's degree programs. The Master of Arts (p.524) degree is particularly suitable for students who may want to pursue a doctorate or who are interested in teaching at the college level. The Master of Science (p. 524) degree emphasizes applications of mathematics. The dual degree program addresses the increasing need of mathematics in business and management.

## Doctoral Programs

In order to be admitted to the Ph.D. program (p. 525) in mathematics, a student should first have completed a master's degree or equivalent. A total of at least 90 hours beyond the baccalaureate degree is required for this degree.

- PhD Program (traditional option). The student's ultimate goal in this program is to write and defend a dissertation representing an original contribution to research in mathematics. This research is conducted under the guidance of a faculty member (PhD advisor). A wide variety of research interests is represented in the Mathematics Department.
- PhD Program (RUME option). The student's ultimate goal in this program is to write and defend a dissertation representing an original contribution to research in undergraduate mathematics education. The student's PhD degree will however still be in mathematics, not mathematics education. RUME students take many of the same classes taken by students in the traditional option of the PhD program.


## Courses

MATH 0999 Remedial Transfer Credit
10 Credit Hours
This is not a course offered at the University of Oklahoma. It is used to denote remedial transfer credit for which there is no OU equivalent course.

MATH 1471 Mathematics for Critical Thinking Corequisite 1 Credit Hour Prerequisite: A satisfactory score on the math placement examination; Corequisite: MATH 1473. This course is designed as a corequisite supplement to MATH 1473 (Math for Critical Thinking). It covers material that supports the learning of key arithmetic, algebra topics, and terminology needed to address common contextualized scenarios involving quantities and numeration (e.g., personal financial mathematics and interpretation of data representations found in media). The course also further emphasizes topics from MATH 1473. (F, Sp, Su)

MATH 1473 Mathematics for Critical Thinking 3 Credit Hours Prerequisite: "C" or better in DMAT 0123 at OU, or satisfactory score on the math assessment. A study of the mathematics needed for the critical evaluation of quantitative information and arguments including logic, critical appraisal of graphs and tables; use of simple mathematical models and an introduction to elementary statistics. (F, Sp, Su) [I-M].

## MATH 1501 College Algebra Corequisite

1 Credit Hour
Prerequisite: A satisfactory score on the math placement examination; Corequisite: MATH 1503. This course is a corequisite supplement to MATH 1503 (College Algebra), which is designed for students in preparation for engineering calculus. MATH 1501 supports the learning of key algebra topics, including expanding and simplifying algebraic expressions (linear, quadratic, polynomial, rational, radical, exponential, and logarithmic); factoring techniques; and representations of mathematical information. The course also further emphasizes topics from MATH 1503. (F, Sp, Su)

## MATH 1503 College Algebra

3 Credit Hours
Prerequisite: "C" or better in DMAT 0123, or satisfactory score on the math assessment. Study of equations, inequalities, functions (linear, absolute value, quadratic, polynomial, rational, radical, exponential, logarithmic). Includes systems of equations; recognizing, utilizing, creating, and converting between symbols, tables, graphs, models. Prerequisite for MATH 1523. A student may not receive credit for this course and MATH 1643. (F, Sp, Su) [I-M].

## MATH 1523 Precalculus and Trigonometry

3 Credit Hours
Prerequisite: MATH 1503 or satisfactory score on the math assessment. Primarily concentrates on trigonometric functions and their inverses, trigonometric identities, solutions of triangles, and applications. In addition, limits, vectors and some vector operations, polar coordinates and continuity are introduced. Suitable for students planning to take calculus; intended as prerequisite for MATH 1823. (F, Sp, Su) [I-M].

## MATH 1641 Functions and Modeling Corequisite 1 Credit Hour

 Prerequisite: A satisfactory score on the math placement examination; Corequisite: MATH 1643. This course is a corequisite supplement to MATH 1643 (Functions \& Modeling), which is designed to prepare students for business calculus, as well as other business, life, and social science courses. The 1641 course focuses on key algebra skills and improvement of academic study skills necessary for success in MATH 1643. It also further emphasizes topics covered in MATH 1643. (F, Sp, Su)
## MATH 1643 Functions and Modeling for Business, Life and Social Sciences <br> 3 Credit Hours

Prerequisite: "C" or better in DMAT 0123 at OU, or satisfactory score on the math assessment. Study of equations and functions (linear, polynomial, rational, exponential, logarithmic) from various perspectives (symbolic, verbal, numerical, graphical); digital techniques for graphing functions, solving equations, and modeling data using regressions. This course is designed for students in agricultural, business, life/health sciences, or social science majors. A student may not receive credit for this course and MATH 1503. (F, Sp, Su) [I-M].
MATH 1743 Calculus I for Business, Life and Social

## Sciences

3 Credit Hours
Prerequisite: MATH 1523, MATH 1643, or satisfactory score on the math assessment. Topics in differentiation of polynomial, exponential and logarithmic functions. Applications to the business, life and social sciences, including optimization. A student may not receive credit for this course and MATH 1823. (F, Sp, Su) [I-M].

MATH 1823 Calculus and Analytic Geometry I
3 Credit Hours
Prerequisite: MATH 1523 or satisfactory score on the math assessment.
Topics include functions, limits, and continuity; differentiation; and applications of differentiation including related rates, maximum-minimum theory, curve sketching, and optimization. A student may not receive credit for this course and MATH 1743; duplicates 3 hours of MATH 1914. (F, Sp, Su) [I-M].
MATH 1914 Differential and Integral Calculus I 4 Credit Hours
Prerequisite: Satisfactory score on math assessment. Topics include limits and continuity; differentiation; applications of differentiation including related rates, maximum-minimum theory, curve sketching, and optimization; Fundamental Theorem of Calculus; substitution rule; and applications of integration to computation of areas and volumes. Duplicates three hours of MATH 1823 and one hour of MATH 2423. (F, Sp, Su) $[I-M]$.

## MATH 2123 Calculus II for Business, Life and Social

## Sciences

## 3 Credit Hours

Prerequisite: MATH 1743. Integration of polynomial, exponential and logarithmic functions, including u-substitution. Applications of integrals to the business, life and social sciences, including probability. Partial derivatives including multivariable optimization, Lagrange multipliers, and least squares. A student cannot receive credit for this course and MATH 2423. (Sp) [I-M].

MATH 2213 Mathematical Systems
3 Credit Hours
Prerequisite: plane geometry, intermediate algebra, enrollment in an appropriate elementary teachers' program. A systematic analysis of arithmetic and a presentation of intuitive algebra and geometry. Not open to students in the University College. (F, Sp, Su)
MATH 2223 Data Analysis and Geometric Systems 3 Credit Hours Prerequisite: 0123 at OU or satisfactory score on math placement test and admission to 0802A, 0808A, or 0823A degree programs. Algebra and the structure of number systems, functional relationships, informal geometry. Course is not open to students in University College. (F, Sp)

MATH 2423 Calculus and Analytic Geometry II 3 Credit Hours Prerequisite: MATH 1823 or MATH 1914. Topics include integration and its applications; calculus of transcendental functions; indeterminate forms; techniques of integration; and improper integrals. A student may not receive credit for this course and MATH 2123; duplicates one hour of MATH 1914 and two hours of MATH 2924. (F, Sp, Su) [I-M].
MATH 2433 Calculus and Analytic Geometry III 3 Credit Hours Prerequisite: MATH 2423 or MATH 2924. Polar coordinates, parametric equations, sequences, infinite series, vector analysis. (F, Sp, Su)

MATH 2443 Calculus and Analytic Geometry IV 3 Credit Hours Prerequisite: 2433. Vector calculus; functions of several variables; partial derivatives; gradients, extreme values and differentials of multivariate functions; multiple integrals; line and surface integrals. (F, Sp, Su)

## MATH 2513 Discrete Mathematical Structures 3 Credit Hours

Prerequisite: MATH 2423 or MATH 2924 or concurrent enrollment. A course for math majors or prospective math majors. Provides an introduction to discrete concepts such as finite sets and structures, and their properties and applications. Also exposes students to the basic procedures and styles of mathematical proof. Topics include basic set theory, functions, integers, symbolic logic, predicate calculus, induction, counting techniques, graphs and trees. Other topics from combinatorics, probability, relations, Boolean algebras or automata theory may be covered as time permits. (F, Sp, Su)

MATH 2924 Differential and Integral Calculus II 4 Credit Hours
Prerequisite: MATH 1914 with a grade of C or better. Topics include calculus of transcendental functions; indeterminate forms; techniques of integration; improper integrals, parametric curves; polar coordinates, infinite sequences and series, vectors in two and three dimensions. Duplicates two hours of MATH 2423 and two hours of MATH 2433. (F, Sp, $\mathrm{Su})$
MATH 2934 Differential and Integral Calculus III 4 Credit Hours Prerequisite: 2924 with grade of $C$ or better. Vectors and vector functions, functions of several variables, partial differentiation and gradients, multiple integration, line and surface integrals, Green-Stokes-Gauss theorems. Duplicates one hour of 2433 and three hours of 2443. (F, Sp, Su )

## MATH 2970 Special Topics/Seminar

1-3 Credit Hours
1 to 3 hours. Prerequisite: Permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)
MATH 3113 Introduction to Ordinary Differential Equations 3 Credit Hours
Prerequisite: MATH 2423 or MATH 2924. First order ordinary differential equations, linear differential equations with constant coefficients, two-bytwo linear systems, Laplace transformations, phase planes and stability. Duplicates two hours of MATH 3413. (F, Sp, Su)
MATH 3333 Linear Algebra I 3 Credit Hours
Prerequisite: MATH 2123 or MATH 1823 or MATH 1914 or permission of instructor. Systems of linear equations, determinants, finite dimensional vector spaces, linear transformations and matrices, characteristic values and vectors. (F, Sp, Su)

## MATH 3401 Numerical Methods With Matlab

1 Credit Hour
Prerequisite: 3413 or concurrent enrollment. Programming with MATLAB. Numerical solution of nonlinear equations. Matrices and linear algebraic equations, regression, interpolation, splines. Numerical integration. Numerical solution of systems of ordinary differential equations. Numerical solution of partial differential equation. Laboratory (F, Sp)

## MATH 3413 Physical Mathematics I 3 Credit Hours

Prerequisite: MATH 2443 or MATH 2934 or concurrent enrollment. Complex numbers and functions. Fourier series, solution methods for ordinary differential equations and partial differential equations, Laplace transforms, series solutions, Legendre's equation. Duplicates two hours of MATH 3113. (F, Sp)
MATH 3423 Physical Mathematics II 3 Credit Hours
Prerequisite: MATH 2443 or MATH 2934, MATH 3413. The Fourier transform and applications, a survey of complex variable theory, linear and nonlinear coordinate transformations, tensors, elements of the calculus of variations. (F)

## MATH 3440 Mentored Research Experience 3 Credit Hours

0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)

MATH 3960 Honors Reading
1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Consists of topics designated by the instructor in keeping with the student's major program. Covers materials not usually presented in the regular courses. (F, Sp, Su)

MATH 3970 Honors Seminar 1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Projects covered will vary. The content will deal with concepts not usually presented in regular coursework. (F, Sp)
MATH 3980 Honors Research 1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Will provide an opportunity for the gifted Honors candidate to work at a special project in the student's field. (F, Sp, Su)

MATH 3990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: one course in general area to be studied; permission of instructor and department. Overall grade point average of 2.50 or better. May be repeated; maximum credit six hours. Contracted independent study for topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (F, Sp, Su)

MATH G4073 Numerical Analysis I
3 Credit Hours
Prerequisite: 3113 or 3413 . Solution of linear and nonlinear equations, approximation of functions, numerical integration and differentiation, introduction to analysis of convergence and errors, pitfalls in automatic computation, one-step methods in the solutions of ordinary differential equations. (F)
MATH 4093 Applied Numerical Methods
3 Credit Hours
(Slashlisted with MATH 5093) Prerequisite: MATH 2443 or MATH 2934, MATH 3113 or MATH 3413, MATH 3333 or MATH 4373, or permission of instructor. Numerical treatment of ordinary differential equations, numerical linear algebra and applications, basic numerical methods for partial differential equations. No student may earn credit for both 4093 and 5093. (Alt. Sp.)
MATH G4103 Introduction to Functions of a Complex

## Variable

3 Credit Hours
Prerequisite: 3113. Complex analytic functions, conformal mappings, complex integrals. Taylor and Laurent series, integration by the method of residues, complex analytic functions and potential theory. (Sp)
MATH 4123 Fourier Transforms
3 Credit Hours
(Slashlisted with MATH 5123) Prerequisite: MATH 2443 or MATH 2934, MATH 3113 or MATH 3413, MATH 3333, or permission of instructor. Fourier series, classical Fourier transform, discrete Fourier transform, distributions and Fourier transforms. Sampling and Shannon's Theorem. No student may earn credit for both 4123 and 5123. (F)
MATH G4163 Introduction to Partial Differential Equations 3 Credit Hours
Prerequisite: MATH 2443 or MATH 2934, MATH 3113 or MATH 3413. Physical models, classification of equations, Fourier series and boundary value problems, integral transforms, the method of characteristics. (F, Sp, Su )

MATH 4193 Introductory Mathematical Modeling 3 Credit Hours Prerequisite: MATH 3113 or MATH 3413, MATH 3333, MATH 4733 or MATH 4753, or permission of instructor. Mathematics models are formulated for problems arising in various areas where mathematics is applied. Techniques are developed for analyzing the problem and testing validity of proposed model. (Sp)

MATH G4313 Introduction to Number Theory 3 Credit Hours
Prerequisite: 2513 and 3333 or permission of instructor. Topics include factorization and prime numbers, congruence, quadratic residues and reciprocity, continued fractions and approximations, Diophantine equations, arithmetic functions, and selected applications. (Irreg.)
MATH G4323 Introduction to Abstract Algebra I 3 Credit Hours Prerequisite: MATH 3333 and MATH 2513, or permission of instructor. Concepts from set theory; the system of natural numbers, extension from the natural numbers to the integers; semigroups and groups; rings, integral domain and fields. (F, Sp)
MATH G4333 Introduction to Abstract Algebra II 3 Credit Hours
Prerequisite: 4323. Extensions of rings and fields, elementary
factorization theory; groups with operators; modules and ideals; lattices. (Sp)
MATH 4373 Abstract Linear Algebra
3 Credit Hours
(Slashlisted with 5373) Prerequisite: 3333. Vector spaces over arbitrary fields, bases, dimension, linear transformations and matrices, similarity and its canonical forms (rational, Jordan), spectral theorem and diagonalization of quadratic forms. No student may earn credit for both 4373 or 5373. (F, Sp)
MATH 4383 Applied Modern Algebra
3 Credit Hours
(Slashlisted with 5383) Prerequisite: 3333 . Topics from the theory of error correcting codes, including Shannon's theorem, finite fields, families of linear codes such as Hamming, Golay, BCH, and Reed-Solomon codes. Other topics such as Goppa codes, group codes, and cryptography as time permits. No student may earn credit for both 4383 and 5383. (Sp)
MATH G4433 Introduction to Analysis I
3 Credit Hours
Prerequisite: MATH 2433 or MATH 2924, and MATH 2513 or permission of instructor. Review of real number system. Sequences of real numbers. Topology of the real line. Continuity and differentiation of functions of a single variable. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
MATH 4443 Introduction to Analysis II
3 Credit Hours
(Slashlisted with 5443) Prerequisite: 4433. Integration of functions of a single variable. Series of real numbers. Series of functions. Differentiation of functions of more than one variable. No student may earn credit for both 4443 and 5443. (Sp)
MATH 4513 Senior Mathematics Seminar 3 Credit Hours Prerequisite: MATH 2443 or MATH 2934; MATH 2513; MATH 3113 or MATH 3413; MATH 3333; and senior standing. Capstone course which synthesizes ideas from different areas of mathematics with emphasis on current topics of interest. The course will involve student presentations, written projects and problem solving. ( $F, S p$ ) [V].
MATH G4643 Topics in Geometry and Combinatorics 3 Credit Hours Prerequisite: 3333. May be repeated with permission of instructor; maximum credit six hours. Topics may include convexity (convex sets, combinatorial theorems in finite dimensional Euclidean space), graph theory, finite geometries, foundations of geometry. (F, Sp)
MATH 4653 Introduction To Differential Geometry I 3 Credit Hours (Slashlisted with MATH 5653) Prerequisite: MATH 2443 or MATH 2934, and MATH 3333, or permission of instructor. Elementary theory of curves and surfaces in three-dimensional Euclidean space, differentiable manifolds, Riemannian geometry of two dimensions, Gauss Theorem Egregium. No student may earn credit for both 4653 and 5653. (F)
MATH 4673 Graph Theory I
3 Credit Hours
(Slashlisted with 5673) Prerequisite: 2513 or permission of instructor. An introduction to the theory of graphs. Topics include basic definitions, cutpoints, blocks, trees, connectivity and Menger's theorem. No student may earn credit for both 4673 and 5673. (F)

MATH G4733 Mathematical Theory of Probability 3 Credit Hours Prerequisite: MATH 2443 or MATH 2934 or concurrent enrollment. Probability spaces, counting techniques, random variables, moments, special distributions, limit theorems. (F)
MATH 4743 Introduction to Mathematical Statistics 3 Credit Hours (Slashlisted with 5743) Prerequisite: 4733. Mathematical development of basic concepts in statistics: estimation, hypothesis testing, sampling from normal and other populations, regression, goodness-of-fit. No student may earn credit for both 4743 and 5743. (Sp)
MATH G4753 Applied Statistical Methods 3 Credit Hours Prerequisite: MATH 2123 or MATH 2423 or MATH 2924 or permission of instructor. Estimation, hypothesis testing, analysis of variance, regression and correlation, goodness-of-fit, other topics as time permits. Emphasis on applications of statistical methods. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
MATH 4773 Applied Regression Analysis
3 Credit Hours
(Slashlisted with 5773) Prerequisite: 3333, 4733 or 4753 or any statistical probability course at an equivalent level. The general regression problem of fitting an equation involving a single dependent variable and several independent variables, estimation and tests of regression parameters, residual analysis, selecting the "best" regression equation. No student may earn credit for both 4773 and 5773. (Alt. F)
MATH 4793 Advanced Applied Statistics
3 Credit Hours
(Slashlisted with 5793) Prerequisite: 4743 or 4753 or equivalent. Survey of advanced applied statistical methods other than applied regression, including exploratory data analysis, analysis of multivariate data (principal components: analysis, multiple analysis of variance, cluster analysis, etc.), and introduction to non-parametric methods. No student may earn credit for both 4793 and 5793. (Alt. F)

## MATH 4803 Topics in Mathematics

3 Credit Hours
Prerequisite: permission of instructor. May be repeated with change of content; maximum credit nine hours. Topics may include any area of mathematics; these will be substantial and fundamental subjects not offered in regular courses. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
MATH G4853 Introduction to Topology
3 Credit Hours
Prerequisite: MATH 2433 or MATH 2924; and MATH 2513; or permission of instructor. Metric spaces and topological spaces, continuity, connectedness, compactness and related topics. (Sp)
MATH 4960 Directed Readings 1-4 Credit Hours
1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean. May be repeated; maximum credit four hours. Designed for upper-division students who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)
MATH 4970 Special Topics/Seminar 1-3 Credit Hours 1 to 3 hours. Prerequisite: Senior standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

MATH 4990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: three courses in general area to be studied, permission of instructor and department. May be repeated; maximum credit six hours. Contracted independent study for topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Sp)

MATH 5093 Applied Numerical Methods 3 Credit Hours
(Slashlisted with MATH 4093) Prerequisite: graduate standing and MATH 2443 or MATH 2934, MATH 3113 or MATH 3413, MATH 3333 or MATH 4373, or permission of instructor. Numerical treatment of ordinary differential equations, numerical linear algebra and applications, basic numerical methods for partial differential equations. No student may earn credit for both MATH 4093 and MATH 5093. (Alt. Sp.)
MATH 5103 Mathematical Models 3 Credit Hours Prerequisite: permission of instructor or admission to the M.S. program. May be repeated with change of content; maximum credit six hours. Mathematical models are formulated for problems arising in various areas in which mathematics has been applied. In each case, techniques are developed for analyzing the resulting mathematical problem, and this analysis is used to test the validity of the model. (Sp)
MATH 5123 Fourier Transforms 3 Credit Hours (Slashlisted with MATH 4123) Prerequisite: graduate standing and MATH 2443 or 2934, MATH 3113 or MATH 3413, MATH 3333, or permission of the instructor. Fourier series, classical Fourier transform, discrete Fourier transform, distributions and Fourier transforms. Sampling and Shannon's Theorem. No student may earn credit for both 4123 and 5123. (F)
MATH 5163 Partial Differential Equations 3 Credit Hours Prerequisite: 4163 or permission of instructor. First order equations, Cauchy problem for higher order equations, second order equations with constant coefficients, linear hyperbolic equations. (Sp)
MATH 5173 Advanced Numerical Analysis I
3 Credit Hours
Prerequisite: 4433, 4443 or permission of instructor. Topics may include: error analysis of numerical methods for optimization and initial value problems, numerical approximation of aspects of control problems. (Alt. F)

MATH 5183 Advanced Numerical Analysis II 3 Credit Hours Prerequisite: 4433, 4443 or permission of instructor. Topics may include: analysis of spline approximations as a basis of the finite element method, error analysis for finite element approximation of elliptic and parabolic boundary value problems. (Alt. Sp)

## MATH 5253 Introduction to Mathematics Pedagogy Research 3 Credit Hours

 Prerequisite: Graduate standing in mathematics or permission of the instructor. This course is intended for students who will be consumers of mathematics education research as well as those who will be producers of this research. The course offers an overview of the mathematics pedagogy research process and a detailed survey of selected aspects of this process. Particular topics including reviewing existing mathematics teaching research literature, designing research studies, gathering research data, analyzing research data, and reporting pedagogical research. (F)
## MATH 5263 Issues and Problems in Mathematics

## Pedagogy <br> 3 Credit Hours

Prerequisite: graduate standing in mathematics or permission of instructor. May be repeated with change of content; maximum credit 12 hours. Considers current issues and perennial problems in undergraduate mathematics teaching. Potential topics include, but are not limited to, use of technology in mathematics instruction, use of group work and other instructional strategies actively engaging students in Mathematics learning, the nature of mathematics learning, research-based practices in teaching undergraduate mathematics, issues of gender and diversity in undergraduate mathematics, the nature of the undergraduate mathematics curriculum. (Sp)

MATH 5303 Topics in Group Theory
3 Credit Hours
Prerequisite: 4323 or permission of instructor. May be repeated with change of content; Maximum credit 15 hours. Topics may include permutation groups, invariant subgroups, prime power groups, abelian groups, generators and relations, free groups, solvable and nilpotent groups, semi-direct products and extensions, automorphism groups, reflection groups, coxeter groups, crystallographic groups, matrix groups and representation group actions. (Irreg.)
MATH 5333 Topics in Number Theory
3 Credit Hours
Prerequisite: at least one mathematics course numbered above 3000, other than 4232. May be repeated with change of content; maximum credit nine hours. Topics may include congruencies, arithmetic functions, quadratic reciprocity, continued fractions, diophantine equations, primality testing, factorization methods, cryptography, quadratic forms and quadratic fields, computational number theory, additive number theory, coding theory, p-adic numbers. (Irreg.)

MATH 5353 Abstract Algebra I
3 Credit Hours
Prerequisite: 4323, permission of instructor. Groups, Sylow theorems, group actions, group presentations. Rings, ideals, polynomial rings, unique factorization. Fields, algebraic and transcendental extensions. (F)

## MATH 5363 Abstract Algebra II

3 Credit Hours
Prerequisite: 5353. Galois theory, solvability. Modules over a principal ideal domain. Noetherian ideal theory. Group representations, semisimple rings. Classical groups. (Sp)
MATH 5373 Abstract Linear Algebra
3 Credit Hours
(Slashlisted with 4373) Prerequisite: 3333. Vector spaces over arbitrary fields, bases, dimension, linear transformations and matrices, similarity and its canonical forms (rational, Jordan), spectral theorem and diagonalization of quadratic forms. No student may earn credit for both 4373 and 5373. (F, Sp)
MATH 5383 Applied Modern Algebra
3 Credit Hours
(Slashlisted with MATH 4383) Prerequisite: MATH 3333. Topics from the theory of error correcting codes, including Shannon's theorem, finite fields, families of linear codes such as Hamming, Golay, BCH, and ReedSolomon codes. Other topics such as Goppa codes, group codes, and cryptography as time permits. No student may earn credit for both 4383 and 5383. (Sp)
MATH 5403 Calculus of Variations 3 Credit Hours
Prerequisite: 4433 or 3423 or 4163 . Linear spaces, global and local theories of optimization, necessary conditions for relative extrema of integrals. (Irreg.)
MATH 5423 Complex Analysis I
3 Credit Hours
Prerequisite: 4433. The complex numbers, topologies of the extended plane and related sphere, elementary functions, power series, properties of general holomorphic functions. The integral of a complex-valued function over an oriented rectifiable curve, the classical theorems on integrals, Taylor and Laurent expansions, analytic continuation, introduction to Riemann surfaces. (Alt. F)
MATH 5443 Introduction To Analysis II
3 Credit Hours
(Slashlisted with 4443) Prerequisite: 4433. Integration of functions of a single variable. Series of real numbers. Series of functions. Differentiation of functions of more than one variable. No student may earn credit for both 4443 and 5443. (Sp)

MATH 5453 Real Analysis I
3 Credit Hours
Prerequisite: 4433 or permission of instructor. Lebesgue measure and integration theory, absolutely continuous functions, metric spaces. (F)

MATH 5463 Real Analysis II
3 Credit Hours
Prerequisite: 5453. General measure and integration theory, Banach spaces, topics from related areas. (Sp)
MATH 5653 Introduction To Differential Geometry I 3 Credit Hours (Slashlisted with MATH 4653) Prerequisite: graduate standing and MATH 2443 or MATH 2934, and MATH 3333, or permission of instructor. Elementary theory of curves and surfaces in three-dimensional Euclidean space, differentiable manifolds, Riemannian geometry of two dimensions, Gauss Theorem Egregium. No student may earn credit for both 4653 and 5653. (F)

MATH 5673 Graph Theory $1 \quad 3$ Credit Hours (Slashlisted with 4673) Prerequisite: 2513 or permission of instructor. An introduction to the theory of graphs. Topics include basic definitions, cutpoints, blocks, trees, connectivity and Menger's theorem. No student may earn credit for both 4673 and 5673. (F)

MATH 5693 Topics in Geometry and Combinatorics I 3 Credit Hours Prerequisite: permission of instructor. May be repeated with permission of instructor; maximum credit 12 hours. Topics may include convexity, combinatorial geometry, graph theory, or Riemannian geometry. (F, Sp, Su)
MATH 5743 Introduction to Mathematical Statistics 3 Credit Hours (Slashlisted with 4743) Prerequisite: 4733. Mathematical development of basic concepts in statistics: estimation, hypothesis testing, sampling from normal and other populations; regression, goodness of fit. No student may earn credit for both 4743 and 5743. (Sp)

MATH 5763 Introduction to Stochastic Processes 3 Credit Hours Prerequisite: 4733 or permission of instructor. Stochastic processes in discrete time including random walks, recurrent events, Markov chains and branching processes. Processes in continuous time including linear and nonlinear birth-death processes and diffusions. Applications taken from economics, engineering, operations research. (Irreg.)
MATH 5773 Applied Regression Analysis 3 Credit Hours
(Slashlisted with 4773) Prerequisite: 3333,4733 or 4753 or any statistical probability course at an equivalent level. The general regression problem of fitting an equation involving a single dependent variable and several independent variables, estimation and tests of regression parameters, residual analysis, selecting the "best" regression equation. No student may earn credit for both 4773 and 5773. (Alt. F)
MATH 5793 Advanced Applied Statistics 3 Credit Hours
(Slashlisted with 4793) Prerequisite: 4743 or 4753 or equivalent. Survey of advanced applied statistical methods other than applied regression, including exploratory data analysis, analysis of multivariate data (principal components: analysis, multiple analysis of variance, cluster analysis, etc.), and introduction to non-parametric methods. No student may earn credit for both 4793 and 5793. (Alt. F)
MATH 5803 Topics in Mathematics 3 Credit Hours
Prerequisite: permission of instructor. May be repeated with change of content; maximum credit fifteen hours. Topics may include any area of mathematics; these will be substantial and fundamental subjects not offered in regular courses. (F, Sp, Su)
MATH 5853 Topology I 3 Credit Hours
Prerequisite: 2433 and 2513. Set theory, separation axioms,
connectedness, compactness, continuity, metric spaces, nets and sequences. (F)
MATH 5863 Topology II 3 Credit Hours
Prerequisite: 5853. Metrization, product and quotient spaces, function spaces, dimension theory, Hilbert spaces, homotopy, simplicial complexes, continua. (Sp)

MATH 5900 Graduate Mathematics Readings
1-3 Credit Hours
1 to 3 hours. Prerequisite: six-hour mathematics sequence at the 5000+ level. May be repeated with change of content; maximum credit fifteen hours. Special background readings in advanced mathematical topics as preparation for later dissertation work. (F, Sp, Su)

MATH 5920 Seminar--Algebra and Theory of Numbers 1-2 Credit Hours 1 to 2 hours. Prerequisite: permission of instructor. May be repeated with change of content; maximum credit 12 hours. (F, Sp)

MATH 5930 Seminar--Geometry and Topology 1-2 Credit Hours 1 to 2 hours. Prerequisite: permission of instructor. May be repeated with change of content; maximum credit 12 hours. ( $F$, Sp)

MATH 5950 Seminar-Undergraduate Mathematics Curriculum \& Pedagogy 1-2 Credit Hours
1 to 2 hours. May be repeated with change of content; maximum credit 12 hours. This seminar will explore the current research literature on undergraduate mathematics curriculum and pedagogy. (F, Sp)
MATH 5960 Directed Readings 1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing and permission of department. May be repeated; maximum credit twelve hours. Directed readings and/or literature reviews under the direction of a faculty member. (F, Sp, Su)

MATH 5970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing or permission of instructor.
May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)
MATH 5980 Research for Master's Thesis 2-9 Credit Hours
Variable enrollment, two to nine hours; maximum credit applicable toward degree, four hours. (F, Sp)
MATH 5990 Special Problems in Mathematics 1-2 Credit Hours 1 to 2 hours. An option for all candidates for the master's degree who do not present theses. (F, Sp, Su)

MATH 6303 Literacy in Algebra
3 Credit Hours
Prerequisite: Graduate standing and MATH 5363; May be repeated with change of content; maximum credit 15 hours. This course will cover three independent advanced topics in the general area of Algebra. Some past topics have included: plane curves and singularities; introduction to buildings; invariant theory; representation stability; Morita theorems and Tannaka duality; computational commutative algebra; quiver representations; friezes; p-adic and motivic integration; introduction to algebraic analysis. (Irreg.)
MATH 6333 Lie Theory I
3 Credit Hours
Prerequisites: 5363 and 5863 or permission of the instructor. Basic properties of Lie algebras, nilpotent and solvable Lie algebras, semisimple Lie algebras, root systems and classification theorems. (Irreg.)
MATH 6343 Lie Theory II
3 Credit Hours
Prerequisite: 6333 or permission of the instructor. Representation theory of semi-simple Lie algebras, Lie groups, connections between Lie groups and Lie algebras, structure theory and representation theory of compact Lie groups. (Irreg.)

MATH 6373 Commutative Algebra 3 Credit Hours
Prerequisite: 4323,4333,5333 or permission of instructor. Commutative rings and their modelus, ideals, prime ideals, Noetherian modules and rings, localization, principal and factorial rings, discrete valuation domains, Dedekind domains, integral ring extensions, dimension theory, tensor products, flat modules, the homofunctor, injective and projective modules, regular rings, Cohen-Macauley rings. (Irreg.)

MATH 6383 Algebraic Geometry
3 Credit Hours
Prerequisite: 6373. Hilbert's Nullstellensatz, the correspondence between ideals and algebraic sets, Zariski topology, irreducible algebraic sets, ringed spaces, morphisms, affine varieties, algebraic varieties, regular maps, sub-varieties and products, bi-rational equivalence, local rings and tangent spaces, differentials, non-singular points. (Irreg.)

## MATH 6393 Topics in Algebra 3 Credit Hours

Prerequisite: 5353 or permission of instructor. May be repeated with change of content; maximum credit 15 hours. Topics of modern research interest in algebra. (Irreg.)
MATH 6403 Literacy in Analysis 3 Credit Hours
Prerequisite: Graduate standing and MATH 5463; May be repeated with change of content; maximum credit 15 hours. This course will cover three independent advanced topics in the general area of Analysis. Some past topics have included: Sobolev spaces; $C^{\star}$-algebras; analysis of partial differential operators; distributions; holomorphic functional calculus; interpolation spaces; symbolic dynamics; Hardy spaces; perturbation theory and fixed point theorems; regularity theory for elliptic PDE. (Irreg.)
MATH 6473 Functional Analysis I 3 Credit Hours
Prerequisite: 5463 or permission of instructor. Vector spaces with topology or norm, dual space, theorems on linear operators, spectral theory in Hilbert space, spectral decomposition of operators, convex sets and weak topologies, fixed point theorems. (Alt. F)
MATH 6483 Functional Analysis II 3 Credit Hours
Prerequisite: 6473. Banach algebras and harmonic analysis, representations of symmetric rings, unitary representations of a group, rings of operators in Hilbert space, decomposition of ring operators. Introduction to the theory of distributions. (Alt. Sp)

MATH 6493 Topics in Analysis 3 Credit Hours
Prerequisite: 5453 or permission of instructor. May be repeated with change of course content; maximum credit 15 hours. Topics of modern research interest in analysis. ( $F, S p$ )

MATH 6673 Differential Geometry I
3 Credit Hours
Prerequisite: 5853 or permission of instructor. Multilinear algebra, differential manifolds, exterior differential forms, affine connections, Riemannian manifolds. (F)
MATH 6683 Differential Geometry II
3 Credit Hours
Prerequisite: 6673. Riemannian manifolds, theory of connections, bundles with classical groups as structure groups, curvature and Betti numbers, complex manifolds. (Sp)
MATH 6803 Literacy in Topology 3 Credit Hours
Prerequisite: Graduate standing and MATH 5863; May be repeated with change of content; maximum credit 15 hours. This course will cover three independent advanced topics in the general area of Topology. Some past topics have included: Mostow rigidity; group cohomology; curvature and topology; Morse theory; ergodicity of geodesic flow; Bass-Serre theory; deRham cohomology; introduction to mapping class groups; K-theory; geometry of metric spaces; the homeomorphism group of the circle; topology of 3-manifolds. (Irreg.)

MATH 6813 Algebraic Topology I 3 Credit Hours Prerequisite: 5863. Introduction to homology theory of spaces, fundamental group and covering spaces, higher homotopy groups, CWcomplexes and cellular homology, Whitehead and Hurewicz theorems, Eilenberg-Steenrod axioms. (F)

MATH 6823 Algebraic Topology II
3 Credit Hours
Prerequisite: 6813. Topics in cohomology and homology theory, universal coefficient theorems, orientation and duality on manifolds. Further topics may include: obstruction theory, cohomology operations, fibre bundles and characteristic classes, theory of sheaves, Eilenberg-MacLane spaces and Postnikov systems, spectral sequences. (Sp)

MATH 6833 Topics in Topology I
3 Credit Hours
Prerequisite: 5863. May be repeated with permission of instructor; maximum credit 15 hours. Topics may include algebraic topology, combinatorial topology, linear topological spaces, dimension theory, metrization, continua, decomposition spaces, topology of flat spaces. (F, Sp)
MATH 6910 Seminar--Analysis 1-2 Credit Hours
1 to 2 hours. Prerequisite: permission of the instructor. May be repeated with change of content; maximum credit 15 hours. Seminar on analysis and applied mathematics topics. (F, Sp)
MATH 6930 Seminar--Geometry and Topology 1-2 Credit Hours 1 to 2 hours. Prerequisite: permission of the instructor. May be repeated with change of content; maximum credit 12 hours. (F, Sp)
MATH 6960 Directed Readings
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit six hours. Directed readings and/or literature review under the direction of a faculty member. (Irreg.)
MATH 6970 Special Topics/Seminar 1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit 12 hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or research and field projects. (Irreg.)

MATH 6980 Research for Doctoral Dissertation 2-16 Credit Hours 2 to 16 hours. Prerequisite: Graduate standing and permission of instructor; may be repeated. Directed research culminating in the completion of the doctoral dissertation. (F, Sp, Su)
MATH 6990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)

## Faculty

| Last Name | First/Middle <br> Name | Middle init. | OU <br> Service <br> start | Title(s), date(s) appointed | Degrees Earned, Schools, Dates Completed |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Akin | Kaan |  | 1984 | ASSOCIATE <br> PROFESSOR OF <br> MATHEMATICS, 1988 | PhD, Brandeis Univ, 1980; MA, Brandeis Univ, 1977; BA, Univ of Pennsylvania, 1975 |
| Albert | John | P | 1984 | PROFESSOR OF MATHEMATICS, 2000 | PhD, Univ of Chicago, 1989; MS, Univ of Chicago, 1984; BS, Univ of Santa Clara, 1978 |
| Apanasov | Boris | N | 1991 | PROFESSOR OF MATHEMATICS, 1994 | PhD, Acad of <br> Pedagogical <br> Science, 1976; MS, <br> Novosibirsk State <br> Univ, 1973; BA, <br> Novosibirsk State <br> Univ, 1971 |


| Brady | Noel |  | 1998 | PRESIDENT'S <br> ASSOCIATES <br> PRESIDENTIAL <br> PROFESSOR, 2004; <br> PROFESSOR OF <br> MATHEMATICS, 2006 | PhD, Univ of California-Berkeley, 1993; BA, Univ of Dublin-Trinity College, 1988 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Chavez- <br> Dominguez | Javier | A | 2015 | ASSISTANT PROFESSOR OF MATHEMATICS, 2015 | PhD, Texas A\&M Univ, 2012; MS, Univ Nacl Autonoma De Mexico, 2006; BS, Universidad de Guanajuato, 2006 |
| Docampo <br> Alvarez | Roi |  | 2016 | ASSISTANT <br> PROFESSOR OF <br> MATHEMATICS, 2016 | PhD, Univ of Illinois, 2009; MS, Universidade de Santiago de Compostela, 2003; Licenciatura, Universidade de Santiago de Compostela, 2001 |
| Forester | Max | B | 2003 | PROFESSOR OF MATHEMATICS, 2014 | PhD, Univ of Michigan, 1999; MS, Univ of Michigan, 1996; AB, Cornell Univ, 1992 |
| Grigo | Alexander |  | 2012 | ASSISTANT PROFESSOR OF MATHEMATICS, 2012 | PhD, Georgia Institute of Tech, 2009 |
| Jablonski | Michael | R | 2008 | ASSOCIATE <br> PROFESSOR OF <br> MATHEMATICS, 2016 | PhD, Univ of North Carolina, 2008; BS, Univ of Tennessee, 2002 |
| Kornelson | Keri | A | 2008 | PROFESSOR OF <br> MATHEMATICS, 2016 | PhD, Univ of <br> Colorado, 2001; MA, <br> Univ of Colorado, 1997; BA, Univ of Maryland, 1995; BA, Univ of Colorado, 1989 |
| Kramar | Miroslav |  | 2019 | ASSISTANT PROFESSOR OF MATHEMATICS | PhD, Vrije Universiteit Amsterdam, The Netherlands, 2009 |
| Kujawa | Jonathan |  | 2007 | PROFESSOR OF MATHEMATICS, 2017 | PhD, Univ of Oregon, 2003; MS, Univ of Oregon, 1999; BA, Gustavus Adolphus Coll, 1997 |
| Lifschitz | Lucy |  | 2001 | ASSOCIATE <br> PROFESSOR OF <br> MATHEMATICS, 2005 | PhD, Yale Univ, 1998; MS, Yale Univ, 1993; BS, Univ of California Los Angeles, 1991 |
| Malestein | Justin |  | 2015 | ASSISTANT PROFESSOR OF MATHEMATICS, 2015 | PhD, Univ of Chicago, 2009; BS, Univ of Michigan, 2004 |
| Martin | Kimball | L | 2007 | PROFESSOR OF <br> MATHEMATICS, 2016 | PhD, California Inst of Tech, 2004; MS, Univ of Maryland, 1999; BS, Univ of Maryland, 1999 |
| Mendes | Ricardo | A.E. |  | ASSISTANT PROFESSOR OF MATHEMATICS | PhD, Univ of Pennsylvania, 2011 |
| Miller | Andrew | G | 1981 | DAVID ROSS BOYD PROFESSOR OF MATHEMATICS, 2012 | PhD, Univ of Connecticut, 1981; MS, Univ of Connecticut, 1976; BS, Alfred, 1974 |


| MooreRusso | Deborah |  | 2017 | PROFESSOR OF MATHEMATICS, 2017 | PhD, Univ of Oklahoma, 1995 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Muller | Gregory |  | 2017 | ASSISTANT PROFESSOR OF MATHEMATICS, 2017 | PhD, Cornell Univ, 2010; BA, Rutgers Univ, 2004 |
| Ozaydin | Murad |  | 1988 | PROFESSOR OF MATHEMATICS, 2001 | PhD, Purdue Univ, 1984; BS, Middle East Tech Univ Ankara, 1976 |
| Petrov | Nikola | P | 2005 | NANCY SCOFIELD <br> HESTER <br> PRESIDENTIAL <br> PROFESSOR, 2014; <br> PROFESSOR OF <br> MATHEMATICS, <br> 2014; ADJUNCT <br> PROFESSOR <br> OF ELECTRICAL <br> AND COMPUTER <br> ENGINEERING, 2014 | PhD, Univ of Texas, 2002; MA, Univ of Texas, 2002; BS, Univ of Sofia, 1990 |
| Pitale | Ameya |  | 2010 | ASSOCIATE PROFESSOR OF MATHEMATICS, 2014 | PhD, Ohio State Univ, 2006; MS, Indian Inst of Tech, 2000 |
| Przebinda | Tomasz |  | 1990 | PROFESSOR OF MATHEMATICS, 1999 | PhD, Yale Univ, 2987; MS, Wroclaw Tech, 1980 |
| Remling | Christian |  | 2005 | PROFESSOR OF MATHEMATICS, 2012 | PhD, Universitat <br> Osnabruck, 1996; MA, <br> Universitat Frankfurt, $1992$ |
| Roche | Alan | J | 2001 | ASSOCIATE <br> PROFESSOR OF <br> MATHEMATICS, 2005 | PhD, Univ of Chicago, 1996; MSc, Univ College of Dublin, 1998; BSc, Univ College of Dublin, 1987 |
| Savic | Milos |  | 2013 | ASSOCIATE PROFESSOR OF MATHEMATICS, 2018 | PhD, New Mexico <br> State Univ, 2012; BS, <br> Ball State, 2004 |
| Schmidt | Ralf |  | 2004 | NANCY SCOFIELD <br> HESTER <br> PRESIDENTIAL <br> PROFESSOR, 2010; <br> PROFESSOR OF <br> MATHEMATICS, 2012 | PhD, Universität Hamburg, 1998; Universität Münster, 1994 |
| Shankar | Krishnan |  | 2002 | PROFESSOR OF MATHEMATICS, 2011; NANCY SCOFIELD HESTER PRESIDENTIAL PROFESSOR, 2018 | PhD, Univ of <br> Maryland, 1999; BA, <br> Reed College, 1993 |
| Stewart | Sepideh |  | 2012 | ASSOCIATE <br> PROFESSOR OF <br> MATHEMATICS, 2018 | PhD, Univ of Auckland, 2008; MS, Univ of Auckland, 2000; BS, Univ of Auckland, 1998 |
| Tao | Jing |  | 2012 | ASSOCIATE PROFESSOR OF MATHEMATICS, 2018 | PhD, Univ of Illinois, 2009; BS, Univ of Illinois, 2001 |
| Wang | Ying |  | 2013 | ASSISTANT PROFESSOR OF MATHEMATICS, 2013 | PhD, Ohio State Univ, 2010; MS, Georgia Inst of Tech, 2005; BS, National Univ of Singapore, 2001 |


| Wei | Shihshu | W | 1985 | PROFESSOR OF MATHEMATICS, 1997 | PhD, Univ of California Berkeley; MS, Washington, 1974; BS, Tamking, 1972 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Wu | Yilun |  | 2018 | ASSISTANT PROFESSOR OF MATHEMATICS, 2018 | PhD, Univ of Michigan, 2014; BS, Fudan Univ, 2008 |
| Zhang | Pengfei |  | 2017 | ASSISTANT <br> PROFESSOR OF <br> MATHEMATICS, 2017 | PhD, Univ of Science \& Tech, 2011; BS, Univ of Science \& Tech; 2006 |
| Zhu | Meijun |  | 1999 | PROFESSOR OF MATHEMATICS, 2008 | PhD, Rutgers, 1996; MS, Univ of Science and Tech, 1992; BS, Peking Univ, 1988 |

## Mathematics (Standard Option), B.A.

Minimum Total Credit Hours: 120
Major Hours: 36
Minimum Upper-Division Hours: 48
Overall GPA - Combined and OU: 2.00
Major GPA - Combined and OU: 2.00
Program Code: B670
Major Requirements

- Some courses required for the major may also fulfill University General Education and/or Dodge College of Arts \& Sciences Requirements
- Students must earn a grade of C or better in all MATH courses at the 3000-level or higher.

| Code | Title | Credit Hours |
| :---: | :---: | :---: |
| Choose one of the following sequences: |  | 12 |
| Sequence A: |  |  |
| MATH 1823 | Calculus and Analytic Geometry I |  |
| MATH 2423 | Calculus and Analytic Geometry II |  |
| MATH 2433 | Calculus and Analytic Geometry III |  |
| MATH 2443 | Calculus and Analytic Geometry IV |  |
| Sequence B: |  |  |
| MATH 1914 | Differential and Integral Calculus I |  |
| MATH 2924 | Differential and Integral Calculus II |  |
| MATH 2934 | Differential and Integral Calculus III |  |
| MATH 2513 | Discrete Mathematical Structures | 3 |
| MATH 3333 | Linear Algebra I | 3 |
| MATH 3113 | Introduction to Ordinary Differential Equations ${ }^{1}$ | 3 |
| or MATH 3413 Physical Mathematics I |  |  |
| Choose four ad higher, including | tional math courses at the 3000-level or ine hours at the 4000 -level or higher ${ }^{2}$ | 12 |
| MATH 4513 | Senior Mathematics Seminar | 3 |
| Total Credit Hou |  | 36 |

[^11]2 No more than 6 hours may be
from MATH 4733, MATH 4743, MATH 4753, MATH 4773, and MATH 4793.

## General Education and College Requirements

Courses for fulfillment of General Education and Dodge College of Arts \& Sciences requirements must be from the approved General Education course list published in the Class Schedule or at http://www.ou.edu/ gened/courses. Courses graded P/NP will not apply.

UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS
Code Title Credit

## Core Area I: Symbolic and Oral Communication

English Composition (6 hours)
ENGL 1113 Principles of English Composition 3
ENGL 1213 Principles of English Composition 3
or EXPO 1213 Expository Writing
Language (0-13 hours in the same language)
The college requirement cannot be met by high school coursework.
Beginning Course 0-5
Beginning Course, continued 0-5
$\begin{array}{ll}\text { Intermediate Course (2000 level) }^{1,2} & 0-3\end{array}$
Mathematics (3 hours)
Choose one course from the General Education Mathematics 3
list
Core Area II: Natural Science (7 hours, including one laboratory component)
Biological Science
Choose an approved General Education Natural Science 3-4
course with one of the following prefixes: BIOL, HES, MBIO, or PBIO ${ }^{1}$

Physical Science
Choose an approved General Education Natural Science 3-4
course with one of the following prefixes: AGSC, ASTR, CHEM,
GEOG, GEOL, GPHY, METR, or PHYS ${ }^{1}$
Core Area III: Social Science (6 hours)
P SC 1113 American Federal Government 3
Choose one course from the General Education Social 3
Science list
Core Area IV: Arts and Humanities (18 hours)
Artistic Forms
Choose one course from the General Education Artistic Forms 3
list
Western Culture
HIST 1483 United States to 1865
or HIST 1493 United States, 1865 to the Present
Choose one course from the General Education Western 3
Culture list (excluding HIST 1483/1493)
World Culture
Choose one course from the General Education World Culture 3
list
Additional Core IV Upper-Division Arts \& Humanities courses

Choose one course from Artistic Forms, Western Culture, or World Culture ${ }^{1,3}$
Choose one course from Artistic Forms, Western Culture, or
World Culture ${ }^{1,3}$
Core Area V: First Year Experience (3 hours)
Choose one course

Total Credit Hours
${ }^{1}$ College of Arts and Sciences Requirements: college requirements are not automatically fulfilled by a previous degree.
${ }^{2}$ One course at the intermediate level or demonstrated competency at that level
${ }^{3} 6$ upper-division hours, 2 courses, at the 3000-4000-level. Must be outside the major.

## Free Electives

Electives to bring total applicable hours to the minimum total required for the degree including 48 upper-division hours.

## Information Concerning General Rules, Regulations and Minimum Requirements

Arts and Sciences Hours: At least 80 semester hours of liberal arts and sciences courses are required for a BA degree. At least 55 semester hours of liberal arts and sciences courses are required for a BS degree. Pass/No Pass Enrollment: A maximum of 16 semester hours of free elective credit may be attempted under this option.
Individual Studies (e.g., courses titled "Independent Study"): A maximum of 12 total semester hours may be counted toward graduation, excluding Honors Reading and Honors Research.
P.E. Courses: No physical education activity courses will be counted toward the 120 semester hours of acceptable credit for graduation. Senior Institution Hours: A minimum of 60 semester hours applied toward graduation must be earned at senior (4-year) institutions.

## Residency:

- At least 15 of the final 30 hours applied toward the degree or at least 50 percent of the hours required by the institution in the major field must be satisfactorily completed at the awarding institution.
- At least 15 semester hours of upper-division major work must be completed in residence at OU.
- OU correspondence courses are not considered resident credit.

Grade Point Averages: Students must earn a minimum over all 2.00 for each of the following: Combined Retention GPA (all college grades), OU Retention GPA, GPA for all major courses, and GPA for all major courses taken at OU. Some schools and departments of the College have higher minimum grade point averages required for their students.

## Suggested Semester Plan of Study

This plan shows one possible grouping of courses that would allow students to graduate in four years. Please refer to the front of the degree checksheet for official requirements. Students must consult with Dodge College of Arts and Sciences and/or Department of Mathematics academic advisors to verify that courses selected each semester fulfill the recommended plan and satisfy University, College of Arts and Sciences, and Mathematics major requirements.


| First Semester |  | Credit <br> Hours |  |  |
| :--- | :--- | ---: | :---: | :---: |
| ENGL 1113 | Principles of English Composition (Core I) | 3 |  |  |
| MATH 1823 | Calculus and Analytic Geometry I (Core I) | 3 |  |  |
| P SC 1113 | American Federal Government (Core III) | 3 |  |  |
| First Year Experience (Core V) | 3 |  |  |  |
| Beginning Language (Core I) | $\mathbf{5}$ |  |  |  |
| Credit Hours |  |  |  | $\mathbf{1 7}$ |

## Second Semester

ENGL $1213 \quad$ Principles of English Composition (Core I) 3
$\left.\begin{array}{ccc}\text { or EXPO } 1213 & \text { or Expository Writing } \\ \text { HIST } 1483 & \text { United States to } 1865 \text { (Core IV) } \\ \text { or HIST 1493 } & \text { or United States, } 1865 \text { to the Present }\end{array}\right] 3$

| Beginning Language continued (Core I) | 5 |
| :---: | ---: |
| Credit Hours | $\mathbf{1 4}$ |

## Sophomore

First Semester

| MATH 2433 | Calculus and Analytic Geometry III | 3 |
| :--- | :--- | :--- |
| MATH 2513 | Discrete Mathematical Structures | 3 |

Intermediate Language 3
Western Culture (Core IV) 3

| Natural Science without lab (Core II) | 3 |
| :--- | ---: |


| MATH 2443 | Calculus and Analytic Geometry IV | 3 |
| :---: | :---: | :---: |
| MATH 3333 | Linear Algebra I | 3 |
| Natural Science with lab (Core II) |  | 4 |
| Social Science (Core III) |  | 3 |
| Artistic Forms (Core IV) |  | 3 |
|  | Credit Hours | 16 |

## Junior

First Semester

| MATH 3113 <br> or MATH 3413 <br> Equations <br> or Physical Mathematics I <br> MATH 4000-level Elective 1 | 3 |
| :--- | :---: |
| Arts \& Humanities, upper-division, outside major (Gen. Ed.) | 3 |
| Free Elective, lower- or upper-division | 3 |
| Free Elective, lower- or upper-division | 3 |
| Credit Hours | 1 |

## Second Semester

MATH 4000-level Elective ${ }^{1} 3$
Arts \& Humanities, upper-division, outside major (Gen. Ed.) 3
World Culture (Core IV) 3
Free Elective, upper-division (3000-4000-level) 3
Free Elective, upper-division (3000-4000-level) 3
Credit Hours15

## Senior

First Semester
MATH 3000-4000-level Elective ${ }^{1} 3$
MATH 4000-level Elective ${ }^{1} 3$

| Free Elective, lower- or upper-division | 3 |
| :---: | :---: |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Credit Hours | 15 |
| Second Semester |  |
| MATH 4513 Senior Mathematics Seminar | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Credit Hours | 15 |
| Total Credit Hours | 120 |

1 MATH electives are subject to the restrictions listed in the Program Requirements.

## Mathematics (Professional Option), B.S.

Minimum Total Credit Hours: 120
Major Hours: 39
Minimum Upper-Division Hours: 48
Overall GPA - Combined and OU: 2.00
Major GPA - Combined and OU: 2.00
Program Code: B671

## Major Requirements

- Some courses required for the major may also fulfill University General Education and/or Dodge College of Arts \& Sciences Requirements.
- Students must earn a grade of C or better in all MATH courses at the 3000-level or higher.

| Code | Title | Credit <br> Hours |
| :---: | :---: | :---: |
| Choose one of the following calculus sequences: |  | 12 |
| Sequence A: |  |  |
| MATH 1823 | Calculus and Analytic Geometry I |  |
| MATH 2423 | Calculus and Analytic Geometry II |  |
| MATH 2433 | Calculus and Analytic Geometry III |  |
| MATH 2443 | Calculus and Analytic Geometry IV |  |
| Sequence B: |  |  |
| MATH 1914 | Differential and Integral Calculus I |  |
| MATH 2924 | Differential and Integral Calculus II |  |
| MATH 2934 | Differential and Integral Calculus III |  |
| MATH 2513 | Discrete Mathematical Structures | 3 |
| MATH 3333 | Linear Algebra I | 3 |
| MATH 4323 | Introduction to Abstract Algebra I | 3 |
| MATH 4373 | Abstract Linear Algebra | 3 |
| MATH 4433 | Introduction to Analysis I | 3 |
| MATH 4853 | Introduction to Topology | 3 |
| MATH 3113 | Introduction to Ordinary Differential Equations ${ }^{1}$ | 3 |
| or MATH 3413 | Physical Mathematics I |  |


| MATH 4333 | Introduction to Abstract Algebra II |  |
| :---: | :--- | ---: |
| or MATH 4443 | Introduction to Analysis II | 3 |
| MATH 4513 | Senior Mathematics Seminar | 3 |
| Total Credit Hours | 39 |  |

1 MATH 3113 and MATH 3413 overlap by 2 hours. Students who take both will earn only 4 hours of credit.

## General Education and College Requirements

Courses for fulfillment of General Education and Dodge College of Arts \& Sciences requirements must be from the approved General Education course list published in the Class Schedule or at http://www.ou.edu/ gened/courses. Courses graded P/NP will not apply.

## UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS <br> Code Title Credit

## Core Area I: Symbolic and Oral Communication

English Composition (6 hours)
ENGL 1113 Principles of English Composition 3
ENGL 1213 Principles of English Composition 3
or EXPO 1213 Expository Writing
Language (0-13 hours in the same language)
The college requirement cannot be met by high school coursework.
Beginning Course 0-5
$\begin{array}{ll}\text { Beginning Course, continued } & 0-5\end{array}$
$\begin{array}{ll}\text { Intermediate Course (2000 level) }^{1,2} & 0-3\end{array}$
Mathematics (3 hours)
Choose one course from the General Education Mathematics 3
list
Core Area II: Natural Science (7 hours, including one laboratory component)
Biological Science
Choose an approved General Education Natural Science 3-4 course with one of the following prefixes: BIOL, HES, MBIO, or PBIO ${ }^{1}$

## Physical Science

Choose an approved General Education Natural Science 3-4 course with one of the following prefixes: AGSC, ASTR, CHEM, GEOG, GEOL, GPHY, METR, or PHYS ${ }^{1}$
Core Area III: Social Science (6 hours)
P SC 1113 American Federal Government 3
Choose one course from the General Education Social 3
Science list
Core Area IV: Arts and Humanities (18 hours)
Artistic Forms
Choose one course from the General Education Artistic Forms 3
list
Western Culture
HIST 1483 United States to 1865
or HIST 1493 United States, 1865 to the Present
Choose one course from the General Education Western
3

| World Culture |  |
| :---: | :---: |
|  | Choose one course from the General Education World Culture list |
| Additional Core IV Upper-Division Arts \& Humanities courses |  |
| Choose one course from Artistic Forms, Western Culture, or World Culture ${ }^{1,3}$ |  |
| Choose one course from Artistic Forms, Western Culture, or World Culture ${ }^{1,3}$ |  |
| Core Area V: First Year Experience (3 hours) |  |
| Choose one course |  |
| Total Credit Hours |  |
| ${ }^{1}$ College of Arts and Sciences Requirements: college requirements are not automatically fulfilled by a previous degree. |  |
| ${ }^{2}$ One course at the intermediate level or demonstrated competency at that level |  |
|  | 6 upper-division hours, 2 courses, at the 3000-4000-level. Must be outside the major. |

## Free Electives

Electives to bring total applicable hours to the minimum total required for the degree including 48 upper-division hours.

## Information Concerning General Rules, Regulations and Minimum Requirements

Arts and Sciences Hours: At least 80 semester hours of liberal arts and sciences courses are required for a BA degree. At least 55 semester hours of liberal arts and sciences courses are required for a BS degree. Pass/No Pass Enrollment: A maximum of 16 semester hours of free elective credit may be attempted under this option.
Individual Studies (e.g., courses titled "Independent Study"): A maximum of 12 total semester hours may be counted toward graduation, excluding Honors Reading and Honors Research.
P.E. Courses: No physical education activity courses will be counted toward the 120 semester hours of acceptable credit for graduation. Senior Institution Hours: A minimum of 60 semester hours applied toward graduation must be earned at senior (4-year) institutions. Residency:

- At least 15 of the final 30 hours applied toward the degree or at least 50 percent of the hours required by the institution in the major field must be satisfactorily completed at the awarding institution.
- At least 15 semester hours of upper-division major work must be completed in residence at OU.
- OU correspondence courses are not considered resident credit.

Grade Point Averages: Students must earn a minimum over all 2.00 for each of the following: Combined Retention GPA (all college grades), OU Retention GPA, GPA for all major courses, and GPA for all major courses taken at OU. Some schools and departments of the College have higher minimum grade point averages required for their students.

## Suggested Semester Plan of Study

This plan shows one possible grouping of courses that would allow students to graduate in four years. Please refer to the front of the degree checksheet for official requirements. Students must consult with Dodge College of Arts and Sciences and/or Department of Mathematics academic advisors to verify that courses selected each semester fulfill
the recommended plan and satisfy University, College of Arts and Sciences, and Mathematics major requirements.

## Freshman

| First Semester |  | Credit <br> Hours |  |  |
| :--- | :--- | ---: | :---: | :---: |
| ENGL 1113 | Principles of English Composition (Core I) | 3 |  |  |
| MATH 1823 | Calculus and Analytic Geometry I (Core I) | 3 |  |  |
| P SC 1113 | American Federal Government (Core III) | 3 |  |  |
| Beginning Language (Core I) | 5 |  |  |  |
| First Year Experience (Core V) | $\mathbf{3}$ |  |  |  |
| Credit Hours |  |  |  | $\mathbf{1 7}$ |

## Second Semester

| ENGL 1213 <br> or EXPO 1213 | Principles of English Composition (Core I) <br> or Expository Writing | 3 |
| :--- | :--- | ---: |
| HIST 1483 <br> or HIST 1493 | United States to 1865 (Core IV) <br> or United States, 1865 to the Present | 3 |
| MATH 2423 | Calculus and Analytic Geometry II | 3 |
| Beginning Language continued (Core I) | $\mathbf{3}$ |  |
|  | Credit Hours | $\mathbf{1 4}$ |

## Sophomore

First Semester
MATH 2433 Calculus and Analytic Geometry III 3
MATH 2513 Discrete Mathematical Structures 3
Intermediate Language ..... 3
Natural Science without lab (Core II) ..... 3
Western Culture (Core IV) ..... 3Second Semester
MATH 2443 Calculus and Analytic Geometry IV 3
MATH 3333 Linear Algebra I 3
Natural Science with lab (Core II) 4
Social Science (Core III) 3
Artistic Forms (Core IV) 3

## Junior

## First Semester

MATH 4323 Introduction to Abstract Algebra I 3
MATH 4433 Introduction to Analysis I 3
Free Elective, lower- or upper-division 2

Free Elective, upper-division (3000-4000-level) 3
Free Elective, upper-division (3000-4000-level) 3

## Second Semester

MATH 3113 Introduction to Ordinary Differential 3
or MATH 3413 Equations
or Physical Mathematics I
MATH 4333 Introduction to Abstract Algebra II 3
or MATH 4443 or Introduction to Analysis II
Arts \& Humanities, upper-division, outside major (Gen. Ed.) 3
World Culture (Core IV) 3
Free Elective, upper-division (3000-4000-level) 3
Credit Hours

| Senior |  |
| :---: | :---: |
| First Semester |  |
| MATH 4373 Abstract Linear Algebra | 3 |
| Arts \& Humanities, upper-division, outside major (Gen. Ed.) | 3 |
| Free Elective, lower- or upper-division | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Free Elective, upper-division (3000-4000-level), MATH is recommended | 3 |
| Credit Hours | 15 |
| Second Semester |  |
| MATH 4513 Senior Mathematics Seminar | 3 |
| MATH 4853 Introduction to Topology | 3 |
| Free Elective, lower- or upper-division | 2 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Credit Hours | 14 |
| Total Credit Hours | 120 |

## Mathematics, Minor

Minimum Total Credit Hours: 15
Minimum Upper-Division Hours: 9

## Program Code: N670

- The requirements for a minor must be completed concurrently with the major degree requirements.
- No minor may be added by completing courses after receiving the bachelor's degree.

At least six (6) credit hours must be earned in courses acceptable for residence credit by standards set forth by the Dodge College of Arts and Sciences, excluding transfer, correspondence, and examination (AP, CLEP, Advanced Standing) credit. Courses for the minor may not be taken Pass/ No Pass.

## No single course may be used by a student to satisfy a major requirement

 and a minor requirement. A course may be used, however, to satisfy both a major support requirement and a minor requirement.Requests to substitute a minor requirement must be approved in writing by the Department of Mathematics.

## Required Courses

Students must successfully complete at least 15 hours of courses acceptable for major credit in Mathematics, including MATH 2443 or MATH 2934 and nine (9) hours of upper-division level Math, six (6) of which must be at the 4000-level or higher. Three (3) hours of either MATH 3960 or MATH 3970 (not both) may be substituted for three (3) hours at the 4000-level or higher.

## A grade of C or better must be earned in each upper division course counted for minor credit.

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Choose one math course acceptable for major credit | 3 |  |
| MATH 2443 | Calculus and Analytic Geometry IV |  |
| or MATH 2934 | Differential and Integral Calculus III | 3 |

Select 9 hours of upper-division Math courses, including at 9 least 6 hours in courses at the 4000-level or higher

## Total Credit Hours

- Minors in the Dodge College of Arts \& Sciences are available to all undergraduate students at OU. If the minor is officially declared, successfully completed, and noted on the graduation application, the student's transcript will so indicate at the time the bachelor's degree is posted.


## Mathematics, B.A./M.B.A.

Minimum Total Credit Hours: 156
Major Hours: 36
Minimum Upper-Division Hours: 48

Overall GPA - Combined and OU: 3.00
Major GPA - Combined and OU: 3.00
Program Code: A669/F140 Q439

## Undergraduate Major Requirements

- Some courses required for the major may also fulfill University General Education and/or Dodge College of Arts \& Sciences Requirements
- Students must earn a grade of C or better in all MATH courses at the 3000-level or higher.

${ }^{1}$ MATH 3113 and MATH 3413 overlap by 2 hours. Students who take both will earn only 4 hours of credit.
2 No more than 6 hours may be from MATH 4733, MATH 4743, MATH 4753, MATH 4773, and MATH 4793.
M.B.A. Component

| Code | Title | Credit |
| :---: | :---: | :---: |
|  |  | Hours |
| Core Courses (18 hours) |  |  |
| ACCT 5202 | Financial Accounting ${ }^{3}$ | 2 |
| B AD 5010 | Foundations of MBA Success ${ }^{1}$ | 0 |
| B AD 5101 | MBA - Professional Development | 1 |
| B AD 5102 | Managerial Economics | 2 |
| B AD 5201 | MBA - Professional Development II | 1 |
| FIN 5102 | Financial Management ${ }^{3}$ | 2 |
| LS 5802 | Business Ethics/Legal | 2 |
| MGT 5702 | Organizational Behavior | 2 |
| MIT 5602 | Management Information Systems | 2 |
| MKT 5402 | Marketing Management | 2 |
| B AD 5902 | Strategic Management (Capstone) ${ }^{2}$ | 2 |
| Experiential Courses (6 hours) |  |  |
| B AD 5812 | Global Business Experience ${ }^{3}$ | 2 |
| B AD 5822 | Business Consulting Practicum | 2 |
| B AD 5832 | Applied Field Project | 2 |
| Four credit h | f additional required coursework (choos | 4 |


| ACCT 5212 | Managerial Accounting |  |
| :--- | :--- | ---: |
| B AD 5182 | Quantitative Analysis II |  |
| FIN 5112 | Investments $^{3}$ |  |
| ENT 5102 | Entrepreneurship \& Innovation |  |
| Electives (20 hours) | 14 |  |
| Choose 14 hours of M.B.A. elective coursework. (p. 518) | 6 |  |
| Choose 6 hours of graduate level Math electives, approved by |  |  |
| the Graduate Liaison (BA/MBA shared hours) (p. 518) | $\mathbf{4 8}$ |  |
| Total Credit Hours |  |  |

${ }^{1}$ A student who actively and satisfactorily participates in all Prelude activities will receive a grade of 'S.' A student who does not satisfactorily participate in $75 \%$ of Prelude Week will be required to participate in a make-up session within the first two weeks of the semester. Failure to complete a make-up session will result in a grade of ' $U$ ', resulting in cancellation of the student's enrollment in the MBA program.
2 Must make a grade of ' $B$ ' or better in B AD 5902 or it must be repeated. This is the capstone course and serves in lieu of the comprehensive examination. This requirement is non-waiveable.
${ }^{3}$ Shared Courses: Up to 12 hours of graduate level courses from a list maintained by the department and approved by the graduate liaison can be shared between BA and MBA programs. (p. 518)

## General Education and College Requirements

Courses for fulfillment of General Education and Dodge College of Arts \& Sciences requirements must be from the approved General Education course list published in the Class Schedule or at http://www.ou.edu/ gened/courses. Courses graded P/NP will not apply.

\section*{UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS <br> | Code Title | Credit |
| :--- | :--- |
|  | Hours |}

Core Area I: Symbolic and Oral Communication
English Composition (6 hours)
ENGL 1113 Principles of English Composition 3
ENGL 1213 Principles of English Composition 3
or EXPO 1213 Expository Writing
Language ( $0-13$ hours in the same language)
The college requirement cannot be met by high school
coursework.
Beginning Course 0-5
Beginning Course, continued 0-5
Intermediate Course (2000 level) ${ }^{1,2} \quad 0-3$
Mathematics (3 hours)
Choose one course from the General Education Mathematics 3
list
Core Area II: Natural Science (7 hours, including one
laboratory component)
Biological Science
Choose an approved General Education Natural Science 3-4
course with one of the following prefixes: BIOL, HES, MBIO, or PBIO ${ }^{1}$

Physical Science
Choose an approved General Education Natural Science 3-4
course with one of the following prefixes: AGSC, ASTR, CHEM,
GEOG, GEOL, GPHY, METR, or PHYS ${ }^{1}$
Core Area III: Social Science (6 hours)
P SC 1113 American Federal Government 3
Choose one course from the General Education Social 3
Science list
Core Area IV: Arts and Humanities (18 hours)
Artistic Forms
Choose one course from the General Education Artistic Forms 3
list
Western Culture
HIST 1483 United States to 1865
or HIST 1493 United States, 1865 to the Present
Choose one course from the General Education Western 3
Culture list (excluding HIST 1483/1493)
World Culture
Choose one course from the General Education World Culture 3 list
Additional Core IV Upper-Division Arts \& Humanities courses
Choose one course from Artistic Forms, Western Culture, or 3
World Culture ${ }^{1,3}$
Choose one course from Artistic Forms, Western Culture, or 3
World Culture ${ }^{1,3}$
Core Area V: First Year Experience (3 hours)
Choose one course 3

Total Credit Hours 56
${ }^{1}$ College of Arts and Sciences Requirements: college requirements are not automatically fulfilled by a previous degree.
${ }^{2}$ One course at the intermediate level or demonstrated competency at that level
${ }^{3} 6$ upper-division hours, 2 courses, at the 3000-4000-level. Must be outside the major.

## Free Electives

Electives to bring total applicable hours to the minimum total required for the degree including 48 upper-division hours.

## Information Concerning General Rules, Regulations and Minimum Requirements

Arts and Sciences Hours: At least 80 semester hours of liberal arts and sciences courses are required for a BA degree. At least 55 semester hours of liberal arts and sciences courses are required for a BS degree. Pass/No Pass Enrollment: A maximum of 16 semester hours of free elective credit may be attempted under this option.
Individual Studies (e.g., courses titled "Independent Study"): A maximum of 12 total semester hours may be counted toward graduation, excluding Honors Reading and Honors Research.
P.E. Courses: No physical education activity courses will be counted toward the 120 semester hours of acceptable credit for graduation. Senior Institution Hours: A minimum of 60 semester hours applied toward graduation must be earned at senior (4-year) institutions.

## Residency:

- At least 15 of the final 30 hours applied toward the degree or at least 50 percent of the hours required by the institution in the major field must be satisfactorily completed at the awarding institution.
- At least 15 semester hours of upper-division major work must be completed in residence at OU.
- OU correspondence courses are not considered resident credit.

Grade Point Averages: Students must earn a minimum over all 2.00 for each of the following: Combined Retention GPA (all college grades), OU Retention GPA, GPA for all major courses, and GPA for all major courses taken at OU. Some schools and departments of the College have higher minimum grade point averages required for their students.

## Suggested Semester Plan of Study

This plan shows one possible grouping of courses that would allow students to graduate in four years. Please refer to the front of the degree checksheet for official requirements. Students must consult with Dodge College of Arts and Sciences and/or Department of Mathematics academic advisors to verify that courses selected each semester fulfill the recommended plan and satisfy University, College of Arts and Sciences, and Mathematics major requirements.

## Freshman

| First Semester |  | Credit <br> Hours |  |  |
| :--- | ---: | ---: | :---: | :---: |
| ENGL 1113 | Principles of English Composition (Core I) | 3 |  |  |
| MATH 1823 | Calculus and Analytic Geometry I (Core I) | 3 |  |  |
| P SC 1113 | American Federal Government (Core III) | 3 |  |  |
| First Year Experience (Core V) | 3 |  |  |  |
| Beginning Language (Core I) | 5 |  |  |  |
| Credit Hours |  |  |  | $\mathbf{1 7}$ |

## Second Semester

| ENGL 1213 <br> or EXPO 1213 | Principles of English Composition (Core I) <br> or Expository Writing | 3 |
| :---: | :---: | ---: |
| HIST 1483 <br> or HIST 1493 | United States to 1865 (Core IV) <br> or United States, 1865 to the Present | 3 |
| MATH 2423 | Calculus and Analytic Geometry II | 3 |
| Beginning Language continued (Core I) | $\mathbf{5}$ |  |
|  | Credit Hours | $\mathbf{1 4}$ |

## Sophomore

## First Semester

| MATH 2433 | Calculus and Analytic Geometry III | 3 |
| :--- | ---: | ---: |
| MATH 2513 $\quad$ Discrete Mathematical Structures | 3 |  |
| Intermediate Language | 3 |  |
| Western Culture (Core IV) | 3 |  |
| Natural Science without lab (Core II) | 3 |  |
| Credit Hours | $\mathbf{1 5}$ |  |


| Second Semester |  |  |
| :--- | ---: | ---: |
| MATH 2443 | Calculus and Analytic Geometry IV | 3 |
| MATH 3333 $\quad$ Linear Algebra I | 3 |  |
| Natural Science with lab (Core II) | 4 |  |
| Social Science (Core III) | 3 |  |
| Artistic Forms (Core IV) | 3 |  |
| Credit Hours | $\mathbf{1 6}$ |  |

## Junior

First Semester

| MATH 3113 <br> or MATH 3413 <br> Equations <br> or Physical Mathematics I <br> MATH 4000-level Elective 1 | 3 |
| :--- | :---: | :---: |
| Arts \& Humanities, upper-division, outside major (Gen. Ed.) | 3 |
| Free Elective, lower- or upper-division | 3 |
| Free Elective, lower- or upper-division | 3 |
| Credit Hours | 1 |


| Second Semester |  |
| :--- | ---: |
| MATH 4000-level Elective |  |
| Arts \& Humanities, upper-division, outside major (Gen. Ed.) | 3 |
| World Culture (Core IV) | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Credit Hours | $\mathbf{1 5}$ |

## Senior

## First Semester

MATH 3000-4000-level Elective ${ }^{1} 3$
Graduate Level MATH Elective ${ }^{1,2} 3$
B AD 5101 MBA - Professional Development ${ }^{3} 1$
B AD 5010 Foundations of MBA Success ${ }^{3} 0$
FIN 5102 Financial Management ${ }^{2,3} 2$
ACCT 5202 Financial Accounting 2,3 2
Free Elective, lower- or upper-division 3

| Free Elective, upper-division (3000-4000-level) | 3 |
| :---: | ---: |
| Credit Hours | $\mathbf{1 7}$ |

## Second Semester

Graduate Level MATH Elective ${ }^{1,2}$

| MKT 5402 | Marketing Management ${ }^{3}$ | 2 |
| :---: | :---: | :---: |
| B AD 5201 | MBA - Professional Development II ${ }^{3}$ | 1 |
| B AD 5812 | Global Business Experience ${ }^{2,3}$ | 2 |
| Free Elective, upper-division (3000-4000-level) |  | 3 |
| Free Elective, upper-division (3000-4000-level) |  | 3 |
| Free Elective, upper-division (3000-4000-level) |  | 3 |
|  | Credit Hours | 17 |
| Fifth Year |  |  |
| First Semester |  |  |
| MGT 5702 | Organizational Behavior ${ }^{3}$ | 2 |
| B AD 5102 | Managerial Economics ${ }^{3}$ | 2 |
| LS 5802 | Business Ethics/Legal ${ }^{3}$ | 2 |
| MIT 5602 | Management Information Systems ${ }^{3}$ | 2 |
| B AD 5832 | Applied Field Project ${ }^{3}$ | 2 |
| MBA Custom Core ${ }^{3,4}$ |  | 2 |
| MBA Elective ${ }^{3,4}$ |  | 2 |
| MBA Elective ${ }^{3,4}$ |  | 2 |
|  | Credit Hours | 16 |
| Second Semester |  |  |
| B AD 5822 | Business Consulting Practicum ${ }^{3}$ | 2 |
| B AD 5902 | Strategic Management ${ }^{3}$ | 2 |
| MBA Custom Core ${ }^{3,4}$ |  | 2 |
| MBA Elective ${ }^{3,4}$ |  | 2 |
| MBA Elective ${ }^{3,4}$ |  | 2 |
| MBA Elective ${ }^{3,4}$ |  | 2 |
| MBA Elective ${ }^{3,4}$ |  | 2 |
| MBA Elective ${ }^{3,4}$ |  | 2 |
|  | Credit Hours | 16 |
| Total Credit Hours |  | 156 |
| ${ }^{1}$ MATH electives are subject to the restrictions listed in the Program Requirements. |  |  |
| ${ }^{2}$ Shared Co from the departme | between the B.S. in Math and MBA D ed list maintained by Mathematics and 518) <br> at are 8 weeks long. o be chosen from an approved list. (p. |  |
| Mathematics/MBA Accelerated Course |  |  |
| Lists |  |  |
| APPROVED SHARED COURSE LIST |  |  |
| Code | Title | Credit |
|  |  | Hours |
| FIN 5102 | Financial Management | 2 |
| FIN 5112 | Investments | 2 |
| ACCT 5202 | Financial Accounting | 2 |
| B AD 5812 | Global Business Experience | 2 |


| GRADUATE MATH ELECTIVES |  |  |
| :--- | :--- | ---: |
| Code | Title | Credit <br> Hours |
| MATH 4073 | Numerical Analysis I | 3 |
| MATH 4163 | Introduction to Partial Differential | 3 |
|  | Equations | 3 |
| MATH 4733 | Mathematical Theory of Probability | 3 |
| MATH 4753 | Applied Statistical Methods | 3 |
| MATH 5123 | Fourier Transforms | 3 |
| MATH 5163 | Partial Differential Equations | 3 |
| MATH 5383 | Applied Modern Algebra | 3 |
| MATH 5673 | Graph Theory I | 3 |
| MATH 5743 | Introduction to Mathematical Statistics | 3 |
| MATH 5773 | Applied Regression Analysis | 3 |

## MASTER OF BUSINESS ADMINISTRATION ELECTIVES

| Code | Title |  |
| :---: | :---: | :---: |
| ENT 5942 | Launching the New Venture | 2 |
| ENT 5992 | Entrepreneurial Growth Strategies | 2 |
| FIN 5332 | Risk Management | 2 |
| FIN 5352 | International Financial Management | 2 |
| FIN 5362 | Fixed Income Securities and Markets | 2 |
| FIN 5613 | Student Investment Fund | 3 |
| FIN 5372 | Mergers \& Acquisitions and Corporate Restructuring | 2 |
| MGT 5712 | Negotiations | 2 |
| MIT 5612 | Database Design and Administration | 2 |
| MIT 5662 | Project Management (Irreg.) | 2 |
| MIT 5682 | Business Data Analysis | 2 |
| MIT 5732 | Management of Business Intelligence | 2 |
| MIT 5772 | Principles of Data Warehousing | 2 |
| MIT 5032 | Analytics Programming (Python or R) | 2 |
| MIT 5822 | Health Information Technologies | 2 |
| B AD 5822 | Business Consulting Practicum | 2 |
| MGT 5112 | International Management | 2 |
| ENT 5902 | Entrepreneurial Leadership | 2 |
| ENT 5912 | Capitalizing the New Venture | 2 |
| ENT 5934 | Strategic Venture Development | 4 |
| FIN 5322 | Financial Derivatives | 2 |
| FIN 5342 | Advanced Corporate Finance | 2 |
| FIN 5613 | Student Investment Fund | 3 |
| MIT 5612 | Database Design and Administration | 2 |
| MIT 5732 | Management of Business Intelligence | 2 |
| SCM 5502 | Fundamentals of Supply Chain | 2 |
| SCM 5522 | Planning and Operations Management | 2 |
| FIN 5382 | Financial Modeling | 2 |
| L S 5612 | Employment Law | 2 |
| SCM 5522 | Planning and Operations Management | 2 |

## Mathematics, B.A./Finance, M.S.

Minimum Total Credit Hours: 140
Major Hours: 36
Minimum Upper-Division Hours: 48
Overall GPA - Combined and OU: 3.00
Major GPA - Combined and OU: 3.00
Program Code: A670/F435 Q439

## Undergraduate Major Requirements

- Some courses required for the major may also fulfill University General Education and/or Dodge College of Arts \& Sciences Requirements
- Students must earn a grade of C or better in all MATH courses at the 3000-level or higher.

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Choose one of the following sequences: | 12 |  |
| Sequence A: |  |  |
| MATH 1823 | Calculus and Analytic Geometry I |  |
| MATH 2423 | Calculus and Analytic Geometry II |  |
| MATH 2433 | Calculus and Analytic Geometry III |  |
| MATH 2443 | Calculus and Analytic Geometry IV |  |
| Sequence B: |  | 3 |
| MATH 1914 | Differential and Integral Calculus I |  |
| MATH 2924 | Differential and Integral Calculus II | 3 |
| MATH 2934 | Differential and Integral Calculus III |  |
| MATH 2513 | Discrete Mathematical Structures | 3 |
| MATH 3333 | Linear Algebra I |  |
| MATH 3113 | Introduction to Ordinary Differential |  |

or MATH 3413 Physical Mathematics I
Choose four additional math courses at the 3000-level or 12
higher, including nine hours at the 4000-level or higher ${ }^{2}$
Graduate Level Math course 3
Total Credit Hours
1 MATH 3113 and MATH 3413 overlap by 2 hours. Students who take both will earn only 4 hours of credit.
${ }^{2}$ No more than 6 hours may be from MATH 4733, MATH 4743, MATH 4753, MATH 4773, and MATH 4793.

## M.S. in Finance Component

| Code Title | Credit |
| :--- | :--- |
|  | Hours |

## Core Courses (8 hours)

FIN 5322 Financial Derivatives 2
Graduate ElectivesHours

30 Graduate level elective hours from a list maintained by the Division of Finance and approved by the Graduate College. Up to 12 hours of graduate level electives can be shared between the Math and MS Finance Programs. (p. 521) ${ }^{1}$

## Total Credit Hours

1 Shared Courses: Up to 12 hours of graduate level courses from a list maintained by the department and approved by the graduate liaison can be shared between BS and MS- FIN programs. (p. 521)

## General Education and College Requirements

Courses for fulfillment of General Education and Dodge College of Arts \& Sciences requirements must be from the approved General Education course list published in the Class Schedule or at http://www.ou.edu/ gened/courses. Courses graded P/NP will not apply.

## UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS <br> Code Title Credit Hours

Core Area I: Symbolic and Oral Communication
English Composition (6 hours)
ENGL 1113 Principles of English Composition 3
ENGL 1213 Principles of English Composition 3
or EXPO 1213 Expository Writing
Language (0-13 hours in the same language)
The college requirement cannot be met by high school coursework.
$\begin{array}{ll}\text { Beginning Course } & 0-5\end{array}$
$\begin{array}{ll}\text { Beginning Course, continued } & 0-5\end{array}$
$\begin{array}{ll}\text { Intermediate Course (2000 level) }^{1,2} & 0-3\end{array}$
Mathematics (3 hours)
Choose one course from the General Education Mathematics 3
list
Core Area II: Natural Science (7 hours, including one laboratory component)
Biological Science
Choose an approved General Education Natural Science 3-4 course with one of the following prefixes: BIOL, HES, MBIO, or PBIO ${ }^{1}$
Physical Science
Choose an approved General Education Natural Science 3-4
course with one of the following prefixes: AGSC, ASTR, CHEM,
GEOG, GEOL, GPHY, METR, or PHYS ${ }^{1}$
Core Area III: Social Science (6 hours)
P SC 1113 American Federal Government 3
Choose one course from the General Education Social 3
Science list
Core Area IV: Arts and Humanities (18 hours)

## Artistic Forms

Choose one course from the General Education Artistic Forms 3
list
Western Culture
HIST $1483 \quad 3$










3-4

$$
2
$$




## Free Electives

Electives to bring total applicable hours to the minimum total required for the degree including 48 upper-division hours.

## Information Concerning General Rules, Regulations and Minimum Requirements

Arts and Sciences Hours: At least 80 semester hours of liberal arts and sciences courses are required for a BA degree. At least 55 semester hours of liberal arts and sciences courses are required for a BS degree.
Pass/No Pass Enrollment: A maximum of 16 semester hours of free elective credit may be attempted under this option.
Individual Studies (e.g., courses titled "Independent Study"): A maximum of 12 total semester hours may be counted toward graduation, excluding Honors Reading and Honors Research.
P.E. Courses: No physical education activity courses will be counted toward the 120 semester hours of acceptable credit for graduation. Senior Institution Hours: A minimum of 60 semester hours applied toward graduation must be earned at senior (4-year) institutions. Residency:

- At least 15 of the final 30 hours applied toward the degree or at least 50 percent of the hours required by the institution in the major field must be satisfactorily completed at the awarding institution.
- At least 15 semester hours of upper-division major work must be completed in residence at OU.
- OU correspondence courses are not considered resident credit.

Grade Point Averages: Students must earn a minimum over all 2.00 for each of the following: Combined Retention GPA (all college grades), OU Retention GPA, GPA for all major courses, and GPA for all major courses taken at OU. Some schools and departments of the College have higher minimum grade point averages required for their students.

## Suggested Semester Plan of Study

This plan shows one possible grouping of courses that would allow students to graduate in four years. Please refer to the front of the degree checksheet for official requirements. Students must consult with

3 Dodge College of Arts and Sciences and/or Department of Mathematics academic advisors to verify that courses selected each semester fulfill the recommended plan and satisfy University, College of Arts and Sciences, and Mathematics major requirements.

## Freshman

| First Semester |  | Credit <br> Hours |
| :--- | ---: | ---: |
| ENGL 1113 | Principles of English Composition (Core I) | 3 |
| MATH 1823 | Calculus and Analytic Geometry I (Core I) | 3 |
| P SC 1113 | American Federal Government (Core III) | 3 |
| First Year Experience (Core V) | 3 |  |
| Beginning Language (Core I) | $\mathbf{5}$ |  |
| Credit Hours | $\mathbf{1 7}$ |  |

## Second Semester

| ENGL 1213 <br> or EXPO 1213 | Principles of English Composition (Core I) <br> or Expository Writing |
| :---: | :---: |
| HIST 1483 <br> or HIST 1493 | United States to 1865 (Core IV) <br> or United States, 1865 to the Present |
| MATH 2423 | Calculus and Analytic Geometry II |
| Beginning Language continued (Core I) | 3 |
| Credit Hours | 3 |

## Sophomore

First Semester

| MATH 2433 | Calculus and Analytic Geometry III | 3 |
| :--- | ---: | ---: |
| MATH 2513 $\quad$ Discrete Mathematical Structures | 3 |  |
| Intermediate Language | 3 |  |
| Western Culture (Core IV) | 3 |  |
| Natural Science without lab (Core II) | 3 |  |
| Credit Hours | $\mathbf{1 5}$ |  |

## Second Semester

| MATH 2443 | Calculus and Analytic Geometry IV | 3 |
| :--- | ---: | ---: |
| MATH 3333 | Linear Algebra I | 3 |
| Natural Science with lab (Core II) | 4 |  |
| Social Science (Core III) | 3 |  |
| Artistic Forms (Core IV) |  | 3 |
| Credit Hours | $\mathbf{1 6}$ |  |

## Junior

First Semester
MATH 3113 Introduction to Ordinary Differential 3
or MATH 3413 Equations
or Physical Mathematics I
MATH 4000-level Elective ${ }^{1} 3$

Arts \& Humanities, upper-division, outside major (Gen. Ed.) 3
Free Elective, lower- or upper-division 3

| Free Elective, lower- or upper-division | 1 |
| :---: | ---: |
| Credit Hours | 13 |

Second Semester
MATH 4000-level Elective ${ }^{1} 3$
Arts \& Humanities, upper-division, outside major (Gen. Ed.) 3
World Culture (Core IV) 3
Free Elective, upper-division (3000-4000-level) 3
Free Elective, upper-division (3000-4000-level) 3
Credit Hours

| Senior |  |
| :---: | :---: |
| First Semester |  |
| MATH 3000-4000-level Elective ${ }^{1}$ | 3 |
| Graduate Level MATH Elective ${ }^{1,2}$ | 3 |
| Graduate Elective ${ }^{3}$ | 2 |
| Graduate Elective ${ }^{3}$ | 2 |
| Graduate Elective ${ }^{3}$ | 2 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Credit Hours | 15 |
| Second Semester |  |
| Graduate Level MATH Elective ${ }^{1,2}$ | 3 |
| FIN 5322 Financial Derivatives | 2 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Credit Hours | 17 |
| Summer |  |
| Graduate Elective ${ }^{3}$ | 2 |
| Graduate Elective ${ }^{3}$ | 2 |
| Graduate Elective ${ }^{3}$ | 2 |
| Credit Hours | 6 |
| Fifth Year |  |
| First Semester |  |
| Graduate Elective ${ }^{3}$ | 2 |
| Graduate Elective ${ }^{3}$ | 2 |
| Graduate Elective ${ }^{3}$ | 2 |
| Credit Hours | 6 |
| Second Semester |  |
| Graduate Elective ${ }^{3}$ | 2 |
| Graduate Elective ${ }^{3}$ | 2 |
| Graduate Elective ${ }^{3}$ | 2 |
| Credit Hours | 6 |
| Total Credit Hours | 140 |

${ }^{1}$ MATH electives are subject to the restrictions listed in the Program Requirements.
${ }^{2}$ Shared Courses between the B.S. in Math and MS in Finance Degree chosen from the approved list maintained by Mathematics and the Division of Finance. (p. 521)
${ }^{3}$ Choose from approved graduate elective list. (p. 521)

## Mathematics BA/Finance MS Accelerated Course Lists

## APPROVED SHARED COURSE LIST

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| FIN 5102 | Financial Management | 2 |
| FIN 5112 | Investments | 2 |
| ACCT 5202 | Financial Accounting | 2 |
| FIN 5322 | Financial Derivatives | 2 |

## GRADUATE MATH ELECTIVES

| Code | Title | Credit <br> Hours |
| :---: | :---: | :---: |
| MATH 4073 | Numerical Analysis I | 3 |
| MATH 4163 | Introduction to Partial Differential Equations | 3 |
| MATH 4733 | Mathematical Theory of Probability | 3 |
| MATH 4753 | Applied Statistical Methods | 3 |
| MATH 5123 | Fourier Transforms | 3 |
| MATH 5163 | Partial Differential Equations | 3 |
| MATH 5383 | Applied Modern Algebra | 3 |
| MATH 5673 | Graph Theory I | 3 |
| MATH 5743 | Introduction to Mathematical Statistics | 3 |
| MATH 5773 | Applied Regression Analysis | 3 |
| MATH 5793 | Advanced Applied Statistics | 3 |
| GRADUATE ELECTIVE LIST |  |  |
| Code | Title | Credit Hours |
| ACCT 5202 | Financial Accounting | 2 |
| B AD 5102 | Managerial Economics | 2 |
| B AD 5122 | Quantitative Analysis I | 2 |
| FIN 5332 | Risk Management | 2 |
| FIN 5342 | Advanced Corporate Finance | 2 |
| FIN 5352 | International Financial Management | 2 |
| FIN 5362 | Fixed Income Securities and Markets | 2 |
| FIN 5372 | Mergers \& Acquisitions and Corporate Restructuring | 2 |
| FIN 5382 | Financial Modeling | 2 |
| FIN 5392 | Financial Intermediation and Banking | 2 |
| FIN 5412 | Advanced Topics in Investments | 2 |
| FIN 5422 | Alternative Investments | 2 |
| FIN 5432 | Venture Capital \& Private Equity | 2 |
| FIN 5442 | Real Estate Finance and Investments | 2 |

## Mathematics, B.S./Biostatistics, M.S.

## Minimum Total Credit Hours: 136

Major Hours: 39
Minimum Upper-Division Hours: 57

Overall GPA - Combined and OU: 3.00
Major GPA - Combined and OU: 3.00

## Program Code: A671

- No more than 8 hours applied to this program may carry a grade lower than B. No course at the 4000-level or higher with a grade lower than C may be applied to the program.


## Major Requirements

[^12]| Code | Title | Credit Hours |
| :---: | :---: | :---: |
| MATH 1823 | Calculus and Analytic Geometry ${ }^{1}$ | 3 |
| MATH 2423 | Calculus and Analytic Geometry II ${ }^{1}$ | 3 |
| MATH 2433 | Calculus and Analytic Geometry III ${ }^{1}$ | 3 |
| MATH 2443 | Calculus and Analytic Geometry IV ${ }^{1}$ | 3 |
| MATH 2513 | Discrete Mathematical Structures | 3 |
| MATH 3333 | Linear Algebra I | 3 |
| MATH 4073 | Numerical Analysis I | 3 |
| MATH 3113 | Introduction to Ordinary Differential Equations ${ }^{2}$ | 3 |
| or MATH 3413 | Physical Mathematics I |  |
| Choose one of the following: |  | 3 |
| MATH 4323 | Introduction to Abstract Algebra |  |
| MATH 4383 | Applied Modern Algebra |  |
| MATH 4433 | Introduction to Analysis I |  |
| MATH 4733 <br> or BSE 5703 TH OUHSC | Mathematical Theory of Probability ${ }^{3}$ HEORY OF PROBABILITY- | 3 |
| MATH 4743 or BSE 5733 P OUHSC | Introduction to Mathematical Statistics ${ }^{3}$ | 3 |
| Major Electives |  |  |
| Choose two courses from the Undergraduate Major Electives course list (p. 522) |  | 6 |
| Total Credit Hours |  | 39 |
| 1 Students may substitute MATH 1914, MATH 2924, and MATH 2934 for MATH 1823, MATH 2423, MATH 2433, and MATH 2443. |  |  |
| ${ }^{2}$ MATH 3113 and MATH 3413 overlap by 2 hours. Students who take both will earn only 4 hours of credit. |  |  |
| ${ }^{3}$ No student may earn credit for both MATH 4733 and BSE 5703 Theory of Probability, or MATH 4743 and BSE 5733 Principles of Mathematical Statistics I. |  |  |

## Major Support Requirements

| Code | Title | Credit <br> Hours |
| :---: | :---: | :---: |
| MBIO 2815 | Introduction to Microbiology (lab) | 5 |
| or BIOL 2124 | Human Physiology |  |
| Total Credit Hours |  | 5 |
| BS and MS Requirements |  |  |
| Code | Title | Credit |
|  |  | Hours |
| BSE 5001 Problems in Biostatistics \& Epidemiology-OUHSC |  | 1 |
| BSE 5113 Principles of Epidemiology-OUHSC |  | 3 |
| BSE 5163 Biostatistical Methods I-OUHSC |  | 3 |
| BSE 5173 Biostatistical Methods II-OUHSC |  | 3 |
| BSE 5193 Intermediate Epidemiologic Methods-OUHSC |  | 3 |
| BSE 5980 Research for Master's Thesis-OUHSC |  | 3 |
| Choose one of the following: |  | 3 |

HAP 5113 Health Organization \& Administration-OUHSC

HPS 5213 Social \& Behavioral Sciences in Public HealthOUHSC
OEH 5013 Environmental Health-OUHSC

## Graduate Electives

Choose two courses from the Graduate Electives course list 6
(p. 522) ${ }^{2}$

Additional Graduate Requirements
Epidemiology Elective
Choose one of the following:
BSE 5303 Epidemiology of Infectious Disease-OUHSC
BSE 5363 Epidemiology \& Prevention of Chronic DiseaseOUHSC

BSE 6363 Cancer Epidemiology \& Prevention-OUHSC
Math/Biostatistics Courses
Choose two courses from the following in consultation with 6
advisor.
MATH 5783
or BSE 5653 NONPARAMETRIC METHODS-
OUHSC
MATH 5793 Advanced Applied Statistics or BSE 6663
OUHSC
BSE 5663 Analysis of Frequency Data-OUHSC
BSE 6643 Survival Data Analysis-OUHSC
BSE Elective-OUHSC
Choose any BSE course that has not been taken to fulfill other 3 requirements ${ }^{3}$
Total Credit Hours
${ }^{1}$ Note: No more than three hours earned of BSE 5980 Research for Master's Thesis may be applied toward the dual degree program.
${ }^{2}$ These courses may not duplicate the six hours of math electives for the undergraduate major requirements and when offered on a slashlisted basis must be the graduate-level course.
${ }^{3}$ Excluding BSE 5103, BSE 5950 Field Work in Biostatistics and Epidemiology, and BSE 6950 Research in Biostatistics and Epidemiology.

## Undergraduate Major Electives

Six additional hours of math chosen in consultation with adviser from the following:

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| MATH 4093 | Applied Numerical Methods | 3 |
| MATH 4193 | Introductory Mathematical Modeling | 3 |
| MATH 4323 | Introduction to Abstract Algebra I | 3 |
| MATH 4333 | Introduction to Abstract Algebra II | 3 |
| MATH 4373 | Abstract Linear Algebra | 3 |
| MATH 4433 | Introduction to Analysis I | 3 |
| MATH 4443 | Introduction to Analysis II | 3 |
| MATH 4753 | Applied Statistical Methods | 3 |
| MATH 4773 | Applied Regression Analysis | 3 | or BSE 6643 SURVIVAL DATA ANALYSISOUHSC


| MATH 4853 | Introduction to Topology | 3 |
| :---: | :---: | :---: |
| MATH 4793 <br> or BSE 666 OUHSC | Advanced Applied Statistics NALYSIS OF MULTIVARIATE DATA- | 3 |
| BSE 5653 No | metric Methods-OUHSC | 3 |
| Graduate Electives |  |  |
| Six additional hours of math chosen in consultation with adviser from the following: |  |  |
| Code | Title | Credit <br> Hours |
|  |  |  |
| MATH 4093 | Applied Numerical Methods | 3 |
| MATH 4193 | Introductory Mathematical Modeling | 3 |
| MATH 4323 | Introduction to Abstract Algebra I | 3 |
| MATH 4333 | Introduction to Abstract Algebra II | 3 |
| MATH 4373 | Abstract Linear Algebra | 3 |
| MATH 4433 | Introduction to Analysis I | 3 |
| MATH 4443 | Introduction to Analysis II | 3 |
| MATH 4853 | Introduction to Topology | 3 |
| or BSE 6643 SURVIVAL DATA ANALYSISOUHSC |  |  |
| MATH 5793 or BSE 66 OUHSC | Advanced Applied Statistics | 3 |
| BSE 5653 No | ametric Methods-OUHSC | 3 |

## General Education and College Requirements

Courses for fulfillment of General Education and Dodge College of Arts \& Sciences requirements must be from the approved General Education course list published in the Class Schedule or at http://www.ou.edu/ gened/courses. Courses graded P/NP will not apply.
$\begin{array}{ll}\text { UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM } 40 \text { HOURS) AND } \\ \text { COLLEGE REQUIREMENTS } & \\ \text { Code } \quad \text { Title } & \text { Credit } \\ & \end{array}$
Core Area I: Symbolic and Oral Communication

| English Composition (6 hours) |  |  |
| :--- | :--- | :--- |
| ENGL 1113 | Principles of English Composition | 3 |
| ENGL 1213 | Principles of English Composition | 3 |

or EXPO 1213 Expository Writing
Language (0-13 hours in the same language)
The college requirement cannot be met by high school coursework.
Beginning Course 0-5
$\begin{array}{ll}\text { Beginning Course, continued } & 0-5\end{array}$
$\begin{array}{ll}\text { Intermediate Course (2000 level) }^{1,2} & 0-3\end{array}$
Mathematics (3 hours)
Choose one course from the General Education Mathematics
3

## list

Core Area II: Natural Science (7 hours, including one laboratory component)
Biological Science


## Free Electives

Electives to bring total applicable hours to the minimum total required for the degree including 48 upper-division hours.

## Information Concerning General Rules, Regulations and Minimum Requirements

Arts and Sciences Hours: At least 80 semester hours of liberal arts and sciences courses are required for a BA degree. At least 55 semester hours of liberal arts and sciences courses are required for a BS degree. Pass/No Pass Enrollment: A maximum of 16 semester hours of free elective credit may be attempted under this option.
Individual Studies (e.g., courses titled "Independent Study"): A maximum of 12 total semester hours may be counted toward graduation, excluding Honors Reading and Honors Research.
P.E. Courses: No physical education activity courses will be counted toward the 120 semester hours of acceptable credit for graduation.

Senior Institution Hours: A minimum of 60 semester hours applied toward graduation must be earned at senior (4-year) institutions. Residency:

- At least 15 of the final 30 hours applied toward the degree or at least 50 percent of the hours required by the institution in the major field must be satisfactorily completed at the awarding institution.
- At least 15 semester hours of upper-division major work must be completed in residence at OU .
- OU correspondence courses are not considered resident credit.

Grade Point Averages: Students must earn a minimum over all 2.00 for each of the following: Combined Retention GPA (all college grades), OU Retention GPA, GPA for all major courses, and GPA for all major courses taken at OU. Some schools and departments of the College have higher minimum grade point averages required for their students.

## Mathematics, M.A.

Minimum Total Hours (Thesis): 32
Minimum Total Hours (Non-Thesis): 32
Program Code: M670

## Required Courses THESIS OPTION

| Code | Title | Credit |
| :---: | :---: | :---: |
| Required Courses |  |  |
| Choose five or six of the following: |  | 15-18 |
| MATH 5353 | Abstract Algebra I |  |
| MATH 5363 | Abstract Algebra II |  |
| MATH 5453 | Real Analysis I |  |
| MATH 5463 | Real Analysis II |  |
| MATH 5853 | Topology I |  |
| MATH 5863 | Topology II |  |
| Core Courses |  |  |
| Choose another six hour sequence at the 5000 or 6000 level if only 15 hours are taken from the required courses above |  | 0-6 |
| MATH 5980 | Research for Master's Thesis | 2 |
| Electives |  |  |
| Choose addition student's adviso hours to 32 | l hours, selected in consultation with the and committee, to bring total applicable | 9-12 |

Total Credit Hours 32

## NON-THESIS OPTION

| Code | Title | Credit <br> Hours |
| :--- | :--- | :--- |
| Required Courses |  |  |
| Choose five or six of the following: | $15-18$ |  |
| MATH 5353 | Abstract Algebra I |  |
| MATH 5363 | Abstract Algebra II |  |
| MATH 5453 | Real Analysis I |  |
| MATH 5463 | Real Analysis II |  |
| MATH 5853 | Topology I |  |
| MATH 5863 | Topology II |  |

## Core Courses

Choose another six hour sequence at the 5000 or 6000 level if 0-6 only 15 hours are taken from the required courses above

## Electives

Choose additional hours, selected in consultation with the 11-14 student's advisor and committee, to bring total applicable hours to 32
Total Credit Hours

## General Requirements for all Master's Degrees

The master's degree requires the equivalent of at least two semesters of satisfactory graduate work and additional work as may be prescribed for the degree.

All coursework applied to the master's degree must carry graduate credit.
Master's degree programs which require a thesis consist of at least 30 credit hours. All non-thesis master's degree programs require at least 30 credit hours.

Credit transferred from other institutions must meet specific criteria and is subject to certain limitations.

Courses completed through correspondence study may not be applied to the master's degree.

To qualify for a graduate degree, students must achieve an overall grade point average of 3.0 or higher in the degree program coursework and in all resident graduate coursework attempted. A student must also have at least a 3.0 in all coursework (including undergraduate coursework if any).

Additional information for master's degree students may be found in the Graduate College Bulletin.

## Mathematics, M.S.

Minimum Total Hours (Thesis): 32
Minimum Total Hours (Non-Thesis): 32
Program Code: M671

## Required Courses

Degree coursework must include at least two courses taken at the 4000 level or higher, from outside the mathematics department, which use mathematics beyond elementary calculus.

## THESIS OPTION

| Code | Title | Credit <br> Hours |
| :--- | ---: | ---: |
| Required Course |  | 3 |
| MATH 5103 | Mathematical Models | 3 |
| Core Courses |  | 3 |
| Choose one Statistics course | 6 |  |
| Choose one Numerical Analysis or Computer Science course | $2-6$ |  |
| Choose two Abstract Mathematics courses | 2 |  |
| Choose two Applied Mathematics courses |  |  |
| MATH 5980 $\quad$ Research for Master's Thesis |  |  |
| Electives |  |  |

Choose additional hours, selected in consultation with the student's advisor and committee, to bring total applicable hours to 32

## Total Credit Hours

## NON-THESIS OPTION

| Code Title | Credit |
| :---: | :---: |
| Required Course |  |
| MATH 5103 Mathematical Models | 3 |
| Core Courses |  |
| Choose one Statistics course | 3 |
| Choose one Numerical Analysis or Computer Science course | 3 |
| Choose two Abstract Mathematics courses | 6 |
| Choose two Applied Mathematics courses | 2-6 |
| Electives |  |
| Choose additional hours, selected in consultation with the student's advisor and committee, to bring total applicable hours to 32 | 11-15 |

## Total Credit Hours

## NOTES

- Each student not writing a thesis will pass a comprehensive examination over material to be determined by the Applied Math Committee.
- A maximum of 9 hours of coursework outside the Mathematics department can be applied to the degree.
- No course below the 4000 level can be applied to the degree.
- No more than 9 hours of coursework in Mathematics can be below the 5000 level, and at most 12 hours of G4000 level coursework total.
- Twelve hours must be in the Mathematics department at the 5000 level or higher.


## General Requirements for all Master's Degrees

The master's degree requires the equivalent of at least two semesters of satisfactory graduate work and additional work as may be prescribed for the degree.

All coursework applied to the master's degree must carry graduate credit.
Master's degree programs which require a thesis consist of at least 30 credit hours. All non-thesis master's degree programs require at least 30 credit hours.

Credit transferred from other institutions must meet specific criteria and is subject to certain limitations.

Courses completed through correspondence study may not be applied to the master's degree.

To qualify for a graduate degree, students must achieve an overall grade point average of 3.0 or higher in the degree program coursework and in all resident graduate coursework attempted. A student must also have at least a 3.0 in all coursework (including undergraduate coursework if any).

Additional information for master's degree students may be found in the Graduate College Bulletin.

## ${ }^{9.13}$ Mathematics, Ph.D.

Minimum Total Hours: 90

Program Code: D670

## Program Requirements

- The Mathematics Ph.D. requires 90 hours of graduate credit beyond the baccalaureate degree, of which 2 hours may by MATH 5980 or MATH 5990.
- Seminars and colloquia are expected in addition to regular coursework.

| Code Title | Credit <br> Hours |
| :--- | ---: |
| A sequence of 12 hours numbered above 5000 level (including <br> seminars) in one of the major areas of mathematics, or in <br> the area of RUME (Research in Undergraduate Mathematics <br> Education) | 12 |
| At least 18 hours of additional coursework in mathematics <br> above 5000 level | 18 |
| Tools of research as determined and monitored by student's <br> PhD Advisory Committee, including but not limited to: <br> reading proficiency in a foreign language, proficiency in a <br> programming language, or IRB training. |  |
| Electives and dissertation hours (MATH 6980) as determined |  |
| by the student's advisory committee to reach 90 hours |  |
| beyond the baccalaureate | 60 |
| A dissertation representing an original contribution to <br> mathematical knowledge or to RUME | 90 |
| Total Credit Hours |  |

## General Requirements for Doctoral Degrees

A student should expect to spend at least the equivalent of three full academic years beyond the bachelor's degree to obtain the doctoral degree. During this period the student will take appropriate graduate coursework, successfully complete the general examination, and successfully defend and submit the final dissertation.

All coursework applied to the doctoral degree must carry graduate credit.
The doctoral degree requires at least 90 post-baccalaureate hours, including both formal coursework and hours of research.

The minimum hour requirement for a specific doctoral degree program cannot be waived.

No more than one-half of the credit hours, both OU and overall, excluding Research for Doctoral Dissertation (6980), may be S/U-graded coursework.

The student must be in residence at OU for at least two consecutive 16week semesters during the pursuit of the doctoral degree while enrolled and engaged in coursework or research activities as prescribed by the major academic unit.

For more detailed regulations and requirements for Doctoral degrees, please consult the Graduate College Bulletin: http://www.ou.edu/ gradcollege/forms/bulletin

# Medieval and Renaissance Studies 

Joyce Coleman, Director
318 Cate Center Dr.
Norman, OK 73019
Phone: (405) 325-6220
FAX: (405) 325-0831
joyce.coleman@ou.edu
www.ou.edu/cas/cmrs

## Center for Medieval \& Renaissance Studies

The Center for Medieval \& Renaissance Studies, a division of the Dodge College of Arts \& Sciences at the University of Oklahoma, promotes the study of the period in Western history that saw the development of such major components of modern life as parliamentary democracy, the nation-state, English and other modern languages, printing, Islam, global exploration, heliocentric astronomy, romantic love--and the universities in which we research and teach all these subjects.

By supporting our faculty and students, sponsoring brown-bag talks, and cosponsoring a free public lecture series with the Medieval Fair of Norman, OU's Center for Medieval \& Renaissance Studies seeks to enrich the intellectual environment for medievalists and early modernists on campus and across the region.

## Programs \& Facilities <br> OU Special Collections

The fifth floor of OU's Bizzell Memorial Library houses a world-class History of Science collection along with the Nichols Collection, the Bizzell Bible Collection, and the Bass Business Collection.

## Minor

The Medieval \& Renaissance Studies Minor (p. 526) allows students to pursue an interdisciplinary study of literature, language, history, history of science, art, architecture, and religion. It is an attractive opportunity for students who wish to gain further understanding of medieval and Renaissance culture beyond the traditional disciplinary parameters. Fascinating in their diversity, medieval and Renaissance arts, literature, history, science, and philosophy offer rich material for study in their own right and also reveal the foundations upon which the achievements of subsequent periods were built.

No major in Medieval and Renaissance Studies is offered; students wishing to concentrate on these areas of study are best served by majoring in another humanities discipline while pursuing a Medieval and Renaissance Studies minor.

## Courses

MRS 3023 Exploring Medieval and Renaissance Studies 3 Credit Hours Prerequisite: junior standing or above, or permission of instructor. Provides an overview of the history, literature, art, and music of the Middle Ages and Renaissance, including hands-on work with medieval manuscripts and early printed books. This course will be taught by a series of faculty lecturing in their area of expertise, coordinated by a faculty member who will be present at every class and will serve as instructor of record. (Irreg.)[IV-WC] .

MRS 3440 Mentored Research Experience
3 Credit Hours
0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)
MRS 3960 Honors Reading 1-3 Credit Hours
1 to 3 hours. Prerequisite: Admission to Honors Program. May be repeated; maximum credit six hours. Consists of topics designated by the instructor in keeping with the student's major program. The topics will cover materials not usually presented in the regular courses. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

## MRS 3970 Honors Seminar

1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Subjects covered vary. Deals with concepts not usually treated in regular courses. (Irreg.)
MRS 3980 Honors Research 1-3 Credit Hours 1 to 3 hours. Prerequisite: Admission to Honors Program. May be repeated; maximum credit six hours. Will provide an opportunity for the gifted Honors candidate to work at a special project in the student's field. (F, Sp, Su)

## MRS 3990 Independent Study 1-3 Credit Hours

Prerequisite: junior standing or above and permission of instructor. May be repeated; maximum credit six hours. Independent study on a topic in medieval and/or Renaissance studies. (F, Sp)
MRS 4960 Directed Readings 1-4 Credit Hours 1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean. May be repeated; maximum credit four hours. Designed for upper-division students who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)

## MRS 4970 Special Topics/Seminar <br> 1-3 Credit Hours

1 to 3 hours. Prerequisite: Senior standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)
MRS 4990 Independent Study
1-3 Credit Hours
Prerequisite: junior standing or above and permission of instructor. May be repeated; maximum credit six hours. Independent study on a topic in medieval and/or Renaissance studies. ( $F$, Sp)

## Faculty

| Last Name | First/Middle Name | Middle init. | OU <br> Service start | Title(s), date(s) appointed | Degrees Earned, Schools, Dates Completed |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Coleman | Joyce | K | 2005 | ASSOCIATE <br> PROFESSOR OF <br> ENGLISH, 2005; <br> RUDOLPH BAMBAS <br> PROFESSOR OF <br> ENGLISH, 2005; <br> DIRECTOR OF <br> MEDIEVAL AND <br> RENAISSANCE <br> STUDIES | PhD, Univ of <br> Edinburgh, 1993; MA, <br> Univ of Texas, 1979; <br> BA, Barnard College, $1971$ |

## Medieval \& Renaissance Studies, Minor

Minimum Total Credit Hours: 1

## Minimum Upper-Division Hours: 9

## Program Code: N679

- The requirements for a minor must be completed concurrently with the major degree requirements.
- No minor may be added by completing courses after receiving the bachelor's degree.

At least six (6) credit hours must be earned in courses acceptable for residence credit by standards set forth by the Dodge College of Arts and Sciences, excluding transfer, correspondence, and examination (AP, CLEP, Advanced Standing) credit. Courses for the minor may not be taken Pass/ No Pass.

No single course may be used by a student to satisfy a major requirement and a minor requirement. A course may be used, however, to satisfy both a major support requirement and a minor requirement.

Courses on Medieval and Renaissance topics not listed here may count towards the MRS minor if approved, in writing, by the MRS advisor.

## Required Courses

Students must successfully complete at least 18 hours of coursework, including at least nine (9) hours at the upper-division level, and six (6) hours from each of the three core areas, from the approved courses listed. No more than three (3) of the 18 hours may be earned in Independent Study courses (MRS 3990 or MRS 4990).

See http://www.ou.edu/cas/cmrs/minor for a full listing of course numbers and names. See http://www.ou.edu/cas/cmrs/courses for listing of courses currently being taught, recently taught, or scheduled for the next semester.

The following MRS courses may count in any appropriate area, as approved by the advisor. MRS 3023, MRS 3990, MRS 4990.

| Code Title | Credit <br> Hours |
| :--- | ---: | ---: |
| History, Philosophy, or Religious Studies |  |

## Medieval \& Renaissance Studies Category Course Lists HISTORY, PHILOSOPHY, OR RELIGIOUS STUDIES

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| HIST 1113 | History of Medieval Europe | 3 |
| HIST 1223 | Europe, 1500 to 1815 | 3 |
| HIST 3053 | Medieval Italy | 3 |
| HIST 3073 | The Renaissance | 3 |
| HIST 3113 | The Crusades | 3 |
| HIST 3133 | Medieval Women | 3 |
| HIST 3143 | The Era of the Reformation | 3 |
| HIST 3323 | Tudor England | 3 |
| HIST 3733 | History of Heaven and Hell in Judaism and | 3 |
|  | Christianity | 3 |
| HIST 4023 | Inquisitions | 3 |
| HSTM 3013 | History of Science to the Age of Newton | 3 |
| HSTM 3453 | Science and Civilization in Islam | 3 |
| HSTM 3823 | Science in Medieval Culture | 3 |
| HSTM 3833 | The Scientific Revolution | 3 |
| HSTM 5513 | Advanced Studies in the History of Ancient | 3 |
| HSTM 5523 | and Medieval Science | 3 |
| PHIL 3423 | Early Modern Sci. | 3 |
| RELS 2303 | Ancient and Medieval Religious Philosophy | Introduction to Islam |

## HISTORY OF THE ARTS

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| A HI 3263 | Survey of Byzantine Art and Architecture | 3 |
| A HI 3303 | Renaissance Art in Italy 1200-1600 | 3 |
| A HI 3403 | Baroque Art and Architecture in | 3 |
| A HI 4273 | Burope:1600-1700 | 3 |
| A HI 4373 | The Italian City: Renaissance and Baroque | 3 |
| A HI 4383 | Architecture | 3 |
| A HI 4463 | Italian Renaissance Art and Science | 3 |
| DRAM 3713 | History of the Theatre I | 3 |
| MUSC 2313 | Ancient Times to 1700 | 3 |
| MUSC 5513 | Music in the Middle Ages | 3 |
| MUSC 5523 | Music in the Renaissance: Style, Theory | 3 |
| MUSC 5543 | The Baroque Era | 3 |
| LITERATURE |  | 3 |
| Code | Title | 3 |
| CL C 3053 | Origins of Christianity: Jesus to Augustine | Credit |
| CL C 3163 | Visions of Heaven and Hell: Virgil, Dante, | 3 |
| and Milton | 3 |  |
|  | English Literature from 1375 to 1700 | 3 |


| ENGL 3513 | Medieval English Literature | 3 |
| :---: | :---: | :---: |
| ENGL 3523 | Sixteenth-Century English Literature | 3 |
| ENGL 3573 | Arthurian Legend and Literature | 3 |
| ENGL 4133 | History Of the English Language | 3 |
| ENGL 4523 | Shakespeare Comedies | 3 |
| ENGL 4533 | Shakespeare Tragedies | 3 |
| ENGL 4553 | Milton | 3 |
| ENGL 4603 | Topics in Early Modern Literature and Culture | 3 |
| ENGL 5513 | Major Medieval Authors | 3 |
| ENGL 5543 | Topics in Early Modern Literature and Culture | 3 |
| FR 4153 | Survey of French Literature to 1800 | 3 |
| FR 4313 | From Lascaux to la Terreur | 3 |
| FR 5323 | Old French Readings | 3 |
| FR 5623 | Seventeenth-Century Prose and Poetry | 3 |
| GERM 4113 | The Middle Ages | 3 |
| GERM 4313 | Literature and Culture Pre-1700 | 3 |
| ITAL 3553 | Authors and Ideas: From Dante to our Time | 3 |
| ITAL 4513 | Topics in Medieval and Renaissance Italian Literature and Culture | 3 |
| LTRS 3123 | The Examined Life II: Middle Ages and Renaissance | 3 |
| MLLL 3303 | The World of Dante | 3 |
| MLLL 3573 | Arthurian Legend and Literature | 3 |
| SPAN 4713 | History of the Spanish Language | 3 |
| SPAN 5203 | Prose Fiction of Cervantes-The Quijote | 3 |
| SPAN 5603 | Studies in Renaissance and Baroque Prose | 3 |
| SPAN 5623 | Studies in Renaissance and Baroque Poetry | 3 |

## Department of Modern Languages, Literatures, and Linguistics

Nian Liu, Chair
202 Kaufman Hall
780 Van Vleet Oval
Norman, OK 73019-4052
Phone: (405) 325-6181
FAX: (405) 325-0103
modlang@ou.edu or, graduate information: mlllgradinfo@ou.edu
www.ou.edu/cas/modlang

## General Information

The Department of Modern Languages, Literatures, and Linguistics (MLLL) plays a key role in bringing the world to OU and OU to the world. Thus, MLLL is dedicated to upholding OU's mission of excellence through research and teaching in the humanities.

The MLLL faculty teaches fundamental linguistic skills and provides the intellectual training to contextualize cross-cultural experiences. We also emphasize the significance of literary and cultural traditions, as developed through history, for human self-understanding. At the graduate level, master's and doctoral students combine advanced courses in literature, culture, theory, and methodology with supervised pre-professional training. Consequently, our programs are designed to
prepare the next generation of researchers, teachers, and professionals, whose expertise builds upon modern languages, literatures, and cultures.

MLLL is home to scholars in literature, cultural studies, film, second language acquisition, and linguistics. Our faculty produces and disseminates knowledge in the humanities and advances critical humanistic research in international fields through the publication of numerous books and articles, active engagement in national and international professional organizations, and participation in conferences across the continents. The faculty commitment to research is intimately connected with our teaching, and subsequently, we incorporate the latest innovations in our courses. Hence, MLLL is resolutely committed to OU's mission to lead in research.

Through our engagement with critical inquiry, teaching, and service to the community, the Department of Modern Languages, Literatures, and Linguistics strives to fulfill OU's primary missions to achieve excellence and to value world cultures.

## Programs \& Facilities

## Programs for Academic Excellence

Students are encouraged to study abroad as an enhancement to their degree programs. Summer or semester and year-long exchange programs in South America, Europe, Asia, and Africa are available to all students.

## Special Facilities

The Language Learning Center is a state-of-the-art computer facility that provides technology, resources, and an engaging environment in which students, faculty, instructors, and visitors are supported in their language acquisition pursuits. The Learning Center boasts a large library of digitized listening files, web activities, language-learning software, and video/DVD materials. Listening materials and web activities are available to students in the Learning Center and via the remote connection.

## Scholarships and Financial Aid

The Department of Modern Languages, Literatures, and Linguistics offers a variety of funding opportunities to students who choose to major or minor in one or more modern languages. MLLL students apply for all department scholarships online through the CASH website at scholarships.ou.edu.

Graduate assistantships are available through the department. All graduate assistants are required to enroll in MLLL 4813 during their first semester. In addition, graduate assistants are required to enroll in a minimum of six credit hours of graduate-level courses per semester.

## Undergraduate Study <br> Bachelor of Arts Degree

The department offers the Bachelor of Arts degree with majors in Arabic, Chinese, French, German, Italian, Japanese, Russian, Spanish and Linguistics. Beginning language courses do not count toward the major. In the second year, students focus on improving the basic skills of speaking, understanding, reading, and writing while gaining some exposure to the culture and the literature of the language. The third year generally focuses on improving conversation skills and pronunciation, acquiring a stronger understanding of the grammatical rules of the language, and reading a limited number of complete literary works. In the senior year, majors study civilization and literature from its origins to the modern era.

The department also offers Minors in Arabic, Chinese, French, German, Hebrew, Italian, Japanese, Linguistics, Portuguese, Russian and Spanish.

- Arabic, B.A. (p. 552)
- Chinese, B.A. (p. 554)
- French, B.A. (p. 556)
- German, B.A. (p. 558)
- Italian, B.A. (p. 560)
- Japanese, B.A. (p. 563)
- Linguistics, B.A. (p. 565)
- Russian, B.A. (p. 567)
- Spanish, B.A. (p. 570)
- Arabic, Minor (p. 572)
- Chinese, Minor (p. 572)
- French, Minor (p. 573)
- German, Minor (p. 573)
- Hebrew, Minor (p. 574)
- Italian, Minor (p. 574)
- Japanese, Minor (p. 575)
- Linguistics, Minor (p. 575)
- Portuguese, Minor (p. 576)
- Russian, Minor (p. 576)
- Spanish, Minor (p. 577)


## Course Placement

Students who have completed two or more years of high school language and who wish to continue their language study at the University will be placed in appropriate courses based on their scores in the proficiency exam. Placement exams are administered during pre-enrollment periods as well as during regular enrollment periods.

## Native Speaker Policy

For departmental purposes, the Department of Modern Languages, Literatures, and Linguistics defines a native speaker of a language as any individual who has been raised in a family and a society where this language is habitually used for everyday communication and is the language of instruction in the student's school system. A native speaker may not enroll in any undergraduate skills course in his or her native language, with the single exception of the course in Advanced Composition 3423 , but may earn credit by advanced standing exams.

## Graduate Study

## Master of Arts Degree

Master of Arts degrees in French, German, and Spanish are offered in both a thesis and a non-thesis program.

- French, Master of Arts (p. 577)
- German, Master of Arts (p. 578)
- Spanish, Master of Arts (p. 578)
- TESOL, Master of Arts (p. 579)


## Doctoral Programs

Doctoral degrees are offered in French (p. 579) and Spanish (p. 580).
Before completion of the degree, students must demonstrate reading competency in a second language. In order to do so, they may take the
departmental Graduate Reading Exam or complete two semesters or ten hours in another language.

A general examination based on coursework and a reading list established in consultation with the student's committee members is required for the Ph.D.

See Spanish Ph.D. Exam and Dissertation and French Ph.D. Exam and Dissertation for details on the Ph.D. examination and dissertation guidelines.

## Courses

ARAB 1115 Beginning Arabic 5 Credit Hours
Aims at developing mastery of Arabic phonology and script, control of basic vocabulary, grammar, basic communicative situations, and cultural concepts explicitly expressed in the language. Listening and speaking are emphasized from the very beginning. This course does not count for major credit in the Department of Modern Languages, Literatures and Linguistics. (F) [I-FL].
ARAB 1225 Beginning Arabic Continued
5 Credit Hours
Prerequisite: 1115. Focuses on all language skills (listening, speaking, reading, and writing), including developing the ability to interact successfully in basic communicative situations. Short texts and topics of general import as well as cultural concepts embedded in the language will be covered. This course does not count for major credit in the Department of Modern Languages, Literatures and Linguistics. (Sp) [I$\mathrm{FL}]$.

## ARAB 2013 Colloquial Arabic

3 Credit Hours
Prerequisite: ARAB 1225. May be repeated once with a change of topic (dialect); maximum credit 6 hours. Develops communicative functional abilities, in particular speaking and listening, in one of the regional spoken dialects of the Arab world. The direct connection between the colloquial dialect taught and Modern Standard Arabic will be explored. Relevant aspects of local culture will be covered, as well as the cultural appropriateness of communicative functions introduced. (F, Sp)

## ARAB 2113 Intermediate Arabic 3 Credit Hours

Prerequisite: ARAB 1225. Aims at developing language skills (listening, speaking, reading and writing) at the intermediate level, with more emphasis on reading and writing. Expands into more complex structures, wider communicative situations and vocabulary relating to practical, social, cultural and media topics. (F)
ARAB 2223 Intermediate Arabic Continued 3 Credit Hours
Prerequisite: ARAB 2113; ARAB 2013 or concurrent enrollment. Continues developing language skills (listening, speaking, reading and writing) at the intermediate level, with more emphasis on reading and writing. Continues to expand into more complex structures, wider communicative situations and vocabulary relating to practical, social, cultural and media topics.
(Sp)

## ARAB 2970 Special Topics/Seminar 1-3 Credit Hours

1 to 3 hours. Prerequisite: May be repeated; Maximum credit nine hours. Special topics course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research, and field projects. (Irreg.)

## ARAB 3113 Advanced Arabic

## 3 Credit Hours

Prerequisite: 2223. Students are expected to read, listen to, and understand the content and intent of a variety of authentic texts; write at the paragraph level; and participate in formal and informal discussion on social and professional topics. (F)

ARAB 3223 Advanced Arabic (Continued) 3 Credit Hours
Prerequisite: 3113 . Students are expected to read, listen to, and understand the content and intent of a variety of authentic texts; write at the paragraph level; and participate in formal and informal discussion on social and professional topics. (Sp)

ARAB 3423 Advanced Arabic Composition
3 Credit Hours
Prerequisite: ARAB 2223. Instruction in proper writing habits at an advanced level, toward the achievement of idiomatic formal Arabic. Focuses on writing in Arabic for personal, professional and academic needs. Develops the ability to narrate and describe in the different Arabic tenses (past, present and future), narrate and describe with a sufficient control of aspect (indicating whether an action is completed), write summaries of familiar topics, combine sentences into texts of paragraph length, and use cohesive devices properly. (F)
ARAB 3440 Mentored Research Experience 3 Credit Hours 0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)
ARAB 3960 Honors Reading 1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Consists of topics designated by the instructor in keeping with the student's major program. Covers topics not usually presented in the regular courses.

ARAB 3970 Honors Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Subjects covered vary. Deals with concepts not usually treated in regular courses.

## ARAB 3980 Honors Research

1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Provides an opportunity for the gifted Honors candidate to work at a special project in the student's field. (F, Sp, Su)
ARAB 3990 Independent Study 1-3 Credit Hours
1 to 3 hours. Prerequisite: one course in general area to be studied; permission of instructor and department. May be repeated; maximum credit six hours. Contracted independent study for topic not currently offered in regularly scheduled courses. (F, Sp)
ARAB 4413 Arabic Structure 3 Credit Hours
Prerequisite: 3223. Detailed explanations of the structure of the Arabic language at both the theoretical and pedagogical levels. The different phonological, morphological, and syntactic rules are presented and discussed holistically, combining both form and function, to achieve adequate knowledge of Arabic structure. The course is conducted mostly in Arabic. (F)
ARAB 4433 Arabic Media and Politics
3 Credit Hours
Prerequisite: 3223. Exposes students to various types of mass media covering contemporary political, economic, historical, and social issues in the Arab world. Sociolinguistic features of news reports are examined to understand the content, political underpinnings, and the framing or packaging techniques used in media discourse. The course is conducted entirely in Arabic. (F)

ARAB 4443 Readings in Islamic Religious Texts

## 3 Credit Hours

Prerequisite: 3223. Representative texts in Arabic from the Qur'an, Qur'anic Exegesis, Prophetic Hadith, Prophet Muhammad's biographies, and legal, mystical, and theological treatises. The objectives are to understand major Islamic doctrines, and themes, and to develop working knowledge of genre specific vocabulary and style. Class is conducted in Arabic. (Sp)
ARAB 4960 Directed Readings
1-4 Credit Hours
1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean. May be repeated; maximum credit four hours. Designed for upper-division students who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)

ARAB 4970 Special Topics/Seminar 1-3 Credit Hours 1 to 3 hours. Prerequisite: Senior standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)
ARAB 4990 Independent Study 1-3 Credit Hours
1 to 3 hours. Prerequisite: four courses in general area to be studied; permission of instructor and department. May be repeated; maximum credit six hours. Contracted independent study for topic not currently offered in regularly scheduled courses. (F, Sp)
ARAB 4993 Readings in Contemporary Arab Culture 3 Credit Hours Prerequisite: ARAB 4413 and ARAB 4433. Deeper understanding of major cultural issues by examining critical texts of intellectual figures throughout the contemporary Arab world. Prepares students to write their final project in Arabic, and provides opportunities for developing their language skills further for adequate mastery of the language. Course is conducted entirely in Arabic. (Sp) [V] .

CHIN 1115 Beginning Chinese
5 Credit Hours
An elementary course in understanding, speaking, reading and writing Mandarin Chinese. This course does not count for major credit in the Department of Modern Languages, Literatures and Linguistics. (F) [I-FL].
CHIN 1225 Beginning Chinese (Continued) 5 Credit Hours Prerequisite: 1115. Continued training in understanding, speaking, reading and writing elementary Mandarin Chinese. This course does not count for major credit in the Department of Modern Languages, Literatures and Linguistics. (Sp) [I-FL].

CHIN 2113 Intermediate Chinese 3 Credit Hours Prerequisite: 1225. Combination of basic Chinese grammar and vocabulary and their application to spoken and written Mandarin Chinese. (F)

CHIN 2223 Intermediate Chinese (Continued) 3 Credit Hours
Prerequisite: 2113. Continued training in the use of grammar and vocabulary in both spoken and written Mandarin Chinese. (Sp)
CHIN 2323 Intermediate Listening and Speaking 3 Credit Hours Prerequisite: permission of department. Serves as the prerequisite for Chinese 3113 (Advanced Chinese I.) Assignments and class activities include immersion in daily family-type communication, conversations and functioning in daily business activities, travel and functioning at the intermediate proficiency level. Upon completion, students will have developed the languages skills that will allow them to function with most daily situations in a Chinese-speaking country. (F, Sp)

CHIN 2970 Special Topics/Seminar
1-3 Credit Hours
Special Topics. 1 to 3 hours. May be repeated; Maximum credit nine hours. Special topics course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research, and field projects. (Irreg.)

CHIN 3113 Advanced Chinese I
3 Credit Hours
Prerequisite: CHIN 2223 and CHIN 2323 or equivalent. An integrated advanced course designed to improve skills in the four aspects of learning Mandarin Chinese as a foreign language: listening, speaking, reading, and writing. Emphasis is on the phonetics of standard Mandarin Chinese and conversation on topics in daily life. (F)
CHIN 3223 Advanced Chinese II 3 Credit Hours
Prerequisite: 3113 or equivalent. Continue to improve skills in the four aspects of learning Mandarin Chinese as a foreign language: listening, speaking, reading, and writing. Emphasis on composition and advancedlevel reading comprehension. (Sp.
CHIN 3323 Advanced Listening and Speaking 3 Credit Hours
Prerequisite: 2223. Develops listening and speaking skills of students who have taken intermediate Chinese. Conversations are presented in authentic and naturally-paced language. Lessons are constructed to support existing knowledge and develop mastery of new vocabulary, grammatical patterns, and sociocultural formalities in ways that are compatible with genuine communication. (F)
CHIN 3440 Mentored Research Experience 3 Credit Hours 0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)
CHIN 3623 Business Chinese
3 Credit Hours
Prerequisite: permission of department. Designed for students who have completed at least two years basic Chinese language learning and have an interest in business-related communications with Chinese- speaking people. Aims to prepare students with the language skills and cultural knowledge for a globalized economy through learning the vocabulary, usages, customs and conventions required for business activities with China. (F)
CHIN 3960 Honors Reading 1-3 Credit Hours
1 to 3 hours. Prerequisite: Admission to Honors Program. May be repeated; maximum credit six hours. Consists of topics designated by the instructor in keeping with the student's major program. The topics will cover materials not usually presented in the regular courses. (F, Sp, Su)
CHIN 3970 Honors Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Subjects covered vary. Deals with concepts not usually treated in regular courses. (Irreg.)
CHIN 3980 Honors Research
1-3 Credit Hours
1 to 3 hours. Prerequisite: Admission to Honors Program. May be repeated; maximum credit six hours. Will provide an opportunity for the gifted Honors candidate to work at a special project in the student's field. (F, Sp, Su)

CHIN 3990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: two courses in Chinese; permission of instructor and department. May be repeated; maximum credit six hours. Contracted independent study for topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (F, Sp)
CHIN 4113 Advanced Reading and Writing
3 Credit Hours
Prerequisite: 3223. Advanced reading and comprehension of authentic Chinese texts. Development of good writing skills with correct usage of grammar. (Sp)
CHIN 4333 Translating Chinese
3 Credit Hours
Prerequisite: CHIN 3113. Assists advanced Chinese major or minor students attain better Chinese-to-English translation skills through practical training and hands-on instruction. The emphasis is on comprehension of original Chinese texts, with particular attention to idioms and expressions. (Irreg.)

CHIN 4533 Learning Chinese through Media 3 Credit Hours Prerequisite: CHIN 3113 or equivalent. Intended for advanced students to enhance their reading/listening proficiency in modern Chinese language and further develop their self-learning skills. Students will be immersed in a simulacrum of Chinese media by reading Chinese news reports; watching Chinese news videos, short films, and TV programs; and using the Chinese encyclopedia. (F)
CHIN 4543 Study of Classical Chinese and Calligraphy 3 Credit Hours Prerequisite: CHIN 3223. Major aspects covered include 1) grammatical structures of classical Chinese compared to modern Chinese; 2) lexical and semantic features of most commonly used words and phrases; 3) reading and understanding of simple texts from the classics; 4) cultural perspectives to appreciate Chinese heritage texts, paintings and calligraphy. (F)

CHIN 4960 Directed Readings
1-4 Credit Hours
1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean. May be repeated; maximum credit four hours. Designed for upper-division students who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)
CHIN 4970 Special Topics/Seminar 1-3 Credit Hours 1 to 3 hours. Prerequisite: Senior standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)
CHIN 4990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: four courses in Chinese and general area to be studied; permission of instructor and department. May be repeated; maximum credit six hours. Contracted independent study for topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (F, Sp, Su)
CHIN 4993 Senior Capstone for Chinese 3 Credit Hours Prerequisite: Senior standing or permission of instructor. Designed to serve as the senior capstone experience for the Chinese major. Students will study linguistic theory, technique, and methodology. Includes reading in critical analysis as preparation for writing assignments and final project to be written in Chinese. (F) [V].

## FR 1115 Beginning French

5 Credit Hours
An elementary course in understanding, speaking, reading and writing
French. Laboratory. This course does not count for major credit in the Department of Modern Languages, Literatures and Linguistics. (F, Sp, Su) [I-FL].

FR 1225 Beginning French (Continued)
5 Credit Hours
Prerequisite: 1115. An elementary course in understanding, speaking, reading and writing French. Laboratory. This course does not count for major credit in the Department of Modern Languages, Literatures and Linguistics. (F, Sp, Su) [I-FL].

## FR 2113 Intermediate French

3 Credit Hours
Prerequisite: 1225. The systematic cultivation of increased depth and control in the basic skills of listening, speaking, reading and writing French. Laboratory (F, Sp, Su)

FR 2223 Intermediate French (Continued)
3 Credit Hours
Prerequisite: 2113. The systematic cultivation of increased depth and control in the basic skills of listening, speaking, reading and writing French. Laboratory (F, Sp, Su)

FR 2243 French Conversation and Literature 3 Credit Hours Prerequisite: 2113 or 2133. Conversation practice based on modern literary texts, with the objective of improving reading speed, vocabulary and comprehension, and increased oral fluency, while obtaining an expanded appreciation of French literary texts. (F, Sp, Su)

## FR 2253 Health, Medicine, and the Environment in French

## Culture

3 Credit Hours
Prerequisite: FR 2223 or concurrent enrollment, or FR 2243. This secondyear French class teaches about key issues in health, medicine, and the environment, so that students develop functional cultural and linguistic fluency about French-speaking populations in relation to the topics under study. Issues of global and personal health, medicine, and the human relationship with nature, ecology and the environment are essential topics for our era. (F, Sp)
FR 2970 Special Topics
1-3 Credit Hours
Special Topics. 1 to 3 hours. May be repeated; Maximum credit nine hours. Special topics course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research, and field projects. (Irreg.)

FR 3083 Advanced French Conversation and Phonetics 3 Credit Hours Prerequisite: 2243 or concurrent enrollment. Intensive practice in speaking French on topics of everyday life; development of specialized vocabularies; fundamentals of French phonetics. (F, Sp)
FR 3423 Advanced French Composition 3 Credit Hours
Prerequisite: FR 2133 or FR 2243 or FR 2263. The inculcation of proper writing habits, at an advanced level, toward the achievement of idiomatic French. (Sp, Su)
FR 3440 Mentored Research Experience

## 3 Credit Hours

0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)

FR 3623 Business French
3 Credit Hours
Prerequisite: two years of college French or equivalent. Focuses on terms and expressions used in business settings. Designed to impart an awareness of the differences between French and American business cultures. (F)

FR 3723 French for the Professions
3 Credit Hours
Prerequisite: two years of college French or equivalent. Introduces students to vocabulary in sectors such as advertising, marketing, transportation, medicine, and law. French professional and business cultures are studied. Communication skills for professional and business settings will be practiced in this course. (Sp)

FR 3753 French Culture Through Film
3 Credit Hours
Prerequisite: 2243 or concurrent enrollment. This course deals with contemporary French culture through the medium of cinema. Topics examined include family, education, religion and societal issues, and ethnicity. As a course taught in French, it will also focus on regional accents and generational and ethnic speech. (F)

FR 3853 Introduction to Literary Analysis
3 Credit Hours
Prerequisite: 2223. Designed to introduce students to the language and technique of literary analysis. Also serves to improve reading skills generally, as well as oral/aural and written skills. Representative works from the various literary genres will be studied. (Sp, Su)
FR 3960 Honors Reading 1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Consists of topics designated by the instructor in keeping with the student's major program. Covers materials not usually presented in the regular courses. (F, Sp)

## FR 3970 Honors Seminar

1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. The projects covered will vary. Will deal with concepts not usually presented in regular coursework. (F, Sp, Su )
FR 3980 Honors Research 1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Will provide an opportunity for the gifted Honors candidate to work at a special project in the student's field. (F)

FR 3990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: one course in general area to be studied; permission of instructor and department. May be repeated; maximum credit six hours. Contracted independent study for topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

FR G4153 Survey of French Literature to 1800
3 Credit Hours
Reading and discussion of major French works and their background from the Middle Ages to the French Revolution. (F, Su)

FR G4163 Survey of French Literature (Continued) 3 Credit Hours Prerequisite: 4153 or permission. Reading and discussion of major French works and their background from 1800 to the present day. (Sp, Su)

## FR 4313 From Lascaux to la Terreur

3 Credit Hours
Prerequisite: FR 3423; HIST 1223 or 1233. The political and social background of French literature from its beginning to the French revolution. ( $\mathrm{F}, \mathrm{Su}$ )
FR 4323 The Making of Modern French Culture 3 Credit Hours Prerequisite: FR 3423; HIST 1223 or HIST 1233. The political and social background of French literature from the French revolution to the present day. (Sp)

FR 4960 Directed Readings
1-4 Credit Hours
1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean. May be repeated; maximum credit four hours. Designed for upper-division students who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)
FR 4970 Special Topics/Seminar 1-3 Credit Hours 1 to 3 hours. Prerequisite: Senior standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)
FR 4990 Independent Study 1-3 Credit Hours
1 to 3 hours. Prerequisite: three courses in general area to be studied; permission of instructor and department. May be repeated; maximum credit six hours. Contracted independent study for topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (F, Sp, Su)
FR 4993 Senior Capstone in French 3 Credit Hours
Prerequisite: graduating majors in French. Requires undergraduate French majors to synthesize their knowledge of French contributions to world civilization. They will be required, as part of this enterprise, to demonstrate their mastery of the four basic skills involved in learning a foreign language: reading, writing, speaking, and understanding. (Sp) [V].

## FR 5283 Twentieth-Century French Novel

3 Credit Hours
Prerequisite: graduate standing or permission of instructor. Course presents a survey of the major forms of French novel throughout the twentieth century. (Irreg.)
FR 5323 Old French Readings
3 Credit Hours
Prerequisite: 5313. Introduction to a literary understanding and appreciation of the Old French Canon as represented by such texts as the Alexis, the Roland, Chretien's romances, Beroul's Tristan, the Rose, theatre, chronicles and lyric poetry, including Rutebeuf and Villon. (Alt. Sp )
FR 5623 Seventeenth-Century Prose and Poetry 3 Credit Hours Prerequisite: 4153. A survey of baroque, precieux and classical style, form and content as exemplified in the prose and poetry of the period. (Irreg.)
FR 5633 Eighteenth-Century French Philosophes 3 Credit Hours Prerequisite: graduate standing or permission. Presents the "philosophes" of the eighteenth century in France such as Montesquieu, Voltaire and Diderot. (Irreg.)
FR 5643 Eighteenth-Century French Narrative and Theatre 3 Credit Hours
Prerequisite: graduate standing or permission of instructor. The course will present an overview of eighteenth-century French narrative and theatre. (Irreg.)
FR 5653 The French Atlantic
3 Credit Hours
Prerequisite: graduate standing or permission of instructor. Examines the aesthetic, social, and political issues foregrounded in 20th- and 21 stcentury Caribbean and Sub-Saharan francophone literature as well as the various historical forces influencing the development of Francophone cultures on both sides of the Atlantic. (Irreg.)

## FR 5910 Problems in Research

2-4 Credit Hours
2 to 4 hours. May be repeated with change of content; maximum credit nine hours. An individual course of intensive research with the area and problem to be determined by the student and directing instructor. (F, Sp, Su )

FR 5960 Directed Readings
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing and permission of department. May be repeated; maximum credit twelve hours. Directed readings and/or literature reviews under the direction of a faculty member. (F, Sp, Su)

FR 5963 Nineteenth-Century French Novel
3 Credit Hours
Prerequisite: graduate standing or permission of instructor. Course covers the major developments of the French novel throughout the nineteenth century. (Irreg.)

FR 5970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)
FR 5973 Nineteenth-Century French Poetry and Theatre 3 Credit Hours Prerequisite: graduate standing or permission of instructor. Course surveys the major literary developments in French poetry and theatre throughout the nineteenth century. (Irreg.)

FR 5980 Research for Master's Thesis
2-9 Credit Hours
Variable enrollment, two to nine hours; maximum credit applicable toward degree, four hours. (F, Sp)

FR 5990 Independent Studies

## 1-3 Credit Hours

1 to 3 hours. Prerequisite: graduate standing, permission of instructor. May be repeated; maximum credit 12 hours. Independent reading on one or more topics under the general direction of a faculty member. (F, Sp, Su)
FR 6960 Directed Readings
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor.
May be repeated; maximum credit six hours. Directed readings and/or literature review under the direction of a faculty member. (Irreg.)
FR 6970 Special Topics/Seminar 1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit 12 hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or research and field projects. (Irreg.)
FR 6980 Research for Doctoral Dissertation 2-16 Credit Hours
2 to 16 hours. Prerequisite: Graduate standing and permission of instructor; may be repeated. Directed research culminating in the completion of the doctoral dissertation. (F, Sp)
FR 6990 Independent Study 1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)
GERM 1115 Beginning German
5 Credit Hours
An elementary course in understanding, speaking, reading and writing German. This course does not count for major credit in the Department of Modern Languages, Literatures and Linguistics. (F, Sp, Su) [I-FL].
GERM 1225 Beginning German (Continued)
5 Credit Hours
(Continued) Prerequisite: 1115. An elementary course in understanding, speaking, reading and writing German. This course does not count for major credit in the Department of Modern Languages, Literatures and Linguistics. (F, Sp, Su) [I-FL].

GERM 2113 Intermediate German 3 Credit Hours
Prerequisite: 1225. Develops reading skills and control of grammar. Emphasis on expansion of vocabulary and strong reinforcement of grammatical structures. Reading and discussion of texts of literary and cultural interest. Oral and written assignments. ( $F, \mathrm{Sp}$ )
GERM 2223 Intermediate German (Continued)
3 Credit Hours
(Continued) Prerequisite: 2113. (F, Sp)
GERM 2970 Special Topics/Seminar
1-3 Credit Hours
Special Topics. 1 to 3 hours. May be repeated; Maximum credit nine hours. Special topics course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research, and field projects. (Irreg.)
GERM 3333 Internship in a German-Speaking Country 3 Credit Hours Prerequisite: junior or senior standing or permission of instructor. May be repeated; maximum credit six hours. Supplements as well as enhances a work experience of at least four weeks in a Germanspeaking country (e.g., Federal Republic of Germany, Federal Republic of Austria, Switzerland, Liechtenstein, German-speaking northern Italy, German-speaking eastern Belgium) that is typically undertaken during the summer. The course involves research, reflection, and oral and written communication about the internship experience. (Su)

## GERM 3423 Advanced German Composition 3 Credit Hours

Prerequisite: GERM 2223. The inculcation of proper writing habits, at an advanced level, toward the achievement of idiomatic German. (Sp)
GERM 3440 Mentored Research Experience 3 Credit Hours
0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)

GERM 3523 Advanced Conversation
3 Credit Hours
Prerequisite: GERM 2223. Practice in conversational skills at an advanced level. (Sp)
GERM 3623 Business German 3 Credit Hours Prerequisite: 2223. Introduces German business language as used in retail/wholesale, export/import, transport, and media. Will also familiarize the student with the European Union and cultural aspects of the German speaking business world. (F)

## GERM 3723 German for the European Market 3 Credit Hours

Prerequisite: 2223. German business language as used in banking transactions, marketing, business letters, and business firms such as corporations, general and limited partnerships, and trade unions. How to respond to claims by firms in European countries and how to establish subsidiaries in another European country. Prepares students to take the "Prufung Wirtschaftsdeutsch" (International Certificate in Business German). (Sp)
GERM 3853 Literature and Film 3 Credit Hours
Prerequisite: GERM 2223. Introduction to representative works of contemporary German literature and film. Within the context of reading and writing assignments and the viewing and discussion of films, the course is designed to improve language skills and knowledge of German culture. (F)

GERM 3960 Honors Reading
1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Will consist of topics designated by the instructor in keeping with the student's major program. The topics will cover materials not usually presented in the regular courses. ( $\mathrm{F}, \mathrm{Sp}$ )
GERM 3970 Honors Seminar 1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be
repeated; maximum credit six hours. The projects covered vary. The content deals with concepts not usually presented in regular coursework. (Irreg.)
GERM 3980 Honors Research 1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Provides an opportunity for the gifted Honors candidate to work at a special project in the student's field. ( $\mathrm{F}, \mathrm{Sp}$ )
GERM 3990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: one course in general area to be studied;
permission of instructor and department. May be repeated; maximum credit six hours. Contracted independent study for topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (F, Sp)
GERM 4003 History of the German Language 3 Credit Hours
(Slashlisted with 5003) Prerequisite: 3423, 3853. Linguistic, cultural, and social evolution of the German language from Indo-European times to the present. Additional emphasis is given to the place of German within the Germanic family of languages and to significant socio-linguistic issues in German-speaking countries as they enter the new millennium. No student may earn credit for both 4003 and 5003. (F)

## GERM 4113 The Middle Ages

3 Credit Hours
(Slashlisted with 5113) Prerequisite: 3423,3853 . Secular and religious literature of medieval Germany, Austria, Switzerland, and the Netherlands discussed within the international cultural context of the European Middle Ages. No student may earn credit for both 4113 and 5113. (Alt. F)
GERM 4253 Goethe's Faust and the Problem of Evil 3 Credit Hours Prerequisite: 3423 and 3853 . Intensive study of Faust I, Faust II, and the Urfaust. The social and cultural history of the Faust figure, up to Goethe's Faust, will also be explored. No student may earn credit for both 4253 and 5253. (Irreg.)

GERM G4313 Literature and Culture Pre-1700
3 Credit Hours
Prerequisite: 3423 or 3853 . From the beginnings until the end of the seventeenth century. A survey of literature, art, religion, social relations, music and history. (Alt. F)
GERM G4323 Literature and Culture 1700-1890 3 Credit Hours Prerequisite: 3423 or 3853 . Literature from 1700 to 1900. A survey of literature, art, philosophy, social relations, music and history. (Alt. F)
GERM G4333 Topics in the Twentieth Century German Literature and Culture

3 Credit Hours
Prerequisite: 3423 or 3853 . From 1900 to the present. A survey of literature, art, film, social relations, music and history. (Sp) [V].
GERM 4773 Post-1945 German Literature and Culture in Modern Europe 3 Credit Hours
(Slashlisted with 5773) Prerequisite: 3423, 3853. Study of selected prose, poetry, and drama written after World War II in Austria, East Germany, Switzerland and West Germany, within the context of cultural and economic changes. Also includes contemporary German films. No student may earn credit for both 4773 and 5773. (F) [IV-WC] .

GERM 4953 Literature, Art and Culture in Turn-of-the-Century Austria

3 Credit Hours
Prerequisite: 3423, 3853. Examines two antithetical impulses in the Habsburg fin de siecle: to revel in ornamental display and to reveal essences beneath the exterior. Examines the tension and interplay between the two tendencies in the fields of literature, art, architecture, and theory, and consider some representative figures of the period, such as Klimt, Freud, Rilke, and Kafka. No student may earn credit for both 4953 and 5953. (Irreg.)
GERM 4960 Directed Readings 1-4 Credit Hours
1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean. May be repeated; maximum credit four hours. Designed for upper-division students who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)
GERM 4970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: Senior standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

## GERM 4990 Independent Study

1-3 Credit Hours
1 to 3 hours. Prerequisite: three courses in general area to be studied; permission of instructor and department. May be repeated; maximum credit six hours. Contracted independent study for topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (F, Sp)
GERM 5003 History of the German Language 3 Credit Hours
(Slashlisted with 4003) Prerequisite: graduate standing. Linguistic, cultural, and social evolution of the German language from Indo-European times to the present. Additional emphasis is given to the place of German within the Germanic family of languages and to significant sociolinguistic issues in German-speaking countries as they enter the new millennium. No student may earn credit for both 4003 and 5003. (F)

## GERM 5113 The Middle Ages

3 Credit Hours
(Slashlisted with 4113) Prerequisite: graduate standing. Secular and religious literature of medieval Germany, Austria, Switzerland, and the Netherlands discussed within the international cultural context of the European Middle Ages. No student may earn credit for both 4113 and 5113. (Alt. F)

GERM 5773 Post-1945 German Literature and Culture in Modern
Europe 3 Credit Hours
(Slashlisted with 4773) Prerequisite: graduate standing. Study of selected prose, poetry, and drama written after World War II in Austria, East Germany, Switzerland and West Germany, within the context of cultural and economic changes. Also includes contemporary German films. No student may earn credit for both 4773 and 5773. (F)

GERM 5960 Directed Readings 1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing and permission of department. May be repeated; maximum credit twelve hours. Directed readings and/or literature reviews under the direction of a faculty member. (F, Sp, Su)
GERM 5970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

GERM 5980 Research for Master's Thesis
2-9 Credit Hours
Variable enrollment, two to nine hours; maximum credit applicable toward degree, four hours. (F, Sp)
GERM 5990 Independent Studies
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing, permission of instructor. May be repeated; maximum credit 12 hours. Independent reading on one or more topics under the general direction of a faculty member. (F, Sp, Su)
HEBR 1115 Beginning Hebrew
5 Credit Hours
An elementary course in modern and Biblical Hebrew. The course
provides basic understanding, speaking, writing, and reading Hebrew, both modern and Biblical. Similarities and differences between modern and Biblical Hebrew are explored. (F, Sp) [I-FL].
HEBR 1225 Beginning Hebrew (continued)
5 Credit Hours
Prerequisite: 1115. Focuses on all language skills: understanding, speaking, writing, reading of both modern and Biblical texts; including further exploration of similarities and differences between modern and Biblical Hebrew. By the end of this course, students are expected to write short dialogs. (F, Sp) [I-FL].

## HEBR 2113 Intermediate Hebrew

3 Credit Hours
Prerequisite: 1225. Further training in understanding, speaking, writing, and reading Hebrew, both modern and Biblical. Emphasis is given to grammar as well as to exploring differences in style between various Biblical texts, such as Torah versus prophets. (F)
HEBR 2213 Intermediate Hebrew II
3 Credit Hours
Prerequisite: HEBR 2113. At the end of this course students will have acquired the ability to read longer texts, both modern and Biblical. They will be able to express themselves more sophisticatedly, and on more topics. (Sp)

HEBR 2970 Special Topics/Seminar 1-3 Credit Hours Special Topics. 1 to 3 hours. May be repeated; Maximum credit nine hours. Special topics course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research, and field projects. (Irreg.)
HEBR 3113 Advanced Hebrew
3 Credit Hours
Prerequisite: 2113 and 2213. Continued training in understanding, speaking, writing, reading literary texts and newspaper articles, as well as Biblical texts, such as poetry. Emphasis is given to discussions on and writing about these texts. (F)
HEBR 3223 Advanced Hebrew II
3 Credit Hours
Prerequisite: HEBR 3113. A continuation of Advanced Hebrew I. The aim is to continue promoting the four language skills; students should be able to sophisticatedly and intelligently express themselves both orally and in writing. (Sp)

## HEBR 3440 Mentored Research Experience <br> 3 Credit Hours

0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)

HEBR 3513 Biblical Hebrew
3 Credit Hours
Prerequisite: HEBR 2113 or permission of instructor. Learn Biblical Hebrew and read from the Hebrew Bible (Old Testament) in the original language. (Irreg.)

HEBR 3960 Honors Reading
1-3 Credit Hours
1 to 3 hours. Prerequisite: Admission to Honors Program. May be repeated; maximum credit six hours. Consists of topics designated by the instructor in keeping with the student's major program. The topics will cover materials not usually presented in the regular courses. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

## HEBR 3970 Honors Seminar

1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Subjects covered vary. Deals with concepts not usually treated in regular courses. (Irreg.)

HEBR 3980 Honors Research 1-3 Credit Hours
1 to 3 hours. Prerequisite: Admission to Honors Program. May be repeated; maximum credit six hours. Will provide an opportunity for the gifted Honors candidate to work at a special project in the student's field. (F, Sp, Su)
HEBR 3990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: one course in general area to be studied; permission of instructor and department. May be repeated; maximum credit six hours. Contracted independent study for topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (F, Sp)
HEBR 4960 Directed Readings
1-4 Credit Hours
1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean. May be repeated; maximum credit four hours. Designed for upper-division students who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)
HEBR 4970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: 3223 or permission of instructor. May be repeated with change of content; maximum credit 9 hours. This course is designed to give intensive training in listening and speaking in Hebrew for students who have taken 3223. The course develops students' understanding of functional ability of listening and speaking Hebrew. Students will learn unique features of Hebrew language and culture. (Irreg.)
HEBR 4990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: three courses in general area to be studied; permission of instructor and department. May be repeated; maximum credit six hours. Contracted independent study for topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (F, Sp)
ITAL 1115 Beginning Italian I
5 Credit Hours
An elementary course in understanding, speaking, reading and writing Italian. Laboratory. This course does not count for major credit in the Department of Modern Languages, Literatures and Linguistics. (F, Sp) [lFL ].

## ITAL 1225 Beginning Italian II

5 Credit Hours
Prerequisite: 1115. Fundamentals of Italian continued. Laboratory. This course does not count for major credit in the Department of Modern Languages, Literatures and Linguistics. (F, Sp) [I-FL].

ITAL 2113 Intermediate Italian
3 Credit Hours
Prerequisite: 1115. Fundamentals of Italian continued. Laboratory. This course does not count for major credit in the Department of Modern Languages, Literatures and Linguistics. (F, Sp) [I-FL].
ITAL 2223 Intermediate Italian Continued
3 Credit Hours
Prerequisite: 2113. Emphasizes advanced reading skills and mastery of grammar. Emphasis on sophisticated vocabulary and understanding of grammatical structures. Literary and cultural texts discussed in oral and essay form. (Sp)

ITAL 2970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: May be repeated; Maximum credit nine hours.
Special topics course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research, and field projects. (Irreg.)

ITAL 3073 Italian Conversation \& Culture
3 Credit Hours
Prerequisite: ITAL 2223. Intensive practice in speaking Italian on topics of everyday life. (Sp)

ITAL 3423 In Altre Parole: Writing in Italian
3 Credit Hours
Prerequisite: ITAL 2223. The inculcation of proper writing habits, at an advanced level, toward the achievement of idiomatic Italian. (F)

ITAL 3440 Mentored Research Experience
3 Credit Hours
0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)

ITAL 3553 Authors and Ideas: From Dante to our Time 3 Credit Hours Prerequisite: ITAL 2223 or permission. Survey of Italian literature from the Middle Ages to the present day through major works of literature and the visual arts-invoking names such as Dante, Machiavelli, Michelangelo, Galileo and Calvino. (F)

ITAL 3663 Italian Cinema, Theater and Media
3 Credit Hours
Prerequisite: ITAL 2223 or permission. This course will focus on theater, cinema and television, often reading literary works alongside their cinematic or TV adaptations. It offers an interdisciplinary look at Italian cultural history from the beginning of the twentieth century to the present day. (Sp)
ITAL 3853 Readings in Italian Literature \& Culture 3 Credit Hours Prerequisite: ITAL 2223. Designed to improve reading comprehension and to introduce the techniques of literary analysis. Representative works from the various literary genres will be studied. (Sp)

## ITAL 3960 Honors Reading

1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors program. May be repeated; maximum credit six hours. Will consist of topics designated by the instructor in keeping with the student's major program. The topics will cover materials not usually presented in the regular courses. (F, Sp)

## ITAL 3970 Honors Seminar <br> 1-3 Credit Hours

1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Subjects covered vary. Deals with concepts not usually treated in regular courses. (Irreg.)
ITAL 3980 Honors Research
1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors program. May be repeated; maximum credit six hours. Provides an opportunity for the Honors candidate to work on a special project in the student's field. ( $F$, Sp)

## ITAL 3990 Independent Study

1-3 Credit Hours 1 to 3 hours. Prerequisite: one course in general area to be studied; permission of instructor and department. May be repeated; maximum credit six hours. Contracted independent study for topic not currently offered in regularly scheduled courses. ( $\mathrm{F}, \mathrm{Sp}$ )

ITAL 4513 Topics in Medieval and Renaissance Italian Literature and Culture

3 Credit Hours
Prerequisite: 3073 or 3423 . May be repeated with change of content; Maximum credit nine hours. This course will focus on a particular author, genre, or theme from the origins of Italian literature (1225) through 1550. Students will read primary texts in ;the original language with an emphasis on understanding the texts through close textual analysis. (Sp)
ITAL 4563 Topics in Modern Italian Literature and
Culture
3 Credit Hours
Prerequisite: 3073 or 3423 . May be repeated with change of content; maximum credit nine hours. This course will focus on an author, genre, or theme present in contemporary Italian literature (1700-Present). Students will read primary sources in the original language with an emphasis on understanding the text through close textual analysis. (F)
ITAL 4630 Internship
1-3 Credit Hours
Prerequisite:permission of instructor and junior standing. 1 to 3 hours.
May be repeated; maximum credit three hours. For advanced language students studying in Italy as part of the OU in Arezzo program. Students enrolling in this variable credit course will enter into internships with area businesses, local, regional, and national government offices, nonprofit organizations, and other local entities. Although the nature of the internships will vary depending on the partners, all internships will have the following requirements: the activities will be performed entirely in Italian; translation from English to Italian will not be the primary role of the intern; the sponsoring partner will provide at least weekly feedback; an OU faculty member will oversee the internship; at minimum students will complete an entrance, mid-term, final interview with the instructor; and a written final report. (F, Sp, Su)

## ITAL 4960 Directed Readings <br> 1-4 Credit Hours

1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean. May be repeated; maximum credit four hours. Designed for upper-division students who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)
ITAL 4970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: Senior standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)
ITAL 4990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: one course in general area to be studied; permission of instructor and department. May be repeated; maximum credit six hours. Contracted independent study for topic not currently offered in regularly scheduled courses. (F, Sp)

ITAL 4993 Capstone: Special Topics in Italian 3 Credit Hours Prerequisite: ITAL 3073, ITAL 3423, and one of the following: ITAL 3553 or ITAL 3663 or ITAL 4513 or ITAL 4563. Capstone course. Requires undergraduate Italian majors to synthesize their knowledge of Italian contributions to world civilization. They will be required, as part of this enterprise, to demonstrate their mastery of the four basic skills involved in learning a foreign language: reading, writing, speaking, and understanding. (Sp) [V].

## JAPN 1115 Beginning Japanese

5 Credit Hours
An elementary course in understanding, speaking, reading and writing Japanese. Laboratory. This course does not count for major credit in the Department of Modern Languages, Literatures and Linguistics. (F) [I-FL].

JAPN 1225 Beginning Japanese (Continued)
5 Credit Hours
(Continued) Prerequisite: 1115. An elementary course in understanding, speaking, reading and writing Japanese. Laboratory. This course does not count for major credit in the Department of Modern Languages, Literatures and Linguistics. (Sp) [I-FL] .
JAPN 2013 Intermediate Japanese Listening and Speaking 3 Credit Hours
Prerequisite: JAPN 2113 or concurrent enrollment with JAPN 2113. Provides intensive training in listening and speaking in Japanese for students who have taken first year Japanese. Through a systematic review of grammar and vocabulary taught in 1000-level Japanese coursework, develops students' understanding of functional ability to understand and speak Japanese and introduces unique features of Japanese language and culture, including formal and casual speech levels in Japanese. (F, Sp)
JAPN 2113 Intermediate Japanese
3 Credit Hours
Prerequisite: 1225. Combination of basic Japanese grammar and vocabulary and their application to spoken and written Japanese. Laboratory (F)
JAPN 2223 Intermediate Japanese (Continued) 3 Credit Hours (Continued) Prerequisite: 2113. Develops control of the grammar, vocabulary and idioms of spoken Japanese and provides a thorough introduction to the Japanese writing system as well as some grammatical structures peculiar to written Japanese. Laboratory (Sp)
JAPN 2970 Special Topics/Seminar 1-3 Credit Hours Special Topics. 1 to 3 hours. May be repeated; Maximum credit nine hours. Special topics course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research, and field projects. (Irreg.)

JAPN 3013 Advanced Japanese Listening and Speaking 3 Credit Hours Prerequisite: JAPN 2223 or concurrent enrollment in JAPN 2223. Designed to give intensive training in listening and speaking in Japanese for students who have successfully completed Japanese 2113. Develops students' understanding of functional ability of listening and speaking Japanese. Unique features of Japanese language and culture will be learned, including casual/polite speech, honorifics, giving-receiving verbs, a variety of new forms, such as transitive/intransitive, causative, passive, causative-passive forms. (F, Sp)
JAPN 3113 Advanced Japanese I
3 Credit Hours
Prerequisite: JAPN 2223. Trains students in advanced Japanese language skills of speaking, listening, reading, and writing and introduces new grammatical forms, vocabularies and expressions. Prepares students to understand Japanese society. (F, Sp)

JAPN 3223 Advanced Japanese II 3 Credit Hours Prerequisite: JAPN 3113 or equivalent. An advanced course in conversation and composition covering cultural topics. Develops listening and speaking skills to communicate orally in authentic Japanese and expands spoken and written vocabulary knowledge. Presenting ideas in speech and composition effectively will be practiced. (Sp)

JAPN 3440 Mentored Research Experience 3 Credit Hours 0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)

JAPN 3960 Honors Reading 1-3 Credit Hours
1 to 3 hours. Prerequisite: Admission to Honors Program. May be repeated; maximum credit six hours. Consists of topics designated by the instructor in keeping with the student's major program. The topics will cover materials not usually presented in the regular courses. ( $F, \mathrm{Sp}, \mathrm{Su}$ )

## JAPN 3970 Honors Seminar

1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Subjects covered vary. Deals with concepts not usually treated in regular courses. (Irreg.)

JAPN 3980 Honors Research 1-3 Credit Hours
1 to 3 hours. Prerequisite: Admission to Honors Program. May be repeated; maximum credit six hours. Will provide an opportunity for the gifted Honors candidate to work at a special project in the student's field. (F, Sp, Su)
JAPN 3990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: 2223. May be repeated; maximum credit 12 hours. Contracted independent study for topic not currently offered in regularly scheduled courses. ( $F, S p$ )

JAPN 4113 Japanese Language and Society I 3 Credit Hours Prerequisite: JAPN 3223 or JAPN 4543. May be repeated with change of content; maximum credit six hours. Designed to develop the advancedlevel proficiency in reading and writing. Authentic reading materials on various topics will be used in combination with discussions, and oral and written reports. Emphasis is placed on strengthening correct usage of grammar and increasing knowledge of Kanji and compound terms using expressions and idioms in Japanese. (F)
JAPN 4543 Introduction to Classical Japanese 3 Credit Hours Prerequisite: JAPN 3223. Students will learn classical Japanese grammar, major Japanese literary texts, as well as Japanese customs in ancient Japan. (Sp)
JAPN 4960 Directed Readings 1-4 Credit Hours
1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean. May be repeated; maximum credit four hours. Designed for upper-division students who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)

JAPN 4970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: Senior standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

JAPN 4990 Independent Study 1-3 Credit Hours
Prerequisite: junior standing and permission of instructor. May be repeated with change of content; maximum credit six hours. Contracted independent study on one or more topics not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (F, Sp, Su)
JAPN 4993 Senior Capstone in Japanese
3 Credit Hours
Prerequisite: JAPN 4113. Examines Japanese modern literature with a focus on the questions of Japanese modernity, post-modernity, nationalism, and cultural identity. (Sp)[V].

## JAPN 5960 Directed Readings <br> 1-3 Credit Hours

1 to 3 hours. Prerequisite: graduate standing and permission of department. May be repeated; maximum credit twelve hours. Directed readings and/or literature reviews under the direction of a faculty member. (F, Sp, Su)

JAPN 5970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

JAPN 5990 Independent Study 1-3 Credit Hours
Prerequisite: Graduate standing and permission of instructor. May be repeated with change of content; maximum credit 12 hours. Contracted independent study on one or more topics not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory and field projects. (F, Sp, Su)
LING 1203 Language Across Cultures
3 Credit Hours
(Crosslisted with ANTH 1203) Theories of language family origins and their relationship to human migration; types of human languages; linguistic concept of genetic relatedness; writing systems development; non-Western sociolinguistic and usage phenomena; cultural and scientific importance of endangered languages; how languages become endangered; factors involved in preservation. This course may not count for major credit. (Sp) [IV-WDC].

LING 2303 General Linguistics
3 Credit Hours
(Crosslisted with ANTH 2303) Humanistic and formal study of natural languages: how they are similar to, and different from, one anther in their use of speech sounds, logical structures and mechanisms that integrate events, objects and speakers in spatio-temporal contexts. The relationship between language and culture; language acquisition and language change. ( $\mathrm{F}, \mathrm{Sp}$ ) [l-O].

LING 2970 Special Topics
1-3 Credit Hours
1 to 3 hours. Prerequisite: May be repeated; maximum credit nine hours. Special topics course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research, and field projects. (Irreg.)
LING 3033 Phonetic Description
3 Credit Hours
Prerequisite: LING 2303. Study of the basic principles in forming the phonetic description of human speech. (Sp)
LING 3043 Linguistic Semantics
3 Credit Hours
Prerequisite: 2303. An introduction to basic ideas and concepts in the field of linguistic semantics. Includes discussion of current issues and representative theoretical approaches. (F)

LING 3053 Phonology
3 Credit Hours
Prerequisite: LING 3033. Phonology is the study of sound patterns
found in human language. Provides a grounding in phonological theory by examining data from several of the world's languages. Covers the phoneme-allophone distinction, distinctive features, feature re-write rules, and a broad sampling of phonological phenomena. (F)
LING 3133 Phonetic Field Methods
3 Credit Hours
Prerequisite: 3033 or Anthropology 3033. This course covers techniques used to collect phonetic data, methodological concerns, the acoustic basis of speech sounds, how to record speech for linguistic analysis, and both acoustic and articulatory techniques for documenting the phonetic properties of speech. (Irreg.)
LING 3173 Lesser Studied Languages
3 Credit Hours
Prerequisite LING/Anthropology 2303. Learning and discussing some of the core properties of a few languages that are not often taught in the language classroom. Develops the students' ability to discuss the properties of languages in a precise and careful way. (F, Sp)

LING 3353 Syntax
3 Credit Hours
Prerequisite: LING 2303. An introduction to the fundamental concepts of Chomskyan syntax. Includes theory of categories and constituents, basic syntactic relations, case theory, and binding theory. (F)

## LING 3440 Mentored Research Experience <br> 3 Credit Hours

0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)

LING 3813 Sociolinguistics
3 Credit Hours
Prerequisite: LING/ANTH 2303. The study of the many ways human beings speak as a function of their being members of communities and societies. Included are multilingualism, creole languages, social and regional dialects, registers, gender, class, ethnic varieties, and language valuation. Includes an introduction to statistical methods. (F, Sp)

## LING 3960 Honors Reading

1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Consists of topics designated by the instructor in keeping with the student's major program and will cover materials not usually presented in regular coursework. ( $\mathrm{F}, \mathrm{Sp}$ )
LING 3970 Honors Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Subjects covered vary. Deals with concepts not usually treated in regular courses. (Irreg.)

## LING 3980 Honors Research

1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Provides an opportunity for the gifted Honors candidate to work on a special project in his/her field. ( F , Sp )

LING 3990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: permission of instructor and junior standing. May be repeated once with change of content. Independent study may be arranged to study a subject not available through regular course offerings. (F, Sp, Su)
LING 4023 Second Language Acquisition Theory 3 Credit Hours (Slashlisted with 5023) Prerequisite: 2303 or four semesters foreign language. Multidisciplinary approach to second language acquisition. Treats child language, interlanguage, universal grammar, input, interaction, output, non-language influences and formal instruction. No student may earn credit for both 4023 and 5023. (F)
LING 4053 Morphology
3 Credit Hours
(Crosslisted with ANTH 4053) Prerequisite: 3053 and 3353. Introduces and develops theories and concepts of morphology including word formation, derivation, inflection, non-concatenative morphs, covert categories, prosodic phenomena, morphosyntactic categories and clitics. Data from non-Western languages will be prominent. (Irreg.)
LING 4173 Typology
3 Credit Hours
Prerequisite: LING 3053 and LING 3353. An introduction to the major results of morphosyntactic typology. Focuses on morphological typology (case marking/agreement) and on syntactic typology (the relation between case marking and grammatical relations, word order, and of three major constructions: passives, causatives, and relative clauses). ( $F$, Sp )

LING 4313 Techniques of Historical Linguistics 3 Credit Hours
Prerequisite: 3053 or Anthropology 3053, or permission. Brief survey of the development of historical linguistics, the comparative method, internal reconstruction, types of linguistic change, relationships between linguistic and cultural change, new developments in the field of historical linguistics. No student may earn credit for both 4313 and 5313. (Irreg.)

## LING 4330 Topics in Linguistics

## 1-4 Credit Hours

1 to 4 hours. Prerequisite: nine hours of linguistics; May be repeated with change of content; maximum credit nine hours. Topic areas will vary across theoretical and applied areas of linguistics. Some topics that are appropriate include socio-linguistics, psycho-linguistics, language acquisition, advanced syntax, advanced phonology, field phonetics, pragmatics, and comparative readings of twentieth-century theorists. (Irreg.)
LING 4363 Linguistic Field Methods
3 Credit Hours
(Slashlisted with 5363) Prerequisite: 2303, 3053, and 3353. An introduction to all phases of linguistic field techniques, including training in the selection of informants, the use of recording devices, and most important, the actual collection and analysis of linguistic materials. Students may not earn credit for both 4363 and 5363. (Irreg.)

## LING 4960 Directed Readings

1-4 Credit Hours
1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean. May be repeated; maximum credit four hours. Designed for upper-division students who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)

## LING 4970 Special Topics/Seminar

1-3 Credit Hours
1 to 3 hours. Prerequisite: Senior standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)
LING 4983 Senior Essay
3 Credit Hours
Prerequisite: LING 3053 and 3353 and senior standing. Development of a research paper which relates the linguistics major coursework to general knowledge. ( $\mathrm{F}, \mathrm{Sp}$ ) [V].
LING 4990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: three courses in general area to be studied; permission of instructor and department. May be repeated; maximum credit six hours. Contracted independent study for topic not currently offered in regularly scheduled courses. Independent study may include library and/or research and field projects. (F, Sp)
LING 5023 Second Language Acquisition Theory 3 Credit Hours (Slashlisted with 4023) Prerequisite: 2303 or four semesters foreign language. Multidisciplinary approach to second language acquisition. Treats child language, interlanguage, universal grammar, input, interaction, output, non-language influences and formal instruction. No student may earn credit for both 4023 and 5023. (F)
LING 5313 Techniques of Historical Linguistics
3 Credit Hours Prerequisite: 3053 or Anthropology 3053 or permission. Brief survey of the development of historical linguistics, the comparative method, internal reconstruction, types of linguistic change, relationships between linguistic and cultural change, new developments in the field of historical linguistics. No student may earn credit for both 4313 and 5313. (Irreg.)

LING 5363 Linguistic Field Methods
3 Credit Hours
(Slashlisted with 4363) Prerequisite: graduate standing or permission of instructor. An introduction to all phases of linguistic field techniques, including training in the selection of informants, the use of recording devices, and most important, the actual collection and analysis of linguistic materials. No student may earn credit for both 4363 and 5363. (Irreg.)
LING 5960 Directed Readings
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing and permission of department. May be repeated; maximum credit twelve hours. Directed readings and/or literature reviews under the direction of a faculty member. (F, Sp, Su)

LING 5970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

## LING 5980 Research for Master's Thesis

2-9 Credit Hours
Variable enrollment, two to nine hours; maximum credit applicable toward degree, nine hours. (F, Sp, Su)
LING 5990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing, permission of instructor. May be repeated; maximum credit twelve hours. Independent reading on one or more topics under the general direction of a faculty member. (F, Sp )

## LING 6960 Directed Readings

1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit six hours. Directed readings and/or literature review under the direction of a faculty member. (Irreg.)
LING 6970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit 12 hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or research and field projects. (Irreg.)

## LING 6990 Independent Study

1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)
MLLL 1003 Introduction to Chinese Myths \& Folklore 3 Credit Hours Through studying an eclectic selection of time-honored Chinese myth and folklore, along with their adaptations, transculturation, transmediation, and transformation in modern and contemporary periods, students in this class will not only gain a deeper understanding and appreciation of Chinese culture, but also develop abilities in nuanced reading and critical thinking. ( $F$ ) [IV-WDC].

MLLL 2970 Special Topics 1-3 Credit Hours
1 to 3 hours. Prerequisite: May be repeated; maximum credit nine hours. Special topics course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research, and field projects. (Irreg.)

MLLL 3043 Mythology and Folklore
3 Credit Hours
Prerequisite: junior standing or permission. Readings in folktales and myths from cultures around the world, with a focus on narrative structures and the role of the storyteller. Involves weekly reading and weekly writing assignments and a semester-long research project published on the internet. (No previous web publishing experience is required). (F, Sp) [IV-WC].

## MLLL 3063 Survey of Jewish Literature from Antiquity to the

 Present 3 Credit HoursPrerequisite: junior standing. Provides a survey of Jewish literature from the Hebrew Bible to contemporary American literature, presented as a journey in which stops will be made at important places, covering all significant periods, genres and prominent writers. (F) [IV-WC].

MLLL 3073 The Hebrew Bible as Literature 3 Credit Hours Prerequisite: ENGL 1213/Expo 1213. The Hebrew Bible is the best selling book in America every single year. We will explore its greatness by reading various Biblical texts such as a great novella, the Joseph story; the greatest religious conversion narrative, Ruth; the poetry of Psalms, and the rise of David from shepherd to king, as well as other favorites to be determined by class. (Sp) [IV-WC].

MLLL 3123 Russian Culture and Civilization
3 Credit Hours
Considers the historical and cultural heritage of Russia through a study of its geography, history, religion, language, literature and the fine arts. Allows students to appreciate the global perspectives and cultural diversity. [IV-WC] .
MLLL 3133 Soviet and Post-Soviet Cinema
3 Credit Hours
Prerequisite: junior standing. Familiarizes students with the history of film in the Soviet Union, from the silent movies of its beginnings to its manifestation at the present time. No previous knowledge of the Russian language is required. Russian social and political issues explored through film. (F, Su) [IV-WC] .

## MLLL 3143 Dostoevsky and His Age

3 Credit Hours
Prerequisite: junior standing. Examination of the life and literary works of Fyodor Dostoevsky, with special attention to the role the writer played in Russian and Western intellectual history. Reading assignments will include Crime and Punishment, The Brothers Karamazov, and several shorter works, all in English translation. (Irreg.) [IV-WC] .

## MLLL 3163 Chekhov

3 Credit Hours
Prerequisite: junior standing or permission. An introduction to Anton Chekhov's work in translation. Both short stories and plays will be read, studying their narrative structure, plot devices, character development, themes, and other elements, while placing Chekhov's work in its historical, cultural, and political context. Excerpts of various screen adaptations of his plays will also be viewed. (F) [IV-WC] .

MLLL 3173 Nabokov
3 Credit Hours
Prerequisite: junior standing or permission. An introduction to Vladimir Nabokov's work in English, including works translated from Russian as well as texts originally written in English. Focus will be on Nabokov's Novels; although, some short stories and poems will be included. The main methodology will center on applying the techniques of close textual analysis, while placing Nabokov's work in its historical, cultural, and political context. (F) [IV-WC] .

MLLL 3183 Tolstoy: Writer, Thinker, Social Critic 3 Credit Hours
Prerequisite: junior standing or permission of instructor. Introduction to Leo Tolstoy's work in translation. Traces Tolstoy's development as a writer of short stories, novels, and works of non-fiction. The writer's biography and significant aspects of nineteenth-century Russian society will inform discussions of Tolstoy's works, placing them in a broader context. In addition, students will explore Tolstoy's evolving religious, philosophical, and social ideas, as well as his legacy in Russia and throughout the world. (Irreg.) [IV-WC].

## MLLL 3193 Trauma, Memory, and Narrative

3 Credit Hours
Prerequisite: junior standing. Ways in which traumatic historical events have been depicted in works of literature, art, and historical texts, and their commemoration in museum displays and in public ritual. While the focus is on the history of the Soviet Union and Eastern Europe, students will be encouraged to consider equivalent examples from other areas of the globe. (Irreg.) [IV-WC].

MLLL 3223 Japan Through Film and Literature 3 Credit Hours Prerequisite: junior standing. Introduces Japanese post-war society and culture with emphasis on 1945 to the present, as reflected in film and literature. Students will examine essential issues, including class, family, gender, work, education, and minorities, paying attention to the struggles between traditional cultural values and modern society. (Irreg.) [IV-WDC] .
MLLL 3243 Readings in Arab/Islamic Heritage 3 Credit Hours
Prerequisite: Junior standing. Survey of Arab /Islamic from Pre-Islam until the fall of Andalusia. Students will read selections of pre-Islamic poetry, the Qur'an, prophetic tradition, law, sociology, architecture, food, fables, and folklore. (Sp) [IV-WDC].

## MLLL 3303 The World of Dante

3 Credit Hours
Prerequisite: Junior standing and English 1213. In this course students will engage in a close reading of a fundamental text in the western literary tradition: Dante Alighieri's Divine Comedy. The course will also consider one of Dante's minor works, the Vita Nuova, as well as the modern critical readings of Dante's writing and thought. In lectures, special attention will be paid to the historical, political, literary and intellectual context of Dante's poetry and thought. Students will also be asked to contribute to the classroom atmosphere by responding to questions and participating in discussions. (Irreg.) [IV-WC].

MLLL 3313 Introduction to Italian Literature and Culture 3 Credit Hours Prerequisite: English 1213 or EXPO 1213. Interdisciplinary approach to literature, culture, and history of the Italian peninsula, from the Middle Ages to the present day. Through major works of literature, political science, the visual arts, music, and cinema, students will set Italy's variegated literary and cultural expressions in their social and historical contexts. (F) [IV-WC].
MLLL 3323 Language, Culture, and Identity in the Middle East and North Africa 3 Credit Hours
Prerequisite: Junior standing. Introduction to the relationship between language, society, and identity in the Middle East and North Africa (MENA), with an emphasis on theoretical and methodological approaches from sociolinguistics and linguistic anthropology. (Sp) [IV-WDC].
MLLL 3343 Italian Pop Culture
3 Credit Hours
Prerequisite: Junior standing or permission of instructor. An examination of Italian culture after WW2 through cinema, television, comics, popular literature, and more. (Sp) [IV-WC].

MLLL 3373 Italian Cinema
3 Credit Hours
Prerequisite: junior standing and English 1213. The aim of this course is to develop interpretive skills relevant to the study of Italian cinema by examining some of its most significant films. More specifically, we will analyze the ways in which Italian society is portrayed and typified in Italian cinema. We will cover the major film movements and periods, from "cinema muto" to Neorealism, from "commedia all Italiana" to the Italian horror genre and to the most recent works made by contemporary directors. (Irreg.) [IV-AF] .
MLLL 3393 Italian Cultural Literacy
3 Credit Hours
Prerequisite: junior standing or permission of instructor. Introduces students studying abroad in the OU in Arezzo semester program to important aspects of Italian culture and history. Students will gain an ability to engage with Italian cultural phenomena and interact with native Italian speakers. No previous knowledge of Italian is required. The cultural part of the course will be taught in English. (F, Sp, Su)

MLLL 3413 Arabic Literature and Culture
3 Credit Hours
Prerequisite: junior standing. A survey of Arabic literature tradition and cultural history from the 4th century to the present. Covers themes and genres of the cultural heritage of Arabic-Islamic civilization, continuities and discontinuities between the classical and modern period, and background political and social changes. (F) [IV-WDC].
MLLL 3440 Mentored Research Experience
3 Credit Hours
0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)

MLLL 3443 Islamic Culture in the United States
3 Credit Hours
Prerequisite: Junior Standing or Permission of the Instructor. This course introduces students to the historical development and cultural growth of Islam and Muslims in the US. Students will learn about the specific experiences and struggles of African, Asian, and Arab immigrants throughout American history. Students will also explore the role of American Muslims in reconciling ethnic differences and racial discrimination, advancing empowerment and advocacy, and engaging with self-representation. (F) [IV-WDC].
MLLL 3523 Survey of Russian Literature to 1917 in
Translation

## 3 Credit Hours

Prerequisite: junior standing. Reading, analysis and discussion of key works of Russian 19th century literature, including the major novels, plays, and poetry selections in English translation. This course does not satisfy the third semester Arts and Sciences language requirement. (F) [IV-WC].
MLLL 3533 Survey of Russian Literature from 1917 in
Translation
3 Credit Hours
Prerequisite: junior standing or permission of instructor. Representative works of Soviet and post-Soviet literature are read and discussed. Selections of prose and poetry chosen from among symbolists, acmeists, futurists, populists, modernists, and post-modernists. This course does not satisfy the third semester Arts and Sciences language requirement. (Irreg.) [IV-WC] .

[^13]MLLL 3553 Contemporary Russian Literature 3 Credit Hours
Prerequisite: junior standing. Explores major works of post-Soviet Russian literature. Students will become familiar with major figures and trends in contemporary Russian poetry and prose, and they will acquire critical vocabulary for analyzing works in any genre or national literary tradition. (Irreg.) [IV-WC].

MLLL 3573 Arthurian Legend and Literature 3 Credit Hours
(Crosslisted with ENGL 3573) Examination of the legend of King Arthur in European literature. Concentrate first on the historical Arthur, followed by major portion of semester on the medieval and modern literary texts concerning Arthur and the Round Table. All texts will be read in English translation. [IV-WC] .

MLLL 3623 Pre-Modern Japanese Literature and Culture 3 Credit Hours Prerequisite: junior standing. A survey of Japanese literature from ancient time to the Meiji restoration. Covers prominent works of poetry and prose in English translation. Students are introduced to traditional genres, themes, rhetorical device and aesthetics, as well as socio-historical context of literary production. (Irreg.) [IV-WDC] .
MLLL 3633 Modern Japanese Literature and Culture 3 Credit Hours Prerequisite: junior standing. A survey of Japanese literature from the Meiji restoration (1868) onward, with attention to social, political, and cultural issues as well as literary theory. Topics will include Japan's "westernization," "naturalism," proletarian literature movements, early post-war literature, and the "third new generation writers." (Sp) [IV-WDC].

## MLLL 3663 Japanese Cinema

3 Credit Hours
Prerequisite: Junior standing. This course examines the development of Japanese film form and content, and of the cultural and political transformations imbricated with those developments. We will explore the place of cinema in shaping Japanese modernity; the silent era; cinema during World War II; the Golden Age of the 1950s, and the globalization of Japanese films in the decades after. (Irreg.) [IV-WDC].
MLLL 3673 Anime: the World of Japanese Animation 3 Credit Hours (Crosslisted with FMS 3673) Prerequisite: Junior standing. This course explores the history and development of Japanese animation, or "anime". It examines how animation was brought to Japan, and how it developed prior to the Second World War, and then further in the postwar decades. We will highlight how despite being influenced by foreign sources, Japanese animators create a uniquely Japanese mode of image-making. (Irreg.) [IV-WDC].

## MLLL 3683 Traditional Japanese Poetry and Poetics in <br> Translation <br> 3 Credit Hours

Prerequisite: Junior standing and ENGL/EXPO 1213. This course examines the long history and tradition of poetry in premodern Japan, and the philosophies and culture surrounding it. We explore poetry in both vernacular Japanese and Classical Chinese from Japan before the eighteenth century, and how poets and critics understood it. We will also try our own hands at making poems before compiling them into an anthology. (Sp)
MLLL 3753 Modern Chinese Literature and Culture 3 Credit Hours Prerequisite: junior standing. Students will read Chinese literary texts in English translation and learn about the historical, political, social, and cultural contexts in which they were produced. (Sp) [IV-WDC].

MLLL 3763 Chinese Cinema
3 Credit Hours
Prerequisite: junior standing. Chinese films covering a wide range of historical periods and subjects will be viewed. The films screened in this class will be studied as reflections of their respective social, as well as the filmmakers' comments on and interventions of such realities. Cinematic concepts, techniques, and film theories, will be studied. (Sp) [IV-WDC].
MLLL 3823 German Culture and Thought
3 Credit Hours
Prerequisite: junior standing. Introduces major themes in German cultural history and analytical tools students can bring to the further study of German and/or other European literatures and cultures in translation. Specific topics may vary. (F) [IV-WC] .

MLLL 3960 Honors Reading 1-3 Credit Hours 1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Will consist of topics designated by the instructor in keeping with the student's major program. The topics will cover materials not usually presented in the regular courses. (F, Sp)
MLLL 3970 Honors Seminar 1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Subjects covered vary. Deals with concepts not usually treated in regular courses. (Irreg.)
MLLL 3980 Honors Research 1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Provides an opportunity for the Honors candidate to work on a special project in the student's field. (F, Sp)
MLLL 3990 Independent Study
1-3 Credit Hours 1 to 3 hours. Prerequisite: permission of instructor and junior standing. May be repeated once with change of content. Independent study may be arranged to study a subject not available through regular course offerings. (F, Sp, Su)

MLLL 3993 Contemporary Brazilian Film
3 Credit Hours
Prerequisite: Junior Standing. In this class students will get an overview of cinema recently produced in Brazil. Besides an analysis of the films themselves, in classes we will consider both the context in which the movies were produced, and the specific context presented in each, always in comparative fashion. All movies are available for watching online on canvas or on appropriate platforms. (Sp) [IV-WC].

MLLL 4003 Movements in World Literature
3 Credit Hours
(Crosslisted with ENGL 4003) Prerequisite: junior standing. May be repeated with change of subject matter; maximum credit nine hours. Focuses on texts within a literary movement (literature other than canonical American or British). Also attention to critical and theoretical questions about concepts such as genre, nation, national building, national identity, etc. (Irreg.) [IV-WC] .

MLLL 4063 Early Literary Criticism
3 Credit Hours
(Slashlisted with 5063) Prerequisite: junior standing and English 1213. Establishes a solid critical foundation of aesthetics that will enable graduate and advanced undergraduate students to deal with fundamental ideas; aesthetic and social. Emphasis on rhetoric and discourse during the second part of the semester will also enable all students to write strategically and develop effective communication skills. No student may earn credit for both 4063 and 5063. (F)

MLLL 4113 Cultures in Portuguese: Brazil, Portugal, and Beyond

3 Credit Hours
Prerequisite: minimum of 30 hours earned. Survey of cultures that speak Portuguese, focusing on the best cultural production in Portuguese from Europe, the Americas, and Africa. Students will compare and contrast these cultures, which will be presented in literature, cinema and the arts. Students will see how Western and non-Western cultural elements interact and influence each other in these cultures, creating interesting and exciting hybrids. (F) [IV-WC].
$\begin{array}{lll}\text { MLLL } 4173 & \text { Introduction to Francophone Literatures in } \\ \text { Translation } & 3 \text { Credit Hours }\end{array}$
Prerequisite: junior standing. Examines the literary, social, and political issues forefronted by the Francophone literatures of West Africa, the Caribbean, and Polynesian Islands, Maghreb (chiefly Algeria, Tunisia, Morocco), and Quebec. (Sp) [IV-WDC].

## MLLL 4453 Introduction to Chinese Language and Linguistics 3 Credit Hours

 Prerequisite: Chinese 1115 and Chinese 1225, or LING/ANTH 2303 and LING 3033. Introduction to the structure of the Chinese language and its sociocultural meanings, with an emphasis on phonology, morphology, syntax, the writing system, and the language's interaction with culture and society. (F)
## MLLL 4553 Lat America in its Lit: The Search for a Latin-American Identity <br> 3 Credit Hours

Prerequisite: junior Standing. The course fosters an understanding of the political nature, impetus and implications of Latin-American literature. It examines stereotypes and the basis upon which they are constructed and develops an awareness of the varied identities reflected in Latin-American literature. (F)

## MLLL 4753 The Chinese Way of Thinking: Language, Culture, \& Cognition <br> 3 Credit Hours

Prerequisite: Junior standing. How do languages/cultures shape the ways we think? Does learning new languages change the way you think? This course introduces the cognitive view of language use in Chinese and how it plays a critical role in mind-shaping in its cultural context. It also pursues a cross-linguistic/cross-cultural perspective on the study of Chinese languages as a window into cognition and culture. (Irreg.) [IVWDC].

## MLLL 4813 Principles and Techniques of Teaching a Foreign Language <br> 3 Credit Hours

(Slashlisted with MLLL 5813) Prerequisite: four semesters of a foreign language or admission to the foreign language education major. Provides participants with practical experience in the teaching of foreign languages and introduces key issues in the teaching of foreign languages. Also introduces issues in teaching methodology and key issues in classroom language acquisition research. No student may earn credit for both 4813 and 5813. (F, Sp)

## MLLL 4883 Puterbaugh/Neustadt International Literature 3 Credit Hours

(Slashlisted with MLLL 5883; Crosslisted with ENGL 4883) Prerequisite: ENGL 1213 and permission of department; May be repeated with a change of content, maximum credit nine hours. In-depth study of selected contemporary international writers/jurors who visit OU campus as part of the Neustadt and/or Puterbaugh symposia for World Literature Today. No student may earn credit for both 4883 and 5883. (Irreg.)

MLLL 4950 Special Topics in World Literature Today 1-3 Credit Hours 1 to 3 hours. Prerequisite: English 1213 and permission of instructor. May be repeated with change of content; maximum credit six hours. Indepth study of selected contemporary international writers/jurors who visit campus as part of the Neustadt and/or Puterbaugh symposiums for world literature today. (Irreg.)

MLLL 4960 Directed Readings

## 1-4 Credit Hours

1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean. May be repeated; maximum credit four hours. Designed for upper-division students who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)
MLLL 4970 Seminar 1-4 Credit Hours
1 to 4 hours. Prerequisite: permission of instructor. May be repeated with change of content; maximum credit six hours. Varied topics in literature in English translation. (Irreg.)

MLLL 4990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: Senior standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)

MLLL 4993 Epics of India: Ramayana and Mahabarata 3 Credit Hours Prerequisite: junior standing. Reading of the two great epics of India. Special attention will be paid to narrative structure and the role of the storyteller. The course involves extensive weekly reading along with weekly writing assignments and a semester-long research project which students will publish on the internet (no previous web publishing experience is required. (Sp) [IV-WDC] .

MLLL 5063 Early Literary Criticism
3 Credit Hours
(Slashlisted with 4063) Prerequisite: graduate standing. Establishes a solid critical foundation of aesthetics that will enable graduate and advanced undergraduate students to deal with fundamental ideas; aesthetic and social. Emphasis on rhetoric and discourse during the second part of the semester will also enable all students to write strategically and develop effective communication skills. No student may earn credit for both 4063 and 5063. (F)
MLLL 5073 Contemporary Literary Criticism 3 Credit Hours An introduction to contemporary linguistic, psychoanalytic and sociological literary theory and criticism. Readings and discussions will include questions of methodology and will demonstrate how these methods can be applied to particular texts. (Sp)
MLLL 5173 Introduction to Francophone Literatures in Translation

3 Credit Hours
Prerequisite: graduate standing. Examines the literary, social, and political issues fore-fronted by the Francophone literatures of West Africa, the Caribbean, and Polynesian Islands, Maghreb (chiefly Algeria, Tunisia, Morocco), and Quebec. (Sp)

## MLLL 5813 Principles and Techniques of Teaching a Foreign Language <br> 3 Credit Hours

(Slashlisted with MLLL 4813) Prerequisite: graduate standing. Provides participants with practical experience in the teaching of foreign languages and introduces key issues in the teaching of foreign languages. Also introduces issues in teaching methodology and key issues in classroom language acquisition research. No student may earn credit for both 4813 and 5813. ( $\mathrm{F}, \mathrm{Sp}$ )

MLLL 5883 Puterbaugh/Neustadt International Literature 3 Credit Hours
(Slashlisted with MLLL 4883; Crosslisted with ENGL 5883) Prerequisite: Graduate standing and permission of department; May be repeated with a change of content; maximum credit nine hours. In-depth study of selected contemporary international writers/jurors who visit OU campus as part of the Neustadt and/or Puterbaugh symposia for World Literature Today. No student may earn credit for both 4883 and 5883. (Irreg.)

## MLLL 5910 Problems in Research

2-4 Credit Hours
2 to 4 hours. Prerequisite: permission of instructor. May be repeated with change of content; maximum credit fours hours. An individual course of intensive research with the area and problem to be determined by the student and directing instructor. (Irreg.)
MLLL 5920 Field Research in Foreign Language Education 1-3 Credit Hours
1 to 3 hours. Prerequisite: 5833. Classroom oriented field research on the use of various methods of teaching foreign language in the classroom. Possible topics include aspects of language acquisition, evaluation, proficiency, communicative methods in foreign language education. ( F , $\mathrm{Sp}, \mathrm{Su}$ )
MLLL 5960 Directed Readings 1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing and permission of department. May be repeated; maximum credit twelve hours. Directed readings and/or literature reviews under the direction of a faculty member. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
MLLL 5970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

## MLLL 5990 Independent Study

1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)

## PORT 1115 Beginning Portuguese

5 Credit Hours
Develop the skills necessary to grasp fundamental principles of Portuguese and Luso-Brazilian culture, and to acquire basic proficiency in the four skills of language learning: listening, speaking, reading and writing. This course does not count for major credit in the Department of Modern Languages, Literatures and Linguistics. (F, Sp) [I-FL].
PORT 1225 Beginning Portuguese Continued 5 Credit Hours
Prerequisite: 1115. Give continuity to the skills acquired during the first semester of Portuguese in order to become more fluent in the spoken language as well as more proficient in writing. This course does not count for major credit in the Department of Modern Languages, Literatures and Linguistics. (F, Sp) [l-FL].

## PORT 2113 Intermediate Portuguese

3 Credit Hours
Prerequisite: 1225. Develops reading skills and control of grammar while cultivating depth of oral and writing ability. Emphasis on expansion of vocabulary and strong reinforcement of grammatical structures. Reading and discussion of texts of literary and cultural interest. Oral and written assignments. (F, Sp)

PORT 2223 Intermediate Portuguese (Continued) 3 Credit Hours
Prerequisite: 2113. Refines reading skills and mastery of grammar.
Emphasis on sophisticated vocabulary and understanding of
grammatical structures. Literary and cultural texts discussed in oral and essay form. (F, Sp)
PORT 2970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: May be repeated; maximum credit nine hours. Special topics course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research, and field projects. (Irreg.)
PORT 3113 Advanced Portuguese
3 Credit Hours
Prerequisite: 2223. Develops further reading skills and control of grammar, cultivates speaking and writing ability, and exposes students to a wide range of topics covered daily by Brazilian newspapers and magazines. (F)
PORT 3223 Advanced Portuguese Continued
3 Credit Hours
Prerequisite: 3113 . Continuation of 3113 . Develops further reading skills and control of grammar while cultivating depth of oral and writing ability. Exposes the student to a wide range of topics covered daily by Brazilian newspapers and magazines. ( Sp )
PORT 3440 Mentored Research Experience
3 Credit Hours
0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)
PORT 3960 Honors Reading 1-3 Credit Hours
1 to 3 hours. Prerequisite: Admission to Honors Program. May be repeated; maximum credit six hours. Consists of topics designated by the instructor in keeping with the student's major program. The topics will cover materials not usually presented in the regular courses. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

## PORT 3970 Honors Seminar

1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Subjects covered vary. Deals with concepts not usually treated in regular courses. (Irreg.)
PORT 3980 Honors Research 1-3 Credit Hours
1 to 3 hours. Prerequisite: Admission to Honors Program. May be repeated; maximum credit six hours. Will provide an opportunity for the gifted Honors candidate to work at a special project in the student's field. (F, Sp, Su)
PORT 3990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: one course in general area to be studied; permission of instructor and department. May be repeated; maximum credit six hours. Contracted independent study for topic not currently offered in regularly scheduled courses. ( $F, S p$ )
PORT 4960 Directed Readings 1-4 Credit Hours
1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean. May be repeated; maximum credit four hours. Designed for upper-division students who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)
PORT 4970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: Senior standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

PORT 4990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: one course in general area to be studied; permission of instructor and department. May be repeated; maximum credit six hours. Contracted independent study for topic not currently offered in regularly scheduled courses. (F, Sp)

## RUSS 1115 Beginning Russian

5 Credit Hours
An elementary course in understanding, speaking, reading and writing
Russian. This course does not count for major credit in the Department of Modern Languages, Literatures and Linguistics. (F, Sp, Su) [I-FL].
RUSS 1225 Beginning Russian (Continued) 5 Credit Hours Prerequisite: 1115. An elementary course in understanding, speaking, reading and writing Russian. This course does not count for major credit in the Department of Modern Languages, Literatures and Linguistics. (F, $\mathrm{Sp})[I-F L]$.
RUSS 2113 Intermediate Russian 3 Credit Hours
Prerequisite: 1225. Training in reading, writing, speaking, and understanding contemporary Russian. Emphasis on expansion of vocabulary and strong reinforcement of grammatical structures. (F, Sp)

RUSS 2223 Intermediate Russian (Continued) 3 Credit Hours
Prerequisite: 2113. Continued training in reading, writing, speaking, and understanding contemporary Russian. Emphasis on expansion of vocabulary and strong reinforcement of grammatical structures. (F, Sp)
RUSS 2970 Special Topics/Seminar
1-3 Credit Hours
Special Topics. 1 to 3 hours. May be repeated; maximum credit nine hours. Special topics course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research, and field projects. (Irreg.)

RUSS 3023 Beginning Business Russian
3 Credit Hours
Prerequisite: twenty hours of Russian. Intended to enable Russian students to read, write, and translate business Russian. Readings in this course will consist of translating contracts, agreements, and other areas of commercial correspondence. (Irreg.)
RUSS 3073 Russian Conversation
3 Credit Hours
Prerequisite: RUSS 2113. Training in reading, writing, and understanding
contemporary Russian. Emphasis on expansion of vocabulary and strong reinforcement of grammatical structures. (F, Sp)
RUSS 3313 Russian Phonetics
3 Credit Hours
Prerequisite: 2113. A detailed study of the sounds of Russian and the inculcation of proper speech habits. (Irreg.)
RUSS 3323 Advanced Russian Reading and Composition 3 Credit Hours Prerequisite: 2223. A systematic grammar review with a view toward improving the student's control of written Russian. (F)

RUSS 3423 Advanced Russian Reading and Composition
(Continued) 3 Credit Hours
Prerequisite: 3323. A systematic grammar review with a view toward improving the student's control of written Russian. (Sp)
RUSS 3440 Mentored Research Experience 3 Credit Hours
0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)

RUSS 3523 Interpreting the Russian Media 3 Credit Hours
Prerequisite: 2223. Focus on developing higher-level receptive and productive language skills through an exposure to authentic texts from Russian print media and television news reports. Students will focus on vocabulary-building, recognizing and employing journalistic conventions, reading between the lines, understanding nuance and enhancing their awareness of cultural references. (Irreg.)
RUSS 3533 Russian Pop Culture 3 Credit Hours
Prerequisite: RUSS 2223. A communicative language class in which students explore contemporary Russian-language popular music, television programming, and internet culture. (Irreg.)
RUSS 3960 Honors Reading 1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Consists of topics designated by the instructor in keeping with the student's major program. The topics will cover materials not usually presented in the regular courses. (F, Sp, Su)

## RUSS 3970 Honors Seminar

1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. The projects covered will vary. The content will deal with concepts not usually covered in regular coursework. (Irreg.)
RUSS 3980 Honors Research 1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Provides an opportunity for the gifted Honors candidate to work at a special project in the student's field. (F, Sp)
RUSS 3990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: one course in general area to be studied; permission of instructor and department. May be repeated; maximum credit six hours. Contracted independent study for topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (F, Sp)

## RUSS 4173 Topics in Nineteenth-Century Russian Literature and Culture <br> 3 Credit Hours

Prerequisite: 3423. May be repeated once with change of content; maximum credit six hours. A course for advanced students of the Russian language. All reading assignments and lectures will be in Russian. (F)

RUSS 4183 Topics in 20th and Post-20th Century Russian Literature and Culture 3 Credit Hours
Prerequisite: 3423. May be repeated once with change of content; maximum credit six hours. A course for advanced students of the Russian language. All reading assignments and lectures will be in Russian. (Sp) [V].
RUSS G4613 Advanced Russian Conversation 3 Credit Hours
Prerequisite: 3073, 3323. Conversation on topics in Soviet history, government, literature and sociology with emphasis on the particular terminology of each of these fields. (Sp)
RUSS 4960 Directed Readings 1-4 Credit Hours
1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean. May be repeated; maximum credit four hours. Designed for upper-division students who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)

RUSS 4970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: Senior standing or permission of instructor. May be repeated; maximum credit nine hours. Special Topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

## RUSS 4990 Independent Study

1-3 Credit Hours
1 to 3 hours. Prerequisite: three courses in general area to be studied; permission of instructor and department. May be repeated; maximum credit six hours. Contracted independent study for topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (F, Sp)

## RUSS 5910 Problems in Research <br> 2-4 Credit Hours

2 to 4 hours. May be repeated with change of content; maximum credit nine hours. An individual course of intensive research with the area and problem to be determined by the student and directing instructor. (F, Sp)

## RUSS 5960 Directed Readings <br> 1-3 Credit Hours

1 to 3 hours. Prerequisite: graduate standing and permission of department. May be repeated; maximum credit twelve hours. Directed readings and/or literature reviews under the direction of a faculty member. (F, Sp, Su)

## RUSS 5970 Special Topics/Seminar

1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

## RUSS 5990 Independent Study

1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)

SPAN 1115 Beginning Spanish
5 Credit Hours
An elementary course in understanding, speaking, reading and writing Spanish. Laboratory. This course does not count for major credit in the Department of Modern Languages, Literatures and Linguistics. (F, Sp, Su) [I-FL].
SPAN 1225 Beginning Spanish (Continued) 5 Credit Hours
Prerequisite: 1115. An elementary course in understanding, speaking, reading and writing Spanish. Laboratory. This course does not count for major credit in the Department of Modern Languages, Literatures and Linguistics. (F, Sp, Su) [I-FL] .

## SPAN 2113 Intermediate Spanish

3 Credit Hours
Prerequisite: 1225 or equivalent. Develops reading skills and control of grammar while cultivating depth of oral and writing ability. Emphasis on expansion of vocabulary and strong re-enforcement of grammatical structures. Reading and discussion of texts of literary and cultural interest. Oral and written assignments. (F, Sp, Su).

SPAN 2223 Intermediate Spanish Continued
Prerequisite: 2113. Refines reading skill and mastery of grammar.
Emphasis on sophisticated vocabulary and understanding of grammatical structures. Literary and cultural texts discussed in oral and essay form. (F, Sp, Su)

SPAN 2603 Spanish for Social Work Majors
3 Credit Hours
Prerequisite: social work major and SPAN 1225 or equivalent. Designed to prepare students for an intermediate proficiency in Spanish. An expansion of vocabulary and grammatical structure used in practice settings commonly experienced by social workers is emphasized. This course may not count for credit for any major other than social work. ( $F$, Sp)

SPAN 2970 Special Topics/Seminar
1-3 Credit Hours
Special Topics. 1 to 3 hours. May be repeated; maximum credit nine hours. Special topics course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research, and field projects. (Irreg.)

SPAN 3073 Grammar in Conversational Communication 3 Credit Hours Prerequisite: SPAN 2223. Aim is to improve students' conversational skills through an active use of the Spanish language. By using a contextualized content-based approach, focuses on seven core communicative functions and engages in meaningful communicative practices through listening and speaking activities related to cinema and other forms of cultural production. (F, Sp)

SPAN 3423 Grammar in Written Communication
3 Credit Hours
Prerequisite: SPAN 2223. Further develops communicative abilities as well as increasing students' knowledge and ability to produce a variety of forms of cultural production in the Spanish language. Writing as a process that includes brainstorming, organization, outline, drafts and revisions will be learned. Familiarity with authentic texts written in different styles will be developed. (F, Sp)

SPAN 3440 Mentored Research Experience 3 Credit Hours 0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)

SPAN 3723 Business Spanish
3 Credit Hours
Prerequisite: SPAN 3073. Designed to develop an understanding of the business cultures of Latin America and Spain. Methods for communicating with Spanish-speaking companies or customers will be learned. In addition, linguistic and intercultural skills that will enable students to perform different commercial transactions, as well as attend a trade fair to meet potential customers, will be learned. This course includes a service learning component. (F, Sp)
SPAN 3733 Medical Spanish
3 Credit Hours
Prerequisite: SPAN 3073. Develops new critical perspectives on health care for the Hispanic community in the United States. Develops medical language skills and cultural competency for health care situations in order to allow for more effective communication with Spanish-speaking patients and their families. Introduces essential medical vocabulary, practical reference information, and medical notes written from a crosscultural perspective. (F, Sp)

SPAN 3743 Legal Spanish
3 Credit Hours
Prerequisite: SPAN 3073. Provides an overview of the Spanish language in the legal context. Spanish legal terminology and conversational topics in areas such as civil rights, employment law, family law, immigration law, and human rights will be studied. Legal texts and arguments in order to discuss their implications for the Spanish community in the United States will be examined. (F, Sp)

SPAN 3753 Spanish for Social Work
3 Credit Hours
Prerequisite: SPAN 3073. Addresses students' needs in the area of social work. Spanish terminology and conversational topics related to social services will be examined. Includes an exploration of current policy issues and emerging social needs affecting Spanish-speaking families in Oklahoma, as well as resources available to this group, and gaps in services. ( $\mathrm{F}, \mathrm{Sp}$ )
SPAN 3763 Spanish for Journalism 3 Credit Hours Prerequisite: SPAN 3073. An introduction to the exciting world of journalism in Spanish. Explores the ingredients of news and news gathering as well as how to tell stories in Spanish across media platforms (print, radio, television, etc.). How to cover a variety of people, places, things, events, and issues associated with the Hispanic community in the United States will be learned. ( $\mathrm{F}, \mathrm{Sp}$ )
SPAN 3853 Introduction to Hispanic Literature and Culture

3 Credit Hours
Prerequisite: SPAN 2223. Initiates students into the literatures and cultures of the Hispanic world, both in Spain and Latin America. Teaches how to analyze literature by literary genres and movements. Emphasis on all four language skills (hearing, speaking, reading, and writing) and culture. (F, Sp)
SPAN 3960 Honors Reading 1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Consists of topics designated by the instructor in keeping with the student's major program. The topics will cover materials not usually presented in the regular courses. ( $\mathrm{F}, \mathrm{Sp}$ )

## SPAN 3970 Honors Seminar <br> 1-3 Credit Hours

1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. The projects covered will vary. The content will deal with concepts not usually presented in regular coursework. (F, Sp, Su)

## SPAN 3980 Honors Research

1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Provides an opportunity for the gifted Honors candidate to work at a special project in the student's field. (F, Sp)

## SPAN 3990 Independent Study <br> 1-3 Credit Hours

1 to 3 hours. Prerequisite: one course in general area to be studied; permission of instructor and department. May be repeated; maximum credit six hours. Contracted independent study for topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (F, Sp, Su)

## SPAN 4083 Literature and Culture of Spain

3 Credit Hours
Prerequisite: SPAN 3853. May be repeated with change of content; maximum credit nine hours. Introduces the literature and culture of Spain. It covers canonical texts from the Early to the Early Modern Period. It also emphasizes culture throughout its rich history. Like all other courses in Spanish, it emphasizes as well all four language skills (hearing, speaking, reading, and writing) and culture. ( $F, S p$ )
SPAN 4113 Literature and Culture of Latin America 3 Credit Hours Prerequisite: SPAN 3853. May be repeated with change of content; maximum credit nine hours. Introduces the literature and culture of Latin America. Covers canonical texts from the Early (Colonial) to the Early Modern (Postmodern) Period. Also emphasizes culture throughout its varied history. Like all other courses in Spanish, it stresses as well all four language skills (hearing, speaking, reading, and writing) and culture. (F, Sp )

SPAN 4143 Transatlantic Literature and Culture 3 Credit Hours
Prerequisites: SPAN 3853. May be repeated with change of content; maxim credit nine hours. Introduces the literature and culture of Spain and Spanish America. Covers canonical texts from the Early, the Early Modern, and the Modern (Postmodern) Period. Also emphasizes culture throughout the ages in its ample history. Like all other courses in Spanish, it stresses as well all four language skills (hearing, speaking, reading, and writing) and culture. (F, Sp)
SPAN 4173 Regional Literature and Cultures
3 Credit Hours
Prerequisite: SPAN 3853. May be repeated with change of content; maximum credit nine hours. Introduces the literature and cultures of specific regions in Spain or Spanish America. Covers canonical texts from the Early to the Early Modern Period. May focus on a specific literary genre, or several, theme, or movement. Like all other courses in Spanish, it emphasizes as well all four language skills (hearing, speaking, reading, and writing) and culture. ( $\mathrm{F}, \mathrm{Sp}$ )
SPAN 4183 Senior Capstone
3 Credit Hours
Prerequisite: 3853, Spanish major and senior standing. Synthesis of Hispanic contributions to world literature and culture. ( $\mathrm{F}, \mathrm{Sp}$ ) [V] .
SPAN G4313 Spanish Civilization
3 Credit Hours
Prerequisite: 3423 , History 2613 or 2623. Spanish cultural heritage from the beginnings to the present day. ( Sp )

SPAN 4503 Hispanic Cinema Studies
3 Credit Hours
Prerequisite: SPAN 3423. May be repeated with change of content; maximum credit nine hours. Introduces film culture of the Hispanic world. Covers classical and contemporary films from the five main areas producing film (Spain, Mexico, Brazil, Cuba, and Argentina) as well as from other Hispanic regions. (F, Sp)
SPAN 4713 History of the Spanish Language 3 Credit Hours
(Slashlisted with SPAN 5713) Prerequisite: SPAN 3853. As an introduction to historical Spanish Linguistics, the basic patterns of the evolution of Modern Spanish from Vulgar Latin, as shown in several major literary texts will be learned. Provides an understanding of how the Modern Spanish sound system evolved from the Vulgar Latin of the Iberian Peninsula. Emphasizes all four language skills (hearing, speaking, reading, and writing) and culture. No student may earn credit for both 4713 and 5713. (F, Sp)
SPAN 4773 Topics in Spanish Linguistics
3 Credit Hours
Prerequisites: SPAN 3073 and SPAN 3423. May be repeated with change of content; maximum credit nine hours. Introduces the role of meaning in the structure, function, and use of the language and focuses on the core aspects of the representation of meaning in Spanish. Examines how Spanish speakers combine basic linguistic units into larger linguistic expressions that allow them to represent the complex aspects of reality and thought in this language. ( $\mathrm{F}, \mathrm{Sp}$ )
SPAN 4913 The Structure of the Spanish Language 3 Credit Hours Prerequisite: SPAN 3073 and SPAN 3423. Aims to improve students' formal knowledge of the Spanish language. Principal articulatory properties of the Spanish sounds, Spanish morphology such as word formation and word categories, and Spanish syntax and semantics will be examined. Topics related to social issues and Spanish variation, and in particular, to its situation in the United States will be explored. (F, Sp)

SPAN 4923 Teaching of Spanish in the United States 3 Credit Hours (Slashlisted with SPAN 5923) Prerequisite: SPAN 3073 and SPAN 3423. A theoretical and practical introduction to teaching of Spanish in the United States. The theoretical component of the course incorporates major contemporary notions about Second Language Acquisition (SLA) and Second Language Teaching (SLT). The practical component of the course focuses on professional development as an instructor, roles of instructor and student, and day-to-day classroom activities. No student may earn credit for both 4923 and 5923. (F, Sp)

SPAN 4933 Spanish Literary Translation 3 Credit Hours Prerequisite: SPAN 3423 and SPAN 3853. Introduces effective literary translation techniques from Spanish to English, paying particular attention to the role of meaning in the structure, function, and use of Spanish as it transfers to English and how texts written in Spanish combine basic linguistic units into larger linguistic expressions that allow them to represent the complex aspects of reality and thought in language. (F, Sp)

## SPAN 4960 Directed Readings

1-4 Credit Hours
1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean. May be repeated; maximum credit four hours. Designed for upper-division students who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)

## SPAN 4970 Special Topics/Seminar <br> 1-3 Credit Hours

1 to 3 hours. Prerequisite: Senior standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)
SPAN 4990 Independent Study 1-3 Credit Hours
1 to 3 hours. Prerequisite: three courses in general area to be studied; permission of instructor and department. May be repeated; maximum credit six hours. Contracted independent study for topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (F, Sp, Su)
SPAN 5113 Traditional Novel in Spanish America: Romanticism to Vanguard 3 Credit Hours
Prerequisite: graduate standing or permission of instructor. Beginning with the earliest forms of long prose, the course treats the Romantic novel, the Naturalistic novel, the Novel of the Land, and the Indianist novel. Representative texts of each mode will provide a thorough grounding in the characteristics of the different forms of prose. (Irreg.)

SPAN 5203 Prose Fiction of Cervantes-The Quijote 3 Credit Hours Prerequisite: graduate standing or permission of instructor. Style, structure, content, and fundamental criticism of Cervantes' masterpiece. (Irreg.)
SPAN 5353 Studies in Renaissance and Baroque Drama 3 Credit Hours Prerequisite: graduate standing or permission of instructor. May be repeated once with change of content; maximum credit six hours. The theatre of the Spanish siglo de oro. Works by Lope de Vega, Ruiz de Alarcón, Tirson de Molina, Calderón de la Barca, and others. Comedia theory and special topics such as kingship, honor, God. (Irreg.)

SPAN 5413 The Spanish-American Novel of the PostBoom

3 Credit Hours
Prerequisite: graduate standing or permission of instructor. Beginning with novels that are reactions to the new novel, often by the same novelists, the course treats the different forms that have characterized the novel in Spanish America since the seventies. The novelists portray ordinary characters whose quiet desperation and existential suffering is portrayed different from the new novel. (Irreg.)
SPAN 5423 The Spanish-American Essay
3 Credit Hours
The main currents of Spanish-American thought as they appear in the essay, from Simon Bolivar to the present. (Irreg.)
SPAN 5433 Spanish-American Drama 3 Credit Hours
Prerequisite: graduate standing or permission of instructor. The study of the canonical works tracing the development of Spanish-American drama from colonial times to the present. (Irreg.)

SPAN 5443 Post-Modernista Poetry in Spanish America 3 Credit Hours Prerequisite: Graduate standing. A survey of Spanish-American poetry after World War I. (Irreg.)

SPAN 5453 The Spanish-American Short Story 3 Credit Hours The development of the genre from colonial times to the present. (Irreg.)
SPAN 5513 Colonial Literature: The Encounter 3 Credit Hours
Prerequisite: graduate standing or permission of instructor. The objective of this course is to familiarize students with early colonial Latin American discourse and its cultural/literary/historic context. Beginning with the letters of Christopher Columbus, the course includes early chronicles and histories. (Irreg.)
SPAN 5523 Colonial Literature: The Criollos 3 Credit Hours
Prerequisite: graduate standing or permission of instructor. This course familiarizes students with colonial Latin American discourse and its cultural/literary/historic context. The course primarily focuses on writers raised in colonial Spanish America approximately 100 years after the encounter. (Irreg.)
SPAN 5603 Studies in Renaissance and Baroque Prose 3 Credit Hours Prerequisite: graduate standing or permission of instructor. May be repeated once with change of topic; maximum credit six hours. The study of representative narrative from the Spanish Golden Age, including the Picaresque, Pastoral, Sentimental, Chivalric, Mystical and Byzantine traditions. Works by Quevedo, Fray Luis de León, Cervantes, Jorge de Montemayor, Gracián, and others. (Irreg.)
SPAN 5623 Studies in Renaissance and Baroque Poetry 3 Credit Hours Prerequisite: graduate standing or permission of instructor. May be repeated once with change of content; maximum credit six hours. Poetry of Garcilaso, Boscan, Fray Luis de Leon, Fernando de Herrera, Luis de Gongora, Francisco Quevedo, Lope de Vega, and others. Concepts of imitatio, cultismo, conceptismo, and the petrarchan and satirical traditions. (Irreg.)
SPAN 5683 Studies in Modern Peninsular Prose 3 Credit Hours Prerequisite: graduate standing or permission of instructor. May be repeated once with change of content; maximum credit six hours.
Representative writings in the development of the nineteenth- and twentieth-century Spanish narrative. The essay, short story, and novel of the Romantic, Realist, Naturalist, Modernist, Vanguard, and post Civil War periods are some of the themes to be covered. (Irreg.)

SPAN 5693 Studies in Modern Peninsular Poetry 3 Credit Hours
Prerequisite: graduate standing or permission of instructor. May be repeated once with change of content; maximum credit six hours. Representative poetry of modern Spain. Topics include the works of Romantic, Realist, and Modernist poetry: the Generation of '98; the Generation of '27; and post Civil War poets. Representative poets include Espronceda, Bécquer, Machado, Jiménez, Lorca, Salinas, Guillén, Diego, Alberti, Aleixandre, Cernuda, and others. (Irreg.)
SPAN 5713 History of the Spanish Language
3 Credit Hours (Slashlisted with SPAN 4713) Prerequisite: SPAN 3853 and graduate standing. As an introduction to Historical Spanish Linguistics, the basic patterns of the evolution of Modern Spanish from Vulgar Latin, as shown in several major literary texts will be learned. Provides an understanding of how the Modern Spanish sound system evolved from the Vulgar Latin of the Iberian Peninsula. Emphasizes as well all four language skills (hearing, speaking, reading, and writing) and culture. No student may earn credit for both 4713 and 5713. (F, Sp)

SPAN 5723 Studies in Modern Peninsular Drama 3 Credit Hours Prerequisite: graduate standing or permission of instructor. May be repeated once with change of content; maximum credit six hours. Representative writers and works of the modern Spanish theater. Topics include Romanticism, Realism, Expressionism, theater of the absurd., and the Esperpento. Dramatic works of Valle Inclán, Garcia Lorca, Buero Vallejo, Alfonso Sastre, and others will be included. (Irreg.)

## SPAN 5910 Problems in Research <br> 2-4 Credit Hours

2 to 4 hours. May be repeated with change of content; maximum credit nine hours. An individual course of intensive research with the area and problem to be determined by the student and directing instructor. (F, Sp, Su )
SPAN 5923 Teaching Of Spanish In The United States 3 Credit Hours (Slashlisted with SPAN 4923) Prerequisite: graduate standing and Spanish proficiency. A theoretical and practical introduction to teaching of Spanish in the United States. The theoretical component of the course incorporates major contemporary notions about Second Language Acquisition (SLA) and Second Language Teaching (SLT). The practical component of the course focuses on professional development as an instructor, roles of instructor and student, and day-to-day classroom activities. No student may earn credit for both 4923 and 5923. (F, Sp)
SPAN 5930 Seminar in Spanish Literature 1-3 Credit Hours
1 to 3 hours. May be repeated with change of subject matter; maximum credit nine hours. (F, Sp)
SPAN 5940 Seminar in Spanish-American Literature 1-3 Credit Hours 1 to 3 hours. May be repeated with change of subject matter; maximum credit nine hours. (F, Sp)
SPAN 5960 Directed Readings
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing and permission of department. May be repeated; maximum credit twelve hours. Directed readings and/or literature reviews under the direction of a faculty member. (F, Sp, Su)

SPAN 5970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

SPAN 5980 Research for Master's Thesis
2-9 Credit Hours
Variable enrollment, two to nine hours; maximum credit applicable toward degree, four hours. (F, Sp)

SPAN 5990 Independent Studies
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing, permission of instructor. May be repeated; maximum credit twelve hours. Independent reading on one or more topics under the general direction of a faculty member. (F, Sp, Su )
SPAN 6960 Directed Readings
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit six hours. Directed readings and/or literature review under the direction of a faculty member. (Irreg.)

SPAN 6970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit 12 hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or research and field projects. (Irreg.)
SPAN 6980 Research for Doctoral Dissertation 2-16 Credit Hours
2 to 16 hours. Prerequisite: Graduate standing and permission of instructor; may be repeated. Directed research culminating in the completion of the doctoral dissertation. (F, Sp)
SPAN 6990 Independent Study 1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)
TESL 5113 Phonetics for ESL
3 Credit Hours
Prerequisite: graduate standing, MA TESOL majors only. Introduces the study of human speech sounds and relates this to teaching ESL; physiology of the vocal tract and how the parts shape sounds; the International Phonetic Alphabet and its interpretation. Students practice transcribing sounds and complete a phonetic description of how a language differs from English in its sound system. (Irreg.)
TESL 5123 Second Language Acquisition Theory for ESL 3 Credit Hours Prerequisite: graduate standing, MA TESOL majors only. Covers the essential topics that underlie English language acquisition, with special emphasis on those that will be most pertinent to students who will be teaching English as a Second Language. Topics include age, individual differences, aptitude, cognition, affect, motivation, the learner environment, and social dimensions of learning. (Irreg.)

TESL 5133 General Linguistics for ESL 3 Credit Hours
Prerequisite: graduate standing, MA TESOL majors only. Covers the essential topics that underlie linguistics, with special emphasis on those that will be most pertinent to students who will be teaching English as a Second Language. Topics include morphology, phonology, semantics, pragmatics, language and the brain, and sociolinguistics, with review of phonetics and grammatical structure. (Irreg.)
TESL 5143 Structure of the English Language
3 Credit Hours
Prerequisite: graduate standing, MA TESOL majors only. Provides indepth understanding of the grammatical, syntactical and other features of English as they are taught by teachers of ESL to non-native speakers. Topics will include recent theories of grammar and acquisition; taxonomy and rules of English; strategies for teaching simple and complex constructions; and strategies for recognizing and addressing language interference and learner needs. (F)

## $\begin{array}{lll}\text { TESL } 5233 & \text { ESL Methods and Techniques } & 3 \text { Credit Hours } \\ \text { Prerequisite: graduate standing and MA TESOL majors only. Explores } & \end{array}$

 the intersection of second language acquisition theory and history, applied linguistics, and ESL methods and techniques related to teaching ESL. Examines new research grounded in sociolinguistics, behavioral linguistics and related fields. Explores how digital and social media innovations are transforming the field and can benefit student outcomes. (F)TESL 5333 Understanding Cultures for ESL
3 Credit Hours
Prerequisite: graduate standing and MA TESOL majors only. Examines the interaction between language and culture, with application to teaching ESL. Explores how culture is defined and manifested, its influence on identity and self-concept, how cultural differences affect perceptions and interactions, and culture in the ESL classroom. Grounded in constructivist theories of formal schooling, the course trains culturally responsive teachers. (Irreg.)

## TESL 5433 ESL Curriculum

3 Credit Hours
Prerequisite: graduate standing; MA TESOL majors only. Introduces students to learner-centered pedagogy and needs-based ESL curriculum. Students use the procedures to design ELL courses and materials. Through needs-assessment, students explore an outcomes-based curriculum planning process and identify curricular goals and objectives. Introduces the range of technologies and software for ELL's; students evaluate their usefulness to teach using CALL. (Sp)

## TESL 5443 ESL Testing and Assessment

3 Credit Hours
Prerequisite: graduate standing, MA TESOL majors only. Provides fundamental principles for evaluating and designing assessment processes in ESL classes. Focuses on the most common pedagogical challenge: classroom based assessment for ELLs. Presents treatment of assessing all four macro skills. Considers the validity and utility of standardized tests, the ethics of testing and alternatives in assessment in ESL. (Sp)
TESL 5553 Teaching ESL Reading/ Writing/ Listening/ Speaking 3 Credit Hours Prerequisite: graduate standing, MA TESOL majors only, GRAD 5113, GRAD 5123, GRAD 5143. Enables students to identify cultural learning strategies in the ESL/ELL paradigm and use that understanding to overcome barriers to learning in regards to the four macro skills. Analyzes learning and scaffolding techniques to build skills by evaluating metacognitive strategies. Emphasizes classroom management and professionalism. (Su)
TESL 5945 Internship in TESOL 5 Credit Hours
Prerequisite: Graduate standing and MA TESOL majors only. A 150hour field component in which students observe, assist, and teach in an approved ESL setting. Students analyze and reflect upon their own professional knowledge in the field of TESOL with the aid of an instructor and fellow participants. Enables the students to plan future professional development. (Sp)

| Last Name | First/Middle <br> Name | Middle init. | OU <br> Service start | Title(s), date(s) appointed | Degrees Earned, Schools, Dates Completed |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Abramson | Julia | L | 1999 | ASSOCIATE <br> PROFESSOR <br> OF MODERN <br> LANGUAGES, <br> LITERATURES, <br> AND LINGUISTICS, <br> 2005; ADJUNCT <br> ASSOCIATE <br> PROFESSOR OF <br> LIBERAL STUDIES, <br> 2010 | PhD, Princeton Univ, 1999; MA, Bryn Mawr, 1993; BA, Bryn Mawr, 1991 |
| Al-Masri | Mohammad | S.H | 2011 | CONOCOPHILLIPS PETROLEUM CO. PROFESSOR OF ARABIC LANGUAGE, LITERATURE \& CULTURE, 2013; ASSOCIATE PROFESSOR OF INTERNATIONAL AND AREA STUDIES, 2017; ASSOCIATE PROFESSOR OF MODERN LANGUAGES, LITERATURES, AND LINGUISTICS, 2017 | PhD, Univ of Kansas, 2009; MA, Yarmouk Univ, 1998; BA, Yarmouk Univ, 1994 |
| Boggs | Bruce | A | 1995 | ASSOCIATE <br> PROFESSOR <br> OF MODERN <br> LANGUAGES, <br> LITERATURES, AND <br> LINGUISTICS, 2002 | PhD, Univ of Texas, 1995; MA, Texas Tech Univ, 1989; BA, Texas Tech Univ, 1984 |
| Colin | Jose | J | 2003 | ASSOCIATE <br> PROFESSOR <br> OF MODERN <br> LANGUAGES, <br> LITERATURES, AND <br> LINGUISTICS, 2013 | PhD, Univ of New Mexico, 2003; MA, Univ of New Mexico, 1996; BA, Univ of New Mexico, 1993 |
| Condren | Dustin |  |  | ASSISTANT PROFESSOR OF RUSSIAN | PhD, Stanford Univ |
| Cortest | Luis |  | 1987 | PROFESSOR OF MODERN LANGUAGES, LITERATURES, AND LINGUISTICS, 2011 | PhD, Univ of California-Berkeley, 1982; MA, Univ of Wisconsin, 1977; BA, Wichita State Univ, 1974 |
| Frydman | Joshua | A | 2016 | ASSISTANT <br> PROFESSOR <br> OF MODERN <br> LANGUAGES, <br> LITERATURES, AND <br> LINGUISTICS, 2016 | PhD, Yale Univ, 2014; MPhil, Yale Univ, 2011; MA, Yale Univ, 2010; BA, Yale Univ, 2006 |
| Genova | Pamela | A | 1994 | EDITH GAYLORD <br> HARPER <br> PRESIDENTIAL <br> PROFESSOR, <br> 1997; DAVID ROSS <br> BOYD PROFESSOR <br> OF MODERN <br> LANGUAGES, <br> LITERATURES, AND <br> LINGUISTICS, 2006 | PhD, Univ of Illinois, 1991; MA, Univ of Illinois, 1986; BA, Univ of Kansas, 1983 |


| Haag | Marcia |  | 2000 | PROFESSOR OF LINGUISTICS, 2015; ASSISTANT PROFESSOR OF LINGUISTICS, 2000 | PhD, State Univ of New York, Stony Brook, 1996 | Liu | Nian |  | 2012 | ASSOCIATE <br> PROFESSOR <br> OF MODERN <br> LANGUAGES, <br> LITERATURES, | PhD, Univ of Hawaii, 2012; MA, Wuhan Univ, 2005; BA, Wuhan Univ, 2003 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Hassan | Dina |  |  | PROFESSOR IN ARABIC | PhD, Texas Tech Univ |  |  |  |  | AND LINGUISTICS, 2012; ADJUNCT |  |
| Herrick | Dylan | T | 2006 | ASSOCIATE <br> PROFESSOR <br> OF MODERN <br> LANGUAGES, <br> LITERATURES, AND | PhD, Univ of California-Santa Cruz, 2003; MA, Univ of California-Santa Cruz, 1999; BA, Univ of |  |  |  |  | ASSISTANT <br> PROFESSOR OF <br> INTERNATIONAL <br> AND AREA STUDIES, $2016$ |  |
|  |  |  |  | LINGUISTICS, 2011 | California-San Diego, $1994$ | Mahdi | Waleed | F |  | ASSISTANT PROFESSOR, US- | PhD, Univ of Minnesota, 2015; MA, |
| Johnson | Emily | D | 1999 | ASSOCIATE <br> PROFESSOR <br> OF MODERN | PhD, Columbia Univ, 2000; MA, Univ of California Los Angeles, 1990; BA, Univ of California Los Angeles, 1987 |  |  |  |  | ARAB CULTURAL POLITICS | Univ of New Mexico, 2008; BA, Taiz Univ, Yemen, 2003 |
|  |  |  |  | LANGUAGES, LITERATURES, AND LINGUISTICS, 2006; ADJUNCT ASSOCIATE PROFESSOR OF |  | Moreira | Paulo |  | 2016 | ASSOCIATE <br> PROFESSOR <br> OF MODERN <br> LANGUAGES, <br> LITERATURES, AND <br> LINGUISTICS, 2016 | PhD, Univ of California Santa Barbara, 2007; BA, Universidade Federal deMinas Gerais, 1999 |
|  |  |  |  | LIBERAL STUDIES, 2009 |  | Norris | Mark | J | 2014 | ASSISTANT <br> PROFESSOR | PhD, Univ of California Santa Cruz, |
| Khalfaoui | Amel |  |  | ASSISTANT <br> PROFESSOR OF <br> ARABIC AND <br> LINGUISTICS | PhD, Univ of Minnesota, Twin Cities |  |  |  |  | OF MODERN LANGUAGES, LITERATURES, AND LINGUISTICS, 2014 | 2014; MA, Univ of California Santa Cruz, 2010; BA, Univ of Iowa, 2007 |
| Kritz | Ori |  | 2004 | PROFESSOR OF MODERN LANGUAGES, LITERATURES, AND LINGUISTICS, 2015; PROFESSOR IN | PhD, Columbia Univ, 1993; MPhil, Columbia Univ, 1990; MA, Tel-Aviv Univ, 1986; BA, Tel-Aviv Univ, 1981 | Pesce | Roberto |  | 2017 | ASSISTANT <br> PROFESSOR <br> OF MODERN <br> LANGUAGES, <br> LITERATURES, AND <br> LINGUISTICS, 2017 | PhD, Rutgers Univ, 2011; PhD, Ca'Foscari Univ, 2008; BA/MA, Ca'Foscari Univ, 2002 |
|  |  |  |  | JUDAIC AND ISRAEL STUDIES, 2017; HEAD OF THE HEBREW PROGRAM |  | Rioseco | Marcelo | A | 2011 | ASSOCIATE <br> PROFESSOR <br> OF MODERN <br> LANGUAGES, | PhD, Univ of <br> Cincinnati, 2008; MA, <br> Univ of Cincinnati, 2005; BS, Universidad de Concepcion, 1993 |
| LaGreca | Nancy | A | 2004 | PROFESSOR OF MODERN | PhD, Univ of Texas, 2004; MA, Univ of Texas, 1998; BA, SUNY at Geneseo, 1995 |  |  |  |  | LITERATURE, AND LINGUISTICS, 2017 |  |
|  |  |  |  | LANGUAGES, LITERATURES, AND LINGUISTICS, 2017 |  | Schutjer | Karin | L | 1998 | PROFESSOR <br> OF MODERN <br> LANGUAGES, | PhD, Princeton Univ, 1995; MA, Yale Univ, 1991; BA, Yale Univ, |
| Lantelme | Michel | C | 2001 | PROFESSOR OF MODERN | PhD, Emory Univ, 1996; BA, Universite de Provence, 1985 |  |  |  |  | LITERATURES, AND <br> LINGUISTICS, 2015 | 1987 |
|  |  |  |  | LANGUAGES, LITERATURES, AND LINGUISTICS, 2010 |  | Sullivan | Joseph | M | 1999 | ASSOCIATE PROFESSOR OF MODERN | PhD, Univ of Texas, 1999; MA, Univ of Texas, 1994; BS, West Point, 1985 |
| Lauer | A Robert |  | 1994 | PROFESSOR OF MODERN LANGUAGES, | PhD, Univ of <br> Michigan, 1983; MA, <br> Univ of Michigan, 1974; BA, Ohio State Univ, 1972 |  |  |  |  | LANGUAGES, LITERATURES, AND LINGUISTICS, 2005 |  |
|  |  |  |  | LITERATURES, AND <br> LINGUISTICS, 2000 |  | Ward | Julie | A | 2014 | ASSISTANT <br> PROFESSOR | PhD, Univ of California Berkeley, |
| Lemon | Robert | J | 2005 | ASSOCIATE <br> PROFESSOR <br> OF MODERN <br> LANGUAGES, <br> LITERATURES, AND <br> LINGUISTICS, 2012 | PhD, Harvard Univ, 2005; MA, Harvard Univ, 1998; BA, Oxford Univ, 1994 |  |  |  |  | OF MODERN LANGUAGES, LITERATURES, AND LINGUISTICS, 2014; ADJUNCT ASSISTANT PROFESSOR OF INTERNATIONAL AND AREA STUDIES, 2015 | 2013; MA, Univ of Kansas, 2008; BA, Univ of Tulsa, 2005 |
|  |  |  |  |  |  | Whalen | Logan | E | 2001 | PROFESSOR <br> OF MODERN <br> LANGUAGES, <br> LITERATURES, AND <br> LINGUISTICS, 2013 | PhD, Univ of Oklahoma, 2000; MA, Univ of Kentucky, 1992; BA, Asbury College, 1982 |


| Winston | Michael | E | 1999 | ASSOCIATE <br> PROFESSOR <br> OF MODERN <br> LANGUAGES, <br> LITERATURES, AND <br> LINGUISTICS, 2005 | PhD, Emory Univ, 1995; MA, Johns Hopkins, 1994; BA, Trinity Univ, 1987 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Wray | Grady | C | 1999 | ASSOCIATE <br> PROFESSOR <br> OF MODERN <br> LANGUAGES, <br> LITERATURES, AND <br> LINGUISTICS, 2006 | PhD, Indiana Univ, 1999; MA, Indiana Univ, 1990; BA, Indiana, 1986 |
| Zhang | Jie |  | 2012 | ASSOCIATE <br> PROFESSOR <br> OF MODERN <br> LANGUAGES, <br> LITERATURES AND <br> LINGUISTICS, 2018 | PhD, Pennsylvania <br> State Univ, 2011; MA, <br> Tsinghua Univ, 2004; <br> BA, Shandong Univ, <br> 2001 |
| Zhu | Ping |  | 2010 | ASSOCIATE <br> PROFESSOR OF MODERN LANGUAGES, LITERATURES, AND LINGUISTICS, 2016; ADJUNCT ASSOCIATE PROFESSOR OF WOMEN'S AND GENDER STUDIES, 2016 | PhD, Rutgers Univ, 2010; MA, East China Normal Univ, 2003; BA, Soochow Univ, 2000 |

## Arabic, B.A.

Minimum Total Credit Hours: 120
Major Hours: 36
Minimum Upper-Division Hours: 48
Overall GPA - Combined and OU: 2.00
Major GPA - Combined and OU: 2.00
Program Code: B030

## Major Requirements

- Some courses required for the major may also fulfill University General Education and/or Dodge College of Arts \& Sciences Requirements.
- The major requires 36 hours beyond ARAB 1115 and ARAB 1225. 1000-Level Arabic courses may not be counted for major credit at the University of Oklahoma.

| Code | Title | Credit <br> Hours |
| :--- | :--- | :--- |
| ARAB 1115 | Beginning Arabic (5 hours) |  |
| ARAB 1225 | Beginning Arabic Continued (5 hours) |  |
| ARAB 2013 | Colloquial Arabic | 3 |
| ARAB 2113 | Intermediate Arabic | 3 |
| ARAB 2223 | Intermediate Arabic Continued | 3 |
| ARAB 3113 | Advanced Arabic | 3 |
| ARAB 3223 | Advanced Arabic (Continued) | 3 |
| ARAB 3423 | Advanced Arabic Composition | 3 |
| ARAB 4413 | Arabic Structure | 3 |
| ARAB 4433 | Arabic Media and Politics | 3 |
| ARAB 4443 | Readings in Islamic Religious Texts | 3 |

$\left.\begin{array}{llr}\hline \text { ARAB 4993 } & \text { Readings in Contemporary Arab Culture } & 3 \\ \hline \text { MLLL 3413 } & \text { Arabic Literature and Culture } & 3 \\ \hline \text { MLLL 3453 } & & 3 \\ \text { or MLLL 3463 }\end{array}\right]$

| Code $\quad$ Title | Credit <br> Hours |
| :--- | ---: | ---: |
| Modern Languages, Literatures and Linguistics |  |
| Choose 6 hours from a list available from the Department of <br> Modern Languages, Literatures and Linguistics (p. 554) |  |
| International Experience | 6 |
| Arabic majors are strongly encouraged to pursue study |  |
| abroad opportunities in an Arabic speaking country | 6 |
| Total Credit Hours |  |

## General Education and College Requirements

Courses for fulfillment of General Education and Dodge College of Arts \& Sciences requirements must be from the approved General Education course list published in the Class Schedule or at http://www.ou.edu/ gened/courses. Courses graded P/NP will not apply.


Language (0-13 hours in the same language)
The college requirement cannot be met by high school coursework.
Beginning Course 0-5

Beginning Course, continued ..... 0-5
Intermediate Course (2000 level) ${ }^{1,2}$ ..... 0-3

Mathematics (3 hours)
Choose one course from the General Education Mathematics 3
list
Core Area II: Natural Science (7 hours, including one laboratory component)
Biological Science
Choose an approved General Education Natural Science 3-4
course with one of the following prefixes: BIOL, HES, MBIO, or PBIO ${ }^{1}$
Physical Science
Choose an approved General Education Natural Science 3-4 course with one of the following prefixes: AGSC, ASTR, CHEM, GEOG, GEOL, GPHY, METR, or PHYS ${ }^{1}$
Core Area III: Social Science (6 hours)

| PSC $1113 \quad$ American Federal Government | 3 |
| :--- | :--- | :--- |
| Choose one course from the General Education Social | 3 |

## Science list

Core Area IV: Arts and Humanities (18 hours)

## Artistic Forms

Choose one course from the General Education Artistic Forms 3
list

## Western Culture

| HIST 1483 | United States to 1865 |
| :---: | :--- |
| or HIST 1493 | United States, 1865 to the Present |

Choose one course from the General Education Western 3

Culture list (excluding HIST 1483/1493)

## World Culture

Choose one course from the General Education World Culture 3

## list

Additional Core IV Upper-Division Arts \& Humanities courses

| Choose one course from Artistic Forms, Western Culture, or World Culture ${ }^{1,3}$ | 3 |
| :---: | :---: |
| Choose one course from Artistic Forms, Western Culture, or World Culture ${ }^{1,3}$ | 3 |
| Core Area V: First Year Experience (3 hours) |  |
| Choose one course | 3 |

Total Credit Hours56
${ }^{1}$ College of Arts and Sciences Requirements: college requirements are not automatically fulfilled by a previous degree.
2 One course at the intermediate level or demonstrated competency at that level
${ }^{3} 6$ upper-division hours, 2 courses, at the 3000-4000-level. Must be outside the major.

## Free Electives

Electives to bring total applicable hours to the minimum total required for the degree including 48 upper-division hours.

## Information Concerning General Rules, Regulations and Minimum Requirements

Arts and Sciences Hours: At least 80 semester hours of liberal arts and sciences courses are required for a BA degree. At least 55 semester hours of liberal arts and sciences courses are required for a BS degree. Pass/No Pass Enrollment: A maximum of 16 semester hours of free elective credit may be attempted under this option.
Individual Studies (e.g., courses titled "Independent Study"): A maximum of 12 total semester hours may be counted toward graduation, excluding Honors Reading and Honors Research.
P.E. Courses: No physical education activity courses will be counted toward the 120 semester hours of acceptable credit for graduation. Senior Institution Hours: A minimum of 60 semester hours applied toward graduation must be earned at senior (4-year) institutions. Residency:

- At least 15 of the final 30 hours applied toward the degree or at least 50 percent of the hours required by the institution in the major field must be satisfactorily completed at the awarding institution.
- At least 15 semester hours of upper-division major work must be completed in residence at OU.
- OU correspondence courses are not considered resident credit.

Grade Point Averages: Students must earn a minimum over all 2.00 for each of the following: Combined Retention GPA (all college grades), OU Retention GPA, GPA for all major courses, and GPA for all major courses taken at OU. Some schools and departments of the College have higher minimum grade point averages required for their students.

## Suggested Semester Plan of Study

This plan shows one possible grouping of courses that would allow students to graduate in four years. Please refer to the front of the degree checksheet for official requirements. Students must consult with Dodge College of Arts and Sciences and/or Department of Modern Languages, Literatures, and Linguistics academic advisors to verify that courses selected each semester fulfill the recommended plan and satisfy University, College of Arts and Sciences, and Arabic major requirements.

## Freshman

| First Semester |  | Credit <br> Hours |
| :--- | ---: | ---: |
| ARAB 1115 | Beginning Arabic | 5 |
| ENGL 1113 | Principles of English Composition (Core I) | 3 |
| Math (Core I) |  | 3 |
| First Year Experience (Core V) | 3 |  |
|  | Credit Hours | $\mathbf{1 4}$ |

## Second Semester

ARAB 1225 Beginning Arabic Continued 5
ENGL $1213 \quad$ Principles of English Composition (Core I) 3

| or EXPO $1213 \quad$ or Expository Writing |  |
| :---: | :---: |
| P SC 1113 | American Federal Government (Core III) |


| World Culture (Core IV) | 3 |
| :--- | ---: |

## Sophomore

## First Semester

ARAB 2013 Colloquial Arabic 3
ARAB 2113 Intermediate Arabic ..... 3
Artistic Forms (Core IV) ..... 3
Western Culture (Core IV) ..... 3
Credit Hours ..... 15

## Second Semester

ARAB 2223 Intermediate Arabic Continued 3
HIST $1483 \quad$ United States to 1865 (Core IV) 3
or HIST 1493 or United States, 1865 to the Present
Major Support Requirement 3
Social Science (Core III) 3

| Natural Science with lab (Core II) | 4 |
| :---: | ---: |
| Credit Hours | 16 |

## Junior

## First Semester

ARAB 3113 Advanced Arabic 3
ARAB 3423 Advanced Arabic Composition 3
Free Elective, lower- or upper-division 3

| Free Elective, lower- or upper-division | 3 |
| :---: | :---: |
| Free Elective, lower- or upper-division | 3 |
| Free Elective, lower- or upper-division | 1 |
| Credit Hours | 16 |
| Second Semester |  |
| ARAB 3223 Advanced Arabic (Continued) | 3 |
| MLLL 3413 Arabic Literature and Culture | 3 |
| Major Support Requirement | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Credit Hours | 15 |
| Senior |  |
| First Semester |  |
| ARAB 4413 Arabic Structure | 3 |
| ARAB 4433 Arabic Media and Politics | 3 |
| Arts \& Humanities, upper-division, outside major (Gen. Ed.) | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Credit Hours | 15 |
| Second Semester |  |
| ARAB 4443 Readings in Islamic Religious Texts | 3 |
| ARAB 4993 Readings in Contemporary Arab Culture | 3 |
| $\begin{aligned} & \text { MLLL } 3453 \\ & \text { or MLLL } 3463 \text { or } \end{aligned}$ | 3 |
| Arts \& Humanities, upper-division, outside major (Gen. Ed.) | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Credit Hours | 15 |
| Total Credit Hours | 120 |

## Arabic Major Support Course List

- For the most current course list, please contact the Department of Modern Languages, Literature, and Linguistics.

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| ARCH 4183 | Survey of Middle Eastern Architecture | 3 |
| ECON 4733 | Economic Development in the Middle <br> East | 3 |
| HIST 2013 | Ancient Near Eastern Civilizations | 3 |
| HIST 3113 | The Crusades | 3 |
| HIST 3953 | The Modern Middle East | 3 |
| HON 3993 | Honors Colloquium (Topic: Arab Spring) | 3 |
| HSTM 3453 | Science and Civilization in Islam | 3 |
| IAS 3003 | Topics in International and Area Studies <br> (Topic: Christians \& Jews Under Islam) | 3 |
| IAS 3003 | Topics in International and Area Studies <br> (Topic: Arab-Israeli Conflict) | 3 |
| IAS 3233 | Nationalism and the Middle East | 3 |
| IAS 3413 | Iran and Islam in Global History | 3 |
| IAS 3473 | The Arab-Israeli Conflict | 3 |
| IAS 3503 | The United States and the Middle East: | 3 |
| IAS 3663 | 1945-Present | Comparative Politics of the Middle East |
| IAS 3763 | Women and Gender in the Middle East | 3 |


| IAS 3783 | US-Arab Cultural Encounters | 3 |
| :--- | :--- | ---: |
| MUNM 3613 | Middle Eastern Music | 3 |
| MUNM 4970 | Undergraduate Seminar (Topic: Middle | $1-3$ |
|  | Eastern Music) | 3 |
| RELS 2303 | Introduction to Islam | 3 |
| RELS 3533 | The Qur'an | 3 |
| RELS 3543 | Islamic Law | 3 |
| RELS 3563 | Islamic Theology | 3 |

## Chinese, B.A.

Minimum Total Credit Hours: 120
Major Hours: 33
Minimum Upper-Division Hours: 48

Overall GPA - Combined and OU: 2.00
Major GPA - Combined and OU: 2.00

## Program Code: B180

## Major Requirements

- Some courses required for the major may also fulfill University General Education and/or Dodge College of Arts \& Sciences Requirements.

The major requires 33 hours beyond CHIN 1115 and CHIN 1225. 1000Level Chinese courses may not be counted for major credit at the University of Oklahoma.

| Code | Title | Credit <br> Hours |
| :---: | :---: | :---: |
| CHIN 1115 | Beginning Chinese (5 hours) |  |
| CHIN 1225 | Beginning Chinese (Continued) (5 hours) |  |
| CHIN 2113 | Intermediate Chinese | 3 |
| CHIN 2223 | Intermediate Chinese (Continued) | 3 |
| CHIN 3113 | Advanced Chinese I | 3 |
| CHIN 4993 | Senior Capstone for Chinese | 3 |
| Choose at least four of the following: |  | 12 |
| CHIN 3223 | Advanced Chinese II |  |
| CHIN 3323 | Advanced Listening and Speaking |  |
| CHIN 3623 | Business Chinese |  |
| CHIN 4113 | Advanced Reading and Writing |  |
| CHIN 4333 | Translating Chinese |  |
| CHIN 4533 | Learning Chinese through Media |  |
| CHIN 4543 | Study of Classical Chinese and Calligraphy |  |
| Choose at least three of the following: |  | 9 |
| MLLL 3753 | Modern Chinese Literature and Culture |  |
| MLLL 3763 | Chinese Cinema |  |
| MLLL 4453 | Introduction to Chinese Language and Linguistics |  |
| MLLL 4753 | The Chinese Way of Thinking: Language, Culture, \& Cognition |  |

Total Credit Hours
33

## Major Support Requirements

| Code $\quad$ Title | Credit <br> Hours |
| :--- | ---: |
| Choose one of the following: | 3 |
| MLLL $1003 \quad$ Introduction to Chinese Myths \& Folklore |  |$\quad$| A course in Chinese history approved by Chinese advisor |
| :--- | ---: |
| (p. 556) |
| A course in Chinese philosophy or Chinese politics |
| approved by Chinese advisor (p. 556) | | Optional |
| :--- |
| Majors are encouraged to pursue study abroad opportunities <br> in China |
| Total Credit Hours |

## General Education and College Requirements

Courses for fulfillment of General Education and Dodge College of Arts \& Sciences requirements must be from the approved General Education course list published in the Class Schedule or at http://www.ou.edu/ gened/courses. Courses graded P/NP will not apply.

| UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND |  |
| :--- | :--- |
| COLLEGE REQUIREMENTS |  |
| Code $\quad$ Title | Credit |
|  |  |

Core Area I: Symbolic and Oral Communication
English Composition (6 hours)
ENGL 1113 Principles of English Composition 3
ENGL 1213 Principles of English Composition 3
or EXPO 1213 Expository Writing
Language ( $0-13$ hours in the same language)
The college requirement cannot be met by high school coursework.
Beginning Course 0-5
Beginning Course, continued 0-5
Intermediate Course (2000 level) ${ }^{1,2} \quad$ 0-3

Mathematics (3 hours)
Choose one course from the General Education Mathematics 3 list
Core Area II: Natural Science (7 hours, including one

## laboratory component)

## Biological Science

Choose an approved General Education Natural Science
course with one of the following prefixes: BIOL, HES, MBIO, or
PBIO ${ }^{1}$
Physical Science
Choose an approved General Education Natural Science

Core Area III: Social Science (6 hours)
PSC 1113 American Federal Government 3
Choose one course from the General Education Social 3
Science list
Core Area IV: Arts and Humanities (18 hours)
Artistic Forms


## Free Electives

Electives to bring total applicable hours to the minimum total required for the degree including 48 upper-division hours.

## Information Concerning General Rules, Regulations and Minimum Requirements

Arts and Sciences Hours: At least 80 semester hours of liberal arts and sciences courses are required for a BA degree. At least 55 semester hours of liberal arts and sciences courses are required for a BS degree. Pass/No Pass Enrollment: A maximum of 16 semester hours of free elective credit may be attempted under this option.
Individual Studies (e.g., courses titled "Independent Study"): A maximum of 12 total semester hours may be counted toward graduation, excluding Honors Reading and Honors Research.
P.E. Courses: No physical education activity courses will be counted toward the 120 semester hours of acceptable credit for graduation. Senior Institution Hours: A minimum of 60 semester hours applied toward graduation must be earned at senior (4-year) institutions.

## Residency:

- At least 15 of the final 30 hours applied toward the degree or at least 50 percent of the hours required by the institution in the major field must be satisfactorily completed at the awarding institution.
- At least 15 semester hours of upper-division major work must be completed in residence at OU .
- OU correspondence courses are not considered resident credit.

Grade Point Averages: Students must earn a minimum over all 2.00 for each of the following: Combined Retention GPA (all college grades), OU Retention GPA, GPA for all major courses, and GPA for all major courses
taken at OU. Some schools and departments of the College have higher minimum grade point averages required for their students.

## Suggested Semester Plan of Study

This plan shows one possible grouping of courses that would allow students to graduate in four years. Please refer to the front of the degree checksheet for official requirements. Students must consult with Dodge College of Arts and Sciences and/or Department of Modern Languages, Literatures, and Linguistics academic advisors to verify that courses selected each semester fulfill the recommended plan and satisfy University, College of Arts and Sciences, and Chinese major requirements.

| Freshman |  |  |
| :---: | :---: | :---: |
| First Semester |  | Credit |
|  |  | Hours |
| CHIN 1115 | Beginning Chinese | 5 |
| ENGL 1113 | Principles of English Composition (Core I) | 3 |
| First Year Experience (Core V) |  | 3 |
| Math (Core I) |  | 3 |
|  | Credit Hours | 14 |
| Second Semester |  |  |
| CHIN 1225 | Beginning Chinese (Continued) | 5 |
| ENGL 1213 or EXPO 1213 | Principles of English Composition (Core I) or Expository Writing | 3 |
| P SC 1113 | American Federal Government (Core III) | 3 |
| World Culture (Core IV) |  | 3 |
|  | Credit Hours | 14 |

## Sophomore

| First Semester |  |
| :--- | :--- |
| CHIN 2113 |  |

Artistic Forms (Core IV) 3
Western Culture (Core IV) 3
Natural Science without lab (Core II) 3
Free Elective, lower-division 3
Second Semester
CHIN $2223 \quad$ Intermediate Chinese (Continued) 3
HIST 1483 United States to 1865 (Core IV) 3
or HIST 1493 or United States, 1865 to the Present 3
Natural Science with lab (Core II) 4
Free Elective, upper- or lower-division 3

| Credit Hours | $\mathbf{1 6}$ |
| :--- | :---: |
| Junior |  |
| First Semester |  |
| CHIN $3113 \quad$ Advanced Chinese I | 3 |
| Major Requirement elective | 3 |
| Major Requirement elective | 3 |
| Major Requirement elective | 3 |
| Free Elective, lower- or upper-division | 3 |
| Free Elective, lower- or upper-division | $\mathbf{1}$ |
| Credit Hours | $\mathbf{1 6}$ |

## Second Semester

Major Requirement elective

| Major Requirement elective | 3 |
| :---: | :---: |
| Major Support Requirement | 3 |
| Free Elective, lower- or upper-division | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Credit Hours | 15 |
| Senior |  |
| First Semester |  |
| Major Requirement elective | 3 |
| Major Requirement elective | 3 |
| Arts \& Humanities, upper-division, outside major (Gen. Ed.) | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Credit Hours | 15 |
| Second Semester |  |
| CHIN 4993 Senior Capstone for Chinese | 3 |
| Arts \& Humanities, upper-division, outside major (Gen. Ed.) | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Credit Hours | 15 |
| Total Credit Hours | 120 |

## Chinese Major Support List

- For the most current course list, please contact the Department of Modern Languages, Literature, and Linguistics.

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| HIST 3873 | Early Imperial China | 3 |
| HIST 3923 | China Since 1911 | 3 |
| HIST 4203 | Classical China | 3 |
| HIST 4213 | China's Art of War | 3 |
| IAS 3143 | Chinese Politics | 3 |
| IAS 3153 | Chinese Foreign Policy | 3 |
| IAS 3173 | Work, Family, and Religion in Rural China | 3 |
| IAS 3193 | Environment and Disease Crises in China | 3 |
| IAS 3583 | Managing US-China Relations | 3 |
| IAS 3603 | Energy, Environment \& Climate Change in | 3 |
|  | China |  |
| PHIL 3343 | Chinese Philosophy | 3 |

## French, B.A.

Minimum Total Credit Hours: 120
Major Hours: 36
Minimum Upper-Division Hours: 48

Overall GPA - Combined and OU: 2.00
Major GPA - Combined and OU: 2.00
Program Code: B445

## Major Requirements

- Some courses required for the major may also fulfill University General Education and/or Dodge College of Arts \& Sciences Requirements
- The major requires 36 hours beyond FR 1115 and FR 1225. 1000-level courses may not be counted for major credit.

| Code | Title | Credit <br> Hours |
| :---: | :--- | :---: |
| FR 1115 | Beginning French (5 hours) |  |
| FR 1225 | Beginning French (Continued) (5 hours) |  |
| FR 2113 | Intermediate French | 3 |
| FR 2223 | Intermediate French (Continued) | 3 |
| FR 2243 | French Conversation and Literature | 3 |
| FR 2253 | Health, Medicine, and the Environment in | 3 |
| FR 3423 | French Culture | 3 |
| FR 3623 | Business French | 3 |
| or FR 3723 | French for the Professions |  |
| or FR 3753 | French Culture Through Film | 3 |
| FR 3853 | Introduction to Literary Analysis | 3 |
| FR 4153 | Survey of French Literature to 1800 | 3 |
| FR 4163 | Survey of French Literature (Continued) | 3 |
| FR 4313 | From Lascaux to la Terreur | 3 |
| FR 4323 | The Making of Modern French Culture | 3 |
| FR 4993 | Senior Capstone in French | 36 |
| Total Credit Hours |  | 3 |

## General Education and College Requirements

Courses for fulfillment of General Education and Dodge College of Arts \& Sciences requirements must be from the approved General Education course list published in the Class Schedule or at http://www.ou.edu/ gened/courses. Courses graded P/NP will not apply.

## UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS

Code Title Credit

Core Area I: Symbolic and Oral Communication

| English Composition (6 hours) | 3 |  |
| :--- | :--- | :--- |
| ENGL 1113 | Principles of English Composition | 3 |
| ENGL 1213 | Principles of English Composition |  |

## or EXPO 1213 Expository Writing

Language (0-13 hours in the same language)
The college requirement cannot be met by high school coursework.
Beginning Course 0-5
$\begin{array}{ll}\text { Beginning Course, continued } & 0-5\end{array}$
$\begin{array}{ll}\text { Intermediate Course (2000 level) }^{1,2} & 0-3\end{array}$
Mathematics (3 hours)
Choose one course from the General Education Mathematics
3

## list

Core Area II: Natural Science (7 hours, including one laboratory component)

## Biological Science

Choose an approved General Education Natural Science 3-4 course with one of the following prefixes: BIOL, HES, MBIO, or PBIO ${ }^{1}$

## Physical Science

Choose an approved General Education Natural Science 3-4
course with one of the following prefixes: AGSC, ASTR, CHEM,
GEOG, GEOL, GPHY, METR, or PHYS ${ }^{1}$
Core Area III: Social Science (6 hours)
PSC 1113 American Federal Government 3
Choose one course from the General Education Social 3
Science list
Core Area IV: Arts and Humanities (18 hours)

## Artistic Forms

Choose one course from the General Education Artistic Forms 3
list
Western Culture
HIST $1483 \quad 3$
or HIST 1493 United States, 1865 to the Present
Choose one course from the General Education Western 3
Culture list (excluding HIST 1483/1493)
World Culture
Choose one course from the General Education World Culture 3
list
Additional Core IV Upper-Division Arts \& Humanities courses
Choose one course from Artistic Forms, Western Culture, or 3
World Culture ${ }^{1,3}$
Choose one course from Artistic Forms, Western Culture, or 3
World Culture ${ }^{1,3}$
Core Area V: First Year Experience (3 hours)
Choose one course 3

Total Credit Hours 56
${ }^{1}$ College of Arts and Sciences Requirements: college requirements are not automatically fulfilled by a previous degree.
${ }^{2}$ One course at the intermediate level or demonstrated competency at that level
${ }^{3} 6$ upper-division hours, 2 courses, at the 3000-4000-level. Must be outside the major.

## Free Electives

Electives to bring total applicable hours to the minimum total required for the degree including 48 upper-division hours.

## Information Concerning General Rules, Regulations and Minimum Requirements

Arts and Sciences Hours: At least 80 semester hours of liberal arts and sciences courses are required for a BA degree. At least 55 semester hours of liberal arts and sciences courses are required for a BS degree. Pass/No Pass Enrollment: A maximum of 16 semester hours of free elective credit may be attempted under this option.
Individual Studies (e.g., courses titled "Independent Study"): A maximum of 12 total semester hours may be counted toward graduation, excluding Honors Reading and Honors Research.
P.E. Courses: No physical education activity courses will be counted toward the 120 semester hours of acceptable credit for graduation.

Senior Institution Hours: A minimum of 60 semester hours applied toward graduation must be earned at senior (4-year) institutions. Residency:

- At least 15 of the final 30 hours applied toward the degree or at least 50 percent of the hours required by the institution in the major field must be satisfactorily completed at the awarding institution.
- At least 15 semester hours of upper-division major work must be completed in residence at OU .
- OU correspondence courses are not considered resident credit.

Grade Point Averages: Students must earn a minimum over all 2.00 for each of the following: Combined Retention GPA (all college grades), OU Retention GPA, GPA for all major courses, and GPA for all major courses taken at OU. Some schools and departments of the College have higher minimum grade point averages required for their students.

## Suggested Semester Plan of Study

This plan shows one possible grouping of courses that would allow students to graduate in four years. Please refer to the front of the degree checksheet for official requirements. Students must consult with Dodge College of Arts and Sciences and/or Department of Modern Languages, Literatures, and Linguistics academic advisors to verify that courses selected each semester fulfill the recommended plan and satisfy University, College of Arts and Sciences, and French major requirements.

## Freshman

| First Semester |  | Credit |
| :---: | :---: | :---: |
|  |  | Hours |
| ENGL 1113 | Principles of English Composition (Core I) | 3 |
| FR 1115 | Beginning French | 5 |
| Math (Core I) |  | 3 |
| Natural Science with lab (Core II) |  | 4 |
|  | Credit Hours | 15 |
| Second Semester |  |  |
| $\begin{aligned} & \text { ENGL } 1213 \\ & \text { or EXPO } 1213 \end{aligned}$ | Principles of English Composition (Core I) or Expository Writing | 3 |
| FR 1225 | Beginning French (Continued) | 5 |
| HIST 1483 or HIST 1493 | United States to 1865 (Core IV) or United States, 1865 to the Present | 3 |


| First Year Experience (Core V) | 3 |
| :---: | ---: |
| Credit Hours | 14 |

## Sophomore

| First Semester |  |
| :--- | :--- |
| FR 2113 | Intermediate French |

P SC 1113 American Federal Government (Core III) 3
Artistic Forms (Core IV) 3
Natural Science without lab (Core II) 3
Free Elective, lower- or upper-division 4

## Credit Hours

## Second Semester

| FR 2223 | Intermediate French (Continued) | 3 |
| :--- | :--- | :--- |
| FR 2243 | French Conversation and Literature | 3 |
| FR 2253 | Health, Medicine, and the Environment in <br> Social Science (Core III) | 3 |
|  | French Culture | 3 |


| Free Elective, lower- or upper-division |  | 3 |
| :---: | :---: | :---: |
|  | Credit Hours | 15 |
| Junior |  |  |
| First Semester |  |  |
| FR 3423 | Advanced French Composition | 3 |
| FR 3623 <br> or FR 3723 <br> or FR 3753 | Business French or French for the Professions or French Culture Through Film | 3 |
| World Culture (Core IV) |  | 3 |
| Western Culture (Core IV) |  | 3 |
| Free Elective, upper-division (3000-4000-level) |  | 3 |
|  | Credit Hours | 15 |
| Second Semester |  |  |
| FR 3853 | Introduction to Literary Analysis | 3 |
| Arts \& Humanities, upper-division, outside major (Gen. Ed.) |  | 3 |
| Free Elective, lower- or upper-division |  | 3 |
| Free Elective, lower- or upper-division |  | 3 |
| Free Elective, upper-division (3000-4000-level) |  | 3 |
|  | Credit Hours | 15 |
| Senior |  |  |
| First Semester |  |  |
| FR 4153 | Survey of French Literature to 1800 | 3 |
| FR 4313 | From Lascaux to la Terreur | 3 |
| Arts \& Humanities, upper-division, outside major (Gen. Ed.) |  | 3 |
| Free Elective, upper-division (3000-4000-level) |  | 3 |
| Free Elective, upper-division (3000-4000-level) |  | 3 |
|  | Credit Hours | 15 |
| Second Semester |  |  |
| FR 4163 | Survey of French Literature (Continued) | 3 |
| FR 4323 | The Making of Modern French Culture | 3 |
| FR 4993 | Senior Capstone in French | 3 |
| Free Elective, upper-division (3000-4000-level) |  | 3 |
| Free Elective, upper-division (3000-4000-level) |  | 3 |
|  | Credit Hours | 15 |
|  | Total Credit Hours | 120 |

## German, B.A.

Minimum Total Credit Hours: 120
Major Hours: 33
Minimum Upper-Division Hours: 48
Overall GPA - Combined and OU: 2.00
Major GPA - Combined and OU: 2.00

## Program Code: B490

## Major Requirements

[^14]| Code | Title | Credit Hours |
| :---: | :---: | :---: |
| GERM 1115 | Beginning German (5 hours) |  |
| GERM 1225 | Beginning German (Continued) (5 hours) |  |
| GERM 2113 | Intermediate German | 3 |
| GERM 2223 | Intermediate German (Continued) | 3 |
| GERM 3423 | Advanced German Composition | 3 |
| GERM 3853 | Literature and Film | 3 |
| GERM 4333 | Topics in the Twentieth Century German Literature and Culture (Capstone) | 3 |
| MLLL 3823 | German Culture and Thought | 3 |
| Choose one of the following: |  | 3 |
| GERM 3523 | Advanced Conversation |  |
| GERM 3623 | Business German |  |
| GERM 3723 | German for the European Market |  |
| Choose four courses at the 4000-level, one of which must be the following: |  | 12 |
| GERM 4313 or GERM | Literature and Culture Pre-1700 Literature and Culture 1700-1890 |  |
| Work- or Study-Abroad |  |  |
| A work- or study-abroad experience in a German-speaking country lasting a minimum of three (3) weeks is required. |  |  |
| Exceptions: Exceptions will be made by the major advisor |  |  |
| International Credit: The German program will make every effort to equate towards the German major any relevant academic credit earned in a study abroad program at an institution recognized by OU |  |  |

Total Credit Hours

## General Education and College Requirements

Courses for fulfillment of General Education and Dodge College of Arts \& Sciences requirements must be from the approved General Education course list published in the Class Schedule or at http://www.ou.edu/ gened/courses. Courses graded P/NP will not apply.

## UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS <br> Code Title <br> Credit Hours

Core Area I: Symbolic and Oral Communication
English Composition (6 hours)
ENGL 1113 Principles of English Composition 3
ENGL 1213 Principles of English Composition 3
or EXPO 1213 Expository Writing
Language (0-13 hours in the same language)
The college requirement cannot be met by high school
coursework.
Beginning Course
Beginning Course, continued 0-5
$\begin{array}{ll}\text { Intermediate Course (2000 level) }^{1,2} & 0-3\end{array}$
Mathematics (3 hours)
Choose one course from the General Education Mathematics
list
Core Area II: Natural Science (7 hours, including one laboratory component)

## Biological Science

Choose an approved General Education Natural Science 3-4 course with one of the following prefixes: BIOL, HES, MBIO, or PBIO ${ }^{1}$
Physical Science
Choose an approved General Education Natural Science 3-4
course with one of the following prefixes: AGSC, ASTR, CHEM,
GEOG, GEOL, GPHY, METR, or PHYS ${ }^{1}$
Core Area III: Social Science ( 6 hours)
P SC 1113 American Federal Government 3
Choose one course from the General Education Social 3
Science list
Core Area IV: Arts and Humanities (18 hours)
Artistic Forms
Choose one course from the General Education Artistic Forms 3
list
Western Culture
HIST $1483 \quad 3$
or HIST 1493 United States, 1865 to the Present
Choose one course from the General Education Western 3
Culture list (excluding HIST 1483/1493)
World Culture
Choose one course from the General Education World Culture 3
list
Additional Core IV Upper-Division Arts \& Humanities courses
Choose one course from Artistic Forms, Western Culture, or 3
World Culture ${ }^{1,3}$
Choose one course from Artistic Forms, Western Culture, or 3
World Culture ${ }^{1,3}$
Core Area V: First Year Experience (3 hours)
Choose one course 3

Total Credit Hours 56
${ }^{1}$ College of Arts and Sciences Requirements: college requirements are not automatically fulfilled by a previous degree.
${ }^{2}$ One course at the intermediate level or demonstrated competency at that level
${ }^{3} 6$ upper-division hours, 2 courses, at the 3000-4000-level. Must be outside the major.

## Free Electives

Electives to bring total applicable hours to the minimum total required for the degree including 48 upper-division hours.

## Information Concerning General Rules, Regulations and Minimum Requirements

Arts and Sciences Hours: At least 80 semester hours of liberal arts and sciences courses are required for a BA degree. At least 55 semester hours of liberal arts and sciences courses are required for a BS degree. Pass/No Pass Enrollment: A maximum of 16 semester hours of free elective credit may be attempted under this option.
Individual Studies (e.g., courses titled "Independent Study"): A maximum of 12 total semester hours may be counted toward graduation, excluding Honors Reading and Honors Research.
P.E. Courses: No physical education activity courses will be counted toward the 120 semester hours of acceptable credit for graduation.

Senior Institution Hours: A minimum of 60 semester hours applied toward graduation must be earned at senior (4-year) institutions. Residency:

- At least 15 of the final 30 hours applied toward the degree or at least 50 percent of the hours required by the institution in the major field must be satisfactorily completed at the awarding institution.
- At least 15 semester hours of upper-division major work must be completed in residence at OU .
- OU correspondence courses are not considered resident credit.

Grade Point Averages: Students must earn a minimum over all 2.00 for each of the following: Combined Retention GPA (all college grades), OU Retention GPA, GPA for all major courses, and GPA for all major courses taken at OU. Some schools and departments of the College have higher minimum grade point averages required for their students.

## Suggested Semester Plan of Study

This plan shows one possible grouping of courses that would allow students to graduate in four years. Please refer to the front of the degree checksheet for official requirements. Students must consult with Dodge College of Arts and Sciences and/or Department of Modern Languages, Literatures, and Linguistics academic advisors to verify that courses selected each semester fulfill the recommended plan and satisfy University, College of Arts and Sciences, and German major requirements.

| Freshman |  |  |
| :---: | :---: | :---: |
| First Semester |  | Credit |
|  |  | Hours |
| ENGL 1113 | Principles of English Composition (Core I) | 3 |
| GERM 1115 | Beginning German | 5 |
| Math (Core I) |  | 3 |
| Natural Science with lab (Core II) |  | 4 |
|  | Credit Hours | 15 |
| Second Semester |  |  |
| $\begin{aligned} & \text { ENGL } 1213 \\ & \text { or EXPO } 1213 \end{aligned}$ | Principles of English Composition (Core I) or Expository Writing | 3 |
| GERM 1225 | Beginning German (Continued) | 5 |
| Social Science (Core III) |  | 3 |
| First Year Experience (Core V) |  | 3 |
|  | Credit Hours | 14 |

## Sophomore

| First Semester |  | 3 |
| :--- | :--- | ---: |
| GERM 2113 | Intermediate German | 3 |
| MLLL 3823 | German Culture and Thought | 3 |
| P SC 1113 | American Federal Government (Core III) | 3 |
| Artistic Forms (Core IV) | 3 |  |
| Western Culture (Core IV), lower-division | Credit Hours | $\mathbf{1 5}$ |


| Second Semester |  |  |
| :---: | :---: | :---: |
| GERM 2223 | Intermediate German (Continued) | 3 |
| HIST 1483 or HIST 1493 | United States to 1865 (Core IV) or United States, 1865 to the Present | 3 |
| Natural Science without lab (Core II) |  | 3 |
| World Culture (Core IV) |  | 3 |


| Free Elective, lower- or upper-division | 3 |
| :---: | :---: |
| Credit Hours | 15 |
| Junior |  |
| First Semester |  |
| GERM 3423 Advanced German Composition | 3 |
| GERM 3853 Literature and Film | 3 |
| Arts \& Humanities, upper-division, outside major (Gen. Ed.) | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Free Elective, lower- or upper-division | 3 |
| Free Elective, lower- or upper-division | 1 |
| Credit Hours | 16 |
| Second Semester |  |
| Choose one of the following: | 3 |
| GERM 3523 Advanced Conversation |  |
| GERM 3623 Business German |  |
| GERM 3723 German for the European Market |  |
| GERM 4000/5000 Major Elective | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Free Elective, lower- or upper-division | 3 |
| Credit Hours | 15 |
| Senior |  |
| First Semester |  |
| $\begin{array}{cc}\text { GERM } 4313 & \text { Literature and Culture Pre-1700 } \\ \text { or GERM 4323 } & \text { or Literature and Culture 1700-1890 }\end{array}$ | 3 |
| GERM 4000/5000 Major Elective | 3 |
| Arts \& Humanities, upper-division, outside major (Gen. Ed.) | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Credit Hours | 15 |
| Second Semester |  |
| GERM 4333 Topics in the Twentieth Century German | 3 |
| GERM 4000/5000 Major Elective | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Credit Hours | 15 |
| Total Credit Hours | 120 |

## Italian, B.A.

Minimum Total Credit Hours: 120
Major Hours: 36
Minimum Upper-Division Hours: 48

Overall GPA - Combined and OU: 2.00
Major GPA - Combined and OU: 2.00
Program Code: B606

## Major Requirements

- Some courses required for the major may also fulfill University General Education and/or Dodge College of Arts \& Sciences Requirements.
- The major requires 36 hours beyond ITAL 1115 and ITAL 1225.

| Code | Title | Credit Hours |
| :---: | :---: | :---: |
| Core Curriculum |  |  |
| ITAL 1115 | Beginning Italian I (5 hours) |  |
| ITAL 1225 | Beginning Italian II (5 hours) |  |
| ITAL 2113 | Intermediate Italian | 3 |
| ITAL 2223 | Intermediate Italian Continued | 3 |
| ITAL 3073 | Italian Conversation \& Culture | 3 |
| ITAL 3423 | In Altre Parole: Writing in Italian | 3 |
| ITAL 3553 | Authors and Ideas: From Dante to our Time | 3 |
| ITAL 3663 | Italian Cinema, Theater and Media | 3 |
| ITAL 4513 | Topics in Medieval and Renaissance Italian Literature and Culture | 3 |
| ITAL 4563 | Topics in Modern Italian Literature and Culture | 3 |
| ITAL 4993 | Capstone: Special Topics in Italian (Capstone) | 3 |
| MLLL 3303 | The World of Dante | 3 |
| MLLL 3313 | Introduction to Italian Literature and Culture | 3 |
| MLLL 3373 | Italian Cinema | 3 |
| Total Credit Hours |  | 36 |

## Major Support Requirements

Code<br>Title<br>Credit Hours

## Electives

Choose two courses from an approved list of courses available in the department office, chosen in consultation with and approved by the advisor (p. 563)

## Study Abroad

Students are strongly encouraged to have an international experience relative to Italy, such as the "OU in Arezzo" program offered during the academic year and summer. Information regarding the international experience is available from the academic advisor
Total Credit Hours

## General Education and College Requirements

Courses for fulfillment of General Education and Dodge College of Arts \& Sciences requirements must be from the approved General Education course list published in the Class Schedule or at http://www.ou.edu/ gened/courses. Courses graded P/NP will not apply.
UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND
COLLEGE REQUIREMENTS

| Code Title | Credit |
| :--- | :--- |
|  | Hours |

Core Area I: Symbolic and Oral Communication
English Composition (6 hours)
ENGL 1113 Principles of English Composition ..... 3
ENGL 1213 Principles of English Composition ..... 3
or EXPO 1213 Expository Writing
Language ( $0-13$ hours in the same language)
The college requirement cannot be met by high schoolcoursework.
Beginning Course ..... 0-5
Beginning Course, continued ..... 0-5
Intermediate Course (2000 level) ${ }^{1,2}$ ..... 0-3
Mathematics (3 hours)
Choose one course from the General Education Mathematics ..... 3

list

Core Area II: Natural Science (7 hours, including one laboratory component)
Biological Science
Choose an approved General Education Natural Science 3-4
course with one of the following prefixes: BIOL, HES, MBIO, or PBIO ${ }^{1}$
Physical Science
Choose an approved General Education Natural Science 3-4 course with one of the following prefixes: AGSC, ASTR, CHEM, GEOG, GEOL, GPHY, METR, or PHYS ${ }^{1}$
Core Area III: Social Science (6 hours)
P SC 1113 American Federal Government 3
Choose one course from the General Education Social 3
Science list
Core Area IV: Arts and Humanities (18 hours)

## Artistic Forms

Choose one course from the General Education Artistic Forms 3
list
Western Culture
HIST 1483 United States to 1865
or HIST 1493 United States, 1865 to the Present
Choose one course from the General Education Western 3
Culture list (excluding HIST 1483/1493)

## World Culture

Choose one course from the General Education World Culture 3
list
Additional Core IV Upper-Division Arts \& Humanities courses
Choose one course from Artistic Forms, Western Culture, or 3
World Culture ${ }^{1,3}$
Choose one course from Artistic Forms, Western Culture, or 3 World Culture ${ }^{1,3}$
Core Area V: First Year Experience (3 hours)
Choose one course
Total Credit Hours
56
${ }^{1}$ College of Arts and Sciences Requirements: college requirements are not automatically fulfilled by a previous degree.
${ }^{2}$ One course at the intermediate level or demonstrated competency at that level
${ }^{3} 6$ upper-division hours, 2 courses, at the 3000-4000-level. Must be outside the major.

## Free Electives

Electives to bring total applicable hours to the minimum total required for the degree including 48 upper-division hours.

## Information Concerning General Rules, Regulations and Minimum Requirements

Arts and Sciences Hours: At least 80 semester hours of liberal arts and sciences courses are required for a BA degree. At least 55 semester hours of liberal arts and sciences courses are required for a BS degree. Pass/No Pass Enrollment: A maximum of 16 semester hours of free elective credit may be attempted under this option.
Individual Studies (e.g., courses titled "Independent Study"): A maximum of 12 total semester hours may be counted toward graduation, excluding Honors Reading and Honors Research.
P.E. Courses: No physical education activity courses will be counted toward the 120 semester hours of acceptable credit for graduation.
Senior Institution Hours: A minimum of 60 semester hours applied toward graduation must be earned at senior (4-year) institutions.
Residency:

- At least 15 of the final 30 hours applied toward the degree or at least 50 percent of the hours required by the institution in the major field must be satisfactorily completed at the awarding institution.
- At least 15 semester hours of upper-division major work must be completed in residence at OU.
- OU correspondence courses are not considered resident credit.

Grade Point Averages: Students must earn a minimum over all 2.00 for each of the following: Combined Retention GPA (all college grades), OU Retention GPA, GPA for all major courses, and GPA for all major courses taken at OU. Some schools and departments of the College have higher minimum grade point averages required for their students.

## Suggested Semester Plan of Study

This plan shows one possible grouping of courses that would allow students to graduate in four years. Please refer to the front of the degree checksheet for official requirements. Students must consult with Dodge College of Arts and Sciences and/or Department of Modern Languages, Literatures, and Linguistics academic advisors to verify that courses selected each semester fulfill the recommended plan and satisfy University, College of Arts and Sciences, and Italian major requirements.

## Freshman

| First Semester |  | Credit |
| :---: | :---: | :---: |
|  |  | Hours |
| ENGL 1113 | Principles of English Composition (Core I) | 3 |
| Math (Core I) |  | 3 |
| ITAL 1115 | Beginning Italian I | 5 |
| Natural Science with lab (Core II) |  | 4 |
|  | Credit Hours | 15 |
| Second Semester |  |  |
| ENGL 1213 or EXPO 1213 | Principles of English Composition (Core I) or Expository Writing | 3 |
| ITAL 1225 | Beginning Italian II | 5 |
| Social Science (Core III) |  | 3 |
| First Year Experience (Core V) |  | 3 |
|  | Credit Hours | 14 |

## Sophomore

First Semester

| ITAL 2113 | Intermediate Italian | 3 |
| :--- | :--- | ---: |
| P SC 1113 $\quad$ American Federal Government (Core III) | 3 |  |
| Artistic Forms (Core IV) | 3 |  |
| Western Culture (Core IV), Iower-division | 3 |  |
| Free Elective, lower-division | 3 |  |
| Credit Hours | $\mathbf{1 5}$ |  |

Second Semester

| HIST 1483 or HIST 1493 | United States to 1865 (Core IV) or United States, 1865 to the Present | 3 |
| :---: | :---: | :---: |
| ITAL 2223 | Intermediate Italian Continued | 3 |
| Natural Science without lab (Core II) |  | 3 |
| World Culture (Core IV) |  | 3 |
| Free Elective, lower-division |  | 3 |
|  | Credit Hours | 15 |
| Junior |  |  |
| First Semester |  |  |
| ITAL 3073 | Italian Conversation \& Culture | 3 |
| ITAL 3423 | In Altre Parole: Writing in Italian | 3 |
| Arts \& Humanities, upper-division, outside major (Gen. Ed.) |  | 3 |
| Major Support Elective |  | 3 |
| Free Elective, lower-division |  | 3 |
|  | Credit Hours | 15 |

Second Semester

| ITAL 4513 | Topics in Medieval and Renaissance Italian <br> Literature and Culture | 3 |
| :--- | :--- | :--- |
| MLLL 3303 | The World of Dante | 3 |

Arts \& Humanities, upper-division, outside major (Gen. Ed.) 3
Major Support Elective 3

Free Elective, lower-division 3
Credit Hours 15
Senior
First Semester

| ITAL 3553 | Authors and Ideas: From Dante to our Time | 3 |
| :--- | :--- | :--- |
| ITAL 4563 | Topics in Modern Italian Literature and <br> Culture | 3 |
| MLLL 3313 | Introduction to Italian Literature and <br> Culture | 3 |

Arts \& Humanities, upper-division, outside major (Gen. Ed.) 3
Free Elective, lower-division 3
Free Elective, lower-division 1

| ITAL 3663 | Italian Cinema, Theater and Media | 3 |
| :---: | :---: | :---: |
| ITAL 4993 | Capstone: Special Topics in Italian | 3 |
| MLLL 3373 | Italian Cinema | 3 |
| Major Support Elective, upper-division (3000-4000-level) |  | 3 |
| Free Elective, lower-division |  | 3 |
|  | Credit Hours | 15 |
|  | Total Credit Hours | 120 |

## Italian Major Support List

For the most current course list, please contact the Department of Modern Languages, Literature, and Linguistics.

| Code | Title | Credit Hours |
| :---: | :---: | :---: |
| A HI 3223 | Classical Art and Archaeology: Hellenistic Greek Art; Roman Art | 3 |
| A HI 3303 | Renaissance Art in Italy 1200-1600 | 3 |
| A HI 3403 | Baroque Art and Architecture in Europe:1600-1700 | 3 |
| A HI 4163 | Etruscan Art | 3 |
| A HI 4373 | The Italian City: Renaissance and Baroque Architecture | 3 |
| FMS 3843 | Topics in National Cinema (Topic: Italian Neo-Realism) | 3 |
| HIST 3053 | Medieval Italy | 3 |
| HIST 3073 | The Renaissance | 3 |
| HIST 3120 | Topics in Modern European History (Topic: Sacred/Secular in Renaissance Italy) | 1-5 |
| HIST 3183 | Italy: Making a Nation? | 3 |
| HIST 4403 | Mussolini, Fascism, \& America | 3 |
| HIST 4973 | Undergraduate Seminar in History (Topic: Catholic Empires) | 3 |
| IAS 3000 | Special Topics in International and Area Studies (Topic: Italy Through Italian Film) | 1-4 |
| IAS 3273 | The European Union | 3 |
| P SC 3703 | From Plato to Machiavelli, the Classic Art of Politics | 3 |
| RELS 3900 | Special Topics (Topic: Contemporary Catholicism) | 1-4 |

## Japanese, B.A.

Minimum Total Credit Hours: 120
Major Hours: 36
Minimum Upper-Division Hours: 48
Overall GPA - Combined and OU: 2.00
Major GPA - Combined and OU: 2.00
Program Code: B608

## Major Requirements

- Some courses required for the major may also fulfill University General Education and/or Dodge College of Arts \& Sciences Requirements.
- The major requires 36 hours beyond JAPN 1115 and JAPN 1225. 1000-Level Japanese courses may not be counted for major credit at the University of Oklahoma.

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| JAPN 1115 | Beginning Japanese (5 hours) |  |
| JAPN 1225 | Beginning Japanese (Continued) (5 hours) |  |
| JAPN 2013 | Intermediate Japanese Listening and <br> Speaking | 3 |


| JAPN 2113 | Intermediate Japanese | 3 |
| :--- | :--- | :--- |
| JAPN 2223 | Intermediate Japanese (Continued) | 3 |
| JAPN 3013 | Advanced Japanese Listening and <br> Speaking | 3 |
| JAPN 3113 | Advanced Japanese I | 3 |
| JAPN 3223 | Advanced Japanese II |  |
| or JAPN 4543 | Introduction to Classical Japanese | 3 |
| JAPN 4113 | Japanese Language and Society I | 3 |
| JAPN 4223 | Senior Capstone in Japanese | 3 |
| JAPN 4993 | Pre-Modern Japanese Literature and <br> MLLL 3623 | 3 |
| MLLL 3633 | Modern Japanese Literature and Culture | 3 |
| Choose one of the following: | 3 |  |
| JAPN 4543 | Introduction to Classical Japanese | 3 |
| MLLL 3223 | Japan Through Film and Literature |  |
| MLLL 3233 |  | 3 |

Total Credit Hours36

## Major Support Requirements

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| History |  |  |
| HIST 3853 | Japan to 1850 | 3 |
| HIST 3863 | Japan Since 1850 | 3 |
| International Experience |  |  |
| Japanese majors are strongly encouraged to pursue study |  |  |
| abroad opportunities in Japan | $\mathbf{6}$ |  |

## General Education and College Requirements

Courses for fulfillment of General Education and Dodge College of Arts \& Sciences requirements must be from the approved General Education course list published in the Class Schedule or at http://www.ou.edu/ gened/courses. Courses graded P/NP will not apply.

## UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS

Code Title Credit

## Core Area I: Symbolic and Oral Communication

English Composition (6 hours)
ENGL 1113 Principles of English Composition 3
ENGL 1213 Principles of English Composition 3
or EXPO 1213 Expository Writing
Language (0-13 hours in the same language)
The college requirement cannot be met by high school coursework.
Beginning Course ..... 0-5
Beginning Course, continued ..... 0-5
Intermediate Course (2000 level) ${ }^{1,2}$ ..... 0-3
Mathematics (3 hours)
Choose one course from the General Education Mathematics ..... 3


## Free Electives

Electives to bring total applicable hours to the minimum total required for the degree including 48 upper-division hours.

## Information Concerning General Rules, Regulations and Minimum Requirements

Arts and Sciences Hours: At least 80 semester hours of liberal arts and sciences courses are required for a BA degree. At least 55 semester hours of liberal arts and sciences courses are required for a BS degree. Pass/No Pass Enrollment: A maximum of 16 semester hours of free elective credit may be attempted under this option.

Individual Studies (e.g., courses titled "Independent Study"): A maximum of 12 total semester hours may be counted toward graduation, excluding Honors Reading and Honors Research.
P.E. Courses: No physical education activity courses will be counted toward the 120 semester hours of acceptable credit for graduation. Senior Institution Hours: A minimum of 60 semester hours applied toward graduation must be earned at senior (4-year) institutions.
Residency:

- At least 15 of the final 30 hours applied toward the degree or at least 50 percent of the hours required by the institution in the major field must be satisfactorily completed at the awarding institution.
- At least 15 semester hours of upper-division major work must be completed in residence at OU.
- OU correspondence courses are not considered resident credit.

Grade Point Averages: Students must earn a minimum over all 2.00 for each of the following: Combined Retention GPA (all college grades), OU Retention GPA, GPA for all major courses, and GPA for all major courses taken at OU. Some schools and departments of the College have higher minimum grade point averages required for their students.

## Suggested Semester Plan of Study

This plan shows one possible grouping of courses that would allow students to graduate in four years. Please refer to the front of the degree checksheet for official requirements. Students must consult with Dodge College of Arts and Sciences and/or Department of Modern Languages, Literatures, and Linguistics academic advisors to verify that courses selected each semester fulfill the recommended plan and satisfy University, College of Arts and Sciences, and Japanese major requirements.

## Freshman

| First Semester | Credit <br> Hours |  |
| :--- | ---: | ---: |
| JAPN 1115 | Beginning Japanese | 5 |
| ENGL 1113 | Principles of English Composition (Core I) | 3 |
| Math (Core I) |  | 3 |
| Natural Science with lab (Core II) | $\mathbf{4}$ |  |
| Credit Hours | $\mathbf{1 5}$ |  |


| Second Semester |  |  |
| :--- | :--- | ---: |
| JAPN 1225 | Beginning Japanese (Continued) | 5 |
| ENGL 1213 | Principles of English Composition (Core I) |  |
| or EXPO 1213 or Expository Writing | 3 |  |
| Social Science (Core III) | 3 |  |
| First Year Experience (Core V) | 3 |  |
| Credit Hours | $\mathbf{1 4}$ |  |

## Sophomore

First Semester

| JAPN 2113 | Intermediate Japanese | 3 |
| :--- | :--- | ---: |
| JAPN 2013 | Intermediate Japanese Listening and <br>  <br>  <br>  <br> Speaking | 3 |
| P SC 1113 | American Federal Government (Core III) | 3 |
| Artistic Forms (Core IV) | 3 |  |
| Western Culture (Core IV), lower-division | 3 |  |
| Credit Hours | $\mathbf{1 5}$ |  |


| Second Semester |  |  |
| :---: | :---: | :---: |
| JAPN 2223 | Intermediate Japanese (Continued) | 3 |
| JAPN 3013 | Advanced Japanese Listening and Speaking | 3 |
| HIST 1483 or HIST 1493 | United States to 1865 (Core IV) or United States, 1865 to the Present | 3 |
| Natural Science without lab (Core II) |  | 3 |
| World Culture (Core IV) |  | 3 |
|  | Credit Hours | 15 |
| Junior |  |  |
| First Semester |  |  |
| JAPN 3113 | Advanced Japanese I | 3 |
| MLLL 3623 | Pre-Modern Japanese Literature and Culture | 3 |
| Arts \& Humanities, upper-division, outside major (Gen. Ed.) |  | 3 |
| Free Elective, upper-division (3000-4000-level) |  | 3 |
| Free Elective, lower- or upper-division |  | 3 |
| Free Elective, lower- or upper-division |  | 1 |
|  | Credit Hours | 16 |
| Second Semester |  |  |
| JAPN 3223 or JAPN 4543 | Advanced Japanese II or Introduction to Classical Japanese | 3 |
| MLLL 3633 | Modern Japanese Literature and Culture | 3 |
| HIST 3853 | Japan to 1850 | 3 |
| Free Elective, upper-division (3000-4000-level) |  | 3 |
| Free Elective, lower- or upper-division |  | 3 |
|  | Credit Hours | 15 |
| Senior |  |  |
| First Semester |  |  |
| JAPN 4113 | Japanese Language and Society I | 3 |
| Choose one of the following: |  | 3 |
| JAPN 4543 | Introduction to Classical Japanese |  |
| JAPN 4013 |  |  |
| MLLL 3223 | Japan Through Film and Literature |  |
| MLLL 3233 |  |  |
| Arts \& Humanities, upper-division, outside major (Gen. Ed.) |  | 3 |
| Free Elective, upper-division (3000-4000-level) |  | 3 |
| Free Elective, upper-division (3000-4000-level) |  | 3 |
|  | Credit Hours | 15 |
| Second Semester |  |  |
| JAPN 4223 |  | 3 |
| JAPN 4993 | Senior Capstone in Japanese | 3 |
| HIST 3863 | Japan Since 1850 | 3 |
| Free Elective, upper-division (3000-4000-level) |  | 3 |
| Free Elective, upper-division (3000-4000-level) |  | 3 |
|  | Credit Hours | 15 |
|  | Total Credit Hours | 120 |

## Linguistics, B.A.

Minimum Total Credit Hours: 120
Major Hours: 33
Minimum Upper-Division Hours: 48

## Overall GPA - Combined and OU: 2.00 <br> Major GPA - Combined and OU: 2.00 <br> Program Code: B655 <br> Major Requirements

- Some courses required for the major may also fulfill University General Education and/or Dodge College of Arts \& Sciences Requirements.

| Code | Title | Credit |
| :---: | :---: | :---: |
| Linguistics |  |  |
| LING/ANTH 2303 | General Linguistics | 3 |
| LING 3033 | Phonetic Description | 3 |
| LING 3053 | Phonology | 3 |
| LING 3353 | Syntax | 3 |
| LING 4983 | Senior Essay (Capstone) | 3 |
| Comparative |  |  |
| Choose one of the following: |  | 3 |
| LING 3813 | Sociolinguistics |  |
| LING 4173 | Typology |  |
| LING 4313 | Techniques of Historical Linguistics |  |
| Theory |  |  |
| Choose two courses from "Comparative" above or from the following: |  | 6 |
| LING 3043 | Linguistic Semantics |  |
| LING 3133 | Phonetic Field Methods |  |
| $\begin{aligned} & \text { LING/ANTH } \\ & 4053 \end{aligned}$ | Morphology |  |
| LING 4363 | Linguistic Field Methods |  |
| Electives |  |  |
| Choose three cour or the Linguistics | rses from "Comparative" or "Theory" above, Major Electives course list (p. 566) | 9 |

## Total Credit Hours

## Major Support Requirements

## Language Study Experience

The student will demonstrate significant experience in language study, according to the following criteria:

1. For students who are native English speakers, the language support requirement may be met by either.

- A major or minor in a world language;
or
- Two years of college instruction in one world language, plus one year of college instruction in a second world language.
or
- Two years of college instruction in one world language plus C S 1303 and C S 1323

2. II. For students who are native speakers of a language other than English and for whom English is not their native language, the requirement will be met by:

- Proficiency in the native language as demonstrated by testing out at the third year level (equivalent to the minor), with guidance by the departmental advisor,
or
- Satisfaction of the College of Arts and Sciences language requirement in a language other than the native language.


## NOTE

- One year of language study includes two semesters of introductory courses.
- Two years includes two semesters of introductory courses plus two semesters of intermediate study.


## Linguistics Major Elective Course List

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| ANTH 3063 | Language and Culture | 3 |
| ANTH 4063 | Language Contact, Loss, and Revitalization | 3 |
| ENGL 4133 | History Of the English Language | 3 |
| LING 3173 | Lesser Studied Languages | 3 |
| LING 4023 | Second Language Acquisition Theory | 3 |
| LING 4330 | Topics in Linguistics | $1-4$ |
| MLLL 4453 | Introduction to Chinese Language and | 3 |
|  | Linguistics | 3 |
| PHIL 4133 | Symbolic Logic I | 3 |
| PHIL 4533 | Philosophy of Language | 3 |
| PHIL 4543 | Philosophy of Mind | 3 |

## General Education and College Requirements

Courses for fulfillment of General Education and Dodge College of Arts \& Sciences requirements must be from the approved General Education course list published in the Class Schedule or at http://www.ou.edu/ gened/courses. Courses graded P/NP will not apply.

## UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS

| Code Title | Credit |
| :--- | :--- |
|  | Hours |

Core Area I: Symbolic and Oral Communication

| English Composition (6 hours) |  |
| :---: | :---: |
| ENGL 1113 Principles of English Composition | 3 |
| ENGL 1213 Principles of English Composition <br> or EXPO 1213 Expository Writing | 3 |
| Language (0-13 hours in the same language) |  |
| The college requirement cannot be met by high school coursework. |  |
| Beginning Course 0-5 |  |
| Beginning Course, continued |  |
| Intermediate Course (2000 level) ${ }^{1,2}$ 0-3 |  |
| Mathematics (3 hours) |  |
| Choose one course from the General Education Mathematics list |  |
| Core Area II: Natural Science (7 hours, including one laboratory component) |  |
| Biological Science |  |
| Choose an approved General Education Natural Science course with one of the following prefixes: BIOL, HES, MBIO, or PBIO ${ }^{1}$ | 3-4 |

Physical Science


## Free Electives

Electives to bring total applicable hours to the minimum total required for the degree including 48 upper-division hours.

## Information Concerning General Rules, Regulations and Minimum Requirements

Arts and Sciences Hours: At least 80 semester hours of liberal arts and sciences courses are required for a BA degree. At least 55 semester hours of liberal arts and sciences courses are required for a BS degree. Pass/No Pass Enrollment: A maximum of 16 semester hours of free elective credit may be attempted under this option.
Individual Studies (e.g., courses titled "Independent Study"): A maximum of 12 total semester hours may be counted toward graduation, excluding Honors Reading and Honors Research.
P.E. Courses: No physical education activity courses will be counted toward the 120 semester hours of acceptable credit for graduation. Senior Institution Hours: A minimum of 60 semester hours applied toward graduation must be earned at senior (4-year) institutions.
Residency:

- At least 15 of the final 30 hours applied toward the degree or at least 50 percent of the hours required by the institution in the major field must be satisfactorily completed at the awarding institution.
- At least 15 semester hours of upper-division major work must be completed in residence at OU.
- OU correspondence courses are not considered resident credit.

Grade Point Averages: Students must earn a minimum over all 2.00 for each of the following: Combined Retention GPA (all college grades), OU Retention GPA, GPA for all major courses, and GPA for all major courses taken at OU. Some schools and departments of the College have higher minimum grade point averages required for their students.

## Suggested Semester Plan of Study

This plan shows one possible grouping of courses that would allow students to graduate in four years. Please refer to the front of the degree checksheet for official requirements. Students must consult with Dodge College of Arts and Sciences and/or Department of Modern Languages, Literatures, and Linguistics academic advisors to verify that courses selected each semester fulfill the recommended plan and satisfy University, College of Arts and Sciences, and Linguistics major requirements.

| Freshman |  |
| :---: | :---: |
| First Semester | Credit |
|  | Hours |
| ENGL 1113 Principles of English Composition (Core I) | 3 |
| Beginning Language (Core I) | 5 |
| First Year Experience (Core V) | 3 |
| Math (Core I) | 3 |
| Credit Hours | 14 |
| Second Semester |  |
| ENGL 1213 Principles of English Composition (Core I) <br> or EXPO 1213 or Expository Writing | 3 |
| HIST 1483 United States to 1865 (Core IV) <br> or HIST 1493 or United States, 1865 to the Present | 3 |
| Beginning Language continued (Core I) | 5 |
| Social Science (Core III) | 3 |
| Artistic Forms (Core IV) | 3 |
| Credit Hours | 17 |

## Sophomore

$\begin{array}{lll}\text { First Semester } & \\ \text { LING } 2303 & \text { General Linguistics } & 3\end{array}$
P SC 1113 American Federal Government (Core III) 3
Intermediate Language 3
Natural Science with lab (Core II) 4

| Western Culture (Core IV) | 3 |
| :---: | ---: |
| Credit Hours | 16 |

## Second Semester

| LING $3033 \quad$ Phonetic Description | 3 |
| :--- | ---: |
| Intermediate Language continued | 3 |
| Natural Science without lab (Core II) | 3 |
| World Culture (Core IV) | 3 |
| Free Elective, lower-division | $\mathbf{3}$ |
| Credit Hours | $\mathbf{1 5}$ |

## Junior

| First Semester |  | 3 |
| :--- | :--- | ---: |
| LING 3053 | Phonology | 3 |
| LING 3353 | Syntax | 3 |
| Major Required Elective | 5 |  |
| Second Language |  |  |
| Arts \& Humanities, upper-division, outside major (Gen. Ed.) | 3 |  |
| Credit Hours |  |  |


| Second Semester | 3 |
| :--- | ---: |
| Major Required Elective | 3 |
| Major Required Elective | 5 |
| Second Language $^{1}$ | 3 |
| Arts \& Humanities, upper-division, outside major (Gen. Ed.) | $\mathbf{1 4}$ |

## Senior

First Semester
Major Required Elective 3
Major Required Elective 3
Free Elective, upper-division (3000-4000-level) 3
Free Elective, upper-division (3000-4000-level) 3
Free Elective, upper-division (3000-4000-level) 3
Credit Hours 15
Second Semester
LING 4983 Senior Essay 3
Major Required Elective 3
Free Elective, lower- or upper-division 3
Free Elective, upper-division (3000-4000-level) $\quad 3$

| Credit Hours | 12 |
| :--- | ---: |
| Total Credit Hours | 120 |

1 Requirement may be met by either: A major or minor in a foreign language or Two years of college instruction in one foreign language plus one year of college instruction in a second foreign language or Two years of college instruction in one foreign language plus C S 1303 and C S 1323.

## Russian, B.A.

Minimum Total Credit Hours: 120
Major Hours: 36
Minimum Upper-Division Hours: 48
Overall GPA - Combined and OU: 2.00
Major GPA - Combined and OU: 2.00
Program Code: B825

## Major Requirements

- Some courses required for the major may also fulfill University General Education and/or Dodge College of Arts \& Sciences Requirements.
- The major requires 36 hours beyond RUSS 1115 and RUSS 1225.

| Code | Title | Credit <br> Hours | General Education and College Requirements |  |
| :---: | :---: | :---: | :---: | :---: |
| Russian ${ }^{1}$ |  |  | Courses for fulfillment of General Education and Dodge College of Arts \& Sciences requirements must be from the approved General Education course list published in the Class Schedule or at http://www.ou.edu/ gened/courses. Courses graded P/NP will not apply. |  |
| RUSS 1115 | Beginning Russian (5 hours) |  |  |  |
| RUSS 1225 | Beginning Russian (Continued) (5 hours) |  |  |  |
| RUSS 2113 | Intermediate Russian | 3 | UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS |  |
| RUSS 2223 | Intermediate Russian (Continued) | 3 |  |  |
| RUSS 3323 | Advanced Russian Reading and Composition | 3 | Code Title | Credit <br> Hours |
| RUSS 3423 | Advanced Russian Reading and Composition (Continued) | 3 | Core Area I: Symbolic and Oral Communication |  |
|  |  |  | English Composition (6 hours) |  |
| RUSS 4173 | Topics in Nineteenth-Century Russian Literature and Culture | 3 | ENGL 1113 Principles of English Composition | 3 |
| RUSS 4183 | Topics in 20th and Post-20th Century Russian Literature and Culture (Capstone) | 3 | $\begin{array}{ll}\text { ENGL } 1213 & \text { Principles of English Composition } \\ \text { or EXPO } 1213 & \text { Expository Writing }\end{array}$ | 3 |
| Choose two of the following: |  |  | Language (0-13 hours in the same language) |  |
| RUSS 3023 | Beginning Business Russian |  | The college requirement cannot be met by high school coursework. |  |
| RUSS 3073 | Russian Conversation |  | Beginning Course | 0-5 |
| RUSS 3523 | Interpreting the Russian Media |  | Beginning Course, continued |  |
| RUSS 4613 | Advanced Russian Conversation |  | Intermediate Course (2000 level) ${ }^{1,2}$ | 0-3 |
| Modern Languages, Literatures \& Linguistics (MLLL) |  |  | Mathematics (3 hours) |  |
| MLLL 3523 | Survey of Russian Literature to 1917 in Translation | 3 | Choose one course from the General Education Mathematics list |  |
| MLLL 3533 | Survey of Russian Literature from 1917 in Translation | 3 | Core Area II: Natural Science (7 hours, including one laboratory component) |  |
| Choose two of the following in Russian literature or culture: |  | 6 | Biological Science |  |
| MLLL 3133 | Soviet and Post-Soviet Cinema |  | Choose an approved General Education Natural Science course with one of the following prefixes: BIOL, HES, MBIO, or PBIO ${ }^{1}$ |  |
| MLLL 3143 | Dostoevsky and His Age |  |  |  |
| MLLL 3153 |  |  |  |  |
| MLLL 3163 | Chekhov |  | Physical Science |  |
| MLLL 3173 | Nabokov |  | Choose an approved General Education Natural Science course with one of the following prefixes: AGSC, ASTR, CHEM, GEOG, GEOL, GPHY, METR, or PHYS ${ }^{1}$ |  |
| MLLL 3183 | Tolstoy. Writer, Thinker, Social Critic |  |  |  |
| MLLL 3543 | The Petersburg Myth and Text/The City in Russian Culture |  |  |  |
|  |  |  | Core Area III: Social Science (6 hours) |  |
| Or another appropriate course with approval of Russian advisor |  |  | P SC 1113 American Federal Government | 3 |
|  |  |  | Choose one course from the General Education Social Science list |  |
| Total Credit Hours |  | 36 |  |  |
| ${ }^{1}$ Note: The following courses may not be counted for major credit at the University of Oklahoma: 1000-level courses. |  |  | Core Area IV: Arts and Humanities (18 hours) |  |
|  |  |  | Artistic Forms |  |
|  |  |  | Choose one course from the General Education Artistic Forms list | 3 |
| Major Support Requirements |  |  | Western Culture |  |
| Code | Title | Credit Hours | HIST 1483 United States to 1865 3 <br> or HIST 1493 United States, 1865 to the Present  |  |
| Select one of the following: |  | 3 | Choose one course from the General Education Western Culture list (excluding HIST 1483/1493) |  |
| HIST 2803 | Survey of Russia |  |  |  |
| HIST 3793 | Imperial Russia |  | World Culture |  |
| HIST 3803 | The Era of the Russian Revolutions |  | Choose one course from the General Education World Culture list |  |
| HIST 3813 | Twentieth-Century Russian History |  |  |  |
| Or any equivalent approved by the Russian advisor |  |  | Additional Core IV Upper-Division Arts \& Humanities courses |  |
| Total Credit Hours 3 |  |  | Choose one course from Artistic Forms, Western Culture, or World Culture ${ }^{1,3}$ |  |
|  |  |  | Choose one course from Artistic Forms, Western Culture, or World Culture ${ }^{1,3}$ |  |

Core Area V: First Year Experience (3 hours)

| Choose one course |
| :--- |
| Total Credit Hours |
| 1 | | College of Arts and Sciences Requirements: college requirements are |
| :--- |
| not automatically fulfilled by a previous degree. |

2 | One course at the intermediate level or demonstrated competency at |
| :--- |
| that level |
| 3 upper-division hours, 2 courses, at the 3000-4000-level. Must be |

| outside the major. |
| :--- |

## Free Electives

Electives to bring total applicable hours to the minimum total required for the degree including 48 upper-division hours.

## Information Concerning General Rules, Regulations and Minimum Requirements

Arts and Sciences Hours: At least 80 semester hours of liberal arts and sciences courses are required for a BA degree. At least 55 semester hours of liberal arts and sciences courses are required for a BS degree.
Pass/No Pass Enrollment: A maximum of 16 semester hours of free elective credit may be attempted under this option.
Individual Studies (e.g., courses titled "Independent Study"): A maximum of 12 total semester hours may be counted toward graduation, excluding Honors Reading and Honors Research.
P.E. Courses: No physical education activity courses will be counted toward the 120 semester hours of acceptable credit for graduation. Senior Institution Hours: A minimum of 60 semester hours applied toward graduation must be earned at senior (4-year) institutions. Residency:

- At least 15 of the final 30 hours applied toward the degree or at least 50 percent of the hours required by the institution in the major field must be satisfactorily completed at the awarding institution.
- At least 15 semester hours of upper-division major work must be completed in residence at OU.
- OU correspondence courses are not considered resident credit.

Grade Point Averages: Students must earn a minimum over all 2.00 for each of the following: Combined Retention GPA (all college grades), OU Retention GPA, GPA for all major courses, and GPA for all major courses taken at OU. Some schools and departments of the College have higher minimum grade point averages required for their students.

## Suggested Semester Plan of Study

This plan shows one possible grouping of courses that would allow students to graduate in four years. Please refer to the front of the degree checksheet for official requirements. Students must consult with Dodge College of Arts and Sciences and Department of Modern Languages, Literatures, and Linguistics academic advisers to verify that courses selected each semester fulfill the recommended plan and satisfy University, College of Arts and Sciences, and Russian major requirements.

## Freshman

| First Semester | Credit <br> Hours |  |
| :--- | ---: | ---: |
| ENGL 1113 | Principles of English Composition (Core I) | 3 |
| Math (Core I) |  | 3 |


| RUSS 1115 | Beginning Russian | 5 |
| :---: | :---: | :---: |
| Natural Science with lab (Core II) |  | 4 |
|  | Credit Hours | 15 |
| Second Semester |  |  |
| ENGL 1213 or EXPO 1213 | Principles of English Composition (Core I) or Expository Writing | 3 |
| RUSS 1225 | Beginning Russian (Continued) | 5 |
| Social Science (Cor | ore III) | 3 |
| First Year Experien | nce (Core V) | 3 |
|  | Credit Hours | 14 |
| Sophomore |  |  |
| First Semester |  |  |
| P SC 1113 | American Federal Government (Core III) | 3 |
| RUSS 2113 | Intermediate Russian | 3 |
| Natural Science w | without lab (Core II) | 3 |
| Artistic Forms (Cor | ore IV) | 3 |
| Western Culture (Cor | Core IV), lower-division | 3 |
|  | Credit Hours | 15 |
| Second Semester |  |  |
| HIST 1483 or HIST 1493 | United States to 1865 (Core IV) or United States, 1865 to the Present | 3 |
| RUSS 2223 | Intermediate Russian (Continued) | 3 |
| Russian History M | Major Support Elective ${ }^{1}$ | 3 |
| World Culture (Core | re IV) | 3 |
| Free Elective, lowe | er-division | 1 |
| Free Elective, lowe | er-division | 3 |
|  | Credit Hours | 16 |
| Junior |  |  |
| First Semester |  |  |
| MLLL 3523 | Survey of Russian Literature to 1917 in Translation | 3 |
| RUSS 3323 | Advanced Russian Reading and Composition | 3 |
| Russian Literature | e and Culture Major Elective ${ }^{2}$ | 3 |
| Arts \& Humanities | , upper-division, outside major (Gen. Ed.) | 3 |
| Free Elective, lowe | er- or upper-division | 3 |
|  | Credit Hours | 15 |
| Second Semester |  |  |
| MLLL 3533 | Survey of Russian Literature from 1917 in Translation | 3 |
| RUSS 3423 | Advanced Russian Reading and Composition (Continued) | 3 |
| Russian Literature | e and Culture Major Elective ${ }^{2}$ | 3 |
| Free Elective, lowe | er- or upper-division | 3 |
| Russian Major Ele | ective | 3 |
|  | Credit Hours | 15 |
| Senior |  |  |
| First Semester |  |  |
| RUSS 4173 | Topics in Nineteenth-Century Russian Literature and Culture | 3 |
| Arts \& Humanities | , upper-division, outside major (Gen. Ed.) | 3 |
| Free Elective, lowe | er- or upper-division | 3 |
| Free Elective, lowe | er- or upper-division | 3 |

## Sophomore

P SC 1113 American Federal Government (Core III) 3

HIST $1483 \quad 3$
$\begin{array}{rcc}\text { or HIST } 1493 & \text { or United States, } 1865 \text { to the Present } \\ \text { RUSS } 2223 & \text { Intermediate Russian (Continued) } & 3\end{array}$
Russian History Major Support Elective ${ }^{1} 3$
World Culture (Core IV) 3
Free Elective, lower-division 1

Junior
First Semester

Second Semester

## Senior

First Semester
RUSS 4173 Topics in Nineteenth-Century Russian 3

Arts \& Humanities, upper-division, outside major (Gen. Ed.) 3

Free Elective, lower- or upper-division 3

| Russian Major Elective | 3 |
| :--- | ---: |
| Credit Hours |  |
| Second Semester |  |
| RUSS $4183 \quad$Topics in 20th and Post-20th Century <br>  <br>  <br> Russian Literature and Culture |  |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Credit Hours | 3 |
| Total Credit Hours | $\mathbf{1 5}$ |

${ }^{1}$ Russian history major support elective chosen from HIST 2803, HIST 3770, HIST 3793, HIST 3803, or an equivalent approved by the Russian adviser.
${ }^{2}$ Russian literature and culture major elective chosen from MLLL 3123, MLLL 3133, MLLL 3143, or another appropriate upper-division course approved by the Russian adviser.

## Spanish, B.A.

Minimum Total Credit Hours: 120
Major Hours: 36
Minimum Upper-Division Hours: 48
Overall GPA - Combined and OU: 2.00
Major GPA - Combined and OU: 2.00

## Program Code: B850

## Major Requirements

- Some courses required for the major may also fulfill University General Education and/or Dodge College of Arts \& Sciences Requirements.
- The major requires 36 hours beyond SPAN 1115 and SPAN 1225 .
- A grade of C or better must be earned in all Major Requirements.

| Code | Title | Credit |
| :--- | :--- | :--- |
|  | Hours |  |

## Core Requirements

| SPAN 1115 | Beginning Spanish (5 hours) |  |
| :--- | :--- | ---: |
| SPAN 1225 | Beginning Spanish (Continued) (5 hours) |  |
| SPAN 2113 | Intermediate Spanish | 3 |
| SPAN 2223 | Intermediate Spanish Continued | 3 |
| SPAN 3073 | Grammar in Conversational | 3 |
|  | Communication | 3 |
| SPAN 3423 | Grammar in Written Communication | 3 |
| SPAN 3853 | Introduction to Hispanic Literature and | 3 |
|  | Culture | 3 |

## Literature \& Culture Requirement

Choose two of the following:

| SPAN 4083 | Literature and Culture of Spain |
| :--- | :--- |
| SPAN 4113 | Literature and Culture of Latin America |
| SPAN 4143 | Transatlantic Literature and Culture |
| SPAN 4173 | Regional Literature and Cultures |


| Linguistics Requirement |  |  |
| :---: | :---: | :---: |
| Choose one of the following: |  | 3 |
| SPAN 4713 | History of the Spanish Language |  |
| SPAN 4773 | Topics in Spanish Linguistics |  |
| SPAN 4913 | The Structure of the Spanish Language |  |
| SPAN 4923 | Teaching of Spanish in the United States |  |
| Electives |  |  |
| Choose three courses from the Spanish Major Electives course list (maximum 6 hours at the $3000-$ level ) (p. 570) |  | 9 |
| Total Credit Hours |  | 36 |
| Major Supp | rt Requirements |  |

Code Title Credit

## History

Choose a course in the history of Spanish America or Spain 3

## Study Abroad

International Experience: Spanish majors are strongly encouraged to pursue study abroad opportunities in a Spanish-speaking country or in a Spanish immersion environment. Plans should be approved by the major advisor in advance
Exceptions: Exceptions will be made by the major advisor
International Credit: The Spanish program will make every effort to equate towards the Spanish major any relevant academic credit earned in a study abroad program at an institution recognized by OU
Total Credit Hours

## Spanish Major Elective Course List

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| SPAN 3723 | Business Spanish | 3 |
| SPAN 3733 | Medical Spanish | 3 |
| SPAN 3743 | Legal Spanish | 3 |
| SPAN 3753 | Spanish for Social Work | 3 |
| SPAN 3763 | Spanish for Journalism | 3 |
| SPAN 4083 | Literature and Culture of Spain | 3 |
| SPAN 4113 | Literature and Culture of Latin America | 3 |
| SPAN 4143 | Transatlantic Literature and Culture | 3 |
| SPAN 4173 | Regional Literature and Cultures | 3 |
| SPAN 4503 | Hispanic Cinema Studies | 3 |
| SPAN 4713 | History of the Spanish Language | 3 |
| SPAN 4773 | Topics in Spanish Linguistics | 3 |
| SPAN 4913 | The Structure of the Spanish Language | 3 |
| SPAN 4923 | Teaching of Spanish in the United States | 3 |

## General Education and College Requirements

Courses for fulfillment of General Education and Dodge College of Arts \& Sciences requirements must be from the approved General Education course list published in the Class Schedule or at http://www.ou.edu/ gened/courses. Courses graded P/NP will not apply.

## UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS <br> Code Title

Core Area I: Symbolic and Oral Communication

| English Composition (6 hours) |  |  |
| :---: | :---: | :---: |
| ENGL 1113 | Principles of English Composition | 3 |
| $\begin{aligned} & \text { ENGL } 1213 \\ & \text { or EXPO } 1213 \end{aligned}$ | Principles of English Composition Expository Writing | 3 |
| Language (0-13 hours in the same language) |  |  |
| The college requir coursework. | ement cannot be met by high schoo |  |

Beginning Course 0-5
Beginning Course, continued 0-5
Intermediate Course (2000 level) ${ }^{1,2}$ 0-3

## Mathematics (3 hours)

Choose one course from the General Education Mathematics
list

Core Area II: Natural Science (7 hours, including one laboratory component)
Biological Science
Choose an approved General Education Natural Science 3-4 course with one of the following prefixes: BIOL, HES, MBIO, or PBIO ${ }^{1}$

## Physical Science

Choose an approved General Education Natural Science 3-4
course with one of the following prefixes: AGSC, ASTR, CHEM,
GEOG, GEOL, GPHY, METR, or PHYS ${ }^{1}$
Core Area III: Social Science (6 hours)
PSC 1113 American Federal Government 3
Choose one course from the General Education Social 3

## Science list

Core Area IV: Arts and Humanities (18 hours)

## Artistic Forms

Choose one course from the General Education Artistic Forms 3

## list

## Western Culture

| HIST 1483 | United States to 1865 |
| :---: | :--- |
| or HIST 1493 | United States, 1865 to the Present |

Choose one course from the General Education Western
Culture list (excluding HIST 1483/1493)

## World Culture

Choose one course from the General Education World Culture
Additional Core IV Upper-Division Arts \& Humanities courses
Choose one course from Artistic Forms, Western Culture, or

## World Culture ${ }^{1,3}$

Choose one course from Artistic Forms, Western Culture, or 3
World Culture ${ }^{1,3}$
Core Area V: First Year Experience (3 hours)
Choose one course 3
Total Credit Hours 56

[^15]${ }^{2}$ One course at the intermediate level or demonstrated competency at that level
${ }^{3} 6$ upper-division hours, 2 courses, at the 3000-4000-level. Must be outside the major.

## Free Electives

Electives to bring total applicable hours to the minimum total required for the degree including 48 upper-division hours.

## Information Concerning General Rules, Regulations and Minimum Requirements

Arts and Sciences Hours: At least 80 semester hours of liberal arts and sciences courses are required for a BA degree. At least 55 semester hours of liberal arts and sciences courses are required for a BS degree. Pass/No Pass Enrollment: A maximum of 16 semester hours of free elective credit may be attempted under this option.
Individual Studies (e.g., courses titled "Independent Study"): A maximum of 12 total semester hours may be counted toward graduation, excluding Honors Reading and Honors Research.
P.E. Courses: No physical education activity courses will be counted toward the 120 semester hours of acceptable credit for graduation.
Senior Institution Hours: A minimum of 60 semester hours applied toward graduation must be earned at senior (4-year) institutions.

## Residency:

- At least 15 of the final 30 hours applied toward the degree or at least 50 percent of the hours required by the institution in the major field must be satisfactorily completed at the awarding institution.
- At least 15 semester hours of upper-division major work must be completed in residence at OU .
- OU correspondence courses are not considered resident credit.

Grade Point Averages: Students must earn a minimum over all 2.00 for each of the following: Combined Retention GPA (all college grades), OU Retention GPA, GPA for all major courses, and GPA for all major courses taken at OU. Some schools and departments of the College have higher minimum grade point averages required for their students.

## Suggested Semester Plan of Study

This plan shows one possible grouping of courses that would allow students to graduate in four years. Please refer to the front of the degree checksheet for official requirements. Students must consult with Dodge College of Arts and Sciences and Department of Modern Languages, Literatures, and Linguistics academic advisors to verify that courses selected each semester fulfill the recommended plan and satisfy University, College of Arts and Sciences, and Spanish major requirements.

## Freshman

First Semester Credit Hours
ENGL 1113 Principles of English Composition (Core I) 3
Math (Core I) 3

SPAN 1115 Beginning Spanish 5
Natural Science with lab (Core II) 4
Credit Hours 15

## Second Semester

$\begin{array}{cc}\text { ENGL } 1213 & \text { Principles of English Composition (Core I) } \\ \text { or EXPO 1213 } & \text { or Expository Writing }\end{array}$


| Free Elective, upper-division (3000-4000-level) | 3 |
| :---: | ---: |
| Credit Hours | $\mathbf{1 5}$ |
| Total Credit Hours | $\mathbf{1 2 0}$ |
| 1 Contact the department for a list of approved courses. |  |

## Arabic, Minor

Minimum Total Credit Hours: 18
Minimum Upper-Division Hours: 9

## Program Code: N032

- The requirements for a minor must be completed concurrently with the major degree requirements.
- No minor may be added by completing courses after receiving the bachelor's degree.

At least six (6) credit hours must be earned in courses acceptable for residence credit by standards set forth by the Dodge College of Arts and Sciences, excluding transfer, correspondence, and examination (AP, CLEP, Advanced Standing) credit. Courses for the minor may not be taken Pass/ No Pass.

No single course may be used by a student to satisfy a major requirement and a minor requirement. A course may be used, however, to satisfy both a major support requirement and a minor requirement.

Requests to substitute a minor requirement must be approved in writing by the Arabic program in the Modern Languages Department.

## Required Courses

Students must successfully complete at least 18 hours of coursework in Arabic, including at least nine (9) hours at the upper-division level.


## Chinese, Minor

Minimum Total Credit Hours: 18
Minimum Upper-Division Hours: 9
Program Code: N180

- The requirements for a minor must be completed concurrently with the major degree requirements.
- No minor may be added by completing courses after receiving the bachelor's degree.

At least six (6) credit hours must be earned in courses acceptable for residence credit by standards set forth by the Dodge College of Arts and Sciences, excluding transfer, correspondence, and examination (AP, CLEP, Advanced Standing) credit. Courses for the minor may not be taken Pass/ No Pass.

No single course may be used by a student to satisfy a major requirement and a minor requirement. A course may be used, however, to satisfy both a major support requirement and a minor requirement.

Requests to substitute a minor requirement must be approved in writing by the Chinese program in the Modern Languages Department.

## Required Courses

Students must successfully complete at least 18 hours of coursework in Chinese or MLLL related to China/Chinese, including at least nine (9) hours at the upper-division level.

| Code | Title | Credit <br> Hours |
| :---: | :---: | :---: |
| CHIN 2113 | Intermediate Chinese | 3 |
| CHIN 2223 | Intermediate Chinese (Continued) | 3 |
| CHIN 3113 | Advanced Chinese I | 3 |
| Choose two of the following: |  | 6 |
| CHIN 3223 | Advanced Chinese II |  |
| CHIN 3323 | Advanced Listening and Speaking |  |
| CHIN 3623 | Business Chinese |  |
| CHIN 4113 | Advanced Reading and Writing |  |
| CHIN 4333 | Translating Chinese |  |
| CHIN 4533 | Learning Chinese through Media |  |
| CHIN 4543 | Study of Classical Chinese and Calligraphy |  |
| Or other course approved by the Chinese advisor |  |  |
| Choose one of | following: | 3 |
| MLLL 3753 | Modern Chinese Literature and Culture |  |
| MLLL 3763 | Chinese Cinema |  |
| MLLL 4453 | Introduction to Chinese Language and Linguistics |  |
| MLLL 4753 | The Chinese Way of Thinking: Language, Culture, \& Cognition |  |
| Or other course approved by the Chinese advisor |  |  |
| Total Credit Ho |  | 18 |

- Minors in the Dodge College of Arts \& Sciences are available to all undergraduate students at OU. If the minor is officially declared, successfully completed, and noted on the graduation application, the student's transcript will so indicate at the time the bachelor's degree is posted.


## French, Minor

Minimum Total Credit Hours: 18
Minimum Upper-Division Hours: 9

## Program Code: N445

- The requirements for a minor must be completed concurrently with the major degree requirements.
- No minor may be added by completing courses after receiving the bachelor's degree.

At least six (6) credit hours must be earned in courses acceptable for residence credit by standards set forth by the Dodge College of Arts and Sciences, excluding transfer, correspondence, and examination (AP, CLEP, Advanced Standing) credit. Courses for the minor may not be taken Pass/ No Pass.

No single course may be used by a student to satisfy a major requirement and a minor requirement. A course may be used, however, to satisfy both a major support requirement and a minor requirement.

Requests to substitute a minor requirement must be approved in writing by the French program in the Modern Languages Department.

## Required Courses

Students must successfully complete at least 18 hours of courses acceptable for major credit in French, including at least nine (9) hours at the upper-division level. Note that introductory courses (FR 1115 and FR 1225) are not counted toward this total.

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| FR 2113 | Intermediate French | 3 |
| FR 2223 | Intermediate French (Continued) | 3 |
| Choose one of the following: | 3 |  |


| FR 2243 | French Conversation and Literature |
| ---: | :--- |
| FR 2253 | Health, Medicine, and the Environment in <br> French Culture |
| FR 3423 | Advanced French Composition |

Choose 6 hours of French courses at the 3000- or 4000-level 6
Total Credit Hours 18

- Minors in the Dodge College of Arts \& Sciences are available to all undergraduate students at OU. If the minor is officially declared, successfully completed, and noted on the graduation application, the student's transcript will so indicate at the time the bachelor's degree is posted.


## German, Minor

Minimum Total Credit Hours: 18
Minimum Upper-Division Hours: 9

## Program Code: N490

- The requirements for a minor must be completed concurrently with the major degree requirements.
- No minor may be added by completing courses after receiving the bachelor's degree.

At least six (6) credit hours must be earned in courses acceptable for residence credit by standards set forth by the Dodge College of Arts and Sciences, excluding transfer, correspondence, and examination (AP, CLEP, Advanced Standing) credit. Courses for the minor may not be taken Pass/ No Pass.

No single course may be used by a student to satisfy a major requirement and a minor requirement. A course may be used, however, to satisfy both a major support requirement and a minor requirement.

Requests to substitute a minor requirement must be approved in writing by the German program in the Department of Modern Languages, Literature, \& Linguistics.

## Required Courses

Students must successfully complete at least 18 hours of courses acceptable for major credit in German, including at least nine (9) hours at the upper-division level. Note that introductory courses (GERM 1115 and GERM 1225) are not counted toward this total.

| Code | Title | Credit Hours |
| :---: | :---: | :---: |
| GERM 2113 | Intermediate German | 3 |
| GERM 2223 | Intermediate German (Continued) | 3 |
| GERM 3423 | Advanced German Composition | 3 |
| Select 9 hours of upper-division course work from the following: |  | 9 |
| German courses at the 3000- or 4000-level |  |  |
| MLLL 3823 | German Culture and Thought |  |

Total Credit Hours

- Minors in the Dodge College of Arts \& Sciences are available to all undergraduate students at OU. If the minor is officially declared, successfully completed, and noted on the graduation application, the student's transcript will so indicate at the time the bachelor's degree is posted.


## Hebrew, Minor

Minimum Total Credit Hours: 18
Minimum Upper-Division Hours: 9

## Program Code: N503

- The requirements for a minor must be completed concurrently with the major degree requirements.
- No minor may be added by completing courses after receiving the bachelor's degree.

At least six (6) credit hours must be earned in courses acceptable for residence credit by standards set forth by the Dodge College of Arts and Sciences, excluding transfer, correspondence, and examination (AP, CLEP, Advanced Standing) credit. Courses for the minor may not be taken Pass/ No Pass.

No single course may be used by a student to satisfy a major requirement and a minor requirement. A course may be used, however, to satisfy both a major support requirement and a minor requirement.

Requests to substitute a minor requirement must be approved in writing by the Hebrew program in the Modern Languages, Literatures \& Linguistics Department.

## Required Courses

Students must successfully complete at least 18 hours of coursework in Hebrew, including at least nine (9) hours at the upper-division level. Note
that introductory courses (HEBR 1115 and HEBR 1225) are not counted toward this total.

A grade of $C$ or better must be earned for each course presented for minor credit.

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| HEBR 2113 | Intermediate Hebrew | 3 |
| HEBR 2213 | Intermediate Hebrew II | 3 |
| HEBR 3113 | Advanced Hebrew | 3 |
| HEBR 3223 | Advanced Hebrew II | 3 |
| HEBR 3513 | Biblical Hebrew | 3 |
| or HEBR 3973 | 3 |  |
| MLLL 1073 <br> or MLLL 3063 | Survey of Jewish Literature from Antiquity to the |  |
|  | Present |  |

Total Credit Hours

- Minors in the Dodge College of Arts \& Sciences are available to all undergraduate students at OU. If the minor is officially declared, successfully completed, and noted on the graduation application, the student's transcript will so indicate at the time the bachelor's degree is posted.


## Italian, Minor

Minimum Total Credit Hours: 18
Minimum Upper-Division Hours: 12

## Program Code: N606

- The requirements for a minor must be completed concurrently with the major degree requirements.
- No minor may be added by completing courses after receiving the bachelor's degree.

At least six (6) credit hours must be earned in courses acceptable for residence credit by standards set forth by the Dodge College of Arts and Sciences, excluding transfer, correspondence, and examination (AP, CLEP, Advanced Standing) credit. Courses for the minor may not be taken Pass/ No Pass.

A grade of $C$ or better must be earned for each course presented for minor credit

Requests to substitute a minor requirement must be approved in writing by the Italian program in the Department of Modern Languages, Literature, \& Linguistics.

## Required Courses

Students must successfully complete at least 18 hours of coursework in Italian, including at least 12 hours at the upper-division level.

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| ITAL 2113 | Intermediate Italian | 3 |
| ITAL 2223 | Intermediate Italian Continued | 3 |
| ITAL 3073 | Italian Conversation \& Culture | 3 |
| ITAL 3423 | In Altre Parole: Writing in Italian | 3 |
| Choose one of the following: | 3 |  |


| ITAL 3553 | Authors and Ideas: From Dante to our Time |  |
| :---: | :---: | :---: |
| ITAL 3663 | Italian Cinema, Theater and Media |  |
| ITAL 3853 | Readings in Italian Literature \& Culture |  |
| Choose one of the following: |  | 3 |
| MLLL 3303 | The World of Dante |  |
| MLLL 3313 | Introduction to Italian Literature and Culture |  |
| MLLL 3373 | Italian Cinema |  |
| Or another advisor-approved upper-division course |  |  |

Total Credit Hours

- Minors in the Dodge College of Arts \& Sciences are available to all undergraduate students at OU. If the minor is officially declared, successfully completed, and noted on the graduation application, the student's transcript will so indicate at the time the bachelor's degree is posted.


## Japanese, Minor

Minimum Total Credit Hours: 18
Minimum Upper-Division Hours: 9

## Program Code: N607

- The requirements for a minor must be completed concurrently with the major degree requirements.
- No minor may be added by completing courses after receiving the bachelor's degree.

At least six (6) credit hours must be earned in courses acceptable for residence credit by standards set forth by the Dodge College of Arts and Sciences, excluding transfer, correspondence, and examination (AP, CLEP, Advanced Standing) credit. Courses for the minor may not be taken Pass/ No Pass.

## No single course may be used by a student to satisfy a major requirement

 and a minor requirement. A course may be used, however, to satisfy both a major support requirement and a minor requirement.Requests to substitute a minor requirement must be approved in writing by the Japanese program in the Department of Modern Languages, Literature, \& Linguistics.

## Required Courses

Students must successfully complete at least 18 hours of coursework in Japanese, including at least 9 hours at the upper-division level. Note that introductory courses (JAPN 1115 and JAPN 1225) are not counted toward this total.

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| JAPN 2013 | Intermediate Japanese Listening and <br> Speaking | 3 |
| JAPN 2113 | Intermediate Japanese | 3 |
| JAPN 2223 | Intermediate Japanese (Continued) | 3 |
| JAPN 3013 | Advanced Japanese Listening and <br> or JAPN 3133 | 3 |
| Speaking | 6 |  |

Choose 6 hours from the following: ..... 6

| MLLL 3223 | Japan Through Film and Literature |  |
| :---: | :--- | :--- |
| MLLL 3233 |  |  |
| MLLL 3623 | Pre-Modern Japanese Literature and <br>  <br> MLLL 3633 | Modern Japanese Literature and Culture |

- Minors in the Dodge College of Arts \& Sciences are available to all undergraduate students at OU. If the minor is officially declared, successfully completed, and noted on the graduation application, the student's transcript will so indicate at the time the bachelor's degree is posted.


## Linguistics, Minor

Minimum Total Credit Hours: 15
Minimum Upper-Division Hours: 9

## Program Code: N655

- The requirements for a minor must be completed concurrently with the major degree requirements.
- No minor may be added by completing courses after receiving the bachelor's degree.

At least six (6) credit hours must be earned in courses acceptable for residence credit by standards set forth by the Dodge College of Arts and Sciences, excluding transfer, correspondence, and examination (AP, CLEP, Advanced Standing) credit. Courses for the minor may not be taken Pass/ No Pass.

## No single course may be used by a student to satisfy a major requirement

 and a minor requirement. A course may be used, however, to satisfy both a major support requirement and a minor requirement.Requests to substitute a minor requirement must be approved in writing by the Linguistics program in the Department of Modern Languages, Literature, \& Linguistics.

## Required Courses

Students must successfully complete at least 15 hours of courses acceptable for major credit in Linguistics, including at least nine (9) hours at the upper-division level.


## Linguistics Elective Course List

Choose three of the following, for which the student has met prerequisites:

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| ANTH 3063 | Language and Culture | 3 |
| ANTH 4063 | Language Contact, Loss, and Revitalization | 3 |
| ENGL 4133 | History Of the English Language | 3 |
| LING 3043 | Linguistic Semantics | 3 |
| LING 3053 | Phonology | 3 |
| LING 3353 | Syntax | 3 |
| LING 3133 | Phonetic Field Methods | 3 |
| LING 4023 | Second Language Acquisition Theory | 3 |
| LING 4053 | Morphology | 3 |
| LING 4313 | Techniques of Historical Linguistics | 3 |
| LING 4330 | Topics in Linguistics | 3 |
| LING 4363 | Linguistic Field Methods | 3 |
| PHIL 4533 | Philosophy of Language | 3 |
| PHIL 4543 | Philosophy of Mind | 3 |

## Portuguese, Minor

Minimum Total Credit Hours: 25
Minimum Upper-Division Hours: 9

## Program Code: N793

- The requirements for a minor must be completed concurrently with the major degree requirements.
- No minor may be added by completing courses after receiving the bachelor's degree.

At least six (6) credit hours must be earned in courses acceptable for residence credit by standards set forth by the Dodge College of Arts and Sciences, excluding transfer, correspondence, and examination (AP, CLEP, Advanced Standing) credit. Courses for the minor may not be taken Pass/ No Pass.

No single course may be used by a student to satisfy a major requirement and a minor requirement. A course may be used, however, to satisfy both a major support requirement and a minor requirement.

Requests to substitute a minor requirement must be approved in writing by the Portuguese program in the Department of Modern Languages, Literatures, and Linguistics.

## Required Courses

Students must successfully complete at least 25 hours of coursework in Portuguese, including at least nine (9) hours at the upper-division level.

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| PORT 1115 | Beginning Portuguese | 5 |
| PORT 1225 | Beginning Portuguese Continued | 5 |
| PORT 2113 | Intermediate Portuguese | 3 |
| PORT 2223 | Intermediate Portuguese (Continued) | 3 |
| PORT 3113 | Advanced Portuguese | 3 |


| PORT 3223 | Advanced Portuguese Continued | 3 |
| :--- | :--- | :--- |
| MLLL 4113 | Cultures in Portuguese: Brazil, Portugal, <br> and Beyond | 3 |

## Total Credit Hours

- Minors in the Dodge College of Arts \& Sciences are available to all undergraduate students at OU. If the minor is officially declared, successfully completed, and noted on the graduation application, the student's transcript will so indicate at the time the bachelor's degree is posted.


## Russian, Minor

Minimum Total Credit Hours: 15
Minimum Upper-Division Hours: 9

## Program Code: N825

- The requirements for a minor must be completed concurrently with the major degree requirements.
- No minor may be added by completing courses after receiving the bachelor's degree.

At least six (6) credit hours must be earned in courses acceptable for residence credit by standards set forth by the Dodge College of Arts and Sciences, excluding transfer, correspondence, and examination (AP, CLEP, Advanced Standing) credit. Courses for the minor may not be taken Pass/ No Pass.

## No single course may be used by a student to satisfy a major requirement

and a minor requirement. A course may be used, however, to satisfy both a major support requirement and a minor requirement.

Requests to substitute a minor requirement must be approved in writing by the Russian program in the Department of Modern Languages, Literature, \& Linguistics.

## Required Courses

Students must successfully complete at least 15 hours of courses acceptable for major credit in Russian, including at least nine (9) hours at the upper-division level. Note that introductory (RUSS 1115 and RUSS 1225) courses are not counted toward this total.

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| RUSS 2113 | Intermediate Russian | 3 |
| RUSS 2223 | Intermediate Russian (Continued) | 3 |
| RUSS 3323 | Advanced Russian Reading and <br> Composition |  |
| RUSS 3423 | Advanced Russian Reading and <br> Composition (Continued) | 3 |
| Choose 3 hours from the following: |  |  |
| RUSS 3073 | Russian Conversation |  |
| RUSS 4173 | Topics in Nineteenth-Century Russian <br> Literature and Culture |  |
| RUSS 4183 | Topics in 20th and Post-20th Century <br> Russian Literature and Culture | 3 |
| MLLL 3123 | Russian Culture and Civilization |  |
| MLLL 3523 | Survey of Russian Literature to 1917 in <br> Translation |  | |  |
| :--- |

Survey of Russian Literature from 1917 in Translation

## Total Credit Hours

- Minors in the Dodge College of Arts \& Sciences are available to all undergraduate students at OU. If the minor is officially declared, successfully completed, and noted on the graduation application, the student's transcript will so indicate at the time the bachelor's degree is posted.


## Spanish, Minor

Minimum Total Credit Hours: 18
Minimum Upper-Division Hours: 12

## Program Code: N850

- The requirements for a minor must be completed concurrently with the major degree requirements.
- No minor may be added by completing courses after receiving the bachelor's degree.

At least six (6) credit hours must be earned in courses acceptable for residence credit by standards set forth by the Dodge College of Arts and Sciences, excluding transfer, correspondence, and examination (AP, CLEP, Advanced Standing) credit. Courses for the minor may not be taken Pass/ No Pass.

No single course may be used by a student to satisfy a major requirement and a minor requirement. A course may be used, however, to satisfy both a major support requirement and a minor requirement.

Requests to substitute a minor requirement must be approved in writing by the Spanish program in the Modern Languages Department.

## Required Courses

Students must successfully complete at least 18 hours of courses in Spanish, including at least 12 hours at the upper-division level. Note that introductory courses SPAN 1115 and SPAN 1225) are not counted toward this total.

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Required Courses | Intermediate Spanish | 3 |
| SPAN 2113 | Intermediate Spanish Continued | 3 |
| SPAN 2223 | Grammar in Conversational <br> SPAN 3073 <br> Communication | 3 |
| SPAN 3423 | Grammar in Written Communication | 3 |
| Electives | Choose two courses from any 3000- or 4000-level Spanish |  |
| course | 6 |  |

Total Credit Hours

- Minors in the Dodge College of Arts \& Sciences are available to all undergraduate students at OU. If the minor is officially declared, successfully completed, and noted on the graduation application, the student's transcript will so indicate at the time the bachelor's degree is posted.


## French, M.A.

Minimum Total Hours (Thesis): 30
Minimum Total Hours (Non-Thesis): 32
Program Code: M445

## Required Courses

## Thesis Option

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Required Courses |  |  |
| MLLL 5073 | Contemporary Literary Criticism | 3 |
| FR 5980 | Research for Master's Thesis | 6 |
| Electives |  | 21 |
| Choose 21 additional hours, selected in consultation with the <br> student's advisor and committee |  |  |

Total Credit Hours ..... 30
Non-Thesis Option

| Code | Title | Credit <br> Hours |
| :--- | ---: | ---: |
| Required Courses |  |  |
| MLLL $5073 \quad$ Contemporary Literary Criticism | 3 |  |
| Electives | 29 |  |
| Choose 29 additional hours, selected in consultation with the <br> student's advisor and committee | $\mathbf{3 2}$ |  |
| Total Credit Hours |  |  |

## Notes

- A comprehensive exam is required for both the thesis and non-thesis options.
- A total not to exceed six graduate hours at the $\mathbf{4 0 0 0}$ level is permitted as part of the major.
- Students must demonstrate reading competency in a second language. In order to do so, they may take the departmental graduate reading exam or complete two semesters or ten hours in another language.
- No more than one-half of the credits for the degree (OU, or OU and transfer combined), excluding research for the thesis (FR 5980), may be S/U graded coursework.


## General Requirements for all Master's Degrees

The master's degree requires the equivalent of at least two semesters of satisfactory graduate work and additional work as may be prescribed for the degree.

All coursework applied to the master's degree must carry graduate credit.
Master's degree programs which require a thesis consist of at least 30 credit hours. All non-thesis master's degree programs require at least 30 credit hours.

Credit transferred from other institutions must meet specific criteria and is subject to certain limitations.

Courses completed through correspondence study may not be applied to the master's degree.

To qualify for a graduate degree, students must achieve an overall grade point average of 3.0 or higher in the degree program coursework and in all resident graduate coursework attempted. A student must also have at least a 3.0 in all coursework (including undergraduate coursework if any).

Additional information for master's degree students may be found in the Graduate College Bulletin.

## German, M.A.

Minimum Total Hours (Thesis): 30
Minimum Total Hours (Non-Thesis): 32
Program Code: M490
Required Courses
Thesis Option

| Code Title | Credit |
| :--- | :--- | :--- |
|  | Hours |


| Required Courses |  |  |
| :--- | :--- | ---: |
| MLLL 5073 | Contemporary Literary Criticism | 3 |
| GERM 5980 | Research for Master's Thesis | 6 |
| Electives |  | 21 |
| Choose 21 <br> student's additional hours, selected in consultation with the |  |  |

Total Credit Hours
Non-Thesis Option

## Required Courses

MLLL 5073 Contemporary Literary Criticism 3

Electives
Choose 29 additional hours, selected in consultation with the 29

Total Credit Hours

## Notes

- No more than one-half of the credits for the degree (OU, or OU and transfer combined), excluding research for the thesis (GERM 5980), may be S/U graded coursework.


## General Requirements for all Master's Degrees

The master's degree requires the equivalent of at least two semesters of satisfactory graduate work and additional work as may be prescribed for the degree.

All coursework applied to the master's degree must carry graduate credit.

Master's degree programs which require a thesis consist of at least 30 credit hours. All non-thesis master's degree programs require at least 30 credit hours.

Credit transferred from other institutions must meet specific criteria and is subject to certain limitations.

Courses completed through correspondence study may not be applied to the master's degree.

To qualify for a graduate degree, students must achieve an overall grade point average of 3.0 or higher in the degree program coursework and in all resident graduate coursework attempted. A student must also have at least a 3.0 in all coursework (including undergraduate coursework if any).

Additional information for master's degree students may be found in the Graduate College Bulletin.

## Spanish, M.A.

Minimum Total Hours (Thesis): 30
Minimum Total Hours (Non-Thesis): 33
Program Code: M850
Required Courses
Thesis Option

| Code Title | Credit |
| :---: | :---: |
| Required Course |  |
| SPAN 5980 Research for Master's Thesis | 3 |
| Electives |  |
| Choose 9 hours from the Peninsular Literature Course list (p. 579) | 9 |
| Choose 9 hours from the Spanish-American Literature Course List (p. 579) | 9 |
| Choose 9 hours in consultation with faculty advisor, to be approved by Graduate Liaison | 9 |
| Total Credit Hours | 30 |
| Non-Thesis Option |  |
| Code Title | Credit |
| Electives |  |
| Choose 9 hours from the Peninsular Literature Course list (p. 579) | 9 |
| Choose 9 hours from the Spanish-American Literature Course list (p. 579) | 9 |
| Choose 15 hours in consultation with faculty advisor, to be approved by the Graduate Liaison | 15 |
| Total Credit Hours | 33 |

NOTES

- A comprehensive exam is required for the non- thesis program.
- A total not to exceed nine graduate hours of MLLL 5063, MLLL 5073, and MLLL 5813 is allowed as part of the electives.
- No more than one-half of the credits for the degree (OU, or OU and transfer combined), excluding research for the thesis (SPAN 5980), may be S/U graded coursework.


## Elective Course Lists

## Peninsular Literature Choices

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| SPAN 5203 | Prose Fiction of Cervantes-The Quijote | 3 |
| SPAN 5353 | Studies in Renaissance and Baroque <br> Drama | 3 |
| SPAN 5603 | Studies in Renaissance and Baroque Prose | 3 |
| SPAN 5623 | Studies in Renaissance and Baroque | 3 |
|  | Poetry | 3 |
| SPAN 5683 | Studies in Modern Peninsular Prose | 3 |
| SPAN 5693 | Studies in Modern Peninsular Poetry | 3 |
| SPAN 5723 | Studies in Modern Peninsular Drama | $1-3$ |



## General Requirements for all Master's Degrees

The master's degree requires the equivalent of at least two semesters of satisfactory graduate work and additional work as may be prescribed for the degree.

All coursework applied to the master's degree must carry graduate credit.
Master's degree programs which require a thesis consist of at least 30 credit hours. All non-thesis master's degree programs require at least 30 credit hours.

Credit transferred from other institutions must meet specific criteria and is subject to certain limitations.

Courses completed through correspondence study may not be applied to the master's degree.

To qualify for a graduate degree, students must achieve an overall grade point average of 3.0 or higher in the degree program coursework and in all resident graduate coursework attempted. A student must also have at least a 3.0 in all coursework (including undergraduate coursework if any).

Additional information for master's degree students may be found in the Graduate College Bulletin.

## TESOL, M.A.

Minimum Total Hours (Non-Thesis): 32

Program Code: M862

- This program is Non-Thesis only.


## Program Requirements

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Required Courses |  |  |
| TESL 5113 | Phonetics for ESL | 3 |
| TESL 5123 | Second Language Acquisition Theory for | 3 |
|  | ESL | 3 |
| TESL 5133 | General Linguistics for ESL | 3 |
| TESL 5143 | Structure of the English Language | 3 |
| TESL 5233 | ESL Methods and Techniques | 3 |
| TESL 5333 | Understanding Cultures for ESL | 3 |
| TESL 5433 | ESL Curriculum | 3 |
| TESL 5443 | ESL Testing and Assessment | 3 |
| TESL 5553 | Teaching ESL Reading/ Writing/ Listening/ |  |
| TESL 5945 | Speaking | Internship in TESOL |

## General Requirements for all Master's Degrees

The master's degree requires the equivalent of at least two semesters of satisfactory graduate work and additional work as may be prescribed for the degree.

All coursework applied to the master's degree must carry graduate credit.
Master's degree programs which require a thesis consist of at least 30 credit hours. All non-thesis master's degree programs require at least 30 credit hours.

Credit transferred from other institutions must meet specific criteria and is subject to certain limitations.

Courses completed through correspondence study may not be applied to the master's degree.

To qualify for a graduate degree, students must achieve an overall grade point average of 3.0 or higher in the degree program coursework and in all resident graduate coursework attempted. A student must also have at least a 3.0 in all coursework (including undergraduate coursework if any).

Additional information for master's degree students may be found in the Graduate College Bulletin.

## French, Ph.D.

Minimum Total Hours: 90
Program Code: D445

## Program Requirements

- Before completion of the degree, students must demonstrate reading competency in a second language if they have not already done so during their MA programs. They may take the departmental Graduate Reading Exam or complete two semesters or ten hours in another language.
- A general examination based on coursework and a reading list established in consultation with the student's committee members is required for the Ph.D.

| Code | Title |
| :--- | :--- |
|  | Credit |
|  | Hours |


| Coursework in the Major (61 hours) |  |
| :--- | ---: | ---: |
| MLLL $5073 \quad$ Contemporary Literary Criticism | 3 |
| Additional major coursework | 58 |

Additional Field ( $\mathbf{9}$ hours)
9 hours of concentration in another field, as approved by the
student's committee
Dissertation Research (minimum 2 hours)
FR $6980 \quad$ Research for Doctoral Dissertation 2

Electives
Additional graduate-level hours needed to reach 90 post-
baccalaureate hours as approved by the student's committee
Total Credit Hours

## General Requirements for Doctoral Degrees

A student should expect to spend at least the equivalent of three full academic years beyond the bachelor's degree to obtain the doctoral degree. During this period the student will take appropriate graduate coursework, successfully complete the general examination, and successfully defend and submit the final dissertation.

All coursework applied to the doctoral degree must carry graduate credit.
The doctoral degree requires at least 90 post-baccalaureate hours, including both formal coursework and hours of research.

The minimum hour requirement for a specific doctoral degree program cannot be waived.

No more than one-half of the credit hours, both OU and overall, excluding Research for Doctoral Dissertation (6980), may be S/U-graded coursework.

The student must be in residence at OU for at least two consecutive 16week semesters during the pursuit of the doctoral degree while enrolled and engaged in coursework or research activities as prescribed by the major academic unit.

For more detailed regulations and requirements for Doctoral degrees, please consult the Graduate College Bulletin: http://www.ou.edu/ gradcollege/forms/bulletin

## Spanish, Ph.D.

Minimum Total Hours: 90

Program Code: D850

## Program Requirements

- The total number of hours required for the Ph.D. is ninety hours of coursework at the graduate level, including credit earned for the M.A., if applicable to the Ph.D. program.
- Before completion of the degree, students must demonstrate reading competency in a second language if they have not already done so
during their MA programs. They may take the departmental Graduate Reading Exam or complete two semesters or ten hours in another language.
- A general examination based on coursework and a reading list established in consultation with the student's committee members is required for the Ph.D.

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Required Courses (9 hours) |  |  |
| SPAN 5713 | History of the Spanish Language | 3 |
| MLLL 5063 | Early Literary Criticism | 3 |
| MLLL 5073 | Contemporary Literary Criticism | 3 |
| Elective Courses (minimum 51 hours) |  |  |
| Other graduate-level courses in SPAN, MLLL, or related <br> fields as approved by the Advisory Conference Committee. | $51-79$ |  |
| SPAN 6980 may not count as an elective course. |  |  |
| Dissertation Research (minimum 2 hours) |  |  |
| SPAN 6980 $\quad$ Research for Doctoral Dissertation | 2 |  |
| Total Credit Hours | 90 |  |

## General Requirements for Doctoral Degrees

A student should expect to spend at least the equivalent of three full academic years beyond the bachelor's degree to obtain the doctoral degree. During this period the student will take appropriate graduate coursework, successfully complete the general examination, and successfully defend and submit the final dissertation.

All coursework applied to the doctoral degree must carry graduate credit.
The doctoral degree requires at least 90 post-baccalaureate hours, including both formal coursework and hours of research.

The minimum hour requirement for a specific doctoral degree program cannot be waived.

No more than one-half of the credit hours, both OU and overall, excluding Research for Doctoral Dissertation (6980), may be S/U-graded coursework.

The student must be in residence at OU for at least two consecutive 16week semesters during the pursuit of the doctoral degree while enrolled and engaged in coursework or research activities as prescribed by the major academic unit.

For more detailed regulations and requirements for Doctoral degrees, please consult the Graduate College Bulletin: http://www.ou.edu/ gradcollege/forms/bulletin

## Department of Native American Studies

Farina King, Ph.D., Interim Department Chair
Copeland Hall, Room 235
860 Van Vleet Oval
Norman, OK 73019-3119
(405) 325-2312
nas@ou.edu
nas.ou.edu

## General Information

The Department of Native American Studies-one of the leading such programs in the nation-attracts and serves students of diverse backgrounds and academic interests who are committed to using distinctly Native American perspectives to place the sovereignty of Native nations and the cultures of Native peoples at the center of academic study.

The University of Oklahoma Department of Native American Studies recognizes the complexity and diversity of Indian Country. And significantly, we are representative of that diversity. Our faculty, staff, students, and alumni are both Native and non-Native. We represent federally recognized tribes, state-recognized tribes, and unrecognized tribes. We are citizens of dozens of tribal political entities and are related through kinship and cultural practice to many, many more indigenous communities. Some among us are tribally enrolled citizens; others are not. Some are fluent speakers of our Native languages; others are not. Some engage in traditional religious practices; others do not. Some powwow, some stomp. We are urban, reservation, and rural. We are local and global. Our complexions vary; our gender expressions and identities vary. We hold many divergent philosophies and perspectives, and we welcome the vigorous and collegial debate of those perspectives.

Together, we are committed to using distinctly Indigenous perspectives to place the sovereignty of Native nations and the cultures of Native peoples at the center of academic study and community-engaged research.

Together, we are committed to providing a deeper understanding of the unique political status of tribes and to examining contemporary tribal issues, as well as tribal cultures and histories.

Together, we represent and embrace the complexity, vibrancy, and diversity that is Indian Country.

## Programs \& Facilities

## Native American Language Program

The University of Oklahoma is honored to serve as a place where Indigenous languages are preserved and revitalized. The Native American Language Program faculty is comprised of both first language and second language speakers who have training in linguistics. Our language courses combine lessons in the grammar of the language with vocabulary lessons and supplementary material and activities designed to situate language learning in cultural and historical context. Considerable class time is spent on conversation, but students also learn to read and write in the language.

## Sam Noble Museum - Native American Languages Collection

The Native American Languages collection (NAL) at the Sam Noble Oklahoma Museum of Natural History is an archival repository for materials in and pertaining to the Indigenous languages of the Americas, with a specialization in the Indigenous languages of the central United States. The collection currently contains over 8,500 items representing 315 languages, with another $\sim 800$ languages represented in the reference collection. The collection itself consists of a climate-controlled archival space, a digitization lab, a recording studio, a reading room, and a reference library with supplementary materials on Native American languages, linguistics, archaeology, and ethnology. NAL is also a backup repository for a number of tribal archives in Oklahoma, and
the department actively participates in a wide variety of collaborative projects with Native communities.

NAL supports to the local community by providing audio/video recording services and free digitization of cassettes, reel-to-reels, miniDV tapes, Hi-8 tapes, vinyl records, and VHSs for media that contains Native languages.
NAL partners with the Sam Noble Museum, the Department of Native American Studies and the OU Native Nations Center to host the annual Oklahoma Native American Youth Language Fair. This unique event attracts over 1,000 students from pre-K to $12^{\text {th }}$ grades who are learning their Native languages. In 2017, the Fair was awarded the University Museums and Collections Award from the International Council of Museums, which is a reflection of the impact the program has had on our Native community over the past 17 years.
NAL offers an internship and an independent study that provide course credit for archival training and work in the archive.
Students and members of the public can also volunteer in the collection at any time by contacting the Sam Noble Museum volunteer office.

## Internship and Practicum Program

NAS students at the undergraduate and graduate levels are able to participate in a planned work experience related to personal career and academic goals. The Internship and Practicum Program helps students learn about possible careers, apply knowledge gained in the classroom, develop skills, and better understand how individuals relate to the workplace. Service to Native peoples in their communities and nations is a primary focus of the NAS internship and practicum experiences.

## Andrew W. Mellon Foundation Impact Fellowship Program

Native American Studies and the OU Native Nations Center received a generous grant from the Andrew W. Mellon Foundation to support the development of an undergraduate fellowship in Native American and Indigenous Studies. The program will begin Fall 2021. The fellowship will emphasize experiential learning, faculty mentorship, and transferable skills. Mellon Impact Fellows will take three required classes in Native American Studies, including an internship that will emphasize professionalization. Fellow will receive a $\$ 5,000$ stipend to assist with the costs of a required internship at the end of their two-year term. Graduates of this program will be in a strong position to transition into careers or undertake further graduate or professional education. Visit our website for more information and to apply.

## Undergraduate Study

The undergraduate major and minor in Native American Studies use distinctly Native American perspectives to place the sovereignty of Native nations and the cultures of Native peoples at the center of academic study. In addition to core classes in Indigenous theory and research methods, the Native American Studies curriculum currently supports intensive study in three interrelated areas of emphasis that are synthetic and interdisciplinary in nature: Tribal Governance and Policy; Indigenous Media and Arts; and Language, History, and Cultural Knowledge. The curriculum is, at the same time, focused and flexible. Students are encouraged to combine areas of emphasis according to their own scholarly and professional goals.

[^16]
## Graduate Study

## Master of Arts

The Master of Arts (p. 591) in Native American Studies uses distinctly Native American perspectives to place the sovereignty of Native nations and the cultures of Native peoples at the center of academic study. In addition to core classes in Indigenous theory and research methods, the Native American Studies curriculum currently supports intensive study in three interrelated areas of emphasis that are synthetic and interdisciplinary in nature: Tribal Governance and Policy; Indigenous Media and Arts; and Language, History, and Cultural Knowledge. The curriculum is, at the same time, focused and flexible. Students are encouraged to combine areas of emphasis according to their own scholarly and professional goals.

In addition, to the Master of Arts degree, students may pursue a joint Juris Doctor/M.A. Native American Studies, a Native American Studies Graduate Certificate (p. 592), or a Social Work with American Indians Graduate Certificate (p. 715).

## Courses

CHER 1715 Beginning Cherokee
5 Credit Hours
Introduction to the structure of the Cherokee language with special attention to its phonology, morphology, and syntax. Conversational practice, vocabulary-building, and the history and culture of the native speech community also are emphasized. (F, Sp) [I-FL].
CHER 1725 Beginning Cherokee-Continued 5 Credit Hours Prerequisite: 1715. A continuation of the study of the structure of the Cherokee language with special attention to its phonology, morphology, and syntax. Conversational practice, vocabulary-building, and the history and culture of the native speech community are emphasized. (Sp) [I-FL].

## CHER 2733 Intermediate Cherokee

3 Credit Hours
Prerequisite: 1723. A systematic review of the structure of the Cherokee language. Syntactic control and vocabulary expansion are emphasized. Conversational practice and traditional oral texts are used to develop proficiency. (F)
CHER 3440 Mentored Research Experience 3 Credit Hours
0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)
CHOC 1715 Beginning Choctaw
5 Credit Hours
Introduction to the structure of the Choctaw language with special attention to its phonology, morphology, and syntax. Conversational practice, vocabulary-building, and the history and culture of the native speech community also are emphasized. ( $\mathrm{F}, \mathrm{Sp}$ ) [l-FL].
CHOC 1725 Beginning Choctaw-Continued 5 Credit Hours Prerequisite: 1715. A continuation of the study of the structure of the Choctaw language with special attention to its phonology, morphology, and syntax. Conversational practice, vocabulary-building, and the history and culture of the native speech community are emphasized. (Sp) [I-FL].

## CHOC 2733 Intermediate Choctaw

3 Credit Hours
Prerequisite: 1723. A systematic review of the structure of the Choctaw language. Syntactic control and vocabulary expansion are emphasized. Conversational practice and traditional oral texts are used to develop proficiency. (F)

CHOC 3440 Mentored Research Experience
3 Credit Hours
0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)
CREK 1715 Beginning Creek/Seminole
5 Credit Hours
Introduction to the structure of the Creek/Seminole language with special attention to its phonology, morphology, and syntax. Conversational practice, vocabulary-building, and the history and culture of the native speech community also are emphasized. (F, Sp) [l-FL].
CREK 1725 Beginning Creek/Seminole-continued 5 Credit Hours Prerequisite: 1715. A continuation of the study of the structure of the Creek/Seminole language with special attention to its phonology, morphology, and syntax. Conversational practice, vocabulary-building, and the history and culture of the native speech community are emphasized. (F, Sp) [I-FL].

## CREK 2733 Intermediate Creek/Seminole

3 Credit Hours
Prerequisite: 1725. A systematic review of the structure of the Creek/ Seminole language. Syntactic control and vocabulary expansion are emphasized. Conversational practice and traditional oral texts are used to develop proficiency. (F)
CREK 3440 Mentored Research Experience 3 Credit Hours 0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)
KIOW 1715 Beginning Kiowa
5 Credit Hours
Introduction to the structure of the Kiowa language with special attention to its phonology, morphology, and syntax. Conversational practice, vocabulary-building, and the history and culture of the native speech community also are emphasized. (F, Sp)[l-FL].

## KIOW 1725 Beginning Kiowa Continued

5 Credit Hours
Prerequisite: KIOW 1715 or permission of the department or instructor.
A continuation of KIOW 1715. The students will build upon their prior knowledge of symbols, diacritic marks, sounds and tones necessary to read, write, speak and comprehend Beginning Kiowa with a predetermined set of vocabulary, sentences, and basic conversation. (F, $\mathrm{Sp})[\mathrm{l}-\mathrm{FL}]$.
KIOW 2733 Intermediate Kiowa
3 Credit Hours
Prerequisite: 1723. A systematic review of the structure of the Kiowa language. Syntactic control and vocabulary expansion are emphasized. Conversational practice and traditional oral texts are used to develop proficiency. (F)
KIOW 3440 Mentored Research Experience
3 Credit Hours
0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)

NAS 1013 Introduction to Native American Studies 3 Credit Hours This course will introduce students to key concepts and methods in the study of American Indian history, culture, and contemporary governance and socio-economic status. (F, Sp) [IV-WDC] .

## NAS 1715 Potawatomi Language I <br> 5 Credit Hours

Through a partnership between the Citizen Potawatomi Nation Language Department and the university, this language course will introduce students to the culture, history, phonology, morphology, syntax, conversational practice, and vocabulary of Bodewadmimwen (Potawatomi Language) using an online platform. Framed in a seasonal context, four modules guide students through a Potawatomi-centered worldview to create story-listeners and -tellers. (F, Sp)
NAS 2013 Foundations in Native American Sovereignty 3 Credit Hours Prerequisite: Sophomore standing. Introduces the key concepts and methods in the discipline of Native American Studies. Examines the scope and nature of tribal sovereignty and self-government. Students will gain understanding of the historical origins of the current laws and policies that constitute the political foundations of sovereignty for Native peoples. (Irreg.)
NAS 2203 Chickasaw Humanities
3 Credit Hours
This course will give students an overview of Chickasaw humanities through exploring the Chickasaw history, culture and language in contemporary and historical context. Students will gain an understanding of a non-western culture while comparing and contrasting it to Western culture. Topics covered include indigenous and Chickasaw worldview, Chickasaw historical events, governmental structure, language and art. (F)

NAS 3013 Native American Studies Internship 3 Credit Hours
Prerequisite: permission of instructor. Participation in a supervised work experience. Grade is based on work performance, regular reports and journals, and on-site supervisor's evaluation. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
NAS 3113 Native American Philosophy 3 Credit Hours Prerequisite: junior standing or permission of instructor. A survey of systems of understanding and explaining the relationships between human beings and the natural world in Native American cultures including; concepts of power, spirituality, and ceremonialism; ethical systems; and culturally based ways of knowing. (F) [IV-WDC].
NAS 3123 Gender and Sexuality in Native North America 3 Credit Hours Prerequisite: junior standing. Study of gender and sexuality that is indigenous to North American tribal groups, focusing on the status of precolonial gender-non-normative peoples. Emergent analyses within Native studies will point to the gendered nature of colonialism by interrogating Western ontological models from Victorian-era and early anthropological ideas about sexuality. (Sp) [IV-WDC].
NAS 3313 Introduction to Native Peoples and Sustainability 3 Credit Hours
Prerequisite: junior standing. Explores the concept of sustainability from a Native perspective, and as it applies to Native peoples. Emphasis is placed on cultural resilience and identity, human-environment relationships, policy and politics of tribal sovereignty in Native North America. (F)
NAS 3323 Tribal Service Learning
3 Credit Hours
Prerequisite: junior standing. Exploration of contemporary issues relevant to Native American tribes and communities, utilizing critical thinking and problem-solving skills relevant to contemporary issues within the Indian Country to develop and implement a service project for a tribe or Native American community. ( $F, S p$ )

NAS 3440 Mentored Research Experience
3 Credit Hours
0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)
NAS 3513 Native American Film
3 Credit Hours
Prerequisite: Junior standing or permission of instructor. A critical investigation of the role that film, as an art genre, has played in creating the general public's idea of the American Indian, and its construction of images representing that idea. (Irreg.)

## NAS 3693 Special Topics

3 Credit Hours
Prerequisite: six hours of NAS courses. May be repeated twice with a change in topic. Covers topics of special interest to NAS such as politics and tribal government, contemporary health issues, educational policies and trends, and tribal culture in the U.S. and Oklahoma. (F, Sp, Su)
NAS 3960 Honors Reading
1-3 Credit Hours
Prerequisite: admission to Honors Program and permission of instructor. May be repeated with change of content; maximum credit six hours. Consists of topics designated by the instructor in keeping with the student's major program. This course will allow the honors candidate the opportunity to study materials not offered in other courses. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
NAS 3970 Honors Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Subjects covered vary. Deals with concepts not usually treated in regular courses. (Irreg.)
NAS 3980 Honors Research
1-3 Credit Hours
Prerequisite: admission to Honors Program. May be repeated with change of content; maximum credit six hours. The study of issues related to Native American Studies for the gifted Honors candidate allowing him/ her to work on a special project. (F, Sp, Su)
NAS 3990 Independent Study 1-3 Credit Hours
1 to 3 hours. Prerequisite: six hours of NAS major courses and permission of instructor. May be repeated; maximum credit six hours. Work on a topic of the student's choosing taken under the direct supervision of a faculty member. May involve directed reading and research or participation in a community-based activity. Students will be required to give a written report or research papers. (F, Sp)
NAS 4033 Indigenous Research Methods
3 Credit Hours
(Slashlisted with NAS 5033) Prerequisite: Junior standing. Introduction to research methods in Native American Studies with an emphasis on interdisciplinarity. Students will be introduced to the range of methods available for analysis, and to the presentation of research results. Students will formulate a research proposal that includes problem identification, recommendation and justification of methods for analysis, and preparation of a critical literature review. Emphasis on Indigenous methodologies. No student may earn credit for both 4033 and 5033. (Irreg.)

NAS 4043 Sovereignty, Law, and Policy
3 Credit Hours
(Slashlisted with NAS 5043) Prerequisite: junior standing or permission of instructor. Explores what constitutes the basic nature of political sovereignty and how it is exercised in Native American communities and what the possibilities and limitations are for tribal governments. No student may earn credit for both NAS 4043 and NAS 5043. (Irreg.)

NAS 4053 Senior Capstone
Prerequisite: senior standing. Provides a culminating experience giving students the opportunity to incorporate knowledge gained through previous coursework. Students will integrate this knowledge into a final project. (Sp) [V].
NAS 4063 Critical Indigenous Theory
3 Credit Hours
(Slashlisted with NAS 5063) Prerequisite: senior standing. Seeks to transcend disciplinary boundaries and ground scholarly inquiry in Indigenous frameworks that reflect Native-centered concerns and objectives. Provides an alternative philosophical and theoretical toolkit for applying Indigenous methodologies, understanding strategies of decolonization, envisioning collective and individual agency and models of sovereignty, and examining the intersection of Indigenous intellectual production and lived experiences. No student may earn credit for both 4063 and 5063. (F)
NAS 4113 Oklahoma Tribal History
3 Credit Hours
(Slashlisted with NAS 5113) Prerequisite: junior standing. A survey of Native American history for the area known today as Oklahoma and the surrounding region. Explores the general concepts and histories of the region from a Native perspective. Discussion of Oklahoma tribal experiences in the context of regional and national experiences. Examines the Oklahoma Native experience through the world-views and words of Native Americans. No student may earn credit for both 4113 and 5113. (Irreg.)

NAS 4133 Tribal Historic Preservation
3 Credit Hours
(Slashlisted with NAS 5133) Prerequisite: junior standing or permission of instructor. Provides basic grounding in processes necessary to understand and participate in the federal tribal historic preservation program. Students will receive material and insights to help them gain skills in understanding laws and regulations relating to the federal historic preservation system. No student may earn credit for both 4133 and 5133. (Irreg.)

## NAS 4143 Native American Graves Protection and

## Repatriation

## 3 Credit Hours

(Slashlisted with NAS 5143) Prerequisite: Junior standing. This course will be centered on Native American historic preservation as it is concerned with the history of protection and repatriation of Native American human remains and associated objects. Legislative histories and U. S. and international laws dealing with Native American human remains will be examined in the context of human rights legislation informed by tribal histories and current practices. No student may earn credit for both 4143 and 5143. (Irreg.)

## NAS 4153 Indigenous Mapping: Issues in Data Sovereignty and Security 3 Credit Hours

(Slashlisted with NAS 5153) Prerequisite: Junior standing. This course will be centered on the discipline of Indigenous mapping and the resulting issues confronted in dealing with data sovereignty and security for Native American tribes. This course deals with specific Native American methodologies related to Geographic Information Systems (GIS) and the application of this technology to tribal initiatives. No student may earn credit for both 4153 and 5153. (Irreg.)
NAS 4163 Native Food Sovereignty 3 Credit Hours (Slashlisted with NAS 5163) Prerequisite: Junior standing. This course focuses on Indigenous practices and concepts as it applies to the food sovereignty of the Native Americas using comparative data from across time and place. Of special interest are the dynamic connections between native foods and the health of people and place and the impacts of colonization and rapid cultural change. No student may earn credit for both 4163 and 5163. (Irreg.)

NAS 4213 Intro to Language Documentation and Revitalization Credit
(Slashlisted with NAS 5213) Prerequisite: Junior standing or departmental permission. We look at different strategies for language revitalization, and students investigate ways to use old and new language documentation in language revitalization. Topics include the differences and overlap between language documentation and description, how languages change in endangerment, what goes into the complete description of a language, types of language revitalization programs, and case studies of successes and troubles. No student may earn credit for both 4213 and 5213. (Irreg.)
NAS 4223 Survey of Native American Languages 3 Credit Hours (Slashlisted with NAS 5223) Prerequisite: Junior standing or departmental permission. This class addresses the linguistic and structural diversity of the Americas, as well as topics like areal diffusion and language contact. Knowledge of this type, besides being necessary background for anyone wanting to specialize in languages of the Americas, is additionally useful for knowing how particular languages students may be interested in fit into the linguistic fabric of the world. No student may earn credit for both 4223 and 5223. (Irreg.) [III-SS].

NAS 4233 Language Acquisition for Revitalization 3 Credit Hours (Slashlisted with NAS 5233) Prerequisite: Junior standing or departmental approval. This class deals with the intimate relationship between language revitalization and the science of creating new speakers, with the goal of taking experimental research in language acquisition and applying those findings to minority language revitalization contexts. No student may earn credit for both 4233 and 5233. (Irreg.)

NAS 4243 Methods of Language Documentation 3 Credit Hours (Slashlisted with NAS 5243) Prerequisite: Junior standing or departmental permission. This class is a hands-on practicum in the latest and greatest in language documentation, and prepares you to go make professional-level recordings, video documentation, and essential secondary materials for language documentation. No student may earn credit for both 4243 and 5243. (Irreg.)
NAS 4333 American Indian Health Issues and Concerns 3 Credit Hours Prerequisite: junior standing or permission of instructor. Historical information about American Indians with emphasis on health, including behavioral health, and tribal/Indian health service policy issues. Discusses traditional medicine and healing, research needs related to American Indian health, and career opportunities in health professions. (Irreg.)

## NAS 4343 American Indian Education Policy and Development 3

 Credit(Slashlisted with NAS 5343) Prerequisite: junior standing or permission of instructor. Enables students to come to an understanding of American Indian education history and policy as related to western European educational thought, philosophies, theories, and practices. No student may earn credit for both 4343 and 5343. (Sp) [III-SS].

NAS 4353 Introduction to Tribal Economic Development 3 Credit Hours (Slashlisted with NAS 5353) Prerequisite: junior standing. Introduces students to the concept of tribal economic development and the relevant issues facing tribal, local, state, and federal agencies. Examines theories and roles of tribal economic development as they relate to the survival and continuation of tribal governments. No student may earn credit for both 4353 and 5353. (Irreg.) [III-SS].

NAS 4363 Tribal Governance and Leadership
3 Credit Hours
(Slashlisted with NAS 5363) Prerequisite: junior standing. Examines traditional and contemporary forms of tribal government and leadership. Students will be exposed to the historical development of modern tribal governments through examination of government policies and legislation. Explores contemporary issues in tribal government and styles of tribal leadership. No student may receive credit for both 4363 and NAS 5363. (Irreg.)
NAS 4373 International Indigenous Issues
3 Credit Hours
(Slashlisted with NAS 5373) Prerequisite: Sophomore standing. This seminar explores the contemporary politics of Indigenous Peoples and settler societies. It takes a sociological, legal, political and anthropological approach to how politics operate within and around Indigenous Peoples. By using a comparative perspective, it examines the dynamics of critical relationships in terms of national, regional and global political order. No student may earn credit for both 4373 and 5373. (Irreg.)

## NAS 4423 Issues in Native American Environment and

## Sustainability

3 Credit Hours
(Slashlisted with NAS 5423) Prerequisite: Junior standing. This course will be centered on current issues in Native American environment and sustainability. This course will focus on the interrelationships of people, their environments, their philosophies and cosmologies, ethics, histories and health. No student may earn credit for both 4423 and 5423. (Irreg.)

NAS 4433 Native American Women
3 Credit Hours
(Slashlisted with NAS 5433) Prerequisite: Junior standing. The objective of this course is to provide students with a range of learning experiences that familiarizes them with Indigenous women in traditional and contemporary societies. Students will explore historical and contemporary issues relevant to Indigenous women, examine the multifaceted roles of Indigenous women, and analyze the complexities of Indigenous women within a settler colonial society. No student may earn credit for both 4433 and 5433. (Irreg.)
NAS 4513 Native Cultural Aesthetics \& the Heritage Industry 3 Credit Hours
(Slashlisted with NAS 5513) Prerequisite: junior standing. Focus on aspects of heritage tourism pertaining to Native American experience in the United States from early 19th century to present, examining ways of life of tribes in the form of buildings, art, artifacts, and customs. No student may earn credit for both 4513 and 5513. (Irreg.) [IV-WDC].
NAS 4533 Contemporary Native American Artists 3 Credit Hours (Slashlisted with NAS 5533) Prerequisite: Junior standing or Departmental Permission. This course introduces a contemporary tribal and textual diversity of the Indigenous arts and peoples of Native North America. By engaging with Indigenous aesthetics, Native artists' critical and creative ways of expression, and multiple modes of media, we will analyze material, visual, and aural art and artists through Indigenouscentered lenses. No student may earn credit for both 4533 and 5533. (Irreg.) [IV-NW].

## NAS 4713 Indigenous Community Planning 3 Credit Hours

(Slashlisted with NAS 5713) Prerequisite: Junior standing or departmental permission. We will conceive of futures for Indigenous communities and delve into Indigenous planning and create a planning document. Related to that are Indigenous culture, land tenure, values, MMIW, and accountability to past, present, and future Indigenous community members. No student may earn credit for both 4713 and 5713. (Sp)

NAS 4723 Spatial Storytelling
3 Credit Hours
(Slashlisted with NAS 5723) Prerequisite: Junior Standing or
departmental permission. This course will analyze and respond to the ongoing settler colonial structural impacts on spaces and places and the concomitant role of power relations in shaping community and culture. Students will learn low-tech and high-tech approaches to designing and carrying out community map biographies and stories that advocate for social transformation, as well as produce less-told spatial narratives. No student may earn credit for both 4723 and 5723. (Irreg.)

NAS 4923 Contemporary Issues in Native American

## Studies

## 3 Credit Hours

(Slashlisted with NAS 5923) Prerequisite: junior standing. Familiarizes and sensitizes students to dynamics of change relevant to prevailing issues and concerns among American Indian entities with a special focus on tribal development/progress. No student may earn credit for both 4923 and 5923. (Irreg.) [IV-NW].

NAS 4960 Directed Readings
1-4 Credit Hours
1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean. May be repeated; maximum credit four hours. Designed for upper-division students who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)
NAS 4970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: senior standing or permission of instructor. May be repeated with change of topic; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library research or special projects. (Irreg.)
NAS 4990 Independent Study
1-3 Credit Hours
Prerequisite: nine hours of NAS courses and permission of Program Director or instructor. May be repeated; maximum credit six hours. The study of issues related to Native American Studies to include research and special projects. (F, Sp, Su)

NAS 5033 Indigenous Research Methods
3 Credit Hours
(Slashlisted with NAS 4033) Prerequisite: Graduate standing. Introduction to research methods in Native American Studies with an emphasis on interdisciplinarity. Students will be introduced to the range of methods available for analysis, and to the presentation of research results. Students will formulate a research proposal that includes problem identification, recommendation and justification of methods for analysis, and preparation of a critical literature review. Emphasis on Indigenous methodologies. No student may earn credit for both 4033 and 5033. (Irreg.)
NAS 5043 Sovereignty, Law, and Policy
3 Credit Hours
(Slashlisted with NAS 4043) Prerequisite: graduate standing. Explores what constitutes the basic nature of political sovereignty and how it is exercised in Native American communities and what the possibilities and limitations are for tribal governments. No student may earn credit for both NAS 4043 and NAS 5043. (Irreg.)
NAS 5063 Critical Indigenous Theory
3 Credit Hours
(Slashlisted with NAS 4063) Prerequiste: graduate standing or student in the College of Law. Seeks to transcend disciplinary boundaries and ground scholarly inquiry in Indigenous frameworks that reflect Nativecentered concerns and objectives. Provides an alternative philosophical and theoretical toolkit for applying Indigenous methodologies, understanding strategies of decolonization, envisioning collective and individual agency and models of sovereignty, and examining the intersection of Indigenous intellectual production and lived experiences. No student may earn credit for both NAS 4063 and NAS 5063. (F)

NAS 5113 Oklahoma Tribal History
(Slashlisted with NAS 4113) Prerequisite: graduate standing. A survey of Native American history for the area known today as Oklahoma and the surrounding region. Explores the general concepts and histories of the region from a Native perspective. Discussion of Oklahoma tribal experiences in the context of regional and national experiences. Examines the Oklahoma Native experience through the world-views and words of Native Americans. No student may earn credit for both 4113 and 5113. (Irreg.)

NAS 5133 Tribal Historic Preservation
3 Credit Hours
(Slashlisted with NAS 4133) Prerequisite: Graduate standing. Provides basic grounding in processes necessary to understand and participate in the federal tribal historic preservation program. Students will receive material and insights to help them gain skills in understanding laws and regulations relating to the federal historic preservation system. No student may earn credit for both 4133 and 5133. (Irreg,)

## NAS 5143 Native American Graves Protection and

## Repatriation

3 Credit Hours
(Slashlisted with NAS 4143) Prerequisite: Graduate standing. This course will be centered on Native American historic preservation as it is concerned with the history of protection and repatriation of Native American human remains and associated objects. Legislative histories and U. S. and international laws dealing with Native American human remains will be examined in the context of human rights legislation informed by tribal histories and current practices. No student may earn credit for both 4143 and 5143. (Irreg.)

## NAS 5153 Indigenous Mapping: Issues in Data Sovereignty and Security <br> 3 Credit Hours

(Slashlisted with NAS 4153) Prerequisite: Graduate standing. This course will be centered on the discipline of Indigenous mapping and the resulting issues confronted in dealing with data sovereignty and security for Native American tribes. This course deals with specific Native American methodologies related to Geographic Information Systems (GIS) and the application of this technology to tribal initiatives. No student may earn credit for both 4153 and 5153. (Irreg.)

NAS 5163 Native Food Sovereignty
3 Credit Hours
(Slashlisted with NAS 4163) Prerequisite: Graduate standing. This course focuses on Indigenous practices and concepts as they apply to the food sovereignty of the Native Americas using comparative data from across time and place. Of special interest are the dynamic connections between native foods and the health of people and place and the impacts of colonization and rapid cultural change. No student may earn credit for both 4163 and 5163. (Irreg.)
NAS 5213 Intro to Language Documentation and Revitalization Credit

3
(Slashlisted with NAS 4213) Prerequisite: Graduate standing. We look at different strategies for language revitalization, and students investigate ways to use old and new language documentation in language revitalization. Topics include the differences and overlap between language documentation and description, how languages change in endangerment, what goes into the complete description of a language, types of language revitalization programs, and case studies of successes and troubles. No student may earn credit for both 4213 and 5213. (Irreg.)

NAS 5223 Survey of Native American Languages 3 Credit Hours
(Slashlisted with NAS 4223) Prerequisite: Graduate standing. This class addresses the linguistic and structural diversity of the Americas, as well as topics like areal diffusion and language contact. Knowledge of this type, besides being necessary background for anyone wanting to specialize in languages of the Americas, is additionally useful for knowing how particular languages students may be interested in fit into the linguistic fabric of the world. No student may earn credit for both 4223 and 5223. (Irreg.)
NAS 5233 Language Acquisition for Revitalization 3 Credit Hours (Slashlisted with NAS 4233) Prerequisite: Graduate standing. This class deals with the intimate relationship between language revitalization and the science of creating new speakers, with the goal of taking experimental research in language acquisition and applying those findings to minority language revitalization contexts. No student may earn credit for both 4233 and 5233. (Irreg.)
NAS 5243 Methods of Language Documentation 3 Credit Hours (Slashlisted with NAS 4243) Prerequisite: Graduate standing. This class is a hands-on practicum in the latest and greatest in language documentation and prepares students to make professional-level recordings, video documentation, and essential secondary materials for language documentation. No student may earn credit for both 4243 and 5243. (Irreg.)

## NAS 5343 American Indian Education Policy and Development Credit

(Slashlisted with NAS 4343) Prerequisite: graduate standing. Enables students to come to an understanding of American Indian education history and policy as related to western European educational thought, philosophies, theories, and practices. No student may earn credit for both 4343 and 5343. (Sp)
NAS 5353 Introduction to Tribal Economic Development 3 Credit Hours (Slashlisted with NAS 4353) Prerequisite: graduate standing. Introduces students to the concept of tribal economic development and the relevant issues facing tribal, local, state, and federal agencies. Examines theories and roles of tribal economic development as they relate to the survival and continuation of tribal governments. No student may earn credit for both 4353 and 5353. (Irreg.)

NAS 5363 Tribal Governance and Leadership
3 Credit Hours
(Slashlisted with NAS 4363) Prerequisite: graduate standing. Examines traditional and contemporary forms of tribal government and leadership. Students will be exposed to the historical development of modern tribal governments through examination of government policies and legislation. Explores contemporary issues in tribal government and styles of tribal leadership. No student may receive credit for both 4363 and 5363. (Irreg.)

NAS 5373 International Indigenous Issues 3 Credit Hours
(Slashlisted with NAS 4373) Prerequisite: Graduate standing. This seminar explores the contemporary politics of Indigenous Peoples and settler societies. It takes a sociological, legal, political and anthropological approach to how politics operate within and around Indigenous Peoples. By using a comparative perspective, it examines the dynamics of critical relationships in terms of national, regional and global political order. No student may earn credit for both 4373 and 5373. (Irreg.)

## NAS 5423 Issues in Native American Environment and

## Sustainability

3 Credit Hours
(Slashlisted with NAS 4423) Prerequisite: Graduate standing. This course will be centered on current issues in Native American environment and sustainability. This course will focus on the interrelationships of people, their environments, their philosophies and cosmologies, ethics, histories, and health. No student may earn credit for both 4423 and 5423. (Irreg.)

NAS 5433 Native American Women
3 Credit Hours
(Slashlisted with NAS 4433) Prerequisite: Graduate standing. The objective of this course is to provide students with a range of learning experiences that familiarizes them with Indigenous women in traditional and contemporary societies. Students will explore historical and contemporary issues relevant to Indigenous women, examine the multifaceted roles of Indigenous women, and analyze the complexities of Indigenous women within a settler colonial society. No student may earn credit for both 4433 and 5433. (Irreg.)

## NAS 5513 Native Cultural Aesthetics \& the Heritage

## Industry

3 Credit Hours
(Slashlisted with NAS 4513) Prerequisite: graduate standing. Focus on aspects of heritage tourism pertaining to Native American experience in the United States from early 19th century to present, examining ways of life of tribes in the form of buildings, art, artifacts, and customs. No student may earn credit for both 4513 and 5513. (Irreg.)
NAS 5533 Contemporary Native American Artists 3 Credit Hours (Slashlisted with NAS 4533) Prerequisite: Graduate standing. This course introduces a contemporary tribal and textual diversity of the Indigenous arts and peoples of Native North America. By engaging with Indigenous aesthetics, Native artists' critical and creative ways of expression, and multiple modes of media, we will analyze material, visual, and aural art and artists through Indigenous-centered lenses. No student may earn credit for both 4533 and 5533. (Irreg.)
NAS 5713 Indigenous Community Planning
3 Credit Hours
(Slashlisted with NAS 4713) Prerequisite: Graduate standing. We will conceive of futures for Indigenous communities, delve into Indigenous planning and create a planning document. Related to that are Indigenous culture, land tenure, values, MMIW, and accountability to past, present, and future Indigenous community members. No student may earn credit for both 4713 and 5713. (Sp)

## NAS 5723 Spatial Storytelling

3 Credit Hours
(Slashlisted with NAS 4723) Prerequisite: Graduate Standing. This course will analyze and respond to the ongoing settler colonial structural impacts on spaces and places and the concomitant role of power relations in shaping community and culture. Students will learn low-tech and high-tech approaches to designing and carrying out community map biographies and stories that advocate for social transformation, as well as produce less-told spatial narratives. No student may earn credit for both 4723 and 5723. (Irreg.)
NAS 5920 Native American Studies Practicum 3 Credit Hours Prerequisite: graduate standing. A component of the core curriculum for the master's credential within the NAS discipline. Provides learning experiences and the application of understanding and skills in American Indian related professional settings. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

## NAS 5923 Contemporary Issues in Native American

## Studies 3 Credit Hours

(Slashlisted with NAS 4923) Prerequisite: graduate standing. Familiarizes and sensitizes students to dynamics of change relevant to prevailing issues and concerns among American Indian entities with special focus on tribal development/progress. No student may earn credit for both 4923 and 5923. (Irreg.)

## NAS 5960 Directed Readings

1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing and permission of instructor. May be repeated; maximum credit six hours. Directed readings and/or literature reviews under the direction of a faculty member. ( $\mathrm{F}, \mathrm{Sp}$, Su )

NAS 5970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor.
May be repeated with change of topic; maximum credit nine hours.
Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library research or special projects. (Irreg.)

NAS 5980 Research for Master's Thesis
2-6 Credit Hours
Prerequisite: graduate standing. Variable enrollment, two to six hours; maximum credit applicable toward degree, six hours. (F, Sp, Su)

## NAS 5990 Independent Study

1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing and permission of instructor. May be repeated; maximum credit six hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
POTA 1715 Potawatomi Language I
5 Credit Hours
Through a partnership between the Citizen Potawatomi Nation Language Department and the university, this language course will introduce students to the culture, history, phonology, morphology, syntax, conversational practice, and vocabulary of Bodewadmimwen (Potawatomi Language) using an online platform. Framed in a seasonal context, four modules guide students through a Potawatomi-centered worldview to create story-listeners and -tellers. (F, Sp)
POTA 1725 Potawatomi Language II 5 Credit Hours Prerequisite: NAS 1715 or departmental permission. Through a partnership between the Citizen Potawatomi Nation Language Department and the university, this language course will build on the foundation of Potawatomi Language I to introduce students to the culture, history, phonology, morphology, syntax, conversational practice, and vocabulary using an online platform. Students will foster awareness of the Potawatomi worldview by gaining comprehension of culture, identity, and historic events. (F, Sp)

## Faculty

For more information, please visit the Faculty page on the Native American Studies website.

| Last Name | First/Middle Name | Middle init. | OU <br> Service start | Title(s), date(s) appointed | Degrees Earned, Schools, Dates Completed |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Armer | Christine |  | 2005 | Instructor, 2005 | BA, Northeastern <br> State University, 2005 |
| Borck | Lewis |  | 2022 | Horizon Endowed Chair of Native American History \& Culture, Assistant Professor, 2022 | PhD: Anthropology with a specialization in Archaeology; Minor in Remote Sensing and Spatial Analysis, University of Arizona |
| Clough | Josh |  | 2013 | Lecturer, 2013 | PhD, University of Oklahoma, 2012; MA, University of Oklahoma, 2003 |
| CobbGreetham | Amanda |  | 2014 | Coca-Cola Professor of Native American Studies, 2017; Professor, 2014 | PhD, University of Oklahoma, 1997; MS, University of North Texas, 1993; BA, Southeastern Oklahoma State Univeristy, 1992 |
| Del Percio | Patrick |  | 2019 | Instructor, 2019 | BA, DePaul University, $2015$ |


| Frye | Melanie | Amber | 2007 | Instructor, 2019; Instructor, 2007 | BA, University of Oklahoma, 2007 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Harjo | Laura | L. | 2020 | Associate Professor, $2020$ | PhD, University of Southern California, 2012; BS, University of Kansas, 1994; AA, Haskell Indian Nations University, 1991 |
| Heaton | Raina |  | 2017 | Assistant Professor, 2017; Assistant Curator of the SNOMNH Native Language Collection, 2017 | PhD, University of Hawaii Manoa, 2017; MA, Tulane University, 2012; BS, Tulane University, 2010 |
| King | Farina |  | 2022 | Horizon Endowed Chair of Native American Ecology \& Culture, Associate Professor, 2022 | Ph.D. in History, Arizona State University |
| Lewis | Freddie |  | 2013 | Instructor, 2013 |  |
| Poolaw | Martha |  | 2012 | Instructor, 2012 |  |
| Poolaw | Dane |  | 2007 | Instructor, 2007 | BA, University of Oklahoma, 2010 |
| Tahmahkera | Dustin |  | 2021 | Wick Cary Endowed Chair of Native American Culture and History, 2021 | PhD, Bowling <br> Green State <br> University, 2007; MA, <br> Midwestern State <br> University, 2002; BA, <br> Midwestern State <br> University, 1999 |

## Native American Studies, B.A.

Minimum Total Credit Hours: 120
Major Hours: 36
Minimum Upper-Division Hours: 48
Overall GPA - Combined and OU: 2.00
Major GPA - Combined and OU: 2.00
Program Code: B740

## Major Requirements

- Some courses required for the major may also fulfill University General Education and/or Dodge College of Arts \& Sciences Requirements.
- Programs of study must be approved by the program Director and coordinating committee.

| Code | Title | Credit <br> Hours |
| :---: | :---: | :---: |
| NAS Core Requirements |  |  |
| NAS 2013 | Foundations in Native American Sovereignty | 3 |
| NAS 3013 | Native American Studies Internship | 3 |
| NAS 4033 | Indigenous Research Methods | 3 |
| NAS 4053 | Senior Capstone (should be taken in the senior year) | 3 |
| NAS 4063 | Critical Indigenous Theory | 3 |
| Thematic Areas of Emphasis |  |  |
| Choose se | urses in one or more of the following areas: ${ }^{1}$ | 21 |
| Cultural | dge, Language, \& History (p. 590) |  |

Tribal Governance \& Policy (p. 590)
Indigenous Media \& Arts (p. 590)
Total Credit Hours
${ }^{1}$ Students may declare one or more areas of emphasis. A list of appropriate courses may be obtained from the NAS program. Appropriate courses should be selected with the guidance of the NAS advisor.

## Major Support Requirements

| Code Title | Credit <br> Hours |
| :--- | :---: |
| Native Language Requirement | $6-10$ |
| Choose two introductory courses (1000-level) or the <br> equivalent in a Native language | $6-10$ |
| Total Credit Hours | May be used to fulfill General Education and College requirements. May <br> not be used to satisfy NAS Core or Area of Emphasis coursework. |

## Recommended Free Electives ${ }^{1}$

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| NAS 1013 | Introduction to Native American Studies | 3 |
| CHER 2733 | Intermediate Cherokee | 3 |
| CREK 2733 | Intermediate Creek/Seminole | 3 |
| CHOC 2733 | Intermediate Choctaw | 3 |
| KIOW 2733 | Intermediate Kiowa | 3 |
|  |  |  |
| These courses are not major or major support work, nor are they |  |  |
| required. |  |  |

## General Education and College Requirements

Courses for fulfillment of General Education and Dodge College of Arts \& Sciences requirements must be from the approved General Education course list published in the Class Schedule or at http://www.ou.edu/ gened/courses. Courses graded P/NP will not apply.

## UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS

Code Title Credit

Core Area I: Symbolic and Oral Communication
English Composition (6 hours)
ENGL 1113 Principles of English Composition 3
ENGL 1213 Principles of English Composition 3
or EXPO 1213 Expository Writing
Language ( $0-13$ hours in the same language)
The college requirement cannot be met by high school coursework.
Beginning Course 0-5
Beginning Course, continued 0-5
$\begin{array}{ll}\text { Intermediate Course (2000 level) }{ }^{1,2} & 0-3\end{array}$
Mathematics (3 hours)
 the dee including 48 upper-division hours.

## Information Concerning General Rules, Regulations and Minimum Requirements

Arts and Sciences Hours: At least 80 semester hours of liberal arts and sciences courses are required for a BA degree. At least 55 semester hours of liberal arts and sciences courses are required for a BS degree. Pass/No Pass Enrollment: A maximum of 16 semester hours of free elective credit may be attempted under this option.

3 Individual Studies (e.g., courses titled "Independent Study"): A maximum of 12 total semester hours may be counted toward graduation, excluding Honors Reading and Honors Research.
P.E. Courses: No physical education activity courses will be counted toward the 120 semester hours of acceptable credit for graduation. Senior Institution Hours: A minimum of 60 semester hours applied toward graduation must be earned at senior (4-year) institutions.
Residency:

- At least 15 of the final 30 hours applied toward the degree or at least 50 percent of the hours required by the institution in the major field must be satisfactorily completed at the awarding institution.
- At least 15 semester hours of upper-division major work must be completed in residence at $O U$.
- OU correspondence courses are not considered resident credit.

Grade Point Averages: Students must earn a minimum over all 2.00 for each of the following: Combined Retention GPA (all college grades), OU Retention GPA, GPA for all major courses, and GPA for all major courses taken at OU. Some schools and departments of the College have higher minimum grade point averages required for their students.

## Suggested Semester Plan of Study

This plan shows one possible grouping of courses that would allow students to graduate in four years. Please refer to the front of the degree checksheet for official requirements. Students must consult with Dodge College of Arts and Sciences and/or Department of Native American Studies academic advisors to verify that courses selected each semester fulfill the recommended plan and satisfy University, College of Arts and Sciences, and Native American Studies major requirements.

## Freshman

| First Semester |  | Credit <br> Hours |
| :--- | :--- | ---: |
| ENGL 1113 | Principles of English Composition (Core I) | 3 |
| Math (Core I) |  | 3 |
| NAS 1013 | Introduction to Native American Studies | 3 |
|  | (Core IV-World Culture) | 5 |
| Beginning Native American Language course | $\mathbf{1 4}$ |  |

## Second Semester

ENGL 1213 Principles of English Composition (Core I) 3
or EXPO 1213 or Expository Writing
Natural Science with lab (Core II) 3
First Year Experience (Core V) 3
Beginning Native American Language course, continued 5
Free Elective, lower-division 2

Credit Hours

## Sophomore

First Semester

| NAS 2013 | Foundations in Native American <br> Sovereignty | 3 |
| :--- | :--- | ---: |
| P SC 1113 | American Federal Government (Core III) | 3 |
| Social Science (Core III) | 3 |  |
| Artistic Forms (Core IV) | 3 |  |
| Intermediate Native American Language course | 3 |  |
| Credit Hours |  |  |


| Second Semester |  |
| :---: | :---: |
| Natural Science without lab (Core II) | 3 |
| Western Culture (Core IV) | 3 |
| NAS Area of Emphasis Major Elective, lower-division | 3 |
| NAS Area of Emphasis Major Elective, upper-division (3000-4000-level) | 3 |
| HIST 1483 United States to 1865 (Core IV) <br> or HIST 1493 or United States, 1865 to the Present | 3 |
| Credit Hours | 15 |
| Junior |  |
| First Semester |  |
| NAS Area of Emphasis Major Elective, upper-division (3000-4000-level) | 3 |
| NAS Area of Emphasis Major Elective, upper-division (3000-4000-level) | 3 |
| Arts \& Humanities, upper-division, outside major (Gen. Ed.) | 3 |
| Free Elective, lower- or upper-division | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Credit Hours | 15 |
| Second Semester |  |
| NAS 3013 Native American Studies Internship | 3 |
| NAS Area of Emphasis Major Elective, upper-division (3000-4000-level) | 3 |
| NAS Area of Emphasis Major Elective, upper-division (3000-4000-level) | 3 |
| Arts \& Humanities, upper-division, outside major (Gen. Ed.) | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Credit Hours | 15 |
| Senior |  |
| First Semester |  |
| NAS 4033 Indigenous Research Methods | 3 |
| NAS 4063 Critical Indigenous Theory | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Credit Hours | 15 |
| Second Semester |  |
| NAS 4053 Senior Capstone | 3 |
| NAS Area of Emphasis Major Elective, upper-division (3000-4000-level) | 3 |
| Free Elective, lower- or upper-division | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Credit Hours | 15 |
| Total Credit Hours | 120 |

## Native American Studies Areas of <br> Emphasis

- For the most current course lists, please contact the Department of
Native American Studies.

| Cultural Knowledge, Language, \& History Courses |  |  |
| :--- | :--- | ---: |
| Code | Title | Credit <br> Hours |
| NAS 3113 | Native American Philosophy | 3 |
| NAS 3123 | Gender and Sexuality in Native North <br>  <br>  <br> NAS 4113 <br> America | 3 |
| NAS 4133 | Oklahoma Tribal History | 3 |
| NAS 5113 | Tribal Historic Preservation | 3 |
| NAS 5133 | Oklahoma Tribal History | 3 |
|  | Tribal Historic Preservation | 3 |

Tribal Governance \& Policy Courses

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| NAS 3313 | Introduction to Native Peoples and <br> Sustainability | 3 |
| NAS 3323 | Tribal Service Learning | 3 |
| NAS 4333 | American Indian Health Issues and <br> Concerns | 3 |
| NAS 4343 | American Indian Education Policy and <br> Development | 3 |
| NAS 4353 | Introduction to Tribal Economic <br> NAS 4363 | Development |
| NAS 5343 | American Indian Education Policy and <br> Nevelopment | 3 |
| NAS 5353 | Introduction to Tribal Economic | 3 |
| NAS 5363 | Development | 3 |
|  | Tribal Governance and Leadership | 3 |

## Indigenous Media \& Arts Courses

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| NAS 3513 | Native American Film | 3 |
| NAS 4513 | Native Cultural Aesthetics \& the Heritage | 3 |
| NAS 4533 | Contemporary Native American Artists | 3 |
| NAS 5513 | Native Cultural Aesthetics \& the Heritage | 3 |
|  | Industry | 3 |

## Native American Studies, Minor

Minimum Total Credit Hours: 15
Minimum Upper-Division Hours: 9

## Program Code: N725

- The requirements for a minor must be completed concurrently with the major degree requirements.
- No minor may be added by completing courses after receiving the bachelor's degree.

At least six (6) credit hours must be earned in courses acceptable for residence credit by standards set forth by the Dodge College of Arts and Sciences, excluding transfer, correspondence, and examination (AP, CLEP,

Advanced Standing) credit. Courses for the minor may not be taken Pass/ No Pass.

No single course may be used by a student to satisfy a major requirement and a minor requirement. A course may be used, however, to satisfy both a major support requirement and a minor requirement.

Requests to substitute a minor requirement must be approved in writing by the Native American Studies program.

## Required Courses

Students must successfully complete at least 15 hours of courses, including at least 9 hours at the upper-division level

| Code | Title | Credit <br> Hours |
| :---: | :---: | :---: |
| NAS Core Requirements |  |  |
| NAS 2013 | Foundations in Native American Sovereignty | 3 |
| NAS 4063 | Critical Indigenous Theory | 3 |
| Thematic Area of Emphasis |  |  |
| Choose thr areas: ${ }^{1}$ | urses from one or more of the following | 9 |
| Cultural Knowledge, Language, \& History (p. 590) |  |  |
| Tribal Governance \& Policy (p. 590) |  |  |
| Indigenous Media \& Arts (p. 590) |  |  |
| Total Credit |  | 15 |
| ${ }^{1}$ Students may declare one or more areas of emphasis. A list of appropriate courses in each area may be obtained from the NAS Program. Appropriate courses should be selected with the guidance of the NAS advisor. |  |  |
| - Minors in the Dodge College of Arts \& Sciences are available to all undergraduate students at OU. If the minor is officially declared, successfully completed, and noted on the graduation application, the student's transcript will so indicate at the time the bachelor's degree is posted. |  |  |

## Native American Studies, M.A.

Minimum Total Hours (Thesis): 33
Minimum Total Hours (Non-Thesis): 33

## Program Code: M740

## Required Courses

## Thesis Option

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| NAS Core Requirements | 3 |  |
| NAS 5063 | Critical Indigenous Theory | 3 |
| Choose one of the following: | 3 |  |
| NAS 5033 | Indigenous Research Methods |  |
| LAW 6311 American Indian Law Review <br> \& LAW 6320 and Directed Legal Research (2 hours) <br> NAS 5043 Sovereignty, Law, and Policy <br> or LAW 5610 Federal Indian Law |  |  |

Thematic Area of Emphasis
Choose seven courses in one or more of the following: ${ }^{1}$

| Cultural Knowledge, Language, \& History |
| :--- |
| Tribal Governance \& Policy |
| Indigenous Media \& Arts |
| Thesis |
| NAS 5980 $\quad$ Research for Master's Thesis ${ }^{2}$ | |  |
| :--- |

## Native Language Proficiency

Demonstrate proficiency in a Native American language or complete one introductory course (1000-level) in a Native language or the equivalent ${ }^{3}$
Total Credit Hours
1 Students may declare one or more areas of emphasis. A list of appropriate courses may be obtained from the NAS program. Appropriate courses should be selected with the guidance of the NAS advisor.
${ }^{2}$ Minimum of three (3) thesis hours. Student will complete thesis under the direction of the committee chair.
${ }^{3}$ May not be used to satisfy core or emphasis credit.

## Non-Thesis Option

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| NAS Core Requirements | 3 |  |
| NAS 5063 | Critical Indigenous Theory | 3 |
| Choose one of the following: |  |  |
| NAS 5033 | Indigenous Research Methods |  |
| LAW 6311 | American Indian Law Review |  |
| \& LAW 6320 | and Directed Legal Research (2 hours) |  |
| NAS 5043 | Sovereignty, Law, and Policy | 3 |
| or LAW 5610 | Federal Indian Law |  |

## Thematic Area of Emphasis

Choose eight courses in one or more of the following: ${ }^{1} 24$
Cultural Knowledge, Language, \& History
Tribal Governance \& Policy
Indigenous Media \& Arts

## Comprehensive Exam

Student will complete comprehensive exam under the direction of the committee chair

## Native Language Proficiency

Demonstrate proficiency in a Native American language or complete one introductory course (1000-level) in a Native language or the equivalent ${ }^{2}$
Total Credit Hours
33
${ }^{1}$ Students may declare one or more areas of emphasis. A list of appropriate courses may be obtained from the NAS program. Appropriate courses should be selected with the guidance of the NAS advisor.
2 May not be used to satisfy core or emphasis credit.

## Notes

- To qualify for a graduate degree, students must achieve an overall grade point average of 3.0 or higher in the degree program coursework.
- The dual Master of Arts in Native American Studies and Juris Doctorate program will require a total of 126 hours of coursework. Thirty-six hours are required for the M.A. and 90 hours are required for the JD. Twenty-four hours can be shared. The shared hours must come from the M.A. requirements.


## General Requirements for all Master's Degrees

The master's degree requires the equivalent of at least two semesters of satisfactory graduate work and additional work as may be prescribed for the degree.

All coursework applied to the master's degree must carry graduate credit.
Master's degree programs which require a thesis consist of at least 30 credit hours. All non-thesis master's degree programs require at least 30 credit hours.

Credit transferred from other institutions must meet specific criteria and is subject to certain limitations.

Courses completed through correspondence study may not be applied to the master's degree.

To qualify for a graduate degree, students must achieve an overall grade point average of 3.0 or higher in the degree program coursework and in all resident graduate coursework attempted. A student must also have at least a 3.0 in all coursework (including undergraduate coursework if any).

Additional information for master's degree students may be found in the Graduate College Bulletin.

## Native American Studies, Graduate Certificate

Minimum Total Hours: 15
Program Code: G670

## Certificate Requirements



A graduate certificate is not a graduate degree. A graduate degree represents a program of independent inquiry beyond the depth of coursework alone, while a graduate certificate represents a set of courses only.

- All courses must be taken at OU. No transfer credit will apply.
- No course substitutions are permitted for graduate certificates.
- Coursework applied to a graduate certificate cannot be more than five years old as of the semester the graduate certificate is awarded.
- Students must earn a grade point average of 3.00 or higher on all coursework applied to the graduate certificate.


## Shyam Dev Patwardhan Department of Philosophy

Russell Jones, Chair
Stephen Ellis, Graduate Liaison
Martin Montminy, Director of Graduate Admissions
Zev Trachtenberg, Undergraduate Liaison
605 Dale Hall Tower
455 W. Lindsey
Norman, OK 73019-2006
Phone: (405) 325-6324
FAX: (405) 325-2660
philosophy@ou.edu
www.ou.edu/cas/philosophy

## General Information

The Shyam Dev Patwardhan Department of Philosophy offers broad training in the major fields of philosophy, with particular strengths in the history of ancient and modern philosophy, Chinese philosophy, logic, metaphysics, epistemology, aesthetics and the philosophy of art, philosophy of science, philosophy of language, philosophy of mind and philosophy of religion. The department offers a rich and lively environment with an emphasis on informal interaction between faculty and students.

## Programs \& Facilities

## Programs for Academic Excellence

Kingfisher College, Kingfisher, Oklahoma, discontinued giving instruction in 1927. An agreement with the trustees of the college provided for transferring a part of the library of the college to the University, for administering the Kingfisher College records for each graduate of Kingfisher College, recognizing the merits of the degree held by each, and inviting the holder to become associated with the alumni of the University. In 1951 the trustees of the college and the regents of the University jointly established a chair in the Department of Philosophy named Kingfisher College Professor of Philosophy of Religion and Ethics. Since its origin this chair has been expanded into an operative section of the Department of Philosophy, including both graduate and undergraduate level courses.

## Society of Undergraduate Philosophers

The Society of Undergraduate Philosophers (SOUP) is an organization of undergraduates and graduate students interested in philosophy. The SOUP meets regularly for discussions, talks by faculty members, to view philosophically themed movies, and to engage in other philosophy related activities.

## Undergraduate Study

## Bachelor of Arts Degree

Undergraduate studies in philosophy offer broad training in the major fields of philosophy, with particular strengths in the history of ancient and modern philosophy, Chinese philosophy, logic, metaphysics, epistemology,aesthetics and the philosophy of art, philosophy of science, philosophy of language, philosophy of mind and philosophy of religion. In addition to classes and seminars, the department offers a rich and lively environment with an emphasis on informal interaction between faculty and students.

## Philosophy

The Bachelor of Arts (p.598) in Philosophy is an excellent preparation for professional graduate programs in business, medicine, and law, and for graduate programs in philosophy. It is also ideal as a second major in conjunction with physics, psychology, economics, political science, or literature. But perhaps most importantly, the philosophy major fosters a sense of wonder, and provides a rigorous intellectual method for gaining understanding of oneself and the world. By learning about the heritage of philosophical examination, students acquire an informed basis for arriving at their own conclusions about their most basic beliefs and values. Philosophy encourages students to become critical thinkers to reason clearly and correctly concerning important and fundamental issues.

The ability to write clear, coherent papers is essential to philosophy. Philosophy majors receive specialized training in writing for the field in a Writing Workshop, and they must take at least two majors-only courses, in which they have intensive writing requirements.

## Minor

The department also offers an undergraduate Philosophy Minor (p. 601).

## Courses for Non-Majors

Most students who take philosophy courses are not philosophy majors. The topics covered by philosophy - e.g., moral, legal, aesthetic and religious values, logic, the theory of knowledge and the history of human thought on these subjects - are of interest to most college students, and many philosophy courses satisfy general education requirements. Nonmajors are welcome in any course for which they have the appropriate prerequisites. Consult the course catalog (p. 1818) for information on prerequisites for courses above 3000.

## Graduate Study

The Shyam Dev Patwardhan Department of Philosophy at the University of Oklahoma offers programs of study leading to two advanced degrees: a terminal MA, either with thesis or without, and a Ph.D. The department offers broad training in the major fields of philosophy.

- Philosophy, Master of Arts (p. 601)
- Philosophy, Ph.D (p. 602).


## Courses

PHIL 1013 Introduction to Philosophy 3 Credit Hours
Basic problems of philosophy explored through a consideration of selected philosophers. (F, Sp, Su) [IV-WC] .

PHIL 1103 Critical Reasoning
3 Credit Hours
An informal survey of evaluative principles of reasoning. The application of these principles is emphasized, and common errors and fallacies in everyday, ethical, legal, and scientific reasoning are discussed. This course is not a course in formal symbolic logic or mathematical logic. ( $F$, Sp) [III-SS] .

PHIL 1113 Introduction to Logic 3 Credit Hours Prerequisite: DMAT 0123 or satisfactory score on Math placement test. An introduction to modern logic and its applications. Emphasis is placed on deductive logic, but may also include some treatment of inductive logic. Various common fallacies and errors in reasoning will also be discussed. (F, Sp, Su) [I-M] .

PHIL 1213 Introduction to Ethics
3 Credit Hours
Basic issues in moral philosophy examined through a consideration of selected philosophers, including a sampling of normative theories as well as an introduction to issues of metaethics. (F, Sp, some Su) [IV-WC] .

## PHIL 1223 Introduction to Asian Philosophy

3 Credit Hours
(Crosslisted with IAS 1223) Survey of the major figures and schools of philosophy in Asia. Includes study of Hinduism, Buddhism, Confucianism, and Daoism. (F) [IV-WDC].
PHIL 1233 Contemporary Moral Issues
3 Credit Hours
Philosophical exploration of major contemporary moral issues such as euthanasia, abortion, death penalty, war and terrorism, poverty and world hunger, animal rights, pornography, marriage, affirmative action, drug legalization, and organ sales. Students will read contrasting views from prominent philosophers, and learn about how moral theories may be invoked in support of positions on those issues. (F, Sp)[IV-WC].
PHIL 1263 Introduction to Ethics in Health Care 3 Credit Hours An overview of important issues in health care ethics, including dilemmas facing providers, patients, researchers, and society at large. The course will introduce facts and concepts drawn from health care practice, and a variety of philosophical approaches used to analyze ethical dilemmas. ( F , Sp ) [IV-WC].
PHIL 1273 Introduction to Business Ethics
3 Credit Hours
An overview of important issues in business ethics, including the morality of market systems, business-customer relations, employer-employee relations, and firm-shareholder relations. The course will introduce facts and concepts drawn from economic analysis and business practice, as well as a variety of philosophical approaches used to analyze ethical considerations. (F, Sp) [IV-WC].
PHIL 2023 Existentialism, its Sources and Influences 3 Credit Hours The historical background and cultural impact of existentialism in its literary, religious, psychiatric and philosophical expressions. Stresses Kierkegaard, Heidegger and Sartre. Briefly treats Nietzsche, Jaspers, Berdyaev, Maslow, Beckett, etc. (Irreg.)

## PHIL 2900 Special Topics

4 Credit Hours
1 to 4 hours. May be repeated with change of topic; maximum credit nine hours. Topics in philosophy not accommodated by the existing curriculum will be taught from time to time (examples: Islamic philosophy, Navajo thought, feminism). (Irreg.)
PHIL 3023 Aesthetics and the Philosophy of Art 3 Credit Hours Prerequisite: six hours of Philosophy or junior standing. Examines historical and contemporary views about the nature, value, social role and interpretation of artworks in a variety of artistic media. The appreciation of nature and of everyday experience is also discussed. (Irreg.) [IV-WC].

PHIL 3033 Philosophy and Literature
3 Credit Hours
Literature expresses in concrete form what philosophy discusses in abstract terms: views of the world that human beings inhabit; views of the nature of human freedom and rationality; and views of the good human life. Use of literature to illustrate philosophical issues, and philosophy to reveal the unstated assumptions and implications of selected literary works. (Irreg.) [IV-WC] .

## PHIL 3233 The Meaning of Life

3 Credit Hours
Prerequisite: Junior Standing. "What is the meaning of life?" In the realm of philosophy, this is often the first question that comes to mind. The meaning of life has been a subject of discussion among philosophers since ancient times. Over the past two decades, there has been been a resurgence of interest, with a new wave of philosophers revisiting this profound question. (F, Sp)

## PHIL 3243 Civility

3 Credit Hours
Prerequisite: 6 hours of Philosophy or junior standing. Addresses
the moral, social, and political aspects of the virtue of civility. Course readings will range from theoretical works linking civility to broad moral and political concerns to more applied approaches that seek to address how civility practices have altered alongside historical, sociological, and technological changes in society. (Irreg.) [IV-WC].
PHIL 3253 History of Ethics 3 Credit Hours
Prerequisite: six hours of philosophy. A survey of the major figures in the history of moral philosophy with emphasis on their interrelations, influences on each other and effect on contemporary moral philosophy. (Sp) [IV-WC].

## PHIL 3263 Virtue Ethics

3 Credit Hours
Prerequisite: junior standing or six hours of Philosophy. An overview of the history of virtue ethics from the ancient Greeks to the present day, covering the historical zenith of virtue ethics through the Middle Ages, the fall of virtue concepts in the early modern period, and the rebirth of virtue ethics in the later 20th century. Discusses a number of executive, moral, intellectual, and civic virtues and their related vices, and addresses some of the fundamental philosophical questions that arise in the study of virtue ethics. ( $F, \mathrm{Sp}$ ) [IV-WC].
PHIL 3273 Ethics and Business
3 Credit Hours
Prerequisite: Six hours of philosophy or junior standing. A study of how ethics illuminates business activities. Topics include: the philosophical bases of capitalism; the legitimacy of the profit motive; virtue and the marketplace; corporate responsibility; government regulation; the marketplace and the environment; the ethics of advertising; employee privacy; and the challenges posed by the developing information age. (Irreg.) [IV-WC].

## PHIL 3293 Environmental Ethics

3 Credit Hours
Prerequisite: junior standing or permission of instructor. Surveys the field of environmental ethics. Various principles philosophers use to assign value to the natural world and assign obligations toward nature to human beings are examined by students in order to articulate and defend their own reasoned points of view on environmental questions. (Irreg.) [IV-WC].
PHIL 3313 History of Ancient Philosophy
3 Credit Hours
Prerequisite: six hours of philosophy. A survey of Greek and Roman philosophy with concentration on selected readings in classical philosophy from Thales to St. Augustine. (F) [IV-WC] .
PHIL 3333 History of Modern Philosophy 3 Credit Hours Prerequisite: six hours of philosophy. A survey of modern European philosophy with concentration on selected readings from the Renaissance through Kant. (Sp) [IV-WC] .

PHIL 3343 Chinese Philosophy
3 Credit Hours
(Crosslisted with IAS 3343) Prerequisite: Six hours of philosophy or junior standing. Survey and analysis of the major texts and schools of philosophy in China, from the ancient world to the contemporary era. (Irreg.) [IV-WDC].

## PHIL 3393 History of Analytic Philosophy

3 Credit Hours
Prerequisite: six hours of philosophy or junior standing; open to nonmajors. Explores some of the main methods and topics of interest in the analytic philosophical tradition. Examines the views of influential philosophers, starting around the beginning of the twentieth century, on questions such as: What is the world made up of? What is the nature of time? What is knowledge, and do we have any? (Irreg.) [IV-WC].

PHIL 3403 Jewish and Islamic Philosophy
3 Credit Hours
Prerequisite: 6 hours of philosophy. This course covers the development of classical Jewish and Islamic philosophy from roughly 800 to 1200 CE and then examines the development of these traditions in light of issues of contemporary relevance. (F, Sp) [IV-WDC].
PHIL 3423 Ancient and Medieval Religious Philosophy 3 Credit Hours Prerequisite: six hours of philosophy or junior standing. Covers the history of religious philosophy in the West from ancient Greece until the 16th century. Major figures studied include Plato, Aristotle, the Stoics, Plotinus, Augustine, Boethius, Anselm, Maimonides, Aquinas, Averroes, Scotus, Ockham, and the Reformers. (Irreg.) [IV-WC] .
PHIL 3433 Modern Philosophy of Religion 3 Credit Hours
Prerequisite: six hours of philosophy or junior standing. Covers the history of modern religious philosophy in the West from the 17th to the mid-20th centuries. Major figures studied include Descartes, Pascal, Leibniz, Locke, Hume, Kant, Kierkkegaard, Nietzsche, Clifford, James, Freud, and Wittgenstein. (Irreg.) [IV-WC] .

PHIL 3440 Mentored Research Experience
3 Credit Hours
0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)
PHIL 3443 Contemporary Issues in Philosophy of Religion 3 Credit Hours
Prerequisite: six hours of philosophy or junior standing. Issues currently debated in philosophy of religion. Topics include the rationality of religious belief, the problem of evil, the dilemma of divine foreknowledge and human free will, life after death, the relation between science and religion, and religion and public policy. (Irreg.) [IV-WC] .
PHIL 3503 Self and Identity
3 Credit Hours
Prerequisite: 1013 or permission of instructor. Introduction to a number of philosophical topics about the self including personal identity, immortality, unity of self-consciousness, self-knowledge, and nature of self. (Irreg.) [IV-WC] .
PHIL 3533 Language, Communication, and Knowledge 3 Credit Hours Prerequisite: six hours of philosophy or junior standing. The nature of language and communication as studied by linguists and philosophers. Topics will include the nature of meanings; the relationship between syntax, semantics, and pragmatics; and the transmission of knowledge through testimony. Combines philosophical readings with readings from the empirical sciences. (Irreg.) [IV-WC] .

PHIL 3613 Philosophy of Biology
3 Credit Hours
Prerequisite: six hours of philosophy or junior standing. Philosophical issues raised by evolutionary theory. Topics include creationism versus evolutionary theory; what makes a hypothesis scientific; can evolutionary theory explain psychological or cultural phenomena? (Irreg.) [IV-WC].
PHIL 3713 History of Social and Political Philosophy 3 Credit Hours Prerequisite: six hours of philosophy or junior standing. A survey of the views of major philosophers from Plato to the nineteenth century on the nature of man's relation to society and to the state in the context of their wider philosophical (logical, epistemological, metaphysical and ethical) doctrines. Plato, Aristotle, Aquinas, Hobbes, Locke, Rousseau, Hegel and Marx are the chief figures covered, though others will be considered as time permits. (Irreg.) [IV-WC].

## PHIL 3733 Religion in Political Theory

3 Credit Hours
Prerequisite: six hours of Philosophy or junior standing. Survey of views on religion in political life held by important political theorists in the modern western tradition and consider how theoretical positions on the role of religion in political life are reflected in political institutions, such as the first amendment establishment clause. (Irreg.) [IV-WC] .

## PHIL 3743 Feminist Philosophy

3 Credit Hours
Prerequisite: Six hours of philosophy or junior standing. A study of the major schools of feminist philosophy, as well as issues of perennial and contemporary interest in feminist philosophy. (Irreg.) [IV-WC].
PHIL 3753 Philosophy of Race
3 Credit Hours
Prerequisite: junior standing or six hours of philosophy. Addresses philosophical questions about race. Social justice will be an important focus of the course. Additional specific issues related to race and racism will also be addressed; hopefully, a better understanding of the philosophical issues and a commitment to the eradication of racism and racial injustice will be reached. (Irreg.) [IV-WC].

## PHIL 3763 Law and Society

3 Credit Hours
Prerequisite: six hours of philosophy or junior standing. An introduction to the history and structure of the main controversies in modern law, with special attention to the United States legal system. Covered topics include natural law, legal realism, the law and economics movement, theories of responsibility and liability, feminist legal theory, and theories of text interpretation. (Irreg.) [IV-WC].
PHIL 3811 Philosophy Writing Workshop 1 Credit Hour
Prerequisite: co-requisite with 3813,3833 or 3853 . Intensive instruction on how to write papers in philosophy. Students will use the workshop to help them write the term paper for a designated target class, in which they must be concurrently enrolled. ( $F, S p$ )
PHIL 3813 History of Ancient Philosophy for Majors 3 Credit Hours Prerequisite: six hours of philosophy and Philosophy or Ethics and Religion major. A survey of Greek and Roman philosophy with concentration on selected readings in classical philosophy from Thales to St. Augustine. For majors in Philosophy or Ethics and Religion. No student may earn credit for both 3313 and 3813. (F, Sp)
PHIL 3833 History of Modern Philosophy for Majors 3 Credit Hours Prerequisite: six hours of philosophy and Philosophy or Ethics and Religion major. A survey of modern European philosophy with concentration on selected readings from the Renaissance through Kant. For majors in Philosophy or Ethics and Religion. No student may earn credit for both 3333 and 3833. (F, Sp)

PHIL 3843 Chinese Philosophy for Majors
3 Credit Hours
Prerequisite: six hours of Philosophy and declared Philosophy major. Survey and analysis of the major texts and schools of philosophy in China, from the ancient world to the contemporary era. This is the majorsonly version of PHIL 3343, Chinese Philosophy; it meets concurrently with that course, but has intensified writing requirements. It can serve as a "target class" for PHIL 3811, the Writing Workshop in Philosophy. (Irreg.)
PHIL 3853 History of Ethics for Majors
3 Credit Hours
Prerequisite: six hours of philosophy and Philosophy or Ethics and Religion major. A survey of the major figures in the history of moral philosophy with emphasis on their interrelations, influences on each other and effect on contemporary moral philosophy. For majors in Philosophy or Ethics and Religion. No student may earn credit for both 3253 and 3853. (Sp)
PHIL 3900 Special Topics
1-4 Credit Hours
1 to 4 hours. May be repeated with change of topic, maximum credit nine hours. Topics in philosophy not accommodated by the existing curriculum will be taught from time to time. (Irreg.)
PHIL 3960 Honors Reading 1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Will consist of topics designated by the instructor in keeping with the student's major program. Topics will cover materials not usually presented in the regular courses. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

## PHIL 3970 Honors Seminar

1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. The projects covered will vary. The content will deal with concepts not usually presented in regular coursework. (Irreg.)
PHIL 3980 Honors Research 1-3 Credit Hours 1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Will provide an opportunity for the gifted Honors candidate to work at a special project in the student's field. (F, Sp, Su)
PHIL 3990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: one course in general area to be studied; permission of instructor and department. May be repeated; maximum credit six hours. Contracted independent study for topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (F, Sp, Su)
PHIL 4023 Survey of Analytic Aesthetics and Philosophy of Art

## 3 Credit Hours

(Slashlisted with PHIL 5023) Prerequisite: eight hours of philosophy or permission of department. Survey of major philosophical topics in aesthetics and the philosophy of art. Topics include the ontology of art, interpretation, the value of artworks, the relationship between aesthetic and moral value, and aesthetic experience in everyday life. No student may earn credit for both 4023 and 5023. (Irreg.)
PHIL G4133 Symbolic Logic I
3 Credit Hours
An introduction to the symbolism and methods of modern deductive logic. (F)
PHIL 4293 Ethical Theory
3 Credit Hours
(Slashlisted with 5293) Prerequisite: eight hours of philosophy including an ethics course or permission. A survey of theories of the nature and foundations of morality. Topics may include the analysis of moral language, the justification of moral beliefs, and the status of ethical theories. No student may earn credit for both 4293 and 5293. (Sp)

PHIL 4343 Early Chinese Philosophy 3 Credit Hours
(Slashlisted with 5343, Crosslisted with IAS 4343) Prerequisite: eight hours of Philosophy or permission. Survey of pre-Qin Chinese philosophy, including the major texts and figures of Confucianism, Daoism, and other notable schools. No student may earn credit for both 4343 and 5343. (Irreg.)
PHIL 4473 Philosophy of Religion 3 Credit Hours
(Slashlisted with 5473) Prerequisite: eight hours of philosophy or permission. Survey of topics in the philosophy of religion. Topics covered include the concept of God, the problem of religious knowledge, the nature of religious language, the problem of evil, and particular thinkers. No student may earn credit for both 4473 and 5473. (Irreg.)
PHIL 4513 Metaphysics
3 Credit Hours
(Slashlisted with 5513) Prerequisite: eight hours of philosophy or permission. Survey of major philosophical views about the nature of reality. Topics covered may included the mind-body problem, causation, personal identity, free will and determinism, universals, and the existence of God. No student may earn credit for both 4513 and 5513. (Sp)
PHIL 4523 Epistemology
3 Credit Hours
(Slashlisted with 5523) Prerequisite: eight hours of philosophy or permission. Survey on the evaluation of human reasoning and the nature and scope of human knowledge. Topics include skepticism, the nature of justification, the ethics of belief, and the problem of induction. No student may earn credit for both 4523 and 5523. (F)
PHIL 4533 Philosophy of Language 3 Credit Hours (Slashlisted with PHIL 5533) Prerequisite: eight hours of philosophy or permission. Survey of major philosophical views on the nature and workings of language. Topics covered include: meaning and truth, sense and reference, speech acts, and communication. No student may earn credit for both 4533 and 5533. (Irreg.)
PHIL 4543 Philosophy of Mind
3 Credit Hours
(Slashlisted with PHIL 5543) Prerequisite: eight hours of philosophy or permission. Survey of major philosophical views on the nature of the mind. Topics covered may include: the nature and unity of consciousness, the mind-body problem, personal identity, the emotions, actions and intentions, self-knowledge, and other minds. No student may earn credit for both 4543 and 5543. (Irreg.)
PHIL 4623 Philosophy of The Social Sciences 3 Credit Hours (Slashlisted with 5623) Prerequisite: nine hours of upper-division social sciences or permission. Survey of issues in the philosophy of the social sciences. Topics covered will include explanation in the social sciences, theory construction, theories and observation, evidence and theory of confirmation, theoretical constructs and operationism, verstehen and objectivity. No student may earn credit for both 4623 and 5623. (Irreg.)
PHIL 4713 Survey of Social and Political Philosophy 3 Credit Hours (Slashlisted with 5713) Prerequisite: Eight hours of philosophy or permission. Survey of important theories in social and political philosophy. Beginning with ancient theories (Plato and Aristotle), to modern social contract theories and the foundations of liberalism (Hobbes, Locke, Rousseau, and Mill), and concludes with the debate between liberals and communitarians (Rawls and his critics). No student may earn credit for both 4713 and 5713. (Irreg.)
PHIL 4893 Senior Capstone in Philosophy 3 Credit Hours Prerequisite: graduating majors. Covering the major areas of philosophy taught in the undergraduate major, coordinated with the departmental objectives for undergraduate majors and for the purpose of assessing the level of learning among graduating seniors. (Sp) [V] .

PHIL 4960 Directed Readings
1-4 Credit Hours
1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean. May be repeated; maximum credit four hours. Designed for upper-division students who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)

## PHIL 4970 Special Topics/Seminar

## 1-3 Credit Hours

1 to 3 hours. Prerequisite: senior standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

## PHIL 4990 Independent Study 1-3 Credit Hours

1 to 3 hours. Prerequisite: three courses in general area to be studied; permission of instructor and department. May be repeated; maximum credit six hours. Contracted independent study for topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (F, Sp, Su)
PHIL 5023 Survey of Analytic Aesthetics and Philosophy of

## 3 Credit Hours

(Slashlisted with PHIL 4023) Prerequisite: graduate standing. Survey of major philosophical topics in aesthetics and the philosophy of art. Topics include the ontology of art, interpretation, the value of artworks, the relationship between aesthetic and moral value, and aesthetic experience in everyday life. No student may earn credit for both 4023 and 5023. (Irreg.)

PHIL 5143 Symbolic Logic II
3 Credit Hours
Prerequisite: graduate standing. Further study of first order predicate logic: identity, axiomatic development. Various metatheorems; soundness, consistency and completeness. (Alt. Sp)

PHIL 5293 Ethical Theory
3 Credit Hours
(Slashlisted with 4293) Prerequisite: graduate standing. A survey of theories of the nature and foundations of morality. Topics may include the analysis of moral language, the justification of moral beliefs, and the status of ethical theories. No student may earn credit for both 4293 and 5293. (Sp)

PHIL 5313 Studies in Ancient Philosophy
3 Credit Hours
Prerequisite: 3313. May be repeated with change of content; maximum credit 18 hours. Survey of philosophical writings of a major ancient Greek philosopher, typically Plato and Aristotle. Works covering different philosophical topics and written at different stages in the philosopher's development will be studied. Selection of figure will alternate each year the course is offered. (Sp)
PHIL 5333 Studies in Modern Philosophy
3 Credit Hours
May be repeated with change of content; maximum credit 18 hours. Survey of philosophical writings of major philosophers. Figures covered will alternate each year between the Rationalists (Descartes, Leibniz, and Spinoza) and the Empiricists (Locke, Berkeley, and Hume), though other combinations (e.g., Locke and Leibniz) may be offered. (F)
PHIL 5343 Early Chinese Philosophy 3 Credit Hours
(Slashlisted with 4343) Prerequisite: eight hours of Philosophy or permission. Survey of pre-Qin Chinese philosophy, including the major texts and figures of Confucianism, Daoism, and other notable schools. No student may earn credit for both 4343 and 5343. (Irreg.)

PHIL 5473 Philosophy of Religion
3 Credit Hours
(Slashlisted with 4473) Prerequisite: graduate standing. Survey of topics in the philosophy of religion. Topics covered include the concept of God, the problem of religious knowledge, the nature of religious language, the problem of evil, and particular thinkers. No student may earn credit for both 4473 and 5473. (Irreg.)

## PHIL 5513 Metaphysics

3 Credit Hours
(Slashlisted with 4513) Prerequisite: graduate standing. Survey of major philosophical views about the nature of reality. Topics covered may included the mind-body problem, causation, personal identity, free will and determinism, universals, and the existence of God. No student may earn credit for both 4513 and 5513. (Sp)
PHIL 5523 Epistemology
3 Credit Hours
(Slashlisted with 4523) Prerequisite: graduate standing. Survey on the evaluation of human reasoning and the nature and scope of human knowledge. Topics include skepticism, the nature of justification, the ethics of belief, and the problem of induction. No student may earn credit for both 4523 and 5523. (F)
PHIL 5533 Philosophy of Language
3 Credit Hours
(Slashlisted with PHIL 4533) Prerequisite: graduate standing. Survey of major philosophical views on the nature and workings of language. Topics covered include: meaning and truth, sense and reference, speech acts, and communication. No student may earn credit for both 4533 and 5533. (Irreg.)

PHIL 5543 Philosophy of Mind 3 Credit Hours (Slashlisted with PHIL 4543) Prerequisite: graduate standing. Survey of major philosophical views on the nature of the mind. Topics covered may include the nature and unity of consciousness, the mind-body problem, personal identity, the emotions, actions and intentions, self-knowledge, and other minds. No student may earn credit for both 4543 and 5543. (Irreg.)
PHIL 5623 Philosophy of The Social Sciences 3 Credit Hours (Slashlisted with 4623) Prerequisite: graduate standing. Survey of issues in the philosophy of the social sciences. Topics covered will include explanation in the social sciences, theory construction, theories and observation, evidence and theory of confirmation, theoretical constructs and operationism, verstehen and objectivity. No student may earn credit for both 4623 and 5623. (Irreg.)
PHIL 5713 Survey of Social and Political Philosophy 3 Credit Hours (Slashlisted with 4713) Prerequisite: Eight hours of philosophy or permission. Survey of important theories in social and political philosophy. Beginning with ancient theories (Plato and Aristotle), to modern social contract theories and the foundations of liberalism (Hobbes, Locke, Rousseau, and Mill), and concludes with the debate between liberals and communitarians (Rawls and his critics). No student may earn credit for both 4713 and 5713. (Irreg.)

## PHIL 5813 Philosophy Proseminar 3 Credit Hours

Prerequisite: Graduate standing and Majors only. The Philosophy Proseminar is designed to: (i) help philosophy graduate students develop the skills needed to succeed at their academic work in the graduate program; (ii) prepare them to make good progress through their respective programs, either the MA or the PhD; and (iii) prepare them for success after graduation. (Sp)

PHIL 5823 Philosophy Graduate Writing Seminar 3 Credit Hours
Prerequisite: Graduate standing and Majors only. The Writing Seminar will immerse students in the professional craft of philosophical writing. We will examine exemplars of good philosophical writing, analyze philosophical writing techniques and structures, and identify common strengths and weaknesses in philosophical work. The course will be delivered in a cooperative fashion, with students gaining experience through presentations, giving peer feedback, intensive editing and revision. (F)

PHIL 5960 Directed Readings 1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing and permission of department. May be repeated; maximum credit twelve hours. Directed readings and/or literature reviews under the direction of a faculty member. (F, Sp, Su)
PHIL 5970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing. May be repeated with change of topic; maximum credit nine hours. Topics in philosophy not accommodated by the existing curriculum. (Irreg.)
PHIL 5980 Research for Master's Thesis 2-9 Credit Hours
Variable enrollment, two to nine hours; maximum credit applicable toward degree, four hours. (F, Sp, Su)
PHIL 5990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: permission of instructor and adviser. May be repeated with change of subject matter; maximum undergraduate credit eight hours; maximum graduate credit 12 hours. ( $F, S p, S u$ )
PHIL 6023 Seminar in Aesthetics and Philosophy of Art 3 Credit Hours Prerequisite: graduate standing. May be repeated with change of content; maximum credit 12 hours. Intensive seminar on a topic in aesthetics and the philosophy of art. (Irreg.)
PHIL 6203 Seminar in Ethics
3 Credit Hours
May be repeated with change of subject matter; maximum credit 12 hours. (F, Sp)
PHIL 6383 Seminar in Chinese Philosophy 3 Credit Hours
Prerequisite; graduate standing. May be repeated with change of content; maximum credit 12 hours. Intensive seminar on a topic in Chinese philosophy. (Irreg.)
PHIL 6393 Seminar in the History of Philosophy 3 Credit Hours May be repeated with change of subject matter; maximum credit 12 hours. (Irreg.)

PHIL 6473 Seminar In Philosophy Of Religion
3 Credit Hours
Seminar In Philosophy Of Religion. Prerequisite: 5473 Or Permission.
May Be Repeated With Change Of Content; Maximum Credit 12 Hours. Intensive Seminar On A Topic In The Philosophy Of Religion. (Irreg.)
PHIL 6513 Seminar in Metaphysics
3 Credit Hours
Prerequisite: 5513 or permission. May be repeated with change of content; maximum credit 12 hours. Intensive seminar on a topic in metaphysics. (Irreg.)
PHIL 6523 Seminar in Epistemology
3 Credit Hours
Prerequisite: 5523 or permission. May be repeated with change of content; maximum credit 12 hours. Intensive seminar on a topic in epistemology. (Irreg.)
PHIL 6593 Seminar in Contemporary Philosophy 3 Credit Hours May be repeated with change of subject matter; maximum credit 12 hours. (Irreg.)

PHIL 6793 Seminar in Social and Political Philosophy 3 Credit Hours Prerequisite: 5763 or permission. May be repeated with change of content; maximum credit 12 hours. Intensive seminar on a topic in the philosophy of law. (Irreg.)
PHIL 6960 Directed Readings
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit six hours. Directed readings and/or literature review under the direction of a faculty member. (Irreg.)

## PHIL 6970 Special Topics/Seminar

1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit 12 hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or research and field projects. (Irreg.)
PHIL 6980 Research for Doctoral Dissertation 2-16 Credit Hours 2 to 16 hours. Prerequisite: Graduate standing and permission of instructor; may be repeated. Directed research culminating in the completion of the doctoral dissertation. (F, Sp, Su)

## PHIL 6990 Independent Study

1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)

## Faculty

| Last Name | First/Middle <br> Name | Middle init. | OU <br> Service start | Title(s), date(s) appointed | Degrees Earned, Schools, Dates Completed |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Cook | Monte | L | 1968 | PROFESSOR OF PHILOSOPHY, 1988 | PhD, Univ of lowa, 1971; BA, Univ of Iowa, 1964 |
| Ellis | Stephen | E | 2010 | ASSOCIATE <br> PROFESSOR OF PHILOSOPHY, 2010; SHANNON T. SELF CHAIR IN DEBATE, 2017; DIRECTOR POLICY DEBATE, 2017 | PhD, Rutgers Univ, 2001; MA, Univ of Kansas, 1992; BA, Univ of Kansas, 1987 |
| Irvin | Sherri | L | 2005 | PRESIDENTIAL <br> RESEARCH <br> PROFESSOR, 2014; <br> PROFESSOR OF PHILOSOPHY, <br> 2015; ADJUNCT <br> PROFESSOR OF <br> WOMEN'S AND <br> GENDER STUDIES, 2015 | PhD, Princeton Univ, 2003; MS, Rutgers Univ, 1999; MA, Princeton Univ, 1996; BA, Univ of Arizona, 1993 |
| Judisch | Neal | D | 2006 | ASSOCIATE <br> PROFESSOR OF PHILOSOPHY, <br> 2013; ADJUNCT <br> INSTRUCTOR <br> OF ARTS AND <br> SCIENCES, 2015; <br> DIRECTOR, <br> MULTIDISCIPLINARY <br> STUDIES, 2016 | PhD, Univ of Texas, 2005; MA, Univ of Texas, 2003; BA, Univ of Texas San Antonio, 2001 |
| Montminy | Martin |  | 2007 | PROFESSOR OF PHILOSOPHY, 2011 | PhD, Univ of <br> Montreal, 1995; MS, <br> Univ of Laval, 1987; <br> BS, Univ of Laval, <br> 1985 |


| Olberding | Amy | L | 2006 | PRESIDENT'S ASSOCIATES PRESIDENTIAL PROFESSOR, 2016; PROFESSOR OF PHILOSOPHY, 2016; ADJUNCT PROFESSOR OF WOMEN'S AND GENDER STUDIES, 2016; AFFILIATE ASSOCIATE PROFESSOR OF INTERNATIONAL AND AREA STUDIES, 2007 | PhD, Univ of Hawaii <br> Monoa, 2001; MA, <br> Univ of Hawaii <br> Monoa, 1995; BA, <br> Hendrix College, 1991 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Priselac | Matthew | D | 2013 | ASSISTANT PROFESSOR OF PHILOSOPHY, 2013 | PhD, Univ of North Carolina, 2012; MA, Univ of Wisconsin, 2006; BA, Claremont McKenna College, 2004 |
| Riggs | Wayne | D | 1995 | PROFESSOR OF PHILOSOPHY, 2016 | PhD, Univ of North Carolina, 1995; MA, Univ of North Carolina, 1992; BA, Texas A\&M Univ, 1990 |
| Sankowski | Edward |  | 1981 | PROFESSOR OF PHILOSOPHY, 1993 | PhD, Cornell Univ, 1971; MA, Cornell Univ, 1971; BA, Brooklyn, 1967 |
| Snow | Nancy |  | 2015 | PROFESSOR OF INSTITUTE FOR THE STUDY OF HUMAN FLOURISHING, 2015; PROFESSOR OF PHILOSOPHY, 2017 | PhD, Univ of Notre <br> Dame, 1988; MA, <br> Marquette Univ, 1982; <br> BA, Marquette Univ, 1980 |
| Trachtenberg | Zev | M | 1991 | PROFESSOR OF PHILOSOPHY, 2017; ACTING CHAIR, DEPARTMENT OF PHILOSOPHY, 2011 | PhD, Columbia Univ, 1988; MPhil, University College London, 1981; BA, Amherst College, 1977 |
| Zagzebski | Linda | T | 1999 | KINGFISHER <br> COLLEGE CHAIR IN <br> THE PHILOSOPHY <br> OF RELIGION AND <br> ETHICS, 1999; <br> GEORGE LYNN <br> CROSS RESEARCH <br> PROFESSOR OF <br> PHILOSOPHY, 2006 | PhD, Univ of California Los Angeles, 1979; MA, Univ of California Berkeley, 1970; BA, Stanford Univ, 1968 |

## Philosophy, B.A.

Minimum Total Credit Hours: 120
Major Hours: 31
Minimum Upper-Division Hours: 48
Upper-Division Hours Within Major. 25
Overall GPA - Combined and OU: 2.00
Major GPA - Combined and OU: 2.00
Program Code: B775

## Major Requirements

- Some courses required for the major may also fulfill University General Education and/or Dodge College of Arts \& Sciences Requirements.
- A maximum of six hours of lower- division coursework may be used toward the 31 hours required by the major. A grade of C or better is required in PHIL 4893.
- Philosophy majors must take at least two 38XX ("for Majors") classes, chosen from Core or Distribution Requirements; and must take at least one 4000-level class beyond PHIL 4133 and PHIL 4893.

| Code | Title | Credi |
| :--- | :--- | :--- |
| Hours |  |  |
| Philosophy Core Courses | History of Ancient Philosophy |  |
| PHIL 3313 | His |  |
| or PHIL 3813 | History of Ancient Philosophy for Majors |  |
| PHIL 3333 | History of Modern Philosophy |  |
| or PHIL 3833 | History of Modern Philosophy for Majors |  |
| PHIL 3343 | Chinese Philosophy |  |
| or PHIL 3843 | Chinese Philosophy for Majors | 3 |
| PHIL 3811 | Philosophy Writing Workshop (taken <br> concurrently with a 38XX 'for majors' class) |  |
| PHIL 4133 | Symbolic Logic I | 3 |
| PHIL 4893 | Senior Capstone in Philosophy (A grade of <br> C or better is required) | 3 |

## Distribution Requirements

Choose one course in each category (classes in each 9 category are listed on the Philosophy Department website):

Ethics and Values (p. 601)
Knowledge and Reality (p. 601)
Philosophy in Society (p. 601)

## Philosophy Electives

| Choose 2 courses $^{1}$ | 6 |
| :--- | ---: |
| Total Credit Hours | 31 |

1 May not include PHIL 1113.

## General Education and College Requirements

Courses for fulfillment of General Education and Dodge College of Arts \& Sciences requirements must be from the approved General Education course list published in the Class Schedule or at http://www.ou.edu/ gened/courses. Courses graded P/NP will not apply.

## UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS

Code Title Credit Hours

| Core Area I: Symbolic and Oral Communication |  |  |
| :---: | :---: | :---: |
| English Composition (6 hours) |  |  |
| ENGL 1113 | Principles of English Composition | 3 |
| ENGL 1213 or EXPO 1213 | Principles of English Composition Expository Writing | 3 |

## Language (0-13 hours in the same language)

The college requirement cannot be met by high school coursework.
Beginning Course 0-5
Beginning Course, continued ..... 0-5
Intermediate Course (2000 level) ${ }^{1,2}$ ..... 0-3
Mathematics (3 hours)
Choose one course from the General Education Mathematics ..... 3

list

Core Area II: Natural Science (7 hours, including one laboratory component)
Biological Science
Choose an approved General Education Natural Science 3-4 course with one of the following prefixes: BIOL, HES, MBIO, or PBIO ${ }^{1}$
Physical Science
Choose an approved General Education Natural Science 3-4 course with one of the following prefixes: AGSC, ASTR, CHEM, GEOG, GEOL, GPHY, METR, or PHYS ${ }^{1}$
Core Area III: Social Science (6 hours)
PSC 1113 American Federal Government 3
Choose one course from the General Education Social 3
Science list
Core Area IV: Arts and Humanities (18 hours)

## Artistic Forms

Choose one course from the General Education Artistic Forms 3
list
Western Culture
HIST 1483 United States to 1865
or HIST 1493 United States, 1865 to the Present
Choose one course from the General Education Western 3
Culture list (excluding HIST 1483/1493)

## World Culture

Choose one course from the General Education World Culture

## list

Additional Core IV Upper-Division Arts \& Humanities courses
Choose one course from Artistic Forms, Western Culture, or 3
World Culture ${ }^{1,3}$
Choose one course from Artistic Forms, Western Culture, or 3
World Culture ${ }^{1,3}$
Core Area V: First Year Experience (3 hours)
Choose one course 3

Total Credit Hours

56
${ }^{1}$ College of Arts and Sciences Requirements: college requirements are not automatically fulfilled by a previous degree.
${ }^{2}$ One course at the intermediate level or demonstrated competency at that level
${ }^{3} 6$ upper-division hours, 2 courses, at the 3000-4000-level. Must be outside the major.

## Free Electives

Electives to bring total applicable hours to the minimum total required for the degree including 48 upper-division hours.

## Information Concerning General Rules, Regulations and Minimum Requirements

Arts and Sciences Hours: At least 80 semester hours of liberal arts and sciences courses are required for a BA degree. At least 55 semester hours of liberal arts and sciences courses are required for a BS degree.
Pass/No Pass Enrollment: A maximum of 16 semester hours of free elective credit may be attempted under this option.
Individual Studies (e.g., courses titled "Independent Study"): A maximum of 12 total semester hours may be counted toward graduation, excluding Honors Reading and Honors Research.
P.E. Courses: No physical education activity courses will be counted toward the 120 semester hours of acceptable credit for graduation. Senior Institution Hours: A minimum of 60 semester hours applied toward graduation must be earned at senior (4-year) institutions. Residency:

- At least 15 of the final 30 hours applied toward the degree or at least 50 percent of the hours required by the institution in the major field must be satisfactorily completed at the awarding institution.
- At least 15 semester hours of upper-division major work must be completed in residence at OU.
- OU correspondence courses are not considered resident credit.

Grade Point Averages: Students must earn a minimum over all 2.00 for each of the following: Combined Retention GPA (all college grades), OU Retention GPA, GPA for all major courses, and GPA for all major courses taken at OU. Some schools and departments of the College have higher minimum grade point averages required for their students.

## Suggested Semester Plan of Study

This plan shows one possible grouping of courses that would allow students to graduate in four years. Please refer to the front of the degree checksheet for official requirements. Students must consult with Dodge College of Arts and Sciences and/or Department of Philosophy academic advisors to verify that courses selected each semester fulfill the recommended plan and satisfy University, College of Arts and Sciences, and Philosophy major requirements.

## Freshman

| First Semester |  | Credit |
| :---: | :---: | :---: |
|  |  | Hours |
| ENGL 1113 | Principles of English Composition (Core I) | 3 |
| HIST 1483 <br> or HIST 1493 | United States to 1865 (Core IV) or United States, 1865 to the Present | 3 |
| Beginning Langua | ge (Core I) | 5 |
| First Year Experi | nce (Core V) | 3 |
|  | Credit Hours | 14 |
| Second Semester |  |  |
| ENGL 1213 or EXPO 1213 | Principles of English Composition (Core I) or Expository Writing | 3 |
| Math (Core I) |  | 3 |
| Choose one of the following: |  | 3 |
| PHIL 1013 | Introduction to Philosophy |  |
| PHIL 1103 | Critical Reasoning |  |
| PHIL 1213 | Introduction to Ethics |  |
| Artistic Forms (Core IV) |  | 3 |


| Beginning Language continued (Core I) | 5 |
| :---: | :---: |
| Credit Hours | 17 |
| Sophomore |  |
| First Semester |  |
| PHIL Elective, lower-division | 3 |
| P SC 1113 American Federal Government (Core III) | 3 |
| Intermediate Language | 3 |
| Natural Science with lab (Core II) | 4 |
| World Culture (Core IV) | 3 |
| Credit Hours | 16 |
| Second Semester |  |
| PHIL 3333  <br> or PHIL 3833 History of Modern Philosophy ${ }^{1}$ <br> or History of Modern Philosophy for <br> Majors | 3 |
| PHIL 3811 Philosophy Writing Workshop ${ }^{2}$ | 1 |
| PHIL Distribution Requirement | 3 |
| Natural Science without lab (Core II) | 3 |
| Social Science (Core III) | 3 |
| Free Elective, lower-division | 3 |
| Credit Hours | 16 |
| Junior |  |
| First Semester |  |
| PHIL 3313  <br> or PHIL 3813 History of Ancient Philosophy ${ }^{1}$ <br> or History of Ancient Philosophy for <br> Majors | 3 |
| PHIL 3343  <br> or PHIL 3843 Chinese Philosophy ${ }^{1,3}$ <br> or Chinese Philosophy for Majors  | 3 |
| Arts \& Humanities, upper-division, outside major (Gen. Ed.) | 3 |
| Free Elective, lower- or upper-division | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Credit Hours | 15 |
| Second Semester |  |
| PHIL Distribution Requirement | 3 |
| Arts \& Humanities, upper-division, outside major (Gen. Ed.) | 3 |
| Free Elective, lower- or upper-division | 3 |
| Free Elective, lower- or upper-division | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Credit Hours | 15 |
| Senior |  |
| First Semester |  |
| PHIL 4133 Symbolic Logic I | 3 |
| PHIL Distribution Requirement, upper-division (4000-level) | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Credit Hours | 15 |
| Second Semester |  |
| PHIL 4893 Senior Capstone in Philosophy | 3 |
| Free Elective, lower- or upper-division | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |


| Free Elective, upper-division (3000-4000-level) | 3 |
| :---: | ---: |
| Credit Hours | $\mathbf{1 2}$ |
| Total Credit Hours | $\mathbf{1 2 0}$ |

1 Students must take at least two majors only (38XX) classes.
2 PHIL 3811 must be taken concurrently with a majors only (38XX) class.
${ }^{3}$ Should be taken the semester after the major is declared.

## Philosophy Major Distribution Lists

- For the most current course lists, please contact the Shyam Dev Patwardhan Department of Philosophy.


## ETHICS \& VALUES

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| PHIL 3023 | Aesthetics and the Philosophy of Art | 3 |
| PHIL 3033 | Philosophy and Literature | 3 |
| PHIL 3253 | History of Ethics | 3 |
| PHIL 3263 | Virtue Ethics | 3 |
| PHIL 4023 | Survey of Analytic Aesthetics and | 3 |
|  | Philosophy of Art | 3 |
| PHIL 4293 | Ethical Theory | 3 |
| PHIL 4343 | Early Chinese Philosophy | 3 |

## KNOWLEDGE \& REALITY

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| PHIL 3393 | History of Analytic Philosophy | 3 |
| PHIL 3423 | Ancient and Medieval Religious Philosophy | 3 |
| PHIL 3433 | Modern Philosophy of Religion | 3 |
| PHIL 3443 | Contemporary Issues in Philosophy of | 3 |
|  | Religion | 3 |
| PHIL 3503 | Self and Identity | 3 |
| PHIL 3533 | Language, Communication, and Knowledge | 3 |
| PHIL 3613 | Philosophy of Biology | 3 |
| PHIL 4473 | Philosophy of Religion | 3 |
| PHIL 4513 | Metaphysics | 3 |
| PHIL 4523 | Epistemology | 3 |
| PHIL 4533 | Philosophy of Language | 3 |
| PHIL 4543 | Philosophy of Mind | 3 |

## PHILOSOPHY IN SOCIETY

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| PHIL 3243 | Civility | 3 |
| PHIL 3273 | Ethics and Business | 3 |
| PHIL 3293 | Environmental Ethics | 3 |
| PHIL 3713 | History of Social and Political Philosophy | 3 |
| PHIL 3733 | Religion in Political Theory | 3 |
| PHIL 3743 | Feminist Philosophy | 3 |


| PHIL 3753 | Philosophy of Race | 3 |
| :--- | :--- | :--- |
| PHIL 3763 | Law and Society | 3 |

## Philosophy, Minor

## Minimum Total Credit Hours: 18

Minimum Upper-Division Hours: 9

## Program Code: N765

- The requirements for a minor must be completed concurrently with the major degree requirements.
- No minor may be added by completing courses after receiving the bachelor's degree.

At least six (6) credit hours must be earned in courses acceptable for residence credit by standards set forth by the Dodge College of Arts and Sciences, excluding transfer, correspondence, and examination (AP, CLEP, Advanced Standing) credit. Courses for the minor may not be taken Pass/ No Pass.

No single course may be used by a student to satisfy a major requirement and a minor requirement. A course may be used, however, to satisfy both a major support requirement and a minor requirement.

Requests to substitute a minor requirement must be approved in writing by the Department of Philosophy.

## Required Courses

Students must successfully complete at least 18 hours of courses acceptable for major credit in Philosophy, including at least nine (9) hours at the upper-division level.


- Minors in the Dodge College of Arts \& Sciences are available to all undergraduate students at OU. If the minor is officially declared, successfully completed, and noted on the graduation application, the student's transcript will so indicate at the time the bachelor's degree is posted.


## Philosophy, M.A.

Graduate GPA - Combined and OU: 3.00

Minimum Total Hours (Thesis): 33
Minimum Total Hours (Non-Thesis): 33

## Program Code: M775

## Required Courses

## Thesis Option


${ }^{1}$ Must be taken for graduate credit. Hours cannot be applied to both undergraduate and graduate degrees.
${ }^{2}$ Distribution coursework may be chosen from the list of approved courses maintained by the academic unit (p. 602).

## Non-Thesis Option

| Code Title | Credit |
| :--- | :--- |
|  | Hours |


${ }^{1}$ Must be taken for graduate credit. Hours cannot be applied to both undergraduate and graduate degrees.
${ }^{2}$ Distribution coursework may be chosen from the list of approved courses maintained by the academic unit (p. 602).

## Notes

- Up to 8 hours may be taken outside the department with approval from the Director of Graduate Studies.
- A maximum of 3 hours of PHIL 5990 will be allowed in this program.


## General Requirements for all Master's Degrees

The master's degree requires the equivalent of at least two semesters of satisfactory graduate work and additional work as may be prescribed for the degree.

All coursework applied to the master's degree must carry graduate credit.
Master's degree programs which require a thesis consist of at least 30 credit hours. All non-thesis master's degree programs require at least 30 credit hours.

Credit transferred from other institutions must meet specific criteria and is subject to certain limitations.

Courses completed through correspondence study may not be applied to the master's degree.

To qualify for a graduate degree, students must achieve an overall grade point average of 3.0 or higher in the degree program coursework and in all resident graduate coursework attempted. A student must also have at least a 3.0 in all coursework (including undergraduate coursework if any).

Additional information for master's degree students may be found in the Graduate College Bulletin.

## Philosophy, M.A. Course Lists

- for the most current course lists, please consult the Shyam Dev Patwardhan Department of Philosophy


## Distribution Coursework

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| History (Modern) |  |  |
| PHIL 5333 | Studies in Modern Philosophy | 3 |
| History (Ancient) |  |  |
| PHIL 5343 | Early Chinese Philosophy | 3 |
| PHIL 5313 | Studies in Ancient Philosophy | 3 |
| PHIL 6383 | Seminar in Chinese Philosophy | 3 |
| Ethics |  | 3 |
| PHIL 5293 | Ethical Theory | 3 |
| PHIL 5713 | Survey of Social and Political Philosophy | 3 |
| PHIL 6203 | Seminar in Ethics | 3 |
| PHIL 6793 | Seminar in Social and Political Philosophy | 3 |
| Metaphysics |  | 3 |
| PHIL 5513 | Metaphysics | 3 |
| PHIL 5533 | Philosophy of Language | 3 |
| PHIL 5543 | Philosophy of Mind | 3 |
| PHIL 6513 | Seminar in Metaphysics | 3 |

## Philosophy, Ph.D.

Graduate GPA - Combined and OU: 3.00

## Minimum Total Hours: 90

Program Code: D775

# Program Requirements 

| Code | Title | Credit |
| :---: | :---: | :---: |
| Core |  |  |
| PHIL 5813 | Philosophy Proseminar | 3 |
| PHIL 5823 | Philosophy Graduate Writing Seminar (two semesters required) | 6 |
| Distribution ${ }^{1}$ |  |  |
| 9 hours of History of Philosophy, distributed across at least two different areas (e.g., Ancient Greek, Early Chinese, Modern European) |  | 9 |
| 9 hours in Value, six of which must be in Ethics |  | 9 |
| 9 hours in Metaphysics and Epistemology, with at least three hours in Metaphysics and at least three hours in Epistemology |  | 9 |
| Dissertation Research |  |  |
| PHYS 6980 | Research for Doctoral Dissertation (2 hour minimum, 39 hour maximum) | 2-39 |
| Additional Coursework |  |  |
| Additional baccalaure committee | work as needed to complete 90 postdit hours, with approval of student's | 15-52 |

## Total Credit Hours

${ }^{1}$ Distribution coursework may be chosen from the list of approved courses maintained by the academic unit (p. 603).

## Notes:

- Students with an M.A. in philosophy from another institution may transfer up to 33 hours of "B" graded or better coursework toward the Ph.D. Normally at most 18 of those hours can apply outside of Research for Doctoral Dissertation.
- With approval of the committee, up to 12 hours of all coursework may be taken outside the department.
- A maximum of six hours of Independent Study (PHIL 5990) will be allowed in this program.
- The student's committee may require proficiency in one or more foreign languages.


## General Requirements for Doctoral Degrees

A student should expect to spend at least the equivalent of three full academic years beyond the bachelor's degree to obtain the doctoral degree. During this period the student will take appropriate graduate coursework, successfully complete the general examination, and successfully defend and submit the final dissertation.

All coursework applied to the doctoral degree must carry graduate credit.
The doctoral degree requires at least 90 post-baccalaureate hours, including both formal coursework and hours of research.

The minimum hour requirement for a specific doctoral degree program cannot be waived.

No more than one-half of the credit hours, both OU and overall, excluding Research for Doctoral Dissertation (6980), may be S/U-graded coursework.

The student must be in residence at OU for at least two consecutive 16week semesters during the pursuit of the doctoral degree while enrolled and engaged in coursework or research activities as prescribed by the major academic unit.

For more detailed regulations and requirements for Doctoral degrees, please consult the Graduate College Bulletin: http://www.ou.edu/ gradcollege/forms/bulletin

## Philosophy, Ph.D. Course Lists

- For the most current list of approved courses, please consult the Shyam Dev Patwardhan Department of Philosophy.


## Distribution Coursework

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| History (Modern) |  |  |
| PHIL 5333 | Studies in Modern Philosophy | 3 |
| History (Ancient) |  | 3 |
| PHIL 5343 | Early Chinese Philosophy | 3 |
| PHIL 5313 | Studies in Ancient Philosophy | 3 |
| PHIL 6383 | Seminar in Chinese Philosophy |  |
| Ethics |  | 3 |
| PHIL 5293 | Ethical Theory | 3 |
| PHIL 5713 | Survey of Social and Political Philosophy | 3 |
| PHIL 6203 | Seminar in Ethics | 3 |
| PHIL 6793 | Seminar in Social and Political Philosophy |  |
| Metaphysics |  | 3 |
| PHIL 5513 | Metaphysics | 3 |
| PHIL 5533 | Philosophy of Language | 3 |
| PHIL 5543 | Philosophy of Mind | 3 |
| PHIL 6513 | Seminar in Metaphysics | 3 |

## Homer L. Dodge Department of Physics and Astronomy

Phillip Gutierrez, Chair
100 Nielsen Hall
440 W. Brooks St.
Norman, OK 73019
Phone: (405) 325-3961
FAX: (405) 325-7557
office@nhn.ou.edu
www.nhn.ou.edu/

## General Information

The Homer L. Dodge Department of Physics and Astronomy has a long tradition of educating scientists, engineers and teachers who have achieved distinguished careers as researchers and leaders in industry and education. Our graduates include a former Science Advisor to the President of the United States, a former director of NSF, university president, U.S. ambassador, founders of corporations, Arctic explorer, founder and first editor of the American Journal of Physics, journal
editors, inventors, research laboratory managers, university department chairs, Rhodes Scholar and Guggenheim Fellows, university professors, and hundreds of people devoted to advancing knowledge and improving the quality of life.

## Programs \& Facilities

## Programs for Academic Excellence

Innovative education programs have been an integral part of the department since its inception and are still our tradition. In addition to our own faculty, post-doctoral fellows and weekly colloquium speakers promote academic excellence within the department. With additional support from state monies and private endowment, the department hosts a large number of visiting scientists each year who bring the latest developments in their areas of interest and who present opportunities to exchange scientific ideas.

The department offers all undergraduate majors the opportunity to perform research with faculty mentors, and runs a federally funded summer research experience for undergraduates from all across the country.

The OU Soonertarium is an educational outreach program whose goal is to share the joy of exploring the cosmos with fellow Oklahomans, one classroom at a time. They provide traveling planetarium shows and lectures, free of charge, to interested science classrooms in Oklahoma.

## Special Facilities and Programs

## Library Resources

The Homer L. Dodge Department of Physics and Astronomy library possesses an excellent scientific library of over 20,000 volumes and more than 150 journal subscriptions. Ancillary library holdings include the world-famous History of Science Collection and the Engineering Library.

## Instrument Shop

The instrument shop at the Homer L. Dodge Department of Physics and Astronomy has supported the experimental research needs of the department for a century. This facility has designed, built and collaborated on a wide variety of apparatus including, but not limited to: High Energy Physics work on DØ, Higgs Boson, and Monopole detector systems; Atomic Molecular scattering systems - Electron-Photon Coincidence, Electric Dipole Moment, Cold Atom systems; UHV chambers and associated hardware; Thin film sputtering systems; High Pressure ( $100,000 \mathrm{PSI}$ ) systems, Electro-mechanical drive and control; Furnace construction and PID control; Telescope repair.

## Laboratory Resources

The department has well-equipped laboratories for research in laser cooling and trapping of atoms and molecules, atomic and molecular collisions, nanostructured materials and devices, materials characterization, and high-energy physics instrumentation. We are also home to a multi-million dollar NSF funded Materials Research Science and Engineering Center. This center greatly expands our research effort in nanostructures. Additionally, many programs make use of facilities at national laboratories, such as Argonne, Fermilab, Lawrence Berkeley Labs and Los Alamos. The high-energy group is part of the ATLAS collaboration and hosts one of the ATLAS tier 2 computing centers. The HEP group owns a clean room to work on silicon pixel detector technology for the Phase II upgrade of the ATLAS detector. The Astronomy group has access to two telescopes at the Apache Point Observatory. They have $10.625 \%$ of the observing time on the Astronomical Research Consortium (ARC) 3.5 meter telescope and the 0.5-meter Astrophysical Research Consortium Small Aperture Telescope.

Individual faculty have access to other telescopes/projects including Sloan Digital Sky Survey V, ASAS-SN, and 4MOST. There is also a small on-campus observatory for class use and public viewing. Astronomy faculty compete successfully for use on ground-based observational facilities including the Karl G. Jansky Very Large Array, NSF's National Optical-Infrared Astronomy Research Laboratory telescopes, and the Gemini telescopes. They also compete for time on space-based observational facilities including the Hubble Space Telescope, JWST, the Chandra X-ray Observatory, XMM-Newton X-ray Observatory.The department has a network of linux computers and individual faculty groups run Linux servers. All faculty have access to OSCER; there is no charge for using this facility. Some faculty/groups have access to privately-owned servers operated by OSCER.

## Scholarships and Financial Aid

The department offers a number of scholarships each year to students majoring in physics, astronomy, or engineering physics. Undergraduate majors and students who are considering becoming physics, astrophysics, or engineering physics majors are encouraged to apply for scholarships through the University of Oklahoma Centralized Academic Scholarship Hub (CASH).

Teaching and research assistantships are offered on a competitive basis to graduate students.

## Undergraduate Study <br> Physics Degrees

The student whose major is physics may work for the professional degree of Bachelor of Physics (p. 618) or for the standard degree of Bachelor of Science (p. 615), both of which are awarded by the College of Arts and Sciences. The Engineering Physics Bachelor of Science (p. 1395)program is an interdisciplinary degree program which combines the course offerings and research activities of the Homer L. Dodge Department of Physics and Astronomy and the College of Engineering. This degree program is offered by the College of Engineering and detailed information concerning the program can be found in the College of Engineering section of this catalog.

## Astrophysics Degree

Students whose major interest is the application of physics to modern astrophysics may work for the Astrophysics Bachelor of Science (p. 613).

## Astronomy Degree

The student whose major is astronomy may work for the standard degree of Bachelor of Science (p. 611).

## Minors

Minors are offered in physics (p. 620) and astronomy (p. 620).

## Graduate Study

## Areas of Specialization

Research areas available for both M.S. and Ph.D. degrees include:

- Astrophysics
- Atomic, Molecular and Optical Physics
- High Energy Physics
- Condensed Matter Physics


## Master Of Science Degree

The department offers a Master of Science (p. 621) in Physics program with or without the thesis.

## Master Of Science (Engineering Physics)

The Engineering Physics, Master of Science (p. 1398) degree is offered as either a thesis or non-thesis program.

## Doctoral Programs

The Physics Ph.D. (p. 622) program requires the student to complete at least 90 hours of coursework, take and pass the written Qualifying and General (Specialist) examinations, and complete and successfully defend the results of original research as a dissertation. The department also offers an Astrophysics Ph.D. (p. 621) program.

All Ph.D. students are required to take an appointment as a teaching assistant with a minimum of two semester contact hours for two semesters. This teaching practicum is independent of financial support by the department.

Students who are interested in the Engineering Physics Ph.D. should refer to the general requirements of the Graduate College and the College of Engineering. Every student will be assigned an advisory committee who will determine the specific requirements within the guidelines set by these colleges and the career study goals of the student.

The required physics core courses and the Qualifying and Specialist exams are the same as for physics.

## Courses

ASTR 1504 Astronomy. Exploring the Universe 4 Credit Hours An introduction to the concepts of modern astronomy. The solar system, the sun and stars, the Milky Way and other galaxies, current theories of the origin, evolution and fate of the universe. Not for major credit. A student may not receive credit for this course and ASTR 1514. (F, Sp, Su) [II-NS].

## ASTR 1514 Astronomy: Exploring the Universe with

## Laboratory

4 Credit Hours
0 to 4 hours. An introduction to the concepts of modern astronomy. The solar system, the sun and stars, the Milky Way and other galaxies, current theories of the origin, evolution, and fate of the universe. Not for major credit. A student may not receive credit for this course and ASTR 1504. Laboratory ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ ) [II-NSL].

ASTR 1523 Life in the Universe
3 Credit Hours
Introductory astronomy course focusing on general physical conditions under which life is thought to arise and evolve in the universe. Topics include historical astronomy, gravitation and planetary orbits, the solar system. The earth's geology and atmosphere, stellar evolution, theories for the origin of life on earth, the discoveries of extrasolar planets, and the search for extraterrestrial life. (Sp) [II-NS].

## ASTR 2513 Introductory Astrophysics <br> 3 Credit Hours

Prerequisite: PHYS 1215 or 2524, or permission of instructor. An introduction to solar system astronomy and basic astrophysical concepts for majors and students with a knowledge of introductory physics and calculus. Includes planetary system formation, asteroids, comets, terrestrial planets and giant planets. Astrophysical concepts including Keplers laws, blackbody radiation, hydrostatic equilibrium and heat transfer. Elements of astronomy, including time, celestial coordinates, telescopes and detectors, magnitudes and color indices. (F)

ASTR 2970 Special Topics/Seminar
1-3 Credit Hours
Special Topics. 1 to 3 hours. May be repeated; Maximum credit nine hours. Special topics course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research, and field projects. (Irreg.)

ASTR 3103 Stars
3 Credit Hours
Prerequisite: 2513 or permission of instructor. Stellar properties and stellar evolution. Includes fundamental properties of stars (temperature, luminosity, mass) and how to determine them, star formation, main sequence, post main sequence, supernovae, black holes, neutron stars, white dwarfs, binary stars. (F)
ASTR 3113 Galaxies and Cosmology
3 Credit Hours
Prerequisite: 2513 or permission of instructor; 3103 strongly
recommended. Galactic and extragalactic astronomy. Includes the Milky Way galaxy, the interstellar medium, normal and active galaxies, clusters of galaxies, cosmology. (Sp)

## ASTR 3190 Topics in Astronomy

1-3 Credit Hours
1 to 3 hours. Prerequisite: permission of instructor. May be repeated with change of subject matter; maximum credit nine hours. (F, Su)

## ASTR 3440 Mentored Research Experience

3 Credit Hours
0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)
ASTR 3960 Honors Reading 1-3 Credit Hours
1 to 3 hours. Prerequisite: Admission to Honors Program. May be repeated; maximum credit six hours. Consists of topics designated by the instructor in keeping with the student's major program. The topics will cover materials not usually presented in the regular courses. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

## ASTR 3970 Honors Seminar <br> 1-3 Credit Hours

1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Subjects covered vary. Deals with concepts not usually treated in regular courses. (Irreg.)
ASTR 3980 Honors Research 1-3 Credit Hours 1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Provides an opportunity for the gifted Honors candidate to work at a special project in the student's field. (F, Sp, Su)

## ASTR 3990 Independent Study

1-3 Credit Hours
1 to 3 hours. Prerequisite: one course in general area to be studied; permission of instructor and department. May be repeated; maximum credit six hours. Contracted independent study for topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Sp, Su)
ASTR G4303 Stellar Astrophysics
3 Credit Hours
Prerequisite: 3113 or permission of instructor. Physics of stars: gas and radiation laws, stellar atmospheres and spectra, stellar interiors and evolution. (F)
ASTR 4523 Advanced Observatory Methods 3 Credit Hours Prerequisite: 2513 and 3103. Techniques of multiwavelength observational astronomy. Includes time and coordinates, physics of astronomical ccds, telescopes, photometry, extinction correction, technical feasibility calculations, optical spectroscopy, and x-ray astronomy. Introductions to gamma-ray, infrared, UV radio astronomy. No student may earn credit for both 4523 and 5523. (Irreg.)

ASTR 4960 Directed Readings
1-4 Credit Hours
1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean. May be repeated; maximum credit four hours. Designed for upper-division students who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)

## ASTR 4970 Special Topics/Seminar <br> 1-3 Credit Hours

1 to 3 hours. Prerequisite: Senior standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)
ASTR 4990 Independent Study 1-3 Credit Hours
1 to 3 hours. Prerequisite: three courses in general area to be studied; permission of instructor and department. May be repeated; maximum credit six hours. Contracted independent study for topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (F, Sp, Su)
ASTR 5403 High-Energy Astrophysics 3 Credit Hours
Prerequisite: 4303 or permission of instructor. High-energy radiation processes in astronomy: synchrotron radiation, bremsstrahlung, inverse Compton-effect. New wavebands of observation, UV, X-ray and gammaray astronomy. Radioastronomy: supernova remnants, pulsars, neutron stars. Radiogalaxies, active galactic nuclei, quasars. Theories of the origin of cosmic rays. (Irreg.)
ASTR 5453 Extragalactic Astronomy and Cosmology 3 Credit Hours Prerequisite: 3113 or 4303 or permission of instructor. Basic properties of stars. Review of observational tools for extragalactic work. Stellar content and interstellar medium in normal galaxies. Introduction to the theory of Big Bang cosmology. Comparison of observational data to cosmological predictions. The extragalactic distance scale and the age of the universe. Large scale structure: galaxy clusters and superclusters. Active galaxies -- radio galaxies and quasars. (Irreg.)
ASTR 5463 Stellar Atmospheres
3 Credit Hours
Prerequisite: 4303 or permission of instructor. Local thermodynamic equilibrium. Radiative transfer, continuous absorption coefficient and model stellar atmospheres. Atomic and molecular spectroscopy and the quantitative analysis of stellar spectra. Atomic processes and departures from local thermodynamic equilibrium. Extended and expanding atmospheres, novae, supernovae. (Irreg.)

## ASTR 5473 Stellar Interiors

3 Credit Hours
Prerequisite: 4303 or permission of instructor. Evolution and energy balance of stars including gravitational attraction, nucleosynthesis, radiative and convective energy, transport and equilibrium, construction of stellar models for pre-main sequence and main sequence stars, and the theory of giants and white dwarfs. (Irreg.)

## ASTR 5513 Interstellar Medium 3 Credit Hours

4303 or permission. Processes in low-density media are explored, including the physics relevant to emission line objects such as HII and HI regions, molecular clouds, and active galaxies. Techniques for deriving chemical abundances are explored, as are interstellar absorption by gas and dust and radiation transfer. (Irreg.)
ASTR 5523 Advanced Observatory Methods 3 Credit Hours
Prerequisite: 2513 and 3103. Techniques of multiwavelength observational astronomy. Includes time and coordinates, physics of astronomical ccds, telescopes, photometry, extinction correction, technical feasibility calculations, optical spectroscopy, and x-ray astronomy. Introductions to gamma-ray, infrared, UV radio astronomy. No student may earn credit for both 4523 and 5523. (Irreg.)

ASTR 5900 Seminar in Astrophysics
3 Credit Hours
Prerequisite: permission of instructor. May be repeated with change of subject matter; maximum credit nine hours. A research seminar devoted to the study of specialized topics in astronomy and astrophysics. Topics selected will reflect the interest of the instructor and students. (Irreg.)

## ASTR 5960 Directed Readings <br> 1-3 Credit Hours

1 to 3 hours. Prerequisite: graduate standing and permission of department. May be repeated; maximum credit twelve hours. Directed readings and/or literature reviews under the direction of a faculty member. (F, Sp, Su)
ASTR 5970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)
ASTR 5990 Independent Study 1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)
PHYS 1114 General Physics for Non-Science Majors 4 Credit Hours Prerequisite: high school algebra II. Not open to students who intend to do major work in mathematics or physical science. Concepts of force, energy, matter, atomic physics, electricity, light, presented as a part of a liberal education. A student may not receive credit for this course and PHYS 1205, PHYS 2414 or PHYS 2514. (F, Sp, Su) [II-NS].
PHYS 1205 Introductory Physics I for Physics Majors 5 Credit Hours Prerequisite: enrollment in Mathematics 1823 or 1914 or permission of instructor. To be taken by physics, astronomy and engineering physics majors during the first semester of their freshman year. Kinematics, dynamics, work and energy, many-particle systems, rigid body rotation, simple harmonic motion. Laboratory is an integral part of the course. Laboratory (F) [II-NSL].
PHYS 1215 Introductory Physics II for Physics Majors 5 Credit Hours Prerequisite: 1205 or permission of instructor. Electricity and magnetism: static fields and forces, circuits, electromagnetic induction. Thermodynamics: the First and Second Laws, temperature, heat, work and entropy. Laboratory is an integral part of the course. Laboratory (Sp)

## PHYS 1311 General Physics Lab I

1 Credit Hour
Prerequisite: Corequisite: 2414 or 2514. Experiments in basic law of mechanics and thermodynamics. (F, Sp, Su) [II-NSL] .

PHYS 1321 General Physics Lab II 1 Credit Hour
Prerequisite: Corequisite: 2424 or 2524. Experiments in basic laws of electricity, magnetism, and optics. (F, Sp, Su) [II-NSL] .
PHYS 1453 Musical Acoustics 3 Credit Hours An introduction to the science of sound and its propagation with special emphasis on the production of sound by musical instruments and the voice, psychological aspects of sound perception, and room acoustics. Topics are explored through lectures, demonstrations, and discussions. No previous musical experience or proficiency is required. Not for major credit. (F) [II-NS].

PHYS 2203 Introductory Physics III: Modern Physics 3 Credit Hours Prerequisite: 1215 or 2524 (or concurrent enrollment), or permission of instructor. An introduction to and overview of key concepts in contemporary physics, with emphasis on the contrast between classical and modern ways of thinking about the physical universe. Includes an introduction to selected major subject areas, which might include light and optics, relativity, atoms and molecules, the solid state, nuclei, elementary particles, fundamental interactions, cosmology and/or chaos. Students will also explore selected topics in current physics research. (F)

## PHYS 2222 Computational Physics 2 Credit Hours

Prerequisite: MATH 2433 and PHYS 2203. Students will learn basic skills in programming in the context of solving physics problems. It is assumed that the student has no computer programming experience, and only modest understanding of physics. Through a variety of projects, the students are to obtain a deeper understanding of physical principles by implementing computer simulations. (Sp)

## PHYS 2303 Electronics

3 Credit Hours
Prerequisite: 1215 or 2524 (or concurrent enrollment), or permission of instructor. An introduction to the characteristics of semiconductor electronic components and their use in the design and operation of practical analog and digital electronic circuits. The emphasis will be on gaining a working knowledge of basic circuits and preparation for understanding and building electronic circuits encountered by experimental research physicists. (F)
PHYS 2414 General Physics for Life Science Oriented Majors

4 Credit Hours
Prerequisite: Mathematics 1523 or 1743. Kinematics and dynamics of particles and rigid bodies, gravitation, equilibrium, momentum, energy, static and flowing fluids, kinetic theory, heat and thermodynamics, vibrations, waves and sound. A student may not receive credit for this course and PHYS 1205 or PHYS 2514. (F, Sp, Su) [II-NS].
PHYS 2424 General Physics for Life Science Oriented

## Majors

## 4 Credit Hours

Prerequisite: PHYS 2414 or PHYS 2514. Electric charge, electric field, electric potential, energy, DC and AC currents, magnetic fields, electromagnetic induction, geometrical optics, wave nature of light, optical instruments, early quantum theory, models of the atom, the nucleus, radioactivity, nuclear reactions and nuclear energy. A student may not receive credit for this course and PHYS 1215 or PHYS 2524. (F, $\mathrm{Sp}, \mathrm{Su}$ )

## PHYS 2514 General Physics for Engineering and Science <br> Majors <br> 4 Credit Hours

Prerequisite: MATH 1823 or MATH 1914 with grade of C or better.
Vectors, kinematics and dynamics of particles, work and energy systems of particles, rotational kinematics and dynamics, oscillations, gravitation, fluid mechanics, waves. A student may not receive credit for this course and PHYS 1205. (F, Sp, Su) [II-NS].

## PHYS 2524 General Physics for Engineering and Science Majors <br> 4 Credit Hours

Prerequisite: PHYS 2514 and MATH 2423 or MATH 2924 with grade of C or better. Temperature, heat, thermodynamics, electricity, magnetism, optics. A student may not receive credit for this course and PHYS 1215. (F, Sp, Su)
PHYS 2970 Selected Topics in Physics 1-3 Credit Hours 1 to 3 hours. Prerequisite: sophomore standing or permission of instructor. May be repeated; maximum credit six hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

PHYS 3043 Physical Mechanics I
3 Credit Hours
Prerequisite: 1205 or 2514, and Mathematics 3113 or 3413 (or concurrent enrollment); or permission of instructor. Differential equations based continuum mechanics: Newtonian particle mechanics, driven and damped oscillations, vibrations and waves, and their application to other linear systems, non-linear oscillations, introduction to Lagrange's equations. (Sp)
PHYS 3053 Physical Mechanics II 3 Credit Hours
Prerequisite: 3043 or permission of instructor. Lagrangian and
Hamiltonian dynamics. Non-inertial reference frames. Rigid body motion. Central forces and collisions. Special relativity. (F)
PHYS 3183 Electricity and Magnetism I
3 Credit Hours
Prerequisite: 2203, Mathematics 3413 or concurrent enrollment; or permission of instructor. Electrostatics, dielectrics, continuity conditions, magnetic forces and fields, magnetic induction, magnetization, Maxwell's equations. (F)
PHYS 3223 Modern Physics for Engineers 3 Credit Hours
Prerequisite: Mathematics 3113 or equivalent. Relativity, atomic structure, nuclear theory, wave mechanics, statistical physics, solid state physics. (F)
PHYS 3302 Advanced Lab I
2 Credit Hours
Prerequisite: 2303 or permission of instructor. Junior-level experiments in physics. (F, Sp)
PHYS 3312 Advanced Lab II
2 Credit Hours
Prerequisite: 3302 or permission of instructor. Junior-level experiments in physics. (F, Sp)
PHYS 3440 Mentored Research Experience
3 Credit Hours
0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)

PHYS 3803 Introduction to Quantum Mechanics I 3 Credit Hours Prerequisite: PHYS 3043 and MATH 3413 or permission of instructor. Fundamental ideas of quantum physics. Postulates of quantum theory, wave functions, operators, the Schrodinger equation, one-dimensional systems. Mathematical tools of quantum mechanics. Theory of measurement. Stationary and nonstationary states. (Sp)
PHYS 3960 Honors Reading 1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Will consist of topics designated by the instructor in keeping with the student's major program. Covers materials not usually presented in the regular courses. (F, Sp, Su)
PHYS 3970 Honors Seminar 1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. The projects covered will vary. Deals with concepts not usually presented in regular coursework. (Su)
PHYS 3980 Honors Research 1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Provides an opportunity for the gifted Honors candidate to work at a special project in the student's field. (F, Sp, Su)

PHYS 3990 Independent Study
1 to 3 hours. Prerequisite: one course in general area to be studied; permission of instructor and department. May be repeated; maximum credit six hours. Contracted independent study for topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (F, Sp, Su)

PHYS G4153 Statistical Physics and Thermodynamics 3 Credit Hours Prerequisite: 3803. Statistical properties of physical systems. Entropy and temperature, the Boltzmann distribution, Fermi-Dirac and BoseEinstein gases. Thermodynamic functions. Statistical interpretation of thermodynamics. (F)
PHYS G4183 Electricity and Magnetism II
3 Credit Hours
Prerequisite: 3183. Maxwell's equations, electromagnetic wave equations, propagation of electromagnetic waves, reflection and refraction, radiation. (Sp)

## PHYS 4213 Nuclear and Particle Physics

3 Credit Hours
(Slashlisted with 5213) Prerequisite: 3803. Basic nuclear structure, nuclear models, radioactivity, nuclear reactions. Particle interactions and families, quark model, weak decays of quarks and leptons. No student may earn credit for both 4213 and 5213. (F)
PHYS 4223 Optics
3 Credit Hours
(Slashlisted with PHYS 5223) Prerequisite: Junior standing. Geometrical optics; optical systems; optical aberrations; electromagnetic optics; diffraction theory; Fourier optics; interference; optical coherence and statistical properties of light; advanced topics such as, e.g., lasers and fiber optics. No student may earn credit for both 4223 and 5223. (Irreg.)
PHYS 4243 Solid State Physics
3 Credit Hours
(Slashlisted with 5243) Prerequisite: 3803. Crystal structure, electrons in simple metals, electron band theory, semiconductors, superconductivity, phonons. No student may earn credit for both 4243 and 5243. (Sp)
PHYS 4300 Senior Research Project
1-3 Credit Hours
1 to 3 hours. Prerequisite: senior standing in major and permission of instructor. May be repeated once. Research project, experimental or theoretical, to be arranged with individual faculty, leading to a senior thesis. Group seminars to discuss projects and other topics of current interest in physics and astronomy. Total of four hours required for general education capstone. (F, Sp) [V] .
PHYS 4310 Senior Research Project I
1-3 Credit Hours
1 to 3 hours. Prerequisite: Senior standing or permission of instructor. Research project, experimental or theoretical, to be arranged with individual faculty, leading to a senior thesis. Group seminars to discuss projects and other topics of current interest in physics and astronomy. Total of four hours between PHYS 4310 and PHYS 4320 are required. (F, $\mathrm{Sp})$ [V].
PHYS 4320 Senior Research Project II
1-3 Credit Hours
1 to 3 hours. Prerequisite: PHYS 4310. A continuation of the research project, experimental or theoretical, arranged with individual faculty, producing a senior thesis. Group seminars to discuss projects and other topics of current interest in physics and astronomy. Total of four hours between PHYS 4310 and PHYS 4320 are required. (F, Sp) [V].
PHYS G4803 Introduction to Quantum Mechanics II 3 Credit Hours Prerequisite: 3803 or permission of instructor. Quantum mechanics of three-dimensional systems. Angular momentum. Approximation methods: perturbation theory, variational methods. Time-dependent perturbations: transition rates, selection rules. Interaction of radiation with matter. Applications. Quantum mechanics of atoms and molecules.
(F)

PHYS 4813 Atomic Physics
3 Credit Hours
(Slashlisted with PHYS 5813) Prerequisite: PHYS 4803. Hydrogen atom: fine structure, hyperfine structure, and external field effects; helium and many-electron atoms; two-level atom: rotating wave approximation, Rabi oscillation, and Bloch sphere; atom interferometry; broadening mechanisms; saturation spectroscopy; photon echoes. No student may earn credit for both 4813 and 5813. (Sp)
PHYS 4960 Directed Readings
1-4 Credit Hours
1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean. May be repeated; maximum credit four hours. Designed for upper-division students who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)
PHYS 4970 Seminar-Selected Topics in Physics 1-3 Credit Hours
1 to 3 hours. Prerequisite: permission of instructor. May be repeated with change of subject; maximum credit six hours. (Irreg.)
PHYS 4990 Independent Study 1-3 Credit Hours
1 to 3 hours. Prerequisite: three courses in general area to be studied,permission of instructor and department. May be repeated; maximum credit six hours. Contracted independent study for topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (F, Sp, Su)
PHYS 5000 Introduction to Graduate Studies in Physics 0 Credit Hours Prerequisite: Graduate standing. The course is an introduction to research in general as well as specific research done within the department. It will familiarize students with departmental procedures, improve their teaching of Physics, and convey the expectations and demands of a career in Physics or Astronomy. (F)
PHYS 5013 Mathematical Methods in Physics
3 Credit Hours
Prerequisite: graduate standing. Orthogonal transformations and tensor analysis; partial differential equations and special functions; Green's functions; perturbation theory; calculus of variations; theory of complex variables; integral definition of special functions. (F)
PHYS 5153 Classical Mechanics
3 Credit Hours
Prerequisite: PHYS 3053 or equivalent. Hamilton's principle, Lagrange's equations, mechanics of particles and rigid bodies, Hamilton's equations, canonical transformations, Poisson brackets, action-angle variables. (F)

## PHYS 5163 Statistical Mechanics <br> 3 Credit Hours

Prerequisite: PHYS 4153 or equivalent. Classical and quantum statistical mechanics, fluctuations, thermodynamics, ideal gases, phase equilibrium and transitions, Bose-Einstein and Fermi-Dirac statistics, blackbody radiation, Einstein-Debye model, electrons in metals, critical exponents, spin models. (Sp)
PHYS 5213 Nuclear and Particle Physics 3 Credit Hours
(Slashlisted with 4213) Prerequisite: 4803; graduate standing. Basic nuclear structure, nuclear models, radioactivity, nuclear reactions. Particle interactions and families, quark model, weak decays of quarks and leptons. No student may earn credit for both 4213 and 5213. (F)

## PHYS 5223 Optics

3 Credit Hours
(Slashlisted with PHYS 4223) Prerequisite: Graduate standing.
Geometrical optics; optical systems; optical aberrations; electromagnetic optics; diffraction theory; Fourier optics; interference; optical coherence and statistical properties of light; advanced topics such as, e.g., lasers and fiber optics. No student may earn credit for both 4223 and 5223. (Irreg.)

PHYS 5243 Solid State Physics
3 Credit Hours
(Slashlisted with 4243) Prerequisite: 4803; graduate standing.
Crystal structure, electrons in simple metals, electron band theory, semiconductors, superconductivity, phonons. No student may earn credit for both 4243 and 5243. (Sp)
PHYS 5293 Electronic, Optical and Magnetic Properties of

## Materials

3 Credit Hours
Prerequisite: Graduate standing and permission of instructor. This course surveys the electronic, optical and magnetic properties of materials and how these properties can be designed for specific applications. Topics include: forces, energies and timescales in condensed matter, electrons in crystalline semiconductors, electromagnetic waves in matter, optical and transport properties of polymers and small molecules, origins of magnetization in materials, structural and magnetic order/disorder phase transitions. (Irreg.)
PHYS 5393 Quantum Mechanics I
3 Credit Hours
Prerequisite: PHYS 4803 or equivalent. Topics in nonrelativistic quantum mechanics including the Heisenberg and Schrodinger pictures, Dirac formalism, angular momentum, bound states of spherically symmetric potentials, spin and angular momentum coupling, density matrix, 1d potential scattering. (Sp)
PHYS 5403 Quantum Mechanics II
3 Credit Hours
Prerequisite: PHYS 5393. Time-independent perturbation theory, timedependent perturbation theory, electromagnetic interactions, potential scattering, symmetry and statistics, multiparticle systems, relativistic quantum mechanics including Klein-Gordon and Dirac equation. (F)

## PHYS 5573 Electrodynamics I

3 Credit Hours
Prerequisite: PHYS 4183 or equivalent. Electrostatics; Poisson equation; solution via Green's functions; ponderable media; magnetism and Ampere's law; Faraday's law; Maxwell equations, solution via potentials; gauge fixing; advanced and retarded Green's functions; causality. (Sp)
PHYS 5583 Electrodynamics II
3 Credit Hours
Prerequisite: PHYS 5573. Electromagnetic waves and radiation; scattering and diffraction; special relativity and relativistic electrodynamics; radiation by moving charges. (F)

## PHYS 5813 Atomic Physics

3 Credit Hours
(Slashlisted with PHYS 4813) Prerequisite: Graduate standing and PHYS 4803. Hydrogen atom: fine structure, hyperfine structure, and external field effects; helium and many-electron atoms; two-level atom: rotating wave approximation, Rabi oscillation, and Bloch sphere; atom interferometry; broadening mechanisms; saturation spectroscopy; photon echoes. No student may earn credit for both 4813 and 5813. (Sp)
PHYS 5910 Problems in Natural Science 1-2 Credit Hours 1 to 2 hours. Prerequisite: admission to candidacy for degree of Master of Natural Science. (F, Sp, Su)

## PHYS 5960 Directed Readings

1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing and permission of department. May be repeated; maximum credit twelve hours. Directed readings and/or literature reviews under the direction of a faculty member. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
PHYS 5970 Seminar--Selected Topics in Modern Physics 1-3 Credit Hours
1 to 3 hours. Prerequisite: permission. May be repeated with change of subject matter; maximum credit for master's degree six hours, for doctor's degree 12 hours. (F, Sp, Su)
PHYS 5980 Research for Master's Thesis
2-9 Credit Hours
Variable enrollment, two to nine hours; maximum credit applicable toward degree, four hours. (F, Sp, Su)

PHYS 5990 Special Studies
1-4 Credit Hours
Prerequisite: 12 hours of physics, permission. May be repeated with change of subject matter; maximum credit for a master's degree four hours, for a doctor's degree ten hours. (F, Sp, Su)
PHYS 6213 Advanced Particle Physics
3 Credit Hours
Prerequisite: 5213,5403 or equivalents. The theory and phenomenology of the "standard model" of particle physics which encompasses the electro-weak and strong interactions. Topics will include: symmetries, groups and conservation laws; bound states, quarkonium; Feynman diagrams, QED; QCD; weak interactions; gauge theories. (Irreg.)
PHYS 6243 Advanced Solid State Physics
3 Credit Hours
Prerequisite: 4243,5403 , or equivalents. The physics of metals, semiconductors and insulators. Free electron theory, crystal structure and phonons, electron band theory, semiclassical model, applications to electronic and optical properties of solids, effects of magnetic fields. (Irreg.)
PHYS 6283 Advanced Atomic/Molecular Physics 3 Credit Hours Prerequisite: Graduate standing and PHYS 5403 (QMII), PHYS 5813 (AMOI), or equivalent. Beyond the two-level atom approximation: effects such as lambda system, STIRAP, dark states, and slow light; Dopplerfree spectroscopy; optical pumping; collective atomic effects; laser cooling; Bose-Einstein condensates; electronic wave functions of atoms and molecules: variational principle, Hartee-Fock, and configuration interaction; molecular interaction potentials; interaction of light and molecules. (Irreg.)
PHYS 6333 General Relativity
3 Credit Hours
Prerequisite: 5013,5583. The mathematical and physical basis for the relativistic theory of gravitation; the principle of equivalence; tensor analysis; Einstein's field equations; tests of general relativity; gravitational collapse; cosmology; toward a quantum theory of gravity. (Irreg.)
PHYS 6433 Quantum Field Theory
3 Credit Hours
Prerequisite: 5403. Canonical quantization of scalar and spinor fields; perturbation theory and Feynman diagrams; renormalization; path integral formulation; renormalization group; gauge fields with selected applications to QED, electro-weak theory and QCD. (Irreg.)

PHYS 6443 Advanced Quantum Field Theory 3 Credit Hours Prerequisite: graduate standing and 6433. Path integral quantization; renormalization; renormalization group equations; gauge theories of strong and electroweak interactions. (F)
PHYS 6543 Advanced Quantum Optics 3 Credit Hours Prerequisite: Graduate standing, PHYS 5393, PHYS 5403, PHYS 5573, and PHYS 5813, or equivalent; Recommended - PHYS 5223. This course introduces students to advanced topics in quantum optics, with reference to both historic and current state-of-the-art developments. Students will be introduced to core concepts such as quantum noise, phase-space, atom-light interactions, entanglement, and open systems. Students will learn how to apply these theoretical concepts to experimental systems that study the generation and manipulation of quantum states of light. (Irreg.)

PHYS 6663 Non-Relativistic Many Body Theory $\quad 3$ Credit Hours
Prerequisite: Graduate standing, PHYS 5393 (QMI), PHYS 5403 (QMII), PHYS 5573 (EMI), PHYS 5153 (Class Mech), and PHYS 5163 (Stat Mech), or equivalent. This course introduces students to several many-body treatments and illustrates the techniques on a variety of examples, focusing on applications of historical importance and recent modern developments. The course focuses on non-relativistic (as opposed to relativistic) quantum many-body techniques and applications. Students will be introduced to mean-field theory, Green's functions, broken symmetries and transformations, path integrals, and diagrammatic techniques. (Irreg.)
PHYS 6860 Advanced Topics in Mathematical Methods in
Physics 1-3 Credit Hours
1 to 3 hours. Prerequisite: 5013 or permission. May be repeated with change of content; maximum credit nine hours. Topics covered will be selected by instructor and announced prior to the term in which it will be offered. The course is intended to offer material currently used in theoretical physics. (Irreg.)
PHYS 6960 Directed Readings
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit six hours. Directed readings and/or literature review under the direction of a faculty member. (Irreg.)
PHYS 6970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit 12 hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or research and field projects. (Irreg.)
PHYS 6980 Research for Doctoral Dissertation 2-16 Credit Hours
2 to 16 hours. Prerequisite: Graduate standing and permission of instructor; may be repeated. Directed research culminating in the completion of the doctoral dissertation. (F, Sp, Su)
PHYS 6990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)

## Faculty

| Last Name | First/Middle Name | Middle init. | OU <br> Service start | Title(s), date(s) appointed | Degrees Earned, Schools, Dates Completed |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Abbott | Braden | K | 2000 | PROFESSOR OF PHYSICS AND ASTRONOMY, 2013 | PhD, Purdue, 1994; <br> MS, Purdue, 1992; BA, <br> Univ of Minnesota <br> Morris, 1989 |
| Abraham | Eric | R | 1998 | ASSOCIATE <br> PROFESSOR OF <br> PHYSICS AND <br> ASTRONOMY, <br> 2004; L.J. SEMROD <br> PRESIDENTIAL <br> PROFESSOR, <br> 2005; ASSOCIATE <br> PROFESSOR <br> ENGINEERING <br> PHYSICS | PhD, Rice Univ, 1996; BA, St. Olaf College, 1991 |


| Baer | Howard | A | 2008 | HOMER L. DODGE <br> CHAIR IN HIGH <br> ENERGY PHYSICS, <br> 2008; GEORGE LYNN <br> CROSS RESEARCH <br> PROFESSOR OF <br> PHYSICS AND <br> ASTRONOMY, 2014 | PhD, Univ of Wisconsin, 1984; MS, Univ of Wisconsin, 1981; BS, Univ of Wisconsin, 1979 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Baron | Edward | A | 1990 | GEORGE LYNN CROSS RESEARCH PROFESSOR OF PHYSICS AND ASTRONOMY, 2011 | PhD, Stony Brook Univ; 1985; MA, Stony Brook Univ, 1982; BA, Univ of Pennsylvania, 1980 |
| Biederman | Grant |  |  | ASSOCIATE PROFESSOR OF PHYSICS | PhD, Stanford Univ, 2007; MS, Yale Univ, 2002; BS, Univ of Oklahoma, 2001 |
| Blume | Doerte |  | 2017 | PROFESSOR OF PHYSICS AND ASTRONOMY, 2017 | PhD, Georg-August <br> Univ, 1998; BS, Georg- <br> August Univ, 1995 |
| Bumm | Lloyd | A | 2001 | ASSOCIATE PROFESSOR OF PHYSICS AND ASTRONOMY, 2007; ASSOCIATE PROFESSOR ENGINEERING PHYSICS | PhD, Northwestern <br> Univ, 1991; BS, Clarkson Univ, 1982 |
| Dai | Xinyu |  | 2011 | ASSOCIATE <br> PROFESSOR OF <br> PHYSICS AND <br> ASTRONOMY, 2017 | PhD, Penn State Univ, 2004; BS, Peking <br> Univ, 1998 |
| Gutierrez | Phillip |  | 1989 | PROFESSOR OF <br> PHYSICS AND <br> ASTRONOMY, <br> 2001; PROFESSOR <br> ENGINEERING <br> PHYSICS | PhD, Univ of California Riverside, 1983; MS, Univ of California Riverside, 1980; BS, Univ of California Riverside, 1976 |
| Kaib | Nathan |  | 2015 | ASSISTANT <br> PROFESSOR OF <br> PHYSICS AND <br> ASTRONOMY, 2015 | PhD, Univ of Washington, 2010; BS, Case Western Reserve Univ, 2002 |
| Kao | Chung |  | 2000 | PROFESSOR OF PHYSICS AND ASTRONOMY, 2013 | PhD, Univ of Texas, 1990; MS, Univ of Oregon, 1985; BS, National Taiwan Norman Univ, 1980 |
| Kilic | Mukremin |  | 2011 | ASSOCIATE <br> PROFESSOR OF <br> PHYSICS AND <br> ASTRONOMY, 2017 | PhD, Univ of Texas, 2006; BS, Bogazici Univ, 1999 |
| Leighly | Karen | M | 2000 | PROFESSOR OF PHYSICS AND ASTRONOMY, 2013 | PhD, Montana State <br> Univ, 1991; MS, Montana State Univ, 1987; BS, New Mexico Inst Mining \& Tech, 1983 |
| Marino Valle | Alberto |  | 2012 | ASSISTANT PROFESSOR OF PHYSICS AND ASTRONOMY, 2012; ASSISTANT PROFESSOR ENGINEERING PHYSICS | PhD, Univ of Rochester, 2006; MS, Univ of Rochester, 2002; BS, Universidad de Monterrey, 1998 |


| Mason | Bruce | A | 1989 | ASSOCIATE <br> PROFESSOR OF <br> PHYSICS AND <br> ASTRONOMY, 1995 | PhD, Univ of <br> Maryland, 1985; MS, <br> Univ of Maryland, BA, <br> Oberlin College, 1980 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Mullen | Kieran | J | 1994 | PROFESSOR OF PHYSICS AND ASTRONOMY, 2007; PRESIDENT'S ASSOCIATES PRESIDENTIAL PROFESSOR, 2009 | PhD, Univ of <br> Michigan, 1989; BS, <br> Georgetown Univ, 1982 |
| Munshi | Ferah | A | 2017 | ASSISTANT <br> PROFESSOR OF <br> PHYSICS AND <br> ASTRONOMY, 2017 | PhD, Univ of Washington, 2013; MS, Univ of Washington, 2010; BA, Univ of California Berkeley, 2007 |
| Santos | Michael | B | 1993 | SAMUEL <br> ROBERTS NOBLE <br> PRESIDENTIAL <br> PROFESSOR, 1997; <br> TED AND CUBA <br> WEBB PRESIDENTIAL <br> PROFESSOR, 2003; <br> PROFESSOR OF <br> PHYSICS AND <br> ASTRONOMY, <br> 2004; CHARLES L. <br> BLACKBURN CHAIR <br> IN ENGINEERING <br> PHYSICS, 2006 | PhD, Princeton Univ, 1992; MA, Princeton Univ, 1989; BS, Cornell Univ, 1986 |
| Schwettm | nArne |  | 2014 | ASSISTANT <br> PROFESSOR OF <br> PHYSICS AND ASTRONOMY, 2014; ASSISTANT PROFESSOR ENGINEERING PHYSICS | PhD, Univ of Oklahoma, 2012; MS, Univ of North Texas, 2003; BS, Universität Hannover, 2001 |
| Sellers | Ian | R | 2011 | ASSOCIATE <br> PROFESSOR OF <br> PHYSICS AND <br> ASTRONOMY, 2017 | PhD, Univ of Sheffield, 2004; MS, Imperial College London, 2000; B Eng, Univ of Liverpool, 1999 |
| Sinha | Kuver |  | 2017 | ASSISTANT PROFESSOR OF PHYSICS AND ASTRONOMY, 2017; CARLT. BUSH PROFESSOR OF THEORETICAL PHYSICS, 2017 | PhD, Rutgers Univ, 2008 |
| Strauss | Michael | G | 1995 | CARLISLE AND <br> LURLINE MABREY PRESIDENTIAL <br> PROFESSOR, 2006; <br> DAVID ROSS BOYD <br> PROFESSOR OF <br> PHYSICS AND <br> ASTRONOMY, <br> 2012; PROFESSOR <br> ENGINEERING <br> PHYSICS | PhD, Univ of <br> California Los <br> Angeles, 1988; MS, <br> Univ of California Los <br> Angeles, 1983; BS, <br> Biola Univ, 1981 |


| Stupak | John |  | 2016 | ASSISTANT <br> PROFESSOR OF <br> PHYSICS AND <br> ASTRONOMY, <br> 2016; ASSISTANT <br> PROFESSOR <br> ENGINEERING <br> PHYSICS | PhD, SUNY at <br> Stonybrook, 2012; BS, <br> Fairfield Univ, 2007 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Uchoa | Bruno |  |  | ASSOCIATE <br> PROFESSOR OF <br> PHYSICS; TED <br> AND CUBA WEBB PRESIDENTIAL PROFESSOR | PhD, State Univ of Campinas, 2004; BS, State Univ of Campinas, 1997 |
| White | Daniel | R | 2018 | ASSISTANT PROFESSOR OF PHYSICS AND ASTRONOMY, 2018 | PhD, Ohio State Univ, 2016; BS, Univ of Oklahoma, 2008 |
| Wisniewski | John | P | 2012 | ASSISTANT PROFESSOR OF PHYSICS AND ASTRONOMY, 2012; PRESIDENT'S ASSOCIATES PRESIDENTIAL PROFESSOR, 2016 | PhD, Univ of Toledo, 2005; MS, Univ of Toledo, 2002; BS, Univ of Wisconsin, 1999 |

## Astronomy, B.S.

Minimum Total Credit Hours: 120
Major Hours: 35
Minimum Upper-Division Hours: 48

Overall GPA - Combined and OU: 2.00
Major GPA - Combined and OU: 2.00
Program Code: B080

- A grade of $C$ or better must be earned in each required Astronomy and Physics course and in the required Mathematics courses.


## Major Requirements

- Some courses required for the major may also fulfill University General Education and/or Dodge College of Arts \& Sciences Requirements.

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Astronomy |  |  |
| ASTR 2513 | Introductory Astrophysics | 3 |
| ASTR 3103 | Stars | 3 |
| ASTR 3113 | Galaxies and Cosmology | 3 |
| Physics |  | 5 |
| PHYS 1205 | Introductory Physics I for Physics Majors | 5 |
| PHYS 1215 | Introductory Physics II for Physics Majors | 3 |
| PHYS 2203 | Introductory Physics III: Modern Physics | 3 |
| PHYS 3043 | Physical Mechanics I | 3 |
| PHYS 3053 | Physical Mechanics II | 2 |
| PHYS 4310 | Senior Research Project I | 2 |
| PHYS 4320 | Senior Research Project II | 3 |
| Choose one of the following: |  |  |

HSTM 3013 History of Science to the Age of Newton

| HSTM 3023 | History of Science Since the Seventeenth Century |  |
| :---: | :---: | :---: |
| PHYSICS course at the 3000-level or higher |  |  |
| Total Credit Hours |  | 35 |
| Major Support Requirements |  |  |
| Code | Title | Credit |
|  |  | Hours |
| CHEM 1315 | General Chemistry | 5 |
| MATH 1914 | Differential and Integral Calculus I ${ }^{1}$ | 4 |
| MATH 2924 | Differential and Integral Calculus II ${ }^{1}$ | 4 |
| MATH 2934 | Differential and Integral Calculus III ${ }^{1}$ | 4 |
| MATH 3413 | Physical Mathematics I | 3 |

1 MATH 1823, MATH 2423, MATH 2433, and MATH 2443 may also be used to meet the Calculus sequence requirement.

## General Education and College Requirements

Courses for fulfillment of General Education and Dodge College of Arts \& Sciences requirements must be from the approved General Education course list published in the Class Schedule or at http://www.ou.edu/ gened/courses. Courses graded P/NP will not apply.

## UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS <br> Code Title <br> Credit Hours

Core Area I: Symbolic and Oral Communication
English Composition (6 hours)
ENGL 1113 Principles of English Composition 3
ENGL 1213 Principles of English Composition 3
or EXPO 1213 Expository Writing
Language (0-13 hours in the same language)
The college requirement cannot be met by high school coursework.
Beginning Course 0-5
Beginning Course, continued 0-5
$\begin{array}{ll}\text { Intermediate Course (2000 level) }{ }^{1,2} & 0-3\end{array}$
Mathematics (3 hours)
Choose one course from the General Education Mathematics
list
Core Area II: Natural Science (7 hours, including one
laboratory component)
Biological Science
Choose an approved General Education Natural Science course with one of the following prefixes: BIOL, HES, MBIO, or PBIO ${ }^{1}$

Physical Science
Choose an approved General Education Natural Science
course with one of the following prefixes: AGSC, ASTR, CHEM,
GEOG, GEOL, GPHY, METR, or PHYS ${ }^{1}$
Core Area III: Social Science (6 hours)
P SC 1113 American Federal Government

Choose one course from the General Education Social 3 Science list
Core Area IV: Arts and Humanities (18 hours)

## Artistic Forms

Choose one course from the General Education Artistic Forms 3
list

## Western Culture

HIST $1483 \quad 3$
or HIST 1493 United States, 1865 to the Present
Choose one course from the General Education Western 3
Culture list (excluding HIST 1483/1493)
World Culture
Choose one course from the General Education World Culture 3 list
Additional Core IV Upper-Division Arts \& Humanities courses
Choose one course from Artistic Forms, Western Culture, or

Choose one course from Artistic Forms, Western Culture, or 3 World Culture ${ }^{1,3}$
Core Area V: First Year Experience (3 hours)
Choose one course 3

Total Credit Hours 56

1 College of Arts and Sciences Requirements: college requirements are not automatically fulfilled by a previous degree.
${ }^{2}$ One course at the intermediate level or demonstrated competency at that level
${ }^{3} 6$ upper-division hours, 2 courses, at the 3000-4000-level. Must be outside the major.

## Free Electives

Electives to bring total applicable hours to the minimum total required for the degree including 48 upper-division hours.

## Information Concerning General Rules, Regulations and Minimum Requirements

Arts and Sciences Hours: At least 80 semester hours of liberal arts and sciences courses are required for a BA degree. At least 55 semester hours of liberal arts and sciences courses are required for a BS degree. Pass/No Pass Enrollment: A maximum of 16 semester hours of free elective credit may be attempted under this option.
Individual Studies (e.g., courses titled "Independent Study"): A maximum of 12 total semester hours may be counted toward graduation, excluding Honors Reading and Honors Research.
P.E. Courses: No physical education activity courses will be counted toward the 120 semester hours of acceptable credit for graduation. Senior Institution Hours: A minimum of 60 semester hours applied toward graduation must be earned at senior (4-year) institutions.

## Residency:

- At least 15 of the final 30 hours applied toward the degree or at least 50 percent of the hours required by the institution in the major field must be satisfactorily completed at the awarding institution.
- At least 15 semester hours of upper-division major work must be completed in residence at OU.
- OU correspondence courses are not considered resident credit.

Grade Point Averages: Students must earn a minimum over all 2.00 for each of the following: Combined Retention GPA (all college grades), OU Retention GPA, GPA for all major courses, and GPA for all major courses taken at OU. Some schools and departments of the College have higher minimum grade point averages required for their students.

## Suggested Semester Plan of Study

This plan shows one possible grouping of courses that would allow students to graduate in four years. Please refer to the front of the degree checksheet for official requirements. Students must consult with Dodge College of Arts and Sciences and/or Department of Physics and Astronomy academic advisors to verify that courses selected each semester fulfill the recommended plan and satisfy University, College of Arts and Sciences, and Astronomy major requirements.

## Freshman

| First Semester |  | Credit |
| :---: | :---: | :---: |
|  |  | Hours |
| ENGL 1113 | Principles of English Composition (Core I) | 3 |
| MATH 1914 | Differential and Integral Calculus I ${ }^{1}$ | 4 |
| First Year Experience (Core V) |  | 3 |
| PHYS 1205 | Introductory Physics I for Physics Majors | 5 |
|  | Credit Hours | 15 |
| Second Semester |  |  |
| ```ENGL }121 or EXPO 1213``` | Principles of English Composition (Core I) or Expository Writing | 3 |
| MATH 2924 | Differential and Integral Calculus II ${ }^{1}$ | 4 |
| PHYS 1215 | Introductory Physics II for Physics Majors | 5 |
| Beginning Language (Core I) |  | 5 |
|  | Credit Hours | 17 |

## Sophomore

| First Semester |  |  |
| :---: | :---: | :---: |
| ASTR 2513 | Introductory Astrophysics | 3 |
| MATH 2934 | Differential and Integral Calculus III ${ }^{1}$ | 4 |
| PHYS 2203 | Introductory Physics III: Modern Physics | 3 |
| Beginning Language (Continued) (Core I) |  | 5 |
|  | Credit Hours | 15 |
| Second Semester |  |  |
| HIST 1483 or HIST 1493 | United States to 1865 (Core IV) or United States, 1865 to the Present | 3 |
| P SC 1113 | American Federal Government (Core III) | 3 |
| MATH 3413 | Physical Mathematics I | 3 |
| PHYS 3043 | Physical Mechanics I | 3 |
| Intermediate Language (Core I) |  | 3 |
|  | Credit Hours | 15 |


| Junior |  |  |
| :---: | :---: | :---: |
| First Semester |  |  |
| ASTR 3103 | Stars | 3 |
| PHYS 3053 | Physical Mechanics II | 3 |
| CHEM 1315 | General Chemistry | 5 |
| Social Science (Core III) ${ }^{2}$ |  | 3 |
| Artistic Forms (Core IV) ${ }^{2}$ |  | 3 |
|  | Credit Hours | 17 |
| Second Semester |  |  |
| ASTR 3113 | Galaxies and Cosmology | 3 |


| Choose one of the following: |
| :--- |
| PHYS Major Elective, upper-division (3000-4000-level)  <br> HSTM 3013 History of Science to the Age of Newton <br> HSTM 3023 History of Science Since the Seventeenth <br> Century <br> Western Culture (Core IV)  2 |
| Biological Science without lab (Core II) |
| Free Elective, upper-division (3000-4000-level) |
| Credit Hours |

## Senior <br> First Semester

PHYS 4310 Senior Research Project I 2
Arts \& Humanities, upper-division, outside major (Gen. Ed.) 3
World Culture (Core IV) ${ }^{2} 3$
Free Elective, upper-division (3000-4000-level) 3
Free Elective, upper-division (3000-4000-level) 3
Credit Hours

## Second Semester

PHYS 4320 Senior Research Project II 2

Arts \& Humanities, upper-division, outside major (Gen. Ed.) 3
Free Elective, upper-division (3000-4000-level) 3
Free Elective, upper-division (3000-4000-level) 3
Free Elective, upper-division (3000-4000-level) 1

| Credit Hours | 12 |
| :--- | ---: |

1 Students may substitute MATH 1823, MATH 2423, MATH 2433 and MATH 2443 calculus sequence instead of MATH 1914, MATH 2924, and MATH 2934.
2 Additional upper-division General Education may be required to complete the 48 hour upper-division requirement.

## Astrophysics, B.S.

Minimum Total Credit Hours: 120
Major Hours: 50
Minimum Upper-Division Hours: 48
Overall GPA - Combined and OU: 2.00
Major GPA - Combined and OU: 2.00
Program Code: B082

- Some courses required for the major may also fulfill University General Education and/or Dodge College of Arts \& Sciences Requirements.
- A grade of $C$ or better must be earned in each required Astronomy and Physics course and in the required Mathematics courses.


## Major Requirements

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Astronomy |  |  |
| ASTR 2513 | Introductory Astrophysics | 3 |
| ASTR 3103 | Stars | 3 |


| ASTR 3113 | Galaxies and Cosmology | 3 |
| :--- | :--- | :--- |
| ASTR 4303 | Stellar Astrophysics | 3 |
| ASTR 4523 | Advanced Observatory Methods | 3 |
| Physics |  | 5 |
| PHYS 1205 | Introductory Physics I for Physics Majors | 5 |
| PHYS 1215 | Introductory Physics II for Physics Majors | 5 |
| PHYS 2203 | Introductory Physics III: Modern Physics | 3 |
| PHYS 3043 | Physical Mechanics I | 3 |
| PHYS 3053 | Physical Mechanics II | 3 |
| PHYS 3183 | Electricity and Magnetism I | 3 |
| PHYS 3803 | Introduction to Quantum Mechanics I | 3 |
| PHYS 4153 | Statistical Physics and Thermodynamics | 3 |
| PHYS 4310 | Senior Research Project I | 2 |
| PHYS 4320 | Senior Research Project II | 2 |
| Choose one of the following: | 3 |  |
| MATH 3423 | Physical Mathematics II |  |
| PHYS 4183 | Electricity and Magnetism II (strongly <br> recommended) |  |
| PHYS 4803 | Introduction to Quantum Mechanics II |  |

An astronomy course at the 5000-level (strongly recommended)
Total Credit Hours

## Major Support Requirements

| Code | Title | Credit |
| :---: | :---: | :---: |
|  |  | Hours |
| MATH 1914 | Differential and Integral Calculus ${ }^{1}$ | 4 |
| MATH 2924 | Differential and Integral Calculus II ${ }^{1}$ | 4 |
| MATH 2934 | Differential and Integral Calculus III ${ }^{1}$ | 4 |
| MATH 3413 | Physical Mathematics I | 3 |

1 MATH 1823MATH 1823, MATH 2423MATH 2423, MATH 2433MATH 2433, and MATH 2443MATH 2443 may also be used to meet the Calculus sequence requirement.

## General Education and College Requirements

Courses for fulfillment of General Education and Dodge College of Arts \& Sciences requirements must be from the approved General Education course list published in the Class Schedule or at http://www.ou.edu/ gened/courses. Courses graded P/NP will not apply.

| UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND |  |
| :--- | :--- |
| COLLEGE REQUIREMENTS |  |
| Code $\quad$ Title | Credit |
|  |  |

## Core Area I: Symbolic and Oral Communication

## English Composition (6 hours)

ENGL 1113 Principles of English Composition 3
ENGL 1213 Principles of English Composition 3
or EXPO 1213 Expository Writing
Language (0-13 hours in the same language)


## Free Electives

Electives to bring total applicable hours to the minimum total required for the degree including 48 upper-division hours.

## Information Concerning General Rules, Regulations and Minimum Requirements

Arts and Sciences Hours: At least 80 semester hours of liberal arts and sciences courses are required for a BA degree. At least 55 semester hours of liberal arts and sciences courses are required for a BS degree.
Pass/No Pass Enrollment: A maximum of 16 semester hours of free elective credit may be attempted under this option.
Individual Studies (e.g., courses titled "Independent Study"): A maximum of 12 total semester hours may be counted toward graduation, excluding Honors Reading and Honors Research.
P.E. Courses: No physical education activity courses will be counted toward the 120 semester hours of acceptable credit for graduation. Senior Institution Hours: A minimum of 60 semester hours applied toward graduation must be earned at senior (4-year) institutions. Residency:

- At least 15 of the final 30 hours applied toward the degree or at least 50 percent of the hours required by the institution in the major field must be satisfactorily completed at the awarding institution.
- At least 15 semester hours of upper-division major work must be completed in residence at OU.
- OU correspondence courses are not considered resident credit.

Grade Point Averages: Students must earn a minimum over all 2.00 for each of the following: Combined Retention GPA (all college grades), OU Retention GPA, GPA for all major courses, and GPA for all major courses taken at OU. Some schools and departments of the College have higher minimum grade point averages required for their students.

## Suggested Semester Plan of Study

This plan shows one possible grouping of courses that would allow students to graduate in four years. Please refer to the front of the degree checksheet for official requirements. Students must consult with Dodge College of Arts and Sciences and/or Department of Physics and Astronomy academic advisors to verify that courses selected each semester fulfill the recommended plan and satisfy University, College of Arts and Sciences, and Astrophysics major requirements.

## Freshman

| First Semester |  | Credit |
| :---: | :---: | :---: |
|  |  | Hours |
| ENGL 1113 | Principles of English Composition (Core I) | 3 |
| MATH 1914 | Differential and Integral Calculus ${ }^{1}$ | 4 |
| PHYS 1205 | Introductory Physics I for Physics Majors | 5 |
| First Year Experience (Core V) |  | 3 |
|  | Credit Hours | 15 |
| Second Semester |  |  |
| $\begin{aligned} & \text { ENGL } 1213 \\ & \text { or EXPO } 1213 \end{aligned}$ | Principles of English Composition (Core I) or Expository Writing | 3 |
| MATH 2924 | Differential and Integral Calculus II ${ }^{1}$ | 4 |
| PHYS 1215 | Introductory Physics II for Physics Majors | 5 |
| Beginning Language (Core I) |  | 5 |
|  | Credit Hours | 17 |

## Sophomore

First Semester
ASTR 2513
Introductory Astrophysics
Differential and Integral Calculus II ${ }^{1}$

| PHYS 2203 Introductory Physics III: Modern Physics | 3 |
| :---: | :---: |
| Beginning Language (continued) (Core I) | 5 |
| Credit Hours | 15 |
| Second Semester |  |
| $\begin{array}{lr}\text { HIST } 1483 & \text { United States to } 1865 \text { (Core IV) } \\ \text { or HIST } 1493 & \text { or United States, } 1865 \text { to the Present }\end{array}$ | 3 |
| MATH 3413 Physical Mathematics I | 3 |
| PHYS 3043 Physical Mechanics I | 3 |
| Social Science (Core III) ${ }^{2}$ | 3 |
| Intermediate Language (Core I) | 3 |
| Credit Hours | 15 |

## Junior

## First Semester

| ASTR $\mathbf{3 1 0 3}$ | Stars | 3 |
| :--- | :--- | ---: |
| P SC 1113 | American Federal Government (Core III) | 3 |
| PHYS 3053 | Physical Mechanics II | 3 |
| PHYS 3183 | Electricity and Magnetism I $_{2}$ Artistic Forms (Core IV) |  |
|  | Credit Hours | 3 |

## Second Semester

ASTR 3113 Galaxies and Cosmology 3
ASTR 4523 Advanced Observatory Methods 3
PHYS 3803 Introduction to Quantum Mechanics I 3
Western Culture (Core IV) ${ }^{2} 3$

| Biological Science without lab (Core II) | 3 |
| :---: | ---: |
| Credit Hours | 15 |

## Senior

First Semester

| ASTR 4303 | Stellar Astrophysics | 3 |
| :--- | :--- | ---: |
| PHYS 4153 | Statistical Physics and Thermodynamics | 3 |
| PHYS 4310 | Senior Research Project I | 2 |
| Arts \& Humanities, upper-division, outside major (Gen. Ed.) |  | 3 |
| World Culture (Core IV) $^{2}$ | 3 |  |
| Credit Hours |  | $\mathbf{1 4}$ |


| Second Semester |  |
| :--- | ---: |
| PHYS 4320 Senior Research Project II | 2 |
| Astrophysics Major Elective, upper-division (3000-4000-level) | 3 |
| Arts \& Humanities, upper-division, outside major (Gen. Ed.) | 3 |
| Free Elective, lower- or upper-division | 3 |
| Free Elective, upper-division (3000-4000-level) | $\mathbf{3}$ |
| $\quad$ Credit Hours | $\mathbf{1 4}$ |
| Total Credit Hours | $\mathbf{1 2 0}$ |

${ }^{1}$ Students may substitute MATH 1823, MATH 2423, MATH 2433 and MATH 2443 calculus sequence instead of MATH 1914, MATH 2924, and MATH 2934.
2 Additional upper-division General Education may be required to complete the 48 hour upper-division requirement.

## Physics (Standard), B.S.

## Minimum Total Credit Hours: 120

Major Hours: 37

## Minimum Upper-Division Hours: 48

Overall GPA - Combined and OU: 2.00
Major GPA - Combined and OU: 2.00

## Program Code: B780

- A grade of $C$ or better must be earned in each required Physics and Mathematics course.


## Major Requirements

- Some courses required for the major may also fulfill University General Education and/or Dodge College of Arts \& Sciences Requirements.
- A total of 37 hours in Physics is required, including the courses listed below.

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| PHYS 1205 | Introductory Physics I for Physics Majors | 5 |
| PHYS 1215 | Introductory Physics II for Physics Majors | 5 |
| PHYS 2203 | Introductory Physics III: Modern Physics | 3 |
| PHYS 2303 | Electronics | 3 |
| PHYS 3043 | Physical Mechanics I | 3 |
| PHYS 3053 | Physical Mechanics II | 3 |
| PHYS 3183 | Electricity and Magnetism I | 3 |
| PHYS 3302 | Advanced Lab I | 2 |
| PHYS 3803 | Introduction to Quantum Mechanics I | 3 |
| PHYS 4310 | Senior Research Project I | 2 |
| PHYS 4320 | Senior Research Project II | 2 |
| Choose one additional Physics course at the 3000-level or | 3 |  |
| above |  | $\mathbf{3 7}$ |
| Total Credit Hours |  |  |

## Major Support Requirements



## Total Credit Hours

15-20
${ }^{1}$ MATH 1823, MATH 2423, MATH 2433, and MATH 2443 may also be used to meet the Calculus sequence requirement.

## General Education and College Requirements

Courses for fulfillment of General Education and Dodge College of Arts \& Sciences requirements must be from the approved General Education course list published in the Class Schedule or at http://www.ou.edu/ gened/courses. Courses graded P/NP will not apply.

\section*{UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS <br> | Code Title | Credit |
| :--- | :--- | :--- |
|  | Hours |}

## Core Area I: Symbolic and Oral Communication

English Composition (6 hours)
ENGL 1113 Principles of English Composition ..... 3
ENGL 1213 Principles of English Composition ..... 3
or EXPO 1213 Expository Writing
Language (0-13 hours in the same language)
The college requirement cannot be met by high school coursework.
Beginning Course ..... 0-5
Beginning Course, continued ..... 0-5
Intermediate Course (2000 level) ${ }^{1,2}$ ..... 0-3
Mathematics (3 hours)
Choose one course from the General Education Mathematics ..... 3
list
Core Area II: Natural Science (7 hours, including one
laboratory component)
Biological Science
Choose an approved General Education Natural Science 3-4
course with one of the following prefixes: BIOL, HES, MBIO, or
PBIO ${ }^{1}$
Physical Science
Choose an approved General Education Natural Science 3-4
course with one of the following prefixes: AGSC, ASTR, CHEM,
GEOG, GEOL, GPHY, METR, or PHYS ${ }^{1}$
Core Area III: Social Science ( 6 hours)
P SC 1113 American Federal Government 3
Choose one course from the General Education Social 3
Science list
Core Area IV: Arts and Humanities (18 hours)
Artistic Forms
Choose one course from the General Education Artistic Forms 3
list
Western Culture
HIST 1483 United States to 1865
or HIST 1493 United States, 1865 to the Present
Choose one course from the General Education Western 3
Culture list (excluding HIST 1483/1493)
World Culture
Choose one course from the General Education World Culture 3
list
Additional Core IV Upper-Division Arts \& Humanities courses
Choose one course from Artistic Forms, Western Culture, or 3
World Culture ${ }^{1,3}$
Choose one course from Artistic Forms, Western Culture, or 3
World Culture ${ }^{1,3}$
Core Area V: First Year Experience (3 hours)
Choose one course $\quad 3$
Total Credit Hours 56
${ }^{1}$ College of Arts and Sciences Requirements: college requirements are not automatically fulfilled by a previous degree.
${ }^{2}$ One course at the intermediate level or demonstrated competency at that level
${ }^{3} 6$ upper-division hours, 2 courses, at the 3000-4000-level. Must be outside the major.

## Free Electives

Electives to bring total applicable hours to the minimum total required for the degree including 48 upper-division hours.

## Information Concerning General Rules, Regulations and Minimum Requirements

Arts and Sciences Hours: At least 80 semester hours of liberal arts and sciences courses are required for a BA degree. At least 55 semester hours of liberal arts and sciences courses are required for a BS degree. Pass/No Pass Enrollment: A maximum of 16 semester hours of free elective credit may be attempted under this option.
Individual Studies (e.g., courses titled "Independent Study"): A maximum of 12 total semester hours may be counted toward graduation, excluding Honors Reading and Honors Research.
P.E. Courses: No physical education activity courses will be counted toward the 120 semester hours of acceptable credit for graduation. Senior Institution Hours: A minimum of 60 semester hours applied toward graduation must be earned at senior (4-year) institutions.

## Residency:

- At least 15 of the final 30 hours applied toward the degree or at least 50 percent of the hours required by the institution in the major field must be satisfactorily completed at the awarding institution.
- At least 15 semester hours of upper-division major work must be completed in residence at OU.
- OU correspondence courses are not considered resident credit.

Grade Point Averages: Students must earn a minimum over all 2.00 for each of the following: Combined Retention GPA (all college grades), OU Retention GPA, GPA for all major courses, and GPA for all major courses taken at OU. Some schools and departments of the College have higher minimum grade point averages required for their students.

## Suggested Semester Plan of Study

This plan shows one possible grouping of courses that would allow students to graduate in four years. Please refer to the front of the degree checksheet for official requirements. Students must consult with Dodge College of Arts and Sciences and/or Department of Physics and Astronomy academic advisors to verify that courses selected each semester fulfill the recommended plan and satisfy University, College of Arts and Sciences, and Physics major requirements.

## Freshman

| First Semester |  | Credit <br> Hours |
| :--- | :--- | ---: |
|  |  | 3 |
| ENGL 1113 | Principles of English Composition (Core I) | 4 |
| MATH 1914 | Differential and Integral Calculus I | 5 |
| PHYS 1205 | Introductory Physics I for Physics Majors | 3 |
| First Year Experience (Core V) | $\mathbf{1 5}$ |  |

## Second Semester

| ENGL 1213 | Principles of English Composition (Core I) | 3 |
| :---: | :---: | :---: |
| or EXPO 1213 | or Expository Writing |  |


| MATH 2924 | Differential and Integral Calculus II | 4 |
| :---: | :---: | :---: |
| PHYS 1215 | Introductory Physics II for Physics Majors | 5 |
| Beginning Language (Core I) |  | 5 |
|  | Credit Hours | 17 |
| Sophomore |  |  |
| First Semester |  |  |
| PHYS 2203 | Introductory Physics III: Modern Physics | 3 |
| PHYS 2303 | Electronics | 3 |
| MATH 2934 | Differential and Integral Calculus III | 4 |
| Beginning Language (continued) (Core I) |  | 5 |
|  | Credit Hours | 15 |
| Second Semester |  |  |
| HIST 1483 or HIST 1493 | United States to 1865 (Core IV) or United States, 1865 to the Present | 3 |
| MATH 3413 | Physical Mathematics I | 3 |
| PHYS 3043 | Physical Mechanics I | 3 |
| Social Science (Core III) ${ }^{2}$ |  | 3 |
| Intermediate Language (Core I) |  | 3 |
|  | Credit Hours | 15 |
| Junior |  |  |
| First Semester |  |  |
| CHEM 1315 | General Chemistry | 5 |
| P SC 1113 | American Federal Government (Core III) | 3 |
| PHYS 3053 | Physical Mechanics II | 3 |
| PHYS 3183 | Electricity and Magnetism I | 3 |
| PHYS 3302 | Advanced Lab I | 2 |
|  | Credit Hours | 16 |
| Second Semester |  |  |
| PHYS 3803 | Introduction to Quantum Mechanics I | 3 |
| PHYS Major Elec | ive, upper-division (3000-4000-level) | 3 |
| Artistic Forms (C | ore IV) ${ }^{2}$ | 3 |
| Western Culture | Core IV) ${ }^{2}$ | 3 |
| Free Elective, upp | er-division (3000-4000-level) | 2 |
|  | Credit Hours | 14 |
| Senior |  |  |
| First Semester |  |  |
| PHYS 4310 | Senior Research Project I | 2 |
| Arts \& Humanitie | , upper-division, outside major (Gen. Ed.) | 3 |
| World Culture (Co | re IV) ${ }^{2}$ | 3 |
| Free Elective, upp | er-division (3000-4000-level) | 3 |
| Free Elective, upp | er-division (3000-4000-level) | 3 |
|  | Credit Hours | 14 |
| Second Semester |  |  |
| PHYS 4320 | Senior Research Project II | 2 |
| Arts \& Humanitie | , upper-division, outside major (Gen. Ed.) | 3 |
| Biological Scienc | without lab (Core II) | 3 |
| Free Elective, upp | er-division (3000-4000-level) | 3 |
| Free Elective, upp | er-division (3000-4000-level) | 3 |
|  | Credit Hours | 14 |
|  | Total Credit Hours | 120 |

1 Students may substitute MATH 1823, MATH 2423, MATH 2433 and MATH 2443 calculus sequence instead of MATH 1914, MATH 2924, and MATH 2934.

## Physics (Professional), B. Phys.

Minimum Total Credit Hours: 120
Major Hours: 45
Minimum Upper-Division Hours: 48

Overall GPA - Combined and OU: 2.00
Major GPA - Combined and OU: 2.00
Program Code: B781

- A grade of $C$ or better must be earned in each required Physics and Mathematics course.


## Major Requirements

## - Some courses required for the major may also fulfill University General Education and/or Dodge College of Arts \& Sciences Requirements.

A total of 45 hours in Physics is required, including the courses listed below.

| Code | Title | Credit Hours |
| :---: | :---: | :---: |
| PHYS 1205 | Introductory Physics I for Physics Majors | 5 |
| PHYS 1215 | Introductory Physics II for Physics Majors | 5 |
| PHYS 2203 | Introductory Physics III: Modern Physics | 3 |
| PHYS 2303 | Electronics | 3 |
| PHYS 3043 | Physical Mechanics I | 3 |
| PHYS 3053 | Physical Mechanics II | 3 |
| PHYS 3183 | Electricity and Magnetism I | 3 |
| PHYS 3302 | Advanced Lab I | 2 |
| PHYS 3312 | Advanced Lab II | 2 |
| PHYS 3803 | Introduction to Quantum Mechanics I | 3 |
| PHYS 4153 | Statistical Physics and Thermodynamics | 3 |
| PHYS 4310 | Senior Research Project I | 2 |
| PHYS 4320 | Senior Research Project II | 2 |
| Choose two of the following: |  | 6 |
| PHYS 4183 | Electricity and Magnetism II (strongly recommended) |  |
| PHYS 4213 | Nuclear and Particle Physics |  |
| PHYS 4243 | Solid State Physics |  |
| PHYS 4803 | Introduction to Quantum Mechanics II (strongly recommended) |  |
| PHYS 4813 | Atomic Physics |  |

Total Credit Hours

## Major Support Requirements

| CodeTitle | Credit |
| :--- | ---: |
|  | Hours |
| Choose one of the the following: | $0-5$ |

Choose one of the the following:

One year of high school chemistry

| MATH 1914 | Differential and Integral Calculus ${ }^{1}$ | 4 |
| :---: | :---: | :---: |
| MATH 2924 | Differential and Integral Calculus II ${ }^{1}$ | 4 |
| MATH 2934 | Differential and Integral Calculus III ${ }^{1}$ | 4 |
| MATH 3413 | Physical Mathematics I | 3 |
| MATH 3423 | Physical Mathematics II | 3 |
| Choose 3 upper-division elective hours in mathematics |  | 3 |
| Total Credit Hours |  | 21-26 |
| ${ }^{1}$ MATH 1823, MA used to meet thi | ATH 2423, MATH 2433 and MATH 2443 is requirement. |  |

## General Education and College Requirements

Courses for fulfillment of General Education and Dodge College of Arts \& Sciences requirements must be from the approved General Education course list published in the Class Schedule or at http://www.ou.edu/ gened/courses. Courses graded P/NP will not apply.

## UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND

 COLLEGE REQUIREMENTS| Code | Title | Credit |
| :--- | :--- | :--- |
|  | Hours |  |

Core Area I: Symbolic and Oral Communication
English Composition (6 hours)
ENGL 1113 Principles of English Composition 3
ENGL 1213 Principles of English Composition 3
or EXPO 1213 Expository Writing
Language ( $0-13$ hours in the same language)
The college requirement cannot be met by high schoo coursework.
Beginning Course 0-5

Beginning Course, continued 0-5
${\text { Intermediate Course (2000 level) }{ }^{1,2}}^{\text {12 }}$
Mathematics (3 hours)
Choose one course from the General Education Mathematics 3
list
Core Area II: Natural Science (7 hours, including one laboratory component)
Biological Science
Choose an approved General Education Natural Science 3-4
course with one of the following prefixes: BIOL, HES, MBIO, or
PBIO ${ }^{1}$
Physical Science
Choose an approved General Education Natural Science 3-4
course with one of the following prefixes: AGSC, ASTR, CHEM,
GEOG, GEOL, GPHY, METR, or PHYS ${ }^{1}$
Core Area III: Social Science (6 hours)
P SC 1113 American Federal Government 3
Choose one course from the General Education Social 3
Science list
Core Area IV: Arts and Humanities (18 hours)
Artistic Forms
Choose one course from the General Education Artistic Forms 3
list
Western Culture


## Free Electives

Electives to bring total applicable hours to the minimum total required for the degree including 48 upper-division hours.

## Information Concerning General Rules, Regulations and Minimum Requirements

Arts and Sciences Hours: At least 80 semester hours of liberal arts and sciences courses are required for a BA degree. At least 55 semester hours of liberal arts and sciences courses are required for a BS degree. Pass/No Pass Enrollment: A maximum of 16 semester hours of free elective credit may be attempted under this option.
Individual Studies (e.g., courses titled "Independent Study"): A maximum of 12 total semester hours may be counted toward graduation, excluding Honors Reading and Honors Research.
P.E. Courses: No physical education activity courses will be counted toward the 120 semester hours of acceptable credit for graduation. Senior Institution Hours: A minimum of 60 semester hours applied toward graduation must be earned at senior (4-year) institutions.
Residency:

- At least 15 of the final 30 hours applied toward the degree or at least 50 percent of the hours required by the institution in the major field must be satisfactorily completed at the awarding institution.
- At least 15 semester hours of upper-division major work must be completed in residence at OU.
- OU correspondence courses are not considered resident credit.

Grade Point Averages: Students must earn a minimum over all 2.00 for each of the following: Combined Retention GPA (all college grades), OU Retention GPA, GPA for all major courses, and GPA for all major courses taken at OU. Some schools and departments of the College have higher minimum grade point averages required for their students.

## 3 Suggested Semester Plan of Study

This plan shows one possible grouping of courses that would allow students to graduate in four years. Please refer to the front of the degree checksheet for official requirements. Students must consult with Dodge College of Arts and Sciences and/or Department of Physics and Astronomy academic advisors to verify that courses selected each semester fulfill the recommended plan and satisfy University, College of Arts and Sciences, and Physics major requirements.

## Freshman

| First Semester |  | Credit <br> Hours |
| :--- | :--- | ---: |
| ENGL 1113 | Principles of English Composition (Core I) | 3 |
| MATH 1914 | Differential and Integral Calculus I | 4 |
| PHYS 1205 | Introductory Physics I for Physics Majors | 5 |
| First Year Experience (Core V) | 3 |  |
| Credit Hours | $\mathbf{1 5}$ |  |

## Second Semester

| ENGL 1213 <br> or EXPO 1213 | Principles of English Composition (Core I) <br> or Expository Writing | 3 |
| :--- | :--- | ---: |
| MATH 2924 | Differential and Integral Calculus II | 4 |
| PHYS 1215 | Introductory Physics II for Physics Majors | 5 |
| Beginning Language (Core I) | 5 |  |
|  | Credit Hours | $\mathbf{1 7}$ |

## Sophomore

First Semester

| MATH 2934 | Differential and Integral Calculus III | 4 |
| :---: | :---: | :---: |
| PHYS 2203 | Introductory Physics III: Modern Physics | 3 |
| PHYS 2303 | Electronics | 3 |
| Beginning Language (continued) (Core I) |  | 5 |
|  | Credit Hours | 15 |
| Second Semester |  |  |
| CHEM 1315 | General Chemistry | 5 |
| HIST 1483 <br> or HIST 1493 | United States to 1865 (Core IV) or United States, 1865 to the Present | 3 |
| MATH 3413 | Physical Mathematics I | 3 |
| PHYS 3043 | Physical Mechanics I | 3 |
| Intermediate Language (Core I) |  | 3 |
|  | Credit Hours | 17 |

## Junior

First Semester

| MATH 3423 | Physical Mathematics II | 3 |
| :--- | :--- | ---: |
| PHYS 3053 | Physical Mechanics II | 3 |
| PHYS 3183 | Electricity and Magnetism I | 3 |
| PHYS 3302 | Advanced Lab I | 2 |
| Artistic Forms (Core IV) |  |  |
|  | Credit Hours | 3 |

## Second Semester

MATH Support Elective, upper-division (3000-4000-level) 3
PHYS 3312 Advanced Lab II 2
PHYS 3803 Introduction to Quantum Mechanics I 3
PHYS Major Elective, 4000-level 3


## Astronomy, Minor

Minimum Total Credit Hours: 26
Minimum Upper-Division Hours: 9

## Program Code: N080

- The requirements for a minor must be completed concurrently with the major degree requirements.
- No minor may be added by completing courses after receiving the bachelor's degree.

At least six (6) credit hours must be earned in courses acceptable for residence credit by standards set forth by the Dodge College of Arts and Sciences, excluding transfer, correspondence, and examination (AP, CLEP, Advanced Standing) credit. Courses for the minor may not be taken Pass/ No Pass.

## No single course may be used by a student to satisfy a major requirement

 and a minor requirement. A course may be used, however, to satisfy both a major support requirement and a minor requirement.Requests to substitute a minor requirement must be approved in writing by the Department of Physics \& Astronomy.

## Required Courses

Students must successfully complete at least 26 hours of courses acceptable for major credit in Astronomy, including at least nine (9) hours at the upper-division level.

| Code | Title | Credit |
| :---: | :---: | :---: |
|  |  | Hours |
| PHYS 1205 | Introductory Physics I for Physics Majors | 4-5 |
| or PHYS 2514 | General Physics for Engineering and Science Majors |  |
| PHYS 1215 | Introductory Physics II for Physics Majors | 5 |
| or PHYS 2524 | General Physics for Engineering and Scie |  |
| PHYS 2203 | Introductory Physics III: Modern Physics | 3 |
| PHYS 3043 | Physical Mechanics I | 3 |
| ASTR 2513 | Introductory Astrophysics | 3 |
| ASTR 3103 | Stars | 3 |
| ASTR 3113 | Galaxies and Cosmology | 3 |
| MATH 2443 | Calculus and Analytic Geometry IV | 3 |
| Total Credit Hours |  | 26 |
| - Minors in the undergraduat successfully student's tran is posted. | Dodge College of Arts \& Sciences are availa e students at OU. If the minor is officially de completed, and noted on the graduation app script will so indicate at the time the bache | all d, on, the egree |

## Physics, Minor

Minimum Total Credit Hours: 22
Minimum Upper-Division Hours: 9

## Program Code: N780

- The requirements for a minor must be completed concurrently with the major degree requirements.
- No minor may be added by completing courses after receiving the bachelor's degree.

At least six (6) credit hours must be earned in courses acceptable for residence credit by standards set forth by the Dodge College of Arts and Sciences, excluding transfer, correspondence, and examination (AP, CLEP, Advanced Standing) credit. Courses for the minor may not be taken Pass/ No Pass.

## No single course may be used by a student to satisfy a major requirement

 and a minor requirement. A course may be used, however, to satisfy both a major support requirement and a minor requirement.Requests to substitute a minor requirement must be approved in writing by the Department of Physics \& Astronomy.

## Required Courses

Students must successfully complete at least 22 hours of courses acceptable for major credit in Physics, including at least nine (9) hours at the upper-division level.

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| PHYS 1205 | Introductory Physics I for Physics Majors | 5 |
| PHYS 1215 | Introductory Physics II for Physics Majors |  |
| PHYS 2203 | Introductory Physics III: Modern Physics | 5 |
| or PHYS 3223 | Modern Physics for Engineers | 3 |
| PHYS 3043 | Physical Mechanics I | 3 |
| Choose one of the following: | 3 |  |


| PHYS 3183 | Electricity and Magnetism I |
| :---: | :---: |
| PHYS 3803 | Introduction to Quantum Mechanics I |
| Choose one of th | following: 3-6 |
| MATH 3113 <br> \& MATH 3333 | Introduction to Ordinary Differential Equations and Linear Algebra I (both courses, 6 hours) ${ }^{2}$ |
| MATH 3413 | Physical Mathematics I (one course, 3 hours) ${ }^{2}$ |
| Total Credit Hours | 22 |
| ${ }^{1}$ PHYS 1205 and PHYS 1215 may be replaced by PHYS 2514 and PHYS 2524. If completing PHYS 2514 and PHYS 2524, students must also complete either PHYS 1311 and PHYS 1321 or PHYS 2303 or PHYS 3302. |  |
| ${ }^{2}$ These MATH co meet the major | urses are acceptable for the minor although they do not credit requirement. |

- Minors in the Dodge College of Arts \& Sciences are available to all undergraduate students at OU. If the minor is officially declared, successfully completed, and noted on the graduation application, the student's transcript will so indicate at the time the bachelor's degree is posted.


## Physics, M.S.

Minimum Total Hours (Thesis): 30
Minimum Total Hours (Non-Thesis): 32
Program Code: M780

## Required Courses

Thesis Option (standard)

| Code Title | Credit <br> Hours |
| :---: | :---: |
| Choose 14-16 hours of PHYS and/or ASTR courses at the 4000 -level or above (note that 4000 level courses must carry graduate credit) | 14-16 |
| PHYS 5980 Research for Master's Thesis | 2-4 |
| Choose 12 hours of other graduate coursework as approved by the advisory committee | 12 |
| Total Credit Hours | 30 |
| Thesis Option (Astrophysics) |  |
| Code <br> Title | Credit Hours |
| ASTR 4303 Stellar Astrophysics ${ }^{1}$ | 0 or 3 |
| Choose 6 hours of ASTR courses numbered 5000 or above | 6 |
| Choose 12 credit hours of PHYS and/or ASTR courses at the 4000 -level or above. (note that 4000 level courses must carry graduate credit) | 12 |
| PHYS 5980 Research for Master's Thesis | 2-4 |
| Choose 5-10 hours of other graduate coursework as approved by the advisory committee, to bring total graduate credit hours to 30 | 5-10 |

1 If presented as undergraduate credit, this course does not count towards the 30 hours required for the degree.

## Non-Thesis Option

| Code $\quad$ Title | Credit <br> Hours |
| :--- | ---: |
| Choose 20 hours of PHYS and/or ASTR courses at the 4000- <br> level or above (note that 4000 level courses must carry <br> graduate credit) | 20 |
| Choose 12 hours of other graduate coursework as approved <br> by the advisory committee | 12 |

Total Credit Hours
32
1 May not include PHYS 5980.

## Notes

- Non-thesis students must pass the internal departmental qualifying exams on Quantum Mechanics, Electrodynamics, and Classical \& Statistical Mechanics.
- The Comprehensive Exam can be either the General Exam for admission to doctoral candidacy (for students pursuing a doctorate) or a separate written paper and oral exam (for students exiting with a Masters).


## General Requirements for all Master's Degrees

The master's degree requires the equivalent of at least two semesters of satisfactory graduate work and additional work as may be prescribed for the degree.

All coursework applied to the master's degree must carry graduate credit.
Master's degree programs which require a thesis consist of at least 30 credit hours. All non-thesis master's degree programs require at least 30 credit hours.

Credit transferred from other institutions must meet specific criteria and is subject to certain limitations.

Courses completed through correspondence study may not be applied to the master's degree.

To qualify for a graduate degree, students must achieve an overall grade point average of 3.0 or higher in the degree program coursework and in all resident graduate coursework attempted. A student must also have at least a 3.0 in all coursework (including undergraduate coursework if any).

Additional information for master's degree students may be found in the Graduate College Bulletin.

## Astrophysics, Ph.D.

Minimum Total Hours: 90
Program Code: D082

# Program Requirements 

| Code | Title | Credit |
| :---: | :---: | :---: |
| Required Physics \& Astronomy Coursework (30 hours) |  |  |
| PHYS 5000 | Introduction to Graduate Studies in Physics | 0 |
| PHYS 5013 | Mathematical Methods in Physics | 3 |
| PHYS 5153 | Classical Mechanics | 3 |
| PHYS 5163 | Statistical Mechanics | 3 |
| PHYS 5393 | Quantum Mechanics I | 3 |
| PHYS 5573 | Electrodynamics I | 3 |
| Additional five core courses ( 15 hours) that cover applications of physics principles in astrophysical settings can be selected from ASTR and PHYS courses at the 5000 level and above (excluding 5980 and 6980) or in related fields at the G4000 level and above if approved by the advisory committee and the graduate liaison |  | 15 |
| Additional Coursework (60 hours) |  |  |
| PHYS 6980 | Research for Doctoral Dissertation (minimum 2 hours) | 2-60 |
| Additional 90 post-bac committee | te-level coursework as needed to reach reate hours, as approved by the advisory | 0-58 |

Total Credit Hours

## Note:

The General Exam consists of a written paper and oral presentation on an area related to proposed thesis. The General Exam can only be taken after passing the internal departmental qualifiying exams.

## General Requirements for Doctoral Degrees

A student should expect to spend at least the equivalent of three full academic years beyond the bachelor's degree to obtain the doctoral degree. During this period the student will take appropriate graduate coursework, successfully complete the general examination, and successfully defend and submit the final dissertation.

All coursework applied to the doctoral degree must carry graduate credit.
The doctoral degree requires at least 90 post-baccalaureate hours, including both formal coursework and hours of research.

The minimum hour requirement for a specific doctoral degree program cannot be waived.

No more than one-half of the credit hours, both OU and overall, excluding Research for Doctoral Dissertation (6980), may be S/U-graded coursework.

The student must be in residence at OU for at least two consecutive 16week semesters during the pursuit of the doctoral degree while enrolled and engaged in coursework or research activities as prescribed by the major academic unit.

For more detailed regulations and requirements for Doctoral degrees, please consult the Graduate College Bulletin: http://www.ou.edu/ gradcollege/forms/bulletin

## Physics, Ph.D.

## Minimum Total Hours: 90

Program Code: D780

## Program Requirements

| Code | Title |  |
| :---: | :---: | :---: |
| Required Physics and/or Astronomy Coursework (36 hours) |  |  |
| PHYS 5000 | Introduction to Graduate Studies in Physics | 0 |
| PHYS 5013 | Mathematical Methods in Physics | 3 |
| PHYS 5153 | Classical Mechanics | 3 |
| PHYS 5163 | Statistical Mechanics | 3 |
| PHYS 5393 | Quantum Mechanics I | 3 |
| PHYS 5403 | Quantum Mechanics II | 3 |
| PHYS 5573 | Electrodynamics I | 3 |
| PHYS 5583 | Electrodynamics II | 3 |
| 15 hours in P above (exclu graduate-400 committee a | and ASTR coursework at the 5000-level and 5980 and 6980), or in related fields at the vel and above as approved by the advisory raduate liaison ${ }^{1}$ | 15 |
| PHYS 6980 | Research for Doctoral Dissertation (minimum 2 hours) | 2 |
| Additional Coursework (52 hours) |  |  |
| Additional grad 90 post-bacc committee | ate-level coursework as needed to reach reate hours, as approved by the advisory | 52 |

Total Credit Hours

1 If the dissertation topic is in Astronomy, the curriculum must include at least 12 hours of Astronomy courses, including ASTR 4303 and any ASTR courses at the 5000-level or above, excluding 5980 and 6980.

## Note:

The General Exam consists of a written paper and oral presentation on an area related to proposed thesis. The General Exam can only be taken after passing the internal departmental qualifiying exams on Quantum Mechanics, Electrodynamics, Classical \& Statistical Mechanics and (if appropriate) Astrophysics.

## General Requirements for Doctoral Degrees

A student should expect to spend at least the equivalent of three full academic years beyond the bachelor's degree to obtain the doctoral degree. During this period the student will take appropriate graduate coursework, successfully complete the general examination, and successfully defend and submit the final dissertation.

All coursework applied to the doctoral degree must carry graduate credit.
The doctoral degree requires at least 90 post-baccalaureate hours, including both formal coursework and hours of research.

The minimum hour requirement for a specific doctoral degree program cannot be waived.

No more than one-half of the credit hours, both OU and overall, excluding Research for Doctoral Dissertation (6980), may be S/U-graded coursework.

The student must be in residence at OU for at least two consecutive 16week semesters during the pursuit of the doctoral degree while enrolled and engaged in coursework or research activities as prescribed by the major academic unit.

For more detailed regulations and requirements for Doctoral degrees, please consult the Graduate College Bulletin: http://www.ou.edu/ gradcollege/forms/bulletin

## Department of Political Science

## Alisa Hicklin Fryar, Chair

Tyler Johnson, Director of Graduate Studies
Alisa Fryar, Director of Professional Programs
205 Dale Hall Tower
455 W. Lindsey
Norman, OK 73019-2003
Phone: (405) 325-2061
FAX: (405) 325-0718
psc@ou.edu
www.ou.edu/cas/psc

## General Information

The Department of Political Science is the academic home for faculty, staff members, undergraduate students, and graduate students who share a love of politics and a devotion to learning. The department offers two undergraduate degrees, one in political science and the other in public and nonprofit administration. Master's degrees in both political science and public administration are offered, and also a doctorate in political science.

The Department of Political Science is among the most intellectually eclectic at the University of Oklahoma. Faculty and students pursue research and study in topics as varied as American politics, comparative politics, international relations, public policy, public administration, and political theory. There are no intellectual or methodological orthodoxies. A diverse faculty and group of students pursue a multiplicity of paths to knowledge.

Affiliated with the department are the Carl Albert Congressional Research and Studies Center, the OU POLL (Public Opinion Learning Laboratory), the Institute for Public Affairs, International and Area Studies, the Institute for American Constitutional Heritage, and the Center for Applied Social Research.

## Programs \& Facilities

## Special Facilities and Programs

The Carl Albert Congressional Research and Studies Center is a unique and nonpartisan institution that strengthens representative democracy through scholarship, learning, and service. Established in 1979 by the Oklahoma State Regents for Higher Education and the Board of Regents of the University of Oklahoma, the center is a living tribute to the ideals, leadership, and accomplishments of the Honorable Carl Albert, native Oklahoman, University of Oklahoma alumnus, Rhodes Scholar, 46th Speaker of the U.S. House of Representatives.

The University of Oklahoma's Public Opinion Learning Laboratory is a state-of-the-art survey research facility on the OU campus in Norman,

Oklahoma. Established by President Boren, the purpose of the OU POLL is to conduct research on public opinion, in order to foster knowledge about public affairs and to assist in the conduct of research on public policy important to University departments, state and local governments, media organizations, other public and private entities, and the general public. The OU POLL is located in Alley A9, Cross Center, on OU's Norman campus. Contact the OU POLL's Director, Amy Sue Goodin for more information.

The Institute for Public Affairs, established in 1995, conducts applied research on public policy issues affecting Oklahoma. The Institute provides policy research and technical assistance, training and leadership development, and civic education for public sector and non-profit audiences. The Institute draws on the diverse backgrounds, interests, and expertise represented among the faculty throughout the University. Faculty associated with the Institute work in the areas of policy analysis and policy formulation, program design, program evaluation, and design and assessment of operating systems such as budgeting and personnel. For more information, contact Dr. Scott Robinson, Director, 455 West Lindsey, Room 205, Norman, OK 73019-2002.

## Student Organizations

Undergraduate and graduate students who qualify are invited to join Pi Sigma Alpha, the national political science honorary society. Other student organizations of interest to department majors are: Political Science Club, Student Association for Public Administration, OU Pre-Law Club, Model UN.

## Scholarships

The Department of Political Science awards a variety of scholarships to undergraduates every spring. In addition to administering the prestigious Robert Dean Bass Memorial Scholarship, our department faculty nominate undergraduates for paper awards based on exceptional papers written in political science courses.

## Undergraduate Study

## Bachelor of Arts

The department offers these majors:

- Political Science (p. 637)

Students that choose political science can take courses in American politics, public policy, public administration, comparative politics, international relations or political theory.

- Political Science: Elections and Campaign Management (p. 640) The Elections and Campaign Management concentration provides a concentrated education in campaigns and voter behavior.
- Public \& Nonprofit Administration (p. 642)

Students that choose public and nonprofit administration will focus their coursework in public policy and public administration.

## Accelerated Dual Degree Programs

- Political Science, Bachelor of Arts/Master of Public Administration (p. 650)

Students to simultaneously receive a Political Science Bachelor of Arts degree and the Master of Public Administration degree.

- Political Science, Bachelor of Arts/Master of Arts (p. 647) Students to simultaneously receive a Political Science Bachelor of Arts degree and the Political Science Master of Arts degree.
- Public and Nonprofit Administration, Bachelor of Arts/Master of Arts (p. 652)

Students to simultaneously receive a Public and Nonprofit Administration Bachelor of Arts degree and the Political Science Master of Arts degree.

- Public and Nonprofit Administration, Bachelor of Arts/Master of Public Administration (p. 655)
Students to simultaneously receive a Public and Nonprofit Administration Bachelor of Arts degree and the Master of Public Administration degree.


## Minors

The department offers these minors:

- Political Science (p. 646)
- Public Affairs \& Administration (p. 647),
- Elections \& Campaign Management (p. 644)
- Nonprofit Organizational Studies (p. 646)
- Non-Governmental Organizations (p. 645).


## Careers

The study of political science and public administration is an excellent foundation for careers in law and law enforcement; government service at the national, state, and local levels, from federal agencies to city managers; politics, such as campaign management or lobbying or elective office; professional research for a "think tank;" labor relations; political journalism; teaching at the secondary and university levels; the diplomatic corps; management in the public and nonprofit sectors, in such areas as health care management and human resource management; consulting; international business; urban planning and development; business management; and policy analysis.

## Graduate Study

Areas of Specialization
American politics, comparative politics, international relations, political theory, public administration, public policy, and research methods.

## Master of Arts

The Master of Arts (p. 657) in Political Science degree provides excellent preparation for doctoral work for those in public non-profit, or private careers who find further professional development necessary. The degree program provides a basic minimum of structure to ensure that participants will obtain the necessary groundwork in political science. Beyond the basic requirements, there is an opportunity for significant specialization in the fields of most interest to the student.

## Master of Public Administration

The degree is designed to provide the student with an understanding and knowledge of government and its environment. As a professional program, emphasis is placed upon learning those administrative concepts, processes, and techniques that are associated with managing the public's business. The academic base for the M.P.A. consists of required courses which include research methods, evaluation, and budgeting and area requirements in management, public policy, organizations, and American political process. The program integrates the theoretical with the practical dimensions of administration and encourages a broad academic and professional perspective. M.P.A. graduates typically enter the public or not-for-profit sectors, although many graduates have used the expertise gained in the program to enter and/or enhance careers in business and corporate enterprises. Public Administration offers classes in multiple formats and at multiple locations. Courses are scheduled in the evening, weekends, online and
during the day. The program can be completed on the Norman or Tulsa campuses, and our faculty routinely teach MPA courses at the OU Health Sciences Center in Oklahoma City.

- Master of Public Administration (p. 658)
- Public Management, Master of Public Administration (p. 659)
- Non-Profit Management, Master of Public Administration (p. 659)
- Public Policy, Master of Public Administration (p. 660)


## Graduate Certificates

- Non-Profit Management (p. 660)


## Doctoral Programs

The Political Science PhD (p.661) program at the University of Oklahoma is one of the most diverse, well-established doctoral programs in the region. The program offers seven fields of study, which include American politics, comparative government, international relations, public administration, public policy, political theory and research methods. Doctoral students work closely with nationally recognized faculty who publish widely, are active in leadership positions in national and international professional associations, and are involved in editing leading journals in their fields. Students play a significant part in the intellectual life of the Department, participating in informal research-in-progress sessions, attending talks hosted by job candidates, and preparing papers for presentation at professional conferences.

Opportunities for research and funding are provided by programs affiliated with the department, including the Carl Albert Congressional Research and Studies Center, the Institute for Public Affairs, the International Programs Center, the OU POLL, the Center for Risk, Crisis and Resilience, the Center for Applied Social Research, and International and Area Studies.

## Courses

NPNG 2033 Introduction to Nonprofits
3 Credit Hours
A comprehensive overview of the nonprofit sector, its characteristics, and how to manage a nonprofit organization. Examines a wide range of management issues today's nonprofits face in pursuing their missions and daily operations. ( $F, S p$ )
NPNG 3033 Nonprofit Management
3 Credit Hours
Prerequisite: NPNG 2033 or permission of department. A more detailed look at how to manage or govern a well-run nonprofit organization efficiently. Combines academic theory with real-life experience, equipping students with the tools required to effectively lead a nonprofit organization. (F, Sp)
NPNG 3193 Nonprofits and Public Policy
3 Credit Hours
(Crosslisted with P SC 3193) Prerequisite: P SC 1113. Examines how nonprofit organizations advocate for their causes through the public policy process as well as how public policy influences nonprofit missions and funding. It also explores more broadly the role of nonprofit organizations in democracy and the various ways they interact with government, including collaborative and conflictual relationships with government. (Irreg.)
NPNG 3771 Issue Advocacy 1 Credit Hour
(Crosslisted with P SC 3771) Prerequisite: P SC 1113 or junior standing. Designed to provide a practical application of the theories and concepts acquired in the study of political science and public administration. How to be effective advocates at all levels of government for the issues and ideas they seek to see implemented in public policy will be learned. (Irreg.)

NPNG 3781 Tracking Legislation
1 Credit Hour
(Crosslisted with P SC 3781) Prerequisite: P SC 1113 or junior standing. Designed to provide a practical application of the theories and concepts acquired in the study of political science and public administration. How to read and track legislation in the State of Oklahoma will be learned. Additionally, students will learn the inner workings of state government from a legislative perspective. (Irreg.)
NPNG 3791 Social Media Strategies for Public and Nonprofit Organizations

1 Credit Hour
(Crosslisted with P SC 3791) Prerequisite: P SC 1113 or junior standing. Designed to offer an overview of the social media field as it pertains to nonprofits and public organizations.

NPNG 3910 Nonprofit Internship 1-3 Credit Hours
1 to 3 hours. Prerequisite: junior standing and permission of instructor. May be repeated; maximum credit six hours. Interns observe and participate in functions, processes and actions of nonprofit organizations. This experience can enhance a student's knowledge of the requirements, benefits and lessons of working in the public or non-profit sector. (F, Sp, Su)
NPNG 4033 Leadership \& Planning
3 Credit Hours Prerequisite: NPNG 3033 or permission of instructor. A continuation of nonprofit organization management, with emphasis on board members, volunteers, paid staff, accountability, interactions, risk management, finances, and trending. (Sp)
NPNG 4103 Nonprofit Human Resource Management 3 Credit Hours Prerequisite: NPNG 2033 and junior standing, or permission of instructor. Provides a comprehensive overview for those interested in entering the fundraising field or learning more about methods, technology and concepts in the development area of the nonprofit sector. The sources of funding and how to apply fundraising strategies will be studied. (Irreg.)

## NPNG 4203 Fundraising and Philanthropy

3 Credit Hours
Prerequisite: NPNG 2033 and senior standing or permission of instructor.
Provides a comprehensive overview for those interested in entering the fundraising field or learning more about methods, technology and concepts in the development area of the nonprofit sector. The sources of funding and how to apply fundraising strategies will be studied. (Irreg.)

## NPNG 4303 Communications and Public Relations in Nonprofit Organizations <br> 3 Credit Hours

Prerequisite: NPNG 2033 and senior standing or permission of instructor.
Provides students with the concepts and tools to conduct research and analyses, identify and evaluate target markets, explore opportunities to effectively communicate with new clients, donors and volunteers, and design effective web-based and social media tactic as part of an integrated marketing and communication strategy will be learned. (F)
NPNG 4533 Donor Stewardship and Grant Writing 3 Credit Hours Prerequisite: NPNG 2033 and NPNG 3033. This course will cover three aspects of nonprofit development work, including database management, grant writing, and special events (Sp)
NPNG 4970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: Senior standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

NPNG 5033 Nonprofits: The Sector and The System 3 Credit Hours Prerequisites: graduate standing or permission of instructor. Understanding the relationship between government and nonprofits is fundamental for the survival of the sector. Nonprofits implement public policy, receive government funding, respond to natural disasters, and help form legislation. The course includes an examination of broad theoretical, empirical and practical spectrum of nonprofit-public collaborations, conflicts, and resultant policy implications. (Irreg.)
NPNG 5413 Nonprofit Law and Policy
3 Credit Hours
Prerequisites: graduate standing or permission of instructor. Examines how policy influences nonprofits and how nonprofits impact policy. It will address the role of nonprofits in public policy and how laws shape nonprofit involvement by reviewing state and federal policy including legal forms, fundraising regulations, and employee compensation. Students will gain an understanding of nonprofit activities within a basic legal framework. (Irreg.)
NPNG 5701 Nonprofit Fundraising and Grantmaking 1 Credit Hour Prerequisites: graduate standing or permission of instructor. Assists students in securing resources for nonprofits by understanding techniques for fundraising, conducting prospect research, practicing appropriate stewardship, leading campaigns for various types of giving, writing grants, utilizing technology to facilitate resource development, and implementing creative approaches to fundraising. (Irreg.)
NPNG 5711 Nonprofit Financial Management
1 Credit Hour
Prerequisites: graduate standing or permission of instructor. Introduces financial concepts required for effective management of nonprofit organizations. Offers an opportunity to learn about nonprofit accounting, budget management, financial planning, tax issues, grant compliance, audits, cash flow management, and capital financing. (Irreg.)
NPNG 5721 Nonprofit Human Resources
1 Credit Hour
Prerequisites: graduate standing or permission of instructor. Focuses on the knowledge and skills required by those who manage personnel. The course provides a solid base to understanding human resource management and applying that to work-life situations for those considering a career in management. Also investigates the essential concepts and federal laws that shaped human resource management. (Irreg.)

P SC 1113 American Federal Government
3 Credit Hours
Not accepted for major credit. A study of the structure, organization and powers of the executive, legislative and judicial branches including relationships between state and national governments. Emphasis upon political processes and popular government; elections, political parties, pressure groups, voting behavior. (F, Sp, Su) [III-PSC] .
P SC 2013 Introduction to Political Analysis
3 Credit Hours
Prerequisite: P SC 1113 or department permission; for majors only. Scientific method and the variety of approaches to a science of politics; problems of research design; methods and techniques of systematic political inquiry. (F, Sp)

## P SC 2103 Politics in America

3 Credit Hours
Prerequisite: P SC 1113. Focuses on the practice of politics in the United States and the forces and ideas that shape political conflict and determines who wins. The three major national institutions of American government are considered: Congress, the presidency, and the judiciary. Examines their constitutional bases of power, their evolving relationships, and their roles in contemporary policymaking. Also considers how ideas and power relationships influence the shape of political conflict. Contemporary political issues will be integrated into course content. (F)

P SC 2503 Global Politics
Prerequisite: P SC 1113. Introduces sources of continuity and change in world politics. Emphasis is given to the struggle for power and search for peace among state and non-state actors. Additional topics include the relevance of international law, foreign policy decision-making, balance of power, collective security, and moral choices in international politics. (F)

## P SC 2603 Governments Around the World <br> 3 Credit Hours

Prerequisite: P SC 1113. Gateway course in political science and international and area studies. Provides an introduction to the varieties of politics and governmental systems around the world. Students will develop skills in comparative analysis to understand why countries have distinct types of government. (F, Sp, Su) [IV-WC].
P SC 2703 Justice, Liberty and the Good Society 3 Credit Hours Prerequisite: P SC 1113. An introduction to the literature about the best form of government, how a just and free society should be designed, and what difficulties stand in the way of our pursuit of the good society. Topics may include: the classic idea of a republic, theories shaping American democracy, the theory of equality and liberty, and contemporary ideas for the critical analysis and improvement of democracy. ( $F, S p$ )

## P SC 2970 Special Topics

1-3 Credit Hours
Special Topics. 1 to 3 hours. May be repeated; maximum credit nine hours. Special topics course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research, and field projects. (Irreg.)

## P SC 3020 Problems in American Government and

1-3 Credit Hours
1 to 3 hours. Prerequisite: 1113 or permission of instructor. May be repeated with change of subject matter; maximum credit nine hours. Will not assume prior knowledge on the part of the students in reference to the topics under examination. The focus is on the national government, including the political processes and policies that relate to it. (F, Sp)
P SC 3023 Law and Courts
3 Credit Hours
Prerequisite: 1113 or permission of the instructor. This is an introduction to the judicial process, origin and sources of law, and the relationship between courts and other sectors of the American political system. It will focus on the criminal justice system, civil justice system, constitutional law, judicial selection, judicial policymaking, and how interest groups use the courts. (F)

## P SC 3033 Religion and Politics in America <br> 3 Credit Hours

Prerequisite: 1113. Examines the diverse religious traditions in America and explores their political manifestations. Assesses the religious impact on voting, lobbying, political mobilization and political culture. Particular attention will be paid to the strategic environment in which religious political actors must operate. [IV-WC].
P SC 3043 Gender, Power and Leadership in Politics and Public Administration 3 Credit Hours
(Crosslisted with WGS 3043) Prerequisite: 1113. Focuses on the relationship between gender, power, leadership, and government in politics and public administration. Causes of under-representation of women in elected office and the bureaucracy are explored. Historical, social, psychological, and organizational barriers are considered. (Irreg.)
P SC 3053 Global Religion and American Foreign Policy 3 Credit Hours Prerequisite: 1113 or permission of instructor. This course examines the intersection of American faith-based movements, global religious developments, and U.S. foreign policy. It explores how global religious conflicts impinge on American foreign policy, and how domestic religious groups attempt to shape U.S. policy on such concerns as human rights, humanitarian aid, and conflict mediation. ( $F, S p$ )

P SC 3063 Religion and the American Constitution 3 Credit Hours
Prerequisite: P SC 1113. This course examines the vital role of religion in the American Constitution, its antecedents and contemporary interpretations. (F)
P SC 3073 Immigration Politics
3 Credit Hours
Prerequisite: P SC 1113 or permission of instructor. An examination of the politics of immigration in America. Includes lively debate, in addition to daily discussions of current events involving immigration. Emphasis will be placed upon the development of a unique research project that examines an important question, puzzle, or aspect of immigration in American politics. (Irreg.)
P SC 3083 The Politics of Criminal Justice
3 Credit Hours
Prerequisite: P SC 1113. How does a political community best provide security to its members while also respecting the rights of all of its citizens? This course is an examination of the relationship between political variables and crime rates, police behavior, court dynamics and sentences, and prison practices and functions. (Irreg.)
P SC 3090 Special Topics
1-3 Credit Hours
Prerequisite: 1113 or permission of instructor. May be repeated with change of content; maximum credit nine hours. Topics considered will deal with issues whose subject matter spans two or more subfields of the undergraduate curriculum in political science and/or public affairs and public administration. (Irreg.)

## P SC 3093 Minority Political Behavior

3 Credit Hours
Prerequisite: P SC 1113. Examination of racial minority status in
American politics. Addresses such broad topics as: racial and ethnic identity; political mobilization; statutory and legal intervention in the electoral process; the politics of immigration, acculturation, and identification; theories of minority representation; and what shapes political behavior among African-Americans, Latinos, Asian Americans, and Native Americans. (Irreg.)
P SC 3113 Bureaucracy and Citizenship
3 Credit Hours
Prerequisite: 1113 or permission of instructor. Focuses upon various aspects of political life in bureaucratic society, including the scope of contemporary public programs and their impact on society, and extent and character of citizens' bureaucratic encounters, administrative pathology, bureaucratic helping, appeals of administrative decisions, bureaucratic accountability and democratic theory, and the future of citizen-bureaucratic relations. (Sp)
P SC 3123 Social Statistics
3 Credit Hours
(Crosslisted with SOC 3123) Prerequisite: SOC 1113 and any General Education Math EXCEPT Philosophy 1113 or Philosophy 3113.
Descriptive and inferential statistics as they are used in sociology to analyze survey and macro-level data. Problems of research design and interpretation of analysis in sociological theory are major topics. A grade of $C$ or better in this course is a prerequisite for Sociology capstone courses. (F, Sp, Su)

P SC 3133 Politics and Public Administration
3 Credit Hours Prerequisite: 1113 and sophomore standing. Examines the concept of the political role of the bureaucracy and the impact of other government institutions on bureaucratic structure, functions and behavior. The role of the bureaucracy in public policy making and the influence of politics on policy implementation is analyzed. (F) [III-SS].

## P SC 3143 U.S. Congress

3 Credit Hours
An introduction to the legislative process, with emphasis upon the United States Congress: the legislative process, committee systems; legislative leadership; the legislator and constituents; lobbyist and interest groups; legislative-executive relations. (Sp)

P SC 3163 The American Presidency
3 Credit Hours
Prerequisite: 1113. Examination of the constitutional, electoral, administrative and political aspects of the contemporary American presidency; ending with an assessment of its capabilities in the context of its demands. (F)

P SC 3170 Problems in Public Administration 1-3 Credit Hours 1 to 3 hours. Prerequisite: five hours of political science or three hours of another social science, or junior standing and permission of instructor. May be repeated with change of subject matter; maximum credit nine hours. Special topics and/or problems in the field of public administration not covered in the regular curriculum or by supervised individual study. The course will involve readings appropriate to the subject matter and requires completion of a substantial paper. Additional requirements will be covered by the instructor in the syllabus. (Irreg.)
P SC 3173 Administration \& Society 3 Credit Hours Prerequisite: P SC 1113; Majors only. This course introduces you to public administration. We focus on understanding the purpose, structures, functions, and challenges related to operating publicly funded programs and how these dynamics relate to organizations in the public, non-profit and private sectors. (F, Sp)
P SC 3183 Politics of Government Budgeting 3 Credit Hours Prerequisite: P SC 1113. Provides an introduction to budgeting and the budgetary process in American government. Budgeting decision-making about government revenues and expenditures will be presented. (Sp)
P SC 3193 Nonprofits and Public Policy
3 Credit Hours (Crosslisted with NPNG 3193) Prerequisite: P SC 1113. Examines how nonprofit organizations advocate for their causes through the public policy process as well as how public policy influences nonprofit missions and funding. It also explores more broadly the role of nonprofit organizations in democracy and the various ways they interact with government, including collaborative and conflictual relationships with government. (Irreg.)

## P SC 3203 Sexuality, Gender, and the Law <br> 3 Credit Hours

Prerequisite: P SC 1113 or permission of the instructor. The course will examine a number of the most politically significant legal debates regarding gender and sexuality. Though the issues covered will vary by semester, they will include many of the following: discrimination on the basis of gender and sexual orientation, reproductive rights, the regulation of pornography, same-sex marriage, sexual harassment in the workplace, and the right to sexual privacy. (Irreg.)

P SC 3213 Law, Politics, and Society 3 Credit Hours
Prerequisite: 1113 or permission of instructor. Examines how courts and other political actors use law to solve problems and how judicial decisions incorporate legal and political considerations. It explores how law shapes or alters the political community, the extent that law changes to fit needs of society, and the role of politics in interpretation of law. (Sp)

## P SC 3220 Topics in Public Policy 1-3 Credit Hours

 1 to 3 hours. Prerequisite: 1113. May be repeated with change of content; maximum credit six hours. Research and investigation on selected topics in public policy. (Irreg.)P SC 3223 Making Public Policy 3 Credit Hours Prerequisite: P SC 1113; Majors and Minors only. Provides a rigorous introduction to the important components, concepts, and dominant theories of public policy in the context of federal, state, local, and foreign policymaking processes in the United States. (Irreg.)

P SC 3233 Environmental Policy and Administration 3 Credit Hours
Prerequisite: 1113. Characterizes the evolution of public sector involvement in protection of the environment; addresses current issues associated in environmental protection including administrative efficiency and effectiveness and intergovernmental relations, and assesses potential solutions to emerging environmental problems. (F)

P SC 3263 Social Welfare
3 Credit Hours
Prerequisite: ENGL 1213 or EXPO 1213. Introduction to the basics of welfare policy in the United States. To do so, we will review the history of this policy area from early efforts in Western Europe up to the changes made by, and the impacts of, the Personal Responsibility and Work Opportunity Act of 1996 which did away with the Aid to Families with Dependent Children (AFDC) program and ushered in TANF (Temporary Assistance to Needy Families). There will be a specific focus on the logic behind policy components (to include examining competing theories of human behavior and how they relate to relief efforts), their evolution, and the role of the political environment in fostering change. (Sp)

P SC 3273 Privatization
3 Credit Hours
Prerequisite: P SC 1113 or permission of instructor. Exposes students to competing theories regarding the privatization of publicly provided services (such as fire and police protection, road construction and maintenance, refuse collection, child protective services, and maintenance of public parks) with a particular focus on the supposed benefits and problems. (F)
P SC 3313 Urban Government and Politics 3 Credit Hours Structure and function of urban governments and analysis of politics in urban areas. (F)

P SC 3323 State Government
3 Credit Hours
The organization, structure, functions, and administration of American state and local governments; federal-state relations; constitutions and legal systems; legislative, executive, and judicial departments; a study in the political process; problems of metropolitan areas; fiscal and administrative systems. (F)

P SC 3333 Civic Engagement
3 Credit Hours
Prerequisite: PSC 1113. This course is an introduction to civic engagement. Students will learn about actions everyday citizens take to improve the world around them. Readings, lectures, and discussions cover who participates, who doesn't, and why; the evolution of civic engagement over time; the effectiveness of specific mobilization strategies; and how local, statewide, federal, and international societies are changed by such efforts. (Irreg.)
P SC 3403 Interest Groups and Social Movements 3 Credit Hours Role of interest groups and collective action in the political process; theory of collective action and development of American pressure groups; group organization and internal behavior; patterns of external behavior; collective action and foreign political systems; and organized interests and democratic government. (F)

P SC 3413 American Political Parties
3 Credit Hours
A descriptive and critical examination of the political processes in the United States, with special reference to the role and organization of political parties and their relationship to voter behavior and the popular control of government. (Irreg.)
P SC 3423 Public Opinion
3 Credit Hours
Relies on three basic themes as a framework for the study of public opinion: coalitions, elites and masses. More specific subjects studied include political socialization, the parties and the media. Students may not take both P SC 3423 and P SC 4013 for credit. (Irreg.)

P SC 3433 Voters and Campaigns
3 Credit Hours
Prerequisite: 1113. Covers some of the literature on voting behavior and political campaigns: political socialization; political participation; election studies; influence on voting such as party, candidate, issues, and group affiliations; the legal framework and impact of reform; election outcomes and their policy import. Coverage of the campaign process includes party and interest group activity, campaign financing, strategy, the media, and campaign reform. (Irreg.)

## P SC 3440 Mentored Research Experience 3 Credit Hours

0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)
P SC 3443 Mass Media and American Politics 3 Credit Hours Prerequisite: 1113. Role of mass media in American politics including origin and development of relationship between press and politics, how the press covers politics, effects of mass media on public opinion, political elites, and institutions. (Irreg.)
P SC 3463 American Political Development

## 3 Credit Hours

Prerequisite: 1113 or permission of instructor. Analyzes the institutional development of American politics. The premise is that institutions are created to solve conflicts at specific historical junctures. Once in place, these institutions create opportunities and constraints for future generations. Focus on explaining large-scale political change in the United States from the founding to the present. (Irreg.) [IV-WC].
P SC 3483 Campaign Management
3 Credit Hours
Prerequisite: departmental permission and P SC 1113. Addresses practical aspects of campaign management including information about the decisions campaign managers make in gathering information, raising money, harnessing technology, honing and disseminating messages, and targeting volunteers/voters in the context of aiding a candidate in running for/winning office. Explores practical lessons on campaign management and provides hands-on training through the use of existing electoral databases and on-campus resources. (Irreg.)
P SC 3493 Congress: Politics, Policy and the Constitution 3 Credit Hours
Prerequisite: P Sc 1113. Introduces students to theory and research on the role of the Congress under the U.S. Constitution and the relationship of the Congress to the coordinate branches of the federal government, as well as to the state governments in interpreting and applying the Constitution. Experience in original archival research on the politics, policies and constitutional struggles of the Congress through the Carl Albert Congressional Research \& Studies Center will be gained. (Irreg.)
P SC 3543 United States-Latin American Relations 3 Credit Hours Prerequisite: Sophomore standing or departmental permission. This course studies both the historical development and current problems of conflict and cooperation between the United States and the countries of Latin America, and the ways their interactions affect each country's security, politics, economy, society, and culture. (Irreg.) [IV-WC].

P SC 3550 Topics in International Relations
1-3 Credit Hours
1 to 3 hours. Prerequisite: 1113 or permission of instructor. May be repeated with change of content; maximum credit nine hours. Systematically explores contemporary problem areas in international relations. Will not assume prior knowledge on the part of the students in reference to the topics under examination. Meets in a seminar format where emphasis will be placed on classroom presentations and extensive research papers. (Irreg.)
P SC 3553 International Political Economy
3 Credit Hours
Prerequisite: 1113. Focus on patterns, processes, and problems of international trade, monetary, technological, and investment relations. Deals with the roles played by key international organizations in managing conflict and cooperation among states. Students learn to apply theoretical approaches in analyzing issues in the global economy. (F) [IVWC] .
P SC 3563 United States Diplomatic History 3 Credit Hours
Prerequisite: none. A survey of American diplomatic history from the War for Independence to the present, emphasizing relations with major European, Latin American and Far Eastern countries. [IV-WC] .

P SC 3573 Great Power Politics
3 Credit Hours
Prerequisite: P SC 1113. Explores the meaning of power in politics and diplomacy, relations among great powers in different historical settings, arguments for and against realism as a theory of international politics, different strategies for projecting power, whether moral choices are relevant in the realm of power politics, and the importance of geopolitics in the 21 st century map of world affairs. (Irreg.)

## P SC 3583 Masters \& Commanders: Wartime Strategy and Statecraft <br> 3 Credit Hours

Prerequisite: P SC 1113. Based on Andrew Roberts' Masters And Commanders: How Roosevelt, Churchill, Marshall and Alanbrooke Won the War in the West. Focuses on debates between the four principals and senior Allied officials in shaping the grand strategy of the West during the Second World War. Attention is devoted to disagreements about military necessities and about the structure of the postwar world. (Sp)
P SC 3593 Nongovernmental Organizations
3 Credit Hours
Prerequisite: P SC 1113 and sophomore standing, or department permission. Provides an understanding of the political role of nongovernmental organizations (NGOs) in global as well as local politics. Introduces practical knowledge about the activities of NGOs in various policy fields. Provides information about transnational advocacy, nongovernmental networks, agenda setting, civil society mobilization, and contentious politics. (Irreg.)
P SC 3600 Topics in Comparative Politics
1-3 Credit Hours
1 to 3 hours. Prerequisite: 1113 or permission of instructor. May be repeated with change of content; maximum credit nine hours. Will examine contemporary issues in politics and government around the world. Meets in a seminar format where emphasis will be placed on classroom presentations and research. (Irreg.)
P SC 3633 Politics of Authoritarian Regimes 3 Credit Hours Prerequisite: P SC 1113 and sophomore standing. This course invites students to think critically about non-democratic political systems. We explore some important authoritarian countries/regions and explore how autocrats there come to power and maintain power. We consider debates about whether insitutions- such as political parties and legislaturesmatter in authoritarian regimes. Finally, we examine the tools of authoritarian governance, including repression, cooptation, redistribution, propaganda and censorship. (F)

## P SC 3643 Democracies and Democratization: A Comparative

## Inquiry

3 Credit Hours
Prerequisite: 1113. Studies the theory, history, causes, and prospects for democracy in the world, beginning with ancient Greece and ending with the challenges of democracy and democratization in countries around the world today. Although primarily a social science course, questions about the philosophical underpinnings of democracy are also raised. (Sp) [IV-WC].
P SC 3653 Government and Politics of Latin America 3 Credit Hours Prerequisite: 1113 or permission of instructor. General survey of structure, organization and operation of Latin American governments. Problems of dictatorship, underdevelopment, social reform and relations with the United States are covered. (F) [IV-WC] .

P SC 3663 Politics of the Middle East
3 Credit Hours
Prerequisite: 1113 or permission of instructor. This course surveys the developments in current domestic politics in Middle Eastern countries. It will focus on the process of state building, great power politics, Islam and political ideologies, economic crises, and regime stability and change. (Irreg.)

## P SC 3703 From Plato to Machiavelli, the Classic Art of

## Politics

3 Credit Hours
Prerequisite: 1113 and sophomore standing. Study of the origins of political science or political philosophy in the thought of classical antiquity and of the continuing influence of the classic works. Topics may include: Plato and Aristotle's attempt at a systematic political science; Thucydides on democracy and war; the interaction of religion and politics; and the early modern rebirth of the classical republican era. (F) $[$ IV-WC] .

P SC 3713 The Idea of a Liberal Society 3 Credit Hours
Prerequisite: 1113 and sophomore standing. Study of the major works of modern political thought that inspired the idea of a rights-oriented liberal society. Readings vary, but may include Thomas Hobbes and John Locke, their followers and critics in later centuries (such as Montesquieu, Rousseau, Kant, Hegel, and Mill), and those who later subjected the liberal idea to fundamental criticism (Marx, Nietzsche, and others). (Sp) [IV-WC] .
P SC 3723 Foundations of American Politics 3 Credit Hours
An examination of the principal issues and ideas of the American colonial, revolutionary and founding periods and their influence on, and relevance to contemporary American politics.
P SC 3753 Human Rights and Contentious Politics 3 Credit Hours Prerequisite: P SC 1113. Students gain an understanding of the major players influencing human rights, their interests, the arenas in which they interact, and the rules that govern their interactions. The focus of the class is not on philosophical underpinnings of rights, but rather on how repression and efforts to combat it play out in the domestic and international arena. (Irreg.)

## P SC 3763 Field Research Methods and Community Engagement: The Oklahoma City Exit Poll <br> 3 Credit Hours

Prerequisite: P SC 1113. Trains students as field researchers for an election exit poll. In addition to learning how to design relevant and valid questionnaire items, students will participate as survey enumerators on the day of the election. As part of the course students will receive CITI certification demonstrating their expertise as researchers. (Irreg.)

P SC 3771 Issue Advocacy
1 Credit Hour
(Crosslisted with NPNG 3771) Prerequisite: P SC 1113 or junior
standing. Designed to provide a practical application of the theories and concepts students acquire in the study of political science and public administration. Students will learn to be effective advocates at all levels of government for the issues and ideas they seek to see implemented in public policy. (Irreg.)
P SC 3781 Tracking Legislation
1 Credit Hour
(Crosslisted with NPNG 3781) Prerequisite: P SC 1113 or junior standing. Designed to provide a practical application of the theories and concepts acquired in the study of political science and public administration. How to read and track legislation in the State of Oklahoma will be learned. Additionally, students will learn the inner workings of state government from a legislative perspective. (Irreg.)
P SC 3791 Social Media Strategies for Public and Nonprofit Organizations 1 Credit Hour
(Crosslisted with NPNG 3791) Prerequisite: P SC 1113 or junior standing. This course is designed to offer an overview of the social media field as it pertains to nonprofits and public organizations.
P SC 3823 The Management and Politics of Disasters 3 Credit Hours Prerequisite: P SC 1113. This course introduces the politics of extreme events such as natural disasters, technological crises, and terrorism. The discussion will address issues ranging from the emergency management cycle, social behavior in catastrophic circumstances, and the policy systems related to disasters. Films will complement the traditional academic reading and lecture material to provide vivid illustrations of the politics (and myths) of disasters. (Irreg.)

P SC 3843 Education Policy
3 Credit Hours
Prerequisite: P SC 1113. This course will provide a thorough overview of the actors, institutions, and issues relevant to contemporary K-12 education policy in the United States. In providing such an overview, the course will address both longstanding areas of debate, such as the primary purpose of education and the financing of schools, as well as hotbutton issues of the day. (Irreg.)
P SC 3873 Transnational Politics
3 Credit Hours
Prerequisite: P SC 1113. Transnational Politics is about political phenomena that not only cross national borders, but transcend them. This includes the transnationalization of production by multinational companies; the transnationalization of culture by international advocacy organizations; and the transnationalization of insurgency by "terrorist" groups. We will evaluate the processes driving these trends, and consider their implications for both domestic and international politics. (Irreg.)
P SC 3910 Government Internship
2-3 Credit Hours
2 to 3 hours. Prerequisite: good academic standing with 45 semester hours completed, including nine hours of political science; permission of instructor. May be repeated; maximum credit six hours. Interns observe and participate in the functions, processes and actions of governmental institutions at the federal, state and local level. Grade of S/ $U$ based on completion of directed readings, an academic research paper, performance reports. (F, Sp, Su)
P SC 3923 World Happiness
3 Credit Hours
(Crosslisted with IAS 3923) Prerequisite: Junior standing or permission of instructor. This course explores and compares, in detail, the breadth and expression of global happiness philosophical concepts in the east and west leading to modern global and societal well-being measures and wellbeing policies in nations around the world. (Irreg.)

P SC 3943 Campaigns Through Film
3 Credit Hours
Prerequisite: P SC 1113. Through the lens of documentary films, this course will examine various facets of campaigning for political office in the United States. (Irreg.)
P SC 3953 Bhutan Democracy and Happiness 3 Credit Hours
Prerequisite: P SC 1113. This is a comparative politics course that examines comparative theories of democratization and happiness with Gross National Happiness (GNH) policy and democratization in Bhutan. Incorporated in the examination of GNH is an examination of other nonGross Domestic Product global measures of societal progress such as the Happy Planet Index, Human Development Index, and United Nations Millennial Development Goals. (Irreg.) [IV-WDC].

## P SC 3960 Honors Reading <br> 1-3 Credit Hours

1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Will consist of topics designated by the instructor in keeping with the student's major program. The topics will cover materials not usually presented in the regular courses. (F, Sp, Su)
P SC 3970 Honors Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated: maximum credit six hours. The projects covered will vary. The content will deal with concepts not usually presented in regular coursework. (F, Sp)

## P SC 3980 Honors Research

1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Will provide an opportunity for the gifted Honors candidate to work at a special project in the student's field. (F, Sp, Su)
P SC 3990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: one course in general area to be studied; junior standing; permission of instructor and department. May be repeated; maximum credit six hours. Through a written contract, independent study may be arranged for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (F, Sp, Su)
P SC 4020 Problems in American Government 1-3 Credit Hours 1 to 3 hours. May be repeated with change of content; maximum credit nine hours. Focus on the national government, including the political processes and policies that relate to it. (Irreg.)

## P SC 4023 Community Scholars

3 Credit Hours
Prerequisite: P SC 1113. Service-learning course allows students to become participants in community activities and organizations designed to address community needs. At the same time, students develop skills and abilities for critical thinking, group problem-solving, and effective civic engagement. Combines community service and academic learning to examine how local government agencies work along side community organizations, mainly nonprofit organizations, to meet the needs of their community. (F)
P SC 4033 Capitol Scholars: A Service Learning Course 3 Credit Hours Prerequisite: P SC 1113 and permission of instructor. The course uses service-learning and weekly seminars to focus on institutions, policymaking and politics in legislative settings. (Sp)
P SC 4043 Public Policy Implementation
3 Credit Hours
(Slashlisted with P SC 5043) Prerequisite: P SC 1113. This course examines how public laws are implemented. It investigates actors, institutions and processes influential in decisions and actions regarding public program delivery. No student may earn credit for both 4043 and 5043. (Irreg.)

P SC 4083 Strategies in Politics and Public Policy 3 Credit Hours (Slashlisted with P SC 5083) Prerequisite: P SC 1113. Politics involves the interaction of people who seek to use mechanisms of collective choice to further their goals. This undergraduate course focuses on how political institutions translate the preferences of individuals into social choices. What strategies can individuals employ to influence social choices? This class addresses these questions through theories of individual decision making, social choice, and collective action. No student may earn credit for both 4083 and 5083. (Irreg.)
P SC 4093 Capstone Seminar in Political Science 3 Credit Hours Prerequisite: Majors only, P SC 1113, PSC 2013, senior standing and permission of department. Capstone seminar for majors in political science. Explores topics in political science for students with substantial background in the discipline and includes a significant writing component. Specific subtitles will vary. (F, Sp) [V].
P SC 4143 Policy/Program Evaluation
3 Credit Hours
Prerequisite: P SC 1113. Introduces the planning and implementation of a variety of evaluation types and methods. Considers the utilization of findings in a political environment. (Irreg.)
P SC 4193 The Profession of Public Management
3 Credit Hours Prerequisite: 1113 or permission of instructor. Open to undergraduate students only. Focuses on the internal administrative processes of public agencies, concentrating on the generic management functions of planning, directing and controlling as they relate to the development and implementation of public policy programs. (Irreg.)

## P SC 4203 Capstone Seminar in Public Affairs and

 Administration3 Credit Hours
Prerequisite: Majors only, PSC 1113, PSC 2013, senior standing, and permission from department; May be repeated once with change of content. The focus and subtitle will vary. Develops the ability to analyze and interpret the subject matter; contains a substantial writing component. (F, Sp) [V].

## P SC 4220 Problems in Public Policy <br> 1-3 Credit Hours

1 to 3 hours. Prerequisite: 1113 or permission of instructor. May be repeated with change of content; maximum credit nine hours. Research and investigation on selected problems in the field of public policy. (Irreg.)
P SC 4253 Theories of the Policy Process
3 Credit Hours
Prerequisite: P SC 1113 and Junior standing or permission of instructor. In this course, we will review the concepts and theories that underlie the study of public policy in political science. We will not focus on specific policy areas (e.g., environmental or health policy), but rather on lenses and techniques, which are argued to be applicable to all policy domains, to understand why and how policies are enacted, changed, and/or terminated. (F)
P SC G4263 American Constitutional Law I: Governance 3 Credit Hours Prerequisite: P SC 1113. Chronological exploration of the role of constitutional principles and the United States Supreme Court in the historical and contemporary political struggles concerning the structure, distribution, and uses of national governmental power in the American polity. Examines the Constitution's allocation of powers vertically between the national government and the states, and horizontally among the legislative, executive, and judicial branches. (F)

## P SC G4283 American Constitutional Law II: Civil Rights and Civil Liberties <br> 3 Credit Hours

Prerequisite: P SC 1113 or permission of instructor. Investigates the character, function, and enforcement of civil rights and civil liberties in the American constitutional system. (Sp) [IV-WC] .

P SC 4323 Political Communication
3 Credit Hours
(Crosslisted with COMM 4323) Prerequisite: COMM 1113 or P SC 1113 and junior standing or permission of instructor. This course considers the role of communication in democracy. Topics include the kinds of information necessary to sustain democratic systems, the ways in which citizens are informed about public affairs, the function of news media in democratic systems, and how citizens, media and political leaders interact. ( $\mathrm{F}, \mathrm{Sp}$ )
P SC 4493 Architecture of Democracy
3 Credit Hours
(Slashlisted with P SC 5493; Crosslisted with ARCH 4493) Prerequisite: P SC 1113 or permission of instructor. This course explores how space, place and values come together in public spaces, by reviewing the evolution of architecture as it relates to human governance; introducing methods for assessing and designing physical space as an expression of human values; examines the social meaning and behavioral impact of spaces; studies the expression of democratic values in public spaces. No student may earn credit for both 4493 and 5493. (Irreg.)
P SC 4903 Social Movement Theory 3 Credit Hours
(Slashlisted with P SC 5903) Prerequisite: P SC 1113. This course will focus on major political theories that assess social movements and public policymaking. It will also examine when and why social movements occur, who joins or supports social movements, how social movements are organized, what are the impacts of social movements, the role of the state and social movements, and why social movements decline. No student may earn credit for both 4903 and 5903. (Irreg.)
P SC 4960 Directed Readings
1-4 Credit Hours
1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean. May be repeated; maximum credit four hours. Designed for upper-division students who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)

## P SC 4970 Special Topics/Seminar

1-3 Credit Hours
1 to 3 hours. Prerequisite: Senior standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

## P SC 4990 Independent Study

1-3 Credit Hours
1 to 3 hours. Prerequisite: three courses in general area to be studied; senior standing; permission of instructor and department. May be repeated; maximum credit six hours. Through a written contract, independent study may be arranged for a topic not currently offered in regularly scheduled courses. Independent study may include library and/ or laboratory research and field projects. (F, Sp, Su)
P SC 5003 Introduction to Public Administration 3 Credit Hours Prerequisite: graduate standing. An introductory graduate seminar surveying the field of public administration and its role and position in contemporary government, providing a basis from which to undertake advanced studies of theoretical and substantive nature. Attention will be given to key themes in past and present of mainstream public administration, such as the foundation, personnel, organization, and policies of government. (F, Sp, Su)
P SC 5013 History and Theory of Urban Planning 3 Credit Hours (Crosslisted with RCPL 5013) Prerequisite: open to seniors in social science departments, civil engineering and architecture, and to graduate students in regional and city planning. An introductory course on the history and theory of contemporary planning, focusing on the physical, social, institutional and economic structure and dynamics of human settlements, and on the role and responsibilities of the professional planner. (F)

P SC 5023 Problems in American Government
3 Credit Hours
Prerequisite: 12 hours in political science or senior standing and permission of instructor. May be repeated with change of content; maximum credit nine hours. Content varies with instructor. The focus is on the national government, including the political process and policies that relate to it. (Irreg.)
P SC 5033 Foundations of Nonprofit Management 3 Credit Hours Prerequisite: graduate standing. Introduces broad theories and managerial practices in the field of nonprofit management. The main foci of the course are to provide theoretical foundations of the nonprofit sector by examining its nature, scope, legal frameworks, functions, and policy implications and to examine various managerial challenges nonprofit organizations face due to their unique sector positions and how they respond to those challenges. Challenges are multifaceted (leadership, financial, personnel, performance evaluation and accountability, governmental relations) and the course will provide several case studies for students to review and seek potential solutions in individual as well as group settings. (Irreg.)
P SC 5043 Public Policy Implementation
3 Credit Hours
(Slashlisted with 4043) Prerequisite: graduate standing. This course examines how public laws are implemented. It investigates actors, institutions and processes influential in decisions and actions regarding public program delivery. No student may earn credit for both 4043 and 5043. (lrreg.)

P SC 5053 Agenda-Setting in Public Policy
3 Credit Hours
Prerequisite: graduate standing. This class will focus on agenda-setting and policy change - that is, how policy agendas are determined and their impact on policy change. In so doing, we will examine the role that various actors play (including public administrators), the impact of focusing events, political institutions, and the media. (Irreg.)
P SC 5063 Nonprofits and the Public Sector Relations 3 Credit Hours Prerequisite: graduate standing. Explores various issues that arise from collaborative efforts between the nonprofit and government sectors in delivering public services. Includes an examination of a nonprofitpublic sector collaboration and partnership, especially the nature of nonprofit-public sector strategic alliances, the dynamics of service delivery networks, and the effectiveness of collaborations. The role of nonprofits and the policy implications in social service contracting are examined. (lrreg.)
P SC 5073 Municipal Management and Leadership 3 Credit Hours Prerequisite: graduate standing. Streets, water, sewer, trash, public safety, and business all center on Main Street U.S.A., and cities are literally where politics and policy directly meet citizens in their everyday lives. The management of urban areas involves a wide array of public administration skills and topics. Topics include: infrastructure, municipal finance, economic development, human resource management, and basic service delivery. Students will hone the skills of political analysis, project planning and strategic management. (Irreg.)

P SC 5083 Strategies in Politics and Public Policy
3 Credit Hours (Slashlisted with P SC 4083) Prerequisite: graduate standing. Politics involves the interaction of people who seek to use mechanisms of collective choice to further their goals. This course focuses on how political institutions translate the preferences of individuals into social choices. What strategies can individuals employ to influence social choices? The class addresses these strategies through theories of individual decision making, social choice, and collective action. No student may earn credit for both 4083 and 5083. (Irreg.)

P SC 5093 Grants and Contracts
Prerequisite: graduate standing. This course discusses how to write a strong grant or contract proposal along with strategies for successful implementation of the resulting project. The focus will be on project development and project management for public and nonprofit sectors. (Irreg.)

P SC 5103 Organizations: Design, Structure and Process 3 Credit Hours Prerequisite: full graduate standing or permission of instructor. Analyzes large, complex organizations, particularly governmental units and other public sector agencies. Attention will be given to the principal theoretical models for their design and structure. Also seeks to understand system-subsystem relationships in the processes of decision making, communication, influence, leadership and technology. (F)

P SC 5113 Federalism and Intergovernmental Relations 3 Credit Hours Covers the origins, development, and operational aspects of federalism in the U.S. Intergovernmental relations as the dynamics of federalism are studied as they impact on decision-making, administrative and fiscal patterns. Decentralization and reorganization are analyzed as they affect the administration of national programs. (Sp)

P SC 5123 The Making of American Foreign Policy 3 Credit Hours A study of American policy formulation with its problems and limitations. Current American foreign policies and alternate courses of action are examined critically. (Irreg.)
P SC 5133 Strategic Planning and Performance Measurement 3 Credit

Hours
Prerequisite: graduate standing or permission of instructor. Introduces students to strategic planning, performance measurement, and benchmarking in the public sector. Provides an overview of strategic management and illustrates the development, implementation and reformulation of public policy and operational strategy. Emphasis on the changes in an organization's environment. (Irreg.)

## P SC 5143 Program Evaluation and Applied Policy

Analysis
3 Credit Hours
Prerequisite: graduate standing. Methodology of planning and evaluating government policies and programs. Emphasizes research design, economic analysis of public policies and programs, and methods for handling threats to validity of research results. (F)

P SC 5170 Problems in Public Administration 2-3 Credit Hours 2 to 3 hours. May be repeated; maximum credit six hours. Research and investigation on selected problems of public administration. Some alternative subjects; administrative theory and organizational theory; bureaucracy; organization and management; government corporations; administrative policy making; responsibility and accountability. (Irreg.)

P SC 5173 Bureaucracy and Politics
3 Credit Hours
Prerequisite: graduate standing. Examines the concept of the political role of the bureaucracy and the impact of other government institutions on bureaucratic structure, functions and behavior. The role of the bureaucracy in public policy making and the influence of politics on policy implementation are analyzed. (Sp)

## P SC 5183 Public Budgeting and Finance <br> 3 Credit Hours

Prerequisite: graduate standing or permission of instructor. Examines the techniques and politics of raising and spending public funds. Discusses topics such as deficit politics, legislative and executive powers, and the budgetary role of the courts. Assesses the impacts of taxing and spending policies. Explores issues relevant to national, state, and local governments. (Sp)

P SC 5213 Risk, Public Policy, and Law
3 Credit Hours
Prerequisite: graduate standing. This seminar will focus on how concepts of risk serve to justify and shape public policies, legal rules, and risk management practices. It will introduce some of the primary methods for analyzing potentially risky policies and managing risk. We will begin with a focus on the definition of risk as it applies to public policy, and as it has been used to analyze and inform policies and laws designed to address risks. We will then turn to the differences between formal assessments of risk and the "perceived risks" and social, political and institutional responses that typically drive public policy. These concepts will then be applied to a set of specific cases in current public policies that involve the intersection of environmental, energy, natural disaster, and security concerns. (Irreg.)
P SC 5233 Health Policy
3 Credit Hours
Prerequisite: graduate standing. This course is designed to provide students with a clear understanding of the nature and dynamics of health policy making and administration in the United States. (Irreg.)
P SC 5243 Managing Public Programs
3 Credit Hours
Introduces MPA students to the general principles of management as they are applied in the public sector. Topics include: systems theory, systems design (PERT), organization design, techniques of supervision, public sector labor relations, public sector personnel practices, agency interface with political actors in the environment. (Irreg.)

P SC 5253 Human Resource Administration
3 Credit Hours
An analysis of the structure and role of manpower in all levels of U.S. government, focusing on the development of the public service, manpower planning, unionization of public employees and recent trends in public personnel relations. (Sp)
P SC 5263 Congress in the Political System 3 Credit Hours Prerequisite: graduate standing or permission of instructor. Empirically based course considering United States Congress and its role in American political system; examination of relationships between Congress and other institutions and actors. Possible topics include: Congress and the Presidency, interest groups, and lobbyists; Congress and Supreme Court; Congress and foreign policy; Congress and executive bureaus. (F)
P SC 5283 Problems in Law and the Constitution 3 Credit Hours Content varies. Intensive analysis of specific problems in legal or constitutional theory. Topics could include: Slavery and the constitution, capitalism and constitutional order, constitutional crisis and failure, law and morality, jurisprudence. (Irreg.)
P SC 5293 Administration, Ethics and American Government 3 Credit

Hours
Prerequisite: graduate standing. An exploration of the role of ethics in American government, especially in public administration. Topics to be studied include codes of professional ethics for administrators, ethics and constitutionalism, law and ethics, and the ethical implications of differing approaches to administrative work and to democracy. (Irreg.)
P SC 5313 Urban Politics 3 Credit Hours Prerequisite: graduate standing. Examine differing theories as to how urban governance, administration, and politics actually operate. Included in this examination are a variety of major issues related to urban governance and administration including intergovernmental relations, urban service delivery, fragmentation of urban areas between cities and suburbs, the rise of sunbelt cities, urban sprawl, racism, poverty, crime, and national urban policy. We will also examine broader visions and proposals to revitalize and enhance urban living. Finally, we will consider the current state of urban politics and where it might go in the future. (Irreg.)

P SC 5323 Problems in Public Policy
3 Credit Hours
May be repeated with change of content; maximum credit six hours. Content varies with professor. Focus on topics related to public policy issues at all levels of government, including the design, implementation, and evaluation of specific policy initiatives. (Irreg.)

P SC 5343 Public Policy and Inequality 3 Credit Hours Prerequisite: graduate standing or permission of instructor. Explores alternative definitions of equality and their implications in terms of public policy. Specific topics include the role of issue definition and agendasetting in policy formation, the causes and politics of inequality, the difficulties in measuring inequality, and institutional dynamics that exacerbate or ameliorate inequality. (F)

## P SC 5353 State and Local Public Finance and Budgeting

 Systems3 Credit Hours
(Crosslisted with RCPL 5353) Prerequisite: graduate standing or permission. An overview of the process and methods for local capital improvement programs and capital budget preparation, and an examination of the relationships between local development policies and fiscal decision making, including revenue potential. (CE)

P SC 5363 Public Financial Management 3 Credit Hours Prerequisite: graduate standing or permission of instructor. Introduces students to important concepts, procedures, and skills associated with managing public monies. Major topics include government accounting, debt management, forecasting, cash management, and capital budgeting. (Irreg.)

## P SC 5373 Education Policy

3 Credit Hours
Prerequisite: graduate standing. This course is designed to give students an overview of the major policy issues in primary, secondary, and higher education. Special attention will be given to how these issues relate to prominent theories of the policy process. (Irreg.)

P SC 5383 Survey of Political Communication 3 Credit Hours (Crosslisted with COMM 5383) Prerequisite: graduate standing. Embraces the premise that meaningful democracy requires an effective political communication system. Examines some of the tensions between the requirements of democracy and the forms of communication that have emerged to meet them, exploring the roles of political leaders, citizens, and the mass media in the evolution of a democratic political information system. (Irreg.)

## P SC 5400 Problems in Political Behavior

## 2-3 Credit Hours

2 to 3 hours. Prerequisite: graduate standing, qualified senior by permission of instructor. May be repeated; maximum credit six hours. Content varies, representative topics would include interdisciplinary contributions to the study of political behavior, political socialization, decision making, voting behavior, belief systems, political violence, personality and politics and political culture. (Irreg.)

## P SC 5423 Mass Politics: Public Opinion, Voting, Realignment Credit

A survey of the literature on public opinion, voting behavior and realignment (or electoral change). Additional topics may include political socialization, participation and elite-mass interactions. (Irreg.)

P SC 5493 Architecture of Democracy
3 Credit Hours
(Slashlisted with P SC 4493; Crosslisted with ARCH 5493) Prerequisite:
Graduate standing or permission of instructor. This course explores how space, place and values come together in public spaces, by reviewing the evolution of architecture as it relates to human governance; introducing methods for assessing and designing physical space as an expression of human values; examining the social meaning and behavioral impact of spaces; and studying the expression of democratic values in public spaces. No student may earn credit for both 4493 and 5493. (Irreg.)

## P SC 5513 International Relations Theory

3 Credit Hours
Overview and appraisal of the state of the field of international relations. Primary emphasis will be placed on scope and method issues and on a review of theoretical attempts to explain general and specific aspects of international relations. (Irreg.)

P SC 5523 Morality and Foreign Policy
3 Credit Hours
Prerequisite: graduate standing or permission of instructor. Addresses the moral and ethical foundations of foreign policy. Emphasis will be on American foreign policy, but may also include broader issues of foreign policy and international relations. Sample issues may include national interest versus conceptions of justice as foundations for foreign policy, idealism and realism in the American foreign policy tradition, ethical issues in international relations, globalization, genocide, just war theory, etc. Readings may be taken from political theory, American foreign policy, and international relations. (Irreg.)

P SC 5550 Problems in International Relations 2-3 Credit Hours
2 to 3 hours. May be repeated; maximum credit six hours. Analysis of current international conflicts and problems with study of possible solutions. May include study of the role and current problems of the United Nations. (Irreg.)
P SC 5600 Problems in Comparative Government 2-3 Credit Hours 2 to 3 hours. May be repeated; maximum credit six hours. Content varies, but involves systematic comparative treatment of such central themes as the transitional society, change and revolution, modernization, political groups, constitutionalism, and bureaucracy. (Sp)
P SC 5653 Democracies and Democratization 3 Credit Hours
Prerequisite: graduate standing or permission of instructor. Examines the historical sources of modern democracy, the causal factors underlying the genesis and survival of democracy, the dynamics of democratic breakdowns and transitions from authoritarian rule, and the problems of democratic regime consolidation and quality. (Irreg.)

P SC 5673 Global Far Right and Democracy 3 Credit Hours Prerequisite: graduate standing. Examines in detail, theories of democracy as they occur around the planet. Analyzes theories of the global far right and explores the theoretical and practical linkages and implications of the global far right and democracy. Finally, we look at several representative and real-world case examples of the global far right and democracy. (Irreg.)

P SC 5683 Politics in Latin America
3 Credit Hours
Prerequisite: graduate standing or permission of instructor. Covers recent approaches to understanding politics in Latin America, with an emphasis on questions of transitions to democracy and regime stability, the nature of democratic rule, and the role of political institutions, the economy, and the military. (F)

P SC 5693 Global Urban Politics \& Theory 3 Credit Hours Prerequisite: Graduate standing. The course will examine differing theories related to power and influence in global urban governance and politics. We will also examine broader visions and proposals to revitalize and enhance global urban living. Finally, we will consider the current state of global urban politics and where it might go in the future. (Irreg.)

P SC 5803 Emergency Management
3 Credit Hours
Prerequisite: graduate standing. Large scale emergency events (including natural disaster, technological risks, and terrorist attacks) create novel challenges for our political system. This course will review the basic logic of our emergency management policy system along with the basic skills needed to succeed as an emergency manager. (Irreg.)
P SC 5903 Social Movement Theory 3 Credit Hours
(Slashlisted with P SC 4903) Prerequisite: Graduate standing. This course will focus on major political theories that assess social movements and public policymaking. It will also examine when and why social movements occur, who joins or supports social movements, how social movements are organized, what are the impacts of social movements, the role of the state and social movements, and why social movements decline. No student may earn credit for both 4903 and 5903. (Irreg.)

## P SC 5910 Government Internship

2-8 Credit Hours
2 to 8 hours. Prerequisite: 15 hours of political science or 24 hours of social science. May be repeated; maximum credit eight hours. (F, Sp, Su)
P SC 5913 Introduction to Analysis of Political and Administrative Data 3 Credit Hours
Prerequisite: Graduate standing, majors only. Presents an introduction to the foundations and use of quantitative methods in political science/ public administration. Topics covered include: conducting systematic research in political science/public administration, measurement theory, bivariate analysis, hypothesis testing and statistical inference. A student may not receive credit for this course and P SC 5923. (F)
P SC 5923 Introduction to Analysis of Political Data 3 Credit Hours Prerequisite: Graduate standing and departmental permission. Introduces research methods and statistical analysis for political science, including basic statistics. Students put these elements into practice by developing a basic research project. Oriented toward development and utilization of quantitative procedures and interpretation of results, instead of theoretical issues and the mathematical derivation of formulas. A student may not receive credit for this course and P SC 5913. (F)
P SC 5933 Intermediate Analysis of Political Data 3 Credit Hours Prerequisite: 5913; 5000-level prerequisite. Continues the study of the foundations and use of quantitative methods in political science. Topics covered include: probability theory, distribution theory, control table analysis, analysis of variance and correlation and regression analysis. (Sp)
P SC 5940 Advanced Research Methods: Special Topics 1-3 Credit Hours
1 to 3 hours. Prerequisite: 5913 or permission of instructor. May be repeated with change of subject matter; maximum credit six hours. Provides introduction into advanced qualitative or quantitative analytical methods for students who will pursue a career in research. Topics will vary but may include such methodologies as ethnographic, cultural, discriminant, or factor analysis. (Irreg.)

P SC 5950 Research Problems
2-5 Credit Hours
2 to 5 hours. May be repeated with change of subject matter; maximum credit ten hours. Students must indicate field of research and hours credit at the time of enrollment. To be subdivided topically as follows: American national government, public administration, American state and local government, public law, popular government, international relations, comparative government, political theory, elections and political behavior, behavioral laboratory. (F, Sp, Su)
P SC 5953 Qualitative Research Methods
3 Credit Hours
Prerequisite: P SC 5913 or permission of instructor. This course provides graduate-level training in qualitative research methods as preparation for dissertation research. The course begins by orienting students towards research traditions and epistemological issues. It then considers a range of options for designing research and achieving causal inference. The last third of the course covers concrete tools that researchers may deploy while conducting fieldwork. (Irreg.)
P SC 5960 Directed Readings
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit six hours. (F, Sp, Su)
P SC 5963 Capstone in Public Administration
3 Credit Hours
Prerequisite: graduate standing. The primary role of government is to address the collective problems, needs, and challenges faced by its citizenry. Government addresses these issues through the development, enactment, and implementation of public policy. This class takes an analytical approach, broadly defined, to studying collective problems and government responses to these problems. The end product of this study will be a research paper. (Sp)
P SC 5970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)
P SC 5980 Research for Master's Thesis 2-9 Credit Hours
Variable enrollment, two to nine hours; maximum credit applicable toward degree, six hours. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
P SC 5990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)
P SC 6003 Political Science: Survey of a Discipline 3 Credit Hours Prerequisite: admission to doctoral program in political science. Traces the development of the discipline of political science as well as the epistemological and theoretical foundations of the field. Emphasis is given to the role of research design for political analysis. Attention also is devoted to the professional norms and expectations of an academic career in political science. (Every third semester)
P SC 6023 Field Seminar in American Politics 3 Credit Hours
Prerequisite: graduate standing. Seminar designed to introduce as much of the field of American politics as possible. Includes epistemology and paradigms, institutionalism, the various political institutions that structure our politics, and the role of the individual in American politics. (Irreg.)

PSC 6103 Field Seminar in Public Administration 3 Credit Hours FaCulty
Prerequisite: graduate standing. Review of the field of public administration. Investigates epistemology and paradigms of the field and considers the role of bureaucratic organizations in the American system of governance. (Irreg.)

P SC 6113 Foundations in Public Administration 3 Credit Hours Prerequisite: graduate standing or permission of instructor. Broad overview of the public administration literature. Historical underpinnings of the subfield and its evolution. Focuses on the frameworks and theories scholars have developed to understand public administration generally. Both theoretical and empirical research are reviewed to examine the "big picture." (Irreg.)

P SC 6133 Foundations in Public Policy 3 Credit Hours
Prerequisite: graduate standing or permission of instructor. Gives students a broad overview of the public policy literature. We examine the historical underpinnings of the subfield and familiarize ourselves with its evolution. The course is not substantive in the sense of studying particular policy areas (e.g., environmental, education), but rather focuses on the frameworks and theories scholars have developed to understand the policy process generally. Both theoretical and empirical research are reviewed in an effort to examine the "big picture." (Irreg.)
P SC 6223 Field Seminar in Public Policy 3 Credit Hours
Prerequisite: permission of the instructor. A capstone seminar for doctoral students who have substantially completed public policy coursework in preparation of information on completing theories, frameworks, approaches, analytical tools, and guiding principles central to the study of the formulation, implementation, and evaluation of public policy. Attention also will be given to crosscutting topics such as values in the policy process, the role(s) of the policy analyst; ethics; and the utilization and misutilization of the results of social science research. (Irreg.)
P SC 6603 Field Seminar in Comparative Politics 3 Credit Hours
Prerequisite: graduate standing. This course is an exploration of the central theoretical concepts and problems of comparative politics. (Irreg.)
P SC 6960 Directed Readings 1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit six hours. Directed readings and/or literature review under the direction of a faculty member. (Irreg.)
P SC 6970 Special Topics/Seminar 1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit 12 hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or research and field projects. (Irreg.)

P SC 6980 Research for Doctoral Dissertation 2-16 Credit Hours
2 to 16 hours. Prerequisite: Graduate standing and permission of instructor; may be repeated. Directed research culminating in the completion of the doctoral dissertation. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
P SC 6990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)


| Szymanski | Ann-Marie | E | 1996 | ASSOCIATE <br> PROFESSOR OF POLITICAL SCIENCE, 2005 | PhD, Cornell Univ, 1997; MA, Cornell Univ, 1992; BA, Rutgers Univ, 1989 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Tipler | Kathleen |  | 2015 | ASSISTANT PROFESSOR OF POLITICAL SCIENCE, 2015 | PhD, Univ of <br> Michigan, 2012; BA, <br> Pomona College, <br> 2002 |
| Wert | Justin | J | 2005 | ASSOCIATE PROFESSOR OF POLITICAL SCIENCE, 2012; ADJUNCT ASSOCIATE PROFESSOR OF LIBERAL STUDIES, 2012; ASSOCIATES SECOND CENTURY PRESIDENTIAL PROFESSOR, 2013; PRESIDENTIAL TEACHING FELLOW, HONORS, 2017 | PhD, Univ of Pennsylvania, 2005; MA, Univ of Pennsylvania, 2001; BA, Colorado State, 1996 |
| Workman | Samuel | G | 2014 | ASSISTANT PROFESSOR OF POLITICAL SCIENCE, 2014 | PhD, Univ of Washington, 2009; MA, Univ of Washington, 2005; MA, West Virginia Univ, 2003; BS, West Virginia Univ Inst of Tech, 2001 |

## Political Science, B.A.

Minimum Total Credit Hours: 120
Major Hours: 33
Minimum Upper-Division Hours: 48

Overall GPA - Combined and OU: 2.00
Major GPA - Combined and OU: 2.00
Program Code: B790 P617

## Major Requirements

- The Department of Political Science does not permit major coursework to also fulfill General Education or Dodge College of Arts and Sciences requirements.
- P SC 1113 does not count for major credit.

| Code Title | Credit Hours |
| :---: | :---: |
| Research Methods |  |
| P SC 2013 Introduction to Political Analysis | 3 |
| Distribution Requirements |  |
| Choose four courses, one course each from 4 of the following 6 groups: (p. 639) ${ }^{1}$ | 12 |
| Group I: American Politics |  |
| Group II: Comparative Politics |  |
| Group III: International Relations |  |
| Group IV: Public Administration |  |
| Group V: Public Policy |  |
| Group VI: Political Theory |  |
| Electives |  |

## Electives

Choose 15 hours of P SC electives, which must include at least 12 hours of upper-division courses

| Capstone |  |  |
| :---: | :---: | :---: |
| P SC 4093 | Capstone Seminar in Political Science ${ }^{2}$ | 3 |
| Total Credit |  | 33 |
| ${ }^{1}$ A list of Political <br> 2 This cou course m | ${ }^{1}$ A list of the courses approved for each group may be obtained in the Political Science Department or on the departmental website. |  |

## General Education and College Requirements

Courses for fulfillment of General Education and Dodge College of Arts \& Sciences requirements must be from the approved General Education course list published in the Class Schedule or at http://www.ou.edu/ gened/courses. Courses graded P/NP will not apply.

## UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS <br> Code Title Credit

Core Area I: Symbolic and Oral Communication
English Composition (6 hours)
ENGL 1113 Principles of English Composition 3
ENGL 1213 Principles of English Composition 3
or EXPO 1213 Expository Writing
Language (0-13 hours in the same language)
The college requirement cannot be met by high school coursework.
Beginning Course 0-5
$\begin{array}{ll}\text { Beginning Course, continued } & 0-5\end{array}$
$\begin{array}{ll}\text { Intermediate Course (2000 level) }^{1,2} & 0-3\end{array}$
Mathematics (3 hours)
Choose one course from the General Education Mathematics 3

## list

Core Area II: Natural Science (7 hours, including one laboratory component)
Biological Science
Choose an approved General Education Natural Science 3-4
course with one of the following prefixes: BIOL, HES, MBIO, or PBIO ${ }^{1}$
Physical Science
Choose an approved General Education Natural Science 3-4
course with one of the following prefixes: AGSC, ASTR, CHEM,
GEOG, GEOL, GPHY, METR, or PHYS ${ }^{1}$
Core Area III: Social Science (6 hours)
PSC 1113 American Federal Government 3
Choose one course from the General Education Social 3
Science list
Core Area IV: Arts and Humanities (18 hours)
Artistic Forms
Choose one course from the General Education Artistic Forms 3
list
Western Culture
HIST $1483 \quad$ United States to 1865

| or HIST 1493 United States, 1865 to the Present |  |
| :---: | :---: |
| Choose one course from the General Education Western Culture list (excluding HIST 1483/1493) | 3 |
| World Culture |  |
| Choose one course from the General Education World Culture list | 3 |
| Additional Core IV Upper-Division Arts \& Humanities courses |  |
| Choose one course from Artistic Forms, Western Culture, or World Culture ${ }^{1,3}$ | 3 |
| Choose one course from Artistic Forms, Western Culture, or World Culture ${ }^{1,3}$ | 3 |
| Core Area V: First Year Experience (3 hours) |  |
| Choose one course |  |
| Total Credit Hours | 56 |
| ${ }^{1}$ College of Arts and Sciences Requirements: college requirements are not automatically fulfilled by a previous degree. |  |
| ${ }^{2}$ One course at the intermediate level or demonstrated competency at that level |  |
| ${ }^{3} 6$ upper-division hours, 2 courses, at the 3000-4000-level. $M$ outside the major. |  |

## Free Electives

Electives to bring total applicable hours to the minimum total required for the degree including 48 upper-division hours.

## Information Concerning General Rules, Regulations and Minimum Requirements

Arts and Sciences Hours: At least 80 semester hours of liberal arts and sciences courses are required for a BA degree. At least 55 semester hours of liberal arts and sciences courses are required for a BS degree.
Pass/No Pass Enrollment: A maximum of 16 semester hours of free elective credit may be attempted under this option.
Individual Studies (e.g., courses titled "Independent Study"): A maximum of 12 total semester hours may be counted toward graduation, excluding Honors Reading and Honors Research.
P.E. Courses: No physical education activity courses will be counted toward the 120 semester hours of acceptable credit for graduation. Senior Institution Hours: A minimum of 60 semester hours applied toward graduation must be earned at senior (4-year) institutions.
Residency:

- At least 15 of the final 30 hours applied toward the degree or at least 50 percent of the hours required by the institution in the major field must be satisfactorily completed at the awarding institution.
- At least 15 semester hours of upper-division major work must be completed in residence at OU.
- OU correspondence courses are not considered resident credit.

Grade Point Averages: Students must earn a minimum over all 2.00 for each of the following: Combined Retention GPA (all college grades), OU Retention GPA, GPA for all major courses, and GPA for all major courses taken at OU. Some schools and departments of the College have higher minimum grade point averages required for their students.

## Suggested Semester Plan of Study

This plan shows one possible grouping of courses that would allow students to graduate in four years. Please refer to the front of the degree checksheet for official requirements. Students must consult with Dodge College of Arts and Sciences and Department of Political Science academic advisors to verify that courses selected each semester fulfill the recommended plan and satisfy University, College of Arts and Sciences, and Political Science major requirements.

## Freshman

| First Semester |  | Credit |
| :---: | :---: | :---: |
|  |  | Hours |
| ENGL 1113 | Principles of English Composition (Core I) | 3 |
| HIST 1483 or HIST 1493 | United States to 1865 (Core IV) or United States, 1865 to the Present | 3 |
| Social Science (Core III) |  | 3 |
| First Year Experience (Core V) |  | 3 |
| Artistic Forms (Core IV) |  | 3 |
| Credit Hours |  | 15 |
| Second Semester |  |  |
| $\begin{aligned} & \text { ENGL } 1213 \\ & \quad \text { or EXPO } 1213 \end{aligned}$ | Principles of English Composition (Core I) or Expository Writing | 3 |
| Math (Core I) |  | 3 |
| P SC 1113 | American Federal Government (Core III) | 3 |
| Natural Science without lab (Core II) |  | 3 |
| Western Culture (Core IV) |  | 3 |

## Sophomore

First Semester
P SC 2013 Introduction to Political Analysis 3
P SC Distribution Requirement 3
Beginning Language (Core I) 5
World Culture (Core IV) 3
Free Elective, lower- or upper-division 1

Credit Hours 15
Second Semester
P SC Distribution Requirement 3
P SC Distribution Requirement 3
Beginning Language continued (Core I) 5

| Natural Science with lab (Core II) | 4 |
| :--- | :--- |


| Junior |  |
| :--- | ---: |
| First Semester |  |
| P SC Major Elective, upper-division (3000-4000-level) | 3 |
| P SC Major Elective, upper-division (3000-4000-level) | 3 |
| Arts \& Humanities, upper-division, outside major (Gen. Ed.) | 3 |
| Intermediate Language | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Credit Hours | $\mathbf{1 5}$ |

Second Semester
P SC Major Elective, upper-division (3000-4000-level) 3
P SC Major Elective, upper-division (3000-4000-level) 3
Arts \& Humanities, upper-division, outside major (Gen. Ed.) 3

| Free Elective, upper-division (3000-4000-level) | 3 |
| :---: | :---: |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Credit Hours | 15 |
| Senior |  |
| First Semester |  |
| P SC Major Elective, upper-division (3000-4000-level) | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Credit Hours | 15 |
| Second Semester |  |
| P SC 4093 Capstone Seminar in Political Science | 3 |
| P SC Major Elective, upper-division (3000-4000-level) | 3 |
| Free Elective, lower- or upper-division | 3 |
| Free Elective, lower- or upper-division | 3 |
| Free Elective, lower- or upper-division | 3 |
| Credit Hours | 15 |
| Total Credit Hours | 120 |

## Political Science Distribution Requirement Course Lists

- For the most current course lists, please contact the Department of Political Science.

| Group I: American Government \& Politics |  |  |
| :--- | :--- | ---: |
| Code | Title | Credit <br> Hours |
| P SC 2103 | Politics in America | 3 |
| P SC 3020 | Problems in American Government and | $1-3$ |
|  | Politics | 3 |
| P SC 3023 | Law and Courts | 3 |
| P SC 3033 | Religion and Politics in America | 3 |
| P SC 3043 | Gender, Power and Leadership in Politics |  |


|  | and Public Administration |  |
| :--- | :--- | :--- |
| P SC 3053 | Global Religion and American Foreign <br> Policy | 3 |
| P SC 3063 | Religion and the American Constitution | 3 |
| P SC 3073 | Immigration Politics | 3 |
| P SC 3093 | Minority Political Behavior | 3 |
| P SC 3143 | U.S. Congress | 3 |
| P SC 3163 | The American Presidency | 3 |
| P SC 3313 | Urban Government and Politics | 3 |
| P SC 3323 | State Government | 3 |
| P SC 3403 | Interest Groups and Social Movements | 3 |
| P SC 3413 | American Political Parties | 3 |
| P SC 3423 | Public Opinion | 3 |
| P SC 3433 | Voters and Campaigns | 3 |
| P SC 3443 | Mass Media and American Politics | 3 |
| P SC 3463 | American Political Development | 3 |
| P SC 3483 | Campaign Management | 3 |


| P SC 3233 | Environmental Policy and Administration | 3 |
| :--- | :--- | ---: |
| P SC 3273 | Privatization | 3 |
| P SC 4043 | Public Policy Implementation | 3 |
| P SC 4143 | Policy/Program Evaluation | 3 |
| P SC 4220 | Problems in Public Policy | $1-3$ |


| Group VI: Political Theory <br> Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| P SC 2703 | Justice, Liberty and the Good Society | 3 |
| P SC 3703 | From Plato to Machiavelli, the Classic Art of <br> Politics | 3 |
| P SC 3713 | The Idea of a Liberal Society | 3 |
| P SC 3723 | Foundations of American Politics | 3 |

## Political Science: Elections and Campaign Management, B.A.

Minimum Total Credit Hours: 120
Major Hours: 33
Minimum Upper-Division Hours: 48
Overall GPA - Combined and OU: 2.00
Major GPA - Combined and OU: 2.00
Program Code: B790 P339

## Major Requirements

- The Department of Political Science does not permit major coursework to also fulfill General Education or Dodge College of Arts and Sciences requirements.
- P SC 1113 does not count for major credit.

| Code | Title | Credit <br> Hours |
| :---: | :---: | :---: |
| Research Methods |  |  |
| P SC 2013 | Introduction to Political Analysis | 3 |
| Distribution Requirements |  |  |
| Choose four cou 6 groups (p. 6 | ses, one course each from 4 of the following 1 | 12 |
| Group I: American Politics |  |  |
| Group II: Comparative Politics |  |  |
| Group III: International Relations |  |  |
| Group IV: Public Administration |  |  |
| Group V: Public Policy |  |  |
| Group VI: Political Theory |  |  |
| Election and Campaign Management Concentration |  |  |
| Group I |  |  |
| P SC 3483 | Campaign Management | 3 |
| Group II |  |  |
| P SC 3433 | Voters and Campaigns | 3 |
| Group III |  |  |
| Choose 3 hou | rom the following: | 3 |
| P SC 3093 | Minority Political Behavior |  |
| P SC 3413 | American Political Parties |  |


| P SC 3423 | Public Opinion |  |
| :---: | :---: | :---: |
| P SC 3443 | Mass Media and American Politics |  |
| P SC 3473 |  |  |
| P SC 3763 | Field Research Methods and Community Engagement: The Oklahoma City Exit Poll |  |
| P SC 3943 | Campaigns Through Film |  |
| Group IV |  |  |
| Choose 6 hours from the following: |  | 6 |
| Any of the Election \& Campaign Management Concentration courses listed above that are not taken to satisfy requirements |  |  |
| P SC 3910 | Government Internship |  |
| $\begin{aligned} & \text { P SC/COMM } \\ & 4323 \end{aligned}$ | Political Communication |  |
| COMM 3003 | Political Campaign Processes |  |
| COMM 4253 | Strategic Communication Campaigns |  |
| COMM 4423 | Communication and Public Opinion |  |
| COMM 4643 | Mass Media Effects |  |
| Capstone |  |  |
| P SC 4093 | Capstone Seminar in Political Science ${ }^{2}$ | 3 |
| Total Credit Hours |  | 33 |
| ${ }^{1}$ A list of the courses approved for each group may be obtained in the Political Science Department or on the departmental website. 2 This course should be taken during the senior year. The capstone course must be completed with a grade of C or better. |  |  |

## General Education and College Requirements

Courses for fulfillment of General Education and Dodge College of Arts \& Sciences requirements must be from the approved General Education course list published in the Class Schedule or at http://www.ou.edu/ gened/courses. Courses graded P/NP will not apply.

UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS
Code Title Credit Hours
Core Area I: Symbolic and Oral Communication
English Composition (6 hours)
ENGL 1113 Principles of English Composition 3
ENGL 1213 Principles of English Composition 3
or EXPO 1213 Expository Writing
Language (0-13 hours in the same language)
The college requirement cannot be met by high school coursework.
Beginning Course 0-5
Beginning Course, continued 0-5
Intermediate Course (2000 level) ${ }^{1,2} \quad 0-3$
Mathematics (3 hours)
Choose one course from the General Education Mathematics 3
list
Core Area II: Natural Science (7 hours, including one
laboratory component)
Biological Science


## Free Electives

Electives to bring total applicable hours to the minimum total required for the degree including 48 upper-division hours.

## Information Concerning General Rules, Regulations and Minimum Requirements

Arts and Sciences Hours: At least 80 semester hours of liberal arts and sciences courses are required for a BA degree. At least 55 semester hours of liberal arts and sciences courses are required for a BS degree.
Pass/No Pass Enrollment: A maximum of 16 semester hours of free elective credit may be attempted under this option.
Individual Studies (e.g., courses titled "Independent Study"): A maximum of 12 total semester hours may be counted toward graduation, excluding Honors Reading and Honors Research.
P.E. Courses: No physical education activity courses will be counted toward the 120 semester hours of acceptable credit for graduation.
institution Hours: A minimum of 60 semester hours applied toward graduation must be earned at senior (4-year) institutions.
Residency:

- At least 15 of the final 30 hours applied toward the degree or at least 50 percent of the hours required by the institution in the major field must be satisfactorily completed at the awarding institution.
- At least 15 semester hours of upper-division major work must be completed in residence at OU.
- OU correspondence courses are not considered resident credit.

Grade Point Averages: Students must earn a minimum over all 2.00 for each of the following: Combined Retention GPA (all college grades), OU Retention GPA, GPA for all major courses, and GPA for all major courses taken at OU. Some schools and departments of the College have higher minimum grade point averages required for their students.

## Suggested Semester Plan of Study

This plan shows one possible grouping of courses that would allow students to graduate in four years. Please refer to the front of the degree checksheet for official requirements. Students must consult with Dodge College of Arts and Sciences and Department of Political Science academic advisors to verify that courses selected each semester fulfill the recommended plan and satisfy University, College of Arts and Sciences, and Political Science major requirements.

## Freshman

First Semester Credit

ENGL 1113 Principles of English Composition (Core I) 3
HIST 1483 United States to 1865 (Core IV) 3 or HIST 1493 or United States, 1865 to the Present
Social Science (Core III) 3
First Year Experience (Core V) 3
Artistic Forms (Core IV) 3
Credit Hours 15

## Second Semester

ENGL $1213 \quad 3$
or EXPO 1213 or Expository Writing
Math (Core I) 3
P SC 1113 American Federal Government (Core III) 3
Natural Science without lab (Core II) 3
Western Culture (Core IV) 3
Credit Hours 15

## Sophomore

First Semester
P SC Distribution Requirement 3
P SC Distribution Requirement 3
Beginning Language (Core I) 5
World Culture (Core IV) 3
Free Elective, lower- or upper-division 1
Credit Hours

## Second Semester

P SC Distribution Requirement 3
P SC Distribution Requirement 3
Beginning Language continued (Core I) 5

| Natural Science with lab (Core II) | 4 |
| :---: | :---: |
| Credit Hours | 15 |
| Junior |  |
| First Semester |  |
| P SC 2013 Introduction to Political Analysis | 3 |
| P SC Election \& Campaign Management Elective, upperdivision (3000-4000-level) | 3 |
| Arts \& Humanities, upper-division, outside major (Gen. Ed.) | 3 |
| Intermediate Language | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Credit Hours | 15 |
| Second Semester |  |
| P SC 3433 Voters and Campaigns | 3 |
| P SC Election \& Campaign Management Elective, upperdivision (3000-4000-level) | 3 |
| Arts \& Humanities, upper-division, outside major (Gen. Ed.) | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Credit Hours | 15 |
| Senior |  |
| First Semester |  |
| P SC Election \& Campaign Management Elective, upperdivision (3000-4000-level) | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Credit Hours | 15 |
| Second Semester |  |
| P SC 4093 Capstone Seminar in Political Science | 3 |
| P SC 3483 Campaign Management | 3 |
| Free Elective, lower- or upper-division | 3 |
| Free Elective, lower- or upper-division | 3 |
| Free Elective, lower- or upper-division | 3 |
| Credit Hours | 15 |
| Total Credit Hours | 120 |

## Public and Nonprofit Administration, B.A.

Minimum Total Credit Hours: 120
Major Hours: 33
Minimum Upper-Division Hours: 48

Overall GPA - Combined and OU: 2.00
Major GPA - Combined and OU: 2.00
Program Code: B806

## Major Requirements

- The Department of Political Science does not permit major coursework to also fulfill General Education or Dodge College of Arts \& Sciences Requirements.
- Thirty-three hours of major credit required.

| Code | Title | Credit <br> Hours |
| :---: | :---: | :---: |
| Introductory Courses |  |  |
| P SC 2013 | Introduction to Political Analysis | 3 |
| P SC 3173 | Administration \& Society | 3 |
| P SC 3223 | Making Public Policy | 3 |
| Public Administration and Public Policy Core Courses |  |  |
| Choose 18 hours from the Public Administration \& Public Policy Core course list (p. 642) |  | 18 |
| American Political Institutions |  |  |
| Choose 3 hours from the following: |  | 3 |
| P SC 3113 | Bureaucracy and Citizenship |  |
| P SC 3143 | U.S. Congress |  |
| P SC 3163 | The American Presidency |  |
| P SC 4283 | American Constitutional Law II: Civil Rights and Civil Liberties |  |
| Capstone |  |  |
| P SC 4203 | Capstone Seminar in Public Affairs and Administration ${ }^{1}$ | 3 |
| Total Credit Hou |  | 33 |
| 1 The senior capstone course must be completed with a grade of $C$ or better. |  |  |
| Public Administration and Public Policy Core |  |  |
| Course List |  |  |
| Code | Title | Credit |
|  |  | Hours |
| P SC 3043 | Gender, Power and Leadership in Politics and Public Administration | 3 |
| P SC 3113 | Bureaucracy and Citizenship | 3 |
| P SC 3123 | Social Statistics | 3 |
| or SOC 3123 | Social Statistics |  |
| P SC 3133 | Politics and Public Administration | 3 |
| P SC 3170 | Problems in Public Administration | 1-3 |
| P SC 3183 | Politics of Government Budgeting | 3 |
| P SC 3193 | Nonprofits and Public Policy | 3 |
| P SC 3220 | Topics in Public Policy | 1-3 |
| P SC 3233 | Environmental Policy and Administration | 3 |
| P SC 3263 | Social Welfare | 3 |
| P SC 3273 | Privatization | 3 |
| P SC 3313 | Urban Government and Politics | 3 |
| P SC 3323 | State Government | 3 |
| P SC 3593 | Nongovernmental Organizations | 3 |
| P SC 3761 |  | 1 |
| P SC 3771 | Issue Advocacy | 1 |
| P SC 3781 | Tracking Legislation | 1 |
| P SC 3910 | Government Internship ${ }^{1}$ | 2-3 |
| P SC 3960 | Honors Reading ${ }^{1}$ | 1-3 |
| P SC 3970 | Honors Seminar | 1-3 |
| P SC 3980 | Honors Research ${ }^{1}$ | 1-3 |
| P SC 3990 | Independent Study ${ }^{1}$ | 1-3 |
| P SC 4023 | Community Scholars | 3 |

$\left.\begin{array}{llr}\text { P SC 4033 } & \begin{array}{l}\text { Capitol Scholars: A Service Learning } \\ \text { Course }\end{array} \\ & \text { P SC 4043 } & \text { Public Policy Implementation }\end{array}\right\}$
${ }^{1}$ Maximum of six hours credit may apply. Each course may be taken only once. Course content must be PAA related.

## General Education and College Requirements

Courses for fulfillment of General Education and Dodge College of Arts \& Sciences requirements must be from the approved General Education course list published in the Class Schedule or at http://www.ou.edu/ gened/courses. Courses graded P/NP will not apply.


Language ( $0-13$ hours in the same language)
The college requirement cannot be met by high school coursework.
Beginning Course 0-5

Beginning Course, continued 0-5
Intermediate Course (2000 level) ${ }^{1,2} \quad 0-3$
Mathematics (3 hours)
Choose one course from the General Education Mathematics

## list

Core Area II: Natural Science (7 hours, including one laboratory component)
Biological Science
Choose an approved General Education Natural Science
3-4 course with one of the following prefixes: BIOL, HES, MBIO, or PBIO ${ }^{1}$
Physical Science


## Free Electives

Electives to bring total applicable hours to the minimum total required for the degree including 48 upper-division hours.

## Information Concerning General Rules, Regulations and Minimum Requirements

Arts and Sciences Hours: At least 80 semester hours of liberal arts and sciences courses are required for a BA degree. At least 55 semester hours of liberal arts and sciences courses are required for a BS degree. Pass/No Pass Enrollment: A maximum of 16 semester hours of free elective credit may be attempted under this option.
Individual Studies (e.g., courses titled "Independent Study"): A maximum of 12 total semester hours may be counted toward graduation, excluding Honors Reading and Honors Research.
P.E. Courses: No physical education activity courses will be counted toward the 120 semester hours of acceptable credit for graduation.
Senior Institution Hours: A minimum of 60 semester hours applied toward graduation must be earned at senior (4-year) institutions.
Residency:

- At least 15 of the final 30 hours applied toward the degree or at least 50 percent of the hours required by the institution in the major field must be satisfactorily completed at the awarding institution.
- At least 15 semester hours of upper-division major work must be completed in residence at OU.
- OU correspondence courses are not considered resident credit.

Grade Point Averages: Students must earn a minimum over all 2.00 for each of the following: Combined Retention GPA (all college grades), OU Retention GPA, GPA for all major courses, and GPA for all major courses taken at OU. Some schools and departments of the College have higher minimum grade point averages required for their students.

## Suggested Semester Plan of Study

This plan shows one possible grouping of courses that would allow students to graduate in four years. Please refer to the front of the degree checksheet for official requirements. Students must consult with Dodge College of Arts and Sciences and Department of Political Science academic advisors to verify that courses selected each semester fulfill the recommended plan and satisfy University, College of Arts and Sciences, and Public Affairs and Administration major requirements.

## Freshman

| First Semester |  | Credit Hours |
| :---: | :---: | :---: |
| ENGL 1113 | Principles of English Composition (Core I) | 3 |
| HIST 1483 or HIST 1493 | United States to 1865 (Core IV) or United States, 1865 to the Present | 3 |
| Artistic Forms (C | re IV) | 3 |
| First Year Experi | nce (Core V) | 3 |
| Free Elective, low | er-division | 3 |
|  | Credit Hours | 15 |
| Second Semester |  |  |
| $\begin{aligned} & \text { ENGL } 1213 \\ & \text { or EXPO } 1213 \end{aligned}$ | Principles of English Composition (Core I) or Expository Writing | 3 |
| Math (Core I) |  | 3 |
| P SC 1113 | American Federal Government (Core III) | 3 |
| Natural Science | without lab (Core II) | 3 |
| Western Culture | Core IV) | 3 |
|  | Credit Hours | 15 |
| Sophomore |  |  |
| First Semester |  |  |
| P SC 3173 | Administration \& Society | 3 |
| Beginning Langu | age (Core I) | 5 |
| World Culture (Co | re IV) | 3 |
| Free Elective, low | er-division | 3 |
|  | Credit Hours | 14 |
| Second Semester |  |  |
| P SC 2013 | Introduction to Political Analysis | 3 |
| P SC 3223 | Making Public Policy | 3 |
| Beginning Langu | age continued (Core I) | 5 |
| Free Elective, Iow | er-division | 3 |

Junior
First Semester

| Public Administration Major Elective, upper-division <br> $(3000-4000-l e v e l)$ | 3 |
| :--- | ---: |
| Public Administration Major Elective, upper-division <br> (3000-4000-level) | 3 |
| Arts \& Humanities, upper-division, outside major (Gen. Ed.) | 3 |
| Intermediate Language | 3 |
| Natural Science with lab (Core II) | 4 |
| Credit Hours | $\mathbf{1 6}$ |

## Second Semester

Public Administration Major Elective, upper-division 3 (3000-4000-level)
Public Administration Major Elective, upper-division 3
(3000-4000-level)
Arts \& Humanities, upper-division, outside major (Gen. Ed.) 3
Free Elective, upper-division (3000-4000-level) 3

| Free Elective, upper-division (3000-4000-level) | 3 |
| :---: | ---: |
| Credit Hours | $\mathbf{1 5}$ |

## Senior

First Semester
American Political Institutions Major Elective, upper-division ${ }^{1} 3$
Public Administration Major Elective, upper-division 3
(3000-4000-level)
Public Administration Major Elective, upper-division 3
(3000-4000-level)
Free Elective, lower- or upper-division 1
Free Elective, upper-division (3000-4000-level) 3
Free Elective, upper-division (3000-4000-level) 3

| Second Semester |  |  |
| :--- | ---: | ---: |
| P SC 4203 | Capstone Seminar in Public Affairs and <br> Administration | 3 |
| Free Elective, lower- or upper-division | 3 |  |
| Free Elective, lower- or upper-division | 3 |  |
| Free Elective, upper-division (3000-4000-level) | 3 |  |
| Free Elective, upper-division (3000-4000-level) | 3 |  |
| Credit Hours | $\mathbf{1 5}$ |  |
| Total Credit Hours | $\mathbf{1 2 0}$ |  |

${ }^{1}$ The American Political Institutions Major Elective must be chosen from: P SC 3113, P SC 3143, P SC 3163, P SC 4273, or P SC 4283.

## Elections \& Campaign Management, Minor

Minimum Total Credit Hours: 15
Minimum Upper-Division Hours: 9
Program Code: N339

- The requirements for a minor must be completed concurrently with the major degree requirements.
- No minor may be added by completing courses after receiving the bachelor's degree.

At least six (6) credit hours must be earned in courses acceptable for residence credit by standards set forth by the Dodge College of Arts and Sciences, excluding transfer, correspondence, and examination (AP, CLEP, Advanced Standing) credit. Courses for the minor may not be taken Pass/ No Pass.

No single course may be used by a student to satisfy a major requirement and a minor requirement. A course may be used, however, to satisfy both a major support requirement and a minor requirement.

Requests to substitute a minor requirement must be approved in writing by the Department of Political Science.

## Required Courses

Students must successfully complete at least 15 hours of coursework, including at least nine (9) hours at the upper-division level.

This program requires a minimum 2.00 GPA (both OU and Combined) in the minor coursework.

| Code | Title | Credit <br> Hours |
| :---: | :---: | :---: |
| P SC 3433 | Voters and Campaigns | 3 |
| P SC 3483 | Campaign Management | 3 |
| Choose one of the following: |  | 3 |
| P SC 3093 | Minority Political Behavior |  |
| P SC 3413 | American Political Parties |  |
| P SC 3423 | Public Opinion |  |
| P SC 3443 | Mass Media and American Politics |  |
| P SC 3473 |  |  |
| P SC 3763 | Field Research Methods and Community Engagement: The Oklahoma City Exit Poll |  |
| Choose two of the following: |  | 6 |
| Any of the courses listed above that are not taken to satisfy requirements |  |  |
| P SC 3910 | Government Internship |  |
| $\begin{aligned} & \text { P SC/COMM } \\ & 4323 \end{aligned}$ | Political Communication |  |
| COMM 3003 | Political Campaign Processes |  |
| COMM 4253 | Strategic Communication Campaigns |  |
| COMM 4423 | Communication and Public Opinion |  |
| COMM 4643 | Mass Media Effects |  |

Total Credit Hours 15

- Minors in the Dodge College of Arts \& Sciences are available to all undergraduate students at OU. If the minor is officially declared, successfully completed, and noted on the graduation application, the student's transcript will so indicate at the time the bachelor's degree is posted.


## Non-Governmental Organizations, Minor

## Minimum Total Credit Hours: 15

Minimum Upper-Division Hours: 9

## Program Code: N745

- The requirements for a minor must be completed concurrently with the major degree requirements.


## - No minor may be added by completing courses after receiving the bachelor's degree.

At least six (6) credit hours must be earned in courses acceptable for residence credit by standards set forth by the Dodge College of Arts and Sciences, excluding transfer, correspondence, and examination (AP, CLEP, Advanced Standing) credit. Courses for the minor may not be taken Pass/ No Pass.

No single course may be used by a student to satisfy a major requirement and a minor requirement. A course may be used, however, to satisfy both a major support requirement and a minor requirement.

Requests to substitute a minor requirement must be approved in writing by the Department of Political Science.

## Required Courses

Students must successfully complete at least 15 hours, including at least nine (9) hours at the upper-division level.

| Code | Title | Credit |
| :---: | :---: | :---: |
| International Core Course |  |  |
| Choose one of the following: |  | 3 |
| P SC 3553 | International Political Economy |  |
| P SC 3573 | Great Power Politics |  |
| Nonprofit Core Course |  |  |
| NPNG 2033 or P SC 3193 | Introduction to Nonprofits Nonprofits and Public Policy | 3 |
| Policy and Management |  |  |
| Choose one of the following: |  | 3 |
| IAS 3013 | International Law |  |
| IAS 3033 | International Human Rights |  |
| IAS 3083 | International Activism |  |
| P SC 3233 | Environmental Policy and Administration |  |
| P SC 4193 | The Profession of Public Management |  |
| Analysis and Operations |  |  |
| Choose one of the following: |  | 3 |
| P SC 2013 | Introduction to Political Analysis |  |
| P SC 4143 | Policy/Program Evaluation |  |
| P SC 3183 | Politics of Government Budgeting |  |
| Elective |  |  |
| Choose one of th | following: | 3 |

Any course listed above that has not already counted for another component
A three-hour internship course/credit for working with an NGO
A supervised, applied-research project for a specific NGO, coordinated with an OU faculty member and a staff member from the NGO on which the project is focused Individuals may petition the program coordinator to count a course that is not listed above but relevant to the student's NGO-related career goals to satisfy the three-hour elective requirement
Total Credit Hours

- Minors in the Dodge College of Arts \& Sciences are available to all undergraduate students at OU. If the minor is officially declared,
successfully completed, and noted on the graduation application, the student's transcript will so indicate at the time the bachelor's degree is posted.


## Nonprofit Organizational Studies, Minor

Minimum Total Credit Hours: 18
Minimum Upper-Division Hours: 9

## Program Code: N738

- The requirements for a minor must be completed concurrently with the major degree requirements.
- No minor may be added by completing courses after receiving the bachelor's degree.

At least six (6) credit hours must be earned in courses acceptable for residence credit by standards set forth by the Dodge College of Arts and Sciences, excluding transfer, correspondence, and examination (AP, CLEP, Advanced Standing) credit. Courses for the minor may not be taken Pass/ No Pass.

No single course may be used by a student to satisfy a major requirement and a minor requirement. A course may be used, however, to satisfy both a major support requirement and a minor requirement.

Requests to substitute a minor requirement must be approved in writing by the Department of Political Science.

## Required Courses

Students must successfully complete at least 18 credit hours, including at least nine (9) credit hours at the upper-division level.

A grade of $C$ or better must be earned in each course counted for minor credit.

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Required Courses |  |  |
| NPNG 2033 | Introduction to Nonprofits | 3 |
| NPNG 3033 | Nonprofit Management | 3 |
| Electives |  | 12 |
| Choose 12 hours from the following: |  |  |

WGS 3123
Social Justice and Social Change
Other courses as approved by the Chair of the Dept. of Political Science

Total Credit Hours
${ }^{1}$ At least six (6) credit hours at the upper-division level. Note: Students must meet prerequisite requirements for enrollment in upper-division classes.

- Minors in the Dodge College of Arts \& Sciences are available to all undergraduate students at OU. If the minor is officially declared, successfully completed, and noted on the graduation application, the student's transcript will so indicate at the time the bachelor's degree is posted.


## Political Science, Minor

Minimum Total Credit Hours: 15
Minimum Upper-Division Hours: 9

## Program Code: N790

- The requirements for a minor must be completed concurrently with the major degree requirements.
- No minor may be added by completing courses after receiving the bachelor's degree.

At least six (6) credit hours must be earned in courses acceptable for residence credit by standards set forth by the Dodge College of Arts and Sciences, excluding transfer, correspondence, and examination (AP, CLEP, Advanced Standing) credit. Courses for the minor may not be taken Pass/ No Pass.

No single course may be used by a student to satisfy a major requirement and a minor requirement. A course may be used, however, to satisfy both a major support requirement and a minor requirement.

Requests to substitute a minor requirement must be approved in writing by the Department of Political Science.

## Required Courses

Students must successfully complete at least 15 hours of courses acceptable for major credit in Political Science, including at least nine (9) hours at the upper-division level. Note that the introductory survey course (P SC 1113) does not count toward this total.
Code Title Credit

Choose at least 15 hours of course credit acceptable for 15 major credit in Political Science (at least 9 of these hours must be upper division)

## Total Credit Hours

- Minors in the Dodge College of Arts \& Sciences are available to all undergraduate students at OU. If the minor is officially declared, successfully completed, and noted on the graduation application, the student's transcript will so indicate at the time the bachelor's degree is posted.


# Public Affairs \& Administration, Minor 

Minimum Total Credit Hours: 15
Minimum Upper-Division Hours: 9
Program Code: N805

- The requirements for a minor must be completed concurrently with the major degree requirements.
- No minor may be added by completing courses after receiving the bachelor's degree.

At least six (6) credit hours must be earned in courses acceptable for residence credit by standards set forth by the Dodge College of Arts and Sciences, excluding transfer, correspondence, and examination (AP, CLEP, Advanced Standing) credit. Courses for the minor may not be taken Pass/ No Pass.

No single course may be used by a student to satisfy a major requirement and a minor requirement. A course may be used, however, to satisfy both a major support requirement and a minor requirement.

Requests to substitute a minor requirement must be approved in writing by the Department of Political Science.

Students must successfully complete at least 15 hours of courses acceptable for major credit in Public Affairs and Administration, including at least nine (9) hours at the upper-division level. Note that introductory courses are not counted toward this total. Up to three (3) hours of other Political Science courses may be substituted with the permission of the Department of Political Science.

## Required Courses

Each of the courses to be offered to students minoring in Public Affairs and Administration is part of the curriculum of the bachelor's degree in Public Affairs and Administration. As courses are added to the bachelor's curriculum, they will also be available to students taking the minor. Only three (3) courses from outside of the department are included. One of these courses is NPNG 2033; the other two (2) courses are offered by Economics. They have been included in the curriculum of the minor in Public Affairs and Administration because they emphasize public sector activities which are not covered in any political science courses.

Code Title Credit

Choose 15 hours acceptable for major credit in Public Affairs Hours and Administration, including at least nine (9) hours at the upper-division level, from the following:

| NPNG 2033 | Introduction to Nonprofits |
| :--- | :--- |
| ECON 3713 | Governmental Relations to Business |
| ECON 4353 | Public Finance: Issues and Taxation |
| P SC 3043 | Gender, Power and Leadership in Politics <br> and Public Administration |
| P SC 3113 | Bureaucracy and Citizenship |
| P SC 3123 | Social Statistics <br> or SOC 3123 Social Statistics |
| P SC 3133 | Politics and Public Administration |
| P SC 3170 | Problems in Public Administration |
| P SC 3183 | Politics of Government Budgeting |
| P SC 3193 | Nonprofits and Public Policy |


| P SC 3220 | Topics in Public Policy |
| :---: | :---: |
| P SC 3233 | Environmental Policy and Administration |
| P SC 3313 | Urban Government and Politics |
| P SC 3323 | State Government |
| P SC 3910 | Government Internship ${ }^{1}$ |
| P SC 3960 | Honors Reading ${ }^{1}$ |
| P SC 3970 | Honors Seminar ${ }^{1}$ |
| P SC 3980 | Honors Research ${ }^{1}$ |
| P SC 3990 | Independent Study ${ }^{1}$ |
| P SC 4033 | Capitol Scholars: A Service Learning Course ${ }^{1}$ |
| P SC 4043 | Public Policy Implementation |
| P SC 4143 | Policy/Program Evaluation |
| P SC 4193 | The Profession of Public Management |
| P SC 4213 |  |
| P SC 4220 | Problems in Public Policy |
| P SC 4990 | Independent Study ${ }^{1}$ |
| A maximum of three (3) hours from P SC 3910, P SC 3960, P SC 3970, P SC 3980, P SC 3990, P SC 4033, or P SC 4990 may apply. Course content must be Public Affairs and Administration related. |  |

- Minors in the Dodge College of Arts \& Sciences are available to all undergraduate students at OU. If the minor is officially declared, successfully completed, and noted on the graduation application, the student's transcript will so indicate at the time the bachelor's degree is posted.


## Political Science, B.A./M.A.

## Minimum Total Credit Hours: 144

Major Hours: 33
Minimum Upper-Division Hours: 48

Overall GPA - Combined: 3.50 OU: 3.00
Major GPA - Combined: 3.50 OU: 3.00
Program Code: A789/F790 Q528

## Major Requirements

- The Department of Political Science does not permit major coursework to also fulfill General Education or Dodge College of Arts and Sciences requirements.
- P SC 1113 does not count for major credit.

| Code Title | Credit |
| :---: | :---: |
|  | Hours |
| Research Methods |  |
| P SC 2013 Introduction to Political Analysis | 3 |
| Distribution Requirements |  |
| Choose four courses, one course each from 4 of the following 6 groups: (p. 639) ${ }^{1}$ | 12 |
| Group I: American Politics |  |
| Group II: Comparative Politics |  |
| Group III: International Relations |  |
| Group IV: Public Administration |  |
| Group V: Public Policy |  |

## Group VI: Political Theory

## Electives

Choose 3 hours of upper-division Political Science electives

## Capstone

P SC $4093 \quad$ Capstone Seminar in Political Science ${ }^{2} \quad 3$

Total Credit Hours
${ }^{1}$ A list of the courses approved for each group may be obtained in the Political Science Department or on the departmental website.
${ }^{2}$ This course should be taken during the senior year. (The capstone course must be completed with a grade of $C$ or better.)

- A minimum of 30 undergraduate upper-division free elective hours is needed to bring the total applicable hours to 144, including 48 upperdivision hours.


## M.A. Component

| Code $\quad$ Title | Credit |
| :--- | :--- |
|  | Hours |

## Graduate Core ${ }^{1}$

| P SC 5923 | Introduction to Analysis of Political Data | 3 |
| :--- | :--- | ---: |
| P SC 5933 | Intermediate Analysis of Political Data | 3 |
| P SC 6003 | Political Science: Survey of a Discipline | 3 |
| Choose one of the following: | $3-6$ |  |


| P SC 5950 | Research Problems (Non-Thesis option, 3 <br> hours) |
| :---: | :--- |
| P SC 5980 | Research for Master's Thesis (Thesis <br> option, 6 hours) |

## Major Emphasis

Choose at least 9 hours in the emphasis, selected from a
list maintained by the academic unit and approved by the
Graduate College ${ }^{2}$

## Secondary Emphasis

Choose at least 9 hours in the emphasis, selected from a
list maintained by the academic unit and approved by the Graduate College ${ }^{3}$

## P SC Graduate Electives

Choose Graduate-level electives to bring total applicable3-6
hours to 144 , selected from a list maintained by the academic unit and approved by the Graduate College

## Total Credit Hours

1 These 12 hours are shared with undergraduate degree.
2 Major Emphasis Areas: American Government and Politics, Political Theory, Comparative Government and Politics, International Relations, Public Administration, Public Policy.
3 Secondary Emphasis Areas: American Government and Politics, Political Theory, Comparative Government and Politics, International Relations, Political Methodology, Public Administration, Public Law, Public Policy.

## General Education and College Requirements

Courses for fulfillment of General Education and Dodge College of Arts \& Sciences requirements must be from the approved General Education
course list published in the Class Schedule or at http://www.ou.edu/ gened/courses. Courses graded P/NP will not apply.

## UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS

| Code $\quad$ Title | Credit <br> Hours |  |
| :--- | :--- | ---: |
| Core Area I: Symbolic and Oral Communication |  |  |
| English Composition (6 hours) | 3 |  |
| ENGL 1113 | Principles of English Composition | 3 |
| ENGL 1213 | Principles of English Composition |  |
| or EXPO 1213 | Expository Writing |  |

Language (0-13 hours in the same language)
The college requirement cannot be met by high school coursework.
Beginning Course 0-5

Beginning Course, continued 0-5

|  | Intermediate Course (2000 level) ${ }^{1,2}$ |
| :--- | :--- |
| 0-3 |  |

Mathematics (3 hours)
Choose one course from the General Education Mathematics 3
list
Core Area II: Natural Science (7 hours, including one laboratory component)
Biological Science
Choose an approved General Education Natural Science 3-4
course with one of the following prefixes: BIOL, HES, MBIO, or
PBIO ${ }^{1}$
Physical Science
Choose an approved General Education Natural Science 3-4
course with one of the following prefixes: AGSC, ASTR, CHEM,
GEOG, GEOL, GPHY, METR, or PHYS ${ }^{1}$
Core Area III: Social Science (6 hours)
PSC 1113 American Federal Government 3
Choose one course from the General Education Social 3
Science list
Core Area IV: Arts and Humanities (18 hours)

## Artistic Forms

Choose one course from the General Education Artistic Forms 3
list
Western Culture
HIST 1483 United States to 1865
or HIST 1493 United States, 1865 to the Present
Choose one course from the General Education Western 3
Culture list (excluding HIST 1483/1493)
World Culture
Choose one course from the General Education World Culture 3
list
Additional Core IV Upper-Division Arts \& Humanities courses
Choose one course from Artistic Forms, Western Culture, or 3
World Culture ${ }^{1,3}$
Choose one course from Artistic Forms, Western Culture, or 3
World Culture ${ }^{1,3}$
Core Area V: First Year Experience (3 hours)
Choose one course
Total Credit Hours

College of Arts and Sciences Requirements: college requirements are not automatically fulfilled by a previous degree.
2 One course at the intermediate level or demonstrated competency at that level
${ }^{3} 6$ upper-division hours, 2 courses, at the 3000-4000-level. Must be outside the major.

## Free Electives

Electives to bring total applicable hours to the minimum total required for the degree including 48 upper-division hours.

## Information Concerning General Rules, Regulations and Minimum Requirements

Arts and Sciences Hours: At least 80 semester hours of liberal arts and sciences courses are required for a BA degree. At least 55 semester hours of liberal arts and sciences courses are required for a BS degree. Pass/No Pass Enrollment: A maximum of 16 semester hours of free elective credit may be attempted under this option.
Individual Studies (e.g., courses titled "Independent Study"): A maximum of 12 total semester hours may be counted toward graduation, excluding Honors Reading and Honors Research.
P.E. Courses: No physical education activity courses will be counted toward the 120 semester hours of acceptable credit for graduation. Senior Institution Hours: A minimum of 60 semester hours applied toward graduation must be earned at senior (4-year) institutions. Residency:

- At least 15 of the final 30 hours applied toward the degree or at least 50 percent of the hours required by the institution in the major field must be satisfactorily completed at the awarding institution.
- At least 15 semester hours of upper-division major work must be completed in residence at OU.
- OU correspondence courses are not considered resident credit.

Grade Point Averages: Students must earn a minimum over all 2.00 for each of the following: Combined Retention GPA (all college grades), OU Retention GPA, GPA for all major courses, and GPA for all major courses taken at OU. Some schools and departments of the College have higher minimum grade point averages required for their students.

## Suggested Semester Plan of Study

This plan shows one possible grouping of courses that would allow students to graduate in four years. Please refer to the front of the degree checksheet for official requirements. Students must consult with Dodge College of Arts and Sciences and Department of Political Science academic advisors to verify that courses selected each semester fulfill the recommended plan and satisfy University, College of Arts and Sciences, and Political Science major requirements.

## Freshman

| First Semester |  | Credit <br> Hours |
| :--- | :---: | ---: |
| ENGL 1113 | Principles of English Composition (Core I) | 3 |
| HIST 1483 | United States to 1865 (Core IV) | 3 |
| or HIST 1493 | or United States, 1865 to the Present |  |
| P SC 1113 | American Federal Government (Core III) | 3 |
| Social Science (Core III) | 3 |  |

First Year Experience (Core V) ..... 3
Credit Hours ..... 15
Second Semester
ENGL $1213 \quad$ Principles of English Composition (Core I) ..... 3
or EXPO 1213 or Expository Writing
Math (Core I) ..... 3
Natural Science without lab (Core II) ..... 3
Western Culture (Core IV) ..... 3
World Culture (Core IV) ..... 3
Credit Hours ..... 15
Sophomore
First Semester
P SC 2013 Introduction to Political Analysis ..... 3
Distribution Requirement ..... 3
Distribution Requirement ..... 3
Natural Science with lab (Core II) ..... 4
Beginning Language (Core I) ..... 5
Credit Hours ..... 18
Second Semester
Distribution Requirement ..... 3
Distribution Requirement ..... 3
Beginning Language continued (Core I) ..... 5
Artistic Forms (Core IV) ..... 3
Upper Division Free Elective (3000-4000-level) ..... 3
Free Elective ..... 1
Credit Hours ..... 18
Junior
First Semester
P SC Major Elective, upper-division (3000-4000-level) ..... 3
Intermediate Language ..... 3
Arts \& Humanities, upper-division, outside major (Gen. Ed.) ..... 3
Upper Division Free Elective (3000-4000-level) ..... 3
Upper Division Free Elective (3000-4000-level) ..... 3
Credit Hours ..... 15
Second Semester
Arts \& Humanities, upper-division, outside major (Gen. Ed.) ..... 3
Upper Division Free Elective (3000-4000-level) ..... 3
Upper Division Free Elective (3000-4000-level) ..... 3
Upper Division Free Elective (3000-4000-level) ..... 3
Credit Hours ..... 15
SeniorFirst Semester

| P SC 5923 | Introduction to Analysis of Political Data <br> (shared) | 3 |
| :--- | :--- | :--- |
| P SC 5933 | Intermediate Analysis of Political Data | 3 |(shared)

$\begin{array}{ll}\text { P SC } 6003 & \begin{array}{l}\text { Political Science: Survey of a Discipline } \\ \text { (shared) }\end{array}\end{array}$
Upper Division Free Elective (3000-4000-level) ..... 3
12

| ond Semester |  |
| :---: | :---: |
| Graduate Major Emphasis | 3 |
| Graduate Secondary Emphasis | 3 |
| Upper Division Free Elective (3000-4000-level) | 3 |
| Graduate-level Elective | 3 |
| Credit Hours | 12 |
| Fifth Year |  |
| First Semester |  |
| Graduate Major Emphasis | 3 |
| Graduate Secondary Emphasis | 3 |
| Upper Division Free Elective (3000-4000-level) | 3 |
| Upper Division Free Elective (3000-4000-level) ${ }^{3}$ |  |
| Credit Hours | 9 |
| Second Semester |  |
| Choose one of the following: | 3-6 |
| P SC 5950 Research Problems |  |
| P SC 5980 Research for Master's Thesis (3 hrs shared) |  |
| Graduate Major Emphasis | 3 |
| Graduate Secondary Emphasis | 3 |
| Graduate-level Elective | 3-6 |
| Credit Hours | 15 |
| Total Credit Hours | 144 |

## Political Science, B.A./M.P.A.

Minimum Total Credit Hours: 144
Major Hours: 33
Minimum Upper-Division Hours: 48

Overall GPA - Combined and OU: 3.50
Major GPA - Combined and OU: 3.50

## Program Code: A790/F805 Q528

## Major Requirements

- The Department of Political Science does not permit major coursework to also fulfill General Education or Dodge College of Arts and Sciences requirements.
- The undergraduate major requires 24 hours, 18 of which must be upper-division. The graduate major requires 36 hours, 12 of which must be shared with the undergraduate major.

| Code Title | Credit Hours |
| :---: | :---: |
| Research Methods |  |
| P SC 2013 Introduction to Political Analysis | 3 |
| Distribution Requirements |  |
| Choose four courses, one course each from 4 of the following 6 groups: (p. 639) ${ }^{1}$ | 12 |
| Group I: American Politics |  |
| Group II: Comparative Politics |  |
| Group III: International Relations |  |
| Group IV: Public Administration |  |
| Group V: Public Policy |  |
| Group VI: Political Theory |  |

Electives
Choose 3 hours of upper-division Political Science electives 3

## Capstone

P SC 4093 Capstone Seminar in Political Science ${ }^{2} 3$
Total Credit Hours ..... 21

1 A list of the courses approved for each group may be obtained in the Political Science Department or on the departmental website.
2 This course should be taken during the senior year. (The capstone course must be completed with a grade of C or better.)

- A minimum of 30 undergraduate upper-division free elective hours is necessary to bring the total applicable hours to 144 , including 48 upper-division hours.


## M.P.A. Component

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Graduate Core Requirements |  |  |
| P SC 5003 | Introduction to Public Administration | 3 |
| P SC 5913 | Introduction to Analysis of Political and |  |
|  | Administrative Data | 3 |
| P SC 5143 | Program Evaluation and Applied Policy |  |
|  | Analysis | 3 |
| P SC 5363 | Public Financial Management | 3 |
| P SC 5963 | Capstone in Public Administration |  |
| or P SC 5950 | Research Problems | 3 |

General Concentration Requirements
Choose 9 hours of 5000-6000-level P SC coursework 9
P SC Graduate Electives (shared)
Choose a minimum of 12 hours of free electives to bring total 12
applicable hours to 144, including 48 upper-division hours
Total Credit Hours

P SC 5950 by petition only.

## General Education and College Requirements

Courses for fulfillment of General Education and Dodge College of Arts \& Sciences requirements must be from the approved General Education course list published in the Class Schedule or at http://www.ou.edu/ gened/courses. Courses graded P/NP will not apply.

UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS
Code Title Credit Hours

Core Area I: Symbolic and Oral Communication
English Composition (6 hours)
ENGL 1113 Principles of English Composition 3
ENGL 1213 Principles of English Composition 3
or EXPO 1213 Expository Writing
Language ( $0-13$ hours in the same language)
The college requirement cannot be met by high school coursework.

Beginning Course


## Free Electives

Electives to bring total applicable hours to the minimum total required for the degree including 48 upper-division hours.

## Information Concerning General Rules, Regulations and Minimum Requirements

Arts and Sciences Hours: At least 80 semester hours of liberal arts and sciences courses are required for a BA degree. At least 55 semester hours of liberal arts and sciences courses are required for a BS degree. Pass/No Pass Enrollment: A maximum of 16 semester hours of free elective credit may be attempted under this option.
Individual Studies (e.g., courses titled "Independent Study"): A maximum of 12 total semester hours may be counted toward graduation, excluding Honors Reading and Honors Research.
P.E. Courses: No physical education activity courses will be counted toward the 120 semester hours of acceptable credit for graduation. Senior Institution Hours: A minimum of 60 semester hours applied toward graduation must be earned at senior (4-year) institutions.

## Residency:

- At least 15 of the final 30 hours applied toward the degree or at least 50 percent of the hours required by the institution in the major field must be satisfactorily completed at the awarding institution.
- At least 15 semester hours of upper-division major work must be completed in residence at OU.
- OU correspondence courses are not considered resident credit.

Grade Point Averages: Students must earn a minimum over all 2.00 for each of the following: Combined Retention GPA (all college grades), OU Retention GPA, GPA for all major courses, and GPA for all major courses taken at OU. Some schools and departments of the College have higher minimum grade point averages required for their students.

## Suggested Semester Plan of Study

This plan shows one possible grouping of courses that would allow students to graduate in four years. Please refer to the front of the degree checksheet for official requirements. Students must consult with Dodge College of Arts and Sciences and Department of Political Science academic advisors to verify that courses selected each semester fulfill the recommended plan and satisfy University, College of Arts and Sciences, and Political Science major requirements.

## Freshman

| First Semester |  | Credit |
| :---: | :---: | :---: |
|  |  | Hours |
| ENGL 1113 | Principles of English Composition (Core I) | 3 |
| HIST 1483 or HIST 1493 | United States to 1865 (Core IV) or United States, 1865 to the Present | 3 |
| P SC 1113 | American Federal Government (Core III) | 3 |
| Social Science (Core III) |  | 3 |
| First Year Experience (Core V) |  | 3 |
|  | Credit Hours | 15 |
| Second Semester |  |  |
| ENGL 1213 or EXPO 1213 | Principles of English Composition (Core I) or Expository Writing | 3 |
| Math (Core I) |  | 3 |
| Beginning Language (Core I) |  | 5 |
| Western Culture (Core IV) |  | 3 |
| World Culture (Core IV) |  | 3 |
|  | Credit Hours | 17 |


| Sophomore |  |  |
| :---: | :---: | :---: |
| First Semester |  |  |
| P SC 2013 | Introduction to Political Analysis | 3 |
| Distribution | rement | 3 |
| Distribution | rement | 3 |
| Natural Sc | with lab (Core II) | 4 |
| Beginning | ge continued (Core I) | 5 |
|  | Credit Hours | 18 |
| Second Semester |  |  |
| Distribution | rement | 3 |
| Distribution | rement | 3 |
| Natural Sci | without lab (Core II) | 3 |
| Intermedia | guage | 3 |
| Upper Divis | ee Elective (3000-4000-level) | 4 |
|  | Credit Hours | 16 |
| Junior |  |  |
| First Semester |  |  |
| P SC Majo | e, upper-division (3000-4000-level) | 3 |
| Arts \& Hum | , upper-division, outside major (Gen. Ed.) | 3 |
| Upper Divis | ee Elective (3000-4000-level) | 3 |
| Upper Divis | ee Elective (3000-4000-level) | 3 |
| Upper Divis | ee Elective (3000-4000-level) | 3 |
|  | Credit Hours | 15 |
| Second Semester |  |  |
| P SC 4093 | Capstone Seminar in Political Science | 3 |
| Artistic For | re IV) | 3 |
| Arts \& Hum | , upper-division, outside major (Gen. Ed.) | 3 |
| Upper Divi | ee Elective (3000-4000-level) | 3 |
| Upper Divis | ee Elective (3000-4000-level) | 3 |
|  | Credit Hours | 15 |
| Senior |  |  |
| First Semester |  |  |
| P SC 5913 | Introduction to Analysis of Political and Administrative Data | 3 |
| Graduate G | Concentration (5000-6000-level) | 3 |
| P SC Gradu | vel Elective (shared) | 3 |
| Upper Divis | ee Elective (3000-4000-level) | 3 |
|  | Credit Hours | 12 |
| Second Semester |  |  |
| P SC 5363 | Public Financial Management | 3 |
| P SC 5003 | Introduction to Public Administration | 3 |
| P SC Gradu | vel Elective (shared) | 3 |
| Upper Divis | ee Elective (3000-4000-level) | 3 |
|  | Credit Hours | 12 |
| Fifth Year |  |  |
| First Semester |  |  |
| P SC 5143 | Program Evaluation and Applied Policy Analysis | 3 |
| Graduate G | Concentration (5000-6000-level) | 3 |
| P SC Gradu | vel Elective (shared) | 3 |
| Upper Divis | ee Elective (3000-4000-level) | 3 |
|  | Credit Hours | 12 |

## Second Semester

| P SC 5963Capstone in Public Administration <br> or P SC 5950 <br> or Research Problems | 3 |
| :--- | ---: |
| P SC Graduate-Level Elective (shared) | 3 |
| Graduate General Concentration (5000-6000-level) | 3 |
| Upper Division Free Elective (3000-4000-level) | $\mathbf{3}$ |
| Credit Hours | $\mathbf{1 2}$ |
| Total Credit Hours | $\mathbf{1 4 4}$ |

## Public and Nonprofit Administration, B.A./ Political Science, M.A.

Minimum Total Credit Hours: 144
Major Hours: 33
Minimum Upper-Division Hours: 48
Overall GPA - Combined: 3.50 OU: 3.00
Major GPA - Combined: 3.50 OU: 3.00
Program Code: A807/F790 Q559

## Major Requirements

- The Department of Political Science does not permit major coursework to also fulfill General Education or Dodge College of Arts and Sciences requirements
- The undergraduate major requires 33 hours, 18 of which must be upper-division. The graduate major requires 36 hours, 12 of which are shared with the undergraduate major.



## Total Credit Hours

${ }^{1}$ See Public and Nonprofit Administration checksheet for list of approved courses. Course content must be PAA related.
${ }^{2}$ Must be completed with a grade of C or better.

- A minimum of 30 undergraduate upper-division free elective hours is needed to bring the total applicable hours to 144 , including 48 upperdivision hours.


## M.A. Component

Code Title

| Graduate Core $^{1}$ |  |  |
| :--- | :--- | ---: |
| P SC 5923 | Introduction to Analysis of Political Data | 3 |
| P SC 5933 | Intermediate Analysis of Political Data | 3 |
| P SC 6003 | Political Science: Survey of a Discipline | 3 |
| Choose one of the following: | $3-6$ |  |

P SC 5950 | Research Problems (Non-Thesis option, 3 |
| :--- |
| hours) |

P SC 5980 Research for Master's Thesis (Thesis option, 6 hours)

## Major Emphasis

Choose at least nine hours in the emphasis, selected from
a list maintained by the academic unit and approved by the Graduate College ${ }^{2}$

## Secondary Emphasis

Choose at least nine hours in the emphasis, selected from

## P SC Graduate Electives

Choose graduate-level electives to bring total applicable
${ }^{1}$ These 12 hours are shared with undergraduate degree.
${ }^{2}$ Major Emphasis Areas: American Government and Politics, Political Theory, Comparative Government and Politics, International Relations, Public Administration, Public Policy.
${ }^{3}$ Secondary Emphasis Areas: American Government and Politics, Political Theory, Comparative Government and Politics, International Relations, Political Methodology, Public Administration, Public Law, Public Policy.

## General Education and College Requirements

Courses for fulfillment of General Education and Dodge College of Arts \& Sciences requirements must be from the approved General Education course list published in the Class Schedule or at http://www.ou.edu/ gened/courses. Courses graded P/NP will not apply.

## UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS

## Code Title

## Core Area I: Symbolic and Oral Communication

| English Composition (6 hours) | 3 |  |
| :--- | :--- | :--- |
| ENGL 1113 | Principles of English Composition | 3 |
| ENGL 1213 | Principles of English Composition |  |
| or EXPO 1213 | Expository Writing |  |

Language (0-13 hours in the same language)

The college requirement cannot be met by high school coursework.
Beginning Course 0-5
Beginning Course, continued $\quad 0-5$
$\begin{array}{ll}\text { Intermediate Course (2000 level) }{ }^{1,2} & 0-3\end{array}$
Mathematics (3 hours)
Choose one course from the General Education Mathematics 3
list
Core Area II: Natural Science (7 hours, including one laboratory component)
Biological Science
Choose an approved General Education Natural Science 3-4 course with one of the following prefixes: BIOL, HES, MBIO, or PBIO ${ }^{1}$
Physical Science
Choose an approved General Education Natural Science 3-4
course with one of the following prefixes: AGSC, ASTR, CHEM,
GEOG, GEOL, GPHY, METR, or PHYS ${ }^{1}$
Core Area III: Social Science (6 hours)
P SC 1113 American Federal Government 3
Choose one course from the General Education Social 3
Science list
Core Area IV: Arts and Humanities (18 hours)
Artistic Forms
Choose one course from the General Education Artistic Forms 3
list
Western Culture
HIST $1483 \quad 3$
or HIST 1493 United States, 1865 to the Present
Choose one course from the General Education Western
3
Culture list (excluding HIST 1483/1493)
World Culture
Choose one course from the General Education World Culture
list
Additional Core IV Upper-Division Arts \& Humanities courses
Choose one course from Artistic Forms, Western Culture, or 3
World Culture ${ }^{1,3}$
Choose one course from Artistic Forms, Western Culture, or 3
World Culture ${ }^{1,3}$
Core Area V: First Year Experience (3 hours)
Choose one course 3

Total Credit Hours 56
${ }^{1}$ College of Arts and Sciences Requirements: college requirements are not automatically fulfilled by a previous degree.
${ }^{2}$ One course at the intermediate level or demonstrated competency at that level
${ }^{3} 6$ upper-division hours, 2 courses, at the 3000-4000-level. Must be outside the major.

## Free Electives

Electives to bring total applicable hours to the minimum total required for the degree including 48 upper-division hours.

## Information Concerning General Rules, Regulations and Minimum Requirements

Arts and Sciences Hours: At least 80 semester hours of liberal arts and sciences courses are required for a BA degree. At least 55 semester hours of liberal arts and sciences courses are required for a BS degree.
Pass/No Pass Enrollment: A maximum of 16 semester hours of free elective credit may be attempted under this option.
Individual Studies (e.g., courses titled "Independent Study"): A maximum of 12 total semester hours may be counted toward graduation, excluding Honors Reading and Honors Research.
P.E. Courses: No physical education activity courses will be counted toward the 120 semester hours of acceptable credit for graduation. Senior Institution Hours: A minimum of 60 semester hours applied toward graduation must be earned at senior (4-year) institutions. Residency:

- At least 15 of the final 30 hours applied toward the degree or at least 50 percent of the hours required by the institution in the major field must be satisfactorily completed at the awarding institution.
- At least 15 semester hours of upper-division major work must be completed in residence at OU.
- OU correspondence courses are not considered resident credit.

Grade Point Averages: Students must earn a minimum over all 2.00 for each of the following: Combined Retention GPA (all college grades), OU Retention GPA, GPA for all major courses, and GPA for all major courses taken at OU. Some schools and departments of the College have higher minimum grade point averages required for their students.

## Suggested Semester Plan of Study

This plan shows one possible grouping of courses that would allow students to graduate in four years. Please refer to the front of the degree checksheet for official requirements. Students must consult with Dodge College of Arts and Sciences and Department of Political Science academic advisors to verify that courses selected each semester fulfill the recommended plan and satisfy University, College of Arts and Sciences, and Political Science major requirements.

## Freshman

| First Semester |  | Credit |
| :---: | :---: | :---: |
| ENGL 1113 | Principles of English Composition (Core I) | 3 |
| HIST 1483 or HIST 1493 | United States to 1865 (Core IV) or United States, 1865 to the Present | 3 |
| P SC 1113 | American Federal Government (Core III) | 3 |
| Social Science (Core III) |  | 3 |
| First Year Experience (Core V) |  | 3 |
|  | Credit Hours | 15 |

## Second Semester

ENGL $1213 \quad$ Principles of English Composition (Core I) 3

| or EXPO 1213 or Expository Writing |  |
| :--- | :--- |
| Math (Core I) | 3 |

Western Culture (Core IV) 3
World Culture (Core IV) 3
Natural Science without lab (Core II) 3

## Credit Hours

## Sophomore

First Semester

| P SC 2013 | Introduction to Political Analysis | 3 |
| :--- | :--- | ---: |
| P SC 3173 | Administration \& Society | 3 |
| Natural Science with lab (Core II) | 4 |  |
| Beginning Language (Core I) | $\mathbf{5}$ |  |
| Credit Hours |  | $\mathbf{1 5}$ |


| Second Semester |  |
| :--- | ---: |
| P SC $3223 \quad$ Making Public Policy | 3 |
| Beginning Language continued (Core I) | 5 |
| Artistic Forms (Core IV) | 3 |
| Public Administration/Public Policy course | 3 |
| American Political Institutions course | $\mathbf{3}$ |
| Free Elective | $\mathbf{1}$ |
|  | $\mathbf{1 8}$ |

Junior
First Semester
Public Administration/Public Policy course 3
Arts \& Humanities, upper-division, outside major (Gen. Ed.) 3
Intermediate Language 3
Upper Division Free Elective (3000-4000-level) 3
Upper Division Free Elective (3000-4000-level) 3
Upper Division Free Elective (3000-4000-level) 3
Credit Hours
18

## Second Semester

| P SC 4203Capstone Seminar in Public Affairs and <br> Administration | 3 |
| :--- | ---: |
| Arts \& Humanities, upper-division, outside major (Gen. Ed.) | 3 |
| Upper Division Free Elective (3000-4000-level) | 3 |
| Upper Division Free Elective (3000-4000-level) | 3 |
| Upper Division Free Elective (3000-4000-level) | 3 |
| Credit Hours | $\mathbf{1 5}$ |

## Senior

First Semester

| P SC 5923 | Introduction to Analysis of Political Data <br> (shared) | 3 |
| :---: | :--- | ---: |
| P SC 5933 | Intermediate Analysis of Political Data <br> (shared) | 3 |
| P SC 6003 | Political Science: Survey of a Discipline <br> (shared) | 3 |
| Upper Division Free Elective (3000-4000-level) | 3 |  |
| Credit Hours | $\mathbf{1 2}$ |  |

## Second Semester

Graduate Major Emphasis 3
Graduate Secondary Emphasis 3
Upper Division Free Elective (3000-4000-level) 3
Graduate-level Elective 3
Credit Hours 12

## Fifth Year

First Semester
Graduate Major Emphasis 3
Graduate Secondary Emphasis 3
Upper Division Free Elective (3000-4000-level) 3


Minimum Total Credit Hours: 144
Major Hours: 33
Minimum Upper-Division Hours: 48
Overall GPA - Combined and OU: 3.50
Major GPA - Combined and OU: 3.50
Program Code: A806/F805 Q559

## Major Requirements

- The Department of Political Science does not permit major coursework to also fulfill General Education or Dodge College of Arts and Sciences requirements.
- The undergraduate major requires 33 hours, 18 of which must be upper-division. The graduate major requires 36 hours, 12 of which must be shared with the undergraduate major.



## Public \& Nonprofit Administration, B.A./ M.P.A.

[^17]- A minimum of 30 undergraduate upper-division free elective hours is needed to bring the total applicable hours to 144 , including 48 upperdivision hours.


## M.P.A. Component

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Graduate Core Requirements |  |  |
| P SC 5003 | Introduction to Public Administration | 3 |
| P SC 5913 | Introduction to Analysis of Political and |  |
|  | Administrative Data | 3 |
| P SC 5143 | Program Evaluation and Applied Policy <br> Analysis | 3 |
| P SC 5363 | Public Financial Management | 3 |
| P SC 5963 | Capstone in Public Administration |  |

## General Concentration Requirements

Choose 9 hours of 5000-6000-level P SC coursework 9
P SC Graduate Electives (shared)
Choose a minimum of 12 hours of free electives to bring total 12 applicable hours to 144 , including 48 upper-division hours

Total Credit Hours 36
${ }^{1}$ P SC 5950 by petition only.

## Public Administration and Public Policy Core Course List

| Code | Title |  |
| :---: | :---: | :---: |
| P SC 3043 | Gender, Power and Leadership in Politics and Public Administration | 3 |
| P SC 3113 | Bureaucracy and Citizenship | 3 |
| P SC 3123 | Social Statistics | 3 |
| or SOC 3123 | Social Statistics |  |
| P SC 3133 | Politics and Public Administration | 3 |
| P SC 3170 | Problems in Public Administration | 1-3 |
| P SC 3183 | Politics of Government Budgeting | 3 |
| P SC 3193 | Nonprofits and Public Policy | 3 |
| P SC 3220 | Topics in Public Policy | 1-3 |
| P SC 3233 | Environmental Policy and Administration | 3 |
| P SC 3263 | Social Welfare | 3 |
| P SC 3313 | Urban Government and Politics | 3 |
| P SC 3323 | State Government | 3 |
| P SC 3910 | Government Internship | 2-3 |
| P SC 3960 | Honors Reading ${ }^{1}$ | 1-3 |
| P SC 3970 | Honors Seminar | 1-3 |
| P SC 3980 | Honors Research ${ }^{1}$ | 1-3 |
| P SC 3990 | Independent Study ${ }^{1}$ | 1-3 |
| P SC 4023 | Community Scholars | 3 |
| P SC 4033 | Capitol Scholars: A Service Learning Course | 3 |
| P SC 4043 | Public Policy Implementation | 3 |
| P SC 4143 | Policy/Program Evaluation | 3 |


| P SC 4193 | The Profession of Public Management | 3 |
| :--- | :--- | ---: |
| P SC 4213 |  | 3 |
| P SC 4220 | Problems in Public Policy | $1-3$ |
| P SC 4990 | Independent Study ${ }^{1}$ | $1-3$ |

${ }^{1}$ Each course may be taken only once. Course content must be PAA related.

## General Education and College Requirements

Courses for fulfillment of General Education and Dodge College of Arts \& Sciences requirements must be from the approved General Education course list published in the Class Schedule or at http://www.ou.edu/ gened/courses. Courses graded P/NP will not apply.

## UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS

Code Title Credit

Core Area I: Symbolic and Oral Communication

| English Composition (6 hours) |  |  |
| :--- | :--- | :--- |
| ENGL 1113 | Principles of English Composition | 3 |
| ENGL 1213 | Principles of English Composition | 3 |

or EXPO 1213 Expository Writing
Language ( $0-13$ hours in the same language)
The college requirement cannot be met by high school coursework.
Beginning Course 0-5
Beginning Course, continued 0-5
Intermediate Course (2000 level) ${ }^{1,2} \quad 0-3$
Mathematics (3 hours)
Choose one course from the General Education Mathematics
3 list
Core Area II: Natural Science (7 hours, including one laboratory component)
Biological Science
Choose an approved General Education Natural Science
course with one of the following prefixes: BIOL, HES, MBIO, or PBIO ${ }^{1}$
Physical Science

| Choose an approved General Education Natural Science | $3-4$ |
| :--- | ---: |
| course with one of the following prefixes: AGSC, ASTR, CHEM, |  |
| GEOG, GEOL, GPHY, METR, or PHYS ${ }^{1}$ |  |
| Core Area III: Social Science ( 6 hours)  <br> P SC $1113 \quad$ American Federal Government 3 |  |

Choose one course from the General Education Social 3

## Science list

Core Area IV: Arts and Humanities (18 hours)

## Artistic Forms

Choose one course from the General Education Artistic Forms
list
Western Culture
HIST $1483 \quad$ United States to 1865
or HIST 1493 United States, 1865 to the Present
Choose one course from the General Education Western

```
World Culture
Choose one course from the General Education World Culture 3
list
Additional Core IV Upper-Division Arts & Humanities courses
Choose one course from Artistic Forms, Western Culture, or
World Culture }\mp@subsup{}{}{1,3
Choose one course from Artistic Forms, Western Culture, or 3
World Culture }\mp@subsup{}{}{1,3
Core Area V: First Year Experience (3 hours)
Choose one course 3
Total Credit Hours 56
\({ }^{1}\) College of Arts and Sciences Requirements: college requirements are not automatically fulfilled by a previous degree.
2 One course at the intermediate level or demonstrated competency at that level
\({ }^{3} 6\) upper-division hours, 2 courses, at the 3000-4000-level. Must be outside the major.
```


## Free Electives

Electives to bring total applicable hours to the minimum total required for the degree including 48 upper-division hours.

## Information Concerning General Rules, Regulations and Minimum Requirements

Arts and Sciences Hours: At least 80 semester hours of liberal arts and sciences courses are required for a BA degree. At least 55 semester hours of liberal arts and sciences courses are required for a BS degree. Pass/No Pass Enrollment: A maximum of 16 semester hours of free elective credit may be attempted under this option.
Individual Studies (e.g., courses titled "Independent Study"): A maximum of 12 total semester hours may be counted toward graduation, excluding Honors Reading and Honors Research.
P.E. Courses: No physical education activity courses will be counted toward the 120 semester hours of acceptable credit for graduation. Senior Institution Hours: A minimum of 60 semester hours applied toward graduation must be earned at senior (4-year) institutions. Residency:

- At least 15 of the final 30 hours applied toward the degree or at least 50 percent of the hours required by the institution in the major field must be satisfactorily completed at the awarding institution.
- At least 15 semester hours of upper-division major work must be completed in residence at OU .
- OU correspondence courses are not considered resident credit.

Grade Point Averages: Students must earn a minimum over all 2.00 for each of the following: Combined Retention GPA (all college grades), OU Retention GPA, GPA for all major courses, and GPA for all major courses taken at OU. Some schools and departments of the College have higher minimum grade point averages required for their students.

## Suggested Semester Plan of Study

This plan shows one possible grouping of courses that would allow students to graduate in four years. Please refer to the front of the degree checksheet for official requirements. Students must consult with Dodge College of Arts and Sciences and Department of Political Science academic advisors to verify that courses selected each semester
fulfill the recommended plan and satisfy University, College of Arts and Sciences, and Political Science major requirements.

## Freshman

| First Semester |  | Credit <br> Hours |
| :--- | :---: | ---: |
| ENGL 1113 | Principles of English Composition (Core I) | 3 |
| HIST 1483 | United States to 1865 (Core IV) | 3 |
| or HIST 1493 | or United States, 1865 to the Present |  |
| P SC 1113 | American Federal Government (Core III) | 3 |
| Social Science (Core III) | 3 |  |
| First Year Experience (Core V) | 3 |  |
| Credit Hours | $\mathbf{1 5}$ |  |

## Second Semester

| $\begin{aligned} & \text { ENGL } 1213 \\ & \text { or EXPO } 1213 \end{aligned}$ | Principles of English Composition (Core I) or Expository Writing | 3 |
| :---: | :---: | :---: |
| Math (Core I) |  | 3 |
| Western Culture ( | Core IV) | 3 |
| World Culture (Co | re IV) | 3 |
| Natural Science | without lab (Core II) | 3 |
|  | Credit Hours | 15 |
| Sophomore |  |  |
| First Semester |  |  |
| P SC 2013 | Introduction to Political Analysis | 3 |
| P SC 3173 | Administration \& Society | 3 |
| Natural Science with lab (Core II) |  | 4 |
| Beginning Language (Core I) |  | 5 |
|  | Credit Hours | 15 |


| Second Semester |  |
| :--- | ---: |
| P SC $3223 \quad$ Making Public Policy | 3 |
| PAA Major Elective | 3 |
| PAA Major Elective | 3 |
| Beginning Language continued (Core I) | 5 |
| Artistic Forms (Core IV) | 3 |
| Credit Hours | $\mathbf{1 7}$ |


| Junior |  |
| :--- | ---: |
| First Semester | 3 |
| American Political Institutions | 3 |
| Arts \& Humanities, upper-division, outside major (Gen. Ed.) | 3 |
| Intermediate Language | 3 |
| Upper Division Free Elective (3000-4000-level) | 3 |
| Upper Division Free Elective (3000-4000-level) | 3 |
| Upper Division Free Elective (3000-4000-level) | $\mathbf{1 8}$ |
| Credit Hours |  |


| Second Semester | 3 |
| :--- | ---: |
| P SC $4203 \quad$Capstone Seminar in Public Affairs and <br> Administration | 3 |
| Arts \& Humanities, upper-division, outside major (Gen. Ed.) 3 <br> Upper Division Free Elective (3000-4000-level) 3 <br> Upper Division Free Elective (3000-4000-level) 3 <br> Upper Division Free Elective (3000-4000-level) $\mathbf{1 5}$ Credit Hours |  |

## Senior

First Semester

| P SC 5913Introduction to Analysis of Political and <br> Administrative Data | 3 |
| :--- | :---: | :---: |
| Graduate General Concentration (5000-6000-level) | 3 |
| P SC Graduate-Level Elective (shared) | 3 |
| Upper Division Free Elective (3000-4000-level) | 3 |
| Free Elective (Lower- or Upper-Division) | 1 |
| Credit Hours | $\mathbf{1 3}$ |

## Second Semester

P SC 5363 Public Financial Management 3
P SC 5003 Introduction to Public Administration 3
P SC Graduate-Level Elective (shared) 3
Upper Division Free Elective (3000-4000-level) 3
Credit Hours 12

## Fifth Year

First Semester

| P SC 5143 | Program Evaluation and Applied Policy <br> Analysis |
| :--- | :--- |

Graduate General Concentration (5000-6000-level) 3

P SC Graduate-Level Elective (shared) 3
Upper Division Free Elective (3000-4000-level) 3
Credit Hours 12

## Second Semester

P SC $5963 \quad$ Capstone in Public Administration 3
or P SC 5950 or Research Problems
Graduate General Concentration (5000-6000-level) 3
P SC Graduate-Level Elective (shared) 3
Upper Division Free Elective (3000-4000-level) 3

| Credit Hours | 12 |
| :--- | ---: |
| Total Credit Hours | 144 |

## Political Science, M.A.

Minimum Total Hours (Thesis): 36
Minimum Total Hours (Non-Thesis): 36

## Program Code: M790

## Required Courses

Note: A final oral comprehensive exam with a three-member committee is also required.

## Thesis Option

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Required Courses |  | 3 |
| P SC 5923 | Introduction to Analysis of Political Data | 3 |
| P SC 5933 | Intermediate Analysis of Political Data | 3 |
| P SC 6003 | Political Science: Survey of a Discipline | 3 |
| P SC 5980 | Research for Master's Thesis | 6 |
| Core Courses |  |  |
| Major Emphasis |  |  |

Choose at least 9 hours in the emphasis, selected from a list maintained by the academic unit and approved by the Graduate College ${ }^{1}$
Secondary Emphasis (non-examining)
Choose at least 9 hours in the emphasis, selected from a list maintained by the academic unit and approved by the Graduate College ${ }^{2}$

## Electives

Choose 3 hours as approved by advisor and Graduate Liaison, selected from a list maintained by the academic unit and approved by the Graduate College

Total Credit Hours

## Non-Thesis Option <br> Code Title

## Required Courses

| Required Courses |  |
| :---: | :---: |
| P SC 5923 | Introduction to Analysis of Political Data |
| P SC 5933 | Intermediate Analysis of Political Data |
| P SC 6003 | Political Science: Survey of a Discipline |
| P SC 5950 | Research Problems |
| Core Courses |  |
| Major Emphasis |  |
| Choose at least 9 hours in the emphasis, selected from a list maintained by the academic unit and approved by the Graduate College ${ }^{1}$ |  |
| Secondary Emphasis (non-examining) |  |
| Choose at least 9 list maintained by Graduate College | hours in the emphasis, selected from a the academic unit and approved by the 2 |

## Electives

Choose 6 hours as approved by advisor and Graduate Liaison,

## Total Credit Hours

${ }^{1}$ Major Emphasis Areas: American Government and Politics, Political Theory, Comparative Government and Politics, International Relations, Public Administration, Public Policy.
${ }^{2}$ Secondary Emphasis Areas: American Government and Politics, Political Theory, Comparative Government and Politics, International Relations, Public Administration, Political Methodology, Public Law, Public Policy.

## General Requirements for all Master's Degrees

The master's degree requires the equivalent of at least two semesters of satisfactory graduate work and additional work as may be prescribed for the degree.

All coursework applied to the master's degree must carry graduate credit.
Master's degree programs which require a thesis consist of at least 30 credit hours. All non-thesis master's degree programs require at least 30 credit hours.

Credit transferred from other institutions must meet specific criteria and is subject to certain limitations.

9 Courses completed through correspondence study may not be applied to the master's degree.

To qualify for a graduate degree, students must achieve an overall grade point average of 3.0 or higher in the degree program coursework and in
9 all resident graduate coursework attempted. A student must also have at least a 3.0 in all coursework (including undergraduate coursework if any).

Additional information for master's degree students may be found in the Graduate College Bulletin.

## Public Administration, M.P.A.

## Minimum Total Hours (Non-Thesis): 36

Program Code: M805 Q550

- This program is Non-Thesis only.


## Required Courses

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Required Courses |  | 3 |
| P SC 5003 | Introduction to Public Administration | 3 |
| P SC 5143 | Program Evaluation and Applied Policy <br> Analysis | 3 |
| P SC 5363 | Public Financial Management | 3 |
| P SC 5913 | Introduction to Analysis of Political and | 3 |
| P SC 5963 | Administrative Data | Capstone in Public Administration ${ }^{1}$ |

## Concentration

Choose 9 hours of graduate-level courses, as approved by the 9
Graduate Liaison and advisor
Electives
Choose 12 hours, as approved by the student's advisor and 12 graduate committee

Total Credit Hours
${ }^{1}$ P SC 5950 is by petition only.

## General Requirements for all Master's Degrees

The master's degree requires the equivalent of at least two semesters of satisfactory graduate work and additional work as may be prescribed for the degree.

All coursework applied to the master's degree must carry graduate credit.
Master's degree programs which require a thesis consist of at least 30 credit hours. All non-thesis master's degree programs require at least 30 credit hours.

Credit transferred from other institutions must meet specific criteria and is subject to certain limitations.

Courses completed through correspondence study may not be applied to the master's degree.

To qualify for a graduate degree, students must achieve an overall grade point average of 3.0 or higher in the degree program coursework and in
all resident graduate coursework attempted. A student must also have at least a 3.0 in all coursework (including undergraduate coursework if any).

Additional information for master's degree students may be found in the Graduate College Bulletin.

# Public Administration: Non-Profit Management, M.P.A. 

Minimum Total Hours (Non-Thesis): 36
Program Code: M805 Q471

- This program is Non-Thesis only.


## Required Courses

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Required Courses |  |  |
| P SC 5003 | Introduction to Public Administration | 3 |
| P SC 5143 | Program Evaluation and Applied Policy <br> Analysis | 3 |
| P SC 5363 | Public Financial Management | 3 |
| P SC 5913 | Introduction to Analysis of Political and <br> P SC 5963 <br> or P SC 5950 | Administrative Data <br> Capstone in Public Administration |

## Concentration

Choose 9 hours of graduate-level courses, as approved by the 9
Graduate Liaison and advisor

## Electives

Choose 12 hours, as approved by the student's advisor and 12 graduate committee

## Total Credit Hours

${ }^{1}$ P SC 5950 is by petition only.

## General Requirements for all Master's Degrees

The master's degree requires the equivalent of at least two semesters of satisfactory graduate work and additional work as may be prescribed for the degree.

All coursework applied to the master's degree must carry graduate credit.
Master's degree programs which require a thesis consist of at least 30 credit hours. All non-thesis master's degree programs require at least 30 credit hours.

Credit transferred from other institutions must meet specific criteria and is subject to certain limitations.

Courses completed through correspondence study may not be applied to the master's degree.

To qualify for a graduate degree, students must achieve an overall grade point average of 3.0 or higher in the degree program coursework and in all resident graduate coursework attempted. A student must also have at least a 3.0 in all coursework (including undergraduate coursework if any).

Additional information for master's degree students may be found in the Graduate College Bulletin.

## Public Administration: Public Management, M.P.A.

Minimum Total Hours (Non-Thesis): 36
Program Code: M805 Q556

- This program is Non-Thesis only.


## Required Courses

| Code | Title | Credit |
| :---: | :---: | :---: |
| Required Courses |  |  |
| P SC 5003 | Introduction to Public Administration | 3 |
| P SC 5143 | Program Evaluation and Applied Policy Analysis | 3 |
| P SC 5363 | Public Financial Management | 3 |
| P SC 5913 | Introduction to Analysis of Political and Administrative Data | 3 |
| $\begin{aligned} & \text { P SC } 5963 \\ & \text { or P SC } 5950 \end{aligned}$ | Capstone in Public Administration ${ }^{1}$ Research Problems | 3 |
| Concentration |  |  |
| Choose 9 hours of graduate-level courses, as approved by the Graduate Liaison and advisor |  | 9 |
| Electives |  |  |
| Choose 12 hours, graduate commi | as approved by the student's advisor and tee | 12 |

Total Credit Hours
${ }^{1}$ PSC 5950 is by petition only.

## General Requirements for all Master's Degrees

The master's degree requires the equivalent of at least two semesters of satisfactory graduate work and additional work as may be prescribed for the degree.

All coursework applied to the master's degree must carry graduate credit.
Master's degree programs which require a thesis consist of at least 30 credit hours. All non-thesis master's degree programs require at least 30 credit hours.

Credit transferred from other institutions must meet specific criteria and is subject to certain limitations.

Courses completed through correspondence study may not be applied to the master's degree.

To qualify for a graduate degree, students must achieve an overall grade point average of 3.0 or higher in the degree program coursework and in all resident graduate coursework attempted. A student must also have at least a 3.0 in all coursework (including undergraduate coursework if any).

Additional information for master's degree students may be found in the Graduate College Bulletin.

## Public Management Concentration Courses

Please consult with with the Department of Political Science for the most current list of approved courses.

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| P SC 5033 | Foundations of Nonprofit Management | 3 |
| P SC 5063 | Nonprofits and the Public Sector Relations | 3 |
| P SC 5093 | Grants and Contracts | 3 |
| P SC 5103 | Organizations: Design, Structure and <br>  <br>  <br> Process | 3 |
| P SC 5113 | Federalism and Intergovernmental | 3 |
| P SC 5133 | Relations | 3 |
| P SC 517ategic Planning and Performance | 3 |  |
| P SC 5183 | Measurement | $2-3$ |
| P SC 5243 | Public Budgeting and Finance | 3 |
| P SC 5253 | Managing Public Programs | 3 |
| P SC 5313 | Human Resource Administration | 3 |

## Public Administration: Public Policy, M.P.A.

Minimum Total Hours (Non-Thesis): 36
Program Code: M805 Q561

- This program is Non-Thesis Only.


## Required Courses

| Code | Title | Credit |
| :---: | :---: | :---: |
| Required Courses |  |  |
| P SC 5003 | Introduction to Public Administration | 3 |
| P SC 5143 | Program Evaluation and Applied Policy Analysis | 3 |
| P SC 5363 | Public Financial Management | 3 |
| P SC 5913 | Introduction to Analysis of Political and Administrative Data | 3 |
| $\begin{aligned} & \text { P SC } 5963 \\ & \text { or P SC } 5950 \end{aligned}$ | Capstone in Public Administration ${ }^{1}$ Research Problems | 3 |
| Concentration |  |  |
| Choose 9 hours Graduate Liaison | f graduate-level courses, as approved by the and advisor | 9 |
| Electives |  |  |
| Choose 12 hours, graduate comm | as approved by the student's advisor and tee | 12 |

## Total Credit Hours

## General Requirements for all Master's Degrees

The master's degree requires the equivalent of at least two semesters of satisfactory graduate work and additional work as may be prescribed for the degree.

All coursework applied to the master's degree must carry graduate credit.
Master's degree programs which require a thesis consist of at least 30 credit hours. All non-thesis master's degree programs require at least 30 credit hours.

Credit transferred from other institutions must meet specific criteria and is subject to certain limitations.

Courses completed through correspondence study may not be applied to the master's degree.

To qualify for a graduate degree, students must achieve an overall grade point average of 3.0 or higher in the degree program coursework and in all resident graduate coursework attempted. A student must also have at least a 3.0 in all coursework (including undergraduate coursework if any).

Additional information for master's degree students may be found in the Graduate College Bulletin.

## Non-Profit Management (Tulsa), Graduate Certificate

Minimum Total Hours: 15
Program Code: G091
This program is currently offered only through OU's Tulsa campus.
The Graduate Certificate in Nonprofit Management requires 15 hours and focuses on skill development. The curriculum in this embedded certificate meets many of the core and area requirements of the MPA.

## Certificate Requirements

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| P SC 5033 | Foundations of Nonprofit Management | 3 |
| P SC 5143 | Program Evaluation and Applied Policy <br> Analysis | 3 |
| NPNG 5033 | Nonprofits: The Sector and The System | 3 |
| NPNG 5413 | Nonprofit Law and Policy | 3 |
| NPNG 5701 | Nonprofit Fundraising and Grantmaking | 1 |
| NPNG 5711 | Nonprofit Financial Management | 1 |
| NPNG 5721 | Nonprofit Human Resources | 1 |

Total Credit Hours 15

A graduate certificate is not a graduate degree. A graduate degree represents a program of independent inquiry beyond the depth of coursework alone, while a graduate certificate represents a set of courses only.

- All courses must be taken at OU. No transfer credit will apply.
- No course substitutions are permitted for graduate certificates.
- Coursework applied to a graduate certificate cannot be more than five years old as of the semester the graduate certificate is awarded.
- Students must earn a grade point average of 3.00 or higher on all coursework applied to the graduate certificate.


## Political Science, Ph.D.

Minimum Total Hours: 90
Program Code: D790

## Program Requirements

- The Ph.D. program requires a minimum of 90 post-baccalaureate hours. A master's degree is not required.
- At least 2 semesters in residence as a full-time student are required.

| Code | Title | Credit Hours |
| :---: | :---: | :---: |
| Required Courses |  |  |
| P SC 5923 | Introduction to Analysis of Political Data | 3 |
| P SC 5933 | Intermediate Analysis of Political Data | 3 |
| P SC 5950 | Research Problems | 3 |
| P SC 6003 | Political Science: Survey of a Discipline | 3 |
| Fields |  |  |
| 9 hours minimum of coursework in three of eight fields, as approved by the committee chair and graduate liaison, and selected from a list maintained by the academic unit and approved by the Graduate College: ${ }^{1}$ |  | 27 |
| American Government \& Politics |  |  |
| Comparative Government \& Politics |  |  |
| International Relations |  |  |
| Political Methodology |  |  |
| Political Theory |  |  |
| Public Administration |  |  |
| Public Law |  |  |
| Public Policy |  |  |
| Dissertation in an Examined Field |  |  |
| P SC 6980 | Research for Doctoral Dissertation | 2-44 |
| Additional Hours |  |  |
| Additional field coursework, electives or master's credit as needed to meet the degree total, as approved by the committee chair and graduate liaison, and selected from a list maintained by the academic unit and approved by the Graduate College. |  | 7-49 |

## Total Credit Hours

1 Students must complete a General Examination (written and oral) in two of the three fields. (Political Methodology is a secondary examining field only. Public Law is a non-examining third field only.) Up to 12 hours may be taken from outside the Political Science department, with not more than 6 hours from any one outside department and not more than 6 hours applied to any one Field of Study.

## General Requirements for Doctoral Degrees

A student should expect to spend at least the equivalent of three full academic years beyond the bachelor's degree to obtain the doctoral
degree. During this period the student will take appropriate graduate coursework, successfully complete the general examination, and successfully defend and submit the final dissertation.

All coursework applied to the doctoral degree must carry graduate credit.
The doctoral degree requires at least 90 post-baccalaureate hours, including both formal coursework and hours of research.

The minimum hour requirement for a specific doctoral degree program cannot be waived.

No more than one-half of the credit hours, both OU and overall, excluding Research for Doctoral Dissertation (6980), may be S/U-graded coursework.

The student must be in residence at OU for at least two consecutive 16week semesters during the pursuit of the doctoral degree while enrolled and engaged in coursework or research activities as prescribed by the major academic unit.

For more detailed regulations and requirements for Doctoral degrees, please consult the Graduate College Bulletin: http://www.ou.edu/ gradcollege/forms/bulletin

## Department of Psychology

Lara Mayeux, Chair
705 Dale Hall Tower
455 W. Lindsey St.
Norman, OK 73019-2007
Phone: (405) 325-4511
FAX: (405) 325-4737
vwillis@ou.edu
www.ou.edu/cas/psychology

## General Information

The Department of Psychology was founded in 1928. The primary emphasis of the department is on psychology as an experimental and applied science. At the present time, the department is focused on the areas of cognitive psychology, social psychology, quantitative psychology, industrial/organizational psychology, developmental psychology, neuroscience, personality/individual differences.

At the undergraduate level, our department offers students an exceptional education that is flexible enough to support a wide range of career paths. Our undergraduate degree programs provide students with the opportunity to develop the type of broad and rich introduction to scientific psychology that will support a wide variety of post-graduate interests, whether they are to further graduate training in such areas as clinical or experimental psychology, pursue graduate training in other professional areas, such as medicine, law, or business, or to immediately seek meaningful employment in the contemporary workplace.

The programs of graduate training in the department are designed to produce experimental psychologists who are capable of assuming positions in academia, as well as industry and government. In a rigorous but cooperative and congenial atmosphere, high-quality research psychologists are trained to contribute to the body of knowledge of scientific psychology, as well as to disseminate and apply psychological knowledge.

The department provides research training by means of a curriculum that requires students to be involved in research beginning with their first enrollment and continuing every semester thereafter.

## Programs \& Facilities

## Laboratory and Teaching Facilities

The laboratory and teaching facilities of the Department of Psychology include the Brain and Cognitive Development lab, Snyder Lab, Center for the Study of Human Operator Performance (C-SHOP), Mumford Lab, Day Lab, and Connelly Lab. SONA is a website that the Department uses to manage all experiments.See Undergraduate Research Opportunities for more details.

## Scholarships and Financial Aid

At the undergraduate level, the department offers The Outstanding Psychology Students (TOPS) scholarships to outstanding psychology students with at least junior standing and a superior record in coursework.

At the graduate level, the department has been able to provide financial support to most of those students wishing to be supported. Summer support is available on a competitive basis. The Charles Gettys Award and a Graduate Student Teaching Award are presented annually for outstanding research and teaching by a graduate student in the department.

## Student Organizations

The University of Oklahoma Psychology Club's purpose is to encourage, stimulate, and maintain excellence in psychology and to facilitate and further knowledge in psychology among students.

Psi Chi is the National Honor Society in Psychology, founded in 1929 for the purposes of encouraging, stimulating, and maintaining excellence in scholarship, and advancing the science of psychology. Membership is open to graduate and undergraduate men and women who are making the study of psychology one of their major interests.

## Undergraduate Study

Students considering a major in psychology should contact an academic advisor in the Department of Psychology.

## Bachelor of Arts

The Bachelor of Arts (p. 671) in Psychology provides the student with experience and training necessary to pursue post-baccalaureate education in psychology and other professional areas or to secure employment immediately following completion of the undergraduate degree, and with the broad education essential to the formation of a wellrounded, informed individual.

## Bachelor of Science

The Bachelor of Science (p. 674) in Psychology is designed to provide additional training and experience in research to those students who want greater mastery in basic sciences and methodology. The B.S. degree program is most appropriate for those students who want to significantly enhance their competitive standing for admission to doctoral training in psychology - although it should be noted that the majority of our B.A. degree students have been highly successful in achieving graduate school acceptance as well.

## Minors

- Pre-Health Social Sciences Minor (p. 677)
- Psychology Minor (p. 677)


## Careers in Psychology

For an excellent introduction to careers in psychology, with a description of many subfields and job domains, please see the brochure (PDF) published by the American Psychological Association (APA).

Psychologists assume many different roles. For example, they work as teachers, researchers, service providers, administrators, and consultants. Because psychologists perform such diverse tasks, they work in many different settings: colleges and universities, elementary and secondary schools, private practices, hospitals, human service agencies, business and industry, and government.

The following are just some of the fields that graduates with bachelor's degrees in psychology have entered: administration and management, business and industry, casework, child care, employment interviewing, health services, marketing and public relations, personnel, probation and parole, psychiatric assisting, research or laboratory assisting, sales, teaching, and technical writing. Students pursuing the bachelor's degree as a terminal degree are encouraged to seek academic counseling on an intensive level with a faculty advisor, and to consult closely with the University's job placement service.

## Graduate Study

## Areas of Specialization

Areas of specialization in graduate training include cognitive psychology, social psychology, industrial-organizational, and quantitative psychology. In addition to these four specializations, researchers in the department also work in one or more of three integrative, cross-cutting specialties: developmental, neuroscience, and personality/individual differences.

The programs of graduate training in the department are designed to produce experimental psychologists who are capable of assuming positions in academia, as well as industry and government. In a rigorous but cooperative and congenial atmosphere, high-quality research psychologists are trained to contribute to the body of knowledge of scientific psychology, as well as to disseminate and apply psychological knowledge.

## Graduate Certificates

- Human Resource Management (p. 682)
- Organizational Psychology (p. 682)
- Organizational Research (p. 682)
- Project Management (p. 683)


## Degree Programs

Master of Arts
The Department of Psychology offers an innovative Master of Arts in Organizational Dynamics program at the Schusterman Center at OU-Tulsa. The program emphasizes research combined with practical application. After completing core courses, students specialize in one of three general tracks: Organizational Dynamics (p. 678), Human Resource Management (p. 679) or Project Management. (p. 680) Students interested in this program should consult with faculty members at OU-Tulsa.

## Master of Science

The Master of Science (p. 681) in Psychology degree is conferred as a mark of progress toward the Ph.D. or as a terminal degree.

## Doctor of Philosophy

To complete the Ph.D. program in either standard Psychology (p. 684) or Industrial and Organizational Psychology (p. 684), a student must complete 90 hours of coursework beyond the bachelor's degree. The individual student, in consultation with a faculty advisory committee, will design a unique course of study that reflects the student's interests and career goals. Successful completion of all coursework, the Ph.D. general exams, and the dissertation is required for the Ph.D.

Students interested in our Quantitative program also take two courses from the mathematics department: Calculus-based mathematical statistics and linear algebra. The pre-requisite calculus courses for these may be taken at OU if the student does not have them at the time of admission.

## General Requirements for MS and Ph.D.

A continuing involvement in directed or independent research is expected to be a part of the student's program of doctoral study. The department has no language requirements, but a student's Advisory Committee may recommend the development of competence in other areas of study (e.g., computer science, industrial engineering, mathematics, philosophy of science, history of science, physiology) of potential benefit to the student's particular professional development and interests.

As a vital part of the graduate training program in psychology, all graduate students are required to be engaged in a training assignment each term. These assignments vary according to the needs and professional aspirations of the student. They are designed to supplement the more formal coursework by a variety of pre-professional activities such as assisting in research, teaching, etc., under faculty supervision. The training assignment increases in responsibility as the student progresses. The amount of time required of the student varies from 10-20 hours per week, depending upon level of progress, the type of assignment, etc. The purpose of these assignments is to train the student in some of the types of activities that the student will ultimately be engaged in after the degree is received.

A student's progress toward the Ph.D. degree is evaluated annually. Additionally, first-year students are evaluated after the first semester. The purpose of these evaluations is to provide feedback to the student and to assess the student's proficiency based on academic coursework, progress in research, and potential for significant contributions to the profession.

## Courses

ODYN 5113 The Psychology of Leadership 3 Credit Hours Prerequisite: graduate standing or permission of instructor. Focuses on the theories, principles, and practice of leadership in organizational settings; particular focus on technologically based organizations, leading change in organizations, and leading teams. (Irreg.)

ODYN 5123 Survey of Organizational Dynamics 3 Credit Hours
Prerequisite: admission to the Organizational Dynamics program or instructor's consent. Overview of theories and practices used in human resource management; project management; and knowledge management. Emphasis is on research methodologies and key theories relevant to each of the three substantive area, as well as application of general principles of each of the three areas in the workforce, considering individual, group and organizational levels. (Irreg.)
ODYN 5133 Teams and Motivation 3 Credit Hours
Prerequisite: graduate standing or permission of instructor. Team formation, socialization and identity, team problem solving, individual and collective motivation, conflict and power, learning and team development, and group liabilities. (Irreg.)
ODYN 5153 Design, Evaluation, and Statistics 3 Credit Hours Prerequisite: graduate standing or permission of instructor. Covers applied research designs such as quasi-experimental and correlation designs; covers basic statistics, hypothesis testing, correlation/multiple regression, and quality control models. Focus will be on application of statistics in organizational problem solving. (Irreg.)
ODYN 5163 Applied Measurement and Analysis 3 Credit Hours Prerequisite: graduate standing or permission of instructor. Focuses on teaching principles and practices of individual and organizational assessment, covering concepts such as validity, reliability, survey and instrument development, and characteristics of organizational data. Techniques for analyzing organizational data and conducting program evaluation will also be discussed. (Irreg.)

## ODYN 5183 Capstone Project

3 Credit Hours
Prerequisite: Graduate standing and ODYN 5973, or permission of instructor. This capstone project will involve real-world application of the material covered in the program. (Irreg.)
ODYN 5223 Performance Management 3 Credit Hours
Prerequisite: Graduate standing or permission of instructor. Covers basic approaches to motivating and developing individuals to perform well within organizational settings; includes discussion of alternative methods for measuring and assessing individual, team, and organizational performance. (Irreg.)
ODYN 5233 Training and Career Development
3 Credit Hours
Prerequisite: graduate standing or permission of instructor. Overview of principles, theories, and practices of learning and development in organizations. Application of various training techniques and designs will be covered as well as roles of different organizational constituencies in employee training and development. (Irreg.)
ODYN 5243 Staffing, Selection, and Compensation 3 Credit Hours Prerequisite: graduate standing or permission of instructor. Focuses on recent, state-of-the-art processes and technologies for organizational staffing, personnel selection, and employee benefits and pay. Relevant theories in these areas will be reviewed. (Irreg.)
ODYN 5253 Organizational Behavior, Change, and Development 3 Credit Hours
Prerequisite: graduate standing or permission of instructor. Explores theories and practices related to the planned process of changing an organization or group's culture to increase organizational productivity and effectiveness. Topics such as organizational assessment and diagnosis, continuous learning, problem solving sessions, reward systems, visioning, and empowerment will be covered. (Irreg.)

## ODYN 5263 Human Resource Management Systems and

 Techniques3 Credit Hours
Prerequisite: Graduate standing or permission of instructor. Survey of theory and practice in primary areas of human resource management such as workforce planning, recruiting, selection and staffing,
performance management, compensation, and training and development.
Focuses on a systems approach to human resource management, including how aspects of HRM are interrelated, as well as strategies and technologies being used to perform various HRM functions. (Irreg.)

ODYN 5283 Employee Health, Safety and Wellness 3 Credit Hours Prerequisite: Graduate standing or permission of instructor. Focuses on health, safety and wellness issues relevant to the workplace. Individual, social, situational and environmental factors that affect workplace health, safety and wellness will be covered, including topics such as: stress and burnout; work-life conflict; workplace safety and injury prevention; legal and regulatory compliance; and workplace conflict, aggression, and violence. (Irreg.)

ODYN 5293 Work and Life Integration 3 Credit Hours Prerequisite: Graduate standing or permission of instructor. This course is designed to teach students about the interactive relationship between the family system and the work system. With the changing demographics of the workforce comes a stronger need to assess the relationship between these two major areas of life on one another. Such topics as work/family conflict, childcare issues, role conflict, marital satisfaction, and work satisfaction are covered. (Irreg.)
ODYN 5313 Planning Processes and Strategy Development 3 Credit Hours
Prerequisite: graduate standing or permission of instructor. Overview of principles and practices of planning and strategy development. Planning processes will be examined at micro as well as macro organizational levels; organizational strategies such as succession planning and workforce planning will be discussed. (Irreg.)
ODYN 5323 The Psychology and Practice of Project Management

3 Credit Hours
Prerequisite: graduate standing or permission of instructor. Focuses on strategies and steps involved in developing project proposals and work plans. Includes topics such as needs assessment, budgeting, resource utilization, managing diverse project teams, troubleshooting, and others. (Irreg.)
ODYN 5333 Customer Service and Market Analysis 3 Credit Hours Prerequisite: Graduate standing or permission of instructor. Principles, theories and applications of market analysis and customer service will be reviewed; techniques for gathering, assessing, and analyzing market and customer data will be covered; and techniques for improving customer service will be discussed. (Irreg.)
ODYN 5343 Organizational Communication 3 Credit Hours Prerequisite: graduate standing or permission of instructor. Overview of theories and systems of communication in organizational settings. Various forms and effectiveness of communication as well as purposes and strategies at different organizational levels will be covered. (Irreg.)
ODYN 5353 Global Business Practices and Ethics 3 Credit Hours Prerequisite: graduate standing or permission of instructor. Covers the relationship between organizations and global markets. Explores how organizational systems work together to meet global demands, system breakdowns, and assessment of organizational performance. (Irreg.)

ODYN 5383 Emerging Topics in Project Management 3 Credit Hours Prerequisite: Graduate standing or permission of instructor. In-depth examination of existing and emerging issues and problems facing project management professionals who work as internal or external consultants. May include issues such as risk management, project selection, conflict resolution, and strategic management decision processes. (Irreg.)

ODYN 5393 Creativity and Innovation in Organizations 3 Credit Hours Prerequisite: Graduate standing or permission of instructor. This course focuses on theories of creativity and its assessment at the individual, group/team, and organizational level. Assumptions and predictions of the theories will be presented and discussed. A special focus will be on the stages of creative processes and their facilitation. (Irreg.)

ODYN 5413 Positive People Practices
3 Credit Hours
Prerequisite: Graduate standing or permission of instructor. Positive people practices are those practices undertaken by organizations that seek to treat five stakeholder groups (society, partners, investors, customers, and employees) as equally important to achieving the organization's vision and mission. This class will discuss a variety of positive people practices and examine diverse organizations that implement such policies effectively. (Irreg.)

ODYN 5513 Knowledge Management in Project-Driven Organizations 3 Credit

## Hours

Prerequisite: Graduate standing or permission of instructor. This class will focus on the 3rd generation of knowledge management and do so with a project-centric strategy. It is a project-centric environment that makes knowledge management most feasible for active, growing organizations. Students will learn methods and tools they can use to bring a sense of order to organizational knowledge. (Irreg.)
ODYN 5960 Directed Readings
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing and permission of department. May be repeated; maximum credit twelve hours. Directed readings and/or literature reviews under the direction of a faculty member. (F, Sp, Su)

ODYN 5970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)
ODYN 5973 Proposing and Presenting Research 3 Credit Hours Prerequisite: admission to Organizational Dynamics master's program. Students in the course will learn to (a) read, synthesize and summarize existing research in organizational dynamics; (b) develop a research proposal that is founded in real world problems, that is based on sound research principles, and that meets accepted standards for professional and scholarly publication. The proposal, on approval of the faculty, may serve as the prospectus for either the professional project or the master's thesis. (F, Sp)

## ODYN 5980 Research for Master's Thesis 2-4 Credit Hours

Prerequisite: permission of instructor. Supervised research in area agreed upon by the student and the instructor. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
ODYN 5990 Independent Study 1-3 Credit Hours 1 to 3 hours. Prerequisite: Graduate standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)

PSY 1113 Elements of Psychology
3 Credit Hours
A survey of the scientific study of human behavior. Emphasis is placed upon scientific method, basic life processes, mechanisms of adaption, individual differences and group behavior. Students have the opportunity to be exposed to the research process either by serving as participants in research experiments or by conducting reviews of research topics. (F, Sp, Su ) [III-SS].
PSY 2001 Career Exploration for Psychology
1 Credit Hour
Prerequisite: PSY 1113 or concurrent enrollment. This course will explore the range of career options in psychology and other fields available to those with bachelor's and graduate psychology degrees, and provide academic planning assistance. Sub-disciplines within the field of psychology will be examined as well as graduate school application processes. (F, Sp, Su)

## PSY 2003 Understanding Statistics

3 Credit Hours
Prerequisite: Math 0123 or satisfactory score on math placement test. An introductory applied statistics course which will focus on descriptive and inferential statistical methods. Emphasis will be placed on in-class activities and homework which help the student learn by experience. Topics include measures of central tendency and variability, z-scores, normal distribution, correlation, regression, sampling distributions, hypotheses testing, t-tests and chi-square tests. Laboratory ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ ) [lM].

## PSY 2403 Introduction to Personality

3 Credit Hours
Prerequisite: PSY 1113 or permission of instructor. Introduces the classic theoretical perspectives in personality psychology and establishes a solid foundation for understanding personality dynamics. The emphasis is on personality theories representing (but not limited to) the psychodynamic, trait, cognitive, behavioral, and humanistic perspectives. (F, Sp, Su)
PSY 2503 Computing for Behavioral Sciences 3 Credit Hours
Students will learn to identify the parts and functions of personal computers. Building on that basic knowledge, such topics as developing and publishing a web page, collecting data from participants through the web, and using the advanced features of Excel for statistical analysis will be covered. Programming languages will include HTML and JavaScript. (F, Sp, Su)
PSY 2603 Lifespan Development
3 Credit Hours
Prerequisite: PSY 1113. Survey of the psychological changes across the life span; the changes in cognitive, social, emotional, and physiological development from conception to death will be included. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

## PSY 2970 Special Topics

1-3 Credit Hours
1 to 3 hours. Prerequisite: May be repeated; maximum credit nine hours. Special topics course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research, and field projects. (Irreg.)
PSY 3003 Advanced Undergraduate Statistics
3 Credit Hours
Prerequisite: PSY 2003 or PSY 2113. Review of previous material, SAS, multiple comparisons, two-way ANOVA, power calculations, repeated measures designs, multiple linear regression, general linear model, nonparametric methods. Designed to help students prepare for graduate statistics courses. (Irreg.)
PSY 3083 Animal Behavior
3 Credit Hours
(Crosslisted with ZOO 3083) Prerequisite: Zoology 2013 or permission of instructor. Animal behavior from an evolutionary perspective. The effects of natural selections on mechanisms underlying behavior and on diversity of behavior among and within species. (F,Sp)

PSY 3114 Research Methods: Applications and Experimental Design

## 4 Credit Hours

Prerequisite: Major in Psychology; PSY 1113; PSY 2003 or PSY 2113. Examines how new discoveries are made in psychology through the scientific method. Primary goal is to prepare students to conduct an independent research project to address a theoretical question, analyze and interpret the data, and present the data to others in both written and oral form. Laboratory. (F, Sp, Su)
PSY 3203 Cognitive Psychology
3 Credit Hours
Prerequisite: PSY 1113. Surveys how people extract relevant information from their environment and store, retrieve and utilize such information at a later time. Topics will include memory storage and retrieval, attention, imagery, mnemonic devices and other cognitive processes. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

## PSY 3313 Positive Psychology 3 Credit Hours

Prerequisite: PSY 1113. Survey of positive psychology--the scientific study of the conditions and processes that contribute to the flourishing or optimal functioning of people, groups, and institutions. Topics include research methods, models of well-being, positive emotions, positive relationships, engagement and flow, self-regulation and grit, goals and habits, optimism and hope, as well as applications and interventions.

## PSY 3440 Mentored Research Experience <br> 3 Credit Hours

0 to 3 hours. Prerequisite: PSY 1113 or equivalent, and permission of instructor; May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)
PSY 3613 Developmental Psychology: Infancy through Adolescence 3 Credit Hours
Prerequisite: PSY 1113; PSY 2003 or PSY 2113, or permission of instructor. Introduces themes, theories, and scientific research on cognitive, social, and emotional development from infancy through adolescence. Explores fundamental psychological questions of how we become who we are, what factors cause children's development of behavior and mind, and what leads to the diversity of developmental outcomes. No student may earn credit for both PSY 2603 and PSY 3613. (Irreg.)
PSY 3703 Social Psychology 3 Credit Hours
Prerequisite: PSY 1113. The science of how people think and feel about, relate to, and influence one another. Topics include classic and contemporary research on stereotypes, persuasion, attitude change, emotions, the self-concept, aggression, impression formation, and altruism, among others. (F, Sp, Su)
PSY 3753 Introduction to Industrial Organizational Psychology 3 Credit

Hours
Prerequisite: PSY 1113 and PSY 2003 or PSY 2113 or permission of instructor. Industrial Organizational psychology covers psychological theories and their practical applications to the workplace. The course covers issues of critical relevance to the well-being of individuals and organizational performance. Topics include, but are not limited to, motivation, selection, training, assessment, performance management, satisfaction, teams, and leadership. (F, Sp, Su)
PSY 3803 Physiological Psychology 3 Credit Hours Prerequisite: PSY 1113 or equivalent; and BIOL 1114 or BIOL 1124 or equivalent. Provides an introduction to physiological and neurological foundations of behavior. Some emphasis will be placed on contemporary issues and theoretical models. ( $F, S p$ )

PSY 3960 Honors Reading
1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program, PSY 2003 or PSY 2113, and permission of department. May be repeated; maximum credit six hours. Will consist of topics designated by the instructor in keeping with the student's major program. The topics will cover materials not usually presented in the regular courses. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

PSY 3970 Honors Seminar 1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program; PSY 2003 or PSY 2113. May be repeated; maximum credit six hours. The projects covered will vary. The content will deal with concepts not usually presented in regular coursework. (Irreg.)
PSY 3980 Honors Research
1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program, PSY 2003 or PSY 2113, and permission of department. May be repeated; maximum credit six hours. Will provide an opportunity for the gifted Honors candidate to work at a special project in the student's field. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

## PSY 3990 Independent Study

1-3 Credit Hours
1 to 3 hours. Prerequisite: one course in general area to be studied, PSY 2003 or PSY 2113, and permission of department. May be repeated; maximum credit, six hours. Contracted independent study for topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (F, Sp, Su)
PSY 4023 Psychological Test and Measurements 3 Credit Hours Prerequisite: PSY 1113, and PSY 2003 or PSY 2113; and junior standing. An introduction to the measurement of human behavior. Special emphasis is given to tests of intelligence, achievement, personality, and interest. (Irreg.)

## PSY 4113 Capstone Survey of Major Fields in Psychology <br> 3 Credit Hours

Prerequisite: Major in Psychology; PSY 3114 or permission of instructor; senior standing. Lecture-based course focusing on major areas of psychology. Attempts to instill in the student an understanding of the integration and diversity of the field of psychology. Content and title vary with instructor. ( $F, S p$ ) [V].
PSY 4143 Capstone Service Learning
3 Credit Hours
Prerequisite: Major in Psychology; PSY 2403, PSY 3114, PSY 4453; senior standing and permission of instructor. Students apply learning from other courses to a project of significant community need. Classes are held both on campus and on-site. Students will develop a written description of the experience and the psychological principles applied. (F, Sp) [V].
PSY 4243 Decision Making and Problem Solving 3 Credit Hours Prerequisite: PSY 2003 or PSY 2113, and PSY 3203. Review of issues in inductive thinking, deductive reasoning, inference generation, problem solving, insight, expertise, algorithms, and heuristics. The emphasis will be on current research investigations. (Irreg.)

PSY G4253 Selected Topics in Cognitive Science 3 Credit Hours Prerequisite: PSY 1113 and PSY 3114 and PSY 3203, and PSY 2003 or PSY 2113; or permission of instructor. May be repeated with change of content; maximum credit 6 hours. Seminar focusing on specific issues in cognitive science. Topics include memory representation and retrieval, symbol and referent processing, knowledge structure, expert and novice differences, imagery, and others. (Irreg.)

## PSY 4263 Psychology and Law

## 3 Credit Hours

Prerequisite: 3114. Examines some of the most important points of contact between the fields of psychology and the law, including eyewitness identification, the prison system, juries, and confessions and interrogations. (Irreg.)

PSY 4283 Neural Bases of Perception and Cognition 3 Credit Hours Prerequisite: Junior standing; PSY 1113, PSY 2003, and PSY 3114; PSY 3203, PSY 3803, or permission of instructor. Survey of the ways in which the structures and functions of the nervous system support psychological experience, including basic perception, attention, memory, and complex cognition. Topics to be emphasized may vary by semester. (Irreg.)
PSY G4313 Motivation
3 Credit Hours
Prerequisite: PSY 2003 or PSY 2113. Primary motivational states and learned motivational states (e.g., fear, frustration, anxiety, etc.) will be considered as well as emotion and curiosity. Topics of current interest in both human and animal motivation will also be covered. (Irreg.)

## PSY 4343 Health Psychology

3 Credit Hours
Prerequisite: Major in Psychology; PSY 1113 or an introductory Biology course. Health psychology examines the bi-directional relationship between psychology and health. Topics include, but are not limited to, physiological and psychological factors that influence perceptions of stress, the links between stress and illness, the psychosocial influences on health enhancing and health compromising behaviors, adjustment to illness and coping, pain, sociocultural factors and health, and personality and health. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
PSY G4403 Advanced Personality
3 Credit Hours
Prerequisite: PSY 1113, PSY 2403, and junior standing or permission of instructor. Advanced personality course focusing on modern and current theoretical and empirical research. Introduces the research methods personality psychologists use to make substantive contributions to the scientific understanding of human thoughts, feelings, and behaviors. Topics include (but are not limited to) field dependence, autonomy, sex/ gender, subjective well-being, dominance, leadership, sensation-seeking, risk-taking, pain tolerance, sensation reducing/augmenting, and locus of control. (Irreg.)

## PSY 4413 Behavioral Addictions

3 Credit Hours
Prerequisite: major in Psychology; PSY 1113. This course provides a conceptualization of behavioral addictions and brief overview of the varied forms of addictive behaviors and treatments, including gambling, online gaming, food addiction, pornography addiction, sex addiction, compulsive shopping, Internet addiction, and a variety of impulse control disorders, among others. Attention is given to the relationship between behavioral addictions and substance addictions across a number of domains. (Irreg.)
PSY 4423 Eating Disorders
3 Credit Hours
Prerequisite: major in Psychology; PSY 1113. Eating Disorders provides an introduction to the characteristics and criteria associated with a variety of forms of disordered eating. It covers Pica, Avoidant-Restrictive Food Intake Disorder, anorexia nervosa, bulimia, binge eating disorder, and compulsive overeating, among others, and overviews key features of their causes, presentation, and treatment. (Irreg.)
PSY 4433 Clinical Psychology
3 Credit Hours
Prerequisite: Major in Psychology; PSY 1113, PSY 2003 or 2113, and PSY 4453. A survey of the field of Clinical Psychology. Topics include but are not limited to the following: Current Issues in the field, such as training and ethics; Psychological assessment; and Psychotherapy. Evidence-Based Practice in Psychology (EBPP) is emphasized. ( $\mathrm{F}, \mathrm{Sp}$ )

PSY 4443 Law, Counseling, \& Psychology
3 Credit Hours
Prerequisite: PSY 1113 and PSY 2003; junior standing. This course deals with topics at the interface of psychology, counseling, and the law. There are many points of contact between these fields, including eyewitness identification, confessions, and interrogations, forensic confirmation biases, jury decision-making, the death penalty, the impact of and rationale for incarceration, evaluation of competency, mental illness, deception detection, plea bargains, the impact of race, etc. (Irreg.)
PSY 4443 Law, Counseling, \& Psychology 3 Credit Hours
Prerequisite: PSY 1113 and PSY 2003; junior standing. This course deals with topics at the interface of psychology, counseling, and the law. There are many points of contact between these fields, including eyewitness identification, confessions, and interrogations, forensic confirmation biases, jury decision-making, the death penalty, the impact of and rationale for incarceration, evaluation of competency, mental illness, deception detection, plea bargains, the impact of race, etc. (Irreg.)

PSY 4453 Abnormal Psychology
3 Credit Hours
Prerequisite: Major in Psychology; PSY 1113 and PSY 2403, and PSY 2003 or PSY 2113; or permission of instructor. An examination of the major clinical and research findings in the field of abnormal psychology. Topics include studies of conflict, anxiety, neurosis, character disorders, schizophrenia, and psychotherapy. (F, Sp)
PSY 4510 Applications of Psychology Practicum 1-3 Credit Hours 1 to 3 hours. Prerequisite: PSY 2003 or PSY 2113, 12 hours of psychology, permission of instructor. May be repeated; maximum credit six hours; undergraduates limited to two enrollments. Individualized field experiences in an area of interest in psychology. (F, Sp)
PSY 4523 Sport \& Exercise Psychology 3 Credit Hours
Prerequisite: PSY 1113, and PSY 2003 or PSY 2113, and junior standing; or instructor permission. Course discusses how psychological principles can be used by physical educators, coaches, and athletes in everyday situations and to cultivate peak performance and personal growth, and also many practical issues relevant to students, such as anxiety and stress; confidence and coping strategies; skill acquisition and training; attention control; goal setting; self-regulation; coaching and leadership, cohesion; burnout; injuries; and career options. (Irreg.)
PSY 4613 Current Topics in Developmental Psychology 3 Credit Hours Prerequisite: PSY 2003 or PSY 2113, and PSY 2603 or PSY 3613; or permission of instructor. May be repeated with change of content; maximum credit 6 hours. An advanced seminar dealing with contemporary issues in developmental psychology. Content will vary with the instructor. (Irreg.)
PSY 4633 Social and Personality Development 3 Credit Hours Prerequisite: PSY 1113, and PSY 2603 or PSY 3613. Explores theory and research in social and personality development from infancy through adolescence. Topics covered include attachment, temperament, emotional development, moral development, peer relationships, gender development, prosocial and antisocial behavior, and the influence of parenting, child care, and other important developmental contexts on the behavior and adjustment of children and adolescents. (Irreg.)
PSY 4653 Cognitive Development
3 Credit Hours
Prerequisite: PSY 2603 or PSY 3613. This course explores classic and contemporary theory and research on cognitive development from infancy through adolescence, including perceptual development, attention and memory, conceptual development, language, and social cognition. (F, Sp)

PSY 4673 Psychology of the Family
3 Credit Hours
Prerequisite: PSY 2603. This course addresses family structure and functioning as they affect human development from pregnancy through adulthood. Topics covered include the influence of parents, siblings, and grandparents; childless and childfree families; and family resilience. ( $F$, Sp )

## PSY 4703 Psychology of Leadership

3 Credit Hours
Prerequisite: major in Psychology, senior standing or permission of instructor. Provide students with an understanding of the psychological principles underlying leadership in government, industry, and society. Review psychological research on leadership and management, examining topics such as leadership skills, leading changes in organization, leader-follower relationships, and leadership tactics. Students will participate in various exercises to analyze leadership strategies and assess their potential strengths and weaknesses as leaders. (Sp)
PSY 4713 Prejudice and Civil Rights
3 Credit Hours
Prerequisite: PSY 1113. The Psychology of Prejudice and Civil Rights examines systems of privilege, oppression, and institutionalized discrimination that influence and help maintain racism, sexism, heterosexism, and classism and their psychological consequences on the individual and society. This course is designed to acquaint you with a modern conceptualization of these issues and provide you with a more comprehensive understanding of this field. (Irreg.)
PSY 4723 Moral Psychology
3 Credit Hours
Prerequisite: Junior Standing. This course focuses on moral behavior and reasoning informed by empirical science and philosophy. Topics may include moral motivation, moral responsibility, character traits, virtues, cross-cultural differences, reactive attitudes, moral development, and applied issues. (Irreg.)
PSY 4733 Selected Topics in Social Psychology
3 Credit Hours Prerequisite: junior standing or permission of instructor. May be repeated once with change of topic; maximum credit six hours. Content varies with the instructor. Deals with central topical areas of study in social psychology (i.e., attitudes and social cognition; person perception; groups and group dynamics; or theory construction). (Irreg.)
PSY 4763 Work, Stress, and Health
3 Credit Hours
Prerequisite: PSY 1113; PSY 2003 or PSY 2113; and PSY 3753. This Work, Stress, and Health course is the interdisciplinary study of how psychological factors influence employee health and wellness in the workplace. (Irreg.)

## PSY 4793 Psychology of Groups

3 Credit Hours
Prerequisite: 1113. Provides students with an understanding of the psychological principles underlying group behavior. Topics covered will include group formation and development, cohesion and norms, social influence, power, inter-group relations, stereotyping and prejudice, group decision making, diversity within groups, stigma in the workplace, social identity, leadership in groups, group performance, and staffing organizational groups. (Irreg.)
PSY 4910 Instructional Aides
1-3 Credit Hours
1 to 3 hours. Prerequisite: PSY 1113 and PSY 2003 or PSY 2113; junior standing (or honors students); majors with grade point averages of at least 3.00 and acceptance of an application, or by invitation by faculty member. May be repeated once, maximum credit six hours. Designed for students contemplating graduate school to offer experience in all aspects of instruction. Individual assignments of special instructional tasks in psychology. Supervised instructional experience will be part of each enrollment. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

## PSY 4920 Current Topics in Basic and Applied

## Psychology

1-3 Credit Hours
1 to 3 hours. Prerequisite: PSY 1113, and PSY 2003 or PSY 2113; May be repeated with change of content; maximum credit 9 hours. Content and number of credit hours varies with instructor and section. Focus on current topics in psychology not covered in existing course offerings. Intended for purpose of offering high interest course topics during regular semester, summer, and intersession. (F, Sp, Su)
PSY G4940 Seminar in Psychology
1-3 Credit Hours
1 to 3 hours. Prerequisite: PSY 1113, and PSY 2003 or PSY 2113; and junior standing; or departmental permission. May be repeated with change of content; maximum credit 6 hours. Advanced seminar dealing with contemporary issues and problems in psychology. Content varies with instructor. (F, Sp, Su)

PSY 4960 Directed Readings
1-4 Credit Hours
1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean. May be repeated; maximum credit four hours. Designed for upper-division students who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)

## PSY 4970 Special Topics

1-3 Credit Hours
Special Topics. 1 to 3 hours. Prerequisite: Junior standing or permission of instructor. May be repeated; Maximum credit nine hours. Special topics course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research, and field projects. (Irreg.)
PSY 4990 Independent Study 1-3 Credit Hours
1 to 3 hours. Prerequisite: PSY 2003 or PSY 2113, PSY 3114, three courses in general area to be studied, and permission of instructor. May be repeated; maximum credit six hours. Contracted independent study for topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (F, Sp, Su)
PSY 5003 Psychological Statistics I
3 Credit Hours
Prerequisite: graduate standing and undergraduate statistics course, or permission of instructor. Applied statistics with emphasis upon statistical problems in behavioral sciences research. Includes probability, descriptive statistics, estimations and test of hypotheses. Techniques covered in depth include t-test, one and two factor ANOVA methods, multiple comparison methods (e.g., Scheff, Tukey, Ryan, etc.), and the robustness of these techniques to violation of their assumptions.

## PSY 5013 Psychological Statistics II

3 Credit Hours
Prerequisite: 5003 or equivalent, or permission of instructor. The general linear model is covered as it applies to the analysis of variance including fixed, mixed, and random models, individual comparisons, analysis of covariance, and multiple regression. Also, some nonparametric techniques are discussed including chi-square and distribution free procedures.

## PSY 5203 Survey in Cognitive Psychology

3 Credit Hours
Prerequisite: graduate standing or permission. Survey of the field of cognitive psychology designed to provide a foundation for the study of human higher mental processes. Topics include: pattern recognition, attention, episodic memory, semantic memory, psycholinguistics, comprehension, reasoning, decision making and problem solving.

## PSY 5280 Seminar in Cognitive Processes

1-4 Credit Hours
1 to 4 hours. Prerequisite: 5203 or permission of instructor. May be repeated with change of subject matter; maximum credit six hours. Considers special topics in cognitive psychology emphasizing recent research literature.

PSY 5403 Survey in Developmental Psychology 3 Credit Hours Prerequisite: graduate standing in the department or permission of instructor. Survey of classic and contemporary research in developmental psychology. (Irreg.)
PSY 5423 Current Theories in Social Psychology 3 Credit Hours Prerequisite: graduate standing and permission of instructor. An overview of current theory and research in social psychology, including such topics as motivated cognition, automatic and controlled processing, stereotyping, impression formation, attributions, the self-concept and self-regulation, relationships, emotions, attitudes, altruism, and aggression. (Irreg.)
PSY 5703 Survey of Industrial Psychology
3 Credit Hours
Prerequisite: Graduate standing. This course is intended to provide an overview of the key principles and practices of Industrial/Organizational psychology with an emphasis on work analysis and the selection, assessment, and development of human resources. This course will also examine legal and ethical issues faced by I/O psychologists as well as strategic workforce planning. (Irreg.)

PSY 5713 Training and Development
3 Credit Hours
Prerequisite: 5703. Design and development of training courses as well as practical considerations in the delivery of training in organizational settings. (Sp)

PSY 5723 Selection and Assessment in Organizations 3 Credit Hours Prerequisite: 5703. Covers a variety of substantive topics including; the choice and design of personnel selection tools, validation of employment tests, legal issues regarding personnel assessment and selection, assessment of intelligence, experience, personality and integrity, the use of common assessment methods such as situational judgment tests, interviews, biodata, and assessment centers, frame-of-reference training, theoretical and empirical literature regarding assessment center technology, and development and administration of an assessment center. (Irreg.)
PSY 5733 Techniques in Industrial and Organizational
Psychology
3 Credit Hours
Prerequisite: 5703. Provides an overview of how to develop and apply several methodologies and techniques that I/O psychologists commonly use to address organizational needs. During this course we will explore topics such as basic consulting skills, job analysis, individual assessment and selection, biodata, performance appraisal, ad organizational surveys. Some basic familiarity with these areas is assumed. This class focuses on how to develop and implement these types of applications in organizational settings. (Irreg.)

## PSY 5743 Survey of Organizational Psychology 3 Credit Hours

Prerequisite: Graduate standing. The purpose of this course is to provide a broad overview of important topics defining organizational psychology and organizational behavior from a psychological perspective, covering topics such as organizational socialization, commitment, networks and culture, conflict and negotiation, organizational change, and counterproductive work behavior. (Irreg.)
PSY 5753 Cognition in Organizations
3 Credit Hours
Prerequisite: Graduate standing. Organizational cognition has become a key sub-discipline in the fields of organizational behavior and organizational psychology. This course will examine the nature of knowledge in organizations and how this knowledge is used in decisionmaking. It will also examine key cognitive processes (e.g. creative problem solving processes, forecasting, causal analysis) involved in organizational cognition along with key applications. (Irreg.)

PSY 5763 Individual Differences
3 Credit Hours
Prerequisite: Graduate standing. Understanding of the sources of human variation provides a basis for many psychology-based interventions. This course reviews critical findings, major theories, and research methods employed in studying the major content areas involved in the study of individual differences, covering general domains such as cognitive, motivational, dispositional/trait, and group-based individual differences. (Irreg.)
PSY 5783 Seminar in I/O Psychology 3 Credit Hours
Prerequisite: Graduate standing; May be repeated with change of topic; maximum credits 12 hours. The purpose of this course is to provide a general course number that can be repeated with a change of content. A variety of courses will be taught under this number such as Organizational Cognition, Organizational Ethics, Innovation in Organizations, and Individual Differences. (Irreg.)
PSY 5901 Foundations of Psychological Science I 1 Credit Hour Prerequisite: admission to graduate psychology program. Overview of current research in psychological science. Discussion of ethics, professional development, the pedagogical arts, methodology and grantsmanship. Participants complete a first year research project including a grant proposal, presentation at a professional meeting and presentation at departmental speaker series.
PSY 5911 Foundations of Psychological Science II 1 Credit Hour Prerequisite: 5901. Continuation of 5901. Advanced topics in professional development, research planning, funding and communication.
PSY 5960 Directed Readings in Psychology 1-4 Credit Hours 1 to 4 hours. Prerequisite: graduate standing, permission of instructor, adviser and dean. Maximum credit nine hours. Supervised reading of selected topics in psychology by agreement of instructor and student. (F, Sp, Su)
PSY 5970 Pre-Master's Research in Psychology $\quad$ 1-4 Credit Hours Prerequisite: graduate standing; pre-master's status; permission of instructor. May be repeated; maximum credit nine hours. Supervised research in area agreed upon by student and instructor. Students conducting research for the master's thesis should enroll in 5980. (F, Sp, $\mathrm{Su})$

## PSY 5980 Research for Master's Thesis

2-9 Credit Hours
Variable enrollment, two to nine hours; maximum credit applicable toward degree, four hours. (F, Sp, Su)

## PSY 5990 Independent Study

1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)
PSY 6013 Factor Analysis and Structural Equation

## Models

## 3 Credit Hours

Prerequisite: 5003, 5013 or equivalent. Several exploratory factor analysis models are discussed including principle factors, maximum likelihood, and alpha-factors analysis. Factor-analytic-like models such as components analysis and image analysis are also covered. Offers an overview of the application of structural equations in the social sciences. (Irreg.)
PSY 6023 Statistical Models of Tests Scores 3 Credit Hours
Prerequisite: 5003, 5013 or equivalent. Topics include classical test theory, item-sampling theories, latent ability test theory, item analysis and test validation. (Irreg.)

PSY 6063 Seminar in Quantitative Psychology 3 Credit Hours
Prerequisite: 5013 or permission of instructor. May be repeated with change of topic; maximum credit 15 hours. The topic or topics to be covered depend upon the faculty member or members in charge of the seminar at the time it is offered.

PSY 6073 Experimental Design for Psychology 3 Credit Hours
Prerequisite: 5003, 5013, or permission of instructor. Classical experimental design applied to research problems in the behavioral sciences; completely randomized, randomized blocks, factorial, Latin square, fractional factorial and repeated measures designs, confounding, and related topics are discussed. (F)
PSY 6223 Quantitative Models in Cognition
3 Credit Hours
Prerequisite: 5203 or permission. Survey of quantitative models in cognition, with an emphasis on memory and reaction time. Techniques for model testing and development will be taught and supported by exercises.

PSY 6280 Advanced Seminar in Cognitive Processes 1-4 Credit Hours 1 to 4 hours. Prerequisite: 5203 or permission. May be repeated with change of subject matter; maximum credit 12 hours. Special topics in human learning and memory or in memory and cognitive processes will be considered in detail, emphasizing recent research literature and development of research proposals. (Irreg.)

PSY 6323 Teaching of Psychology
3 Credit Hours
Prerequisite: Graduate standing and permission of instructor. The purpose of this course is to prepare you to excel as an independent instructor, whether you are teaching for the first time or already have experience as an instructor of record. The class is designed with a practical focus on preparing course materials, creating assignments, delivering content, managing interactions, and evaluating student work. (Sp)
PSY 6423 Seminar in Social Psychology
3 Credit Hours
Prerequisite: graduate standing and permission of instructor. May be repeated with change of topic; maximum credit nine hours. Intensive study of major problem areas in social psychology, including intrapersonal processes, group dynamics, the self, and research methods. Course topic will vary. (Irreg.)
PSY 6433 Seminar in Theories of Personality
3 Credit Hours
Prerequisite: graduate standing in Psychology or permission of instructor. May be repeated with change of topic; maximum credit 12 hours. Intensive exploration of both traditional and modern theories of personality. Examples from several major categories of personality theory are examined through intensive primary readings, writing, and discussion. (Irreg.)

PSY 6443 Stress, Health, and Identity
3 Credit Hours
Prerequisite: Graduate standing or instructor permission. The focus of this course is to consider theoretical perspectives, methods, and research findings in the study of stress, health, and identity. Course content includes perspectives on stress, coping, and health; research on advancing health equity and justice; and multiple facets of identity as they relate to adjustment, well-being, and health from social and developmental psychology perspectives. (Irreg.)
PSY 6453 Seminar in Interpersonal Relationships 3 Credit Hours Prerequisite: Graduate standing and permission of instructor. Covers classic and contemporary theories and findings in the social psychological literature on interpersonal relationships, with a focus on the biological, motivations, social and personality factors that contribute to attraction, closeness, satisfaction, and stability in dyadic relationships. (Irreg.)

PSY 6643 Seminar in Developmental Psychology 3 Credit Hours
Prerequisite: graduate standing or permission of instructor. May be repeated with change of topic; maximum credit 12 hours. Involves indepth study of theory and research in major areas of developmental psychology, e.g., social cognition, peer relations, emotions, temperament and personality, morality, aggression, theory of mind. (Irreg.)

PSY 6703 Advanced Seminar in Industrial and Organizational Psychology

3 Credit Hours
Prerequisite: 5703. May be repeated with change of content; maximum credit nine hours. Focus in-depth on one or more topics examining the area with respect to new theoretical developments and major research findings. Topics may include active, emergent research areas likely to lead to changes in theoretical and professional practice including motivation, team effectiveness, work and family issues, changes in job design, etc. (Sp)

PSY 6713 Leadership Theories, Research, and Practice 3 Credit Hours Prerequisite: 5703. This graduate seminar examines the theoretical and empirical research as well as case studies on a variety of topics in the field of leadership, leadership dyads, outstanding forms of leadership (transformational, charismatic, pragmatic), politics, leading innovation and change, assessing leadership effectiveness, gender and leadership, and cross-cultural leadership. (Irreg.)
PSY 6910 Readings in Psychology
1-4 Credit Hours
1 to 4 hours. Prerequisite: advanced graduate standing (post-master's). May be repeated; maximum graduate credit nine hours. Supervised reading for advanced students. Topics chosen by agreement of instructor and student

## PSY 6923 History of Psychology

3 Credit Hours
Prerequisite: graduate standing. Introduction to origin of modern psychology within science. Origins are examined from the ancient Greeks through philosophy, physiology, and astronomy. Special emphasis placed on the historical trends and the people involved.

PSY 6930 Res-Cognitive Process, Sensation-Perception, Physiological Psy 1-6 Credit Hours
1 to 6 hours. Prerequisite: by permission of instructor only. May be repeated; maximum graduate credit eighteen hours. Supervised laboratory research on major projects in an area of mutual interest with a faculty member. Upon advice of the instructor involved, enrollment for work on minor research projects in the above areas may alternatively be in 4990. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

## PSY 6940 Research in Personality: Social and Developmental Psychology 1-6 Credit Hours

1 to 6 hours. Prerequisite: by permission of instructor only. May be repeated; maximum graduate credit 18 hours. Supervised individual laboratory research on major projects in an area of mutual interest with a faculty member. Upon advice of the instructor involved, enrollment for work on minor research projects in the above areas may alternatively be in 4990. (F, Sp, Su)

## PSY 6960 Research in Industrial and Organizational

## Psychology 1-6 Credit Hours

1 to 6 hours. Prerequisite: 5703 and permission of instructor. May be repeated; maximum credit twelve hours. Provide guided research experiences preparatory for master's and doctoral degrees. Topics selected in consultation with faculty member may include leadership, management ethics, and motivation. Exposure to key aspects of the research process including literature reviews, study design, data analysis, report preparation, proposal writing, paper presentation, and article writing. (F, Sp, Su)

PSY 6970 Post-Master's Research in Psychology 1-4 Credit Hours
Prerequisite: master's degree and permission of instructor. May be repeated; maximum credit 12 hours. Supervised research for advanced graduate students on major projects of mutual interest with a faculty member. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

PSY 6980 Research for Doctoral Dissertation 2-16 Credit Hours
2 to 16 hours. Prerequisite: Graduate standing and permission of instructor; may be repeated. Directed research culminating in the completion of the doctoral dissertation. (F, Sp, Su)

PSY 6990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)

## Faculty

| Last Name | First/Middle <br> Name | Middle | OU | Title(s), date(s) | Degrees Earned |
| :--- | :--- | :--- | :--- | :--- | :--- |
|  |  |  | Service <br> start |  | Sppointed |


| Campbell Nicole J 2000 | ASSOCIATE |  |
| :--- | :--- | :--- |
|  |  | PROFESSOR OF |
|  |  | PSYCHOLOGY 2008 |

PhD, Arizona State
Univ, 1997; MA Arizona State Univ, 1993; BS, Texas A\&M Univ, 1990

| Carvallo | Mauricio | R | 2007 | ASSOCIATE <br> PROFESSOR OF | PhD, SUNY at Buffalo <br> 2007; MA, SUNY at |
| :--- | :--- | :--- | :--- | :--- | :--- |
|  |  |  |  |  |  |
| PSYCHOLOGY, 2013 |  |  |  |  |  | | Buffalo, 2003; BA, |
| :--- |
| Univ of California-Los | PROFESSOR OF LIBERAL STUDIES, 2015


| Chevalier | Tess |  | 2018 | LECTURER | Ph.D., Univ of <br> Wyoming |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Cokely | Edward | T | 2015 | PROFESSOR OF | PhD, Florida State | PSYCHOLOGY, 2018; Univ, 2007; MS PRESIDENTIAL Florida State Univ, RESEARCH 2003; BA, Cal State PROFESSOR, 2015 Univ-Fresno, 200

PROFESSOR OF PhD, George Mason PSYCHOLOGY Univ

PhD, George Mason Univ, 1995; MA George Mason Univ 992; BA, Loyola College, 1989
2011; PROFESSOR OF PSYCHOLOGY, 2014

| Day | Eric 2001 | PROFESSOR OF <br> PSYCHOLOGY, 2014 | PhD, Texas A\&M Univ, <br> 1998; MS, Central <br> Florida Univ, 1993; |  |
| :--- | :--- | :--- | :--- | :--- |
|  |  |  |  | BS, James Madison <br> Univ, 1991 |
| Ethridge | Lauren |  | ASSISTANT <br> PROFESSOR OF <br> PSYCHOLOGY | PhD, Univ of Georgia |


| Freeman | Erin | K | 2017 | ASSOCIATE <br> PROFESSOR OF PSYCHOLOGY, 2017 | PhD, Univ of Oklahoma |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Fuenzalida | Luz-Eugenia |  | 2007 | ASSOCIATE PROFESSOR OF PSYCHOLOGY, 2007 | PhD, Univ of Oklahoma, 2000; MS, Univ of Oklahoma 1997; BA, Univ of Oklahoma, 1994 |
| Gronlund | Scott | D | 1989 | PROFESSOR OF PSYCHOLOGY, <br> 2002; ROGER AND <br> SHERRY TEIGEN <br> PRESIDENTIAL <br> PROFESSOR, 2008; ASSOCIATE CHAIR OF PSYCHOLOGY, 2017 | PhD, Indiana Univ, 1986; BA, Univ of California Irvine, 1981 |
| Jang | Seulki <br> "Rachel" |  | 2020 | ASSISTANT PROFESSOR OF PSYCHOLOGY | Ph.D., Univ of South Florida |
| Kimball | Daniel | R | 2008 | ASSOCIATE PROFESSOR OF PSYCHOLOGY, 2008; J.R. MORRIS PROFESSOR OF PSYCHOLOGY, 2008 | PhD, Univ of California Los Angeles, 2000; JD, Univ of Virginia, 1983; BA, Univ of Virginia, 1979 |
| Kisamore | Jennifer | L | 2003 | ASSOCIATE PROFESSOR OF PSYCHOLOGY AT TULSA, 2009; ADJUNCT ASSOCIATE PROFESSOR OF LIBERAL STUDIES, 2013 | PhD, Univ of South <br> Florida, 2003; MA, <br> Univ of South Florida, 1999; BA, Univ of South Florida, 1994 |
| Loeffelman | Jordan |  | 2020 | ASSISTANT PROFESSOR OF PSYCHOLOGY | Ph.D., Univ of Missouri |
| Mayeux | Lara |  | 2004 | ASSOCIATE <br> PROFESSOR OF PSYCHOLOGY, <br> 2010; ADJUNCT <br> ASSOCIATE <br> PROFESSOR OF <br> LIBERAL STUDIES, <br> 2011; CHAIR, <br> INSTITUTIONAL <br> REVIEW BOARD, 2013 | PhD, Univ of Connecticut, 2003; MA, Univ of Connecticut, 2000; BS, Texas Christian Univ, 1998 |
| Mendoza | Jorge | L | 1991 | PROFESSOR OF PSYCHOLOGY, 1991 | PhD, Univ of Oklahoma, 1974; MS, Univ of Oklahoma, 1972; BA, Univ of Illinois, 1970 |
| Mumford | Michael |  | 1999 | PROFESSOR OF PSYCHOLOGY, 1999; DIRECTOR, CENTER FOR APPLIED BEHAVIORAL SCIENCES, 2004; GEORGE LYNN CROSS RESEARCH PROFESSOR OF PSYCHOLOGY, 2005 | PhD, Univ of Georgia, 1983; MS, Univ of Georgia, 1981; BA, Bucknell, 1979 |
| Shi | Dingjing |  | 2020 | ASSISTANT PROFESSOR OF PSYCHOLOGY | Ph.D., Univ of Virginia |

$\left.\begin{array}{llllll}\text { Snyder } & \text { Lori } & \text { A } & \text { 2004 } & \begin{array}{l}\text { ASSOCIATE } \\ \text { PROFESSOR OF }\end{array} & \begin{array}{l}\text { PhD, Colorado State } \\ \text { Univ, 2004; MS, }\end{array} \\ & & & & \begin{array}{l}\text { PSYCHOLOGY, 2010; } \\ \text { DISTINGUISHED }\end{array} & \begin{array}{l}\text { Colorado State Univ, } \\ \text { 2001; BA, Earlham }\end{array} \\ & & & & \begin{array}{l}\text { FACULTY FELLOW, } \\ \text { OFFICE OF THE VICE }\end{array} & \text { College, 1997 }\end{array}\right]$

## Psychology (Standard), B.A.

Minimum Total Credit Hours: 120
Major Hours: 35
Minimum Upper-Division Hours: 48
Upper-Division Hours Within Major. 22
Overall GPA - Combined and OU: 2.00
Major GPA - Combined and OU: 2.00
Program Code: B800

## Major Requirements

- Some courses required for the major may also fulfill University General Education and/or Dodge College of Arts \& Sciences Requirements.

${ }^{1}$ 3000- or 4000-level PSY courses, no more than 6 hours may be from PSY 3440/PSY 3990/PSY 4990, and none of which may be from PSY 4910 or the Core Courses listed above.


## Major Support Requirements



## Major Support Group Course Lists GROUP I

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| BIOL 2013 |  | 5 |
| CHEM 1315 | General Chemistry | 5 |
| CHEM 1415 | General Chemistry (Continued) | 4 |
| C S 2334 | Programming Structures and Abstractions | 4 |
| PHYS 2414 | General Physics for Life Science Oriented <br> Majors | 3 |
| METR 2603 | Severe and Unusual Weather | 3 |
| A maximum of one of the following: |  |  |
| C S 1213 | Programming for Non-Majors with Python |  |
| C S 1313 | Programming for Non-Majors with C |  |
| C S 1321 | Java for Programmers |  |
| C S 1323 | Introduction to Computer Programming for <br> Programmers |  |
| C S 1324 | Introduction to Computer Programming for |  |
| MIS 2113 | Non-Programmers |  |
| PSY 2503 | Computer-Based Information Systems |  |

## GROUP II

| Code | Title | Credit <br> Hours |
| :---: | :---: | :---: |
| A maximum of one of the following: |  | 3 |
| ANTH 2303 | General Linguistics |  |
| ANTH 3203 | Introduction to Biological Anthropology |  |
| ANTH 4223 | The Anthropology of Childhood |  |
| A maximum of one of the following: |  | 3 |
| COMM 1113 | Principles of Communication |  |
| COMM 2003 | Communication in Non-Western Culture |  |
| COMM 2113 | Business and Professional Communication |  |
| ECON 1113 or ECON 1123 | Principles of Economics-Macro <br> Principles of Economics-Micro | 3 |
| A maximum of one of the following: |  | 3 |
| HSTM 1113 | Science, Nature and Society. Historical Perspectives |  |
| HSTM 2213 | The Darwinian Revolution |  |
| HSTM 2423 | Social and Ethical Issues in Science, Technology, Environment and Medicine |  |
| HSTM 3013 | History of Science to the Age of Newton |  |
| HSTM 3023 | History of Science Since the Seventeenth Century |  |
| PHIL 1113 | Introduction to Logic | 3 |
| A maximum of one of the following: |  | 3 |
| SOC 1113 | Introduction to Sociology |  |
| SOC 3523 | Criminology |  |
| SOC 3723 | Sociology of Family |  |

Credit Hours

## General Education and College Requirements

Courses for fulfillment of General Education and Dodge College of Arts \& Sciences requirements must be from the approved General Education course list published in the Class Schedule or at http://www.ou.edu/ gened/courses. Courses graded P/NP will not apply.

## UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS <br> Code Title Credit Hours

Core Area I: Symbolic and Oral Communication
English Composition (6 hours)
ENGL 1113 Principles of English Composition 3
ENGL 1213 Principles of English Composition 3
or EXPO 1213 Expository Writing
Language (0-13 hours in the same language)
The college requirement cannot be met by high school
coursework.
Beginning Course 0-5
$\begin{array}{ll}\text { Beginning Course, continued } & 0-5\end{array}$
$\begin{array}{ll}\text { Intermediate Course (2000 level) }{ }^{1,2} & 0-3\end{array}$
Mathematics (3 hours)
Choose one course from the General Education Mathematics 3
list
Core Area II: Natural Science (7 hours, including one laboratory component)
Biological Science


## Free Electives

Electives to bring total applicable hours to the minimum total required for the degree including 48 upper-division hours.

## Information Concerning General Rules, Regulations and Minimum Requirements

Arts and Sciences Hours: At least 80 semester hours of liberal arts and sciences courses are required for a BA degree. At least 55 semester hours of liberal arts and sciences courses are required for a BS degree.
Pass/No Pass Enrollment: A maximum of 16 semester hours of free elective credit may be attempted under this option.
Individual Studies (e.g., courses titled "Independent Study"): A maximum of 12 total semester hours may be counted toward graduation, excluding Honors Reading and Honors Research.
P.E. Courses: No physical education activity courses will be counted toward the 120 semester hours of acceptable credit for graduation.

Senior Institution Hours: A minimum of 60 semester hours applied toward graduation must be earned at senior (4-year) institutions.

## Residency:

- At least 15 of the final 30 hours applied toward the degree or at least 50 percent of the hours required by the institution in the major field must be satisfactorily completed at the awarding institution.
- At least 15 semester hours of upper-division major work must be completed in residence at OU.
- OU correspondence courses are not considered resident credit.

Grade Point Averages: Students must earn a minimum over all 2.00 for each of the following: Combined Retention GPA (all college grades), OU Retention GPA, GPA for all major courses, and GPA for all major courses taken at OU. Some schools and departments of the College have higher minimum grade point averages required for their students.

## Suggested Semester Plan of Study

This plan shows one possible grouping of courses that would allow students to graduate in four years. Please refer to the front of the degree checksheet for official requirements. Students must consult with Dodge College of Arts and Sciences and Department of Psychology academic advisors to verify that courses selected each semester fulfill the recommended plan and satisfy University, College of Arts and Sciences, and Psychology major requirements.

## Freshman

| First Semester |  | Credit <br> Hours |
| :--- | ---: | ---: |
| ENGL 1113 | Principles of English Composition (Core I) | 3 |
| Math Major Support course | 3 |  |
| P SC 1113 | American Federal Government (Core III) | 3 |
| PSY 1113 | Elements of Psychology | 3 |
| First Year Experience (Core V) | 3 |  |
|  | Credit Hours | $\mathbf{1 5}$ |

Second Semester
ENGL $1213 \quad$ Principles of English Composition (Core I) 3
or EXPO 1213 or Expository Writing
HIST $1483 \quad 3$
or HIST 1493 or United States, 1865 to the Present
PSY 2001 Career Exploration for Psychology 1
PSY 2003 Understanding Statistics 3

PSY Major Elective from Core Courses (see Program 3
Requirements)
World Culture (Core IV) 3
Credit Hours 16

## Sophomore

First Semester

| PSY 3114 | Research Methods: Applications and <br> Experimental Design | 4 |
| :--- | :--- | :--- |

PSY Major Elective from Core Courses (see Program 3
Requirements)
Beginning Language (Core I) 5
Artistic Forms (Core IV) 3
Credit Hours

| Second Semester |  |
| :---: | :---: |
| PSY Major Elective from Core Courses (see Program Requirements) | 3 |
| Intro Biology Major Support Course | 4-5 |
| Beginning Language continued (Core I) | 5 |
| Western Culture (Core IV) | 3 |
| Credit Hours | 15 |
| Junior |  |
| First Semester |  |
| PSY Major Elective from Depth Courses (see Program Requirements) | 3 |
| PSY Major Elective from Depth Courses (see Program Requirements) | 3 |
| Arts \& Humanities, upper-division, outside major (Gen. Ed.) | 3 |
| Intermediate Language | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Credit Hours | 15 |
| Second Semester |  |
| Major Support Requirements Group 1 (see Program Requirements) ${ }^{1}$ | 3-5 |
| PSY Major Elective from Depth Courses (see Program Requirements) | 3 |
| PSY Major Elective from Depth Courses (see Program Requirements) | 3 |
| Arts \& Humanities, upper-division, outside major (Gen. Ed.) | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Credit Hours | 15 |
| Senior |  |
| First Semester |  |
| Major Support Requirement Group 1 (see Program Requirements) ${ }^{1}$ | 3-5 |
| Major Support Requirement Group 2 (see Program Requirements) | 3 |
| Free Elective, lower- or upper-division | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Credit Hours | 15 |
| Second Semester |  |
| PSY Major Elective from Depth Courses (see Program Requirements) | 3 |
| Major Support Requirement Group 2 (see Program Requirements) | 3 |
| Free Elective, lower- or upper-division | 2 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Credit Hours | 14 |
| Total Credit Hours | 120 |

${ }^{1}$ Group 1 Major Support Requirements must total at least 6 credit hours.

## Psychology (Professional), B.S.

Minimum Total Credit Hours: 120
Major Hours: 38

Minimum Upper-Division Hours: 48
Upper-Division Hours Within Major. 25

Overall GPA - Combined: 3.00 OU: 2.00
Major GPA - Combined: 3.00 OU: 2.00

## Program Code: B801

## Major Requirements

- Some courses required for the major may also fulfill University General Education and/or Dodge College of Arts \& Sciences Requirements.
- Students must earn an overall GPA of 3.00 or better on 60 hours of coursework and be sponsored by a member of the psychology faculty to be formally accepted by the department as a candidate in this degree program.

| Code | Title | Credit |
| :--- | :--- | :--- |
|  | Hours |  |

## Foundation Courses

| PSY 1113 | Elements of Psychology | 3 |
| :--- | :--- | :---: |
| PSY 2001 | Career Exploration for Psychology | 1 |
| PSY 2003 | Understanding Statistics | 3 |
| PSY 3114 | Research Methods: Applications and <br> Experimental Design | 4 |
| Core Courses |  |  |

Choose four of the following: 12

| PSY 2403 | Introduction to Personality |
| :--- | :--- |
| PSY 2603 | Lifespan Development |
| or PSY 3613 |  |
|  | Developmental Psychology: Infancy through <br> Adolescence |
| PSY 3203 | Cognitive Psychology |

1 3000- or 4000-level PSY courses, with 6 hours coming from PSY 3440/PSY 3990/PSY 4990, none of which may be from PSY 4910 or the Core Courses listed above. Students may petition the Psychology Department to substitute research credits from another scienceoriented department in place of PSY 3440/PSY 3990/PSY 4990.

## Major Support Requirements



Credit Hours 3 or MATH 1643 Functions and Modeling for Business, Life and Social Sciences
Biology

BIOL 1005 Concepts in Biology

| BIOL 1124 | Intro Biol: Molecule/Cell/Phys |  |
| :---: | :---: | :---: |
| BIOL 1134 | Introductory Biology: Evolution, Ecology and Diversity |  |
| Group I |  |  |
| Choose three courses (8-13 hours) from the Group I course list (p. 675) |  |  |
| Group II |  |  |
| Choose 6 hours from the Group II course list (p. 675) |  | 6 |
| Total Credit Hours |  | 21-27 |
| ${ }^{1}$ MATH 1523, or MATH 1743, may also be used to satisfy this requirement and is a prerequisite for several of the course options in the Group I major support course list. |  |  |
| Major Support Group Course Lists |  |  |
| GROUP I |  |  |
| Code | Title | Credit |
|  |  | Hours |
| BIOL 2013 |  |  |
| CHEM 1315 | General Chemistry | 5 |
| CHEM 1415 | General Chemistry (Continued) | 5 |
| C S 2334 | Programming Structures and Abstractions | 4 |
| PHYS 2414 | General Physics for Life Science Oriented Majors | 4 |
| METR 2603 | Severe and Unusual Weather | 3 |
| A maximum of one course from the following: |  | 8-13 |
| C S 1213 | Programming for Non-Majors with Python |  |
| C S 1313 | Programming for Non-Majors with C |  |
| C S 1321 | Java for Programmers |  |
| C S 1323 | Introduction to Computer Programming for Programmers |  |
| C S 1324 | Introduction to Computer Programming for Non-Programmers |  |
| MIS 2113 | Computer-Based Information Systems |  |
| PSY 2503 | Computing for Behavioral Sciences |  |

GROUP ||
Code

A maximum of one of the following: | Credit |
| ---: |
| Hours |

A maximum of one of the following: 3

| COMM 1113 | Principles of Communication |  |
| :---: | :--- | :--- |
| COMM 2003 | Communication in Non-Western Culture |  |
| COMM 2113 | Business and Professional Communication | 3 |
| ECON 1113 | Principles of Economics-Macro |  |
| or ECON 1123 | Principles of Economics-Micro |  |

A maximum of one of the following:
3
HSTM 1113 Science, Nature and Society: Historical Perspectives
HSTM 2213 The Darwinian Revolution

| HSTM 2423 | Social and Ethical Issues in Science, Technology, Environment and Medicine |  |
| :---: | :---: | :---: |
| HSTM 3013 | History of Science to the Age of Newton |  |
| HSTM 3023 | History of Science Since the Seventeenth Century |  |
| PHIL 1113 | Introduction to Logic | 3 |
| A maximum of one of the following: |  | 3 |
| SOC 1113 | Introduction to Sociology |  |
| SOC 3523 | Criminology |  |
| SOC 3723 | Sociology of Family |  |

## General Education and College Requirements

Courses for fulfillment of General Education and Dodge College of Arts \& Sciences requirements must be from the approved General Education course list published in the Class Schedule or at http://www.ou.edu/ gened/courses. Courses graded P/NP will not apply.

## UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND <br> COLLEGE REQUIREMENTS <br> Code Title Credit Hours

Core Area I: Symbolic and Oral Communication
English Composition (6 hours)
ENGL 1113 Principles of English Composition 3
ENGL 1213 Principles of English Composition 3
or EXPO 1213 Expository Writing
Language ( $0-13$ hours in the same language)
The college requirement cannot be met by high school
coursework.
Beginning Course 0-5
Beginning Course, continued 0-5
${\text { Intermediate Course (2000 level) }{ }^{1,2}}^{10-3}$
Mathematics (3 hours)
Choose one course from the General Education Mathematics 3
list
Core Area II: Natural Science (7 hours, including one
laboratory component)
Biological Science
Choose an approved General Education Natural Science 3-4
course with one of the following prefixes: BIOL, HES, MBIO, or
PBIO ${ }^{1}$
Physical Science
Choose an approved General Education Natural Science 3-4
course with one of the following prefixes: AGSC, ASTR, CHEM,
GEOG, GEOL, GPHY, METR, or PHYS ${ }^{1}$
Core Area III: Social Science (6 hours)
P SC 1113 American Federal Government 3
Choose one course from the General Education Social 3 Science list
Core Area IV: Arts and Humanities (18 hours)
Artistic Forms
Choose one course from the General Education Artistic Forms 3
list
Western Culture
HIST $1483 \quad$ United States to 1865

| or HIST 1493 United States, 1865 to the Present |  |
| :---: | :---: |
| Choose one course from the General Education Western Culture list (excluding HIST 1483/1493) | 3 |
| World Culture |  |
| Choose one course from the General Education World Culture list | 3 |
| Additional Core IV Upper-Division Arts \& Humanities courses |  |
| Choose one course from Artistic Forms, Western Culture, or World Culture ${ }^{1,3}$ | 3 |
| Choose one course from Artistic Forms, Western Culture, or World Culture ${ }^{1,3}$ | 3 |
| Core Area V: First Year Experience (3 hours) |  |
| Choose one course | 3 |
| Total Credit Hours | 56 |
| ${ }^{1}$ College of Arts and Sciences Requirements: college requirements are not automatically fulfilled by a previous degree. |  |
| ${ }^{2}$ One course at the intermediate level or demonstrated competency at that level |  |
| ${ }^{3} 6$ upper-division hours, 2 courses, at the 3000-4000-level. M outside the major. |  |

## Free Electives

Electives to bring total applicable hours to the minimum total required for the degree including 48 upper-division hours.

## Information Concerning General Rules, Regulations and Minimum Requirements

Arts and Sciences Hours: At least 80 semester hours of liberal arts and sciences courses are required for a BA degree. At least 55 semester hours of liberal arts and sciences courses are required for a BS degree.
Pass/No Pass Enrollment: A maximum of 16 semester hours of free elective credit may be attempted under this option.
Individual Studies (e.g., courses titled "Independent Study"): A maximum of 12 total semester hours may be counted toward graduation, excluding Honors Reading and Honors Research.
P.E. Courses: No physical education activity courses will be counted toward the 120 semester hours of acceptable credit for graduation. Senior Institution Hours: A minimum of 60 semester hours applied toward graduation must be earned at senior (4-year) institutions.
Residency:

- At least 15 of the final 30 hours applied toward the degree or at least 50 percent of the hours required by the institution in the major field must be satisfactorily completed at the awarding institution.
- At least 15 semester hours of upper-division major work must be completed in residence at OU.
- OU correspondence courses are not considered resident credit.

Grade Point Averages: Students must earn a minimum over all 2.00 for each of the following: Combined Retention GPA (all college grades), OU Retention GPA, GPA for all major courses, and GPA for all major courses taken at OU. Some schools and departments of the College have higher minimum grade point averages required for their students.

## Suggested Semester Plan of Study

This plan shows one possible grouping of courses that would allow students to graduate in four years. Please refer to the front of the degree checksheet for official requirements. Students must consult with Dodge College of Arts and Sciences and Department of Psychology academic advisors to verify that courses selected each semester fulfill the recommended plan and satisfy University, College of Arts and Sciences, and Psychology major requirements.

## Freshman

| First Semester |  | Credit |
| :---: | :---: | :---: |
|  |  | Hours |
| ENGL 1113 | Principles of English Composition (Core I) | 3 |
| Math Major Support course |  | 3 |
| P SC 1113 | American Federal Government (Core III) | 3 |
| PSY 1113 | Elements of Psychology | 3 |
| First Year Experience (Core V) |  | 3 |
|  | Credit Hours | 15 |

## Second Semester

ENGL $1213 \quad$ Principles of English Composition (Core I) 3
or EXPO 1213 or Expository Writing

| HIST 1483 | United States to 1865 (Core IV) | 3 |
| :---: | :---: | :---: |
| or HIST 1493 | or United States, 1865 to the Present |  |

PSY 2003 Understanding Statistics 3
PSY Major Core Course (see Program Requirements) 3
World Culture (Core IV) 3

## Sophomore

First Semester

| PSY 2001 | Career Exploration for Psychology | 1 |
| :--- | :--- | :--- |
| PSY 3114 | Research Methods: Applications and <br>  | 4 |

PSY Major Core Course (see Program Requirements) 3
Beginning Language (Core I) 5
Artistic Forms (Core IV) 3
Credit Hours 16
Second Semester
PSY Major Core Course (see Program Requirements) 3
Major Support Requirement Group 2 (see Program 3
Requirements)
Intro Biology Major Support course 4-5

| Beginning Language continued (Core I) | 5 |
| :---: | ---: |
| Credit Hours | 15 |

Junior
First Semester
PSY Major Depth Course (see Program Requirements) 3
PSY Major Core Course (see Program Requirements) 3
Major Support Requirement Group 1 (see Program 3-5
Requirements) ${ }^{1}$
Arts \& Humanities, upper-division, outside major (Gen. Ed.) 3
Intermediate Language 3

Credit Hours
15

## Second Semester

PSY Major Depth Course (see Program Requirements)

| PSY Major Depth Course (see Program Requirements) | 3 |
| :---: | :---: |
| Major Support Requirement Group 1 (see Program Requirements) ${ }^{1}$ | 4-5 |
| Major Support Requirement Group 2 (see Program Requirements) | 3 |
| Arts \& Humanities, upper-division, outside major (Gen. Ed.) | 3 |
| Credit Hours | 16 |
| Senior |  |
| First Semester |  |
| PSY Major Depth Course (see Program Requirements) | 3 |
| Major Support Requirement Group 1 (see Program Requirements) ${ }^{1}$ | 1-3 |
| Free Elective, upper-division | 3 |
| Free Elective, upper-division | 3 |
| Free Elective, upper-division | 3 |
| Credit Hours | 13 |
| Second Semester |  |
| PSY Major Depth Course (see Program Requirements) | 3 |
| Western Culture (Core IV) | 3 |
| Free Elective, upper-division | 3 |
| Free Elective, upper-division | 3 |
| Free Elective, upper-division | 3 |
| Credit Hours | 15 |
| Total Credit Hours | 120 |

${ }^{1}$ Group 1 Major Support Requirements must total at least 8 credit hours (8-13 credit hours, total).

## Pre-Health Social Sciences, Minor

Minimum Total Credit Hours: 21
Minimum Upper-Division Hours: 9

## Program Code: N795

- The requirements for a minor must be completed concurrently with the major degree requirements.
- No minor may be added by completing courses after receiving the bachelor's degree.

At least six (6) credit hours must be earned in courses acceptable for residence credit by standards set forth by the Dodge College of Arts and Sciences, excluding transfer, correspondence, and examination (AP, CLEP, Advanced Standing) credit. Courses for the minor may not be taken Pass/ No Pass.

No single course may be used by a student to satisfy a major requirement and a minor requirement. A course may be used, however, to satisfy both a major support requirement and a minor requirement.

Requests to substitute a minor requirement must be approved in writing by the Department of Psychology.

## Required Courses

Students must successfully complete at least 21 hours of courses, including least nine (9) hours at the upper-division level.

| Code | Title | Credit <br> Hours |
| :---: | :---: | :---: |
| Required Courses |  |  |
| PSY 1113 | Elements of Psychology | 3 |
| $\begin{aligned} & \text { PSY } 2003 \\ & \text { or SOC } 3123 \end{aligned}$ | Understanding Statistics Social Statistics | 3 |
| PSY 3203 | Cognitive Psychology | 3 |
| PSY 3703 | Social Psychology | 3 |
| SOC 1113 | Introduction to Sociology | 3 |
| Electives |  |  |
| Choose one of the following: |  | 3 |
| PSY 4113 | Capstone Survey of Major Fields in Psychology (Skeptical Thinking in the Social Sciences) ${ }^{1}$ |  |
| PSY 4113 | Capstone Survey of Major Fields in Psychology (Theories and Measures of the Self) ${ }^{1}$ |  |
| PSY 4453 | Abnormal Psychology |  |
| PSY 4733 | Selected Topics in Social Psychology (Happiness) |  |
| PSY 4733 | Selected Topics in Social Psychology (Stereotypes and Prejudice) |  |
| PSY 4793 | Psychology of Groups |  |
| PSY 4613 | Current Topics in Developmental Psychology |  |
| Choose one of the following: |  | 3 |
| ANTH 4593 | Anthropology of Human Reproduction |  |
| ANTH 4823 | Medical Anthropology |  |
| SOC 3643 | Population and Society |  |
| SOC 3683 | Wealth, Power, and Prestige |  |
| SOC 3713 | Medical Sociology |  |
| SOC 3723 | Sociology of Family |  |
| SOC 3813 | Individual and Society |  |
| SOC 3843 | Sociology of Aging |  |
| SOC 3873 |  |  |

Total Credit Hours
21
${ }^{1}$ These courses require PSY 3114 as a pre-requisite. Only the topics listed are pre-approved.

- Minors in the Dodge College of Arts \& Sciences are available to all undergraduate students at OU. If the minor is officially declared, successfully completed, and noted on the graduation application, the student's transcript will so indicate at the time the bachelor's degree is posted.


## Psychology, Minor

Minimum Total Credit Hours: 18
Minimum Upper-Division Hours: 9
Program Code: N800

- The requirements for a minor must be completed concurrently with
the major degree requirements.
- No minor may be added by completing courses after receiving the bachelor's degree.

At least six (6) credit hours must be earned in courses acceptable for residence credit by standards set forth by the Dodge College of Arts and Sciences, excluding transfer, correspondence, and examination (AP, CLEP, Advanced Standing) credit. Courses for the minor may not be taken Pass/ No Pass.

No single course may be used by a student to satisfy a major requirement and a minor requirement. A course may be used, however, to satisfy both a major support requirement and a minor requirement.

Requests to substitute a minor requirement must be approved in writing by the Department of Psychology.

## Required Courses

Students must successfully complete at least 18 hours of courses acceptable for major credit in Psychology, including at least 9 hours at the upper-division level.

Neither Independent Study courses (e.g., PSY 3990, PSY 4990) nor variable credit courses (e.g., PSY 4910) may be used to satisfy requirements for the minor.

| Code $\quad$ Title | Credit <br> Hours |
| :--- | ---: |
| PSY 1113 | 3 |
| Choose 6 hours of courses acceptable for major credit in | 6 |
| Psychology at the lower-division level | 9 |
| Choose 9 hours of courses acceptable for major credit in |  |
| Psychology at the upper-division level |  |

## Total Credit Hours

- Minors in the Dodge College of Arts \& Sciences are available to all undergraduate students at OU. If the minor is officially declared, successfully completed, and noted on the graduation application, the student's transcript will so indicate at the time the bachelor's degree is posted.


## Organizational Dynamics, M.A.

Minimum Total Hours (Thesis): 36
Minimum Total Hours (Non-Thesis): 36
Program Code: M754

- This program is currently offered only at the University of Oklahoma's Tulsa campus.


## Required Courses <br> THESIS OPTION

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Required Courses |  |  |
| ODYN 5153 | Design, Evaluation, and Statistics | 3 |
| ODYN 5163 | Applied Measurement and Analysis | 3 |
| Core Courses |  | 6 |
| Choose two of the following: |  |  |

[^18]| ODYN 5123 | Survey of Organizational Dynamics |  |
| :--- | :--- | ---: |
| ODYN 5133 | Teams and Motivation |  |
| Thesis Courses |  | 3 |
| ODYN 5973 | Proposing and Presenting Research | 3 |
| ODYN 5980 Research for Master's Thesis <br> Specialization Courses  | 12-18 |  |
| Choose 12-18 credits of ODYN 52, 53, 54, or 55 prefix courses/ <br> credits from a list of approved courses maintained by the <br> program <br> Elective Courses |  |  |
| Choose 0-6 hours from a list maintained the program or with <br> approval from the Graduate Liaison | $0-6$ |  |

Total Credit Hours

## Non-Thesis Option

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Required Courses |  | 3 |
| ODYN 5153 | Design, Evaluation, and Statistics | 3 |
| ODYN 5163 | Applied Measurement and Analysis |  |
| Core Courses |  | 6 |
| Choose two of the following: |  |  |
| ODYN 5113 | The Psychology of Leadership |  |
| ODYN 5123 | Survey of Organizational Dynamics |  |
| ODYN 5133 | Teams and Motivation |  |

Non-Thesis Courses
ODYN 5973 Proposing and Presenting Research 3
ODYN 5183 Capstone Project 3

## Specialization Courses

Choose 12-18 credits of ODYN 52, 53, 54, or 55 prefix courses/ 12-18 credits from a list of approved courses maintained by the program
Elective Courses
Choose 0-6 hours from a list maintained the program or with 0-6 approval from the Graduate Liaison

Total Credit Hours

## General Requirements for all Master's Degrees

The master's degree requires the equivalent of at least two semesters of satisfactory graduate work and additional work as may be prescribed for the degree.

All coursework applied to the master's degree must carry graduate credit.

Master's degree programs which require a thesis consist of at least 30 credit hours. All non-thesis master's degree programs require at least 30 credit hours.

Credit transferred from other institutions must meet specific criteria and is subject to certain limitations.

Courses completed through correspondence study may not be applied to the master's degree.

To qualify for a graduate degree, students must achieve an overall grade point average of 3.0 or higher in the degree program coursework and in all resident graduate coursework attempted. A student must also have at least a 3.0 in all coursework (including undergraduate coursework if any).

Additional information for master's degree students may be found in the Graduate College Bulletin.

## Organizational Dynamics - Human Resource Management Option, M.A.

Minimum Total Hours (Thesis): 36<br>Minimum Total Hours (Non-Thesis): 36<br>\section*{Program Code: M755}<br>- This program is currently offered only at the University of Oklahoma's Tulsa campus.

\section*{Required Courses <br> Thesis Option <br> | Code Title | Credit |
| :--- | :--- |
|  | Hours |}


| Required Courses |  | 3 |
| :--- | :--- | :--- |
| ODYN 5153 | Design, Evaluation, and Statistics | 3 |
| ODYN 5163 | Applied Measurement and Analysis |  |
| Core Courses |  | 6 |


| ODYN 5113 | The Psychology of Leadership |  |
| :--- | :--- | :--- |
| ODYN 5123 | Survey of Organizational Dynamics |  |
| ODYN 5133 | Teams and Motivation |  |
| Thesis Courses |  |  |
| ODYN 5973 | Proposing and Presenting Research | 3 |
| ODYN 5980 | Research for Master's Thesis | 3 |

Human Resource Management Courses
Choose 12 hours from the following: ${ }^{1} \quad 12$

| ODYN 5223 | Performance Management |
| :--- | :--- |
| ODYN 5233 | Training and Career Development |
| ODYN 5243 | Staffing, Selection, and Compensation |
| ODYN 5253 | Organizational Behavior, Change, and <br> Development |
| ODYN 5263 | Human Resource Management Systems <br> and Techniques |
| ODYN 5283 | Employee Health, Safety and Wellness |
| ODYN 5293 | Work and Life Integration |
| ODYN 5413 | Positive People Practices |

Alternative Emphasis Courses
Choose 6 hours from the following list or from other courses 6 approved by the Psychology department:

Project Management (p. 680)
Total Credit Hours
1 Note: Other courses may be substituted for courses from the Human Resources list with approval by the Psychology department and Graduate College.

## Non-Thesis Option

| Code | Title | Credit Hours |
| :---: | :---: | :---: |
| Required Courses |  |  |
| ODYN 5153 | Design, Evaluation, and Statistics | 3 |
| ODYN 5163 | Applied Measurement and Analysis | 3 |
| Core Courses |  |  |
| Choose two of the following: |  | 6 |
| ODYN 5113 | The Psychology of Leadership |  |
| ODYN 5123 | Survey of Organizational Dynamics |  |
| ODYN 5133 | Teams and Motivation |  |
| Non-Thesis Courses |  |  |
| ODYN 5973 | Proposing and Presenting Research | 3 |
| ODYN 5183 | Capstone Project | 3 |
| Human Resource Management Courses |  |  |
| Choose 12 hours from the following: ${ }^{1}$ |  | 12 |
| ODYN 5223 | Performance Management |  |
| ODYN 5233 | Training and Career Development |  |
| ODYN 5243 | Staffing, Selection, and Compensation |  |
| ODYN 5253 | Organizational Behavior, Change, and Development |  |
| ODYN 5263 | Human Resource Management Systems and Techniques |  |
| ODYN 5283 | Employee Health, Safety and Wellness |  |
| ODYN 5293 | Work and Life Integration |  |
| ODYN 5413 | Positive People Practices |  |
| Alternative Emphasis Courses |  |  |
| Choose 6 hours from the following list or from other courses approved by the Psychology department: |  |  |
| Project Management (p. 680) |  |  |
| Total Credit Hours |  | 36 |
| 1 Note: Other courses may be substituted for courses from the Human Resources list with approval by the Psychology department and Graduate College. |  |  |

## General Requirements for all Master's Degrees

The master's degree requires the equivalent of at least two semesters of satisfactory graduate work and additional work as may be prescribed for the degree.

All coursework applied to the master's degree must carry graduate credit.
Master's degree programs which require a thesis consist of at least 30 credit hours. All non-thesis master's degree programs require at least 30 credit hours.

Credit transferred from other institutions must meet specific criteria and is subject to certain limitations.

Courses completed through correspondence study may not be applied to the master's degree.

To qualify for a graduate degree, students must achieve an overall grade point average of 3.0 or higher in the degree program coursework and in
all resident graduate coursework attempted. A student must also have at least a 3.0 in all coursework (including undergraduate coursework if any).

Additional information for master's degree students may be found in the Graduate College Bulletin.

Alternative Emphasis Course List

## Project Management

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| ODYN 5313 | Planning Processes and Strategy <br> Development | 3 |
| ODYN 5323 | The Psychology and Practice of Project <br> Management | 3 |
| ODYN 5333 | Customer Service and Market Analysis | 3 |
| ODYN 5343 | Organizational Communication | 3 |
| ODYN 5353 | Global Business Practices and Ethics | 3 |
| ODYN 5383 | Emerging Topics in Project Management | 3 |
| ODYN 5393 | Creativity and Innovation in Organizations | 3 |
| ODYN 5513 | Knowledge Management in Project-Driven <br> Organizations | 3 |

## Organizational Dynamics - Project Management Option, M.A.

Minimum Total Hours (Thesis): 36
Minimum Total Hours (Non-Thesis): 36
Program Code: M758

- This M.A. in Organizational Dynamics program is currently offered only at the University of Oklahoma's Tulsa campus.


## Required Courses

## Thesis Option

| Code | Title | Credit |
| :---: | :---: | :---: |
| Required Courses |  |  |
| ODYN 5153 | Design, Evaluation, and Statistics | 3 |
| ODYN 5163 | Applied Measurement and Analysis | 3 |
| Core Courses |  |  |
| Choose two of the following: |  | 6 |
| ODYN 5113 | The Psychology of Leadership |  |
| ODYN 5123 | Survey of Organizational Dynamics |  |
| ODYN 5133 | Teams and Motivation |  |
| Thesis Courses |  |  |
| ODYN 5973 | Proposing and Presenting Research | 3 |
| ODYN 5980 | Research for Master's Thesis | 3 |
| Technical Project Management Courses |  |  |
| Choose 12 hour | from the following: ${ }^{1}$ | 12 |
| ODYN 5313 | Planning Processes and Strategy Development |  |
| ODYN 5323 | The Psychology and Practice of Project Management |  |



## Required Courses

ODYN 5153 Design, Evaluation, and Statistics 3
ODYN 5163 Applied Measurement and Analysis 3
Core Courses
Choose two of the following:

| ODYN 5113 | The Psychology of Leadership |
| :--- | :--- |
| ODYN 5123 | Survey of Organizational Dynamics |
| ODYN 5133 | Teams and Motivation |

## Non-Thesis Courses

ODYN 5973 Proposing and Presenting Research 3
ODYN 5183 Capstone Project 3
Technical Project Management Courses
Choose 12 hours from the following: ${ }^{1}$

| ODYN 5313 | Planning Processes and Strategy <br> Development |
| :--- | :--- |
| ODYN 5323 | The Psychology and Practice of Project <br> Management |
| ODYN 5333 | Customer Service and Market Analysis |
| ODYN 5343 | Organizational Communication |
| ODYN 5353 | Global Business Practices and Ethics |
| ODYN 5383 | Emerging Topics in Project Management <br> (up to 2 times) |
| ODYN 5393 | Creativity and Innovation in Organizations |
| ODYN 5513 | Knowledge Management in Project-Driven <br> Organizations |

## Alternative Emphasis Courses

Choose 6 hours from the following list or from other courses 6 approved by the Psychology department:

Human Resource Management (p. 681)
Total Credit Hours
${ }^{1}$ Note: Other courses may be substituted for courses from the Technical Project Management list with approval by the Psychology department and Graduate College.

| Alternative Emphasis Course Lists |  |  |
| :---: | :---: | :---: |
| Human Resource Management |  |  |
| Code | Title | Credit Hours |
| ODYN 5223 | Performance Management | 3 |
| ODYN 5233 | Training and Career Development | 3 |
| ODYN 5243 | Staffing, Selection, and Compensation | 3 |
| ODYN 5253 | Organizational Behavior, Change, and Development | 3 |
| ODYN 5263 | Human Resource Management Systems and Techniques | 3 |
| ODYN 5273 |  |  |
| ODYN 5283 | Employee Health, Safety and Wellness | 3 |
| ODYN 5293 | Work and Life Integration | 3 |
| ODYN 5413 | Positive People Practices | 3 |

## Information Management

A list of approved Information Management courses is maintained by the Department of Psychology.

## General Requirements for all Master's Degrees

The master's degree requires the equivalent of at least two semesters of satisfactory graduate work and additional work as may be prescribed for the degree.

All coursework applied to the master's degree must carry graduate credit.
Master's degree programs which require a thesis consist of at least 30 credit hours. All non-thesis master's degree programs require at least 30 credit hours.

Credit transferred from other institutions must meet specific criteria and is subject to certain limitations.

Courses completed through correspondence study may not be applied to the master's degree.

To qualify for a graduate degree, students must achieve an overall grade point average of 3.0 or higher in the degree program coursework and in all resident graduate coursework attempted. A student must also have at least a 3.0 in all coursework (including undergraduate coursework if any).

Additional information for master's degree students may be found in the Graduate College Bulletin.

## Psychology (Standard), M.S.

Program Code: M800 Q546

## Required Courses Thesis Option

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Required Courses |  |  |
| PSY 5003 | Psychological Statistics I | 3 |
| PSY 5013 | Psychological Statistics II | 3 |
| PSY 5901 | Foundations of Psychological Science I | 1 |
| PSY 5911 | Foundations of Psychological Science II | 1 |
| PSY 6073 | Experimental Design for Psychology | 3 |
| PSY 5980 | Research for Master's Thesis | $2-6$ |
| Departmental Electives | 12 |  |
| At least 12 additional credit hours within the department of |  |  |
| Psychology are required. |  |  |

## Non-Thesis Option

| Code | Title | Credit |
| :---: | :---: | :---: |
|  |  | Hours |
| Required Courses |  |  |
| PSY 5003 | Psychological Statistics I | 3 |
| PSY 5013 | Psychological Statistics II | 3 |
| PSY 5901 | Foundations of Psychological Science I | 1 |
| PSY 5911 | Foundations of Psychological Science II | 1 |
| PSY 6073 | Experimental Design for Psychology | 3 |
| Departmental Electives |  |  |
| At least 12 additional credit hours within the department of Psychology are required. ${ }^{1}$ |  | 12 |
| General Electives |  |  |
| Choose 9 hours of courses inside or outside of the department as approved by major professor and advisory committee. |  | 9 |
| Total Credit Hours |  | 32 |

${ }^{1}$ Up to 3 of these 12 hours may be independent study (PSY 5960, PSY 5970, and/or PSY 5990). A student may petition the Psychology Graduate Studies Committee to approve up to 3 additional hours of independent study, for a total of no more than 6. PSY 5980 does not count toward this requirement

## General Requirements for all Master's Degrees

The master's degree requires the equivalent of at least two semesters of satisfactory graduate work and additional work as may be prescribed for the degree.

All coursework applied to the master's degree must carry graduate credit.
Master's degree programs which require a thesis consist of at least 30 credit hours. All non-thesis master's degree programs require at least 30 credit hours.

Credit transferred from other institutions must meet specific criteria and is subject to certain limitations.

Courses completed through correspondence study may not be applied to the master's degree.

To qualify for a graduate degree, students must achieve an overall grade point average of 3.0 or higher in the degree program coursework and in all resident graduate coursework attempted. A student must also have at least a 3.0 in all coursework (including undergraduate coursework if any).

Additional information for master's degree students may be found in the Graduate College Bulletin.

## Human Resource Management (Tulsa), Graduate Certificate

Minimum Total Hours: 12
Program Code: G064
This program is currently offered only at the University of Oklahoma's Tulsa campus.

Certificate Requirements

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Choose 9 hours from the following: | 9 |  |
| ODYN 5223 | Performance Management |  |
| ODYN 5233 | Training and Career Development |  |
| ODYN 5243 | Staffing, Selection, and Compensation |  |
| ODYN 5253 | Organizational Behavior, Change, and <br> Development |  |
| ODYN 5263 | Human Resource Management Systems <br> and Techniques |  |
| ODYN 5283 | Employee Health, Safety and Wellness |  |
| Choose 3 hours from an elective list maintained by the <br> department or as approved by the ODYN Graduate Liaison | 3 |  |

Total Credit Hours

A graduate certificate is not a graduate degree. A graduate degree represents a program of independent inquiry beyond the depth of coursework alone, while a graduate certificate represents a set of courses only.

[^19]- Students must earn a grade point average of 3.00 or higher on all coursework applied to the graduate certificate.


## Organizational Psychology (Tulsa), Graduate Certificate

Minimum Total Credit Hours: 12

Program Code: G675
This program is currently offered only at the University of Oklahoma's Tulsa campus.

## Certificate Requirements

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Required Core Courses | 6 |  |
| Choose two courses from the following: |  |  |
| ODYN 5113 | The Psychology of Leadership |  |
| ODYN 5123 | Survey of Organizational Dynamics |  |
| ODYN 5133 | Teams and Motivation | 6 |
| Elective Courses |  |  |
| Choose two courses as approved by the ODYN program |  |  |
| faculty. |  |  |

Total Credit Hours

A graduate certificate is not a graduate degree. A graduate degree represents a program of independent inquiry beyond the depth of coursework alone, while a graduate certificate represents a set of courses only.

- All courses must be taken at OU. No transfer credit will apply.
- No course substitutions are permitted for graduate certificates.
- Coursework applied to a graduate certificate cannot be more than five years old as of the semester the graduate certificate is awarded.
- Students must earn a grade point average of 3.00 or higher on all coursework applied to the graduate certificate.


## Organizational Research (Tulsa), Graduate Certificate

Minimum Total Credit Hours: 12

Program Code: G676

This program is currently offered only at the University of Oklahoma's Tulsa campus.

## Certificate Requirements

Code Title Credit

Hours

## Required Core Courses

Choose two courses from the following:
ODYN 5153 Design, Evaluation, and Statistics
ODYN 5163 Applied Measurement and Analysis
ODYN 5973 Proposing and Presenting Research

## ODYN 5183 Capstone Project

## Elective Courses

Choose two courses as approved by the ODYN program
faculty (additional Core courses not applied above may be used as electives)
Total Credit Hours

A graduate certificate is not a graduate degree. A graduate degree represents a program of independent inquiry beyond the depth of coursework alone, while a graduate certificate represents a set of courses only.

- All courses must be taken at OU. No transfer credit will apply.
- No course substitutions are permitted for graduate certificates.
- Coursework applied to a graduate certificate cannot be more than five years old as of the semester the graduate certificate is awarded.
- Students must earn a grade point average of 3.00 or higher on all coursework applied to the graduate certificate.


## Project Management (Tulsa), Graduate Certificate

Minimum Total Hours: 12
Program Code: G093
This program is currently offered only at the University of Oklahoma's Tulsa campus.
Certificate Requirements

| Code | Title | Credit <br> Hours |
| :---: | :--- | ---: | :--- |
| Choose 9 hours from the following: |  |  |
| ODYN 5313 | Planning Processes and Strategy <br> Development |  |
| ODYN 5323 | The Psychology and Practice of Project <br> Management |  |
| ODYN 5333 | Customer Service and Market Analysis |  |
| ODYN 5343 | Organizational Communication <br> ODYN 5353 | Global Business Practices and Ethics |
| ODYN 5383 | Emerging Topics in Project Management |  |

Choose 3 hours from an elective list maintained by the
department or as approved by the ODYN Graduate Liaison
Total Credit Hours
A graduate certificate is not a graduate degree. A graduate degree represents a program of independent inquiry beyond the depth of coursework alone, while a graduate certificate represents a set of courses only.

- All courses must be taken at OU. No transfer credit will apply.
- No course substitutions are permitted for graduate certificates.
- Coursework applied to a graduate certificate cannot be more than five years old as of the semester the graduate certificate is awarded.
- Students must earn a grade point average of 3.00 or higher on all coursework applied to the graduate certificate.


# Cellular \& Behavioral Neurobiology: Psychology, Ph.D. 

Minimum Total Hours: 90
Program Code: D149

## Program Requirements

| Code | Title | Credit Hours |
| :---: | :---: | :---: |
| Core |  |  |
| BIOL 5833 | Neurobiology | 3 |
| BIOL 5871 | Current Topics in Neurobiology | 1 |
| Lab Rotations |  |  |
| PSY 6990 | Independent Study (6-9 hours of laboratory rotations, 2-3 in CBN affiliated labs) | 6-9 |
| Psychology Coursework |  |  |
| PSY 5003 | Psychological Statistics I | 3 |
| PSY 5013 | Psychological Statistics II | 3 |
| PSY 6073 | Experimental Design for Psychology | 3 |
| PSY 5901 | Foundations of Psychological Science I | 1 |
| PSY 5911 | Foundations of Psychological Science II | 1 |
| Minor |  |  |
| A sequence selected in by the advi | least three courses (minimum 9 hours) dance with departmental policy, as approved mmittee and graduate liaison. | 9 |
| Breadth |  |  |
| Two courses (6 hours) in Psychology areas outside the major and minor areas, as approved by the advisory committee and graduate liaison. |  | 6 |
| Dissertation |  |  |
| PSY 6980 | Research for Doctoral Dissertation (minimum 2 hours) | 2 |
| Electives |  |  |
| Additional as required | work to reach 90 post-baccalaureate hours, ctoral advisory committee | 49-52 |

Total Credit Hours

## General Requirements for Doctoral Degrees

A student should expect to spend at least the equivalent of three full academic years beyond the bachelor's degree to obtain the doctoral degree. During this period the student will take appropriate graduate coursework, successfully complete the general examination, and successfully defend and submit the final dissertation.

All coursework applied to the doctoral degree must carry graduate credit.
The doctoral degree requires at least 90 post-baccalaureate hours, including both formal coursework and hours of research.

The minimum hour requirement for a specific doctoral degree program cannot be waived.

No more than one-half of the credit hours, both OU and overall, excluding Research for Doctoral Dissertation (6980), may be S/U-graded coursework.

The student must be in residence at OU for at least two consecutive 16week semesters during the pursuit of the doctoral degree while enrolled and engaged in coursework or research activities as prescribed by the major academic unit.

For more detailed regulations and requirements for Doctoral degrees, please consult the Graduate College Bulletin: http://www.ou.edu/ gradcollege/forms/bulletin

## Psychology, Ph.D.

Minimum Total Hours: 90
Program Code: D800 R456

## Program Requirements

| Code | Title |
| :--- | :--- |
|  | Credit |
|  | Hours |

Field of Specialization

| PSY 5003 | Psychological Statistics I | 3 |
| :---: | :---: | :---: |
| PSY 5013 | Psychological Statistics II | 3 |
| PSY 6073 | Experimental Design for Psychology | 3 |
| PSY 5901 | Foundations of Psychological Science I | 1 |
| PSY 5911 | Foundations of Psychological Science II | 1 |
| Minor |  |  |
| A sequence of at least three courses selected in accordance with departmental policy, as approved by the advisory committee and graduate liaison. (9 hours minimum) |  |  |
| Breadth |  |  |
| Two courses in psychology in areas outside the major and minor areas, as approved by the graduate liaison and advisory committee. (6 hours) |  |  |
| Dissertation Research |  |  |
| PSY 6980 | Research for Doctoral Dissertation (minimum 2 hours) | 2 |
| Additional Coursework |  |  |
| Additional to reach 90 advisory | work, electives and/or master's credit baccalaureate hours, as approved by the ee and graduate liaison. | 62 |

## Total Credit Hours

## General Requirements for Doctoral Degrees

A student should expect to spend at least the equivalent of three full academic years beyond the bachelor's degree to obtain the doctoral degree. During this period the student will take appropriate graduate coursework, successfully complete the general examination, and successfully defend and submit the final dissertation.

All coursework applied to the doctoral degree must carry graduate credit.
The doctoral degree requires at least 90 post-baccalaureate hours, including both formal coursework and hours of research.

The minimum hour requirement for a specific doctoral degree program cannot be waived.

No more than one-half of the credit hours, both OU and overall, excluding Research for Doctoral Dissertation (6980), may be S/U-graded coursework.

The student must be in residence at OU for at least two consecutive 16week semesters during the pursuit of the doctoral degree while enrolled and engaged in coursework or research activities as prescribed by the major academic unit.

For more detailed regulations and requirements for Doctoral degrees, please consult the Graduate College Bulletin: http://www.ou.edu/ gradcollege/forms/bulletin

# Psychology: Industrial and Organizational Psychology, Ph.D. 

Minimum Total Hours: 90

Program Code: D800 R346

## Program Requirements

| Code | Title | Credit <br> Hours |
| :---: | :---: | :---: |
| PSY 5003 | Psychological Statistics I | 3 |
| PSY 5013 | Psychological Statistics II | 3 |
| PSY 6073 | Experimental Design for Psychology | 3 |
| PSY 5901 | Foundations of Psychological Science I (master's prescribed coursework) | 1 |
| PSY 5911 | Foundations of Psychological Science II (master's prescribed coursework) | 1 |
| PSY 5703 | Survey of Industrial Psychology | 3 |
| PSY 5723 | Selection and Assessment in Organizations | 3 |
| PSY 5733 | Techniques in Industrial and Organizational Psychology | 3 |
| PSY 5743 | Survey of Organizational Psychology | 3 |
| Seminar |  |  |
| Two additional seminar courses in I/O (6 credits total) from the following options or other seminars approved by the I/O program coordinator: |  | 6 |
| PSY 5713 | Training and Development |  |
| PSY 5783 | Seminar in I/O Psychology |  |
| PSY 6703 | Advanced Seminar in Industrial and Organizational Psychology |  |
| PSY 6713 | Leadership Theories, Research, and Practice |  |
| Minor |  |  |
| A sequence of at least three courses (minimum 9 hours) selected in accordance with departmental policy, as approved by the advisory committee and graduate liaison. |  | 9 |
| Breadth |  |  |
| Two courses (6 hours) in Psychology in areas outside the major and minor areas, as approved by the advisory committee and graduate liaison. |  | 6 |


| Additional Coursework | 44 |
| :--- | :--- |
| Additional post-baccalaureate coursework, electives and/or | 44 |
| master's credit to reach 90 hours, as approved by the advisory |  |
| committee and graduate liaison. |  |

Total Credit Hours

## NOTES:

- There is a 6 hour limit on courses in Educational Psychology, Counseling, and Guidance.


## General Requirements for Doctoral Degrees

A student should expect to spend at least the equivalent of three full academic years beyond the bachelor's degree to obtain the doctoral degree. During this period the student will take appropriate graduate coursework, successfully complete the general examination, and successfully defend and submit the final dissertation.

All coursework applied to the doctoral degree must carry graduate credit.
The doctoral degree requires at least 90 post-baccalaureate hours, including both formal coursework and hours of research.

The minimum hour requirement for a specific doctoral degree program cannot be waived.

No more than one-half of the credit hours, both OU and overall, excluding Research for Doctoral Dissertation (6980), may be S/U-graded coursework.

The student must be in residence at OU for at least two consecutive 16week semesters during the pursuit of the doctoral degree while enrolled and engaged in coursework or research activities as prescribed by the major academic unit.

For more detailed regulations and requirements for Doctoral degrees, please consult the Graduate College Bulletin: http://www.ou.edu/ gradcollege/forms/bulletin

## Department of Religious Studies

Deonnie G. Moodie, Professor of Religious Studies, Chair
141 Robertson Hall
731 Elm Avenue
Norman, OK 73019
Phone: (405) 325-4594
rels@ou.edu
www.ou.edu/cas/rels

## General Information

The academic study of religion is a vibrant and vital part of OU's liberal arts curriculum. It is in this discipline that we attend to the ways humans all over the world think about questions of life and death; engage in processes of making meaning, manifesting joy, and of grieving; and create and respond to cultures and institutions of power. Students emerge from our major with a strong foundation in deeply culturallygrounded critical thinking, an ability to interrogate and critique forms of power, and a nuanced understanding of the human condition. Our majors

2 and minors have gone on to pursue careers in a wide variety of fields and professions including especially law, medicine, nonprofit work, and education. No matter what their line of work, our alumni are prepared to honor difference, embrace complexity, and lead with integrity.

It is very important to all of us in Religious Studies to see students develop intellectually, find and follow their intellectual and academic interests, and develop their personal and career aspirations during their undergraduate years. We are a warm and welcoming community of scholars and mentors with a commitment to education as well as to the success of the students who pass through our courses and our doors on the way to becoming educated and critically-thinking citizenry, whatever their career choices. Our commitment to your education is directly linked to our hopes and aspirations for the quality of your life, including the quality of your intellectual life after you leave OU and for years beyond.

We invest in the success of our students at several levels. What that means is simply that you're not a statistic. We are interested in far more than checking you off a list or clicking on an online box once you've graduated. We measure success by a host of factors beyond the achievement of a diploma. You can view each semester's Religious Studies course lists on our website.

Please explore this website and the Department of Religious Studies website to learn more. Our faculty offer courses in a variety of specializations leading to a BA degree, and we offer an inviting, welcoming, and rigorous scholarly community. Welcome!

## Programs \& Facilities

Visit our Department of Religious Studies website to learn more about scholarships, departmental events, information for prospective students, careers in Religious Studies, our undergraduate support system, and our faculty and staff.

The Department of Religious Studies sponsors or co-sponsors numerous programs featuring a variety of prominent speakers and authors each year. In addition to speaking in classes and meeting with students, most of these visitors present public lectures on religious dimensions of important contemporary issues. The public lectures are open to the wider OU campus and local community.

The department encourages community with our student, faculty, staff, and alumni. We host monthly events for students and faculty. Alumni and various guests are at times invited to discuss religious studies, careers, and the broader world beyond OU.

The department also actively encourages and supports study abroad opportunities. In addition to annual summer archaeological field study trips, faculty members work with other entities across campus to develop study abroad opportunities. Some scholarships are available to facilitate summer field study programs.

The Department of Religious Studies currently provides several partial scholarships each year in a competitive process for RELS majors and minors.

## Undergraduate Study

Make your mark on the world with a Religious Studies degree. With a Bachelor of Arts in Religious Studies (p. 689) or a Minor in Religious Studies (p. 693) you learn:

[^20]- Critical thinking and analytic reasoning
- An ability to interrogate and critique forms of power
- Teamwork skills with diverse groups
- Culturally-grounded critical judgement and decision making
- How to be an effective oral and written communicator
- How to utilize complex problem-solving skills


## New to the 2024-2025 academic year, Religious Studies will offer undergraduate certificates in Asian Religions (T032) (p. 693) and Islamic Studies (T292) (p. 694). Learn about these new options here in the OU General Catalog, and on our website.

Our OU Religious Studies graduates do amazing things! We have alumni (majors and minors) with various career paths, many of which include nonprofit work, education, medicine, and law. They've gone on to become:

- State representatives
- Intelligence analysts for the FBI
- Staff attorneys for the Choctaw Nation
- Nonprofit tax attorneys
- Attorneys and counselors at law
- Supervisors of library programs
- Special collections assistants at university research libraries
- Physical therapists
- Residents in family medicine
- Psychiatric physician assistants
- Caseworkers in child protective services
- Elementary school art teachers
- Program managers at the Family Safety Center
- Vicars, senior pastors, priests
- Occupational safety specialists
- AP statistics and mathematics instructors
- University faculty
- Freelance writers
- Managers in mortgage servicing

RELS can easily pair with double majors and multiple minors. Some RELS courses may count toward your major or minor and your GenEd requirements at the same time. Our website posts the Religious Studies course lists each semester.

## Courses

RELS 1113 Introduction to Religious Studies 3 Credit Hours Facilitates understanding of human behaviors and products that are identified as religious. Includes critical engagements with ideas and practices of authority, transcendence, value, meaning, and collectivity. Provides strong foundation in culturally-grounded critical thinking, a nuanced understanding of how humans construct their worlds, and the ability to interrogate forms of power. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ ) [IV-WC].

## RELS 1213 Judaism and Christianity in Conversation and

Conflict
3 Credit Hours
This course introduces students to academic study of Judaism and Christianity, including their relationship to one another in antiquity and today. Our approach is comparative, historical, and analytical as we examine the development of these major religious traditions over time and the diversity both between and within them. (Irreg.) [IV-WC].

## RELS 2133 History of Christian Traditions

3 Credit Hours
Explores Christian beliefs and practices from ancient origins to the present day. Examines key texts and observes how and why certain thinkers and events were crucial to the development of the Christian religious tradition, and how ideas and practices were contested (internally and externally) and adapted according to cultural context. (Sp) [IV-WC].

## RELS 2213 World Religions

3 Credit Hours
An introduction to some of the world's major religious traditions, including study of their internal diversity and how they change over time. Close attention is also paid to the ways the categories of "religion" and "world religions" shape the way we understand one another and the world around us. (F) [IV-WDC].

RELS 2303 Introduction to Islam
3 Credit Hours
An introduction to a selection of major Islamic beliefs, texts, stories, practices, rituals, ethical norms, institutions, and debates. History, concepts, and examples are presented with an eye toward interpreting writings by Muslim authors with a diversity of backgrounds and outlooks. (Irreg.) [IV-WDC].
RELS 2313 Religion and Black Popular Music
3 Credit Hours
Examines the relationship between black religions and black popular music in the U.S. Key areas of emphasis include the cultural, social, religious, political, and economic dimensions (the "context") of genres from spirituals to ragtime, blues, jazz, gospel, rock \& roll, rhythm and blues, reggae, soul, disco, house, and hip hop. (Sp) [IV-AF].
RELS 2613 Pilgrims and Pilgrimage
3 Credit Hours
Prerequisite: Sophomore standing or permission of instructor. This course examines historical and modern-day religious and secular pilgrimage. (Irreg.) [IV-WC].
RELS 2653 Approaches to the Study of Religion 3 Credit Hours
Examines ways religion may be studied in order to better understand it. The course will include theory and the methodologies of the social sciences and humanities. (Sp)

RELS 2703 History of Buddhist Traditions
3 Credit Hours
An introductory study of Buddhist traditions focusing on sacred texts and core concepts. Examines the historical development of Buddhism in India, the formation of Theravada, Mahayana, and Vajrayana Buddhism, and local variations in Southeast Asia, East Asia, and the modern West. (Irreg.) [IV-WDC].

RELS 2713 History of Hindu Traditions
3 Credit Hours
Introduces students to the historical development of the many traditions that come under the umbrella of what we now call "Hinduism." Particular attention paid to the ways in which Hindu ways of being have been influenced by many factors in South Asian history, and have constantly been debated and in flux. (Irreg.) [IV-WDC].
RELS 2960 Directed Readings 1-3 Credit Hours
1 to 3 hours. Prerequisite: permission of instructor. May be repeated; maximum credit six hours. Consists of topics designated by the instructor in keeping with the student's major. Topics will cover materials not usually presented in the regular course offerings. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

RELS 2970 Special Topics 1-3 Credit Hours
1 to 3 hours. Prerequisite: May be repeated; maximum credit nine hours. Special topics course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research, and field projects. (Irreg.)

RELS 3013 Special Topics in Religious Texts 3 Credit Hours
Prerequisite: junior standing or permission of instructor. May be repeated with change of text; maximum credit nine hours. An examination of religious texts, and may include the Koran, Jewish scriptures, Christian scriptures, Bhagavad Gita, Vedas, etc. (Irreg.)

RELS 3043 Special Topics in Religion, Social Organization \&

## Politics

3 Credit Hours
Prerequisite: junior standing or permission of instructor. May be repeated with a change of content; maximum credit nine hours. An examination of issues and topics in religion, social organization and politics. (Irreg.
RELS 3053 Special Topics in Religion and History 3 Credit Hours Prerequisite: junior standing or permission of instructor. May be repeated with a change of content; maximum credit nine hours. An examination of religious phenomena throughout history, appearance and development of religious traditions, or special issues or topics in religion and history. (Irreg.)

## RELS 3103 Famous Bibles

3 Credit Hours
Prerequisite: Junior standing or permission of instructor. The Bible is one of the most famous books ever produced and distributed. But it wasn't always a book, and it has never been singular. The Bible exists in material form as varied and multiple. This course explores the historical circumstances of the production of particular bibles through attention to famous, and infamous, Bibles in Jewish and Christian history. (Irreg.)

## RELS 3153 Jesus Interpreted <br> 3 Credit Hours

Prerequisite: junior standing or permission of instructor. Examines varied portrayals of Jesus of Nazareth in literature, scholarship, and film, ranging from ancient gospels to contemporary scholarly and cinematic portrayals. Primary texts include canonical and non-canonical gospels from antiquity, modern scholarly reconstructions of the historical Jesus, and contemporary Jesus films. (Irreg.) [IV-WC].
RELS 3173 Women and the Bible 3 Credit Hours
Prerequisite: Junior standing or permission of instructor. A study of biblical literature through narratives from the Bible featuring women. Using a variety of perspectives, including historical, literary, and ideological approaches, we consider what these texts tell us about sex, gender, masculinity, and femininity in the ancient world and also how these texts have been interpreted through time to shape attitudes about women, gender, and sexuality. (Irreg.) [IV-WC].
RELS 3193 Biblical Literature
3 Credit Hours
Prerequisite: junior standing or permission of instructor. Examines Biblical texts to observe the Bible as the scriptural background of both Judaism and Christianity; modern scholarship and current debates surrounding the composition, themes, content, and dating of Biblical texts; historical and geographic circumstances surrounding the composition of biblical texts; the Bible as cultural inscription, the various ways the Bible is read today, and its impact on modern culture. (Irreg.) [IVWC].

## RELS 3223 Religion and Nationalism in India 3 Credit Hours

Prerequisite: junior standing or permission of instructor. A study of how the major religions of India (Hinduism, Buddhism, Islam, Zoroastrianism, and Sikhism) change under various political regimes; a case study of how these religions transformed under British colonial rule and in nationalist and post-independence India, hardened religious boundaries, and the partition of India into two nation-states, and one (Pakistan) divided again (into Pakistan and Bangladesh). (Irreg.) [IV-WDC].

RELS 3233 Money, Power, and God(s): Religion and Economy East and West

3 Credit Hours
Prerequisite: Junior standing or permission of instructor. An exploration of the intertwining of religious and economic modes of human life, particularly in Euro-American and South Asian contexts. The course disrupts the received categories of "religion" and "economy" to uncover the ways that humans think about what is valuable, good, and precious and how they seek to create a world in which each emerges. (Sp) [IVWDC].

RELS 3323 Religion and Social Change
3 Credit Hours
Prerequisite: Junior standing or permission of instructor. What is social change? What is religion? What is the relationship between religion and social change? This course examines how global movements have intersected with religious communities and practices in the 20th and 21 st centuries in the hope of producing a world where all life, both human and non-human, can flourish. (Irreg.)

RELS 3353 Religion and Black Political Thought 3 Credit Hours Prerequisite: Junior standing or permission of instructor. Examines the relationship between black religions and black political thought in the U.S. Key areas of emphasis include the cultural, social, religious, political, and economic dimensions (the "context") informing the "decolonial turn" in black religious and political thought. (Irreg.)

## RELS 3423 Gender, Sex, and the Body in the Christian Tradition <br> 3 Credit Hours

Prerequisite: junior standing or permission of instructor. An overview of some topics where issues of gender and sexuality intersect with a particular religious tradition. Topics have to do with gender, sexuality, and religion, including purity and power, celibacy and virginity, marriage, reproductive rights, gender fluidity, and religious leadership and ordination. (F) [IV-WC].

RELS 3440 Mentored Research Experience
3 Credit Hours
0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)

RELS 3533 The Qur'an
3 Credit Hours
Prerequisite: Junior standing or permission of instructor. Intensive study of the Qur'an, its major themes, and literary forms, with attention to a range of classical and contemporary discourses about the Qur'an, emphasizing the great variety of ways in which Muslims and nonMuslims have analyzed and interpreted the Qur'an. (Irreg.) [IV-WDC].

## RELS 3543 Islamic Law

3 Credit Hours
Prerequisite: Junior standing or permission of instructor. A close reading and discussion of primary texts (scriptural, classical, and modern) and accounts of court cases, focused on one aspect of Islamic law such as equity, violence, authority, or gender. (Irreg.) [IV-WDC].
RELS 3563 Islamic Theology
3 Credit Hours
Prerequisite: junior standing or permission of instructor. A close reading and discussion of primary texts (the Qur'an creeds, classical theological arguments, and modern writings) on major theological problems such as salvation, God, revelation, and religious pluralism. (Irreg.) [IV-WDC].

RELS 3593 Hermeneutics: Approaches to Interpreting the Bible and the Qur'an 3 Credit Hours
Prerequisite: Junior standing or permission of instructor. A historical and philosophical excursion through the landscape of hermeneutics-the theory of how to interpret texts, especially scriptures. We will explore how Christians, Muslims, and modern European philosophers have answered the question of where meaning comes from and how it should be discovered (or created), focusing on how to interpret the Bible and the Qur'an. (Sp)

## RELS 3613 Roman Religion

3 Credit Hours
(Crosslisted with HIST 3613) Prerequisite: junior standing or permission of instructor. The course examines religious practices and beliefs in the Roman world from the founding of the Roman Republic to Late Antiquity, including conceptions of the divine, ways of worshiping the gods, civic and private religion, conceptions of the afterlife, magic, the mystery religions and salvation, and philosophical religions, through a survey of literary and archaeological evidence. (Irreg.)

## RELS 3623 Paul and Christian Origins

3 Credit Hours
Prerequisite: junior standing or permission of the instructor. Explores who Paul claimed to be within his own Jewish and then Greco-Roman firstcentury context. Explores the letter-writing medium, his view of law, the role of women, resurrection and afterlife, and his goals for the church. (Irreg.)

## RELS 3733 Tibetan Buddhism

3 Credit Hours
Prerequisite: junior standing or permission of instructor. A survey of Tibetan Buddhism, sometimes referred to as "Vajrayana" or "Tantric Buddhism," considered in relation to the socio-cultural history of late Medieval India. Themes include monastic institutions, reincarnate lama traditions, death and dying, and contemporary political issues. A major theme will be the "image of Tibet"--the mythologization of Tibet, the Tibetan people, and their culture in foreign imagination. (Irreg.) [IV-WDC].

## RELS 3743 History of Daoist Traditions

3 Credit Hours
Prerequisite: junior standing or permission of instructor. Examines history, practices, and worldviews of the greater Daoist tradition as it developed and took shape over Chinese history focusing on the social and cultural forces that shaped its development, and the views, practices, and goals of specific Daoist schools. A study of the formation of Daoist identity and community, material culture, construction of sacred space, and self-cultivation techniques. (Irreg.) [IV-WDC].

## RELS 3763 Chinese Religions

3 Credit Hours
Prerequisite: Junior standing or permission of instructor. This course introduces students to major religious traditions of China: Confucianism, Daoism, Buddhism, and popular religion. These religious traditions are considered in reference to the historical development of their respective worldviews, practices, and institutions as well as the manner in which they have mutually influenced each other over the course of that historical development. (Sp) [IV-WDC].
RELS 3813 Animals, Art, and Religion 3 Credit Hours
Prerequisite: Junior standing or permission of instructor. This interdisciplinary seminar analyzes recent work in animal studies that bridges religious studies, Black studies, Native American studies, feminist and queer theory, anthropology, performance studies, biology, and art history. We'll explore the significance of representational forms in shaping understandings of animality and religion across a variety of artistic practices, including film, theater, photography, poetry, sculpture, painting, and literature. (Irreg.)

RELS 3823 Queer Religion
3 Credit Hours
(Crosslisted with WGS and LGBT 3823) Prerequisite: Junior standing or permission of instructor. This interdisciplinary seminar engages a range of methods and theoretical approaches to queer studies and religion. The course explores questions including: What is the relationship between queer life and religious life? Is religion ever queer? Is queerness ever religious? What do scholars mean when they label religion (or other objects of study) as queer or queer-able? (Irreg.) [IV-WC].
RELS 3833 Archaeology of the Lands of the Bible 3 Credit Hours (Crosslisted with HIST 3833) Prerequisite: junior standing. Examines the lands, cultures, and people associated with the Hebrew Bible and the New Testament through a chronological survey of archaeological evidence and investigates the relationship between archaeology and biblical texts. The course also investigates archaeological evidence for Jewish and Christian practices in late Roman Palestine as well as archaeological and architectural evidence for early Islamic Jerusalem. (Sp) [IV-WC].

## RELS 3893 Greek Religion

3 Credit Hours
(Crosslisted with HIST 3893) Prerequisite: junior standing or permission of instructor. Examines the religious rituals, beliefs, and sacred sites of the ancient Greeks. Considers such topics as the relationship between myths and ritual, sacred time and space, concepts of the afterlife, and the role of religion in the family and city-state. (Irreg.)
RELS 3900 Special Topics
1-4 Credit Hours
1 to 4 hours. Prerequisite: junior standing or permission of instructor. May be repeated with change of topic; maximum credit nine hours. Topics in Religious Studies not accommodated by the existing curriculum. (Irreg.)

## RELS 3960 Honors Reading

1-3 Credit Hours
1 to 3 hours. Prerequisite: Admission to Honors Program. May be repeated; maximum credit six hours. Consists of topics designated by the instructor in keeping with the student's major program. Topics will cover materials not usually presented in the regular course offerings. Will provide an opportunity for the gifted Honors candidate to work at a special project in the student's field. (F, Sp, Su)

## RELS 3970 Honors Seminar

1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Subjects covered vary. Deals with concepts not usually treated in regular courses. (Irreg.)

## RELS 3980 Honors Research

1-3 Credit Hours
1 to 3 hours. Prerequisite: Admission to Honors Program. May be repeated; maximum credit six hours. Consists of topics designated by the instructor in keeping with the student's major program. Topics will cover materials not usually presented in the regular offerings. Will provide an opportunity for the gifted Honors candidate to work at a special project in the student's field. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
RELS 3990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: 1113, Anthropology 1823, Philosophy 1203 or 2403 ; junior standing, and permission of instructor. May be repeated; maximum credit six hours. Through a written contract, independent study may be arranged for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or field projects. (F, $\mathrm{Sp}, \mathrm{Su}$ )
RELS 4053 History of Magic
3 Credit Hours
(Crosslisted with HSTM 4053) Prerequisite: Junior standing or permission of instructor. This course is an investigation of the category of magic, magical practices, and the place of magic in society from antiquity to the modern world. (Irreg.) [IV-WC].

RELS 4323 Capstone 3 Credit Hours
Prerequisite: Major in Religious Studies and permission of instructor. Capstone provides the opportunity to integrate knowledge about the major and apply it to a project culminating in a presentation and senior paper. The project will develop a selected problem, issue, or controversy in religious studies. ( $F, S p$ ) [V].

RELS 4640 Field Study in Religious Studies
1-6 Credit Hours
(Slashlisted with RELS 5640) 1 to 6 hours. Prerequisite: junior standing and permission of instructor or RELS program. May be repeated with change of content/location; maximum credit 12 hours. Students participate in excavation and field study of material culture. Course combines lectures, lab, discussion, and/or research. The subject matter depends upon the specific summer session. No student may earn credit for both 4640 and 5640 for the same content/location. (Su)
RELS 4960 Directed Readings
1-4 Credit Hours
1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean. May be repeated; maximum credit four hours. Designed for upper-division students who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)

## RELS 4970 Special Topics/Seminar

1-3 Credit Hours
1 to 3 hours. Prerequisite: Senior standing or permission of instructor.
May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

## RELS 4990 Independent Study

1-3 Credit Hours
1 to 3 hours. Prerequisite: 1113, Anthropology 1823, Philosophy 1203 or 2403; senior standing, and permission of instructor. May be repeated; maximum credit six hours. Through a written contract, independent study may be arranged for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or field projects. (F, Sp, Su)
RELS 5640 Field Study in Religious Studies 1-6 Credit Hours
(Slashlisted with RELS 4640) 1 to 6 hours. Prerequisite: graduate standing, permission of instructor or RELS program. May be repeated with a change of content/location; maximum credit twelve hours. Students will participate in excavation and field study of material, social, and visual culture. Combines lectures, lab, discussion, and/or research. The subject matter depends upon the specific summer session. No student may earn credit for both 4640 and 5640. (Su)

RELS 5960 Independent Study In Religious Studies 1-3 Credit Hours 1 to 3 hours. Prerequisite: graduate standing and/or permission of instructor. May be repeated with change of content; maximum credit nine hours, maximum of six hours with one professor/instructor. Independent study/directed reading arranged between the professor and student on a special topic in religious studies, to give students the opportunity to complete intensive readings in field of study under direct guidance of the student's advisory committee. F, Sp, Su)

RELS 5970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses.
May include library and/or laboratory research and field projects. (Irreg.)

RELS 5990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)

RELS 6960 Advanced Readings in Religious Studies 1-3 Credit Hours 1 To 3 Hours. Prerequisite: permission of instructor; student must be at PhD level. May be repeated with change of content; maximum credit nine hours. Advanced independent study/directed reading, arranged between the professor and student on a special topics in religious studies.
Designed to give students the opportunity to complete intensive readings in field of study under direct guidance of his/her advisory committee. (F, Sp, Su)

RELS 6970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit 12 hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or research and field projects. (Irreg.)
RELS 6990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)

## Faculty

| Last Name | First/Middle Name | Middle init. | OU <br> Service <br> start | Title(s), date(s) appointed | Degrees Earned, Schools, Dates Completed |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Cline | Rangar | H | 2011 | Associate Professor of Religious Studies, 2017 | PhD, Pennsylvania State University, 2005; MA, Pennsylvania State University, 2000; BA, Oklahoma State University, 1997 |
| Goble | Geoffrey | C | 2016 | Associate Professor of Religious Studies, 2016 | PhD, Indiana University, 2012; MA, University of Virginia, 2004; BA, University of Oklahoma, 2002 |
| Mallette | Wendy |  | 2022 | Assistant Professor of Religious Studies, 2022 | PhD, Yale University, 2022; MAR, Yale Divinity School, 2015; BA, Valparaiso University, 2012 |
| Moodie | Deonnie | G | 2014 | Associate Professor of Religious Studies, 2014 | PhD, Harvard University, 2014; MDIV, Harvard University, 2007; BA, Hope College, 2003 |
| Vishanoff | David | R | 2007 | Associate Professor of Religious Studies, 2012 | PhD, Emory <br> University, 2004; <br> MA, University of <br> Colorado, 1997; BA, <br> Gordon College, 1990 |

## Religious Studies, B.A.

Minimum Total Credit Hours: 120
Major Hours: 30
Minimum Upper-Division Hours: 48

## Upper-Division Hours Within Major. 15

Overall GPA - Combined and OU: 2.25
Major GPA - Combined and OU: 2.25

## Program Code: B820

## Major Requirements

- Some courses required for the major may also fulfill University General Education and/or Dodge College of Arts \& Sciences Requirements.
- No course may be used more than once to satisfy major requirements, and courses counted for the major may not be used for other majors or minors, except for support requirements.
- The major requires at least 30 hours with at least 15 hours of upperdivision courses.
- A grade of $C$ or better must be earned for each course fulfilling requirements for the Religious Studies degree.

| Code | Title | Credit <br> Hours |
| :--- | ---: | ---: |
| Required Courses |  |  |
| RELS 2653 | Approaches to the Study of Religion | 3 |
| RELS 4323 | Capstone | 3 |
| Major Electives | 24 |  |
| Choose 24 hours of major electives; at least 15 hours must <br> be RELS courses, the remaining 9 hours may be chosen <br> from the approved list of elective courses maintained by the <br> department (p. 691) |  |  |

Total Credit Hours

## General Education and College Requirements

Courses for fulfillment of General Education and Dodge College of Arts \& Sciences requirements must be from the approved General Education course list published in the Class Schedule or at http://www.ou.edu/ gened/courses. Courses graded P/NP will not apply.

## UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS

Code Title Credit
Core Area I: Symbolic and Oral Communication
English Composition (6 hours)
ENGL 1113 $\quad$ Principles of English Composition $\quad 36$
or EXPO 1213 Expository Writing
Language (0-13 hours in the same language)
The college requirement cannot be met by high school coursework

Beginning Course 0-5
$\begin{array}{ll}\text { Beginning Course, continued } & 0-5\end{array}$
Intermediate Course (2000 level) $^{1,2} \quad 0-3$
Mathematics (3 hours)
Choose one course from the General Education Mathematics list

Core Area II: Natural Science (7 hours, including one laboratory component)

Biological Science
Choose an approved General Education Natural Science 3-4 course with one of the following prefixes: BIOL, HES, MBIO, or PBIO ${ }^{1}$
Physical Science
Choose an approved General Education Natural Science 3-4 course with one of the following prefixes: AGSC, ASTR, CHEM, GEOG, GEOL, GPHY, METR, or PHYS ${ }^{1}$
Core Area III: Social Science (6 hours)
PSC 1113 American Federal Government 3
Choose one course from the General Education Social 3
Science list
Core Area IV: Arts and Humanities (18 hours)
Artistic Forms
Choose one course from the General Education Artistic Forms 3
list
Western Culture
HIST $1483 \quad 3$
or HIST 1493 United States, 1865 to the Present
Choose one course from the General Education Western 3
Culture list (excluding HIST 1483/1493)
World Culture
Choose one course from the General Education World Culture 3 list

Additional Core IV Upper-Division Arts \& Humanities courses
Choose one course from Artistic Forms, Western Culture, or 3 World Culture ${ }^{1,3}$
Choose one course from Artistic Forms, Western Culture, or 3 World Culture ${ }^{1,3}$

Core Area V: First Year Experience (3 hours)
Choose one course
Total Credit Hours 56
${ }^{1}$ College of Arts and Sciences Requirements: college requirements are not automatically fulfilled by a previous degree.
${ }^{2}$ One course at the intermediate level or demonstrated competency at that level
${ }^{3} 6$ upper-division hours, 2 courses, at the 3000-4000-level. Must be outside the major.

## Free Electives

Electives to bring total applicable hours to the minimum total required for the degree including 48 upper-division hours.

## Information Concerning General Rules, Regulations and Minimum Requirements

Arts and Sciences Hours: At least 80 semester hours of liberal arts and sciences courses are required for a BA degree. At least 55 semester hours of liberal arts and sciences courses are required for a BS degree. Pass/No Pass Enrollment: A maximum of 16 semester hours of free elective credit may be attempted under this option.
Individual Studies (e.g., courses titled "Independent Study"): A maximum of 12 total semester hours may be counted toward graduation, excluding Honors Reading and Honors Research.
P.E. Courses: No physical education activity courses will be counted toward the 120 semester hours of acceptable credit for graduation.

Senior Institution Hours: A minimum of 60 semester hours applied toward graduation must be earned at senior (4-year) institutions.

## Residency:

- At least 15 of the final 30 hours applied toward the degree or at least 50 percent of the hours required by the institution in the major field must be satisfactorily completed at the awarding institution.
- At least 15 semester hours of upper-division major work must be completed in residence at OU .
- OU correspondence courses are not considered resident credit.

Grade Point Averages: Students must earn a minimum over all 2.00 for each of the following: Combined Retention GPA (all college grades), OU Retention GPA, GPA for all major courses, and GPA for all major courses taken at OU. Some schools and departments of the College have higher minimum grade point averages required for their students.

## Suggested Semester Plan of Study

This plan shows one possible grouping of courses that would allow students to graduate in four years. Please refer to the front of the degree checksheet for official requirements. Students must consult with Dodge College of Arts and Sciences and Department of Religious Studies academic advisors to verify that courses selected each semester fulfill the recommended plan and satisfy University, College of Arts and Sciences, and Religious Studies major requirements.

## Freshman



## Sophomore

## First Semester

RELS Major Elective ${ }^{3} 3$

| HIST 1483 | United States to 1865 (Core IV) | 3 |
| :---: | :---: | :---: |
| or HIST 1493 | or United States, 1865 to the Present |  |

Intermediate Language 3
Natural Science with lab (Core II) 4
Western Culture (Core IV) ${ }^{1} 3$
Credit Hours 16
Second Semester

| RELS $2653 \quad$ Approaches to the Study of Religion | 3 |
| :--- | :--- |
| RELS Major Elective ${ }^{3}$ | 3 |
| Natural Science without lab (Core II) | 4 |
| Artistic Forms (Core IV) | 3 |


| Social Science (Core III) | 3 |
| :---: | :---: |
| Credit Hours | 6 |
| Junior |  |
| First Semester |  |
| RELS Major Elective, upper-division ${ }^{3}$ | 3 |
| Arts \& Humanities, upper-division, outside major (Gen. Ed.) | 3 |
| World Culture (Core IV) ${ }^{2}$ | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Free Elective, lower- or upper-division | 3 |
| Credit Hours | 5 |
| Second Semester |  |
| RELS Major Elective, upper-division ${ }^{3}$ | 3 |
| Arts \& Humanities, upper-division, outside major (Gen. Ed.) | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Free Elective, lower- or upper-division | 3 |
| Credit Hours | 5 |
| Senior |  |
| First Semester |  |
| RELS Major Elective, upper-division ${ }^{3}$ | 3 |
| Religious Studies Major Elective, lower- or upper-division ${ }^{3}$ | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Credit Hours | 15 |
| Second Semester |  |
| RELS 4323 Capstone | 3 |
| RELS Major Elective, upper-division ${ }^{3}$ | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Credit Hours | 15 |
| Total Credit Hours | 120 |
| ${ }^{1}$ If the Western Civilization \& Culture Gen. Ed. requirement a major course, a lower-division elective is to be selected. ${ }^{2}$ If the World Culture Gen. Ed. requirement is satisfied by a a lower-division elective is to be selected. <br> ${ }^{3}$ The Religious Studies major requires 24 hours of major e hours must be RELS courses; the remaining 9 hours may from the list of approved electives maintained by the dep 15 upper-division hours are required within the major, som major elective courses listed in the semester grid must be the upper-division level to ensure this requirement is met |  |
| Religious Studies Major Elective Course |  |
| - For the most current course lists, please contact the Department of Religious Studies |  |

## Approved RELS Courses (at least 15 hours required)

| Code | Title | Credit Hours |
| :---: | :---: | :---: |
| RELS 1113 | Introduction to Religious Studies | 3 |
| RELS 1213 | Judaism and Christianity in Conversation and Conflict | 3 |
| RELS 2133 | History of Christian Traditions | 3 |
| RELS 2303 | Introduction to Islam | 3 |
| RELS 2313 | Religion and Black Popular Music | 3 |
| RELS 2613 | Pilgrims and Pilgrimage | 3 |
| RELS 2703 | History of Buddhist Traditions | 3 |
| RELS 2713 | History of Hindu Traditions | 3 |
| RELS 2960 | Directed Readings | 1-3 |
| RELS 2970 | Special Topics | 1-3 |
| RELS 3103 | Famous Bibles | 3 |
| RELS 3153 | Jesus Interpreted | 3 |
| RELS 3173 | Women and the Bible | 3 |
| RELS 3193 | Biblical Literature | 3 |
| RELS 3223 | Religion and Nationalism in India | 3 |
| RELS 3233 | Money, Power, and God(s): Religion and Economy East and West | 3 |
| RELS 3323 | Religion and Social Change | 3 |
| RELS 3423 | Gender, Sex, and the Body in the Christian Tradition | 3 |
| RELS 3533 | The Qur'an | 3 |
| RELS 3543 | Islamic Law | 3 |
| RELS 3563 | Islamic Theology | 3 |
| RELS 3593 | Hermeneutics: Approaches to Interpreting the Bible and the Qur'an | 3 |
| RELS/HIST 3613 | Roman Religion | 3 |
| RELS 3623 | Paul and Christian Origins | 3 |
| RELS 3733 | Tibetan Buddhism | 3 |
| RELS 3743 | History of Daoist Traditions | 3 |
| RELS 3763 | Chinese Religions | 3 |
| RELS/LGBT/WGS $3823$ | Queer Religion | 3 |
| RELS/HIST 3833 | Archaeology of the Lands of the Bible | 3 |
| RELS/HIST 3893 | Greek Religion | 3 |
| RELS 3900 | Special Topics | 1-4 |
| RELS 3960 | Honors Reading | 1-3 |
| RELS 3970 | Honors Seminar | 1-3 |
| RELS 3980 | Honors Research | 1-3 |
| RELS 3990 | Independent Study ((maximum 6 hours)) | 1-3 |
| $\begin{aligned} & \text { RELS/HSTM } \\ & 4053 \end{aligned}$ | History of Magic | 3 |
| RELS 4640/5640 | Field Study in Religious Studies | 1-6 |

## Approved Non-RELS Courses (9 hours allowed)

| Code | Title | Credit Hours |
| :---: | :---: | :---: |
| A HI 3263 | Survey of Byzantine Art and Architecture | 3 |
| A HI 4273 | Byzantine Icons | 3 |
| AFAM 3143 | Gospel Music Past and Present | 3 |
| AFAM 4633 | African American Religious Traditions | 3 |
| ANTH 1823 | Religion in Everyday Life | 3 |
| ANTH 3423 | Anthropology of Religion | 3 |
| CL C 1123 | Gods and Heroes in Art | 3 |
| CL C 3053 | Origins of Christianity: Jesus to Augustine | 3 |
| CL C 3113 | Gods and Heroes of Ancient Epic | 3 |
| CL C 3163 | Visions of Heaven and Hell: Virgil, Dante, and Milton | 3 |
| EXPO 1213/1223 | Expository Writing (Topic: Violence \& the Sacred) | 3 |
| HIST 1563 | The Jews: From Abraham to Zionism | 3 |
| HIST 2503 | American Jews/Jewish Americans | 3 |
| HIST 3113 | The Crusades | 3 |
| HIST 3143 | The Era of the Reformation | 3 |
| HIST 3203 | Transformation of Jews | 3 |
| HIST 3413 | The History of Ancient Israel | 3 |
| HIST 3563 | Jerusalem | 3 |
| HIST 3733 | History of Heaven and Hell in Judaism and Christianity | 3 |
| HIST 3763 | Genesis Through Jewish Eyes | 3 |
| HIST 3773 | Jews and Christians--Middle Ages | 3 |
| HIST 3943 | Muslim Societies in Africa | 3 |
| HIST 3963 | From Zionism to Modern Israel | 3 |
| HIST 3973 | Judaism - A Religious History | 3 |
| HIST 3993 | The Evolution of Martyrdom in the JudeoChristian Civilization | 3 |
| HIST 4003 | Jews and Other Germans | 3 |
| HIST 4023 | Inquisitions | 3 |
| HIST 4973 | Undergraduate Seminar in History (Topic: The Bible Since Enlightenment) | 3 |
| HSTM 3443 | Science in a Religious World | 3 |
| HSTM 3453 | Science and Civilization in Islam | 3 |
| HSTM 3823 | Science in Medieval Culture | 3 |
| HSTM/RELS 4053 | History of Magic | 3 |
| HON 2973 | Perspectives on the American Experience (Topic: American Religion on the Margins) | 3 |
| HON 2973 | Perspectives on the American Experience (Topic: Religion and State) | 3 |
| HON 3993 | Honors Colloquium (Topic: Death, Dying, \& Religion) | 3 |
| HON 3993 | Honors Colloquium (Topic: Religion \& Pop Culture) | 3 |
| HON 3993 | Honors Colloquium (Topic: New Religious Movements) | 3 |
| IAS 3413 | Iran and Islam in Global History | 3 |
| IAS 3443 | Political Islam | 3 |


| IAS 3473 | The Arab-Israeli Conflict | 3 |
| :---: | :---: | :---: |
| IAS 3723 | Sexuality \& Identity in the Islamic World | 3 |
| LGBT/WGS/RELS 3823 | Queer Religion | 3 |
| PSHU 4163 | World Religions and Ecology | 3 |
| PSHU 4173 | Women in the Bible and Qur'an | 3 |
| PSHU 4183 | Crafting the Cinematic Jesus | 3 |
| PSHU 4213 | A Critical Review of the Bible as a Literary Work | 3 |
| MLLL 3063 | Survey of Jewish Literature from Antiquity to the Present | 3 |
| MLLL 3443 | Islamic Culture in the United States | 3 |
| MLLL 4993 | Epics of India: Ramayana and Mahabarata | 3 |
| NAS 3113 | Native American Philosophy | 3 |
| P SC 3033 | Religion and Politics in America | 3 |
| P SC 3053 | Global Religion and American Foreign Policy | 3 |
| P SC 3063 | Religion and the American Constitution | 3 |
| PHIL/IAS 1223 | Introduction to Asian Philosophy | 3 |
| PHIL/IAS 3343 | Chinese Philosophy | 3 |
| PHIL 3423 | Ancient and Medieval Religious Philosophy | 3 |
| PHIL 3433 | Modern Philosophy of Religion | 3 |
| PHIL 3443 | Contemporary Issues in Philosophy of Religion | 3 |
| PHIL 3733 | Religion in Political Theory | 3 |
| PHIL/IAS 4343 | Early Chinese Philosophy | 3 |
| PHIL 4473 | Philosophy of Religion | 3 |
| SOC 3773 | Sociology of Religion | 3 |
| SOC 4873 | World Religions and Society | 3 |
| WGS 3220 | WGS Special Topics (Topic: Muslim Womens' Writing) | 1-3 |
| WGS 3463 | Sex and Gender in Early Christianities | 3 |
| WGS/RELS/LGBT 3823 | Queer Religion | 3 |

## Religious Studies, Minor

Minimum Total Credit Hours: 15
Minimum Upper-Division Hours: 9
Program Code: N820

- The requirements for a minor must be completed concurrently with the major degree requirements.
- No minor may be added by completing courses after receiving the bachelor's degree.

At least six (6) credit hours must be earned in courses acceptable for residence credit by standards set forth by the Dodge College of Arts and Sciences, excluding transfer, correspondence, and examination (AP, CLEP, Advanced Standing) credit. Courses for the minor may not be taken Pass/ No Pass.

No single course may be used by a student to satisfy a major requirement and a minor requirement. A course may be used, however, to satisfy both a major support requirement and a minor requirement.

Requests to substitute a minor requirement must be approved in writing by the Department of Religious Studies.

## Required Courses

Students must successfully complete at least 15 hours of coursework, with at least 12 hours in Religious Studies, including at least nine (9) hours at the upper-division level.

| Code Title | Credit <br> Hours |
| :--- | ---: | ---: |
| Choose 12 hours of RELS courses, 9 hours of which must be <br> upper division | 12 |
| Choose 3 hours from the acceptable elective course list <br> maintained by the department (p. 691) | 15 |
| Total Credit Hours |  |
| - Minors in the Dodge College of Arts \& Sciences are available to all |  |
| undergraduate students at OU. If the minor is officially declared, |  |
| successfully completed, and noted on the graduation application, the |  |
| student's transcript will so indicate at the time the bachelor's degree |  |
| is posted. |  |

## Asian Religions, Undergraduate Certificate

Minimum Total Credit Hours: 15
Minimum Upper-Division Hours: 9
Curriculum GPA - Combined and OU: 2.25
Program Code: T032

## Certificate Requirements

This certificate requires 15 hours, 9 hours of which must be upper division.

| Code | Title | Credit <br> Hours |
| :---: | :---: | :---: |
| Core Courses |  |  |
| Choose two co | es (6 hours) from the following: | 6 |
| RELS 2703 | History of Buddhist Traditions |  |
| RELS 2713 | History of Hindu Traditions |  |
| RELS 3223 | Religion and Nationalism in India |  |
| RELS 3233 | Money, Power, and God(s): Religion and Economy East and West |  |
| RELS 3733 | Tibetan Buddhism |  |
| RELS 3743 | History of Daoist Traditions |  |
| RELS 3763 | Chinese Religions |  |
| Guided Electives |  |  |
| Choose 3 addit | al courses (9 hours) from the following | 9 |

(excluding the core courses taken above):
RELS 2703 History of Buddhist Traditions (Choose 3 courses ( 9 hours) from core courses not taken above or from the following:)
RELS 2713
History of Hindu Traditions
RELS 3223 Religion and Nationalism in India

| RELS 3233 | Money, Power, and God(s): Religion and <br> Economy East and West |
| :--- | :--- |
| RELS 3733 | Tibetan Buddhism |
| RELS 3743 | History of Daoist Traditions |
| RELS 3763 | Chinese Religions |
| PHIL/IAS 1223 Introduction to Asian Philosophy |  |
| PHIL/IAS 3343 Chinese Philosophy |  |
| PHIL/IAS 4343 Early Chinese Philosophy |  |
| Other relevant courses (special topics, graduate courses) <br> may be accepted on a case-by-case basis |  |
| Total Credit Hours | $\mathbf{1 5}$ |

# Islamic Studies, Undergraduate Certificate 

Minimum Total Credit Hours: 15
Minimum Upper-Division Hours: 9
Curriculum GPA - Combined and OU: 2.25
Program Code: T292

## Certificate Requirements

The certificate requires 15 hours, 9 of which must be upper division.

| Code | Title | Credit Hours |
| :---: | :---: | :---: |
| Core |  |  |
| Choose 2 cours | (6 hours) from the following: | 6 |
| RELS 2303 | Introduction to Islam |  |
| RELS 3533 | The Qur'an |  |
| RELS 3543 | Islamic Law |  |
| RELS 3563 | Islamic Theology |  |
| Guided Electives |  |  |
| Choose 3 additional courses ( 9 hours) from the following (excluding the core courses taken above): |  | 9 |
| RELS 2303 | Introduction to Islam |  |
| RELS 3533 | The Qur'an |  |
| RELS 3543 | Islamic Law |  |
| RELS 3563 | Islamic Theology |  |
| RELS 3593 | Hermeneutics: Approaches to Interpreting the Bible and the Qur'an |  |
| IAS 3413 | Iran and Islam in Global History |  |
| IAS 3443 | Political Islam |  |
| IAS 3473 | The Arab-Israeli Conflict |  |
| IAS 3723 | Sexuality \& Identity in the Islamic World |  |
| IAS 3763 | Women and Gender in the Middle East |  |
| IAS 3983 | Anti-Muslim Racism |  |
| ARAB 4443 | Readings in Islamic Religious Texts |  |
| HIST 3113 | The Crusades |  |
| HIST 3943 | Muslim Societies in Africa |  |
| HSTM 3453 | Science and Civilization in Islam |  |
| MLLL 3243 | Readings in Arab/Islamic Heritage |  |
| MLLL 3443 | Islamic Culture in the United States |  |
| PHIL 3403 | Jewish and Islamic Philosophy |  |
| LSTD 4173 |  |  |

Other relevant courses (special topics, graduate courses)
may be accepted on a case-by-case basis
Total Credit Hours

# Reserve Officers Training Corps 



The Reserve Officers' Training Corps is a group of college and Universitybased officer training programs for training commissioned officers of the United States Armed Forces. While ROTC graduate officers serve in all branches of the U.S. military, the U.S. Marine Corps and the U.S. Coast Guard do not have their own respective ROTC programs but graduates of Naval ROTC programs have the option to serve as officers in the Marine Corps contingent on meeting Marine Corps requirements.

Commissioning opportunities in the Air Force, Army, Marines, Navy at the University of Oklahoma:

- Air Force ROTC - Aerospace Studies (p. 694)
- Aerospace Studies, Minor (p. 696)
- Army ROTC - Military Science (p. 696)
- Military Science, Minor (p. 698)
- Naval ROTC - Naval Science (p. 699)
- Naval Science, Minor (p. 701)


## Air Force ROTC - Aerospace Studies

Maj Aaron T. Ashley, U.S. Air Force, Assistant Professor of Areospace Studies
334 Cate Center Dr.
Cate 4, 4th Floor
Norman, OK 73072-1041
Phone: (405) 325-3211
FAX: (405) 325-1776
afrotc@ou.edu
www.ou.edu/rotc/air-force/

## General Information

For over 60 years, some of the best and brightest from the University of Oklahoma (OU) Detachment 675 have served their country as pilots, navigators, space operations officers, engineers, doctors, nurses, mathematicians, communications officers, acquisition managers, and a host of other occupations. Today, that tradition continues for the cadets at the Air Force Reserve Officer Training Corps (Air Force ROTC) Detachment 675 on the Norman campus.

Air Force ROTC offers men and women the opportunity to earn a commission as an Air Force or Space Force officer while they complete requirements for their first bachelor's degree. Interested students may join Air Force ROTC during any semester in their first year of college and during the Fall of their second year of college without any obligation or
commitment. OU students completing the entire program will also earn a minor in Aerospace Studies.

Air Force ROTC is the largest and oldest source of commissioned officers for the U.S. Air Force. Air Force ROTC's stated mission is to "develop premier leaders of character for tomorrow's Air Force." Air Force ROTC units are located on 140 college and university campuses with 1,000 additional institutions of higher learning participating in cross-town agreements that allow their students to attend Air Force ROTC classes at a nearby "host" college or university.

Anyone interested in a challenging and rewarding opportunities to study and work with some of our nation's best women and men should contact the Recruiting Officer at afrotc@ou.edu or call us at (405) 325-3211. You may also visit our web page.

## Commissioning Requirements Through Air Force ROTC

All requirements must be met for a degree according to the University of Oklahoma, as well as completion of certain courses required by the Department of the Air Force.

## Air Force ROTC Benefits

Air Force ROTC can help students with the high cost of earning a college degree. The Department of the Air Force also offers a competitive benefits package as compared to other career opportunities upon completion of an undergraduate or graduate degree. In addition to these benefits, participants appreciate the team spirit that comes with being a member of Air Force ROTC, and enjoy social and extracurricular activities.

## Scholarships

## High School Seniors or Graduates

Competitive scholarships are available to high school seniors and high school graduates not enrolled full-time in college. Although the Department of the Air Force needs engineering, mathematics, computer science, meteorology, physics, language and nursing majors, many scholarships are also available to those in non-technical degree programs including world languages. Students must apply for scholarships online.

## In-College Students

Air Force ROTC awards partial and full tuition scholarships available for qualified applicants. For more information and an on-line application visit the Air Force ROTC website. Along with tuition money, scholarship recipients receive a textbook allowance each semester and a monthly living expenses stipend during the academic year.

## Minor

OU students who complete the entire program will earn an Aerospace Studies Minor (p. 696).

## Courses

AERO 1011 Introduction to the Department of the Air Force - Heritage and Values 1 Credit Hour
Prerequisite: concurrent enrollment in AERO 1300. This course provides an introduction to the Air and Space Forces, hopefully encouraging students to pursue an AF career. The course also lays the foundation for becoming an Air or Space professional by outlining our heritage and values. As a foundational course, AERO 1011 also provides a historical perspective with lessons on war, AF operations, and principles of airpower. (F)

AERO 1021 The Air Force Today
1 Credit Hour
Prerequisite: departmental permission; concurrent enrollment in 1300.
A study of aerospace defense, missile defense, general purpose forces and aerospace support forces. The mission, resources and operation of tactical air forces, with special attention to limited war; and a review of Army, Navy and Marine general purpose forces. (Sp)

AERO 1300 Leadership Laboratory 0 Credit Hours
Prerequisite: concurrent enrollment in AERO 1011, 1021, 2011, 2021, $3013,3023,4013$ or 4023 or permission. Designed to introduce the student to the customs and courtesies associated with the Air Force. Also provides a practicum for the initial development of leadership and command abilities. (F, Sp)

AERO 2011 Team and Leadership Fundamentals I 1 Credit Hour Prerequisite: Corequisite: AERO 1300. This course is designed to provide a fundamental understanding of both leadership and team building. It is imperative that students are taught from the beginning that there are many layers to leadership, including listening, understanding themselves, being a good follower and problem solving efficiently. Students should demonstrate basic verbal and written communication skills. (F)

AERO 2021 Team and Leadership Fundamentals II 1 Credit Hour Prerequisite: Corequisite: AERO 1300. This course is designed to continue providing a fundamental understanding of both leadership and team building. It is imperative that students are taught from the beginning that there are many layers to leadership, including listening, understanding themselves, being a good follower and problem solving efficiently. Students should demonstrate basic verbal and written communication skills. (Sp)

## AERO 3013 Air Force Leading People and Effective Communication

 I3 Credit Hours
Prerequisite: Departmental Permission; Corequisite: AERO 1300. This course is designed to build on the leadership fundamentals taught in AERO 2021. The students will have the opportunity to utilize their skills as they begin more of a leadership role in the detachment. The goal is for students to have a more in-depth understanding of how to effectively lead people. Concurrent enrollment in AERO 1300 is required. (F)
AERO 3023 Air Force Leading People and Effective Communication
3 Credit Hours
Prerequisite: AERO 3013 or Departmental Permission; Corequisite: AERO 1300. This course is designed to build on the leadership fundamentals taught in AERO 3013. The students will have the opportunity to utilize their skills as they begin more of a leadership role in the detachment. The goal is for students to have a more in-depth understanding of how to effectively lead people. Concurrent enrollment in AERO 1300 is required. (Sp)

AERO 4013 American National Security I
3 Credit Hours Prerequisite: 3023 or departmental permission. Conceptual study of the U.S. national security policy examining the formulation, organization and implementation of national security; the context of national security; the evolution of strategy; and the management of conflict. Included is a block of instruction on the military justice system. Concurrent enrollment in 4100 is required. (F)

AERO 4023 American National Security II 3 Credit Hours
Prerequisite: 4013 or departmental permission. Examines U.S.
national security policy in the international setting; arms control and peacekeeping efforts; and civil-military interaction. Includes a study of the military profession and officership. Designed to provide future Air Force officers with a background in the profession and U.S. national security policy so that they can function effectively in today's Air Force. Concurrent enrollment in 4100 is required. (Sp)

## Aerospace Studies, Minor

Minimum Total Credit Hours: 16
Minimum Upper-Division Hours: 12

## Program Code: N013

The requirements for a minor must be completed concurrently with the major degree requirements.

No minor may be added by completing courses after receiving the bachelor's degree.

No single course may be used by a student to satisfy a major requirement and a minor requirement. A course may be used, however, to satisfy both a major support requirement and a minor requirement.

Both two and four-year Air Force ROTC programs are offered.
Students who elect not to participate in the General Military Course may substitute a five-week summer field training period for this requirement.

Four-year cadets participate in a four-week training period during the summer between their sophomore and junior years.

## Required Courses

| Code | Title | Credit Hours |
| :---: | :---: | :---: |
| General Military Course |  |  |
| AERO 1011 | Introduction to the Department of the Air Force - Heritage and Values | 1 |
| AERO 1021 | The Air Force Today | 1 |
| AERO 2011 | Team and Leadership Fundamentals I | 1 |
| AERO 2021 | Team and Leadership Fundamentals II | 1 |
| Professional Officer Course |  |  |
| AERO 3013 | Air Force Leading People and Effective Communication I | 3 |
| AERO 3023 | Air Force Leading People and Effective Communication 2 | 3 |
| AERO 4013 | American National Security I | 3 |
| AERO 4023 | American National Security II | 3 |
| Total Credit |  | 16 |

Minors are available to all undergraduate students at OU. If the minor is officially declared, successfully completed, and noted on the graduation application, the student's transcript will so indicate at the time the bachelor's degree is posted.

## Army ROTC - Military Science

Lieutenant Colonel Kevin Wolf, Field Artillery, U.S. Army, Professor and Department Chair

Master Sergeant Marshall J. Schmidt, Field Artillery, U.S. Army, Senior Military Instructor
290 West Brooks, Room 1
Norman, OK 73019-6021
Phone: (405) 325-3012
FAX: (405) 325-3320
ouarmyrotc@ou.edu
www.soonerstrong.com

## General Information

The training goals of the OU Army ROTC are to develop cadets mentally, physically, and scholastically. The course focuses on developing basic soldier skills, leadership qualities, physical fitness, and officership. The intent of the program is to prepare college-age men and women to lead American Soldiers in armed conflict. Upon graduation those who complete their Military Science and degree requirements will be commissioned as second lieutenants and serve as officers in either the Active Army, Army National Guard or Army Reserve.

Since Army ROTC is a university elective course, enrollment into Army ROTC can be done online or through your OU academic advisor after being accepted into The University of Oklahoma.

Contact Army ROTC for more information concerning requirements and enrollment..

## Minor in Military Science

Cadets cannot major in Military Science, but have the option of adding the Minor in Military Science (p. 698) to their degree. To enroll in this option students should see their academic counselor.

## Green to Gold

The Green to Gold program seeks talented young enlisted soldiers who have decided to leave, or are considering leaving, active duty to attend college. Quality enlisted soldiers with officer potential who have served at least two years on active duty are allowed to voluntarily request discharge from active duty, and enroll in Army ROTC to earn baccalaureate degrees and commissions as Second Lieutenants.

## Critical Language Incentive Program

Cadets studying any of 70 languages designated by the Department of the Army as "critical" can receive up to \$2,500 each year for receiving passing grades. Current languages eligible for the bonus pay include Arabic, Chinese, Japanese, Korean, Pashto, Persian, Portuguese, Russian and over 60 more. This program is eligible to Basic Course and Advanced Course cadets. To apply, students must submit a proposal to the Professor of Military Science at the beginning of the semester. Bonuses are paid at the end of the semester in which a successful grade was achieved.

## Ranger Challenge

Ranger Challenge is the varsity sport of Army ROTC. Each year students compete for a spot on an eight-man team to compete against other colleges in a series of military events. Events include a medical assault course, grenade assault course, one rope bridge, assembly/dis-assembly of an M16 rifle, obstacle course, improvised raft course, and a 10k ruck march. Try-outs are rigorous, and the training requires a commitment of additional time and dedication. Winners of regional competitions go on to
compete at the national level against ROTC departments from across the country.

## Summer Training Opportunities

Each summer selected students who are enrolled in Military Science have the opportunity to attend Airborne, Air Assault, Mountain Warfare training, or Cadet Troop Leader Training. These courses are offered to cadets on a voluntary and limited basis. Unlike CIET and CLC, which are specifically for ROTC cadets, these are regular US Army courses and cadets attend right along side current Army soldiers and officers.

## Simultaneous Membership Program

The Simultaneous Membership Program (SMP) allows enlisted members of the National Guard and Army Reserve to enroll in ROTC courses as a means of earning an officer's commission. While in the SMP students continue to drill with their current unit while taking Military Science courses, but are given the rank of cadet, are placed in officer trainee positions within their units, receive E-5 drill pay, and are nondeployable for as long as they are in school. SMP cadets receive all the tuition benefits available from the National Guard or Army Reserve in addition to ROTC benefits, such as the monthly stipend and scholarship opportunities. Upon graduation SMP participants have the option of serving on Active Duty, or part-time in the National Guard or Army Reserves.

## SMP Scholarship Opportunities

Students currently serving (or soon enlisting) in the Army National Guard or Army Reserves can apply for the Dedicated Reserve component scholarships for either the National Guard or US Army Reserves. With a Dedicated Scholarship Reservists and Guardsmen continue to drill with their current unit while enrolled in Military Science, and receive National Guard or Army Reserve education benefits in addition to the scholarship benefits listed above. Please speak to a scholarship and enrollment officer for full details. Upon graduation, DED scholarship winners will not be considered for Active Duty appointments, and serve their military commitment with part-time service as officers in the Army National Guard or Army Reserves.

## SMP Non-Scholarship Opportunities

Eligible students, who do not wish to obligate their military career to a Reserve component, may compete to serve Active Duty upon commissioning. This opportunity will include a promotion to E-5 and a monthly ROTC stipend. Students may also be eligible for any benefits earned; Montgomery GI Bill, GI Bill Kicker, or Post 9-11 GI Bill® ${ }^{1}$ Benefits.

## Campus-Based Scholarship Program

Campus-based scholarships are available to eligible students at the University of Oklahoma and are merit based; awarded to students that are enrolled in the Army ROTC Program and apply for a scholarship. These cadets prove themselves through their moral character, college GPA, leadership potential, and PT test scores. Application can be made by contacting the Military Science Department.

## High School Scholarship Program

The High School Scholarship application process is for high school students planning on attending a four-year college program. Contact your high school academic advisor or campus Military Science department for more information.

## Financial Assistance

All students enrolled in Military Science are furnished with necessary military science textbooks, equipment and uniforms at no cost. All advanced course students and scholarship winners are paid a monthly stipend. The OU Army ROTC can provide tuition assistance each year based on merit and need. There are over a dozen other military scholarships and awards that students may compete for each year. Award deadlines and requirements vary and require current enrollment in Military Science classes.

## Veterans

Qualified veterans may receive Basic Course credit enabling them to complete Army commissioning requirements in two years in the Advanced Course. Veterans receive the same benefits as other students in addition to their GI Bill and VA benefits. Veterans, as well as current Army Reserve and National Guard soldier/students, are also eligible to compete for scholarships.

## Medical/Pre-Med Students

Army ROTC provides a pathway to becoming an Army doctor (including dentists and veterinarians) in specialties ranging from Anesthesiology and Cardiology to Radiology and Vascular Surgery. Cadets with premed majors receive the same training-with the same requirementsas every other cadet while they complete ROTC. Upon graduation they are commissioned as second lieutenants, but instead of immediately beginning their officer service, cadets who are accepted into a medical school may delay their military obligation until completion of the medical training, at which time they enter service as officers in the Army Medical (Dental, or Veterinarian) Corps.

After completing a bachelor's degree, opportunities for fully-funded medical training are available under two programs: the Armed Forces Health Professions Scholarship Program (HPSP), and the Uniformed Services University of the Health Sciences (USUHS). The HPSP scholarship can be used at any accredited medical school in the United States, and includes full tuition and a stipend of over \$2000 per month. USUHS is a DOD medical school located in Bethesda, MD, and offers free tuition plus second lieutenant pay, benefits and allowances for all four years of school.
${ }^{1} \mathrm{GI}$ Bill® is a registered trademark of the U.S. Department of Veterans Affairs (VA). More information about education benefits offered by VA is available at the official U.S. government Web site at http:// www.benefits.va.gov/gibill.

## Courses

M S 1011 Military Conditioning
1 Credit Hour
A physical conditioning course using exercises developed for use by the US Army and classroom instruction. This is a progressive program of exercise that promotes muscular strength and endurance, cardiorespiratory endurance, flexibility, and a healthy body fat content.
Classroom instruction includes nutrition and the aspects of physical fitness in accordance with military service. (F, Sp, Su)

M S 1113 Introduction to Leadership I
3 Credit Hours
Introduction to the organization of the US Army and the ROTC program. Overview of leadership principles, problem solving, military fitness, and effective communication. Introduces small unit tactics, map reading, land navigation, and the principles of officership. Laboratory (F)

M S 1213 Adaptive Leadership and Professional Competence 3 Credit

Hours
Prerequisite: MS 1113 or department permission. Introduces students to the personal challenges and competencies that are critical for adaptive leadership. Students learn the basics of the communications process and the importance for leaders to develop the essential skills to effectively communicate in the Army. Students will examine the Army Profession and what it means to be a professional in the U.S. Army. Laboratory. (Sp)
M S 2323 Foundations of Leadership I 3 Credit Hours
Prerequisite: M S 1113 and M S 1213; or permission of the department. Examines the challenges of leading tactical teams in the complex Contemporary Operating Environment. Highlights dimensions of terrain analysis, patrolling, and operation orders. Further study of the theoretical basis of the Army leadership framework. Covers troop leading procedures, Army problem solving, land navigation, squad organization, fundamentals of the offense and defense, and battle drills. Laboratory (F)
M S 2423 Foundations of Leadership II
3 Credit Hours
Prerequisite: M S 2323, or permission of department. Develops knowledge, understanding and skill in land navigation, military operations, leadership and basic tactics. Instruction focuses on applying leadership and management theory to the area of organization effectiveness. Laboratory (Sp)
M S 3123 Adaptive Team Leadership
3 Credit Hours
Prerequisite: M S 2423. Uses increasingly intense situational leadership challenges to build skill in leading tactical operations. Exercises focus on platoon level tactics in combat, stability, and support operations. Students conduct military briefings and develop proficiency in preparing orders, decision making, and building effective teams. Laboratory (F)
M S 3223 Applied Team Leadership 3 Credit Hours
Prerequisite: M S 3123. Theory, methods and principles for understanding leadership and behavior in groups. Analysis of the leader's role in directing and coordinating the efforts of individuals and small units in the execution of offensive and defensive tactical missions, to include communication systems, internal defense/development and the military team; intelligence gathering, and the role of the various branches of the Army. Laboratory (Sp)

## M S 3413 United States Military History and Heritage: 1607Present 3 Credit Hours

Prerequisite: M S 1113, M S 1213, and ENGL/EXPO 1213; or Departmental Permission. This course will develop a student's awareness of the relationship of the U.S. military to American society. It will cover the evolution of war and strategy, the progression of military professionalism, the history and purpose of joint operations, as well as the role of history and heritage in understanding the US Army as a profession. Commissioning requirement for Army ROTC. (F, Sp)

## M S 3440 Mentored Research Experience <br> 3 Credit Hours

0 to 3 hours. Prerequisite: ENGL 1113 or equivalent, and permission of instructor; May be repeated, maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)
M S 3980 Honors Research
1-3 Credit Hours 1 to 3 hours. Prerequisite: admission to Honors Program; May be repeated, maximum credit six hours. Provides an opportunity for the gifted Honors candidate to work at a special project in the student's field. (F, Sp, Su)

M S 4213 Seminar in Leadership and Management 3 Credit Hours Prerequisite: advanced standing in military science. Analysis of selected leadership and management problems involved in staff organization and function, and military justice. Application of leadership principles, stressing responsibilities of the leader, and affording experience through practical exercises. Obligations and responsibilities of an officer on active duty; chain of command; and officer-enlisted relationships. Laboratory (Sp)
M S 4223 Mission Command and the Company Grade
Officer
3 Credit Hours
Prerequisite: M S 4123. Introduces students to the challenges of mission command and gaining an understanding of the Army Profession. Students learn the basics of what mission command is and how it is used in Army operations. Students will examine the Army Profession and what it means to be a professional in the U.S. Army. (Sp)
M S 4510 Seminar in Military Leadership
1-3 Credit Hours
1 to 3 hours. Prerequisite: junior standing and permission of department. May be repeated with change of content; maximum credit nine hours. Students will learn various theories of leadership and organizational culture and gain practical experience in the application of those theories within a peer leadership setting. Additionally, the course may include elements of military history, social theory, ethics, and military law. (Irreg.)
M S 4610 Comparative Military History
1-3 Credit Hours
1 to 3 hours. Prerequisite: 3610 or permission of department chair. May be repeated; maximum credit three hours. Students will examine events leading to national and world crisis. Focus points will be socio-economic as well as goals and personalities of political and military leaders. (F, Sp)

## Military Science, Minor

Minimum Total Credit Hours: 15
Program Code: N700
The requirements for a minor must be completed concurrently with the major degree requirements.

No minor may be added by completing courses after receiving the bachelor's degree.

No single course may be used by a student to satisfy a major requirement and a minor requirement. A course may be used, however, to satisfy both a major support requirement and a minor requirement.

Courses may not be taken Pass/No Pass.
All courses applied toward the Minor in Military Science must be completed with at least a C grade.

To earn a Minor in Military Science a student must complete a minimum of 15 credits, including all of the following:

- The Basic Course (or have placement credit, such as having completed Basic Training)
- The Advanced Course
- 3 hours of Military History.


## Required Courses

| Code | Title | Credit Hours |
| :---: | :---: | :---: |
| Basic Course Requirements |  |  |
| All of the following must be completed (placement credit may be awarded for prior military service, Basic Training, or high school JROTC): |  |  |
| M S 1113 | Introduction to Leadership I |  |
| M S 1213 | Adaptive Leadership and Professional Competence |  |
| M S 2323 | Foundations of Leadership I |  |
| M S 2423 | Foundations of Leadership II |  |
| Advanced Course Requirements |  |  |
| M S 3123 | Adaptive Team Leadership | 3 |
| M S 3223 | Applied Team Leadership | 3 |
| M S 4213 | Seminar in Leadership and Management | 3 |
| M S 4223 | Mission Command and the Company Grade Officer | 3 |

## Military History

Choose 3 hours from a list of history courses within the department; the following is recommended:
HIST 4453 American Military History 1860-Present
Total Credit Hours

Minors are available to all undergraduate students at OU. If the minor is officially declared, successfully completed, and noted on the graduation application, the student's transcript will so indicate at the time the bachelor's degree is posted.

## Naval ROTC - Naval Science

Captain Paul Young, U.S. Navy, Professor and Chair
290 West Brooks St., Room 12
Norman, OK 73019-4102
Phone: (405) 325-2021
FAX: (405) 325-7639
navalrotc@ou.edu
nrotc.ou.edu
The Naval ROTC is a highly competitive program maintained for one purpose - to educate and train qualified men and women for service as commissioned officers in the Marine Corps and in the Navy as unrestricted line officers. The officer's commission is earned by the successful completion of degree requirements in the student's chosen academic field of study, and the completion of the naval science curriculum. The increasingly technical complexion of today's military prompts many NROTC midshipmen to enroll in demanding majors that will place them at the forefront of tomorrow's technology.

Naval Science courses are open to all accepted University of Oklahoma students. The courses are accredited. The Naval ROTC program consists of specific naval technical courses, University courses, and leadership development seminars. No military obligation is incurred until a student accepts a scholarship. In addition to their diploma at graduation, a NROTC graduate is commissioned and placed on active duty as a leader, as well as the exciting opportunity to proudly serve our country as a naval aviator, submarine officer, surface warfare officer, special warfare officer (SEAL), explosive ordnance disposal officer or Marine officer.

Students selected to participate in The University of Oklahoma's NROTC Program make their own arrangements for college enrollment and room and board. They take the normal course load required by the college or university for degree completion as well as courses required for participation in NROTC. Additionally, all midshipmen are required to follow specific academic guidelines. Contact Naval ROTC for information concerning specific requirements.

## Naval Science Minor

Students have the option of adding the Naval Science Minor (p. 701) to their degree, and should consult their academic counselor to enroll.

## Scholarships

OU NROTC offers opportunities for students to earn a commission in a variety of ways; NROTC scholarships, college program and enlisted commissioning programs. Visit NROTC for more information on scholarship application requirements. Selected applicants for the NROTC Scholarship Program are awarded scholarships through a highly competitive national selection process. Scholarship selectees receive full tuition, books, educational fees at the University of Oklahoma, and a monthly subsistence allowance.

## High School Seniors - 4 Year Scholarship Program

Qualified high school seniors can elect to apply for a 4-Year Scholarship that will lead them to a career as a naval officer in the United States Navy or Marine Corps.

## Available Program for College Students

Students enrolled at The University of Oklahoma who wish to pursue a Navy or Marine Corps career may enroll into NROTC as a college program student. College program students who perform well academically, physically, and professionally may be awarded with a full scholarship that will cover his/ her remaining semesters. College program students who are awarded with the scholarship will also receive a monthly stipend and a stipend for textbooks every semester.

## College Program <br> ROTC College Program

The College Program is for incoming freshman or sophomore students who desire a commission in the United States Navy or Marine Corps who have not been selected for the NROTC National Scholarship. Students accepted to the NROTC College Program are required to participate in all NROTC events and activities to be eligible for NROTC benefits. Students can apply for a scholarship at the end of the freshman and sophomore years. All NROTC College Program students are eligible for IN-STATE tuition.

## Non-Affiliated Students

Non-Affiliated Scholarships are for freshman or sophomore students who desire a commission in the United States Navy or Marine Corps but have not previously participated in NROTC. Students selected for two- or threeyear NROTC scholarship receive the associated scholarship benefits going forward and matriculate toward a commission in the United States Navy or Marine Corps. Participation in all NROTC events and activities is required to maintain scholarship. Additionally, students are required to take the applicable Naval Science classes in addition to your normal classes.

Visit NROTC Scholarships for additional information is available.

## Financial Assistance

Regardless of financial situation, it is highly recommended that students submit a Free Application for Federal Student Aid (FAFSA). Admission to an educational institution is not needed to submit a FAFSA. A Student Aid Report (SAR) will then be sent, which will list for what aid the student is qualified. If OU is listed on the FAFSA, the OU Financial Aid Services office will also receive he Student Aid Report.

## MECEP - Marine Enlisted Commissioning Education Program

The Marine Enlisted Commissioning Education Program (MECEP) is an enlisted to officer commissioning program designed to provide outstanding enlisted Marines the opportunity to serve as Marine Corps officers. Marines selected for MECEP who successfully complete Officer Candidates School and graduate with a Bachelor's Degree will be commissioned a Second Lieutenant in the U.S. Marine Corps.

## STA-21 - Seaman to Admiral Program

STA-21 is designed to provide an opportunity for Navy enlisted personnel who possess outstanding qualifications and motivation for a naval career to obtain a commission. The STA-21 Program will keep all participants on active duty at their current enlisted pay grade. This means they will receive all the pay, allowances, benefits, and privileges they currently enjoy and will still be eligible for enlisted advancement while in the program.

## Activities

Midshipmen students, on a voluntary basis, may participate in a diversified field of unit-sponsored activities. These include precision drill teams, color guard, rifle and pistol team, intramural athletics, endurance team, unit publications such as the "Flaghoist," midshipmen social and professional organizations, and fleet orientation trips. Participation in extracurricular activities is not limited solely to those areas sponsored by the Naval ROTC unit. Midshipmen are encouraged to participate in a broad spectrum of University activities.

## Summer Training

Summer training is provided to midshipmen in fleet units worldwide. The training is for the individual's introduction and participation in fleet operations. Additionally, such training assists the midshipmen in requesting a military specialty prior to commissioning. In the summer prior to starting college, scholarship candidates and selected College Program candidates will attend the NROTC Indoctrination Program and Naval Station Great Lakes. College Program students that do not attend prior to their Freshman year will attend between their Freshman and Sophomore year.

Scholarship students, between their freshman and sophomore years, participate in a four-week career orientation program in which a week is spent each with Naval Aviation, Submarine Force, Surface Force, and the Marine Corps. Between their sophomore and junior years, Midshipmen attend a four-week cruise on various commands throughout the fleet serving in the capacity of enlisted sailors. During the period between the junior and senior years, Navy option midshipmen participate in a cruise on maritime platforms in various areas of the world serving in the capacity of junior officers. Additionally, Navy option midshipman will attend Sea Trials, a professional and military training and evaluation. For the Marine Corps option midshipmen, six weeks of training is conducted
at Quantico, Virginia. Funds are provided to the individual for summer training.

## Career Opportunities

The qualified young men and women who complete the Naval ROTC Program at the University will not have to worry about seeking employment after graduation. Upon graduation, midshipmen are commissioned as officers in either the Navy or Marine Corps, and during their final semester are allowed to choose their military specialty from among those fields for which they are qualified. Navy ensigns can select a career in aviation, surface warfare, submarines, explosive ordnance disposal or special warfare. The Marine Corps second lieutenants have a choice between aviation, cyber and ground fields, including infantry, artillery, armor, communication-electronics, combat engineering, intelligence, air control, computer systems, logistics and manpower.

## Courses

N S 0110 Leadership Development
0 Credit Hours
Designed to expose NROTC students to the professional development of a military officer. This is accomplished through military drill, guest lecturers, command situation and role enactment training. The goal is to better prepare young men and women to serve as naval officers in various fleet assignments. (F, Sp)
N S 1123 Introduction to Naval Science
3 Credit Hours
Presents an overview of the mission and organization of the Department of Defense with particular emphasis on the Naval Service. Among the topics covered are military law, leadership fundamentals, naval heritage, naval customs and traditions, and career opportunities for Navy and Marine Corps officers. The course is designed for freshmen enrolled in NROTC but is open to all interested students. (F)
N S 1133 Sea Power And Maritime Affairs 3 Credit Hours Sea Power And Maritime Affairs. Traces The Development Of Sea Power And Analyzes Its Influence On Maritime Strategy Through The Study Of Major Events In Naval History. Students Will Develop An Appreciation For The Overlapping Roles That National Interests, Technical Advances, Maritime Strategists, And Individual Leaders Play In The Formulation Of U.S. Security Strategy And Policy. (Sp)

N S 2113 Leadership and Management
3 Credit Hours
Designed to teach introductory-level leadership and management concepts and applications to sophomore-level Naval ROTC midshipmen and all other interested University students. (F)
N S 2133 Navigation 3 Credit Hours
Introduction to marine navigation, including both traditional and electronic navigation theory and practical applications. Includes concepts in navigational safety, rules of the nautical road, and an introduction to relative motion. (Sp)
N S 3223 Naval Ship Systems I: Naval Engineering Systems 3 Credit Hours
Prerequisite: NS 1123 or permission of instructor. Detailed study of the engineering principles that define Naval Ship Systems. Course focus is on the application of electrical, mechanical, and computer engineering while introducing concepts in ship design, hydrodynamics, and the steam cycle. (F)

N S 3333 Evolution of Warfare
3 Credit Hours
Prerequisite: ENGL 1213 or equivalent. Examines the evolution of warfare throughout history by focusing on warfare concepts, historical case studies, common threads, themes, military leadership, and the relationship between the elements of national power and the strategic, operational, tactical, and technical aspects of war. (Sp)

## N S 3433 Naval Ship Systems II - Naval Weapons

Systems 3 Credit Hours
Prerequisite: N S 3223 or permission of instructor. Outlines the engineering principles of weapons systems. Course focus is on the application of radar, sonar, and ballistics while introducing the concept of weapons employment through the detect to engage sequence. (Sp)
N S 4433 Naval Operations and Seamanship 3 Credit Hours
Prerequisite: 2133 or permission of instructor. Advanced navigation concepts, including applications to shipboard evolutions and operations. Overview of operational security and tactical communications. Introduction to the law of the sea and international maritime law, naval warfare doctrine and joint operations. (F)
N S 4443 Fundamentals of Maneuver Warfare 3 Credit Hours
Prerequisite: ENGL 1213. To provide students with the necessary knowledge to understand the fundamentals of maneuver warfare and appreciate the complexities and dynamics posed by the art and science of warfare. (Sp)

## N S 4633 Naval Leadership and Ethics

3 Credit Hours
Prerequisite: Junior standing or permission of instructor. An examination of leadership, ethical concepts, and management of naval (Navy and Marine Corps) resources. Objective is to learn the leadership skills, ethical expectations, and management techniques necessary to succeed as a naval officer in leading people and using limited resources in the most efficient manner. Encompasses leadership and ethics readings, and discussion of the uniform code of military justice. (F, Sp)

## Naval Science, Minor

Minimum Total Credit Hours: 18 (Marine Option) or 24 (Naval Option)

## Program Code: N737

The requirements for a minor must be completed concurrently with the major degree requirements.

No minor may be added by completing courses after receiving the bachelor's degree.

No single course may be used by a student to satisfy a major requirement and a minor requirement. A course may be used, however, to satisfy both a major support requirement and a minor requirement.

Courses may not be taken Pass/No Pass.
The minor is open to all students, not just those participating in the NROTC program.
Marine Option

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Required Courses |  |  |
| N S 1123 | Introduction to Naval Science | 3 |
| N S 1133 | Sea Power And Maritime Affairs | 3 |
| N S 2113 | Leadership and Management | 3 |


| N S 4633 | Naval Leadership and Ethics | 3 |
| :--- | :--- | :--- |
| Marine Courses |  | 3 |
| N S 3333 | Evolution of Warfare | 3 |
| N S 4443 | Fundamentals of Maneuver Warfare | 3 |

Total Credit Hours ..... 18
Navy Option

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Required Courses |  |  |
| N S 1123 | Introduction to Naval Science | 3 |
| N S 1133 | Sea Power And Maritime Affairs | 3 |
| N S 2113 | Leadership and Management | 3 |
| N S 4633 | Naval Leadership and Ethics | 3 |
| Navy Courses |  | 3 |
| N S 2133 | Navigation | 3 |
| N S 3223 | Naval Ship Systems I: Naval Engineering | 3 |
| N S 3433 | Systems | 3 |
| N S 4433 | Naval Ship Systems II - Naval Weapons | 3 |
| Total Credit Hours | Naval Operations and Seamanship | $\mathbf{3 4}$ |

Minors are available to all undergraduate students at OU. If the minor is officially declared, successfully completed, and noted on the graduation application, the student's transcript will so indicate at the time the bachelor's degree is posted.

## Anne and Henry Zarrow School of Social Work

David McLeod, Interim Director
Norman Campus
356 Zarrow Hall
700 Elm Avenue
Norman, OK 73019
Phone: (405) 325-2821
Fax: (405) 325-4683
ouswk-norman@ou.edu
Tulsa Campus
4502 E. 41 st Rm. 2H13
Tulsa, OK 74135
Phone: (918) 660-3385
ouswk-tulsa@ou.edu
www.ou.edu/cas/socialwork

## General Information

Social work education has been a part of the curriculum at the University of Oklahoma since 1917. A separate School of Social Work was established in 1935. The graduate program was fully accredited in 1957 and has maintained continuous accreditation. The school became the Anne and Henry Zarrow School of Social Work in 2009 and moved into its state of the art facility Anne and Henry Zarrow Hall in the fall of 2011.

Social work is a profession devoted to the enhancement of human wellbeing and to the alleviation of poverty and oppression. Social workers strive to promote the empowerment and well-being of individuals, families, communities, and organizations in an increasingly global society. The expansion of human service programs and areas of practice utilizing social work knowledge and skills has created a demand for professional social workers. Social work offers a challenging and exciting career for the individual who is motivated to help others and has a personal commitment to the advancement of social justice.

The school prepares practitioners who will use an integrated combination of theories, conceptual knowledge, values, and skills to serve diverse client and community systems. The undergraduate program and the foundation requirements of the graduate program are based on a generalist model that emphasizes skills, knowledge, and values basic to all social work practice.

The curriculum recognizes the importance of moving students forward through approaches to mastery and competence that instills within students the necessary attitudes, motivation, knowledge, and skills required for sound practice. The curriculum prepares students for lifelong learning within specific domains of their own choosing. Each degree program anticipates student movement into particular domains formed by human need and social issues, social policies, systems of care, and particular organizations.

## Programs \& Facilities

## Field Education Program

The Field Education program welcomes students to the practicum experience, prospective social work students, current students at the University of Oklahoma Anne \& Henry Zarrow School of Social Work, or prospective Field Instructors. With a Field Education office on both the Norman and Tulsa campuses, placements are coordinated across Oklahoma in over 300 affiliated agencies offering students direct learning experiences with individuals, families, groups, and communities. Sites provide the supervision and resources needed to develop competent social workers.

## Child Welfare Professional Enhancement Program

The Child Welfare Professional Enhancement Program (CWPEP) is a title IV-E partnership between the University of Oklahoma, The Oklahoma Department of Human Services, and the US Department of Health and Human Services Administration for Children and Families. The purpose of this partnership is to enhance and support Oklahoma's public child welfare workforce.

## Knee Center for Strong Families

The Knee Center for Strong Families sponsors academic and communityoriented programs in the fields of social work, public health (including mental health), and fine arts in three core areas: Visiting lectureships, workshops, seminars, meetings of scholars, conferences, symposia, and forums; planning grants or "seed money" to develop programs that might have continuous funding from other sources; and underwriting research on the planning and development of educational programs to enhance family life in Oklahoma.

## Center for Social Work in Healthcare

The Center for Social Work in Healthcare is dedicated to promoting and supporting the optimal use of the social work profession in health care settings, with an emphasis on primary health care settings. This is accomplished through the provision of educational opportunities and
supports to social work students who have demonstrated an interest in interdisciplinary practice in health care. The center supports and participates in Oklahoma projects and programs focused on improving primary and community health, and supporting the increased use of evidence based social work practice in health care. In addition, the Center provides technical assistance and resources to primary care practices that are interested in developing social work positions within their practices, or improving the use of social work in their interdisciplinary teams.

## Continuing Education

The Anne and Henry Zarrow School of Social Work Program for Continuing Education seeks to provide high quality continuing education events to Oklahoma social workers. Events are held on both the Norman and Tulsa campuses as well as Northwest Oklahoma.

## Haruv USA at OU-Tulsa

Haruv USA at the University of Oklahoma-Tulsa is a new venture bringing together the best of two worlds - the unique expertise and international leadership of the Haruv Institute paired with the researchbased educational knowledge and expertise of OU-Tulsa and the Anne and Henry Zarrow School of Social Work. An initiative of the Charles and Lynn Schusterman Family Foundation, Haruv USA will focus on comprehensive, inter-professional education and training for students and professionals who touch the lives of children from a wide variety of settings, along with research for the identification, prevention, and treatment of child abuse and neglect, with an emphasis on underserved children and families.

## Center for Child Welfare Training \& Simulation

Operating within the University of Oklahoma Anne \& Henry Zarrow School of Social Work, the Center for Child Welfare Training \& Simulation is committed to supporting the highest quality training and professional development for the child welfare system of Oklahoma. The center utilizes the extensive resources at OU, faculty resources and professional partnerships to develop curricula, tools for evaluation, and consultation for workforce development. The center's mission is to prepare and support a highly skilled and stable workforce to ultimately advance the safety, permanency, and well-being of children in Oklahoma.

## Scholarship and Financial Aid

The Anne and Henry Zarrow School of Social Work is dedicated to helping students fund their education by providing opportunities for internal (within the University) as well as external (outside of the University) scholarships.

OU also offers a wide variety of scholarships as does the College of Arts and Sciences. All financial need based scholarships for both undergraduate and graduate students are available through the Centralized Academic Scholarship Hub (CASH).

The School of Social Work provides a limited number of departmental scholarships to qualified students in the Social Work program. For graduate students and Tulsa undergraduate students, information about how to complete the online application is disseminated in the spring semester to both current students and new admits via email. Norman campus undergraduate students should apply through OU's Centralized Academic Scholarship Hub (CASH) for all departmental, college, and need based scholarships.

The school has a limited number of Graduate Research Assistant positions available that offer both a tuition waiver, a stipend, and health insurance. Information about how to apply for a GRA position is disseminated in the spring semester to both current students (via email) and new students (via acceptance packets) or as information becomes available.

OU Financial Aid Services administers federal, state, institutional and private aid programs.

The Child Welfare Professional Enhancement Program (CWPEP) is a stipend and tuition assistance program specifically designed to encourage future MSWs and BSWs to work in the child welfare field.

The Zarrow Mental Health Stipends support students in Masters level foundation and concentration year practicum in Tulsa.

The Center for Social Work in Healthcare provides stipends for students interested in a health-related practicum.

Leadership Education in Neuro-developmental and Related Disabilities (LEND) is a nationwide training program sponsored by the Maternal Child Health Bureau of the United States Department of Health and Human Services. In Oklahoma, LEND prepares graduate students for leadership roles as professionals with interdisciplinary skills to support communitybased partnerships with professional colleagues, clients, and families.

## Undergraduate Study

The Bachelor of Arts (p. 711) in Social Work program is designed to prepare social workers to assume entry-level professional roles in human and social service systems. In addition to the academic expectations, social work students are expected to demonstrate professional behavior which reflects a commitment to the ethics of the social work profession.

The role of the social worker involves helping people from a variety of backgrounds and with a range of problems, so it is important that the social work student not permit personal issues to interfere with this role and that the student have the emotional and psychological resources to render effective assistance to those in need.

Graduates of the baccalaureate program are eligible for membership in the National Association of Social Workers. They are also eligible to apply for advanced standing in the M.S.W. program at the University of Oklahoma or other graduate programs in social work. Following two years of supervised practice, they are eligible to apply for a license in the State of Oklahoma.

The School of Social Work fully subscribes to and is guided by the NASW Code of Ethics. Social work program applicants and students are expected to demonstrate professional behavior which reflects a commitment to the ethics of the social work profession as exemplified in the Code of Ethics. Behavior and statements contrary to these ethical principles may result in denial admission or review of continuance in the School's programs. Examples of behavior which warrant such denial or a review include, but are not limited to, derogatory oral and written statements towards other students, faculty, and/or persons from populations reflecting racial, ethnic, handicapped status, religious, socioeconomic, gender, and sexual orientation differences. Students are responsible for knowing and adhering to the NASW Code of Ethics. The most recent version can be read and downloaded from the internet through the national NASW website.

Additionally, the school publishes its own standards compatible with NASW in its Student Performance Policy (PDF).

## Graduate Study Master of Social Work

The Master of Social Work degree (MSW) is designed to prepare students for advanced professional practice within an organizational context. The curriculum is an advanced integrative design that balances a broad skill base with the opportunity to specialize in the selectives that are offered. The MSW is offered in both Norman and Tulsa in both full-time and parttime format and an online format. Advanced Standing status at both campuses and online is available to students who have completed a bachelor's degree in social work from an accredited program within the past seven years and who meet additional criteria. The MSW offers a Thesis and a Non-Thesis track.

- Social Work, Master of Social Work (p. 713)
- Social Work: Advanced Standing, Master of Social Work (p. 714)

See MSW Admission Information for admission details, or contact ouswknorman@ou.edu or ouswk-tulsa@ou.edu for more information.

## Graduate Certificates

The Anne and Henry Zarrow School of Social Work offers a Graduate Certificate in Social Work with American Indians (p. 715). This is independent from the degree even though courses overlap. Certificates cannot be added post graduation. Typically obtaining a certificate does not add courses to your degree but rather specifies the electives taken.

## Dual Degrees

Master of Social Work and Master of Public Health - The joint MSWMPH program strengthens public health social work through coursework graduate social work students undertake in both programs.

Master of Social Work and Master of Arts in International Studies - The joint MSW-MAIS program prepares students for a globally integrated practice environment that addresses global social, political and economic justice issues, whether in the realm of international diplomacy, the international economy, humanitarian aid and economic development assistance, or international advocacy.

## Courses

## S WK 2113 Introduction to Social Work

3 Credit Hours
Prerequisite: sophomore or junior standing. Defines the profession of social work and describes its historical development. Provides foundation knowledge in social work values, professional ethics, and the history of social welfare and social services policy in the United States. (F, Sp)
S WK 2223 Statistics for Social Work 3 Credit Hours
Prerequisite: DMAT 0123, MATH 0123, or satisfactory score on math placement exam. Introduction to statistics and data analysis in social work and the helping professions. Covers descriptive statistics (univariate and bivariate), inferential statistics (estimation and significance tests) and data interpretation (causality and generalizability). (F, Sp, Su) [I-M].
S WK 2970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: Permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

S WK 3003 Interviewing Skills for Generalist Practice 3 Credit Hours Prerequisite: majors only. Introduction to basic interviewing and communication skills utilized in culturally sensitive, generalist social work practice. Emphasis on the development of self-awareness and skill development and on providing both didactic and experiential learning. (F)

## S WK 3013 Professions in Social Work

3 Credit Hours
Prerequisite: Junior standing. This course provides an overview of social work as a profession, including central concepts and theories, values and ethics and career pathways. The profession's historical development is included along with a focus on poverty and economic disparity, human rights and social justice, and human diversity. It provides an introduction to the generalist practice model across system levels. (Su)

## S WK 3103 Generalist Practice with Individuals and

 Families
## 3 Credit Hours

Prerequisite: majors only. First of three generalist social work practice courses explicates a generalist perspective that focuses on the knowledge, values, skills, and techniques appropriate for engagement, assessment, intervention and evaluation with individuals and families. (F)

S WK 3113 Generalist Practice with Families and Groups 3 Credit Hours Prerequisite: Junior standing and S WK 3103 or concurrent enrollment. The second of three generalist social work practice courses; explicates a generalist perspective that focuses on the knowledge, values, skills and techniques appropriate for engagement, assessment, intervention, and evaluation with families and small groups. ( $F, S p$ )

S WK 3233 Human Behavior. Individuals and Families 3 Credit Hours Prerequisite: majors only. Within a social systems framework and biopsychosocial perspective, students learn empirically based theories which deal with life-span development and family dynamics. This course provides a theoretical foundation for micro-level generalist practice. (F)

S WK 3313 Social Welfare Policy: Analysis and Practice 3 Credit Hours Prerequisite: majors only. An undergraduate level historical and descriptive review of federal and state social welfare programming, introduction to social welfare policy analysis, and the role of the social work profession in affecting change in social welfare policy. (Sp)
S WK 3323 Human Diversity and Social Justice 3 Credit Hours Prerequisite: majors only. Provides undergraduate students with social work knowledge of human diversity from a social justice perspective. Knowledge of diverse groups' norms/values, differential power, societal oppression, and transactions between and within social groups are emphasized. (F)

## S WK 3440 Mentored Research Experience

 3 Credit Hours 0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)
## S WK 3960 Honors Reading

1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Will consist of topics designated by the instructor in keeping with the student's major program. The topics will cover materials not usually presented in regular coursework. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

S WK 3970 Honors Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite; admission to Honors Program. May be repeated; maximum credit six hours. The projects covered will vary. The content will deal with concepts not usually presented in regular coursework. (Irreg.)

S WK 3980 Honors Research
1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Will provide an opportunity for the gifted Honors candidate to work at a special project in the student's field. (F, Sp, Su)

S WK 3990 Independent Study 1-3 Credit Hours
1 to 3 hours. Prerequisite: permission of instructor and junior standing. May be repeated once with change of content. Independent study may be arranged to study a subject not available through regular course offerings. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

S WK 4003 Forensic Social Work
3 Credit Hours
(Slashlisted with S WK 5003) Prerequisite: Junior standing. This course provides an overview of forensic social work practice and theory. Additionally, it illustrates skills for working with diverse populations across the lifespan and across diverse settings, such as community, medical, school, child welfare, mental health and addictions, and juvenile and criminal justice settings. No student may earn credit for both 4003 and 5003. (Irreg.)

S WK 4033 Trauma-Informed Practice in Child Welfare 3 Credit Hours (Slashlisted with S WK 5033) Prerequisite: Senior standing; Students who are being funded by the Child Welfare program are required to take this course. This course will provide a multi-dimensional exploration of trauma and the importance of trauma informed child welfare practice. Skill development focuses on building a strong knowledge base concerning trauma that will support ethical social work practice and an emphasis on strengths-based social work service delivery. This course also brings forward the concepts of trauma informed organizational practice. No student may earn credit for both 4033 and 5033. (Su)
S WK 4053 Preventing and Treating Substance Use
Disorders
3 Credit Hours
(Slashlisted with S WK 5053) Prerequisite: Junior standing or permission of instructor. Students will be introduced to the fundamentals of the prevention and treatment of substance use disorders. Course emphasizes best practices in the areas of treatment and prevention of substance use disorders, and the strategic prevention framework. Cultural influences and issues important to special populations will be also reviewed. No student may earn credit for both 4053 and 5053. (Irreg.)

## WK 4063 Social Work with Older Adults 3 Credit Hours

(Slashlisted with S WK 5063) Prerequisite: Upper-division standing or permission of instructor. Focus is on issues of significance to social work or social welfare. This course focuses on the knowledge, skills and techniques appropriate for engagement, assessment, intervention and evaluation with older adults and their family caregivers. No student may earn credit for both 4063 and 5063. (Irreg.)

## S WK 4083 Undergraduate Social Work Research Methods

Prerequisite: senior standing and S WK 2223 or equivalent. Introduction to the design and implementation of quantitative and qualitative research methods appropriate to social work practice evaluation and program evaluation. (F)

S WK 4093 Undergraduate Social Work Research Methods II 3 Credit Hours

Prerequisite: S WK 4083. Introduction to applied data analysis methods appropriate to research in social work practice evaluation and human services program evaluation. (Sp)

S WK 4103 Generalist Practice with Organizations and Communities

3 Credit Hours
Prerequisite: S WK 3113; Majors only. Third of three methods courses in the social work practice sequence using a generalist model focuses on knowledge, values and skills requisite for social work practice with various client systems. Course emphasizes development of knowledge and skills specific for assessment and intervention with organizations and communities. (Sp)
S WK 4163 Child Abuse and Neglect
3 Credit Hours
(Slashlisted with S WK 5163) Prerequisite: upper-division standing or permission of instructor. Introduction to the field of child abuse and neglect. Examines the history of the field, different forms of abuse and neglect, causative factors, abuse and neglect dynamics, treatment approaches, the social services system, and prevention strategies. No student may earn credit for both 4163 and 5163. (Irreg)

## S WK 4170 Special Topics in Social Work and Social

## Welfare

2-3 Credit Hours
(Slashlisted with S WK 5170) 2 to 3 hours. Prerequisite: upper-division standing or permission of director. May be repeated with change of content; maximum credit nine hours. Focus is on issues significant to social work or social welfare. No student may earn credit for both 4170 and 5170 on the same topic. (Irreg.)
S WK 4313 Practicum Seminar I 3 Credit Hours
Prerequisite: senior standing, majors only; corequisite: 4315. The integration of classroom course content with the learning of practice skills in the field setting. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

## S WK 4315 Practicum I

5 Credit Hours
Prerequisite: majors only, senior standing; corequisite: S WK 4313. A structured, educationally directed experience in social work practice, provided under the supervision of a qualified social worker as practicum instructor. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
S WK 4323 Practicum Seminar II
3 Credit Hours
Prerequisite: Social Work BASW majors only; S WK 4313; senior standing; corequisite: S WK 4325. This is the Capstone course for the BASW. The purpose of this course is for students to demonstrate application of major social work content including social work research, social welfare policy, human behavior in the social environment, human diversity, and social work practice in the context of a field practicum setting. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
S WK 4325 Practicum II 5 Credit Hours Prerequisite: S WK 4315 and S WK 4313; majors only; senior standing; permission of instructor; corequisite: S WK 4323. A continuation of the educational experience in S WK 4315. In combination with Practicum Seminar II (S WK 4323), this course comprises the General Education capstone experience in social work. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ ) [V].

## S WK 4573 Disaster Response in Japan: A Human Rights

Approach 3 Credit Hours
(Slashlisted with S WK 5573) Prerequisite: Junior standing or instructor permission. This course provides experiences and knowledge of how human advocacy services are provided to victims of disasters in Japan, man-made or natural. This is the study abroad program which was cultivated within the frameworks of Experiential and Transformative Learning theories, specifically for students to gain knowledge of and experience in global human rights aspects in social work. No student may earn credit for both 4573 and 5573. (Sp) [IV-WDC].

S WK 4753 Child and Adolescent Psychopathology: Assessment and Treatment 3 Credit Hours
(Slashlisted with S WK 5753) Prerequisite: Junior standing or permission of instructor. Provides an overview of clinical information necessary to effectively assess, diagnose and provide social work treatment for children and adolescents in need of mental health services. The course incorporates both person-in-environment and strengths perspective in the understanding of how to serve children and families dealing with childhood disorders. No student may earn credit for both 4753 and 5753. (Irreg.)

## S WK 4960 Directed Readings

1-4 Credit Hours
1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean. May be repeated; maximum credit four hours. Designed for upper-division students who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)
S WK 4970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: Senior standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

## S WK 4990 Independent Study

1-3 Credit Hours
1 to 3 hours. Prerequisite: three courses in general area to be covered; permission of instructor and undergraduate program coordinator. May be repeated; maximum credit six hours. Contracted independent study for topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field practicum projects. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
S WK 5003 Forensic Social Work
3 Credit Hours
(Slashlisted with S WK 4003) Prerequisite: Graduate standing. This course provides an overview of forensic social work practice and theory. It illustrates skills for working with diverse populations across the lifespan and across diverse settings, such as community, medical, school, child welfare, mental health and addictions, and juvenile and criminal justice settings. No student may earn credit for both 4003 and 5003. (Irreg.)
S WK 5033 Trauma-Informed Practice in Child Welfare 3 Credit Hours (Slashlisted with S WK 4033) Prerequisite: Graduate standing; Students funded by the Child Welfare program are required to take this course. This course will provide a multi-dimensional exploration of trauma and the importance of trauma-informed child welfare practice. Skill development focuses on building a strong knowledge base concerning trauma that will support ethical social work practice and an emphasis on strengths-based social work service delivery. The course also brings forward the concepts of trauma-informed organizational practice. No student may earn credit for both 4033 and 5033. (Su)
S WK 5043 Introduction to Advanced Integrative Practice3 Credit Hours Prerequisite: Requires admission to MSW Advanced Standing program. This seminar course is designed to enhance the preparation of Advanced Standing students for graduate study in social work. This course orients students to graduate level writing and research, the generalist practice model, Social Work in Oklahoma, simulation as a tool for skill development, and an introduction to the Decision Case model. Individualized student professional development is emphasized. (Su)

## S WK 5053 Preventing and Treating Substance Use

## Disorders

3 Credit Hours
(Slashlisted with S WK 4053) Prerequisite: Graduate standing or permission of instructor. Students will be introduced to the fundamentals of the prevention and treatment of substance use disorders. Course emphasizes best practices in the areas of treatment and prevention of substance use disorders, and the strategic prevention framework. Cultural influences and issues important to special populations will be also reviewed. No student may earn credit for both 4053 and 5053. (Irreg.)

## S WK 5063 Social Work with Older Adults

3 Credit Hours
(Slashlisted with S WK 4063) Prerequisite: Graduate standing or permission of instructor. Focus is on issues of significance to social work or social welfare. This course focuses on the knowledge, skills, and techniques appropriate for engagement, assessment, intervention, and evaluation with older adults and their family caregivers. No student may earn credit for both 4063 and 5063. (Irreg.)

## S WK 5083 Social Work Research Methods

3 Credit Hours
Prerequisite: Graduate standing in Social Work. Introduction to the design and implementation of quantitative and qualitative research methods used to evaluate the effectiveness of social work practice and policies. (F)

## S WK 5093 Social Work Research Methods II

## 3 Credit Hours

Prerequisite: graduate standing in Social Work and S WK 5083.
Introduction to applied data analysis methods appropriate to research in social work practice evaluation and human services program evaluation. (Sp)

## S WK 5153 Seminar on Community Health

3 Credit Hours
Prerequisite: graduate standing in social work or permission of instructor. This is an intensive course that immerses students within the OUTulsa School of Community Medicine Summer Institute. A variety of experiential learning methods are combined into an interdisciplinary setting. Full participation in the Summer Institute is required in addition to specific assignments relevant to social work. (Irreg.)

## S WK 5163 Child Abuse and Neglect

3 Credit Hours
(Slashlisted with S WK 4163) Prerequisite: graduate standing or permission of instructor. Introduction to the field of child abuse and neglect. Examines the history of the field, different forms of abuse and neglect, causative factors, abuse and neglect dynamics, treatment approaches, the social services system, and prevention strategies. No student may earn credit for both 4163 and 5163 . (Irreg.)

## S WK 5170 Special Topics in Social Work and Social

Welfare 2-3 Credit Hours
(Slashlisted with S WK 4170) 2 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated with change of content; maximum credit 12 hours. Focus is on issues significant to social work or social welfare. No student may earn credit for both 4170 and 5170 on the same topic. (Irreg.)

## S WK 5213 Infant Mental Health

3 Credit Hours
Prerequisite: graduate standing in social work or permission of instructor. This course provides an overview of clinical and policy information necessary to effectively assess, and provide treatment for children ages 1 - 5 years and their families. (Irreg.)

S WK 5253 Alcohol and Other Drugs 3 Credit Hours
Prerequisite: graduate standing in Social Work or permission of instructor. Integrated focus on the action of drugs and the consequences of AOD use, abuse, and addiction. Historical and current policies as well as issues are also examined. Attention is given to diverse populations, research findings and theoretical perspectives. (Irreg.)

S WK 5263 Biopsychosocial Aspects of Health and
Behavior

## 3 Credit Hours

Prerequisite: graduate standing or permission of instructor. The primary focus of this course is on enhancing knowledge and understanding of biological determinants of health and behavior as they interact with the environmental dimensions of health and behavior. These issues will be discussed in relation to the individual, and family, as well as ethical and policy and program implications. (Irreg.)
S WK 5273 School Social Work
3 Credit Hours
Prerequisite: graduate standing in social work or permission of instructor. Designed to help prepare students for social work practice in school settings. It covers a range of practice and policy issues along with the multiplicity of school social worker roles and responsibilities. Currently offered as an internet course. (Irreg.)

## S WK 5283 Tribal-U.S.Child/Family Welfare Policy and Practice 3 Credit <br> Hours

Prerequisite: graduate standing. Examines and critically analyzes the policies, regulations, and organizational change issues that aim to improve the lives of children, youth, and families from tribal and United States backgrounds. The contexts, forces, and ideologies that produce the often-changing goals and methods of agencies serving children and their families at a tribal, state, and national levels will be examined. Emphasis will be placed on current opportunities and dilemmas facing Indian child welfare programs and public and private child welfare agencies. Using social and behavioral science research and information related to diversity and social justice, critical frameworks for assessing and analyzing child welfare policies, service systems, and organizational structures will be developed. It is highly recommended that S WK 5293: Social Work with American Indians be taken prior to this course. (Irreg.)
S WK 5293 Direct Practice with Diverse Students, Disabilities, \& Transition

3 Credit Hours
Prerequisite: S WK 5103 or EDSP 5093 or permission of instructor; Social Work or Educational Psychology graduate students only. An overview of the theory and skills needed to work with diverse students including students with disabilities as they prepare to transition from school to adult life. Focuses on the knowledge, values, skills, and techniques appropriate for engagement, assessment, intervention and evaluation with diverse students preparing for transition. (Su)
S WK 5303 American Indian Behavioral Health 3 Credit Hours Prerequisite: graduate standing. Provides the knowledge, skills, and self-awareness necessary for culturally relevant behavioral health services to tribal populations located in the United States. Knowledge will encompass traditional tribal conceptualizations of mental health and the impact of colonization. Indigenous and Western theories will frame the development of skills for mental health and substance abuse assessment, interventions, and prevention with individuals, families, and communities with a particular focus on tribal youth. It is highly recommended that S WK 5293: Social Work with American Indians be taken prior to this course. (Irreg.)

## S WK 5313 Policy Practice in Social Work: Analysis and

 Advocacy
## 3 Credit Hours

Prerequisite: graduate standing in Social Work. A historical and descriptive review of federal and state social welfare programming, an introduction to practice skills of policy analysis, and advocacy in affecting development, change, or implementation of social welfare policy. (F, Sp)

S WK 5333 Human Diversity and Societal Oppression 3 Credit Hours Prerequisite: graduate standing in Social Work. Provides graduate students with social work knowledge of human diversity from a social justice perspective. Knowledge of diverse groups' norms/values, differential power, societal oppression, and transactions between and within social groups is emphasized. (F)
S WK 5343 Social Work with American Indians 3 Credit Hours Prerequisite: graduate standing in Social Work, Native American Studies or junior/senior undergraduate standing in Social Work or Native American Studies. An introduction to issues influencing social work among American Indians. Knowledge of tribal culture, historical and contemporary oppression, sovereign status, and current service contexts will be framed against the strengths and empowerment perspectives. The skills and values unique to social work with American Indians will be developed to form the essential foundation for effective practice across the individual, family, clan, community, and tribal nation. (Irreg.)
S WK 5353 International Child Welfare
3 Credit Hours
Prerequisite: graduate standing. Comparative study of child welfare policies and practices in Israel and the United States through study abroad. Content areas include international and comparative frameworks in policy and practice analyses, child welfare practices in the United States and Israel, governmental and not-for-profit sectors for the protection of children and their families, cross-cultural learning exchanges with social work students and social workers in Israel and the United States. (Su)
S WK 5363 Health \& Social Work
3 Credit Hours
Prerequisite: graduate standing or special permission for undergrads.
Designed to develop practice-based knowledge of social work in health care settings, medical terminology, health care provisions, interdisciplinary teams, and insurance issues; the effects of illness and disease on the patient and families, the importance of patient rights and the intersection of culture, gender, age, class, and sexual orientation, on the interactions between the patient, healthcare system and professionals. (Irreg.)
S WK 5373 Theory, Practice, and Evaluation with Individuals 3 Credit Hours
Prerequisite: Graduate standing in Social Work. This course provides the theoretical background, practice skills, and research experience necessary for generalist social work practice and evaluation at the individual level. The generalist intervention model is the foundation for teaching the knowledge, values, skills, cognitive, and affective processes necessary for engagement, assessment, intervention, and evaluation with individuals. (F, Sp)
S WK 5383 Theory, Practice, and Evaluation with Families and Groups 3 Credit Hours
Prerequisite: Graduate standing in Social Work. This course addresses foundation-level components of theory, practice, and evaluation related to generalist social work practice with families and groups. Students learn key explanatory theories about how families and groups operate, and are introduced to generalist practice models for practice with these client types. Students also learn about how to effectively evaluate practice with families and groups. ( $\mathrm{F}, \mathrm{Sp}$ )

## S WK 5393 Theory, Practice, and Evaluation with Communities and Organizations <br> 3 Credit Hours

Prerequisite: Graduate standing in Social Work. Exploration of the generalist perspective focusing on the knowledge, values, skills, and techniques appropriate to assessment and interventions with organizations and communities. (F, Sp)

S WK 5403 Professional Social Work
3 Credit Hours
Prerequisite: Graduate standing in Social Work. This course is an overview of social work as a profession, including central concepts and theories, values, ethics, and career pathways. The profession's historical development is included along with a focus on poverty and economic disparity, human rights and social justice, and human diversity. It provides an introduction to the generalist practice model across system levels.
S WK 5413 Social Work Practicum I
3 Credit Hours
Prerequisite: Graduate standing in Social Work, and permission of practicum coordinator. Professionally supervised foundation year practicum placement in an area social service agency. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
S WK 5423 Social Work Practicum II
3 Credit Hours
Prerequisite: Graduate standing in Social Work, and S WK 5413 or concurrent enrollment. A professionally supervised practicum placement in an area social service agency; a continuation of S WK 5413. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
S WK 5433 Human Lifespan Development
3 Credit Hours
Prerequisite: Graduate standing in Social Work. Within a social systems framework and biopsychosocial perspective, students learn empiricallybased theories that deal with lifespan development and family theory. This course provides an introduction to small group dynamics and development as well as a theoretical foundation for micro and mezzo level generalist practice. ( $F, S p$ )

## S WK 5513 Client-Centered Direct Practice

3 Credit Hours Prerequisite: Graduate standing in Social Work. This course addresses clinical practice across the lifespan with application to individuals, families, and groups. Evidenced informed practice provides a framework within which empirically supported treatment modalities are explored as they relate to the intersecting domains of trauma, substance abuse, and mental health. (F)
S WK 5523 Macro Systems in Practice
3 Credit Hours
Prerequisite: Graduate standing in Social Work. This course utilizes an advanced generalist perspective focused on advancing the knowledge, values, skills, and techniques appropriate to engagement, assessment, and intervention with organizations and communities. (F)
S WK 5563 Integrative Practice with Children and Families 3 Credit Hours
Prerequisite: Graduate standing. This course provides students with specific knowledge and skills utilized when working with children and adolescents within their family systems. (Irreg.)

## S WK 5573 Disaster Response in Japan: A Human Rights

 Approach 3 Credit Hours(Slashlisted with S WK 4573) Prerequisite: Graduate standing or permission of instructor. This course provides experiences and knowledge of how human advocacy services are provided to victims of disasters in Japan, man-made or natural. This is the study abroad program which was cultivated within the frameworks of Experiential and Transformative Learning theories, specifically for students to gain knowledge of and experience in global human rights aspects in social work. No student may earn credit for both 4573 and 5573. (Sp)
S WK 5723 Human Services Administration
3 Credit Hours Prerequisite: Graduate standing. Social work selective course offered first to social work master's level students who have completed a foundation level macro social course. Primary attention is given to the roles of administrator and planner in social work/social welfare settings with additional emphasis on grant writing and resource development. (Irreg.)

S WK 5733 Mental Health Assessment and Diagnosis 3 Credit Hours Prerequisite: graduate standing in social work or permission of instructor. Designed to assist the student in understanding \& using the prevailing psychiatric taxonomic system, the diagnostic \& statistical manual of mental disorders (DSM 5). Prepares students to function in clinical settings where familiarity with the DSM 5 criteria \& the multi-axial diagnostic framework is fundamental knowledge. Additionally, students will examine the benefits and risks of this psychiatric taxonomy. (Irreg.)

## S WK 5753 Child and Adolescent Psychopathology: Assessment and Treatment <br> 3 Credit Hours

(Slashlisted with S WK 4753) Prerequisite: Graduate standing in social work or permission of instructor. Provides an overview of clinical information necessary to effectively assess, diagnose, and provide social work treatment for children and adolescents in need of mental health services. The course incorporates both person-in-environment and strengths perspective in the understanding of how to serve children and families dealing with childhood disorders. No student may earn credit for both 4753 and 5753. (Irreg.)

S WK 5783 Human Sexuality
3 Credit Hours
Prerequisite: Graduate standing in Social Work or instructor permission. This course provides graduate students with social work knowledge of human sexuality in social work practice. The primary goal of the course is to increase social worker's competence and understanding of human sexuality concepts based on theory, research and practice. (Irreg.)

S WK 5816 Social Work Practicum III 6 Credit Hours Prerequisite: Graduate standing in Social Work, S WK 5513, S WK 5523, and permission of instructor. This course offers an educationally focused and professionally supervised practicum placement in a social service agency and requires a minimum of 550 clock hours at an assigned practicum site. (Sp, Su)

## S WK 5826 Social Work Practicum IV 6 Credit Hours

Prerequisite: Graduate graduate standing in Social Work, S WK 5513,
S WK 5523, and permission of instructor. This course offers an educationally focused \& professionally supervised practicum placement in a social service agency \& requires a minimum of 550 clock hours at an assigned practicum site. (Sp, Su)

## S WK 5833 Social Work with Sexual and Gender Minorities <br> 3 Credit Hours

Prerequisite: Graduate standing in social work. This course addresses advanced micro, mezzo, and macro-level social work practice with individuals identifying as lesbian, gay, bisexual, transgender, queer and/or questioning, intersex, asexual, two-spirit (LGBTQIA2S+). (Irreg.)

S WK 5883 Military Social Work
3 Credit Hours
Prerequisite: Graduate standing. Theoretical and practical approaches to clinical practice with military families. Overview of common social issues in the military system and demands on the family dynamic. (Irreg.)

S WK 5960 Directed Readings 1-4 Credit Hours
1 to 4 hours. Prerequisite: graduate standing in Social Work and permission of the department. Directed readings and/or literature reviews under the direction of a faculty member. May be repeated; maximum credit six hours. (F, Sp, Su)

S WK 5970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

S WK 5973 Advanced Integrative Seminar
3 Credit Hours
Prerequisite: Graduate standing in Social Work. This is an advanced integrative seminar for concentration year students taken in the final semester. The course builds on foundation and concentration course work throughout the MSW curriculum using critical thinking that incorporates micro and macro systems case analysis and decisionmaking. (Sp)

S WK 5980 Research for Master's Thesis 2-6 Credit Hours
Prerequisite: permission of instructor. Research for Master's thesis.
Variable enrollment, two to six hours; maximum credit applicable toward degree: six hours. (F, Sp, Su)

S WK 5990 Independent Study 1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)

## S WK 6003 Theories for Social Work

## 3 Credit Hours

Prerequisite: Graduate standing in social work or departmental permission. This course examines social work theories, analyzing their assumptions and empirical basis. Students explore historical contexts, research effectiveness, and major theories from diverse disciplines. Additionally, they delve into unique theories related to their interests, gaining insight into broader philosophical and empirical methods supporting social work. (F)

S WK 6011 Doctoral Professional Seminar I 1 Credit Hour
Prerequisite: Graduate standing in social work or departmental permission. This one-hour seminar delves into career opportunities for Ph.D. in social work holders, covering academia, research, policy, and more. Participants learn to create a strategic professional development plan during their doctoral studies and post-Ph.D. years. The session also provides insights into job search processes for academic, post-doc, research, and policy positions. (F)

S WK 6013 Applied Quantitative Research Methods 3 Credit Hours Prerequisite: Graduate standing in social work or departmental permission. This course delves into the diverse landscape of quantitative research designs, covering five key types. Participants explore the nuances of Descriptive, Survey, Correlational, Quasi-experimental, and Experimental Research designs. Through engaging discussions and practical applications, learners gain a comprehensive understanding of each design's purpose, methods, and potential contributions to empirical inquiry in various fields. (F)
S WK 6021 Doctoral Professional Seminar II 1 Credit Hour Prerequisite: Graduate standing in social work or departmental permission. This one-hour seminar covers crucial aspects of academic progression. Topics include selecting an advisor and dissertation committee, faculty presentations, conference participation, and publishing endeavors. Faculty members provide insights and guidance, ensuring students gain valuable knowledge in navigating academia. The seminar concludes with reflections and next steps, fostering a comprehensive understanding of key academic milestones. (Sp)

S WK 6023 Applied Qualitative Research Methods 3 Credit Hours
Prerequisite: Graduate standing in social work and completion of CITI Human Subjects Training. This course builds on qualitative research skills, focusing on conceptualization, design, and data collection in social work and related fields. It addresses research problems, design considerations, and theory's role, encompassing qualitative traditions like biography, phenomenology, grounded theory, ethnography, and case study. It explores qualitative data collection methods such as observation, interviews, focus groups and document analysis. (F)
S WK 6041 Doctoral Professional Seminar IV 1 Credit Hour Prerequisite: Graduate standing in social work or departmental permission. This course navigates diverse career paths in research, policy, and international work. Participants explore their interests, learn to craft a professional vita, and draft effective cover letters. The module on obtaining external funding covers fellowship basics, research funding exploration, and proposal development skills. The job search segment addresses crucial considerations, interview preparation, and efficient research communication. ( Sp )
S WK 6043 Advanced Qualitative Data Analysis 3 Credit Hours Prerequisite: Graduate standing in social work and completion of CITI Human Subjects Training. This advanced qualitative data analysis course explores intricate methodologies for analyzing qualitative data. Students delve into advanced coding techniques, thematic analysis, and interpretive frameworks. Emphasis is on refining skills in uncovering nuanced insights, triangulating data sources, and crafting comprehensive narratives. The course integrates practical applications, fostering expertise in handling complex qualitative research challenges. (Sp)

S WK 6053 Advanced Quantitative Data Analysis 3 Credit Hours Prerequisite: Graduate standing in social work and completion of CITI Human Subjects Training. This advanced inferential statistics course focuses on practical statistical analysis. Students explore the role of statistics in research, learn terminology, apply appropriate techniques, and interpret findings in economics, business, nursing, and medical research. Topics include data graphing, hypothesis testing, chi-squared, ANOVA, regression, correlation, and decision-making under uncertainty. (Sp)
S WK 6980 Research for Doctoral Dissertation 2-16 Credit Hours 2 to 16 hours. Prerequisite: Graduate standing; may be repeated. Directed research culminating in the completion of the doctoral dissertation. ( $F$, Sp, Su)

## Faculty

| Last Name | First/Middle <br> Name | Middle init. | OU <br> Service start | Title(s), date(s) appointed | Degrees Earned, Schools, Dates Completed |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Aaenson- <br> Fletcher | Jasmine |  | 2021 | FACULTY FIELD LIAISON, ONLINE PROGRAM, 2021 | MSW, Univ of Oklahoma, 2021; BSW, Northeastern State Univ, 2015 |
| Adamson | Tiffany | L | 2016 | CLINICAL ASSISTANT PROFESSOR OF SOCIAL WORK, 2016; FIELD EDUCATION DIRECTOR, SOCIAL WORK AT TULSA, 2016 | MS, Univ of Oklahoma, 2008; BS Northeastern Oklahoma Univ, 2003 |


| Bekteshi | 2022 | ASSOCIATE | Penera |  |
| :--- | :--- | :--- | :--- | :--- |
|  |  |  | PROFESSOR OF | 2 |
|  |  |  | SOCIAL WORK; | C |
|  |  |  | ONLINE PROGRAM; | C |
|  |  |  | NORMAN 2022 | M |
|  |  |  |  | 2 |
| Brandt | Mary | 2002 | INSTRUCTOR, | P |
|  |  |  | SCHOOL OF SOCIAL | 1 |
|  |  |  | WORK, TULSA, 2002 | o |

Burns Carolyn 2021
Butler-King Renea L 2018

Byers Lisa G 2003

|  |  |  |
| :--- | :--- | :--- |
|  |  |  |
|  |  |  |
| Cannon Kirby | $Y$ | 2018 |

- 

Cassie Kimberly M 2017



Clark- Amanda J 2020
Andrejkovics


FACULTY FIELD LIAISON, SCHOOL OF SOCIAL WORK, TULSA, 2020

|  |  |  |  |  | BSW, Florida State <br> Univ, 2001 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Dell | Jennifer | E | 2018 | BSW PROGRAM DIRECTOR, SCHOOL OF SOCIAL WORK, 2018; INSTRUCTOR, SOCIAL WORK, 2018 | MSW, Univ of <br> Oklahoma, 2008; BA, <br> St Louis Univ. 2003 |
| Dubriwny | Nicholas | M | 2019 | INSTRUCTOR, SCHOOL OF SOCIAL WORK, TULSA, 2019; UNDERGRADUATE COORDINATOR, 2020; GRADUATE COORDINATORONLINE MSW PROGRAM, 2022 | MSW, Univ of Oklahoma, 2011; BA, Univ of Oklahoma, 2002 |


|  |  |  |  |  | Univ, 2001 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Dell | Jennifer | E | 2018 | BSW PROGRAM DIRECTOR, SCHOOL OF SOCIAL WORK, 2018; INSTRUCTOR, SOCIAL WORK, 2018 | MSW, Univ of Oklahoma, 2008; BA, St Louis Univ. 2003 |
| Dubriwny | Nicholas | M | 2019 | INSTRUCTOR, SCHOOL OF SOCIAL WORK, TULSA, 2019; UNDERGRADUATE COORDINATOR, 2020; GRADUATE COORDINATORONLINE MSW PROGRAM, 2022 | MSW, Univ of Oklahoma, 2011; BA, Univ of Oklahoma, 2002 |

PhD, Univ of Tennessee, 2009; MSSW, Univ of Tennessee, 2005; MA,
Appalachian State Univ, 2001; BSW, Oral Roberts Univ, 1991
MS, Nova Southeastern Univ, 2014; MSW, Florida State Univ, 2003; BSW, Florida State Univ, 2001

| Franklin | Lori | D | 2007 | MSW PROGRAM DIRECTOR, SOCIAL WORK AT TULSA AND NORMAN, 2019; ONLINE MSW PROGRAM COORDINATOR, 2019; CLINICAL ASSOCIATE PROFESSOR OF SOCIAL WORK AT TULSA, 2014; CLINICAL PROFESSOR, 2022; | DSW, Univ of <br> Tennessee, 2015; <br> MSW, Univ of Oklahoma, 2000; BA, Oklahoma State Univ, 1996 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Goodwin | Bonni | G | 2022 | ASSISTANT <br> PROFESSOR, <br> ANNE AND HENRY <br> ZARROW SCHOOL <br> OF SOCIAL WORK- <br> NORMAN, 2022 | PhD, Baylor Univ; MSW Washburn Univ, 2012; BS, John Brown Univ, 2002 |
| Grinnell Davis | Claudette | L | 2017 | ASSISTANT PROFESSOR OF SOCIAL WORK AT TULSA, 2017 | PhD, Univ of Michigan, 2014; MS, Univ of Michigan, 2012; MSW, Western Michigan Univ, 2003; MTS, Calvin Theological Seminary, 1995; BS, Univ of Michigan, 1992 |
| Hawkins | Huey |  | 2024 | INSTRUCTOR, SCHOOL OF SOCIAL WORK; NORMAN, ONLINE PROGRAM, 2024 | Ph.D. Institute for Clinical Social Work, 2021; MSW, Washington UnivSt. Louis, 2000; BS, Southern Nazarene Univ, 2017 |
| Hellman | Chan | M | 2002 | DIRECTOR, CENTER FOR APPLIED RESEARCH FOR NON-PROFIT ORGANIZATIONS, 2007; PROFESSOR OF SOCIAL WORK AT TULSA, 2017 | PhD, Oklahoma <br> State Univ, 2002; <br> MA, Univ of Central <br> Oklahoma, 1994; <br> BS, Northwestern <br> Oklahoma State Univ, 1988 |
| JacksonSmith | Cassandra |  | 2021 | FACULTY FIELD LIAISON, INSTRUCTOR, 2021 | MSW, Univ of Oklahoma, 2010; BSW, Northeastern State Univ, 2008 |
| Jankowski | Carol | M | 2017 | FIELD EDUCATION COORDINATOR, SCHOOL OF SOCIAL WORK, 2017; CLINICAL ASSISTANT PROFESSOR OF SOCIAL WORK, 2018 | MSW, Univ of Texas, 2001; BS, Univ <br> Southwestern Louisiana, 1999 |
| Jones | Marcus |  | 2022 | INSTRUCTOR, SCHOOL OF SOCIAL WORK; NORMAN, ONLINE PROGRAM, 2022 | MSW, Univ of Oklahoma, 2019; BS Alabama A\&M Univ, 1986 |
| Kendrick | Charlotte | J | 2018 | INSTRUCTOR, SOCIAL WORK, NORMAN, 2018; GRADUATE COORDINATOR,NORM 2020 | MSW, Univ of Oklahoma, 2000; BS, Oklahoma State Univ. 1981 |
| Kratz | Jonathan | R | 2014 | GRADUATE <br> COORDINATOR, <br> TULSA, 2019; <br> CLINICAL ASSISTANT <br> PROFESSOR OF | MSW, Univ of <br> Oklahoma, 2010; BA, <br> Southern Nazarene <br> Univ, 2002 |


|  |  |  |  | SOCIAL WORK AT TULSA, 2016 |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Leckie | Raina | D | 2022 | INSTRUCTOR, ANNE AND HENRY ZARROW SCHOOL OF SOCIAL WORK, 2022; COORDINATOR OF THE CENTER OF SOCIAL WORK IN HEALTHCARE, 2022 | MSW, Univ of Oklahoma, 2015; BS, Univ of Central Florida, 2013 |
| Levario | Charlotte |  | 2024 | FACULTY FIELD LIASION, SCHOOL OF SOCIAL WORK, TULSA, 2024 | MSW, Univ of Oklahoma, 2016; BSW, Northeastern State Univ, 2015 |
| Maxwell | December |  | 2023 | ASSISTANT PROFESSOR OF SOCIAL WORK, ONLINE PROGRAM | PhD, Univ of TexasArlington, 2000; MSW, Univ of Arkansas, 2017; BA, Southern New Hampshire Univ, 2014 |
| McBride | Rachel |  | 2016 | FIELD EDUCATION FACULTY LIAISON, SCHOOL OF SOCIAL WORK, TULSA, 2016; FIELD EDUCATION COORDINATOR, ONLINE PROGRAM, 2021 | MSW, Univ of Missouri, 2013; BS, Univ of Tulsa, 2010 |
| McCoy | Austin |  | 2021 | FIELD EDUCATION COORDINATOR, 2021; INSTRUCTOR, 2021 | MSW, Univ of Oklahoma, 2015; BS, Oklahoma State Univ, 2009 |
| McLeod | David | A | 2013 | ASSISTANT PROFESSOR OF SOCIAL WORK, 2013; ADJUNCT ASSISTANT PROFESSOR OF WOMEN'S AND GENDER STUDIES, 2013; ASSOCIATE PROFESSOR, 2019; ASSISTANT DIRECTOR, ANNE AND HENRY ZARROW SCHOOL OF SOCIAL WORK, 2022; INTERIM DIRECTOR, ANNE AND HENRY ZARROW SCHOOL OF SOCIAL WORK, 2024 | PhD, Virginia Commonwealth Univ, 2013; MSW, Univ of Arkansas, 2009; BA, Univ of Arkansas, 2005 |
| Miller | Christina | R | 2009 | ASSOCIATE PROFESSOR OF SOCIAL WORK, 2015; COORDINATOR OF THE RUTH KNEE INSTITUTE, 2022 | PhD, Florida State Univ, 2009; MSW, Missouri State Univ, 2002; BS, Southwest Baptist Univ, 2000 |
| Miller-Cribbs | Julie | E | 2006 | PROFESSOR OF SOCIAL WORK <br> AT TULSA, 2013; <br> OKLAHOMA <br> MEDICAID <br> PROFESSOR IN <br> MENTAL HEALTH, <br> 2015 | PhD, Washington Univ, 1999; MA, Univ of Chicago, 1992; BA, Colorado College, 1990 |


| Munoz | Ricky | T | 2009 | ASSISTANT PROFESSOR OF SOCIAL WORK AT TULSA, 2015; ASSOCIATE PROFESSOR, 2022 | JD, Washington Univ, 2001; BA, Univ of Tulsa, 1996 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Natale | Anthony | P | 2005 | ASSOCIATE PROFESSOR OF SOCIAL WORK, 2011; FACULTY FELLOW FOR INCLUSIVE EXCELLENCE, 2017 | PhD, Univ of Denver, 2005; MSW, Portland State Univ, 1999; BA, Washington State Univ |
| Nebedum | Christie | E | 2019 | FIELD LIAISON, INSTRUCTOR, SCHOOL OF SOCIAL WORK, TULSA, 2019 | MW, Univ of Central <br> Florida, 2017; BSW, <br> Univ of Central <br> Florida, 2016 |
| Noyori- <br> Corbett | Chie |  | 2013 | ASSOCIATE PROFESSOR OF SOCIAL WORK, 2019 | PhD, Univ of Texas <br> Arlington, 2012; <br> MSW, Univ of Texas <br> Arlington, 2006, <br> BSBA, Suffolk Univ, <br> 1994 |
| Pettigrew | Dallas | w | 2014 | CLINICAL ASSISTANT PROFESSOR OF SOCIAL WORK AT TULSA, 2017 | MSW, Univ of Oklahoma, 2012; BSW, Northeastern State Univ, 2011; BS, Northeastern State Univ, 2002 |
| Pharris | Angela | D | 2017 | ASSISTANT PROFESSOR OF SOCIAL WORK, 2017 | PhD, Tennessee <br> State Univ, 2016; <br> MSW, Spalding Univ, <br> 2002; BSW, Middle <br> Tennessee State Univ, 1998 |
| Riley | Ann | T | 2012 | CLINICAL ASSISTANT PROFESSOR OF SOCIAL WORK, 2012; ADJUNCT ASSISTANT PROFESSOR OF INTERNATIONAL AND AREA STUDIES, 2015 | PhD, Univ of Oklahoma, 2010; MSW, Univ of Oklahoma, 1987; BSED, Univ of Oklahoma, 1981 |
| Roberts- <br> Massey | Gena |  | 2008 | CLINICAL ASSISTANT <br> PROFESSOR, 2008 | MSW, Univ of Texas- <br> Arlington, 1989; BSW, <br> Oral Roberts Univ, 1988 |
| Sanford | Pam | J | 2015 | FACULTY FIELD LIAISON, SCHOOL OF SOCIAL WORK, NORMAN, 2015 | MSW, Univ of Oklahoma, 1982; BA, Univ of Oklahoma, 1978 |
| Stanberry | Misty |  | 2023 | CHILD WELFARE <br> PROGRAM <br> COORDINATOR, 2023 | MSW, Univ of Oklahoma; BASW, Univ of Oklahoma, 2015 |
| Strout | Trina |  | 2021 | FACULTY FIELD LIAISON, ONLINE PROGRAM, 2021 | MSW, Univ of Oklahoma, 2018; BSW, Northeastern State Univ, 2006 |

## Social Work, B.A.

Minimum Total Credit Hours: 120
Major Hours: 49
Minimum Upper-Division Hours: 48
Overall GPA - Combined and OU: 2.50

Major GPA - Combined and OU: 2.50
Program Code: B840

## Major Requirements

- Some courses required for the major may also fulfill University General Education and/or Dodge College of Arts \& Sciences Requirements.
- Social Work majors must earn at least a 2.50 overall grade average; at least a 2.50 grade average in required social work courses; an S in S WK 4315 and S WK 4325; and at least a C in all required social work courses and the major support requirements.
- Students must earn a minimum GPA of 2.25 to be eligible for admission.

Prior to Junior Year. Students who have completed prerequisites and meet the minimum grade requirement must file an application to be admitted to the program. Because admission is competitive, not every applicant will be admitted.

| Code | Title | Credit <br> Hours |
| :---: | :---: | :---: |
| S WK 2113 | Introduction to Social Work | 3 |
| S WK 2223 | Statistics for Social Work | 3 |
| S WK 3003 | Interviewing Skills for Generalist Practice | 3 |
| S WK 3103 | Generalist Practice with Individuals and Families | 3 |
| S WK 3113 | Generalist Practice with Families and Groups | 3 |
| S WK 3233 | Human Behavior: Individuals and Families | 3 |
| S WK 3313 | Social Welfare Policy: Analysis and Practice | 3 |
| S WK 3323 | Human Diversity and Social Justice | 3 |
| S WK 4083 | Undergraduate Social Work Research Methods I ${ }^{1}$ | 3 |
| S WK 4093 | Undergraduate Social Work Research Methods II | 3 |
| S WK 4103 | Generalist Practice with Organizations and Communities | 3 |
| S WK 4313 | Practicum Seminar I | 3 |
| S WK 4315 | Practicum I | 5 |
| S WK 4323 | Practicum Seminar II | 3 |
| S WK 4325 | Practicum II | 5 |
| Total Credit Hours |  | 49 |
| 1 All majors must S WK 4083. | complete a statistics course before enrolling |  |

## Major Support Requirements

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Choose one of the following (with or without a laboratory): | $3-5$ |  |
| BIOL 1005 | Concepts in Biology |  |
| BIOL 1013 | Introduction to Biology |  |
| BIOL 1114 | Introductory Zoology |  |
| BIOL 1124 | Intro Biol: Molecule/Cell/Phys |  |


| BIOL 1134 | Introductory Biology: Evolution, Ecology <br> and Diversity |  |
| :--- | :--- | ---: |
| BIOL 2124 | Human Physiology |  |
| BIOL 2234 | Introduction to Human Anatomy |  |
| BIOL 2255 | Human Anatomy |  |
| HES 1823 | Scientific Principles of Health and Disease |  |
| PSY 1113 | Elements of Psychology | 3 |
| SOC 1113 | Introduction to Sociology | 3 |
| Total Credit Hours | $\mathbf{9 - 1 1}$ |  |

## General Education and College Requirements

Courses for fulfillment of General Education and Dodge College of Arts \& Sciences requirements must be from the approved General Education course list published in the Class Schedule or at http://www.ou.edu/ gened/courses. Courses graded P/NP will not apply.

## UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS

## Code Titl

Core Area I: Symbolic and Oral Communication

| English Composition (6 hours) | 3 |  |
| :--- | :--- | :--- |
| ENGL 1113 | Principles of English Composition | 3 |
| ENGL 1213 | Principles of English Composition |  |

or EXPO 1213 Expository Writing
Language ( $0-13$ hours in the same language)
The college requirement cannot be met by high school coursework.
Beginning Course 0-5
Beginning Course, continued 0-5
Intermediate Course (2000 level) ${ }^{1,2} \quad 0-3$
Mathematics (3 hours)
Choose one course from the General Education Mathematics

## list

Core Area II: Natural Science (7 hours, including one laboratory component)

## Biological Science

Choose an approved General Education Natural Science
course with one of the following prefixes: BIOL, HES, MBIO, or PBIO ${ }^{1}$
Physical Science
Choose an approved General Education Natural Science 3-4 course with one of the following prefixes: AGSC, ASTR, CHEM, GEOG, GEOL, GPHY, METR, or PHYS ${ }^{1}$
Core Area III: Social Science (6 hours)
PSC 1113 American Federal Government 3

Choose one course from the General Education Social
Science list
Core Area IV: Arts and Humanities (18 hours)

## Artistic Forms

Choose one course from the General Education Artistic Forms
list
Western Culture
HIST $1483 \quad$ United States to 1865
or HIST 1493 United States, 1865 to the Present

Choose one course from the General Education Western Culture list (excluding HIST 1483/1493)

## World Culture

Choose one course from the General Education World Culture list
Additional Core IV Upper-Division Arts \& Humanities courses
Choose one course from Artistic Forms, Western Culture, or 3
World Culture ${ }^{1,3}$
Choose one course from Artistic Forms, Western Culture, or 3

World Culture ${ }^{1,3}$
Core Area V: First Year Experience (3 hours)
Choose one course 3
Total Credit Hours 56
${ }^{1}$ College of Arts and Sciences Requirements: college requirements are not automatically fulfilled by a previous degree.
${ }^{2}$ One course at the intermediate level or demonstrated competency at that level
${ }^{3} 6$ upper-division hours, 2 courses, at the 3000-4000-level. Must be outside the major.

## Free Electives

Electives to bring total applicable hours to the minimum total required for the degree including 48 upper-division hours.

## Information Concerning General Rules, Regulations and Minimum Requirements

Arts and Sciences Hours: At least 80 semester hours of liberal arts and sciences courses are required for a BA degree. At least 55 semester hours of liberal arts and sciences courses are required for a BS degree. Pass/No Pass Enrollment: A maximum of 16 semester hours of free elective credit may be attempted under this option.
Individual Studies (e.g., courses titled "Independent Study"): A maximum of 12 total semester hours may be counted toward graduation, excluding Honors Reading and Honors Research.
P.E. Courses: No physical education activity courses will be counted toward the 120 semester hours of acceptable credit for graduation. Senior Institution Hours: A minimum of 60 semester hours applied toward graduation must be earned at senior (4-year) institutions. Residency:

- At least 15 of the final 30 hours applied toward the degree or at least 50 percent of the hours required by the institution in the major field must be satisfactorily completed at the awarding institution.
- At least 15 semester hours of upper-division major work must be completed in residence at OU .
- OU correspondence courses are not considered resident credit.

Grade Point Averages: Students must earn a minimum over all 2.00 for each of the following: Combined Retention GPA (all college grades), OU Retention GPA, GPA for all major courses, and GPA for all major courses taken at OU. Some schools and departments of the College have higher minimum grade point averages required for their students.

## Suggested Semester Plan of Study

This plan shows one possible grouping of courses that would allow students to graduate in four years. Please refer to the front of the degree checksheet for official requirements. Students must consult
with Dodge College of Arts and Sciences and School of Social Work academic advisors to verify that courses selected each semester fulfill the recommended plan and satisfy University, College of Arts and Sciences, and Social Work major requirements.

## Freshman

| First Semester |  | Credit |
| :---: | :---: | :---: |
|  |  | Hours |
| ENGL 1113 | Principles of English Composition (Core I) | 3 |
| P SC 1113 | American Federal Government (Core III) | 3 |
| Beginning Language, Spanish is recommended (Core I) |  | 5 |
| Artistic Forms (Core IV) |  | 3 |
| First Year Experience (Core V) |  | 3 |
|  | Credit Hours | 17 |
| Second Semester |  |  |
| ENGL 1213 or EXPO 1213 | Principles of English Composition (Coe I) or Expository Writing | 3 |
| HIST 1483 or HIST 1493 | United States to 1865 (Core IV) or United States, 1865 to the Present | 3 |
| SOC 1113 | Introduction to Sociology (Core III) ${ }^{1,2}$ | 3 |
| Beginning Language continued, Spanish is recommended (Core I) |  | 5 |
| Free Elective, lower-division |  | 3 |
|  | Credit Hours | 17 |


| Sophomore |  |
| :--- | ---: |
| First Semester $\quad$ Elements of Psychology |  |
| PSY $1113 \quad 3$ | 3 |
| Intermediate Language | 3 |
| World Culture (Core IV) | 3 |
| Physical Science without lab (Core II) | 3 |
| Western Culture (Core IV) | 3 |
| Credit Hours | $\mathbf{1 5}$ |

## Second Semester

S WK 2113 Introduction to Social Work ${ }^{2} 3$

Biology Major Support Requirement (with lab, see Program 3-5
Requirements tab) ${ }^{1,2}$
Arts \& Humanities, upper-division, outside major (Gen. Ed.) 3
Arts \& Humanities, upper-division, outside major (Gen. Ed.) 3
Free Elective, lower-division 3

|  | Credit Hours | 15-17 |
| :---: | :---: | :---: |
| Junior |  |  |
| First Semester |  |  |
| S WK 2223 | Statistics for Social Work ${ }^{2}$ | 3 |
| S WK 3103 | Generalist Practice with Individuals and Families ${ }^{2}$ | 3 |
| S WK 3113 | Generalist Practice with Families and Groups ${ }^{2}$ | 3 |
| S WK 3233 | Human Behavior. Individuals and Families ${ }^{2}$ | 3 |
| S WK 3323 | Human Diversity and Social Justice ${ }^{2}$ | 3 |
|  | Credit Hours | 15 |
| Second Semester |  |  |
| S WK 3003 | Interviewing Skills for Generalist Practice ${ }^{2}$ | 3 |
| S WK 3313 | Social Welfare Policy: Analysis and Practice 2 | 3 |


| S WK 4083 | Undergraduate Social Work Research Methods I ${ }^{2}$ | 3 |
| :---: | :---: | :---: |
| S WK 4103 | Generalist Practice with Organizations and Communities ${ }^{2}$ | 3 |
| Free Elective, Iower- or upper-division (Social Sciences is recommended) |  | 3 |
|  | Credit Hours | 15 |
| Senior |  |  |
| First Semester |  |  |
| S WK 4093 | Undergraduate Social Work Research Methods II ${ }^{2}$ | 3 |
| S WK 4313 | Practicum Seminar I ${ }^{2}$ | 3 |
| S WK 4315 | Practicum ${ }^{2}$ | 5 |
| Free Elective, lower- or upper-division |  | 3 |
|  | Credit Hours | 14 |
| Second Semester |  |  |
| S WK 4325 | Practicum II ${ }^{2}$ | 5 |
| S WK 4323 | Practicum Seminar II ${ }^{2}$ | 3 |
| Free Elective, lower- or upper-division (Social Science is recommended) |  | 3 |
| Free Elective, lower- or upper-division |  | 1 |
|  | Credit Hours | 12 |
|  | Total Credit Hours | 120 |
| ${ }^{1}$ Program prerequisites (nine hours) are courses that must be completed before entering the social work major. Must be completed with a C or better. |  |  |
| 2 All Social Work Major Requirements and Major Support must be completed with a a grade of C or better and the combined retention GPA to graduate must be 2.50 or higher. This major is highly structured and courses must be taken in the proper sequence according to prerequisites and corequisites. |  |  |

Minimum Total Hours (Thesis): 60
Minimum Total Hours (Non-Thesis): 60
Program Code: M840 (online: M844)
Thesis Option
Code Title Credit

| Foundation Courses (30 hours) |  |  |
| :--- | :--- | ---: |
| S WK 5083 | Social Work Research Methods |  |
| S WK 5313 | Policy Practice in Social Work: Analysis and <br> Advocacy | 3 |
| S WK 5333 | Human Diversity and Societal Oppression | 3 |
| S WK 5373 | Theory, Practice, and Evaluation with <br> Individuals | 3 |
| S WK 5383 | Theory, Practice, and Evaluation with <br> Families and Groups | 3 |
| S WK 5393 | Theory, Practice, and Evaluation with <br> Communities and Organizations | 3 |
| S WK 5403 | Professional Social Work | 3 |
| S WK 5413 | Social Work Practicum I | 3 |


| S WK 5423 | Social Work Practicum II | 3 |
| :--- | :--- | :---: |
| S WK 5433 | Human Lifespan Development | 3 |
| Concentration Courses (21 hours) |  |  |
| S WK 5513 | Client-Centered Direct Practice | 3 |
| S WK 5523 | Macro Systems in Practice | 3 |
| S WK 5973 | Advanced Integrative Seminar | 3 |
| S WK 5816 | Social Work Practicum III | 6 |
| S WK 5826 | Social Work Practicum IV | 6 |
| Electives (9 hours) | $2-6$ |  |
| S WK 5980 | Research for Master's Thesis | $3-7$ |
| Choose 3-7 hours of Directed Readings and/or any other |  |  |
| graduate-level course, as approved by advisor |  |  |

Total Credit Hours ..... 60
Non-Thesis Option

| Code | Title | Credit |
| :--- | :--- | :--- |
|  | Hours |  |

Foundation Courses ( $\mathbf{3 0}$ hours)
S WK $5083 \quad$ Social Work Research Methods

| S WK 5313 | Policy Practice in Social Work: Analysis and <br> Advocacy | 3 |
| :--- | :--- | :---: |
| S WK 5333 | Human Diversity and Societal Oppression | 3 |
| S WK 5373 | Theory, Practice, and Evaluation with <br> Individuals | 3 |
| S WK 5383 | Theory, Practice, and Evaluation with <br> Families and Groups | 3 |
| S WK 5393 | Theory, Practice, and Evaluation with <br> Communities and Organizations | 3 |
| S WK 5403 | Professional Social Work | 3 |
| S WK 5413 | Social Work Practicum I | 3 |
| S WK 5423 | Social Work Practicum II | 3 |
| S WK 5433 | Human Lifespan Development | 3 |


| Concentration Courses ( $\mathbf{2 1}$ hours) |  |
| :--- | :--- | :--- |
| S WK 5513 | Client-Centered Direct Practice |

S WK 5523 Macro Systems in Practice 3
S WK 5973 Advanced Integrative Seminar 3
S WK 5826 Social Work Practicum IV 6

## Electives (9 hours)

Choose 9 hours of Directed Readings and/or any other

## Total Credit Hours

## General Requirements for all Master's Degrees

The master's degree requires the equivalent of at least two semesters of satisfactory graduate work and additional work as may be prescribed for the degree.

All coursework applied to the master's degree must carry graduate credit.
Master's degree programs which require a thesis consist of at least 30 credit hours. All non-thesis master's degree programs require at least 30 credit hours.

Credit transferred from other institutions must meet specific criteria and is subject to certain limitations.

Courses completed through correspondence study may not be applied to the master's degree.

To qualify for a graduate degree, students must achieve an overall grade point average of 3.0 or higher in the degree program coursework and in all resident graduate coursework attempted. A student must also have at least a 3.0 in all coursework (including undergraduate coursework if any).

Additional information for master's degree students may be found in the Graduate College Bulletin.

## Social Work: Advanced Standing, M.S.W.

Minimum Total Hours (Non-Thesis): 33
Program Code: M842 (online: M846)

## Program Requirements

- This program is Non-Thesis only.

| Code | Title | Credit |
| :---: | :---: | :---: |
| Required Courses (24 hours) |  |  |
| S WK 5043 | Introduction to Advanced Integrative Practice | 3 |
| S WK 5513 | Client-Centered Direct Practice | 3 |
| S WK 5523 | Macro Systems in Practice | 3 |
| S WK 5973 | Advanced Integrative Seminar | 3 |
| S WK 5816 | Social Work Practicum III | 6 |
| S WK 5826 | Social Work Practicum IV | 6 |
| Electives (9 hours) |  |  |
| Choose 9 h maintained graduate | graduate-level coursework from a list academic unit and approved by the (p. 715) | 9 |

## Total Credit Hours

33

## General Requirements for all Master's Degrees

The master's degree requires the equivalent of at least two semesters of satisfactory graduate work and additional work as may be prescribed for the degree.

All coursework applied to the master's degree must carry graduate credit.
Master's degree programs which require a thesis consist of at least 30 credit hours. All non-thesis master's degree programs require at least 30 credit hours.

Credit transferred from other institutions must meet specific criteria and is subject to certain limitations.

Courses completed through correspondence study may not be applied to the master's degree.

To qualify for a graduate degree, students must achieve an overall grade point average of 3.0 or higher in the degree program coursework and in all resident graduate coursework attempted. A student must also have at least a 3.0 in all coursework (including undergraduate coursework if any).

Additional information for master's degree students may be found in the Graduate College Bulletin.

## Social Work: Advanced Standing Graduate Elective Course List

- For the most current list of approved electives, please contact the Anne and Henry Zarrow School of Social Work.

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| S WK 5053 | Preventing and Treating Substance Use <br> Disorders | 3 |
| S WK 5733 | Mental Health Assessment and Diagnosis | 3 |
| S WK 5163 | Child Abuse and Neglect | 3 |
| S WK 5833 | Social Work with Sexual and Gender <br> Minorities | 3 |
| S WK 5723 | Human Services Administration | 3 |
| S WK 5343 | Social Work with American Indians | 3 |
| S WK 5283 | Tribal-U.S.Child/Family Welfare Policy and | 3 |
| S WK 5303 | Practice | 3 |
| S WK 5753 | Child and Adolescent Psychopathology: | 3 |
| S WK 5063 | Assessment and Treatment | 3 |
| S WK 5363 | Hecial Work with Older Adults | 3 |
| S WK 5153 | Seminar on Community Health | 3 |
| S WK 5003 | Forensic Social Work | 3 |
| S WK 5033 | Trauma-Informed Practice in Child Welfare | 3 |

## Social Work with American Indians, Graduate Certificate

Minimum Total Hours: 15

Program Code: G104 (Online: G105)
The Anne and Henry Zarrow School of Social Work offers an embedded Graduate certificate in Social Work with American Indians. Typically obtaining a certificate does not add courses to your MSW degree but rather specifies the electives taken.

Courses cannot be double counted towards more than one graduate certificate, and certificates cannot be added post-graduation.

## Certificate Requirements

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| S WK 5343 | Social Work with American Indians | 3 |
| S WK 5303 | American Indian Behavioral Health | 3 |
| S WK 5283 | Tribal-U.S.Child/Family Welfare Policy and <br>  <br> Practice | 3 |
| Choose 6 hours from S WK and/or NAS as approved by the <br> Graduate Liaison and Social Work with American Indians <br> Certificate Coordinator | 6 |  |

Total Credit Hours

A graduate certificate is not a graduate degree. A graduate degree represents a program of independent inquiry beyond the depth of coursework alone, while a graduate certificate represents a set of courses only.

- All courses must be taken at OU. No transfer credit will apply.
- No course substitutions are permitted for graduate certificates.
- Coursework applied to a graduate certificate cannot be more than five years old as of the semester the graduate certificate is awarded.
- Students must earn a grade point average of 3.00 or higher on all coursework applied to the graduate certificate.


## Department of Sociology

B. Mitchell Peck, Chair<br>Cyrus Schleifer, Graduate Liaison<br>331 Kaufman Hall<br>780 Van Vleet Oval<br>Norman, OK 73019-2033<br>Phone: (405) 325-1751<br>FAX: (405) 325-7825<br>soc@ou.edu<br>www.ou.edu/cas/soc

## General Information

The Department of Sociology has two interrelated missions: to provide the highest quality education at the baccalaureate, master's, and doctoral levels, and to foster state-of-the-art research among faculty and graduate students. Teaching and research in the department help meet the needs of the state and nation by addressing important social issues. The undergraduate program contains two degree options, one in general sociology and one in criminology. Graduate level areas of concentration are class stratification, criminology and deviance, family, gender, crossnational Sociology, race and ethnicity, religion, and social psychology. Contemporary issues within these areas are emphasized, and their historical, comparative, and global dimensions are explored. Through research, we seek to update and refine knowledge in each area to assist in formulating and evaluating social policy.

At both the undergraduate and graduate levels, coursework in Sociology provides an analytic research emphasis for studying, understanding, and explaining major issues. Research in these areas updates and refines knowledge and, further, helps formulate and evaluate social policy.

The undergraduate curriculum in sociology prepares students for jobs in a wide-variety of occupations and for admission to advanced degree programs, especially in sociology, law, and criminal justice. The graduate program provides more intensive instruction and stimulates further intellectual growth and maturity. Graduate students completing a degree in sociology typically find employment in academic settings as professors and researchers, and in the public or private sectors as statistical analysts and research coordinators. The quality of the programs in sociology can be measured by the successful placement of our graduates in agencies, corporations, graduate and professional programs, research settings, and colleges and universities.

A major strength of the department's graduate program is its training in research methods and statistics. The department maintains its own computer lab equipped with advanced statistical package software. Core seminars in statistics and methods encourage participation in all phases of research, from research design to data collection and analysis to the presentation of findings. Strength in this area complements coursework
in the department's three substantive areas of interest, and encourages students to be independent researchers and informed teachers. The department's graduate students regularly present research papers at professional meetings, and have been very successful in winning competitions with these papers.

## Programs \& Facilities

## Inside-Out Prison Exchange Program

The Inside-Out Prison Exchange Program is an educational program tailored to effectively facilitate dialogue across difference. It originated as a means of bringing together campus-based college students with incarcerated students for a semester-long course held in a prison, jail or other correctional setting.

## ADQUANT - Advanced Quantitative Methods Working Group

The Advanced Quantitative Methods Working Group (ADQUANT) is a collaborative forum for the discussion and dissemination of quantitative approaches to data analyses across the social sciences. We are interested in developing an understanding of advanced statistical methods and facilitating interdisciplinary approaches to data analyses throughout the OU campuses and beyond.

## Sociology and Criminology Club

The purpose of the Sociology/Criminology Club (SCC) is to provide a forum for undergraduate students who are interested in criminology and sociology. The mission of the SCC is to inform its members about careers, internships, graduate study, and other opportunities available in criminology and sociology and to provide a setting in which they can meet and socialize with other students who share similar interests.

## Undergraduate Study

## Bachelor of Arts

The Department of Sociology at OU offers two options within the Bachelor of Arts in Sociology program: the General Sociology (p. 723) option and the Criminology (p. 725) option. The general sociology option gives students a broad education in the field of sociology, and students can select any type of upper-division sociology electives to complete the major. The criminology option focuses on criminology, a specialized area within sociology, so students on this track take upperdivision electives that focus on the nature, extent, causes, and control of criminal behavior.

Students considering a major in Sociology should contact the department for assistance in selecting courses which contribute to the student's educational and career plans. Students who intend to pursue careers in social agencies, corporations, or research settings will be advised regarding courses most appropriate to those interests. Students wishing to enroll in graduate or professional school will be advised regarding courses normally prerequisite to such work.

## Minors

- General Sociology Minor (p. 728)
- Criminology Minor (p. 728)


## Accelerated Bachelor's and Master's Degree (BA/MA Program)

The sociology department is excited to offer an accelerated Bachelor's and Master's Degree in Sociology. This program is designed to be completed in 5 years, with students leaving the program with a Bachelor's degree in Sociology or Criminology as well as a Master's Degree in Sociology.

This track provides the same rigorous training in graduate level sociology/criminology, social scientific research methods, and producing publication quality sociological/criminological research as our terminal graduate Master's Degree, but is designed to be completed co-currently with the final series of upper division undergraduate coursework. We believe this track provides our outstanding undergraduate students with a head start on their graduate careers as well as some of the job opportunities made available by completing an advanced social science research degree.

## Graduate Study

The Master of Arts (p. 731) in Sociology and Doctor of Philosophy (p. 732) programs in sociology emphasize the learning of research methods and statistics in conjunction with chosen substantive area(s) of interest. The department offers six different courses in which graduate students develop research skills. At the doctoral level, students may choose to specialize in any two areas from the three areas of emphasis in the department.

## Admission Requirements

See Department of Sociology graduate programs page for admission information.

## Additional Doctoral Program Information

With few exceptions, the student seeking the Sociology Ph.D. (p. 732) anticipates a career in teaching and/or research. Departmental requirements emphasize professional competence in sociology as a whole, especially research methodology, and expertise in two fields within sociology. At the PhD level, the student should acquire a broad knowledge of the fundamentals of sociology and a focused specialization in two substantive areas of expertise.

A plan of study, filed formally with the Dean of the Graduate College, should develop the student's knowledge of and expertise in sociology broadly defined, as well as two substantive areas of sociological expertise. The plan of study must include the core requirements for the MA plus one additional theory course. This is especially important to highlight for students who are transferring credits from other universities or entering the doctoral program with a Master's degree in a related field. The plan of study must contain sufficient coursework to prepare a student for the general examination. The program of coursework and the committee can be amended as needed. A maximum of 44 credit hours may be transferred from other universities with the permission of a student's advisory committee and the Dean of the Graduate College.

The purpose of the graduate coursework is to prepare the student for the general examination and the dissertation. The accumulation of coursework, in and of itself, does not constitute progress toward the degree.

The general examination in sociology consists of a written component and an oral component. It usually is taken in the fall semester of the
third year of the program. Once the relevant elements of the written component of the exam are considered satisfactory, then the student may proceed to the oral component of the general exam. In cases where the student's written answers were considered satisfactory but the performance on the oral component of the exam was not, they will retake the oral component of the general exam in the following semester (timing to be determined in consultation with the student's committee). A second unsatisfactory performance on the oral component of the general exam will result in dismissal from the program.

The doctoral dissertation is written and defended under the guidance of the student's doctoral committee consisting of five members of the graduate faculty, at least one of whom is from outside the Department of Sociology.

Ph.D. students, having sole responsibility for teaching a course in the Department, are also required to take Professionalization Seminar and the Teaching Seminar (SOC 5831).

## Courses

SOC 1113 Introduction to Sociology
3 Credit Hours
The fundamental concepts of sociology; foundations of group life; social change, processes, and problems. (F, Sp, Su) [III-SS] .
SOC 1523 Social Problems 3 Credit Hours Analysis of major social problems of contemporary U.S. and policy debates concerning them. Examination of social science theory and research that are relevant to understanding these problems. Development of social institutions in which social problems occur. (F, Sp, Su) [IV-WC] .

## SOC 2970 Special Topics

1-3 Credit Hours
1 to 3 hours. Prerequisite: May be repeated; maximum credit nine hours.
Special topics course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research, and field projects. (Irreg.)
SOC 3123 Social Statistics
3 Credit Hours
(Crosslisted with P SC 3123) Prerequisite: SOC 1113 and any General Education Math EXCEPT Philosophy 1113 or Philosophy 3113.
Descriptive and inferential statistics as they are used in sociology to analyze survey and macro-level data. Problems of research design and interpretation of analysis in sociological theory are major topics. A grade of $C$ or better in this course is a prerequisite for Sociology capstone courses. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
SOC 3133 Methods of Social Research
3 Credit Hours
Prerequisite: SOC 1113 and any General Education Math EXCEPT Philosophy 1113 or Philosophy 3113 or permission of instructor. Basic elements of the scientific method as applied to the study of human group life. Examines the problem of conceptualization, the formulation of hypotheses, designs of proof, the interdependence of theory and fact and the techniques and procedures for assembling and ordering of data. A grade of C or better in this course is a prerequisite for Sociology capstone courses. (F, Sp, Su)

## SOC 3353 Race, Class and Gender

3 Credit Hours
(Crosslisted with WGS 3353) Prerequisite: junior standing or permission of instructor. Explores the intersections of race, ethnicity, class, gender and sexuality. Focus is on how systems of power and oppression reinforce each other,how they intersect in shaping social structure and individual experiences, and how the systems of oppression are mutually reinforcing. Theories and practice of intersectionality, how gender, race, class and other categories of identity are constructed and reproduced in social, political and economic structures, and experienced in every day life. (F, Sp)

SOC 3363 Sociological Theory
3 Credit Hours
Prerequisite: SOC 1113 and ENGL 1213 or EXPO 1213; majors only; not open to freshmen. Consideration of classical sociologists including Durkheim, Weber, and Marx. Attention is devoted to the application of classical theories to current research issues. ( $F, S p$ )

SOC 3440 Mentored Research Experience
3 Credit Hours
0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)

SOC 3523 Criminology

## 3 Credit Hours

Prerequisite: 1113 or sophomore standing. A study of the nature and causes of various forms of deviant and illegal behavior, especially serious personal injury and property crimes (e.g., homicide, burglary). While some consideration is given to biological and psychological explanations, the primary focus is on sociological theories that attempt to explain crime, criminality, and victimization in modern societies. (F,Sp)
SOC 3533 The System of Criminal Justice 3 Credit Hours Prerequisite: 1113 or permission of instructor. An analysis of the sociological literature on the American system of criminal justice, viewed as a system of social control. Emphasis is on the functional significance of the system in relation to the various interests represented in the law. Attention given to special problems in each of the major components of the system: law enforcement, the administration of justice and corrections. (F, Sp)
SOC 3543 Sociology of Deviance
3 Credit Hours
Prerequisite: SOC 1113 or permission of instructor. The sociological study of deviant behaviors. Focus is on sociological theories and processes by which behaviors are defined as deviant, and how these definitions affect the individual. (F, Sp)

SOC 3553 Sociology of Law
3 Credit Hours
Prerequisite: 1113 or permission of instructor. Provides a sociological understanding of the interrelationship between law and society. Covers the origins of law, types of legal systems, theories of punishment, and examines law as an independent variable (i.e., as a mechanism for social change) and as a dependent variable (i.e., how laws are created or changed by social pressure). ( $\mathrm{F}, \mathrm{Sp}$ )

SOC 3573 Sexuality, Media, and Crime
3 Credit Hours
Prerequisite: ENGL 1213 or EXPO 1213. The sociological constructions of gender and sexuality will be examined through the context of several forms of American media including advertising, television, and film. Also examines stigma, hate crimes, and violence based on gender and sexuality including LGBTQ identities/experiences. (Irreg.)
SOC 3583 Federal Criminal Justice System
3 Credit Hours
Prerequisite: SOC 1113 or permission of instructor; course not open to freshmen. This course provides an overview of the federal criminal justice system, including the structure and functions of the federal court system, distinctions between state and federal justice systems; federal law enforcement agencies and types of crimes prosecuted by the U.S. Department of Justice and federal punishment under the United States Sentencing Guidelines including critical issues and policies. (Irreg.)

SOC 3593 Sexual Deviance and Society
3 Credit Hours
Prerequisite: ENGL 1213 or EXPO 1213. A critical examination of the sociology of deviant sexual behaviors. Investigations of deviance, criminology and gender through the study of sexual behavior, sex crimes, and victimology. (Irreg.)

SOC 3613 Global Social Problems
3 Credit Hours
Prerequisite: SOC 1113 or Junior standing. Provides an overview of pressing global social problems with attention to developing insights into the conceptual analyses of meaningful solutions from a sociological perspective. Readings discuss the relationships among various levels of the social system, so that social roots of pressing issues are recognized and used as a tool to suggest alternative approaches to address them. (Irreg.) [III-SS].

SOC 3623 Sociology of Race and Ethnicity
3 Credit Hours
Prerequisite: SOC 1113 or permission of instructor. This course explores the historical and contemporary issues surrounding the impact that race and ethnicity have on U.S. society. You will examine how racial and ethnic criteria often guide important economic, political, and social decisions that affect access to resources by various groups, usually having significant consequences for the individual. (Irreg.)

SOC 3643 Population and Society
3 Credit Hours
Prerequisite: SOC 1113 or permission of instructor. Introduction to population study. Analysis of human mortality, fertility and migration. Evaluation of demographic theories with emphasis on social and cultural factors. (Irreg.)

## SOC 3663 Sociology of Music

3 Credit Hours
Prerequisite: Junior standing. The course is an historical, theoretical, and sociological exploration of music. The course addresses diverse topics such as how the current system of music developed, the distinction between high culture and popular culture, and the ways race, gender, class and other social distinctions influence the production and consumption of music. (Irreg.) [III-SS].

SOC 3683 Wealth, Power, and Prestige
3 Credit Hours
Prerequisite: 1113 or sophomore standing or above. Examines the systems in which the central elements of class stratification--wealth, power, and prestige--are created and distributed and addresses the issue of "who gets how much and why?". Topics include a review of the theories and evidence in current stratification studies and an assessment of the racial, ethnic, and religious correlates of inequality. (F, Sp)

SOC 3713 Medical Sociology
3 Credit Hours
Prerequisite: SOC 1113 or permission of instructor. A study of cultural and class factors in health and morbidity. Focus is on the social organization of medical services, including discussion of the hospital as a social institution. The role of medical and paramedical personnel and the interaction of the medical system with other social institutions such as government, church, education, and family. (Sp)

SOC 3723 Sociology of Family 3 Credit Hours
Prerequisite: 1113 or sophomore standing or above. The sociological study of the family as an institution; the origin and development of the family; the interrelationships of the family and the larger society; the environmental conditions which seem to favor the development and continuance of the major family forms; the rise of the modern democratic family; characteristic patterns of change in the contemporary family. (F, Sp )

Prerequisite: 1113 or permission of instructor. Sociological analysis of the reinforcement of gender roles by the major institutions of society. Examine the effects on gender roles of education, mass media, economics, public policy, law, religion, and society. (Irreg)

SOC 3773 Sociology of Religion
3 Credit Hours
Prerequisites: SOC 1113 or sophomore standing. Using the perspectives and methods of social science, and particularly sociology, the common social dimensions of all religions including moral definitions; micro-level processes of membership, conversion and socialization; the life-cycle of religious institutions; and religion's relationship to health, science, and important institutions like the American family, economy, and politics will be examined. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

SOC 3803 Inequality in A Global Perspective
3 Credit Hours
Prerequisite: SOC 1113 or sophomore standing or above. Examines the causes and consequences of socioeconomic inequality in contemporary societies (including the United States) by using theories and research evidence from the vantage point of international political economy. Topics include the nature, structure, and hierarchy of the global economy; the link between international and national distributions of wealth and power; and the racial, ethnic, and religious correlates of social inequality. (Irreg.)
SOC 3813 Individual and Society
3 Credit Hours
Prerequisite: ENGL 1213 or EXPO 1213. Introduction to social psychological theories and findings. Covers socialization, identity development, emotions, social interaction, deviant behavior, and small group behavior. (Irreg.)

SOC 3843 Sociology of Aging
3 Credit Hours
Prerequisite: 1113 or permission of instructor. Comprehensive description of the dimensions of aging. The point of departure is the notion that to talk meaningfully about one aspect of aging requires consideration of its other dimensions. (Irreg)

SOC 3893 Environment, Ecology and Society 3 Credit Hours
Prerequisite: SOC 1113 or permission of instructor. Examines relationships between environmental factors and human social arrangements. The class will be organized around these and a number of related topics, which will help to shape the readings, lectures, and discussions. (Irreg.)
SOC 3900 Special Topics in Sociology
1-3 Credit Hours
1 to 3 hours. Prerequisite: 1113 or permission of instructor. May be repeated with change of content; maximum credit six hours. Cover topics not currently offered in regularly scheduled courses. (Irreg)

SOC 3903 The Sociology of Urban Street Gangs
3 Credit Hours Prerequisite: SOC 1113 and SOC 3523 and junior standing. Focusing on a sociological understanding of gangs, this course will provide an overview of research on gangs and theoretical perspectives of gang membership, while paying close attention to the interplay of social structure, gang dynamics, and the life-course of individual gang members. (Irreg.)
SOC 3913 The Death Penalty in the United States 3 Credit Hours Prerequisite: 1113 and 3523 . Provides an overview of capital punishment in the United States, and Oklahoma in particular, from a sociological perspective. History of capital punishment in the United States specific cases related to the death penalty, and arguments for and against the use of capital punishment. (Irreg.)

SOC 3923 Alcohol, Drugs and Society
3 Credit Hours
Prerequisite: 1113 and 3523. Explores sociological explanations of alcohol and drug use with a special emphasis on current issues in the United States. (Irreg.)

SOC 3933 Inside/Out: Drugs, Alcohol, and Society 3 Credit Hours Prerequisite: SOC 1113, SOC 3523, and departmental permission; Course not open to Freshmen. This is an "inside-out" course. Taught with half enrollment of "inside students" from a correctional facility and "outside students" from OU. Explores sociological explanations of alcohol and drug use with a special emphasis on current issues in the United States. (Irreg.)
SOC 3943 Inside/Out: The Family and Crime 3 Credit Hours Prerequisite: SOC 1113, SOC 3523 and departmental permission; Course not open to Freshmen. The "Inside-Out" Prison Exchange Program is an opportunity for students from OU and a group of prison residents to exchange ideas about a variety of issues. Our focus is the family and crime, and we will delve into causes of crime, the role of families, the effects of contact with the criminal justice system on families and communities, etc. (Irreg.)
SOC 3953 Juvenile Justice
3 Credit Hours
Prerequisite: 1113 or permission of instructor. Course examines criminal measurement of juvenile crime, theories of delinquency, legal rights of juveniles and the juvenile justice system. (Irreg.)

SOC 3960 Honors Reading 1-3 Credit Hours
1 to 3 hours. Prerequisite: 1113 and permission of instructor and admission to Honors Program. May be repeated; maximum credit six hours. Will consist of topics designated by the instructor in keeping with the student's major program. The topics will cover materials not usually presented in the regular courses. (Irreg)

## SOC 3970 Honors Seminar

1-3 Credit Hours
1 to 3 hours. Prerequisite: 1113 or permission of instructor and admission to Honors Program. May be repeated; maximum credit six hours. The projects covered will vary. The content will deal with concepts not usually presented in regular coursework. (Irreg)

## SOC 3973 Sociology of Violence

3 Credit Hours
Prerequisite: SOC 1113 and SOC 3523. An examination of the causes, correlates and consequences of various forms of violent crime. An emphasis on the social nature of violence, social institutions related to violence and the social costs of violence. ( $F, S p$ )
SOC 3980 Honors Research
1-3 Credit Hours
1 to 3 hours. Prerequisite: 1113 or permission of instructor and admission to Honors Program. May be repeated; maximum credit six hours. Will provide an opportunity for the gifted Honors candidate to work at a special project in the student's field. (Irreg)
SOC 3983 Women, Girls and Crime 3 Credit Hours Prerequisite: SOC 1113 and SOC 3523, or permission of instructor. Indepth examination of crime and the justice system as it relates to girls and women. The focus will be on girls and women as victims, girls and women as offenders, and criminal justice responses to girls and women. (F, Sp)
SOC 3990 Independent Study 1-3 Credit Hours
1 to 3 hours. Prerequisite: permission of instructor and junior standing. May be repeated once with change of content. Independent study may be arranged to study a subject not available through regular course offerings. (F, Sp, Su)

SOC 3993 Sociology of Gender and Sexuality in the Media

3 Credit Hours
Prerequisite: ENGL 1213 or EXPO 1213. The sociological constructions of gender and sexuality will be examined through the context of several forms of American media including advertising, television, and film. Explores how manifestations of "normative" behaviors are reproduced and maintained through media representations of gender and sexuality. Examines advertising, television, and film as they relate to societal shifts in attitudes toward gender and sexuality. (Irreg.)
SOC 4033 Sociology of Housing
3 Credit Hours
(Slashlisted with SOC 5033; Crosslisted with RCPL 4033) Prerequisite: ENGL 1213 or EXPO 1213, Junior standing, and Departmental Permission. This course introduces students to socioeconomic, political, and equity issues in housing. Students will engage with planning and policy issues to understand the history of housing and interventions for diverse populations. Topics will cover primarily U.S. Housing policy and practices with some comparative international examples. No student may earn credit for both 4033 and 5033. (Irreg.)
SOC 4113 International Migration
3 Credit Hours
Prerequisite: Junior standing. This course will use sociological theory to understand structural and cultural factors that shape social change in Europe and present real challenges to full participation. (Su) [III-SS].
SOC 4373 Sociology of Climate Change
3 Credit Hours
(Slashlisted with SOC 5373) Prerequisite: Junior standing, departmental permission, and SOC 1113 or SOC 1523. The course will prepare students to analyze the climate crisis, including its origins, impacts, and its entanglements with other issues. The course examines potential pathways toward climate stability and climate justice. These issues are examined through a sociological lens while also engaging relevant scholarship in the humanities and other social sciences. No student may earn credit for both 4373 and 5373. (F) [III-SS].

SOC 4603 Internship in Sociology 3 Credit Hours Prerequisite: SOC 1113, SOC 3123, SOC 3133, and at least two of the following: SOC 3523, SOC 3533, SOC 3543, SOC 3553, SOC 3623, SOC 3683, SOC 3723, SOC 3733. Work experience in the field of sociology under the supervision of a faculty member. While the instructor will assist in finding internship opportunities, the ultimate responsibility is with the student. Internships may be served in any setting related to the field of sociology. Student will be required to develop a paper linking the work experience to scholarly research in sociology. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
SOC 4843 Capstone in Criminology
3 Credit Hours
Prerequisite: SOC 1113, SOC 3123 (C or better), SOC 3133 (C or better), and at least two of the following: SOC 3363, SOC 3523, SOC 3533, SOC 3543, SOC 3553, SOC 3583, SOC 3623, SOC 3923, SOC 3953, and permission of instructor. Students will actively participate in an in-depth analysis and discussion of current research topics in the sociological study of criminology (crime and delinquency, deviance, sociology of law, criminal justice). Students will use material learned in Sociology 3123,3133 and 3000 -level substantive courses and will be required to demonstrate in written assignments their ability to understand and critique current quantitative research. (F, Sp) [V].
SOC 4873 World Religions and Society
3 Credit Hours
(Slashlisted with SOC 5873) Prerequisite: sophomore standing. The course examines the major world religions, how they develop historically and in the context of other social institutions. Hinduism, Buddhism, Confucianism, Taoism, Judaism, Christianity, Islam, and Native Traditions will be considered. Students will study how religious institutions are influenced by, and have an influence on, societies and the people in them. No student may earn credit for both 4873 and 5873. (Irreg.) [IV-WDC].

SOC 4943 Capstone in General Sociology 3 Credit Hours Prerequisite: SOC 1113, SOC 3123 (C or better), SOC 3133 (C or better), and at least two of the following: SOC 3363, SOC 3523, SOC 3623, SOC 3643, SOC 3683, SOC 3713, SOC 3723, SOC 3733, SOC 3753, and permission of instructor. As a component of this course, students will actively participate in an in-depth analysis and discussion of a current research topic or topics in sociology. Students will be expected to use material they have learned in Sociology 3123 and 3133, as well as material in substantive courses, and will be required to demonstrate their ability to understand and critique research. ( $F, S \mathrm{Sp}$ ) [V] .

SOC 4960 Directed Readings 1-4 Credit Hours
1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean. May be repeated; maximum credit four hours. Designed for upper-division students who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)

## SOC 4970 Special Topics/Seminar

1-3 Credit Hours
1 to 3 hours. Prerequisite: Senior standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)
SOC 4990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: Fifteen hours of Sociology (including 1113, 3123,3133 ) and permission of instructor and department. May be repeated; maximum credit six hours. Contracted independent study for topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (F, Sp, Su)
SOC 5033 Sociology of Housing

## 3 Credit Hours

(Slashlisted with SOC 4033; Crosslisted with RCPL 5033) Prerequisite: Graduate standing, departmental permission, and instructor permission. This course introduces students to socioeconomic, political, and equity issues in housing. Students will engage with planning and policy issues to understand the history of housing and interventions for diverse populations. Topics will cover primarily U.S. Housing policy and practices with some comparative international examples. No student may earn credit for both 4033 and 5033. (Irreg.)

SOC 5143 Program Evaluation
3 Credit Hours
Prerequisite: Graduate standing. Methodology of planning and evaluating government policies and programs. Emphasizes research design, economic analysis of public policies and programs, and methods for handling threats to the validity of research results. (Irreg.)
SOC 5283 Fundamentals of Sociological Statistics 3 Credit Hours Prerequisite: SOC 3123 and SOC 3133, or graduate standing in Sociology, or permission of instructor. Advanced statistical concepts and analysis; analysis of variance and covariance; multiple regression analysis; use of computers for statistical analysis. (Irreg.)

SOC 5293 Advanced Methods of Social Research 3 Credit Hours Prerequisite: SOC 3123 and SOC 3133, or graduate standing in Sociology, or permission of instructor. Advanced research methodology; heavy focus of attention will be on concept measurement, index formation and survey research. (Irreg.)
SOC 5313 Qualitative Research Methods 3 Credit Hours
Prerequisite: graduate standing. Survey of different qualitative methodological strategies used in the social sciences to collect, code, and analyze information. (Sp)

SOC 5333 Seminar in the Criminal Justice System 3 Credit Hours Prerequisite: graduate standing in Sociology or permission of instructor. A critical examination of the American system of criminal justice. Attention will be given to the unique problems of the system and to each of its component parts. Special emphasis will be placed on the role of extralegal factors in discretionary decision-making by the principal actors within the system. (Irreg.)
SOC 5373 Sociology of Climate Change 3 Credit Hours (Slashlisted with SOC 4373) Prerequisite: Graduate standing and departmental permission. The course will prepare students to analyze the climate crisis, including its origins, impacts, and its entanglements with other issues. The course examines potential pathways toward climate stability and climate justice. These issues are examined through a sociological lens while also engaging relevant scholarship in the humanities and other social sciences. No student may earn credit for both 4373 and 5373. (F)

SOC 5383 Social Stratification
3 Credit Hours
Prerequisite: graduate standing in Sociology or permission of instructor. In-depth treatment of sociological theories, methods and research in the area of stratification and inequality. (Irreg.)

SOC 5483 Advanced Regression Analysis
3 Credit Hours Prerequisite: SOC 5283 and graduate standing in Sociology or permission of instructor. A graduate-level introduction to linear regression analysis. Focuses on theory and empirical applications including topics such as model specification, estimation, interpretation, inferences, and assumptions diagnostics. (Irreg.)

SOC 5523 Criminology
3 Credit Hours
Prerequisite: graduate standing in Sociology or permission of instructor.
Examines the patterns and correlates of crime at the individual, situational, and aggregate levels. Also includes examination of the history of criminological thought as well as contemporary explanations of crime, with an emphasis on critical evaluation of these explanations. (Irreg.)
SOC 5543 Deviance and Social Control
3 Credit Hours
Prerequisite: graduate standing in Sociology or permission of instructor. A critical examination of the literature on deviance and social control with special emphasis on the scope of the field. The frame of reference for the examination will consist of one or more of the major theoretical perspectives in sociology: the functional, the conflict and the symbolic interactionist. (Irreg.)
SOC 5623 Race and Ethnicity
3 Credit Hours
Prerequisite: graduate standing in Sociology or permission of instructor. Review of concepts and terminology of social differentiation, and indepth study of the theories of prejudice and discrimination, power and dominance, and patterns of inter-group relations. Includes a history and analysis of race and ethnicity in the United States and other selected countries. (Irreg.)
SOC 5683 Categorical, Panel, and Advanced Statistical

## Analyses

3 Credit Hours
Prerequisite: SOC 5483 or permission of instructor. The primary focus of this course will be on the application of categorical outcome regression models for social scientific research questions. The course will also provide a broad-based overview of some advanced statistical models commonly used in the social sciences including basic longitudinal/ panel statistical models, hierarchical linear models, and a number of approaches to handling missing data in regression analysis. (Irreg.)

SOC 5713 Program Evaluation Practicum 3 Credit Hours
Prerequisite: Graduate standing and departmental permission.
Field experience. Students will observe and document how working professionals perform their job responsibilities. Students will also participate in performing tasks under supervision by program professors and on-site staff. (lrreg.)

## SOC 5723 Sociology of the Family <br> 3 Credit Hours

Prerequisite: graduate standing in Sociology or permission of the instructor. Analysis of the family as a social institution, focusing on the problems created by changes in the family. The family is examined in historical, cross cultural and demographic perspectives. Applications include consideration of alternative arrangements, including discussion of the probable future of family arrangements in Western society. (Irreg.)

## SOC 5733 Sociology of Gender

3 Credit Hours
Prerequisite: graduate standing in Sociology or permission of instructor. Theoretical and empirical approaches to the study of gender within several substantive areas of sociology such as family, work, race and ethnicity, and social class. (Irreg.)
SOC 5743 Religion Seminar
3 Credit Hours
Prerequisite: Graduate standing, majoring in sociology or permission of instructor/department. The course considers theoretical perspectives on religion. In connection with that, it examines the major world religions, including how they developed historically and in the context of other social institutions. The course examines how religious institutions are influenced by, and have an influence on, societies and the people in them, considering the contemporary world in its comparative and historical context. (Irreg.)

## SOC 5790 Special Sociological Issues

2-3 Credit Hours
2 to 3 hours. Prerequisite: graduate standing in Sociology and permission of instructor. May be repeated with change of content; maximum credit 12 hours. Intensive survey of the literature in a selected area of sociology under the direction of a member of the staff. Instructors rotate each semester. (Irreg.)

## SOC 5821 Professionalization Seminar

1 Credit Hour Prerequisite: Graduate standing and majors only. Prepares students for careers in academia. Comprised of units covering research and service. (Irreg.)
SOC 5823 Social Demography 3 Credit Hours
Prerequisite: graduate standing in Sociology or permission of instructor. Introduction to the four variables that comprise the subject matter of demography: fertility, mortality, migration, and age structure. Sources of demographic data for the study of these variables are examined and basic demographic statistics are covered. (Irreg.)
SOC 5831 Teaching Seminar 1 Credit Hour Prerequisite: graduate standing in Sociology. Preparation for teaching sociology. Taken prior to assignment of sole responsibility for teaching a course in sociology. (Irreg.)
SOC 5833 Social Psychology 3 Credit Hours Prerequisite: graduate standing in Sociology or permission of instructor. Examines issues regarding research in social psychology and personality psychology. Addresses the history of social psychology research issues, some class controversies, and new research directions in the field. Specific topics include social cognition attitudes, attribution, the self, groups, expectation states, collective behavior, the life course. (Irreg.)

SOC 5873 World Religions and Society
3 Credit Hours
(Slashlisted with SOC 4873) Prerequisite: graduate standing. The course examines the major world religions, how they develop historically and in the context of other social institutions. Hinduism, Buddhism, Confucianism, Taoism, Judaism, Christianity, Islam, and Native Traditions will be considered. Students will study how religious institutions are influenced by, and have an influence on, societies and the people in them. No student may earn credit for both 4873 and 5873. (Irreg.)
SOC 5893 Seminar in Environment and Society 3 Credit Hours Prerequisite: graduate standing. Explores the human interface with the natural environment through the sociological perspective, particularly in the late industrial era. How social development, population and technology impact the environment will be studied. Considering ways to think about the complex array of environmental issues as society moves into the Third Millennium will conclude the course. (Irreg.)
SOC 5933 Sociological Theory
3 Credit Hours
Prerequisite: graduate standing in Sociology or permission of instructor. Intensive analysis of the original writings of classical sociologists including Durkheim, Weber and Marx. Attention is devoted to the application of classical theories to current research issues. (Irreg.)

## SOC 5943 Inequality in a Global Perspective

3 Credit Hours
Prerequisite: graduate standing in Sociology or permission of instructor. Provides an in-depth review and analysis of the sociological concepts and theories used to study how wealth (and its correlates, power and prestige) are created and distributed. Special emphasis is placed upon how these processes occur within a global system. (Irreg.)
SOC 5960 Directed Readings in Sociology
1-4 Credit Hours
Prerequisite: Graduate standing, twelve hours of upper-division sociology. No more than six hours may be counted toward the M.A. degree. No more than twelve hours may be counted toward the Ph.D. degree. Intensive survey of literature in a selected area of sociology under the direction of a sociology faculty member. (F, Sp, Su)
SOC 5970 Special Topics/Seminar 1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing in Sociology or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)
SOC 5980 Research for Master's Thesis
2-9 Credit Hours
Variable enrollment, two to nine hours; maximum credit applicable toward degree, four hours. (F, Sp, Su)
SOC 5990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)
SOC 6343 Special Topics in Criminology 3 Credit Hours
Prerequisite: graduate standing in Sociology or permission of instructor. May be repeated; maximum credit 12 hours. Covers in depth one significant topic in the area of criminology such as, but not limited to, deterrence, longitudinal research, ecology of crime, drugs and alcohol, societal reaction theory, macro-normative theory, micro-normative theory, penology, mental illness, victimology, and violence. (Irreg.)

## SOC 6353 Life Course Seminar <br> 3 Credit Hours

Prerequisite: Graduate standing in Sociology or permission of instructor; May be repeated; maximum credit 12 hours. Covers in depth a topic in the area of demography such as, but not limited to, migration, mortality, fertility, population composition, and segregation. (Irreg.)

SOC 6363 Family Demography Seminar 3 Credit Hours Prerequisite: Graduate standing in Sociology or permission of instructor; May be repeated with change of content; maximum credit 12 hours. Covers in depth one significant area of social differentiation such as, but not limited to, racial prejudice/discrimination, status attainment, poverty and welfare, work and occupations, community power and social elites. (Irreg.)

## SOC 6373 Sociology of Sexualities <br> 3 Credit Hours

Prerequisite: Graduate standing in Sociology or permission of instructor. Considers sociological understandings of sex and sexualities, LGBTQ identities/experiences, and heteronormativity with an emphasis on gender, power, and intersectionalities. (Irreg.)
SOC 6753 Historical and Comparative Sociology 3 Credit Hours Prerequisite: graduate standing in Sociology or permission of instructor. Examines how religious, educational, economic, and political institutions influence peoples lives from a historical and comparative perspective. Examines general principles and conditions for how societies evolve over time. (Irreg.)

SOC 6903 Issues in Sociological Theory
3 Credit Hours
Prerequisite: SOC 5933 and graduate standing in Sociology or permission of instructor. M.A. students may enroll only once; Ph.D. students may repeat the course once with a change of topic; maximum credit six hours. Examines a particular sociological theory in detail at a level appropriate for students who have completed SOC 5933. Topics will vary and may include conflict theory, functionalism, symbolic interactionism, exchange theory, etc. (Irreg.)

## SOC 6960 Directed Readings

1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit six hours. Directed readings and/or literature review under the direction of a faculty member. (Irreg.)

SOC 6970 Special Topics/Seminar 1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing in Sociology or permission of instructor. May be repeated; maximum credit 12 hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or research and field projects. (Irreg.)
SOC 6980 Research for Doctoral Dissertation 2-16 Credit Hours
2 to 16 hours. Prerequisite: Graduate standing and permission of instructor; may be repeated. Directed research culminating in the completion of the doctoral dissertation. (F, Sp, Su)

SOC 6990 Special Studies in Sociology 1-4 Credit Hours
1 to 4 hours. Prerequisite: eighteen hours of sociology and permission of instructor. Individual research in a selected field; a problem is analyzed under the direction of a member of the staff. (F, Sp)

## Faculty

| Last Name | First/Middle Name | Middle init. | OU <br> Service start | Title(s), date(s) appointed |
| :---: | :---: | :---: | :---: | :---: |
| Bass | Loretta | E | 1999 | ADJUNCT |
|  |  |  |  | ASSOCIATE |
|  |  |  |  | PROFESSOR OF |
|  |  |  |  | WOMEN'S AND |
|  |  |  |  | GENDER STUDIES, |
|  |  |  |  | 2008; ADJUNCT |
|  |  |  |  | ASSOCIATE |
|  |  |  |  | PROFESSOR OF |
|  |  |  |  | INTERNATIONAL |

Degrees Earned, Schools, Dates Completed
PhD, Univ of Connecticut, 1998; MA, Univ of Connecticut, 1993; BA, Univ of Kansas, 1990

PhD, Univ of Minnesota, 1997; BA, State Univ of New York at Buffalo, 1990

PhD, Florida State Univ, 2006; MS, Florida State Univ, 2002; BS, Florida State Univ, 2000
ASSOCIATE
PROFESSOR OF
WOMEN'S AND
GENDER STUDIES,
2015

| Burns Thomas J 2001 | PROFESSOR OF <br> SOCIOLOGY, 2004 |
| :--- | :--- | :--- | :--- |

PhD, Univ o Maryland, 1990; MS, Univ of Delaware, 1982; BS, Univ of Maryland, 1976
PhD, Univ of Oklahoma, 2002; MSW, Univ of Oklahoma, 1995; M. Div, St. Meinrad School of Theology, 1990; BBA, Univ of Oklahoma, 1985; AS, St. Gregory's College, 1982

Ph.D., University of Wisconsin-Madison, 2018; MA, University of Kansas, 2009; BA, University of Kansas, 2003
PhD, Univ of Arizona, 1999; MA, Univ of Arizona, 1992; BA, Ohio Wesleyan Univ, 1980

ASSOCIATE PROFESSOR OF WOMEN'S AND GENDER STUDIES, 2011

| Garneau | Christopher | R.H. | 2022 | ASSISTANT <br> PROFESSOR - <br> RENEWABLE TERM | Ph.D., University of Nebraska-Lincoln, 2012; MA, University of Nebraska-Lincoln, 2008; BA, Dickinson State University, 2006 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Gerlinger | Julie |  | 2017 | ASSOCIATE PROFESSOR OF SOCIOLOGY, 2024 | PhD, Univ of California Irvine, 2017; MA, Univ of California Irvine, 2013; BA, Univ of California Los Angeles, 2008 |
| Hill | Christopher | M | 2013 | ASSISTANT <br> PROFESSOR <br> OF SOCIOLOGY, <br> 2013; ADJUNCT <br> ASSISTANT <br> PROFESSOR <br> OF ARTS AND <br> SCIENCES, 2016 | PhD, Univ of Oklahoma, 2004; MA, Univ of Oklahoma, 1996; BA, Univ of Oklahoma, 1994 |
| Hope | Trina | L | 1996 | ASSOCIATE PROFESSOR OF SOCIOLOGY, 2005 | PhD, Univ of Arizona, 1997; MA, Univ of Arizona, 1993; BS, Brigham Young Univ, 1990 |
| Ipsen | Annabel |  | 2022 | ASSISTANT <br> PROFESSOR, 2022 | Ph.D., University of Wisconsin-Madison, 2016 |
| Maher | Erin |  | 2018 | PROFESSOR OF SOCIOLOGY, 2024 | PhD, Indiana UnivBloomington, 2000 |
| Peck | B Mitchell |  | 2005 | PROFESSOR OF SOCIOLOGY, 2024; ADJUNCT ASSOCIATE PROFESSOR OF PROFESSIONAL AND CONTINUING STUDIES, 2017; ADJUNCT ASSOCIATE PROFESSOR OF ARTS AND SCIENCES, 2018 | PhD, Texas A\&M Univ, 2002; MS, Texas A\&M Univ, 1990; BA, Idaho State Univ, 1987 |
| Perry | Samuel |  | 2015 | PROFESSOR OF SOCIOLOGY, 2023 | PhD, Univ of Chicago, 2015; MA, Univ of Chicago, 2010; M Theol, Dallas Theological Seminary, 2008; BA, Augusta State Univ, 2003 |
| Piotrowski | Martin | P | 2006 | ASSOCIATE PROFESSOR OF SOCIOLOGY, 2012 | PhD, Univ of North Carolina, 2006; MA, Univ of North Carolina, 2002; BS, Pennsylvania State Univ, 1998 |
| Schleifer | Cyrus | J | 2008 | ASSISTANT PROFESSOR OF SOCIOLOGY, 2015 | PhD, Duke Univ, 2015; MA, Duke Univ, 2011; MA, 2008; BA, Univ of Iowa, 2006; BBA, Univ of Iowa, 2006 |
| Wang | Dan |  | 2022 | ASSISTANT <br> PROFESSOR, 2022 | Ph.D., University of Nebraska-Lincoln, 2022; MS, University of NebraskaLincoln, 2019; BA Tianjin University of Commerce, 2014 |

Worthen Meredith 2009 ASSOCIATE PhD, Univ of Texas, PROFESSOR 2009; MA, Univ of OF SOCIOLOGY, Texas, 2006; BA, Univ 2014; ADJUNCT of Texas, 2004 ASSOCIATE PROFESSOR OF WOMEN'S AND GENDER STUDIES, 2016

## Sociology - General Option, B.A.

Minimum Total Credit Hours: 120
Major Hours: 33
Minimum Upper-Division Hours: 48
Overall GPA - Combined and OU: 2.00
Major GPA - Combined and OU: 2.00
Program Code: B845

## Major Requirements

- Some courses required for the major may also fulfill University General Education and/or Dodge College of Arts \& Sciences Requirements.

| Code | Title | Credit Hours |
| :---: | :---: | :---: |
| Sociology Core |  |  |
| SOC 1113 | Introduction to Sociology | 3 |
| SOC 3123 | Social Statistics | 3 |
| SOC 3133 | Methods of Social Research | 3 |
| SOC 3363 | Sociological Theory | 3 |
| SOC 4943 | Capstone in General Sociology | 3 |
| Substantive Area Courses |  |  |
| Choose fiv (p. 724) | ses from the Substantive Area course list | 15 |
| Major Elective Courses |  |  |
| Choose one additional Sociology course which may be chosen from courses listed in Substantive Area |  |  |
| Total Credit Hours 33 |  |  |
| NOTES |  |  |
| - PHIL 1113 Intro. to Logic will not satisfy the prerequisite to enroll in SOC 3123 Social Statistics or SOC 3133 Methods of Social Research. |  |  |
| - Both SOC 3123 and SOC 3133 must be completed with a grade of $C$ or higher BEFORE the capstone. |  |  |
| - The capstone course should be taken the FINAL SEMESTER in residence at the university. It is only offered in Spring and Fall semesters. |  |  |
| - We suggest using free elective hours to help students utilize their academic skills after graduation by completing a minor or any service-learning designated class. Service-learning designated classes can be found by searching for SERV when enrolling. These classes are also very beneficial: CAS 3091 Career Planning for Arts \& Sciences and CAS 4113 Life After OU-Survival Course |  |  |

## Substantive Area Courses

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| SOC 2523 |  | 3 |
| SOC 3523 | Criminology | 3 |
| SOC 3533 | The System of Criminal Justice | 3 |
| SOC 3623 | Sociology of Race and Ethnicity | 3 |
| SOC 3643 | Population and Society | 3 |
| SOC 3683 | Wealth, Power, and Prestige | 3 |
| SOC 3713 | Medical Sociology | 3 |
| SOC 3723 | Sociology of Family | 3 |
| SOC 3733 | Sociology of Gender | 3 |
| SOC 3773 | Sociology of Religion | 3 |
| SOC 3783 |  | 3 |
| SOC 3803 | Inequality in A Global Perspective | 3 |
| SOC 3813 | Individual and Society | 3 |
| SOC 3843 | Sociology of Aging | 3 |
| SOC 3853 |  | 3 |
| SOC 3873 |  | 3 |
| SOC 4603 | Internship in Sociology | 3 |

## General Education and College Requirements

Courses for fulfillment of General Education and Dodge College of Arts \& Sciences requirements must be from the approved General Education course list published in the Class Schedule or at http://www.ou.edu/ gened/courses. Courses graded P/NP will not apply.

## UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS

Code Title Credit Hours
Core Area I: Symbolic and Oral Communication
English Composition (6 hours)
ENGL 1113 Principles of English Composition 3
ENGL 1213 Principles of English Composition 3
or EXPO 1213 Expository Writing
Language (0-13 hours in the same language)
The college requirement cannot be met by high school coursework.
Beginning Course 0-5
Beginning Course, continued 0-5
${\text { Intermediate Course (2000 level) }{ }^{1,2}}^{\text {1,3 }}$
Mathematics (3 hours)
Choose one course from the General Education Mathematics

Core Area II: Natural Science (7 hours, including one laboratory component)
Biological Science
Choose an approved General Education Natural Science course with one of the following prefixes: BIOL, HES, MBIO, or PBIO ${ }^{1}$
Physical Science
Choose an approved General Education Natural Science 3-4 course with one of the following prefixes: AGSC, ASTR, CHEM, GEOG, GEOL, GPHY, METR, or PHYS ${ }^{1}$

Core Area III: Social Science (6 hours)

| P SC $1113 \quad 3$ |  |
| :--- | :---: |
| Choose one course from the General Education Social <br> Science list <br> Core Area IV: Arts and Humanities (18 hours) | 3 |
| Artistic Forms <br> Choose one course from the General Education Artistic Forms <br> list | 3 |
| Western Culture $\quad$ United States to 1865 <br> HIST 1483 <br> or HIST 1493 United States, 1865 to the Present | 3 |
| Choose one course from the General Education Western <br> Culture list (excluding HIST 1483/1493) <br> World Culture <br> Choose one course from the General Education World Culture <br> list | 3 |
| Additional Core IV Upper-Division Arts \& Humanities courses |  |
| Choose one course from Artistic Forms, Western Culture, or <br> World Culture 1,3 | 3 |
| Choose one course from Artistic Forms, Western Culture, or <br> World Culture 1,3 | 3 |
| Core Area V: First Year Experience (3 hours) | 3 |
| Choose one course | 3 |
| Total Credit Hours | 3 |

${ }^{1}$ College of Arts and Sciences Requirements: college requirements are not automatically fulfilled by a previous degree.
${ }^{2}$ One course at the intermediate level or demonstrated competency at that level
${ }^{3} 6$ upper-division hours, 2 courses, at the 3000-4000-level. Must be outside the major.

## Free Electives

Electives to bring total applicable hours to the minimum total required for the degree including 48 upper-division hours.

## Information Concerning General Rules, Regulations and Minimum Requirements

Arts and Sciences Hours: At least 80 semester hours of liberal arts and sciences courses are required for a BA degree. At least 55 semester hours of liberal arts and sciences courses are required for a BS degree. Pass/No Pass Enrollment: A maximum of 16 semester hours of free elective credit may be attempted under this option.
Individual Studies (e.g., courses titled "Independent Study"): A maximum of 12 total semester hours may be counted toward graduation, excluding Honors Reading and Honors Research.
P.E. Courses: No physical education activity courses will be counted toward the 120 semester hours of acceptable credit for graduation. Senior Institution Hours: A minimum of 60 semester hours applied toward graduation must be earned at senior (4-year) institutions. Residency:

- At least 15 of the final 30 hours applied toward the degree or at least 50 percent of the hours required by the institution in the major field must be satisfactorily completed at the awarding institution.
- At least 15 semester hours of upper-division major work must be completed in residence at OU.
- OU correspondence courses are not considered resident credit.

Grade Point Averages: Students must earn a minimum over all 2.00 for each of the following: Combined Retention GPA (all college grades), OU Retention GPA, GPA for all major courses, and GPA for all major courses taken at OU. Some schools and departments of the College have higher minimum grade point averages required for their students.

## Suggested Semester Plan of Study

This plan shows one possible grouping of courses that would allow students to graduate in four years. Please refer to the front of the degree checksheet for official requirements. Students must consult with Dodge College of Arts and Sciences and Department of Sociology academic advisors to verify that courses selected each semester fulfill the recommended plan and satisfy University, College of Arts and Sciences, and Sociology major requirements.

## Freshman

| First Semester | Credit <br> Hours |  |
| :--- | ---: | ---: |
| ENGL 1113 | Principles of English Composition (Core I) | 3 |
| Math (Core I) | 3 |  |
| Beginning Language (Core I) | 5 |  |
| Natural Science with lab (Core II) | 4 |  |
| Credit Hours | $\mathbf{1 5}$ |  |

## Second Semester

$\left.\begin{array}{|cc|}\hline \begin{array}{c}\text { ENGL } 1213 \\ \text { or EXPO 1213 }\end{array} & \begin{array}{c}\text { Principles of English Composition (Core I) } \\ \text { or Expository Writing }\end{array} \\ \text { SOC } 1113 & \text { Introduction to Sociology }\end{array}\right\}$
Beginning Language continued (Core I) 5
First Year Experience (Core V) 3

## Sophomore

## First Semester

| P SC 1113 | American Federal Government (Core III) | 3 |
| :--- | :--- | :--- |
| SOC $3123^{\text {SO }}$ ) | 3 |  |
| SOC 3363 | Social Statistics $^{1}$ | 3 |

Intermediate Language 3

| Artistic Forms (Core IV) | 3 |
| :---: | ---: |
| Credit Hours | 15 |

## Second Semester

| HIST 1483 <br> or HIST 1493 | United States to 1865 (Core IV) <br> or United States, 1865 to the Present | 3 |
| :--- | ---: | ---: |
| SOC 3133 | Methods of Social Research ${ }^{1}$ | 3 |
| Natural Science without lab (Core II) | 3 |  |
| World Culture (Core IV) | 3 |  |
| Western Culture (Core IV) | 3 |  |
| Credit Hours | $\mathbf{1 5}$ |  |

## Junior

| First Semester |  |
| :--- | :--- |
| SOC Substantive Area Major Requirement | 3 |
| SOC Substantive Area Major Requirement | 3 |
| Arts \& Humanities, upper-division, outside major (Gen. Ed.) | 3 |


Choose four courses from the Criminology Substantive list 12
(p. 726)

## Major Elective Courses

Choose two additional Sociology courses not listed in 6
Criminology Substantive Courses
Total Credit Hours

## NOTES

- PHIL 1113 Intro. to Logic will not satisfy the prerequisite to enroll in SOC 3123 Social Statistics or SOC 3133 Methods of Social Research.
- Both SOC 3123 and SOC 3133 must be completed with a grade of C or higher BEFORE the capstone.
- The capstone course should be taken the FINAL SEMESTER in residence at the university. It is only offered in Spring and Fall semesters.
- We suggest using free elective hours to help students utilize their academic skills after graduation by completing a minor or any service-learning designated class. Service-learning designated classes can be found by searching for SERV when enrolling. These classes are also very beneficial: CAS 3091 Career Planning for Arts \& Sciences and CAS 4113 Life After OU-Survival Course


## Criminology Substantive Courses

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| SOC 3363 | Sociological Theory | 3 |
| SOC 3533 | The System of Criminal Justice | 3 |
| SOC 3543 | Sociology of Deviance | 3 |
| SOC 3553 | Sociology of Law | 3 |
| SOC 3623 | Sociology of Race and Ethnicity | 3 |
| SOC 3683 | Wealth, Power, and Prestige | 3 |
| SOC 3900 | Special Topics in Sociology | 3 |
| SOC 3903 | The Sociology of Urban Street Gangs | 3 |
| SOC 3913 | The Death Penalty in the United States | 3 |
| SOC 3923 | Alcohol, Drugs and Society | 3 |
| SOC 3953 | Juvenile Justice | 3 |
| SOC 3963 |  | 3 |
| SOC 3973 | Sociology of Violence | 3 |
| SOC 3983 | Women, Girls and Crime | 3 |
| SOC 4603 | Internship in Sociology | 3 |

## General Education and College Requirements

Courses for fulfillment of General Education and Dodge College of Arts \& Sciences requirements must be from the approved General Education course list published in the Class Schedule or at http://www.ou.edu/ gened/courses. Courses graded P/NP will not apply.

## UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS

Code Title Credit Hours

| Core Area I: Symbolic and Oral Communication |
| :--- |
| English Composition (6 hours) |
| ENGL 1113 |$\quad$ Principles of English Composition $\quad 38$

## Free Electives

Electives to bring total applicable hours to the minimum total required for the degree including 48 upper-division hours.

## Information Concerning General Rules, Regulations and Minimum Requirements

Arts and Sciences Hours: At least 80 semester hours of liberal arts and sciences courses are required for a BA degree. At least 55 semester hours of liberal arts and sciences courses are required for a BS degree. Pass/No Pass Enrollment: A maximum of 16 semester hours of free elective credit may be attempted under this option.
Individual Studies (e.g., courses titled "Independent Study"): A maximum of 12 total semester hours may be counted toward graduation, excluding Honors Reading and Honors Research.
P.E. Courses: No physical education activity courses will be counted toward the 120 semester hours of acceptable credit for graduation. Senior Institution Hours: A minimum of 60 semester hours applied toward graduation must be earned at senior (4-year) institutions.
Residency:

- At least 15 of the final 30 hours applied toward the degree or at least 50 percent of the hours required by the institution in the major field must be satisfactorily completed at the awarding institution.
- At least 15 semester hours of upper-division major work must be completed in residence at OU.
- OU correspondence courses are not considered resident credit.

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## Suggested Semester Plan of Study

This plan shows one possible grouping of courses that would allow students to graduate in four years. Please refer to the front of the degree checksheet for official requirements. Students must consult with Dodge College of Arts and Sciences and Department of Sociology academic advisors to verify that courses selected each semester fulfill the recommended plan and satisfy University, College of Arts and Sciences, and Sociology major requirements.

| Freshman |  |
| :---: | :---: |
| First Semester | Credit |
|  | Hours |
| ENGL 1113 Principles of English Composition (Core I) | 3 |
| Math (Core I) | 3 |
| Beginning Language (Core I) | 5 |
| Natural Science with lab (Core II) | 4 |
| Credit Hours | 15 |
| Second Semester |  |
| $\begin{array}{cc}\text { ENGL } 1213 & \text { Principles of English Composition (Core I) } \\ \text { or EXPO } 1213 & \text { or Expository Writing }\end{array}$ | 3 |
| SOC 1113 Introduction to Sociology | 3 |
| Beginning Language continued (Core I) | 5 |
| First Year Experience (Core V) | 3 |
| Credit Hours | 14 |

## Sophomore

## First Semester

| P SC 1113 | American Federal Government (Core III) | 3 |
| :--- | :--- | ---: |
| SOC 3123 | Social Statistics ${ }^{1}$ | 3 |
| SOC 3523 | Criminology | 3 |
| Intermediate Language | 3 |  |
| Artistic Forms (Core IV) |  | 3 |
| Credit Hours | $\mathbf{1 5}$ |  |

## Second Semester

| HIST 1483 <br> or HIST 1493 | United States to 1865 (Core IV) <br> or United States, 1865 to the Present | 3 |
| :---: | :---: | :---: |
| SOC 3133 | Methods of Social Research ${ }^{1}$ | 3 |

Natural Science without lab (Core II) ..... 3
Western Culture (Core IV) ..... 3
Free Elective, Iower-division ..... 3
Credit Hours ..... 15
Junior
First Semester
SOC Criminology Substantive Major Requirement ..... 3
SOC Criminology Substantive Major Requirement ..... 3
Arts \& Humanities, upper-division, outside major (Gen. Ed.) ..... 3
Free Elective, lower- or upper-division ..... 3
Free Elective, lower- or upper-division ..... 3
Credit Hours ..... 15
Second Semester
SOC Criminology Substantive Major Requirement ..... 3
Arts \& Humanities, upper-division, outside major (Gen. Ed.) ..... 3
World Culture (Core IV) ..... 3
Free Elective, lower- or upper-division ..... 3
Free Elective, lower- or upper-division ..... 3
Credit Hours ..... 15
Senior
First Semester
SOC Sociology/Criminology Elective Major Requirement ..... 3
SOC Criminology Substantive Major Requirement ..... 3
Free Elective, Iower-division ..... 3
Free Elective, lower- or upper-division ..... 3
Free Elective, lower- or upper-division ..... 1
Free Elective, upper-division (3000-4000-level) ..... 3
Second SemesterSOC Sociology/Criminology Elective Major Requirement 3
Free Elective, upper-division (3000-4000-level) ..... 3
Free Elective, upper-division (3000-4000-level) ..... 3
Free Elective, upper-division (3000-4000-level) ..... 3


# Sociology - General, Minor 

Minimum Total Credit Hours: 18
Minimum Upper-Division Hours: 9

## Program Code: N845

- The requirements for a minor must be completed concurrently with the major degree requirements.
- No minor may be added by completing courses after receiving the bachelor's degree.

At least six (6) credit hours must be earned in courses acceptable for residence credit by standards set forth by the Dodge College of Arts and Sciences, excluding transfer, correspondence, and examination (AP, CLEP, Advanced Standing) credit. Courses for the minor may not be taken Pass/ No Pass.

## No single course may be used by a student to satisfy a major requirement

 and a minor requirement. A course may be used, however, to satisfy both a major support requirement and a minor requirement.Requests to substitute a minor requirement must be approved in writing by the Department of Sociology.

## Required Courses

Students must successfully complete at least 18 hours of courses acceptable for major credit in Sociology, including at least nine (9) hours at the upper-division level. SOC 3890 will not count toward this total.

| Code | Title | Credit <br> Hours |
| :--- | ---: | ---: |
| Required Course | 3 |  |
| SOC 1113 | Introduction to Sociology | 12 |
| Electives |  |  |
| Choose four courses from the Sociology Minor Electives list <br> (p. 728) | 3 |  |
| Choose one additional course in Sociology at the 3000-level <br> or above |  |  |

Total Credit Hours 18

1 Excluding Directed Readings, Independent Study, Internship courses, and courses taken through the Independent Study department.

| Sociology Minor Electives |  |  |
| :--- | :--- | ---: |
| Code | Title | Credit <br> Hours |
| SOC 1523 | Social Problems | 3 |
| SOC 3523 | Criminology | 3 |
| SOC 3533 | The System of Criminal Justice | 3 |
| SOC 3543 | Sociology of Deviance | 3 |
| SOC 3603 |  | 3 |
| SOC 3623 | Sociology of Race and Ethnicity | 3 |
| SOC 3643 | Population and Society | 3 |
| SOC 3683 | Wealth, Power, and Prestige | 3 |
| SOC 3713 | Medical Sociology | 3 |
| SOC 3723 | Sociology of Family | 3 |
| SOC 3733 | Sociology of Gender | 3 |


| SOC 3803 | Inequality in A Global Perspective | 3 |
| :--- | :--- | :--- |
| SOC 3813 | Individual and Society | 3 |
| SOC 3843 | Sociology of Aging | 3 |
| SOC 3873 |  | 3 |

- Minors in the Dodge College of Arts \& Sciences are available to all undergraduate students at OU. If the minor is officially declared, successfully completed, and noted on the graduation application, the student's transcript will so indicate at the time the bachelor's degree is posted.


## Sociology - Criminology, Minor

Minimum Total Credit Hours: 18
Minimum Upper-Division Hours: 9

## Program Code: N846

- The requirements for a minor must be completed concurrently with the major degree requirements.
- No minor may be added by completing courses after receiving the bachelor's degree.

At least six (6) credit hours must be earned in courses acceptable for residence credit by standards set forth by the Dodge College of Arts and Sciences, excluding transfer, correspondence, and examination (AP, CLEP, Advanced Standing) credit. Courses for the minor may not be taken Pass/ No Pass.

## No single course may be used by a student to satisfy a major requirement

 and a minor requirement. A course may be used, however, to satisfy both a major support requirement and a minor requirement.Requests to substitute a minor requirement must be approved in writing by the Department of Sociology.

## Required Courses

Students must successfully complete at least 18 hours of courses acceptable for major credit in Sociology, including at least nine (9) hours at the upper-division level. SOC 3890 will not count toward this total.

| Code Title | Credit |
| :--- | :--- |
|  | Hours |

## Required Courses

| SOC 1113 | Introduction to Sociology | 3 |
| :---: | :---: | :---: |
| SOC 3523 | Criminology | 3 |
| SOC 3533 | The System of Criminal Justice | 3 |
| $\begin{aligned} & \text { SOC } 3543 \\ & \quad \text { or SOC } 3553 \end{aligned}$ | Sociology of Deviance Sociology of Law | 3 |
| Electives |  |  |
| Choose two add Sociology ${ }^{1}$ | ional 3000- or 4000-level courses in | 6 |

Total Credit Hours
1 Excluding Directed Readings, Independent Study, Internship courses, and courses taken through the Independent Study department.

- Minors in the Dodge College of Arts \& Sciences are available to all undergraduate students at OU. If the minor is officially declared, successfully completed, and noted on the graduation application, the
student's transcript will so indicate at the time the bachelor's degree is posted.

Sociology, B.A./M.A.

Minimum Total Credit Hours: 135-142
Major Hours: 33
Minimum Upper-Division Hours: 48

Overall GPA - Combined and OU: 3.00
Major GPA - Combined and OU: 3.00
Program Code: A845/F845

## Undergraduate Major Requirements

- Some courses required for the major may also fulfill University General Education and/or Dodge College of Arts \& Sciences Requirements.

| Code | Title | Credit Hours |
| :---: | :---: | :---: |
| Sociology Core (15 hours) |  |  |
| SOC 1113 | Introduction to Sociology | 3 |
| SOC 3123 | Social Statistics | 3 |
| SOC 3133 | Methods of Social Research | 3 |
| SOC 3363 | Sociological Theory | 3 |
| SOC 4943 | Capstone in General Sociology | 3 |
| Substantive Area Courses (15 hours) |  |  |
| Choose 5 (p. 729) | from the Substantive Area course list. | 15 |
| Elective Courses (3 hours) |  |  |
| Choose on from the S | ional Sociology course. May be selected tive Area course list. | 3 |

Total Credit Hours

- NOTE: Students will need to take free electives to meet the minimum required total and upper-division hours for the Bachelor's Degree. Using some of these hours to complete a minor is suggested. Minors cannot be completed after the Bachelor's Degree is awarded.


## M.A. Component Requirements

| Code | Title | Credit <br> Hours |
| :---: | :---: | :---: |
| Graduate Core (19 hours) |  |  |
| SOC 5283 | Fundamentals of Sociological Statistics (shared with undergraduate degree) ${ }^{1}$ | 3 |
| SOC 5293 | Advanced Methods of Social Research (shared with undergraduate degree) | 3 |
| SOC 5483 | Advanced Regression Analysis (shared with undergraduate degree) ${ }^{1}$ | 3 |
| SOC 5683 | Categorical, Panel, and Advanced Statistical Analyses (shared with undergraduate degree) ${ }^{1}$ | 3 |
| SOC 5821 | Professionalization Seminar ${ }^{1}$ | 1 |
| SOC 5933 | Sociological Theory ${ }^{1}$ | 3 |
| SOC 5980 | Research for Master's Thesis (3 hours) | 3 |

[^21]| Choose 15 hours of graduate-level elective coursework. ${ }^{\text {2,3 }}$ | 5 |
| :---: | :---: |
| Total Credit Hours | 34 |
| ${ }^{1}$ Shared courses (12-19 hours) will count in both the Undergraduate and Graduate GPAs. |  |
| ${ }^{2} 12$ or more hours must be housed in the Department of S the 5000 -level or above. The remaining 3 hours of gradua may be SOC 5960 Directed Readings, a cross-listed cour outside the department, or another course outside the dep |  |
| ${ }^{3}$ One elective course (3 hours) may be shared with the un degree. |  |

## Substantive Area Course List

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| SOC 2523 |  | 3 |
| SOC 3523 | Criminology | 3 |
| SOC 3533 | The System of Criminal Justice | 3 |
| SOC 3623 | Sociology of Race and Ethnicity | 3 |
| SOC 3643 | Population and Society | 3 |
| SOC 3683 | Wealth, Power, and Prestige | 3 |
| SOC 3713 | Medical Sociology | 3 |
| SOC 3723 | Sociology of Family | 3 |
| SOC 3733 | Sociology of Gender | 3 |
| SOC 3773 | Sociology of Religion | 3 |
| SOC 3783 |  | 3 |
| SOC 3803 | Inequality in A Global Perspective | 3 |
| SOC 3813 | Individual and Society | 3 |
| SOC 3843 | Sociology of Aging | 3 |
| SOC 3853 |  | 3 |
| SOC 3873 |  | 3 |
| SOC 4603 | Internship in Sociology | 3 |

## General Education and College Requirements

Courses for fulfillment of General Education and Dodge College of Arts \& Sciences requirements must be from the approved General Education course list published in the Class Schedule or at http://www.ou.edu/ gened/courses. Courses graded P/NP will not apply.

## UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS <br> Code Title Credit Hours

Core Area I: Symbolic and Oral Communication
English Composition (6 hours)
ENGL 1113 Principles of English Composition 3
ENGL 1213 Principles of English Composition 3
or EXPO 1213 Expository Writing
Language (0-13 hours in the same language)
The college requirement cannot be met by high school coursework.
Beginning Course 0-5
Beginning Course, continued 0-5
$\begin{array}{ll}\text { Intermediate Course (2000 level) }{ }^{1,2} & 0-3\end{array}$
Mathematics (3 hours)


## Free Electives

Electives to bring total applicable hours to the minimum total required for the degree including 48 upper-division hours.

## Information Concerning General Rules, Regulations and Minimum Requirements

Arts and Sciences Hours: At least 80 semester hours of liberal arts and sciences courses are required for a BA degree. At least 55 semester hours of liberal arts and sciences courses are required for a BS degree. Pass/No Pass Enrollment: A maximum of 16 semester hours of free elective credit may be attempted under this option.

Individual Studies (e.g., courses titled "Independent Study"): A maximum of 12 total semester hours may be counted toward graduation, excluding Honors Reading and Honors Research.
P.E. Courses: No physical education activity courses will be counted toward the 120 semester hours of acceptable credit for graduation. Senior Institution Hours: A minimum of 60 semester hours applied toward graduation must be earned at senior (4-year) institutions.
Residency:

- At least 15 of the final 30 hours applied toward the degree or at least 50 percent of the hours required by the institution in the major field must be satisfactorily completed at the awarding institution.
- At least 15 semester hours of upper-division major work must be completed in residence at OU.
- OU correspondence courses are not considered resident credit.

Grade Point Averages: Students must earn a minimum over all 2.00 for each of the following: Combined Retention GPA (all college grades), OU Retention GPA, GPA for all major courses, and GPA for all major courses taken at OU. Some schools and departments of the College have higher minimum grade point averages required for their students.

## Suggested Semester Plan of Study

This plan shows one possible grouping of courses that would allow students to graduate in four years. Please refer to the front of the degree checksheet for official requirements. Students must consult with Dodge College of Arts and Sciences and Department of Sociology academic advisers to verify that courses selected each semester fulfill the recommended plan and satisfy University, College of Arts and Sciences, and Sociology major requirements.

## Freshman

## First Semester Credit

 HoursENGL 1113 Principles of English Composition (Core I) 3
General Education Math (Core I) 3
Beginning Language (Core I) 5

| Gen Ed Natural Science with Lab (Core II) | 4 |
| :--- | :--- |

Credit Hours 15

## Second Semester

ENGL 1213 Principles of English Composition (Core I) 3
or EXPO 1213 or Expository Writing
SOC 1113 Introduction to Sociology 3
Beginning Language continued (Core I) 5
First Year Experience (Core V)
Credit Hours
11
Sophomore

## First Semester

P SC 1113 American Federal Government (Core III) 3
SOC 3123 Social Statistics ${ }^{1} 3$
SOC 3363 Sociological Theory 3
Intermediate Language 3
Artistic Forms (Core IV) 3

Credit Hours 15

## Second Semester

HIST $1483 \quad$ United States to 1865 (Core IV- US History)
or HIST 1493 or United States, 1865 to the Present

| SOC 3133 | Methods of Social Research ${ }^{1}$ | 3 |
| :---: | :---: | :---: |
| SOC Substantive Area Major Requirement ${ }^{2}$ |  | 3 |
| World Culture (Core IV) |  | 3 |
| Western Culture (Core IV) |  | 3 |
| Credit Hours |  | 15 |
| Junior |  |  |
| First Semester |  |  |
| SOC Substantive Area Major Requirement ${ }^{2}$ |  | 3 |
| SOC Substantive Area Major Requirement ${ }^{2}$ |  | 3 |
| SOC Substantive Area Major Requirement ${ }^{2}$ |  | 3 |
| SOC Elective Major requirement ${ }^{3}$ |  | 3 |
| Arts \& Humanities, upper-division, outside major (Gen Ed) |  | 3 |
| Credit Hours |  | 15 |
| Second Semester |  |  |
| SOC Substantive Area Major Requirement ${ }^{1}$ |  | 3 |
| Natural Science without lab (Core II) |  | 3 |
| Arts \& Humanities, upper-division, outside major (Gen Ed) |  | 3 |
| Free Elective, upper-division (3000-4000-level) |  | 3 |
| Free Elective, upper-division (3000-4000-level) |  | 3 |
| Credit Hours |  | 15 |
| Senior |  |  |
| First Semester |  |  |
| SOC 4943 | Capstone in General Sociology | 3 |
| SOC 5283 | Fundamentals of Sociological Statistics ${ }^{4}$ | 3 |
| SOC 5933 | Sociological Theory ${ }^{4}$ | 3 |
| Free Elective, upper-division (3000-4000-level) |  | 3 |
| Free Elective, upper- or lower-division |  | 0-4 |
|  | Credit Hours | -16 |

## Second Semester

| SOC 5293 | Advanced Methods of Social Research ${ }^{4}$ | 3 |
| :--- | ---: | ---: |
| SOC 5821 | Professionalization Seminar ${ }^{4}$ | 1 |
| SOC 5483 | Advanced Regression Analysis ${ }^{4}$ | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |  |
| Free Elective, upper-division (3000-4000-level) | 3 |  |
| Free Elective, lower- or upper-division | $0-3$ |  |
| Credit Hours | $\mathbf{1 3 - 1 6}$ |  |

## Fifth Year

First Semester

| $\begin{array}{ll}\text { SOC } 5683 & \begin{array}{l}\text { Categorical, Panel, and Advanced } \\ \\ \text { Statistical Analyses }{ }^{4}\end{array}\end{array}$ | 3 |
| :---: | :---: |
| SOC Graduate Elective ${ }^{4}$ | 3 |
| SOC Graduate Elective | 3 |
| SOC Graduate Elective | 3 |
| Credit Hours | 12 |
| Second Semester |  |
| SOC 5980 Research for Master's Thesis | 3 |
| SOC Graduate Elective | 3 |
| Graduate Elective course | 3 |
| Credit Hours | 9 |
| Total Credit Hours | 132-139 |

${ }^{2}$ Must be chosen from the Substantive Area Course List in the Program Requirements.
${ }^{3}$ Includes courses not used to fulfill Substantive Area requirements.
4 Up to 19 shared hours between BA and MA degrees possible if SOC 5683 and SOC Grad Elective are taken in the Senior year instead of Free Electives.

## Sociology, M.A.

Minimum Total Hours (Thesis): 34

## Program Code: M845

- This program is Thesis Only.


## Required Courses

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Required Courses |  |  |
| SOC 5283 | Fundamentals of Sociological Statistics | 3 |
| SOC 5293 | Advanced Methods of Social Research | 3 |
| SOC 5483 | Advanced Regression Analysis | 3 |
| SOC 5683 | Categorical, Panel, and Advanced <br> Statistical Analyses | 3 |
| SOC 5821 | Professionalization Seminar | 1 |
| SOC 5933 | Sociological Theory | 3 |
| SOC 5980 | Research for Master's Thesis | 3 |
| Electives |  | 15 |
| Choose 15 hours of elective coursework ${ }^{1}$ | 34 |  |
| Total Credit Hours |  |  |

112 or more hours must be housed in the Department of Sociology at the 5000 -level or above. The remaining 3 hours of electives may be Directed Readings (SOC 5960), a cross-listed course housed outside the department or another course outside the department.

## General Requirements for all Master's Degrees

The master's degree requires the equivalent of at least two semesters of satisfactory graduate work and additional work as may be prescribed for the degree.

All coursework applied to the master's degree must carry graduate credit.
Master's degree programs which require a thesis consist of at least 30 credit hours. All non-thesis master's degree programs require at least 30 credit hours.

Credit transferred from other institutions must meet specific criteria and is subject to certain limitations.

Courses completed through correspondence study may not be applied to the master's degree.

To qualify for a graduate degree, students must achieve an overall grade point average of 3.0 or higher in the degree program coursework and in all resident graduate coursework attempted. A student must also have at least a 3.0 in all coursework (including undergraduate coursework if any).

[^22]Additional information for master's degree students may be found in the Graduate College Bulletin.

# Applied Research and Program Evaluation, Graduate Certificate 

Minimum Total Hours: 15
Program Code: G210

## Certificate Requirements Program Requirements

| Code | Title | Credit |
| :---: | :---: | :---: |
|  |  | Hours |
| Required Courses |  |  |
| SOC 5143 | Program Evaluation | 3 |
| SOC 5713 | Program Evaluation Practicum | 3 |
| Research Methods and Statistics Electives Courses |  |  |
| Choose 9 credit hours from the electives course list maintained by the department or approved by the Graduate College. (p. 732) |  |  |
| Total Credit Hours |  | 15 |
| A graduate certificate is not a graduate degree. A graduate degree represents a program of independent inquiry beyond the depth of coursework alone, while a graduate certificate represents a set of courses only. |  |  |

- All courses must be taken at OU. No transfer credit will apply.
- No course substitutions are permitted for graduate certificates.
- Coursework applied to a graduate certificate cannot be more than five years old as of the semester the graduate certificate is awarded.
- Students must earn a grade point average of 3.00 or higher on all coursework applied to the graduate certificate.


## Applied Research and Program Evaluation Electives Course List

- For the most current list of approved electives, please consult the Department of Sociology.

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| ANTH 5083 | Quantitative Methods in Anthropology | 3 |
| ANTH 5153 | Ethnography of Communication | 3 |
| ANTH 5213 | Ethnographic Methods | 3 |
| ANTH 5543 | Research Design | 3 |
| ANTH 5593 | Spatial Methods and Technologies in | 3 |
|  | Anthropology | 3 |
| COMM 5003 | Quantitative Research Methods | 3 |
| COMM 5023 | Introduction to Quantitative Research |  |
|  | Methods | 3 |
| COMM 5033 | Advanced Statistics | 3 |
| COMM 5053 | Introduction to Qualitative Research |  |
|  | Methods | 3 |


| COMM 5323 | Advanced Qualitative Research | 3 |
| :---: | :---: | :---: |
| EIPT 5023 | Analysis of Quantitative Data I | 3 |
| EIPT 5033 | Introduction to Research and Evaluation in Education | 3 |
| EIPT 6023 | Analysis of Quantitative Data II | 3 |
| EIPT 6043 | Qualitative Research Methods | 3 |
| EIPT 6063 | Applied Multivariate Statistics in Educational Research | 3 |
| EIPT 6073 | Program Evaluation | 3 |
| P SC 5143 | Program Evaluation and Applied Policy Analysis | 3 |
| P SC 5913 | Introduction to Analysis of Political and Administrative Data | 3 |
| P SC 5923 | Introduction to Analysis of Political Data | 3 |
| P SC 5933 | Intermediate Analysis of Political Data | 3 |
| P SC 5950 | Research Problems | 3 |
| PSY 5003 | Psychological Statistics I | 3 |
| PSY 5013 | Psychological Statistics II | 3 |
| PSY 6013 | Factor Analysis and Structural Equation Models | 3 |
| PSY 6023 | Statistical Models of Tests Scores | 3 |
| PSY 6063 | Seminar in Quantitative Psychology | 3 |
| PSY 6073 | Experimental Design for Psychology | 3 |
| PSY 6223 | Quantitative Models in Cognition | 3 |
| SOC 5283 | Fundamentals of Sociological Statistics | 3 |
| SOC 5293 | Advanced Methods of Social Research | 3 |
| SOC 5313 | Qualitative Research Methods | 3 |
| SOC 5483 | Advanced Regression Analysis | 3 |
| SOC 5683 | Categorical, Panel, and Advanced Statistical Analyses | 3 |

Other relevant social science, policy science, behavioral science courses in research methods and statistics. (Students must seek approval for courses other than those listed above).

## Sociology, Ph.D.

Minimum Total Hours: 90

## Program Code: D845

## This program has changes for 2024 pending approval by the OU Board of Regents which are not reflected here. <br> Program Requirements

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Required Courses (20 hours) |  |  |
| SOC 5283 | Fundamentals of Sociological Statistics | 3 |
| SOC 5293 | Advanced Methods of Social Research | 3 |
| SOC 5483 | Advanced Regression Analysis | 3 |
| SOC 5683 | Categorical, Panel, and Advanced | 3 |
|  | Statistical Analyses |  |
| SOC 5821 | Professionalization Seminar | 1 |
| SOC 5831 | Teaching Seminar | 1 |
| SOC 5933 | Sociological Theory | 3 |


| SOC $6903 \quad$ Issues in Sociological Theory | 3 |
| :--- | ---: |
| Dissertation Research (2 hour minimum, 24 hour maximum)  <br> SOC 6980$\quad$ Research for Doctoral Dissertation $2-24$ <br> Additional Coursework  <br> Additional graduate credit hours as needed to reach 90 post- <br> baccalaureate hours, with approval by doctoral advisory <br> committee 46-68 |  |

Total Credit Hours
1 Minimum of 46 hours, at least 33 hours must be housed in the Department of Sociology at the 5000-level or above. 12 hours of electives may be Directed Readings (5960), cross-listed courses housed outside the department, or other courses outside the department.

A maximum of 34 credit hours may be transferred from other universities with the permission of a student's advisory committee and the dean of the Graduate College.

## General Requirements for Doctoral Degrees

A student should expect to spend at least the equivalent of three full academic years beyond the bachelor's degree to obtain the doctoral degree. During this period the student will take appropriate graduate coursework, successfully complete the general examination, and successfully defend and submit the final dissertation.

All coursework applied to the doctoral degree must carry graduate credit.
The doctoral degree requires at least 90 post-baccalaureate hours, including both formal coursework and hours of research.

The minimum hour requirement for a specific doctoral degree program cannot be waived.

No more than one-half of the credit hours, both OU and overall, excluding Research for Doctoral Dissertation (6980), may be S/U-graded coursework.

The student must be in residence at OU for at least two consecutive 16week semesters during the pursuit of the doctoral degree while enrolled and engaged in coursework or research activities as prescribed by the major academic unit.

For more detailed regulations and requirements for Doctoral degrees, please consult the Graduate College Bulletin: http://www.ou.edu/ gradcollege/forms/bulletin

## Department of Women's and Gender Studies

Traci Brynne Voyles, Chair
Robertson Hall 103
731 Elm Avenue
Norman, OK 73019-3105
Phone: (405) 325-3481
wgs@ou.edu
wgs.ou.edu

3 General Information
The OU Women's and Gender Studies Department was the first in the state of Oklahoma to offer an undergraduate major in the discipline. Our students explore the operations of power through the workings of gender and sexuality as understood across cultures and history. Women's and Gender Studies courses employ intersectional perspectives in the study of such diverse phenomena as music, art, war, political activism, religion, communication, family life, and popular culture.

Through coursework, service learning and internships our students learn critical thinking, writing, public speaking, organization, conflict resolution, and project design. The transdisciplinary and intersectional perspectives students gain in the Department of Women's and Gender Studies enable them to achieve their highest potential in their chosen field and as citizens of diverse local and global communities. Women's and Gender Studies majors and minors have found work in for-profit and not-for-profit organizations, social help agencies, human rights advocacy, and victim's advocacy. Others have pursued graduate study in law, medicine, human relations, education, business, information science, communications, fine arts, and public health.

## Programs \& Facilities <br> The WGS Center for Social Justice

The WGS Center for Social Justice is committed to the pursuit of justice, equality, and rights through local and global community engagement. Toward that end, we embrace interdisciplinary approaches to teaching, research, and creative praxis. The CSJ offers a platform for social and ecological justice advocacy and awareness, while creating opportunities for students to create positive change.

## WGS Library

The Women's and Gender Studies Library was created thanks to a generous gift from the Cousin's Family. On October 16, 1998, Charles Cousins was honored at a reception dedicating the Women's and Gender Studies Library.

## Scholarships and Financial Aid

## Student Travel Awards

The Women's and Gender Studies Department makes available travel awards to students with a declared WGS major/minor/certificate to support the cost of attending a conference, research trip, or special event. Awards are available on a rolling basis.

## Alice Mary Robertson Award

The Alice Mary Robertson award was established to honor the memory of Alice Mary Robertson, Oklahoma's first female representative in the United States Congress. The purpose of the award is to stimulate an interest among graduate students in the study and interpretation of the contributions made by women to the culture and progress of Oklahoma as well as to awaken the public to a greater appreciation of these contributions. The award is a one-time award to a graduate student whose creative activity and/or scholarly or archival research enhances the appreciation of these contributions. Any graduate student currently enrolled at the University of Oklahoma or Tulsa campuses may submit an application for this award. A committee selects the recipients during the spring semester, based on an evaluation of the creative or research activity.

## Undergraduate Study

## Bachelor of Arts

Students undertaking a Bachelor of Arts (p. 739) in Women's and Gender Studies explore the operations of power through the workings of gender and sexuality as understood across cultures and history. Women's and Gender Studies courses employ intersectional perspectives in the study of such diverse phenomena as music, art, war, political activism, religion, communication, family life, and popular culture.

Women's and Gender Studies students learn a variety of skills including critical thinking, writing, public speaking, organization, conflict resolution, diversity training and project design. The interdisciplinary and global perspectives students gain in the Department of Women's and Gender Studies enables them to achieve their highest potential in their chosen field of study and as citizens of the global community.

## Minors

The LGBTQ Studies Minor (p. 741) provides students with an intersectional analysis of how LGBTQ identities and community have been (and continue to be) shaped historically, socially, philosophically, culturally, medically, and scientifically. It creates a space for critical inquiry around how sexual and gender minorities are affected by society's normative perceptions and practices, while also exploring ways various LGBTQ communities and individuals have responded.

The Social Justice Minor (p. 742) engages students with the complexities and critical analysis of structural inequalities and injustices. Students will learn to utilize multidisciplinary and feminist approaches that recognize the struggles for liberation and the importance of social movements, advocacy, and activism locally and globally.

The Women's and Gender Studies Minor (p. 743) can easily be combined with many majors including Education, English, History, Human Relations, Journalism and Mass Communication, Music, Modern Languages, Political Science, Psychology, Sociology and Social Work.

## Graduate Study

## Graduate Certificate

The Women's and Gender Studies (p. 744) Graduate Certificate provides an interdisciplinary and intersectional graduate education focusing on feminist thought and methodologies.

The certificate can be taken to complement an existing degree program for OU graduate students. Non-degree students may enroll directly in the certificate program, which can help them with career goals in areas such as education and non-profit work.

## Courses

LGBT 1003 Introduction to LGBTQ Studies 3 Credit Hours Covers expansive fields of Lesbian, Gay, Bisexual, Trans*, and Queer studies. Includes issues related to lesbian, gay, bisexual, transgender, and queer communities, organizing, and theorizing. Emphasizes different aspects of LGBTQ studies including history, queer theory, popular culture, media, and literature. Examines its relationship with historical and contemporary movements as well as its productive, yet sometimes tenuous, relationship with feminist studies. (F, Sp) [IV-WC].

LGBT 3263 LGBTQ Movements
3 Credit Hours
(Crosslisted with WGS 3263) Prerequisite: WGS 1003 or junior standing. This course will focus on the mainstream gay and lesbian movement in US history, and how that movement shifted from radical to mainstream and the important debates therein. The course will also consider the impact of systems of oppression from colonialism to the US justice system on LGBTQ identity. (Irreg.)
LGBT 3273 Queer Theory
3 Credit Hours
(Crosslisted with WGS 3273) Prerequisite: WGS 1003 or junior standing.
This interdisciplinary course is an introduction to the academic fields and debates within queer theory, specifically, normalization, resistance, and the practice of queering. The central focus is to examine, challenge, critique, and destabilize normative conceptions and representations of not just gender and sexuality but of other categories of being as well. (Irreg.)
LGBT 3823 Queer Religion
3 Credit Hours
(Crosslisted with RELS and WGS 3823) Prerequisite: Junior standing or permission of instructor. This interdisciplinary seminar engages a range of methods and theoretical approaches to queer studies and religion. The course explores questions including: What is the relationship between queer life and religious life? Is religion ever queer? Is queerness ever religious? What do scholars mean when they label religion (or other objects of study) as queer or queer-able? (Irreg.) [IV-WC].

## LGBT 4623 Gender and Children's Culture

3 Credit Hours
(Crosslisted with WGS 4623) Prerequisite: WGS 1003 or LGBT 1003.
Children's culture shapes our identities and environments. This course explores children's culture contexts through feminist and queer frameworks. Key content includes analyzing children's media, video games, books, toys, the environment, academics, and digital cultures while examining how childhood is a context for cultural history and leveraging power. It focuses on children's engagement in world building and knowledge production. (F)
LGBT 4970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: Senior standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)
WGS 1003 Introduction to Women's and Gender Studies 3 Credit Hours Examines women's issues and movements in the U.S. and globally, focusing on the role of gender in people's lives and on the ways it is used to create privilege for some and oppress others. This course challenges traditional, normative notions about gender and sexuality, which are inextricably entwined. Explores how disability, race, and religion intersect with gender and sexual identity. (F, Sp, Su) [IV-WC].
WGS 2033 Introduction to Digital Humanities
3 Credit Hours
(Crosslisted with LIS, HIST and HSTM 2033) This course introduces students to digital and/or computational methods in the humanities and addresses critical questions about the role of digital technology in society. This is a collaborative, hands-on, project-based course. (Sp) [IVWC].

## WGS 2970 Special Topics in WGS <br> 1-4 Credit Hours

Special Topics. 1 to 4 hours. May be repeated; Maximum credit eight hours. Special topics course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research, and field projects. (Irreg.)

WGS 3043 Gender/Power/Ldrshp-Politics
3 Credit Hours
(Crosslisted with P SC 3043) Prerequisite: Political Science 1113.
Focuses on the relationship between gender, power, leadership, and government in politics and public administration. Causes of underrepresentation of women in elected office and the bureaucracy are explored. Historical, social, psychological, and organizational barriers are considered. (Irreg.)
WGS 3063 Topics in United States Women's Movements 3 Credit Hours Prerequisite: WGS 1003 or junior standing. May be repeated with change of content; maximum credit 9 hours. Content will vary but will cover a particular aspect of women's studies, be it history, art, communication, literature, contemporary social problems, theory, or other appropriate area of study. (Irreg.)
WGS 3123 Social Justice and Social Change
3 Credit Hours
Prerequisite: W S 1003 or junior standing. Introduces students to the major theories and principles of social justice, including fairness, equality and justice; applies these concepts to contemporary social issues such as poverty, gender equality, racial and ethnic identity and politics, environmentalism, the social role of media, war, and globalization; and suggests strategies for creating social change and social justice. Includes both an analysis of the major cultural and structural causes of inequality and injustice, and an examination of the most effective responses. (Irreg.) [IV-WC].

## WGS 3133 Medieval Women

3 Credit Hours
(Crosslisted with HIST 3133) Prerequisite: History 1113 or History 1613 or junior standing. Covers social history of women in western Europe from late antiquity to the late Middle Ages. Topics include stages of life, marriage, families, occupation, law, power, health, religion, love and education. (F) [IV-WC].
WGS 3203 Rhetoric and Sexuality
3 Credit Hours
(Crosslisted with ENGL 3203) Prerequisite: ENGL 1213 or EXPO 1213 or the equivalent. Investigates the intersections of rhetoric and sexuality as they function socially, politically, and personally. Development and application of research methods from the field of rhetoric and writing studies with a focus on writing, inquiry and revision. (Irreg.) [l-O].
WGS 3220 WGS Special Topics
1-3 Credit Hours
Prerequisite: WGS 1003 or junior standing. 1 to 3 hours. 3220 preceded by the department name will be a junior level interdisciplinary course in women's studies. May be repeated with change of title and content; maximum credit nine hours. Content will be agreed upon by the departments in cooperation with women's studies. (F, Sp, Su)
WGS 3223 WGS Special Topics
3 Credit Hours
Prerequisite: WGS 1003 or junior standing. 3223 preceded by the department name will be a junior level interdisciplinary course in women's and gender studies. May be repeated with change of title and content; maximum credit twelve hours. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
WGS 3233 Women Creating Social Change
3 Credit Hours
Prerequisite: junior standing or permission of instructor. Overview of how women's organizations developed as part of the women's movement in the 1960's. Examines how women have organized at the local, regional and national levels, both within and across race, class, ethnicity, religion and sexuality. Provides students with a basic understanding of how to create, run and manage a nonprofit organization. (F) [IV-WC].

WGS 3253 Men and Masculinity
3 Credit Hours
Prerequisite: junior standing or W S 1003. Designed as an introduction to the literature and theory that focuses on men and masculinity. Masculinity will be opened for critique and critical inquiry in cross-cultural and cross-historical comparison. The performance of masculinity and attendant judgments of this performance change based upon class, race, ethnicity, sexuality, politics, geography, culture, and language. Our readings are designed to analyze this performance from a number of contextual and sociological angles. Particular emphasis will focus on the way that masculinity and concepts of masculinity have been received and engaged in women's and gender studies, feminism and queer theory. (Irreg.)
WGS 3263 LGBTQ Movements
3 Credit Hours
(Crosslisted with LGBT 3263) Prerequisite: WGS 1003 or junior standing. This course will focus on the mainstream gay and lesbian movement in US history, and how that movement shifted from radical to mainstream and the important debates therein. The course will also consider the impact of systems of oppression from colonialism to the US justice system on LGBTQ identity. (Irreg.)
WGS 3273 Queer Theory
3 Credit Hours
(Crosslisted with LGBT 3273) Prerequisite: WGS 1003 or junior standing. This interdisciplinary course is an introduction to the academic fields and debates within queer theory, specifically, normalization, resistance, and the practice of queering. The central focus is to examine, challenge, critique, and destabilize normative conceptions and representations of not just gender and sexuality but of other categories of being as well. (Irreg.)
WGS 3283 Human Trafficking
3 Credit Hours
Prerequisite: junior standing. Introduces the trafficking of persons in different areas, included, but not limited to, bonded labor, forced migration, and sex trafficking. Human trafficking from a historical and also modern perspective, both in the United States and in the global context, will be studied. Human trafficking is modern day slavery. There are more slaves in the world today than before the time of abolition. Estimates show there are about 27-30 million people are enslaved in the world today. Human trafficking is a 32 billion dollar industry worldwide and is second only to drug trafficking with 36 billion dollar revenue. Explores the different kinds of trafficking, effects of globalization, the demand, and what the governments can do in order to combat human trafficking. (F)
WGS 3353 Race, Class \& Gender
3 Credit Hours (Crosslisted with SOC 3353) Prerequisite: junior standing or permission of instructor. Explores the intersections of race, ethnicity, class, gender and sexuality. Focus is on how systems of power and oppression reinforce each other, how they intersect in shaping social structure and individual experiences, and how the systems of oppression are mutually reinforcing. Theories and practice of intersectionality, how gender, race, class and other categories of identity are constructed and reproduced in social, political, and economic structures, and experienced in every day life. (F, Sp )

## WGS 3393 Gender and Identity in STEM

3 Credit Hours
Prerequisite: Sophomore standing or permission of the instructor. This course examines the effects of gender and other forms of identity, including race, ethnicity, and sexual orientation, on contemporary STEM students and professionals, including the impact on skill, self-efficacy, and academic/professional outcomes in STEM disciplines. It also explores the intersection and effects of cultural expectations associated with gender, race, ethnicity, and sexual orientation on professional identity and student engagement. (Irreg.) [IV-WC].

WGS 3413 Body Image Vs. Reality
Prerequisite: 1003 or junior standing. Looks at the topic of body image, which is of great importance to men and women. We explore women's identity in popular culture, examining how different authors have responded to the pressures on women to be beautiful, to inhabit a particular place in society and to create a space for themselves as subjects rather than objects. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

## WGS 3423 Women and Sports

3 Credit Hours
Prerequisite: 1003 or junior standing. Examines six generations of American women athletes and their struggle to achieve equality. Explores how women have historically participated in sports and how sports have changed with the passage to Title IX, as well as contemporary female athletics. ( $\mathrm{F}, \mathrm{Sp}$ )
WGS 3433 Race and Sexuality in Women's Sports 3 Credit Hours Prerequisite: Junior Standing. This course is an in-depth look at how gender and sexuality have impacted sports for women. The class will address the issues facing women of color and LGBTQ women and how they survived in a world that had no experience in accepting them. Also included is the role of Title IX and how contemporary female athletes have changed society. (Sp)

## WGS 3440 Mentored Research Experience

WGS 3463 Sex and Gender in Early Christianities

## 3 Credit Hours

Prerequisite: Junior standing. Course introduces students to the diverse understandings of sexuality and gender that developed in early Christianities. Focus on the relationships between gender, leadership, and power; understandings of the body; and views on human sexuality including same-sex relationships, non-binary and transgressive gender expressions, and celibacy. Course will examine how developments in these early Christian communities had long-lasting effects throughout history. (Sp)
WGS 3473 Red Dirt Women and Power
3 Credit Hours
Prerequisite: 1003 or junior standing. The stories of "red dirt women" are central to an examination of their power and vulnerability in Oklahoma past and present. Individual women come alive as students do oral/video histories. Novels, videos, history and structural social analysis place them in their social context. (F) [IV-WC].

## WGS 3483 Domestic Violence and the Law

3 Credit Hours
Prerequisite: 1003 or junior standing. Introduction to the legal aspects of domestic violence by examining case law, statutes and scholarly research and commentary. Studies how domestic violence is addressed by the legal system, and analyzes the different legal treatment of married couples, non-married couples and same-sex couples. Law enforcement, court systems, legal representation, and advocacy groups are evaluated for the role they play in domestic violence law. (F)
WGS 3493 Bodies, Nature, and Justice 3 Credit Hours Prerequisite: WGS 1003. This course will explore the interconnections between reproductive justice and environmental justice. We use feminist theories of embodiment combined with critical environmental humanities explorations of what constitutes "nature" to explore the political and ethical dimensions of reproductive justice and environmental justice. (Irreg.)

WGS 3513 Gender, Law and Human Rights
3 Credit Hours
Prerequisite: junior standing or 1003 . This course follows the development of women's human rights and the subsequent evolution of legal remedies for gender-specific issues. Studies will include the relevant treaties and conventions of the United Nations as well as international case law affecting women. Various women's human rights issues we will study include religion, employment discrimination, gender violence, cultural relativism, polygyny and reproductive rights. (Irreg.) [III-SS].
WGS 3523 Reproductive Law and Justice
3 Credit Hours
Prerequisite: Junior standing. In the United States, reproductive rights incorporate legal principles including family law, health law, criminal law, immigration, human rights, and constitutional law. Explores social, legal, and economic barriers to accessing reproductive health through tools including critical race theory, critical legal theory, human rights, feminist theory, and public health systems. Includes contemporary issues: breastfeeding regulations, gender identity discrimination, poverty, and racism. (F)

WGS 3563 Gender and Global Politics
3 Credit Hours Prerequisite: junior standing or permission of instructor. How gender shapes global processes such as war and peace, globalization and labor migration, the rise of ideologies of community such as ethno-nationalism and religious fundamentalism, and the emergence of global norms and activism. A particular focus is on local and global social movements and activism that address gender inequality, as well as the rise of global norms of gender equality. (F) [III-SS].
WGS 3703 Female Heroism in Hollywood
3 Credit Hours
Prerequisite: WGS 1003 or junior standing. Examines conceptual and performative shifts in female heroism in Hollywood genre. Students will engage with various theoretical (feminist theory, feminist film theory, critical race theory) and critical texts discussing the social construction of the female body in American society and cinema, and examine the changing generic parameters through which the female body is considered and constituted heroic. (F) [IV-WC].
WGS 3713 Gender and James Bond
3 Credit Hours
Prerequisite: WGS 1003 or junior standing. Explores the unprecedented longevity and popular cultural viability of the James Bond film franchise by considering the representations of heroism and villainy in the series, focusing on the performance and intersectionality of gender, race, class, nationality and sexual orientation. Examines representations of women and the way those representations have changed throughout the life of the franchise. (Irreg.) [IV-WC].
WGS 3810 WGS Special Topics
1-3 Credit Hours
1 to 3 hours. Prerequisite: WGS 1003 or junior standing. May be repeated with change of content; maximum credit nine hours. Content will vary but will cover a particular aspect of women's studies, be it history, art, communication, literature, contemporary social problems, theory, or other appropriate area of study. Texts and supplementary readings will be assigned according to the topics chosen. (F,Sp)
WGS 3813 WGS Special Topics
3 Credit Hours
Prerequisite: WGS 1003 or junior standing. May be repeated with change of content; maximum credit nine hours. Content will vary but will cover a particular aspect of women's and gender studies, be it history, art, communication, literature, contemporary social problems, theory, or other appropriate area of study. (Irreg.)

WGS 3823 Queer Religion
3 Credit Hours
(Crosslisted with LGBT and RELS 3823) Prerequisite: Junior standing or permission of instructor. This interdisciplinary seminar engages a range of methods and theoretical approaches to queer studies and religion. The course explores questions including: What is the relationship between queer life and religious life? Is religion ever queer? Is queerness ever religious? What do scholars mean when they label religion (or other objects of study) as queer or queer-able? (Irreg.) [IV-WC].
WGS 3933 U.S. Queer History 3 Credit Hours
(Crosslisted with HIST 3933) Prerequisite: Junior standing. The last 130 years have been a time of incredible change for LBGTQ people and the meanings of sexuality in the United States. We will trace LGBTQ experience and community formation, the policing of queer communities, and the constructions of queerness in pop culture, medicine, the law, and politics, as well as how these histories inform our own time. (Irreg.) [IVWC].

## WGS 3943 Women's Health

3 Credit Hours
Prerequisite: 2003 or permission of instructor. Students will gain basic understanding of subjects necessary to develop physical, mental, and social well-being. Covers female anatomy, physiology, and normal processes, including reproduction, childbearing, and menopause. Healthy life choices and decision-making, stress management, and self-care, including nutrition, exercise, and mental wellness, will also be considered. (F, Sp)

## WGS 3953 Women and the Law

3 Credit Hours
Prerequisite: junior standing. This course will examine the history of women's rights and gender discrimination in the United States. It will focus on topics such as the family, education, reproduction, sexual harassment, violence against women, pornography and discrimination in the workplace. Although the subject matter involves legal cases and discourse, it is not intended to be a law school course. (F) [IV-WC].

## WGS 3960 Honors Reading (HONORS) <br> 1-3 Credit Hours

Prerequisite: 2003 and admission to Honors Program. May be repeated; maximum credit six hours. Consists of topics designated by the Women's and Gender Studies faculty member. Topics will cover materials not usually presented in regular courses. (Irreg.)
WGS 3963 Gender, Employment Discrimination and Law 3 Credit Hours Prerequisite: WGS 1003 or junior standing. Taught through a feminist lens, students will learn about employment law by focusing primarily on Title VII of the Civil Rights Act of 1964 and federal case law examining adverse employment actions on the basis of sex. Sexual harassment, gender discrimination, family leave, sexual orientation and equal pay will all be examined in detail. (Irreg.)
WGS 3970 Honors Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Subjects covered vary. Deals with concepts not usually treated in regular courses. (Irreg.)

WGS 3973 Divorce Law and Social Implications 3 Credit Hours Prerequisite: WGS 1003 or junior standing. This course provides an understanding of divorce law and the social impact divorce can have on women in particular. This information is crucial to understanding gendered poverty, single parenting issues, and societal norms associated with divorced women and will be looked at through a feminist lens. (Irreg.)

## WGS 3980 Honors Research (HONORS)

1-3 Credit Hours
Prerequisite: 2003 and admission to Honors Program. Individualized research with a Women's and Gender Studies faculty member on a topic leading toward work for the Honors thesis. In-depth research of specialized topic in women's studies. (Irreg.)

WGS 3990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: permission of instructor and junior standing. May be repeated once with change of content. Independent study may be arranged to study a subject not available through regular course offerings. (F, Sp, Su)

WGS 4003 Women's and Gender Studies Senior Capstone 3 Credit Hours
Prerequisite: WGS 1003 or junior standing and WGS major or minor. Designed to acquaint majors and/or minors with the inter-relationship between theory and methodology in Women's and Gender Studies. The course will interweave the sciences, social sciences, humanities, and arts. Students are expected to write weekly critiques, develop a research proposal, and do an oral presentation. (Sp)

WGS 4013 WGS Internship

## 3 Credit Hours

Prerequisite: junior standing, permission of adviser and instructor, and an approved women's and gender studies course. May be repeated; maximum credit six hours. Students must relate their academic experience to women's or gender issues by working with a non-profit organization or project. Academic credit is based on the site supervisor's report and a substantial paper relating to the internship experience. ( $F, S p$, Su)
WGS 4023 Social Justice Internship
3 Credit Hours
Prerequisite: 2223 and junior standing and 2.5 GPA. Designed to provide students an opportunity to relate their academic experience to social justice issues in the community by working in a social justice agency or non-profit organization or on a social justice service-learning project for a semester. (F, Sp)
WGS 4073 Cultural Heritage Data and Social Engagement 3 Credit Hours
(Slashlisted with WGS 5073; Crosslisted with HIST, LIS and HSTM 4073) Prerequisite: Junior standing. This course uses methods from digital humanities, media studies, and data science to explore cultural heritage -- the histories, literature, art, and artifacts of our world's cultures. It particularly focuses on cultural heritage in digital public spaces: websites, social media, etc. No prior background in computer programming is necessary. No student may earn credit for both 4073 and 5073. (F)

WGS G4120 WGS Special Topics
1-3 Credit Hours
1 to 3 hours. Prerequisite: junior standing. May be repeated in a given department, maximum credit nine hours, provided that the course title and content is different in each instance. (F, Sp, Su)

WGS 4123 Contemporary Feminist Thought
3 Credit Hours (Slashlisted with WGS 5123) Prerequisite: senior standing or permission of instructor. Survey of the core concepts and texts of feminist theory exposes students to the major works in feminist theory as well as critiques and scholarly analysis of them. Includes discussion of the roots of feminist theory, analysis of alternatives to liberal feminist thought, and examination of the impact of postmodernism on feminist thought and the rise of global feminism. (Sp) [V].

## WGS 4233 Feminist Research Methods

## 3 Credit Hours

Prerequisite: WGS 1003 or LGBT 1003 and declared WGS major or minor. This course teaches students the building blocks of feminist knowledge production, exploring the theories behind research methodologies in Women's and Gender Studies scholarship, the importance of understanding interdisciplinary methods as well as new methods in WGS, and how to navigate complex information and data environments. Students will apply their knowledge by conducting original research in projects of their own design. (F)

WGS 4473 Women and Mental Health
3 Credit Hours
Prerequisite: junior standing. Examines psychological theory and practice as it pertains to women. Will look at traditional theories and practice, new approaches to working with women, and such topical issues as leadership, work issues, depression, trauma, and health. Will be useful to all students who seek to have a better understanding of social and psychological issues that impact women, and how to help resolve those issues. (Irreg.)
WGS 4623 Gender and Children's Culture
3 Credit Hours
(Crosslisted with LGBT 4623) Prerequisite: WGS 1003 or LGBT 1003. Children's culture shapes our identities and environments. This course explores children's culture contexts through feminist and queer frameworks. Key content includes analyzing children's media, video games, books, toys, the environment, academics, and digital cultures while examining how childhood is a context for cultural history and leveraging power. It focuses on children's engagement in world building and knowledge production. (F)
WGS 4633 Latina Feminist Epistemologies 3 Credit Hours (Slashlisted with WGS 5633; Crosslisted with EDS 4633) Prerequisite: Junior standing. This course explores the experiences of Chicanas and Latinas through the lens of contemporary research. Topics to be discussed: community formation and activism, Chicana/Latina feminism, sexuality, religion, health, family, immigration, migration, education, work, media, and artistic expressions. Readings emphasize the links between the structural inequalities of society, and the day-to-day lived experiences of Chicanas/Latinas. No student may earn credit for both 4633 and 5633. (Irreg.)

## WGS 4643 Black Feminism and Womanism

3 Credit Hours
(Crosslisted with AFAM 4643) Prerequisite: Junior standing and any $2000-l e v e l$ African and African-American Studies class. This course analyses the way race, gender, sexuality, and socioeconomic status have historically dominated, intersected, and/or competed with the lives and experiences of Black women. This course examines the way Black women have drawn upon these internal struggles to serve as voices of power and agents of social change. Readings in this course will highlight activism, literature, and social justice. (Irreg.)
WGS 4913 Senior Thesis
3 Credit Hours
Prerequisite: senior standing and permission of instructor. Research and presentation of written thesis on suitable topics in women's or gender studies. Specific topic must be approved in advance by instructor. ( $\mathrm{F}, \mathrm{Sp}$, Su )

## WGS 4960 Directed Readings <br> 1-4 Credit Hours

1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean. May be repeated; maximum credit four hours. Designed for upper-division students who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)
WGS 4970 Special Topics in WGS
1-4 Credit Hours
Prerequisite: twelve hours in women's studies courses or permission of instructor. 1 to 4 hours. Variable content; impact of women's studies on the several academic disciplines; interdisciplinary scholarship on women; integration of women's studies in the curriculum. (Sp)

WGS 4990 Independent Study
1-6 Credit Hours
1 to 6 hours. Prerequisite: junior standing, permission of instructor, and an approved Women's and Gender Studies course. May be repeated once with change of content; maximum credit six hours. Designed to accommodate students' interest in reading and research in a specialized area of women's studies. (F, Sp, Su)

WGS 5001 Women \& Gender Studies Colloq
1 Credit Hour
Prerequisite: 3 hours at or above the 5000 -level. Offers a discussion and review of major debates and current literature in the women's and gender studies field with an emphasis on feminist research methods and approaches. Students will expose one another to approaches to women's and gender studies in such major disciplines as anthropology, sociology, political science, education, English, history, communications, and human relations. (F)

## WGS 5013 Graduate Internship

3 Credit Hours
Prerequisite: graduate standing, permission of instructor, and an approved graduate women's and gender studies course. May be repeated; maximum credit six hours. Students must relate their academic experience to women's or gender issues by working with a non-profit organization or project. Academic credit is based on the site supervisor's report and a substantial paper relating to the internship experience. (F, Sp, $\mathrm{Su})$
WGS 5073 Cultural Heritage Data and Social Engagement 3 Credit Hours
(Slashlisted with WGS 4073; Crosslisted with HIST, LIS and HSTM 5073) Prerequisite: Graduate standing. This course uses methods from digital humanities, media studies, and data science to explore cultural heritage -- the histories, literature, art, and artifacts of our world's cultures. It particularly focuses on cultural heritage in digital public spaces: websites, social media, etc. No prior background in computer programming is necessary. No student may earn credit for both 4073 and 5073. (F)

WGS 5123 Contemporary Feminist Thought
3 Credit Hours
(Slashlisted with 4123) Prerequisite: graduate standing or permission of instructor. Survey of the core concepts and texts of feminist theory exposes students to the major works in feminist theory as well as critiques and scholarly analysis of them. Includes discussion of the roots of feminist thought, analysis of alternatives to liberal feminist thought, and examination of the impact of postmodernism on feminist thought and the rise of global feminism. (Sp)
WGS 5633 Latina Feminist Epistemologies
3 Credit Hours
(Slashlisted with WGS 4633; Crosslisted with EDS 5633) Prerequisite: Graduate standing. This course explores the experiences of Chicanas and Latinas through the lens of contemporary research. Topics to be discussed include community formation and activism, Chicana/Latina feminism, sexuality, religion, health, family, immigration, migration, education, work, media, and artistic expressions. Readings emphasize the links between the structural inequalities of society, and the day-to-day lived experiences of Chicanas/Latinas. No student may earn credit for both 4633 and 5633. (Irreg.)
WGS 5960 Directed Readings
1-6 Credit Hours
1 to 6 hours. Prerequisite: six hours of Women's and Gender Studies courses at the graduate level. Graduate directed readings is designed for specialized research on a women's studies topic. (F, Sp, Su)
WGS 5970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

WGS 5990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)

## Faculty

| Last Name | First/Middle Name | Middle init. | OU <br> Service <br> start | Title(s), date(s) appointed | Degrees Earned, Schools, Dates Completed |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Aydogdu | Zeynep |  | 2021 | ASSISTANT <br> PROFESSOR OF <br> WOMEN'S AND <br> GENDER STUDIES | PhD, The Ohio State, 2019 |
| Bates | Rodney |  | 2021 | ASSISTANT <br> PROFESSOR OF <br> WOMEN'S AND <br> GENDER STUDIES | PhD, University of Oklahoma, 2017 |
| Schroeder | Caroline |  | 2019 | PROFESSOR OF WOMEN'S AND GENDER STUDIES | PhD, Duke University, $2002$ |
| Sibbett | Meg | E | 2013 | ASSISTANT <br> PROFESSOR OF <br> WOMEN'S AND <br> GENDER STUDIES, <br> 2013; ADJUNCT <br> ASSISTANT <br> PROFESSOR OF <br> LIBERAL STUDIES, $2016$ | PhD, Univ of Texas <br> San Antonio, 2013; <br> MA, Utah State Univ, <br> 2006; BA, Utah Valley <br> State College, 2003 |
| VelasquezPotts | Michelle |  | 2022 | ASSISTANT <br> PROFESSOR OF <br> WOMEN'S AND <br> GENDER STUDIES | PhD, University of California, Berkeley, 2019 |

## Women's \& Gender Studies, B.A.

Minimum Total Credit Hours: 120
Major Hours: 33
Minimum Upper-Division Hours: 48
Upper-Division Hours Within Major: 21

Overall GPA - Combined and OU: 2.00
Major GPA - Combined and OU: 2.00
Program Code: B875

## Major Requirements

- Some courses required for the major may also fulfill University General Education and/or Dodge College of Arts \& Sciences Requirements.
- Thirty-three hours are required, 21 must be upper-division.

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Foundation Sequence | 3 |  |
| WGS 1003 | Introduction to Women's and Gender <br> Studies | 3 |
| LGBT 1003 | Introduction to LGBTQ Studies | 3 |

WGS 3123 Social Justice and Social Change

| WGS 3233 | Women Creating Social Change |
| :--- | :--- |
| WGS/LGBT | LGBTQ Movements |
| 3263 |  |

## WGS Core Electives

Choose 12 hours with WGS or LGBT designation - 6 hours

## must be upper division

## Interdisciplinary Elective

Choose 3 upper division hours outside the department 3
with WGS focus from approved course list maintained by
Department of WGS (p. 741)
Theory and Research Sequence

| WGS 4233 | Feminist Research Methods | 3 |
| :---: | :--- | :---: |
| WGS 4003 | Women's and Gender Studies Senior <br> Capstone | 3 |
| WGS/LGBT 3273 | Queer Theory | 3 |
| or WGS 4123 | Contemporary Feminist Thought |  |

## Total Credit Hours

## General Education and College Requirements

Courses for fulfillment of General Education and Dodge College of Arts \& Sciences requirements must be from the approved General Education course list published in the Class Schedule or at http://www.ou.edu/ gened/courses. Courses graded P/NP will not apply.

## UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND

 COLLEGE REQUIREMENTS Code Title Credit HoursCore Area I: Symbolic and Oral Communication
English Composition (6 hours)
ENGL 1113 Principles of English Composition ..... 3
ENGL 1213 Principles of English Composition ..... 3
or EXPO 1213 Expository Writing
Language (0-13 hours in the same language)
The college requirement cannot be met by high school coursework.
Beginning Course ..... 0-5
Beginning Course, continued ..... 0-5
Intermediate Course (2000 level) ${ }^{1,2}$ ..... 0-3
Mathematics (3 hours)
Choose one course from the General Education Mathematics ..... 3

list

Core Area II: Natural Science (7 hours, including one

## laboratory component)

Biological Science
Choose an approved General Education Natural Science 3-4
course with one of the following prefixes: BIOL, HES, MBIO, or PBIO ${ }^{1}$
Physical Science
Choose an approved General Education Natural Science 3-4

3 course with one of the following prefixes: AGSC, ASTR, CHEM, GEOG, GEOL, GPHY, METR, or PHYS ${ }^{1}$
Core Area III: Social Science (6 hours)
P SC 1113 American Federal Government 3
Choose one course from the General Education Social 3 Science list

| Core Area IV: Arts and Humanities (18 hours) |  |
| :---: | :---: |
| Artistic Forms |  |
| Choose one course from the General Education Artistic Forms list | 3 |
| Western Culture |  |
| HIST 1483 United States to 1865 <br> or HIST 1493 United States, 1865 to the Present | 3 |
| Choose one course from the General Education Western Culture list (excluding HIST 1483/1493) | 3 |
| World Culture |  |
| Choose one course from the General Education World Culture list | 3 |
| Additional Core IV Upper-Division Arts \& Humanities courses |  |
| Choose one course from Artistic Forms, Western Culture, or World Culture ${ }^{1,3}$ | 3 |
| Choose one course from Artistic Forms, Western Culture, or World Culture ${ }^{1,3}$ | 3 |
| Core Area V: First Year Experience (3 hours) |  |
| Choose one course | 3 |
| Total Credit Hours | 56 |
| ${ }^{1}$ College of Arts and Sciences Requirements: college requirements are not automatically fulfilled by a previous degree. |  |
| 6 upper-division hours, 2 courses, at the 3000-4000-level. Mu outside the major. |  |

## Free Electives

Electives to bring total applicable hours to the minimum total required for the degree including 48 upper-division hours.

## Information Concerning General Rules, Regulations and Minimum Requirements

Arts and Sciences Hours: At least 80 semester hours of liberal arts and sciences courses are required for a BA degree. At least 55 semester hours of liberal arts and sciences courses are required for a BS degree. Pass/No Pass Enrollment: A maximum of 16 semester hours of free elective credit may be attempted under this option.
Individual Studies (e.g., courses titled "Independent Study"): A maximum of 12 total semester hours may be counted toward graduation, excluding Honors Reading and Honors Research.
P.E. Courses: No physical education activity courses will be counted toward the 120 semester hours of acceptable credit for graduation.
Senior Institution Hours: A minimum of 60 semester hours applied toward graduation must be earned at senior (4-year) institutions.
Residency:

- At least 15 of the final 30 hours applied toward the degree or at least 50 percent of the hours required by the institution in the major field must be satisfactorily completed at the awarding institution.
- At least 15 semester hours of upper-division major work must be completed in residence at OU.
- OU correspondence courses are not considered resident credit.

Grade Point Averages: Students must earn a minimum over all 2.00 for each of the following: Combined Retention GPA (all college grades), OU

Retention GPA, GPA for all major courses, and GPA for all major courses taken at OU. Some schools and departments of the College have higher minimum grade point averages required for their students.

## Suggested Semester Plan of Study

This plan shows one possible grouping of courses that would allow students to graduate in four years. Please refer to the front of the degree checksheet for official requirements. Students must consult with Dodge College of Arts and Sciences and Department of Women's and Gender Studies academic advisors to verify that courses selected each semester fulfill the recommended plan and satisfy University, College of Arts and Sciences, and Women's and Gender Studies major requirements.

## Freshman

| First Semester |  | Credit <br> Hours |
| :--- | :--- | ---: |
| ENGL 1113 | Principles of English Composition (Core I) | 3 |
| Math (Core I) |  | 3 |
| WGS 1003 | Introduction to Women's and Gender | 3 |
|  | Studies (Core IV-Western Culture) |  |
| Beginning Language (Core I) | 5 |  |
| First Year Experience (Core V) | 3 |  |
| Credit Hours | $\mathbf{1 7}$ |  |

## Second Semester

ENGL 1213 Principles of English Composition (Core I) 3 or EXPO 1213 or Expository Writing
LGBT 1003 Introduction to LGBTQ Studies 3

Beginning Language continued (Core I) 5

| Natural Science with lab (Core II) | 4 |
| :--- | :--- |

Credit Hours15

## Sophomore

First Semester

| HIST 1483 <br> or HIST 1493 | United States to 1865 (Core IV) <br> or United States, 1865 to the Present | 3 |
| :--- | :--- | ---: |
| WGS 3123 | Social Justice and Social Change <br> or WGS 3233 <br> or Women Creating Social Change <br> or WGS 3263 <br> or LGBTQ Movements | 3 |
| WGS Core Elective | 3 |  |
| Intermediate Language 3 <br> Social Science (Core III) Credit Hours | 3 |  |

## Second Semester

P SC 1113 American Federal Government (Core III) 3
WGS Core Elective 3

Natural Science without lab (Core II) 3
Artistic Forms (Core IV) 3
Free Elective, lower-division 3

Junior
First Semester
WGS Core Elective 3
WGS Core Elective 3
World Culture (Core IV) 3
Free Elective, lower- or upper-division 3

| Free Elective, upper-division (3000-4000-level) | 3 |
| :---: | :---: |
| Credit Hours | 15 |
| Second Semester |  |
| $\begin{array}{lc}\text { WGS } 4123 & \text { Contemporary Feminist Thought } \\ \text { or WGS } 3273 & \text { or Queer Theory }\end{array}$ | 3 |
| Interdisciplinary Elective, upper-division | 3 |
| Arts \& Humanities, upper-division, outside major (Gen. Ed.) | 3 |
| Arts \& Humanities, upper-division, outside major (Gen. Ed.) | 3 |
| Free Elective, lower- or upper-division | 3 |
| Credit Hours | 15 |
| Senior |  |
| First Semester |  |
| WGS 4233 Feminist Research Methods | 3 |
| Free Elective, lower- or upper-division | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Credit Hours | 15 |
| Second Semester |  |
| WGS $4003 \quad$Women's and Gender Studies Senior <br> Capstone | 3 |
| Free Elective, lower- or upper-division | 3 |
| Free Elective, upper-division (3000-4000-level) | 1 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Credit Hours | 13 |
| Total Credit Hours | 120 |

## WGS Interdisciplinary Electives Course List

Please consult with the Department of Women's and Gender Studies for the most current course list.

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| A HI 4853 | American Indian Women Artists | 3 |
| AFAM 3433 | African American Women | 3 |
| ANTH 4253 | The Anthropology of Communities | 3 |
| ANTH 4593 | Anthropology of Human Reproduction | 3 |
| ANTH 4723 | Gender and Health | 3 |
| H R 3303 | Family Issues in Human Relations | 3 |
| H R 4423 | Women's Issues in Human Relations | 3 |
| H R 4433 | Gender and War | 3 |
| HES 3523 | Human Sexuality | 3 |
| HES 4523 | Human Sexuality II | 3 |
| HIST 3243 | European Women \& Gender Relations | 3 |
| HIST 3533 | The History of Early American Women | 3 |
| HIST 3593 | Women in the American West | 3 |
| IAS 3523 | Women and Gender in South Asia | 3 |
| PHIL 3743 | Feminist Philosophy | 3 |
| ECON 4513 | The Economics of Discrimination | 3 |
| ENGL 4273 | Women Writers | 3 |


| JMC 4853 | Race, Gender, Class and the Media | 3 |
| :--- | :--- | :--- |
| SOC 3723 | Sociology of Family | 3 |
| SOC 3733 | Sociology of Gender | 3 |

## LGBTQ Studies, Minor

Minimum Total Credit Hours: 18
Minimum Upper-Division Hours: 9

## Program Code: N642

- The requirements for a minor must be completed concurrently with the major degree requirements.
- No minor may be added by completing courses after receiving the bachelor's degree.

At least six (6) credit hours must be earned in courses acceptable for residence credit by standards set forth by the Dodge College of Arts and Sciences, excluding transfer, correspondence, and examination (AP, CLEP, Advanced Standing) credit. Courses for the minor may not be taken Pass/ No Pass.

No single course may be used by a student to satisfy a major requirement and a minor requirement. A course may be used, however, to satisfy both a major support requirement and a minor requirement.

Requests to substitute a minor requirement must be approved in writing by the Women's and Gender Studies Program.

## Required Courses

Students must successfully complete at least 18 hours of coursework, including at least nine (9) hours at the upper-division level.

| Code | Title | Credit Hours |
| :---: | :---: | :---: |
| Required Courses |  |  |
| LGBT 1003 | Introduction to LGBTQ Studies | 3 |
| LGBT/WGS 3263 | LGBTQ Movements | 3 |
| LGBT/WGS 3273 | Queer Theory | 3 |
| Electives |  |  |
| Choose three cour (p. 741) | rses from the LGBTQ Studies Electives list | 9 |
| Total Credit Hours |  | 18 |
| LGBTQ Studies Electives |  |  |
| Code | Title | Credit |
|  |  | Hours |
| ANTH 4723 | Gender and Health | 3 |
| ANTH 4843 | Cross-Cultural Study of Sex, Gender and Sexuality | 3 |
| COMM 2423 |  | 3 |
| ENGL 5703 | Special Topics in American Literature (Cold War Sexualities, Queer Theory, \& Cultural Rhetoric Studies) | 3 |
| EXPO 1213/1223 | Expository Writing (Transcending Gender) | 3 |
| HES 3523 | Human Sexuality | 3 |
| HES 4523 | Human Sexuality II | 3 |
| H R 5723 | Sexism and Homophobia | 3 |


| HSTM 3223 | Gender Issues in Science, Technology and <br> Medicine | 3 |
| :--- | :--- | ---: |
| HSTM 3243 | Women and Medicine | 3 |
| NAS 3123 | Gender and Sexuality in Native North <br> America | 3 |
| NAS 4970 |  <br> Native American LGBT Issues) | $1-3$ |
| P SC 3203 | Sexuality, Gender, and the Law | 3 |
| SOC 3733 | Sociology of Gender | 3 |
| SOC 3593 | Sexual Deviance and Society | 3 |
| SOC 3993 | Sociology of Gender and Sexuality in the <br> Media | 3 |

- Minors in the Dodge College of Arts \& Sciences are available to all undergraduate students at OU. If the minor is officially declared, successfully completed, and noted on the graduation application, the student's transcript will so indicate at the time the bachelor's degree is posted.


## Social Justice, Minor

Minimum Total Credit Hours: 15
Minimum Upper-Division Hours: 9

## Program Code: N835

- The requirements for a minor must be completed concurrently with the major degree requirements.
- No minor may be added by completing courses after receiving the bachelor's degree.

At least six (6) credit hours must be earned in courses acceptable for residence credit by standards set forth by the Dodge College of Arts and Sciences, excluding transfer, correspondence, and examination (AP, CLEP, Advanced Standing) credit. Courses for the minor may not be taken Pass/ No Pass.

No single course may be used by a student to satisfy a major requirement and a minor requirement. A course may be used, however, to satisfy both a major support requirement and a minor requirement.

Requests to substitute a minor requirement must be approved in writing by the Women's and Gender Studies Program.

## Required Courses

Students must successfully complete at least 15 hours of courses acceptable for minor credit in Social Justice, including at least nine (9) hours at the upper-division level.

| Code | Title | Credit <br> Hours |
| :--- | ---: | ---: |
| Required Courses |  |  |
| WGS 3123 | Social Justice and Social Change | 3 |
| WGS 4023 | Social Justice Internship | 3 |
| Choose any additional course with the WGS prefix | 3 |  |
| Electives | 6 |  |
| Choose 6 credit hours from the Social Justice Electives list |  |  |
| (p. 742) | 6 |  |


| Code | Title | Credit |
| :---: | :---: | :---: |
| AFAM 3333 | The Black West | 3 |
| AFAM 3433 | African American Women | 3 |
| AFAM 3613 | Visual Culture and African American Identity: 1895-1939 | 3 |
| AFAM 4010 | Special Topics In African And AfricanAmerican Studies (Approved Topic) | 1-3 |
| AFAM 4713 | Afrocentric Thinking and the Civil Rights Movement | 3 |
| AFAM 4733 | Civil Rights Law: Employment and Education | 3 |
| AFAM 4813 | Prison Industrial Complex | 3 |
| ANTH 3453 | Contemporary Native American Issues | 3 |
| ANTH 4303 | Women and Development in Africa | 3 |
| ANTH 4903 | Race and Ethnicity | 3 |
| CL C 3403 | Law and Justice | 3 |
| COMM 3243 | Communication and Social Change | 3 |
| COMM 3643 | Media and Society | 3 |
| COMM 4643 | Mass Media Effects | 3 |
| ECON 4513 | The Economics of Discrimination | 3 |
| ENGL 4283 | Hip Hop as Poetry, Literature and Cultural Expression | 3 |
| ENGL 4333 | Black Arts/Black Power | 3 |
| ENGL 4383 |  | 3 |
| FMS 3683 | Social Issues and Film | 3 |
| GEOG 4573 |  | 3 |
| HIST 2103 | Genocides in Modern History | 3 |
| HIST 3103 | Slavery in World History | 3 |
| HIST 3293 | Antisemitism | 3 |
| HIST 3623 | Conformity and Dissent in the 1950s and 1960s | 3 |
| HIST 3753 | African-American History Since 1877 | 3 |
| HON 3993 | Honors Colloquium (Approved Topic) | 3 |
| H R 3303 | Family Issues in Human Relations | 3 |
| H R 3403 | History of Racism | 3 |
| H R 4013 | Social Change Process | 3 |
| H R 4203 | Social Issues in the Workplace | 3 |
| H R 4423 | Women's Issues in Human Relations | 3 |
| H R 4170 | Special Topics in Human Relations (Approved Topic) | 1-3 |
| IAS 3013 | International Law | 3 |
| IAS 3033 | International Human Rights | 3 |
| IAS 3073 | Global Economic Relations | 3 |
| IAS 3083 | International Activism | 3 |
| JMC 4853 | Race, Gender, Class and the Media | 3 |
| JMC 4863 | Journalism, Ethics and Democracy | 3 |
| NAS 1013 | Introduction to Native American Studies | 3 |
| NAS 3313 | Introduction to Native Peoples and Sustainability | 3 |
| PHIL 1713 |  | 3 |
| PHIL 3713 | History of Social and Political Philosophy | 3 |


| PHIL 3743 | Feminist Philosophy | 3 |
| :---: | :---: | :---: |
| PHIL 3753 | Philosophy of Race | 3 |
| P SC 2703 | Justice, Liberty and the Good Society | 3 |
| P SC 3023 | Law and Courts | 3 |
| P SC 3203 | Sexuality, Gender, and the Law | 3 |
| P SC 3713 | The Idea of a Liberal Society | 3 |
| P SC 4283 | American Constitutional Law II: Civil Rights and Civil Liberties | 3 |
| RELS 3633 |  | 3 |
| S WK 3313 | Social Welfare Policy: Analysis and Practice | 3 |
| S WK 3323 | Human Diversity and Social Justice | 3 |
| S WK 4163 | Child Abuse and Neglect | 3 |
| S WK 4170 | Special Topics in Social Work and Social Welfare (Approved Topic) | 2-3 |
| SOC 3523 | Criminology | 3 |
| SOC 3533 | The System of Criminal Justice | 3 |
| SOC 3603 |  | 3 |
| SOC 3623 | Sociology of Race and Ethnicity | 3 |
| SOC 3683 | Wealth, Power, and Prestige | 3 |
| SOC 3723 | Sociology of Family | 3 |
| SOC 3733 | Sociology of Gender | 3 |
| SOC 3803 | Inequality in A Global Perspective | 3 |
| SOC 3813 | Individual and Society | 3 |
| SOC 3843 | Sociology of Aging | 3 |
| SOC 3903 | The Sociology of Urban Street Gangs | 3 |
| SOC 3913 | The Death Penalty in the United States | 3 |
| SOC 3923 | Alcohol, Drugs and Society | 3 |
| SOC 3593 | Sexual Deviance and Society | 3 |
| SOC 3973 | Sociology of Violence | 3 |
| WGS 3043 | Gender/Power/Ldrshp-Politics | 3 |
| WGS 3233 | Women Creating Social Change | 3 |
| WGS 3473 | Red Dirt Women and Power | 3 |
| WGS 3483 | Domestic Violence and the Law | 3 |
| WGS 3563 | Gender and Global Politics | 3 |
| WGS 3810 | WGS Special Topics (Approved Topic) | 1-3 |
| WGS 3953 | Women and the Law | 3 |

- Minors in the Dodge College of Arts \& Sciences are available to all undergraduate students at OU. If the minor is officially declared, successfully completed, and noted on the graduation application, the student's transcript will so indicate at the time the bachelor's degree is posted.


## Women's and Gender Studies, Minor

Minimum Total Credit Hours: 18
Minimum Upper-Division Hours: 9

## Program Code: N875

[^23]At least six (6) credit hours must be earned in courses acceptable for residence credit by standards set forth by the Dodge College of Arts and Sciences, excluding transfer, correspondence, and examination (AP, CLEP, Advanced Standing) credit. Courses for the minor may not be taken Pass/ No Pass.

## No single course may be used by a student to satisfy a major requirement

 and a minor requirement. A course may be used, however, to satisfy both a major support requirement and a minor requirement.Requests to substitute a minor requirement must be approved in writing by the Women's and Gender Studies Program.

## Required Courses

Students must successfully complete at least 18 hours of courses acceptable for major credit in Women's and Gender Studies, including at least nine (9) hours at the upper-division level. Topics courses must be approved in advance by the Women's and Gender Studies academic advisor.

| Code | Title | Credit <br> Hours |
| :---: | :---: | :---: |
| Required Course |  |  |
| WGS 1003 | Introduction to Women's and Gender Studies | 3 |
| Electives |  |  |
| Choose 12 hou Electives list | from Women's \& Gender Studies Minor 43) | 12 |
| Choose one of | following: | 3 |
| WGS 3980 | Honors Research (HONORS) |  |
| WGS 4013 | WGS Internship |  |
| WGS 4123 | Contemporary Feminist Thought |  |
| WGS 4913 | Senior Thesis |  |
| WGS 4990 | Independent Study |  |

Total Credit Hours

## Women's and Gender Studies Minor Electives

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| A HI 4853 | American Indian Women Artists | 3 |
| A HI 4913 | Seminar (Approved Topic) | 3 |
| AFAM 3423 | African-American Men | 3 |
| AFAM 3433 | African American Women | 3 |
| AFAM 4010 | Special Topics In African And African- | $1-3$ |
| ANTH 4253 | The Anthropology of Communities | 3 |
| ANTH 4303 | Women and Development in Africa | 3 |
| ANTH 4593 | Anthropology of Human Reproduction | 3 |
| ANTH 4723 | Gender and Health | 3 |
| ANTH 4843 | Cross-Cultural Study of Sex, Gender and | 3 |
| COMM 2423 | Sexuality | 3 |
| COMM 3643 | Media and Society | 3 |
| COMM 4243 | Family Communication | 3 |
| ECON 4513 | The Economics of Discrimination | 3 |
| ENGL 2133 | Autobiographical Writing | 3 |


| ENGL 3103 | Topics in Advanced Composition (Approved Topic) | 3 |
| :---: | :---: | :---: |
| ENGL 3213 | Special Topics in Fiction (Approved Topic) | 3 |
| ENGL 3243 | Special Topics in Film (Approved Topic) | 3 |
| ENGL 4013 | Major Figure (With Subtitle) (Approved Topic) | 3 |
| ENGL 4273 | Women Writers | 3 |
| EXPO 1213/1223 | Expository Writing (Approved Topic) | 3 |
| GEOG 3843 | Gender and Environment | 3 |
| HES 3523 | Human Sexuality | 3 |
| HES 4523 | Human Sexuality II | 3 |
| HIST 3120 | Topics in Modern European History (Approved Topic) | 1-3 |
| HIST/WGS 3133 | Medieval Women | 3 |
| HIST 3243 | European Women \& Gender Relations | 3 |
| HIST 3533 | The History of Early American Women | 3 |
| HIST 3543 | The History of Modern American Women | 3 |
| HIST 3573 | Special Topics Colloquium (Approved Topic) | 3 |
| HIST 3593 | Women in the American West | 3 |
| HIST/WGS 3933 | U.S. Queer History | 3 |
| HON 3993 | Honors Colloquium (Approved Topic) | 3 |
| H R 3303 | Family Issues in Human Relations | 3 |
| H R 4170 | Special Topics in Human Relations (Approved Topic) | 1-3 |
| H R 4423 | Women's Issues in Human Relations | 3 |
| H R 4433 | Gender and War | 3 |
| HSTM 3223 | Gender Issues in Science, Technology and Medicine | 3 |
| HSTM 3243 | Women and Medicine | 3 |
| IAS 3523 | Women and Gender in South Asia | 3 |
| JMC 4853 | Race, Gender, Class and the Media | 3 |
| LTRS 3510 | Topics in Letters (Approved Topic) | 2-3 |
| LTRS 4970 | Special Topics/Seminar (Approved Topic) | 2-3 |
| MUSC 4970 | Undergraduate Seminar (Approved Topic) | 1-3 |
| NAS 3123 | Gender and Sexuality in Native North America | 3 |
| PHIL 3743 | Feminist Philosophy | 3 |
| P SC/WGS 3043 | Gender, Power and Leadership in Politics and Public Administration | 3 |
| P SC 3203 | Sexuality, Gender, and the Law | 3 |
| P SC 3220 | Topics in Public Policy (Approved Topic) | 1-3 |
| SOC 3723 | Sociology of Family | 3 |
| SOC 3733 | Sociology of Gender | 3 |
| SOC 3853 |  | 3 |
| SOC 3593 | Sexual Deviance and Society | 3 |
| WGS 3123 | Social Justice and Social Change | 3 |
| WGS 3220 | WGS Special Topics | 1-3 |
| WGS 3223 | WGS Special Topics | 3 |
| WGS 3233 | Women Creating Social Change | 3 |
| WGS 3253 | Men and Masculinity | 3 |
| WGS 3273 | Queer Theory | 3 |
| WGS 3353 | Race, Class \& Gender | 3 |

## Women's and Gender Studies, Graduate Certificate

## Minimum Total Hours: 13

## Program Code: G110

The purpose of the graduate certificate program is to provide an interdisciplinary graduate education which will broaden and/or give specialty focus to students' Women's and Gender studies. The program may particularly signify a student's focus on one or more of the following: feminist scholarship, research, or creative activity in a particular field of study; teaching interdisciplinary Women's and Gender Studies; or professional public service for/to women/girls/sexual minorities. The graduate certificate will augment and provide formal recognition to students' work in this area, thereby enhancing their success in the academic and professional job markets.

Courses can be double counted between a graduate degree and a graduate certificate. However, courses cannot be double counted towards more than one graduate certificate.

## Program Requirements

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| WGS 5001 | Women \& Gender Studies Colloq | 1 |
| WGS 5123 | Contemporary Feminist Thought | 3 |
| Elective Specialty |  |  |
| Choose 9 hours as approved by the Women's and Gender | 9 |  |
| Studies graduate committee and director ${ }^{1}$ |  |  |
| Total Credit Hours | $\mathbf{1 3}$ |  |

1 No more than 3 hours may be taken as Directed Readings, Independent Study, or Internship.

A graduate certificate is not a graduate degree. A graduate degree represents a program of independent inquiry beyond the depth of
coursework alone, while a graduate certificate represents a set of courses
only.

- All courses must be taken at OU. No transfer credit will apply.
- No course substitutions are permitted for graduate certificates.
- Coursework applied to a graduate certificate cannot be more than five years old as of the semester the graduate certificate is awarded.
- Students must earn a grade point average of 3.00 or higher on all coursework applied to the graduate certificate.


## COLLEGE OF ATMOSPHERIC AND GEOGRAPHIC SCIENCES



Administrative and Academic Office
120 David L. Boren Blvd., Suite 3630
Norman, OK 73072
Phone: (405) 325-3095
FAX: (405) 325-1180
ags@ou.edu
www.ou.edu/ags

## Administrative Officers

Berrien Moore, III, Ph.D., Dean and Director National Weather Center Petra Klein, Ph.D., Executive Associate Dean
Aisha Owusu, MA, Assistant Dean for Student Services

## General Information

The mission of the College of Atmospheric and Geographic Sciences is to provide a world-class academic experience that promotes inclusion, innovation and research, resulting in advanced education and successful career in the private sector, academia, government agencies, and nongovernmental organizations.

The college is composed of academic and research units:

## Academic Units

- Department of Geography and Environmental Sustainability
- School of Aviation
- School of Meteorology


## Research Units

- Advanced Radar Research Center (ARRC)
- Center for the Analysis and Prediction of Storms (CAPS)
- Center for Spatial Analysis (CSA)
- Cooperative Institute for Severe and High-Impact Weather Research and Operations (CIWRO)
- Oklahoma Alliance for Geographical Education (OKAGE)
- Oklahoma Climatological Survey (OCS)
- South Central Climate Adaptation Science Center (SC-CASC)


## Programs Offered

- Department of Geography and Environmental Sustainability (p. 752)
- Environmental Sustainability, B.A. (p. 767)
- Environmental Sustainability Concentration Elective List (p. 770)
- Environmental Sustainability, B.S. (p. 771)
- Environmental Science B.S. Electives (p. 773)
- Geographic Information Science, B.A. (p. 774)
- Geographic Information Science, B.S. (p. 776)
- Geography: Geohumanities, B.A. (p. 778)
- Geography: Physical \& Social Sciences, B.A. (p. 780)
- Geography, B.S. (p. 782)
- Climate Adaptation, Minor (p. 785)
- Environmental Sustainability, Minor (p. 785)
- Geographic Information Systems, Minor (p. 786)
- Geography, Minor (p. 786)
- Hydrologic Science, Minor (p. 786)
- Physical Geography, Minor (p. 787)
- Environmental Sustainability: Planning \& Management, B.A./ M.R.C.P. (p. 787)
- Environmental Sustainability: Planning \& Management, B.S./ M.R.C.P. (p. 790)
- Geographic Information Science, B.A./M.R.C.P. (p. 794)
- Geographic Information Science, B.S./M.R.C.P (p. 797)
- Geography: Physical \& Social Sciences, B.A./M.R.C.P. (p. 799)
- Geography, B.S./M.R.C.P. (p. 802)
- Geography \& Environmental Sustainability, M.A. (p. 805)
- Geography \& Environmental Sustainability: Environmental Systems, M.S. (p. 805)
- Geography \& Environmental Sustainability: Geospatial Technologies, M.S. (p. 806)
- Geospatial Technologies, Graduate Certificate (p. 807)
- Geography \& Environmental Sustainability, Ph.D. (p. 808)
- School of Aviation (p. 809)
- Aviation: Air Traffic Management Track, B.S. (p. 815)
- Aviation: Aviation Management Track, B.S. (p. 818)
- Aviation: Aviation Management - Non-Flying Track, B.S. (p. 820)
- Aviation: Professional Pilot - Airplane Track, B.S. (p. 822)
- Aviation: Professional Pilot - Helicopter Track, B.S. (p. 825)
- Air Traffic Control, Minor (p. 827)
- Aviation: Aviation Management, Minor (p. 827)
- Aviation: Single-Engine Commercial Pilot, Minor (p. 828)
- Aviation: Multi-Engine Commercial Pilot, Minor (p. 828)
- School of Meteorology (p. 829)
- Meteorology, B.S. (p. 841)
- Meteorology Upper Division Major Elective Course List (p. 843)
- Meteorology, Minor (p. 844)
- Weather and Climate, Minor (p. 844)
- Meteorology, B.S./M.B.A. (p. 845)
- Meteorology, B.S./Data Science and Analytics, M.S. (p. 848)
- Meteorology, M.S. (p. 850)
- Meteorology, Ph.D. (p. 851)


## Programs \& Facilities

The College of Atmospheric and Geographic Sciences occupies state of the art classroom, laboratory, and research space in multiple locations on the OU campus. The Department of Geography and Environmental Sustainability is headquartered in the Sarkeys Energy Center (SEC) on
the OU Main Campus; the School of Aviation boasts Max Westheimer Airport (MWA) as its base on OU North Campus, while the School of Meteorology calls the National Weather Center (NWC) its home on the OU Research Campus. The college's research units are strategically located across the SEC, NWC, as well as in Partner's facilities on the OU Research Campus. Each unit is situated to take full advantage of collaborations that will advance the international leadership role of OU in the aviation, atmospheric, and geographic sciences.

## Max Westheimer Airport

The Max Westheimer Airport (MWA) terminal building, the AM\&E Building, and the simulator building located on North Campus at the University Research Park are the primary office and classroom buildings for the School of Aviation. The buildings contain many classrooms and study areas, with training aids, simulators, and other facilities to enhance the student's learning environment. The airport is a 15-20 minute drive from main campus or via the EMBARK (Norman's city bus service). Aviation students also have access to the school's maintenance hangars, which further enhance the student's ability to learn. Students are encouraged to take an active part in their learning process.

## Sarkeys Energy Center

The Department of Geography and Environmental Sustainability and the Oklahoma Alliance for Geographic Education (OKAGE) are housed on floors four, five, and six in the Sarkeys Energy Center (SEC). Classrooms, computer labs, and laboratory facilities are also located in the building.

## The National Weather Center

The National Weather Center (NWC) houses University of Oklahoma components and a confederation of state and federal organizations that work together on educational, pure and applied research, and operational activities. The Atmospheric and Geographic Sciences Dean's Office, the School of Meteorology, the Cooperative Institute for Mesoscale Meteorological Studies, the Center for Analysis and Prediction of Storms, the Center for Spatial Analysis, the Natural Hazards and Disaster Prevention Center, and the Oklahoma Climatological Survey are the University of Oklahoma components of the Weather Center. The federal agencies that are part of the Weather Center include: the National Severe Storms Forecast Laboratory, the Storm Prediction Center, the National Weather Service Office (Oklahoma City), the WSR-88D (NEXRAD) Radar Operations Center, and the Warning Decision Training Branch. The National Weather Center programs offer a rich educational and research environment for students pursuing undergraduate and graduate study in meteorology, climate, hydrology, remote sensing, and computer applications. The NWC also houses the NWC Library, which contains almost 4,000 meteorology books and hundreds of government documents in its collection and access to over 50 atmospheric science journals. The NWC Library supports the research, education, outreach and operations missions of all of the entities in the NWC and also supports the wider meteorology community in Norman. For more information, visit the NWC Library's website.

## Advanced Radar Research Center (ARRC)

The Advanced Radar Research Center is involved in many aspects of radar research applied to studies of the atmosphere. Topics range from sophisticated radar signal processing to precipitation microphysical studies.

## Center for the Analysis and Prediction of Storms (CAPS)

Center for the Analysis and Prediction of Storms develops and demonstrates techniques for the numerical analysis and prediction of
high-impact local weather and environmental conditions, with emphasis on the assimilation of observations from Doppler radars and other advanced in-situ and remote sensing systems.

## Center for Spatial Analysis (CSA)

The Center for Spatial Analysis at the University of Oklahoma is a multidisciplinary university research center specializing in the study and application of geospatial science and technology. CSA is composed of three working units that focus on research and development, outreach and training, and applications and services. Through efforts in each of these units CSA seeks to advance the geospatial vision of the University and contribute to education, research, and economic development in the State of Oklahoma. Housed in Two Partners Place, CSA is a member of the National Weather Center program and the OU Research Campus, an affiliate member in the Oklahoma NASA Space Grant Consortium, and a partner to the Center for Applied Social Research. Visit their website for further information.

## Cooperative Institute for Severe and High-Impact Weather Research and Operations (CIWRO)

The Cooperative Institute for Severe and High-Impact Weather Research and Operations is the largest research center at the University of Oklahoma, employing more than 215 researchers, support personnel and students. CIWRO was established in 2021, and extends cooperative programs between the National Oceanic and Atmospheric Administration (NOAA) and OU that have existed continually since 1978. CIWRO connects the scientific and technical resources of OU and NOAA with the goal of improving the basic understanding of weather and transitioning that understanding to operations to produce better forecasts that save lives and property.

## FAA Center of Excellence (FAA COE)

In 2016, the University of Oklahoma was awarded as Technical Lead for the Federal Aviation Administration's newest Center of Excellence (FAA COE), focused on Technical Training and Human Performance (TTHP). There are currently 10 active FAA COEs in the United States. As of 2022, OU's Center is in its seventh operational year and has reached $\$ 17$ million in funding for 80 research projects. The Center serves the FAA's Air Traffic Organization and Civil Medical Aerospace Institute, as well as the Aviation Safety, Flight Program Operations, and NextGen divisions. The OU FAA Center of Excellence TTHP is a consortium of 15 institutions and over 50 industry partners dedicated to helping the FAA revolutionize training practices for pilots, air traffic controllers, maintenance technicians, safety operators, and engineers. The Center also examines human performance, such as the cognitive, physiological, and psychological factors that result in human error during high riskbased decision making. In addition, the Center has worked with the FAA to increase employee readiness for addressing workforce challenges from natural disasters and/or pandemics. The Center has also recently been expanded to support the FAA in responding to new legislation mandating the in-depth study of the human factor impacts of flight automation on pilot and crew in commercial aircraft.

## Oklahoma Alliance for Geographical Education (OKAGE)

Oklahoma Alliance for Geographical Education is an organization for geography educators in Oklahoma, and is affiliated with the National Geographic Society and its national network of state geographic alliances and national geography organizations.

## Oklahoma Climatological Survey (OCS)

The Oklahoma Climatological Survey was established in 1980 to provide climatological services to the people of Oklahoma, conduct research on the impacts of climate on human activities, and serve as a support facility for the State Climatologist. OCS has a legislative mandate to acquire, process, and disseminate climate and weather data and information for use by the state's citizens. In addition, the Survey maintains an extensive array of climatological information, conducts research on both land-air interactions and applied climatology, educates hundreds of Oklahoma decision-makers annually, and operates the Oklahoma Mesonet, Oklahoma's weather network. OCS is located in the National Weather Center, part of the Norman Research Campus.

## Oklahoma Mesonet

The Oklahoma Mesonet consists of over 100 automated observing stations that continuously monitor numerous important weather and soil variables. The Oklahoma Mesonet Program is administered jointly by the University of Oklahoma and Oklahoma State University.

## Southern Climate Impacts Planning Program (SCIPP)

The Southern Climate Impacts Planning Program assists organizations with decision making that builds resilience by collaboratively producing research, tools, and knowledge that reduce weather and climate risks and impacts across the South-Central United States.SCIPP is a partnership between the University of Oklahoma, Louisiana State University, Texas Sea Grant at Texas A\&M University, and Adaptation International. Established in 2008, SCIPP is one of several NOAA Climate Adaptation Partnerships teams, formerly Regional Integrated Sciences and Assessments. The SCIPP team includes expertise from various academic disciplines, including climatology, meteorology, climate adaptation, political science, public administration, business, geography, environmental justice, sociology, and psychology. Stakeholder-driven or "co-produced" research is a central tenet of the NOAA CAP program.

## Simulation Center

The School of Aviation cut the ribbon on a newly renovated simulation center in the Fall of 2022. This 5,000-square-foot facility houses two classrooms, full-scale air traffic control simulators for approach, en route, and tower control, and two flight simulators. This state-of-the-art facility has helped elevate the OU School of Aviation to greater heights since our students are able to train on top-of-the-line equipment. Specifically, the air traffic control simulators were purchased and installed in 2022 making OU a premier air traffic control training facility.

## South Central Climate Adaptation Science Center (SC CASC)

The South Central Climate Adaptation Science Center is a partnership between the US Geological Survey and a consortium of seven member institutions consisting of the University of Oklahoma (OU), Texas Tech University (TTU), Louisiana State University (LSU), the Chickasaw Nation (CN), the Choctaw Nation of Oklahoma (CNO), Oklahoma State University (OSU), and NOAA's Geophysical Fluid Dynamics Lab (GFDL). The consortium has broad expertise in the physical, biological, natural, and social sciences to address impacts of climate change on land, water, fish and wildlife, ocean, coastal, and cultural resources.

## Participation in the Honors Program

Eligible undergraduate students are encouraged to participate in the University-wide Honors Program described elsewhere in this catalog. Specially designed Honors courses and seminars provide the Honors student with small classes and opportunities for interaction with the

University's best and brightest faculty members, both within the student's major field of study and in other courses used to satisfy curricular requirements.

## Research Opportunities

Undergraduate students are encouraged to work with faculty on research projects. These student research projects can be an important component of the Honors Program and/or a source of part-time income and scholarship support. Such research participation provides the student with important experience in his or her discipline in addition to meeting normal academic requirements. For more information on undergraduate research, visit the University's Undergraduate Research website.

Faculty-supervised research is an important component of the College of Atmospheric and Geographic Sciences graduate program. Many graduate students are supported financially through research assistantships funded by federal and private industry grants and contracts. Other graduate students are supported financially through teaching assistantships awarded by their academic units. Facultysupervised student research leading to master's theses and doctoral dissertations is an integral component of the overall graduate degree requirements.

## Computing Services

The College of Atmospheric and Geographic Sciences has made a major commitment to integrate and expand computer and network technology in its courses and programs. The college provides a specialized Media lab for exclusive use by its majors in the National Weather Center, Room 3650. This lab contains equipment geared toward the special needs of students majoring in the College of Atmospheric and Geographic Sciences and includes an HP DesignJet 800ps 42" Poster Printer. The college also maintains three state-of-the-art computer labs in Sarkeys Energy Center. The college is a partner in the University of Oklahoma SuperComputing (OSCER-OU SuperComputing Center for Education and Research Center).

## Storm Chasing Policy

The University of Oklahoma's College of Atmospheric and Geographic Sciences does not condone or encourage storm chasing by students. Anyone who chooses to chase storms does so at their own risk and should not imply that their activities are connected with the University. The only possible exception is when students are officially included in storm intercept activities conducted as part of well-planned and safety-trained scientific projects lead by faculty or scientists in the National Weather Center research units. Storm chasing is not part of the School of Meteorology course curriculum nor should such activities take precedence over the academic activities of the School such as coursework and attending classes and seminars.

## Undergraduate Study

## Bachelor of Arts

The Bachelor of Arts degrees emphasize the social applications of the discipline. Students pursuing a bachelor of arts will acquire knowledge and skills in language, statistics and social understanding, including policy making.

## Bachelor of Science

The Bachelor of Science degrees emphasize the science and engineering sides of the discipline. Students pursuing a Bachelor of Science degree will acquire knowledge and skills in math, physics and computation.

## Accelerated Bachelor/Master Degrees (4+1)

Several accelerated dual-degree programs are offered through collaboration with the Department of Geography and Environmental Sustainability housed in the College of Atmospheric and Geographic Sciences and the Division of Regional and City Planning, an academic unit in the College of Architecture. These accelerated programs are designed for exceptional students who wish to begin earning the Master of Regional and City Planning in the second semester of their junior year of their Bachelor programs.

The School of Meteorology offers accelerated dual-degree programs in collaboration with the Price College of Business, offering exceptional students pursuing an undergraduate degree in meteorology to also pursue a Master of Business Administration. Meteorology majors may also choose to pursue a Master of Science in Data Science and Analytics through the Gallogly College of Engineering.

## Minors

The College of Atmospheric and Geographic Sciences offers students the option of declaring a minor subject. Minors in the college are available within its academic units and specifically in air traffic control, aviation, broadcast meteorology (for meteorology majors only and through Gaylord College of Journalism and Mass Communications), climate adaptation, environmental sustainability, geography, geographic information systems, hydrologic science meteorology (for non-meteorology majors), physical geography, and weather and climate.

## Second Bachelor's Degrees

A student who has completed the requirements for a bachelor's degree may receive a second bachelor's degree upon the completion of the curriculum prescribed for the second degree, provided that the work completed includes at least 30 additional credit hours of upper-division geography, environmental sustainability, geographic information science, or meteorology, applied science and elective courses appropriate to the field of the second degree. These courses must be over and above the credit hours required for the first degree.

## Admission to the College

Students are admitted to the College of Atmospheric and Geographic Sciences from University College once they declare a major in geography, environmental sustainability, geographic information science, or meteorology, and complete the following requirements:

- a minimum of 24 semester hours of college credit.
- a minimum combined retention grade point average of 2.25 .

Students transferring into the University of Oklahoma from another institution must have a minimum of 24 semester hours of college credit and a minimum 2.50 retention grade point average to be directly admitted to the College of Atmospheric and Geographic Sciences.

Academic credit from any division of the University of Oklahoma Norman campus, Health Sciences Center, OU-Tulsa, and Claremore, or Professional and Continuing Studies - is considered resident credit at the University of Oklahoma. Grades and hours earned at any of these divisions are included in the OU retention and cumulative grade point
averages for purposes of admission or readmission to the University, and to the individual colleges within the University.

## Student Advisement

The Atmospheric \& Geographic Sciences Dean's Office and your academic advisor will:

- Work with you to establish realistic goals and objectives.
- Encourage you to be responsible for your own academic progress and to realize your full potential as a student at the University of Oklahoma.
- Understand and communicate the Atmospheric and Geographic Sciences curriculum, graduation requirements, and University of Oklahoma policies and procedures.
- Be accessible for meetings by appointment.
- Respond promptly to your e-mails and telephone calls.
- Make referrals to resources outside the college when needed.
- Help you monitor your progress toward graduation.
- Assist you with any problems of an academic nature.

As a student in the College of Atmospheric and Geographic Sciences, you are expected to:

- Learn the requirements for your degree program, which are posted on the college website and in the OU General Catalog.
- Become familiar with Degree Navigator, the University's online system that monitors progress toward the completion of your degree.
- Become knowledgeable about University policies and procedures, e.g., drop/add deadlines, enrollment, how to apply for financial aid.
- Set a projected graduation date and develop a semester-to-semester plan to complete your degree.
- Stay up to date with college events and opportunities by reading Monday Memo, the college's weekly online newsletter which is emailed to your OU email account every Monday during the spring and fall semesters.
- Meet with your academic advisor at least once every semester.
- Schedule a degree check in the A\&GS Dean's Office (NWC, Room 3630) by the first semester of your junior year.
- Save a copy of every paper or major assignment, along with all official University documents (e.g., receipts) until you are cleared for graduation.
- Be responsible for your actions and decisions.

ALL students in the Department of Geography \& Environmental Sustainability, School of Aviation, and School of Meteorology are advised by a professional academic counselor, who also works with majors to establish faculty mentoring.
In addition to the advisor in your academic unit, the Dean's Office (NWC, Room 3630) is available to assist students with degree checks, transfer equivalencies, and any problems of an academic nature. Students may call (405) 325-3095 to schedule an appointment.

Please note that the responsibility for meeting graduation requirements lies with the student and not with the advisor, the school/department, or the Dean.

## College Grade Point Average Requirements

To remain in good standing in the College of Atmospheric and Geographic Sciences, students must maintain a 2.25 combined retention grade point
average in all coursework attempted, a 2.25 grade point average in all coursework attempted in the major area, and a 2.25 retention grade point average in all coursework attempted at OU.

## Academic Contract

Students whose major, combined retention or OU retention grade point averages fall below 2.25 are placed on academic contract. Students on academic contract are denied enrollment privileges through the College of Atmospheric and Geographic Sciences following any semester in which satisfactory scholastic progress toward a 2.25 has not been made.

Grade point deficiencies must be made up through reenrollment in major courses in which the student had a last-recorded grade of D or F. Should all D or F grades in curriculum courses be raised to a C or above, and the student still has grade point scholastic deficiencies, the student may then enroll in non-major courses. For the freshman and sophomore years any course may be used, but for the junior and senior years, the courses must be numbered 2000 or above, unless the course so elected is approved as an elective in the last two years of the student's major curriculum.

After a student has been reinstated in the University following an unsatisfactory scholastic record, the student must apply to the Dean of the College of Atmospheric and Geographic Sciences for reinstatement in the college. The Dean will determine whether to readmit the student and may prescribe the conditions for reinstatement in the college in accordance with the policies established by the faculty and the Dean.

## Additional Academic Regulations

- Any departure by a student from the curriculum requirements and scholastic rules must be approved by a petition and must not conflict with existing University regulations.
- Full-time students may enroll in 12-19 hours of coursework. Enrollment in more than 19 credit hours is permitted only with the approval of the student's advisor and the Dean of the College of Atmospheric and Geographic Sciences. Permission to carry more than 19 hours will depend primarily on the student's scholarship record and their ability to carry increased loads.
- Academically superior students are encouraged to contact the Honors College office to investigate their participation in the University's Honors College.
- Pass/no pass enrollments may not be used to satisfy College of Atmospheric and Geographic Sciences requirements.


## Ten-Year Limitation Rule

Credit in a student's major that is more than 10 years old may not be applied toward a bachelor's degree unless it is validated by the major department or by each department if the student's major is interdisciplinary.

## College Honor Roll

The College of Atmospheric and Geographic Sciences Honor Roll is compiled at the close of each fall and spring semester. It includes students who have completed at least 12 grade point hours (excluding courses graded S/U or P/NP) and have earned an average of 3.50 or higher during the semester. Part-time students enrolled for both the fall and spring semesters of an academic year will be included on the spring semester honor roll provided that, as a result of combining the work completed during the fall and spring semesters, they earn at least 12 grade point hours (excluding courses grade S/U or P/NP) with no withdrawals and an average of 3.50 or better.

## College Requirements for Graduation

## Graduation Grade Point Average

A minimum 2.25 must be maintained in the major, on all OU work attempted, and on the student's combined retention grade point average to earn a bachelor's degree through the College of Atmospheric and Geographic Sciences.

## Graduate Study

Refer to the Graduate tabs within the Department of Geography and Environmental Sustainability (p. 752) and the School of Meteorology (p. 829)pages of this catalog for information concerning graduate programs.

## Scholarships and Financial Aid

The College of Atmospheric \& Geographic Sciences and its academic units offer a number of scholarships. The college also offers research grant opportunities to A\&GS upperclassmen. Students are encouraged to file the Free Application for Federal Student Aid, apply for scholarships, and other resources on the University's Financial Aid Services website.

## Career Opportunities

## Aviation

Career choices for students completing the undergraduate program in aviation include, but are not limited to, airport management, business planning analyst, aviation technical writer, contract specialist, corporate or airline management, corporate, military, air ambulance, sight-seeing, airline and flight test pilot, flight instructor, freelance commercial assistant, aircraft sales, leasing and insurance, flight dispatcher, flight schedule coordinator, safety inspector, air traffic controller, planning and development manager, aeronautical charting, aviation law, accident investigator, and air marshal. Additionally, OU Aviation helps students further their career prospects in that it is an approved school to provide training for the FAA Air Traffic-Collegiate Training Initiative and the Restricted Airline Transport Pilot, as well as enjoying pipeline agreements with several Regional airlines such as Envoy, PSA, Republic and as a Southwest Airlines Destination 225 Cadet Pathway partner.

## Environmental Sustainability

Climate change, habitat destruction, pollution and the overuse of natural resources have contributed to a human environment that may no longer be sustainable. Only by using modern scientific methods and by integrating scientific research with an understanding of the global economy and governmental institutions can we expect to understand and manage a natural environment that will be sustainable, supporting and enhancing the quality of life for generations to come. Skilled professionals educated in the principles of environmental sustainability are essential to the effective management of the natural environment. These professionals will be qualified for numerous sustainability-related positions in government, the private sector, the non-profit sector, and education. Because many managers in these sectors have only a vague understanding of sustainability, persons with degrees in environmental sustainability are positioned very well to achieve important leadership positions, setting agendas for long-run sustainability at the local, regional, national, and global levels.

## Geographic Information Science

Location-based data are central to 80 to 90 percent of all governmental information and to a wide range of business endeavors. Students who major in geographic information science study the science and
technology of gathering, analyzing, interpreting, distributing and using geographic information. The U.S. Department of Labor declared geospatial technology as one of the twelve targeted industries that are high growth, high demand, and economically vital for the nation. Lending itself to both physical and social sciences, geospatial technology is applied across a broad range of sectors. Career opportunities span academia, government, industry and non-governmental organizations and include careers in agriculture, forestry, urban planning, land use, soil mapping, energy \& utilities, redistricting, identifying and monitoring surface and ground water, flood damage assessment and relief measures, and consumer industries like in-car navigation systems.

## Geography

More geographers than ever before are being hired in dozens of different fields. All levels of government hire geographers, who work for local and state economic development or planning offices, conduct research in recreation and park use, or map land use from satellite images. Many geographers at the federal level work for the Environmental Protection Agency, the Central Intelligence Agency, the U.S. Geological Survey, and the Department of State. Geographers also conduct marketing studies, plan transportation routes, understand international markets, advise businesses on the best location for new stores, work in real estate and urban planning, and determine environmental risks associated with site locations. From electric companies to wind-power farms, from forestry to telecommunications, real-time mobile interactive geographic technologies and databases are emerging as the backbone of large-scale management systems for industries with distributed assets and mobile workforces.

## Meteorology

Meteorologists are highly trained atmospheric professionals who not only report on the weather, but also forecast it, prepare warnings, study the ozone and pollution levels, brief pilots on hazardous conditions, monitor rainfall and flood levels, and conduct research into specific weather phenomena like severe storms and tornadoes. Although a large number of meteorologists are employed by the media and the National Weather Service, the demand for meteorologists from engineering and environmental firms, private weather forecasters and consultants, and over a dozen federal agencies indicates that the need for professional meteorologists will continue to increase. Employers include all branches of the military, airlines and cargo haulers, the National Aeronautics \& Space Administration (NASA), utility and insurance companies, ocean shipping firms, commodity trading firms, federal and state research laboratories, and meteorological software companies.

## Courses

## AGSC 2970 Special Topics/Seminar

## 1-3 Credit Hours

1 to 3 hours. Prerequisite: May be repeated; Maximum credit nine hours. Special topics course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research, and field projects. (Irreg.)

AGSC 3011 Career Planning \& Development for A\&GS
Majors
1 Credit Hour
Prerequisite: Junior standing or permission of instructor. Provides students with instruction in the career planning process directly related to their major and, ultimately, the world of work. Research shows that the majority of people lose their jobs because of poor work ethic, not because of aptitude. Course teaches appropriate skills desired by employers across AGS disciplines. Through lecture, discussion, individual projects and guest speakers, the interactive curriculum will cover topics such as behavioral interviewing techniques, self-directed job search strategies and career opportunities in multiple job sectors. As the course progresses, students will develop a career portfolio which includes a career assessment, class notes, handouts, cover letters and resumes (including electronic versions).

## AGSC 3440 Mentored Research Experience 3 Credit Hours

0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)
AGSC 3960 Honors Reading
1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Consists of topics designated by the instructor in keeping with the student's major program. Covers topics not usually presented in the regular courses.

## AGSC 3970 Honors Seminar

1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Subjects covered vary. Deals with concepts not usually treated in regular courses. (Irreg.)
AGSC 3980 Honors Research
1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Provides an opportunity for the gifted Honors candidate to work at a special project in the student's field. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
AGSC 3990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: permission of instructor and junior standing. May be repeated once with change of content. Independent study may be arranged to study a subject not available through regular course offerings. (F, Sp, Su)

## AGSC 4960 Directed Readings

1-4 Credit Hours
1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean. May be repeated; maximum credit four hours. Designed for upper-division students who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)

## AGSC G4970 Seminar

1-3 Credit Hours
1 to 3 hours. Prerequisite: permission of instructor. May be repeated with change of subject matter; maximum credit nine hours. Subjects covered vary. Deals with interdisciplinary concepts in atmospheric and geographic sciences not usually covered in regular courses. (Irreg.)

## AGSC 4990 Special Studies

1-4 Credit Hours
1 to 4 hours. Prerequisite: Permission of instructor, upper-division standing. Contracted special problems study for topics not currently offered in regularly scheduled courses; may include library and/or laboratory research and field projects.

AGSC 5960 Directed Readings
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing and permission of department. May be repeated; maximum credit twelve hours. Directed readings and/or literature reviews under the direction of a faculty member. (F, Sp, Su)

AGSC 5970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: permission of instructor. May be repeated with change of subject matter; maximum credit nine hours. Subjects covered vary. Deals with interdisciplinary concepts in atmospheric and geographic sciences not usually treated in regular courses. (Irreg.)
AGSC 5990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)

# Department of Geography and Environmental Sustainability 

Scott Greene, Chair
Laurel Smith, Associate Chair
Sarkeys Energy Center, Suite 510
100 E. Boyd Street
Norman, OK 73019-1007
dges@ou.edu
www.ou.edu/ags/geography

## General Information

The Department of Geography and Environmental Sustainability (DGES) has three majors: Geography, Environmental Sustainability, and Geographic Information Science (GIS) which all offer a Bachelor of Arts or Bachelor of Science. Geography, Environmental Sustainability, and Geographic Information Science are all strongly interlinked. Together, they provide new ways of thinking and tools for understanding and managing the planet. Yet each is sufficiently distinct and provides different career paths and opportunities for students and practitioners.

Geography is made up of the study of two interrelated phenomena: spatial patterns (the why of where) and human-environment relationships (how people interact with where they live, work and play). Geography has a long and sometimes controversial history; geographers created maps of the world, and those maps were used to tell stories about how the world is, and what it ought to be. Contemporary geography includes the making of maps as well as critical examinations of their purposes and uses, but it is not limited to the study of maps. The discipline is often divided into three areas: physical geography (the study of the Earth's physical environments, features, and processes); human geography (the study patterns and dynamics of cultures, societies, economies and regions); and GIS (the study of geospatial information systems, spatial algorithms, and geovisualization). Many geographers find that the discipline is unusually supportive of work at the intersection between physical and social sciences, making geography an important cognate to environmental and sustainability studies.

Environmental Sustainability is a growing field that addresses how societies can meet the needs of the present without compromising the ability of future generations to meet their needs. Environmental sustainability has emerged as a field of study following recognition that the resources that support human life and make it comfortable are
decreasing in quantity and quality while the demand and consumption for these resources continues to rise. Simultaneously, there is recognition that the issues involved, such as renewable energy resources, climate change, biodiversity loss, water resources, environmental justice, air and environmental quality etc., are cross-cutting issues that are not, and cannot adequately be, addressed by existing disciplines. Thus, there is need for new educational and research paradigms that weave environmental, economic and social issues together to provide students with an interdisciplinary education designed for dealing with such complex issues. Environmental sustainability degree holders are well-prepared for careers in state and municipal government, nongovernmental organizations, and business. Graduates of this program will lead efforts in research, decision-making, and policies that underpin the drive for sustainable futures.

Geographic Information Science (GIS) is the science and technology of acquiring, analyzing, visualizing, and interpreting spatial data to enhance understanding, reveal relationships, patterns, and trends, and to support decision-making processes. Geographic Information Science includes the study, development and application of geographic information systems, remote sensing and global positioning systems (GPS). It is by nature multidisciplinary and has considerable applications in many disciplines including anthropology, biology, business management, ecology, energy management, engineering, geography, geology, meteorology, sociology, and urban and regional planning. GIS integrates methods from these different fields in order to solve problems and understand human, natural and physical systems from local to global scales. Any data that has geographic attributes can by analyzed and visualized in GIS to reveal information that is essentially not available using any other means. For these reasons, many businesses and organizations find GIS an indispensable part of routine operations and long term strategic planning. Several faculty members have strong research interests in applying GIS and remote sensing technologies to understand land use land cover change, ecosystem dynamics, and urban environments.

The department's educational mission and scholarship covers the entire spectrum of geography, environmental sustainability, and geographic information science. Faculty research interests in conservation biology, hydrology, global and tropical climatology, land-use land cover, and biogeography. In human geography, faculty research interests include urban and environmental politics, humanities and visual arts, economic and natural resource development, indigenous cultures, specific regions, such as Latin America, Africa, Russia and East Asia, and indigenous use of media. Research in environmental sustainability focuses on renewable energy resources principally, energy and wind power development, ecosystem valuation, and sustainability perception. Many faculty members make extensive use of geographical information systems (GIS) in both geography and environmental sustainability research, in addition to investigating cutting edge methodological issues in geographic information sciences.

Faculty members also use a wide range of quantitative and analytic methods, including statistics remote sensing, archival methods and qualitative methodologies. The faculty is involved in wide ranging research associated with areas including natural hazards, land-use and land cover change, water resources, applied climatology and sustainability. The faculty is currently working in many geographical areas, including the United States, Canada, Latin America, Africa, the Middle East, and South and East Asia.

Thus, unique among all disciplines, geographic inquiry sits at the intersection of the social sciences, the humanities, and the natural sciences. Within the department, the research interests and expertise
of faculty members cover the entire spectrum of geography including biogeography and human impacts on species distribution, applied climatology, renewable energy resources, hydrology and water resources, land cover and land use change, cultures, indigenous identities, political ecology, geohumanities, regional specialties, environmental policy and natural hazards.

## Interested? Email us dges@ou.edu

Below are the current jobs our alumni have, the employment opportunities, and helpful links for each major.

## Recent OU Geography Alumni - Employment

- Analyst at Inegra Realty Resources
- Assistant Planner at Association of Central Oklahoma Governments
- Associate GIS Analyst at Gulfport Energy Corp.
- Associate GIS Tech at OGE Energy Corp
- Bicycle \& Pedestrian Coordinator at OK Dept. of Transportation
- Broadcast Meteorologist at TEGNA
- Community Development Specialist at City of Bethany
- EHS Data Analyst I at Chesapeake Energy
- Emergency Management Specialist, Kinston, North Carolina
- Engineering Tech at OGE Energy Corp
- GIS Tech at Aerotek
- Environment Project Specialist at Professionals Service Industries
- Environmental Services at Frito Lay
- Geospatial Analyst at Jeppesen
- GIS \& Mapping Specialist at Reagan Smith Energy Solutions
- GIS Analyst at ConocoPhillips
- GIS Analyst at Enercon Services
- GIS Business Analyst III at Kalibrate
- GIS Mapping Specialist at Reagan Smith Energy Solutions
- GIS Specialist at Meshek \& Associates
- GIS Specialist at ONEOK
- GIS Specialist at Zayo Group
- GIS Technician at Adecco Group
- Environmental Health Fellow with the U.S. EPA .
- Land Mapping Technologist at Encana Corporation
- Forensic Meteorologist at Weather Decision Technologies
- Mapping Support Specialist at Innovative Systems
- Marketing \& Sales Coordinator at Weather Decision Technology
- Mesonet Calibration Lab Technician at Oklahoma Mesonet
- Officer in the U.S. Navy
- Project manager at Tulsa Regional Chamber of Commerce Regional Chamber of Commerce
- Sustainable Development \& Transportation Planning at North Central Texas Council of Governments System
- Technician, General Dynamics Information Technology
- Technical Specialist at Baker Hughes
- Transportation planner with the North Central Texas Council of Governments


## Recent OU Geography Alumni - Graduate School

- Ph.D. in Geography at the University of Maryland
- Ph.D. in Professional Counseling at Oklahoma State University
- Law Student at Penn State University
- Master of Arch at OU in landscape Arch and Urban Planning
- Master of Arts in Geography at The Univeristy of Oklahoma
- Master of Science in Geography at The University of Oklahoma
- Master of Public Health at The University of Oklahoma Health Sciences Center
- Master of City and Regional Planning at the University of North Carolina
- Master of Public Admin at George Mason
- Master in Geography and Spatial Planning at the University of Luxembourg


## Career Options in Geography

- Climatologist
- Community Developer
- Community Resources Specialist
- Emergency Management
- Environmental Impact Analyst
- Environmental Scientist
- Facilities Planner
- Geointelligence Specialist
- Historic Preservationist
- Hydrologist
- Land Economist
- Land Use Analyst
- Location and Siting Analyst
- Logistics Analyst
- Map Analyst
- Map Curator / Librarian
- Natural Hazards Analys
- Natural Resources Manager
- Site Researcher
- Urban and Regional Planner
- Water Resources Specialist


## Helpful Resources

## Careers in Geography:

https://jobs.aag.org/jobs/
http://www.geographyjobs.com/
https://www.indeed.com/q-Geography-jobs.html

## Professional Societies:

http://www.aag.org/
https://americangeo.org/

## Recent OU Environmental Sustainability Alumni - Employment

- Environmental Programs Specialist II at OK. Dept. of Environmental Quality
- Air Quality Program Coordinator at Choctaw Nation of OK
- Brand \& Content Strategist at Opower in San Francisco
- Business Development at CleanTX in Austin
- City Planner for the City of Amarillo
- District Executive for Boys Scouts of America in OKC
- Field Scientist at Terracon in Katy, TX
- Freshest Cargo Route Manager at Fresh Approach in San Francisco
- GIS Specialist at LandWorks, Inc. in Houston, TX
- Director of Marketing and Communications at CleanTX in Austin
- Retail Strategy Architect of Digital Innovation in Norman
- GIS Specialist for Brownsfields Program for Oil and Gas Conservation Division of OK. Corp. Commission
- Health and Safety Executive (HES) Officer. Innospec Oilfield Services in OKC
- Insurance Agent at Kemper in Georgia
- Associate Planner and Program Coordinator at the Office of Sustainability in OKC
- Quality Control Analyst at Cyanotech in Hawaii
- Brown Field Coordinator at Absentee Shawnee Tribe, Office of Environmental Health and Engineering
- Natural Resources and Sustainable Development (NRSD) Graduate porgram in WDC, American University School of International Service (SIS)
Masters of City and Regional Planning Program, UNC; Graduate Asst. UNC Highway Safety Research Center on safe routes to school


## Career Options in Environmental Sustainability Government

- Sustainable community planner
- Green economic developer
- National Park ranger
- Municipal water conservation program manager
- Green team leader for city government
- Oklahoma Department of Environmental Quality
- Oklahoma Water Resources Board
- United States Environmental Protection Agency
- United States Office of Renewable Energy and Energy Efficiency
- United Nations Sustainable Development Officer


## Business

- Green energy entrepreneur
- Corporate social responsibility manager
- Environmental consultant
- Energy auditor
- Environmental journalist
- ISO certification specialist


## Nonprofit

- Executive director of a local environmental nonprofit
- State-level engagement coordinator for Greenpeace
- Fundraising and grant writer for Sierra Club
- Communications manager for World Wildlife Fund


## Helpful Resources

Careers in ES:
https://www.ecojobs.com
https://www.sustainabilitydegrees.com/careers/

## Professional Societies

International Society of Sustainability Professionals
The Association of the Advancement of Sustainability in Higher Education

SCN: International Sustainable Campus Network

## Recent OU GIS Alumni - Employment

- OU GIS Alumni hold a variety of jobs in many differing career fields. Below is just a small example of these jobs:
- GIS Technician at the 9-1-1 Dept. of the Association for Central OK Government
- Geospatial Imagery Analyst at US Navy Reserve
- Cartography Technician in Kansas City at Garmin
- Design Technician, Charlotte County, Florida
- GIS Analyst, Williams
- GIS Analyst, KAMO POWER
- GIS Analyst I, Chesapeake Energy
- GIS Technician, Chickasaw Nation, Ada, OK
- GIS Analyst II, Williams, San Antonio, TX
- GIS Analyst at Muscogee Creek Nation
- GIS Analyst, Absentee Shawnee Tribe; Office of Env. Health and Eng.
- GIS Contractor, OGE Energy
- GIS Specialist, Oklahoma Dept. of Transportation
- GIS Technician, Apply, Austin TX
- GIS Tech, Chesapeake
- GIS Tech III, Chesapeake
- GIS Technician, Meshek \& AssociatesGIS Technician at American Energy Partners
- GIS Technician, Apex Systems
- GIS Analyst, Chesapeake Energy
- GIS Analyst, Tapstone Energy
- Routing Technician, Oklahoma Environmental Management Authority
- SAP Specialist and Warehouse Lead Supervisor over the F119 Program, URS Corporation, An AECOM Company
- Software Engineer, Centuria
- IT Analyst II, The University of Oklahoma
- GIS Research Analyst, Templeton Demographics


## Career Options in GIS

- Cartographic Design
- Computer Programming
- Data Analysis, Integration, Mining and Visualization
- Database Design and Management
- Disaster Response
- Environmental Analysis and Management
- Intelligence Analyst
- Imagery Analyst
- Logistics Planning and Support
- Planning (Urban, Transportation, Resources)
- Project Management
- System Administration
- Web Mapping


## Helpful Resources

Careers in GIS:
http://www.mygisjobs.com/
GIS Jobs Clearinghouse

## Discover Data Science

## Professional Societies:

Oklahoma Geographic Information Council
South Central Arc User Group
URISA
GIS Professionals Volunteering for a Better World

## Interested? email Us DGES@OU.EDU

## Programs \& Facilities

Department offices are housed primarily on the fourth, fifth and sixth floors of Sarkeys Energy Center, while laboratories are located on the first floor of the same building. Available software includes ERDAS, ENVI, ARCMap, Microsoft Office products and SPSS for statistical analysis.

The department has labs for physical geography, GIS, cartography, and remote sensing. We also offer a DGES student only lab on the 6th floor and a collaborative space students can reserve on the 5th floor.

University resources include the Bizzell Memorial Library, which has an extensive collection of journals and books on geography and environmental sustainability, a large collection of maps and aerial photographs, and special collections in Western History, the History of Science, and the Geosciences.

The department also houses the Oklahoma Alliance for Geographic Education (OKAGE), an organization for geography educators in Oklahoma. OKAGE is affiliated with the National Geographic Society and its national network of state geographic alliances and national geography organizations. Also associated with the department are the experimental Geography studio, the Center for Spatial Analysis, the South Central Climate Science Center, and the Water-Energy-Food Institute (WEFI).

## Study Abroad

Students majoring in geography, environmental sustainability, and geographic information science are strongly encouraged to participate in the University's Study Abroad Program. Department advisors work closely with students to ensure that courses taken abroad will apply to their degrees. Our degrees offer a great deal of flexibility to allow for study abroad courses to count toward the degree plan. Students may study abroad in any of more than 100 cities across 50 countries around the world. Graduates of the program have studied abroad in Austria, Costa Rica, Ecuador, Ireland, Germany, Netherlands, Peru, the Galapagos Islands, and the United Kingdom (English and Scottish universities). The College of Atmospheric and Geographic Sciences offers the John T. Snow Study Abroad Scholarship; this \$1,500 award is presented each year to a junior A\&GS student who plans to study abroad, in addition to funding opportunities offered by OU through the Study Abroad Program.

## Scholarships

The department offers 12 awards and scholarships (6 of which are endowed) which are used annually to recognize deserving students. The Ralph and Margaret Olson Scholarship Fund provides awards to students on the basis of high academic achievement; undergraduate majors are eligible after completion of the junior year. The Clyde Bollinger Award provides awards to graduating seniors who demonstrate outstanding scholarship and enthusiasm for geography. Additional awards and scholarships are provided annually to outstanding graduate and undergraduate students. The James Davis Geography Early Scholar Award and the Gress Family Scholarship are awarded to freshmen or sophomores who declare a major in geography or environmental
sustainability in the freshmen or sophomore year. The Chair's award for Outstanding Senior Capstone is awarded each year to the student or team of undergraduate students that produce an original body of work judged to be the best by the faculty members.

## Undergraduate Study Bachelor of Arts and Bachelor of Science

All undergraduate students majoring in geography, environmental sustainability, or geographic information science are required to complete a core curriculum in the respective degrees, which provides students with an introduction to the major areas of geography and sustainability. Both the Bachelor of Arts and Bachelor of Science degrees contain electives that allow the student (in consultation with an advisor) to craft a degree program that meets their interests in the various facets of the fields. Students are encouraged to meet with the departmental faculty advisors early in the student's academic career to begin discussing the courses best suited to the student's interests.

- Environmental Sustainability, Bachelor of Arts (p. 767)
- Environmental Sustainability, Bachelor of Science (p. 771)
- Geographic Information Science, Bachelor of Arts (p. 774)
- Geographic Information Science, Bachelor of Science (p. 776)
- Geography: Geohumanities, Bachelor of Arts (p. 778)
- Geography: Physical \& Social Sciences, Bachelor of Arts (p. 780)
- Geography, Bachelor of Science (p. 782)


## Accelerated Degree Programs

The department now offers accelerated Master's programs with any of our undergraduate degrees and a Masters in Regional and City Planning.

- Environmental Sustainability: Planning \& Management, Bachelor of Arts/Master of Regional \& City Planning (p. 787)
- Environmental Sustainability: Planning \& Management, Bachelor of Science/Master of Regional \& City Planning (p. 790)
- Geographic Information Science, Bachelor of Arts/Master of Regional \& City Planning (p. 794)
- Geographic Information Science, Bachelor of Science/Master of Regional \& City Planning (p. 797)
- Geography: Physical \& Social Sciences, Bachelor of Arts/Master of Regional \& City Planning (p. 799)
- Geography, Bachelor of Science/Master of Regional \& City Planning (p. 802)


## Minors

Minors offered by the OU Department of Geography and Environmental Sustainability (DGES) provide complimentary knowledge for a variety of careers and degrees. By combining the study of environmental issues and research methods, social, economic, energy and policy considerations, and digital technologies and their applications, our minors prepare graduates to better comprehend and contribute to addressing real-world social and environmental issues.

- Climate Adaptation, Minor (p. 785)
- Environmental Sustainability, Minor (p. 785)
- Geographic Information Systems, Minor (p. 786)
- Geography, Minor
- Hydrologic Science, Minor (p. 786)
- Physical Geography, Minor (p. 787)


## Graduate Study

## Master of Arts/Master of Science

The Master of Arts and Master of Science degrees certify that a student has a professional grasp of the concepts and techniques of geography/ environmental sustainability and has demonstrated competence and originality in their use. The degrees can be acquired by one of two methods-a thesis option or a non-thesis option.

- Master of Arts, Geography and Environmental Sustainability (p. 805)
- Master of Science, Geography and Environmental Sustainability: Environmental Systems (p. 805)
- Master of Science, Geography and Environmental Sustainability: Geospatial Technologies (p. 806)


## Online Graduate Degrees

- Master of Science, Geography and Environmental Sustainability: Geospatial Technologies (p. 806)


## Graduate Certificates

Students interested in pursuing Geospatial Technologies Graduate Certificate must be currently enrolled in a graduate program at the University of Oklahoma.

## Doctoral Programs

The Geography and Environmental Sustainability Ph.D. (p. 808) certifies that a student has mastered a significant body of geographical knowledge and has demonstrated a high degree of professional competence as a geographer by making an important, original contribution to knowledge.

All Ph.D. students must identify an advisory committee which will consist of the advisor and four other faculty members, one of whom must be from a discipline other than geography.

Students are expected to declare provisional specialties, in consultation with the advisory committee, by the end of the second semester of residence in the Ph.D. program. Coursework requirements in connection with this specialty, as well as with the cognate field, are determined by the student and the advisory committee in a formal conference held before the end of the first year of residence.

Each student must select a cognate field or discipline related to their area of specialization. The advisory committee must approve both the cognate field and the courses which fulfill this requirement.

The readiness of a student to proceed with dissertation research will be evaluated by a proposal as well as written and oral examinations. The proposal presentation will be open to the general public and must be announced in advance, giving the entire department and public a chance to participate. A written statement of the proposal shall be given to each member of the dissertation committee and to the remaining members of the faculty. The comprehensive examinations will be administered by an examining committee of five faculty members, three from geography and at least one external committee member. The written portion of the examination will cover the degree specializations and cognate field. The examination will be prepared by the advisor from questions suggested by members of the examining committee. The oral examination will consist of follow-up questions related to the written portion and to the student's knowledge of geographic thought and methodology. Satisfactory
completion of the written and oral portions of the general examination is followed by formal certification of candidacy for the Ph.D. degree.

The final requirement is the preparation and oral defense of a Ph.D. dissertation, which must be a major piece of research recognized by the dissertation committee as a significant contribution to knowledge. The dissertation committee must consist of at least five faculty members; three or more of them must be faculty members in the department and also on the geography graduate faculty of the University. Members of the advisory committee will normally remain as members of the examination and dissertation committees. All changes in committee membership must be forwarded to the Graduate College for approval at least 30 days prior to defense of the dissertation.

After advancement to candidacy for the Ph.D. degree, a student is expected to submit a dissertation manuscript within four years. After this time, at the discretion of the Department of Geography faculty, the student may be required to repeat the general examinations and/ or to resubmit a dissertation proposal as a condition for remaining a degree candidate. As long as there is clear evidence that a student is making progress and is keeping up-to-date professionally, the four-year time period may be extended on recommendation of the dissertation committee. Experience shows, however, that long delays tend to increase the likelihood of problems in completing a dissertation.

The final defense of the dissertation will be scheduled only after the committee has agreed to approve the draft as nearly complete. Procedures for this defense shall follow those outlined by the Graduate College. Major points of conflict regarding substance or style should be resolved before the final defense. However, minor additions and revisions may be expected after the defense.

## Courses

GEOG 1103 Human Geography
3 Credit Hours
An introduction to the humanized Earth; specifically, to the geography of population, the global pattern of cultures and such affiliated elements as language, religion, technology, and political organization, and to the physical expression of those cultures in rural and urban settings. (F, Sp, Su ) [IV-WC] .

## GEOG 1113 The Language of Maps

3 Credit Hours
Introduction to reading, analyzing and interpreting graphic information symbolized on a wide variety of maps. Topics include: scale, projection, generalization, symbolization, statistical map techniques, coordinate systems, interpreting human and physical landscapes on topographic maps and web-based mapping services, controversies about place names, political gerrymandering, and cartographic innovations. (Sp) [I-O].

## GEOG 1114 Physical Geography

4 Credit Hours
A systematic introduction to the physical Earth; including Earth materials, landform processes and resultant landforms, Earth-sun relations, weather, climate, the water cycle, natural vegetation, and soil types. Emphasis is placed on the inter-relationships among these phenomena. (F, Sp, Su) [IINSL] .
GEOG 1123 Introduction to Geohumanities
3 Credit Hours Introduces students to the link between geography and the humanities, specifically the way we imagine, design, understand and represent the lands and lives of everyday places. Students learn how others have used words (e.g., literature, stories, blogs), pictures (e.g., art, photography, television, video, cinema), music, and maps to assign meaning to places. (F, Sp)

GEOG 1203 Global Environmental Issues 3 Credit Hours
This course is an "interactive" lecture/discussion course, and integrates environmental content with selected readings, hosts guest experts and connects students with real world applications. The myriad of environmental issues and concepts expressed by various media that impact us directly and indirectly will be academically explored. (F,Sp) [IIISS].
GEOG 1213 Economic Geography
3 Credit Hours
A survey of the contemporary global economy and of the analytical approaches developed by geographers studying it. Economic systems are examined at the household, urban, regional, national, and international levels. Special attention is given to changes in resource use, regional specialization, trade, industrial and retail location, and modernization. ( F , $\mathrm{Sp})[\mathrm{III-SS}]$.
GEOG 2021 Exploring DGES
1 Credit Hour
Prerequisite: Majors only. An immersive course designed to introduce students to The Department of Geography \& Environmental Sustainability (DGES). Students investigate and practice what it means to be an environmental sustainability, geographic information science, or geography major. Provides foundational knowledge for researching, designing, and implementing each student's DGES degree for a successful collegiate experience and create a sense of belonging and community. (F)
GEOG 2603 World Regional Geography
3 Credit Hours
A broad survey of the world's major culture regions emphasizing basic physical, cultural, economic, and political patterns, as well as the processes that have created those patterns. Emphasis on economic development, ethnic conflict, and environmental degradation, as well as on the changing role of the United States. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ ) [IV-WC] .
GEOG 2970 Special Topics/Seminar 1-3 Credit Hours
Special Topics. 1 to 3 hours. May be repeated; Maximum credit nine hours. Special topics course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research, and field projects. (Irreg.)

## GEOG 3003 Interpreting Planet Earth

3 Credit Hours
Prerequisite: junior standing or permission of instructor. This one semester, dynamic course integrates human and physical geography. Understanding our planet, its people, issues and global activities will involve "hot topic" discussions, case studies, a team project, plus two outside class field-based activities. (Sp) [III-SS].

GEOG 3023 Principles of Physical Geography
3 Credit Hours
Prerequisite: junior standing or permission of instructor. This course is designed to explain important physical geographical processes and phenomena, the interactions among these phenomena, and their relationship with various human activities. The course provides a solid foundation for upper level physical geography courses including biogeography, climatology, geomorphology, and hydrology. (Sp)

GEOG 3043 Living With Nature
3 Credit Hours
Prerequisite: Junior standing or department permission. Examine the forces of nature that cause disruptions and disasters which includes the process that produces storms, hurricanes, wildfires, droughts, etc. Each topic will include an examination of the causes of those events, where and how often they occur, and the risks they pose to people and society and what actions are needed to reduce or prevent impacts. (Sp) [II-NS].

GEOG 3133 Geography of Beer, Wine and Spirits 3 Credit Hours
Prerequisite: junior standing; students must be 21 years of age or older as of the first day of the semester; permission of department; Student must e-mail instructor for permission to enroll. This course introduces you to the cultural and historical landscapes that made/make beer, wine, and spirits possible. The course is a rapid introduction to help bring an appreciation to these these industries. Analysis of physical and cultural forces which shape the production, consumption and variety of these beverages. (F, Sp)
GEOG 3213 Principles of Human Geography
Prerequisite: upper-division standing or permission of instructor. Introduction to the distribution of humans and their activities on the surface of the earth and the processes that generate these distributions. Special attention given to the influence of economy, culture, and politics in shaping the land and the spatial character and organization of human life. A key theme is the relationship of human diversity and places to the environment. (F)

GEOG 3233 Principles of Sustainability
3 Credit Hours
Prerequisite: junior standing or permission of instructor. Provides a broad introduction to the basic principles of sustainable development with an examination of its social, economic, and environmental dimensions. Students will learn about sustainability strategies and practices from a national and international perspective with attention paid to the ethical and cultural aspects integral to a transition to sustainability. (F)
GEOG 3243 Principles of Economic Geography 3 Credit Hours Prerequisite: junior standing or permission of instructor. An examination of the distribution of economic activities and the processes that generate them. Special attention is given to principles of economic location and their application to patterns of production, consumption, and exchange. Contemporary approaches to economic geography are critiqued, including relational economic geography, the creative economy, and environmental economic geography. (Sp)
GEOG 3253 Environmental Conservation 3 Credit Hours Contemporary environmental issues and policies. Problems of population growth, food production, energy shortages, resource depletion and pollution impacts will be stressed. The social aspects of conservation management policies will be viewed at both global and national scales. (F) [III-SS].

GEOG 3440 Mentored Research Experience 3 Credit Hours 0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)
GEOG 3443 Environment and Society
3 Credit Hours
Prerequisite: junior standing or permission of instructor. An introduction to the political, economic, and cultural factors that shape humanenvironmental relations around the world. Special attention is placed on how societies come to value the environment differently, how people struggle over access to and control of natural resources, and the social causes and consequences of environmental change. (F) [III-SS].

GEOG 3513 Political Geography
3 Credit Hours
Prerequisite: junior standing. A survey, stressing current geopolitical conflicts. Special topics include the nation-state, territoriality, the legacies of colonialism, spheres of political influence, regional conflicts, and geopolitics in such areas as Europe and the Pacific Rim, demographic and resource considerations in world politics, and emerging culturally based conflicts. (F, Sp, Su) [IV-WC].
GEOG 3523 Managing for a Changing Climate 3 Credit Hours (Crosslisted with METR 3523) Prerequisite: Junior or Senior standing. Provides an integrative understanding of the components of the climate system including the range of natural climate variability and external drivers of climate change, in addition to impacts of a changing climate on multiple sectors such as the economy, policy, ecosystems, and indigenous populations. (F) [II-NS].
GEOG 3773 Geography of the United States
3 Credit Hours
Prerequisite: Junior standing or permission of instructor. An introduction to the regional character of the United States, including its physical, social, and economic elements. (Irreg.)
GEOG 3843 Gender and Environment
3 Credit Hours
Prerequisite: junior standing or permission of instructor. Critically examines the concepts of environment and gender. Particular emphasis is placed on how and why environmental inquiry and academic advocacy intersect. Students will study the organizational practices, institutional policies, and cultural politics with which the concepts of gender and environment are composed, conveyed, and contested. (Sp) [III-SS].
GEOG 3890 Selected Studies in Geography
3 Credit Hours
1 to 3 hours. Prerequisite: junior standing. May be repeated with change of subject matter; maximum credit nine hours. To be used for special intersession courses and occasional (irregularly scheduled) courses of special concern and use for the undergraduate. ( $F, S p$ )
GEOG 3923 Quantitative Methods
3 Credit Hours
Prerequisite: junior standing and completion of a lower division general education math requirement. Introduces students to methods of collecting, organizing, and describing data, focusing specifically on environmental and geographical applications. Students also learn basic concepts of probability and statistical inference. The overall objective is to develop an understanding of statistical literacy as it is applied to geographical and sustainability related issues. (F, Sp)
GEOG 3930 Field Techniques for Geographers 1-4 Credit Hours 1 to 4 hours. Prerequisite: twelve hours of geography or permission of instructor. May be repeated with change of subject matter; maximum credit six hours. Basic methods of data acquisition: surveying, measuring, sampling, sketching, and mapping. Individual and group projects may be required. (Irreg.)
GEOG 3960 Honors Reading
1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Consists of topics designated by the instructor in keeping with the student's major program. Covers materials not usually presented in the regular courses. (F, Su)

GEOG 3970 Honors Seminar 1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. The projects covered will vary. Deals with concepts not usually presented in regular coursework. (Irreg.)

## GEOG 3980 Honors Research <br> 1-3 Credit Hours

1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Provides an opportunity for the gifted Honors candidate to work at a special project in the student's field. (F, Sp, Su)

GEOG 3990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: permission of instructor and junior standing. May be repeated once with change of content. Independent study may be arranged to study a subject not available through regular course offerings. (F, Sp, Su)

GEOG 4003 The Global City and Planning Issues 3 Credit Hours (Crosslisted with RCPL 4003; Slashlisted with 5003) Prerequisite: English 1213 and junior standing. An introduction to the concept of globalization and its effects on cities, and the city planning issues related to those effects. Characteristics, theories, and strategies of city development are reviewed. Cities are observed from several perspectives: natural and built environment, governance, society, economics, and history. No student may earn credit for both 4003 and 5003. (Sp)
GEOG 4023 Geography of Health and Disease 3 Credit Hours
(Slashlisted with GEOG 5023) Prerequisite: Junior standing or department permission. This course offers a holistic view on "one health" by linking health and disease outcomes to the socio-cultural and physical environment, and the places that generate them. Lectures and discussion/lab sections will focus on basic concepts, principles, and methodologies in health studies, landscape epidemiology, global health under changing climate and environment, health disparities, healthcare and medical service planning. No student may earn credit for both 4023 and 5023.

GEOG 4033 Human Impact on the Earth
3 Credit Hours
(Slashlisted with GEOG 5033) Prerequisite: Junior Standing. The earth has been radically transformed by human action. This course explores the human-induced "why" and the extent of global environmental change. The need to explain, predict and prevent such change led to the development of transdisciplinary approaches examining complex humanenvironmental relationships. Course discusses the current, international global environmental science research agendas within the context of social and environmental justice. No student may earn credit for both 4033 and 5033. (Sp)

## GEOG 4043 Urban Climatology

3 Credit Hours
(Slashlisted with GEOG 5043; Crosslisted with METR 4043) Prerequisite: Junior standing or departmental permission. This course provides an overview of urban climates based on a synthesis of modern scientific and applied research findings. The course covers a broad spectrum of topics such as urban airflow, radiation exchanges, urban energy balance, urban heat island, urban surface hydrology, air pollution, cities under global climate change, biometeorology, and sustainable urban design and planning. No student may earn credit for both 4043 and 5043. (Sp)
GEOG 4123 Cities and Society 3 Credit Hours
(Slashlisted with GEOG 5123) Prerequisite: Junior standing or permission of instructor. The course introduces students to the geography of cities-history of cities in human society, connections between urban policies and social outcomes, challenges in constructing a city that works for all. Key concepts include city planning, industrialization, housing, transportation, social/racial/environmental justice, gentrification, and the future of cities. No student may earn credit for both 4123 and 5123. (F)

GEOG 4183 Patterns and Processes in Landscape Ecology

## 3 Credit Hours

(Slashlisted with GEOG 5183) Prerequisite: Junior standing. This course will identify and evaluate the central constructs and methods of landscape ecology, focusing on the role of humans in creating and affecting landscape patterns and processes. Topics covered include fundamentals/frameworks of landscape ecology; how spatial patterns influence ecosystem, management, and conservation; how to quantify spatial pattern; and how to identify general drivers of landscape pattern. No student may earn credit for both 4183 and 5183. (F)

## GEOG 4200 Internship in Geography

1-6 Credit Hours
1 to 6 hours. Prerequisite: Permission of instructor and junior standing. May be repeated; maximum credit 6 hours. A student must secure their own internship that provides career training experience whereby students may apply geographical or environmental skills and develop further professional capabilities in a realistic setting. Students must complete internship hours and reflective coursework provided by faculty member to obtain credit. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

## GEOG 4273 Regional Climatology

3 Credit Hours
(Slashlisted with GEOG 5273) Prerequisite: junior standing or permission of instructor. Investigates the nature of the Earth's climate and provides an examination of ideas about atmospheric circulation. Topics include radiation, the hydrologic cycle, general circulation, local and regional climates, and global climate change. Specific attention is focused on the climatic water budget, its utility in evaluating local and regional climates, the role of climate models, and issues in applied climatology. No student may earn credit for both 4273 and 5273. (Irreg.) [II-NS].

## GEOG 4283 Biogeography

3 Credit Hours
(Slashlisted with GEOG 5283) Prerequisite: junior or senior standing. Biogeography is the study of the spatial distribution, past and present, of plant and animal species and biodiversity. Course topics include factors affecting the distribution of species, the role of biogeography in biological conservation and understanding a changing world. No student may earn credit for both 4283 and 5283. (F)

## GEOG 4293 Hydrologic Science

3 Credit Hours (Slashlisted with GEOG 5293) Prerequisite: Math 1823 or 1914 and either Physics 2414, 2514 or Chemistry 1315. Study of the processes which control the storage and movement of water at global, regional, and local scales. The emphasis is on the land portion of the hydrologic cycle, and includes the study of processes such as infiltration, soil water flow in the saturated and unsaturated zone, rainfall/runoff and evaporation. Lab sections include exercises on a computer in the field and in a soils lab. No student may earn credit for both 4293 and 5293. (Sp)
GEOG 4313 Interpreting Society and Environment: Qualitative Research Methods

3 Credit Hours
(Slashlisted with GEOG 5313) Prerequisites: junior standing. This class approaches qualitative research methods from the perspective of human geography. That makes it especially useful for students who want to investigate the intersections of social and environmental relationships: be they historical, contemporary, or future (as in planning). No student may earn credit for both 4313 and 5313. (F)

GEOG 4333 Corporate Environmental Strategy 3 Credit Hours
(Slashlisted with GEOG 5333) Prerequisite: junior standing or permission of instructor. Examination of the importance of environmental science and technology for corporations seeking sustainability. Students attain an understanding of the private sector as a force for positive environmental change and the dimensions of the natural environment in the competitive market. Corporate case students are discussed to improve understanding of strategic decision making. No student may earn credit for both 4333 and 5333. (Sp)
GEOG 4343 Climate, History, and Society
3 Credit Hours
(Slashlisted with GEOG 5343) Prerequisite: junior standing or permission of instructor. This course is an overview of the mutual interactions of climate and human activities, and examines historical examples of significant climatic impacts. The course includes investigation of the nature of earth's climate and a synthesis of contemporary scientific ideas about the climate and its environmental and societal impacts. No student may earn credit for both 4343 and 5343. (Irreg.) [II-NS].
GEOG 4423 Environmental Justice 3 Credit Hours
(Slashlisted with GEOG 5423) Prerequisite: Junior standing. This course will cover environmental injustices related to environmental hazards (e.g., air and water pollution, toxic and hazardous waste, industrial byproducts) as well as injustices related to environmental benefits (e.g., access to parks, greenery, and clean environments). Throughout the course, we will engage with environmental racism. No student may earn credit for both 4423 and 5423. (Sp) [III-SS].

## GEOG 4513 Real-world Applications of Climate and Weather Information <br> 3 Credit Hours

(Slashlisted with GEOG 5513) Prerequisite: MATH 1823 and PHYS 2514.
The purpose of this class is to broaden the perspective of students to the use of climate information in agriculture, energy, water resources, public health, and other areas of society. Field trip. No student may earn credit for both 4513 and 5513. (Sp)
GEOG 4523 Life Cycle Analysis
3 Credit Hours
(Slashlisted with GEOG 5523) Prerequisite: junior standing or permission of instructor. This course provides students with an understanding of Life Cycle Analysis both with respect to its conceptual foundations as well as its applications across a variety of socially important sectors. No student may earn credit for both 4523 and 5523. (Sp)
GEOG 4563 American Indian Geographies 3 Credit Hours Prerequisite: upper-division standing. A survey of the geographical knowledge among Indians in North America. Historical and contemporary topics are covered in a cross-cultural perspective including land use, environmental perception, concepts of space and place, symbolic landscapes, sacred land, and the idea of resources. (Sp) [IV-WDC].
GEOG 4583 Energy Systems and Sustainability 3 Credit Hours (Slashlisted with GEOG 5583) Prerequisite: Junior standing or permission of instructor. An understanding of interdisciplinary elements and perspectives associated with energy systems in the context of sustainability. It examines current and future energy supply, transmission, and demand management options. A critical focus on the economic, social, and environmental implications of energy system transitions will help identify energy technology and infrastructure solutions while understanding the institutional and organizational changes necessary for implementation. No student may earn credit for both 4583 and 5583. (F)

GEOG 4653 Urban Sustainability: Nature, Justice, and the
City 3 Credit Hours
(Slashlisted with GEOG 5653) Prerequisite: Sophomore standing and ENGL/EXPO 1213, or instructor permission. This course explores the sustainability challenges our cities face and how we might address them from critical perspectives in urban studies, planning, and geography. Through guest speakers, films, field trips and reading discussions, we will learn about the historical, multi-spatial, political, and representational dimensions of urban sustainability, and analyze the implications of different approaches to urban sustainability. No student may earn credit for both 4653 and 5653. (F)
GEOG 4663 Water and Society 3 Credit Hours (Slashlisted with GEOG 5663) Prerequisite: Sophomore standing and ENGL/EXPO 1213, or instructor permission. To examine assumptions and understanding of the accessibility, quality, and distribution of water, the forces driving social change related to water, and the likely course of water and society issues in the future. A major objective is to challenge students to critically think about policy, and how we might develop effective, equitable, and just water policy for the 21 st Century. No student may earn credit for both 4663 and 5663. (F)

## GEOG 4713 Dynamic Modeling of Socio-Environmental Systems 3

 CreditHours
(Slashlisted with GEOG 5713) Prerequisite: Senior standing or permission of instructor. This course is an overview of the use of modeling and simulation to document, analyze, and project the dynamic behavior of socio-environmental systems. The course covers an introduction of basic modeling and simulation terminology and three different approaches to modeling temporal and/or spatial dynamics: system dynamics modeling, agent-based modeling, and cellular automata. No student may earn credit for both 4713 and 5713. (Sp)

## GEOG 4753 Transportation Geography and Planning 3 Credit Hours

 (Slashlisted with GEOG 5753; Crosslisted with RCPL 4753) Prerequisite: Junior standing. This course is intended to introduce students to the world of transportation planning and geography by explaining the importance of transportation from local to global and by engaging them in everyday transportation activities. Topics include, but not limited to, the history of transportation, the relationships between transportation and geography, transportation managements and policies, and urban transportation systems. No student may earn credit for both 4753 and 5753. (Sp)GEOG 4863 Regional Geographies of Indigenous Media 3 Credit Hours (Slashlisted with GEOG 5863) Prerequisite: junior standing. Learn about the making, moving, and meanings of Indigenous media. Regional case studies feature scholarly readings that examine the geographically- and culturally-specific contexts from which particular forms of Indigenous media emerge. Ample video viewings allow us to explore the contents of media made by Indigenous artists/activists/intellectuals and their allies who live and/or work in a particular region. No student may earn credit for both 4863 and 5863. (Irreg.) [IV-WDC].
GEOG 4893 Research and Professional Development 3 Credit Hours Prerequisite: GIS 2023; GEOG 3923 or concurrent enrollment; senior standing; departmental permission. Synthesize and integrate students' previous course experiences through literature review, professional practices and discussion to create a capstone proposal. Students complete their proposals for research to be undertaken in the subsequent capstone course, GEOG 4953. The course will include professional development e.g resume writing, presentation, and interviewing skills. ( $F$, Sp )

GEOG 4943 Natural Hazards
3 Credit Hours
(Slashlisted with GEOG 5943) Prerequisite: junior or senior standing. Examines changes in patterns of a range of natural hazards and the impact they have on society. Examines general concepts of hazard mitigation and design and our perceptions of risk and how that affects preparedness and mitigation decisions. No student may earn credit for both 4943 and 5943. (F) [III-SS].

GEOG 4953 Capstone
3 Credit Hours
Prerequisite: Department permission and GEOG 3924, GIS 2023, and C or better in GEOG 4893. Completion of research as proposed in GEOG 4893, including a formal presentation of results to faculty and students in the department and submission of a final research report reflecting a culminating experience in the student's degree program. (Sp) [V].

## GEOG 4960 Directed Readings 1-4 Credit Hours

1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean. May be repeated; maximum credit four hours. Designed for upper-division students who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)

## GEOG 4970 Special Topics/Seminar

1-3 Credit Hours
1 to 3 hours. Prerequisite: Senior standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

## GEOG 4990 Independent Study

1-3 Credit Hours
1 to 3 hours. Prerequisite: three courses in general area to be studied; permission of instructor and department. May be repeated; maximum credit six hours. Contracted independent study for topics not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (F, Sp, Su)

GEOG 5003 The Global City And Planning Issues 3 Credit Hours (Crosslisted with RCPL 5003; Slashlisted with 4003) Prerequisite: graduate standing. An introduction to the concept of globalization and its effects on cities, and the city planning issues related to those effects. Characteristics, theories, and strategies of city development are reviewed. Cities are observed from several perspectives: natural and built environment, governance, society, economics, and history. No student may earn credit for both 4003 and 5003. (Sp)
GEOG 5023 Geography of Health and Disease 3 Credit Hours (Slashlisted with GEOG 4023) Prerequisite: Graduate standing or permission of instructor. This course offers a holistic view on "one health" (interconnectedness of human, animal, and environmental health) by linking health and disease outcomes to the socio-cultural and physical environment that generate them. Lectures and discussion/lab sections will focus on basic concepts, principles, and methodologies in health studies, landscape epidemiology, global health under changing climate, health disparities, healthcare and medical service planning. No student may earn credit for both 4023 and 5023. (Sp)
GEOG 5033 Human Impact on the Earth
3 Credit Hours
(Slashlisted with GEOG 4033) Prerequisite: Graduate standing. The earth has been radically transformed by human action. This course explores the human-induced "why" and the extent of global environmental change. The need to explain, predict and prevent such change led to the development of transdisciplinary approaches examining complex humanenvironmental relationships. Course discusses the current, international global environmental science research agendas within the context of social and environmental justice. No student may earn credit for both 4033 and 5033. (Sp)

GEOG 5043 Urban Climatology
3 Credit Hours
(Slashlisted with GEOG 4043; Crosslisted with METR 5043) Prerequisite: Graduate standing or departmental permission. This course provides an overview of urban climates based on a synthesis of modern scientific and applied research findings. The course covers a broad spectrum of topics such as urban airflow, radiation exchanges, urban energy balance, urban heat island, urban surface hydrology, air pollution, cities under global climate change, biometeorology, and sustainable urban design and planning. No student may earn credit for both 4043 and 5043. (Sp)

## GEOG 5113 Quantitative Methods in Geographic and Environmental

 Research3 Credit Hours
Prerequisite: Graduate standing. An introduction to quantitative research design and problem-solving research techniques useful for geographical and other environmental and social research. (F, Sp)
GEOG 5123 Cities and Society 3 Credit Hours (Slashlisted with GEOG 4123) Prerequisite: Graduate standing or permission of instructor. The course introduces students to the geography of cities--history of cities in human society, connections between urban policies and social outcomes, challenges in constructing a city that works for all. Key concepts include city planning, industrialization, housing, transportation, social/racial/environmental justice, gentrification, and the future of cities. No student may earn credit for both 4123 and 5123. No student may earn credit for both 4123 and 5123. (F)

GEOG 5183 Patterns and Processes in Landscape Ecology

3 Credit Hours
(Slashlisted with GEOG 4183) Prerequisite: Graduate standing. This course will identify and evaluate the central constructs and methods of landscape ecology, focusing on the role of humans in creating and affecting landscape patterns and processes. Topics covered include fundamentals/frameworks of landscape ecology; how spatial patterns influence ecosystem, management, and conservation; how to quantify spatial pattern; and how to identify general drivers of landscape pattern. No student may earn credit for both 4183 and 5183. (F)

GEOG 5200 Internship in Geography
1-3 Credit Hours
Prerequisite: graduate standing. May be repeated; maximum credit six hours. Provides career training experience for students, allowing them to apply their skills and theoretical constructs in a real world setting in industry, business, government agencies or educational institutions. (F, Sp )
GEOG 5213 Principles and Practice of Urban Planning 3 Credit Hours (Crosslisted with RCPL 5213) Prerequisite: open to seniors in social science departments, architecture and civil engineering and to graduate students in regional and city planning. A lecture course which examines the physical, social, economic and public interest determinants of land use; the economic population and land use studies required to provide the basis for planning; space and location requirements and design characteristics for residential, commercial, industrial and public uses of land; and the study of urban traffic as a function of land use in terms of structure and systems of movement. (F, Su)
GEOG 5253 The Economics of Sustainability 3 Credit Hours Prerequisites: graduate standing or permission of instructor. This course critiques various approaches to understanding the economics of sustainability, including neoclassical economic perspectives, environmental economics, and ecological economics. Students will examine the links between the natural environment and the human economy. (Sp)

GEOG 5273 Regional Climatology
3 Credit Hours
(Slashlisted with GEOG 4273) Prerequisite: Graduate standing.
Investigates the nature of the Earth's climate and provides an examination of ideas about atmospheric circulation. Topics include radiation, the hydrologic cycle, general circulation, local and regional climates, and global climate change. Specific attention is focused on the climatic water budget, its utility in evaluating local and regional climates, the role of climate models, and issues in applied climatology. No student may earn credit for both 4273 and 5273. (Irreg.)

## GEOG 5283 Biogeography

3 Credit Hours
(Slashlisted with GEOG 4283) Prerequisite: Graduate Standing. Biogeography is the study of the spatial distribution, past and present, of plant and animal species and biodiversity. Course topics include factors affecting the distribution of species, the role of biogeography in biological conservation and understanding a changing world. No student may earn credit for both 4283 and 5283. (F)

GEOG 5293 Hydrologic Science
3 Credit Hours
(Slashlisted with GEOG 4293) Prerequisite: Math 1823 or 1914 and either Physics 2414, 2514 or Chemistry 1315, or the equivalents and graduate standing. Study of the processes which control the storage and movement of water at global, regional, and local scales. The emphasis is on the land portion of the hydrologic cycle, and includes the study of processes such as infiltration, soil water flow in the saturated and unsaturated zone, rainfall/runoff and evaporation. Lab sections include exercises on a computer in the field and in a soils lab. No student may earn credit for both 4293 and 5293. (Sp)
GEOG 5313 Interpreting Society and Environment: Qualitative Research Methods

3 Credit Hours
(Slashlisted with GEOG 4313) Prerequisites: graduate standing. This class approaches qualitative research methods from the perspective of human geography. That makes it especially useful for students who want to investigate the intersections of social and environmental relationships: be they historical, contemporary, or future (as in planning). No student may earn credit for both 4313 and 5313. (F)
GEOG 5333 Corporate Environmental Strategy
3 Credit Hours
(Slashlisted with GEOG 4333) Prerequisite: graduate standing or permission of instructor. Examination of the importance of environmental science and technology for corporations seeking sustainability. Students attain an understanding of the private sector as a force for positive environmental change and the dimensions of the natural environment in the competitive market. Corporate case students are discussed to improve understanding of strategic decision making. No student may earn credit for both 4333 and 5333. (Sp)
GEOG 5343 Climate, History, and Society 3 Credit Hours (Slashlisted with 4343) Prerequisite: graduate standing or permission of instructor. This course is an overview of the mutual interactions of climate and human activities, and examines historical examples of significant climatic impacts. The course includes investigation of the nature of earth's climate and a synthesis of contemporary scientific ideas about the climate and its environmental and societal impacts. No student may earn credit for both 4343 and 5343. (Irreg.)
GEOG 5423 Environmental Justice
3 Credit Hours
(Slashlisted with GEOG 4423) Prerequisite: graduate standing. This course will cover environmental injustices related to environmental hazards (e.g., air and water pollution, toxic and hazardous waste, industrial byproducts) as well as injustices related to environmental benefits (e.g., access to parks, greenery, and clean environments). Throughout the course, we will engage with environmental racism. No student may earn credit for both 4423 and 5423. (Sp)

GEOG 5433 Sustainability: Theory and Practice 3 Credit Hours
Prerequisites: graduate standing or permission of instructor. This course examines the concept of sustainability from a human development perspective. A set of sustainability principles are critiqued to provide an understanding of the difficulty facing human systems to solve environmental, social and economic challenges. ( Sp )

## GEOG 5513 Real-world Applications of Climate and Weather

 Information3 Credit Hours
(Slashlisted with GEOG 4513) Prerequisite: Graduate standing. The purpose of this class is to broaden the perspective of students to the use of climate information in agriculture, energy, water resources, public health, and other areas of society. Field trip. No student may earn credit for both 4513 and 5513. (Sp)
GEOG 5523 Life Cycle Analysis 3 Credit Hours
(Slashlisted with GEOG 4523) Prerequisite: Graduate Standing. This course provides graduate students with an understanding of Life Cycle Analysis both with respect to its conceptual foundations as well as its applications across a variety of socially important sectors. No student may earn credit for both 4523 and 5523. (Sp.)
GEOG 5583 Energy Systems and Sustainability 3 Credit Hours (Slashlisted with GEOG 4583) Prerequisite: Graduate standing or permission of instructor. An understanding of interdisciplinary elements and perspectives associated with energy systems in the context of sustainability. It examines current and future energy supply, transmission, and demand management options. A critical focus on the economic, social, and environmental implications of energy system transitions will help identify energy technology and infrastructure solutions while understanding the institutional and organizational changes necessary for implementation. No student may earn credit for both 4583 and 5583. (F)

## GEOG 5653 Urban Sustainability: Nature, Justice, and the

City
3 Credit Hours
(Slashlisted with GEOG 4653) Prerequisite: Graduate standing. This course explores the sustainability challenges our cities face and how we might address them from critical perspectives in urban studies, planning, and geography. Through guest speakers, films, field trips and reading discussions, we will learn about the historical, multi-spatial, political, and representational dimensions of urban sustainability, and analyze the implications of different approaches to urban sustainability. No student may earn credit for both 4653 and 5653. (F)

## GEOG 5663 Water and Society

3 Credit Hours
(Slashlisted with GEOG 4663) Prerequisite: Graduate standing. To examine assumptions and understanding of the accessibility, quality, and distribution of water, the forces driving social change related to water, and the likely course of water and society issues in the future. A major objective is to challenge students to critically think about policy, and how we might develop effective, equitable, and just water policy for the 21 st century. No student may earn credit for both 4663 and 5663. (F)
GEOG 5713 Dynamic Modeling of Socio-Environmental Systems 3 Credit Hours
(Slashlisted with GEOG 4713) Prerequisite: Graduate standing. This course is an overview of the use of modeling and simulation to document, analyze, and project the dynamic behavior of socio-environmental systems. The course covers an introduction of basic modeling and simulation terminology and three different approaches to modeling temporal and/or spatial dynamics: system dynamics modeling, agentbased modeling, and cellular automata. No student may earn credit for both 4713 and 5713. (Sp)

GEOG 5753 Transportation Geography and Planning 3 Credit Hours
(Slashlisted with GEOG 4753; Crosslisted with RCPL 5753) Prerequisite: Graduate standing. This course is intended to introduce students to the world of transportation planning and geography by explaining the importance of transportation from local to global and by engaging them in everyday transportation activities. Topics include, but not limited to, the history of transportation, the relationships between transportation and geography, transportation managements and policies, and urban transportation systems. No student may earn credit for both 4753 and 5753. (Sp)

GEOG 5863 Regional Geographies of Indigenous Media 3 Credit Hours (Slashlisted with GEOG 4863) Prerequisite: Graduate standing. Learn about the making, moving, and meanings of Indigenous media. Regional case studies feature scholarly readings that examine the geographically- and culturally-specific contexts from which particular forms of Indigenous media emerge. Ample video viewings allow us to explore the contents of media made by Indigenous artists/activists/ intellectuals and their allies who live and/or work in a particular region. No student may earn credit for both 4863 and 5863. (Irreg.)
GEOG 5943 Natural Hazards
3 Credit Hours
(Slashlisted with GEOG 4943) Prerequisite: graduate standing. Examines changes in patterns of a range of natural hazards and the impact they have on society. The course will examine general concepts of hazard mitigation and design and our perceptions of risk and how that affects preparedness and mitigation decisions. No student may earn credit for both 4943 and 5943. (F)
GEOG 5960 Directed Readings
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing and permission of department. May be repeated; maximum credit twelve hours. Directed readings and/or literature reviews under the direction of a faculty member. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
GEOG 5970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)
GEOG 5980 Research for Master's Thesis 2-9 Credit Hours
Variable enrollment, two to nine hours; maximum credit applicable toward degree, four hours. Laboratory (F, Sp, Su)
GEOG 5990 Selected Studies in Geography
1-4 Credit Hours
1 to 4 hours. Prerequisite: teacher's certificate or bachelor's degree and permission. May be repeated with change of subject matter; maximum credit eight hours. Designed to afford either an intensive study of a systematic field or an extensive coverage of broad problem topics in geography. (F, Sp, Su)
GEOG 6220 Seminar in Human Geography
1-3 Credit Hours
1 to 3 hours. Prerequisite: twelve hours of geography or permission. May be repeated with change of subject matter; maximum credit fifteen hours. Directed studies in one of the major divisions of human geography. (Irreg.) Sec. 1 - Urban Geography Sec. 2 - Settlement Patterns Sec. 3 Historical Geography Sec. 4-Cultural Ecology Sec. 5-Cultural Geography Sec. 6 - Economic Development Sec. 7 - Political Geography Sec. 8 Social Geography Sec. 9 -Regional Geography Sec. 10 -Political Ecology .
GEOG 6230 Seminar in Economic Geography
1-3 Credit Hours 1 to 3 hours. Prerequisite: twelve hours of geography or permission. May be repeated with change of subject matter; maximum credit 15 hours. Directed studies in one of the major divisions of economic geography. (Irreg.)

GEOG 6240 Seminar in Geography and Environmental
Sustainability 1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing. May be repeated with change of subject matter; maximum credits 15 hours. Directed studies in one of the major aspects of geography and environmental sustainability. Possible topics include: coupled human-natural systems, energy resources, land use, sustainable development, water systems, geospatial technologies, and climate change. (Irreg.)
GEOG 6950 Research Problems in Geography 1-6 Credit Hours 1 to 6 hours. Prerequisite: graduate standing in geography, permission. May be repeated with change of subject matter; maximum credit 15 hours. Advanced independent research on any systematic or regional topic within the scope of geography appropriate to the library facilities or field study opportunities available to the student. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
GEOG 6953 Research and Professional Development 3 Credit Hours Prerequisite: Graduate standing and majors in the Department of Geography and Environmental Sustainability, or permission of instructor. This course provides a comprehensive background on the practice of geographic and environmental research. Students learn about current issues while exploring employment opportunities in environmental and geographical fields and practicing formal research presentations. They also formulate a research proposal, including literature review, methodology, and consideration of ethics. (Sp)
GEOG 6960 Directed Readings 1-3 Credit Hours 1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit six hours. Directed readings and/or literature review under the direction of a faculty member. (Irreg.)

GEOG 6970 Special Topics/Seminar 1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit 12 hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or research and field projects. (Irreg.)
GEOG 6973 Thinking about Geography and Environmental

## Sustainability

3 Credit Hours
Prerequisite: Graduate standing. This course addresses the foundational concepts of geography and environmental sustainability, emphasizing the intersection of human and natural systems. Students explore the relevance of, and possibilities for, real world impacts of geographic and environmental research. (F)
GEOG 6980 Research for Doctoral Dissertation 2-16 Credit Hours 2 to 16 hours. Prerequisite: Graduate standing and permission of instructor; may be repeated. Directed research culminating in the completion of the doctoral dissertation. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

## GEOG 6990 Independent Study

1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)

GIS 1313 Computers and Programs for Environmental Professionals

## 3 Credit Hours

This course covers Microsoft Office software, various computer literacy skills, Python and briefly R programming languages that will help prepare students for future environmental and GIS course work and careers. Topics include data management techniques, logical file/ folder structures, Python programming tasks, safety procedures when downloading materials, geographical applications of programming, constructing "for" loops and conditional statements, and utilizing backup storage. (F)

## GIS 2023 Introduction to Spatial Thinking and Computer

Mapping
3 Credit Hours
Facilitates the effective communication of geographic information through sound cartographic principles and techniques. Introduces students to geographic information literacy, spatial perspectives on information management, and the use of maps as a communication tool.

## (Sp)

GIS 2970 Special Topics 1-3 Credit Hours
Special Topics. 1 to 3 hours. May be repeated; Maximum credit nine hours. Special topics course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research, and field projects. (Irreg.)
GIS 3003 Computer Cartography and Geovisualization 3 Credit Hours Prerequisite: ENGL 1213/EXPO 1213 and GIS 2023. This course is designed to help students learn the theory and the practical applications of map design, with a focus on current methods for visualizing spatial data and introduces the latest cutting-edge data visualization techniques. The course covers a variety of topics but focuses on both traditional map elements but also includes modern advancements in visualization. (F,Sp)
GIS 3440 Mentored Research Experience 3 Credit Hours 0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)

GIS 3960 Honors Reading
1-3 Credit Hours
1 to 3 hours. Prerequisite: Admission to Honors Program. May be repeated; maximum credit six hours. Consists of topics designated by the instructor in keeping with the student's major program. The topics will cover materials not usually presented in the regular courses. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
GIS 3970 Honors Seminar 1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Subjects covered vary. Deals with concepts not usually treated in regular courses. (Irreg.)

GIS 3980 Honors Research 1-3 Credit Hours 1 to 3 hours. Prerequisite: Admission to Honors Program. May be repeated; maximum credit six hours. Will provide an opportunity for the gifted Honors candidate to work at a special project in the student's field. (F, Sp, Su)
GIS 3990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: permission of instructor and junior standing.
May be repeated once with change of content. Independent study may be arranged to study a subject not available through regular course offerings. (F, Sp, Su)

GIS 4013 Fundamentals of Geographic Information Systems 3 Credit Hours
(Slashlisted with GIS 5013) Prerequisite: GIS 2023. Designed to help students learn introductory to intermediate concepts of geographic information science (GIScience) and become proficient users of geographic information systems (GIS). The course covers a variety of topics but focuses on GIS data models, data structures, and spatial analysis. Teaching formats include lectures, in-class exercises and lab exercises. No student may earn credit for both 4013 and 5013. (F, Sp)

## GIS 4133 Fundamentals of Remote Sensing

3 Credit Hours
(Slashlisted with GIS 5133) Prerequisite: Junior standing or permission of instructor. An introduction to the basic principles of remote sensing, image acquisition, image processing, image interpretation, and its geographic and environmental applications. Labs involve the processing of satellite, airborne, and other geospatial data in an open-source cloud computing platform to explore the concepts taught in lectures. No student may earn credit for both 4133 and 5133. (F)

## GIS 4173 Drones and Remote Sensing

3 Credit Hours
(Slashlisted with GIS 5173) Prerequisite: GIS 4133; junior standing. This course will explore remote sensing fundamentals, drone technology, data acquisition, image processing, and integration of these technologies for environmental monitoring, disaster management, agricultural applications, urban planning, and more. Students will gain the skills necessary to operate drones, process remote sensing data, and apply these tools to real-world problem solving. No student may earn credit for both 4173 and 5173. (F)
GIS 4200 Internship in Geoinformatics
1-6 Credit Hours
1 to 6 hours. Prerequisite: junior standing and permission of instructor. May be repeated; maximum credit six hours. Provides career training experience whereby students may apply geoinformatics skills and further develop professional capabilities in a realistic setting. Students will be assigned to private industry, government agencies or educational institutions on an individual basis and report on their experience to the instructor. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

GIS 4233 Digital Image Processing
3 Credit Hours
(Slashlisted with 5233) Prerequisite: Grade of C or better in 4133 or permission of instructor. Theory and techniques for computer processing (digital image processing or DIP) of digital earth resources satellite imagery and incorporation into geographic information systems. No student may earn credit for both 4233 and 5233. (Sp)
GIS 4243 Remote Sensing Applications
3 Credit Hours
(Slashlisted with GIS 5243) Prerequisite: GIS 4133; junior standing. This course is designed to build on the Fundamentals of Remote Sensing towards helping students develop a strong understanding of the tools and techniques used to display, process, and analyze remotely sensed data. Students will learn how to develop analytical workflows to derive products and extract information from remotely sensed data for a broad range of applications. No student may earn credit for both 4243 and 5243. (F, Sp)

GIS 4253 GIS Applications
3 Credit Hours
(Slashlisted with GIS 5253) Prerequisite: GIS 4013. Designed to help students learn intermediate and advanced concepts of geographic information science related to a variety of socio-economic and environmental fields. Course topics may include: landscape ecology and metrics; suitability modeling; binary and ranking index models; routing and network analysis; and other topics applicable to social or environmental fields. Teaching formats include both lectures and lab exercises. No student may earn credit for both 4253 and 5253. (Sp)

GIS 4453 Advanced GIS and Spatial Analysis 3 Credit Hours
(Slashlisted with GIS 5453) Prerequisite: GIS 2023 and GIS 4013 and GIS 4253, CS 1313 or CS 1323 or METR 1313 or MIS 3013, and upperdivision standing; or permission of instructor. Expands and solidifies the GIS knowledge acquired in introductory and applied GIS classes. Focuses on highly complex geographic questions which cannot be solved in simple steps but instead require advanced GIS analysis and sometimes automation. The course is intended to prepare the student for a professional GIS position in the government or business world, or a higher-level graduate position. No student may earn credit for both 4453 and 5453. (Sp)
GIS 4553 Advanced Remote Sensing

## 3 Credit Hours

(Slashlisted with GIS 5553) Prerequisite: GIS 4133; junior standing. This course will introduce students to advanced topics in digital remote sensing towards understanding the theoretical and conceptual underpinnings in both aerial and satellite remote sensing. Focus will be placed on advanced active and passive sensors characteristics, digital image analysis, and processing for advanced issues in remote sensing, including new frontiers in the discipline. No student may earn credit for both 4553 and 5553. (F, Sp)
GIS 4653 Spatial Programming and GIS
3 Credit Hours
(Slashlisted with GIS 5653) Prerequisite: GIS 4013, upper-division standing or permission of instructor. Introduces students to geocomputation concepts, spatial programming skills and computational approaches to spatial data services and spatial problem solving. No student can earn credit for both 4653 and 5653. (F)
GIS 4733 Environmental Remote Sensing
3 Credit Hours
(Slashlisted with GIS 5733; Crosslisted with PBIO 4733) Prerequisite: either a course or hands-on experience in remote sensing, GIS, statistical analysis, computer programming, or permission of the instructor and adviser. Course develops comprehensive knowledge and advanced skills of remote sensing, to apply to the study of the structure, composition, and functions of vegetation, landscapes, and the biosphere. Students will learn hyperspectral data acquisition and analysis; field survey methods; land cover classification from multiple sensors, time series data; and estimation of biophysical and biochemical parameters. Includes image processing software and algorithms. No student may earn credit for both 4733 and 5733. (Sp)
GIS 4833 Environmental Spatial Modeling
3 Credit Hours (Slashlisted with GIS 5833) Prerequisite: Junior standing and GIS 2023. This course covers an introduction to decision-making techniques about land use allocation and planning. Lectures and lab/discussion sections will focus on addressing conflicts involving environmental concerns and multiple objectives. Examples include water resources development, corridor location (e.g., rights-of-way for transmissions, roads, etc.), preservation of endangered species, power plant siting, and others. No student may earn credit for both 4833 and 5833. (Sp)

## GIS 4923 Spatial Statistics

3 Credit Hours (Slashlisted with GIS 5923) Prerequisite: GEOG 3924, CS 1313 or CS 1323 or METR 1313 or MIS 3013, and upper-division standing; or permission of instructor. Explains and demonstrates methods and techniques in spatial sampling; spatial auto-correlation and spatial composition. It also delves into spatially adjusted regression, local statistics, and geo-statistics and related techniques. Theoretical explanations and derivations as well as practical applications making use of both ArcGIS and R. No student may earn credit for both 4923 and 5923. (Irreg.)

GIS 4960 Directed Readings
1-4 Credit Hours
1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean. May be repeated; maximum credit four hours. Designed for upper-division students who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)
GIS 4970 Special Topics/Seminar 1-3 Credit Hours
1 to 3 hours. Prerequisite: Senior standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)
GIS 4990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: Senior standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)
GIS 5003 Spatial Data Management for GIS Professionals 3 Credit Hours
Prerequisite: Graduate standing. The goal of this course is to develop introductory computer science skills and information management literacy for GIS professionals finding work in industry. Students will learn how to capture, create, validate, and maintain spatial data for use in a professional GIS setting, and become familiar navigating federal, local, and private online GIS data repositories for future GIS work. (F, Sp)
GIS 5013 Fundamentals of Geographic Information Systems 3 Credit Hours
(Slashlisted with GIS 4013) Prerequisite: graduate standing. Designed to help students learn introductory to intermediate concepts of geographic information science (GIScience) and become proficient users of geographic information systems (GIS). The course covers a variety of topics but focuses on GIS data models, data structures, and spatial analysis. Teaching formats include lectures, in-class exercises and lab exercises. No student may earn credit for both 4013 and 5013. (F, Sp)

## GIS 5133 Fundamentals of Remote Sensing

3 Credit Hours
(Slashlisted with GIS 4133) Prerequisite: Graduate standing or permission of instructor. An introduction to the basic principles of remote sensing, image acquisition, image processing, image interpretation, and its geographic and environmental applications. Labs involve the processing of satellite, airborne, and other geospatial data in an open-source cloud computing platform to explore the concepts taught in lectures. No student may earn credit for both 4133 and 5133. (F)

## GIS 5173 Drones and Remote Sensing

3 Credit Hours
(Slashlisted with GIS 4173) Prerequisite: GIS 4133 or GIS 5133; graduate standing or permission of instructor. This course will explore remote sensing fundamentals, drone technology, data acquisition, image processing, and integration of these technologies for environmental monitoring, disaster management, agricultural applications, urban planning, and more. Students will gain the skills necessary to operate drones, process remote sensing data, and apply these tools to real-world problem solving. No student may earn credit for both 4173 and 5173. (F)

GIS 5233 Digital Image Processing
3 Credit Hours
(Slashlisted with 4233) Prerequisite: Graduate standing and a grade of C or better in GIS 4133 or GIS 5133 or permission of instructor. Theory and techniques for computer processing (digital image processing or DIP) of digital earth resources satellite imagery and incorporation into geographic information systems. No student may earn credit for both 4233 and 5233. (Sp)

GIS 5243 Remote Sensing Applications
3 Credit Hours
(Slashlisted with GIS 4243) Prerequisite: GIS 4133 or GIS 5133; graduate standing. This course is designed to build on the Fundamentals of Remote Sensing towards helping students develop a strong understanding of the tools and techniques used to display, process, and analyze remotely sensed data. Students will learn how to develop analytical workflows to derive products and extract information from remotely sensed data for a broad range of applications. No student may earn credit for both 4243 and 5243. (F, Sp)
GIS 5253 GIS Applications
3 Credit Hours
(Slashlisted with GIS 4253) Prerequisite: graduate standing, GIS 5013.
Designed to help students learn intermediate and advanced concepts of geographic information science related to a variety of socio-economic and environmental fields. Course topics may include: landscape ecology and metrics; suitability modeling; binary and ranking index models; routing and network analysis; and other topics applicable to social or environmental fields. Teaching formats include both lectures and lab exercises. No student may earn credit for both 4253 and 5253. (Sp)
GIS 5453 Advanced GIS and Spatial Analysis 3 Credit Hours (Slashlisted with GIS 4453). Prerequisite: GIS 5013 and GIS 5253, graduate standing. Expands and solidifies the GIS knowledge acquired in introductory and applied GIS classes. Focuses on highly complex geographic questions which cannot be solved in simple steps but instead require advanced GIS analysis and sometimes automation. The course is intended to prepare the student for a professional GIS position in the government or business world, or a higher-level graduate position. No student may earn credit for both 4453 and 5453. (Sp)
GIS 5553 Advanced Remote Sensing
3 Credit Hours
(Slashlisted with GIS 4553) Prerequisite: GIS 5133; graduate standing. This course will introduce students to advanced topics in digital remote sensing towards understanding the theoretical and conceptual underpinnings in both aerial and satellite remote sensing. Focus will be placed on advanced active and passive sensors characteristics, digital image analysis, and processing for advanced issues in remote sensing, including new frontiers in the discipline. No student may earn credit for both 4553 and 5553. (F, Sp)
GIS 5653 Spatial Programming and GIS
3 Credit Hours
(Slashlisted with GIS 4653) Prerequisite: graduate standing and GIS 4013/GIS 5013. Introduces students to geocomputation concepts, spatial programming skills, and computational approaches to spatial data services and spatial problem solving. No student may earn credit for both 4653 and 5653. (F)
GIS 5733 Environmental Remote Sensing
3 Credit Hours (Slashlisted with GIS 4733; Crosslisted with PBIO 5733) Prerequisite: graduate standing, and either a course or hands-on experience in remote sensing, GIS, statistical analysis, computer programming, or permission of the instructor and adviser. Course develops comprehensive knowledge and advanced skills of remote sensing, to apply to the study of the structure, composition, and functions of vegetation, landscapes, and the biosphere. Students will learn hyperspectral data acquisition and analysis; field survey methods; land cover classification from multiple sensors, time series data; and estimation of biophysical and biochemical parameters. Includes image processing software and algorithms. No student may earn credit for both 4733 and 5733. (Sp)

## GIS 5833 Environmental Spatial Modeling 3 Credit Hours FaCulty (Slashlisted with GIS 4833) Prerequisite: Graduate standing. This course

 covers an introduction to decision-making techniques about land use allocation and planning. Lectures and lab/discussion sections will focus on addressing conflicts involving environmental concerns and multiple objectives. Examples include water resources development, corridor location (e.g., rights-of-way for transmissions, roads, etc.), preservation of endangered species, power plant siting, and others. No student may earn credit for both 4833 and 5833. (Sp)
## GIS 5923 Spatial Statistics

3 Credit Hours
(Slashlisted with GIS 4923) Prerequisite: graduate standing; it is recommended that students have taken an introductory statistics course. Explains and demonstrates methods and techniques in spatial sampling, spatial auto-correlation, and spatial composition. It also delves into spatially-adjusted regression, local statistics, geo-statistics, and related techniques. Theoretical explanations and derivations as well as practical applications, making use of both ArcGIS and R. No student may earn credit for both 4923 and 5923. (Irreg.)

GIS 5960 Directed Readings
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing and permission of department. May be repeated; maximum credit twelve hours. Directed readings and/or literature reviews under the direction of a faculty member. (F, Sp, Su)

## GIS 5970 Special Topics/Seminar

1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing or permission of instructor May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)
GIS 5980 Research for Master's Thesis
2-9 Credit Hours
Variable enrollment, two to nine hours; maximum credit applicable toward degree, six hours. (F, Sp, Su)

## GIS 5990 Independent Study

1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)

GIS 6960 Directed Readings
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor.
May be repeated; maximum credit six hours Directed readings and/or literature review under the direction of a faculty member. (Irreg.)

## GIS 6970 Special Topics/Seminar

1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor May be repeated; maximum credit 12 hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or research and field projects. (Irreg.)

GIS 6980 Research for Doctoral Dissertation
2-16 Credit Hours
2 to 16 hours. Prerequisite: Graduate standing and permission of instructor; may be repeated. Directed research culminating in the completion of the doctoral dissertation. (F, Sp, Su)
GIS 6990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)

| Last Name | First/Middle <br> Name | Middle init. |  | Title(s), date(s) appointed | Degrees Earned, Schools, Dates Completed |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Bhattarai | Nishan |  | 2022 | ASSISTANT <br> PROFESSOR OF GEOGRAPHY AND ENVIRONMENTAL SUSTAINABILITY, 2022 | Ph.D. Environmental Resources Engineering, State Univ of New York College of Environmental Science and Forestry, 2015; M.S. Forest Hydrology, Auburn Univ, 2010; B.S. Forestry, Tribhuvan Univ, 2006 |
| Deng | Chengbin |  | 2022 | ASSOCIATE <br> PROFESSOR OF GEOGRAPHY AND ENVIRONMENTAL SUSTAINABILITY, 2022; DIRECTOR, CENTER FOR SPATIAL ANALYSIS, 2022 | Ph.D. Geography, Univ of WisconsinMilwaukee, 2013; M.S. Remote Sensing and GIScience, Sun Yat-sen Univ, 2008; B.S. Remote Sensing and GIScience, Sun Yat-sen Univ, 2006 |
| Denham | Diana |  | 2021 | ASSISTANT <br> PROFESSOR OF GEOGRAPHY AND ENVIRONMENTAL SUSTAINABILITY, 2021 | Ph.D. Urban Studies, Portland State Univ; M.A. Latin American Studies, Univ of California Los Angeles; M.A. Urban Planning, Univ of California Los Angeles; B.A. Development Studies, Latin American Studies, Brown Univ |
| Feng | Selena |  | 2021 | ASSISTANT <br> PROFESSOR OF GEOGRAPHY AND ENVIRONMENTAL SUSTAINABILITY, 2021 | Ph.D. Geography, Univ of California, Santa Barbara, 2019; M.A. Geographical Sciences and Urban Planning, Arizona State Univ, 2015; M.S. Remote Sensing \& GIS, Peking Univ, 2013; B.S. Cartography and Geographical Information System, Wuhan Univ, 2010 |
| Gliedt | Travis | J | 2012 | ASSOCIATE <br> PROFESSOR OF GEOGRAPHY AND ENVIRONMENTAL SUSTAINABILITY, 2018 | PhD, Univ of Waterloo, 2012; MS, Univ of Waterloo, 2006; BS, Univ of Waterloo, 2005 |
| Greene | John | S | 1995 | PROFESSOR OF GEOGRAPHY AND ENVIRONMENTAL SUSTAINABILITY, 2008; DIRECTOR, OKLAHOMA WIND POWER INITIATIVE, 2015 | PhD, Univ of Delaware, 1994; MA, Univ of Hawaii, 1990; BA, Univ of California Berkeley, 1987 |


| Hoagland | Bruce | w | 1996 | HERITAGE <br> COORDINATOR <br> OF OKLAHOMA <br> BIOLOGICAL SURVEY, <br> 1999; ASSOCIATE <br> HERITAGE <br> ECOLOGIST OF <br> OKLAHOMA <br> BIOLOGICAL SURVEY, <br> 2002; PROFESSOR <br> OF OKLAHOMA <br> BIOLOGICAL SURVEY, <br> 2011; PROFESSOR <br> OF GEOGRAPHY AND <br> ENVIRONMENTAL <br> SUSTAINABILITY, <br> 2011 | PhD, Univ of Oklahoma, 1995; MS, Eastern Kentucky Univ, 1990; BA, Univ of Louisville, 1986 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Koch | Jennifer | A M | 2014 | ASSISTANT <br> PROFESSOR OF GEOGRAPHY AND ENVIRONMENTAL SUSTAINABILITY, 2014 | Dr.-Ing, Univ of Kassell, 2010; Diplom, Univ of Bayreuth, 2005 |
| Loraamm | Rebecca | w | 2015 | ASSISTANT <br> PROFESSOR OF GEOGRAPHY AND ENVIRONMENTAL SUSTAINABILITY, 2015 | PhD, Univ of South <br> Florida, 2015; MS, <br> Univ of South Florida, <br> 2011; BS, Florida <br> Southern Univ, 2009 |
| McPherson | Renee |  | 2012 | ASSOCIATE <br> PROFESSOR OF GEOGRAPHY AND ENVIRONMENTAL SUSTAINABILITY, 2012; DIRECTOR, SOUTH CENTRAL CLIMATE ADAPTATION SCIENCE CENTER, 2012 | Ph.D. Meteorology, Univ of Oklahoma, Norman, OK, 2003; M.S. Meteorology, Univ of Oklahoma, Norman, OK, 1991; B.S. Mathematics and Meteorology with Honors, Univ of Wisconsin-Madison, Madison, WI, 1987 |
| Mullenbach | Lauren |  | 2021 | ASSISTANT PROFESSOR OF GEOGRAPHY AND ENVIRONMENTAL SUSTAINABILITY, 2021 | Ph.D. Recreation, Park and Tourism Management \& Human Dimensions of Natural Resources and the Environment, Penn State Univ (2020), M.S. Forest Resources, Univ of Georgia (2015), B.S. Psychology, Univ of Georgia (2012) |
| Neeson | Thomas | M | 2015 | ASSISTANT PROFESSOR OF GEOGRAPHY AND ENVIRONMENTAL SUSTAINABILITY, 2015 | PhD, Univ of <br> Michigan, 2010; MA, Univ of Michigan, 2009; MS, Case Western Reserve Univ, 2005; BS, Case Western Reserve Univ, 2003 |
| Purcell | Darren | E | 2009 | ASSOCIATE <br> PROFESSOR OF GEOGRAPHY AND ENVIRONMENTAL SUSTAINABILITY, 2013 | PhD, Florida State Univ, 2003; MA, Univ of Kentucky, 1996; BA, Univ of Kentucky, 1991 |


| Shafer | Mark | A | 1990 | ASSISTANT PROFESSOR OF GEOGRAPHY AND ENVIRONMENTAL SUSTAINABILITY, 2012; RESEARCH SCIENTIST OF OKLAHOMA CLIMATOLOGICAL SURVEY, 2012; CIMMS FELLOW, 2012 | PhD, Univ of Oklahoma, 2005; MS, Univ of Oklahoma, 1990; BS, Univ of Illinois, 1987 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Smith | Laurel | C | 2007 | ADJUNCT <br> ASSISTANT <br> PROFESSOR OF <br> WOMEN'S AND <br> GENDER STUDIES, <br> 2008; ASSOCIATE <br> PROFESSOR OF <br> GEOGRAPHY AND <br> ENVIRONMENTAL <br> SUSTAINABILITY, <br> 2014; ADJUNCT <br> ASSOCIATE <br> PROFESSOR OF <br> INTERNATIONAL <br> AND AREA STUDIES, <br> 2016 | PhD, Univ of Kentucky, 2005; MA, Univ of Oklahoma, 1994; BA, Univ of Wisconsin, 1989 |
| Wimberly | Michael |  | 2018 | PROFESSOR OF GEOGRAPHY AND ENVIRONMENTAL SUSTAINABILITY, 2018 | Phd, Oregon State Univ; MS, Univ of Washington; BA, Univ of Virginia |
| Yang | Anni |  | 2021 | ASSISTANT <br> PROFESSOR OF GEOGRAPHY AND ENVIRONMENTAL SUSTAINABILITY, 2021 | Ph.D. Geography, Minor in Numerical Epidemiology, Univ of Florida, 2019; M.S. Geography, Michigan State Univ, 2016; B.S. Surveying and Mapping, Hohai Univ (China) 2014 |

## Environmental Sustainability, B.A.

Minimum Total Credit Hours: 120
Minimum Upper-Division Hours: 40
Overall GPA - Combined and OU: 2.25
Major GPA - Combined and OU: 2.25
Program Code: B408

## Major Requirements

- Courses required for the major may also fulfill University-Wide General Education Requirements.

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Core |  | 3 |
| GEOG 1203 | Global Environmental Issues | 1 |
| GEOG 2021 | Exploring DGES | 3 |
| GEOG 3233 | Principles of Sustainability | 3 |
| GEOG 3443 | Environment and Society | 3 |


| GIS 2023 | Introduction to Spatial Thinking and Computer Mapping | 3 |
| :---: | :---: | :---: |
| GEOG 4523 | Life Cycle Analysis | 3 |
| GEOG 4893 | Research and Professional Development | 3 |
| GEOG 4953 | Capstone (Capstone) | 3 |
| Major Electives |  |  |
| Choose two of the following: |  | 6 |
| GEOG 3043 | Living With Nature |  |
| GEOG 3523 | Managing for a Changing Climate |  |
| GEOG 3843 | Gender and Environment |  |
| GEOG 4033 | Human Impact on the Earth |  |
| GEOG 4123 | Cities and Society |  |
| GEOG 4423 | Environmental Justice |  |
| GEOG 4583 | Energy Systems and Sustainability |  |
| GEOG 4653 | Urban Sustainability: Nature, Justice, and the City |  |
| GEOG 4663 | Water and Society |  |
| Concentrations |  |  |
| Choose a minimum of 9 hours, including at least 6 hours of GEOG courses, from one of the following concentrations (approved course lists maintained by the department): (p. 770) |  | 9 |
| Culture and Society (P161) |  |  |
| Planning and Management (P516) |  |  |
| Science and Natural Resources (P591) |  |  |
| Total Credit Ho |  | 40 |

## Major Support Requirements

| - Courses required for major support may not also fulfill University- |  |
| :--- | ---: |
| Wide General Education Requirements. |  |
| Code $\quad$ Title | Credit <br> Hours |
| Advisor-Approved Electives | 20 |
| Choose 20 hours, including six hours upper-division |  |
| (3000-4000 level), of advisor-approved coursework relevant to |  |
| the student's field(s) of study. |  |

## Total Credit Hours

## General Education and College Requirements

Courses for fulfillment of General Education and college requirements must be from the approved General Education course lists at http:// www.ou.edu/content/gened/courses.html. Courses graded P/NP will not apply.

## UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS

At least three hours of Upper-Division General Education coursework must be completed outside the major.

| Code $\quad$ Title | Credit <br> Hours |  |
| :--- | :--- | ---: |
| Core Area I: Symbolic and Oral Communication |  |  |
| English Composition (6 hours) | 3 |  |
| ENGL 1113 | Principles of English Composition | 3 |
| ENGL 1213 | Principles of English Composition |  |


| or EXPO 1213 Expository Writing |  |
| :---: | :---: |
| Language (0-10 hours) |  |
| (0-10 hours) Students who have not completed two years of the same language in high school are required to take two college courses in the same language |  |
| Beginning Course | 0-5 |
| Beginning Course, continued | 0-5 |
| Mathematics (3 hours) |  |
| Choose one course from the General Education Mathematics list | 3 |
| Core Area II: Natural Science (7 hours, 2 courses) |  |
| Choose two courses including one laboratory component | 7 |
| Core Area III: Social Science (6 hours) |  |
| P SC 1113 American Federal Government | 3 |
| Choose one course from the General Education Social Science list | 3 |
| Core Area IV: Arts and Humanities |  |
| Artistic Forms (3 hours) |  |
| Choose one course from the General Education Artistic Forms list | 3 |
| Western Culture (3 hours) |  |
| HIST 1483 United States to 1865 <br> or HIST 1493 United States, 1865 to the Present | 3 |
| Choose one course from the General Education Western Culture list (excluding HIST 1483 \& 1493) | 3 |
| World Culture (3 hours) |  |
| Choose one course from the General Education World Culture list | 3 |
| Core Area V: First Year Experience (3 hours) |  |
| Choose one course | 3 |
| Total Credit Hours | 37-47 |
| ADDITIONAL COLLEGE B.A. REQUIREMENTS |  |
| Code Title | Credit |
|  | Hours |
| Humanities and Social Science Electives (3 hours must be Upper-Division) |  |
| Choose one course from Arts \& Humanities Gen Ed lists | 3 |
| Choose one course from the Social Science Gen Ed list | 3 |
| Natural Science |  |
| GEOG 1114 Physical Geography | 4 |
| Language |  |
| Choose one course at the intermediate level ${ }^{2}$ | 3 |
| Total Credit Hours | 13 |
| 1 If the student successfully places beyond the second interm course, the 13 hours of required language will become free e |  |

## Free Electives

Electives to bring total applicable hours to the minimum total required for the degree.

## Information Concerning General Rules, Regulations and Minimum Requirements for Undergraduate Degrees

Total Hours: A minimum of 120 semester hours acceptable toward graduation must be completed.
Upper-Division Hours: A minimum of 40 upper- division semester hours acceptable toward graduation must be completed. OU courses numbered 3000 or above are upper- division. Transfer work is counted as lowerdivision or upper-division credit depending on the level at which it was offered at the institution where it was earned. Two-year college work is accepted only as lower-division credit.
Senior Institution Hours: A minimum of 60 semester hours applied toward graduation must be earned at senior (4-year) institutions.

## Residency:

- A minimum of two semesters must be spent in residence in the College of Atmospheric and Geographic Sciences.
- At least 36 of the last 48 hours must be completed in residence at OU.

Individual Studies: No more than six hours of independent study or directed readings may be applied toward degree requirements.
Grade Point Averages: Students must earn a minimum overall 2.25 for each of the following: Combined Retention GPA (all college grades), OU Retention GPA, GPA for all major courses, and GPA for all major courses taken at OU.

## Suggested Semester Plan of Study

This plan shows one possible grouping of courses that would allow students to graduate in four years. Please refer to the front of the degree checksheet for official requirements. Students must consult with College of Atmospheric and Geographic Sciences and/or Department of Geography academic advisors to verify that courses selected each semester fulfill the recommended plan and satisfy university, College of Atmospheric \& Geographic Sciences, and Environmental Sustainability major requirements.

## Freshman

| First Semester |  | Credit |
| :---: | :---: | :---: |
|  |  | Hours |
| ENGL 1113 | Principles of English Composition (Core I) | 3 |
| Beginning Language (Core I) |  | 5 |
| GEOG 1203 | Global Environmental Issues (Core III) | 3 |
| General Education Math (Core I) ${ }^{1}$ |  | 3 |
|  | Credit Hours | 14 |
| Second Semester |  |  |
| ```ENGL }121 or EXPO 1213``` | Principles of English Composition (Core I) or Expository Writing | 3 |
| Beginning Language continued (Core I) |  | 5 |
| GEOG 1114 | Physical Geography | 4 |
| First Year Experience (Core V) |  | 3 |
|  | Credit Hours | 15 |
| Sophomore |  |  |
| First Semester |  |  |
| GEOG 2021 | Exploring DGES | 1 |
| GIS 2023 | Introduction to Spatial Thinking and Computer Mapping | 3 |


| General Education Artistic Forms (Core IV) ${ }^{1}$ | 3 |
| :---: | :---: |
| Intermediate Language (College elective) | 3 |
| $\begin{array}{lr}\text { HIST } 1483 & \text { United States to } 1865 \text { (Core IV) } \\ \text { or HIST } 1493 & \text { or United States, } 1865 \text { to the Present }\end{array}$ | 3 |
| College Elective ${ }^{2}$ | 3 |
| Credit Hours | 16 |
| Second Semester |  |
| General Education Natural Science (Core II) ${ }^{1}$ | 3-4 |
| General Education Western Culture (Core IV) ${ }^{1}$ | 3 |
| General Education World Culture (Core IV) ${ }^{1}$ | 3 |
| General Education Social Science Elective ${ }^{1}$ | 3 |
| GEOG 3443 Environment and Society | 3 |
| Credit Hours | 15 |

## Junior

First Semester
GEOG 3233 Principles of Sustainability 3
PSC 1113 American Federal Government 3
College Elective ${ }^{2} 3$
Concentration Elective ${ }^{3} 3$

| General Education Arts \& Humanities Elective $^{1}$ | 3 |
| :--- | :--- |

Credit Hours 15
Second Semester
GEOG 3923 Quantitative Methods 3
GEOG 4523 Life Cycle Analysis 3
College Elective ${ }^{2} \quad 2$
Concentration Elective ${ }^{3} 3$

| General Education Natural Science with lab (Core II) $^{1}$ | $4-5$ |
| :---: | ---: |
| Credit Hours | $\mathbf{1 5}$ |

Senior

| First Semester |  |  |
| :--- | ---: | ---: |
| GEOG 4893 | Research and Professional Development | 3 |
| Major Elective | 3 |  |
| College Elective $^{2}$ | 3 |  |
| College Elective $^{2}$ | 3 |  |
| Concentration Elective $^{3}$ | 3 |  |
| Credit Hours | $\mathbf{1 5}$ |  |

Second Semester
GEOG $4953 \quad$ Capstone

College Elective ${ }^{2} 3$
College Elective ${ }^{2} \quad 3$
College Elective ${ }^{2} 3$
Major Elective 3

| Credit Hours | 15 |
| :--- | ---: |
| Total Credit Hours | 120 |

1 To be chosen from the University-Wide General Education Approved Course List. Three hours of general education must be upper-division outside the major.
2 Twenty hours, including six hours of upper-division (3000-4000 level), of advisor-approved coursework relevant to the student's field(s) of study.
3 A minimum of 9 hours, including at least 6 hours of GEOG courses, to be chosen from approved course lists in one of the following
concentrations: Culture and Society, Planning and Management, or Science and Natural Resources.

## Environmental Sustainability Concentration Elective List

## Culture \& Society Course List

A minimum of 9 hours of Culture \& Society coursework is required in the major, to be chosen from the following department maintained course list or other advisor-approved courses. At least two courses (6 hours) must be GEOG courses.

| Code | Title | Credit <br> Hours |
| :---: | :---: | :---: |
| ANTH 4303 | Women and Development in Africa | 3 |
| ENGL 3113 | Nature/Environment/Science Writing | 3 |
| GEOG 3003 | Interpreting Planet Earth | 3 |
| GEOG 3253 | Environmental Conservation | 3 |
| GEOG 3843 | Gender and Environment | 3 |
| GEOG 4343 | Climate, History, and Society | 3 |
| GEOG 4583 | Energy Systems and Sustainability | 3 |
| GEOG 4970 | Special Topics/Seminar (Topic: Digital GeoHumanities) | 3 |
| HIST 3493 | American Environmental History | 3 |
| HIST 4553 | Environmental History of Latin America | 3 |
| HSTM 1113 | Science, Nature and Society: Historical Perspectives | 3 |
| HSTM 2423 | Social and Ethical Issues in Science, Technology, Environment and Medicine | 3 |
| HSTM 3473 | History of Ecology and Environmentalism | 3 |
| HSTM 3483 | Technology, Politics, and International Development | 3 |
| HSTM 3533 | Science and Global Politics in the Modern Era: Cross-Cultural Perspectives | 3 |
| IAS 3603 | Energy, Environment \& Climate Change in China | 3 |
| IAS 3653 | Energy, Climate, and Security | 3 |
| IAS 3763 | Women and Gender in the Middle East | 3 |
| NAS 3113 | Native American Philosophy | 3 |
| NPNG 2033 | Introduction to Nonprofits | 3 |
| PHIL 3293 | Environmental Ethics | 3 |
| SOC 3643 | Population and Society | 3 |
| SOC 3893 | Environment, Ecology and Society | 3 |
| WGS 3123 | Social Justice and Social Change | 3 |
| WGS 3493 | Bodies, Nature, and Justice | 3 |

## Planning \& Management Course List

A minimum of 9 hours of Planning \& Management coursework is required in the major, to be chosen from the following department maintained course list or other advisor-approved courses. At least two courses (6 hours) must be GEOG courses.

| Code | Title | Credit Hours |
| :---: | :---: | :---: |
| B AD 2113 | Introduction to Business I | 3 |
| ECON 3213 | Environmental Economics | 3 |
| ENT 2113 | Innovation \& Entrepreneurship | 3 |
| ENT 3113 | New Venture Development I | 3 |
| GEOG 4003 | The Global City and Planning Issues | 3 |
| GEOG 4333 | Corporate Environmental Strategy | 3 |
| GEOG 4343 | Climate, History, and Society | 3 |
| GEOG 4583 | Energy Systems and Sustainability | 3 |
| GEOG 4970 | Special Topics/Seminar (Topic: Environmental Economics) | 3 |
| HSTM 3473 | History of Ecology and Environmentalism | 3 |
| HSTM 3483 | Technology, Politics, and International Development | 3 |
| IAS 3073 | Global Economic Relations | 3 |
| IAS 3323 | The Political Economy of Development | 3 |
| IAS 3603 | Energy, Environment \& Climate Change in China | 3 |
| IAS 3653 | Energy, Climate, and Security | 3 |
| METR 4553 | Climate and Renewable Energy | 3 |
| MGT 2013 | Introduction to Management | 3 |
| MKT 2013 | Introduction to Marketing and Supply Chain Management | 3 |
| NPNG 2033 | Introduction to Nonprofits | 3 |
| NPNG 3033 | Nonprofit Management | 3 |
| PHIL 3293 | Environmental Ethics | 3 |
| P SC 3020 | Problems in American Government and Politics | 1-3 |
| P SC 3133 | Politics and Public Administration | 3 |
| P SC 3193 | Nonprofits and Public Policy | 3 |
| P SC 3213 | Law, Politics, and Society | 3 |
| P SC 3233 | Environmental Policy and Administration | 3 |
| P SC 4193 | The Profession of Public Management | 3 |
| SOC 3643 | Population and Society | 3 |
| SOC 3893 | Environment, Ecology and Society | 3 |

## Science \& Natural Resources Course List

A minimum of 9 hours of Science \& Natural Resources coursework is required in the major, to be chosen from the following department maintained list of approved courses or other advisor-approved courses. At least two courses ( 6 hours) must be GEOG courses.

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| BIOL 3403 | Principles of Ecology | 3 |
| BIOL 3463 | Water and Ecological Sustainability | 3 |
| BIOL 3563 | Biological Conservation | 3 |
| BIOL 4423 | Stream Ecology | 3 |
| BIOL 4463 | Lake Ecology | 3 |
| BIOL 4970 | Special Topics in Biology (Topic: Reservoir | 3 |
| BIOL 4970 | Fish Ecology) | 3 |
|  | Special Topics in Biology (Topic: Reservoir <br> Ecology) | 3 |


| BIOL 4970 | Special Topics in Biology (Topic: <br> Freshwater Fish Ecology) | 3 |
| :--- | :--- | :--- |
| BIOL 4970 |  <br> Conserv. Water Res) | 3 |
| CEES 2313 | Water Quality Fundamentals | 3 |
| CEES 2323 | Environmental Transport and Fate Process | 3 |
| CEES 3213 | Water Resources Engineering | 3 |
| CEES 4324 | Environmental Biology and Ecology | 4 |
| GEOG 3023 | Principles of Physical Geography | 3 |
| GEOG 3253 | Environmental Conservation | 3 |
| GEOG 4283 | Biogeography | 3 |
| GEOG 4293 | Hydrologic Science | 3 |
| GEOG 4343 | Climate, History, and Society | 3 |
| GEOG 4943 | Natural Hazards | 3 |
| GEOL 2014 | The Earth System | 4 |
| GEOL 3033 | Earth Resources and the Environment | 3 |
| GEOL 4533 | Earth's Past Climate | 3 |
| GEOL 4633 | Hydrogeology | 3 |
| METR 4533 | Earth's Past Climate | 3 |
| METR 4553 | Climate and Renewable Energy | 3 |
| MBIO 4810 | Special Topics (Topic: Marine | 3 |
| PBIO 2404 | Microbiology) | 3 |
| PBIO 2503 | Plant Care and Cultivation | 3 |
| PBIO 3453 | Economic Botany | 3 |
| SOC 3643 | Principles of Plant Ecology | 3 |
|  | Population and Society | 3 |
|  |  | 3 |

## Environmental Sustainability, B.S.

Minimum Total Credit Hours: 120
Minimum Upper-Division Hours: 40
Overall GPA - Combined and OU: 2.25
Major GPA - Combined and OU: 2.25
Program Code: B410

## Major Requirements

- Courses required for the major may also fulfill University-Wide General Education Requirements.

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Core |  |  |
| GEOG 1203 | Global Environmental Issues | 3 |
| GEOG 2021 | Exploring DGES | 1 |
| GEOG 3233 | Principles of Sustainability | 3 |
| GEOG 3443 | Environment and Society | 3 |
| GEOG 3923 | Quantitative Methods | 3 |
| GIS 2023 | Introduction to Spatial Thinking and | 3 |
| GEOG 4523 | Computer Mapping | 3 |
| GEOG 4893 | Research and Professional Development | 3 |
| GEOG 4953 | Capstone | 3 |

Computer-Related

GIS $1313 \quad$| Computers and Programs for |
| :--- |
| Environmental Professionals |

Major Electives
Choose two of the following:

GEOG $3043 \quad$| Living With Nature |
| :--- |

GEOG $3523 \quad$ Managing for a Changing Climate
GEOG $3843 \quad$ Gender and Environment
GEOG $4033 \quad$ Human Impact on the Earth
GEOG $4123 \quad$ Cities and Society
GEOG $4423 \quad$ Environmental Justice
GEOG $4583 \quad$ Energy Systems and Sustainability
GEOG $4653 \quad$ Urban Sustainability: Nature, Justice, and
GEOG $4663 \quad$ Water and Society
Concentrations

## Code Title Credit

## Upper-Division Science Electives

Choose a minimum of 15 hours of 3000-4000-level courses to 15 be chosen from a list of approved courses maintained by the department. (p. 773)
Total Credit Hours

## General Education and College Requirements

Courses for fulfillment of General Education and college requirements must be from the approved General Education course list at http:// www.ou.edu/content/gened/courses.html. Courses graded P/NP will not apply
UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS
At least three hours of Upper-Division General Education coursework must be completed outside the major.

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Core Area I: Symbolic and Oral Communication |  |  |
| English Composition (6 hours) | 3 |  |
| ENGL 1113 | Principles of English Composition | 3 |
| ENGL 1213 | Principles of English Composition |  |
| or EXPO 1213 | Expository Writing |  |

Language (0-10 hours)

| (0-10 hours in the same language) Students who have not completed two years of the same language in high school are required to take two college courses in the same language |  |
| :---: | :---: |
| Beginning Course | 0-5 |
| Beginning Course, continued | 0-5 |
| Mathematics (minimum 3 hours) |  |
| MATH 1743 Calculus I for Business, Life and Social <br> Sciences $^{1,2}$ <br> or MATH 1823 Calculus and Analytic Geometry I  | 3 |
| Core Area II: Natural Science (minimum 7 hours, 2 courses) |  |
| CHEM 1315 General Chemistry (Science with Lab) ${ }^{1}$ | 5 |
| $\begin{array}{ll}\text { PHYS } 2414 & \text { General Physics for Life Science Oriented } \\ & \text { Majors }{ }^{1}\end{array}$ | 4 |
| or PHYS 2514 General Physics for Engineering and Scienc | ors |
| Core Area III: Social Science (6 hours) |  |
| P SC 1113 American Federal Government | 3 |
| Choose one course from the General Education Social Science list | 3 |
| Core Area IV: Arts and Humanities |  |
| Artistic Forms (3 hours) |  |
| Choose one course from the General Education Artistic Forms list. | 3 |
| Western Culture (6 hours) |  |
| HIST 1483 United States to 1865 <br> or HIST 1493 United States, 1865 to the Present | 3 |
| Choose one course from the General Education Western Culture list (Excluding HIST 1483 and HIST 1493) | 3 |
| World Culture (3 hours) |  |
| Choose one course from the General Education World Culture list | 3 |
| Core Area V: First Year Experience (3 hours) |  |
| Choose one course | 3 |
| Total Credit Hours | 39-49 |
| ${ }^{1}$ College of Atmospheric and Geographic Sciences requirements. <br> ${ }^{2}$ MATH 1914 will also fulfill the College's calculus requirement. |  |
| ADDITIONAL COLLEGE BACHELOR OF SCIENCE REQUIREMENTS |  |
| Code Title | Credit |
|  | Hours |
| GEOG 1114 Physical Geography | 4 |

## Free Electives

Electives to bring total applicable hours to 120 including 40 upperdivision hours.

## Information Concerning General Rules, Regulations and Minimum Requirements for Undergraduate Degrees

Total Hours: A minimum of 120 semester hours acceptable toward graduation must be completed.
Upper-Division Hours: A minimum of 40 upper- division semester hours acceptable toward graduation must be completed. OU courses numbered

3000 or above are upper- division. Transfer work is counted as lowerdivision or upper-division credit depending on the level at which it was offered at the institution where it was earned. Two-year college work is accepted only as lower-division credit.
Senior Institution Hours: A minimum of 60 semester hours applied toward graduation must be earned at senior (4-year) institutions.
Residency:

- A minimum of two semesters must be spent in residence in the College of Atmospheric and Geographic Sciences.
- At least 36 of the last 48 hours must be completed in residence at OU.

Individual Studies: No more than six hours of independent study or directed readings may be applied toward degree requirements.
Grade Point Averages: Students must earn a minimum overall 2.25 for each of the following: Combined Retention GPA (all college grades), OU Retention GPA, GPA for all major courses, and GPA for all major courses taken at OU.

## Suggested Semester Plan of Study

This plan shows one possible grouping of courses that would allow students to graduate in four years. Please refer to the front of the degree checksheet for official requirements. Students must consult with College of Atmospheric and Geographic Sciences and/or Department of Geography academic advisors to verify that courses selected each semester fulfill the recommended plan and satisfy university, College of Atmospheric \& Geographic Sciences, and Environmental Sustainability major requirements.

## Freshman

$\left.\begin{array}{llr}\text { First Semester } & & \begin{array}{r}\text { Credit } \\ \text { Hours }\end{array} \\ \text { ENGL 1113 } & \text { Principles of English Composition (Core I) } & 3 \\ \text { GEOG 1203 } & \text { Global Environmental Issues (Core III) } & 3 \\ \hline \text { MATH 1823 } & \text { Calculus and Analytic Geometry I } \\ \text { or MATH 1743 } \begin{array}{ll}\text { or Calculus I for Business, Life and } \\ \text { Social Sciences }\end{array} & 3 \\ \text { General Education: Western Culture (Core IV) }\end{array}\right)$

## Second Semester

ENGL 1213 Principles of English Composition (Core I) 3
or EXPO 1213 or Expository Writing
P SC 1113 American Federal Government (Core III) 3
GEOG 1114 Physical Geography 4
General Education: Artistic Forms (Core IV) ${ }^{1} 3$
Free Elective 3
Credit Hours 16

## Sophomore

First Semester
GEOG 2021 Exploring DGES 1
CHEM 1315 General Chemistry 5
GIS 2023 Introduction to Spatial Thinking and 3

HIST 1483 United States to 1865
or HIST 1493 or United States, 1865 to the Present

| Free Elective |  |  |
| :---: | :---: | :---: |
|  | Credit Hours | 15 |
| Second Semester |  |  |
| $\begin{aligned} & \text { PHYS } 2414 \\ & \text { or PHYS } 2514 \end{aligned}$ | General Physics for Life Science Oriented Majors or General Physics for Engineering and Science Majors | 4 |
| GEOG 3443 | Environment and Society | 3 |
| GIS 1313 | Computers and Programs for Environmental Professionals | 3 |
| Free Elective |  | 4 |
|  | Credit Hours | 14 |
| Junior |  |  |
| First Semester |  |  |
| GEOG 3233 | Principles of Sustainability | 3 |
| Concentration Elective ${ }^{2}$ |  | 3 |
| Science Elective ${ }^{3}$ |  | 3 |
| Science Elective ${ }^{3}$ |  | 3 |
| Elective |  | 3 |
|  | Credit Hours | 15 |
| Second Semester |  |  |
| GEOG 3923 | Quantitative Methods | 3 |
| GEOG 4523 | Life Cycle Analysis | 3 |
| Major Elective |  | 3 |
| Science Elective ${ }^{3}$ |  | 3 |
| Science Elective ${ }^{3}$ |  | 3 |
|  | Credit Hours | 15 |
| Senior |  |  |
| First Semester |  |  |
| GEOG 4893 | Research and Professional Development | 3 |
| Major Elective |  | 3 |
| Concentration Elective ${ }^{2}$ |  | 3 |
| General Education: World Culture (Core IV) ${ }^{1}$ |  | 3 |
| Free Elective |  | 3 |
|  | Credit Hours | 15 |
| Second Semester |  |  |
| GEOG 4953 | Capstone | 3 |
| Concentration Elective ${ }^{2}$ |  | 3 |
| Science Elective ${ }^{3}$ |  | 3 |
| Free Elective |  | 3 |
| Free Elective |  | 3 |
|  | Credit Hours | 15 |
| Total Credit Hours |  | 120 |
| ${ }^{1}$ To be chosen from the University-Wide General Education Approved Course List. Three hours of general education must be upper-division outside the major. |  |  |
| ${ }^{2}$ A minimum of 9 hours, including at least 6 hours of GEOG courses, to be chosen from approved course lists in one of the following concentrations: Culture and Society, Planning and Management, or Science and Natural Resources. |  |  |
| ${ }^{3}$ A minimum of 15 hours of 3000-4000 -level courses to be chosen from the approved list of courses maintained by the department. |  |  |

## Environmental Science B.S. Electives <br> Concentration Elective Lists (p. 770)

- Culture \& Society Concentration
- Planning \& Management Concentration
- Science \& Natural Resources Concentration

| Science Electives |  |  |
| :---: | :---: | :---: |
| Code | Title | Credit |
|  |  | Hours |
| ANTH 3873 | Primate Evolution and Behavior | 3 |
| ANTH 4593 | Anthropology of Human Reproduction | 3 |
| CEES 4243 | Water Technologies for Emerging Regions | 3 |
| CEES 4324 | Environmental Biology and Ecology | 4 |
| BIOL 3403 | Principles of Ecology | 3 |
| BIOL 3463 | Water and Ecological Sustainability | 3 |
| BIOL 3563 | Biological Conservation | 3 |
| BIOL 4423 | Stream Ecology | 3 |
| BIOL 4463 | Lake Ecology | 3 |
| CHEM 3053 | Organic Chemistry I: Biological Emphasis | 3 |
| CHEM 3153 | Organic Chemistry II: Biological Emphasis | 3 |
| ENST 3303 | Food, Agriculture, and the Environment | 3 |
| ENST 3503 | Energy Use, Climate Change, and the Environment | 3 |
| ENST 3713 | Nature in the City | 3 |
| ENST 3743 | Biological Invasions and Society | 3 |
| GEOG 3023 | Principles of Physical Geography | 3 |
| GEOG 3043 | Living With Nature | 3 |
| GEOG 3523 | Managing for a Changing Climate | 3 |
| GEOG 4043 | Urban Climatology | 3 |
| GEOG 4183 | Patterns and Processes in Landscape Ecology | 3 |
| GEOG 4273 | Regional Climatology | 3 |
| GEOG 4283 | Biogeography | 3 |
| GEOG 4293 | Hydrologic Science | 3 |
| GEOG 4513 | Real-world Applications of Climate and Weather Information | 3 |
| GEOG 4943 | Natural Hazards | 3 |
| GEOL 3633 | Introduction to Oceanography | 3 |
| GEOL 3013 | The Geology of Oklahoma | 3 |
| GEOL 3033 | Earth Resources and the Environment | 3 |
| GEOL 4633 | Hydrogeology | 3 |
| GIS 4013 | Fundamentals of Geographic Information Systems | 3 |
| GIS 4133 | Fundamentals of Remote Sensing | 3 |
| GIS 4233 | Digital Image Processing | 3 |
| GIS 4253 | GIS Applications | 3 |
| GIS 4453 | Advanced GIS and Spatial Analysis | 3 |
| GIS 4733 | Environmental Remote Sensing | 3 |
| GIS 4833 | Environmental Spatial Modeling | 3 |
| METR 4443 | Introduction to Tropical Meteorology | 3 |
| METR 4533 | Earth's Past Climate | 3 |
| METR 4553 | Climate and Renewable Energy | 3 |


| METR 4713 | Private Sector Meteorology | 3 |
| :--- | :--- | :--- |
| MIS 3013 | Introduction to Programming | 3 |
| PBIO 3453 | Principles of Plant Ecology | 3 |
| PBIO 4733 | Environmental Remote Sensing | 3 |
| P SC/SOC 3123 | Social Statistics | 3 |

## Geographic Information Science, B.A.

Minimum Total Credit Hours: 120
Minimum Upper-Division Hours: 40
Overall GPA - Combined and OU: 2.25
Major GPA - Combined and OU: 2.25
Program Code: B450
Major Requirements

- Courses required for the major may also fulfill University-Wide General Education Requirements.

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Core |  | 3 |
| GIS 2023 | Introduction to Spatial Thinking and <br> Computer Mapping | 3 |
| GEOG 1113 | The Language of Maps | 3 |
| GEOG 1123 | Introduction to Geohumanities | 3 |
| GEOG 3773 | Geography of the United States | 3 |
| GIS 4013 | Fundamentals of Geographic Information | 3 |
| GIS 4253 | Systems | 3 |
| GEOG 4893 | GIS Applications | 3 |

Remote Sensing
Choose two of the following:

| GIS 4133 | Fundamentals of Remote Sensing |
| :--- | :--- |
| GIS 4233 | Digital Image Processing |
| GIS 4970 | Special Topics/Seminar (Remote Sensing) |

Advisor-approved elective

| Statistics |  | 4 |
| :--- | :--- | :--- |
| GEOG 3924 |  | 3 |
| GEOG 4313 | Interpreting Society and Environment: <br> Qualitative Research Methods |  |

## Computer Related

Choose one of the following: 3

| C S 1313 | Programming for Non-Majors with C |
| :--- | :--- |
| METR 1313 | Introduction to Programming for <br> Meteorology |
| MIS 2113 | Computer-Based Information Systems |
| MIS 3013 | Introduction to Programming |
| Applied GIS |  |
| Choose one of the following: |  |

[^24]Other advisor-approved course
Total Credit Hours

## Major Support Requirements

- Courses required for major support may not also fulfill UniversityWide General Education Requirements.

| Code $\quad$ Title | Credit <br> Hours |
| :--- | ---: | ---: |
| Cognate | 12 |
| Choose 12 hours (to include 6 upper-division hours, 4 <br> courses) in the same area, to be chosen from the following: <br> economics, film \& media studies, geography, history, <br> journalism, political science, psychology, regional \& city <br> planning, sociology, women's \& gender studies, or another <br> advisor-approved area |  |
| Additional Advisor-Approved Electives | 6 |
| Choose two courses | 18 |
| Total Credit Hours |  |

## General Education and College Requirements

Courses for fulfillment of General Education and college requirements must be from the approved General Education course lists at http:// www.ou.edu/content/gened/courses.html. Courses graded P/NP will not apply.

## UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND

 COLLEGE REQUIREMENTSAt least three hours of Upper-Division General Education coursework must be completed outside the major.

| Code Title | Credit |
| :--- | :--- |
|  | Hours |

## Core Area I: Symbolic and Oral Communication

English Composition (6 hours)
ENGL 1113 Principles of English Composition 3
ENGL 1213 Principles of English Composition 3
or EXPO 1213 Expository Writing
Language (0-10 hours)
(0-10 hours) Students who have not completed two years of the same language in high school are required to take two college courses in the same language
Beginning Course 0-5
Beginning Course, continued 0-5
Mathematics (3 hours)
Choose one course from the General Education Mathematics 3
list
Core Area II: Natural Science (7 hours, 2 courses)
Choose two courses including one laboratory component 7
Core Area III: Social Science (6 hours)
P SC 1113 American Federal Government 3
Choose one course from the General Education Social 3
Science list
Core Area IV: Arts and Humanities
Artistic Forms (3 hours)

| Choose one course from the General Education Artistic Forms list | 3 |
| :---: | :---: |
| Western Culture (3 hours) |  |
| HIST 1483 United States to 1865 <br> or HIST 1493 United States, 1865 to the Present | 3 |
| Choose one course from the General Education Western Culture list (excluding HIST 1483 \& 1493) | 3 |
| World Culture (3 hours) |  |
| Choose one course from the General Education World Culture list | 3 |
| Core Area V: First Year Experience (3 hours) |  |
| Choose one course | 3 |
| Total Credit Hours | 37-47 |
| ADDITIONAL COLLEGE B.A. REQUIREMENTS |  |
| Code Title | Credit Hours |
| Humanities and Social Science Electives (3 hours must be Upper-Division) |  |
| Choose one course from Arts \& Humanities Gen Ed lists | 3 |
| Choose one course from the Social Science Gen Ed list | 3 |
| Natural Science Elective |  |
| Choose one Gen Ed-approved course with or without a laboratory component | 3-4 |
| Language |  |
| Choose one course at the intermediate level ${ }^{2}$ | 3 |
| Total Credit Hours | 12-13 |
| 1 If the student successfully places beyond the second interm course, the 13 hours of required language will become free el |  |

## Free Electives

Electives to bring total applicable hours to the minimum total required for the degree.

## Information Concerning General Rules, Regulations and Minimum Requirements for Undergraduate Degrees

Total Hours: A minimum of 120 semester hours acceptable toward graduation must be completed.
Upper-Division Hours: A minimum of 40 upper- division semester hours acceptable toward graduation must be completed. OU courses numbered 3000 or above are upper- division. Transfer work is counted as lowerdivision or upper-division credit depending on the level at which it was offered at the institution where it was earned. Two-year college work is accepted only as lower-division credit.
Senior Institution Hours: A minimum of 60 semester hours applied toward graduation must be earned at senior (4-year) institutions. Residency:

- A minimum of two semesters must be spent in residence in the College of Atmospheric and Geographic Sciences.
- At least 36 of the last 48 hours must be completed in residence at OU.

Individual Studies: No more than six hours of independent study or directed readings may be applied toward degree requirements.
Grade Point Averages: Students must earn a minimum overall 2.25 for each of the following: Combined Retention GPA (all college grades), OU Retention GPA, GPA for all major courses, and GPA for all major courses taken at OU.

## Suggested Semester Plan of Study

This plan shows one possible grouping of courses that would allow students to graduate in four years. Please refer to the front of the degree checksheet for official requirements. Students must consult with College of Atmospheric and Geographic Sciences and/or Geoinformatics Program academic advisors to verify that courses selected each semester fulfill the recommended plan and satisfy university, College of Atmospheric \& Geographic Sciences, and Geographic Information Science major requirements.

## Freshman

| First Semester | Credit <br> Hours |
| :--- | ---: | ---: |
| ENGL 1113 $\quad$ Principles of English Composition (Core I) | 3 |
| Beginning Language (Core I) | 5 |
| Mathematics General Education (Core I) | 1 |
| First Year Experience (Core V) | 3 |
| Credit Hours | $\mathbf{3}$ |
| 14 |  |


| Second Semester |  |  |
| :--- | :--- | ---: |
| ENGL 1213 <br> or EXPO 1213 | Principles of English Composition (Core I) <br> or Expository Writing | 3 |
| Beginning Language continued (Core I) |  |  |
| GEOG 1113 | The Language of Maps | 5 |
| GEOG 1123 | Introduction to Geohumanities | 3 |
|  | Credit Hours | 3 |

## Sophomore

First Semester

| GIS 2023 | Introduction to Spatial Thinking and <br> Computer Mapping | 3 |
| :--- | :--- | :--- |

Natural Science with lab (Core II) ${ }^{1}$ ..... 4

General Education Arts \& Humanities elective ${ }^{1}$ ..... 3
Intermediate Language (College elective) ..... 3
HIST $1483 \quad$ United States to 1865 (Core IV) ..... 3Second Semester
Artistic Forms (Core IV) ${ }^{1}$ ..... 3
Natural Science (Core II) ${ }^{1}$ ..... 3
Western Culture (Core IV) ${ }^{1}$ ..... 3
Social Science (Core III) ${ }^{1}$ ..... 3
General Education Social Science elective ${ }^{1}$ ..... 3
Junior
First Semester
GEOG 3924 ..... 4
GIS 4013 Fundamentals of Geographic Information Systems

| Remote-Sensing Course Requirement | 3 |
| :---: | :---: |
| World Culture (Core IV) ${ }^{1}$ | 3 |
| Credit Hours | 16 |
| Second Semester |  |
| GIS 4253 GIS Applications | 3 |
| GEOG 3773 Geography of the United States | 3 |
| Remote-Sensing Course Requirement | 3 |
| Cognate Course ${ }^{2}$ | 3 |
| P SC 1113 American Federal Government (Core III) | 3 |
| Credit Hours | 15 |
| Senior |  |
| First Semester |  |
| GEOG 4313 Interpreting Society and Environment: Qualitative Research Methods | 3 |
| RCPL $4463 \quad$Geographic Information Systems for Land <br> Use Planning | 3 |
| Natural Science Elective ${ }^{1}$ | 3 |
| GEOG 4893 Research and Professional Development | 3 |
| Advisor-Approved Elective | 3 |
| Credit Hours | 15 |
| Second Semester |  |
| GEOG 4953 Capstone | 3 |
| Cognate Course ${ }^{2}$ | 3 |
| Cognate Course ${ }^{2}$ | 3 |
| Cognate Course ${ }^{2}$ | 3 |
| Advisor-Approved Elective | 3 |
| Credit Hours | 15 |
| Total Credit Hours | 120 |

${ }^{1}$ To be chosen from the University-Wide General Education Approved Course List. Three hours of general education must be upper-division outside the major.
${ }^{2}$ Choose 12 hours (to include 6 upper-division hours, 4 courses) in the same area, to be chosen from the following: economics, film \& media studies, geography, history, journalism, political science, psychology, regional \& city planning, sociology, women's \& gender studies, or another advisor-approved area.

## Geographic Information Science, B.S.

Minimum Total Credit Hours: 121
Minimum Upper-Division Hours: 40

Overall GPA - Combined and OU: 2.25
Major GPA - Combined and OU: 2.25

## Program Code: B452

## Major Requirements

- Courses required for the major may also fulfill University-Wide General Education Requirements.


## UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS

At least three hours of Upper-Division General Education coursework must be completed outside the major.

| Code | Title | Credit Hours |
| :---: | :---: | :---: |
| Core Area I: Symbolic and Oral Communication |  |  |
| English Composition (6 hours) |  |  |
| ENGL 1113 | Principles of English Composition | 3 |
| $\begin{aligned} & \text { ENGL } 1213 \\ & \text { or EXPO } 1213 \end{aligned}$ | Principles of English Composition Expository Writing | 3 |
| Language (0-10 hours) |  |  |
| ( $0-10$ hours in the same language) Students who have not completed two years of the same language in high school are required to take two college courses in the same language |  |  |
| Beginning Course |  | 0-5 |
| Beginning Course | , continued | 0-5 |
| Mathematics (minimum 3 hours) |  |  |
| MATH 1743 | Calculus I for Business, Life and Social Sciences ${ }^{1,2}$ | 3 |
| or MATH 1823 | Calculus and Analytic Geometry I |  |
| Core Area II: Natural Science (minimum 7 hours) |  |  |
| CHEM 1315 | General Chemistry (Science with Lab) ${ }^{1}$ | 5 |
| PHYS 2414 | General Physics for Life Science Oriented Majors ${ }^{1}$ | 4 |
| or PHYS 2514 General Physics for Engineering and Science Majors |  |  |

Core Area III: Social Science (6 hours)
P SC $1113 \quad$ American Federal Government

Choose one course from the General Education Social 3

## Science list

Core Area IV: Arts and Humanities
Artistic Forms (3 hours)
Choose one course from the General Education Artistic Forms list
Western Culture (6 hours)
$\begin{array}{cl}\text { HIST } 1483 & \text { United States to } 1865 \\ \text { or HIST } 1493 & \text { United States, } 1865 \text { to the Present }\end{array}$
Choose one course from the General Education Western 3
Culture list (excluding HIST 1483 \& HIST 1493)
World Culture (3 hours)
Choose one course from the General Education World Culture 3
list
Core Area V: First Year Experience (3 hours)
Choose one course

## Total Credit Hours

3
${ }_{2}^{1}$ College of Atmospheric and Geographic Sciences requirements.
${ }^{2}$ MATH 1914 will also fulfill the College's calculus requirement.

| ADDITIONAL COLLEGE BACHELOR OF SCIENCE REQUIREMENTS |  |  |
| :--- | ---: | :--- |
| Code | Title | Credit |
|  | Hours |  |

PHYS 2424
General Physics for Life Science Oriented Majors
or PHYS 2524 General Physics for Engineering and Science Majors
Total Credit Hours

## 4

## Free Electives

Electives to bring total applicable hours to 121 including 40 upperdivision hours.

## Information Concerning General Rules, Regulations and Minimum Requirements for Undergraduate Degrees

Total Hours: A minimum of 120 semester hours acceptable toward graduation must be completed.
Upper-Division Hours: A minimum of 40 upper- division semester hours acceptable toward graduation must be completed. OU courses numbered 3000 or above are upper- division. Transfer work is counted as lowerdivision or upper-division credit depending on the level at which it was offered at the institution where it was earned. Two-year college work is accepted only as lower-division credit.
Senior Institution Hours: A minimum of 60 semester hours applied toward graduation must be earned at senior (4-year) institutions.

## Residency:

- A minimum of two semesters must be spent in residence in the College of Atmospheric and Geographic Sciences.
- At least 36 of the last 48 hours must be completed in residence at OU.

Individual Studies: No more than six hours of independent study or directed readings may be applied toward degree requirements.
Grade Point Averages: Students must earn a minimum overall 2.25 for each of the following: Combined Retention GPA (all college grades), OU Retention GPA, GPA for all major courses, and GPA for all major courses taken at OU.

## Suggested Semester Plan of Study

This plan shows one possible grouping of courses that would allow students to graduate in four years. Please refer to the front of the degree checksheet for official requirements. Students must consult with College of Atmospheric and Geographic Sciences and/or Geoinformatics Program academic advisors to verify that courses selected each semester fulfill the recommended plan and satisfy university, College of Atmospheric \& Geographic Sciences, and Geographic Information Science major requirements.

## Freshman

| First Semester |  | Credit |
| :---: | :---: | :---: |
|  |  | Hours |
| ENGL 1113 | Principles of English Composition (Core I) | 3 |
| CHEM 1315 | General Chemistry (Core II) | 5 |
| HIST 1483 or HIST 1493 | United States to 1865 (Core IV) or United States, 1865 to the Present | 3 |
| MATH 1823 or MATH 1743 | Calculus and Analytic Geometry I or Calculus I for Business, Life and Social Sciences | 3 |
| Free Elective, lower- or upper-division |  | 1 |
|  | Credit Hours | 15 |


| Second Semester |  |  |
| :---: | :---: | :---: |
| ENGL 1213 or EXPO 1213 | Principles of English Composition (Core I) or Expository Writing | 3 |
| P SC 1113 | American Federal Government (Core III) | 3 |
| First Year Experien | nce (Core V) | 3 |
| Free Elective, lowe | -r- or upper-division | 3 |
| Free Elective, lowe | er- or upper-division | 4 |
|  | Credit Hours | 16 |
| Sophomore |  |  |
| First Semester |  |  |
| PHYS 2414 or PHYS 2514 | General Physics for Life Science Oriented Majors <br> or General Physics for Engineering and Science Majors | 4 |
| GIS 2023 | Introduction to Spatial Thinking and Computer Mapping | 3 |
| Social Science (Core III) ${ }^{1}$ |  | 3 |
| Artistic Forms (Core IV) ${ }^{1}$ |  | 3 |
| Free Elective, lower- or upper-division |  | 3 |
| Credit Hours |  | 16 |
| Second Semester |  |  |
| PHYS 2424 or PHYS 2524 | General Physics for Life Science Oriented Majors <br> or General Physics for Engineering and Science Majors | 4 |
| GEOG 3773 | Geography of the United States | 3 |
| Cognate Course ${ }^{2}$ |  | 3 |
| Computer Related Course |  | 3 |
| Western Culture (Core IV) ${ }^{1}$ |  | 3 |
|  | Credit Hours | 16 |
| Junior |  |  |
| First Semester |  |  |
| GEOG 3924 |  | 4 |
| GIS 4013 | Fundamentals of Geographic Information Systems | 3 |
| Remote-Sensing Course Requirement |  | 3 |
| Cognate Course ${ }^{2}$ |  | 3 |
| Upper Division Science Elective ${ }^{3}$ |  | 3 |
|  | Credit Hours | 16 |
| Second Semester |  |  |
| GIS 4253 | GIS Applications | 3 |
| Remote-Sensing Course Requirement |  | 3 |
| Cognate Course ${ }^{2}$ |  | 3 |
| Upper Division Science Elective ${ }^{3}$ |  | 3 |
| World Culture (Core IV) ${ }^{1}$ |  | 3 |
|  | Credit Hours | 15 |
| Senior |  |  |
| First Semester |  |  |
| GIS 4653 | Spatial Programming and GIS | 3 |
| GIS 4923 | Spatial Statistics | 3 |
| GEOG 4893 | Research and Professional Development | 3 |
| Cognate Course ${ }^{2}$ |  | 3 |


| Upper Division Science Elective ${ }^{3}$ | 3 |
| :---: | :---: |
| Credit Hours | 15 |
| Second Semester |  |
| GEOG 4953 Capstone | 3 |
| GIS 4453 Advanced GIS and Spatial Analysis | 3 |
| Upper Division Science Elective ${ }^{3}$ | 3 |
| Upper Division Science Elective ${ }^{3}$ | 3 |
| Credit Hours | 12 |
| Total Credit Hours | 121 |

${ }^{1}$ To be chosen from the University-Wide General Education Approved Course List. Three hours of general education must be upper-division outside the major.
${ }^{2}$ Choose four courses in the same area, to be chosen from the following: economics, geography, geology, journalism, meteorology, political science, psychology, regional \& city planning, sociology, or another advisor-approved area.
3 Choose a minimum of 15 hours of 3000-4000-level courses in botany, chemistry, computer science, engineering, geology, geophysics, mathematics, management information systems, meteorology, microbiology or physics.

## Geography: Geohumanities, B.A.

Minimum Total Credit Hours: 120
Minimum Upper-Division Hours: 40

Overall GPA - Combined and OU: 2.25
Major GPA - Combined and OU: 2.25
Program Code: B460 P268

## Major Requirements

- Courses required for the major may also fulfill University-Wide General Education Requirements.


| GEOG 4613 |  |  |
| :--- | :--- | :--- |
| GEOG 3843 | Gender and Environment |  |
| GEOG 4563 | American Indian Geographies |  |
| GEOG 4573 |  | $\mathbf{3 6}$ |
| Total Credit Hours |  |  |

## Major Support Requirements

- Courses required for major support may not also fulfill UniversityWide General Education Requirements.

| Code $\quad$ Title | Credit <br> Hours |
| :--- | ---: |
| Advisor-Approved Electives | 24 |
| Choose 24 hours of advisor-approved coursework relevant to <br> the student's field(s) of study |  |

24

## General Education and College Requirements

Courses for fulfillment of General Education and college requirements must be from the approved General Education course lists at http:// www.ou.edu/content/gened/courses.html. Courses graded P/NP will not apply.

## UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS

At least three hours of Upper-Division General Education coursework must be completed outside the major.

| Code Title | Credit Hours |
| :---: | :---: |
| Core Area I: Symbolic and Oral Communication |  |
| English Composition (6 hours) |  |
| ENGL 1113 Principles of English Composition | 3 |
| $\begin{array}{cl}\text { ENGL } 1213 & \text { Principles of English Composition } \\ \text { or EXPO } 1213 & \text { Expository Writing }\end{array}$ | 3 |
| Language (0-10 hours) |  |
| (0-10 hours) Students who have not completed two years of the same language in high school are required to take two college courses in the same language |  |
| Beginning Course | 0-5 |
| Beginning Course, continued | 0-5 |
| Mathematics (3 hours) |  |
| Choose one course from the General Education Mathematics list | 3 |
| Core Area II: Natural Science (7 hours, 2 courses) |  |
| Choose two courses including one laboratory component | 7 |
| Core Area III: Social Science (6 hours) |  |
| P SC 1113 American Federal Government | 3 |
| Choose one course from the General Education Social Science list | 3 |
| Core Area IV: Arts and Humanities |  |
| Artistic Forms (3 hours) |  |
| Choose one course from the General Education Artistic Forms list | 3 |
| Western Culture (3 hours) |  |
| HIST 1483 United States to 1865 | 3 |


| or HIST 1493 United States, 1865 to the Present |  |
| :---: | :---: |
| Choose one course from the General Education Western Culture list (excluding HIST 1483 \& 1493) | 3 |
| World Culture (3 hours) |  |
| Choose one course from the General Education World Culture list | 3 |
| Core Area V: First Year Experience (3 hours) |  |
| Choose one course | 3 |
| Total Credit Hours | 37-47 |
| ADDITIONAL COLLEGE B.A. REQUIREMENTS |  |
| Code Title | Credit |
|  | Hours |
| Humanities and Social Science Electives (3 hours must be Upper-Division) |  |
| Choose one course from Arts \& Humanities Gen Ed lists | 3 |
| Choose one course from the Social Science Gen Ed list | 3 |
| Natural Science Elective |  |
| Choose one Gen Ed-approved course with or without a laboratory component | 3-4 |
| Language |  |
| Choose one course at the intermediate level ${ }^{2}$ | 3 |
| Total Credit Hours | 12-13 |
| 1 If the student successfully places beyond the second interm course, the 13 hours of required language will become free |  |

## Free Electives

Electives to bring total applicable hours to the minimum total required for the degree.

## Information Concerning General Rules, Regulations and Minimum Requirements for Undergraduate Degrees

Total Hours: A minimum of 120 semester hours acceptable toward graduation must be completed.
Upper-Division Hours: A minimum of 40 upper- division semester hours acceptable toward graduation must be completed. OU courses numbered 3000 or above are upper- division. Transfer work is counted as lowerdivision or upper-division credit depending on the level at which it was offered at the institution where it was earned. Two-year college work is accepted only as lower-division credit.
Senior Institution Hours: A minimum of 60 semester hours applied toward graduation must be earned at senior (4-year) institutions. Residency:

- A minimum of two semesters must be spent in residence in the College of Atmospheric and Geographic Sciences.
- At least 36 of the last 48 hours must be completed in residence at OU.

Individual Studies: No more than six hours of independent study or directed readings may be applied toward degree requirements. Grade Point Averages: Students must earn a minimum overall 2.25 for each of the following: Combined Retention GPA (all college grades), OU

Retention GPA, GPA for all major courses, and GPA for all major courses taken at OU.

## Suggested Semester Plan of Study

This plan shows one possible grouping of courses that would allow students to graduate in four years. Please refer to the front of the degree checksheet for official requirements. Students must consult with College of Atmospheric and Geographic Sciences and/or Department of Geography and Environmental Sustainability academic advisors to verify that courses selected each semester fulfill the recommended plan and satisfy university, College of Atmospheric \& Geographic Sciences, and Geography major requirements.

## Freshman

| First Semester | Credit |
| :---: | :---: |
|  | Hours |
| ENGL 1113 Principles of English Composition ((Core I)) | 3 |
| General Education Social Science (Core III) ${ }^{1}$ | 3 |
| General Education Math (Core I) ${ }^{1}$ | 3 |
| Beginning Language (Core I) | 5 |
| Credit Hours | 14 |
| Second Semester |  |
| ENGL 1213 Principles of English Composition (Core I) <br> or EXPO 1213 or Expository Writing | 3 |
| Beginning Language continued (Core I) | 5 |
| First Year Experience (Core V) | 3 |
| Natural Science Elective ${ }^{1}$ | 4 |
| Credit Hours | 15 |

## Sophomore

## First Semester

| GEOG 1113 or GIS 2023 | The Language of Maps or Introduction to Spatial Thinking and Computer Mapping | 3 |
| :---: | :---: | :---: |
| HIST 1483 or HIST 1493 | United States to 1865 (Core IV) or United States, 1865 to the Present | 3 |
| College Elective - Intermediate Language ${ }^{2}$ |  | 3 |
| General Education Artistic Forms (Core IV) ${ }^{1}$ |  | 3 |
| General Education Arts \& Humanities elective ${ }^{1}$ |  | 3 |
|  | Credit Hours | 15 |

## Second Semester

GEOG 1123 Introduction to Geohumanities 3
General Education Western Culture (Core IV) $^{1} 3$

General Education World Culture (Core IV) $^{1} 3$
General Education Social Science elective ${ }^{1} 3$
General Education Natural Science with lab (Core II) $^{1} \quad 4-5$

|  | Credit Hours | 16-17 |
| :--- | :--- | ---: |
| Junior <br> First Semester <br> GEOG 4313 | Interpreting Society and Environment: <br> Qualitative Research Methods | 3 |
| GEOG 3213 | Principles of Human Geography | 3 |
| GIS 4013 <br> or GIS 4133 | Fundamentals of Geographic Information <br> Systems <br> or Fundamentals of Remote Sensing | 3 |
| P SC 1113 | American Federal Government (Core III) | 3 |




| Beginning Course, continued | 0-5 |
| :---: | :---: |
| Mathematics (3 hours) |  |
| Choose one course from the General Education Mathematics list | 3 |
| Core Area II: Natural Science ( 7 hours, 2 courses) |  |
| Choose two courses including one laboratory component | 7 |
| Core Area III: Social Science (6 hours) |  |
| P SC 1113 American Federal Government | 3 |
| Choose one course from the General Education Social Science list | 3 |
| Core Area IV: Arts and Humanities |  |
| Artistic Forms (3 hours) |  |
| Choose one course from the General Education Artistic Forms list | 3 |
| Western Culture (3 hours) |  |
| HIST 1483 United States to 1865 <br> or HIST 1493 United States, 1865 to the Present | 3 |
| Choose one course from the General Education Western Culture list (excluding HIST 1483 \& 1493) | 3 |
| World Culture (3 hours) |  |
| Choose one course from the General Education World Culture list | 3 |
| Core Area V: First Year Experience (3 hours) |  |
| Choose one course | 3 |
| Total Credit Hours | 37-47 |
| ADDITIONAL COLLEGE B.A. REQUIREMENTS |  |
| Code Title | Credit Hours |
| Humanities and Social Science Electives (3 hours must be Upper-Division) |  |
| Choose one course from Arts \& Humanities Gen Ed lists | 3 |
| Choose one course from the Social Science Gen Ed list | 3 |
| Natural Science Elective |  |
| Choose one Gen Ed-approved course with or without a laboratory component | 3-4 |
| Language |  |
| Choose one course at the intermediate level ${ }^{2}$ | 3 |
| Total Credit Hours | 12-13 |
| ${ }^{1}$ If the student successfully places beyond the second interm course, the 13 hours of required language will become free e |  |

## Free Electives

Electives to bring total applicable hours to the minimum total required for the degree.

## Information Concerning General Rules, Regulations and Minimum Requirements for Undergraduate Degrees

Total Hours: A minimum of 120 semester hours acceptable toward graduation must be completed.
Upper-Division Hours: A minimum of 40 upper- division semester hours acceptable toward graduation must be completed. OU courses numbered

3000 or above are upper- division. Transfer work is counted as lowerdivision or upper-division credit depending on the level at which it was offered at the institution where it was earned. Two-year college work is accepted only as lower-division credit.
Senior Institution Hours: A minimum of 60 semester hours applied toward graduation must be earned at senior (4-year) institutions.

## Residency:

- A minimum of two semesters must be spent in residence in the College of Atmospheric and Geographic Sciences.
- At least 36 of the last 48 hours must be completed in residence at OU.

Individual Studies: No more than six hours of independent study or directed readings may be applied toward degree requirements.
Grade Point Averages: Students must earn a minimum overall 2.25 for each of the following: Combined Retention GPA (all college grades), OU Retention GPA, GPA for all major courses, and GPA for all major courses taken at OU.

## Suggested Semester Plan of Study

This plan shows one possible grouping of courses that would allow students to graduate in four years. Please refer to the front of the degree checksheet for official requirements. Students must consult with College of Atmospheric and Geographic Sciences and/or Department of Geography and Environmental Sustainability academic advisors to verify that courses selected each semester fulfill the recommended plan and satisfy university, College of Atmospheric \& Geographic Sciences, and Geography major requirements.

## Freshman

| First Semester | Credit |
| :---: | :---: |
|  | Hours |
| ENGL 1113 Principles of English Composition (Core I) | 3 |
| General Education Social Science (Core III) ${ }^{1}$ | 3 |
| General Education Math (Core I) ${ }^{1}$ | 3 |
| Beginning Language (Core I) | 5 |
| Credit Hours | 14 |
| Second Semester |  |
| ENGL 1213 Principles of English Composition (Core I) <br> or EXPO $1213 \quad$ or Expository Writing  | 3 |
| P SC 1113 American Federal Government (Core III) | 3 |
| First Year Experience (Core V) | 3 |
| Beginning Language continued (Core I) | 5 |
| Credit Hours | 14 |

## Sophomore

First Semester

| GEOG 1113 | The Language of Maps |  |
| :---: | :---: | :---: |
| or GIS 2023 | or Introduction to Spatial Thinking and <br> Computer Mapping | 3 |
| HIST 1483 | United States to 1865 (Core IV) <br> or HIST 1493 <br> or United States, 1865 to the Present | 3 |

College Elective - Intermediate Language ${ }^{2} 3$

General Education Artistic Forms (Core IV) $^{1} 3$
General Education Arts \& Humanities elective $^{1} 3$

## Credit Hours

| General Education Western Culture (Core IV) ${ }^{1}$ | 3 |
| :---: | :---: |
| General Education World Culture (Core IV) ${ }^{1}$ | 3 |
| General Education Social Science elective ${ }^{1}$ | 3 |
| General Education Natural Science with lab (Core II) ${ }^{1}$ | 4-5 |
| Credit Hours | 16 |
| Junior |  |
| First Semester |  |
| GEOG 3213 Principles of Human Geography | 3 |
| GEOG 3924 | 4 |
| GIS 4013 Fundamentals of Geographic Information <br> or GIS 4133 <br> Systems <br> or Fundamentals of Remote Sensing  | 3 |
| Natural Science Elective ${ }^{1}$ | 4 |
| General Education Natural Science Elective (Core II) ${ }^{1}$ | 3-4 |
| Credit Hours | 18 |
| Second Semester |  |
| GEOG 3243 Principles of Economic Geography | 3 |
| GEOG 3773 Geography of the United States | 3 |
| GEOG Elective | 3 |
| College Elective ${ }^{2}$ | 3 |
| College Elective ${ }^{2}$ | 3 |
| Credit Hours | 15 |

## Senior

First Semester
GEOG 4893 Research and Professional Development 3
GEOG Regional Geography Course 3
GEOG Elective 3
College Elective ${ }^{2} 3$

| College Elective $^{2}$ | 3 |
| :--- | ---: |
| Credit Hours | $\mathbf{1 5}$ |

Second Semester
GEOG 4953 Capstone 3
College Elective ${ }^{2} \quad 3$
College Elective ${ }^{2} 3$
College Elective ${ }^{2} 3$
Free Elective $\quad 1$

| Credit Hours | 13 |
| :--- | ---: |
| Total Credit Hours | 120 |

1 To be chosen from the University-Wide General Education Approved Course List. Three hours of general education must be upper-division outside the major. At least one General Education approved math course must be completed.
2 Twenty-seven hours of advisor-approved coursework relevant to the student's field(s) of study. These 27 hours are to be outside the student's major School or Department, and must include an intermediate-level foreign language course, or the student must demonstrate competency at the intermediate level.

Note: No more than 52 hours of Geography coursework may be taken to fulfill the $\mathbf{1 2 0}$ minimum total credit hours required.

## Geography, B.S.

Minimum Total Credit Hours: 120

## Minimum Upper-Division Hours: 40

Overall GPA - Combined and OU: 2.25
Major GPA - Combined and OU: 2.25

## Program Code: B465

## Major Requirements

- Courses required for the major may also fulfill University-Wide General Education Requirements.

| Code | Title | Credit <br> Hours |
| :---: | :---: | :---: |
| Required Courses |  |  |
| $\begin{aligned} & \text { GEOG } 1113 \\ & \text { or GIS } 2023 \end{aligned}$ | The Language of Maps <br> Introduction to Spatial Thinking and Computer Mapping | 3 |
| GEOG 3023 | Principles of Physical Geography | 3 |
| GEOG 3213 | Principles of Human Geography | 3 |
| GEOG 3243 | Principles of Economic Geography | 3 |
| GEOG 3924 |  | 4 |
| GEOG 4893 | Research and Professional Development | 3 |
| GEOG 4953 | Capstone | 3 |
| Regional Geography |  |  |
| GEOG 3773 | Geography of the United States | 3 |
| Choose 3 hours from the following: |  | 3 |
| GEOG 3223 |  |  |
| GEOG 4243 |  |  |
| GEOG 4853 |  |  |
| Geographic Information Science |  |  |
| GIS 4133 or GIS 4013 | Fundamentals of Remote Sensing <br> Fundamentals of Geographic Information Syste | ms 3 |
| Electives |  |  |
| Choose 6 hours of Geography electives 6 |  |  |
| Computer-Related |  |  |
| Choose 3 hours from the following: 3 |  |  |
| C S 1213 | Programming for Non-Majors with Python |  |
| C S 1313 | Programming for Non-Majors with C |  |
| METR 1313 | Introduction to Programming for Meteorology |  |
| MIS 2113 | Computer-Based Information Systems |  |

Total Credit Hours

## Major Support Requirements

- Courses required for major support may not also fulfill UniversityWide General Education Requirements.

| Code Title | Credit |
| :--- | :--- |
|  | Hours |

## Science Electives

Choose a minimum of 9 hours of faculty advisor approved electives chosen from: biological science, chemistry, computer science, mathematics, physics, engineering, or geosciences courses outside the major. At least six hours must be completed at the upper-division level (3000-4000 level)
Total Credit Hours ..... 5

## General Education and College Requirements

Courses for fulfillment of General Education and college requirements must be from the approved General Education course list at http:// www.ou.edu/content/gened/courses.html. Courses graded P/NP will not apply

## UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS

At least three hours of Upper-Division General Education coursework must be completed outside the major.

${ }^{1}$ College of Atmospheric and Geographic Sciences requirements.
${ }^{2}$ MATH 1914 will also fulfill the College's calculus requirement.

## ADDITIONAL COLLEGE BACHELOR OF SCIENCE REQUIREMENTS <br> Code Title <br> Credit Hours <br> PHYS 2424 General Physics for Life Science Oriented Majors <br> or PHYS 2524 General Physics for Engineering and Science Majors

## Total Credit Hours

## Free Electives

Electives to bring total applicable hours to 120 including 40 upperdivision hours.

## Information Concerning General Rules, Regulations and Minimum Requirements for Undergraduate Degrees

Total Hours: A minimum of 120 semester hours acceptable toward graduation must be completed.
Upper-Division Hours: A minimum of 40 upper- division semester hours acceptable toward graduation must be completed. OU courses numbered 3000 or above are upper- division. Transfer work is counted as lowerdivision or upper-division credit depending on the level at which it was offered at the institution where it was earned. Two-year college work is accepted only as lower-division credit.
Senior Institution Hours: A minimum of 60 semester hours applied toward graduation must be earned at senior (4-year) institutions.
Residency:

- A minimum of two semesters must be spent in residence in the College of Atmospheric and Geographic Sciences.
- At least 36 of the last 48 hours must be completed in residence at OU.

Individual Studies: No more than six hours of independent study or directed readings may be applied toward degree requirements.
Grade Point Averages: Students must earn a minimum overall 2.25 for each of the following: Combined Retention GPA (all college grades), OU Retention GPA, GPA for all major courses, and GPA for all major courses taken at OU.

## Suggested Semester Plan of Study

This plan shows one possible grouping of courses that would allow students to graduate in four years. Please refer to the front of the degree checksheet for official requirements. Students must consult with College of Atmospheric and Geographic Sciences and/or Department of Geography and Environmental Sustainability academic advisors to verify that courses selected each semester fulfill the recommended plan and satisfy university, College of Atmospheric \& Geographic Sciences, and Geography major requirements.

| Freshman |  | Credit <br> First Semester |
| :--- | :--- | ---: |
|  |  | Hours |
| ENGL 1113 | Principles of English Composition (Core I) | 3 |
| CHEM 1315 | General Chemistry (Core II) | 5 |


| MATH 1823 or MATH 1743 | Calculus and Analytic Geometry I or Calculus I for Business, Life and Social Sciences | 3 |
| :---: | :---: | :---: |
| First Year Experience (Core V) |  | 3 |
|  | Credit Hours | 14 |
| Second Semester |  |  |
| $\begin{aligned} & \text { ENGL } 1213 \\ & \text { or EXPO } 1213 \end{aligned}$ | Principles of English Composition (Core I) or Expository Writing | 3 |
| HIST 1483 or HIST 1493 | United States to 1865 or United States, 1865 to the Present | 3 |
| CHEM 1415 | General Chemistry (Continued) | 5 |
| $\begin{aligned} & \text { GEOG } 1113 \\ & \text { or GIS } 2023 \end{aligned}$ | The Language of Maps or Introduction to Spatial Thinking and Computer Mapping | 3 |
|  | Credit Hours | 14 |
| Sophomore |  |  |
| First Semester |  |  |
| PHYS 2414 or PHYS 2514 | General Physics for Life Science Oriented Majors or General Physics for Engineering and Science Majors | 4 |
| P SC 1113 | American Federal Government (Core III) | 3 |
| GEOG | Major Elective | 3 |
| Free Elective |  | 3 |
| General Education | n Social Science (Core III) ${ }^{1}$ | 3 |
|  | Credit Hours | 16 |
| Second Semester |  |  |
| GEOG 3023 | Principles of Physical Geography | 3 |
| Computer-Related | d Major Requirement | 3 |
| $\begin{aligned} & \text { PHYS } 2424 \\ & \text { or PHYS } 2524 \end{aligned}$ | General Physics for Life Science Oriented Majors or General Physics for Engineering and Science Majors | 4 |
| General Educ. Western Culture Elective (Core IV) ${ }^{1}$ |  | 3 |
| Free Elective |  | 3 |
|  | Credit Hours | 16 |
| Junior |  |  |
| First Semester |  |  |
| GEOG 3924 |  | 4 |
| General Education World Culture (Core IV) ${ }^{1}$ |  | 3 |
| GEOG 3213 | Principles of Human Geography | 3 |
| $\begin{aligned} & \text { GIS } 4013 \\ & \text { or GIS } 4133 \end{aligned}$ | Fundamentals of Geographic Information Systems or Fundamentals of Remote Sensing | 3 |
| Free Elective |  | 3 |
|  | Credit Hours | 16 |
| Second Semester |  |  |
| GEOG 3243 | Principles of Economic Geography | 3 |
| GEOG 3773 | Geography of the United States | 3 |
| Major Support Science Elective ${ }^{2}$ |  | 3 |
| General Education Artistic Forms (Core IV) ${ }^{1}$ |  | 3 |
| Free Elective |  | 3 |
|  | Credit Hours | 15 |


| Senior |  |
| :---: | :---: |
| First Semester |  |
| GEOG 4893 Research and Professional Development | 3 |
| GEOG Regional Geography Course | 3 |
| GEOG Elective | 3 |
| Major Support Science Elective ${ }^{2}$ | 3 |
| Free Elective | 3 |
| Credit Hours | 15 |
| Second Semester |  |
| GEOG 4953 Capstone | 3 |
| Major Support Science Elective ${ }^{2}$ | 3 |
| Free Elective | 3 |
| Free Elective | 3 |
| Free Elective | 2 |
| Credit Hours | 14 |
| Total Credit Hours | 120 |

${ }^{1}$ To be chosen from the University-Wide General Education Approved Course List. Three hours of general education must be upper-division outside the major.
${ }^{2}$ Choose a minimum of 9 hours of faculty advisor approved electives chosen from: biological science, chemistry, computer science, mathematics, physics, engineering, or geosciences courses outside the major. At least six hours must be completed at the upper-division level (3000-4000 level).

Note: No more than 52 hours of Geography coursework may be taken to fulfill the $\mathbf{1 2 0}$ minimum total credit hours required.

## Climate Adaptation, Minor

Minimum Total Credit Hours: 18
Major Hours: 9

## Program Code: N208

- The requirements for a minor must be completed concurrently with the major degree requirements.
- No minor may be added by completing courses after receiving the bachelor's degree.


## Required Courses

A minimum 2.00 GPA is required in all work presented for minor credit.
No more than 9 credit hours from any one department may be applied to the minor requirements

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| METR 1014 | Introduction to Weather and Climate | $3-4$ |
| or METR 1003 | Introduction to the Atmospheric Sciences | 3 |
| METR/GEOL <br> 4533 | Earth's Past Climate | 3 |
| GEOG/METR | Managing for a Changing Climate |  |
| 3523 <br>  <br> or GEOG 4343 | Climate, History, and Society |  |
| Choose three courses from the following, or other courses as <br> approved by advisor. | 9 |  |


| ENST 2203 | Ecosystem Impacts of Climate Change |
| :---: | :---: |
| GEOG 1114 | Physical Geography |
| GEOG 1203 | Global Environmental Issues |
| GEOG 3233 | Principles of Sustainability |
| GEOG 4273 | Regional Climatology |
| GEOG 4283 | Biogeography |
| GEOG 4293 | Hydrologic Science |
| GEOG 4513 | Real-world Applications of Climate and Weather Information |
| GEOG 4943 | Natural Hazards |
| GEOL 1003 | Volcanoes and Earthquakes |
| GEOL 3033 | Earth Resources and the Environment |
| GEOL 3013 | The Geology of Oklahoma |
| GEOL 3023 | The Geology of Natural Resources in SubSaharan Africa |
| GEOL 4633 | Hydrogeology |
| IAS 3653 | Energy, Climate, and Security |
| METR $4543 / 5543$ | Global Climate Change |
| METR $4553 / 5553$ | Climate and Renewable Energy |
| RCPL 4213 | Principles and Practice of Urban Planning |

Total Credit Hours
18

- The successful completion of a minor will be entered on the student's permanent record at the time the degree is recorded.


## Environmental Sustainability, Minor

Minimum Total Credit Hours: 18

## Program Code: N410

- The requirements for a minor must be completed concurrently with the major degree requirements.
- No minor may be added by completing courses after receiving the bachelor's degree.


## A minimum 2.00 GPA is required in all work presented for minor credit.

## Required Courses

| Code | Title | Credit <br> Hours |
| :---: | :---: | :---: |
| Fundamentals |  |  |
| GEOG 1203 | Global Environmental Issues | 3 |
| Environmental Sustainability Core |  |  |
| GEOG 3233 | Principles of Sustainability | 3 |
| GEOG 3443 | Environment and Society | 3 |
| GEOG 4523 | Life Cycle Analysis | 3 |
| Sustainability Electives |  |  |
| Choose at le (numbered | additional hours of upper division ), graded courses ${ }^{1}$ | 6 |
| Total Credit |  | 18 |
| 1 To be selected from the Area of Concentration lists for the Environmental Sustainability degrees (Culture \& Society, Planning \& Management, and Science \& Natural Resources). It is preferred |  |  |

that these courses not be from the Geography and Environmental Sustainability department

- The successful completion of a minor will be entered on the student's permanent record at the time the degree is recorded.


## Geographic Information Systems, Minor

Minimum Total Credit Hours: 15
Program Code: N462

- The requirements for a minor must be completed concurrently with the major degree requirements.
No minor may be added by completing courses after receiving the bachelor's degree

A minimum 2.00 GPA is required in all work presented for minor credit.

## Required Courses

| Code | Title | Credit |
| :---: | :---: | :---: |
| Required Course |  |  |
| GIS 2023 | Introduction to Spatial Thinking and Computer Mapping | 3 |
| Electives |  |  |
| Choose 12 hours, with at least 9 hours at the upper division (3000+) level, from the following: |  | 12 |
| GEOG 1113 | The Language of Maps |  |
| GEOG 4023 | Geography of Health and Disease |  |
| GEOG 4183 | Patterns and Processes in Landscape Ecology |  |
| GIS 1313 | Computers and Programs for Environmental Professionals |  |
| GIS 3003 | Computer Cartography and Geovisualization |  |
| GIS 4013 | Fundamentals of Geographic Information Systems |  |
| GIS 4133 | Fundamentals of Remote Sensing |  |
| GIS 4173 | Drones and Remote Sensing |  |
| GIS 4233 | Digital Image Processing |  |
| GIS 4243 | Remote Sensing Applications |  |
| GIS 4253 | GIS Applications |  |
| GIS 4453 | Advanced GIS and Spatial Analysis |  |
| GIS 4553 | Advanced Remote Sensing |  |
| GIS 4653 | Spatial Programming and GIS |  |
| GIS 4833 | Environmental Spatial Modeling |  |
| GIS 4923 | Spatial Statistics |  |
| GIS 4970 | Special Topics/Seminar |  |

Total Credit Hours

- The successful completion of a minor will be entered on the student's permanent record at the time the degree is recorded


## Geography, Minor

Minimum Total Credit Hours: 18

## Program Code: N466

- The requirements for a minor must be completed concurrently with the major degree requirements.
- No minor may be added by completing courses after receiving the bachelor's degree.

A minimum 2.00 GPA is required in all work presented for minor credit.
Required Courses

| Code | Title | Credit |
| :---: | :---: | :---: |
| Fundamentals |  |  |
| Choose a minimum of 6 hours from the following: |  | 6 |
| GEOG 1103 | Human Geography ${ }^{1}$ |  |
| GEOG 1114 | Physical Geography ${ }^{2}$ |  |
| GEOG 1123 | Introduction to Geohumanities |  |
| GEOG 1213 | Economic Geography ${ }^{3}$ |  |
| Techniques |  |  |
| Choose one of the following: |  | 3-4 |
| GEOG 3924 |  |  |
| GIS 4013 | Fundamentals of Geographic Information Systems |  |
| GIS 4133 | Fundamentals of Remote Sensing |  |
| GIS 2023 | Introduction to Spatial Thinking and Computer Mapping | 3 |

## Upper Division Electives

Choose at least 6 additional hours of upper division (courses 6 numbered 3000+) graded Geography courses selected in consultation with an academic advisor from the Department of Geography

Total Credit Hours

1 Also fulfills a General Education Western Civilization requirement.
${ }^{2}$ Also fulfills a General Education Natural Science with Lab requirement.
${ }^{3}$ Also fulfills a General Education Social Science requirement.

- The successful completion of a minor will be entered on the student's permanent record at the time the degree is recorded.


## Hydrologic Science, Minor

Minimum Total Credit Hours: 15
Program Code: N477

- The requirements for a minor must be completed concurrently with the major degree requirements.
- No minor may be added by completing courses after receiving the bachelor's degree.

The Hydrologic Science minor is designed for students who are interested in expanding their understanding of the role of water in our environment.

The minor requires a minimum of 15 semester credit hours, to include at least one course each from Meteorology, Geography, and Civil or Environmental Engineering. No more than (9) hours may come from any one discipline.

For Meteorology majors, successful completion of the Hydrologic Science minor will satisfy the required elective in meteorology, hydrology, or climatology.

A minimum 2.00 GPA is required in all work presented for minor credit.
Required Courses

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Choose a minimum of 15 hours from the following: | 15 |  |
| CEES 4123 | Open Channel Flow |  |
| ENGR 4510 | Selected Topics |  |
| GEOG 4273 | Regional Climatology |  |
| GEOG 4293 | Hydrologic Science |  |
| GIS 4013 | Fundamentals of Geographic Information |  |
| METR 4624 |  |  |
| METR 4633 | Hydrometeorology |  |

Total Credit Hours

- The successful completion of a minor will be entered on the student's permanent record at the time the degree is recorded.


## Physical Geography, Minor

Minimum Total Credit Hours: 15
Minimum Upper-Division Hours: 15

## Program Code: N468

- The requirements for a minor must be completed concurrently with the major degree requirements.
- No minor may be added by completing courses after receiving the bachelor's degree.

This minor is not available to Geography Majors.

## Required Courses

A minimum 2.00 GPA is required in all work presented for minor credit.

- Topics in GEOG 3890 and GEOG 4990 that are related to Physical Geography will also apply.
- In addition to GIS 4133, one upper division course from the Minor in Geospatial Information Science (N467) may be substituted for a course in this minor.

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Choose a minimum of 15 hours from the following: | 15 |  |
| GEOG 3023 | Principles of Physical Geography |  |
| GEOG 4273 | Regional Climatology |  |
| GEOG 4283 | Biogeography |  |
| GEOG 4293 | Hydrologic Science |  |
| GEOG 4343 | Climate, History, and Society |  |
| GIS 4133 | Fundamentals of Remote Sensing |  |

- The successful completion of a minor will be entered on the student's permanent record at the time the degree is recorded.


# Environmental Sustainability: Planning \& Management, B.A./M.R.C.P. 

Minimum Total Credit Hours: 149
Minimum Upper-Division Hours: 40
Overall GPA - Combined and OU: 3.00
Major GPA - Combined and OU: 3.00
Program Code: A408 P516/F817 Q228

## Undergraduate Requirements MAJOR REQUIREMENTS

| Code | Title | Credit Hours |
| :---: | :---: | :---: |
| Core |  |  |
| GEOG 1203 | Global Environmental Issues | 3 |
| GEOG 2021 | Exploring DGES | 1 |
| GEOG 3233 | Principles of Sustainability | 3 |
| GEOG 3443 | Environment and Society | 3 |
| GEOG 3923 | Quantitative Methods | 3 |
| GIS 2023 | Introduction to Spatial Thinking and Computer Mapping | 3 |
| GEOG 4523 | Life Cycle Analysis | 3 |
| GEOG 4893 | Research and Professional Development | 3 |
| GEOG 4953 | Capstone | 3 |
| Major Electives |  |  |
| Choose two of | e following: | 6 |
| GEOG 3043 | Living With Nature |  |
| GEOG 3523 | Managing for a Changing Climate |  |
| GEOG 3843 | Gender and Environment |  |
| GEOG 4033 | Human Impact on the Earth |  |
| GEOG 4123 | Cities and Society |  |
| GEOG 4423 | Environmental Justice |  |
| GEOG 4583 | Energy Systems and Sustainability |  |
| GEOG 4653 | Urban Sustainability: Nature, Justice, and the City |  |
| GEOG 4663 | Water and Society |  |
| Planning \& Management |  |  |
| Choose a mini GEOG courses, Course List (p. | m of 9 hours, including at least 6 hours of m the Planning \& Management Approved 8) | 9 |

## MAJOR SUPPORT REQUIREMENTS

- Courses required for major support may not also fulfill UniversityWide General Education Requirements

| Code | Title | Credit <br> Hours |
| :---: | :---: | :---: |
| Advisor-Approved Electives |  |  |
| Choose 20 (3000-4000 the student' | including 6 hours at the upper-division level , of advisor-approved coursework relevant to (s) of study. | 20 |
| Total Credit |  | 20 |
| 1 Students may count up to 15 shared hours towards their undergraduate elective requirements. |  |  |
| Shared Hours |  |  |
| These 15 hours of Graduate Credit count towards both the undergraduate and graduate degrees: |  |  |
| Code | Title | Credit Hours |
| GIS 5013 | Fundamentals of Geographic Information Systems | 3 |
| RCPL 5013 | History and Theory of Urban Planning | 3 |
| RCPL 5063 | Planning with Diverse Communities | 3 |
| RCPL 5203 | Urban Land Use Controls | 3 |
| RCPL 5173 | Urban and Regional Analysis | 3 |
| Total Credit Hours |  |  |

## MRCP Component

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| RCPL 5113 | Urban Planning Research Methods | 3 |
| Choose one of the following: | 5 |  |
| RCPL 5525 | Comprehensive Regional And City Planning <br> Project |  |
| RCPL 5522 | Comprehensive RCPL Project: Reporting <br> \& RCPL 5523 <br> and Implementation <br> and Comprehensive RCPL Project: |  |
| Research and Plan Making |  |  |
| Program Electives | 21 |  |
| Total Credit Hours | $\mathbf{2 9}$ |  |

## Planning \& Management Course List

A minimum of 9 hours in Planning \& Management courses is required in the undergraduate major work, to be chosen from the following department maintained course list or other advisor-approved courses. At least two courses (6 hours) must be GEOG courses.

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| B AD 2113 | Introduction to Business I | 3 |
| ECON 3213 | Environmental Economics | 3 |
| ENT 2113 | Innovation \& Entrepreneurship | 3 |
| ENT 3113 | New Venture Development I | 3 |
| GEOG 4003 | The Global City and Planning Issues | 3 |
| GEOG 4333 | Corporate Environmental Strategy | 3 |
| GEOG 4343 | Climate, History, and Society | 3 |
| GEOG 4583 | Energy Systems and Sustainability | 3 |


| GEOG 4970 | Special Topics/Seminar (Topic: Environmental Economics) | 3 |
| :---: | :---: | :---: |
| HSTM 3473 | History of Ecology and Environmentalism | 3 |
| HSTM 3483 | Technology, Politics, and International Development | 3 |
| IAS 3073 | Global Economic Relations | 3 |
| IAS 3323 | The Political Economy of Development | 3 |
| IAS 3603 | Energy, Environment \& Climate Change in China | 3 |
| IAS 3653 | Energy, Climate, and Security | 3 |
| METR 4553 | Climate and Renewable Energy | 3 |
| MGT 2013 | Introduction to Management | 3 |
| MKT 2013 | Introduction to Marketing and Supply Chain Management | 3 |
| NPNG 2033 | Introduction to Nonprofits | 3 |
| NPNG 3033 | Nonprofit Management | 3 |
| PHIL 3293 | Environmental Ethics | 3 |
| P SC 3020 | Problems in American Government and Politics | 3 |
| P SC 3133 | Politics and Public Administration | 3 |
| P SC 3193 | Nonprofits and Public Policy | 3 |
| P SC 3213 | Law, Politics, and Society | 3 |
| P SC 3233 | Environmental Policy and Administration | 3 |
| P SC 4193 | The Profession of Public Management | 3 |
| SOC 3643 | Population and Society | 3 |
| SOC 3893 | Environment, Ecology and Society | 3 |

## General Education and College Requirements

Courses for fulfillment of General Education and college requirements must be from the approved General Education course lists at http:// www.ou.edu/content/gened/courses.html. Courses graded P/NP will not apply.

## UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS

At least three hours of Upper-Division General Education coursework must be completed outside the major.

## Code Title Credit Hours

Core Area I: Symbolic and Oral Communication
English Composition (6 hours)
ENGL 1113 Principles of English Composition 3
ENGL 1213 Principles of English Composition 3
or EXPO 1213 Expository Writing
Language (0-10 hours)
(0-10 hours) Students who have not completed two years of
the same language in high school are required to take two
college courses in the same language
Beginning Course 0-5
Beginning Course, continued 0-5
Mathematics (3 hours)
Choose one course from the General Education Mathematics 3
list
Core Area II: Natural Science (7 hours, 2 courses)
Choose two courses including one laboratory component

| Core Area III: Social Science (6 hours) |  |
| :---: | :---: |
| P SC 1113 American Federal Government | 3 |
| Choose one course from the General Education Social Science list | 3 |
| Core Area IV: Arts and Humanities |  |
| Artistic Forms (3 hours) |  |
| Choose one course from the General Education Artistic Forms list | 3 |
| Western Culture (3 hours) |  |
| HIST 1483 United States to 1865 <br> or HIST 1493 United States, 1865 to the Present | 3 |
| Choose one course from the General Education Western Culture list (excluding HIST 1483 \& 1493) | 3 |
| World Culture (3 hours) |  |
| Choose one course from the General Education World Culture list | 3 |
| Core Area V: First Year Experience (3 hours) |  |
| Choose one course | 3 |
| Total Credit Hours | 37-47 |
| ADDITIONAL COLLEGE B.A. REQUIREMENTS |  |
| Code Title | Credit |
|  | Hours |
| Humanities and Social Science Electives (3 hours must be Upper-Division) |  |
| Choose one course from Arts \& Humanities Gen Ed lists | 3 |
| Choose one course from the Social Science Gen Ed list | 3 |
| Natural Science |  |
| GEOG 1114 Physical Geography | 4 |
| Language |  |
| Choose one course at the intermediate level ${ }^{2}$ | 3 |
| Total Credit Hours | 13 |
| ${ }^{1}$ If the student successfully places beyond the second intermediate course, the 13 hours of required language will become free electives. |  |

## Free Electives

Electives to bring total applicable hours to the minimum total required for the degree.

## Information Concerning General Rules, Regulations and Minimum Requirements for Undergraduate Degrees

Total Hours: A minimum of 120 semester hours acceptable toward graduation must be completed.
Upper-Division Hours: A minimum of 40 upper- division semester hours acceptable toward graduation must be completed. OU courses numbered 3000 or above are upper- division. Transfer work is counted as lowerdivision or upper-division credit depending on the level at which it was offered at the institution where it was earned. Two-year college work is accepted only as lower-division credit.
Senior Institution Hours: A minimum of 60 semester hours applied toward graduation must be earned at senior (4-year) institutions. Residency:

- A minimum of two semesters must be spent in residence in the College of Atmospheric and Geographic Sciences.
- At least 36 of the last 48 hours must be completed in residence at OU.

Individual Studies: No more than six hours of independent study or directed readings may be applied toward degree requirements.
Grade Point Averages: Students must earn a minimum overall 3.00 for each of the following: Combined Retention GPA (all college grades), OU Retention GPA, GPA for all major courses, and GPA for all major courses taken at OU.

## Suggested Semester Plan of Study

This plan shows one possible grouping of courses that would allow students to graduate in four years. Please refer to the front of the degree checksheet for official requirements. Students must consult with College of Atmospheric and Geographic Sciences and/or Department of Geography academic advisors to verify that courses selected each semester fulfill the recommended plan and satisfy university, College of Atmospheric \& Geographic Sciences, and Environmental Sustainability major requirements.

## Freshman

First Semester Credit
ENGL 1113 Principles of English Composition (Core I) 3
Beginning Language (Core I) 5
General Education Mathematics course (Core I) $^{1} 3$

| GEOG 1203 | Global Environmental Issues ((Core III)) | 3 |
| :--- | :--- | ---: |
|  | Credit Hours | $\mathbf{1 4}$ |



## Sophomore

## First Semester

GEOG 2021 Exploring DGES 1
GIS 2023 Introduction to Spatial Thinking and 3
Intermediate Language 3

HIST $1483 \quad 3$
or HIST 1493 or United States, 1865 to the Present

General Education Natural Science with Laboratory (Core II) 4-5

| General Education Artistic Forms (Core IV) $^{1}$ | 3 |
| :---: | ---: |
| Credit Hours | 17 |

Second Semester
GEOG 3443 Environment and Society 3
General Education Social Science Elective ${ }^{1} 3$
General Education Natural Science (Core II) $^{1} \quad 3-4$
General Education Western Culture (Core IV) $^{1} 3$
General Education World Culture (Core IV) $^{1} \quad 3$
Credit Hours
15

| Junior |  |  |
| :---: | :---: | :---: |
| First Semester |  |  |
| GEOG 3233 | Principles of Sustainability | 3 |
| GIS 5013 | Fundamentals of Geographic Information Systems ${ }^{2,3}$ | 3 |
| P SC 1113 | American Federal Government | 3 |
| General Education Arts \& Humanities Elective ${ }^{1}$ |  | 3 |
| College Elective ${ }^{3}$ |  | 3 |
|  | Credit Hours | 15 |
| Second Semester |  |  |
| GEOG 3923 | Quantitative Methods | 3 |
| GEOG 4523 | Life Cycle Analysis | 3 |
| RCPL 5203 | Urban Land Use Controls ${ }^{2,3}$ | 3 |
| Planning \& Management Concentration course ${ }^{4}$ |  | 3 |
| College Elective ${ }^{3}$ |  | 2 |
| Free Elective, lower- or upper-division |  | 3 |
|  | Credit Hours | 17 |
| Senior |  |  |
| First Semester |  |  |
| GEOG 4893 | Research and Professional Development | 3 |
| RCPL 5013 | History and Theory of Urban Planning ${ }^{\text {2,3 }}$ | 3 |
| RCPL 5113 | Urban Planning Research Methods | 3 |
| Major Elective |  | 3 |
| Planning \& Management Concentration course ${ }^{4}$ |  | 3 |
|  | Credit Hours | 15 |
| Second Semester |  |  |
| GEOG 4953 | Capstone | 3 |
| RCPL 5173 | Urban and Regional Analysis ${ }^{2,3}$ | 3 |
| Major Elective |  | 3 |
| Planning \& Management Concentration course ${ }^{4}$ |  | 3 |
| Graduate Elective |  | 3 |
|  | Credit Hours | 15 |
| Fifth Year |  |  |
| First Semester |  |  |
| Choose one of the following: |  | 3-5 |
| RCPL 5525 | Comprehensive Regional And City Planning Project |  |
| RCPL 5523 | Comprehensive RCPL Project: Research and Plan Making ( Fa ) ${ }^{5}$ |  |
| Graduate Elective |  | 3 |
| Graduate Elective |  | 3 |
| Graduate Elective |  | 3 |
|  | Credit Hours | 14 |
| Second Semester |  |  |
| RCPL 5063 | Planning with Diverse Communities ${ }^{\text {2,3 }}$ | 3 |
| Graduate Electiv |  | 3 |
| Graduate Electiv |  | 3 |
| Graduate Electiv |  | 3 |
| Choose the follo | wing if RCPL 5523 taken in the Fall: | 0-2 |

RCPL 5522 Comprehensive RCPL Project: Reporting and Implementation

| Credit Hours | 12 |
| :--- | :--- |
| Total Credit Hours |  |
| 149 |  |
| To be chosen from the University-Wide General Education Approved |  |
| Course List. Three hours of general education must be upper-division |  |
| outside the major. |  |
| 2These courses are shared between the undergraduate and graduate <br> degrees. |  |
| Twenty hours, including six hours at the upper-division level (3000-4000 <br> level), of advisor-approved coursework relevant to the student's field(s) <br> of study. Students may use shared coursework to fulfill the elective <br> requirements. |  |
| 4A minimum of 9 hours, including at least 6 hours of GEOG courses, to <br> be chosen from the Planning and Management concentration approved <br> course list. |  |
| 5 In addition to taking RCPL 5522 in the Spring. |  |

## Environmental Sustainability: Planning \& Management, B.S./M.R.C.P.

Minimum Total Credit Hours: 149
Minimum Upper-Division Hours: 40

Overall GPA - Combined and OU: 3.00
Major GPA - Combined and OU: 3.00
Program Code: A410 P516/F817 Q229

## Undergraduate Requirements MAJOR REQUIREMENTS

| Code | Title | Credit <br> Hours |
| :--- | :--- | :---: |
| Core |  |  |
| GEOG 1203 | Global Environmental Issues | 3 |
| GEOG 2021 | Exploring DGES | 1 |
| GEOG 3233 | Principles of Sustainability | 3 |
| GEOG 3443 | Environment and Society | 3 |
| GEOG 3923 | Quantitative Methods | 3 |
| GIS 2023 | Introduction to Spatial Thinking and | 3 |
|  | Computer Mapping | 3 |
| GEOG 4523 | Life Cycle Analysis | 3 |
| GEOG 4893 | Research and Professional Development | 3 |
| GEOG 4953 | Capstone | 3 |
| Computer-Related | Computers and Programs for | 3 |
| GIS 1313 | Cnvironmental Professionals |  |

## Major Electives

Choose two of the following: 6
GEOG 3043 Living With Nature
GEOG 3523 Managing for a Changing Climate
GEOG 3843 Gender and Environment
GEOG 4033 Human Impact on the Earth
GEOG 4123 Cities and Society

| GEOG 4423 | Environmental Justice |
| :--- | :--- |
| GEOG 4583 | Energy Systems and Sustainability |
| GEOG 4653 | Urban Sustainability: Nature, Justice, and <br> the City |
| GEOG 4663 | Water and Society |
| Planning \& Management |  |
| Choose a minimum of 9 hours, including at least 6 hours of |  |
| GEOG courses, from the Planning and Management Approved |  |
| Course List (p. 791) |  |

Total Credit Hours 43

## MAJOR SUPPORT REQUIREMENTS

## - Courses required for major support may not also fulfill UniversityWide General Education Requirements.

| Code Title | Credit <br> Hours |
| :--- | ---: |
| Upper-Division Science Electives | 15 |
| Choose a minimum of 15 hours of <br> be chosen from a list of approved courses maintained by the <br> department. |  |

## Total Credit Hours <br> 15

## Shared Hours

These 15 hours of Graduate Credit count towards both the undergraduate and graduate degrees:

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| GIS 5013 | Fundamentals of Geographic Information | 3 |
| RCPL 5013 | History and Theory of Urban Planning | 3 |
| RCPL 5063 | Planning with Diverse Communities | 3 |
| RCPL 5203 | Urban Land Use Controls | 3 |
| RCPL 5173 | Urban and Regional Analysis | 3 |

Total Credit Hours 15

## MRCP Component

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| RCPL 5113 | Urban Planning Research Methods | 3 |
| Choose one of the following: | 5 |  |
| RCPL 5525 | Comprehensive Regional And City Planning <br> Project |  |
| RCPL 5522 | Comprehensive RCPL Project: Reporting <br> \& RCPL 5523 <br> and Implementation <br> and Comprehensive RCPL Project: <br> Research and Plan Making |  |

Program Electives 21
Total Credit Hours
29

## Planning \& Management Course List

A minimum of 9 hours of Planning \& Management coursework is required in the undergraduate major, to be chosen from the following department
maintained approved course list or other advisor-approved courses. At two courses (6 hours) must be GEOG courses.

| Code | Title | Credit <br> Hours |
| :---: | :---: | :---: |
| B AD 2113 | Introduction to Business I | 3 |
| ECON 3213 | Environmental Economics | 3 |
| ENT 2113 | Innovation \& Entrepreneurship | 3 |
| ENT 3113 | New Venture Development I | 3 |
| GEOG 4003 | The Global City and Planning Issues | 3 |
| GEOG 4333 | Corporate Environmental Strategy | 3 |
| GEOG 4343 | Climate, History, and Society | 3 |
| GEOG 4583 | Energy Systems and Sustainability | 3 |
| GEOG 4970 | Special Topics/Seminar (Topic: Environmental Economics) | 3 |
| HSTM 3473 | History of Ecology and Environmentalism | 3 |
| HSTM 3483 | Technology, Politics, and International Development | 3 |
| IAS 3073 | Global Economic Relations | 3 |
| IAS 3323 | The Political Economy of Development | 3 |
| IAS 3603 | Energy, Environment \& Climate Change in China | 3 |
| IAS 3653 | Energy, Climate, and Security | 3 |
| METR 4553 | Climate and Renewable Energy | 3 |
| MGT 2013 | Introduction to Management | 3 |
| MKT 2013 | Introduction to Marketing and Supply Chain Management | 3 |
| NPNG 2033 | Introduction to Nonprofits | 3 |
| NPNG 3033 | Nonprofit Management | 3 |
| PHIL 3293 | Environmental Ethics | 3 |
| P SC 3020 | Problems in American Government and Politics | 3 |
| P SC 3133 | Politics and Public Administration | 3 |
| P SC 3193 | Nonprofits and Public Policy | 3 |
| P SC 3213 | Law, Politics, and Society | 3 |
| P SC 3233 | Environmental Policy and Administration | 3 |
| P SC 4193 | The Profession of Public Management | 3 |
| SOC 3643 | Population and Society | 3 |
| SOC 3893 | Environment, Ecology and Society | 3 |

## Science Electives

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| ANTH 3873 | Primate Evolution and Behavior | 3 |
| ANTH 4593 | Anthropology of Human Reproduction | 3 |
| CEES 4243 | Water Technologies for Emerging Regions | 3 |
| CEES 4324 | Environmental Biology and Ecology | 4 |
| BIOL 3403 | Principles of Ecology | 3 |
| BIOL 3463 | Water and Ecological Sustainability | 3 |
| BIOL 3563 | Biological Conservation | 3 |
| BIOL 4423 | Stream Ecology | 3 |
| BIOL 4463 | Lake Ecology | 3 |
| CHEM 3053 | Organic Chemistry I: Biological Emphasis | 3 |
| CHEM 3153 | Organic Chemistry II: Biological Emphasis | 3 |


| ENST 3303 | Food, Agriculture, and the Environment | 3 |
| :---: | :---: | :---: |
| ENST 3503 | Energy Use, Climate Change, and the Environment | 3 |
| ENST 3713 | Nature in the City | 3 |
| ENST 3743 | Biological Invasions and Society | 3 |
| GEOG 3023 | Principles of Physical Geography | 3 |
| GEOG 3043 | Living With Nature | 3 |
| GEOG 3523 | Managing for a Changing Climate | 3 |
| GEOG 4043 | Urban Climatology | 3 |
| GEOG 4183 | Patterns and Processes in Landscape Ecology | 3 |
| GEOG 4273 | Regional Climatology | 3 |
| GEOG 4283 | Biogeography | 3 |
| GEOG 4293 | Hydrologic Science | 3 |
| GEOG 4513 | Real-world Applications of Climate and Weather Information | 3 |
| GEOG 4943 | Natural Hazards | 3 |
| GEOL 3633 | Introduction to Oceanography | 3 |
| GEOL 3013 | The Geology of Oklahoma | 3 |
| GEOL 3033 | Earth Resources and the Environment | 3 |
| GEOL 4633 | Hydrogeology | 3 |
| GIS 4013 | Fundamentals of Geographic Information Systems | 3 |
| GIS 4133 | Fundamentals of Remote Sensing | 3 |
| GIS 4233 | Digital Image Processing | 3 |
| GIS 4253 | GIS Applications | 3 |
| GIS 4453 | Advanced GIS and Spatial Analysis | 3 |
| GIS 4733 | Environmental Remote Sensing | 3 |
| GIS 4833 | Environmental Spatial Modeling | 3 |
| METR 4443 | Introduction to Tropical Meteorology | 3 |
| METR 4533 | Earth's Past Climate | 3 |
| METR 4553 | Climate and Renewable Energy | 3 |
| METR 4713 | Private Sector Meteorology | 3 |
| MIS 3013 | Introduction to Programming | 3 |
| PBIO 3453 | Principles of Plant Ecology | 3 |
| PBIO 3534 |  | 4 |
| PBIO 4733 | Environmental Remote Sensing | 3 |
| P SC/SOC 3123 | Social Statistics | 3 |

## General Education and College Requirements

Courses for fulfillment of General Education and college requirements must be from the approved General Education course list at http:// www.ou.edu/content/gened/courses.html. Courses graded P/NP will not apply

## UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS

At least three hours of Upper-Division General Education coursework must be completed outside the major.

## Code Title <br> Credit Hours


${ }^{2}$ MATH 1914 will also fulfill the College's calculus requirement.

| ADDITIONAL COLLEGE BACHELOR OF SCIENCE REQUIREMENTS |  |  |
| :--- | ---: | ---: |
| Code | Title | Credit |
|  |  | Hours |
| GEOG 1114 | Physical Geography | 4 |
| Total Credit Hours | 4 |  |

## Free Electives

Electives to bring total applicable hours to 149 including 40 upperdivision hours.

## Core Area I: Symbolic and Oral Communication

English Composition (6 hours)
ENGL 1113 Principles of English Composition

## Information Concerning General Rules, Regulations and Minimum Requirements for Undergraduate Degrees

Total Hours: A minimum of 120 semester hours acceptable toward graduation must be completed.
Upper-Division Hours: A minimum of 40 upper- division semester hours acceptable toward graduation must be completed. OU courses numbered 3000 or above are upper- division. Transfer work is counted as lowerdivision or upper-division credit depending on the level at which it was offered at the institution where it was earned. Two-year college work is accepted only as lower-division credit.
Senior Institution Hours: A minimum of 60 semester hours applied toward graduation must be earned at senior (4-year) institutions.

## Residency:

- A minimum of two semesters must be spent in residence in the College of Atmospheric and Geographic Sciences.
- At least 36 of the last 48 hours must be completed in residence at OU.

Individual Studies: No more than six hours of independent study or directed readings may be applied toward degree requirements.
Grade Point Averages: Students must earn a minimum overall 3.00 for each of the following: Combined Retention GPA (all college grades), OU Retention GPA, GPA for all major courses, and GPA for all major courses taken at OU.

## Suggested Semester Plan of Study

This plan shows one possible grouping of courses that would allow students to graduate in four years. Please refer to the front of the degree checksheet for official requirements. Students must consult with College of Atmospheric and Geographic Sciences and/or Department of Geography academic advisors to verify that courses selected each semester fulfill the recommended plan and satisfy university, College of Atmospheric \& Geographic Sciences, and Environmental Sustainability major requirements.

## Freshman

| First Semester |  | Credit Hours |
| :---: | :---: | :---: |
| ENGL 1113 | Principles of English Composition (Core I) | 3 |
| HIST 1483 or HIST 1493 | United States to 1865 (Core IV) or United States, 1865 to the Present | 3 |
| MATH 1823 or MATH 1743 | Calculus and Analytic Geometry I or Calculus I for Business, Life and Social Sciences | 3 |
| GEOG 1203 | Global Environmental Issues | 3 |
| First Year Experience (Core V) |  | 3 |
|  | Credit Hours | 15 |
| Second Semester |  |  |
| ENGL 1213 or EXPO 1213 | Principles of English Composition (Core I) or Expository Writing | 3 |
| P SC 1113 | American Federal Government (Core III) | 3 |
| GEOG 1114 | Physical Geography | 4 |
| General Education: Artistic Forms (Core IV) ${ }^{1}$ |  | 3 |
| Free Elective |  | 3 |
|  | Credit Hours | 16 |

## Sophomore

First Semester

| GEOG 2021 | Exploring DGES | 1 |
| :---: | :---: | :---: |
| GIS 2023 | Introduction to Spatial Thinking and Computer Mapping | 3 |
| CHEM 1315 | General Chemistry | 5 |
| General Education: Western Culture (Core IV) ${ }^{1}$ |  | 3 |
| Free Elective, lower- or upper-division |  | 3 |
|  | Credit Hours | 15 |

## Second Semester

| PHYS 2414 <br> or PHYS 2514 | General Physics for Life Science Oriented <br> Majors <br> or General Physics for Engineering and <br> Science Majors | 4 |
| :--- | :--- | :---: |
| GEOG 3443 | Environment and Society |  |

Free Elective, lower- or upper-division ..... 3
Free Elective, lower- or upper-division ..... 4
Credit Hours ..... 17
Junior
First Semester
GIS 5013 Fundamentals of Geographic Information 3 Systems ${ }^{2}$
Planning \& Management Concentration course ${ }^{3}$ ..... 3
Upper Division Science Elective ${ }^{4}$ ..... 3
Upper Division Science Elective ${ }^{4}$ ..... 3
Credit Hours ..... 15
Second Semester
GEOG 3923 Quantitative Methods ..... 3
GEOG 4523 Life Cycle Analysis ..... 3
RCPL 5203 Urban Land Use Controls ${ }^{2}$ ..... 3
Major Elective
Upper Division Science Elective ..... 3
Upper Division Science Elective ${ }^{4}$ ..... $\begin{array}{r}3 \\ \hline 15\end{array}$
Senior
First Semester
GEOG 4893 Research and Professional Development 3$\begin{array}{lll}\text { RCPL 5013 } & \text { History and Theory of Urban Planning }{ }^{2} & 3 \\ \text { RCPL 5113 } & \text { Urban Planning Research Methods } & 3\end{array}$
Major Elective
Planning \& Management Concentration course ${ }^{3} 3$
General Education: World Culture (Core IV) ${ }^{1}$ ..... 3
Credit Hours ..... 15
Second Semester
GEOG 4953 Capstone 3
RCPL $5173 \quad$ Urban and Regional Analysis ${ }^{2}$ ..... 3
Planning \& Management Concentration course ${ }^{3}$ ..... 3
Upper Division Science Elective ${ }^{4}$ ..... 3
Graduate Elective ..... 3

| Fifth Year |  |  |
| :---: | :---: | :---: |
| First Semester |  |  |
| Choose one of the following: |  | 3-5 |
| RCPL 5525 | Comprehensive Regional And City Planning Project |  |
| RCPL 5523 | Comprehensive RCPL Project: Research and Plan Making (Fa) ${ }^{5}$ |  |
| Graduate Elective |  | 3 |
| Graduate Elective |  | 3 |
| Graduate Elective |  | 3 |
| Credit Hours |  | 14 |
| Second Semester |  |  |
| RCPL 5063 | Planning with Diverse Communities ${ }^{2}$ | 3 |
| Graduate Elective |  | 3 |
| Graduate Elective |  | 3 |
| Graduate Elective |  | 3 |
| Choose the following if RCPL 5523 taken in the Fall: |  | 0-2 |
| RCPL 5522 | Comprehensive RCPL Project: Reporting and Implementation |  |
|  | Credit Hours | 12 |
| Total Credit Hours |  | 149 |
| ${ }^{1}$ To be chosen from the University-Wide General Education Approved Course List. Three hours of general education must be upper-division outside the major. |  |  |
| ${ }^{2}$ These courses are shared between the undergraduate and graduate degrees. |  |  |
| ${ }^{3}$ A minimum of 12 hours, including at least 6 hours of GEOG courses, to be chose from the Planning and Management concentration approved course list. |  |  |
| ${ }^{4}$ A minimum of 15 hours of 3000-4000 -level courses to be chosen from the approved list of courses maintained by the department. <br> ${ }^{5}$ In addition to taking RCPL 5522 in the Spring. |  |  |

## Geographic Information Science, B.A./ M.R.C.P.

Minimum Total Credit Hours: 149
Minimum Upper-Division Hours: 40
Overall GPA - Combined and OU: 3.00
Major GPA - Combined and OU: 3.00
Program Code: A450/F817 Q272

## Undergraduate Requirements

MAJOR REQUIREMENTS

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Core |  | 3 |
| GIS 2023 | Introduction to Spatial Thinking and <br> Computer Mapping | 3 |
| GEOG 1113 | The Language of Maps | 3 |
| GEOG 1123 | Introduction to Geohumanities | 3 |


| GIS 5013 | Fundamentals of Geographic Information Systems ${ }^{1}$ | 3 |
| :---: | :---: | :---: |
| GIS 4253 | GIS Applications | 3 |
| GEOG 4893 | Research and Professional Development | 3 |
| GEOG 4953 | Capstone | 3 |
| Remote Sensing |  |  |
| Choose two of the following: |  | 6 |
| GIS 4133 | Fundamentals of Remote Sensing |  |
| GIS 4233 | Digital Image Processing |  |
| GIS 4970 | Special Topics/Seminar (Remote Sensing) |  |
| Advisor-approved elective |  |  |
| Statistics |  |  |
| GEOG 3924 |  | 4 |
| GEOG 4313 | Interpreting Society and Environment: Qualitative Research Methods | 3 |
| Computer-Related |  |  |
| Choose one of the following: |  | 3 |
| C S 1313 | Programming for Non-Majors with C |  |
| METR 1313 | Introduction to Programming for Meteorology |  |
| MIS 2113 | Computer-Based Information Systems |  |
| MIS 3013 | Introduction to Programming |  |
| Applied GIS |  |  |
| Choose one of the following: |  | 3 |
| RCPL 4463 | Geographic Information Systems for Land Use Planning |  |
| Other advisor-approved course |  |  |
| Total Credit Hours |  | 43 |
| ${ }^{1}$ GIS 5013 cou degrees. | s towards both the undergraduate and grad |  |

## MAJOR SUPPORT REQUIREMENTS

- Courses required for major support may not also fulfill UniversityWide General Education Requirements.

| Code $\quad$ Title | Credit <br> Hours |
| :--- | ---: |
| Advisor-Approved Electives | 6 |
| Choose two advisor-approved courses relevant to the <br> student's field(s) of study | $\mathbf{6}$ |
| Total Credit Hours |  |

## Shared Hours

Code Title
Credit Hours
RCPL 5013 History and Theory of Urban Planning ${ }^{1} 3$
RCPL 5063 Planning with Diverse Communities ${ }^{1}$ ..... 3RCPL 5173 Urban and Regional Analysis ${ }^{1} 3$
12
${ }^{1}$ These 12 hours of Graduate Credit, and GIS 5013 in the major core, count towards both the undergraduate and graduate degrees.

## MRCP Component

| Code | Title | Credit Hours |
| :---: | :---: | :---: |
| RCPL 5113 | Urban Planning Research Methods | 3 |
| Choose one of the following: |  | 5 |
| RCPL 5525 | Comprehensive Regional And City Planning Project |  |
| RCPL 5522 <br> \& RCPL 5523 | Comprehensive RCPL Project: Reporting and Implementation and Comprehensive RCPL Project: Research and Plan Making |  |
| Program Electives |  | 21 |
| Total Credit Hours |  | 29 |

## General Education and College Requirements

Courses for fulfillment of General Education and college requirements must be from the approved General Education course lists at http:// www.ou.edu/content/gened/courses.html. Courses graded P/NP will not apply.

UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS
At least three hours of Upper-Division General Education coursework must be completed outside the major.

| Code Title | Credit <br> Hours |
| :---: | :---: |
| Core Area I: Symbolic and Oral Communication |  |
| English Composition (6 hours) |  |
| ENGL 1113 Principles of English Composition | 3 |
| ENGL 1213 Principles of English Composition or EXPO 1213 Expository Writing | 3 |
| Language (0-10 hours) |  |
| (0-10 hours) Students who have not completed two years of the same language in high school are required to take two college courses in the same language |  |
| Beginning Course | 0-5 |
| Beginning Course, continued | 0-5 |
| Mathematics (3 hours) |  |
| Choose one course from the General Education Mathematics list | 3 |
| Core Area II: Natural Science (7 hours, 2 courses) |  |
| Choose two courses including one laboratory component | 7 |
| Core Area III: Social Science (6 hours) |  |
| P SC 1113 American Federal Government | 3 |
| Choose one course from the General Education Social Science list | 3 |
| Core Area IV: Arts and Humanities |  |
| Artistic Forms (3 hours) |  |
| Choose one course from the General Education Artistic Forms list | 3 |
| Western Culture (3 hours) |  |


| HIST 1483 United States to 1865 | 3 |
| :---: | :---: |
| or HIST 1493 United States, 1865 to the Present |  |
| Choose one course from the General Education Western Culture list (excluding HIST 1483 \& 1493) | 3 |
| World Culture (3 hours) |  |
| Choose one course from the General Education World Culture list | 3 |
| Core Area V: First Year Experience (3 hours) |  |
| Choose one course | 3 |
| Total Credit Hours | 37-47 |
| ADDITIONAL COLLEGE B.A. REQUIREMENTS |  |
| Code Title | Credit |
|  | Hours |
| Humanities and Social Science Electives (3 hours must be Upper-Division) |  |
| Choose one course from Arts \& Humanities Gen Ed lists | 3 |
| Choose one course from the Social Science Gen Ed list | 3 |
| Natural Science Elective |  |
| Choose one Gen Ed-approved course with or without a laboratory component | 3-4 |
| Language |  |
| Choose one course at the intermediate level ${ }^{2}$ | 3 |
| Total Credit Hours | 12-13 |
| 1 If the student successfully places beyond the second interm course, the 13 hours of required language will become free |  |

## Free Electives

Electives to bring total applicable hours to the minimum total required for the degree.

## Information Concerning General Rules, Regulations and Minimum Requirements for Undergraduate Degrees

Total Hours: A minimum of 120 semester hours acceptable toward graduation must be completed.
Upper-Division Hours: A minimum of 40 upper- division semester hours acceptable toward graduation must be completed. OU courses numbered 3000 or above are upper- division. Transfer work is counted as lowerdivision or upper-division credit depending on the level at which it was offered at the institution where it was earned. Two-year college work is accepted only as lower-division credit.
Senior Institution Hours: A minimum of 60 semester hours applied toward graduation must be earned at senior (4-year) institutions.
Residency:

- A minimum of two semesters must be spent in residence in the College of Atmospheric and Geographic Sciences.
- At least 36 of the last 48 hours must be completed in residence at OU.

Individual Studies: No more than six hours of independent study or directed readings may be applied toward degree requirements.
Grade Point Averages: Students must earn a minimum overall 3.00 for each of the following: Combined Retention GPA (all college grades), OU

Retention GPA, GPA for all major courses, and GPA for all major courses taken at OU .

## Suggested Semester Plan of Study

This plan shows one possible grouping of courses that would allow students to graduate in four years. Please refer to the front of the degree checksheet for official requirements. Students must consult with College of Atmospheric and Geographic Sciences and/or Department of Geography academic advisors to verify that courses selected each semester fulfill the recommended plan and satisfy university, College of Atmospheric \& Geographic Sciences, and Environmental Sustainability major requirements.

## Freshman

| First Semester |  | Credit |
| :---: | :---: | :---: |
|  |  | Hours |
| ENGL 1113 | Principles of English Composition (Core I) | 3 |
| Beginning Language (Core I) |  | 5 |
| First Year Experience (Core V) |  | 3 |
| General Education Mathematics course (Core I) ${ }^{1}$ |  | 3 |
|  | Credit Hours | 14 |
| Second Semester |  |  |
| $\begin{aligned} & \text { ENGL } 1213 \\ & \text { or EXPO } 1213 \end{aligned}$ | Principles of English Composition (Core I) or Expository Writing | 3 |
| Beginning Language continued (Core I) |  | 5 |
| GEOG 1113 | The Language of Maps | 3 |
| GEOG 1123 | Introduction to Geohumanities | 3 |
|  | Credit Hours | 14 |

## Sophomore

| First Semester |  |
| :--- | :--- |
| GIS 2023 | Introduction to Spatial Thinking and |

Intermediate Language 3

| HIST 1483 | United States to 1865 (Core IV) | 3 |
| :--- | :--- | :--- |

General Education Natural Science with Laboratory (Core II) ${ }^{1} \quad 4$
General Education Arts \& Humanities elective ${ }^{1} 3$

## Credit Hours

## Second Semester

General Education Social Science elective ${ }^{1}$ 3

General Education Natural Science (Core II) ${ }^{1} \quad 3$
General Education Western Culture (Core IV) $^{1} 3$
General Education Artistic Forms (Core IV) ${ }^{1} 3$
Social Science (Core III) ${ }^{1} \quad 3$
Credit Hours 15

| Junior |  |  |
| :---: | :---: | :---: |
| First Semester |  |  |
| GEOG 3924 |  | 4 |
| GIS 5013 | Fundamentals of Geographic Information Systems ${ }^{2}$ | 3 |
| Computer-related course |  | 3 |
| Remote Sensing course |  | 3 |
| General Education World Culture (Core IV) ${ }^{1}$ |  | 3 |
|  | Credit Hours | 16 |

## Second Semester

| GEOG 3773 | Geography of the United States | 3 |
| :--- | :--- | ---: |
| GIS 4253 | GIS Applications | 3 |
| RCPL 5203 | Urban Land Use Controls ${ }^{2}$ | 3 |
| P SC 1113 | American Federal Government (Core III) | 3 |
| Remote Sensing course | 3 |  |
|  | Credit Hours | $\mathbf{1 5}$ |

## Senior

First Semester

| GEOG 4313 | Interpreting Society and Environment: <br> Qualitative Research Methods | 3 |
| :--- | :--- | ---: |
| GEOG 4893 | Research and Professional Development | 3 |
| RCPL 4463 | Geographic Information Systems for Land <br> Use Planning | 3 |
| RCPL 5013 | History and Theory of Urban Planning |  |


| Second Semester |  |  |
| :--- | ---: | ---: |
| GEOG 4953 | Capstone | 3 |
| RCPL 5173 | Urban and Regional Analysis |  |
|  |  |  |
| Graduate Elective | 3 |  |
| College Elective $^{3}$ | 3 |  |
| College Elective $^{3}$ | 3 |  |
| Credit Hours | 3 |  |

## Fifth Year

First Semester
Choose one of the following: 3-5

| RCPL 5525 | Comprehensive Regional And City Planning <br> Project |  |  |  |
| :---: | :--- | ---: | :---: | :---: |
| RCPL 5523 | Comprehensive RCPL Project: Research <br> and Plan Making |  |  |  |
| Graduate Elective | 3 |  |  |  |
| Graduate Elective | 3 |  |  |  |
| Graduate Elective | 3 |  |  |  |
| Credit Hours |  |  |  | $\mathbf{1 4}$ |

## Second Semester

RCPL 5063 Planning with Diverse Communities 3
Graduate Elective 3
Graduate Elective 3
Graduate Elective 3

Choose the following if RCPL 5523 taken in Fall: 0-2
RCPL 5522 Comprehensive RCPL Project: Reporting and Implementation

| Credit Hours | 12 |
| :--- | ---: |
| Total Credit Hours | 149 |

${ }^{1}$ To be chosen from the University-Wide General Education Approved Course List. Three hours of general education must be upper-division outside the major.
${ }^{2}$ These courses are shared between the undergraduate and graduate degrees.
${ }^{3}$ Six hours of advisor-approved coursework relevant to the student's field(s) of study.

| 4 In addition to taking RCPL 5522 in the Spring. |  |  |
| :---: | :---: | :---: |
| Geographic Information Science, B.S./ |  |  |
| M.R.C.P. |  |  |
| Minimum Total Credit Hours: 150 |  |  |
| Minimum Upper-Division Hours: 40 |  |  |
| Overall GPA - Combined and OU: 3.00 |  |  |
| Major GPA - Combined and OU: 3.00 |  |  |
| Program Code: A452/F817 Q273 |  |  |
| Undergraduate Requirements |  |  |
| MAJOR REQUIREMENTS |  |  |
| Code | Title | Credit Hours |
| Core |  |  |
| GEOG 1113 | The Language of Maps | 3 |
| GIS 2023 | Introduction to Spatial Thinking and Computer Mapping | 3 |
| GEOG 3773 | Geography of the United States | 3 |
| GIS 5013 | Fundamentals of Geographic Information Systems ${ }^{1}$ | 3 |
| GIS 4253 | GIS Applications | 3 |
| GIS 4453 | Advanced GIS and Spatial Analysis | 3 |
| GIS 4653 | Spatial Programming and GIS | 3 |
| GEOG 4893 | Research and Professional Development | 3 |
| GEOG 4953 | Capstone | 3 |
| Remote Sensing |  |  |
| Choose 6 hours (2 courses) from the following: |  | 6 |
| GIS 4133 | Fundamentals of Remote Sensing |  |
| GIS 4233 | Digital Image Processing |  |
| GIS 4970 | Special Topics/Seminar (Remote Sensing) |  |
| Statistics |  |  |
| GEOG 3924 |  | 4 |
| GIS 4923 | Spatial Statistics | 3 |
| Computer Related |  |  |
| Choose 3 hours from the following: |  | 3 |
| C S 1213 | Programming for Non-Majors with Python |  |
| C S 1313 | Programming for Non-Majors with C |  |
| METR 1313 | Introduction to Programming for Meteorology |  |
| MIS 2113 | Computer-Based Information Systems |  |
| MIS 3013 | Introduction to Programming |  |

Total Credit Hours
${ }^{1}$ GIS 5013 counts towards both the undergraduate and graduate degrees.

## MAJOR SUPPORT REQUIREMENTS

[^25]| Code | Title | Credit Hours |
| :---: | :---: | :---: |
| Upper-Division Science Electives |  |  |
| Choose a minimum of 15 hours of 3000-4000-level courses in botany, chemistry, computer science, engineering, geology, geophysics, mathematics, management information systems, meteorology, microbiology or physics |  | 15 |
| Total Credit Hou |  | 15 |
| Shared Hours |  |  |
| Code | Title | Credit Hours |
| RCPL 5013 | History and Theory of Urban Planning ${ }^{1}$ | 3 |
| RCPL 5063 | Planning with Diverse Communities ${ }^{1}$ | 3 |
| RCPL 5203 | Urban Land Use Controls ${ }^{1}$ | 3 |
| RCPL 5173 | Urban and Regional Analysis ${ }^{1}$ | 3 |
| Total Credit Hou |  | 12 |
| ${ }^{1}$ These 12 hours of Graduate Credit, along with GIS 5013 in the major work, count towards both the undergraduate and graduate degrees. |  |  |
| MRCP Component |  |  |
| Code | Title | Credit <br> Hours |
| RCPL 5113 | Urban Planning Research Methods | 3 |
| Choose one of the following: |  |  |
| RCPL 5525 | Comprehensive Regional And City Planning Project |  |
| RCPL 5522 <br> \& RCPL 5523 | Comprehensive RCPL Project: Reporting and Implementation and Comprehensive RCPL Project: Research and Plan Making |  |


| Program Electives | 21 |
| :--- | :--- |
| Total Credit Hours | 29 |

## General Education and College Requirements

Courses for fulfillment of General Education and college requirements must be from the approved General Education course list at http:// www.ou.edu/content/gened/courses.html. Courses graded P/NP will not apply

## UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS

At least three hours of Upper-Division General Education coursework must be completed outside the major.

| Code | Title |
| :--- | :--- |
|  | Credit |
|  | Hours |

Core Area I: Symbolic and Oral Communication
English Composition (6 hours)
ENGL 1113 Principles of English Composition 3
ENGL 1213 Principles of English Composition 3
or EXPO 1213 Expository Writing
Language (0-10 hours)


## Total Credit Hours

## Free Electives

Electives to bring total applicable hours to 150 including 40 upperdivision hours.

## Information Concerning General Rules, Regulations and Minimum Requirements for Undergraduate Degrees

Total Hours: A minimum of 120 semester hours acceptable toward graduation must be completed.

Upper-Division Hours: A minimum of 40 upper- division semester hours acceptable toward graduation must be completed. OU courses numbered 3000 or above are upper- division. Transfer work is counted as lowerdivision or upper-division credit depending on the level at which it was offered at the institution where it was earned. Two-year college work is accepted only as lower-division credit.
Senior Institution Hours: A minimum of 60 semester hours applied toward graduation must be earned at senior (4-year) institutions. Residency:

- A minimum of two semesters must be spent in residence in the College of Atmospheric and Geographic Sciences.
- At least 36 of the last 48 hours must be completed in residence at OU.

Individual Studies: No more than six hours of independent study or directed readings may be applied toward degree requirements.
Grade Point Averages: Students must earn a minimum overall 3.00 for each of the following: Combined Retention GPA (all college grades), OU Retention GPA, GPA for all major courses, and GPA for all major courses taken at OU.

## Suggested Semester Plan of Study

This plan shows one possible grouping of courses that would allow students to graduate in four years. Please refer to the front of the degree checksheet for official requirements. Students must consult with College of Atmospheric and Geographic Sciences and/or Department of Geography \& Environmental Sustainability academic advisors to verify that courses selected each semester fulfill the recommended plan and satisfy university, College of Atmospheric \& Geographic Sciences, and GIS major requirements.

## Freshman

| First Semester |  | Credit <br> Hours |
| :---: | :---: | ---: |
| ENGL 1113 | Principles of English Composition (Core I) | 3 |
| HIST 1483 | United States to 1865 (Core IV) |  |
| or HIST 1493 | or United States, 1865 to the Present | 3 |
| CHEM 1315 | General Chemistry (Core II) |  |
| MATH 1823 <br> or MATH 1743 | Calculus and Analytic Geometry I <br> or Calculus I for Business, Life and <br> Social Sciences | 5 |

Free Elective, lower- or upper-division 1Second Semester

| ENGL 1213 | Principles of English Composition (Core I) |
| :---: | :---: |
| or EXPO 1213 | or Expository Writing |

P SC 1113 American Federal Government (Core III) 3
GEOG 1113 The Language of Maps 3
First Year Experience (Core V) 3
Free Elective, lower- or upper-division 4

Credit Hours

## Sophomore

First Semester
GIS 2023 Introduction to Spatial Thinking and


| GEOG 3223 |  |  |
| :---: | :---: | :---: |
| GEOG 4243 |  |  |
| GEOG 4853 |  |  |
| Choose two Geography electives 6 |  |  |
| Total Credit Hours 37 |  |  |
| ${ }^{1}$ GIS 5013 counts towards both the undergraduate and graduate degrees. |  |  |
| MAJOR SUPPORT REQUIREMENTS |  |  |
| - Courses required for major support may not also fulfill UniversityWide General Education Requirements. |  |  |
| Code | Title | Credit |
| Choose 9 hours of advisor-approved coursework relevant to the student's field(s) of study |  |  |
| Total Credit Hours 9 |  |  |
| Shared Hours |  |  |
| Code | Title | Credit |
| RCPL 5013 | History and Theory of Urban Planning ${ }^{1}$ | 3 |
| RCPL 5063 | Planning with Diverse Communities ${ }^{1}$ | 3 |
| RCPL 5203 | Urban Land Use Controls ${ }^{1}$ | 3 |
| RCPL 5173 | Urban and Regional Analysis ${ }^{1}$ | 3 |
| Total Credit |  | 12 |
| 1 These 12 hours of Graduate Credit, along with GIS 5013 in the major work, count towards both the undergraduate and graduate degrees. |  |  |

## MRCP Component

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| RCPL 5113 | Urban Planning Research Methods |  |
| Choose one of the following: | 3 |  |
| RCPL 5525 | Comprehensive Regional And City Planning <br> Project | 5 |
| RCPL 5522 | Comprehensive RCPL Project: Reporting <br> \& RCPL 5523 <br> and Implementation <br> and Comprehensive RCPL Project: <br> Research and Plan Making |  |
| Program Electives | $\mathbf{2 1}$ |  |
| Total Credit Hours | $\mathbf{2 9}$ |  |

## General Education and College Requirements

Courses for fulfillment of General Education and college requirements must be from the approved General Education course lists at http:// www.ou.edu/content/gened/courses.html. Courses graded P/NP will not apply.

## UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS

At least three hours of Upper-Division General Education coursework must be completed outside the major.


## Free Electives

Electives to bring total applicable hours to the minimum total required for the degree.

## Information Concerning General Rules, Regulations and Minimum Requirements for Undergraduate Degrees

Total Hours: A minimum of 120 semester hours acceptable toward graduation must be completed.
Upper-Division Hours: A minimum of 40 upper- division semester hours acceptable toward graduation must be completed. OU courses numbered 3000 or above are upper- division. Transfer work is counted as lowerdivision or upper-division credit depending on the level at which it was offered at the institution where it was earned. Two-year college work is accepted only as lower-division credit.
Senior Institution Hours: A minimum of 60 semester hours applied toward graduation must be earned at senior (4-year) institutions.

## Residency:

- A minimum of two semesters must be spent in residence in the College of Atmospheric and Geographic Sciences.
- At least 36 of the last 48 hours must be completed in residence at OU.

Individual Studies: No more than six hours of independent study or directed readings may be applied toward degree requirements.
Grade Point Averages: Students must earn a minimum overall 3.00 for each of the following: Combined Retention GPA (all college grades), OU Retention GPA, GPA for all major courses, and GPA for all major courses taken at OU.

## Suggested Semester Plan of Study

This plan shows one possible grouping of courses that would allow students to graduate in four years. Please refer to the front of the degree checksheet for official requirements. Students must consult with College of Atmospheric and Geographic Sciences and/or Department of Geography academic advisors to verify that courses selected each semester fulfill the recommended plan and satisfy university, College of Atmospheric \& Geographic Sciences, and Environmental Sustainability major requirements.

| Freshman |  |
| :---: | :---: |
| First Semester | Credit |
|  | Hours |
| ENGL 1113 Principles of English Composition (Core I) | 3 |
| Beginning Language (Core I) | 5 |
| General Education Mathematics course (Core I) ${ }^{1}$ | 3 |
| General Education Social Science (Core III) ${ }^{1}$ | 3 |
| Credit Hours | 14 |
| Second Semester |  |
| ENGL 1213 Principles of English Composition (Core I) <br> or EXPO 1213 or Expository Writing | 3 |
| Beginning Language continued (Core I) | 5 |
| P SC 1113 American Federal Government (Core III) | 3 |
| General Education Natural Science (Core II) ${ }^{1}$ | 3 |
| First Year Experience (Core V) | 3 |
| Credit Hours | 17 |

## Sophomore

## First Semester

| GIS 2023 | Introduction to Spatial Thinking and <br> Computer Mapping | 3 |
| :--- | :--- | :--- |

Intermediate Language 3

| HIST 1483 | United States to 1865 (Core IV) | 3 |
| :---: | :---: | :---: |
| or HIST 1493 | or United States, 1865 to the Present |  |

General Education Artistic Forms (Core IV) ${ }^{1} 3$
General Education Arts \& Humanities elective $^{1} \quad 3$
Credit Hours ..... 15
Second Semester
General Education Social Science elective ${ }^{1} 3$
General Education Natural Science with laboratory (Core II) ${ }^{1}$ ..... 4
General Education World Culture (Core IV) ${ }^{1}$ ..... 3
$\frac{\text { General Education Western Cultu }}{\text { Credit Hours }}$ ..... 3
16
Junior
First Semester
GEOG 3924 ..... 4
GEOG 3213 Principles of Human Geography 3
GIS $5013 \begin{array}{ll}\text { Fundamentals of Geographic Information } \\ & \text { Systems }^{3}\end{array}$
College Elective ${ }^{2}$ ..... 3
Natural Science Elective ${ }^{1}$ ..... 3
16
Second Semester

| GEOG 3243 | Principles of Economic Geography | 3 |
| :--- | :--- | ---: |
| GEOG 3773 | Geography of the United States | 3 |
| GEOG elective |  | 3 |
| RCPL 5203 | Urban Land Use Controls $^{3}$ | 3 |
| College Elective $^{2}$ |  | 3 |
|  | Credit Hours | $\mathbf{1 5}$ |

Senior
First Semester
GEOG 4893 Research and Professional Development ..... 3
GEOG elective ..... 3
Regional GEOG course ..... 3
College Elective ${ }^{2}$ ..... 3
RCPL 5013 History and Theory of Urban Planning ${ }^{3}$ ..... 3
RCPL 5113 Urban Planning Research Methods ..... 3
Second Semester
GEOG 4953 Capstone ..... 3
RCPL 5173 Urban and Regional Analysis ${ }^{3}$ ..... 3
Graduate Elective ..... 3
Free Elective ..... 3
12
Fifth Year
First Semester
Choose one of the following: ..... 3-5
RCPL 5525 Comprehensive Regional And City PlanningProject

| RCPL 5523 | Comprehensive RCPL Project: Research and Plan Making ${ }^{4}$ |  |
| :---: | :---: | :---: |
| Graduate Elective |  | 3 |
| Graduate Elective |  | 3 |
| Graduate Elective |  | 3 |
|  | Credit Hours | 14 |
| Second Semester |  |  |
| RCPL 5063 | Planning with Diverse Communities ${ }^{3}$ | 3 |
| Graduate Elective |  | 3 |
| Graduate Elective |  | 3 |
| Graduate Elective |  | 3 |
| Choose the following if RCPL 5523 taken in the Fall: |  | 0-2 |
| RCPL 5522 | Comprehensive RCPL Project: Reporting and Implementation |  |
|  | Credit Hours | 12 |
|  | Total Credit Hours | 149 |

1 To be chosen from the University-Wide General Education Approved Course List. Three hours of general education must be upper-division outside the major.
2 Twelve hours of advisor-approved coursework relevant to the student's field(s) of study. These hours are to be outside the student's major School or Department.
3 These courses are shared between the undergraduate and graduate degrees.
4 In addition to taking RCPL 5522 in the Spring.

Note: No more than 52 hours of Geography coursework may be taken to fulfill the $\mathbf{1 2 0}$ minimum total credit hours required for the undergraduate degree.

## Geography, B.S./M.R.C.P.

Minimum Total Credit Hours: 149
Minimum Upper-Division Hours: 40

Overall GPA - Combined and OU: 3.00
Major GPA - Combined and OU: 3.00
Program Code: A465/F817 Q275
Undergraduate Requirements
MAJOR REQUIREMENTS

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| GIS 2023 | Introduction to Spatial Thinking and <br> Computer Mapping | 3 |
| GEOG 3023 | Principles of Physical Geography | 3 |
| GEOG 3213 | Principles of Human Geography | 3 |
| GEOG 3243 | Principles of Economic Geography | 3 |
| GEOG 3924 |  | 4 |
| GEOG 4893 | Research and Professional Development | 3 |
| GEOG 4953 | Capstone | 3 |
| GIS 5013 | Fundamentals of Geographic Information | 3 |

## Regional Geography

| GEOG $3773 \quad$ Geography of the United States |
| :--- |
| Choose 3 hours from the following: |
| GEOG 3223 |
| GEOG 4243 |
| GEOG 4853 |
| Electives |
| Choose 6 hours of Geography electives |
| Computer-Related |
| Choose 3 hours from the following: |
| C S $1213 \quad$ Programming for Non-Majors with Python |
| C S $1313 \quad$ Programming for Non-Majors with C |
| METR $1313 \quad$Introduction to Programming for <br> Meteorology |
| MIS $2113 \quad$ Computer-Based Information Systems |
| Total Credit Hours |
| 1 |

## MAJOR SUPPORT REQUIREMENTS

## - Courses required for major support may not also fulfill UniversityWide General Education Requirements.

| Code $\quad$ Title | Credit <br> Hours |
| :--- | ---: | ---: |
| Chemistry |  |
| CHEM 1415 General Chemistry (Continued) | 5 |
| Upper-Division Science Electives |  |
| Choose a minimum of 9 hours of faculty advisor approved <br> electives chosen from: biological science, chemistry, <br> computer science, mathematics, physics, engineering, or <br> geosciences courses outside the major. At least six hours <br> must be completed at the upper-division level (3000-4000 <br> level) | 9 |
| Total Credit Hours | $\mathbf{1 4}$ |

## Shared Hours

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| RCPL 5013 | History and Theory of Urban Planning ${ }^{1}$ | 3 |
| RCPL 5063 | Planning with Diverse Communities ${ }^{1}$ | 3 |
| RCPL 5203 | Urban Land Use Controls $^{1}$ | 3 |
| RCPL 5173 | Urban and Regional Analysis $^{1}$ | 3 |


| Total Credit Hours | 12 |
| :--- | :--- |

1 These 12 hours of Graduate Credit, along with GIS 5013 in the major work, count towards both the undergraduate and graduate degrees.

## MRCP Component

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| RCPL 5113 Urban Planning Research Methods | 3 |  |
| Choose one of the following: | 5 |  |


| RCPL 5525 | Comprehensive Regional And City Planning <br> Project |  |
| :--- | :--- | :--- |
| RCPL 5522 | Comprehensive RCPL Project: Reporting <br> \& RCPL 5523 <br>  <br>  <br>  <br> and Implementation <br> Research and Plan Making |  |
| Program Electives | $\mathbf{2 1}$ |  |
| Total Credit Hours | $\mathbf{2 9}$ |  |

## General Education and College Requirements

Courses for fulfillment of General Education and college requirements must be from the approved General Education course list at http:// www.ou.edu/content/gened/courses.html. Courses graded P/NP will not apply

## UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS

At least three hours of Upper-Division General Education coursework must be completed outside the major.

| Code | Title |
| :--- | :--- |
|  | Credit |
|  | Hours |

Core Area I: Symbolic and Oral Communication

| English Composition (6 hours) |  |
| :---: | :---: |
| ENGL 1113 Principles of English Composition | 3 |
| ENGL 1213 Principles of English Composition <br> or EXPO 1213 Expository Writing |  |
| Language (0-10 hours) |  |
| (0-10 hours in the same language) Students who have not completed two years of the same language in high school are required to take two college courses in the same language |  |
| Beginning Course 0-5 |  |
| $\begin{array}{ll}\text { Beginning Course, continued } & 0-5\end{array}$ |  |
| Mathematics (minimum 3 hours) |  |
| MATH $1743 \quad$Calculus I for Business, Life and Social <br> Sciences ${ }^{1,2}$ |  |
| or MATH 1823 Calculus and Analytic Geometry I |  |

Core Area II: Natural Science (minimum 7 hours)

| CHEM 1315 $^{\text {PHYS 2414 }}$ | General Chemistry (Science with Lab) $^{1}$ | 5 |
| :--- | :--- | :--- |
|  | General Physics for Life Science Oriented <br> Majors ${ }^{1}$ | 4 |

or PHYS 2514 General Physics for Engineering and Science Majors
Core Area III: Social Science (6 hours)
PSC 1113 American Federal Government 3
Choose one course from the General Education Social 3
Science list
Core Area IV: Arts and Humanities
Artistic Forms (3 hours)
Choose one course from the General Education Artistic Forms
list
Western Culture (6 hours)
HIST $1483 \quad$ United States to 1865
or HIST 1493 United States, 1865 to the Present
Choose one course from the General Education Western
Culture list (excluding HIST 1483 \& HIST 1493)
World Culture (3 hours)

| Choose one course from the General Education World Culture | 3 |
| :--- | ---: |
| list |  |
| Core Area V: First Year Experience (3 hours) | 3 |
| Choose one course | $39-49$ |
| Total Credit Hours |  |
| 1 College of Atmospheric and Geographic Sciences requirements. |  |
| 2 MATH 1914 will also fulfill the College's calculus requirement. |  |

ADDITIONAL COLLEGE BACHELOR OF SCIENCE REQUIREMENTS

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| PHYS 2424 | General Physics for Life Science Oriented | 4 |
|  | Majors |  |

or PHYS 2524 General Physics for Engineering and Science Majors
Total Credit Hours

## Free Electives

Electives to bring total applicable hours to 149 including 40 upperdivision hours.

## Information Concerning General Rules, Regulations and Minimum Requirements for Undergraduate Degrees

Total Hours: A minimum of 120 semester hours acceptable toward graduation must be completed.
Upper-Division Hours: A minimum of 40 upper- division semester hours acceptable toward graduation must be completed. OU courses numbered 3000 or above are upper- division. Transfer work is counted as lowerdivision or upper-division credit depending on the level at which it was offered at the institution where it was earned. Two-year college work is accepted only as lower-division credit.
Senior Institution Hours: A minimum of 60 semester hours applied toward graduation must be earned at senior (4-year) institutions.
Residency:

- A minimum of two semesters must be spent in residence in the College of Atmospheric and Geographic Sciences.
- At least 36 of the last 48 hours must be completed in residence at OU.

Individual Studies: No more than six hours of independent study or directed readings may be applied toward degree requirements.
Grade Point Averages: Students must earn a minimum overall 3.00 for each of the following: Combined Retention GPA (all college grades), OU Retention GPA, GPA for all major courses, and GPA for all major courses taken at OU.

## Suggested Semester Plan of Study

This plan shows one possible grouping of courses that would allow students to graduate in four years. Please refer to the front of the degree checksheet for official requirements. Students must consult with College of Atmospheric and Geographic Sciences and/or Department of Geography academic advisors to verify that courses selected each semester fulfill the recommended plan and satisfy university, College of Atmospheric \& Geographic Sciences, and Environmental Sustainability major requirements.

| Freshman |  |  |
| :---: | :---: | :---: |
| First Semester |  | Credit |
|  |  | Hours |
| ENGL 1113 | Principles of English Composition (Core I) | 3 |
| HIST 1483 <br> or HIST 1493 | United States to 1865 (Core IV) or United States, 1865 to the Present | 3 |
| CHEM 1315 | General Chemistry (Core II) | 5 |
| MATH 1823 or MATH 1743 | Calculus and Analytic Geometry I or Calculus I for Business, Life and Social Sciences | 3 |
|  | Credit Hours | 14 |
| Second Semester |  |  |
| $\begin{aligned} & \text { ENGL } 1213 \\ & \text { or EXPO } 1213 \end{aligned}$ | Principles of English Composition (Core I) or Expository Writing | 3 |
| CHEM 1415 | General Chemistry (Continued) | 5 |
| P SC 1113 | American Federal Government (Core III) | 3 |
| First Year Experience (Core V) |  | 3 |
| Free Elective |  | 2 |
|  | Credit Hours | 16 |
| Sophomore |  |  |
| First Semester |  |  |
| GIS 2023 | Introduction to Spatial Thinking and Computer Mapping | 3 |
| GEOG | Major Elective | 3 |
| PHYS 2414 <br> or PHYS 2514 | General Physics for Life Science Oriented Majors or General Physics for Engineering and Science Majors | 4 |
| General Education Social Science (Core III) ${ }^{1}$ |  | 3 |
| General Education World Culture (Core IV) ${ }^{1}$ |  | 3 |
|  | Credit Hours | 16 |
| Second Semester |  |  |
| GEOG 3023 | Principles of Physical Geography | 3 |
| Computer-Related Major Requirement |  | 3 |
| GEOG | Major Elective | 3 |
| $\begin{aligned} & \text { PHYS } 2424 \\ & \text { or PHYS } 2524 \end{aligned}$ | General Physics for Life Science Oriented Majors or General Physics for Engineering and Science Majors | 4 |
| General Education Western Culture (Core IV) ${ }^{1}$ |  | 3 |
|  | Credit Hours | 16 |
| Junior |  |  |
| First Semester |  |  |
| GEOG 3213 | Principles of Human Geography | 3 |
| GEOG 3924 |  | 4 |
| GIS 5013 | Fundamentals of Geographic Information Systems ${ }^{2}$ | 3 |
| Regional GEOG course |  | 3 |
| Science Elective ${ }^{3}$ |  | 3 |
|  | Credit Hours | 16 |
| Second Semester |  |  |
| GEOG 3243 | Principles of Economic Geography | 3 |
| GEOG 3773 | Geography of the United States | 3 |
| RCPL 5203 | Urban Land Use Controls ${ }^{2}$ | 3 |


| Science Elective ${ }^{3}$ |  | 3 |
| :---: | :---: | :---: |
| General Education Artistic Forms (Core IV) ${ }^{1}$ |  | 3 |
|  | Credit Hours | 15 |
| Senior |  |  |
| First Semester |  |  |
| GEOG 4893 | Research and Professional Development | 3 |
| RCPL 5013 | History and Theory of Urban Planning ${ }^{2}$ | 3 |
| RCPL 5113 | Urban Planning Research Methods | 3 |
| Science Elective ${ }^{3}$ |  | 3 |
| Free Elective |  | 3 |
| Free Elective |  | 3 |
|  | Credit Hours | 18 |
| Second Semester |  |  |
| GEOG 4953 | Capstone | 3 |
| RCPL 5173 | Urban and Regional Analysis ${ }^{2}$ | 3 |
| Graduate Elective |  | 3 |
| Free Elective |  | 3 |
|  | Credit Hours | 12 |

Fifth Year
First Semester
Choose one of the following: 3-5

| RCPL 5525 | Comprehensive Regional And City Planning <br> Project |
| :--- | :--- |
| RCPL 5523 | Comprehensive RCPL Project: Research <br> and Plan Making ${ }^{4}$ |

Graduate Elective 3
Graduate Elective 3
Graduate Elective 3

## Second Semester

RCPL 5063 Planning with Diverse Communities ${ }^{2}$ 3
Graduate Elective 3
Graduate Elective 3
Graduate Elective 3
Choose the following if RCPL 5523 taken in the Fall: 0-2

RCPL 5522 Comprehensive RCPL Project: Reporting and Implementation

| Credit Hours | 12 |
| :--- | ---: |
| Total Credit Hours | 149 |

${ }^{1}$ To be chosen from the University-Wide General Education Approved Course List. Three hours of general education must be upper-division outside the major.
${ }^{2}$ These courses are shared between the undergraduate and graduate degrees.
${ }^{3}$ Choose a minimum of 9 hours of faculty advisor approved electives chosen from: biological science, chemistry, computer science, mathematics, physics, engineering, or geosciences courses outside the major. At least six hours must be completed at the upper-division level (3000-4000 level).
4 In addition to taking RCPL 5522 in the Spring.

## Geography and Environmental Sustainability, M.A.

Minimum Total Hours (Thesis): 30
Minimum Total Hours (Non-Thesis): 33
Program Code: M462

| Required Courses |  |  |
| :---: | :---: | :---: |
| THESIS OPTION |  |  |
| Code | Title | Credit Hours |
| Required Courses |  |  |
| GEOG 5313 | Interpreting Society and Environment: Qualitative Research Methods | 3 |
| GEOG 6953 | Research and Professional Development | 3 |
| GEOG 6973 | Thinking about Geography and Environmental Sustainability | 3 |
| Two seminars (6 hours) in Geography \& Environmental Sustainability ${ }^{1}$ |  | 6 |
| GEOG 5980 | Research for Master's Thesis | 4-6 |
| Electives |  |  |
| Choose 9-11 hours |  | 9-11 |
| Total Credit Hours |  | 30 |
| ${ }^{1}$ Slashlisted satisfy thi | ses, independent studies and research co irement. | will not |


| NON-THESIS OPTION |  |  |
| :--- | :--- | :--- |
| Code | Title | Credit |
|  |  | Hours |


| Required Courses |  |  |
| :--- | :--- | :--- |
| GEOG 5313 | Interpreting Society and Environment: <br> Qualitative Research Methods | 3 |
| GEOG 6953 | Research and Professional Development | 3 |
| GEOG 6973 | Thinking about Geography and <br> Environmental Sustainability | 3 |
| Two seminal 6 hours) in Geograph \& Environmental | 6 |  |


| Two seminars (6 hours) in Geography \& Environmental | 6 |
| :--- | :---: |
| Sustainability ${ }^{1}$ |  |
| Electives | 18 |
| Choose 18 hours | $\mathbf{3 3}$ |

1 Slashlisted courses, independent studies and research courses will not
satisfy this requirement.

## General Requirements for all Master's Degrees

The master's degree requires the equivalent of at least two semesters of satisfactory graduate work and additional work as may be prescribed for the degree.

All coursework applied to the master's degree must carry graduate credit.

Master's degree programs which require a thesis consist of at least 30 credit hours. All non-thesis master's degree programs require at least 30 credit hours.

Credit transferred from other institutions must meet specific criteria and is subject to certain limitations.

Courses completed through correspondence study may not be applied to the master's degree.

To qualify for a graduate degree, students must achieve an overall grade point average of 3.0 or higher in the degree program coursework and in all resident graduate coursework attempted. A student must also have at least a 3.0 in all coursework (including undergraduate coursework if any).

Additional information for master's degree students may be found in the Graduate College Bulletin.

## Geography and Environmental Sustainability: Environmental Systems, M.S.

Minimum Total Hours (Thesis): 30
Minimum Total Hours (Non-Thesis): 33
Program Code: M463 Q230

## Required Courses <br> THESIS OPTION

| Code | Title | Credit Hours |
| :---: | :---: | :---: |
| Required Courses (must be completed with a B grade or better) |  |  |
| GEOG 6953 | Research and Professional Development | 3 |
| GEOG 6973 | Thinking about Geography and Environmental Sustainability | 3 |
| GIS 5923 | Spatial Statistics | 3 |
| Guided Electives |  |  |
| Choose 9 ho | 806) | 9 |
| GEOG 5980 | Research for Master's Thesis | 6 |
| General Electives |  |  |
| Choose 6 gr committee hours to 30 | e-level hours, as approved by the advisory aduate liaison, to bring total applicable | 6 |
| Total Credit |  | 30 |


| NON-THESIS OPTION |  |
| :--- | :--- |
| Code | Title | | Credit |
| :--- |

Required Courses (must be completed with a B grade or better)

| GEOG 6953 | Research and Professional Development | 3 |
| :--- | :--- | ---: |
| GEOG 6973 | Thinking about Geography and <br> Environmental Sustainability | 3 |
| GIS 5923 | Spatial Statistics | 3 |
| Guided Electives |  | 15 |
| Choose 15 hours (p. 806) |  |  |

## General Electives

Choose 9 graduate-level hours, as approved by the advisory committee and graduate liaison, to bring total applicable hours to 33

## Total Credit Hours

## GUIDED ELECTIVES

Guided electives will be selected by the student under guidance of her/his advisory committee and as approved by the graduate liaison.

Examples of possible guided electives include:

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| GEOG 5253 | The Economics of Sustainability | 3 |
| GEOG 5283 | Biogeography | 3 |
| GEOG 5293 | Hydrologic Science | 3 |
| GEOG 5343 | Climate, History, and Society | 3 |
| GEOG 5433 | Sustainability: Theory and Practice | 3 |
| GEOG 5513 | Real-world Applications of Climate and <br> Weather Information | 3 |
| GEOG 5583 | Energy Systems and Sustainability | 3 |
| GEOG 5713 | Dynamic Modeling of Socio-Environmental | 3 |
| GEOG 6240 | Systems | $1-3$ |
| GIS 50minar in Geography and Environmental | Sustainability | 3 |
| GIS 5133 | Fundamentals of Geographic Information | 3 |
| GIS 5233 | Systems | 3 |
| GIS 5253 | Findamentals of Remote Sensing | 3 |
| GIS 5453 | GIS Applications | 3 |
| GIS 5653 | Advanced GIS and Spatial Analysis | 3 |

## General Requirements for all Master's Degrees

The master's degree requires the equivalent of at least two semesters of satisfactory graduate work and additional work as may be prescribed for the degree.

All coursework applied to the master's degree must carry graduate credit.
Master's degree programs which require a thesis consist of at least 30 credit hours. All non-thesis master's degree programs require at least 30 credit hours.

Credit transferred from other institutions must meet specific criteria and is subject to certain limitations.

Courses completed through correspondence study may not be applied to the master's degree.

To qualify for a graduate degree, students must achieve an overall grade point average of 3.0 or higher in the degree program coursework and in all resident graduate coursework attempted. A student must also have at least a 3.0 in all coursework (including undergraduate coursework if any). 9

Additional information for master's degree students may be found in the

## Geography and Environmental Sustainability: Geospatial Technologies, M.S.

Minimum Total Hours (Thesis): 30
Minimum Total Hours (Non-Thesis): 33
Program Code: M463 Q269 (M464 Q269 Online)
This program has changes pending State
Regents approval for 2024/25. These pending changes are not reflected here.

## Required Courses

THESIS OPTION

| Code | Title | Credit |
| :---: | :---: | :---: |
| Required Courses (must be completed with a B grade or better) |  |  |
| GEOG 6953 | Research and Professional Development | 3 |
| GEOG 6973 | Thinking about Geography and Environmental Sustainability | 3 |
| GIS 5923 | Spatial Statistics | 3 |
| Guided Electives ${ }^{1}$ |  |  |
| Choose two GIS | courses, examples include the following: | 6 |
| GIS 5013 | Fundamentals of Geographic Information Systems |  |
| GIS 5133 | Fundamentals of Remote Sensing |  |
| GIS 5233 | Digital Image Processing |  |
| GIS 5253 | GIS Applications |  |
| GIS 5453 | Advanced GIS and Spatial Analysis |  |
| GIS 5653 | Spatial Programming and GIS |  |
| Choose one cou following: | se in Techniques, examples include the | 3 |
| C S 5093 | Visual Analytics |  |
| GRAD 5203 | EOS3 Data Analytics |  |
| RCPL 5463 | Geographic Information Systems for Land Use Planning |  |
| RCPL 5970 | Special Topics/Seminar (Advanced GIS) |  |
| PBIO 5733 | Environmental Remote Sensing |  |
| CEES 5903 | Remote Sensing Hydrology |  |
| METR 5673 | Weather Radar Theory and Practice |  |
| Choose one cour | se in Geography (p. 807) | 3 |
| GEOG 5980 | Research for Master's Thesis | 6 |
| General Electives |  |  |
| Choose 3 hours the advisory co applicable hour | graduate-level electives, as approved by mittee and graduate liaison, to bring total to 30 | 3 |

Total Credit Hours

1 Guided electives will be selected by the student under guidance of her/ his advisory committee and as approved by the graduate liaison.

## NON-THESIS OPTION

| Code | Title |
| :--- | :--- |
|  | Credit |
|  | Hours |

## Required Courses (must be completed with a B grade or <br> better)

| GEOG 6953 | Research and Professional Development | 3 |
| :--- | :--- | :---: |
| GEOG 6973 | Thinking about Geography and <br> Environmental Sustainability | 3 |
| GIS 5923 | Spatial Statistics | 3 |
| Guided Electives $^{1}$ | 6 |  |


| GIS 5013 | Fundamentals of Geographic Information <br> Systems |
| :--- | :--- |
| GIS 5133 | Fundamentals of Remote Sensing |
| GIS 5233 | Digital Image Processing |
| GIS 5253 | GIS Applications |
| GIS 5453 | Advanced GIS and Spatial Analysis |
| GIS 5653 | Spatial Programming and GIS |

Choose one course in Techniques, examples include the 3 following:

| C S 5093 | Visual Analytics |
| :--- | :--- |
| GRAD 5203 | EOS3 Data Analytics |
| RCPL 5463 | Geographic Information Systems for Land <br> Use Planning |
| RCPL 5970 | Special Topics/Seminar (Advanced GIS) |
| PBIO 5733 | Environmental Remote Sensing |
| CEES 5903 | Remote Sensing Hydrology |
| METR 5673 | Weather Radar Theory and Practice |

## General Electives

Choose 9 hours of graduate-level electives, as approved by
the advisory committee and graduate liaison, to bring total applicable hours to 33
Total Credit Hours
1 Guided electives will be selected by the student under guidance of her/ his advisory committee and as approved by the graduate liaison.

## Suggested Geography Electives

Examples of possible Geography courses include:

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| GEOG 5513 | Real-world Applications of Climate and <br> Weather Information | 3 |
| GEOG 5253 | The Economics of Sustainability | 3 |
| GEOG 5283 | Biogeography | 3 |
| GEOG 5293 | Hydrologic Science | 3 |
| GEOG 5343 | Climate, History, and Society | 3 |
| GEOG 5433 | Sustainability: Theory and Practice | 3 |


| GEOG 5583 | Energy Systems and Sustainability | 3 |
| :--- | :--- | ---: |
| GEOG 5713 | Dynamic Modeling of Socio-Environmental <br> Systems | 3 |
| GEOG 5943 | Natural Hazards | 3 |
| GEOG 5970 | Special Topics/Seminar (Topic: Economics, <br> Policy and Technology) | $1-3$ |
| GEOG 6240 | Seminar in Geography and Environmental <br> Sustainability | $1-3$ |

## General Requirements for all Master's Degrees

The master's degree requires the equivalent of at least two semesters of satisfactory graduate work and additional work as may be prescribed for the degree.

All coursework applied to the master's degree must carry graduate credit.
Master's degree programs which require a thesis consist of at least 30 credit hours. All non-thesis master's degree programs require at least 30 credit hours.

Credit transferred from other institutions must meet specific criteria and is subject to certain limitations.

Courses completed through correspondence study may not be applied to the master's degree.

To qualify for a graduate degree, students must achieve an overall grade point average of 3.0 or higher in the degree program coursework and in all resident graduate coursework attempted. A student must also have at least a 3.0 in all coursework (including undergraduate coursework if any).

Additional information for master's degree students may be found in the Graduate College Bulletin.

## Geospatial Technologies, Graduate Certificate

Minimum Total Hours: 12
Program Code: G042, G043 (Online)

## This program has changes pending State Regents approval for 2024/25. These pending changes are not reflected here.

Masters students in the existing degree program may be focused in physical geography, human geography, or applications of geotechnologies to geographic questions. For this certificate, however, we recommend a subset of existing courses to focus on one or more of the following: geographical information systems (GIS), remote sensing (RD), or management of geodatabases associated with GIS, RS, or other geospatial technologies.

The embedded certificate consists of a minimum of 12 hours consisting of at least four courses, at least two of which are required to have the GIS prefix.

# Certificate Requirements 



Total Credit Hours

1 If the student previously finished a fundamentals course as an undergraduate, they should take an additional course from the Advanced/Applied list instead.
2 If students started in the Geographic Information Science track, they should continue in this track when choosing Advanced/Applied courses. If students started in the Remote Sensing track, they should continue in this track when choosing Advanced/Applied courses.

A graduate certificate is not a graduate degree. A graduate degree represents a program of independent inquiry beyond the depth of coursework alone, while a graduate certificate represents a set of courses only.

- All courses must be taken at OU. No transfer credit will apply.
- No course substitutions are permitted for graduate certificates.
- Coursework applied to a graduate certificate cannot be more than five years old as of the semester the graduate certificate is awarded.
- Students must earn a grade point average of 3.00 or higher on all coursework applied to the graduate certificate.

Geography \& Environmental Sustainability, Ph.D.

Minimum Total Hours: 90

Program Code: D461

## This program has changes pending State Regents approval for 2024/25. These pending changes are not reflected here. Program Requirements

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| GEOG 6973 | Thinking about Geography and <br> Environmental Sustainability | 3 |
| GEOG 6953 | Research and Professional Development | 3 |
| Two seminars or graduate-level courses (6 hours) in |  |  |
| Geography \& Environmental Sustainability ${ }^{1}$ | 6 |  |
| GEOG 6980 $\quad$ Research for Doctoral Dissertation ${ }^{2}$ | $2-78$ |  |
| Total Credit Hours | 90 |  |

${ }^{1}$ Slashlisted courses, independent study and research courses will not satisfy this requirement.
${ }^{2}$ Enough to bring total post-baccalaureate credit hours to 90 (after required courses, electives, and any transfer credit hours accepted from the Master's degree)

## General Requirements for Doctoral Degrees

A student should expect to spend at least the equivalent of three full academic years beyond the bachelor's degree to obtain the doctoral degree. During this period the student will take appropriate graduate coursework, successfully complete the general examination, and successfully defend and submit the final dissertation.

All coursework applied to the doctoral degree must carry graduate credit.
The doctoral degree requires at least 90 post-baccalaureate hours, including both formal coursework and hours of research.

The minimum hour requirement for a specific doctoral degree program cannot be waived.

No more than one-half of the credit hours, both OU and overall, excluding Research for Doctoral Dissertation (6980), may be $S / U$-graded coursework.

The student must be in residence at OU for at least two consecutive 16week semesters during the pursuit of the doctoral degree while enrolled and engaged in coursework or research activities as prescribed by the major academic unit.

For more detailed regulations and requirements for Doctoral degrees, please consult the Graduate College Bulletin: http://www.ou.edu/ gradcollege/forms/bulletin

## School of Aviation

Dr. Todd Hubbard, Ed.D., Lead Faculty Member<br>Eric Wydra, MACRM, Program Director<br>Shelly Ainsworth, M.H.R., Director of Academic Advising Services<br>1700 Lexington Ave., Bldg. 101<br>Norman, OK 73069<br>Phone: (405) 325-7231<br>FAX: (405) 325-0136<br>www.ou.edu/ags/aviation

## General Information

The mission of the School of Aviation is to provide each student with the knowledge and the skills of a competent pilot and/or industry professional, combined with a liberal education and business concentration that will provide them an initial and long-term competitive advantage as professionals in global organizations and in society. The School of Aviation is responsible for credit and noncredit aviation education, FAA Part 141 and 61 pilot training, and FAA AT-CTI curriculum and simulation courses. A Bachelor of Science Degree with four aviation concentrations and four aviation minors are offered.

The School of Aviation's modern training assets include: 15 Piper Warrior III aircraft (two with glass Avidyne flight systems and with Garmin 430 GPS units), nine Piper 100i aircraft with glass Garmin flight systems, one Cessna 152 Aerobat, two Twin Engine Piper Seminole, one King Air C-90 B Turbo Prop, three Guimbal Cabri G2 helicopters, two advanced FAA Aircrew Training Devices (Red Bird Simulator and Frasca Simulator). This modern aircraft fleet offers students advanced technology and also provides air transportation through the Faculty and Staff Transport (FAST) Program. Additionally, the AT-CTI program boasts a complete array of all available air traffic control simulations to include a Tower Simulation Cab for tower and ground operations, and an ATC Enroute Radar Simulation Facility Lab.

## History

The University of Oklahoma School of Aviation was established in 1947, after purchasing the airport land in 1940, as an independent, Provostdirected department chaired by the airport manager J.E. Coulter. The school's initial charge was to provide flight instruction for OU students seeking flight certification. The Bachelor of Science in Aviation was developed in the mid-1970s and was first offered as a degree in 1978.

In 1994, the Department of Aviation joined the OU College of Continuing Education and in 2017 moved to the newly formulated College of Professional and Continuing Studies. As part of this transition, the Department of Aviation changed its name to the School of Aviation Studies. In 2022, the school moved to the College of Atmospheric and Geographic Sciences and became the School of Aviation.

## Mission

Our program mission is to provide aviation majors with the knowledge and skills of a competent pilot, air traffic controller, and/or industry professional along with broad education and business concentrations that provide long-term competitive professional advantages.

## Goal

All graduates of the program in aviation will have developed a depth of understanding of the aviation industry and been afforded the opportunity to prepare for an aviation-related professional career following graduation.

## Accreditation

Each of the four degree concentration programs are each fully accredited by the Aviation Accreditation Board International (AABI). Accreditation ensures each aviation student at OU earns a degree from a nationally recognized institution with a quality aviation program and impeccable safety record. It can also have the added benefit of opening more doors to students in the areas of industry scholarship procurement, internships, and eventual employment.

## Careers

Career choices for students completing the undergraduate program in aviation include, but are not limited to, airport management, business planning analyst, aviation technical writer, contract specialist, corporate or airline management, corporate, military, air ambulance, sight-seeing, airline and flight test pilot, flight instructor, freelance commercial assistant, aircraft sales, leasing and insurance, flight dispatcher, flight schedule coordinator, safety inspector, air traffic controller, planning and development manager, aeronautical charting, aviation law, accident investigator, and air marshal. Additionally, OU Aviation helps students further their career prospects in that it is an approved school to provide training for the FAA Air Traffic-Collegiate Training Initiative and the Restricted Airline Transport Pilot, as well as enjoying pipeline agreements with several Regional airlines such as Envoy, PSA, Republic and as a Southwest Airlines Destination 225 Cadet Pathway partner.

## Programs \& Facilities <br> Max Westheimer Airport

The Max Westheimer Airport terminal building, the AM\&E Building, and the simulator building located on North Campus at the University Research Park are the primary office and classroom buildings for the School of Aviation. The buildings contain many classrooms and study areas, with training aids, simulators, and other facilities to enhance the student's learning environment. The airport is a 15-20 minute drive from main campus or via the EMBARK (Norman's city bus service). Aviation students also have access to the school's maintenance hangars, which further enhance the student's ability to learn. Students are encouraged to take an active part in their learning process.

## FAA Center of Excellence - Technical Training and Human Performance

In 2016, the University of Oklahoma was awarded as Technical Lead for the Federal Aviation Administration's newest Center of Excellence (FAA COE), focused on Technical Training and Human Performance (TTHP). There are currently 10 active FAA COEs in the United States. As of 2022, OU's Center is in its seventh operational year and has reached \$17 million in funding for 80 research projects. The Center serves the FAA's Air Traffic Organization and Civil Medical Aerospace Institute, as well as the Aviation Safety, Flight Program Operations, and NextGen divisions.

The OU FAA Center of Excellence TTHP is a consortium of 15 institutions and over 50 industry partners dedicated to helping the FAA revolutionize training practices for pilots, air traffic controllers, maintenance technicians, safety operators, and engineers. The Center also examines human performance, such as the cognitive, physiological, and psychological factors that result in human error during high riskbased decision making. In addition, the Center has worked with the FAA to increase employee readiness for addressing workforce challenges from natural disasters and/or pandemics. The Center has also recently been expanded to support the FAA in responding to new legislation
mandating the in-depth study of the human factor impacts of flight automation on pilot and crew in commercial aircraft.

FAA COE TTHP Leads: University of Oklahoma, Embry-Riddle Aeronautical University, and Wichita State University.

FAA COE TTHP Core Institutions: Auburn University, Drexel University, Inter American University, Oklahoma State University, Purdue University, The Ohio State University, The University of Akron, The University of Oklahoma, Tulsa Community College, University of Nebraska-Omaha, University North Dakota, University of Wisconsin - Madison, Western Michigan University, and Wichita State University.

For more information about the FAA COE TTHP, visit http:// www.coetthp.org. To discuss partnering with our organization, please contact April Millaway Axton, Program Manager at april.e.williams@ou.edu.

## Air Traffic-College Training Initiative (AT-CTI)

The University of Oklahoma has a long history of partnership with the Federal Aviation Administration (FAA) and was selected as an AT-CTI school in Fall 2007, making OU one of few approved programs in the southwest region of the United States. This program has been added as a proactive approach to help develop the much needed additions to the FAA workforce. The AT-CTI programs are a priority source of hiring for the FAA and likely a more prevalent source for professional controller candidates worldwide. Graduates from these programs may apply to the FAA Air Traffic Control Academy in Oklahoma City. However, the AT-CTI coursework must be completed in conjunction with a Non-Engineering Aviation Degree from an approved FAA AT-CTI school. In order to be considered for an ATCS position with FAA, you must not have reached your 31st birthday for Tower and En Route Center facility employment. For more specific details, visit the Federal Aviation Administration's website or contact OU Aviation.

## Sooner Flight Academy

The University of Oklahoma's Sooner Flight Academy (SFA) provides aviation, aerospace, and STEM education for $K-12$ learners via field trips, one-day workshops, fall and spring break sessions, and summer camps. The SFA program helps learners develop an understanding of and love for aviation and flight through various hands-on lessons, panels, activities, demos, and experiments.

The purpose of the OU Sooner Flight Academy is to establish lifelong contributions to aviation and related STEM career fields. A secondary goal of SFA is to provide youth with college-aged role models, most of whom are studying to be pilots, air traffic controllers, and/or in airport or airline operations management, to promote a continuation of education beyond high school and vocational school with a linkage to lifelong learning opportunities available through the OU School of Aviation. In addition, the program provides teacher training and curriculum to support under-resourced districts that desire Aviation and Aerospace opportunities for Oklahoma youth.

To learn more about SFA and/or participate in our programs, please visit flightcamp.ou.edu and/or contact Ashley Chrisman, SFA Program Director at ashley.n.chrisman@ou.edu.

## Internships

Aviation related internship experiences are available for qualifying students. Interested students should contact the Aviation Advising Office at (405) 325-7231 for more information.

## Scholarships

The School of Aviation Studies awards a number of scholarships each semester to deserving majors who have been enrolled in the program. Individual scholarship application procedures and deadlines may be found on Aviation Scholarships.

## Honor Societies and Professional Organizations

Eight unique societies and professional organizations are available for students in aviation:

- Sooner Air Traffic Control Association (SATCA) - for students with an interest in supporting the ATC programs
- Sooner Aviation Club - for students interested in aviation
- Sooner Chapter of American Association of Airport Executives (AAAE) - for students interested in the business side of aviation, including airport management
- Women In Aviation International (WAI) - for students dedicated to the encouragement and advancement of women in all aviation career fields and interests
- Alpha Eta Rho, Beta Chi Chapter - an international fraternity for aviation students
- National Intercollegiate Flight Association (NIFA) Flight Team - comprised of aviation students who compete regionally on a collegiate level in various aviation-related events, varying in complexity
- National Gay Pilot's Association (NGPA) -- an organization open to all students to build, support and unite the LGBTQ aviation community worldwide
- Colonel Kenneth R. Carson Aviation Leadership Program -- to provide leadership training, professional development and networking opportunities with the aviation industry to the top $10 \%$ of OU Aviation students


## Undergraduate Study

## Bachelor of Science Degree

The undergraduate degree in Aviation is designed to offer students a choice in their aviation career. The degree offers four areas of concentration:

- Air Traffic Management (p. 815)
- Aviation Management (p. 818)
- Non-Flying Aviation Management (p. 820)
- Professional Pilot - Airplane (p. 822)
- Professional Pilot - Helicopter (p. 825)

Upon completion of the program, the student will have a basic familiarity with the facts, skills, techniques, and attitudes which are relevant to the aviation industry, along with the basic educational and aeronautical experience to compete in today's aviation marketplace.

## Aviation Minors

Aviation minors are generally open to non-Aviation majors at the University of Oklahoma. Please check with the Aviation Advising Office, as the minors with a flight component may be suspended during periods of high demand, and the coursework in these instances must be reserved for Aviation majors. Air Traffic Control is the only Aviation minor open to Aviation majors. Students pursuing any Aviation minor must earn at
least a minimum grade of " $C$ " in Aviation courses taken to meet minor requirements.

- Air Traffic Control (p. 827)
- Aviation Management (p. 827)
- Single-Engine Commercial Pilot (p. 828)
- Multi-Engine Commercial Pilot (p. 828)


## Admission

To be admitted to the Aviation program, a student must first be admitted to the University of Oklahoma. During periods of high demand, the admission for flight majors is open only in the fall term, with flight slots to be allocated to the admitted students over the course of the academic year (fall, spring, summer). Early application is considered important due to the limited number of students the program will be able to accept.

Inquiries concerning admission to the University should be addressed to the Office of Admissions \& Recruitment, University of Oklahoma, 1000 Asp Avenue, Room 127, Norman, OK, 73019-4076. Specific requirements for admission may be found at the Admissions \& Recruitment website.

## Residency Requirement

Candidates for the BS degree must complete their last 30 hours as a resident student at the University of Oklahoma. However, if a candidate has completed the last 51 hours as a resident student at the University of Oklahoma, nine of the last 60 hours may be taken at another university or by correspondence. Students are encouraged to consult their advisors prior to enrollment.

## Pass/No Pass Enrollment

Pass/No Pass Enrollment may only be used to fulfill Elective Requirements.

## Use of Graduate Level Courses

Graduate-level courses may NOT count toward the undergraduate degree.

## Credit Hour Load

Generally to considered full time, an undergraduate student must be enrolled in at least 12 hours in a fall or spring semester and six hours in a summer session. Please be advised that the VA and various scholarship donors may have specific hour requirements that may vary. Enrollments of 20 hours or more in a fall or spring semester and 10 hours or more in a summer session, must be approved by an academic advisor within the School of Aviation Studies.Students requesting such an exception must have demonstrated readiness to perform on an overload basis either through superior performance on a college aptitude test, or on the basis of superior academic achievement in previous college coursework.

## Concurrent Degree in Two Colleges

- Both degrees must be completed and certified in the same semester.
- A graduation application must be filed for each degree. Two diplomas will be awarded.
- At least 30 additional hours must be completed beyond the degree that requires the least number of hours.


## Ten-Year Limitation Rules

Students must complete the degree requirements within a maximum of 10 calendar years from the date of that enrollment. If the work for a degree covers a period longer than 10 years, the student must update to the most current degree program requirements.

Credit in a student's major that is more than 10 years old may not be applied toward a bachelor's degree unless it is validated by the Aviation Academic Chair.

## Academic Probation \& Stop-Out Policy

To be considered in good standing with the School of Aviation, a student should maintain an OU retention and combined retention grade point averages of at least 2.25 and comply with all School of Aviation and FAA policies. Additionally, Aviation majors are required to enroll in and successfully complete a MATH course every semester until the Math 1743 requirement is fulfilled. This is essential due to the fact that math is a prerequisite for several of the "Basic Business" courses and all of the "Upper-Division Business" coursework required for the degree. Hence, failure to comply with the math rule will delay one's degree completion.

If a student's OU retention or combined retention grade point average falls below 2.25, or the math policy is not adhered to, the student will be placed on one semester of academic probation. Failure of a student to satisfy the terms of this probationary semester will lead to the student being stopped-out of the Aviation program. Likewise, a student who does not comply with all FAA and School policies will also be stopped-out of the program.

Students who are stopped out will have their enrollment cancelled and must change their major from Aviation. After being stopped out, students are not eligible to return to Aviation or enroll in Aviation courses until their OU retention and combined retention grade point averages have reached the minimum 2.25 and/or a MATH course has been successfully completed. Upon being stopped-out, students' records will be transferred to the Academic Advising Resources Center (AARC). All stopped-out students must contact AARC to discuss options for changing their major and re-enrolling at the University of Oklahoma.

## Graduation

Students must apply for the degree that they are pursuing; Deadlines are December 1 for spring graduates, March 1 for summer graduates, and May 1 for fall graduates. Dates are subject to change at the discretion of Academic Records. Application is made online via one.ou.edu. All Aviation majors are required to make an appointment for a graduation check the semester before they intend to graduate. During the graduation check, applications and senior exit interviews will be completed.

## Aviation Credit Flight Fees

Below are all the flight courses offered at OU that carry a flight or lab fee which are in addition to the tuition costs for the courses. It is important to note that not all the courses listed are required for each degree option, but some are optional if the student desires the additional training. The following classes are required for the Aviation Management-Flying degree option: AVIA 1222, AVIA 2231, AVIA 2341, AVIA 3572, and AVIA 4552. The following classes are required for the Professional Pilot degree option: AVIA 1222, AVIA 2231, AVIA 2341, AVIA 3572, AVIA 4552, AVIA 3581, and AVIA 4313.
*Primary Flying AVIA 1222 :
\$9,852 (39 hrs, Warrior III)
(29.0 Dual, 10.0 Solo, 1.0 Sim)
*Advanced Flying AVIA 2231:
\$8,136 (40 hrs, Warrior III)
(18.0 Dual, 22.0 Solo)
*Secondary Flying AVIA 2341: $\quad \$ 7,812$ (40 hrs, Warrior III)
(16.0 Dual, 24.0 Solo)
*Instrument Flying AVIA 3572:
(25.2 Dual, 14.0 Sim)
*Commercial Flying AVIA 4552:
(21.0 Dual, 19.0 Solo)
*Multi-Engine Flying AVIA 3581:
(13.5 Dual)
*Turbine Transition AVIA 4313:
(5.0 Dual)

## Optional Courses

*Flight Instructor AVIA 4602: (25.0 Dual)
*Advanced Flight Maneuvers AVIA 3111: (5.0 Dual)
*Instrument Instructor AVIA 4613:
(15.0 Dual)
*Multi-Engine Instructor:
(25.0 Dual)

## ATC Course Fees

| IFR Traffic Procedures AVIA 3313: | $\$ 426$ |
| :--- | :---: |
| En Route Radar Lab AVIA 4013: | $\$ 1,667$ |
| ATC Tower Simulation AVIA 4004: | $\$ 1,960$ |
| Tracon Radar Lab AVIA 4023: | $\$ 1,667$ |

Prices for courses shown above are for the FAA hours required in a course syllabus. Actual flight hours and costs will most likely vary. For example, most Private Pilot students on average require 5 to 10 hours of overflight.* Students may voluntarily pay for additional flight training hours if needed to satisfactorily complete course tasks as discussed with Flight Instructor.
*Overflight: If student requires overflight hours, it is billed at the per flight hour cost (varies by aircraft, see table below). Additionally, for overflight, there is a $\$ 39$ per hour charge for instructor pre- and post-flight preparation.

| Warrior Dual | $\$ 214$ | Cessna Dual | $\$ 190$ | Seminole Dual | $\$ 401$ |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Warrior Solo | $\$ 170$ | King Air Dual | $\$ 1,409$ | Simulator | $\$ 142$ |
| Ground | $\$ 44$ | King Air Ground | $\$ 55$ |  |  |

## ALL PRICES EFFECTIVE AUGUST 1, 2023, AND ARE SUBJECT TO CHANGE EACH ACADEMIC YEAR. PLEASE CONTACT THE SCHOOL OF AVIATION TO VERIFY COSTS AT (405) 325-7231.

Aviation majors must earn a minimum grade of C in aviation courses to be considered passing and move to the next requirement.

## Courses

AVIA 1013 Introduction to Air Traffic Control 3 Credit Hours
Prerequisite: Permission of the department. The purpose of this course is to learn about the air traffic control system from both the pilot and controller's perspectives. This course is the first of eight ATC courses required for the Air Traffic Management degree path or ATC minor and a prerequisite for basic air traffic control regulations. (F, Sp)

## AVIA 1111 Aviation Orientation <br> 1 Credit Hour

Prerequisite: Majors only and departmental permission. Required orientation course for all declared Aviation Majors during their first semester. Orients students to the department, curriculum, resources, and provides an overview of the various aviation professions. Guest lecturers will include departmental instructors covering all aspects of the industry, as well as the advising staff. ( $\mathrm{F}, \mathrm{Sp}$ )
AVIA 1113 Introduction to Aviation
3 Credit Hours
Prepares student to take the FAA private pilot written examination.
Covers FAR's, meteorology, aerodynamics, flight physiology, performance charts, radio navigation techniques. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

## AVIA 1133 Private Ground - Helicopter 3 Credit Hours

Prerequisite: departmental permission. Prepares students to take the FAA Computer Knowledge Test. Students will develop the knowledge specified by 14 CFR Section 141App B 3 (b) for a Private Pilot Rotorcraft/Helicopter certificate. (F, Sp, Su)
AVIA 1213 Basic Air Traffic Control Regulations 3 Credit Hours Prerequisite: AVIA 1013 and permission of the department. This course is a progressive continuation of introduction to air traffic control and a prerequisite for general air traffic control procedures. This course is more narrowly focused on study and interpretation of the FAA orders and regulations that govern the air traffic control system and the national airspace system. (Sp, Su)
AVIA 1222 Primary Flying 2 Credit Hours
Prerequisite: 1113 or permission of department. Includes in-flight instruction with effort directed toward obtaining FAA certification as a private pilot. Third class medical must be obtained prior to flying. (F, Sp, Su )

## AVIA 1332 Private Flight - Helicopter

2 Credit Hours
Prerequisite: departmental permission. Prepares students with the knowledge, skill, and aeronautical experience necessary to meet the requirements for a private pilot certificate with a rotorcraft/helicopter category. (F, Sp, Su)
AVIA 2013 General Air Traffic Control Procedures 3 Credit Hours Prerequisite: AVIA 1013, 1213, and permission of the department. This course will present the study of "general control" procedures used in the terminal and en route control options as well as FAA flight service processes and procedures. This course will serve as a prerequisite for airport traffic control procedures. (F)
AVIA 2231 Advanced Flying
1 Credit Hour
Prerequisite: AVIA 1222 or private pilot certificate. Flight instruction in preparation for FAA commercial pilot certificate. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
AVIA 2341 Secondary Flying
1 Credit Hour
Prerequisite: 2231. Consists of cross-country experience under the direct supervision of an instructor pilot. Part of the FAA Part 141 commercial certification course. (F, Sp, Su)
AVIA 2513 The History of Aviation
3 Credit Hours
Prerequisite: Must be a declared aviation major with permission of the department. Chronicles the history of aviation through an in-depth study of powered flight and focus on the development of civil, commercial, and military aviation. Covers significant events and people throughout aviation history from the first powered flight through present day developments and a brief look into the future. Also examines the impact of aviation on recreation, transportation, warfare, and exploration. (F,Sp)

AVIA 2613 Aviation Safety
3 Credit Hours
Prerequisite: Sophomore standing and departmental permission. This course will examine all aspects of accidents/incidents involving airline and general aviation flights. It examines those areas from the perspective of pilots, crew members, air traffic controllers and National Transportation Safety Board (NTSB) findings. Each accident/incident is dissected with the goal of determining what went wrong and lessons that can be learned. ( $\mathrm{F}, \mathrm{Sp}$ )

## AVIA 2970 Special Topics/Seminar

1-3 Credit Hours
1 to 3 hours. Prerequisite: Must be a declared aviation major with permission of the department. May be repeated; Maximum credit nine hours. Special topics course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research, and field projects. (Irreg.)
AVIA 3013 Career Development for Aviation Professionals 3 Credit Hours
Prerequisite: Sophomore standing and must be a declared aviation major with permission of the department. This course will provide an overview of the career planning process for aviation students. Students will master the techniques of self-assessment, resume and letter writing, interviewing, researching companies, proper writing techniques, ethics and etiquette, and networking. This course is intended to help students prepare for internship interviews or entering the aviation industry as a professional. ( $\mathrm{F}, \mathrm{Sp}$ )
AVIA 3103 Flight Deck Environmental Issues 3 Credit Hours Prerequisite: Must be a declared aviation major and departmental permission. Human-machine interface issues in today's modern flight deck are the focus of the course. Leading to that end, the student will explore the cognitive and psychomotor domains of learning, review studies of aircrew interface problems, learn coping mechanisms used by today's best aviation trainers to overcome design-induced problems in cockpit advanced technology. (F, Sp)

## AVIA 3111 Advanced Flight Maneuvers

1 Credit Hour
Prerequisite: 1222 or FAA private pilot certificate. Increase the student's knowledge and understanding of advanced flight maneuvers. Accelerated stalls, spins, inverted flight, and recovery from unusual altitudes. Advanced aerodynamics will be discussed and demonstrated. (F, Sp, Su)

## AVIA 3113 Commercial Aviation

3 Credit Hours
Prerequisite: AVIA 3133 or instrument rating and permission of the department. Course provides the student the knowledge required to obtain a commercial pilot certificate. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
AVIA 3123 Instrument Ground - Helicopter 3 Credit Hours Prerequisite: Sophomore standing and departmental permission; AVIA 1133 and AVIA 1332 with grade of C or better. Prepare students with the knowledge specified by 14 CFR Section 61.65 and 14 CFR Section 141 Appendix C for an Instrument Pilot Rotorcraft/Helicopter certificate. (F, Sp, Su)

AVIA 3133 Fundamentals of Instrument Flight 3 Credit Hours Prerequisite: 2231 and private pilot license. Federal aviation regulations as pertain to instrument flight rules (IFR), weather and forecast products, interpretation of en route low altitude charts and terminal instrument approach procedures, instrument flight procedures and techniques. (F, Sp, Su )
AVIA 3143 Commercial Ground Helicopter
3 Credit Hours
Prerequisite: Sophomore standing and departmental permission; AVIA 1133, AVIA 1332, AVIA 3123 and AVIA 3532 with grade of C or better. Prepare students with the knowledge specified by 14 CFR Section 61.125 for a Commercial Pilot Rotorcraft/Helicopter certificate. (F, Sp, Su)

AVIA 3213 Airport Traffic Procedures
3 Credit Hours
Prerequisite: AVIA 1013, 1213, 2013, and permission of the department.
The primary focus of this course is to study visual air traffic control procedures, specifically, to learn the principles of operation and the separation methods required in the air traffic control tower environment. This course will serve as a prerequisite for IFR Air Traffic Control Procedures. (Sp)
AVIA 3313 IFR Air Traffic Procedures
3 Credit Hours
Prerequisite: AVIA 1013, 1213, 2013, 3213, and permission of the department. Focus on the requirements and procedures used in the IFR air traffic control environment. The students will study all of the separation standards and rules used in radar and non-radar environments in the approach control and air route traffic control facilities. This course will serve as a prerequisite for Air Traffic Simulation. (F)
AVIA 3333 Survey of Aviation Law 3 Credit Hours
Prerequisite: AVIA 1113, junior standing, and permission of the
department. Survey of legal issues in aviation. The student will review legislation, regulatory agencies, and case studies dealing with legal issues in the medium of airspace above the ground-predominantly over the United States. The student will be able to identify and comprehend the historical events and technical terms that describe national and international legal precedents that have shaped aviation law. (F, Sp)

## AVIA 3440 Mentored Research Experience <br> 3 Credit Hours

0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)
AVIA 3513 Airport Operations Management
3 Credit Hours
Prerequisite: AVIA 1113, junior standing, permission of the department, and must be a declared Aviation major. Provides the student with an indepth analysis of airport management, operations and planning functions necessary to operate, develop, and maintain safe and efficient airport facilities as is the practice in the United States. Also introduces air traffic control (ATC) concepts. (F, Sp)
AVIA 3532 Instrument Flying - Helicopter
2 Credit Hours
Prerequisite: Sophomore standing and departmental permission;
AVIA 1133 and AVIA 1332 with grades of $C$ or better. Prepare students with the knowledge, skill, and aeronautical experience necessary to meet the requirements for an Instrument Pilot Rating with a rotorcraft/ helicopter category to include Preflight Preparation, Preflight Procedures, Air Traffic Control Clearances \& Procedures, Flight by Reference to Instruments, Navigation Systems, Instrument Approach Procedures, Emergency Operations and Post-flight Procedures. (F, Sp, Su)
AVIA 3572 Instrument Flying
2 Credit Hours
Prerequisite: 3133 and private pilot certificate. Individual flight simulator instruction in the technique of flying solely by reference to instruments. Ground instruction in radio navigation, meteorology, instrument approach procedures, air traffic control procedures and federal aviation regulations. (F, Sp, Su)
AVIA 3581 Multi-Engine Flying
1 Credit Hour
Prerequisite: 4552 or commercial pilot certificate. A study of the design, construction and flight characteristics of multiengine aircraft. Inflight instruction in pilotage and operation of multiengine airplanes. Designed to qualify the student for certification as a multiengine pilot. (F, Sp, Su)

AVIA 3913 Aerospace Contract Administration 3 Credit Hours
Prerequisite: Junior standing, permission of the department, and must be a declared aviation major. Survey and study of specialized procedures used in the management and administration of aerospace (aviation) contracts, particularly associated with commercial and defense systems acquisitions. Students will use case study analysis, involving aerospace development and acquisition procedures, to enhance the learning experience and prepare them for future employment in the aerospace industry. (F)
AVIA 3923 Aerospace Operational Research
3 Credit Hours
Prerequisite: Junior standing, must be a declared Aviation major, and departmental permission. Students will be introduced to the fundamental methods and techniques employed by the aviation/aerospace industry when researching and analyzing operational issues. Students will be able to use specialized research methods to collect data, analyze it, and then draw logical conclusions. Knowledge, skills, and abilities learned in this course will prepare students for Senior Capstone. (F)

## AVIA 3960 Honors Reading <br> 1-3 Credit Hours

1 to 3 hours. Prerequisite: Admission to Honors Program. May be repeated; maximum credit six hours. Consists of topics designated by the instructor in keeping with the student's major program. The topics will cover materials not usually presented in the regular courses. (F, Sp, Su)

## AVIA 3970 Honors Seminar <br> 1-3 Credit Hours

1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Subjects covered vary. Deals with concepts not usually treated in regular courses. (Irreg.)

## AVIA 3980 Honors Research

1-3 Credit Hours
1 to 3 hours. Prerequisite: Admission to Honors Program. May be repeated; maximum credit six hours. Will provide an opportunity for the gifted Honors candidate to work at a special project in the student's field. (F, Sp, Su)

## AVIA 3990 Independent Study

1-3 Credit Hours
1 to 3 hours. Prerequisite: permission of instructor and junior standing. May be repeated once with change of content. Independent study may be arranged to study a subject not available through regular course offerings. (F, Sp, Su)
AVIA 4004 Air Traffic Control Tower Simulation 4 Credit Hours
Prerequisite: AVIA 1013, 1213, 2013, 3213, 3313, and 4013; all with minimum grade of $C$; and permission of the department. Provides students an opportunity to apply knowledge learned in previous air traffic control courses, specifically AVIA 3213, and expand the knowledge base of terminal ATC procedures. The application and expansion of knowledge will occur in lectures and through working in a high fidelity, simulated ATC tower environment. (F)
AVIA 4013 En-Route Radar Lab
3 Credit Hours
Prerequisite: AVIA 1013, 1213, 2013, 3213, 3313; all with minimum grade of $C$; and permission of the department. Lab to prepare student for on-the-job training in an FAA En-Route Air Traffic Control facility. Course will consist of dynamic simulation exercises in an ATC computer lab as well as classroom briefings. Students will run scenarios as the controller and as a pseudo pilot. Course objectives are based on federal guidelines by the Federal Aviation Administration. (Sp)

AVIA 4023 Tracon Radar Lab
3 Credit Hours
Prerequisite: AVIA 1013, 1213, 2013, 3213, 3313, 4004, and 4013; all with minimum grade of C ; and permission of the department. Lab to prepare students for on-the-job training in an FAA Terminal Radar Air Traffic Control facility. Course will consist of dynamic simulation exercises in an ATC computer lab as well as classroom briefings. Students will run scenarios as the controller and as a pseudo pilot. Objectives are based on federal guidelines by the Federal Aviation Administration. (Sp)
AVIA 4033 EnRoute Radar Lab-Enhanced Follow On 3 Credit Hours Prerequisite: Junior standing; AVIA 1013, AVIA 1213, AVIA 2013, AVIA 3313, and AVIA 4013, all with a minimum grade of C. Provides students an opportunity to apply knowledge learned in previous air-trafficcontrol courses, including AVIA 3313 and AVIA 4013, and to prepare student for on-the-job training in an FAA EnRoute Air Traffic Control facility. Course consists of simulation exercises in an ATC computer lab as well as classroom briefings. Students will run scenarios as the controller and as a pseudo pilot. (F, Sp, Su)
AVIA 4043 ATC Tower Simulation Enhanced Follow On 3 Credit Hours Prerequisite: Junior standing; AVIA 1013, AVIA 1213, AVIA 2013, AVIA 3313, AVIA 4013, and AVIA 4004, all with minimum grade of C. This course provides students an opportunity to apply knowledge learned in previous air traffic control courses, specifically AVIA 4004, and expand the knowledge base of terminal ATC procedures. The application and expansion of knowledge will occur in lectures and through working in a high fidelity, simulated ATC tower environment. (F, Sp, Su)

## AVIA 4113 CFI Seminar

3 Credit Hours
Prerequisite: 3133, 3113. Increase student knowledge of theories of learning, flight instructor authority, and responsibility and classroom and flight techniques. Emphasis on principles of instruction, student motivation and maneuver error analysis. (F, Sp, Su)

AVIA 4123 Helicopter Flight Instructor Ground
3 Credit Hours
Prerequisite: Junior standing and departmental permission; AVIA 1133, AVIA 1332, AVIA 3123, AVIA 3532, AVIA 3143 and AVIA 4332 with grade of $C$ or better. Prepare student instructor candidates with the knowledge specified by 14 CFR Section 61.181 and 14 CFR Section 141 Appendix F for a Flight Instructor Pilot Rotorcraft/Helicopter certificate. (F, Sp, Su)

## AVIA 4313 Turbine Transition

3 Credit Hours
Prerequisite: AVIA 3581, 4552, and permission of the department. Introduce the student to the procedures of flying a turbine aircraft and the concepts of crew resource management. Emphasis is placed on the basic terminology and procedures and emergency operations. (F, Sp, Su)

## AVIA 4332 Commercial Flying - Helicopter 2 Credit Hours

 Prerequisite: Sophomore standing and departmental permission; AVIA 1133, AVIA 1332, AVIA 3123 and AVIA 3532 with grade of C or better. Prepare students with the knowledge, skill, and aeronautical experience necessary to meet the requirements for a Commercial Pilot Certificate with a rotorcraft/helicopter category. (F, Sp, Su)AVIA 4423 Crew Resource Management 3 Credit Hours Prerequisite: AVIA 1113, junior standing, permission of the department, and must be a declared aviation major. To teach the student the principles and procedures of a two or more person cockpit. Includes: briefings, call-outs, and emergency procedures. ( $F, S p$ )
AVIA 4552 Commercial Flying
2 Credit Hours
Prerequisite: 3113. The final stage of the FAA Part 141 commercial pilot certification course. Designed to polish pilot skills in commercial aircraft maneuvers. (F, Sp, Su)

AVIA 4602 Flight Instructor-Airplane
2 Credit Hours
Prerequisite: commercial pilot certificate and instrument rating. Flight instruction in preparation for FAA flight instructor certificate. (F, Sp, Su)
AVIA 4613 Instrument Flight Instructor
3 Credit Hours
Prerequisite: commercial pilot certificate and flight instructor-airplane certificate. Consists of lecture and flight instruction in the specialized teaching techniques and procedures required of an instrument flight instructor. At the end of the course, the student will meet the requirements for certification by the FAA as an instrument flight instructor. (F, Sp, Su)
AVIA 4632 Flight Instructor - Helicopter
2 Credit Hours
Prerequisite: Junior standing and departmental permission; AVIA 1133,
AVIA 1332, AVIA 3123, AVIA 3532, AVIA 3143 and AVIA 4332 with grade of C or better. Prepare students with the knowledge, skill, and aeronautical experience necessary to meet the requirements for a Certified Flight Instructor Rating with a rotorcraft/helicopter category. (F, Sp, Su)
AVIA 4642 Instrument Instructor Helicopter Flight 2 Credit Hours Prerequisite: Junior standing and departmental permission; AVIA 1133, AVIA 1332, AVIA 3123, AVIA 3532, AVIA 3143, AVIA 4332, AVIA 4123 and AVIA 4632 with grade of $C$ or better. Prepare students with the knowledge, skill, and aeronautical experience necessary to meet the requirements for an Certified Flight Instructor Instrument Pilot Rating with a rotorcraft/ helicopter category to include Preflight Preparation, Preflight Procedures, Air Traffic Control Clearances \& Procedures, Flight by Reference to Instruments, Navigation Systems, Instrument Approach Procedures, Emergency Operations and Post-flight Procedures. (F, Sp, Su)
AVIA 4643 Instrument Instructor Ground - Helicopter 3 Credit Hours Prerequisite: Junior standing and departmental permission; AVIA 1133, AVIA 1332, AVIA 3123, AVIA 3532, AVIA 3143, AVIA 4332, AVIA 4123 and AVIA 4632 with grade of C or better. Prepare the student with the knowledge specified by 14 CFR Section 61.65 and 14 CFR Section 141 Appendix G for the Flight Instructor Instrument Rotorcraft/Helicopter Rating. (F, Sp, Su)
AVIA 4663 Survey of Aerospace Ethical Issues 3 Credit Hours Prerequisite: Junior standing, permission of the department, and must be a declared aviation major. A survey of past and present ethical issues influencing the development of ethical behavior among U.S. aerospace companies and commercial and corporate aviation. Individual development of defense mechanisms to ensure ethical behavior in competitive environments. (F, Sp, Su)

## AVIA 4713 Senior Capstone

3 Credit Hours
Prerequisite: senior standing, permission of department, and all major upper-division courses or concurrent enrollment. This project course builds on the accumulated knowledge from all courses to date. Lectures will cover problem identification, analysis, generation of alternatives, cost/benefit studies, interviews and presentations. Student teams will analyze and make recommendations on an actual problem for an aviation related organization, such as the FAA. (F, Sp) [V].

## AVIA 4803 Aviation Mental Health: Psychological Implications for Air Transportation <br> 3 Credit Hours

Prerequisite: junior standing, permission of the department, and must be a declared aviation major. Students will learn about mental health issues relevant to passengers, cabin crew, and flight deck crew--that have farreaching psychological implications for all those who travel by means of air transportation--through the experiences of flight attendants, pilots, clinicians, researchers, trainers, and professors. (Sp, Su)

AVIA 4960 Directed Readings
1-4 Credit Hours
1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean. May be repeated; maximum credit four hours. Designed for upper-division students who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)

## AVIA 4970 Special Topics/Seminar 1-3 Credit Hours

1 to 3 hours. Prerequisite: Senior standing and permission of department; May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)
AVIA G4983 Airline Management
3 Credit Hours
Prerequisite: Junior or graduate standing, and departmental permission; must be a declared aviation major. Study of the managerial aspects of the airline industry to include economic and organizational characteristics, marketing, operational scheduling, fleet planning, and labor relations. Students participate in management simulation as senior executives of a regional domestic carrier. (F, Sp)
AVIA 4990 Special Studies in Aviation
1-4 Credit Hours
1 to 4 hours. Prerequisite: departmental permission. Will encompass various aviation-related topics including many specialty flight programs; such as, aerobatic instruction, multiengine training, pilot refresher training, etc. (F, Sp, Su)

## Faculty

| Last Name | First/Middle Middle <br> Name <br> init. | OU <br> Service <br> start | Title(s), date(s) <br> appointed | Degrees Earned, <br> Schools, Dates <br> Completed |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Hubbard | Todd | P | 2012 | PROFESSOR OF <br> AVIATION, 2018; | EdD, Oklahoma <br> State Univ, 2000; <br> CLARENCE E. | MS, Embry-Riddle <br> Aeronautical Univ, |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  | PAGE PROFESSOR <br> OF AVIATION/ <br> AEROSPACE <br> STUDIES, 2012 |

## Aviation: Air Traffic Management Track, B.S.

Minimum Total Credit Hours: 120
Minimum Upper-Division Hours: 40
Overall GPA - Combined and OU: 2.25
Major GPA - Combined and OU: 2.25
Program Code: B090 P045

## Major Requirements

Aviation majors must earn a minimum grade of $C$ in aviation courses to be considered passing and move to the next requirement.
$\begin{array}{ll}\text { Code Title } & \text { Credit } \\ & \text { Hours }\end{array}$
Lower-Division Requirements (13 Hours)
AVIA 1013 Introduction to Air Traffic Control

| AVIA 1111 | Aviation Orientation | 1 |
| :---: | :---: | :---: |
| AVIA 1213 | Basic Air Traffic Control Regulations | 3 |
| AVIA 2013 | General Air Traffic Control Procedures | 3 |
| AVIA 2613 | Aviation Safety | 3 |
| Upper-Division Requirements (28 Hours) |  |  |
| AVIA 3013 | Career Development for Aviation Professionals | 3 |
| AVIA 3213 | Airport Traffic Procedures | 3 |
| AVIA 3313 | IFR Air Traffic Procedures ${ }^{1}$ | 3 |
| AVIA 4004 | Air Traffic Control Tower Simulation ${ }^{1}$ | 4 |
| AVIA 4013 | En-Route Radar Lab ${ }^{1}$ | 3 |
| AVIA 4023 | Tracon Radar Lab ${ }^{1}$ | 3 |
| AVIA 4423 | Crew Resource Management | 3 |
| AVIA 4663 | Survey of Aerospace Ethical Issues | 3 |
| AVIA 4713 | Senior Capstone | 3 |
| Total Credit Hours |  | 41 |
| ${ }^{1}$ A lab simulation fee is required. |  |  |
| Major Support Requirements |  |  |
| Code | Title | Credit <br> Hours |
| GIS 2023 | Introduction to Spatial Thinking and Computer Mapping | 3 |
| ACCT 2113 | Fundamental Financial Accounting | 3 |
| ECON 1113 | Principles of Economics-Macro (Core III-SS) | 3 |
| ECON 1123 | Principles of Economics-Micro (Core III-SS) | 3 |
| ECON 2843 | Elements of Statistics | 3 |
| or PSY 2003 | Understanding Statistics |  |
| or COMM 2513 | Introduction to Statistics |  |
| or SOC 3123 | Social Statistics |  |
| or MATH 4753 | Applied Statistical Methods |  |
| FIN 2303 | Business Finance | 3 |
| MIS 2113 | Computer-Based Information Systems | 3 |
| LS 3323 | Legal Environment of Business | 3 |
| MGT 3013 | Principles of Organization and Management | 3 |
| MKT 3013 | Principles of Marketing and Supply Chain Management | 3 |
| Total Credit Hours 30 |  |  |

## SPECIALIZED AVIATION ELECTIVES

Students are not required to complete specialized aviation electives, but may choose to do so for additional training: AVIA 3333 and AVIA 4803.

## Additional Requirements

- Maintaining less than a 2.25 GPA, or failure to complete the required math sequence each semester will result in academic probation.
- The maximum number of aviation hours accepted by transfer is twelve.
- A maximum of nine hours of aviation may be accomplished through advanced standing.
- A total of 55 hours of liberal arts coursework is required.
- To receive the general business minor a 2.50 OU retention, overall retention, and upper-division business GPA is required.


## General Education and College Requirements

Courses taken to fulfill the University General Education Requirements must be chosen from the approved General Education course list published in the Class Schedule or at http://www.ou.edu/gened/courses.

| UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND |  |
| :--- | :--- |
| COLLEGE REQUIREMENTS |  |
| Code | Title |

Core Area I: Symbolic and Oral Communication

| ENGL 1113 | Principles of English Composition (Core I) |
| :--- | :--- |

ENGL 1213 Principles of English Composition (Core I) 3
or EXPO 1213 Expository Writing
COMM 1113 Principles of Communication 3
or COMM 2613 Public Speaking
Language (Core I) ${ }^{1}$
Mathematics

| MATH 1643 | Functions and Modeling for Business, Life <br> and Social Sciences | 3 |
| :--- | :--- | :---: |
| MATH 1743 | Calculus I for Business, Life and Social <br> Sciences 2 $^{2}$ | 3 |

Core Area II: Natural Science
Choose one of the following: 4
GEOG 1114 Physical Geography (Core II)
Any approved Chemistry, Physics, or Biology course (Core II)

METR 1014 Introduction to Weather and Climate (Core 4
II)

METR 2603 Severe and Unusual Weather 3
Core Area III: Social Science ${ }^{3}$
P SC 1113 American Federal Government (Core III) 3
Core Area IV: Arts \& Humanities
HIST 1483 United States to 1865 (Core IV) 3
or HIST 1493 United States, 1865 to the Present
One course from one of the following 3 fields (Core IV) must be upper-division:
Choose one Artistic Forms course 3
Choose one Western Culture course 3
Choose one World Culture course 3

Core Area V: First Year Experience
Choose one course 3

Total Credit Hours
44-54
${ }^{1}$ Students who have completed two years of high school language are exempt from the general education language requirement.
${ }^{2}$ Core I-Substitute: MATH 1823, Calculus \& Analytic Geom. I or MATH 1914, Differential and Integral Calculus I
3 Two courses, 6 hours, of Core III Social Science are required and one course must be P SC 1113 . ECON 1113 or ECON 1123 will meet the other 3 hours of this requirement under Major Support.

## Free Electives

Five hours if exempt from language; zero hours if two semesters of language must be taken. Free electives may include any specialized aviation courses.

## Information Concerning General Rules, Regulations and Minimum Requirements for Undergraduate Degrees

Total Hours: A minimum of 120 semester hours acceptable toward graduation must be completed.
Upper-Division Hours: A minimum of 40 upper- division semester hours acceptable toward graduation must be completed. OU courses numbered 3000 or above are upper- division. Transfer work is counted as lowerdivision or upper-division credit depending on the level at which it was offered at the institution where it was earned. Two-year college work is accepted only as lower-division credit.
Senior Institution Hours: A minimum of 60 semester hours applied toward graduation must be earned at senior (4-year) institutions.
Residency:

- A minimum of two semesters must be spent in residence in the College of Atmospheric and Geographic Sciences.
- At least 36 of the last 48 hours must be completed in residence at OU.

Individual Studies: No more than six hours of independent study or directed readings may be applied toward degree requirements.
Grade Point Averages: Students must earn a minimum overall 2.25 for each of the following: Combined Retention GPA (all college grades), OU Retention GPA, GPA for all major courses, and GPA for all major courses taken at OU.

## Suggested Semester Plan of Study

| Freshman |  |  |
| :---: | :---: | :---: |
| First Semester |  | Credit |
|  |  | Hours |
| ENGL 1113 | Principles of English Composition (Core I) | 3 |
| MATH 1643 | Functions and Modeling for Business, Life and Social Sciences | 3 |
| ECON 1113 | Principles of Economics-Macro (Core III) | 3 |
| AVIA 1013 | Introduction to Air Traffic Control ${ }^{1}$ | 3 |
| AVIA 1111 | Aviation Orientation | 1 |
| First-Year Experience (Core V) |  | 3 |
|  | Credit Hours | 16 |
| Second Semester |  |  |
| $\begin{aligned} & \text { ENGL } 1213 \\ & \text { or EXPO } 1213 \end{aligned}$ | Principles of English Composition (Core I) or Expository Writing | 3 |
| MATH 1743 | Calculus I for Business, Life and Social Sciences | 3 |
| COMM 1113 <br> or COMM 2613 | Principles of Communication or Public Speaking | 3 |
| ECON 1123 | Principles of Economics-Micro (Core III) | 3 |
| AVIA 1213 | Basic Air Traffic Control Regulations ${ }^{1}$ | 3 |
|  | Credit Hours | 15 |

## Sophomore

## First Semester

| METR 1014 | Introduction to Weather and Climate (Core <br> II) | 4 |
| :--- | :--- | ---: |
| ACCT 2113 | Fundamental Financial Accounting | 3 |
| ECON 2843 <br> or PSY 2003 | Elements of Statistics <br> or Understanding Statistics | 3 |
| P SC 1113 | American Federal Government (Core III) | 3 |
| AVIA 2013 | General Air Traffic Control Procedures |  |


| Second Semester |  |  |
| :--- | :--- | :--- |
| GIS 2023 | Introduction to Spatial Thinking and <br> Computer Mapping | 3 |
| FIN 2303 | Business Finance | 3 |
| MIS 2113 | Computer-Based Information Systems | 3 |
| GEOG 1114 | Physical Geography (Core II) | 4 |


| Or any approved Chemistry, Physics, or Biology course |
| :--- |
| (Core II) |


| AVIA 3213 | Airport Traffic Procedures ${ }^{1}$ | 3 |
| :--- | :--- | ---: |
|  | Credit Hours | $\mathbf{1 6}$ |

## Junior

First Semester

| AVIA 2613 | Aviation Safety | 3 |
| :--- | :--- | :--- |
| AVIA 3313 | IFR Air Traffic Procedures 1 | 3 |
| MGT 3013 | Principles of Organization and <br> Management | 3 |
| L S 3323 | Legal Environment of Business |  |
| HIST 1483 <br> or HIST 1493 | United States to 1865 (Core IV) <br> or United States, 1865 to the Present | 3 |
|  | Credit Hours | $\mathbf{3}$ |

## Second Semester

| AVIA 3013 | Career Development for Aviation <br> Professionals | 3 |
| :--- | :--- | ---: |
| AVIA 4013 | En-Route Radar Lab | 3 |
| AVIA 4423 | Crew Resource Management |  |
| MKT 3013 | Principles of Marketing and Supply Chain <br> Management | 3 |
| World Culture - Upper-Division (Core IV-WDC) | 3 |  |
|  | Credit Hours | 3 |
| Senior |  | 15 |
| First Semester | Air Traffic Control Tower Simulation |  |

## Second Semester

| AVIA 4023 | Tracon Radar Lab | 3 |
| :--- | :--- | :--- |
| AVIA 4713 | Senior Capstone | 3 |
| Western Culture (Core IV-WC) | 3 |  |


| METR 2603 | Severe and Unusual Weather | 3 |
| :--- | :--- | ---: |
|  | Credit Hours | $\mathbf{1 2}$ |
|  | Total Credit Hours | $\mathbf{1 2 0}$ |

${ }^{1}$ Air Traffic Control coursework must be taken in the semester offered. All 25 hours must be completed in residence at the University of Oklahoma.

- For those students who did not successfully complete two years of the same language in high school, 5 hours of free electives will be replaced with two semesters of the same college-level language.
- For those students pursuing the General Business Minor, successful completion of ECON 2843 is required.
- This plan of study should not be used in lieu of academic advisement.


## Aviation: Aviation Management Track, B.S.

Minimum Total Credit Hours: 120
Minimum Upper-Division Hours: 40
Overall GPA - Combined and OU: 2.25
Major GPA - Combined and OU: 2.25
Program Code: B090 P046

## Major Requirements

Aviation majors must earn a minimum grade of C in aviation courses to be considered passing and move to the next requirement.

| Code | Title | Credit |
| :---: | :---: | :---: |
|  |  | Hours |
| Lower-Division Requirements (14 Hours) |  |  |
| AVIA 1111 | Aviation Orientation | 1 |
| AVIA 1113 | Introduction to Aviation | 3 |
| AVIA 1222 | Primary Flying | 2 |
| AVIA 2231 | Advanced Flying | 1 |
| AVIA 2341 | Secondary Flying | 1 |
| AVIA 2513 | The History of Aviation | 3 |
| AVIA 2613 | Aviation Safety | 3 |
| Upper-Division Requirements (28 Hours) |  |  |
| AVIA 3013 | Career Development for Aviation Professionals | 3 |
| AVIA 3103 | Flight Deck Environmental Issues | 3 |
| AVIA 3113 | Commercial Aviation | 3 |
| AVIA 3133 | Fundamentals of Instrument Flight | 3 |
| AVIA 3572 | Instrument Flying | 2 |
| AVIA 4423 | Crew Resource Management | 3 |
| AVIA 4552 | Commercial Flying | 2 |
| AVIA 4663 | Survey of Aerospace Ethical Issues | 3 |
| AVIA 4713 | Senior Capstone | 3 |
| AVIA 4983 | Airline Management | 3 |
| Total Credit Hours |  | 42 |

## Major Support Requirements

| Code | Title | Credit |
| :---: | :---: | :---: |
| GIS 2023 | Introduction to Spatial Thinking and Computer Mapping | 3 |
| ACCT 2113 | Fundamental Financial Accounting | 3 |
| ECON 1113 | Principles of Economics-Macro (Core III-SS) | 3 |
| ECON 1123 | Principles of Economics-Micro (Core III-SS) | 3 |
| ECON 2843 <br> or PSY 2003 <br> or COMM 2513 <br> or SOC 3123 <br> or MATH 4753 | Elements of Statistics <br> Understanding Statistics <br> Introduction to Statistics <br> Social Statistics <br> Applied Statistical Methods | 3 |
| FIN 2303 | Business Finance | 3 |
| MIS 2113 | Computer-Based Information Systems | 3 |
| LS 3323 | Legal Environment of Business | 3 |
| MGT 3013 | Principles of Organization and Management | 3 |
| MKT 3013 | Principles of Marketing and Supply Chain Management | 3 |
| Total Credit Hours |  | 30 |

## SPECIALIZED AVIATION ELECTIVES (p. 818)

Students are not required to complete all electives listed (p. 818), but may choose to do so for additional training.

## Additional Requirements

- Maintaining less than a 2.25 GPA, or failure to complete the required math sequence each semester will result in academic probation.
- The maximum number of aviation hours accepted by transfer is twelve.
- A maximum of nine hours of aviation may be accomplished through advanced standing.
- A total of 55 hours of liberal arts coursework is required.
- To receive the general business minor a 2.50 OU retention, overall retention, and upper-division business GPA is required.


## SPECIALIZED AVIATION ELECTIVES

Students are not required to complete all electives listed below, but may choose to do so for additional training.

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| AVIA 3111 | Advanced Flight Maneuvers | 1 |
| AVIA 3333 | Survey of Aviation Law | 3 |
| AVIA 3513 | Airport Operations Management | 3 |
| AVIA 3581 | Multi-Engine Flying | 1 |
| AVIA 4113 | CFI Seminar | 3 |
| AVIA 4313 | Turbine Transition | 3 |
| AVIA 4602 | Flight Instructor-Airplane | 2 |
| AVIA 4613 | Instrument Flight Instructor | 3 |
| AVIA 4803 | Aviation Mental Health: Psychological | 3 |
|  | Implications for Air Transportation | $1-4$ |

## General Education and College Requirements

Courses taken to fulfill the University General Education Requirements must be chosen from the approved General Education course list published in the Class Schedule or at http://www.ou.edu/gened/courses.

## UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND

 COLLEGE REQUIREMENTS| Code | Title | Credit <br> Hours |
| :---: | :---: | :---: |
| Core Area I: Symbolic and Oral Communications |  |  |
| ENGL 1113 | Principles of English Composition (Core I) | 3 |
| ENGL 1213 or EXPO 1213 | Principles of English Composition (Core I) Expository Writing | 3 |
| COMM 1113 <br> or COMM 2613 | Principles of Communication Public Speaking | 3 |
| Language (Core I) |  | 0-10 |
| Mathematics |  |  |
| MATH 1643 | Functions and Modeling for Business, Life and Social Sciences | 3 |
| MATH 1743 | Calculus I for Business, Life and Social Sciences ${ }^{2}$ | 3 |

## Core Area II: Natural Science

Choose one of the following:
GEOG $1114 \quad$ Physical Geography (Core II)
Any approved Chemistry, Physics, or Biology course (Core
II)

METR 1014 Introduction to Weather and Climate (Core II)

METR 2603 Severe and Unusual Weather 3
Core Area III: Social Science ${ }^{3}$
P SC 1113 American Federal Government (Core III) 3

Core Area IV: Arts \& Humanities

| HIST $1483 \quad$United States to 1865 (Core IV) <br> or HIST $1493 \quad$ United States, 1865 to the Present | 3 |
| :--- | :--- |
| One course from one of the following 3 fields (Core IV) must <br> be upper-division: | 3 |
| Choose one Artistic Forms course 3 <br> Choose one Western Culture course 3 <br> Choose one World Culture course 3 <br> Core Area V: First Year Experience 3Choose one course |  |

Total Credit Hours 44-54

1 Students who have completed two years of high school language are exempt from the general education language requirement.
2 Core I - Substitute: MATH 1823, or MATH 1914, Differential and Integral Calculus I
3 Two courses, 6 hours, of Core III Social Science are required and one course must be P SC 1113 . ECON 1113 or ECON 1123 will meet the other 3 hours of this requirement under Major Support.

## Free Electives

4 hours if exempt from language; 0 hours if two semesters of language must be taken. Free electives may include specialized aviation courses.

## Information Concerning General Rules, Regulations and Minimum Requirements for Undergraduate Degrees

Total Hours: A minimum of 120 semester hours acceptable toward graduation must be completed.
Upper-Division Hours: A minimum of 40 upper- division semester hours acceptable toward graduation must be completed. OU courses numbered 3000 or above are upper- division. Transfer work is counted as lowerdivision or upper-division credit depending on the level at which it was offered at the institution where it was earned. Two-year college work is accepted only as lower-division credit.
Senior Institution Hours: A minimum of 60 semester hours applied toward graduation must be earned at senior (4-year) institutions.
Residency:

- A minimum of two semesters must be spent in residence in the College of Atmospheric and Geographic Sciences.
- At least 36 of the last 48 hours must be completed in residence at OU.

Individual Studies: No more than six hours of independent study or directed readings may be applied toward degree requirements. Grade Point Averages: Students must earn a minimum overall 2.25 for each of the following: Combined Retention GPA (all college grades), OU Retention GPA, GPA for all major courses, and GPA for all major courses taken at OU.

## Suggested Semester Plan of Study

| Freshman |  |  |
| :---: | :---: | :---: |
| First Semester |  | Credit |
|  |  | Hours |
| ENGL 1113 | Principles of English Composition (Core I) | 3 |
| MATH 1643 | Functions and Modeling for Business, Life and Social Sciences | 3 |
| AVIA 1111 | Aviation Orientation | 1 |
| AVIA 1113 | Introduction to Aviation | 3 |
| AVIA 1222 | Primary Flying | 2 |
| First-Year Experience (Core V) |  | 3 |
|  | Credit Hours | 15 |
| Second Semester |  |  |
| ENGL 1213 or EXPO 1213 | Principles of English Composition (Core I) or Expository Writing | 3 |
| MATH 1743 | Calculus I for Business, Life and Social Sciences | 3 |
| COMM 1113 or COMM 2613 | Principles of Communication or Public Speaking | 3 |
| AVIA 2231 | Advanced Flying | 1 |
| AVIA 2513 | The History of Aviation | 3 |
| ECON 1113 | Principles of Economics-Macro (Core III) | 3 |
|  | Credit Hours | 16 |
| Sophomore |  |  |
| First Semester |  |  |
| METR 1014 | Introduction to Weather and Climate (Core II) | 4 |
| ACCT 2113 | Fundamental Financial Accounting | 3 |
| AVIA 2341 | Secondary Flying | 1 |


| HIST 1483 <br> or HIST 1493 | United States to 1865 (Core IV) <br> or United States, 1865 to the Present | 3 |
| :---: | :--- | ---: |
| ECON 2843 | Elements of Statistics | 3 |
|  | Credit Hours | $\mathbf{1 4}$ |

## Second Semester

| AVIA 3133 | Fundamentals of Instrument Flight | 3 |
| :--- | :--- | ---: |
| AVIA 3572 | Instrument Flying | 2 |
| FIN 2303 | Business Finance | 3 |
| GEOG 1114 | Physical Geography (Core II) | 4 |
| Or any approved Chemistry, Physics, or Biology course <br> (Core II) | Principles of Economics-Micro |  |
| ECON 1123 |  | 3 |
| Free Elective | Credit Hours | $\mathbf{1 6}$ |


| Junior |  |  |
| :--- | :--- | ---: |
| First Semester |  |  |
| METR 2603 | Severe and Unusual Weather | 3 |
| MIS 2113 | Computer-Based Information Systems | 3 |
| AVIA 2613 | Aviation Safety | 3 |
| AVIA 3113 | Commercial Aviation | 3 |
| AVIA 4552 | Commercial Flying | $\mathbf{2}$ |
|  | Credit Hours | $\mathbf{1 4}$ |


| Second Semester |  |  |
| :--- | :--- | :---: |
| MGT 3013 | Principles of Organization and <br> Management | 3 |
| MKT 3013 | Principles of Marketing and Supply Chain <br> Management | 3 |
| AVIA 3013 | Career Development for Aviation <br> Professionals |  |
| AVIA 3103 | Flight Deck Environmental Issues | 3 |
| GIS 2023 | Introduction to Spatial Thinking and <br> Computer Mapping | 3 |
|  | Credit Hours | 3 |


| Senior |  |  |
| :--- | :--- | ---: |
| First Semester |  | 3 |
| AVIA 4663 | Survey of Aerospace Ethical Issues | 3 |
| AVIA 4983 | Airline Management | 3 |
| P SC 1113 | American Federal Government (Core III) | 3 |
| Western Culture (Core IV-WC) | 3 |  |
| Free Elective |  | $\mathbf{1 5}$ |


| Second Semester |  |  |
| :--- | ---: | ---: |
| L S 3323 | Legal Environment of Business | 3 |
| AVIA 4713 | Senior Capstone | 3 |
| AVIA 4423 | Crew Resource Management | 3 |
| World Culture - Upper-Division (Core IV-WDC) | 3 |  |
| Artistic Forms (Core IV-AF) | 3 |  |
| Credit Hours | $\mathbf{1 5}$ |  |
| Total Credit Hours | $\mathbf{1 2 0}$ |  |

- For those students who did not successfully complete two years of the same language in high school, two college-level courses in a single language are required. The 4 hours of free electives in the
semester plan will be replaced with two semesters of the same college-level language.
- For those students pursuing the General Business Minor, successful completion of ECON 2843 is required.
- This plan of study should not be used in lieu of academic advisement.


## Aviation: Aviation Management - NonFlying Track, B.S.

Minimum Total Credit Hours: 120
Minimum Upper-Division Hours: 40

Overall GPA - Combined and OU: 2.25
Major GPA - Combined and OU: 2.25
Program Code: B090 P047

## Major Requirements

Aviation majors must earn a minimum grade of $C$ in aviation courses to be considered passing and move to the next requirement.


| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| GIS 2023 | Introduction to Spatial Thinking and <br> Computer Mapping | 3 |
| ACCT 2113 | Fundamental Financial Accounting | 3 |
| ECON 1113 | Principles of Economics-Macro (Core III-SS) | 3 |
| ECON 1123 | Principles of Economics-Micro (Core III-SS) | 3 |
| ECON 2843 | Elements of Statistics | 3 |
| or PSY 2003  <br> or COMM 2513 Understanding Statistics <br> or SOC 3123 Social Statistics <br> or MATH 4753 Applied Statistical Methods |  |  |
| FIN 2303 | Business Finance |  |
| MIS 2113 | Computer-Based Information Systems | 3 |


| LS 3323 | Legal Environment of Business | 3 |
| :--- | :--- | ---: |
| MGT 3013 | Principles of Organization and |  |
|  | Management | 3 |
| MGT 3513 | Managing Human Capital and Talent | 3 |
| MKT 3013 | Principles of Marketing and Supply Chain <br>  <br> Management | 3 |
| SCM 3113 | Principles of Supply Chain Management | 3 |
| Total Credit Hours | $\mathbf{3 6}$ |  |

## SPECIALIZED AVIATION ELECTIVES

Students are not required to complete specialized aviation electives, but may choose to do so for additional training: AVIA 3103, AVIA 4423, or AVIA 4803.

## Additional Requirements

- Maintaining less than a 2.25 GPA, or failure to complete the required math sequence each semester will result in academic probation.
- The maximum number of aviation hours accepted by transfer is twelve.
- A maximum of nine hours of aviation may be accomplished through advanced standing.
- A total of 55 hours of liberal arts coursework is required.
- To receive the general business minor a 2.50 OU retention, overall retention, and upper-division business GPA is required.


## General Education and College Requirements

Courses taken to fulfill the University General Education Requirements must be chosen from the approved General Education course list published in the Class Schedule or at http://www.ou.edu/gened/courses.

## UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS

| Code | Title | Credit <br> Hours |
| :---: | :---: | :---: |
| Core Area I: Symbolic and Oral Communications |  |  |
| ENGL 1113 | Principles of English Composition (Core I) | 3 |
| $\begin{aligned} & \text { ENGL } 1213 \\ & \text { or EXPO } 1213 \end{aligned}$ | Principles of English Composition (Core I) Expository Writing | 3 |
| COMM 1113 or COMM 2613 | Principles of Communication Public Speaking | 3 |
| Language (Core I) |  | 0-10 |
| Mathematics |  |  |
| MATH 1643 | Functions and Modeling for Business, Life and Social Sciences | 3 |
| MATH 1743 | Calculus I for Business, Life and Social Sciences ${ }^{2}$ | 3 |

## Core Area II: Natural Science

Choose one of the following:
GEOG 1114 Physical Geography (Core II)
Any approved Chemistry, Physics, or Biology course (Core II)

METR 1014 Introduction to Weather and Climate (Core 4
II)
METR 2603 Severe and Unusual Weather 3

Core Area III: Social Science ${ }^{3}$
P SC 1113 American Federal Government (Core III)3


## Free Electives

6 hours if exempt from language; 0 hours if two semesters of language must be taken. Free electives may include any specialized aviation courses.

## Information Concerning General Rules, Regulations and Minimum Requirements for Undergraduate Degrees

Total Hours: A minimum of 120 semester hours acceptable toward graduation must be completed.
Upper-Division Hours: A minimum of 40 upper- division semester hours acceptable toward graduation must be completed. OU courses numbered 3000 or above are upper- division. Transfer work is counted as lowerdivision or upper-division credit depending on the level at which it was offered at the institution where it was earned. Two-year college work is accepted only as lower-division credit.
Senior Institution Hours: A minimum of 60 semester hours applied toward graduation must be earned at senior (4-year) institutions. Residency:

- A minimum of two semesters must be spent in residence in the College of Atmospheric and Geographic Sciences.
- At least 36 of the last 48 hours must be completed in residence at OU.

Individual Studies: No more than six hours of independent study or directed readings may be applied toward degree requirements.
Grade Point Averages: Students must earn a minimum overall 2.25 for each of the following: Combined Retention GPA (all college grades), OU Retention GPA, GPA for all major courses, and GPA for all major courses taken at OU.

Suggested Semester Plan of Study

| Freshman |  |  |
| :---: | :---: | :---: |
| First Semester |  | Credit |
| ENGL 1113 | Principles of English Composition (Core I) | 3 |
| MATH 1643 | Functions and Modeling for Business, Life and Social Sciences | 3 |
| AVIA 1111 | Aviation Orientation | 1 |
| AVIA 1113 | Introduction to Aviation | 3 |
| HIST 1483 or HIST 1493 | United States to 1865 (Core IV) or United States, 1865 to the Present | 3 |
| First-Year Experience (Core V) |  | 3 |
|  | Credit Hours | 16 |
| Second Semester |  |  |
| $\begin{aligned} & \text { ENGL } 1213 \\ & \text { or EXPO } 1213 \end{aligned}$ | Principles of English Composition (Core I) or Expository Writing | 3 |
| MATH 1743 | Calculus I for Business, Life and Social Sciences | 3 |
| COMM 1113 or COMM 2613 | Principles of Communication or Public Speaking | 3 |
| AVIA 2513 | The History of Aviation | 3 |
| ECON 1113 | Principles of Economics-Macro (Core III) | 3 |
|  | Credit Hours | 15 |

## Sophomore

First Semester

| METR 1014 | Introduction to Weather and Climate (Core <br> II) | 4 |
| :--- | :--- | ---: |
| ACCT 2113 | Fundamental Financial Accounting | 3 |
| ECON 2843 | Elements of Statistics | 3 |
| P SC 1113 | American Federal Government (Core III) | 3 |
| Artistic Forms (Core IV-AF) | 3 |  |
| Credit Hours | $\mathbf{1 6}$ |  |

## Second Semester

AVIA 3513 Airport Operations Management 3
MIS 2113 Computer-Based Information Systems 3
ECON 1123 Principles of Economics-Micro 3
GEOG 1114 Physical Geography (Core II) 4
Or any approved Chemistry, Physics, or Biology course
(Core II)

| AVIA 2613 | Aviation Safety | 3 |
| :--- | :--- | ---: |
|  | Credit Hours | $\mathbf{1 6}$ |

## Junior

First Semester

| FIN 2303 | Business Finance | 3 |
| :--- | :--- | :---: |
| GIS 2023 | Introduction to Spatial Thinking and <br> Computer Mapping | 3 |
| AVIA 3013 | Career Development for Aviation <br> Professionals | 3 |
| AVIA 4663 | Survey of Aerospace Ethical Issues | 3 |
| MGT 3013 | Principles of Organization and <br> Management | 3 |
|  | Credit Hours | $\mathbf{1 5}$ |

## Second Semester

| METR 2603 | Severe and Unusual Weather | 3 |
| :---: | :---: | :---: |
| AVIA 3333 | Survey of Aviation Law | 3 |
| AVIA 3913 | Aerospace Contract Administration | 3 |
| MKT 3013 | Principles of Marketing and Supply Chain Management | 3 |
| L S 3323 | Legal Environment of Business | 3 |
|  | Credit Hours | 15 |
| Senior |  |  |
| First Semester |  |  |
| AVIA 3923 | Aerospace Operational Research | 3 |
| AVIA 4983 | Airline Management | 3 |
| MGT 3513 | Managing Human Capital and Talent | 3 |
| Western Culture (Core IV-WC) |  | 3 |
| Free Elective |  | 3 |
|  | Credit Hours | 15 |
| Second Semester |  |  |
| SCM 3113 | Principles of Supply Chain Management | 3 |
| AVIA 4713 | Senior Capstone | 3 |
| World Culture- Upper Division (Core IV-WDC) |  | 3 |
| Free Elective |  | 3 |
|  | Credit Hours | 12 |
|  | Total Credit Hours | 120 |

- For those students who did not successfully complete two years of the same language in high school, six hours of free electives will be replaced with two semesters of the same college-level language.
- For those students pursuing the General Business Minor, successful completion of ECON 2843 is required
- This plan of study should not be used in lieu of academic advisement.


## Aviation: Professional Pilot - Airplane Track, B.S.

Minimum Total Credit Hours: 120
Minimum Upper-Division Hours: 40
Overall GPA - Combined and OU: 2.25
Major GPA - Combined and OU: 2.25
Program Code: B090 P536

## Major Requirements

Aviation majors must earn a minimum grade of $C$ in aviation courses to be considered passing and move to the next requirement.

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Lower-Division Requirements (14 hours) |  |  |
| AVIA 1111 | Aviation Orientation | 1 |
| AVIA 1113 | Introduction to Aviation | 3 |
| AVIA 1222 | Primary Flying | 2 |
| AVIA 2231 | Advanced Flying | 1 |
| AVIA 2341 | Secondary Flying | 1 |
| AVIA 2513 | The History of Aviation | 3 |


| AVIA 2613 | Aviation Safety | 3 |
| :---: | :---: | :---: |
| Upper-Division Requirements (32 hours) |  |  |
| AVIA 3013 | Career Development for Aviation Professionals | 3 |
| AVIA 3103 | Flight Deck Environmental Issues | 3 |
| AVIA 3113 | Commercial Aviation | 3 |
| AVIA 3133 | Fundamentals of Instrument Flight | 3 |
| AVIA 3572 | Instrument Flying | 2 |
| AVIA 3581 | Multi-Engine Flying | 1 |
| AVIA 4313 | Turbine Transition | 3 |
| AVIA 4423 | Crew Resource Management | 3 |
| AVIA 4552 | Commercial Flying | 2 |
| AVIA 4663 | Survey of Aerospace Ethical Issues | 3 |
| AVIA 4713 | Senior Capstone | 3 |
| AVIA 4983 | Airline Management | 3 |
| Total Credit Hours |  | 46 |
| Major Support |  |  |
| Code | Title | Credit Hours |
| ACCT 2113 | Fundamental Financial Accounting | 3 |
| ECON 1113 | Principles of Economics-Macro (Core III-SS) | 3 |
| ECON 2843 <br> or PSY 2003 <br> or COMM 2513 <br> or SOC 3123 <br> or MATH 4753 | Elements of Statistics <br> Understanding Statistics <br> Introduction to Statistics <br> Social Statistics <br> Applied Statistical Methods | 3 |
| FIN 2303 | Business Finance | 3 |
| MIS 2113 | Computer-Based Information Systems | 3 |
| MGT 3013 | Principles of Organization and Management | 3 |
| MKT 3013 | Principles of Marketing and Supply Chain Management | 3 |

## Total Credit Hours

## SPECIALIZED AVIATION ELECTIVES (p. 823)

Students are not required to complete all electives listed (p. 823), but may choose to do so for additional training.

## Additional Requirements

- Maintaining less than a 2.25 GPA, or failure to complete the required math sequence each semester will result in academic probation.
- The maximum number of aviation hours accepted by transfer is twelve.
- A maximum of nine hours of aviation may be accomplished through advanced standing.
- A total of 55 hours of liberal arts coursework is required.


## SPECIALIZED AVIATION ELECTIVES

Students are not required to complete all electives listed below, but may choose to do so for additional training.

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| AVIA 3111 | Advanced Flight Maneuvers | 1 |
| AVIA 3333 | Survey of Aviation Law | 3 |
| AVIA 3513 | Airport Operations Management | 3 |
| AVIA 4113 | CFI Seminar | 3 |
| AVIA 4602 | Flight Instructor-Airplane | 2 |
| AVIA 4613 | Instrument Flight Instructor | 3 |
| AVIA 4803 | Aviation Mental Health: Psychological | 3 |
|  | Implications for Air Transportation | $1-4$ |

## General Education and College Requirements

Courses taken to fulfill the University General Education Requirements must be chosen from the approved General Education course list published in the Class Schedule or at http://www.ou.edu/gened/courses.
UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS

| Code Title | Credit |
| :--- | :--- |
|  | Hours |

Core Area I: Symbolic and Oral Communications
ENGL 1113 Principles of English Composition (Core I) 3
ENGL 1213 Principles of English Composition (Core I) 3
or EXPO 1213 Expository Writing
COMM 1113 Principles of Communication 3
or COMM 2613 Public Speaking
COMM 2213 Interpersonal Communication 3
$\begin{array}{ll}\text { Language (Core I) }^{1} & 0-10\end{array}$
Mathematics
MATH 1643 Functions and Modeling for Business, Life 3 and Social Sciences
MATH 1743 Calculus I for Business, Life and Social 3 Sciences ${ }^{2}$
Core Area II: Natural Science
Choose one of the following: 4
GEOG 1114 Physical Geography (Core II)
Any approved Chemistry, Physics, or Biology course (Core II)

METR 1014 Introduction to Weather and Climate (Core 4

METR 2603 Severe and Unusual Weather 3
Core Area III: Social Science

P SC $1113 \quad$ American Federal Government (Core III)
Core Area IV: Arts \& Humanities
HIST $1483 \quad 3$
or HIST 1493 United States, 1865 to the Present
One course from one of the following 3 fields (Core IV) must
be upper-division:
Choose one Artistic Forms course 3
Choose one Western Culture course 3
Choose one World Culture course 3
Core Area V: First Year Experience

| Choose one course |
| :--- |
| Total Credit Hours |
|  |
| ${ }^{1}$ Students who have completed two years of high school language are |
| exempt from the general education language requirement. |
| ${ }^{2}$ Core I-Substitute: MATH 1823, Calculus \& Analytic Geom. I or |
| MATH 1914, Differential and Integral Calculus I |
| 3 Two courses, 6 hours, of Core III Social Science are required and one |
| course must be P SC 1113. ECON 1113 or ECON 1123 will meet the |
| other 3 hours of this requirement under Major Support. |

## Free Electives

6 hours if exempt from language; 0 hours if two semesters of language must be taken. Free electives may include specialized aviation courses.

## Information Concerning General Rules, Regulations and Minimum Requirements for Undergraduate Degrees

Total Hours: A minimum of 120 semester hours acceptable toward graduation must be completed.
Upper-Division Hours: A minimum of 40 upper- division semester hours acceptable toward graduation must be completed. OU courses numbered 3000 or above are upper- division. Transfer work is counted as lowerdivision or upper-division credit depending on the level at which it was offered at the institution where it was earned. Two-year college work is accepted only as lower-division credit.
Senior Institution Hours: A minimum of 60 semester hours applied toward graduation must be earned at senior (4-year) institutions. Residency:

- A minimum of two semesters must be spent in residence in the College of Atmospheric and Geographic Sciences.
- At least 36 of the last 48 hours must be completed in residence at OU.

Individual Studies: No more than six hours of independent study or directed readings may be applied toward degree requirements.
Grade Point Averages: Students must earn a minimum overall 2.25 for each of the following: Combined Retention GPA (all college grades), OU Retention GPA, GPA for all major courses, and GPA for all major courses taken at OU.

## Suggested Semester Plan of Study

| Freshman <br> First Semester |  | Credit <br> Hours |
| :--- | :--- | ---: |
| ENGL 1113 | Principles of English Composition (Core I) | 3 |
| MATH 1643 | Functions and Modeling for Business, Life <br> and Social Sciences | 3 |
| AVIA 1111 | Aviation Orientation | 1 |
| AVIA 1113 | Introduction to Aviation | 3 |
| AVIA 1222 | Primary Flying | 2 |
| First-Year Experience (Core V) | 3 |  |
|  | Credit Hours | $\mathbf{1 5}$ |


| ENGL 1213 or EXPO 1213 | Principles of English Composition (Core I) or Expository Writing | 3 |
| :---: | :---: | :---: |
| MATH 1743 | Calculus I for Business, Life and Social Sciences | 3 |
| COMM 1113 or COMM 2613 | Principles of Communication or Public Speaking | 3 |
| AVIA 2231 | Advanced Flying | 1 |
| AVIA 2513 | The History of Aviation | 3 |
| ECON 1113 | Principles of Economics-Macro (Core III-SS) | 3 |
|  | Credit Hours | 16 |
| Sophomore |  |  |
| First Semester |  |  |
| METR 1014 | Introduction to Weather and Climate (Core II) | 4 |
| ACCT 2113 | Fundamental Financial Accounting | 3 |
| AVIA 2341 | Secondary Flying | 1 |
| AVIA 2613 | Aviation Safety | 3 |
| $\begin{aligned} & \text { ECON } 2843 \\ & \text { or PSY } 2003 \end{aligned}$ | Elements of Statistics or Understanding Statistics | 3 |
|  | Credit Hours | 14 |
| Second Semester |  |  |
| FIN 2303 | Business Finance | 3 |
| GEOG 1114 | Physical Geography (Or any approved Chemistry, Physics, or Biology course) | 4 |
| AVIA 3572 | Instrument Flying | 2 |
| AVIA 3133 | Fundamentals of Instrument Flight | 3 |
| HIST 1483 or HIST 1493 | United States to 1865 (Core IV) or United States, 1865 to the Present | 3 |
|  | Credit Hours | 15 |
| Junior |  |  |
| First Semester |  |  |
| METR 2603 | Severe and Unusual Weather | 3 |
| MIS 2113 | Computer-Based Information Systems | 3 |
| AVIA 3013 | Career Development for Aviation Professionals | 3 |
| AVIA 4552 | Commercial Flying | 2 |
| AVIA 3113 | Commercial Aviation | 3 |
|  | Credit Hours | 14 |
| Second Semester |  |  |
| COMM 2213 | Interpersonal Communication | 3 |
| MGT 3013 | Principles of Organization and Management | 3 |
| AVIA 3103 | Flight Deck Environmental Issues | 3 |
| AVIA 3581 | Multi-Engine Flying | 1 |
| AVIA 4663 | Survey of Aerospace Ethical Issues | 3 |
| Western Culture (Core IV-WC) |  | 3 |
|  | Credit Hours | 16 |
| Senior |  |  |
| First Semester |  |  |
| MKT 3013 | Principles of Marketing and Supply Chain Management | 3 |
| AVIA 4313 | Turbine Transition | 3 |


| AVIA 4983 | Airline Management | 3 |
| :--- | :--- | ---: |
| P SC 1113 | American Federal Government (Core III) | 3 |
| Free Elective |  | 3 |
|  | Credit Hours | $\mathbf{1 5}$ |

Second Semester
AVIA $4713 \quad$ Senior Capstone
AVIA 4423 Crew Resource Management 3
Artistic Forms (Core IV-AF) 3
World Culture - Upper-Division (Core IV-WDC) 3
Free Elective 3
Credit Hours 15
Total Credit Hours 120

- For those students who did not successfully complete two years of the same language in high school, six hours of free electives will be replaced with two semesters of the same college-level language.
- This plan of study should not be used in lieu of academic advisement.


## Aviation: Professional Pilot - Helicopter Track, B.S.

Minimum Total Credit Hours: 120
Major Hours: 40

Overall GPA - Combined and OU: 2.25
Major GPA - Combined and OU: 2.25

## Program Code: B090 P537

## Major Requirements

Aviation majors must earn a minimum grade of C in aviation courses to be considered passing and move to the next requirement.

| Code | Title | Credit <br> Hours |
| :---: | :---: | :---: |
| Lower-Division Requirements (12 Hours) |  |  |
| AVIA 1111 | Aviation Orientation | 1 |
| AVIA 1133 | Private Ground - Helicopter | 3 |
| AVIA 1332 | Private Flight - Helicopter | 2 |
| AVIA 2513 | The History of Aviation | 3 |
| AVIA 2613 | Aviation Safety | 3 |
| Upper-Division Requirements ( 28 Hours) |  |  |
| AVIA 3013 | Career Development for Aviation Professionals | 3 |
| AVIA 3103 | Flight Deck Environmental Issues | 3 |
| AVIA 3123 | Instrument Ground - Helicopter | 3 |
| AVIA 3143 | Commercial Ground Helicopter | 3 |
| AVIA 3532 | Instrument Flying - Helicopter | 2 |
| AVIA 4332 | Commercial Flying - Helicopter | 2 |
| AVIA 4423 | Crew Resource Management | 3 |
| AVIA 4663 | Survey of Aerospace Ethical Issues | 3 |
| AVIA 4713 | Senior Capstone | 3 |
| AVIA 4983 | Airline Management | 3 |
| Total Credit Hours |  | 40 |

## Major Support Requirements

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| GIS 2023 | Introduction to Spatial Thinking and <br> Computer Mapping | 3 |
| ACCT 2113 | Fundamental Financial Accounting | 3 |
| ECON 1113 | Principles of Economics-Macro (Core III-SS) | 3 |
| ECON 1123 | Principles of Economics-Micro (Core III-SS) | 3 |
| ECON 2843 Elements of Statistics <br> or PSY 2003 Understanding Statistics <br> or SOC 3123 Social Statistics <br> or MATH 4753 Applied Statistical Methods | 3 |  |
| FIN 2303 | Business Finance |  |
| MIS 2113 | Computer-Based Information Systems |  |
| L S 3323 | Legal Environment of Business | 3 |
| MGT 3013 | Principles of Organization and <br>  <br> Management | 3 |
| MKT 3013 | Principles of Marketing and Supply Chain | 3 |
| Total Credit Hours | Management | 3 |

## SPECIALIZED AVIATION ELECTIVES (p. 818)

Students are not required to complete all electives listed (p. 825), but may choose to do so for additional training.

## Additional Requirements

- Maintaining less than a 2.25 GPA, or failure to complete the required math sequence each semester will result in academic probation.
- The maximum number of aviation hours accepted by transfer is twelve.
- A maximum of nine hours of aviation may be accomplished through advanced standing.
- A total of 55 hours of liberal arts coursework is required.
- To receive the general business minor a 2.50 OU retention, overall retention, and upper-division business GPA is required.


## SPECIALIZED AVIATION ELECTIVES

Students are not required to complete all electives listed below, but may choose to do so for additional training.

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| AVIA 3111 | Advanced Flight Maneuvers | 1 |
| AVIA 3333 | Survey of Aviation Law | 3 |
| AVIA 3513 | Airport Operations Management | 3 |
| AVIA 4123 | Helicopter Flight Instructor Ground | 3 |
| AVIA 4613 | Instrument Flight Instructor | 3 |
| AVIA 4632 | Flight Instructor - Helicopter | 2 |
| AVIA 4803 | Aviation Mental Health: Psychological | 3 |
|  | Implications for Air Transportation |  |
| AVIA 4990 | Special Studies in Aviation | $1-4$ |

## General Education and College Requirements

Courses taken to fulfill the University General Education Requirements must be chosen from the approved General Education course list published in the Class Schedule or at http://www.ou.edu/gened/courses.

## UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND

 COLLEGE REQUIREMENTS| Code | Title | Credit Hours |
| :---: | :---: | :---: |
| Core Area I: Symbolic and Oral Communications |  |  |
| ENGL 1113 | Principles of English Composition (Core I) | 3 |
| $\begin{aligned} & \text { ENGL } 1213 \\ & \text { or EXPO } 1213 \end{aligned}$ | Principles of English Composition (Core I) Expository Writing | 3 |
| COMM 1113 or COMM 2613 | Principles of Communication Public Speaking | 3 |
| Language (Core I) |  | 0-10 |
| Mathematics |  |  |
| MATH 1643 | Functions and Modeling for Business, Life and Social Sciences | 3 |
| MATH 1743 | Calculus I for Business, Life and Social Sciences ${ }^{2}$ | 3 |

Core Area II: Natural Science
Choose one of the following:
GEOG $1114 \quad$ Physical Geography (Core II)
Any approved Chemistry, Physics, or Biology course (Core
II)

METR 1014 Introduction to Weather and Climate (Core II)

METR 2603 Severe and Unusual Weather 3
Core Area III: Social Science ${ }^{3}$
P SC 1113 American Federal Government (Core III) 3

## Core Area IV: Arts \& Humanities

| HIST $1483 \quad$United States to 1865 (Core IV) <br> or HIST $1493 \quad$ United States, 1865 to the Present | 3 |
| :--- | :--- |
| One course from one of the following 3 fields (Core IV) must <br> be upper-division: | 3 |
| Choose one Artistic Forms course 3 <br> Choose one Western Culture course 3 <br> Choose one World Culture course 3 <br> Core Area V: First Year Experience 3Choose one course |  |

Total Credit Hours 44-54

1 Students who have completed two years of high school language are exempt from the general education language requirement.
2 Core I - Substitute: MATH 1823, or MATH 1914, Differential and Integral Calculus I
3 Two courses, 6 hours, of Core III Social Science are required and one course must be P SC 1113 . ECON 1113 or ECON 1123 will meet the other 3 hours of this requirement under Major Support.

## Free Electives

4 hours if exempt from language; 0 hours if two semesters of language must be taken. Free electives may include specialized aviation courses.

## Information Concerning General Rules, Regulations and Minimum Requirements for Undergraduate Degrees

Total Hours: A minimum of 120 semester hours acceptable toward graduation must be completed.
Upper-Division Hours: A minimum of 40 upper- division semester hours acceptable toward graduation must be completed. OU courses numbered 3000 or above are upper- division. Transfer work is counted as lowerdivision or upper-division credit depending on the level at which it was offered at the institution where it was earned. Two-year college work is accepted only as lower-division credit.
Senior Institution Hours: A minimum of 60 semester hours applied toward graduation must be earned at senior (4-year) institutions.
Residency:

- A minimum of two semesters must be spent in residence in the College of Atmospheric and Geographic Sciences.
- At least 36 of the last 48 hours must be completed in residence at OU.

Individual Studies: No more than six hours of independent study or directed readings may be applied toward degree requirements. Grade Point Averages: Students must earn a minimum overall 2.25 for each of the following: Combined Retention GPA (all college grades), OU Retention GPA, GPA for all major courses, and GPA for all major courses taken at OU.

## Suggested Semester Plan of Study

| Freshman |  |  |
| :---: | :---: | :---: |
| First Semester |  | Credit |
|  |  | Hours |
| ENGL 1113 | Principles of English Composition (Core I) | 3 |
| MATH 1643 | Functions and Modeling for Business, Life and Social Sciences | 3 |
| AVIA 1111 | Aviation Orientation | 1 |
| First-Year Experience (Core V) |  | 3 |
| AVIA 1133 | Private Ground - Helicopter | 3 |
| AVIA 1332 | Private Flight - Helicopter | 2 |
|  | Credit Hours | 15 |
| Second Semester |  |  |
| ENGL 1213 or EXPO 1213 | Principles of English Composition (Core I) or Expository Writing | 3 |
| MATH 1743 | Calculus I for Business, Life and Social Sciences | 3 |
| COMM 1113 or COMM 2613 | Principles of Communication or Public Speaking | 3 |
| AVIA 2513 | The History of Aviation | 3 |
| ECON 1113 | Principles of Economics-Macro (Core III) | 3 |
|  | Credit Hours | 15 |
| Sophomore |  |  |
| First Semester |  |  |
| ACCT 2113 | Fundamental Financial Accounting | 3 |
| HIST 1483 or HIST 1493 | United States to 1865 (Core IV) or United States, 1865 to the Present | 3 |
| ECON 2843 | Elements of Statistics | 3 |
| AVIA 3123 | Instrument Ground - Helicopter | 3 |


| AVIA 3532 | Instrument Flying - Helicopter | 2 |
| :---: | :---: | :---: |
|  | Credit Hours | 14 |
| Second Semester |  |  |
| AVIA 2613 | Aviation Safety | 3 |
| FIN 2303 | Business Finance | 3 |
| ECON 1123 | Principles of Economics-Micro | 3 |
| GEOG 1114 | Physical Geography (Core II) | 4 |
| Or any approved Chemistry, Physics, or Biology course (Core II) |  |  |
| Free Elective |  | 3 |
|  | Credit Hours | 16 |
| Junior |  |  |
| First Semester |  |  |
| AVIA 3143 | Commercial Ground Helicopter | 3 |
| AVIA 4332 | Commercial Flying - Helicopter | 2 |
| AVIA 3013 | Career Development for Aviation Professionals | 3 |
| METR 2603 | Severe and Unusual Weather | 3 |
| MIS 2113 | Computer-Based Information Systems | 3 |
|  | Credit Hours | 14 |
| Second Semester |  |  |
| MGT 3013 | Principles of Organization and Management | 3 |
| MKT 3013 | Principles of Marketing and Supply Chain Management | 3 |
| GIS 2023 | Introduction to Spatial Thinking and Computer Mapping | 3 |
| AVIA 3103 | Flight Deck Environmental Issues | 3 |
| METR 1014 | Introduction to Weather and Climate | 4 |
|  | Credit Hours | 16 |
| Senior |  |  |
| First Semester |  |  |
| AVIA 4663 | Survey of Aerospace Ethical Issues | 3 |
| AVIA 4983 | Airline Management | 3 |
| P SC 1113 | American Federal Government (Core III) | 3 |
| Western Culture (Core IV-WC) |  | 3 |
| Free Elective |  | 3 |
|  | Credit Hours | 15 |
| Second Semester |  |  |
| L S 3323 | Legal Environment of Business | 3 |
| AVIA 4713 | Senior Capstone | 3 |
| AVIA 4423 | Crew Resource Management | 3 |
| World Culture - Upper-Division (Core IV-WDC) |  | 3 |
| Artistic Forms (Core IV-AF) |  | 3 |
|  | Credit Hours | 15 |
|  | Total Credit Hours | 120 |

- For those students who did not successfully complete two years of the same language in high school, two college-level courses in a single language are required. The 4 hours of free electives in the semester plan will be replaced with two semesters of the same college-level language.
- For those students pursuing the General Business Minor, successful completion of ECON 2843 is required.
- This plan of study should not be used in lieu of academic advisement.


## Air Traffic Control, Minor

Minimum Total Credit Hours: 25
Program Code: N093
The requirements for a minor must be completed concurrently with the major degree requirements.

No minor may be added by completing courses after receiving the bachelor's degree.

Students must complete all 25 minor hours in residence at the University of Oklahoma

No correspondence work or advanced standing is allowed to count towards the minor

## - A 2.25 OU and combined GPA is required in the minor coursework.

One course per semester; courses cannot be taken concurrently without permission of the AT-CTI Director

## Required Courses

A minimum grade of $C$ is required in aviation courses counting toward the minor.

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| AVIA 1013 | Introduction to Air Traffic Control | 3 |
| AVIA 1213 | Basic Air Traffic Control Regulations | 3 |
| AVIA 2013 | General Air Traffic Control Procedures | 3 |
| AVIA 3213 | Airport Traffic Procedures | 3 |
| AVIA 3313 | IFR Air Traffic Procedures ${ }^{1}$ | 3 |
| AVIA 4004 | Air Traffic Control Tower Simulation ${ }^{1}$ | 4 |
| AVIA 4013 | En-Route Radar Lab ${ }^{1}$ | 3 |
| AVIA 4023 | Tracon Radar Lab ${ }^{1}$ | 3 |
| Total Credit Hours | $\mathbf{2 5}$ |  |

1 Courses involve both classroom instruction \& lab simulation; an additional flight fee is applied.

- Minors are available to all undergraduate students at OU. If the minor is officially declared, successfully completed, and noted on the graduation application, the student's transcript will so indicate at the time the bachelor's degree is posted.


## Aviation: Aviation Management, Minor

Minimum Total Credit Hours: 18

## Program Code: N090

The requirements for a minor must be completed concurrently with the major degree requirements.

No minor may be added by completing courses after receiving the bachelor's degree.

Students must complete 12 of the 18 minor hours in residence at the University of Oklahoma

A maximum of 6 hours of transfer work may be applied towards the minor
No correspondence work is allowed to count towards the minor
A 2.25 OU and combined GPA is required in the minor coursework; not open to aviation majors

## Required Courses

A minimum grade of $C$ is required in aviation courses counting toward the minor.

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| AVIA 1113 | Introduction to Aviation | 3 |
| AVIA 3513 | Airport Operations Management | 3 |
| AVIA 4663 | Survey of Aerospace Ethical Issues | 3 |
| AVIA 4983 | Airline Management | 3 |
| Choose two of the following courses (6 total credit hours): | 6 |  |


| AVIA 2513 | The History of Aviation |
| :--- | :--- |
| AVIA 2613 | Aviation Safety |
| AVIA 3913 | Aerospace Contract Administration |
| AVIA 3923 | Aerospace Operational Research |
| AVIA 4423 | Crew Resource Management |

Total Credit Hours

- If the minor is officially declared, successfully completed, and noted on the graduation application, the student's transcript will so indicate at the time the bachelor's degree is posted.


## Aviation: Single-Engine Commercial Pilot, Minor

## Minimum Total Credit Hours: 17

## Program Code: N092

The requirements for a minor must be completed concurrently with the major degree requirements.

No minor may be added by completing courses after receiving the bachelor's degree.

Students must complete 11 of the 17 minor hours in residence at the University of Oklahoma

A maximum of 6 hours of transfer work may be applied towards the minor
A 2.25 OU and combined GPA is required in the minor coursework; not open to aviation majors

## Required Courses

A minimum grade of $C$ is required in aviation courses counting toward the minor.

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| AVIA 1113 | Introduction to Aviation | 3 |
| AVIA 1222 | Primary Flying ${ }^{1}$ | 2 |
| AVIA 2231 | Advanced Flying ${ }^{1}$ | 1 |
| AVIA 2341 | Secondary Flying $^{1}$ | 1 |
| AVIA 3113 | Commercial Aviation | 3 |
| AVIA 3133 | Fundamentals of Instrument Flight | 3 |
| AVIA 3572 | Instrument Flying $^{1}$ | 2 |
| AVIA 4552 | Commercial Flying ${ }^{1}$ | 2 |
| Total Credit Hours | $\mathbf{1 7}$ |  |

${ }^{1}$ Courses involve both classroom instruction \& flight instruction; an additional flight fee is applied.

- If the minor is officially declared, successfully completed, and noted on the graduation application, the student's transcript will so indicate at the time the bachelor's degree is posted.


## Aviation: Multi-Engine Commercial Pilot, Minor

Minimum Total Credit Hours: 18
Program Code: N091
The requirements for a minor must be completed concurrently with the major degree requirements.

No minor may be added by completing courses after receiving the bachelor's degree.

Students must complete 12 of the 18 minor hours in residence at the University of Oklahoma

A maximum of 6 hours of transfer work may be applied towards the minor
A 2.25 OU and combined GPA is required in the minor coursework; not open to aviation majors

## Required Courses

A minimum grade of $C$ is required in aviation courses counting toward the minor.

| Code | Title | Credit Hours |
| :---: | :---: | :---: |
| AVIA 1113 | Introduction to Aviation | 3 |
| AVIA 1222 | Primary Flying ${ }^{1}$ | 2 |
| AVIA 2231 | Advanced Flying ${ }^{1}$ | 1 |
| AVIA 2341 | Secondary Flying ${ }^{1}$ | 1 |
| AVIA 3113 | Commercial Aviation | 3 |
| AVIA 3133 | Fundamentals of Instrument Flight | 3 |
| AVIA 3572 | Instrument Flying ${ }^{1}$ | 2 |
| AVIA 3581 | Multi-Engine Flying ${ }^{1}$ | 1 |
| AVIA 4552 | Commercial Flying ${ }^{1}$ | 2 |
| Total Credit |  | 18 |

1 Courses involve both classroom instruction \& flight instruction; an additional flight fee is applied.

- If the minor is officially declared, successfully completed, and noted on the graduation application, the student's transcript will so indicate at the time the bachelor's degree is posted.


## School of Meteorology

Jens Redemann, Director
National Weather Center
120 David L. Boren Blvd., Suite 5900
Norman, OK 73072-7307
Phone: (405) 325-6561
FAX: (405) 325-7689
jredemann@ou.edu
meteorology.ou.edu

## General Information

Meteorology, or atmospheric science, is the study of the atmosphere and its interaction with Earth's surface, oceans, and biological systems. Meteorologists seek to describe, understand, and predict weather phenomena that occur on spatial scales ranging from millimeters to thousands of kilometers, and on time scales from microseconds to thousands of years or longer. These phenomena range from localized thunderstorms and tornadoes, to regional frontal systems and hurricanes, to global climate change.

Major scientific areas of research in meteorology today include weather, climate, and the interactions between them. This includes the study and prediction of severe and hazardous weather events that strongly affect life and property. These events include, but are not limited to, lightning, tornadoes, floods, hail, blizzards, dense fog and hurricanes. Research activities regarding climate and weather-climate interactions include the study of past climates, regional climate, surface and boundary layer processes, climate change and seasonal forecasting. The School of Meteorology is actively engaged in research on all the above-mentioned topics.

The School of Meteorology at the University of Oklahoma is the largest such program in the nation. The undergraduate and graduate programs are unique due to our co-location with NOAA, Department of Interior and Department of Energy programs as well as several University strategic organizations, which broaden the education, training and research portfolio of the school. The school is routinely ranked near the top of the nation in terms of undergraduate awards, such as the annual number of undergraduate scholarships awarded from the NOAA Hollings and American Meteorological Society (AMS) programs. Our students have received numerous best poster and best oral presentation awards at recent conferences and symposium.

## Programs \& Facilities

## National Weather Center

A unique feature of the School of Meteorology is that it has close ties with several University-based state and federal research and operational organizations in Norman. Collectively known as the National Weather Center, these organizations include the School of Meteorology, the Department of Geography and Environmental Sustainability, the Oklahoma Climatological Survey, Center for Spatial Analysis, the Cooperative Institute for Mesoscale Meteorological Studies, the Center
for Analysis and Prediction of Storms, the Atmospheric Radar Research Center, the Environmental Verification and Analysis Center, the National Severe Storms Laboratory, the National Weather Service Forecast Office, the Storm Prediction Center, the WSR-88D Doppler Radar Operations Center, and the Warning Decision Training Branch. These organizations provide part- and full-time employment opportunities for undergraduate and graduate students as well as opportunities to participate in state-of-the-art research projects and observational field programs. The high concentration of research and operational institutions also attracts a large number of distinguished visiting scientists for stays varying in length from a day to a year. Nearly all of these organizations have been housed together in the new National Weather Center building since fall 2007.

Facilities available to students and faculty include a PC LINUX-based lab/ classroom (25 machines), a general-purpose Apple Macintosh computer lab as well as departmental servers for email, World Wide Web, and weather data. Departmental computing resources are augmented by the College of Atmospheric and Geographic Sciences Amoco PC lab and the resources of the OU Supercomputing Center, OSCER. All these resources are interconnected through the campus network of wired and wireless connections and to the Internet for access to national super-computer centers, the World Wide Web, and other stops on the information superhighway. The school provides a full suite of current weather data, radar data and forecast products from the National Weather Service. Data are also available from the Oklahoma Mesonet, a unique network of remotely operated ground-based sensors providing current weather at the county level for the entire state. The school also helps support two large mobile Doppler radar vehicles (SMART-R) for the detailed study of tornadoes, thunderstorms, hurricanes, fronts and other small-scale phenomena. Observational and experimental work and instrumentation development are pursued in laboratories located in the school, OCS, and on the roof of the NWC. Hands-on experience is an important part of the degree programs of the School of Meteorology. Facilities at the National Weather Center and its partners taken together provide unique opportunities and challenges for students of all levels.

## Atmospheric Radar Research Center (ARRC)

Under the auspices of the University of Oklahoma's Strategic Radar Initiative, faculty members from the Schools of Meteorology and Electrical and Computer Engineering have united to form an interdisciplinary team of scientists and engineers to solve challenging Doppler radar research problems and prepare the next generation of students. Through the collaborative nature instilled in its members, the ARRC has proven effective at developing synergy in the field of weather radar between science and engineering. In the National Weather Center and its laboratory facilities in One Partner's Place, meteorology and engineering faculty and students work side-by-side to learn from each other in a true team environment. This interdisciplinary esprit de corps has already had a profound effect on both the undergraduate and graduate educational experiences in radar provided to OU students. Since being established in 2004, the ARRC has grown to include 10 faculty members, over 30 graduate students, and several postdoctoral fellows. Areas of research concentration are in radar configuration/ design/ optimization, signal processing, phased array/imaging, retrieval algorithm development, quantifications of radar performance and measurement uncertainty, cloud/precipitation microphysics, severe convective storms, boundary layer dynamics, wind-field retrieval, radarbased model parameterization and initialization, electro-magnetic signatures of targets, birds, insects, and hydrometeors, waves in random media, and polarimetry/interferometry techniques. The ARRC offers graduate research assistantships, post-doctoral fellowships, visiting
scientist appointments, and undergraduate fellowships. For additional information, visit the ARRC's website.

## Center for Analysis and Prediction of Storms (CAPS)

CAPS originated in 1989 as a National Science Foundation Science and Technology Center and graduated from this program in 2000. It continues to be supported by a number of agency grants as well as private industry, and its primary mission remains the development of techniques for the prediction of high-impact local weather with an emphasis on thunderstorms and mesoscale phenomena. Its research programs include numerical modeling and computational fluid dynamics, data assimilation, small-scale predictability, physical process studies, Doppler radar analysis and forecast evaluation. CAPS recently helped initiate a new NSF Engineering Research Center for Collaborative Adaptive Sensing of the Atmosphere (CASA) that is focused on developing new Doppler radar technology and also leads an NSF Information Technology Research grant known as Linked Environments for Atmospheric Discovery (LEAD). CAPS offers graduate research assistantships, postdoctoral fellowships, visiting scientist appointments, and undergraduate fellowships. For additional information, visit the Center's website.

## South Central Climate Adaptation and Science Center (CASC)

The South Central Climate Adaptation Science Center began in 2012, and in 2014 South Central CASC published its Tribal Engagement Strategy. As part of the strategy, they began to build tribal capacity in climaterelated areas, invest in the next generation of tribal staff, and train climate researchers to invest in these relationships, among many other new goals. From 2013-2015 the team has had 28 total trainings, 554 tribal attendees, engaged 91 different tribes and nations, and has had 5100 contact hours with first nations. The youth of the tribes have not gone unnoticed in the Tribal Engagement Strategy. From 2013-2016, 24 tribal youth events were held by the South Central CASC, and South Central CASC staff members mentored 16 Native American undergraduate and graduate students. In only five years of existence, the South Central CASC has had tremendous success with inclusion and partnership with first nations. The South Central CASC has had the privilege of being able to engage with 61 of the 68 regional tribes or nations. Led by School of Meteorology alumna and adjunct associate professor (and DGES associate professor) Dr. Renee McPherson, the South Central CASC works "with natural and cultural resource managers to gather the scientific information and build the tools needed to help fish, wildlife and ecosystems adapt to the impacts of climate change", according to their website. This important work is accomplished through "a collaborative partnership among USGS scientists, resource management agencies, and a consortium of academic institutions from across the region, including Texas Tech University, Louisiana State University, the Chickasaw Nation, the Choctaw Nation of Oklahoma, Oklahoma State University, and the University of New Mexico."

## Center for Autonomous Sensing and Sampling (CASS)

Oklahoma is a recognized world leader in weather and radar research and has a rich aviation and aerospace history, making it a prime location to fuse the two disciplines while leveraging the State's and University's strengths in aviation, atmospheric science, robotics, and remote sensing development with the aim to create innovative solutions to pressing societal needs. CASS's mission is to explore, advance, and develop complete adaptive and autonomous sensing and sampling systems for use in the atmosphere, on the ground, and in the water and to help facilitate the integration of this technology across various disciplines and institutions.

Since being established in April 2016, CASS has grown to include 7 faculty affiliates, a staff engineer, a research scientist, postdoctoral fellow, six graduate students, and nearly a dozen undergraduate research assistants across a wide range of fields such as electrical engineering, computer science, data science and analytics, chemistry, geography, civil engineering, aerospace and mechanical engineering, physics, and meteorology. Areas of research focus currently include atmospheric chemistry, boundary layer structure and dynamics, data processing and visualization, earth science, and solution-based engineering. CASS offers graduate and undergraduate research assistantships, postdoctoral opportunities, affiliate and visiting appointments. For additional information or to explore collaborative opportunities, we invite you to visit our website or to contact Dr. Chilson or Dr. Pillar-Little.

## Cooperative Institute for Mesoscale Meteorological Studies (CIMMS)

CIMMS is a joint University of Oklahoma/NOAA cooperative institute designed to improve the effectiveness of research and instruction by providing a stimulating environment where scientists can meet and work on problems of mutual interest. Current research themes include convective and mesoscale processes, forecast improvements, climatic effects of/controls on mesoscale processes, socioeconomic impacts of mesoscale weather systems and regional-scale climate variations, Doppler weather radar research and development, and climate change monitoring and detection. CIMMS is also the home of the Site Scientist for the DOE Atmospheric Radiation Measurement (ARM) Program for the Southern Great Plains, and the Data Quality Office for all three ARM Sites (Southern Great Plains, Tropical Western Pacific, North Slope of Alaska). CIMMS is housed on the second and third floors in the National Weather Center.

## National Severe Storms Laboratory (NSSL)

The NOAA National Severe Storms Laboratory (NSSL) is dedicated to improvement of our understanding of severe convective and mesoscale events. Areas of emphasis include forecasting and analysis techniques, radar development and applications, and applications of multi-scale numerical forecast models. Research assistantships are available through CIMMS and adjunct faculty at the NSSL supervise graduate student research in the School of Meteorology.

## National Weather Service Forecast Office (NWSFO)

The NWSFO, a technologically advanced forecast facility prepares and disseminates life-saving warnings, watches and advisories for all types of hazardous weather conditions affecting 48 counties in central, western and southern Oklahoma, and eight counties in western north Texas. Intern and temporary position opportunities are available for OU students.

## National Weather Service Storm Prediction Center (SPC)

The NOAA Storm Prediction Center (SPC) is the NWS national center of expertise for mesoscale hazardous weather forecasting. It has responsibility for issuing tornado and severe thunderstorm warnings for the contiguous United States. In addition, SPC prepares outlooks of areas with expected tornado and severe thunderstorm activity during the next eight days. The SPC also produces eight-day forecasts for areas of the country where conditions are compatible with the ignition and spread of wild fires, and short-term forecasts of mesoscale features associated with hazardous winter weather and excessive precipitation. The SPC is one of the organizing partners of the NOAA Hazardous Weather Testbed which explores ways to improve the timeliness and accuracy of hazardous weather forecasts. The SPC collaborates with meteorologists from around the world, and has conducted many joint
projects with programs in the College of Atmospheric and Geographic Sciences.

The Warning Decision Training Branch develops and delivers training on the integrated elements of the warning process within a National Weather Center forecast office.

## Oklahoma Climatological Survey (OCS)

The OCS is a state agency housed at the University of Oklahoma and serves as one component of the School of Meteorology's current research cluster. The OCS is a dual-purpose organization functioning as a service provider and conducting cutting-edge research. OCS contributes data resources and expertise in a broad field of interests such as climate and climate change, real-life application of weather data, and the operation of the Oklahoma Mesonet, Oklahoma's weather network. Research interests include K-20 education, first-responder instruction and support, surface transportation monitoring systems, and weather instrumentation research. The main office of OCS is located in the National Weather Center, part of the new Norman Research Campus. For additional information, visit the agency's website.

## Radar Operations Center (ROC)

The ROC, a NOAA organization partially located in the National Weather Center provides life-cycle hardware and software engineering and maintenance support for a world-class network of 167 Doppler weather radars (also known as NEXRAD) installed nationwide and at several overseas locations. The ROC uses a co-located WSR-88D radar for development and testing, operates a helpdesk to support operations and maintenance activities, and deploys teams of engineers and technicians to perform major maintenance. Working in collaboration with NSSL and OU researchers, the ROC transitions new radar techniques and products to operations to continually improve the nation's weather radar capabilities.

## Exchange Program

The School of Meteorology has developed exchange programs with the University of Reading in England, Hamburg University in Germany. Meteorology majors at the University of Oklahoma can apply to study abroad at one of these institutions during the spring semester of their junior year. Students complete the equivalent of OU meteorology requirements at one of these schools, so there is no delay in graduation. The College of Atmospheric and Geographic Sciences also offers the John T. Snow Study Abroad Scholarship; this \$1,000 award is presented each year to a junior A\&GS student who plans to study abroad. Visit School of Meteorology Study Abroad for more information about these programs.

## Scholarships and Financial Aid

Depending on availability of funds, the school offers a number of scholarships per year for each of its freshman, sophomore, junior and senior classes. These awards are primarily based on merit and qualified students will receive application forms from the school in advance of the next academic year. The School of Meteorology encourages all applicants to seek University-wide scholarships and financial aid for which they may be eligible. The department offers graduate teaching and research assistantships to highly qualified applicants with undergraduate degrees in meteorology or atmospheric science, physics, mathematics, computer science, engineering, or other related fields. For information, please write to:

120 David L. Boren Blvd., Suite 5900
Norman, OK 73072

## Undergraduate Study Bachelor of Science

The Bachelor of Science (p. 841) in Meteorology is a rigorous degree program designed to prepare students to enter the workforce as strong competitors or to move on to graduate school at a top institution.

## Accelerated Bachelor/Master Degrees

The School of Meteorology offers accelerated dual-degree programs in collaboration with the Price College of Business, offering exceptional students pursuing an undergraduate degree in meteorology to also pursue a Master of Business Administration. Meteorology majors may also choose to pursue a Master of Science in Data Science and Analytics through the Gallogly College of Engineering. Students apply for these programs in their junior year.

- Meteorology, B.S./M.B.A. (p. 845)
- Meteorology, B.S./Data Science and Analytics, M.S. (p. 848)


## Minors

The College of Atmospheric and Geographic Sciences offers students in the physical sciences and engineering majors a Meteorology Minor (p. 844) and a Weather and Climate Minor (p. 844). Meteorology majors are also encouraged to consider minors offered through other OU academic programs. Possible minors include math, physics, computer science, physical geography, geographic information science, interdisciplinary perspectives on the environment, hydrologic science, general business, entrepreneurship, astronomy, chemistry and geology.

## Graduate Study

The School of Meteorology is generally considered at or near the top spot for graduate research on convective storms, radar, and mesoscale meteorology. The school, however, has developed a broad research portfolio in recent years through the addition of new faculty giving us excellent researchers in climate, polar processes and atmospheric chemistry including tropospheric-stratospheric exchanges.

- Meteorology, Master of Science (p. 850)
- Meteorology, Ph.D. (p. 851)


## Courses

METR 1003 Introduction to the Atmospheric Sciences 3 Credit Hours Prerequisite: Math 1523 or higher or concurrent enrollment in Math 1823 or concurrent enrollment in Math 1914. An introduction to the field of atmospheric science, with a focus on concepts that can be understood using algebra. Periodic presentations from different professional atmospheric scientists introduce career options, challenges, and opportunities in the atmospheric sciences. Required of all meteorology majors during their first year of residence. (F)

## METR 1014 Introduction to Weather and Climate <br> 4 Credit Hours

For non-science majors. A descriptive study of both short-term and longterm atmospheric phenomena, evenly divided between: (1) the structure and processes in the atmosphere that affect our every-day weather; and (2) climate and causes of climate change. This course does not count for major credit in the School of Meteorology. Laboratory (F, Sp) [II-NSL].

## METR 1034 Native Science and Earth Systems of North

## America

4 Credit Hours
(Crosslisted with GEOL 1034) Examines Earth systems of North America using both indigenous and Western perspectives, and an Earth science approach. This team-taught course will utilize a combination of geology, geography, meteorology, and Native American sciences, as expressed through the use of art. (Sp) [II-NSL].

METR 1111 Orientation to Professional Meteorology 1 Credit Hour Prerequisite: Mathematics 1503 or higher. Required of all Meteorology majors during their first year of residence. Introduction to the School of Meteorology and its curriculum, faculty and staff. Presentations from different professional meteorologists introduce career options, challenges and opportunities in meteorology. (F)

METR 1313 Introduction to Programming for Meteorology 3 Credit Hours
Prerequisite: Math 1523 or equivalent, or concurrent enrollment. Introduction to the design and implementation of computer programs using the Python programming language. Emphasis on working with simple data sets. (F, Sp, Su)

## METR 2004 Atmospheric Circulations

4 Credit Hours
Prerequisite: Grade of C or better in MATH 1914 (or MATH 2423), PHYS 2514, METR 1003, CHEM 1315, and METR 1313 (or CS 1321, 1323, or 1324). Co-requisites: MATH 2924 (or MATH 2433), PHYS 2524. Introduction to the application of mathematical techniques and physical principals to key atmospheric processes and phenomena, with a focus on stability, moisture, synoptic-scale flows, convection, boundary layer meteorology, and climate change. The course seeks to create a foundation of critical thinking and problem solving for subsequent classes in meteorology. Required of all meteorology majors during their second year of residence. (F)

METR 2011 Introduction to Meteorology I Laboratory 1 Credit Hour Prerequisite: Grade of C or better in Math 1823 or 1914; corequisite: METR 2013, Math 2423 or 2924 and Physics 2514 or 1205. Reinforces the theoretical concepts provided in the counterpart lecture course Meteorology 2013, which introduces students to important phenomena and physical processes that occur in the earth's atmosphere. Through a series of laboratory exercises, students will learn the basic concepts and tools that are used to study atmospheric problems. Special emphasis will be placed on developing information technology and computational skills. (F, Sp) [II-NSL].
METR 2013 Introduction to Meteorology I
3 Credit Hours
Prerequisite: Grade of C or better in Math 1823 or 1914; corequisite: METR 2011 , Math 2423 or 2924, Physics 2514 or 1205. Introduces students to important phenomena and physical processes that occur in earth's atmosphere, as well as to the basic concepts and instruments used to study atmospheric problems. Focuses on atmospheric radiation, thermodynamics, moisture, stability, clouds, and precipitation. (F, Sp) [IINS].

METR 2021 Introduction to Meteorology II Laboratory 1 Credit Hour Prerequisite: Grade of C or better in METR 2011 or 2014, 2013, MATH 2423 or 2924, and PHYS 2514 or 1205; corequisite: METR 2023, MATH 2433 or 2934, and PHYS 2524 or 1215. Reinforces the theoretical concepts provided in the counterpart lecture course Meteorology 2023, which introduces students to important phenomena and physical processes that occur in the earth's atmosphere. Through a series of laboratory exercises, students will learn the basic concepts and tools that are used to study atmospheric problems. Special emphasis will be placed on developing information technology and computational skills. The laboratory exercises target the topics covered in the lecture component. (Sp, Su)
METR 2023 Introduction to Meteorology II 3 Credit Hours
Prerequisite: Grade of C or better in METR 2013, 2011 or 2014, MATH 2423 or 2924, and PHYS 2514 or 1205; corequisite: METR 2021, MATH 2433 or 2934, and PHYS 2524 or 1215. Introduces students to important phenomena and physical processes that occur in earth's atmosphere. Students will learn the basic concepts and instruments used to study atmospoheric problems. Part II of the introduction to meteorology sequence focuses on atmospheric dynamics, wind systems of different origin and scale, and thunderstorms. It also addresses boundary layer meteorology, air pollution, forecasting and climate change. (Sp, Su)
METR 2213 Physical Meteorology I:Thermodynamics 3 Credit Hours Prerequisite: C or better in PHYS 2524, MATH 2924 or MATH 2433, and METR 2004; Corequisite: MATH 2443 or MATH 2934; majors only. This course introduces the physical processes associated with atmospheric composition, basic radiation and energy concepts, the equation of state, the zeroth, first, and second law of thermodynamics, the thermodynamics of dry and moist atmospheres, thermodynamic diagrams, statics, and atmospheric stability. (F, Sp)

## METR 2603 Severe and Unusual Weather

3 Credit Hours
Provide non-majors and majors a detailed descriptive account of the physical processes important in the formation of various severe and unusual weather phenomena including: thunderstorms, tornadoes, hail storms, lightning, hurricanes, midlatitude snowstorms, lake effect snows, atmospheric optical effects, and global climate change. This course does not count for major credit in the School of Meteorology. (Irreg.) [II-NS].

METR 2613 Atmospheric In-Situ \& Surface-Based Measurements 3 Credit Hours
Prerequisite: Grade of C or better in METR 1313 or CS 1321 or CS 1323 or CS 1324, METR 2004, MATH 2924 or MATH 2433, PHYS 2524 and PHYS 1311; Co-requisite: MATH 2443 or 2934; majors only. Regardless of which area of atmospheric science you are interested in, measurements of atmospheric variables will undoubtedly influence your work. In any area of science, it is observations of nature that lead to new theories and new understanding. In meteorology, we cannot hope to predict weather accurately unless we have sufficient knowledge of the current state of the atmosphere. (F, Sp)
METR 2970 Special Topics/Seminar 1-3 Credit Hours
Special Topics. 1 to 3 hours. May be repeated; maximum credit nine hours. Special topics course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research, and field projects. (Irreg.)

METR 3011 Practicum on Broadcast Software 1 Credit Hour
Prerequisite: sophomore standing. May be repeated; maximum credit three hours. In this course students will learn how to use and manage the VIPIR and OMNI systems made by Baron Services. This will be accomplished via forecasting exercises and other various assignments. ( $\mathrm{F}, \mathrm{Sp}$ )
METR 3113 Atmospheric Dynamics I: Intro to Atmospheric Kinematics/ Dynamics

3 Credit Hours
Prerequisite: Grade of C or better in METR 2004, MATH 2443 or 2934,
PHYS 2524, and METR 1313 (or CS 1321, 1323, or 1324). Characterization of the atmosphere mathematically, the study of forces acting upon it, and approximations used. Topics include Newton's laws of motion; energy, equilibrium and stability; coordinate systems and forces; the equations of motion and simple force balances; and mass and energy conservation. (F)

## METR 3123 Atmospheric Dynamics II: Theory of Atmospheric Flows <br> 3 Credit Hours

Prerequisite: Grade of C or better in METR 3113 and MATH 3413.
Continuation of the study of atmospheric dynamics and kinematics begun in Dynamics I. Topics include: natural coordinates, geostrophic wind, inertial flow, cyclostrophic flow, gradient wind, thermal wind, kinematics and dynamics of circulation and vorticity, viscosity, and stress; turbulence, structure, and dynamics of the atmospheric boundary line. (Sp)
METR 3213 Physical Meteorology I: Thermodynamics 3 Credit Hours Prerequisite: grade of C or better in METR 2023 and 2021, MATH 2433, 2443 or 2934, PHYS 1215 or 2524, and METR 1313 or CS 1313 or CS 1323. This course introduces the physical processes associated with atmospheric composition, basic radiation and energy concepts, the equation of state, the zeroth, first and second law of thermodynamics for dry and moist atmospheres, thermodynamic diagrams, statics, and atmospheric stability. (F)
METR 3223 Physical Meteorology II: Cloud Physics, Atmos Electricity/
Optics 3 Credit Hours
Prerequisite: Grade of C or better in METR 2213, METR 3513, MATH 3413. Cloud and precipitation processes including the role of aerosols in cloud droplet and ice nucleation, growth of cloud particles into rain, snow, and hail by diffusion, coalescence, and cloud aggregation; the ClausiusClapeyron equation; application of cloud physics in cloud electrification and optical phenomena in the atmosphere; concepts of weather radar. (Sp)

## METR 3334 Principles of Research \& Communication in

## Meteorology

4 Credit Hours
Prerequisite: Grade of C or better in METR 1313, METR 2213, METR 2613, and MATH 2934 (or MATH 2443). An introduction to and/or development of topical skills in computing, writing, and speaking. The course will be composed of short thematic projects on topics relevant to meteorology and the atmospheric sciences. The professional skills gained reflect those needed by meteorologists in government, academia and the private sector. Required of all meteorology majors during their third year of residence. (Sp)
METR 3440 Mentored Research Experience 3 Credit Hours
0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)

METR 3513 Atmospheric Chemistry in Weather and Climate

## 3 Credit Hours

Prerequisite: Grade of $C$ or better in METR 2213. Advanced survey of atmospheric structure and composition, and introduction to chemical processes in the atmosphere. Groups of relevant trace species and their role in the atmosphere are identified. Additional topics include importance of and chemical processes associated with aerosols, and direct and indirect linkages between chemistry, weather, and climate. Required of all meteorology majors during their third year of residence. (F)

METR 3523 Managing for a Changing Climate 3 Credit Hour (Crosslisted with GEOG 3523) Prerequisite: Junior or Senior standing. Provides an integrative understanding of the components of the climate system including the range of natural climate variability and external drivers of climate change, in addition to impacts of a changing climate on multiple sectors such as the economy, policy, ecosystems, and indigenous populations. (F) [II-NS].
METR 3543 Balloons, Barometers, and Ice Cores: History of Weather and Climate Science 3 Credit Hours
(Crosslisted with HSTM 3543) Prerequisite: Junior standing or completion of one other course in HSTM or permission of instructor. This course explores the history of meteorology and climate sciences from 1500 to the present. We investigate the role of science in humanity's relationship with weather and climate, the social and political contexts of weather sciences as they have changed over time, and contributions of these sciences to sustainability and survival on a rapidly warming planet. No science background required. (F)
METR 3613 Meteorological Measurement Systems 3 Credit Hours Prerequisite: Grade of C or better in METR 2023 and 2021, MATH 2433, 2443 or 2934 , PHYS 1215 or 2524 , and METR 1313 or CS 1313 or CS 1323. Introduces the physical principles of meteorological instruments, discusses static and dynamic sensor performance, and explores the concepts of meteorological instruments, and to identify sensor limitations and major error sources. Furthermore, basic procedures of data analysis will be discussed. Laboratory (F)

METR 3890 Meteorology Internship 1-3 Credit Hours
1 to 3 hours. Prerequisite: METR 1111 and permission of instructor. 1-3 hours. May be repeated; maximum credit 12 hours. This course provides a mechanism for students to receive credit for their internship experiences with the National Weather Service, TV stations, the private sector or any other kind of agency or institution which provides internship opportunities for Meteorology Majors. (F, Sp, Su)
METR 3960 Honors Reading
1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Consists of topics designated by the instructor in keeping with the student's major program. Covers materials not usually presented in the regular courses. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
METR 3970 Honors Seminar 1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Projects covered vary. Deals with concepts not usually presented in regular coursework. (Irreg.)

## METR 3980 Honors Research

 1-3 Credit Hours1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Provides an opportunity for the gifted Honors candidate to work at a special project in the student's field. (F, Sp, Su)

METR 3990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: permission of instructor and junior standing. May be repeated once with change of content. Independent study may be arranged to study a subject not available through regular course offerings. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

METR 4013 Science at the Tropopause: Physics, Dynamics, \& Chemistry of the Upper Troposphere/Lower Stratospher 3 Credit Hours (Slashlisted with METR 5013) Prerequisite: Grade of C or better in both METR 2213 and METR 3113, or permission of instructor; Not open to Freshmen. A survey of the dynamics, physics, and chemistry of the UTLS. Topics will include basic characteristics of the UTLS, definition of the tropopause, dynamic principals of and theory used for the UTLS, stratosphere-troposphere exchange, and common analysis techniques for UTLS studies. Will gradually increase focus on processlevel understanding and review key dynamic and physical features/ phenomena that impact the UTLS. No student may earn credit for both 4013 and 5013. (Sp)

METR 4023 Polar Meteorology 3 Credit Hours
(Slashlisted with METR 5023) Prerequisite: grade of $C$ or better in MATH 3113 or MATH 3413, or permission by instructor. This course provides an introduction and overview to weather and climate of the Earth's polar regions. This includes the climatology, dynamics, and thermodynamics of Arctic and Antarctic atmospheres. Special topics of significance will include the polar boundary layer, sea ice, polar vortices, polar lows, and oceanic circulations. This course will develop and strengthen skills in teaching, research, and service. No student may earn credit for both 4023 and 5023. (Irreg.)

## METR 4043 Urban Climatology

3 Credit Hours
(Slashlisted with METR 5043; Crosslisted with GEOG 4043) Prerequisite: Junior standing or departmental permission. This course provides an overview of urban climates based on a synthesis of modern scientific and applied research findings. The course covers a broad spectrum of topics such as urban airflow, radiation exchanges, urban energy balance, urban heat island, urban surface hydrology, air pollution, cities under global climate change, biometeorology, and sustainable urban design and planning. No student may earn credit for both 4043 and 5043. (Sp)
METR 4083 Developing Ethical and Responsible AI for Earth Sciences

3 Credit Hours
(Slashlisted with METR 5083) Prerequisite: grade of C or better in C S 4013/5013 or C S 4033/5033 or C S 5043; or permission of instructor. Ethics of developing Artificial Intelligence (AI) for Earth and environmental sciences (ES). Topics will include responsible conduct of research, ethical scientific conduct, ownership of ideas, algorithms and data, and ethics of developing AI for ES applications. Learning activities include active discussions and debates, writing, and projects. No student may earn credit for both 4083 and 5083. (Sp)

METR G4133 Atmospheric Dynamics III: Mid-Latitude Synoptic-Scale Dynamics 3 Credit Hours
Prerequisite: Grade of $C$ or better in 3123 and 3223. Concepts from kinematics, dynamics and thermodynamics used to characterize synoptic-scale atmosphere, emphasis on quasi-geo strophic and baroclinic instability theory as basis for understanding extra-tropical weather systems including cyclones, fronts and jets. Linear theory is used to describe a variety of atmospheric waves and their role in synoptic-scale meteorology. (F)

METR G4233 Physical Meteorology III: Radiation and Remote Sensing

3 Credit Hours
Prerequisite: Graduate standing, or grade of C or better in METR 3123 and METR 3223. Fundamental principles of radiation; absorption and emission of radiation; solar and terrestrial radiation; radiative transfer and heating rates; surface and global energy balances; atmospheric general circulation; natural climate variations; greenhouse climate change; stratospheric ozone depletion. (F)
METR 4313 Statistical Meteorology
3 Credit Hours
(Slashlisted with METR 5313) Prerequisite: METR 1313 or CS 1313 or CS 1321 or CS 1323 or CS 1324; and MATH 2423 or MATH 2924; with grade of $C$ or better; or permission of instructor. The role of probability and statistics in meteorology and climate: decision making, sampling, graphical presentation of data, resampling techniques, autocorrelation, confidence intervals, statistical power, and various regression models. Computational aspects using meteorology and climate data will be emphasized. No student may earn credit for both 4313 and 5313. (F)

METR 4323 Weather Simulation With Computers 3 Credit Hours Prerequisite: METR 1313. The basics principles of computer programming for simulating and predicting fluid motion with computers. Applications range from idealized baroclinic instability to idealized tornado vortices. The FORTRAN and Python programming languages will be used. Prior programming experience is required, but not necessarily with these languages. (Irreg.)

METR 4330 Information Technology Skills for Meteorology 1-3 Credit
(Slashlisted with 5330) Prerequisite: grade of C or better in CS 1313 or permission of instructor. May be repeated; maximum credit three hours. The use of computers and networks to process the information of meteorology. Workstation skills, computer operating systems, programming languages, the internet, computer graphics, analysis and display of meteorological data. No student may credit for both 4330 and 5330. (Irreg.)

## METR 4403 Application of Meteorological Theory to Severe-

 Thunderstorm Forecasting 3 Credit Hours (Slashlisted with METR 5403) Prerequisite: majors only; METR 4424 with a grade of $B$ or better or permission of instructor. This course provides an opportunity to bridge the academia and operational forecasting realms and provide an opportunity for students to learn from experienced meteorologist-forecasters who have performed research on a variety of topics. No student may earn credit for both 4403 and 5403. (Sp)METR G4424 Synoptic Meteorology Laboratory
4 Credit Hours
Prerequisite: Grade of $C$ or better in 3123 and 3223 . This course is a lecture/laboratory course designed to provide students a physical understanding of atmospheric principles. Students are challenged to explain theoretical concepts and to demonstrate a mastery in understanding various physical processes including the theory and practice of weather analysis and forecasting, surface and upper air analysis, fronts and wave cyclones, satellite meteorology, sounding analysis, thermodynamic diagram, cross sections, forecasting, NMC models, MOS, radar meteorology, and severe weather. Communications skills are emphasized. (F)
METR G4433 Mesoscale Meteorology
3 Credit Hours
Prerequisite: Grade of C or better in 4133,4424 . Structure and dynamics of convective and mesoscale phenomena including: mesoscale convective systems, severe thunderstorms, tornadoes, low-level jets, mountain waves and hurricanes. Discussion of the general behavior, characteristics, and dynamics of the formation and development of these phenomena, and the types of weather and hazards they produce. ( Sp )

METR 4443 Introduction to Tropical Meteorology 3 Credit Hours
(Slashlisted with 5443) Prerequisite: senior standing in Meteorology or permission of instructor. Introduces students to the weather and climate of the tropics. Material presented will include an overview of tropical weather, basic physics of air-sea interaction and the attendant effects on tropical weather. No student may earn credit for both 4443 and 5443. (Irreg.)
METR 4523 Climate and the General Circulation 3 Credit Hours Prerequisite: Grade of C or better in MATH 2443, MATH 3413, PHYS 2524, and METR 4233. Characterizes the climate of the Earth's atmosphere qualitatively and quantitatively, with a focus on large-scale dynamics and the general circulation. Applies the gained knowledge of the climate system and climate modeling to understand global climate change and climate variability in the past, present, and future. Required of all meteorology majors during their fourth year of residence. (Sp)

## METR 4533 Earth's Past Climate

3 Credit Hours
(Slashlisted with METR 5533; Crosslisted with GEOL 4533) Prerequisite: senior or graduate standing, or permission of instructor. Explores earth's climate system, controls on climate change, and evolution of climate history through geologic time as deciphered from climate proxies. No student may earn credit for both 4533 and 5533. (F)
METR 4543 Global Climate Change 3 Credit Hours (Slashlisted with METR 5543) Prerequisite: One of the following: METR 1014, METR 2013, METR 2603, METR 2903, CEES 1112 , GEOG 1114, GEOG 1203, GEOG 3023, GEOL 1034, GEOL 1104, GEOL 1114 , GEOL 2014, or permission or instructor. The Intergovernmental Panel on Climate Change assesses the scientific and socio-economic information relevant for understanding the risk of human-induced climate change. This interdisciplinary class will use readings, student-led presentations and roundtable discussions of the in-situ observations, as well as modeling of the atmosphere, oceans, ice, carbon, clouds and radiative forcing to understand the next 100-years of climate change. No student may earn credit for both 4543 and 5543. (Sp)
METR 4553 Climate and Renewable Energy
3 Credit Hours
(Slashlisted with METR 5553) Prerequisite: junior standing. Examines the science and technical aspects of solar, wind, hydro, and biomass power systems. Targets students interested in environmental science. Emphasis is on the key role of climate in determining where each of these systems is most likely to provide feasible alternatives to energy generated by fossil fuels. No student may earn credit for both 4553 and 5553. (Sp)

## METR 4603 Advanced Observations for Lower Atmospheric

Research 3 Credit Hours
(Slashlisted with METR 5603) Prerequisite: METR 2213 and METR 2613, or instructor permission. This course will examine the observation and operation principles behind a variety of research-grade instruments and the data they provide. Taught as a mix of lectures, instrument demonstrations, and data-focused projects, material presented focuses on modern, state-of-the-art instruments applied to current research problems emphasizing lower-atmospheric observations. Students use Python for processing, analysis, and visualization of real observed datasets. No student may earn credit for both 4603 and 5603. (F)

METR 4623 Radar Meteorology
3 Credit Hours
Prerequisite: grade of C or better in METR 2613 or METR 3613, Math 2433 or Math 2934. Principles of weather radar and storm observations including: radar system design, em wave propagation, radar equation for point and distributed targets, Rayleigh/Mie/Gan scattering, power spectrum, I\&Q, moments of the power spectrum, ground clutter, attenuation, rainfall measurements using radar reflectivity and using polarization diversity radars, Doppler interpretation and analysis, polarimetric theory and applications, kinematics of of convective storms. (Sp)

## METR G4633 Hydrometeorology

## 3 Credit Hours

(Slashlisted with METR 5633) Prerequisite: Grade of C or better in METR 3123, METR 3223 or permission of instructor. Interdisciplinary emphasis on mesoscale precipitation processes, applications of new hydrometeorological observing systems, and on the interactions between meteorology and hydrology during flood events. No student may earn credit for both 4633 and 5633. (Irreg.)

METR 4663 Radar Engineering
3 Credit Hours
(Crosslisted with ECE 4663; Slashlisted with 5663) Prerequisite: grade of C or better in Electrical and Computer Engineering 3613, or permission. Introduction to radar system designs and applications with emphasis on weather radar. Radar system architecture and their functionalities and limitations of subsystems are discussed. Theories of radar detection and estimation in a noisy and cluttered environment; existing technologies and advanced techniques to improve radar performance. No student may earn credit in both 4663 and 5663. (F)
METR 4693 Environmental Sampling Methods
3 Credit Hours
(Slashlisted with METR 5693; Crosslisted with PBIO and MBIO 4693) Prerequisite: diverse STEM background; permission of instructor; senior standing. The course gives students from diverse STEM backgrounds experience and knowledge of environmental sampling techniques, analysis of data generated, and interpretation of results in a scientific field outside their primary area of study. The multi-disciplinary structure helps students develop an understanding of different sampling techniques based on assumptions and perspectives on the environment at different spatial scales. No student may earn credit for both 4693 and 5693. (Sp)

METR 4713 Private Sector Meteorology
3 Credit Hours
Prerequisite: senior standing in Meteorology. An overview of private sector meteorology in the United States. Designed to build background knowledge, foster the use of higher-order analytical skills, and further develop communication and presentation skills. The course includes lectures, directed readings, visiting local private sector companies, interviews with practicing meteorologists, and the development of a portfolio about a private sector meteorological company. Students gain experience in applying their meteorological knowledge to a practical problem as might be encountered in professional practice. No student may earn credit for both 4713 and 5713. (Irreg.)
METR 4743 Applications of Weather Forecasting 3 Credit Hours Prerequisite: METR 2013 or instructor permission. The course will focus on introducing students to various types of weather forecasts, and how those weather forecasts are created. (F, Sp)

METR 4753 Forecast and Warning Communication 3 Credit Hours (Slashlisted with METR 5753) Prerequisite: Junior or Senior Standing. This course explores the fundamental theories related to the communication of weather and climate information. We will explore effective risk communication, including characteristics of the forecast, the audience, and the message that most effectively convey the information to multiple audiences. Guest speakers will share their expertise so students see the range of jobs that exist in the weather/ climate information sphere. No student may earn credit for both 4753 and 5753. (Irreg.)

METR G4803 Selected Topics in Meteorology 3 Credit Hours
Prerequisite: permission of instructor. May be repeated with change of subject matter; maximum credit 12 hours. Topics may include aspects of atmospheric dynamics and severe-storm forecasting, experimental design, economic meteorology, weather modification, climate, radiation, aviation weather, etc. (Irreg.)

## METR 4911 Senior Seminar (Capstone) 1 Credit Hour

Prerequisite: Grade of C or better in 3123,3223 . With 4922, satisfies
Capstone course requirement. The instructor will guide senior meteorology majors through planning of a research project. Interdisciplinary topics are encouraged and library work will be required. Students will be paired with regular or adjunct faculty mentors. Senior doctoral students may serve as mentors with permission from the instructor. The result of 4911 will be a mini-proposal which will serve as a guide for the senior research project. In addition, the instructor may present professional skills useful during job search, early employment, and graduate school application and attendance. Note that METR 4922 should be taken following this course. (F, Sp) [V].

## METR 4913 Senior Seminar 3 Credit Hours

Prerequisite: grade of $C$ or better in 3113 and 3223 . Satisfies the capstone course requirement. The instructor will guide senior meteorology majors on a research project. Interdisciplinary topics will be encouraged and library work is required. Students will complete written and oral presentations of a senior thesis. $(\mathrm{F}, \mathrm{Sp})[\mathrm{V}]$.

METR 4922 Senior Seminar II (Capstone) 2 Credit Hours Prerequisite: Grade of $C$ or better in $3123,3223,4911$. with 4911 , satisfies the Capstone course requirement. The instructor will guide students as they follow the research plan established in the mini-proposal completed in METR 4911. Library work will continue to be required with development of research methodology and analysis of results. Students will continue to work with faculty (senior doctoral student) mentors. The culmination of the two-course Capstone sequence will be a written and oral presentation of the senior thesis. The skills learned in Capstone I and II will be useful whether the student is employed in academia, government, or the private sector. (F, Sp) [V].

## METR 4960 Directed Readings <br> 1-4 Credit Hours

1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean. May be repeated; maximum credit four hours. Designed for upper-division students who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)
METR 4970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: Senior standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

METR 5004 Fundamentals of Atmospheric Science 4 Credit Hours Prerequisite: graduate standing in a meteorology, physical science, or engineering program, MATH 3113 or MATH 3413 or permission of instructor. Provides a rigorous survey of the fundamental concepts in the atmospheric sciences relevant to weather, climate and atmospheric chemistry. The course is designed to provide sufficient background knowledge so that the students will be prepared to successfully undertake more specialized graduate coursework in meteorology. Graduate students in fields closely related to meteorology, such as radar engineering and hydrology, will also benefit from knowledge of these concepts. (F)
METR 5013 Science at the Tropopause: Physics, Dynamics, \& Chemistry of the Upper Troposphere/Lower Stratospher 3 Credit Hours (Slashlisted with METR 4013) Prerequisite: Graduate standing. A survey of the dynamics, physics, and chemistry of the UTLS. Topics will include basic characteristics of the UTLS definition of the tropopause, dynamical principals of and theory used for the UTLS, stratosphere-troposphere exchange, and common analysis techniques for UTLS studies. Will gradually increase focus on process-level understanding and review key dynamical and physical features/phenomena that impact the UTLS. No student may earn credit for both 4013 and 5013. (Sp)

## METR 5023 Polar Meteorology

3 Credit Hours
(Slashlisted with METR 4023) Prerequisite: graduate standing in a meteorology or related discipline; grade of C or better in MATH 3113 or MATH 3413, or permission by instructor. This course provides an introduction and overview to weather and climate of the Earth's polar regions. This includes the climatology, dynamics, and thermodynamics of Arctic and Antarctic atmospheres. Special topics of significance will include the polar boundary layer, sea ice, polar vortices, polar lows, and oceanic circulations. This course will develop and strengthen skills in teaching, research, and service. No student may earn credit for both 4023 and 5023. (Irreg.)

METR 5043 Urban Climatology
3 Credit Hours
(Slashlisted with METR 4043; Crosslisted with GEOG 5043) Prerequisite: Graduate standing or departmental permission. This course provides an overview of urban climates based on a synthesis of modern scientific and applied research findings. The course covers a broad spectrum of topics such as urban airflow, radiation exchanges, urban energy balance, urban heat island, urban surface hydrology, air pollution, cities under global climate change, biometeorology, and sustainable urban design and planning. No student may earn credit for both 4043 and 5043. (Sp)

## METR 5083 Developing Ethical and Responsible Al for Earth

Sciences
3 Credit Hours
(Slashlisted with METR 4083) Prerequisite: graduate standing; grade of C or better in C S 4013/5013 or C S 4033/5033 or C S 5043; or permission of instructor. Ethics of developing Artificial Intelligence (AI) for Earth and environmental sciences (ES). Topics will include responsible conduct of research, ethical scientific conduct, ownership of ideas, algorithms and data, and ethics of developing AI for ES applications. Learning activities include active discussions and debates, writing, and projects. No student may earn credit for both 4083 and 5083. (Sp)

## METR 5103 Boundary Layer Meteorology

3 Credit Hours
Prerequisite: 3113, Mathematics 3113. Transfer processes near the earth's surface, turbulence, the planetary boundary layer, air mass modification, fog formation, pollutant transport.

METR 4990 Special Problems in Meteorology 1-4 Credit Hours
1 to 4 hours. Prerequisite: permission of instructor. May be repeated with change of subject matter. $(\mathrm{F}, \mathrm{Sp}, \mathrm{Su})$

METR 5113 Advanced Atmospheric Dynamics I 3 Credit Hours
Prerequisite: Mathematics 4163 or permission of instructor. Basic fluid dynamics, equations of motion, vorticity dynamics, scale analysis, shallow water equations, linear wave dynamics, gravity waves, Rossby waves, quasi-geostrophic motions. (F)

## METR 5223 Atmospheric Radiation

3 Credit Hours
Prerequisite: 3213, Mathematics 3113, or permission of instructor. Theory of radiative transfer, spectra of gaseous molecules, use of band models for radiative calculations, interaction of solar radiation with atmospheres, infrared radiative transfer in atmospheres, radiative cooling and heating, scattering, climate and radiation, remote sensing. (Sp)
METR 5233 Cloud and Precipitation Physics
3 Credit Hours
Prerequisite: 3223, Mathematics 3113. Development of thermodynamical relationships and generalized Clausius-Clapeyron equation, phase diagrams, atmospheric aerosols, review of hydrodynamics of flow past particles, collision and coalescence efficiency, theory of nucleation, precipitation growth, observations with radar, electrical state of the atmosphere. (F)
METR 5243 Atmospheric Electrodynamics
3 Credit Hours
Prerequisite: permission of instructor. Global electrical circuit, fairweather electricity, storm electrification, charging mechanisms, electrical discharges, lightning, thunder, instrumentation and observing systems, meteorological applications.

## METR 5303 Objective Analysis

3 Credit Hours
Prerequisite: METR 4133, MATH 3113 or MATH 3413, or equivalent. Introduction to techniques used in objective analysis of meteorological data; polynomial fitting; method of successive corrections; weighting functions; statistical methods; optimum interpolation; filter design; fourdimensional data assimilation. (F)

## METR 5313 Statistical Meteorology

3 Credit Hours
(Slashlisted with METR 4313) Prerequisite: Graduate standing. The role of probability and statistics in meteorology and climate: decision making, sampling, graphical presentation of data, resampling techniques, autocorrelation, confidence intervals, statistical power, and various regression models. Computational aspects using meteorology and climate data will be emphasized. No student may earn credit for both 4313 and 5313. (F)
METR 5330 Information Technology Skills for Meteorology 1-3 Credit
(Slashlisted with 4330) Prerequisite: Grade of C or better in Computer Science 1313 or permission of instructor. May be repeated; maximum credit three hours. The use of computers and networks to process the information of meteorology. Workstation skills, computer operating systems, programming languages, the Internet, computer graphics, analysis and display of meteorological data. No student may earn credit for both 4330 and 5330. (Irreg.)
METR 5344 Computational Fluid Dynamics I 4 Credit Hours
Prerequisite: 3113 or Engineering 3223; Engineering 3723; Mathematics 3123; permission of instructor. Application of fine difference, spectral, and semi-Lagrangian methods to multidimensional Newtonian fluid flow problems, including well-posedness, consistency, stability, convergence, accuracy, boundary conditions, conservation, grid systems, and filtering. In addition, code development practices and the use of high-performance vector and parallel supercomputers will be addressed.

METR 5403 Applications of Meteorological Theory to SevereThunderstorm Forecasting

3 Credit Hours
(Slashlisted with METR 4403) Prerequisite: graduate standing and department permission. This course provides an opportunity to bridge the academia and operational forecasting realms and provide an opportunity for students to learn from experienced meteorologist-forecasters who have performed research on a variety of topics. No student may earn credit for both 4403 and 5403. (Sp)
METR 5413 Advanced Synoptic Meteorology
3 Credit Hours
Prerequisite: $4133,4424,5113$ or permission of instructor. Theory and application of quasi-geostrophic dynamics, Q-vectors and isentropic potential vorticity, diagnostic studies of mid-latitude synoptic-scale systems, mesoscale structure of precipitation, structure and dynamics of fronts and jets. (Sp)
METR 5433 Advanced Statistical Meteorology 3 Credit Hours Prerequisite: senior standing or graduate standing and permission of instructor. Data analysis is a routine part of many types of research in the atmospheric sciences. As such, having the right set of tools and prowess on how to use those tools is an important part to understanding the statistical and dynamical behavior of the climate system. (F,Sp)
METR 5443 Introduction to Tropical Meteorology 3 Credit Hours Prerequisite: graduate standing or permission of instructor. Introduces students to the weather and climate of the tropics. Material presented will include an overview of tropical weather, basic physics of air-sea interaction and the attendant effects on tropical weather. No student may earn credit for both 4443 and 5443. (Irreg.)

## METR 5503 Climate Dynamics

3 Credit Hours
Prerequisite: 5113 . Survey of past climates; climate variability; heat and water budgets of the atmosphere, oceans and land surfaces; the general circulation; climate modeling.
METR 5533 Earth's Past Climate
3 Credit Hours
(Slashlisted with METR 4533; Crosslisted with GEOL 5533) Prerequisite: senior or graduate standing, or permission of instructor. Explores earth's climate system, controls on climate change, and evolution of climate history through geologic time as deciphered from climate proxies. No student may earn credit for both 4533 and 5533. (F)

METR 5543 Global Climate Change
3 Credit Hours
(Slashlisted with METR 4543) Prerequisite: permission of instructor. The Intergovernmental Panel on Climate Change assesses the scientific and socio-economic information relevant for understanding the risk of human-induced climate change. This interdisciplinary class will use readings, student-led presentations and roundtable discussions of the in-situ observations, as well as modeling of the atmosphere, oceans, ice, carbon, clouds and radiative forcing to understand the next 100-years of climate change. No student may earn credit for both 4543 and 5543. (Sp)
METR 5553 Climate and Renewable Energy 3 Credit Hours
(Slashlisted with METR 4553) Prerequisite: Mathematics 1503. Examines the science and technical aspects of solar, wind, hydro, and biomass power systems. Targets students interested in environmental science. Emphasis is on the key role of climate in determining where each of these systems is most likely to provide feasible alternatives to energy generated by fossil fuels. No student may earn credit for both 4553 and 5553. (Sp)

## METR 5603 Advanced Observations for Lower Atmospheric

## Research

3 Credit Hours
(Slashlisted with METR 4603) Prerequisite: Graduate standing and METR 5004 or concurrent enrollment, or permission of instructor. This course will examine the observation and operation principles behind a variety of research-grade instruments and the data they provide. Taught as a mix of lectures, instrument demonstrations, and datafocused projects, material presented focuses on modern, state-of-theart instruments applied to current research problems emphasizing loweratmospheric observations. Students use Python for processing, analysis, and visualization of real observed datasets. No student may earn credit for both 4603 and 5603. (F)

## METR 5633 Hydrometeorology 3 Credit Hours

(Slashlisted with METR 4633) Prerequisite: graduate standing.
Hydrometeorology is part of meteorology directly concerned with
hydrologic problems, such as forecasting and observing heavy precipitation and floods and how such features impact flood control, hydroelectric power, irrigation and similar fields of engineering and water resource management. No student may earn credit for both 4633 and 5633. (Irreg.)

METR 5643 Quantitative Hydrometeorology 3 Credit Hours
(Crosslisted with CEES 5643) Prerequisite: Graduate standing or permission of instructor. Theory and concept of hydrometeorology and remote sensing, across atmospheric science and hydrology and across water science and engineering. An in-depth study of precipitation estimation from in-situ, radar, satellite, uncertainty modeling and decision making. Data analysis and computational methods for hydrometeorology. Special emphasis on probabilities/statistics and decision making. Basic level of scientific programming is helpful but not mandatory. (Irreg.)

METR 5663 Radar Engineering
3 Credit Hours
(Crosslisted with ECE 5663; Slashlisted with 4663) Prerequisite: grade of C or better in Electrical and Computer Engineering 3613, or permission. Introduction to radar system designs and applications with emphasis on weather radar. Radar system architecture and their functionalities and limitations of subsystems are discussed. Theories of radar detection and estimation in a noisy and cluttered environment; existing technologies and advanced techniques to improve radar performance. No student may earn credit in both 4663 and 5663. (F)
METR 5673 Weather Radar Theory and Practice 3 Credit Hours (Crosslisted with ECE 5673) Prerequisite: grade of $C$ or better in Mathematics 3113 and Physics 2524 or permission. This course provides an introduction to electromagnetic waves and propagation through the atmosphere, radar design trade-offs, antennas, transmitters, and coherent receivers. Analysis of radar signals as noise-corrupted stochastic processes, with emphasis on digital signal processing for Doppler spectrum and moment estimation. Implementation of processing algorithms using actual Doppler radar data. (F)

METR 5683 Weather Radar Applications 3 Credit Hours (Crosslisted with ECE 5683) Prerequisite: Graduate standing in Meteorology or Engineering, or permission of instructor. Interpretation of meteorological structures using weather radar. Introduces scatter from hydrometeors and refractive index variations. Presentation of quantitative precipitation estimation methods based on the radar reflectivity factor, attenuation, and dual-polarization observations. Also includes the fundamental concepts of clear-air echoes and the estimation of winds under non-precipitation conditions. (Sp)

METR 5693 Environmental Sampling Methods 3 Credit Hours
(Slashlisted with METR 4693; Crosslisted with METR and PBIO 5693) Prerequisite: Graduate standing and permission of instructor. The course gives students from diverse STEM backgrounds experience and knowledge of environmental sampling techniques, analysis of data generated, and interpretation of results in a scientific field outside their primary area of study. The multi-disciplinary structure helps students develop an understanding of different sampling techniques based on assumptions and perspectives on the environment at different spatial scales. No student may earn credit for both 4693 and 5693.

## METR 5713 Private Sector Meteorology

3 Credit Hours
Prerequisite: graduate standing in Meteorology. An overview of private sector meteorology in the United States. Designed to build background knowledge, foster the use of higher-order analytical skills, and further develop communication and presentation skills. The course includes lectures, directed readings, visiting local private sector companies, interviews with practicing meteorologists, and the development of a portfolio about a private sector meteorological company. Students gain experience in applying their meteorological knowledge to a practical problem as might be encountered in professional practice. No student may earn credit for both 4713 and 5713. (Irreg.)

METR 5733 Hydroclimatology
3 Credit Hours
(Crosslisted with CEES 5733) Prerequisite: Graduate standing or permission of instructor. Theory and concept of hydroclimatology across atmospheric science and hydrology. An in-depth study of the local to global climate of precipitation with specific foci on drought, pluvials, and how they vary in a changing climate system. Data analysis and computational methods for hydroclimatology. Basic level of scientific programming is helpful but not mandatory. (Su)
METR 5743 Forecast Evaluation and Decision Analysis 3 Credit Hours Prerequisite: Graduate Standing or Permission of Instructor. The course is an overview of techniques and application for the evaluation of forecasts and classification problems in meteorology and other fields. It also includes basics in the analysis of decisions which relate to the value of forecasts, including models of decision making, and complexity of human decision processes. (Irreg.)
METR 5753 Forecast and Warning Communication 3 Credit Hours (Slashlisted with METR 4753) Prerequisite: Graduate standing. This course explores the fundamental theories related to the communication of weather and climate information. We will explore effective risk communication, including characteristics of the forecast, the audience, and the message that most effectively convey the information to multiple audiences. Guest speakers will share their expertise so students see the range of jobs that exist in the weather/climate information sphere. No student may earn credit for both 4753 and 5753. (Irreg.)
METR 5803 Topics in Applied Meteorology
3 Credit Hours
Prerequisite: permission of instructor. May be repeated with change of subject matter; maximum credit 12 hours. Application of meteorological concepts and information to current environmental and meteorological problems on any scale.
METR 5960 Directed Readings
1-3 Credit Hours 1 to 3 hours. Prerequisite: graduate standing and permission of department. May be repeated; maximum credit twelve hours. Directed readings and/or literature reviews under the direction of a faculty member. (F, Sp, Su)

METR 5970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses.
May include library and/or laboratory research and field projects. (Irreg.)
METR 5980 Research for Master's Thesis 2-9 Credit Hours Variable enrollment, two to nine hours; maximum credit applicable toward degree, four hours. (F, Sp, Su)

METR 5990 Independent Study
1-4 Credit Hours
1 to 4 hours. Prerequisite: graduate standing, permission of instructor. May be repeated with change of subject matter; maximum credit eight hours for master's degree students. Individual research problems in meteorology, climatology, hydrometeorology, and other areas of the atmospheric and earth sciences. (Irreg.)
METR 6103 Turbulence
3 Credit Hours
Prerequisite: Graduate standing and METR 5103 or METR 5113, or permission of instructor. Introduction to the evolution, structure, and effects of turbulent flow. Students will learn to use a variety of theoretical and practical tools of discovery and analysis. (Sp)
METR 6223 Convective Clouds and Storms
3 Credit Hours
Prerequisite: 5113 or equivalent. Anelastic and Boussinesq equations;
Benard convection; plume models; parameterization of cloud microphysics; three-dimensional models; Doppler radar analysis; observations of severe thunderstorms and tornadoes. (Irreg.)
METR 6313 Advanced Data Assimilation Methods: Ensemble Kalman Filter Techniques and Applications

3 Credit Hours
Prerequisite: graduate standing or permission of instructor. Introduction to ensemble Kalman data assimilation techniques (EnKF). Students learn the most popular EnKF techniques through lectures and hands-on project assignments, and also develop skill in scientific thinking and synthesis, written and oral communication and programming throughout the course. (Irreg.)
METR 6413 Topics in Advanced Mesoscale Meteorology 3 Credit Hours Prerequisite: 5113. Research topics in the areas of cyclogenesis, frontogenesis and mesoscale systems. Topics include "IPV thinking" and its application to cyclogenesis; trapped gravity currents and Kelvin waves; the dryline; rainbands in extratropical cyclones; air-sea instability; topographically induced eddies; generalization of the frontogenetical function.

METR 6613 Weather Radar Polarimetry
3 Credit Hours
(Crosslisted with ECE 6613) Prerequisite: graduate standing. Provides fundamentals and principles of weather radar polarimetry through understanding wave scattering and propagation in geophysical media subject to turbulent mixing and filled with hydrometeors and other objects. The relations between polarimetric radar observables and physical parameters will be established. The methods and algorithms for retrieving cloud and precipitation microphysics for weather quantification and forecast will be introduced. (F)
METR 6960 Directed Readings
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit six hours. Directed readings and/or literature review under the direction of a faculty member. (Irreg.)

## METR 6970 Seminar

1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing and permission. May be repeated with change of subject matter; maximum credit four hours for master's degree, or 10 hours for doctor's degree. (F, Sp)

METR 6980 Research for Doctoral Dissertation 2-16 Credit Hours 2 to 16 hours. Prerequisite: Graduate standing and permission of instructor; may be repeated. Directed research culminating in the completion of the doctoral dissertation. (F, Sp, Su)
METR 6990 Special Problems
1-4 Credit Hours
1 to 4 hours. Prerequisite: graduate standing, permission of instructor. May be repeated with change of subject matter; maximum credit 12 hours for doctoral students. Individual research problems in meteorology and related areas conducted under faculty supervision. (F, Sp, Su)

## Faculty

| Last Name | First/Middle Name | Middle init. | OU <br> Service start | Title(s), date(s) appointed | Degrees Earned, Schools, Dates Completed |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Basara | Jeffrey | B | 2001 | CIMMS FELLOW, <br> 2007; ASSOCIATE <br> PROFESSOR OF <br> METEOROLOGY, <br> 2012; 2018; <br> ASSOCIATE <br> PROFESSOR OF CIVIL <br> ENGINEERNG AND <br> ENVIRONMENTAL <br> SCIENCE, EXECUTIVE <br> ASSOCIATE <br> DIRECTOR, <br> HYDROLOGY AND <br> WATER SECURITY <br> PROGRAM, 2019, <br> DIRECTOR, KESSLER <br> ATMOSPHERIC AND <br> ECOLOGICAL FIELD <br> STATION, 2019 | PhD, Univ of Oklahoma, 2001; MS, Univ of Oklahoma, 1998; BA, Purdue Univ, 1994 |
| Biggerstaff | Michael | I | 2002 | CIMMS FELLOW, 2002; PROFESSOR OF METEOROLOGY, 2015 | PhD, Univ of Washington, 1991; BS, Univ of Texas, 1984 |
| Bluestein | Howard | B | 1976 | CIMMS FELLOW, 1983; SAMUEL ROBERTS NOBLE PRESIDENTIAL PROFESSOR, 2001; GEORGE LYNN CROSS RESEARCH PROFESSOR OF METEOROLOGY, 2004 | PhD, Mass Inst of Tech, 1976; MS, Mass Inst of Tech, 1972; BS, Mass Inst of Tech, 1971 |
| Cavallo | Steven |  | 2011 | CIMMS FELLOW, 2012; ASSOCIATE PROFESSOR OF METEOROLOGY, 2017 | PhD, Univ of Washington, 2009; MS, Univ of Washington, 2006; BS, Florida State Univ, 2003 |
| Chilson | Phillip | B | 2004 | CIMMS FELLOW, 2007; PROFESSOR OF METEOROLOGY, 2011; DIRECTOR, CENTER FOR AUTONOMOUS SENSING AND SAMPLING; 2017 | PhD, Clemson Univ, 1993; MS, Univ of Florida, 1990; BS, Clemson Univ, 1985 |


| Droegemeier | Kelvin | K | 1985 | PROFESSOR OF METEOROLOGY, 1998; REGENTS' PROFESSOR, 2001; CIMMS FELLOW, 1986; DIRECTOR, CENTER FOR ANALYSIS AND PREDICTION | Ph.D., Univ of Illinois, 1985; M.S., Univ of Illinois, 1982; B.S., Univ of Oklahoma, 1980 | Martin | Elinor | R | 2014 | ASSISTANT <br> PROFESSOR OF <br> METEOROLOGY, <br> 2014; CIMMS <br> FELLOW, 2015, <br> ASSOCIATE <br> DIRECTOR, <br> UNDERGRADUATE <br> PROGRAMS, 2019 | PhD, Texas A\&M Univ, 2011; MS, Colorado State Univ, 2007; BSc, Univ of Reading, 2005 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | OF STORMS, 1994; DIRECTOR, ENVIRONMENTAL COMPUTING |  | McFarquhar | Gregory |  | 2017 | PROFESSOR OF METEOROLOGY, 2017 | PhD, Univ of Toronto, 1993; MS, Univ of Toronto, 1989; BS, Univ of Toronto, 1987 |
|  |  |  |  | APPLICATIONS SYSTEM, 1996; <br> OU ASSOCIATES <br> PRESIDENTIAL <br> PROFESSOR, <br> 1998; ROGER AND <br> SHERRY TEIGEN <br> PRESIDENTIAL <br> PROFESSOR, 2004; <br> WEATHERNEWS |  | Moore | Berrien |  | 2010 | PROFESSOR OF <br> METEOROLOGY, <br> 2010; CHESAPEAKE <br> ENERGY <br> CORPORATION <br> CHAIR IN CLIMATE <br> STUDIES, 2010; <br> CIMMS FELLOW, $2010$ | PhD, Univ of Virginia, 1969; BS, Univ of North Carolina, 1963 |
|  |  |  |  | CHAIR IN APPLIED METEOROLOGY, 2005; DIRECTOR, SASAKI INSTITUTE, 2005; VICE PRESIDENT FOR RESEARCH, 2009. |  | Palmer | Robert | D | 2003 | PROFESSOR OF METEOROLOGY, 2004; TOMMY C. CRAIGHEAD CHAIR OF METEOROLOGY, 2007; CIMMS FELLOW, 2007 | PhD, Univ of Oklahoma, 1989; MS, Univ of Oklahoma, 1986; BS, Univ of Oklahoma, 1984 |
| Fedorovich | Evgeni |  | 1999 | PROFESSOR OF METEOROLOGY, 2004; EDITH KINNEY GAYLORD PRESIDENTIAL PROFESSOR, 2012; | PhD, Leningrad State Univ, 1986; MS, Leningrad State Univ, 1979 | Parsons | David | B | 2010 | MARK AND KANDI MCCASLAND CHAIR EMERITUS, 2018; PRESIDENT'S ASSOCIATES PRESIDENTIAL PROFESSOR, 2018; | PhD, Washington <br> Univ, 1982; BS, <br> Rutgers Univ, 1976 |
| Furtado | Jason | C | 2015 | ASSISTANT <br> PROFESSOR OF <br> METEOROLOGY, 2015 | PhD, Georgia Inst of Tech, 2010; MS, Colorado State Univ, 2005; BS, Lyndon State College, 2002 |  |  |  |  | PROFESSOR OF METEOROLOGY, 2010; CIMMS FELLOW, 2010 |  |
| Homeyer | Cameron | R | 2014 | ASSISTANT <br> PROFESSOR OF <br> METEOROLOGY, <br> 2014, CHESAPEAKE <br> ENERGY PROFESSOR <br> OF CLIMATE <br> SYSTEMS SCIENCE | PhD, Texas A\&M Univ, 2012; MS, Texas A\&M Univ, 2010; BS, Texas A\&M Univ, 2008 | Redemann | Jensen |  | 2018 | PROFESSOR OF METEOROLOGY, 2018; KANDI AND MARK MCCASLAND CHAIR IN METEOROLOGY, 2018 | PhD, Univ of California Los Angeles, 1999; MS, Univ of California Los Angeles, 1997; MS, Freie Universitat, 1995 |
|  |  |  |  | 2019, ASSOCIATE <br> DIRECTOR, <br> GRADUATE <br> PROGRAMS, 2019 |  | Richman | Michael | B | 1991 | CIMMS FELLOW, 1996; EDITH KINNEY GAYLORD PRESIDENTIAL PROFESSOR 2005; | PhD, Univ of Illinois, 1994; MS, Univ of Illinois, 1980; BA, SUNY at Plattsburgh |
| Kirstetter | Pierre |  | 2018 | ASSOCIATE <br> PROFESSOR, SCHOOL OF <br> METEOROLOGY <br> 2018, ASSOCIATE <br> PROFESSOR CIVIL <br> ENGINEERING AND | PhD. Grenoble Alps Univ, 2009; MSEnvironmental Sciences, Grenoble Alps Univ, 2005; M. Engr-Civil and Environmental |  |  |  |  | PROFESSOR OF METEOROLOGY, 2006; ADJUNCT PROFESSOR OF LIBERAL STUDIES, 2009 |  |
|  |  |  |  | ENVIRONMENTAL SCIENCE, 2018 | Science, Grenoble <br> Institute of Technology, 2004 | Sakaeda | Naoko |  | 2017 | ASSISTANT <br> PROFESSOR OF METEOROLOGY, 2017 | B.S. Atmospheric Sciences, Univ of Washington 2009, |
| Klein | Petra | M | 2001 | CIMMS FELLOW, 2002; EDITH | PhD, Univ of Karlsruhe, 1999; |  |  |  |  |  |  |
|  |  |  |  | KINNEY GAYLORD PRESIDENTIAL PROFESSOR, 2009; PROFESSOR OF METEOROLOGY, 2016 | Diploma, Univ of Karlsruhe, 1993 | Salesky | Scott | T | 2017 | ASSISTANT PROFESSOR OF METEOROLOGY, 2017 | PhD, Pennsylvania <br> State Univ, 2014; MS, <br> Pennsylvania State <br> Univ, 2010; BS, Martin <br> Luther College, 2008 |


| Wang | Xuguang | 2008 | CIMMS FELLOW, 2009; PRESIDENTIAL RESEARCH PROFESSOR, 2014; ASSOCIATE PROFESSOR OF METEOROLOGY, 2014, PROFESSOR 2019, ROBERT LOWRY CHAIR PROFESSOR, AND PRESIDENTIAL RESEARCH PROFESSOR 2019 | PhD, Penn State Univ, 2004; BS, Peking Univ, 1998 |
| :---: | :---: | :---: | :---: | :---: |
| Xu | Feng | 2019 | ASSOCIATE <br> PROFESSOR, 2019 | PhD.-Physics, Univ of Rowen, 2008; M. Engr, Univ of Shanghai for Science and Technology, 2004; B. Engr, Univ of Shanghai for Science and Technology, 2002 |
| Xue | Ming | 1989 | CIMMS FELLOW, <br> 2007; GEORGE <br> LYNN RESEARCH <br> PROFESSOR OF <br> METEOROLOGY, <br> 2018; <br> WEATHERNEWS <br> CHAIR IN APPLIED <br> METEOROLOGY, 2010 | PhD, Univ of Reading, 1989; BS, Nanjing Univ, 1984 |
| Zhang | Guifu | 2005 | CIMMS FELLOW, <br> 2007; PROFESSOR <br> OF METEOROLOGY, <br> 2012; ADJUNCT <br> PROFESSOR <br> OF ELECTRICAL <br> AND COMPUTER <br> ENGINEERING, 2014 | PhD, Univ of <br> Washington, 1998; <br> MS, Wuhan Univ, <br> 1985; BS, Anhui Univ, <br> 1982 |

## Meteorology, B.S.

Minimum Total Credit Hours: 120-123
Minimum Upper-Division Hours: 52
Overall GPA - Combined and OU: 2.25
Major GPA - Combined and OU: 2.25
Program Code: B685
Major Requirements

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Core (48 hours, | 15 courses) | 3 |
| METR 1003 | Introduction to the Atmospheric Sciences | 4 |
| METR 2004 | Atmospheric Circulations | 3 |
| METR 2213 | Physical Meteorology I:Thermodynamics | 3 |
| METR 2613 | Atmospheric In-Situ \& Surface-Based <br> Measurements | 3 |
| METR 3113 | Atmospheric Dynamics I: Intro to <br> Atmospheric Kinematics/Dynamics | 3 |
| METR 3123 | Atmospheric Dynamics II: Theory of |  |
| METR 3223 | Atmospheric Flows | Physical Meteorology II: Cloud Physics, <br> Atmos Electricity/Optics |


| METR 3334 | Principles of Research \& Communication in Meteorology | 4 |
| :---: | :---: | :---: |
| METR 3513 | Atmospheric Chemistry in Weather and Climate | 3 |
| METR 4133 | Atmospheric Dynamics III: Mid-Latitude Synoptic-Scale Dynamics | 3 |
| METR 4233 | Physical Meteorology III: Radiation and Remote Sensing | 3 |
| METR 4424 | Synoptic Meteorology Laboratory | 4 |
| METR 4433 | Mesoscale Meteorology | 3 |
| METR 4523 | Climate and the General Circulation | 3 |
| METR 4913 | Senior Seminar (Capstone) | 3 |
| Major Elective (3 hours) |  |  |
| Choose one Meteorology, Hydrology or Climatology upperdivision elective (p. 843) <br> Total Credit Hours |  | 3 |
|  |  | 51 |

## Major Support Requirements

- Courses required for major support may not also fulfill UniversityWide General Education Requirements.

| Code | Title | Credit |
| :---: | :---: | :---: |
| Math and Physics |  |  |
| MATH 2934 or MATH 2443 | Differential and Integral Calculus III Calculus and Analytic Geometry IV | 3-4 |
| PHYS 1311 | General Physics Lab I | 1 |
| MATH 3413 | Physical Mathematics I | 3 |
| METR 3323 or MATH 4753 | Applied Statistical Methods | 3 |
| Programming Elective |  |  |
| Choose one course | e from the following: | 1-4 |
| METR 1313 | Introduction to Programming for Meteorology |  |
| C S 1321 | Java for Programmers |  |
| C S 1323 | Introduction to Computer Programming for Programmers |  |
| C S 1324 | Introduction to Computer Programming for Non-Programmers |  |
| Total Credit Hours |  | 11-15 |

## General Education and College Requirements

Courses for fulfillment of General Education and college requirements must be from the approved General Education course list at http:// www.ou.edu/content/gened/courses.html. Courses graded P/NP will not apply

## UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS

At least three hours of Upper-Division General Education coursework must be completed outside the major.

| Code | Title |
| :--- | :--- |
|  | Credit |
|  | Hours |

Core Area I: Symbolic and Oral Communication
English Composition (6 hours)

| ENGL 1113 Principles of English Composition | 3 |
| :---: | :---: |
| ENGL 1213 Principles of English Composition or EXPO 1213 Expository Writing | 3 |
| Language (0-10 hours) |  |
| (0-10 hours in the same language) Students who have not completed two years of the same language in high school are required to take two college courses in the same language |  |
| Beginning Course | 0-5 |
| Beginning Course, continued | 0-5 |
| Mathematics (minimum 3 hours) |  |
| MATH 1914 Differential and Integral Calculus I ${ }^{1}$ | 4 |
| Core Area II: Natural Science (minimum 7 hours, 2 courses) |  |
| CHEM 1315 General Chemistry (Science with Lab) ${ }^{1}$ | 5 |
| $\begin{array}{ll}\text { PHYS } 2514 & \text { General Physics for Engineering and } \\ & \text { Science Majors (Science without Lab) }{ }^{1}\end{array}$ | 4 |
| Core Area III: Social Science (6 hours) |  |
| P SC 1113 American Federal Government | 3 |
| Choose one course from the General Education Social Science list | 3 |
| Core Area IV: Arts and Humanities |  |
| Artistic Forms (3 hours) |  |
| Choose one course from the General Education Artistic Forms list. | 3 |
| Western Culture (6 hours) |  |
| HIST 1483 United States to 1865 <br> or HIST 1493 United States, 1865 to the Present | 3 |
| Choose one course from the General Education Western Culture list (Excluding HIST 1483 and HIST 1493) | 3 |
| World Culture (3 hours) |  |
| Choose one course from the General Education World Culture list | 3 |
| Core Area V: First Year Experience (3 hours) |  |
| Choose one course | 3 |
| Total Credit Hours | 40-50 |

ADDITIONAL COLLEGE REQUIREMENTS FOR B.S.

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| MATH 2924 | Differential and Integral Calculus II ${ }^{1}$ | 4 |
| PHYS 2524 | General Physics for Engineering and <br> Science Majors | 4 |
| Tours | 8 |  |

${ }^{1}$ MATH 1823, MATH 2423, and MATH 2433 will also fulfill the college's calculus requirement.

## Free Electives

Electives to bring total applicable hours to the minimum total required for the degree including 52 upper-division hours. These electives may be used to fulfill the requirements for a minor, if desired, but must include at least nine hours of upper- division coursework.

## Information Concerning General Rules, Regulations and Minimum Requirements for Undergraduate Degrees

Total Hours: A minimum of 120 semester hours acceptable toward graduation must be completed.
Upper-Division Hours: A minimum of 40 upper- division semester hours acceptable toward graduation must be completed. OU courses numbered 3000 or above are upper- division. Transfer work is counted as lowerdivision or upper-division credit depending on the level at which it was offered at the institution where it was earned. Two-year college work is accepted only as lower-division credit.
Senior Institution Hours: A minimum of 60 semester hours applied toward graduation must be earned at senior (4-year) institutions.

## Residency:

- A minimum of two semesters must be spent in residence in the College of Atmospheric and Geographic Sciences.
- At least 36 of the last 48 hours must be completed in residence at OU.

Individual Studies: No more than six hours of independent study or directed readings may be applied toward degree requirements.
Grade Point Averages: Students must earn a minimum overall 2.25 for each of the following: Combined Retention GPA (all college grades), OU Retention GPA, GPA for all major courses, and GPA for all major courses taken at OU.

## Suggested Semester Plan of Study

This plan shows one possible grouping of courses that would allow students to graduate in four years. Please refer to the front of the degree checksheet for official requirements. Students must consult with College of Atmospheric and Geographic Sciences and/or School of Meteorology academic advisers to verify that courses selected each semester fulfill the recommended plan and satisfy university, College of Atmospheric \& Geographic Sciences, and Meteorology major requirements.

## Freshman

| First Semester |  | Credit |
| :---: | :---: | :---: |
|  |  | Hours |
| METR 1003 | Introduction to the Atmospheric Sciences ${ }^{1}$ | 3 |
| ENGL 1113 | Principles of English Composition (Core I) | 3 |
| MATH 1914 | Differential and Integral Calculus I (Core I) ${ }^{1}$ | 4 |
| CHEM 1315 | General Chemistry (Core II) | 5 |
|  | Credit Hours | 15 |
| Second Semester |  |  |
| MATH 2924 | Differential and Integral Calculus II (Core I) 1 | 4 |
| PHYS 1311 | General Physics Lab I ${ }^{1}$ | 1 |
| PHYS 2514 | General Physics for Engineering and Science Majors (Core II) ${ }^{1}$ | 4 |
| METR 1313 | Introduction to Programming for Meteorology (or other programming elective from list in major support) ${ }^{1}$ | 3 |
| First Year Experience (Core V) |  | 3 |
|  | Credit Hours | 15 |


| Sophomore |  |  |
| :---: | :---: | :---: |
| First Semester |  |  |
| $\begin{aligned} & \text { ENGL } 1213 \\ & \text { or EXPO } 1213 \end{aligned}$ | Principles of English Composition (Core I) or Expository Writing | 3 |
| METR 2004 | Atmospheric Circulations ${ }^{1}$ | 4 |
| MATH 2934 | Differential and Integral Calculus III ${ }^{1}$ | 4 |
| PHYS 2524 | General Physics for Engineering and Science Majors ${ }^{1}$ | 4 |
|  | Credit Hours | 15 |
| Second Semester |  |  |
| METR 2213 | Physical Meteorology I:Thermodynamics ${ }^{1}$ | 3 |
| METR 2613 | Atmospheric In-Situ \& Surface-Based Measurements ${ }^{1}$ | 3 |
| HIST 1483 <br> or HIST 1493 | United States to 1865 (Core IV) or United States, 1865 to the Present | 3 |
| P SC 1113 | American Federal Government (Core III) | 3 |
| General Education Western Culture (Core IV) ${ }^{2}$ |  | 3 |
|  | Credit Hours | 15 |
| Junior |  |  |
| First Semester |  |  |
| METR 3113 | Atmospheric Dynamics I: Intro to Atmospheric Kinematics/Dynamics ${ }^{1}$ | 3 |
| METR 3513 | Atmospheric Chemistry in Weather and Climate ${ }^{1}$ | 3 |
| METR 3323 or MATH 4753 | 1 or Applied Statistical Methods | 3 |
| MATH 3413 | Physical Mathematics $I^{1}$ | 3 |
| General Education Artistic Forms (Core IV) ${ }^{2}$ |  | 3 |
|  | Credit Hours | 15 |
| Second Semester |  |  |
| METR 3123 | Atmospheric Dynamics II: Theory of Atmospheric Flows ${ }^{1}$ | 3 |
| METR 3223 | Physical Meteorology II: Cloud Physics, Atmos Electricity/Optics ${ }^{1}$ | 3 |
| METR 3334 | Principles of Research \& Communication in Meteorology ${ }^{1}$ | 4 |
| General Education World Culture (Core IV) ${ }^{2}$ |  | 3 |
| General Education Social Sciences (Core III) ${ }^{2}$ |  | 3 |
|  | Credit Hours | 16 |
| Senior |  |  |
| First Semester |  |  |
| METR 4913 | Senior Seminar | 3 |
| METR 4133 | Atmospheric Dynamics III: Mid-Latitude Synoptic-Scale Dynamics ${ }^{1}$ | 3 |
| METR 4233 | Physical Meteorology III: Radiation and Remote Sensing ${ }^{1}$ | 3 |
| METR 4424 | Synoptic Meteorology Laboratory ${ }^{1}$ | 4 |
| Upper Division Free Elective |  | 3 |
|  | Credit Hours | 16 |
| Second Semester |  |  |
| METR 4433 | Mesoscale Meteorology | 3 |
| METR 4523 | Climate and the General Circulation ${ }^{1}$ | 3 |
| Meteorology, Hyd Elective | rology or Climatology Upper-Division | 3 |


| Upper Division Free Elective | 3 |
| :--- | ---: |
| Upper Division Free Elective | 15 |
| Credit Hours | 122 |
| Total Credit Hours |  |
| Students must attain a grade of C or better in all MATH, PHYS, CHEM, |  |
| and C S, and in METR courses that are direct prerequisites for other |  |
| METR courses. |  |
| 2To be chosen from the University-Wide General Education Approved <br> Course List for Core III (Social Science) and Core IV (Humanities). At <br> least three hours must be upper-division outside the major. |  |
| - Students who have not completed two years of the same language <br> in high school are required to take two college courses in the same |  |
| language. This additional coursework may add 6-10 hours to the |  |
| minimum hours required for graduation. |  |

## Computer Science Area of Concentration

The School of Meteorology has joined with the School of Computer Science in the College of Engineering to provide an Area of Concentration within the meteorology curriculum for students interested in further developing their skills in the use of computers in science, engineering, and business. Additional information is available from your faculty advisor.

## Minor in Broadcast Meteorology

The College of Journalism and Mass Communication offers a minor in Broadcast Meteorology for meteorology majors interested in careers in broadcast media. Seventeen hours in communication and journalism courses are required. Additional information is available from your faculty advisor.

## Additional Minors

Minors in Mathematics, Business, Chemistry, Computer Science, Environmental Science, Geography, Geology, Hydrologic Science, Interdisciplinary Perspectives on the Environment, and Physics

Minors in mathematics, business, chemistry, computer science, environmental science, geography, geology, hydrologic science, interdisciplinary perspectives on the environment, and physics are available and students are encouraged to consider one or more of these minors. Students may obtain a minor in mathematics by taking one additional 4000+ MATH course in addition to those required in the curriculum.

Additional information is available from your faculty advisor or from the Atmospheric and Geographic Sciences Dean's Office, National Weather Center, Room 3630.

## Meteorology Upper Division Major Elective Course List

The following courses are approved for use as the Meteorology/ Hydrology/Climatology Upper Division Major Elective. Please consult the School of Meteorology for the most current list.

| Code | Title | Credit <br> Hours |
| :---: | :---: | :---: |
| METR 3440 | Mentored Research Experience | 3 |
| METR 3523 | Managing for a Changing Climate | 3 |
| METR 3890 | Meteorology Internship (with approval from the School) | 1-3 |
| METR 4323 | Weather Simulation With Computers | 3 |
| METR 4330 | Information Technology Skills for Meteorology | 1-3 |
| METR 4403 | Application of Meteorological Theory to Severe-Thunderstorm Forecasting | 3 |
| METR 4443 | Introduction to Tropical Meteorology | 3 |
| METR 4533 | Earth's Past Climate | 3 |
| METR 4543 | Global Climate Change | 3 |
| METR 4553 | Climate and Renewable Energy | 3 |
| METR 4603 | Advanced Observations for Lower Atmospheric Research | 3 |
| METR 4633 | Hydrometeorology | 3 |
| METR 4663 | Radar Engineering | 3 |
| METR 4693 | Environmental Sampling Methods | 3 |
| METR 4713 | Private Sector Meteorology | 3 |
| METR 4743 | Applications of Weather Forecasting | 3 |
| METR 4970 | Special Topics/Seminar | 1-3 |
| GEOG 3443 | Environment and Society | 3 |
| GEOG 3523 | Managing for a Changing Climate | 3 |
| GEOG 4273 | Regional Climatology | 3 |
| GEOG 4293 | Hydrologic Science | 3 |
| GEOG 4343 | Climate, History, and Society | 3 |
| GEOG 4513 | Real-world Applications of Climate and Weather Information | 3 |
| GEOG 4943 | Natural Hazards | 3 |
| GEOL 3633 | Introduction to Oceanography | 3 |
| IAS 3920 | Journey to Italy (Topic: Climate Change in Italy: Wine, Art, \& Tourism) | 1-6 |
| IAS 3653 | Energy, Climate, and Security | 3 |
| ENST 3503 | Energy Use, Climate Change, and the Environment | 3 |
| CEES 3213 | Water Resources Engineering | 3 |

## Meteorology, Minor

Minimum Total Credit Hours: 16
Minimum Upper-Division Hours: 9

## Program Code: N685

- The requirements for a minor must be completed concurrently with the major degree requirements.
- No minor may be added by completing courses after receiving the bachelor's degree.


## This minor is not available to Meteorology majors.

A minor in Meteorology requires a minimum of 16 hours of courses acceptable for major credit in Meteorology, to include at least 9 hours at the upper division level.

Students must adhere to the course prerequisite policy as set by the School of Meteorology

## Required Courses

A minimum 2.25 GPA is required in all work presented for minor credit.

| Code | Title | Credit <br> Hours |
| :--- | ---: | ---: |
| METR 1003 | Introduction to the Atmospheric Sciences | 3 |
| METR 2004 | Atmospheric Circulations | 4 |
| Choose 9 hours of upper division Meteorology courses | 9 |  |
| Total Credit Hours | $\mathbf{1 6}$ |  |
| - The successful completion of a minor will be entered on the student's |  |  |
| permanent record at the time the degree is recorded. |  |  |
| Weather and Climate, Minor |  |  |

## Minimum Total Credit Hours: 15

Minimum Upper-Division Hours: 9

Program Code: N869

- The requirements for a minor must be completed concurrently with the major degree requirements.
- No minor may be added by completing courses after receiving the bachelor's degree.


## This minor is not available to Geography or Meteorology Majors.

A minor in Weather and Climate requires a minimum of 15 hours of courses acceptable for major credit in Geography and Meteorology, to include at least 9 hours at the upper division level.

## Required Courses

A minimum 2.00 GPA is required in all work presented for minor credit.

| Code | Title |  |
| :---: | :---: | :---: |
| Choose a minimum of 6 hours from the following: |  | 6 |
| METR 1014 | Introduction to Weather and Climate ${ }^{1}$ |  |
| METR 2013 <br> \& METR 2011 | Introduction to Meteorology I and Introduction to Meteorology I Laboratory ${ }^{1}$ |  |
| METR 2023 <br> \& METR 2021 | Introduction to Meteorology II and Introduction to Meteorology II Laboratory |  |
| METR 2603 | Severe and Unusual Weather ${ }^{2}$ |  |
| Choose 9 hours from the following: |  | 9 |
| GEOG 3023 | Principles of Physical Geography |  |
| GEOG 3253 | Environmental Conservation ${ }^{3}$ |  |
| GEOG 4273 | Regional Climatology ${ }^{2}$ |  |
| GEOG 4293 | Hydrologic Science |  |
| GEOG 4343 | Climate, History, and Society |  |

Total Credit Hours
1 Also fulfills a General Education Natural Science with Lab requirement.
${ }^{2}$ Also fulfills a General Education Natural Science without Lab requirement.

3 Also fulfills a General Education Social Science requirement.

- The successful completion of a minor will be entered on the student's permanent record at the time the degree is recorded.


## Meteorology, B.S./M.B.A.

Minimum Total Credit Hours: 156-159
Minimum Upper-Division Hours: 52

Overall GPA - Combined and OU: 3.00
Major GPA - Combined and OU: 3.00
Program Code: A685/F140-Q449

## Undergraduate Major Requirements

| Code | Title | Credit Hours |
| :---: | :---: | :---: |
| Core (48 hours, 15 courses) |  |  |
| METR 1003 | Introduction to the Atmospheric Sciences | 3 |
| METR 2004 | Atmospheric Circulations | 4 |
| METR 2213 | Physical Meteorology I:Thermodynamics | 3 |
| METR 2613 | Atmospheric In-Situ \& Surface-Based Measurements | 3 |
| METR 3113 | Atmospheric Dynamics I: Intro to Atmospheric Kinematics/Dynamics | 3 |
| METR 3123 | Atmospheric Dynamics II: Theory of Atmospheric Flows | 3 |
| METR 3223 | Physical Meteorology II: Cloud Physics, Atmos Electricity/Optics | 3 |
| METR 3334 | Principles of Research \& Communication in Meteorology | 4 |
| METR 3513 | Atmospheric Chemistry in Weather and Climate | 3 |
| METR 4133 | Atmospheric Dynamics III: Mid-Latitude Synoptic-Scale Dynamics | 3 |
| METR 4233 | Physical Meteorology III: Radiation and Remote Sensing | 3 |
| METR 4424 | Synoptic Meteorology Laboratory | 4 |
| METR 4433 | Mesoscale Meteorology | 3 |
| METR 4523 | Climate and the General Circulation | 3 |
| METR 4913 | Senior Seminar (Capstone) | 3 |
| Major Elective (3 hours) |  |  |
| Choose one Meteorology, Hydrology or Climatology upperdivision elective (p. 843) |  | 3 |
| Total Credit |  | 51 |

## Undergraduate Major Support Requirements

- Courses required for major support may not also fulfill UniversityWide General Education Requirements.

| Code | Title | Credit <br> Hours |
| :--- | ---: | :--- |
| Math and Physics | Differential and Integral Calculus III | $3-4$ |
| MATH 2934 |  |  |
| or MATH 2443 | Calculus and Analytic Geometry IV |  |


| PHYS 1311 | General Physics Lab I | 1 |
| :--- | :--- | ---: |
| MATH 3413 | Physical Mathematics I | 3 |
| METR 3323 |  | 3 |
| or MATH 4753 | Applied Statistical Methods |  |
| Programming Elective |  |  |
| Choose one course from the following: |  |  |
| METR 1313 | Introduction to Programming for <br> Meteorology | $1-4$ |
| C S 1321 | Java for Programmers <br> C S 1323 | Introduction to Computer Programming for <br> Programmers |
| C S 1324 | Introduction to Computer Programming for <br> Non-Programmers |  |

Total Credit Hours $\quad$ 11-15
Graduate Requirements

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Core Requirements (18 hours) |  |  |
| ACCT 5202 | Financial Accounting | 2 |
| B AD 5010 | Foundations of MBA Success | 0 |
| B AD 5101 | MBA - Professional Development | 1 |
| B AD 5102 | Managerial Economics | 2 |
| B AD 5201 | MBA - Professional Development II | 1 |
| FIN 5102 | Financial Management | 2 |
| LS 5802 | Business Ethics/Legal | 2 |
| MGT 5702 | Organizational Behavior | 2 |
| MIT 5602 | Management Information Systems | 2 |
| MKT 5402 | Marketing Management | 2 |
| B AD 5902 | Strategic Management (serves in lieu | 2 |
|  | of comprehensive examination. Not <br> waivable.) |  |

Experiential Course Requirements ( 6 hours)
B AD 5812 Global Business Experience 2
B AD 5822 Business Consulting Practicum 2
B AD 5832 Applied Field Project 2
MBA Elective Requirements (20 hours)
Choose 8 hours of graduate-level electives with approval of 8 Graduate Liaison.
Choose 12 hours of graduate-level METR electives, approved 12
by Graduate Liaison to apply towards MBA requirements.
(Hours shared with undergraduate degree)

## Additional Required Coursework (4 hours)

Choose two of the following courses:

| ACCT 5212 | Managerial Accounting |
| :--- | :--- |
| B AD 5182 | Quantitative Analysis II |
| FIN 5112 | Investments |
| ENT 5102 | Entrepreneurship \& Innovation |

Total Credit Hours

## General Education and College Requirements

Courses for fulfillment of General Education and college requirements must be from the approved General Education course list at http://
www.ou.edu/content/gened/courses.html. Courses graded P/NP will not apply

UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS
At least three hours of Upper-Division General Education coursework must be completed outside the major.

| Code Title | Credit Hours |
| :---: | :---: |
| Core Area I: Symbolic and Oral Communication |  |
| English Composition (6 hours) |  |
| ENGL 1113 Principles of English Composition | 3 |
| ENGL 1213 Principles of English Composition <br> or EXPO 1213 Expository Writing | 3 |
| Language (0-10 hours) |  |
| (0-10 hours in the same language) Students who have not completed two years of the same language in high school are required to take two college courses in the same language |  |
| Beginning Course | 0-5 |
| Beginning Course, continued | 0-5 |
| Mathematics (minimum 3 hours) |  |
| MATH 1914 Differential and Integral Calculus I ${ }^{1}$ | 4 |
| Core Area II: Natural Science (minimum 7 hours, 2 courses) |  |
| CHEM 1315 General Chemistry (Science with Lab) ${ }^{1}$ | 5 |
| $\begin{array}{ll}\text { PHYS 2514 } & \begin{array}{l}\text { General Physics for Engineering and } \\ \\ \text { Science Majors (Science without Lab) }\end{array}\end{array}$ | 4 |
| Core Area III: Social Science (6 hours) |  |
| P SC 1113 American Federal Government | 3 |
| Choose one course from the General Education Social Science list | 3 |
| Core Area IV: Arts and Humanities |  |
| Artistic Forms (3 hours) |  |
| Choose one course from the General Education Artistic Forms list. | 3 |
| Western Culture (6 hours) |  |
| HIST 1483 United States to 1865 <br> or HIST 1493 United States, 1865 to the Present | 3 |
| Choose one course from the General Education Western | 3 |

Culture list (Excluding HIST 1483 and HIST 1493)
World Culture (3 hours)
Choose one course from the General Education World Culture
list
Core Area V: First Year Experience (3 hours)
Choose one course
Total Credit Hours
40-50
${ }^{1}$ College of Atmospheric and Geographic Sciences requirements.

ADDITIONAL COLLEGE REQUIREMENTS FOR B.S.

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| MATH 2924 | Differential and Integral Calculus II ${ }^{1}$ | 4 |
| PHYS 2524 | General Physics for Engineering and <br> Science Majors | 4 |

Total Credit Hours

1 MATH 1823, MATH 2423, and MATH 2433 will also fulfill the college's calculus requirement.

## Free Electives

Electives to bring total applicable hours to the minimum total required for the degree including 52 at the upper-division level, and at least 30 at the Graduate level (5000-6000-level).
Shared hours with the M.B.A. will replace 12 elective hours in the undergraduate degree.

## Information Concerning General Rules, Regulations and Minimum Requirements for Undergraduate Degrees

Total Hours: A minimum of 120 semester hours acceptable toward graduation must be completed.
Upper-Division Hours: A minimum of 40 upper- division semester hours acceptable toward graduation must be completed. OU courses numbered 3000 or above are upper- division. Transfer work is counted as lowerdivision or upper-division credit depending on the level at which it was offered at the institution where it was earned. Two-year college work is accepted only as lower-division credit.
Senior Institution Hours: A minimum of 60 semester hours applied toward graduation must be earned at senior (4-year) institutions.
Residency:

- A minimum of two semesters must be spent in residence in the College of Atmospheric and Geographic Sciences.
- At least 36 of the last 48 hours must be completed in residence at OU.

Individual Studies: No more than six hours of independent study or directed readings may be applied toward degree requirements.
Grade Point Averages: Students must earn a minimum overall 2.25 for each of the following: Combined Retention GPA (all college grades), OU
Retention GPA, GPA for all major courses, and GPA for all major courses taken at OU.

## Suggested Semester Plan of Study

This plan shows one possible grouping of courses that would allow students to graduate in four years. Please refer to the front of the degree checksheet for official requirements. Students must consult with College of Atmospheric and Geographic Sciences and/or School of Meteorology academic advisers to verify that courses selected each semester fulfill the recommended plan and satisfy university, College of Atmospheric \& Geographic Sciences, and Meteorology major requirements.


| MBA Elective $^{4,5}$ | 2 |
| :--- | :--- | ---: |
| Credit Hours | $\mathbf{1 2}$ |
| Total Credit Hours | $\mathbf{1 5 8}$ |

${ }^{1}$ Students must attain a grade of C or better in all MATH, PHYS, and C $S$, and in METR courses that are direct prerequisites for other METR courses.
${ }^{2}$ To be chosen from the University-Wide General Education Approved Course List for Core III (Social Science) and Core IV (Humanities). At least three hours must be upper-division outside the major.
${ }^{3}$ The courses are counted towards both the undergraduate Meteorology and graduate Business degrees.
${ }^{4}$ To be chosen from an approved list of MBA electives.
${ }^{5}$ MBA courses that are 8 weeks long.

- Students may enter the accelerated program based on the undergraduate degree pattern offered in the year they first enrolled in the Oklahoma State System of Higher Education or later. Students must maintain a 3.0 GPA from the time of entering the program until graduation.
- Students who have not completed two years of the same language in high school are required to take two college courses in the same language. This additional coursework may add 6-10 hours to the minimum hours required for graduation.


## Meteorology, B.S./Data Science and Analytics, M.S.

Minimum Total Credit Hours: 145-148
Minimum Upper-Division Hours: 52
Overall GPA - Combined and OU: 3.00
Major GPA - Combined and OU: 3.00
Program Code: A686/F267-Q449

## Undergraduate Major Requirements

| Code | Title | Credit Hours |
| :---: | :---: | :---: |
| Core (48 hours, 15 courses) |  |  |
| METR 1003 | Introduction to the Atmospheric Sciences | 3 |
| METR 2004 | Atmospheric Circulations | 4 |
| METR 2213 | Physical Meteorology I:Thermodynamics | 3 |
| METR 2613 | Atmospheric In-Situ \& Surface-Based Measurements | 3 |
| METR 3113 | Atmospheric Dynamics I: Intro to Atmospheric Kinematics/Dynamics | 3 |
| METR 3123 | Atmospheric Dynamics II: Theory of Atmospheric Flows | 3 |
| METR 3223 | Physical Meteorology II: Cloud Physics, Atmos Electricity/Optics | 3 |
| METR 3334 | Principles of Research \& Communication in Meteorology | 4 |
| METR 3513 | Atmospheric Chemistry in Weather and Climate | 3 |
| METR 4133 | Atmospheric Dynamics III: Mid-Latitude Synoptic-Scale Dynamics | 3 |


| METR 4233 | Physical Meteorology III: Radiation and <br> Remote Sensing | 3 |
| :--- | :--- | :--- |
| METR 4424 | Synoptic Meteorology Laboratory | 4 |
| METR 4433 | Mesoscale Meteorology | 3 |
| METR 4523 | Climate and the General Circulation | 3 |
| METR 4913 | Senior Seminar | 3 |

Major Elective (3 hours)
Choose one Meteorology, Hydrology or Climatology upper- 3 division elective (p. 843)
Total Credit Hours

## Undergraduate Major Support Requirements

- Courses required for major support may not also fulfill UniversityWide General Education Requirements.

| Code | Title | Credit Hours |
| :---: | :---: | :---: |
| Math and Physics |  |  |
| MATH 2934 or MATH 2443 | Differential and Integral Calculus III Calculus and Analytic Geometry IV | 3-4 |
| PHYS 1311 | General Physics Lab I | 1 |
| MATH 3413 | Physical Mathematics I | 3 |
| METR 3323 <br> or MATH 4753 | Applied Statistical Methods | 3 |
| Programming Elective |  |  |
| Choose one cours | e from the following: | 1-4 |
| METR 1313 | Introduction to Programming for Meteorology |  |
| C S 1321 | Java for Programmers |  |
| C S 1323 | Introduction to Computer Programming for Programmers |  |
| C S 1324 | Introduction to Computer Programming for Non-Programmers |  |

## Total Credit Hours

## Graduate Requirements

| Code | Title | Credit |
| :---: | :---: | :---: |
| Core DSA (25 hours) |  |  |
| DSA 4513 | Database Management Systems ${ }^{1}$ | 3 |
| DSA 4413 | Algorithm Analysis ${ }^{1}$ | 3 |
| DSA 5005 | Computing Structures ${ }^{1,3}$ | 5 |
| DSA 5013 | Fundamentals of Engineering Statistical Analysis ${ }^{2}$ | 3 |
| DSA 5021 | Data Analytics Applied to Meteorology Data 1 | 1 |
| DSA 5103 | Intelligent Data Analytics | 3 |
| DSA 5113 | Advanced Analytics and Metaheuristics | 3 |
| DSA 5900 | Professional Practice | 4 |
| Graduate Electives (8 hours) |  |  |
| Choose 8 h or C S to bri | f elective coursework from DSA, METR, ISE, al applicable graduate-level hours to 33 . | 8 |
| Total Credi |  | 33 |

${ }^{1}$ Hours shared between the undergraduate and graduate degrees.
${ }^{2}$ Students who have taken METR 3323 or MATH 4753 will have DSA 5013 waived and replaced with a 3 hour Graduate Elective.
${ }^{3}$ DSA 5005 requires a pre-requisite of C S 2334.

## General Education and College Requirements

Courses for fulfillment of General Education and college requirements must be from the approved General Education course list at http:// www.ou.edu/content/gened/courses.html. Courses graded P/NP will not apply

UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS
At least three hours of Upper-Division General Education coursework must be completed outside the major.

| Code Title | Credit <br> Hours |
| :---: | :---: |
| Core Area I: Symbolic and Oral Communication |  |
| English Composition (6 hours) |  |
| ENGL 1113 Principles of English Composition | 3 |
| $\begin{array}{cl}\text { ENGL } 1213 & \text { Principles of English Composition } \\ \text { or EXPO } 1213 & \text { Expository Writing }\end{array}$ | 3 |
| Language (0-10 hours) |  |
| (0-10 hours in the same language) Students who have not completed two years of the same language in high school are required to take two college courses in the same language |  |
| Beginning Course | 0-5 |
| Beginning Course, continued | 0-5 |
| Mathematics (minimum 3 hours) |  |
| MATH 1914 Differential and Integral Calculus I ${ }^{1}$ | 4 |
| Core Area II: Natural Science (minimum 7 hours, 2 courses) |  |
| CHEM 1315 General Chemistry (Science with Lab) ${ }^{1}$ | 5 |
| $\begin{array}{ll}\text { PHYS } 2514 & \text { General Physics for Engineering and } \\ & \text { Science Majors (Science without Lab) }{ }^{1}\end{array}$ | 4 |
| Core Area III: Social Science (6 hours) |  |
| P SC 1113 American Federal Government | 3 |
| Choose one course from the General Education Social Science list | 3 |
| Core Area IV: Arts and Humanities |  |
| Artistic Forms (3 hours) |  |
| Choose one course from the General Education Artistic Forms list. | 3 |
| Western Culture (6 hours) |  |
| HIST 1483 United States to 1865 <br> or HIST 1493 United States, 1865 to the Present | 3 |
| Choose one course from the General Education Western Culture list (Excluding HIST 1483 and HIST 1493) | 3 |
| World Culture (3 hours) |  |
| Choose one course from the General Education World Culture list | 3 |
| Core Area V: First Year Experience (3 hours) |  |
| Choose one course | 3 |
| Total Credit Hours | 40-50 |

${ }^{1}$ College of Atmospheric and Geographic Sciences requirements.
ADDITIONAL COLLEGE REQUIREMENTS FOR B.S.

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| MATH 2924 | Differential and Integral Calculus II ${ }^{1}$ | 4 |
| PHYS 2524 | General Physics for Engineering and | 4 |
|  | Science Majors |  |

Total Credit Hours
8
1 MATH 1823, MATH 2423, and MATH 2433 will also fulfill the college's calculus requirement.

## Free Electives

Electives to bring total applicable hours to the minimum total required for the degree including 52 at the upper-division level, and at least 30 at the Graduate level (5000-6000-level).
Shared hours with the M.S. will replace 12 elective hours in the undergraduate degree.

## Information Concerning General Rules, Regulations and Minimum Requirements for Undergraduate Degrees

Total Hours: A minimum of 120 semester hours acceptable toward graduation must be completed.
Upper-Division Hours: A minimum of 40 upper- division semester hours acceptable toward graduation must be completed. OU courses numbered 3000 or above are upper- division. Transfer work is counted as lowerdivision or upper-division credit depending on the level at which it was offered at the institution where it was earned. Two-year college work is accepted only as lower-division credit.
Senior Institution Hours: A minimum of 60 semester hours applied toward graduation must be earned at senior (4-year) institutions. Residency:

- A minimum of two semesters must be spent in residence in the College of Atmospheric and Geographic Sciences.
- At least 36 of the last 48 hours must be completed in residence at OU.

Individual Studies: No more than six hours of independent study or directed readings may be applied toward degree requirements.
Grade Point Averages: Students must earn a minimum overall 2.25 for each of the following: Combined Retention GPA (all college grades), OU Retention GPA, GPA for all major courses, and GPA for all major courses taken at OU.

## Suggested Semester Plan of Study

This plan shows one possible grouping of courses that would allow students to graduate in four years. Please refer to the front of the degree checksheet for official requirements. Students must consult with College of Atmospheric and Geographic Sciences and/or School of Meteorology academic advisers to verify that courses selected each semester fulfill the recommended plan and satisfy university, College of Atmospheric \& Geographic Sciences, and Meteorology major requirements.

| Freshman |  |  |
| :---: | :---: | :---: |
| First Semester |  | Credit |
|  |  | Hours |
| METR 1003 | Introduction to the Atmospheric Sciences ${ }^{1}$ | 3 |
| ENGL 1113 | Principles of English Composition (Core I) | 3 |
| MATH 1914 | Differential and Integral Calculus I (Core I) ${ }^{1}$ | 4 |
| CHEM 1315 | General Chemistry (Core II) | 5 |
|  | Credit Hours | 15 |


| MATH 2924 | Differential and Integral Calculus II (Core I) | 4 |
| :---: | :---: | :---: |
| PHYS 1311 | General Physics Lab I ${ }^{1}$ | 1 |
| PHYS 2514 | General Physics for Engineering and Science Majors (Core II) ${ }^{1}$ | 4 |
| METR 1313 | Introduction to Programming for Meteorology (or other programming elective from list in major support) | 3 |
| First Year Experience (Core V) |  | 3 |

Credit Hours 15

| Sophomore <br> First Semester |  |
| :---: | :---: |
|  |  |
| METR 2004 | Atmospheric Circulations ${ }^{1}$ |
| MATH 2934 | Differential and Integral Calculus III ${ }^{1}$ |
| PHYS 2524 | General Physics for Engineering and Science Majors ${ }^{1}$ |
| $\begin{aligned} & \text { ENGL } 1213 \\ & \quad \text { or EXPO } 1213 \end{aligned}$ | Principles of English Composition (Core I) or Expository Writing |
| HIST 1483 or HIST 1493 | United States to 1865 (Core IV) or United States, 1865 to the Present |

Second Semester

| METR 2213 | Physical Meteorology I:Thermodynamics ${ }^{1}$ | 3 |
| :--- | :--- | ---: |
| METR 2613 | Atmospheric In-Situ \& Surface-Based | 3 |
|  | Measurements ${ }^{1}$ |  |
| P SC 1113 | American Federal Government (Core III) | 3 |
| C S 2334 | Programming Structures and Abstractions | 4 |
| General Education Western Culture (Core IV) ${ }^{2}$ | 3 |  |
|  | Credit Hours | $\mathbf{1 6}$ |


| Junior |  |  |
| :---: | :---: | :---: |
| First Semester |  |  |
| METR 3113 | Atmospheric Dynamics I: Intro to Atmospheric Kinematics/Dynamics ${ }^{1}$ | 3 |
| METR 3513 | Atmospheric Chemistry in Weather and Climate ${ }^{1}$ | 3 |
| METR 3323 or MATH 4753 | 1 or Applied Statistical Methods | 3 |
| MATH 3413 | Physical Mathematics I ${ }^{1}$ | 3 |
| General Education Artistic Forms (Core IV) ${ }^{2}$ |  | 3 |
|  | Credit Hours | 15 |

## Second Semeste

| METR 3123 | Atmospheric Dynamics II: Theory of <br>  <br> Atmospheric Flows ${ }^{1}$ |
| :--- | :--- |
| METR 3223 | Physical Meteorology II: Cloud Physics <br>  <br>  <br> Atmos Electricity/Optics ${ }^{1}$ |


| METR 3334 | Principles of Research \& Communication in Meteorology ${ }^{1}$ | 4 |
| :---: | :---: | :---: |
| General Education World Culture (Core IV) ${ }^{2}$ |  |  |
| General Education Social Sciences (Core III) ${ }^{2}$ |  |  |
|  | Credit Hours | 16 |
| Senior |  |  |
| First Semester |  |  |
| METR 4133 | Atmospheric Dynamics III: Mid-Latitude Synoptic-Scale Dynamics ${ }^{1}$ | 3 |
| METR 4233 | Physical Meteorology III: Radiation and Remote Sensing ${ }^{1}$ | 3 |
| METR 4424 S | Synoptic Meteorology Laboratory ${ }^{1}$ | 4 |
| METR 4913 S | Senior Seminar | 3 |
| DSA 5005 | Computing Structures | 5 |
|  | Credit Hours | 18 |
| Second Semester |  |  |
| METR 4433 M | Mesoscale Meteorology | 3 |
| METR 4523 C | Climate and the General Circulation ${ }^{1}$ | 3 |
| DSA 4413 | Algorithm Analysis | 3 |
| DSA 5021 D | Data Analytics Applied to Meteorology Data | 1 |
| DSA 5113 A | Advanced Analytics and Metaheuristics | 3 |
|  | Credit Hours | 13 |
| Fifth Year |  |  |
| First Semester |  |  |
| DSA 4513 D | Database Management Systems | 3 |
| DSA 5013 | Fundamentals of Engineering Statistical Analysis | 3 |
| DSA 5103 In | Intelligent Data Analytics | 3 |
| Graduate Elective |  |  |
|  | Credit Hours | 12 |
| Second Semester |  |  |
| DSA $5900 \quad \mathrm{P}$ | Professional Practice | 4 |
| Graduate Elective |  |  |
| Graduate Elective |  |  |
|  | Credit Hours | 9 |
|  | Total Credit Hours | 147 |
| Students must attain a grade of C or better in all MATH, PHYS, and C S , and in METR courses that are direct prerequisites for other METR courses. <br> ${ }^{2}$ To be chosen from the University-Wide General Education Approved Course List for Core III (Social Science) and Core IV (Humanities). At least three hours must be upper-division outside the major. |  |  |
| - Students who have not completed two years of the same language in high school are required to take two college courses in the same language. This additional coursework may add 6-10 hours to the minimum hours required for graduation. |  |  |

## Meteorology, M.S.

[^26]
## Required Courses <br> THESIS OPTION

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Required Courses (must be completed with a B grade or <br> better) |  |  |
| METR 5004 | Fundamentals of Atmospheric Science | 4 |
| METR 5113 | Advanced Atmospheric Dynamics I | 3 |
| METR 5413 | Advanced Synoptic Meteorology | 3 |
| METR 6970 | Seminar (minimum 1 hour; may be <br> repeated for up to 4 hours) | $1-4$ |
| Thesis | Research for Master's Thesis | 4 |
| METR 5980 | Res |  |

Meteorology Electives (must be completed with a B grade or

## better)

Choose 6 hours of coursework in consultation with advisor 6

## and committee ${ }^{1}$

Electives
Choose 9 hours from the following:

| Additional METR courses |
| :--- |
| Graduate-level courses from other departments |
| METR $5990 \quad$ Independent Study (6 hours maximum) |

Total Credit Hours

1 Excluding METR 5990.

## NON-THESIS OPTION

| Code | Title |  |
| :---: | :---: | :---: |
| Required Courses (must be completed with a B grade or better) |  |  |
| METR 5004 | Fundamentals of Atmospheric Science | 4 |
| METR 5113 | Advanced Atmospheric Dynamics I | 3 |
| METR 5413 | Advanced Synoptic Meteorology | 3 |
| METR 6970 | Seminar (minimum 1 hour; may be repeated for up to 4 hours) | 1-4 |
| Meteorology Electives (must be completed with a B grade or better) |  |  |
| Choose 9 hours and committ | coursework in consultation with advisor | 9 |
| Electives |  |  |
| Choose 12 hour | from the following: | 12 |
| Additional METR courses |  |  |
| Graduate-level courses from other departments |  |  |
| METR 599 | Independent Study (6 hours maximum) |  |

Total Credit Hours

## General Requirements for all Master's Degrees

The master's degree requires the equivalent of at least two semesters of satisfactory graduate work and additional work as may be prescribed for the degree.

All coursework applied to the master's degree must carry graduate credit.
Master's degree programs which require a thesis consist of at least 30 credit hours. All non-thesis master's degree programs require at least 30 credit hours.

Credit transferred from other institutions must meet specific criteria and is subject to certain limitations.

Courses completed through correspondence study may not be applied to the master's degree.

To qualify for a graduate degree, students must achieve an overall grade point average of 3.0 or higher in the degree program coursework and in all resident graduate coursework attempted. A student must also have at least a 3.0 in all coursework (including undergraduate coursework if any).

Additional information for master's degree students may be found in the Graduate College Bulletin.

## Meteorology, Ph.D.

Minimum Total Hours: 90
Program Code: D685

## Program Requirements



1 Any of these five courses may be replaced by transfer courses with equivalent course content as indicated on the Advisory Conference Report.
2 METR 5004 may be waived at the discretion of the advisory committee and graduate liaison. In this case, 4 credit hours of any graduate-level meteorology courses numbered 5000 or above may be taken in lieu of METR 5004.
${ }^{3}$ Enrollment in at least 1 credit hour of METR 6970 is required every academic year after admission into the PhD program.
4 After the first semester of enrolling in METR 6980, continuous enrollment of at least 2 hours of METR 6980 each semester (excluding summer sessions) must be maintained until the doctoral degree is completed. Enrollment in the summer session is required only if (1) the degree is conferred in the summer session, or (2) work is being done on the dissertation.

## NOTES:

- Transfer credits from M.S. degree: A total of up to 44 credit hours from a completed master's degree and additional graduate course work may be approved for transfer credit. Only 4 thesis research (METR 5980) credits can be transferred from a M.S. meteorology degree (the number required for the degree)
- S/U graded coursework restrictions: No more than one-half of the credits for OU coursework for a doctoral degree, excluding research for the dissertation (METR 6980), may be S/U-graded coursework; and no more than one-half of the overall coursework (OU credit and transfer credit, combined), excluding credits for METR 6980, may be S/U-graded coursework.
- A plan for the completion of the required and elective PhD course work must be indicated in the student's Advisory Conference Report or its amendments.


## General Requirements for Doctoral Degrees

A student should expect to spend at least the equivalent of three full academic years beyond the bachelor's degree to obtain the doctoral degree. During this period the student will take appropriate graduate coursework, successfully complete the general examination, and successfully defend and submit the final dissertation.

All coursework applied to the doctoral degree must carry graduate credit.
The doctoral degree requires at least 90 post-baccalaureate hours, including both formal coursework and hours of research.

The minimum hour requirement for a specific doctoral degree program cannot be waived.

No more than one-half of the credit hours, both OU and overall, excluding Research for Doctoral Dissertation (6980), may be S/U-graded coursework.

The student must be in residence at OU for at least two consecutive 16week semesters during the pursuit of the doctoral degree while enrolled and engaged in coursework or research activities as prescribed by the major academic unit.

For more detailed regulations and requirements for Doctoral degrees, please consult the Graduate College Bulletin: http://www.ou.edu/ gradcollege/forms/bulletin

# MICHAEL F. PRICE COLLEGE OF BUSINESS 



207 Adams Hall
307 W. Brooks
Norman, OK 73019-4007
Phone: (405) 325-3611
FAX: (405) 325-2096
pricecollege@ou.edu
price.ou.edu

## Administration

Corey Phelps, Ph.D., Dean
Laku Chidambaram, Ph.D., Senior Associate Dean for Academic
Programs and Engagement
Wayne B. Thomas, Ph.D., Senior Associate Dean for Faculty and Research Innovation
Mark Bolino, Ph. D., Division Director, Division of Management and International Business
Keith Brigham, Ph. D., Division Director, Tom Love Division of Entrepreneurship and Economic Development
Chitru Fernando, Ph. D., Division Director, Division of Finance Karen Hennes, Ph. D., Division Director, John T. Steed School of Accounting
Ken Petersen, Ph. D., Division Director, Division of Marketing and Supply Chain Management
Alex Durcikova, Ph. D., Interim Division Director, Division of Management Information Systems
Ty Anderson, Executive Director, Finance and Operations
Ron Bolen, Executive Director, Sooner Launch Pad
Ana Bolino, Executive Director, Undergraduate Programs
Ronald Davidson, Executive Director, Center for the Business of Healthcare
Eddie Edwards, Executive Director, MBA Programs
Dipankar Ghosh, Executive Director, Energy Institute
David Kinsinger, Executive Director, Entrepreneurial Law Clinic
Jared McDuffy, Executive Director, Advancement
Jeff Moore, Executive Director, I-CCEW
Nick Tobey, Executive Director, Executive Education
Tom Wavering, Executive Director, Tom Love Innovation Hub
Erin Wolfe, Senior Director, Center for Graduate Student Success
Jennifer Aragon, Director, Graduate Advising - Doctoral and Specialty Master's Programs
Annaly Beck, Director, Study Abroad and Scholarships
Breea Clark, Director, JCPenney Leadership Center

Adam Clinton, Director of Operations, Energy Institute Sherad Cravens, Director, Center for Student Success Joe Daves, Director, Business First Year Experience Chitru S. Fernando, Director, Center for Financial Studies Kylie Harrison, Director, Business Communications Robert Harper, Director, Undergraduate Professional Development Amber Hasbrook, Director, Graduate Advising - OKC
Garrett Hollingsworth, Director, Undergraduate Advising
Adrienne Jablonski, Director, MBA Recruitment and Admissions
Gary Jones, Director, Access and Opportunity
Shawn Lam, Director, Information Technology
Robert Lepak, Director, First Fidelity Integrated Business Core
Mike McConnell, Director, Robert M. Zinke Energy Management Program Richard Price, Director, Ph.D. Programs
Shad Satterthwaite, Director, Executive Business Programs, Aerospace and Defense

## General Information

## History

A curriculum in business subjects was first offered in 1913 through a subordinate school in the College of Arts and Sciences called the School of Commerce and Industry. The first certificates in commerce and industry were granted in 1915. The name was changed to the School of Public and Private Business in 1917. In June 1923, the Board of Regents established a school of business as a separate two-year school of the University and authorized it to confer the degree of Bachelor of Science in Business. The first Bachelor of Science in Business degrees were conferred in 1924. The following year the School of Business was admitted to membership in the Association to Advance Collegiate Schools of Business (AACSB International), the international accrediting agency for bachelor's and master's degrees in business. To earn and retain accreditation, these degree programs must undergo a rigorous initial evaluation and be reevaluated periodically. These programs of the college have been fully accredited since 1926. In addition, programs leading to bachelor's and master's degrees in accounting have met separate AACSB International accreditation standards specifically for accounting programs.

In 1929, the Board of Regents changed the School of Business to the College of Business Administration.

In 1997, alumnus Michael F. Price announced a contribution of \$18 million to the College of Business. The OU Regents officially renamed the College of Business Administration the Michael F. Price College of Business. The Price funds are applied strategically to areas of excellence. This endowment has established endowed faculty positions, a library endowment, scholarships and graduate assistantships, a student support center, and provides support for a number of other initiatives.

## Mission: The Purpose of Price

"The Michael F. Price College of Business ensures the enduring global competitiveness of Oklahoma and the nation." Our graduates will grasp opportunities to see how separate pieces of a business puzzle are brought together to create a new business or industry. Conceptual thinking and real-world training allows them to solve complex problems within a business or industry.

The college's strategic plan integrated with that of the University helps the college attain its goals of enhanced excellence and contributions to the economy of the state, nation and the world.

## Objectives

To further its mission, the college provides degree programs at the baccalaureate, master's and doctoral levels, with the objective of providing career opportunities in a wide variety of professional and entrepreneurial roles. While most graduates will find employment in the private sector, a Michael F. Price College of Business education will provide a general understanding of, and appreciation for, managerial processes that apply in public sector and not-for-profit institutions as well.

In addition to technical competence in areas of specialty, the college expects graduates to attain a level of understanding, and appreciation for, the liberal arts and the social sciences. The aim is to provide an educational base upon which the graduate can build not only technical but also social capability through a lifetime of continuing growth and development. The emphasis is as much on the formation of attitudes and understanding of complex issues as on the attainment of knowledge and skills.

Since formal education may tend to become abstracted from the realities of practice, the college seeks to maintain close ties with the professional communities it serves. Internship opportunities for students, participation by practicing professional managers in the classroom, consulting and research by faculty, boards of advisers to the college, conferences and the like involving people from outside the University provide opportunities for continuing interaction with the world of organizations.

While maintaining a practical, relevant perspective, the faculty seeks to advance the frontiers of knowledge through research, both applied and theoretical. This research is fundamental to the overall excellence of the teaching function. Students at all levels may expect to be exposed not only to well-established knowledge, but also to ideas and issues that are at the forefront of research and experimentation. As a complement to degree programs, the college includes continuing education and managerial development programs for practicing professionals.

Throughout the wide variety of educational programs and in its research and public service objectives, the college strives to maintain standards of excellence consistent with the University's role as one of the leading institutions of higher education in the nation.

## Programs Offered

- College of Business Administrated Programs (p. 862)
- Economics, B.B.A. (p. 871)
- General Business for Non-Business Majors, Minor (p. 873)
- Economics, B.B.A./Management of Information and Technology, M.S. (p. 874)
- Business Administration, M.B.A. (p. 876)
- Professional MBA, M.B.A. (p. 877)
- Aerospace and Defense, E.M.B.A. (p. 878)
- Energy, E.M.B.A. (p. 878)
- Renewables, E.M.B.A. (p. 879)
- Aerospace and Defense Analytics, Graduate Certificate (p. 879)
- Commercial Space Applications, Graduate Certificate (p. 880)
- Executive Management in Aerospace and Defense, Graduate Certificate (p. 880)
- Departmental list of electives (p. 880)
- Foundations of Business, Graduate Certificate (p. 881)
- Departmental list of courses (p. 881)
- Hydrocarbon Energy, Graduate Certificate (p. 881)
- Departmental Lists of Courses (p. 882)
- Renewable Energy, Graduate Certificate (p. 882)
- Departmental Lists of Courses (p. 882)
- Business Administration, Ph.D. (p. 883)
- John T. Steed School of Accounting (p. 885)
- Accounting, B.B.A. (p. 890)
- Accounting, Minor (p. 893)
- Accounting, B.B.A./M.Acc. (p. 893)
- Accounting, B.B.A./Finance, M.S. (p. 896)
- Accounting/Finance Graduate Electives Course List (p. 898)
- Accounting, B.B.A./Management of Information and Technology, M.S. (p. 898)
- Accounting Advanced Standing, M.Acc. (p. 901)
- Online Accounting Advanced Standing, M. Acc. (p. 901)
- Online Accounting, M.Acc. (p. 902)
- Tom Love Division of Entrepreneurship and Economic Development (p. 903)
- Entrepreneurship and Venture Management, B.B.A. (p. 908)
- Entrepreneurship for Business Majors, Minor (p. 910)
- Entrepreneurship for Non-Business Majors, Minor (p. 910)
- Entrepreneurship \& Venture Management, B.B.A./Management of Information and Technology, M.S. (p. 911)
- Entrepreneurship and Innovation (Online), M.S. (p. 913)
- Entrepreneurship and Innovation Major Electives List (p. 914)
- Business Entrepreneurship, Graduate Certificate (p. 914)
- Guided Electives (p. 914)
- Division of Finance (p. 915)
- Finance, B.B.A. (p. 923)
- Finance for Business Majors, Minor (p. 925)
- Finance, B.B.A./Finance, M.S. (p. 925)
- Finance BBA/MS Graduate Electives Course List (p. 928)
- Finance, B.B.A./Management of Information and Technology, M.S. (p. 928)
- Finance, M.S. (p. 931)
- Finance Electives Course List (p. 931)
- Business of Energy, Graduate Certificate (p. 932)
- Finance, Graduate Certificate (p. 932)
- Departmental list of courses (p. 932)
- Division of Management and International Business (p. 933)
- Energy Management, B.B.A. (p. 941)
- International Business, B.B.A. (p. 944)
- Management, B.B.A. (p. 947)
- Sports Business, B.B.A. (p. 949)
- Leadership for Business Majors, Minor (p. 952)
- Management, Minor (p. 952)
- Sports Business for Business Majors, Minor (p. 952)
- Sports Business for Non-Business Majors, Minor (p. 953)
- Esports Business, Undergraduate Certificate (p. 954)
- Human Resource Management, Undergraduate Certificate (p. 954)
- Human Resource Management Electives Course List (p. 954)
- Leadership, Undergraduate Certificate (p. 954)
- Legal Studies, Undergraduate Certificate (p. 955)
- Legal Studies Electives Course List (p. 955)
- Renewable Energy Management, Undergraduate Certificate (p. 955)
- Management, B.B.A./Management of Information and Technology, M.S. (p. 955)
- Division of Management Information Systems (p. 958)
- Management Information Systems, B.B.A. (p. 964)
- MIS for Business Majors, Minor (p. 966)
- MIS for Non-Business Majors, Minor (p. 966)
- Business Intelligence and Analytics, Undergraduate Certificate (p. 967)
- Management Information Systems, B.B.A./Management of Information and Technology, M.S. (p. 967)
- Business Analytics (Online), M.S. (p. 970) - Business Analytics Course List (p. 970)
- Management of Information and Technology, M.S. (p. 970)
- Digital Technologies, Graduate Certificate (p. 971) - Graduate Electives (p. 971)
- Division of Marketing and Supply Chain Management (p. 971)
- Healthcare Business, B.B.A. (p. 979)
- Marketing, B.B.A. (p. 981)
- Supply Chain Management, B.B.A. (p. 983)
- Digital Marketing for Business Majors, Minor (p. 986)
- Digital Marketing for Non-Business Majors, Minor (p. 986)
- Franchising, Minor (p. 987)
- Healthcare Business, Minor (p. 987)
- Marketing, Minor (p. 987)
- Marketing for Non-Business Majors, Minor (p. 988)
- Supply Chain Management for Business Majors, Minor (p. 988)
- Supply Chain Management for Non-Business Majors, Minor (p. 989)
- Marketing, B.B.A./Management of Information and Technology, M.S. (p. 989)
- Marketing, B.B.A./Supply Chain Management (Online), M.S. (p. 992)
- Supply Chain Management, B.B.A./Management of Information and Technology, M.S. (p. 995)
- Supply Chain Management, B.B.A./Supply Chain Management (Online), M.S. (p. 997)
- Supply Chain Management (Online), M.S. (p. 1000)
- Course List (p. 1000)
- Supply Chain Management (Online), Graduate Certificate (p. 1000)


## Programs \& Facilities

## Business Communication Center

The Business Communication Center prepares students for the technology-delivered world. With one-on-one instruction from the center's friendly staff, Price College students learn valuable hands-on skills such as multimedia presentations, Web page design, video conferencing, public speaking, and digital imaging.

## Tom Love Center for Entrepreneurship

The Princeton Review and Entrepreneur magazine ranked the center eighth in the nation at the undergraduate level. This speaks to the opportunities
available to major or minor in Entrepreneurship and Venture Management for business or engineering students at the University of Oklahoma. The goals of the Tom Love Center for Entrepreneurship are:

- Create entrepreneurial-thinking students.
- Connect faculty, researchers and students to the entrepreneurial world through research, teaching and working labs.
- Provide OU alumni knowledge and resources for Oklahoma's business and entrepreneurial community to assist their growth.
- Start and grow businesses in the state of Oklahoma.
- Commercialize University of Oklahoma intellectual property.

The Center is located in Suite 1036, Price Hall (405) 325-3611.

## Fixed Income Fund

The Fixed Income Fund experience exposes senior-level undergraduate students and MBA students to the intricacies associated with the management of portfolios that contain only bond-like financial instruments. The class is divided into teams of students. Students must make real-time decisions using the latest information on financial markets to select fixed income securities to include in the portfolio. The class is sponsored by BOK Financial Corporation, the parent company of the Bank of Oklahoma.

## Honors Program

Students may graduate with Latin Honorifics (cum Laude, Magna cum Laude, or Summa cum Laude) if they successfully meet the GPA requirements in addition to their regular degree program requirements. The Honors College also offers special classes and sections of regular classes for academically superior students. Students must be admitted to and satisfy the requirements of the Honors College (p. 1618) to receive a special notation on their transcript. For more information, contact the director of the Honors College, or call (405) 325-5291.

## First Fidelity Bank Integrated Business Core

Undergraduate students have the opportunity to enroll in a one-semester (12 hours) project-based program called the First Fidelity Bank Integrated Business Core (IBC), which provides both real-world experience and an integrated introduction to concepts in at least three business disciplines. IBC students gain experience by creating and managing an actual start-up company funded by a loan up to $\$ 5,000$ and a handson community service project on behalf of a non-profit campus or community organization. Students have donated more than $\$ 1,000,000$ dollars and more than 34,000 volunteer hours to charity, and the program has received local, regional and national acclaim.

Students who are participants in IBC:

- are responsible for mastering the concepts and terminology of each of the content courses: Marketing, Management and Legal Studies;
- work as "employees" of an assigned 20-member company which becomes the Entrepreneurship/Community Service Practicum. Here the students have the opportunity to apply the concepts from each of the core business disciplines while at the same time devoting time to their selected community service project;
- Students spend the first seven weeks developing a business plan;
- the plan is submitted to a loan committee which grants, denies or defers the loan application;
- Upon receipt of the loan students have six weeks to implement their business plan.


## JCPenney Leadership Center

The Leadership Program of Price College is directed at those students who will become a significant force in the economic, political, social and moral development of our state and nation.

These students have leadership potential because they are academic achievers and have those personal characteristics that thrust them into various activities in which they assume leadership roles.

The college views these student leaders as a valuable resource whose potential should be developed fully for the benefit of themselves and society. These students will help the college fulfill its mission of transmitting knowledge about the continuing adaptation of organizations in a changing global business environment.

The primary objective of the program is to provide these students with opportunities for intellectual and scholastic enrichment, stimulating contact with business and the economic leaders in the nation, and the mutual challenge and benefits of association with a peer group of equally talented students. These opportunities will lead to an enhancement of the students' experiences at the University that will shape the course of their lives.

The three main components of the program include corporate views, fellowships and the Distinguished Speaker Series.

## Corporate Views

Participants in this special program accompany executives in their normal work environment and experience firsthand the administrative responsibilities and management styles of successful business leaders. This daylong program significantly expands Associates' classroom educational experience by enhancing their awareness of proven leadership skills and broadening their understanding of actual corporate operations.

## Fellowships

The JCPenney Fellowship Program is one of the Center's most exciting and productive avenues and adds greater value to the undergraduate educational experience of Leadership Associates. Each recipient receives a stipend to serve as either a research or training fellow to a Price College faculty mentor for one semester. Eligibility is limited to junior and senior associates. Applications and detailed information is available in the JCPenney Leadership Center.

## Distinguished Speaker Series

The Price College of Business and the Kanaly Lecture Series hosts approximately four nationally respected leaders each academic year who have an Oklahoma connection - either through birth, residence, higher education, or business interest. The purpose of the series is to provide the opportunity to learn and grow from the accumulated experience and wisdom of this premier group of opinion leaders.

## Student Support Center

The Student Support Center serves graduate students in the Michael F. Price College of Business. The value of the learning experience is expanded for graduate students by providing personal mentoring and career development resources.
Core resources provided to graduate students include:

- mentoring;
- executive visitation;
- career preparation; and
- internships - domestic and international.


## AMOCO Business Information Resource Center

Discovery and transmission of knowledge requires information, whether that information is contained in the income statements and financial records of a large U.S. corporation, in profiles of corporate returns on investments, in business trends among the states and regions of the country, or in international trade and investment patterns. Distributive technology - the desktop computers, the interlinked local area networks, the CD-ROM readers - is altering the costs and availability of information acquisition and dissemination, enhancing the potential for greater effectiveness and efficiency in dealing with information.

Price College has developed various "pockets" of expertise in the acquisition of information for instruction and research. The School of Accounting subscribes to the FASB Financial Accounting Research Service, the Center for Financial Studies and the College cooperate in the purchase of CRSP files that contain monthly and daily returns on NUSE, AMEX, and NASDAQ corporations; and the Center for Economic and Management Research subscribes to quarterly updates to the Citibase data system.

While we must rely on various "pockets" to acquire this information, we are limiting our potential for effective utilization of information in our present "distributive" organizational setting. By establishing one central place for the location and dissemination of these information sets, we can greatly enhance our effective use of information.

The AMOCO Business Resources Information Center (BRIC) supports the academic and research goals of Price College by serving as a centralized data repository and technical assistance resource for faculty and students. Individual and group instruction is provided to students and faculty in the use of database software applications and offers technical assistance and support in their use.

Data holdings include industry standard financial, economic and demographic databases obtained from state, federal, and commercial information services. The AMOCO BRIC also maintains a computer lab designed for instruction as well as routine use by students and faculty.

## Center for Financial Studies

Price College, through its Division of Finance, has established the Center for Financial Studies. The mission of the Center is to support scholarly research and sponsor educational programs that will improve and share knowledge among finance students, executives and academicians.

The rapid changes occurring in the financial world make it imperative for those involved to be knowledgeable of the innovations, problems and opportunities prevailing in all sectors of the financial markets. The Center for Financial Studies will assume an important leadership role in this endeavor by directing its programs toward mid-and top-level finance executives and toward academicians with research and teaching interests in finance.

## Center for MIS Studies

The Center for MIS Studies, an interdisciplinary center located in Price College, is a partnership between the University and business firms designed to share ideas on MIS topics of direct relevance and major concern to the business partners. Effective industry MIS programs require that businesses understand and utilize rapidly changing technologies and complex organizational policies, strategies and structures. Rapid changes of the Internet era, combined with the move
toward outsourcing, makes keeping up exceptionally difficult for IS professionals. Costs of research, development, and training in this complex and dynamic field are high, and results are often disappointing.

The fundamental idea of the Center for MIS Studies is resource sharing - to share the knowledge, skills, and efforts of the University and the member firms in a framework that encourages innovation, quality and productivity. For questions, comments, or additional information, contact:

Center for Management Information System Studies
University of Oklahoma, Price College
307 West Brooks
Norman, OK 73019
Phone: (405) 325-0768
FAX: (405) 325-7482

## Library

The Bizzell Memorial Library provides excellent facilities for research and instruction in business and economics. Students, teachers, researchers and the University community at large can research and gain access to materials in a variety of media and in numerous ways. State-of-the-art computer searches through national databases are possible through the University's participation in national library associations. The University is a member of the Research Libraries Group which provides on-line access to the premier libraries in the United States through the Research Libraries Information Network (RLIN). The University is also connected to another, much broader database through the Online Computer Library Center, Inc. (OCLC). In addition, the University has an extensive collection of books, periodicals, microform material, newspapers, trade journals and corporation annual reports. Subscriptions are maintained to various investment, insurance, tax, labor relations and other services which keep patrons in touch with current developments. The University is a designated repository for federal documents which are kept on the fourth floor of the library.

## The Bass Collection in Business History

Although ours is a business civilization, relatively little has been done to assemble library materials in the area of business and management history in most American universities. One exception is the University of Oklahoma, which has a distinguished collection in this field, capable of serving not only undergraduate and graduate students, but research scholars throughout the nation.

Through the generosity of the late Harry W. Bass of Dallas, Texas, and the continuing support of the Bass Foundation, a comprehensive collection of books and periodicals in the areas of business and management history are available at the University of Oklahoma. Mr. Bass was a former student in the College of Business.

This distinguished collection of rare and current research materials is housed in a special suite of rooms on the fifth floor of the Bizzell Memorial Library. Dr. Daniel A. Wren is curator of the Bass Collection.

The Ronald B. Shuman Research Fellowship in Business History is designated for graduate and some undergraduate students to work under the direction of the curator of the Bass Collection. This fellowship is in the amount of $\$ 1,000$ to be divided between two semesters.

## Center for Economic and Management Research

The Center for Economic and Management Research conducts research in business and economics as well as in such diverse areas as energy, delivery of health services, quality of life in Oklahoma and human resources utilization and development. It also provides research support
and data to the business community and to federal, state, and local agencies for use in planning, as well as providing a vehicle for directly relating classroom offerings and the research thrust of Price College to the problems faced by business and government.

CEMR also houses the Survey Research Center, which provides the capability for obtaining current information on the economy of the state and on the attitudes of Oklahomans toward various issues in Oklahoma. These data are presented in special reports for use by planners and decision makers in both business and government.

The Center maintains an extensive database and makes this information available to the public through its publications program that includes press releases, reports, a quarterly economic journal (the Oklahoma Business Bulletin) and the annual Statistical Abstract of Oklahoma. Current and historical economic and demographic information are also available via the Oklahoma Resources Integrated General Information Networks Systems (ORIGINS), an Internet accessible data access and retrieval system containing databases of economic time series.

## Adams Hall

Adams Hall is currently the primary office and classroom building for Price College. It contains numerous classrooms, many of which are designed with tiered seating to increase eye contact and facilitate discussion. These case study rooms contribute to and stimulate the learning process.

Instruction and research are facilitated by the computer tools made available in our computer technology enhanced classrooms. Adams Hall currently supports multiple microcomputer labs.

## Price Hall

Michael F. Price Hall, a \$19 million, 55,000-square-foot addition to the east side of Adams Hall added nine new classrooms, a business communications center with a behavioral lab, four study rooms, three conference rooms, three Student Services offices, two large commons areas and a courtyard with outdoor seating.

## Undergraduate Study

The undergraduate degree in business is designed to offer:

- Preparation for intellectual, political and cultural citizenship and leadership.
- A basic familiarity with facts, skills, techniques and attitudes that are relevant to business and management.
- An opportunity to develop a sense of historical perspective and understanding of the impact of the past upon the present and future.
- An intellectual discipline, "a way of thinking," about problems and problem solving or the decision-making process, including the ability to weigh values and form independent judgments.
- An in-depth exposure to a specific function or discipline.


## General Information

## Admission

To be admitted to the Michael F. Price College of Business, a student must first be admitted to the University of Oklahoma. Inquiries concerning admission to the University should be addressed to the Office of Admissions and Recruitment, 1000 Asp Avenue, Room 127, Norman, OK, 73019-4076.

Admission to an undergraduate program within a degree-recommending college at the University of Oklahoma (Norman campus) shall be
based upon the requirements of the University of Oklahoma that are in effect at the time of a student's initial enrollment in any institution (including OU) in the Oklahoma State System of Higher Education. Freshmen and transfer students who have not completed 24 semester hours with at least a 2.75 combined retention grade point average are automatically enrolled in University College upon their admission to the University of Oklahoma. All students taking 3000-level or higher business courses must meet the grade point average, course, and permission requirements.

Academic credit from any division of the University of Oklahoma Norman campus, Health Sciences Center, OU-Tulsa or Professional and Continuing Studies - is considered resident credit at the University of Oklahoma. Grades and hours earned at any of these divisions are included in the OU retention and cumulative grade point averages for purposes of admission or readmission to the University, and to the individual colleges within the University.

## Non-Business Majors

Students not admitted to Price College may elect business courses subject to the prerequisites and minimum GPA requirements; however, business students will receive priority. Students from outside the College who seek academic advising on business course selections should inquire in the Price Academic Advising Services, Suite 1010 Price Hall.

## Programs of Study

Students must complete the requirements outlined on the following pages for the degree and major chosen.

## Bachelor of Business Administration Degree

Emphasis in this program has been placed on an educational rather than a training or vocational approach, although in certain areas, provisions for a limited amount of specialization have been made. The curriculum is designed to provide:

1. an extension and intensification of the cultural foundation begun in the secondary schools,
2. a comprehensive view of the general principles and procedures practiced in the business world, and
3. in the junior and senior years, a limited amount of professional education in certain specialized subjects.

With this degree program, a student must choose one of the following majors: accounting, economics, energy management, entrepreneurship and venture management, finance, general management, human resources management, international business, management information systems, marketing, or supply chain management.

## Double Majors

Price College offers students the option of double majors. A double major consists of hours in the selected major and completion of specific requirements of the additional major. A double major will add to the required number of hours to complete a single major business degree. Only one degree will be awarded, however both majors will be listed on the student's transcript. Students who are not majoring in business may not double major in Price College. No single course may be used by a student to satisfy a major requirement in two majors.

## Minors

Minors are offered to both students majoring in business and those majoring in subjects offered in other colleges. No single course may be used by a student to satisfy a major requirement and a minor requirement.

## Undergraduate Certificate

Undergraduate certificates are offered to both students majoring in business and those majoring in subjects offered in other colleges.

## Accelerated Program for Graduate Study in Business

This program is designed to provide foundational study in the functional areas of business while a student is pursuing his or her undergraduate degree. The designated coursework may be applied toward degree requirements in the master's-level professional degree programs offered through the Price College, as well as be used as electives to complete one's undergraduate degree. Students in any field of study in their junior or senior years may apply for admission to the accelerated program. Because accelerated program students will be enrolled with graduate students in graduate-level classes (5000 or above), admission to the accelerated program will be highly selective and performance closely monitored.

The professional degree programs of Price College assume no prior training in either business administration or related disciplines. Accelerated Program students must designate one of the professional degree programs in business administration at the time of application. The options include the Master of Business Administration and Master of Accountancy.

Students admitted to the Accelerated Program will be provided a plan of study that considers the student's academic background and the number of elective hours remaining in the student's undergraduate program. The plan of study must be approved for both the student's undergraduate degree and the Accelerated Program. Upon receipt of an undergraduate degree, accelerated program students in good standing are admitted to graduate study in a master's-level professional degree program offered through the College of Business.

Undergraduate students who have completed 90 credit hours or more may be admitted to the Accelerated Program. After 75 hours of undergraduate study, students interested in the Accelerated Program should take the Graduate Management Admission Test (GMAT). The GMAT is offered by the Educational Testing Service of Princeton, NJ "on demand" at various sites in Oklahoma and throughout the world. Only students with a retention grade point average at the University of Oklahoma of at least 3.00 and who receive a satisfactory score on the GMAT will be considered for admission to the Accelerated Program. The grade point average must be based on at least 60 credit hours taken at the University of Oklahoma. Admission is determined by the grade point average, the GMAT scores, and evidence of maturity, motivation and leadership potential as indicated by personal interviews and letters of recommendation. Though the admission decision may be made prior to the completion of 90 undergraduate credit hours, acceptance is contingent upon continued performance at a high level.

## Choice of Degree Program

(The rules and regulations of this catalog become effective beginning summer term, 2010.)

- Transfer students are required to meet the degree requirements and regulations of the degree program that is in effect at the time of their first enrollment in the state system provided they complete the work for a degree within a maximum of seven years. If the work for a degree covers a period longer than seven years, students must adopt a degree program within seven years of the current requirements. (Example: The 2021-2022 requirements may be in effect only until the end of the 2028 school year [Spring, 2028].)
- Resident students shall be governed by the degree requirements and regulations in effect at the time of their initial enrollment at the University of Oklahoma provided they complete the work for a degree within a maximum of seven years. If work for a degree covers a period longer than seven years, students must adopt a degree program within seven years of the current program. (See example in preceding paragraph.)
- Students may adopt any later degree program which becomes effective while enrolled at the University of Oklahoma if they report this change to the Price Academic Advising Services Office, Suite 1010 Price Hall.
- Credit in the major which is more than 10 years old may not be applied toward a bachelor's degree unless it is validated by the major division.


## Academic Advisement

## Price Academic Advising Services Office

Students in Price College or business minors may receive information and assistance in Suite 1010 Price Hall. Full-time academic advisors maintain records on all undergraduate business majors and provide them with information concerning business college admission, degree audits, degree requirements, contract and stop-out.

## Academic Advisement

Career and academic advisement about specific course information is available from the faculty in the major divisions.

The responsibility for meeting all graduation requirements lies with the student.

## Credit Hour Load

To be considered full time, an undergraduate student must be enrolled in at least 12 hours in a fall or spring semester and six hours in a summer session. The recommended maximum credit hour enrollment for a regular semester according to the student's cumulative grade point average is as follows:

Less than 2.50-16 hours maximum;
2.50-3.00-17 hours maximum;
3.00-3.50-18 hours maximum;
$3.50-4.00-19$ hours maximum.
Enrollments of 20 hours or more in a fall or spring semester and 10 hours or more in a summer session, must be approved by the Director in the Price Academic Advising Services Office, Suite 1010 Price Hall. Students requesting overload enrollments must have earned a 3.50 GPA in both OU and combined areas.

## Course Levels

Undergraduate students are not eligible to enroll in business courses numbered 5000 and above. The only exceptions to the above are graduating seniors who have petitioned the Graduate College to receive graduate credit for the course and whose petitions have been approved.

Graduate-level business courses may not count toward the undergraduate degree; however a student may petition to count nonbusiness courses.

## Scholastic Regulations

## Attendance

When absences seriously affect a student's classwork, the instructor will report this fact to the Office of Admissions and Records. The information will also be forwarded to the Price Academic Advising Services Office.

## Computation of Grade Point Averages

The resident grade point average includes all courses taken at the University of Oklahoma (including correspondence and extension work) that apply toward a degree in Price College. Academic credit from any division of the University of Oklahoma - Norman campus, Health Sciences Center, OU courses taught in Tulsa or Continuing Education - is considered credit at the University of Oklahoma. Grades and hours earned at any of these divisions are included in the OU retention and cumulative grade point averages for purposes of retention.

The transfer grade point average includes all courses transferred from other institutions that are accepted by the University of Oklahoma.

The combined retention grade point average is computed with both transfer and OU credits. Both the resident and overall GPA's consist of three areas: the major, upper-division business, and overall degree. Minimum retention grade point averages of 2.50 are required in all of these areas to be eligible to graduate.

## Contract and Enrollment Stops

A minimum grade point average of 2.50 OU retention and combined retention is required for good standing in the Michael F. Price College of Business.

A student who has an enrollment stop for poor scholarship is not eligible to be considered for re-enrollment until after at least one semester has elapsed following the stop. At this time, a student who is stopped from Price College is eligible to apply for readmission. An appeal for readmission, however, does not guarantee automatic readmission. Each request is considered on its individual merit. These students will have one semester to either rectify all deficiencies or meet the conditions for continued enrollment. Those failing to do so will be stopped again from the College for a period of three calendar years after which they may apply for readmission to the College.

All applications for readmission must present clearly documented evidence indicating a high probability the student will successfully complete the B.B.A. degree program. The application will be considered based upon standards of the Petition Committee of the College or such other committee as the dean might designate. If readmission is granted, it will be subject to such terms and conditions as the committee may prescribe. Some students who are stopped out from Price College may still be eligible for continued enrollment under the University retention policy. These students may continue without interruption only if they are accepted by a college other than the Michael F. Price College of Business.

## Degree Information <br> General Degree Information <br> Residency Requirement

Candidates for the BBA degree must complete their last 30 hours as resident students at the University of Oklahoma. However, if a candidate has completed the last 51 hours as a resident student at the University of Oklahoma, nine of the last 60 hours may be taken at another university or by correspondence from OU. Students must take a minimum of 24 hours of upper-division business courses in residence for the Bachelor of Business Administration degree. Students must earn 60 hours from a four-year institution.

- Any study abroad program will count toward Price College residency ( 51 of the last 60 hours or the last 30 hours at OU).
- Students who study abroad will still be required to meet OU and State Regents residency ( 15 of the last 30 hours at OU).


## Transfer Credit

- A maximum of 60 hours will transfer for credit from a two-year college.
- Credit from a two-year college will be accepted to meet lower-division requirements and free electives only.
- A maximum of six hours of transfer work will apply toward the major.


## Repeated Courses

Students may not repeat a course in which they earned a grade of A or $B$, unless the course is one in which there is a change of subject matter (e.g., OSLEP, Independent Study).

If a student repeats a course at the University of Oklahoma for any purpose, the grade received the last time the course was taken becomes the grade for that course. All previous attempts are included in computing grade point averages, but credit for the course is counted only once toward the hours required for the degree. The exception is if it falls in the University repeat policy which affects the retention and graduation grade point averages.

## Pass/No Pass Option

A maximum of 12 semester hours, not to exceed one course per semester, may be taken on a pass/no pass basis. This option may be applied to only social science electives and non-business free electives.

## Second Bachelor's Degree

A student may earn only one undergraduate business degree from an AACSB accredited institution. Students with business degrees from nonAACSB accredited institutions may petition the College for permission to pursue a BBA. The following conditions must be met:

- At least two semesters must be taken in residence at OU.
- At least 30 additional hours must be completed in the college of the second degree. The 30 hours must be in addition to the total number of hours completed by the student for the first degree.
- At least 24 hours of the 30 must be 3000-4000 level business courses.

If a student is pursuing concurrent degrees in two colleges:

- Both degrees must be completed and certified in the same semester.
- A graduation application must be filed for each degree. Two diplomas will be awarded.
- At least two semesters must be taken in residence at OU.
- At least 30 additional hours must be completed beyond the degree that requires the least number of hours.
- At least 24 hours of the 30 must be 3000-4000 level business courses.


## Correspondence Courses

## Limitations on Accepted Courses

- A combined maximum of 60 hours credit by correspondence courses, extension courses, and advanced standing examinations may be applied to the Bachelor of Business Administration degree with the following constraints:
- A combined maximum of 32 hours of correspondence and extension work.
- Credit is given for all correspondence work except for courses presented for the major. Correspondence study may be taken in the major to be used only in the computation of the major grade point average.
- A maximum of six hours from the 15 hours of upper-division business core courses may be taken by correspondence.
- Correspondence work transferred to the College is subject to the same restrictions for all transfer work. Upper-division business courses completed through correspondence and transferred to the College are subject to departmental approval.


## Enrollment Regulations

- Students may enroll in correspondence courses by obtaining authorization from Price Academic Advising Services and by contacting the Center for Independent and Distance Learning, 1600 S. Jenkins, Room 101, Norman, OK 73072-6507. Phone: (405) 325-1921.
- A student may enroll in a maximum of six hours of correspondence at one time.
- If students are concurrently enrolled in correspondence and inresidence credit, the total number of hours for one semester may not exceed the recommended maximum shown under Credit Hour Load based on their overall grade point average.
- A student must secure written permission from a counselor in the Price Academic Advising Services (1010 Price Hall) on the correspondence application form.


## Advanced Standing Examinations

Students who feel they have a sufficient knowledge of the subject matter of a course offered by the University may take an advanced standing examination for undergraduate credit in the course.

A maximum of 60 hours of credit by advanced standing examinations may apply to the Bachelor of Business Administration degree. Students who have received a grade in any course, other than a W, may not subsequently take the same course by advanced standing.

The Center for Independent and Distance Learning administers advanced standing examinations by individual appointment for credit in courses offered by Price College.

## Graduation

Application
Students must apply for the graduation. Consult the Graduate OU website for more information.

## Graduate Study

Admission to each of the graduate programs is available to students with demonstrated aptitude for, and interest in, graduate business education. Previous study in business is not required. Admission decisions are based on a number of factors, including: undergraduate/graduate grade point average, GMAT score, TOEFL (and TSE, if necessary) score, employment history, letters of recommendation and the applicant's personal statement.

Admission recommendations are made on a rolling basis once all application materials are received. It is the student's responsibility to ensure application materials are received on a timely basis.

Refer to the Graduate tabs within each of the Price College of Business academic units' pages of this catalog for information concerning graduate work.

- John T. Steed School of Accounting (p. 885)
- Tom Love Division of Entrepreneurship and Economic Development (p. 903)
- Division of Finance (p. 915)
- Division of Management Information Systems (p. 958)
- Division of Marketing and Supply Chain Management (p. 971)


## Master of Business Administration

The Master of Business Administration (p. 876) program at the University of Oklahoma has continued to meet accreditation standards since it was originally established by the American Assembly of Collegiate Schools of Business in 1963.

The MBA program is designed to give the broad perspective needed to manage an overall enterprise, while allowing sufficient flexibility to gain in-depth preparation in an elected area of concentration. The program provides familiarity with the functional areas of business, the necessary tools for management decision making, and the environment in which organizations operate. The MBA program is offered in both a full-time and part-time format.

## Full-Time MBA (p. 876)

The full-time MBA is a 49-credit hour, degree. All courses are graduate level. The full-time program is 16 months in length and offers its required courses during the day on the Norman campus. Students in the full-time program will also complete two zero-credit hour courses in Professional Development as part of their curriculum.

## Professional MBA (p. 877)

The Professional MBA program is a 37-hour degree program designed for students who work full time. Courses in this program are held in the evenings in Oklahoma City at the OU Health Sciences Center. This program is flexible to allow students to progress toward the MBA degree at an individual pace. While students typically complete the program in approximately 24 months, they have up to five years to earn their MBA. Students are admitted to the Professional MBA program each fall.

## Prerequisites for the MBA Programs

While applicants are not required to have previous study in the field of business, they are expected to possess a basic understanding of analytical techniques (including matrix algebra, calculus, and computer usage), and a facility for expressing ideas precisely and coherently. All MBA courses are graduate-level and do not require undergraduate preparation.

## Executive Master of Business Administration

The Executive Master of Business Administration in Aerospace \& Defense (p. 878)(EMAD) delivers business management education to the growing Aerospace and Defense industry. This executive master's degree seeks to enhance and expand the career educational opportunities for working professionals in the Aerospace \& Defense industry (A\&D) with the State of Oklahoma, the U.S., and the broader global community by providing a unique and high-level educational experience focused on fundamental and advanced topics in the field of business specifically tailored for A\&D.

The Executive Master of Business Administration in Energy (p. 878) is designed to create current and future leaders in the energy industry. The program offers business fundamentals specifically customized for energy professionals, a global perspective on energy, and executive career coaching to enhance leadership skills.

The Executive Master of Business Administration in Renewables (p. 879) program is designed to develop future leaders in the renewable energy industry. The program provides students the business
fundamentals included in a MBA specifically for experienced energy professionals.

## Graduate Certificates Administrated by the Price College of Business

- Aerospace and Defense Analytics Graduate Certificate (p. 879)
- Commercial Space Applications Graduate Certificate (p. 880)
- Executive Management in Aerospace and Defense Graduate Certificate (p. 880)
- Foundations of Business Graduate Certificate (p. 881)
- Hydrocarbon Energy Graduate Certificate (p. 881)
- Renewable Energy Graduate Certificate (p. 882)


## Dual Degree Programs

In recognition of the strong demand for interdisciplinary expertise in many settings, Price College, in cooperation with other academic units within the University, offers several dual-degree programs. While the dual-degree programs require less total hours than pursuing the degrees separately, applicants must be admitted to each program independently. Admission, retention, and degree requirements are maintained by the separate colleges.

## Honors and Awards <br> The Delta Sigma Pi Key

Each year, Delta Sigma Pi awards the Delta Sigma Pi Scholarship Key to the graduating senior with the highest academic average for the four years of study in business administration.

## The Oklahoma Society of Certified Public Accountants Award

Medals are awarded annually to the three outstanding graduating seniors majoring in accounting. The award is based on academic performance in accounting courses.

## John F. Y. Stambaugh Awards

Plaques and cash awards are bestowed annually on the outstanding accounting senior and junior, based on overall academic and extracurricular performance.

## The Floyd Lamar Vaughan Memorial Award

The student chapter of the American Marketing Association bestows this annual award for excellence in marketing studies to an outstanding Price College of Business student.

## The Julian J. Rothbaum Award

Given annually to a senior student majoring in energy management.

## The Kenneth Baker Horning Memorial Award

An annual award given for excellence in business writing.

## The Oklahoma City Sales Marketing Executives Awards

Keys and awards are bestowed annually for excellence in marketing and sales studies.

## The Oklahoma Chapter Of The Financial Executive Institute Of America Award

A key is awarded annually to an outstanding student majoring in accounting.

## The Horace B. Brown Case Study Award

Awarded annually by the Division of Marketing to the undergraduate student (or team) who has made the most significant contribution in classes taught by the case method. The award consists of a certificate and cash award.

## The Entrepreneurship Institute Awards

Separate awards are made to graduate and undergraduate students for the best plan involving entrepreneurial activities. The award includes a certificate and cash award.

## Scholarships, Fellowships and Loans

The University of Oklahoma has many general financial aid programs, including the following: Perkins Loans, Supplemental Educational Opportunity Grants, PELL, Work-Study, Stafford Student Loans, institutional short-term loans and Lew Wentz Foundation Loans. Students interested in applying for any of these programs should contact the Student Financial Center, 1000 Asp Avenue, room 105, Norman, OK 73019-4078.

In addition, Price College offers a wide variety of scholarships, fellowships, grants, loans, and research and teaching assistantships. Contact the Graduate Programs Office, Michael F. Price College of Business for more information.

## College of Business Administrated Programs

## B.B.A. and Accelerated Degree

The Economics, Bachelor of Business Administration (p. 871) shares with the discipline of economics some of the same conceptual concerns, but its focus is on the business firm and its well-being. Economics is a social science focusing on the economic well-being of society.

The Economics, B.B.A./Management of Information and Technology, M.S. (p. 874) program is a great opportunity for undergraduate students who are pursuing a BBA degree to earn a master's degree with a specialization in data analytics.

## Minor

Price College offers a Minor in General Business for Non-Business Majors (p. 873).

## Master's Degrees

The Master of Business Administration (p. 876) cohort-based program enhances teamwork and collaboration through designed case studies and interactive learning. The program offers an array of industry specializations, certificates, summer internships, and dual-degree opportunities so that students' educational experiences are uniquely tailored to their career goals.

The Professional Master of Business Administration (p. 877) program is designed for both rising and seasoned professionals in the Oklahoma City area looking to advance their careers.

The Executive Master of Business Administration in Aerospace \& Defense (p. 878) (EMAD) delivers business management education to the growing Aerospace and Defense industry. This executive master's degree seeks to enhance and expand the career educational opportunities for working professionals in the Aerospace \& Defense industry (A\&D) with
the State of Oklahoma, the U.S., and the broader global community by providing a unique and high-level educational experience focused on fundamental and advanced topics in the field of business specifically tailored for A\&D.

The Executive Master of Business Administration in Energy (p. 878) program is designed to create current and future leaders in the energy industry. The program offers students with the business fundamentals specifically customized for energy professionals, a global perspective on energy, and executive career coaching to enhance their leadership skills.

The Executive Master of Business Administration in Renewables (p. 879) program is designed to develop future leaders in the renewable energy industry. The program provides students the business fundamentals included in a MBA specifically for experienced energy professionals.

## Graduate Certificates

The Aerospace \& Defense Analytics Graduate Certificate is designed to enhance professional development in the aerospace and defense industry.

The Commercial Space Applications Graduate Certificate (p. 880) is designed to enable students with an interest in commercial space applications to build on their skillsets to include securing government and private funding for startups.

The Executive Management in Aerospace and Defense Graduate Certificate ( $p .880$ ) delivers business management education to the growing Aerospace/Defense industry. The graduate certificate is available to managers, executives, and employees in a wide variety of fields who work in the Aerospace/Defense industry. The certificate provides additional management education for these professionals who need specific skills using a flexible format, enabling students to tailor the certificate to their own needs, as well as those of their employer. The program prepares them for careers at the interface of managerial and leadership positions in aerospace and defense organizations, consulting companies, government agencies, and defense contractors.

The Foundations of Business Graduate Certificate (p. 881) is offered for any OU graduate or professional student.

The Hydrocarbon Energy Graduate Certificate (p. 881) will provide students will specific skills and knowledge relevant to today's rapidly evolving hydrocarbon-based energy industry.

The Renewable Energy Graduate Certificate (p. 882) will offer students with opportunities to gain expertise in the renewable energy field to further their professional careers and better position them as leaders in this transitioning industry.

## Doctor of Philosophy

The Business Administration, Ph.D. (p. 883) is a high-quality program stressing solid preparation, collaborative relationships with faculty, support for research and professional travel, and strong placements. This program provide students with the necessary knowledge, training, and resources to pursue successful careers in research and teaching that expand the frontiers of knowledge in business disciplines.

## Courses

## B AD 1001 Personal Computing Productivity Tools

1 Credit Hour
B AD 1001 is designed to help all business majors and business minors succeed as students and young professionals. Being able to effectively utilize OneDrive (cloud storage system) and Microsoft Excel are skills recognized by all employers. These skills allow young professionals to differentiate themselves from others when applying for internships or jobs. (F, Sp, Su)

## B AD 1010 Passport to Success II

0 Credit Hours
Prerequisite: Degree Candidacy. Collection of curricular, co-curricular and extracurricular activities that enable students to succeed in the workplace regardless of major within Price College of Business. Students are required to earn a total of 40 "milestones" to successfully graduate from Price College. At least five and no more than seven milestones should be earned each semester. Milestones are chosen from an approved list. ( $\mathrm{F}, \mathrm{Sp}$ )

## B AD 1523 Business for People, Prosperity, and the Planet

## 3 Credit Hours

This course introduces students to the world of business while supporting their transition to the University of Oklahoma and building a collaborative learning community. This course uses a business simulation to help you build cultural fluency, critical thinking, civil discourse, citizenship, and community engagement, which are all keys to their success in college and beyond. ( $F, S p$ ) [V-FYE].

## B AD 2091 Career Readiness I-Transitioning to the <br> Workplace

1 Credit Hour
Prerequisite: Business majors only. Introduces students to the professional world of business. Emphasizes important aspects such as business culture, communications, ethics, social responsibility and business skills development. Prepares students for a professional future and to identify and address strengths and weaknesses for earning that first job. Includes Career Services registration, creation of a usable resume, and exploration of people skills necessary for success. (F,Sp)
B AD 2113 Introduction to Business I
3 Credit Hours
Designed for non-Business majors. Gives each student a comprehensive introduction to the study of business. Focuses on creation and maintenance of a long-term strategic vision for the firm. Introduces and builds an understanding of the functional business areas such as management, marketing, accounting, finance, and information systems. The concepts learned are essential in managing business activities in an increasingly competitive business world. ( $\mathrm{F}, \mathrm{Sp}$ )

## B AD 2970 Special Topics/Seminar

1-3 Credit Hours
1 to 3 hours. Prerequisite: May be repeated; Maximum credit nine hours. Special topics course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research, and field projects. (Irreg.)
B AD 3013 Integrated Business Core Practicum 3 Credit Hours Prerequisite: ACCT 2123 or concurrent enrollment; Corequisite: enrollment in Integrated Business Core (L S 3323, MGT 3013, MKT 3013); Students must be approved for degree candidacy by Price College. Students will apply concepts from the corequisite courses to their own start-up business ventures and to community service projects. (F, Sp)

B AD 3091 Career Readiness II-Advancing in the Workplace 1 Credit Hour
Prerequisite: Student must be approved for degree candidacy by Price College, junior standing, and B AD 2091. An immersive course designed to explore areas of professional development that will help lead students on a path to a successful career. As an accompaniment to BAD 2091Business and Professional Basics, this course is designed to further explore areas that will help you, the student, become a more successful, well-rounded business professional as you seek internships and full-time job placement. (F, Sp)
B AD 3113 Managing Corporate Communication 3 Credit Hours (Crosslisted with MGT 3113) Prerequisite: Student must be approved for degree candidacy by Price College; ACCT 2123 or concurrent enrollment; MATH 1743 or MATH 1823 or MATH 1914; B C 2813. Strategic Communication challenges students to master their writing, listening, presentation, and interpersonal communication skills to excel in various business environments. Students will also develop strategies to promote customer engagement and loyalty through social media review sites. Emphasis is placed on credibility management, audience analysis, research, revision, and rehearsal to equip students for professional success. (F, Sp)

## B AD 3440 Mentored Research Experience

3 Credit Hours
0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)
B AD 3513 International Business
3 Credit Hours
Prerequisite: Student must be approved for degree candidacy in the Price College of Business; ACCT 2123 or concurrent enrollment. The nature and economic role of the multinational corporation including the impact of legal, political, educational, sociological, and cultural variables upon firm performance and managerial activity; case studies illustrate managerial, marketing, financial and accounting activities projected across national boundaries. ( $\mathrm{F}, \mathrm{Sp}$ )
B AD 3700 Internship in Business Administration 1-3 Credit Hours 1 to 3 hours. Prerequisite: student must be approved for degree candidacy by Price College; permission showing approval from the designated faculty or advisor overseeing internships for credit. . (F, Sp, Su )
B AD 3710 Topics in Business Administration 1-3 Credit Hours 1 to 3 hours. Prerequisite: student must be approved for degree candidacy in Price College of Business. May be repeated; maximum credit nine hours. Permits students to study topics in business administration not included in standard course offerings. Subject of course will vary. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
B AD 3960 Honors Reading
1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Provides an opportunity for the gifted honors candidate to study materials not usually presented in regular courses. (F, Sp, Su)
B AD 3970 Honors Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Subjects covered vary. Deals with concepts not usually treated in regular courses. (Irreg.)

B AD 3980 Honors Research
1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program; junior standing. May be repeated; maximum credit six hours. Independent research on special projects. (F, Sp)

## B AD 3990 Independent Study

1-3 Credit Hours
1 to 3 hours. Prerequisite: permission of instructor and junior standing. May be repeated once with change of content. Independent study may be arranged to study a subject not available through regular course offerings. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

## B AD 4013 Business Strategy and Policy

3 Credit Hours
Prerequisite: senior standing and completion of all other College of Business core courses. Administrative decision making with emphasis on analyzing business problems, formulating policies and implementing plans for action; comprehensive cases provide the opportunity to study the proper interrelationships among production, finance, marketing and the many other functions involved in managing a business enterprise. Should be taken in student's final semester. (F, Sp, Su) [V].

## B AD 4960 Directed Readings

1-4 Credit Hours
1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean. May be repeated; maximum credit four hours. Designed for upper-division students who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)
B AD 4970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: Senior standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

## B AD 4990 Independent Study

1-3 Credit Hours
1 to 3 hours. Prerequisite: Senior standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)
B AD 5001 Quantitative Methods and Modeling I 1 Credit Hour
Prerequisites: graduate standing; departmental permission. Review of important mathematical concepts used in business decision making (emphasis on problem solving). Spreadsheets are used as the principal device for building models. The course covers concepts in the effective spreadsheet design and use. Through development and usage of specific spreadsheets, students will become well-versed in verbalizing, visualizing, forming equations, and calculating answers to key types of business problems. (Irreg.)

B AD 5010 Foundations of MBA Success
0 Credit Hours
Prerequisites: departmental permission; graduate standing; majors only. This course provides an orientation to the Price MBA program, and is an essential ingredient for succeeding in the program and beyond. (F)
B AD 5101 MBA - Professional Development 1 Credit Hour Prerequisite: admission to MBA program. Stresses professional development skills. Designed to prepare students for their professional careers and the job search process in particular. Topics include: resume writing, job search and interview, negotiation skills, business etiquette, career decisions, and project and career management. (F)

B AD 5102 Managerial Economics
2 Credit Hours
Prerequisites: graduate standing; departmental permission. Microeconomic concepts and analysis as used in managerial decisionmaking with emphasis on marginal analysis, comparative advantage, resource allocation, opportunity cost, demand and supply, elasticity, economic efficiency, price discrimination, welfare analysis, production and cost functions, productivity, market structures, externalities and public goods, game theory, information asymmetry, market signaling, and government regulation of anti-competitive behavior. (Irreg.)

## B AD 5122 Quantitative Analysis I <br> 2 Credit Hours

Prerequisite: Graduate standing and departmental permission. This course examines key probability and applied statistical concepts. General course objectives are: 1) enhanced Excel modeling skills; 2) understanding and use of descriptive statistics; 3 ) basics of probability theory; 4) use and interpretation of various probability models; 5) ANOVA; and 6) regression analysis. Microsoft Excel will be used to illustrate many of these topics. (Irreg.)

B AD 5172 Business, Government and Society
2 Credit Hours Prerequisite: graduate standing, admission into Business graduate program and department permission. Within the study of business, emphasis is placed upon market competition while little attention is paid to "non-market" conditions. Examples of non-market issues include: legislation, lawsuits, etc. Non-market conditions are often reviewed as external events having limited effect upon the strategies of the firm. This course seeks to integrate these concepts/ demonstrate the importance of strategically managing these issues. (Su)
B AD 5182 Quantitative Analysis II 2 Credit Hours
Prerequisite: Graduate standing, departmental permission, and B AD 5122. This course expands treatment of multiple regression analysis and pursues other models and analytical techniques for actionable managerial decision making. Data analysis techniques in the context of Business Intelligence are covered. Specific techniques include multiple regression models and implications of violation of classical assumptions, basic forecasting techniques, linear programming, and optimization and simulation techniques for decision support. (Irreg.)
B AD 5201 MBA - Professional Development II 1 Credit Hour Prerequisite: B AD 5101. This course will enable students to develop critical skills needed to identify, prepare for, and pursue a post MBA career. The course will focus on real-world and practical aspects of the business arena. Students will interact with key business leaders representing a variety of industries and functional areas. (Sp)
B AD 5202 Career \& Professional Development
2 Credit Hours
Prerequisite: Admission into the Professional MBA or Online MBA Program, Graduate Standing, and Departmental Permission. This course will prepare MBA students for the world of work. This class will enable students to develop the critical skills necessary to identify, prepare for, and confidently pursue a post-MBA career - and ultimately become great business leaders. The course will also focus on real-world and practical skills to succeed in the workplace. ( $F, S p$ )

B AD 5302 Advanced Leadership
2 Credit Hours
Prerequisite: Graduate standing and departmental permission. You will explore leadership traits, behaviors, styles, and skills that are important to being an effective leader. We will highlight research in leadership and review important business concepts from business press and books. You will be asked to deeply reflect on your current leadership situation and create an actionable development plan that will move your forward in your leadership career. (Irreg.)

B AD 5312 Strategic Communication
2 Credit Hours
Prerequisite: Graduate standing and departmental permission. Strategic Communication challenges students to master writing, listening, presentation, and interpersonal skills to lead in business environments. Students will develop strategies to promote engagement and loyalty with internal and external stakeholders. Emphasis is placed on credibility management, audience analysis, research, revision, and rehearsal to equip students for professional success. (Irreg.)

## B AD 5322 Strategic Leadership \& Communication in the Workplace 2 Credit Hours

Prerequisite: Graduate standing. In today's workplace, the most influential leaders are self-aware, emotionally intelligent, and continuously strive to improve the skills necessary to manage and lead professionally. These leaders are also excellent communicators committed to strengthening their speaking \& listening skills. In this course, students will explore methods to improve their ability to lead and communicate effectively at any level of leadership. (Su)

## B AD 5490 Readings in Business Communication and Business

 Administration1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing and permission. May be repeated; maximum credit 12 hours. Preparation and submission of a research report on an assigned comprehensive topic relating to the business enterprise or to its ethical environment. ( $F, S p, S u$ )
B AD 5812 Global Business Experience
2 Credit Hours
Prerequisite: graduate standing and department permission. The course will focus on a study-abroad experience in a specific country. Students will have in-class instruction prior to and during their trip. Students will visit local and U.S. businesses; interact with and governmental leaders; participate in cultural events and experience local customs and culture; analyze cases involving the country; and, complete a written report. (Irreg.)

## B AD 5822 Business Consulting Practicum 2 Credit Hours

Prerequisite: graduate standing and department permission. This course applies the "Design Thinking" approach, which relies on rapid action followed by interaction and then reflection, to business consulting projects. It offers an immersive experience to students by using a handson, iterative approach to collaboratively solving real world business problems, and may include developing innovative products, processes and services. (Sp)
B AD 5832 Applied Field Project
2 Credit Hours
Prerequisite: Graduate standing or department permission. This semester-long course will provide experiential learning in a student's area of specialization and thereby enable them to apply their academic knowledge to real world contexts. Students specializing in different academic areas will be matched with internships in those areas. (F)

## B AD 5902 Strategic Management 2 Credit Hours

Prerequisite: graduate standing and permission of the department. The study of management decisions and actions to improve an organization's competitiveness in global business environments. Uses a variety of pedagogies to integrate strategies. Students develop skills to formulate, implement, and evaluate organizational strategies in rapidly changing environments. This course is an integrative/cross-functional course. ( $F$, Su )
B AD 5960 Directed Readings 1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing and permission of department. May be repeated; maximum credit twelve hours. Directed readings and/or literature reviews under the direction of a faculty member. (F, Sp, Su)

B AD 5970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

## B AD 5973 Seminar

3 Credit Hours
Prerequisite: graduate standing, permission (Director-CBA Graduate Programs). May be repeated with change of topic; maximum credit nine hours. A seminar for graduate students with topics to be announced each time the course is offered. $(F, S p, S u)$
B AD 5980 Research for Master's Thesis
2-9 Credit Hours
Variable enrollment, two to nine hours; maximum credit applicable toward degree, four hours. (F, Sp, Su)
B AD 5990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)
B AD 6243 Applied Univariate Statistics 3 Credit Hours
Prerequisite: Ph.D. standing or permission of instructor, permission (director-CBA graduate programs). Probability, algebra of expectations, random sampling, sampling distributions, point and interval estimation, tests of hypotheses, parametric and nonparametric, sampling methods, survey design, general linear model, computer applications, statistical analysis system. (F)
B AD 6960 Directed Readings
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit six hours. Directed readings and/or literature review under the direction of a faculty member. (Irreg.)
B AD 6970 Special Topics/Seminar 1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit 12 hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or research and field projects. (Irreg.)

## B AD 6980 Research for Doctoral Dissertation 2-16 Credit Hours

2 to 16 hours. Prerequisites: Graduate standing and permission of instructor; may be repeated. Directed research culminating in the completion of the doctoral dissertation. (F, Sp, Su)
B AD 6990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)
BC 2813 Strategic Communication for Business Professionals 3 Credit Hours
Prerequisite: Business majors or other majors approved by Price College advising; ENGL 1213 or EXPO 1213 or equivalent. Introduces the strategies, processes, and resources necessary for writers in business and professional contexts. Students practice informative and analytical business genres while gaining expertise in research, writing, and revision. (F, Sp, Su)

B C 3440 Mentored Research Experience 3 Credit Hours
0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)
B C 3960 Honors Reading 1-3 Credit Hours
1 to 3 hours. Prerequisite: Admission to Honors Program. May be repeated; maximum credit six hours. Consists of topics designated by the instructor in keeping with the student's major program. The topics will cover materials not usually presented in the regular courses. (F, Sp, Su)

## B C 3970 Honors Seminar

1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Subjects covered vary. Deals with concepts not usually treated in regular courses. (Irreg.)
B C 3980 Honors Research 1-3 Credit Hours
1 to 3 hours. Prerequisite: Admission to Honors Program. May be repeated; maximum credit six hours. Will provide an opportunity for the gifted Honors candidate to work at a special project in the student's field. (F, Sp, Su)

B C 3990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: permission of instructor and junior standing. May be repeated once with change of content. Independent study may be arranged to study a subject not available through regular course offerings. (F, Sp, Su)
EMAD 5302 Accounting in Aerospace and Defense 2 Credit Hours Prerequisite: Graduate standing, departmental permission, majors only, and admission to the Executive Management in Aerospace/Defense graduate certificate program. This course will create a foundation for understanding accounting and financial management in the Aerospace and Defense (A\&D) industry, including performance measurement and budgeting. This course is intended to provide students with a working knowledge of A\&D financial statements, including preparation and analysis. This course includes an in-person class at the Gene Rainbolt Graduate School of Business in Oklahoma City. (Irreg.)
EMAD 5312 Information Technology and Cyber Security in Aerospace and Defense

2 Credit Hours
Prerequisite: Graduate standing, departmental permission, and admission to the Executive Management in Aerospace/Defense graduate certificate program. Information technology and cyber security are crucial in managing a business in the aerospace and defense (A\&D) industry. This course will provide a basic understanding of the technical and management aspects of data communications, networking infrastructure, and cyber security concepts for A\&D. (Irreg.)

## EMAD 5322 Managing Supply Chain and Logistics in Aerospace and Defense <br> 2 Credit Hours

Prerequisite: Graduate standing, departmental permission, and admission to the Executive Management in Aerospace/Defense graduate certificate program. Supply chain and logistics are crucial in the aerospace and defense industry. A\&D firms are attempting to improve their competitive positions by managing the flow of raw materials, work-in-process inventories, and finished goods. This course covers managing the supply chain that plans, sources, makes, and delivers an A\&D organization's goods and/or services, from suppliers of raw materials to customer. (Irreg.)

EMAD 5332 Legal Environment for Aerospace and Defense

## 2 Credit Hours

Prerequisite: Graduate standing, departmental permission, and admission to the Executive Management in Aerospace/Defense graduate certificate program. This course examines the A\&D industry contract vehicles, contract performance management, and regulation management and federal statutory law. Students will learn the legal and ethical environment of A\&D business. The course provides necessary background on traditional A\&D business law topics, including A\&D contracting. This course includes an in-person class at the Gene Rainbolt Graduate School of Business in Oklahoma City. (Irreg.)
EMAD 5342 Project Management for Aerospace and
Defense

## 2 Credit Hours

Prerequisite: Graduate standing, departmental permission, and admission to the Executive Management in Aerospace/Defense graduate certificate program. This course develops the knowledge, skills, tools, and techniques to initiate, plan, execute, monitor, and control activities related to meeting A\&D project requirements. It focuses on the theoretical foundations and practical applications of project management along with the IT tools to support project planning, budgeting, scheduling, cost analysis, resource leveling/control, and human resource management in A\&D organizations. (Irreg.)
EMAD 5352 Global Aerospace and Defense Strategy 2 Credit Hours Prerequisite: Graduate standing, departmental permission, and admission to the Executive Management in Aerospace/Defense graduate certificate program. This course develops an innovative mindset to deal with global complexity, barriers to international trade, and human resource challenges. Students are provided with the evidence, concepts, and models for understanding company performance in a global world and the issues facing executives in the early 21 st century. (Irreg.)

## EMAD 5362 Field Project in Aerospace \& Defense <br> (Analysis)

## 2 Credit Hours

Prerequisite: Graduate standing, departmental permission, and admission to the Executive Management in Aerospace/Defense graduate certificate program. This course provides experiential learning in the aerospace and defense industry by having students apply knowledge from the classroom and work experience to analyzing problems facing A\&D organizations. Field projects will deal with scoping the problem under study, structured analysis of the problem including data collection from internal and external sources, and development of recommendations, solutions, and timeline for implementation. (Irreg.)

## EMAD 5372 Field Project in Aerospace \& Defense

 (Implementation)
## 2 Credit Hours

Prerequisite: Graduate standing, departmental permission, admission to the Executive Management in Aerospace/Defense graduate certificate program, and B AD 5362. This course provides experiential learning in the aerospace and defense industry by having students apply their knowledge from the classroom and their work experience to implement solutions and recommendations developed in B AD 5362 or those provided by the client organization. They will also include the development of a prototype, a pilot implementation of the solutions, and outcome testing. (Irreg.)

## EMAD 5382 Quantitative Methods \& Models for Aerospace \& Defense <br> 2 Credit Hours

Prerequisite: Graduate standing and departmental permission, or admission into the Executive Master of Business Administration in Aerospace \& Defense program. This course focuses on understanding and applying quantitative methods and models in the context of Aerospace \& Defense (A\&D). The course content is organized around three modules: summarizing quantitative data, relating and comparing data, and predicting outcomes based on sample data. The topics covered in these modules include descriptive statistics, associative statistics, regression, multiple regression, and inferential statistics. (Irreg.)
EMAD 5392 Organizational Behavior in Aerospace \& Defense Organizations

2 Credit Hours
Prerequisite: Graduate standing and departmental permission, or admission to the Executive Master of Business Administration in Aerospace \& Defense program. This course deals with the need for managers to understand behavior in organizations and the challenges they face. It discusses individual differences, employee motivation, and effective job design, and how organizations should select, retain, and evaluate employees. The course discusses group dynamics, team management, effective communication, managing conflict, employee stress, and career management issues. (Irreg.)
EMAD 5402 Aerospace and Defense Marketing Fundamentals
Credit
Prerequisite: Graduate standing and departmental permission, or admission into the Executive Master of Business Administration in Aerospace \& Defense program. The traditional role of marketing management is enlarged to include the development, implementation, and control of marketing strategies in the aerospace/defense organization. Emphasis is on the strategic marketing process in the dynamic aerospace/defense business environment. Strategic marketing decisions, analysis, and issues are integrated with the goal of achieving customer satisfaction to gain a sustainable competitive advantage within the aviation industry. (Irreg.)

## EMAD 5412 Innovation and Entrepreneurship in Aerospace \& Defense <br> 2 Credit Hours

Prerequisite: Graduate standing and departmental permission, or admission into the Executive Master of Business Administration in Aerospace \& Defense program. This course introduces skills and techniques that enable the development of innovative and entrepreneurial strategies in aerospace and defense. We also evaluate approaches to developing an innovative, entrepreneurial culture in environments where science- and technology-related activities are critical for effective operations. The course will analyze the challenges posed by complex organizations and highlight methods to deal with them. (Irreg.)

## EMAD 5422 Lean Six Sigma Tools for Aerospace \&

## Defense

## 2 Credit Hours

Prerequisite: Graduate standing and departmental permission, or admission to the Executive Master of Business Administration in Aerospace \& Defense program. The course introduces the fundamental Lean Six Sigma concepts within a business organization. It covers the basic concepts within Six Sigma and Lean techniques, and introduces tools for measurement and process improvement metrics in organizations through the DMAIC process. The course has a strategic foundation in which we review the strategic use of techniques, ensuring a positive result upon implementation. (Irreg.)

## EMAD 5432 Advanced Financial Management in Aerospace \& Defense <br> 2 Credit Hours

Prerequisite: Graduate standing, EMAD 5302 and departmental permission, or admission into the Executive Master of Business Administration in Aerospace \& Defense program. This is a comprehensive course in corporate financial management and analysis. The course builds on the main concepts of the core Accounting course (EMAD 5302). The primary objective is to develop the skills necessary to value firms and optimize a corporation's capital structure in the Aerospace and Defense Industry using varying finance methods. (Irreg.)

## EMAD 5442 Mergers and Acquisitions in Aerospace and Defense <br> 2 Credit Hours

Prerequisite: Graduate standing and departmental permission, or admission into the Executive Master of Business Administration in Aerospace \& Defense program. This course studies the design and valuation of deals to acquire or divest corporate assets. We study M\&A transactions, applying them to the aerospace and defense industry through case-based methods. We explore how the legal system, accounting rules, and tax incentives affect outcomes of M\&A transactions. We analyze types of M\&A transactions, their motivations, and their effects on corporate value. (Irreg.)

## EMAD 5452 Managing Aerospace \& Defense Government

## Contracts

2 Credit Hours
Prerequisite: Graduate standing and departmental permission, or admission into the Executive Master of Business Administration in Aerospace \& Defense program. This course introduces the procurement and contracting processes used in the aerospace and defense (A\&D) industry. Students will gain an understanding of best practices from both government and industry perspectives, including subcontracting. The course will navigate the highly complex federal acquisition process including governance and operational roles. The course emphasizes government contracting but also discusses private sector contracting in A\&D. (Irreg.)
EMAD 5472 Data Management and Security in Aerospace \& Defense 2 Credit Hours
Prerequisite: Graduate standing and departmental permission, or admission to the Executive Master of Business Administration in Aerospace \& Defense program. Every organization is concerned with data management. Data must be stored effectively and securely so it can be retrieved to support decision making. These issues are particularly relevant for the A\&D industry, an environment where extra measures must be taken in all aspects of security. The objective is to provide a basic understanding of data management and security. (Irreg.)
EMAD 5482 Data Analytics for Aerospace \& Defense 2 Credit Hours Prerequisite: Graduate standing and departmental permission, or admission to the Executive Master of Business Administration in Aerospace \& Defense program. Data analytics is becoming increasingly important for every industry, and it is especially important in the aerospace and defense (A\&D) industry. The objective of this course is to provide a basic understanding of data analytics in A\&D. (Irreg.)
EMAD 5602 The Future of Space
2 Credit Hours
Prerequisite: Graduate Standing and Departmental Permission. This course focuses on the future of a commercial space application, the history of manned and unmanned space flight, and recent commercial ventures in space along with new innovations in the realm of possibility as space travel and launches are becoming more accessible. The course will also look at political developments and the current business climate for space. (Irreg.)

EMAD 5622 Space and Small Business: Business Opportunities in the Space Economy

2 Credit Hours
Prerequisite: Graduate Standing, Majors Only, and Departmental Permission. This course examines the current status and evolving nature of business opportunities in the expanding commercial space sector. Once the domain of governments and large aerospace and communications corporations, the space economy is now ripe with opportunities for new entrants. The course will survey the large-scale trends and dynamics driving this renaissance. (Irreg.)
EMAD 5642 Private Equity and Investment in Space 2 Credit Hours Prerequisite: Graduate Standing and Departmental Permission. With the declining cost of sending payload into lower orbit, many new startups are forming around the concept of commercializing space. This course reviews the basics of setting up term sheets for new ventures and presents real opportunities to pitch their new venture to tap into this new market. (Irreg.)
EMAD 5960 Directed Readings
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing and permission of department. May be repeated; maximum credit twelve hours. Directed readings and/or literature reviews under the direction of a faculty member. (F, Sp, Su)
EMBA 5012 Energy Policy and Regulations
2 Credit Hours
Prerequisite: graduate standing, EMBA students only. Examines U.S. and global energy policy and regulatory development emphasizing: resource access, business-government relations, environmental protection, social responsibility, and sustainability. Topics explored from the perspectives of government, business, citizens and civil society stakeholder groups, emphasizing unique positions of entities in the various major energyproducing regions and energy users in the U.S. and worldwide. (Irreg.)
EMBA 5021 Energy Technology and Innovation 1 Credit Hour
Prerequisite: Graduate standing and EMBA majors only. The energy sector is developing and deploying scalable innovative technologies to navigate the energy transition landscape by reducing greenhouse gas emissions, making a lower carbon future for hydrocarbons, improving energy security, and providing access to energy to communities that previously lacked it. This course provides a broad overview of such technologies and innovations. (Irreg.)
EMBA 5022 Introduction to Energy Accounting 2 Credit Hours Prerequisite: Graduate standing and EMBA majors only. This course uses concepts from financial accounting and managerial accounting and applies them to specific reporting issues in the energy industry as well as presentation of the information on the financial statements of an oil and gas company. Reviews the accounting cycle with an emphasis on the proper accounting treatment of energy-related activities, actions (e.g., acquisition of mineral interests). (Irreg.)
EMBA 5031 Organizational Behavior
1 Credit Hour
Prerequisite: graduate standing, EMBA students only. Designed for students who wish to occupy leadership and managing positions in the energy industry and increase their understanding of individual behavior in organizations. It explores theories and concepts of organizational behavior to address managerial problems. Topics include: management challenges; evidence-based management; managing diversity; motivating, evaluating, and rewarding employees; and creating a positive work environment and achieving personal well-being. (Irreg.)

EMBA 5042 Energy Economics
2 Credit Hours
Prerequisite: graduate standing, EMBA students only. Economic concepts and analysis used in managerial decision-making in energy companies with emphasis on demand, supply, market equilibrium, elasticities, perfect competition, external effects and public goods, market power and monopoly, natural monopolies, economic regulation, market dominance, merger clearance, cartels, collusion and antitrust, oligopolistic markets, GDP, unemployment, inflation, monetary and fiscal policies, and the interrelations among different sectors of the economy. (Irreg.)
EMBA 5052 Financial Markets and Securities
2 Credit Hours
Prerequisite: graduate standing, majors only. During this course, you'll obtain a strong foundation for an understanding of financial markets and the main types of securities traded in these markets. The course topics include trading structure, risk and return, portfolio theory, asset pricing models, market efficiency and an introduction to the nature and valuation of equities and bonds, and an overview of technical concepts. (Irreg.)
EMBA 5062 Quantitative Methods and Models
2 Credit Hours
Prerequisite: graduate standing, EMBA students only. The purpose of this course is to understand and apply quantitative methods and models in the context of energy management. This course is organized to develop the student's ability to: 1) summarize, 2) compare, and 3) predict outcomes based on sample quantitative data. The topics covered in course modules include descriptive statistics, associative statistics, inferential statistics, and multiple regression analysis. (Irreg.)

EMBA 5082 Strategic Management
2 Credit Hours
Prerequisites: graduate standing, EMBA students only. Examines management decisions and actions to improve an organization's competitiveness in global business environments. Uses a variety of pedagogies to integrate strategies, and students will develop skills to formulate, implement, and evaluate organizational strategies that play across the energy industry in rapidly changing environments. (Irreg.)
EMBA 5091 Accounting II 1 Credit Hour
Prerequisite: Graduate standing, EMBA 5022, and EMBA majors only. This course will cover Financial Accounting Standards Board (FASB), Generally Accepted Accounting Principles (GAAP), and Securities and Exchange Commission (SEC) financial statement disclosures specific to entities engaged in oil and gas producing activities (referred to as Upstream Entities), accounting for derivatives, and tax issues affecting the energy industry. (Irreg.)
EMBA 5111 Management Information Systems 1 Credit Hour
Prerequisites: graduate standing, EMBA students only. Managers in energy organization need to understand the pathways for improving performance through IT-enablement and to be active participants in decisions regarding investing in and implementing IT-enabled business solutions and supporting infrastructures. This course provides student with an awareness and understanding of the technologies and issues they are likely to confront in their roles as managers in an energy organization. (Irreg.)
EMBA 5112 Data, Analytics and Decision-Making 2 Credit Hours Prerequisite: Graduate standing and EMBA majors only. Develops skills in data analytics including managing data resources, techniques for analysis, visualization, security and privacy, and data-driven decision-making. Particular attention is paid to disruptive technologies, governance, and organizational issues in deepening analytics capabilities in the energy industry. (Irreg.)

EMBA 5131 Renewable Energy Resources 1 Credit Hour
Prerequisite: Graduate standing and EMBA majors only. Considers interest in renewable energy from the view that meeting global energy demand is "all of the above." Examines traditional energy firms possibly adding alternative energy to its offerings. Provides student with a broad overview of how renewable energy affects markets today, renewable energy technology, and its cost effectiveness compared to other energy sources and its future penetration rate projections. (Irreg.)
EMBA 5141 Supply Chain Management
1 Credit Hour
Prerequisite: Graduate standing, EMBA students only. Historically, energy supply chain mainly involved moving products from refineries to customers. Now it is expected to improve performance and manage supply and demand across areas such as strategic sourcing, platform construction, plant maintenance and reliability, storage, etc. This course explores hydrocarbon and renewable energy value chains and provides a foundational knowledge of the intersections of supply chain and energy. (Irreg.)
EMBA 5142 Derivatives and Energy Trading 2 Credit Hours
Prerequisite: Graduate standing and EMBA majors only. Provides a comprehensive review of the organization and structure of the market for energy assets and commodities. Topics include trading platforms, pricing issues, forecasting, role and linkage with associated futures, forwards and options contracts, "basis" and spreads, hedging strategies, the principles governing the valuation of these "derivative" securities, and the ways in which these securities can be used effectively. (Irreg.)
EMBA 5152 Derivative Securities and Markets 2 Credit Hours Prerequisites: graduate standing, EMBA students only. Develop an understanding, both intellectual and practical, of the organization and micro-structure of the markets for forward, futures, and options contracts, the principles governing the valuation of these "derivative" securities, and the ways in which these securities can be used effectively in investment banking, portfolio management, hedging, and risk management. Particular attention is paid to energy derivatives and the perspective of the energy sector. (Irreg.)
EMBA 5162 Energy Assets and Commodities Trading 2 Credit Hours Prerequisites: graduate standing, EMBA students only. Provides a comprehensive and in-depth review of the market for energy assets and commodities: including trading platforms, pricing issues, forecasting, role and linkage with associated futures, forwards and options contracts, study of "basis" and spreads, and hedging strategies. The course will be anchored solidly within a theoretical conceptual framework and be supported with relevant case studies. (Irreg.)

EMBA 5182 Enterprise Valuation, Mergers and Acquisitions, and Corporate Restructuring

2 Credit Hours
Prerequisite: graduate standing, EMBA students only. The course covers major aspects of $M \& A$ and other corporate restructuring transactions; reasons that deals are done, the mechanics of the transactions, the valuation of the firms involved, various aspects of deal structure, the roles and incentives of the parties involved, and related issues. Brings together materials from previous finance courses and links financial decisionmaking with firm's overall business strategy. (Irreg.)

EMBA 5191 Marketing Strategy - Changing Energy Mix and New Markets 1 Credit Hour
Prerequisite: Graduate standing and EMBA students only. Covers the challenges faced by the energy industry in developing new markets for its products, and how to manage customer and client relations. Students will learn practical marketing tools and how they can be used to affect corporate strategy. Topics include the strategic marketing process, oil, gas and NGL valuation, market segmentation, supply chain and logistics, pricing mechanisms and hedging. (Irreg.)
EMBA 5201 Managing Change - Role of Leadership 1 Credit Hour Prerequisite: Graduate standing, EMBA students only. Provides a theoretical understanding and skill development necessary for being an effective leader and manage organizational change. Identify ways to become a more effective leader by applying theories of human behavior to solve day-to-day problems of organizational administration. Examines core decision-making challenges, complex change scenarios, and leadership approaches and strategies to manage change in the context of the energy industry. (Irreg.)
EMBA 5212 Valuation of Hydrocarbon Resources 2 Credit Hours
Prerequisite: Graduate standing, majors only. This course brings together concepts to make better economic decisions in projects and industry. It examines ways to evaluate the economic viability of an investment opportunity and develops skills to make these evaluations. The participants perform evaluations of field development projects and practice negotiation skills to create value for an acquisition/divestment. (Irreg.)
EMBA 5222 Corporate Energy Finance
2 Credit Hours
Prerequisite: Graduate standing, EMBA students only. Provides students with the analytical and conceptual skills required in the modern practice of corporate financial management in energy organizations. Will focus on three key areas: (1) optimal allocation of capital; (2) optimal choices for raising capital; (3) optimal management of risk in conjunction with (1) and (2), including measuring and managing risks in energy companies. (Irreg.)
EMBA 5232 Hydrocarbon Law and Regulations 2 Credit Hours
Prerequisite: Graduate standing, majors only. This course is an introduction to energy policy, law, and regulation, covering some basics in both contract and property law and how to critically read and brief cases. While hydrocarbon law is a major focus, other energy resources and how the multiple energy markets can affect each other are explored. Policies for balancing energy needs with environmental protection are examined. (Irreg.)

## EMBA 5242 Reserve Valuation and Reporting 2 Credit Hours

Prerequisites: graduate standing, EMBA students only. Key objectives are learning compliant methods of preparing reserves/resources estimates, learning to estimate and understand the composition of and variables to the estimates, understanding the impact of economics on those estimates, properly classifying those estimates using current industry accepted definitions, and understanding the use of reports. Will discuss utilizing a reserves report as the basis for company modeling projections. (Irreg.)
EMBA 5251 Electric, Gas \& Utility Fundamentals 1 Credit Hour
Prerequisite: Graduate standing and majors only. This course covers material on basic concepts, terms, and the integration of primary functions in electric utility systems, including an overview of the utility regulatory environment and markets, general business model of regulated and unregulated utilities, and electric generation options and economic dispatch. (Irreg.)

EMBA 5261 Energy and Environment 1 Credit Hour
Prerequisite: Graduate standing and EMBA majors only. An introduction to the global energy industry's past, present, and future, along with the history and current issues/challenges that different regions face. The course provides a broad look at the fundamentals (resources, politics, culture, regulatory, and legal framework, plus environmental issues) that impact world energy supply and demand. (Irreg.)
EMBA 5271 Energy and Environment II 1 Credit Hour Prerequisite: Graduate standing, EMBA 5261, and EMBA majors only. Introduces energy system from an environmental and human health perspective, and the industry's social license to operate. Examines energy supply and use, its environmental and human health impact and mitigating factors. Discusses energy system organization: how we got here, how it operates, feasible paths going forward, and how to leverage forces of change for a more sustainable energy future. (Irreg.)
EMBA 5281 Introduction to Energy Systems I 1 Credit Hour
Prerequisite: Graduate standing and EMBA in Renewables majors only. This course is designed to help understand the earth's energy system and the potential impact of human activity by providing a broad understanding of the current energy system, its challenges, particularly with respect to the environment, and possible paths to a sustainable energy future. (Irreg.)
EMBA 5291 Electric Power Systems
1 Credit Hour
Prerequisite: Graduate standing and EMBA in Renewables majors only. This course discusses power systems and environmental consequence, electric circuit theory, principles and practices of the electrical power industry. The course provides an understanding of how, in an electricity grid, power generation and power consumption are closely matched; integrating renewable energy resources into the grid; and the business model of regulated and unregulated utilities, generation options, and economic dispatch. (Irreg.)

EMBA 5301 Transportation and Residential, Commercial \& Industrial Energy Systems 1 Credit Hour Prerequisite: Graduate standing and EMBA in Renewables majors only. This course covers the technical and economic structure of energy consumption, and the drivers of energy demand in the transportation, residential, commercial and industrial sectors, which define the set of services that can be supplied by renewable sources in each sector. (Irreg.)
EMBA 5312 Introduction to Accounting for Renewable Energy

2 Credit Hours
Prerequisite: Graduate standing and EMBA in Renewables majors only. This course provides an understanding of the accounting cycle with emphasis on the proper accounting treatment of renewable energy activities; uses accounting concepts and applies them to specific reporting and decision-making issues in renewables; and discusses the analysis and presentation of financial statement information for renewable energy companies and cost systems analysis for product costing, decision making, and cost management. (Irreg.)
EMBA 5322 Managing Change in Renewables - Strategy and Leadership 2 Credit Hours
Prerequisite: Graduate standing and EMBA in Renewables majors only. This course provides an understanding of the implementation of major strategic organizational changes and the fundamental leadership theories and management practices associated with managing change within the energy industry, providing participants with the necessary framework and tools to effectively lead organizational changes, with attention placed on the human side of change and how to plan for and manage change accordingly. (Irreg.)

EMBA 5331 Accounting for Renewable Energy
1 Credit Hour
Prerequisite: Graduate standing and EMBA in Renewables majors only. This course will cover advanced financial topics for renewable energy companies, such as financial statement disclosures specific to entities engaged in renewable energy, depreciation and depreciation reserves, accounting for derivatives, and tax equity and tax benefits for renewable energy industry. (Irreg.)
EMBA 5341 Cyber-Physical Security and Resilience for Energy

1 Credit Hour
Prerequisite: Graduate standing and majors only. This course covers introductory topics in cyber-physical systems security, provides a layered perspective of the energy industry, and provides an overview of the interactions among system components and the interaction between external forces and the system, breaches and enforcement, standardization, best practices, policies, privacy, and legal issues. (Irreg.)
EMBA 5351 Renewable Energy Law and Regulations 1 Credit Hour Prerequisite: Graduate standing and majors only. The course will be an introduction to the legal framework governing renewable energy project development and operation, including regulatory and commercial issues facing various stakeholders. (Irreg.)
EMBA 5361 Introduction to Energy Systems II 1 Credit Hour Prerequisite: Graduate standing, EMBA 5281, and EMBA in Renewables majors only. This course provides a framework for thinking about why energy-related events are happening in the world, what they may mean for future energy use and by extension societal and environmental wellbeing, and how we might improve our current energy system moving forward. (Irreg.)

EMBA 5371 Data Analytics and Digitization 1 Credit Hour
Prerequisite: Graduate standing and EMBA in Renewables majors only. This course provides a broad-based introduction to the use of data science for understanding sustainability problems and energy systems. Course materials will address developing a foundational understanding of terminology, methods, applications, and tools that are employed across all energy sectors, with emphasis on renewable energy. (Irreg.)
EMBA 5381 Renewable Energy Project Development: Forecasting 1 Credit Hour
Prerequisite: Graduate standing and majors only. All major stakeholders associated with a renewable energy project must rely on many different types of forecasting. Generating accurate forecasts is critical to reducing the uncertainty and risks associated with intermittent resources. This course will provide an overview on how different types of forecasts inform project decisions, both from a project development and operational perspective. (Irreg.)
EMBA 5391 Renewable Energy Project - Business Plan 1 Credit Hour Prerequisite: Graduate standing and EMBA in Renewables majors only. This course provides an overview of preparing a business plan for a renewable energy project and how to evaluate renewable energy project financing and investment opportunities, with particular emphasis on intermittent technologies like solar and wind. (Irreg.)

## EMBA 5402 Renewable Energy Project - Develop, Implement, and Manage <br> 2 Credit Hours

Prerequisite: Graduate standing and EMBA in Energy majors only. The course will follow the progression of the development of an energy project, from early-stage site and offtake development issues, through construction and project financing, through operation. Teams determine which renewable energy they want to focus on and develop business propositions accordingly. (Irreg.)

EMBA 5403 Renewable Energy Project (Capstone) 3 Credit Hours Prerequisite: Graduate standing and EMBA in Renewables majors only. The course will follow the progression of the development of an energy project, from early stage site and offtake development issues through construction and project financing through operation. Teams determine which renewable energy they want to focus on and develop business propositions accordingly. (Irreg.)
EMBA 5412 Carbon Management: Strategies and Steps 2 Credit Hours Prerequisite: Graduate standing and EMBA in Energy majors only. Carbon footprint is the amount of carbon dioxide, or Greenhouse Gas Emissions, that organizations contribute to the environment. This course is on developing and implementing a long-term carbon management plan to provide an organization with strategies and steps that will help prepare the organization for the physical and economic risks of climate change, remaining competitive in a low carbon economy. (Irreg.)
EMBA 5421 ESG and Sustainability 1 Credit Hour
Prerequisite: Graduate standing and EMBA in Energy majors only. Sustainability factors are part of the fundamentals needed to attain higher returns, organizational resilience, and stakeholder trust.
Environmental, social, and governance (ESG) risks have gained increasing attention, and organizations are seeking to proactively manage and report on their ESG risks. This course will provide an understanding of ESG and how to implement sustainable ESG requirements. (Irreg.)
EMBA 5431 Financing Hydrocarbon Projects 1 Credit Hour
Prerequisite: Graduate standing and majors only. This course is designed to teach students how to finance hydrocarbon projects and to provide an understanding of the steps involved in valuation, financing, structuring a deal, addressing carbon footprint issues, and packaging for presentation for securing investments. (Irreg.)
EMBA 5441 Renewable Energy Technology and Innovation 1 Credit Hour Prerequisite: Graduate standing and EMBA in Energy majors only. Innovations in renewable energy encompass all new approaches that help to overcome barriers and result in accelerated deployment of renewables supporting the energy transition. Innovation powers the ongoing transformation of the global energy system. This course provides a broad overview about energy-related innovation and technology issues, and what they may mean for the future of energy and energy transition. (Irreg.)

EMBA 5451 Renewable Energy Project Valuation 1 Credit Hour Prerequisite: Graduate standing and EMBA in Energy majors only. This course introduces valuation concepts and the main factors affecting the valuation of a broad range of renewable energy assets, projects, and business enterprises. (Irreg.)
EMBA 5462 Introduction to Energy Systems 2 Credit Hours Prerequisite: Graduate Standing and EMBA in Energy majors only. The course covers different forms of energy and their production/technology, distribution, and consumption, and evaluates current hydrocarbon and renewable energy systems to integrate them into a single energy system. This course also provides an overview of the hydrocarbon value chain as well as the function and organization of electric power systems, focusing on generation, transmission, distribution, and consumer segments. (Irreg.)

EMBA 5471 Path to Net Zero 1 Credit Hour
Prerequisite: Graduate Standing and EMBA in Energy majors only. In support of broader efforts to address climate change, companies are increasingly pledging to reach net-zero emissions as part of their business strategies. To reach their target, companies need to make changes. This course provides a framework for companies to drive transformational changes and strategically address the challenges to a net zero-world. (Irreg.)

## Economics, B.B.A.

Minimum Total Credit Hours: 120
Minimum Upper-Division Hours: 40

Overall GPA - Combined and OU: 2.50
Major GPA - Combined and OU: 2.50
Upper-Division Businesses Courses GPA - Combined and OU: 2.50
Program Code: B295

## This program has changes pending Regents approval for 2024-25. These pending changes are not reflected here.

To enroll in upper-division business courses, students must be certified for degree candidacy and meet all prerequisites.

A maximum of six hours of transfer work will apply toward the major.

## Major Requirements

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| ECON 3113 | Intermediate Microeconomic Theory | 3 |
| ECON 3133 | Intermediate Macroeconomic Theory | 3 |
| Choose 12 hours of upper-division Economics | $\mathbf{1 2}$ |  |
| Total Credit Hours | $\mathbf{1 8}$ |  |

## Required Courses

| Code | Title | Credit <br> Hours |
| :---: | :---: | :---: |
| Core Requirements |  | 12 |
| L S 3323 | Legal Environment of Business |  |
| MGT 3013 | Principles of Organization and Management |  |
| MKT 3013 | Principles of Marketing and Supply Chain Management |  |
| B AD 4013 | Business Strategy and Policy (to be taken last semester of senior year) ${ }^{1}$ |  |
| Upper-Division Business Electives |  | 3 |
| Choose 3 hours from the following fields: ACCT, B AD, B C, EMGT, ENT, FIN, L S, MGT, MIS, MKT, and SCM |  |  |
| Additional Requirements |  | 8 |
| B AD 2091 | Career Readiness I-Transitioning to the Workplace |  |
| B AD 3091 | Career Readiness II-Advancing in the Workplace |  |
| ENT 2113 | Innovation \& Entrepreneurship |  |

FIN $2303 \quad$ Business Finance

Total Credit Hours
1 Requires completion of all other business core courses prior to enrollment and permission from Price Academic Advising Services.

## General Education and College Requirements

Courses taken to fulfill the University General Education Requirements must be chosen from the approved General Education course list published at http://www.ou.edu/gened/courses.

\section*{UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS <br> | Code $\quad$ Title | Credit |
| :--- | ---: |
|  | Hours |
| Core Area I: Symbolic and Oral Communication | $6-16$ |}


| Core Area I: Symbolic and Oral Communication |
| :--- |
| ENGL 1113 Principles of English Composition (Core I) $\mathbf{6 - 1 6}$ <br> ENGL 1213 Principles of English Composition (Core I)  <br> or EXPO 121 IFxpository Writing   <br> Language (Core I) - Students who have completed two   <br> years of high school language are exempt from this general   <br> education requirement (0-10 hours).   |

Mathematics

| MATH 1643 | Functions and Modeling for Business, Life <br> and Social Sciences (Core I) <br> 1 |
| :--- | :--- |
| MATH 1743 | Calculus I for Business, Life and Social <br> Sciences (Core I) $^{1}$ |

Core Area II: Natural Science 7

Natural Sciences - Choose two courses taken from the biological and/or physical sciences. The two courses must be from different disciplines and at least one course must include a laboratory component (Core II)
Core Area III: Social Science ${ }^{2}$
P SC $1113 \quad$ American Federal Government (Core III) 3
Core Area IV: Arts and Humanities 12

HIST 1483 United States to 1865 (Core IV) or HIST 1493 United States, 1865 to the Present
PHIL 1273 Introduction to Business Ethics (Core IV: Western Culture)
Choose one course in each of the following fields (Core IV):
Artistic Forms ${ }^{3}$
World Culture ${ }^{3}$
Core Area V: First-Year Experience
Choose one course
Basic Business ${ }^{4}$

| ACCT 2113 | Fundamental Financial Accounting ${ }^{5}$ |
| :--- | :--- |
| ACCT 2123 | Fundamental Managerial Accounting |
| B AD 1001 | Personal Computing Productivity Tools |
| B C 2813 | Strategic Communication for Business <br> Professionals |
| ECON 1113 | Principles of Economics-Macro (Core III-SS) <br> 2,5 |
| ECON 1123 | Principles of Economics-Micro (Core III-SS) <br> 2,5 |
| ECON 2843 | Elements of Statistics (Core I-M) ${ }^{5}$ |

MIS 2113 Computer-Based Information Systems ${ }^{5}$

Total Credit Hours
59-69
${ }^{1}$ Substitute: MATH 1523 for MATH 1643; MATH 1823 or MATH 1914 for MATH 174
2 Two courses, 6 hours, of Core III Social Science are required and one course must be P SC 1113 . ECON 1113 or ECON 1123 will meet the other 3 hours of this requirement.
${ }^{3}$ It is recommended students take either World Culture or Artistic Forms at the 3000/4000 level to fulfill the university requirement of one upperdivision course outside the major from the approved University-Wide General Education. It may also be satisfied in the upper-division or free elective categories.
${ }^{4}$ College requirement: courses are part of the degree candidacy application process that students must complete to earn degree candidacy and begin upper-division business courses.
${ }^{5}$ Minimum grade of $C$ required.

## Free Electives

Electives to bring total applicable hours to the minimum total required for the degree including a minimum of 40 upper-division hours. B AD 2110, B AD 2113, MGT 2013, and MKT 2013 will not count for credit toward a BBA.

## Additional Requirements

1. Candidates for the B.B.A. degree must complete their last 30 hours as resident students in Price College. However, if a candidate has completed the last 51 hours as a resident student at the University of Oklahoma, 9 of the last 60 hours may be taken at another university or by correspondence from OU. Students must take a minimum of 24 hours of their upper-division business courses in residence for the Bachelor of Business Administration degree.
2. Pass/No Pass will not be accepted for any upper-division Business or General Education courses or any specifically required courses.
3. Sixty hours, excluding physical education activity courses, must be taken at a baccalaureate degree-granting institution.
4. A combined maximum of 8 hours of general military experience and flight instruction courses will count toward the required hours.

## Suggested Semester Plan of Study

Additional hours may be required if remedial math or language is required. Please see an academic counselor to develop a plan of study.

Apply for permission to take upper division business courses the semester in which you will complete the prebusiness courses ${ }^{1}$.

This major normally requires three semesters of study beyond the business core requirements.

## Freshman

$\left.\begin{array}{llr}\text { First Semester } & & \begin{array}{r}\text { Credit } \\ \text { Hours }\end{array} \\ \text { ECON 1113 } & \text { Principles of Economics-Macro (Core III) }\end{array}\right)$

| General Education First-Year Experience (Core V) ${ }^{2}$ |  | 3 |
| :---: | :---: | :---: |
|  | Credit Hours | 15 |
| Second Semester |  |  |
| B AD 1001 | Personal Computing Productivity Tools | 1 |
| ECON 1123 | Principles of Economics-Micro (Core III) ${ }^{1}$ | 3 |
| ENGL 1213 or EXPO 1213 | Principles of English Composition (Core I) or Expository Writing | 3 |
| MIS 2113 | Computer-Based Information Systems ${ }^{1}$ | 3 |
| MATH 1743 | Calculus I for Business, Life and Social Sciences (Core I) | 3 |
| Natural Science (Core III) ${ }^{2}$ |  | 3 |
|  | Credit Hours | 16 |
| Sophomore |  |  |
| First Semester |  |  |
| ACCT 2113 | Fundamental Financial Accounting ${ }^{1}$ | 3 |
| B AD 2091 | Career Readiness I-Transitioning to the Workplace | 1 |
| ECON 2843 | Elements of Statistics ${ }^{1}$ | 3 |
| P SC 1113 | American Federal Government (Core III) | 3 |
| HIST 1483 or HIST 1493 | United States to 1865 (Core IV) or United States, 1865 to the Present | 3 |
| B C 2813 | Strategic Communication for Business Professionals ${ }^{1}$ | 3 |
|  | Credit Hours | 16 |
| Second Semester |  |  |
| ACCT 2123 | Fundamental Managerial Accounting | 3 |
| ENT 2113 | Innovation \& Entrepreneurship | 3 |
| FIN 2303 | Business Finance | 3 |
| PHIL 1273 | Introduction to Business Ethics (Core IV: Western Culture) | 3 |
| Natural Science with lab (2nd discipline) (Core II) ${ }^{2}$ |  | 4 |
|  | Credit Hours | 16 |
| Junior |  |  |
| First Semester |  |  |
| ECON 3113 | Intermediate Microeconomic Theory | 3 |
| L S 3323 | Legal Environment of Business | 3 |
| MGT 3013 | Principles of Organization and Management | 3 |
| MKT 3013 | Principles of Marketing and Supply Chain Management | 3 |
| B AD 3091 | Career Readiness II-Advancing in the Workplace | 1 |
| Free Elective |  | 1 |
|  | Credit Hours | 14 |
| Second Semester |  |  |
| ECON 3133 | Intermediate Macroeconomic Theory | 3 |
| ECON Upper-Division Elective |  | 3 |
| Free Elective |  | 3 |
| General Education World Culture (Core IV) |  | 3 |
| Upper-Division General Education Elective ${ }^{3}$ |  | 3 |
|  | Credit Hours | 15 |


| Senior |  |
| :---: | :---: |
| First Semester |  |
| ECON Upper-Division Elective | 3 |
| ECON Upper-Division Elective | 3 |
| Free Elective | 3 |
| Free Elective | 2 |
| Free Elective | 3 |
| Credit Hours | 14 |
| Second Semester |  |
| B AD 4013 Business Strategy and Policy | 3 |
| ECON Upper-Division Elective | 3 |
| Upper-Division Business Elective | 3 |
| Free Upper-Division Elective | 3 |
| Free Elective | 2 |
| Credit Hours | 14 |
| Total Credit Hours | 120 |
| 1 Prebusiness course. <br> 2 University-Wide General Education course, refer to online listing. <br> ${ }^{3}$ May be free elective if artistic form, World culture or science is 3000 - or 4000-level. |  |
| General Business for Non-Business |  |
| Majors, Minor |  |
| Minimum Total Credit Hours: 21 |  |
| Program Code: N450 |  |
| The requirements for a minor must be completed concurrently with the major degree requirements. |  |
| No minor may be added by completing courses after receiving the bachelor's degree. |  |
| Students accepted in the minor will be given permission to enroll in the upper-division credit hours of the minor. |  |
| Students must earn a 2.50 overall OU and combined retention GPA to declare the Minor. |  |
| Students must complete at least fifteen (15) minor hours in residence at the University of Oklahoma. |  |
| Courses for the minor may not be taken Pass/No Pass. |  |
| Minimum OU and Combined GPA of 2.50 in all specifically required courses. Lower division courses must be taken before upper-division courses. |  |
| No single course may be used to satisfy a major requirement and a minor requirement. A course may be used, however, to satisfy both a major support requirement and a minor requirement. |  |
| - The minor is only available to undergraduate students with a declared major outside Price College of Business. <br> - Students must achieve a minimum 2.50 GPA (OU and overall) in the minor coursework. |  |


| Required Courses |  |  |
| :--- | :--- | ---: |
| Code | Title | Credit <br> Hours |
| ECON 1113 | Principles of Economics-Macro | 3 |
| ACCT 2113 | Fundamental Financial Accounting | 3 |
| ECON 2843 | Elements of Statistics ${ }^{1}$ | 3 |
| FIN 2303 | Business Finance | 3 |
| MGT 3013 | Principles of Organization and | 3 |
| or MGT 2013 | Management |  |
| MIS 2113 | Computer-Based Information Systems | 3 |
| MKT 3013 | Principles of Marketing and Supply Chain <br> or MKT 2013 | Management <br> Introduction to Marketing and Supply Chain <br> Management |

Total Credit Hours

1 Arts \& Sciences economics majors will substitute ACCT 2123.

If the minor is officially declared, successfully completed, and noted on the graduation application, the student's transcript will so indicate at the time the bachelor's degree is posted.

## Economics, B.B.A./Management of Information and Technology, M.S.

Minimum Total Credit Hours: 140-152
Minimum Upper-Division Hours: 40
Overall GPA - Combined and OU: 3.00
Major GPA - Combined and OU: 3.00
Upper-Division Businesses Courses GPA - Combined and OU: 3.00
Program Code: A295/F657 Q193

## This program has changes pending Regents approval for 2024-25. These pending changes are not reflected here.

To enroll in upper-division business courses, students must be certified for degree candidacy and meet all prerequisites.

A maximum of six hours of transfer work will apply toward the major.

## Undergraduate Major Requirements

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| ECON 3113 | Intermediate Microeconomic Theory | 3 |
| ECON 3133 | Intermediate Macroeconomic Theory | 3 |
| Choose 12 hours of upper-division economics | $\mathbf{1 2}$ |  |
| Total Credit Hours | $\mathbf{1 8}$ |  |

## Required Courses



## Graduate Requirements

Up to 12 hours of graduate level MIT or MIS courses from a list maintained by the department and approved by the graduate liaison can be shared between BBA and MS-MIT programs.

| Code Title | Credit <br> Hours |
| :---: | :---: |
| Required | 2 |
| MIT 5602 Management Information Systems |  |
| MIT Electives | 10-13 |
| Choose 10 to 13 credit hours of graduate level MIT courses as necessary to reach 32 hours for the degree |  |
| Graduate Electives | 13 |
| Choose 13 credit hours of graduate-level Business, MIT electives or other electives as approved by MIT Division |  |
| Choose one of the following options: | 0-3 |
| Non-Thesis Option (coursework-only degree; exam is not required) |  |
| MIT 5980 Research for Master's Thesis (Thesis Option; 3 credit hours) |  |
| Choose 4 credit hours of additional required coursework from a list maintained by the department and approved by the Graduate Liaison | 4 |
| Total Credit Hours | 32 |

## General Education and College Requirements

Courses taken to fulfill the University General Education Requirements must be chosen from the approved General Education course list published at http://www.ou.edu/gened/courses.

| UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS |  |  |
| :---: | :---: | :---: |
| Code | Title | Credit |
|  |  | Hours |
| Core Area I: Symbolic and Oral Communication |  | 6-16 |
| ENGL 1113 | Principles of English Composition (Core I) |  |
| $\begin{aligned} & \text { ENGL } 1213 \\ & \text { or EXPO } 1 \end{aligned}$ | Principles of English Composition (Core I) <br> IExpository Writing |  |
| Language (Core I) - Students who have completed two years of high school language are exempt from this general education requirement (0-10 hours). |  |  |
| Mathematics |  | 6 |
| MATH 1643 | Functions and Modeling for Business, Life and Social Sciences (Core I) ${ }^{1}$ |  |
| MATH 1743 | Calculus I for Business, Life and Social Sciences (Core I) ${ }^{1}$ |  |
| Core Area II: Natural Science |  | 7 |
| Natural Sciences - Choose two courses taken from the biological and/or physical sciences. The two courses must be from different disciplines and at least one course must include a laboratory component (Core II) |  |  |
| Core Area III: Social Science ${ }^{2}$ |  |  |
| P SC 1113 | American Federal Government (Core III) | 3 |
| Core Area IV: Arts and Humanities |  | 12 |
| HIST 1483 or HIST 1 | United States to 1865 (Core IV) 3United States, 1865 to the Present |  |
| PHIL 1273 | Introduction to Business Ethics (Core IV: Western Culture) |  |
| Choose one course in each of the following fields (Core IV): |  |  |
| Artistic Forms ${ }^{3}$ |  |  |
| World Culture ${ }^{3}$ |  |  |
| Core Area V: First-Year Experience |  | 3 |
| Choose one course |  |  |
| Basic Business ${ }^{4}$ |  | 22 |
| ACCT 2113 | Fundamental Financial Accounting ${ }^{5}$ |  |
| ACCT 2123 | Fundamental Managerial Accounting |  |
| B AD 1001 | Personal Computing Productivity Tools |  |
| B C 2813 | Strategic Communication for Business Professionals ${ }^{5}$ |  |
| ECON 1113 | Principles of Economics-Macro (Core III-SS) 2, 5 |  |
| ECON 1123 | Principles of Economics-Micro (Core III-SS) 2, 5 |  |
| ECON 2843 | Elements of Statistics (Core I-M) ${ }^{5}$ |  |
| MIS 2113 | Computer-Based Information Systems ${ }^{5}$ |  |


| Total Credit Hours | 59-69 |
| :--- | :--- |

1 Substitute: MATH 1523 for MATH 1643; MATH 1823 or MATH 1914 for MA
2 Two courses, 6 hours, of Core III Social Science are required and one course must be P SC 1113 . ECON 1113 or ECON 1123 will meet the other 3 hours of this requirement.
${ }^{3}$ It is recommended students take either World Culture or Artistic Forms at the 3000/4000 level to fulfill the university requirement of one upperdivision course outside the major from the approved University-Wide General Education. It may also be satisfied in the upper-division or free elective categories.
${ }^{4}$ College requirement: courses are part of the degree candidacy application process that students must complete to earn degree candidacy and begin upper-division business courses.
${ }^{5}$ Minimum grade of $C$ required.

## Free Electives

Electives to bring total applicable hours to the minimum total required for the degree including a minimum of 40 upper-division hours. B AD 2110, B AD 2113 , MKT 2013 and MGT 2013 will not count for credit toward a BBA.

## Additional Requirements

1. Pass/No Pass will not be accepted for any Business or General Education courses or any specifically required courses.
2. Students must complete the GMAT exam with a score of 500 or greater.
3. Comprehensive written exam required at end of program.
4. Sixty hours, excluding physical education activity courses, must be taken at a baccalaureate degree-granting institution.
5. A combined maximum of 8 hours of general military experience and flight instruction courses will count toward the required hours.

## Suggested Semester Plan of Study

Additional hours may be required if remedial math or language is required. Please see an academic counselor to develop a plan of study.

Apply for permission to take upper division business courses the semester in which you will complete the prebusiness courses ${ }^{1}$.

During the 2nd semester, third year.

- Take GMAT
- Interview for internship
- Apply for admission to Master's program


## Freshman

| First Semester |  | Credit |
| :---: | :---: | :---: |
|  |  | Hours |
| ECON 1113 | Principles of Economics-Macro (Core III) ${ }^{1}$ | 3 |
| ENGL 1113 | Principles of English Composition (Core I) | 3 |
| ENT 2113 | Innovation \& Entrepreneurship | 3 |
| MATH 1643 | Functions and Modeling for Business, Life and Social Sciences | 3 |
| First-Year Experience (Core V) ${ }^{2}$ |  | 3 |
|  | Credit Hours | 15 |
| Second Semester |  |  |
| B AD 1001 | Personal Computing Productivity Tools | 1 |
| ECON 1123 | Principles of Economics-Micro (Core III) ${ }^{1}$ | 3 |
| $\begin{aligned} & \text { ENGL } 1213 \\ & \text { AFHTHU13 } \\ & \text { or EXPO } 1213 \end{aligned}$ | Principles of English Composition (Core I) or Expository Writing | 3 |
| MATH 1743 | Calculus I for Business, Life and Social Sciences (Core I) | 3 |
| MIS 2113 | Computer-Based Information Systems ${ }^{1}$ | 3 |
| Natural Science (Core II) ${ }^{2}$ |  | 3 |
|  | Credit Hours | 16 |


| Sophomore |  |  |
| :---: | :---: | :---: |
|  |  |  |
| ACCT 2113 | Fundamental Financial Accounting ${ }^{1}$ | 3 |
| B AD 2091 | Career Readiness I-Transitioning to the Workplace | 1 |
| B C 2813 | Strategic Communication for Business Professionals ${ }^{1}$ | 3 |
| ECON 2843 | Elements of Statistics ${ }^{1}$ | 3 |
| P SC 1113 | American Federal Government (Core III) | 3 |
|  | Credit Hours | 13 |
| Second Semester |  |  |
| ACCT 2123 | Fundamental Managerial Accounting | 3 |
| FIN 2303 | Business Finance | 3 |
| PHIL 1273 | Introduction to Business Ethics (Core IV: Western Culture) | 3 |
| Natural Science with lab (2nd discipline) (Core II) ${ }^{2}$ |  | 4 |
| Artistic Forms (Core IV) ${ }^{2}$ |  | 3 |
|  | Credit Hours | 16 |
| Junior |  |  |
| First Semester |  |  |
| ECON 3113 | Intermediate Microeconomic Theory | 3 |
| L S 3323 | Legal Environment of Business | 3 |
| MGT 3013 | Principles of Organization and Management | 3 |
| MKT 3013 | Principles of Marketing and Supply Chain Management | 3 |
| B AD 3091 | Career Readiness II-Advancing in the Workplace | 1 |
|  | Credit Hours | 13 |
| Second Semester |  |  |
| ECON 3133 | Intermediate Macroeconomic Theory | 3 |
| HIST 1483 <br> or HIST 1493 | United States to 1865 or United States, 1865 to the Present | 3 |
| ECON Elective |  | 3 |
| Upper-Division General Education Elective ${ }^{3}$ |  | 3 |
| World Culture (Core IV) ${ }^{2}$ |  | 3 |
|  | Credit Hours | 15 |
| Senior |  |  |
| First Semester |  |  |
| ECON Elective |  | 3 |
| ECON Elective |  | 3 |
| Graduate Requirement Course ${ }^{4}$ |  | 2 |
| Graduate Requirement Course ${ }^{4}$ |  | 2 |
| MIT 5602 | Management Information Systems ${ }^{4}$ | 2 |
| Free Elective |  | 2 |
| Credit Hours |  | 14 |
| Second Semester |  |  |
| ECON Elective |  | 3 |
| Graduate Requirement Course ${ }^{4}$ |  | 3 |
| Upper-Division Business Elective |  | 3 |
| Graduate Requirement Course |  | 2 |
| Free Elective |  | 3 |
|  | Credit Hours | 14 |

## Fifth Year

First Semester

| Graduate Requirement Course | 3 |
| :--- | ---: |
| Graduate Requirement Course | 2 |
| Graduate Requirement Course | 2 |
| Graduate Requirement Course | 2 |
| Graduate Requirement Course | 2 |
| Graduate Requirement Course | 2 |
| Credit Hours | $\mathbf{1 3}$ |


| Second Semester |  |  |  |
| :--- | ---: | :---: | :---: |
| Graduate Requirement Course | 2 |  |  |
| Graduate Requirement Course | 3 |  |  |
| Graduate Requirement Course | 3 |  |  |
| B AD 4013 | Business Strategy and Policy |  |  |
| Credit Hours | 3 |  |  |
| Total Credit Hours |  |  | $\mathbf{1 1}$ |

1 Prebusiness course.
2 University-Wide General Education course, refer to online listing
${ }^{3}$ May be free elective if artistic form, World culture, or science is 3000 - or 4000-level.
4 These courses are dual-counted, fulfilling requirements for both the undergraduate degree and the graduate business degree (140 total hours with 12 shared hours).

## Business Administration, M.B.A.

Minimum Total Hours (Non-Thesis): 48

## Program Code: M140 Q446 Full Time

A student who actively and satisfactorily participates in all Prelude activities will receive a grade of 'S' for B AD 5010. A student who does not satisfactorily participate in $75 \%$ of Prelude Week will be required to participate in a make-up session within the first two weeks of the semester. Failure to complete a make-up session will result in a grade of 'U' for B AD 5010, resulting in cancellation of the student's enrollment in the MBA program.

## Required Courses

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Core Courses ${ }^{1}$ |  |  |
| B AD 5010 | Foundations of MBA Success | 0 |
| B AD 5122 | Quantitative Analysis I | 2 |
| B AD 5102 | Managerial Economics | 2 |
| ACCT 5202 | Financial Accounting | 2 |
| FIN 5102 | Financial Management | 2 |
| MGT 5702 | Organizational Behavior | 2 |
| MKT 5402 | Marketing Management | 2 |
| MIT 5602 | Management Information Systems | 2 |
| L S 5802 | Business Ethics/Legal | 2 |
| B AD 5101 | MBA - Professional Development | 1 |
| B AD 5201 | MBA - Professional Development II | 1 |
| Four credit hours of additional required coursework (choose two): | 4 |  |


| ACCT 5212 | Managerial Accounting |
| :--- | :--- |
| B AD 5182 | Quantitative Analysis II |
| FIN 5112 | Investments |
| ENT 5102 | Entrepreneurship \& Innovation |


| Experiential Courses | 2 |  |
| :--- | :--- | ---: |
| B AD 5812 | Global Business Experience | 2 |
| B AD 5822 | Business Consulting Practicum | 2 |
| B AD 5832 | Applied Field Project | 18 |
| Electives |  |  |
| Choose 18 hours of elective coursework, only 16 of which <br> can be from the same division within the Price College of <br> Business. <br> Capstone <br> B AD 5902$\quad$ Strategic Management ${ }^{2}$ | 2 |  |
| Total Credit Hours | $\mathbf{4 8}$ |  |

${ }^{1}$ Courses may be satisfied on the basis of previous study with approval of the Graduate Liaison, which must be indicated on the Admission to Candidacy Form. The satisfied hours will be made up via additional elective hours to meet the required total of degree applicable hours.
2 Must make a grade of 'B' or better in B AD 5902 or it must be repeated. This is the capstone course and serves in lieu of the comprehensive examination. This requirement is non-waiveable.

## General Requirements for all Master's Degrees

The master's degree requires the equivalent of at least two semesters of satisfactory graduate work and additional work as may be prescribed for the degree.

All coursework applied to the master's degree must carry graduate credit.
Master's degree programs which require a thesis consist of at least 30 credit hours. All non-thesis master's degree programs require at least 30 credit hours.

Credit transferred from other institutions must meet specific criteria and is subject to certain limitations.

Courses completed through correspondence study may not be applied to the master's degree.

To qualify for a graduate degree, students must achieve an overall grade point average of 3.0 or higher in the degree program coursework and in all resident graduate coursework attempted. A student must also have at least a 3.0 in all coursework (including undergraduate coursework if any).

Additional information for master's degree students may be found in the Graduate College Bulletin.

## Professional MBA, M.B.A.

Minimum Total Hours (Non-Thesis): 36
Program Code: M798, M799 (Online)

## Required Courses

A student who actively and satisfactorily participates in all Prelude activities will receive a grade of 'S' for B AD 5010. A student who does not satisfactorily participate in $75 \%$ of Prelude Week will be required
to participate in a make-up session within the first two weeks of the semester. Failure to complete a make-up session will result in a grade of 'U' for B AD 5010, resulting in cancellation of the student's enrollment in the MBA program.

| Code | Title | Credit <br> Hours |
| :---: | :---: | :---: |
| Core Courses ${ }^{1}$ |  |  |
| B AD 5010 | Foundations of MBA Success | 0 |
| B AD 5122 | Quantitative Analysis I | 2 |
| B AD 5102 | Managerial Economics | 2 |
| ACCT 5202 | Financial Accounting | 2 |
| FIN 5102 | Financial Management | 2 |
| MGT 5702 | Organizational Behavior | 2 |
| MKT 5402 | Marketing Management | 2 |
| MIT 5602 | Management Information Systems | 2 |
| L S 5802 | Business Ethics/Legal | 2 |
| Two credit hours of additional required coursework (choose one): |  | 2 |
| MGT 5102 | PMBA Leadership Academy |  |
| B AD 5202 | Career \& Professional Development |  |
| Four credit hours of additional required coursework (choose two): |  | 4 |
| ACCT 5212 | Managerial Accounting |  |
| B AD 5182 | Quantitative Analysis II |  |
| FIN 5112 | Investments |  |
| ENT 5102 | Entrepreneurship \& Innovation |  |
| Electives |  |  |
| Twelve additional hours of courses in B AD, ENT, FIN, L S, MGT, MIT, MKT, SCM, or ACCT |  | 12 |
| Capstone |  |  |
| B AD 5902 | Strategic Management ${ }^{2}$ | 2 |
| Total Credit Ho |  | 36 |
| ${ }^{1}$ Courses may be satisfied on the basis of previous study with approval of the Graduate Liaison, which must be indicated on the Program of Study Form. The satisfied hours will be made up via additional elective hours to meet the required total of degree applicable hours. |  |  |

## General Requirements for all Master's Degrees

The master's degree requires the equivalent of at least two semesters of satisfactory graduate work and additional work as may be prescribed for the degree.

All coursework applied to the master's degree must carry graduate credit.
Master's degree programs which require a thesis consist of at least 30 credit hours. All non-thesis master's degree programs require at least 30 credit hours.

Credit transferred from other institutions must meet specific criteria and is subject to certain limitations.

Courses completed through correspondence study may not be applied to the master's degree.

To qualify for a graduate degree, students must achieve an overall grade point average of 3.0 or higher in the degree program coursework and in all resident graduate coursework attempted. A student must also have at least a 3.0 in all coursework (including undergraduate coursework if any).

Additional information for master's degree students may be found in the Graduate College Bulletin.

## Aerospace and Defense, E.M.B.A.

Minimum Total Hours (Non-Thesis): 32
Program Code: M008
Required Courses

| Code | Title | Credit Hours |
| :---: | :---: | :---: |
| Core (12 hour |  |  |
| EMAD 5302 | Accounting in Aerospace and Defense | 2 |
| EMAD 5312 | Information Technology and Cyber Security in Aerospace and Defense | 2 |
| EMAD 5322 | Managing Supply Chain and Logistics in Aerospace and Defense | 2 |
| EMAD 5332 | Legal Environment for Aerospace and Defense | 2 |
| EMAD 5342 | Project Management for Aerospace and Defense | 2 |
| EMAD 5352 | Global Aerospace and Defense Strategy | 2 |
| Electives ( 20 hours) |  |  |
| Choose 10 courses (p. 878) |  | 20 |
| Total Credit Hours |  | 32 |

## Note:

This is a coursework only non-thesis degree; a non-thesis examination will not be required.

## Aerospace \& Defense EMBA electives

The elective choices may include, but are not limited to, the following:

| Code | Title | Credit Hours |
| :---: | :---: | :---: |
| EMAD 5362 | Field Project in Aerospace \& Defense (Analysis) | 2 |
| EMAD 5372 | Field Project in Aerospace \& Defense (Implementation) | 2 |
| EMAD 5382 | Quantitative Methods \& Models for Aerospace \& Defense | 2 |
| EMAD 5392 | Organizational Behavior in Aerospace \& Defense Organizations | 2 |
| EMAD 5402 | Aerospace and Defense Marketing Fundamentals | 2 |
| EMAD 5412 | Innovation and Entrepreneurship in Aerospace \& Defense | 2 |
| EMAD 5422 | Lean Six Sigma Tools for Aerospace \& Defense | 2 |
| EMAD 5432 | Advanced Financial Management in Aerospace \& Defense | 2 |


| EMAD 5442 | Mergers and Acquisitions in Aerospace and <br> Defense | 2 |
| :--- | :--- | ---: |
| EMAD 5452 | Managing Aerospace \& Defense <br> Government Contracts |  |
| EMAD 5472 | Data Management and Security in <br> Aerospace \& Defense | 2 |
| EMAD 5482 | Data Analytics for Aerospace \& Defense | 2 |

Additional graduate-level courses from an approved list maintained by the department and approved by the Graduate Liaison

## General Requirements for all Master's Degrees

The master's degree requires the equivalent of at least two semesters of satisfactory graduate work and additional work as may be prescribed for the degree.

All coursework applied to the master's degree must carry graduate credit.
Master's degree programs which require a thesis consist of at least 30 credit hours. All non-thesis master's degree programs require at least 30 credit hours.

Credit transferred from other institutions must meet specific criteria and is subject to certain limitations.

Courses completed through correspondence study may not be applied to the master's degree.

To qualify for a graduate degree, students must achieve an overall grade point average of 3.0 or higher in the degree program coursework and in all resident graduate coursework attempted. A student must also have at least a 3.0 in all coursework (including undergraduate coursework if any).

Additional information for master's degree students may be found in the Graduate College Bulletin.

## Energy, E.M.B.A.

Minimum Total Hours (Non-Thesis): 36
Program Code: M366

## This program has changes pending Regents approval for 2024-25. These pending changes are not reflected here. <br> Required Courses

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Core Courses |  |  |
| EMBA 5261 | Energy and Environment | 1 |
| EMBA 5012 | Energy Policy and Regulations | 2 |
| EMBA 5022 | Introduction to Energy Accounting | 2 |
| EMBA 5031 | Organizational Behavior | 1 |
| EMBA 5042 | Energy Economics | 2 |
| EMBA 5052 | Financial Markets and Securities | 2 |
| EMBA 5062 | Quantitative Methods and Models | 2 |
| EMBA 5222 | Corporate Energy Finance | 2 |
| EMBA 5082 | Strategic Management | 2 |


| EMBA 5131 | Renewable Energy Resources | 1 |
| :--- | :--- | :--- |
| EMBA 5142 | Derivatives and Energy Trading | 2 |
| EMBA 5112 | Data, Analytics and Decision-Making | 2 |
| EMBA 5251 | Electric, Gas \& Utility Fundamentals | 1 |
| EMBA 5201 | Managing Change - Role of Leadership | 1 |
| EMBA 5291 | Electric Power Systems | 1 |
| EMBA 5341 | Cyber-Physical Security and Resilience for | 1 |
| EMBA 5412 | Energy |  |
| EMBA 5421 | Carbon Management: Strategies and Steps | 2 |

## Electives

Choose 8 hours from a list of approved courses by the 8 graduate liaison

## Total Credit Hours

The EMBA is a coursework-only non-thesis degree; a non-thesis examination is not required.

## General Requirements for all Master's Degrees

The master's degree requires the equivalent of at least two semesters of satisfactory graduate work and additional work as may be prescribed for the degree.

All coursework applied to the master's degree must carry graduate credit.
Master's degree programs which require a thesis consist of at least 30 credit hours. All non-thesis master's degree programs require at least 30 credit hours.

Credit transferred from other institutions must meet specific criteria and is subject to certain limitations.

Courses completed through correspondence study may not be applied to the master's degree.

To qualify for a graduate degree, students must achieve an overall grade point average of 3.0 or higher in the degree program coursework and in all resident graduate coursework attempted. A student must also have at least a 3.0 in all coursework (including undergraduate coursework if any).

Additional information for master's degree students may be found in the Graduate College Bulletin.

Renewables, E.M.B.A.

Minimum Total Hours (Non-Thesis): 32
Program Code: M824
This program is pending approval for Suspension for 2024-25.
Required Courses

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| EMBA 5281 | Introduction to Energy Systems I | 1 |
| EMBA 5012 | Energy Policy and Regulations | 2 |
| EMBA 5291 | Electric Power Systems | 1 |
| EMBA 5301 | Transportation and Residential, | 1 |
|  | Commercial \& Industrial Energy Systems |  |


| EMBA 5312 | Introduction to Accounting for Renewable Energy | 2 |
| :---: | :---: | :---: |
| EMBA 5052 | Financial Markets and Securities | 2 |
| EMBA 5062 | Quantitative Methods and Models | 2 |
| EMBA 5142 | Derivatives and Energy Trading | 2 |
| EMBA 5031 | Organizational Behavior | 1 |
| EMBA 5222 | Corporate Energy Finance | 2 |
| EMBA 5042 | Energy Economics | 2 |
| EMBA 5322 | Managing Change in Renewables - Strategy and Leadership | 2 |
| EMBA 5331 | Accounting for Renewable Energy | 1 |
| EMBA 5341 | Cyber-Physical Security and Resilience for Energy | 1 |
| EMBA 5351 | Renewable Energy Law and Regulations | 1 |
| EMBA 5361 | Introduction to Energy Systems II | 1 |
| EMBA 5182 | Enterprise Valuation, Mergers and Acquisitions, and Corporate Restructuring | 2 |
| EMBA 5371 | Data Analytics and Digitization | 1 |
| EMBA 5381 | Renewable Energy Project Development: Forecasting | 1 |
| EMBA 5391 | Renewable Energy Project - Business Plan | 1 |
| EMBA 5403 | Renewable Energy Project (Capstone) | 3 |
| Total Credit |  | 32 |

## General Requirements for all Master's Degrees

The master's degree requires the equivalent of at least two semesters of satisfactory graduate work and additional work as may be prescribed for the degree.

All coursework applied to the master's degree must carry graduate credit.
Master's degree programs which require a thesis consist of at least 30 credit hours. All non-thesis master's degree programs require at least 30 credit hours.

Credit transferred from other institutions must meet specific criteria and is subject to certain limitations.

Courses completed through correspondence study may not be applied to the master's degree.

To qualify for a graduate degree, students must achieve an overall grade point average of 3.0 or higher in the degree program coursework and in all resident graduate coursework attempted. A student must also have at least a 3.0 in all coursework (including undergraduate coursework if any).

Additional information for master's degree students may be found in the Graduate College Bulletin.

## Aerospace and Defense Analytics, Graduate Certificate

Minimum Total Hours: 12
Program Code: G008

## Certificate Requirements

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Core (4 hours) |  | 2 |
| EMAD 5382 | Quantitative Methods \& Models for <br> Aerospace \& Defense |  |
| EMAD 5482 | Data Analytics for Aerospace \& Defense | 2 |
| Electives (8 hours) |  |  |
| Choose 8 hours from the following courses, or others from a |  |  |
| list maintained by the academic unit: |  |  |
| EMAD 5312 | Information Technology and Cyber Security <br> in Aerospace and Defense | 8 |
| EMAD 5342 | Project Management for Aerospace and <br> Defense |  |
| EMAD 5362 | Field Project in Aerospace \& Defense <br> (Analysis) |  |
| EMAD 5422 |  <br> Defense |  |
| EMAD 5472 | Data Management and Security in <br> Aerospace \& Defense |  |

Total Credit Hours

A graduate certificate is not a graduate degree. A graduate degree represents a program of independent inquiry beyond the depth of coursework alone, while a graduate certificate represents a set of courses only.

- All courses must be taken at OU. No transfer credit will apply.
- No course substitutions are permitted for graduate certificates.
- Coursework applied to a graduate certificate cannot be more than five years old as of the semester the graduate certificate is awarded.
- Students must earn a grade point average of 3.00 or higher on all coursework applied to the graduate certificate.


## Commercial Space Applications, Graduate Certificate

Minimum Total Hours: 12
Program Code: G028
Certificate Requirements

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| EMAD 5602 | The Future of Space | 2 |
| EMAD 5622 | Space and Small Business: Business <br> Opportunities in the Space Economy | 2 |
| EMAD 5642 | Private Equity and Investment in Space | 2 |
| EMAD 5332 | Legal Environment for Aerospace and <br> Defense | 2 |
| EMAD 5352 | Global Aerospace and Defense Strategy | 2 |
| EMAD 5412 | Innovation and Entrepreneurship in <br> Aerospace \& Defense | 2 |

Total Credit Hours

A graduate certificate is not a graduate degree. A graduate degree represents a program of independent inquiry beyond the depth of coursework alone, while a graduate certificate represents a set of courses only.

- All courses must be taken at OU. No transfer credit will apply.
- No course substitutions are permitted for graduate certificates.
- Coursework applied to a graduate certificate cannot be more than five years old as of the semester the graduate certificate is awarded.
- Students must earn a grade point average of 3.00 or higher on all coursework applied to the graduate certificate.


## Executive Management in Aerospace \& Defense, Graduate Certificate

Minimum Total Hours: 12
Program Code: G010
The Executive Management in Aerospace and Defense Graduate Certificate delivers business management education to the growing Aerospace/Defense industry. The graduate certificate is available to managers, executives, and employees in a wide variety of fields who work in the Aerospace/Defense industry. The certificate provides additional management education for these professionals who need specific skills using a flexible format, enabling students to tailor the certificate to their own needs, as well as those of their employer. The program prepares them for careers at the interface of managerial and leadership positions in aerospace and defense organizations, consulting companies, government agencies, and defense contractors.

## Certificate Requirements

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| EMAD 5302 | Accounting in Aerospace and Defense | 2 |
| EMAD 5332 | Legal Environment for Aerospace and <br> Defense | 2 |
| Choose 4 course from a list maintained by the department <br> (p. 880$)$ | 8 |  |

Total Credit Hours
A graduate certificate is not a graduate degree. A graduate degree represents a program of independent inquiry beyond the depth of coursework alone, while a graduate certificate represents a set of courses only.

- All courses must be taken at OU. No transfer credit will apply.
- No course substitutions are permitted for graduate certificates.
- Coursework applied to a graduate certificate cannot be more than five years old as of the semester the graduate certificate is awarded.
- Students must earn a grade point average of 3.00 or higher on all coursework applied to the graduate certificate.


## Departmental List of Courses

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| EMAD 5312 | Information Technology and Cyber Security <br> in Aerospace and Defense | 2 |


| EMAD 5322 | Managing Supply Chain and Logistics in <br> Aerospace and Defense | 2 |
| :--- | :--- | ---: |
| EMAD 5342 | Project Management for Aerospace and <br> Defense | 2 |
| EMAD 5352 | Global Aerospace and Defense Strategy | 2 |
| EMAD 5362 | Field Project in Aerospace \& Defense <br> (Analysis) | 2 |
| EMAD 5372 | Field Project in Aerospace \& Defense <br> (Implementation) | 2 |

Additional graduate level courses as approved by the department and Graduate Liaison

## Foundations of Business, Graduate Certificate

Minimum Total Hours: 12
Program Code: G040/G384-OL
The Graduate Certificate in the Foundations of Business will help graduate students in areas outside of business, such as healthcare, to: (1) understand the core principles and theories underlying the functional areas of business; (2) develop frameworks for analyzing, applying and evaluating business processes and practices related to their primary area of interest; and (3) develop a broader perspective that incorporates their primary area of interest in a business context through meaningful interaction with business practitioners and academic professionals. A non-business student admitted to the program will take these courses with other graduate business students, including those in the MBA program, the Master of Accountancy program, and the Master of Information Technology program. By taking these courses with graduate students in the business school, OUHSC graduate students will have the opportunity to learn from each other in addition to gaining insights from current Price College of Business faculty members.

## Certificate Requirements

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| B AD 5102 | Managerial Economics | 2 |
| Choose 5 courses from a list maintained by the department | 10 |  |
| and approved by the Graduate Liaison (p. 881) | $\mathbf{1 2}$ |  |

A graduate certificate is not a graduate degree. A graduate degree represents a program of independent inquiry beyond the depth of coursework alone, while a graduate certificate represents a set of courses only.

## - All courses must be taken at OU. No transfer credit will apply.

- No course substitutions are permitted for graduate certificates.
- Coursework applied to a graduate certificate cannot be more than five years old as of the semester the graduate certificate is awarded.
- Students must earn a grade point average of 3.00 or higher on all coursework applied to the graduate certificate.

Departmental List of Courses

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| ACCT 5202 | Financial Accounting | 2 |
| ACCT 5212 | Managerial Accounting | 2 |
| B AD 5122 | Quantitative Analysis I | 2 |
| B AD 5182 | Quantitative Analysis II | 2 |
| ENT 5102 | Entrepreneurship \& Innovation | 2 |
| FIN 5102 | Financial Management | 2 |
| FIN 5112 | Investments | 2 |
| LS 5802 | Business Ethics/Legal | 2 |
| MGT 5702 | Organizational Behavior | 2 |
| MIT 5602 | Management Information Systems | 2 |
| MKT 5402 | Marketing Management | 2 |

# Hydrocarbon Energy, Graduate Certificate 

Minimum Total Hours: 12
Program Code: G067

## This program has changes pending Regents approval for 2024-25. These pending changes are not reflected here.

## Certificate Requirements

| Code | Title | Credit Hours |
| :---: | :---: | :---: |
| EMBA 5062 | Quantitative Methods and Models | 2 |
| EMBA 5142 | Derivatives and Energy Trading | 2 |
| EMBA 5112 | Data, Analytics and Decision-Making | 2 |
| EMBA 5251 | Electric, Gas \& Utility Fundamentals |  |
| EMBA 5421 | ESG and Sustainability |  |
| 8 hours from one of two mutually exclusive lists approved by the graduate liaison (p. 882) |  |  |
| Total Credit |  | 6 |
| A graduate certificate is not a graduate degree. A graduate degree represents a program of independent inquiry beyond the depth of coursework alone, while a graduate certificate represents a set of courses only. |  |  |
| - All courses must be taken at OU. No transfer credit will apply. |  |  |
| - Coursework applied to a graduate certificate cannot be more than five years old as of the semester the graduate certificate is awarded. |  |  |
| - Students must earn a grade point average of 3.00 or higher on all coursework applied to the graduate certificate. |  |  |

Departmental Lists of Courses

## Energy Electives List

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| EMBA 5261 | Energy and Environment | 1 |
| EMBA 5012 | Energy Policy and Regulations | 2 |
| EMBA 5022 | Introduction to Energy Accounting | 2 |
| EMBA 5031 | Organizational Behavior | 1 |
| EMBA 5042 | Energy Economics | 2 |
| EMBA 5052 | Financial Markets and Securities | 2 |
| EMBA 5062 | Quantitative Methods and Models | 2 |
| EMBA 5222 | Corporate Energy Finance | 2 |
| EMBA 5082 | Strategic Management | 2 |
| EMBA 5131 | Renewable Energy Resources | 1 |
| EMBA 5142 | Derivatives and Energy Trading | 2 |
| EMBA 5112 | Data, Analytics and Decision-Making | 2 |
| EMBA 5251 | Electric, Gas \& Utility Fundamentals | 1 |
| EMBA 5201 | Managing Change - Role of Leadership | 1 |
| EMBA 5291 | Electric Power Systems | 1 |
| EMBA 5341 | Cyber-Physical Security and Resilience for | 1 |
| EMBA 5412 | Energy | Carbon Management: Strategies and Steps |
| EMBA 5421 | ESG and Sustainability | 2 |

## Renewables Electives List

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| EMBA 5261 | Energy and Environment | 1 |
| EMBA 5012 | Energy Policy and Regulations | 2 |
| EMBA 5022 | Introduction to Energy Accounting | 2 |
| EMBA 5031 | Organizational Behavior | 1 |
| EMBA 5042 | Energy Economics | 2 |
| EMBA 5052 | Financial Markets and Securities | 2 |
| EMBA 5062 | Quantitative Methods and Models | 2 |
| EMBA 5222 | Corporate Energy Finance | 2 |
| EMBA 5082 | Strategic Management | 2 |
| EMBA 5131 | Renewable Energy Resources | 1 |
| EMBA 5142 | Derivatives and Energy Trading | 2 |
| EMBA 5112 | Data, Analytics and Decision-Making | 2 |
| EMBA 5251 | Electric, Gas \& Utility Fundamentals | 1 |
| EMBA 5201 | Managing Change - Role of Leadership | 1 |
| EMBA 5291 | Electric Power Systems | 1 |
| EMBA 5341 | Cyber-Physical Security and Resilience for | 1 |
| EMBA 5412 | Energy | Carbon Management: Strategies and Steps |
| EMBA 5421 | ESG and Sustainability | 2 |

Renewable Energy, Graduate Certificate
Minimum Total Hours: 12

## This program has changes pending Regents approval for 2024-25. These pending changes are not reflected here. Certificate Requirements



## Departmental Lists of Courses

## Energy Electives List

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| EMBA 5261 | Energy and Environment | 1 |
| EMBA 5012 | Energy Policy and Regulations | 2 |
| EMBA 5022 | Introduction to Energy Accounting | 2 |
| EMBA 5031 | Organizational Behavior | 1 |
| EMBA 5042 | Energy Economics | 2 |
| EMBA 5052 | Financial Markets and Securities | 2 |
| EMBA 5062 | Quantitative Methods and Models | 2 |
| EMBA 5222 | Corporate Energy Finance | 2 |
| EMBA 5082 | Strategic Management | 2 |
| EMBA 5131 | Renewable Energy Resources | 1 |
| EMBA 5142 | Derivatives and Energy Trading | 2 |
| EMBA 5112 | Data, Analytics and Decision-Making | 2 |
| EMBA 5251 | Electric, Gas \& Utility Fundamentals | 1 |
| EMBA 5201 | Managing Change - Role of Leadership | 1 |
| EMBA 5291 | Electric Power Systems | 1 |
| EMBA 5341 | Cyber-Physical Security and Resilience for | 1 |
| EMBA 5412 | Energy | Carbon Management: Strategies and Steps |
| EMBA 5421 | ESG and Sustainability | 2 |



## Business Administration, Ph.D.

Minimum Total Hours: 90

Program Code: D140

## Doctor of Philosophy Degree

The Michael F. Price College of Business offers a program leading to the degree of Doctor of Philosophy. The applicant need not hold a degree in business administration, and applications from students in disciplines other than business are encouraged. The degree requires 90 hours beyond the undergraduate degree and dissertation hours cannot exceed 30 of the 90 hours.

## TIME LIMITS

The student has four years from the point of admission to candidacy and six years from the point of entering the doctoral program to prepare and successfully defend the dissertation. If the student fails to do so, they will be required to retake the general examination. These time limits preclude the admission of part-time students to the doctoral program.

## MAJORS

The major must be selected in Accounting, Entrepreneurship and Economic Development, Finance, Management and International Business, Management Information Systems, or Marketing/Supply Chain Management. The course content of a major and the administration of the general examination are determined by the division in which the major is taken.

## REQUIRED COURSEWORK

Required background in Business
Fields: ACCT 5202; FIN 5302; MKT 5402;
and MGT 5702, B AD 5902 or B AD 5102. A student may receive credit for
equivalent core courses taken at other institutions at the discretion of the Doctoral Advisory Committee.

## STATISTICS/QUANTITATIVE METHODS

Nine hours in statistics/quantitative methods are chosen to support the student's plan of study. They may be selected from among the many approved courses offered throughout the University, especially those in the Divisions of Economics and Marketing and the Departments of Mathematics and Psychology.

## RESEARCH METHODS

Six hours in research methods are selected to support the student's plan of study, and may be taken from any department within the University.

## SPECIALIZATION AREA

A specialization area is a set of courses taken to gain a mastery of a subdiscipline within or external to business administration. These courses may be wholly within a division of the college, across divisions, or divisions of the college and a University department outside the college. A specialization area must involve at least 21 hours.

## ADDITIONAL COURSEWORK

The student's Doctoral Advisory Committee determines the free graduate electives the student will take to fulfill the remainder of the 90 required hours.

## COMPOSITION OF THE DOCTORAL COMMITTEES

The Doctoral Advisory Committee will consist of at least five members, with the majority of the members coming from within the student's major division and no less than one member from outside of the major division. An accepted plan of study will be viewed as a contract between the student and the University. The Doctoral Advisory Committee is automatically disbanded upon successful completion of the written and oral segments of the student's general examination.

The Doctoral Dissertation Committee will oversee the writing of the student's dissertation proposal, the writing of the dissertation, and the oral defense of the dissertation. The Doctoral Dissertation Committee is constituted upon a student's admission to Ph.D. candidacy, i.e., upon successful completion of the general examination, and will consist of at least five members, with at least two members from the major area and at least one member from each of the two fields. Furthermore, the committee must include at least one member whose appointment is in a department outside of the College of Business. The committee may also include members within or without the student's field who possess professional expertise germane to the student's research.

## EVALUATION

In lieu of qualifying examinations (i.e., examinations over the required coursework only) the graduate programs director will convene for each student each year those faculty who are instructing the student, and said faculty will assess the performance of that student. A report will be forwarded to the student's advisory committee and entered into the student's permanent file. Students will not be allowed to continue in the program if they earn more than two grades of $C$ or lower in courses taken as part of the program.

## GENERAL EXAMINATION

As the student nears completion of prescribed coursework, the student should prepare for the general examination. Such examinations are not scheduled either during final examination periods or indeed at any
time when a suitable committee cannot be assembled. The general examination will be taken only when the student has completed all curriculum coursework.

The student must apply for the examination at least two weeks before it is to be held. The application is completed by the student on a form provided by the Office of Graduate Programs, and is signed by the student and the members of the Doctoral Advisory Committee. The application is then examined by the graduate programs director and the dean of the Graduate College and if it is in order, is approved. Subsequently, the dean of the Graduate College will authorize the examination. The examination will not be authorized unless the student has completed all prescribed courses, and maintained an overall grade point average of $B$ or higher.

The general examination is intended to test the student's mastery of a number of related fields, as well as capacity for synthesis, sound generalization, and reasoning ability. It will consist in part of written examinations covering the three fields, and will be prepared by the committee. This will be followed by an oral examination in the presence of the whole committee. A student's performance on the general examination will be rated Pass with Distinction, Pass, or Failure. If the student fails the examination, they may repeat the examination either the following semester or later at the discretion of the committee; it may not be given a third time. After each attempt at the general examination, the chairperson will submit a report to the graduate dean that indicates whether the student has passed or failed and what further work must be done. If the individual has passed, the graduate dean will admit the student to candidacy for the doctoral degree.

## DOCTORAL DISSERTATION

After the general examination, the candidate will devote most of their time to research and composition, and may also enroll in enough hours of 6980 to meet the minimum requirements of the major division.

After admission to candidacy students must maintain continuous enrollment in 6980 until the requirements for the degree are completed or degree candidacy is discontinued.

## DISSERTATION DEFENSE

The candidate may apply for this examination upon presentation of a corrected draft of the dissertation and receipts showing that all fees have been paid. At least four members, including the outside member, of the doctoral committee must be present to conduct the examination. The examination is open to the public.

After the examination, the committee will report its decision to the graduate dean.

## Correspondence

For further information on the graduate programs in business administration, contact: Brandy Gunter-Cox (brandy.n.gunter@ou.edu), Advisor for MS-MIT and PhD programs, Price Hall, Price College of Business, 1003 Asp Ave. Room 1010, University of Oklahoma, Norman, OK 73019-4302, (405) 325-5612.

## Program Requirements

## Required Background in Business Fields

All students are required to demonstrate knowledge in four of the five following business fields: Accounting, Finance, Marketing, Management, and/or Economics. Sufficient background knowledge will be determined by the graduate liaison and advisor, and noted on the Advisory

Conference Report. Verification of completion of the requirement will be endorsed by the graduate liaison and submitted to the Graduate College with the Request for Authority for Dissertation Defense.

## Coursework Requirements

| Code | Title |  |
| :---: | :---: | :---: |
| Statistics/Quantitative Methods |  |  |
| Choose 3 courses (9 hours) from the following: |  | 9 |
| B AD 6243 | Applied Univariate Statistics |  |
| PSY 5003 | Psychological Statistics I |  |
| MATH 5763 | Introduction to Stochastic Processes |  |
| ECON 5213 | Advanced Econometrics |  |
| ECON 5243 | Econometrics II |  |
| Other courses approved by the Graduate Liaison |  |  |
| Research Methods |  |  |
| Choose two courses (6 hours) from the following: |  | 6 |
| PSY 6073 | Experimental Design for Psychology |  |
| PSY 6023 | Statistical Models of Tests Scores |  |
| PSY 6013 | Factor Analysis and Structural Equation Models |  |
| MGT 6973 | Seminar (Research Methods) |  |
| Other courses approved by the Graduate Liaison |  |  |
| Specialization |  |  |
| Coursework in a specialization from a list approved by the Graduate Liaison and the Advisor |  | 12-15 |
| Dissertation Research |  | 2-30 |
| ACCT 6980 | Research for Doctoral Dissertation |  |
| B AD 6980 | Research for Doctoral Dissertation |  |
| FIN 6980 | Research for Doctoral Dissertation |  |
| MGT 6980 | Research for Doctoral Dissertation |  |
| MIT 6980 | Research for Doctoral Dissertation |  |
| MKT 6980 | Research for Doctoral Dissertation |  |
| Additional Cours | ework | 30-61 |
| The student's advisory committee sets the remainder of the elective requirements to meet the 90 hours required for the degree. |  |  |

Total Credit Hours

## Additional Requirements

- Doctoral students in Business Administration shall not be allowed to continue in the program if they earn more than 2 grades of C or below in courses taken as part of the doctoral program.
- Students must have admission to candidacy within four years of admission and complete all degree requirements within four years of admission to candidacy.
- All required courses must be completed prior to taking the general examination.


## General Requirements for Doctoral Degrees

A student should expect to spend at least the equivalent of three full academic years beyond the bachelor's degree to obtain the doctoral degree. During this period the student will take appropriate graduate coursework, successfully complete the general examination, and successfully defend and submit the final dissertation.

All coursework applied to the doctoral degree must carry graduate credit.
The doctoral degree requires at least 90 post-baccalaureate hours, including both formal coursework and hours of research.

The minimum hour requirement for a specific doctoral degree program cannot be waived.

No more than one-half of the credit hours, both OU and overall, excluding Research for Doctoral Dissertation (6980), may be S/U-graded coursework.

The student must be in residence at OU for at least two consecutive 16week semesters during the pursuit of the doctoral degree while enrolled and engaged in coursework or research activities as prescribed by the major academic unit.

For more detailed regulations and requirements for Doctoral degrees, please consult the Graduate College Bulletin: http://www.ou.edu/ gradcollege/forms/bulletin

## John T. Steed School of Accounting

Karen Hennes, Ph.D., Director
200 Adams Hall
307 W. Brooks Street
(405) 325-4221
khennes@ou.edu
www.ou.edu/price/accounting

## General Information

The John T. Steed School of Accounting is among a limited number of schools nationwide and the first one in Oklahoma to qualify for accounting accreditation from the Association to Advance Collegiate Schools of Business. The evaluation focused on student quality, faculty professional experience and research productivity, academic curriculum and program-support facilities.

The faculty of the school possess impressive credentials. Their academic backgrounds come from leading universities in the country. The faculty members have established strong records of research and professional publication. Some are consultants to major corporations, authors of textbooks and leaders in professional accounting associations.

The School of Accounting curriculum includes courses in financial accounting, cost accounting, taxation, auditing, and accounting information systems. Graduates are recruited by national and regional firms for challenging and rewarding careers in public accounting and business firms; others secure accounting positions in government.

## Undergraduate Study

## Bachelor of Business Administration

The mission for the Accounting, Bachelor of Business Administration (p. 890) degree is to educate students in the broad concepts and principles governing accounting, auditing and taxation.The program provides students with sufficient depth in internal and external accounting as well as strong analytical skills to prepare them for entrylevel accounting positions in industry and government. It also provides a background that will serve as the basis for continued graduate study in professions where an accounting background is useful or necessary.

## Accelerated Programs

The Accounting, Bachelor of Business Administration/Master of Accountancy (p. 893) accelerated program allows motivated current OU business undergraduates interested in professional accountancy to begin working on their Masters degree while still completing their undergraduate coursework.

The Accounting, B.B.A./Finance, M.S. (p. 896) accelerated program provides an excellent education and academic experience. By combining the BBA with the master's in Finance, Accounting students will have a broader range of career options when they enter the job market or they may choose to pursue a PH.D. in Finance.

The Accounting, B.B.A./Management of Information and Technology, M.S. (p. 898) accelerated program is a great opportunity for undergraduate students who are pursuing a BBA degree to earn a master's degree with a specialization in data analytics.

## Minors

An Accounting Minor (p. 893) is also offered.

## Master of Accountancy

The Master of Accountancy program at the University of Oklahoma became the first graduate program in the State of Oklahoma to be accredited under the AACSB International's accounting accreditation program. The program offers three options: an advanced standing residential in-person degree, an advanced standing fully remote online degree, as well as a 51 -hour online degree option.

The MAcc program is designed to prepare students for positions of responsibility in the accounting profession. Students may specialize in tax or auditing.

## Part-Time Enrollment

To assist with career or other obligations that conflict with full-time enrollment, the MAcc program permits part-time study. The part-time student is given five years from the time of entrance to complete all degree requirements.

## Prerequisites for the MACC Program

Applicants are not required to have previous study in the field of accounting and can enroll in preparatory coursework as part of their MAcc degree plan.

- Accounting Advanced Standing, M.Acc. (p. 901)
- Online Accounting Advanced Standing, M.Acc. (p. 901)
- Online Accounting, M.Acc. (p. 902)


## Courses

ACCT 2113 Fundamental Financial Accounting 3 Credit Hours
Prerequisite: Business majors and students enrolled in approved degree programs or by permission of Price College advising; B AD 1001 or concurrent enrollment. Basic principles of financial accounting. Emphasis on the preparation and use of the income statement, balance sheet and statement of funds flow for corporations. Coverage includes the analysis and recording of transactions involving cash, inventories, fixed assets, bonds and capital stock as well as closing, adjusting and reversing entries for revenue and expense items. (F, Sp, Su)

ACCT 2123 Fundamental Managerial Accounting 3 Credit Hours
Prerequisite: Business majors and students enrolled in approved degree programs or by permission of Price College advising; ACCT 2113. Introduction to managerial accounting. Analysis of cost behavior and the use of this knowledge for both short- and long-term decision. An introduction to budgeting and the accumulation of product costs for planning and performance evaluation. Specific coverage includes cost-volume-profit analysis, capital budgeting, allocations, variances from standard costs and the measurement of divisional performance. ( $\mathrm{F}, \mathrm{Sp}$, $\mathrm{Su})$

ACCT 2970 Special Topics/Seminar 1-3 Credit Hours
Special Topics. 1 to 3 hours. May be repeated; Maximum credit nine hours. Special topics course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research, and field projects. (Irreg.)
ACCT 3023 International Financial Statement Analysis 3 Credit Hours Prerequisite: Must be approved for degree candidacy by Price College, ACCT 2113 and ACCT 2123; Majors only. A review of international financial reporting development, procedures and standards with an emphasis on financial statement interpretation and analysis. Not open to accounting majors. (Irreg.)
ACCT 3033 Financial Reporting Issues in Energy 3 Credit Hours Prerequisite: ACCT 2123, MATH 1743 or MATH 1823 or MATH 1914, only declared Energy Management majors, and student must be approved for degree candidacy by Price College. Study of financial reporting issues directed toward energy companies. Review of the accounting cycle with an emphasis on the accounting treatment for acquisition of mineral interests, geological and geophysical costs, intangible drilling costs, delay, rental, dry hole costs, lease and well equipment, joint interest billing and royalties payable. (Sp)
ACCT 3043 International Financial Reporting 3 Credit Hours
Prerequisite: ACCT 2113 and departmental permission. A review of international financial reporting procedures and standards with an emphasis on financial statement interpretation and analysis. (Irreg.)
ACCT 3113 Intermediate Accounting I 3 Credit Hours Prerequisite: Student must be approved for degree candidacy by Price College; ACCT 2113 and ACCT 2123 with a grade of $C$ or better in each course; MATH 1743 or MATH 1823 or MATH 1914. Measurement and reporting of assets including receivables, inventory, investments, fixed assets, and intangible assets; special issues related to revenue recognition. (F, Sp)

## ACCT 3123 Intermediate Accounting II <br> 3 Credit Hours

Prerequisite: ACCT 2113, ACCT 2123 and ACCT 3113 with a minimum grade of $C$ or better in each course; student must be approved for degree candidacy by Price College; MATH 1743 or MATH 1823 or MATH 1914. Measurement and reporting of bonds, leases, pensions, derivatives, stockholders' equity, earnings per share, and share-based compensation; special issues related to accounting for income taxes and the statement of cash flows. (F, Sp)
ACCT 3313 Cost Accounting 3 Credit Hours
Prerequisite: ACCT 2123 with a minimum grade of $C$, student must be approved for degree candidacy by Price College, and MATH 1743 or MATH 1823 or MATH 1914. Basic cost principles. Job order costing, process and joint costing, and estimated costs. (F, Sp)

ACCT 3353 Accounting Information Systems/Databases 3 Credit Hours Prerequisite: Student must be approved for degree candidacy by Price College, ACCT 2113 and ACCT 2123 with a minimum grade of $C$ or better in each course, and MATH 1743 or MATH 1823 or MATH 1914; or permission. A study of the role of technology in accounting, focusing on the documentation, flow, and processing of accounting information in business. Gives an introduction to the various components of an information system and the necessary internal controls in complex business computing environments. Course includes data analytics and enterprise systems projects. (F, Sp)

## ACCT 3440 Mentored Research Experience 3 Credit Hours

0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)

ACCT 3603 Income Tax Accounting I
3 Credit Hours
Prerequisite: ACCT 2113, ACCT 2123 and ACCT 3113 with a minimum grade of $C$ or better in each course, or permission; student must be approved for degree candidacy by Price College; MATH 1743 or MATH 1823 or MATH 1914. Introduction to the taxation of income including issues related to the measurement and recognition of income, deductions and losses; the taxation of property transactions; basis and cost recovery concepts; and alternative forms of business organization. ( $\mathrm{F}, \mathrm{Sp}$ )

## ACCT 3960 Honors Reading <br> 1-3 Credit Hours

1 to 3 hours. Prerequisite: junior or senior standing, admission to the Honors Program. May be repeated; maximum credit six hours. Independent study in field of accounting and related disciplines to broaden student's perspective in general field of business. (F, Sp)
ACCT 3970 Honors Seminar 1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Subjects covered vary. Deals with concepts not usually treated in regular courses. (Irreg.)
ACCT 3980 Honors Research
1-3 Credit Hours
1 to 3 hours. Prerequisite: junior or senior standing, admission to the Honors Program. May be repeated; maximum credit six hours. Independent research in field of accounting and related disciplines to apply research techniques learned in research tool courses to actual business situations. (F, Sp)
ACCT 3990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: permission of instructor and junior standing. May be repeated once with change of content. Independent study may be arranged to study a subject not available through regular course offerings. (Irreg.)

ACCT 4543 Auditing
3 Credit Hours
(Slashlisted with ACCT 5543) Prerequisite: ACCT 3113 and ACCT 3123
with a minimum grade of $C$ or better in each course; ACCT 3603;
ACCT 3353 or concurrent enrollment; MATH 1743, or MATH 1823, or MATH 1914; Students must be approved for degree candidacy by Price College. This course will cover auditing concepts, standards, principles, and procedures; coverage includes professional ethics, auditors' legal responsibilities, electronic data processing (EDP) control systems, audit sampling, and audit reports. No student may earn credit for both 4543 and 5543. (F, Sp)

ACCT 4563 Oil and Gas Accounting I 3 Credit Hours
(Slashlisted with ACCT 5563) Prerequisite: ACCT 3123; MATH 1743 or MATH 1823 or MATH 1914; Students must be approved for degree candidacy by Price College. May be taken concurrent with ACCT 3123. A study of financial accounting issues specifically directed toward oil and gas companies. Includes basic oil and gas transactions: leases, subleases, free wells, farmouts, carried interests. This course covers accounting for acquisition costs, exploration and development costs, operating costs, joint interest costs, and revenue accounting for oil and gas companies. Field trip required. No student may earn credit for both 4563 and 5563. (F)
ACCT 4583 Internal Auditing 3 Credit Hours (Slashlisted with ACCT 5583) Prerequisite: ACCT 3353; ACCT 4543; senior standing; Majors only. Internal audit from a broad perspective including evaluating business processes, information technology, accounting systems, internal auditing standards, risk assessment, governance, ethics, audit techniques, and emerging issues. The course covers the design of business processes, implementation of key control concepts and will use a case study approach addressing tactical, strategic, systems and operational areas. No student may earn credit for both 4583 and 5583. (F)

ACCT 4703 Income Tax Accounting II 3 Credit Hours (Slashlisted with ACCT 5703) Prerequisite: ACCT 3603 or permission; junior standing. Advanced issues related to the taxation of multijurisdictional operations and transactions involving corporations, partnerships, estates, and trusts, and their owners throughout the life of the entity. No student may earn credit for both 4703 and 5703. (F, Sp)
ACCT 4960 Directed Readings 1-4 Credit Hours
1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean. May be repeated; maximum credit four hours. Designed for upper-division students who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)

## ACCT 4970 Special Topics/Seminar

1-3 Credit Hours
1 to 3 hours. Prerequisite: Senior standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

ACCT G4990 Special Problems in Accounting 1-2 Credit Hours 1 to 2 hours. Prerequisite: Junior standing; ACCT 3123, ACCT 3313, ACCT 3353, and ACCT 3603; and ACCT 4113 or ACCT 4323 or ACCT 4543 or ACCT 4703; or departmental permission. May be repeated with change of content; maximum credit 2 hours. This directed readings and problems course for advanced students will be supervised by faculty and staff. A comprehensive report and/or examination is required. (F, Sp, Su)
ACCT 5023 International Financial Reporting and Analysis 3 Credit Hours
Prerequisite: Graduate standing and departmental permission. Overview of the international financial reporting environment and exploration of international financial standards and procedures, with emphasis on financial statement interpretation and analysis. (Irreg.)

## ACCT 5100 Accounting Professional Development 0 Credit Hours

 Prerequisite: admission into the BBA/MAcc or MAcc program. Introduces students to a wide range of business and professional issues, including developing current events not covered elsewhere in the curriculum, as well as to build and expand on topics that are covered. The course will also help students develop and polish some of the skills necessary for professional and personal success. (Irreg.)ACCT 5113 Advanced Accounting
3 Credit Hours
Prerequisite: ACCT 3113, ACCT 3123, and graduate standing. Topics in this course include consolidated reporting for firms that have merged with or acquired other companies and the accounting and reporting for governmental and nonprofit organizations. (F, Sp)

ACCT 5123 Special Topics in Advanced Financial Accounting 3 Credit Hours Prerequisite: Graduate Standing, Departmental Permission, and ACCT 5113. This course expands upon topics from Advanced Accounting. Topics include the cost method of consolidation, the process of translation, remeasurement and consolidation of financial statements presented in a foreign currency, and introduction of topics such as partnership accounting, bankruptcy accounting, and SEC Reporting issues. (Irreg.)
ACCT 5202 Financial Accounting
2 Credit Hours
Prerequisites: graduate standing; departmental permission. Students will learn to construct and analyze financial statements of for-profit corporate enterprises. The basic accounting model including financial statement recording and preparation will be covered. A major emphasis will be placed on using financial statements for decision making by investors, creditors, and other users. Basic ratio analysis and valuation concepts will be introduced. (Irreg.)

## ACCT 5212 Managerial Accounting

2 Credit Hours
Prerequisites: 5202 and graduate standing; departmental permission. This course emphasizes the use of accounting information for internal planning and control. Introduces students to types of managerial information used to effectively and efficiently run businesses. Covers basic issues in costing (activity based and product); generation and interpretation of information for planning and strategic decision-making (pricing, make-or-buy analysis, cost-volume-profit analysis); production and use of information related to performance measurement. (Irreg.)

ACCT 5222 Fundamentals of Cost Accounting 2 Credit Hours Prerequisite: Graduate standing, departmental permission, and ACCT 2123 or ACCT 5212. This course covers an overview of technical management accounting concepts. Topics will include process costing; rework and scrap costs; support costs, joint costs and byproducts; relevant costs; transfer pricing; inventory management; and performance measures. ( $F$ )

ACCT 5232 Financial Reporting Foundations 2 Credit Hours Prerequisite: Graduate standing and departmental permission. This course introduces the process of preparing, reporting, and using financial data reported on the income statement and balance sheet. Emphasizes complex revenue and receivable transactions, such as performance obligations, long-term contracts, variable considerations, transaction pricing, and uncollectible accounts, and assesses how these transactions are reported and analyzed by external users. (F)

## ACCT 5242 Financial Reporting for Assets and Investments 2 Credit

 HoursPrerequisite: Graduate standing, departmental permission, and ACCT 2113 or ACCT 5202 or ACCT 5232. This course introduces the process of measuring and reporting assets and investments. Emphasizes topics such as asset acquisition, nonmonetary asset exchange, internally generated assets, impairment, depreciation, debt investments, equity investments, and the use of derivatives for speculative and hedging purposes. (F)

ACCT 5252 Financial Reporting for Liabilities and Equity 2 Credit Hours Prerequisite: Graduate standing, departmental permission, and ACCT 2113 or ACCT 5202 or ACCT 5232. This course introduces the process of valuing and reporting liabilities and equities. Emphasizes topics such as private and public debt offerings, lease accounting, income tax implications, equity-based compensation, dividends, dilutive instruments, and the computation of earnings per share. (Sp)
ACCT 5262 Fundamentals of Income Taxation \& Tax Accounting 2 Credit Hours
Prerequisite: Graduate standing, departmental permission, and
ACCT 2113 or ACCT 5202 or ACCT 5232. This course covers introduction to the taxation of income generally including the definition and measurement of taxable income and the recognition and taxation of gains and losses from property transactions. (F)
ACCT 5272 Fundamentals of Taxation of Business \& Employment Income

2 Credit Hours
Prerequisite: Graduate standing, departmental permission, and ACCT 2113 or ACCT 5202 or ACCT 5232. This course covers the introduction to the alternate organizational forms in which businesses may be conducted, the measurement and taxation of income generated by those business forms, and the impact of organizational form choice on the owners of the business. (Sp)

## ACCT 5282 Fundamentals of Accounting Information Systems Credit <br> 2 <br> Prerequisite: Graduate standing, departmental permission, and ACCT 2113 or ACCT 5202 or ACCT 5232. This course introduces the conceptual foundations of AIS and data analytics. Addresses issues and mitigating factors of accounting information systems reliability. (Sp)

ACCT 5292 Fundamentals of Internal Control 2 Credit Hours Prerequisite: Graduate standing, departmental permission, and ACCT 3353 or ACCT 5282 or MIS 3353. This course introduces the basic concepts of system documentation and internal controls of accounting information systems. Discusses relevant controls to the audit of financial statements and reporting in the context of the audit risk model. (Sp)

## ACCT 5302 Fundamentals of Auditing <br> 2 Credit Hours

Prerequisite: Graduate standing, departmental permission, and ACCT 3113 or ACCT 5242 and ACCT 3123 or ACCT 5252. This course will develop the perspective and knowledge necessary to understand the audit process and gain basic competency in audit risk assessment and reporting. (Su)

## ACCT 5303 Accounting Data Analytics

3 Credit Hours
Prerequisite: ACCT 3353 and graduate standing. This course covers the use of data analytics and visualization in the accounting profession, including analytics processes and tools to generate meaningful accounting insights and answer accounting questions. Students will also learn to think critically, solve problems, and make good decisions about the use of analytics in the accounting environment. Applications in tax, audit, managerial, and financial accounting will be (F, Sp)

## ACCT 5352 Financial Statement Analysis Theory and

 Methods2 Credit Hours
Prerequisites: graduate standing; departmental permission. Intended to increase your ability to use and make decisions using information presented in the financial statements of publicly traded companies. A number of different decision contexts will be examined including valuation of potential acquisitions, investment analysis, credit analysis, managing corporate financing policies and analyzing business communications. Will consider the role of both accounting and nonaccounting information. (Irreg.)

## ACCT 5353 Financial Statement Analysis

## 3 Credit Hours

Prerequisite: graduate standing or permission of instructor. Topics in analysis and use of general purpose financial statements for decision making, ratio analysis, credit risk, and valuation will be covered. (Irreg.)

## ACCT 5403 Accounting Ethics and Professional Responsibilities 3

 CreditHours
Prerequisite: graduate standing, 24 hours of accounting, and permission.
Examines the ethical issues encountered by, and the professional and legal obligations of, practicing accountants with the ultimate goal of enhancing ethical decision-making and behavior in the profession. Applies both ethical theories of decision-making and professional standards to real-world problems encountered across various functional areas of accounting. (Irreg.)

ACCT 5543 Auditing
3 Credit Hours
(Slashlisted with ACCT 4543) Prerequisite: Graduate standing and permission of instructor. This course will cover auditing concepts, standards, principles, and procedures; coverage includes professional ethics, auditors' legal responsibilities, electronic data processing (EDP) control systems, audit sampling, and audit reports. No student may earn credit for both 4543 and 5543. (Irreg.)

ACCT 5553 Fraud Examination 3 Credit Hours
Prerequisite: 4543, graduate standing or permission. To develop a broad understanding of the different types of fraud that affect organizations, as well as to learn how and why fraud occurs. To understand the fundamentals regarding fraud prevention and detection. To learn how to conduct fraud investigations. To learn what is required of external auditors regarding fraud. The course focuses on organizational fraud (e.g. employee and management fraud). (Irreg.)
ACCT 5563 Oil \& Gas Accounting I
3 Credit Hours
(Slashlisted with ACCT 4563) Prerequisite: Graduate standing and permission of instructor. A study of financial accounting issues specifically directed toward oil and gas companies. Includes basic oil and gas transactions: leases, subleases, free wells, farmouts, and carried interests. This course covers accounting for acquisition costs, exploration and development costs, operating costs, joint interest costs, and revenue accounting for oil and gas companies. Field trip required. No student may earn credit for both 4563 and 5563. (F)

ACCT 5573 Advanced Oil and Gas Accounting and Taxation

## 3 Credit Hours

Prerequisites: ACCT 4563 or ACCT 5563, ACCT 3603, and Graduate standing. This course will cover accounting for derivatives, asset retirement obligations, supplemental footnote disclosures, analysis of financial statements of oil and gas companies, and alternative sources of energy. Approximately $1 / 3$ of the course will be devoted to taxation of oil and gas companies. (Irreg.)

ACCT 5583 Internal Auditing 3 Credit Hours (Slashlisted with ACCT 4583) Prerequisite: Graduate standing, ACCT 3353, and ACCT 4543. Internal audit from a broad perspective including evaluating business processes, information technology, accounting systems, internal auditing standards, risk assessment, governance, ethics, audit techniques, and emerging issues. The course covers the design of business processes and implementation of key control concepts, and will use a case study approach addressing tactical, strategic, systems, and operational areas. No student may earn credit for both 4583 and 5583. (F, Sp)

ACCT 5613 Tax Research and Practice
3 Credit Hours
Prerequisite: Graduate standing and ACCT 3603 (or equivalent). Course focuses on the development of skills necessary to resolve issues in tax practice. Objectives include developing knowledge of tax research resources, understanding the framework of tax law, and understanding ethics as applied to tax practice. (Irreg.)

ACCT 5643 Advanced External Auditing 3 Credit Hours Prerequisite: Graduate standing, Accounting majors only, ACCT 4543, and departmental permission. Designed to introduce students to advanced external auditing topics, such as how to audit internal controls, revenue, and fair value, with a special emphasis on audit data analytics. Taught using a mixture of lecture, cases, and projects. Students gain skills in platforms such as Excel, IDEA, Tableau, and others. (Irreg.)

ACCT 5703 Income Tax Accounting II 3 Credit Hours (Slashlisted with 4703) Prerequisite: 3603 or permission and junior standing. Advanced issues related to the taxation of multi-jurisdictional operations and transactions involving corporations, partnerships, estates, and trusts, and their owners throughout the life of the entity. No student may earn credit for both 4703 and 5703. (F, Sp)
ACCT 5960 Directed Readings 1-3 Credit Hours 1 to 3 hours. Prerequisite: graduate standing and permission of department. May be repeated; maximum credit twelve hours. Directed readings and/or literature reviews under the direction of a faculty member. (F, Sp, Su)
ACCT 5970 Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing and permission. May be repeated with change of subject matter; maximum credit eight hours. A seminar for graduate students, with topics to be announced each time the course is offered. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

## ACCT 5980 Research for Master's Thesis 2-9 Credit Hours

Variable enrollment, two to nine hours; maximum credit applicable toward degree, four hours. (F, Sp, Su)
ACCT 5990 Research in Accounting 1-4 Credit Hours 1 to 4 hours. Prerequisite: graduate standing and permission of department. May be repeated; maximum credit eight hours. (F, Sp, Su)
ACCT 6193 Introduction to Accounting Research 3 Credit Hours Prerequisite: graduate standing and permission. May be repeated with change of content; maximum credit six hours. A survey of current topics appearing in the academic accounting literature. Students will analyze and critique emerging original research in accounting. Intended for, but not restricted to, doctoral accounting students to provide a foundation for their future research efforts. Required for all Ph.D. students whose dissertation topic is in the area of accounting. (Irreg.)
ACCT 6553 Accounting Theory and Research 3 Credit Hours Prerequisite: graduate standing, 24 hours of accounting and permission. Examines the history and development of accounting theory and its reflection in current professional standards. In the process, the course also facilitates the development of the knowledge and skills necessary to research and analyze specific practice and policy issues. (Irreg.)
ACCT 6613 Federal Income Taxation of Corporations and

## Shareholders

3 Credit Hours
Prerequisite: Graduate standing and ACCT 5613 or concurrent enrollment. An advanced study of corporate income taxation, including corporate formation, concept of earnings and profits, acquisitions and liquidations, reasonable compensation, stock redemptions, accumulated earnings tax, personal holding companies, reorganizations, Subchapter S corporations, and other tax areas. (Irreg.)

ACCT 6623 Federal Income Taxation of Partnerships 3 Credit Hours Prerequisite: Graduate standing, ACCT 5613 and ACCT 6613, or departmental permission. An advanced study of acquisitions of partnership interests, the basis of a partner's partnership interest, taxing partnership operations, transfers of partnership interests, partnership distributions, death or retirement of a partner, and adjustments to the basis of partnership assets. (Irreg.)

ACCT 6633 Selected Topics in Taxation
3 Credit Hours
Prerequisite: Graduate standing, permission of instructor, and ACCT 5613.
Selected topics will focus on concepts and functional areas currently relevant to the field of taxation and tax accounting. (Sp)

## ACCT 6713 Judgment and Decision Making Research

 Seminar
## 3 Credit Hours

Prerequisite: 6193 or permission of instructor. Introduces basic psychology research in judgment and decision making, explores accounting and accounting-related work in judgment and decision making, and develops evaluation skills for experimental research. (Irreg.)
ACCT 6723 Archival Financial Reporting Research Seminar 3 Credit Hours
Prerequisite: 6193 or permission of instructor. Heavy emphasis placed on basic theory and empirical findings of how accounting information relates to market prices. Additional topics may include archival evidence of firm's earnings management activities, the role of financial analysts' earnings forecasts in financial accounting research, and cross-company differences in financial reporting. (Irreg.)
ACCT 6960 Directed Readings 1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit six hours. Directed readings and/or literature review under the direction of a faculty member. (Irreg.)

ACCT 6970 Special Topics/Seminar 1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing and ACCT 6193 or permission of instructor; May be repeated with change of content; maximum credit 12 hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or research and field projects. (Irreg.)

## ACCT 6973 Seminar

3 Credit Hours
Prerequisite: 6193 or permission of instructor. May be repeated with change of topic; maximum credit six hours. Seminar in latest developments in research and theory from one of the following general areas of accounting: auditing, taxation, positive theory, managerial accounting, or financial reporting. Specific topic is announced for each time of offering. (Irreg.)
ACCT 6980 Research for Doctoral Dissertation 2-16 Credit Hours 2 to 16 hours. Prerequisite: Graduate standing and permission of instructor; may be repeated. Directed research culminating in the completion of the doctoral dissertation. (F, Sp, Su)
ACCT 6990 Independent Study 1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)

## Faculty

| Last Name | First/Middle Name | Middle init. | OU <br> Service | Title(s), date(s) appointed | Degrees Earned, Schools, Dates Completed |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Blaylock | Bradley | S | 2017 | ASSOCIATE <br> PROFESSOR OF <br> ACCOUNTING, 2017; <br> RATH CHAIR IN <br> ACCOUNTING, 2017 | PhD, Univ of <br> Washington, 2011; <br> M Acct, Brigham <br> Young Univ, 2006; BS, <br> Brigham Young Univ, $2006$ |
| Cheng | Cheng-Shing (Agnes) |  | 2021 | PROFESSOR OF ACCOUNTING | PhD, Univ of Illinois at Urbana- Champaign, 1983; MS, National Chengchi Univ, 1977; BS, National Taiwan Univ, 1975 |
| Cuccia | Andrew | D | 1999 | ASSOCIATE <br> PROFESSOR OF <br> ACCOUNTING, 1999; <br> GRANT THORNTON <br> FACULTY FELLOW, <br> 1999; STEED <br> PROFESSOR OF <br> ACCOUNTING, 2007 | PhD, Univ of Florida, 1990; BBA, Loyola Univ, 1978 |
| Davis | Ashley | R | 2015 | ASSISTANT PROFESSOR OF ACCOUNTING, 2015 | PhD, Univ of Georgia, 2009; BS, Univ of Oklahoma, 1995 |
| Fan | Yun |  | 2020 | ASSISTANT PROFESSOR OF ACCOUNTING | PhD, Univ of <br> Oklahoma, 2011; <br> MBA, Univ of <br> Scranton, 2006; BS, <br> Beijing Information <br> Sci \& Tech Univ, 2004 |
| Ghosh | Dipankar |  | 1991 | JOHN E. MERTES <br> JR. PRESIDENTIAL PROFESSOR, 1996; EXECUTIVE DIRECTOR, BUSINESS ENERGY SOLUTIONS CENTER, 2011; DAVID C STEED CHAIR IN ACCOUNTING, 2011; DAVID ROSS BOYD PROFESSOR OF ACCOUNTING, 2015 | PhD, Pennsylvania <br> State Univ, 1991; <br> MBA, Univ of Bombay, 1983; BS, Univ of Mumbai, 1977 |
| Hennes | Karen | M | 2008 | ASSOCIATE <br> PROFESSOR OF <br> ACCOUNTING, 2015; JOHN W. JR., AND BARBARA J. BRANCH PROFESSOR OF ACCOUNTING, 2016; ACADEMIC DIRECTOR, W.K. NEWTON CHAIR OF ACCOUNTING, 2020 | PhD, Pennsylvania <br> State Univ, 2008; BS, Iowa State Univ, 2003 |
| Jensen | Kevan | L | 1999 | ASSOCIATE <br> PROFESSOR OF <br> ACCOUNTING, <br> 2006; KPMG <br> PEAT MARWICK <br> CENTENNIAL <br> PROFESSOR OF <br> ACCOUNTING, 2016 | PhD, Univ of Florida, 1999; M Acc, Brigham Young Univ, 1988; BS, Brigham Young Univ, 1988 |


| Li | Meng |  | 2022 | ASSISTANT PROFESSOR OF ACCOUNTING | PhD, The Univ of Chicago, 2012; MA, The Ohio State Univ, 2007; BA, Tsinghua Univ, 2005 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Lin | Chenxi |  | 2020 | ASSISTANT PROFESSOR OF ACCOUNTING | PhD, Univ of Kansas, 2020; MS, Univ of Pittsburgh, 2015; BS, Univ of Pittsburgh, 2014 |
| Newton | Ashley | N | 2018 | ASSISTANT <br> PROFESSOR OF <br> ACCOUNTING, 2018 | PhD, Univ of Oklahoma, 2015 |
| Ohn | Heejin |  | 2019 | ASSISTANT <br> PROFESSOR OF <br> ACCOUNTING, 2019 | PhD, Univ of Iowa |
| Price | Richard | A | 2016 | ASSOCIATE <br> PROFESSOR OF <br> ACCOUNTING, <br> 2016; JOHN F.Y. <br> STAMBAUGH <br> CENTENNIAL <br> PROFESSOR OF <br> ACCOUNTING, 2016 | PhD, Stanford Univ, 2005; MS, Stanford Univ, 2003; MS, Brigham Young Univ, 1999; BS, Brigham Young Univ, 1999 |
| Stetson | Beth |  | 2000 | ASSOCIATE <br> PROFESSOR OF ACCOUNTING, <br> 2016; CHARLES <br> C. AND VIRGINIA <br> ANN WEDDLE <br> PROFESSOR OF <br> ACCOUNTING, 2016 | PhD, Univ of Oklahoma, 2006; MS, Golden Gate Univ, 1995; JD, Univ of Oklahoma, 1988; BBS, Univ of Oklahoma, 1985 |
| Thomas | Wayne | B | 2000 | JOHN E. MERTES JR. PRESIDENTIAL PROFESSOR, 2005; W.K. NEWTON CHAIR IN ACCOUNTING, 2018; GEORGE LYNN CROSS RESEARCH PROFESSOR OF ACCOUNTING, 2018; ACADEMIC DIRECTOR, 2018; ASSOCIATE DEAN, 2020 | PhD, Oklahoma <br> State Univ, 1995; <br> MS, Oklahoma <br> State Univ, 1992; <br> BS, Southwestern <br> Oklahoma State Univ, 1991 |
| Williams | Devin |  | 2022 | ASSISTANT PROFESSOR OF ACCOUNTING | PhD, Univ of Florida, 2016; MAcc, Brigham Young Univ, 2008; BS, Brigham Young Univ, 2008 |
| Young | Spencer |  | 2022 | ASSISTANT PROFESSOR OF ACCOUNTING | PhD, Univ of Arizona, 2020; MAcc, Brigham Young Univ, 2015; BS, Brigham Young Univ, 2015 |

## Accounting, B.B.A.

Minimum Total Credit Hours: 120
Minimum Upper-Division Hours: 40

Overall GPA - Combined and OU: 2.50
Major GPA - Combined and OU: 2.50
Upper-Division Businesses Courses GPA - Combined and OU: 2.50
Program Code: B001

## This program has changes pending Regents approval for 2024-25. These pending changes are not reflected here.

To enroll in upper-division business courses, students must be certified for degree candidacy and meet all prerequisites.

## Major Requirements

Any 3000- or 4000-level ACCT course will count in the Accounting major grade point average unless otherwise specified, including additional hours taken to fulfill electives.

A maximum of six hours of transfer work will apply toward the major.

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| ACCT 3113 | Intermediate Accounting I (must earn a C in <br> this course) | 3 |
| ACCT 3123 | Intermediate Accounting II | 3 |
| ACCT 3313 | Cost Accounting | 3 |
| ACCT 3603 | Income Tax Accounting I | 3 |
| ACCT 3353 | Accounting Information Systems/ | 3 |
| ACCT 4543 | Databases | $\mathbf{3}$ |
| Total Credit Hours | $\mathbf{1 8}$ |  |

ACCT 3023 and ACCT 3033 will not count towards the BBA or in the ACCT major GPA.

## Required Courses

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Core Requirements | 12 |  |
| L S 3323 | Legal Environment of Business |  |
| MGT 3013 | Principles of Organization and <br> Management |  |
| MKT 3013 | Principles of Marketing and Supply Chain <br> Management |  |
| B AD 4013 | Business Strategy and Policy (to be taken <br> last semester of senior year) |  |
| Additional Requirements |  |  |
| B AD 2091 | Career Readiness I-Transitioning to the <br> Workplace |  |
| B AD 3091 | Career Readiness II-Advancing in the <br> Workplace |  |
| ENT 2113 | Innovation \& Entrepreneurship |  |
| FIN 2303 | Business Finance |  |

Total Credit Hours

[^27]8

## General Education and College Requirements

Courses taken to fulfill the University General Education Requirements must be chosen from the approved General Education course list published at http://www.ou.edu/gened/courses.


Core Area III: Social Science ${ }^{2}$
P SC 1113 American Federal Government (Core III) 3
Core Area IV: Arts and Humanities 12

HIST 1483 United States to 1865 (Core IV)
or HIST 1493United States, 1865 to the Present
PHIL 1273 Introduction to Business Ethics (Core IV: Western Culture)
Choose one course in each of the following fields (Core IV):
Artistic Forms ${ }^{3}$
World Culture ${ }^{3}$
Core Area V: First-Year Experience 3
Choose one course
Basic Business ${ }^{4} 22$

| ACCT 2113 | Fundamental Financial Accounting ${ }^{5}$ |
| :--- | :--- |
| ACCT 2123 | Fundamental Managerial Accounting ${ }^{5}$ |
| B AD 1001 | Personal Computing Productivity Tools |
| B C 2813 | Strategic Communication for Business <br>  |

ECON 1113 Principles of Economics-Macro (Core III-SS) 2, 5

| ECON 1123 | 2,5 <br>  <br> ECON 2843 <br> ECO <br> MIS 2113 |
| :--- | :--- |
| Elements of Statistics (Core I-M) ${ }^{5}$ |  |

Total Credit Hours
59-69
1 Substitute: MATH 1523 for MATH 1643; MATH 1823 or MATH 1914 for MATH 174
2 Two courses, 6 hours, of Core III Social Science are required and one course must be P SC 1113 . ECON 1113 or ECON 1123 will meet the other 3 hours of this requirement.
${ }^{3}$ It is recommended students take either World Culture or Artistic Forms at the 3000/4000 level to fulfill the university requirement of one upperdivision course outside the major from the approved University-Wide General Education. It may also be satisfied in the upper-division or free elective categories.
${ }^{4}$ College requirement: courses are part of the degree candidacy application process that students must complete to earn degree candidacy and begin upper-division business courses.
${ }^{5}$ Minimum grade of C required.

## Free Electives

Electives to bring total applicable hours to the minimum total required for the degree including a minimum of 40 upper-division hours. B AD 2110, B AD 2113, MGT 2013, and MKT 2013 will not count for credit toward a BBA.

## Additional Requirements

1. Candidates for the B.B.A. degree must complete their last 30 hours as resident students in Price College. However, if a candidate has completed the last 51 hours as a resident student at the University of Oklahoma, 9 of the last 60 hours may be taken at another university or by correspondence from OU. Students must take a minimum of 24 hours of their upper-division business courses in residence for the Bachelor of Business Administration degree.
2. Pass/No Pass will not be accepted for any upper-division Business or General Education courses or any specifically required courses.
3. Sixty hours, excluding physical education activity courses, must be taken at a baccalaureate degree-granting institution.
4. A combined maximum of 8 hours of general military experience and flight instruction courses will count toward the required hours.

## Suggested Semester Plan of Study

Additional hours may be required if remedial math or language is required. Please see an academic counselor to develop a plan of study.

Apply for permission to take upper division business courses the semester in which you will complete the prebusiness courses ${ }^{1}$.

This major normally requires three semesters of study beyond the business core requirements.

## Freshman

$\left.\begin{array}{llr}\text { First Semester } & & \begin{array}{c}\text { Credit } \\ \text { Hours }\end{array} \\ \text { ECON 1113 } & \text { Principles of Economics-Macro (Core III) }\end{array}\right)$

| Second Semester |  |  |
| :--- | :--- | :--- |
| B AD 1001 Personal Computing Productivity Tools 1 <br> ECON 1123 Principles of Economics-Micro (Core III)  <br> ENGL 1213 Principles of English Composition (Core I) 3 |  |  |


| MATH 1743 | Calculus I for Business, Life and Social Sciences (Core I) | 3 |
| :---: | :---: | :---: |
| MIS 2113 | Computer-Based Information Systems ${ }^{1}$ | 3 |
| Natural Science (Core II) ${ }^{2}$ |  | 3 |
|  | Credit Hours | 16 |
| Sophomore |  |  |
| First Semester |  |  |
| ACCT 2113 | Fundamental Financial Accounting ${ }^{1}$ | 3 |
| B AD 2091 | Career Readiness I-Transitioning to the Workplace | 1 |
| ECON 2843 | Elements of Statistics ${ }^{1}$ | 3 |
| HIST 1483 or HIST 1493 | United States to 1865 (Core IV) or United States, 1865 to the Present | 3 |
| B C 2813 | Strategic Communication for Business Professionals ${ }^{1}$ | 3 |
| Free Elective |  | 1 |
|  | Credit Hours | 14 |

## Second Semester

| ACCT 2123 | Fundamental Managerial Accounting | 3 |
| :--- | :--- | ---: |
| ENT 2113 | Innovation \& Entrepreneurship | 3 |
| FIN 2303 | Business Finance | 3 |
| PHIL 1273 | Introduction to Business Ethics (Core IV: | 3 |
|  | Western Civ.) | $\mathbf{4}$ |
| Natural Science with lab (2nd discipline) (Core II) |  |  |

## Junior

First Semester

| ACCT 3113 | Intermediate Accounting I | 3 |
| :--- | :--- | ---: |
| ACCT 3353 | Accounting Information Systems/ <br> Databases | 3 |
| L S 3323 | Legal Environment of Business |  |
| MKT 3013 | Principles of Marketing and Supply Chain <br> Management | 3 |
| B AD 3091 | Career Readiness II-Advancing in the <br> Workplace | 3 |
| Free Elective |  | $\mathbf{1}$ |
|  | Credit Hours | $\mathbf{3}$ |

## Second Semester

| ACCT 3123 | Intermediate Accounting II | 3 |
| :--- | :--- | :--- |
| ACCT 3603 | Income Tax Accounting I | 3 |
| MGT 3013 | Principles of Organization and | 3 |
|  | Management |  |

Free Elective 3
General Education World Culture (Core IV) 3

|  | Credit Hours |
| :--- | :--- |
| Senior | 15 |

## Senior

First Semester

| ACCT 3313 | Cost Accounting | 3 |
| :--- | :--- | :--- |
| ACCT 4543 | Auditing | 3 |

P SC 1113 American Federal Government (Core III) 3
Free Elective - Upper-Division 3

| Free Elective - Upper-Division | 3 |
| :--- | :--- |


| Second Semester |  |
| :---: | :---: |
| B AD 4013 Business Strategy and Policy | 3 |
| Free Elective | 7 |
| Upper-Division General Education Elective ${ }^{3}$ | 3 |
| Credit Hours | 13 |
| Total Credit Hours | 120 |

1 Prebusiness course.
2 University-Wide General Education course, refer to online listing.
${ }^{3}$ May be free elective if artistic form, world culture or science is 3000 - or 4000-level.

## Accounting, Minor

Minimum Total Credit Hours: 15

## Program Code: N001

The requirements for a minor must be completed concurrently with the major degree requirements.

No minor may be added by completing courses after receiving the bachelor's degree.

Students must complete prerequisites for all courses.
Students must complete at least nine (9) minor hours in residence at the University of Oklahoma.

Courses for the minor may not be taken Pass/No Pass.
No single course may be used to satisfy a major requirement and a minor requirement. A course may be used, however, to satisfy both a major support requirement and a minor requirement.

- The minor is only available to undergraduate students with a declared major within Price College of Business.
- Students must achieve a minimum 2.50 GPA (OU and overall) in the minor coursework.


## Required Courses

| Code | Title | Credit <br> Hours |
| :---: | :---: | :---: |
| Prerequisite |  |  |
| ACCT 2123 | Fundamental Managerial Accounting | 3 |
| Accounting Minor Courses |  |  |
| ACCT 3113 | Intermediate Accounting I | 3 |
| Choose 9 hours from the following: |  | 9 |
| ACCT 3123 | Intermediate Accounting II |  |
| ACCT 3313 | Cost Accounting |  |
| ACCT 3353 | Accounting Information Systems/ Databases |  |
| ACCT 3603 | Income Tax Accounting I |  |
| ACCT 4543 | Auditing |  |

If the minor is officially declared, successfully completed, and noted on the graduation application, the student's transcript will so indicate at the time the bachelor's degree is posted.

Accounting, B.B.A./M.Acc.<br>Minimum Total Credit Hours: 150<br>Overall GPA - Combined and OU: 3.00<br>Major GPA - Combined and OU: 3.00<br>Upper-Division Businesses Courses GPA - Combined and OU: 3.00<br>\section*{Program Code: A001}

To enroll in upper-division business courses, students must be certified for degree candidacy and meet all prerequisites.

A maximum of six hours of transfer work will apply toward the major.

## Undergraduate Major Requirements

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| ACCT 3113 | Intermediate Accounting I (must earn a C in <br> this course) | 3 |
| ACCT 3123 | Intermediate Accounting II | 3 |
| ACCT 3313 | Cost Accounting | 3 |
| ACCT 3603 | Income Tax Accounting I | 3 |
| ACCT 3353 | Accounting Information Systems/ | 3 |
|  | Databases | $\mathbf{3}$ |
| ACCT 4543 | Auditing | $\mathbf{1 8}$ |

## Required Courses

| Code | Title | Credit Hours |
| :---: | :---: | :---: |
| Core Requirements |  | 12 |
| L S 3323 | Legal Environment of Business |  |
| MGT 3013 | Principles of Organization and Management |  |
| MKT 3013 | Principles of Marketing and Supply Chain Management |  |
| B AD 4013 | Business Strategy and Policy ${ }^{1}$ |  |
| Upper-Division Business Requirements |  | 6-11 |
| FIN 3503 |  |  |
| FIN 3603 | Advanced Corporate Finance |  |
| Students may share up to 5 hours of additional graduatelevel business electives with the graduate degree |  |  |
| Additional Requirements |  | 8 |
| B AD 2091 | Career Readiness I-Transitioning to the Workplace |  |
| B AD 3091 | Career Readiness II-Advancing in the Workplace |  |
| ENT 2113 | Innovation \& Entrepreneurship |  |
| FIN 2303 | Business Finance |  |
| Upper-Division Electives |  | 11 |
| Total Credit Hours |  | 37-42 |

${ }^{1}$ Requires completion of all other business core courses prior to enrollment and permission from Price Academic Advising Services.

## Graduate Requirements

The Non-Thesis degree is a coursework-only degree; a Non-Thesis examination is not required.


## Total Credit Hours

1 Except ACCT 5202 and ACCT 5212.
2 Students may share up to 5 hours of the previously described graduate accounting or graduate business electives with the undergraduate degree, dependent upon the student's proposed career track or interest. We recommend MIT 5602 or L S 5523, but other appropriate courses may be applied as approved by the Graduate Liaison.
${ }^{3}$ Maximum three hours ACCT coursework.

## General Education and College Requirements

Courses taken to fulfill the University General Education Requirements must be chosen from the approved General Education course list published at http://www.ou.edu/gened/courses.

## UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS

| Code Title | Credit |
| :--- | :--- |
|  | Hours |

Core Area I: Symbolic and Oral Communication 6-16
ENGL 1113 Principles of English Composition (Core I) ENGL 1213 Principles of English Composition (Core I)
or EXPO 121 Expository Writing
Language (Core I) - Students who have completed two years of high school language are exempt from this general education requirement (0-10 hours).

Mathematics

| MATH 1643 | Functions and Modeling for Business, Life <br> and Social Sciences (Core I) |
| :--- | :--- |
| MATH 1743 | Calculus I for Business, Life and Social <br> Sciences (Core I) |

Core Area II: Natural Science

Natural Sciences - Choose two courses taken from the biological and/or physical sciences. The two courses must be from different disciplines and at least one course must include a laboratory component (Core II)

| Core Area III: Social Science ${ }^{2}$ |  |  |
| :---: | :---: | :---: |
| P SC 1113 | American Federal Government (Core III) | 3 |
| Core Area IV: Arts and Humanities |  | 12 |
| HIST 1483 or HIST 149 | United States to 1865 (Core IV) 3United States, 1865 to the Present |  |
| PHIL 1273 | Introduction to Business Ethics (Core IV: Western Culture) |  |
| Choose one course in each of the following fields (Core IV): |  |  |
| Artistic Forms ${ }^{3}$ |  |  |
| World Culture ${ }^{3}$ |  |  |
| Core Area V: First-Year Experience 3 |  |  |
| Choose one course |  |  |
| Basic Business ${ }^{4}$ |  | 22 |
| ACCT 2113 | Fundamental Financial Accounting ${ }^{5}$ |  |
| ACCT 2123 | Fundamental Managerial Accounting ${ }^{5}$ |  |
| B AD 1001 | Personal Computing Productivity Tools |  |
| B C 2813 | Strategic Communication for Business Professionals ${ }^{5}$ |  |
| ECON 1113 | Principles of Economics-Macro (Core III-SS) 2, 5 |  |
| ECON 1123 | Principles of Economics-Micro (Core III-SS) $2,5$ |  |
| ECON 2843 | Elements of Statistics (Core I-M) ${ }^{5}$ |  |
| MIS 2113 | Computer-Based Information Systems ${ }^{5}$ |  |

Total Credit Hours
1 Substitute: MATH 1523 for MATH 1643; MATH 1823 or MATH 1914 for MATH 174
2 Two courses, 6 hours, of Core III Social Science are required and one course must be P SC 1113 . ECON 1113 or ECON 1123 will meet the other 3 hours of this requirement.
${ }^{3}$ It is recommended students take either World Culture or Artistic Forms at the 3000/4000 level to fulfill the university requirement of one upperdivision course outside the major from the approved University-Wide General Education. It may also be satisfied in the upper-division or free elective categories.
${ }^{4}$ College requirement: courses are part of the degree candidacy application process that students must complete to earn degree candidacy and begin upper-division business courses.
${ }^{5}$ Minimum C required. ACCT majors must earn a 2.50 GPA in ACCT 2113 \& ACCT 2123.

## Free Electives

Eight hours if exempt from language requirement; may be taken in any lower/upper-division area or met with general education requirements. B AD 2110, B AD 2113 , MGT 2013, and MKT 2013 will not count for credit toward a BBA.

## Additional Requirements

1. Pass/No Pass will not be accepted for any Business or General Education courses or any specifically required courses.
2. Students must complete the GMAT exam with a score of 500 or greater.
3. Comprehensive written exam required at end of program.
4. Sixty hours, excluding physical education activity courses, must be taken at a baccalaureate degree-granting institution.
5. A combined maximum of 8 hours of general military experience and flight instruction courses will count toward the required hours.

## Suggested Semester Plan of Study

Additional hours may be required if remedial math or language is required. Please see an academic counselor to develop a plan of study.

Apply for permission to take upper division business courses the semester in which you will complete the prebusiness courses ${ }^{1}$.

During the third year:

- Take GMAT (if required)
- Interview for internships
- Apply for admission to Master of Accountancy program

| First Year <br> First Semester |  | Credit <br> Hours |
| :--- | :--- | ---: |
| ECON 1113 | Principles of Economics-Macro (Core III) ${ }^{1}$ | 3 |
| ENT 2113 | Innovation \& Entrepreneurship | 3 |
| ENGL 1113 | Principles of English Composition (Core I) | 3 |
| MATH 1643 | Functions and Modeling for Business, Life | 3 |
|  | and Social Sciences | 3 |
| First-Year Experience (Core V) |  |  |

Credit Hours 15

## Second Semester

| B AD 1001 | Personal Computing Productivity Tools | 1 |
| :---: | :---: | :---: |
| ECON 1123 | Principles of Economics-Micro (Core III) ${ }^{1}$ | 3 |
| $\begin{aligned} & \text { ENGL } 1213 \\ & \text { or EXPO } 1213 \end{aligned}$ | Principles of English Composition (Core I) or Expository Writing | 3 |
| MIS 2113 | Computer-Based Information Systems ${ }^{1}$ | 3 |
| MATH 1743 | Calculus I for Business, Life and Social Sciences (Core I) | 3 |
| Natural Science (Core II) ${ }^{2}$ |  | 3 |
|  | Credit Hours | 16 |

## Second Year

| First Semester |  |  |
| :---: | :---: | :---: |
| ACCT 2113 | Fundamental Financial Accounting ${ }^{1}$ | 3 |
| ECON 2843 | Elements of Statistics ${ }^{1}$ | 3 |
| P SC 1113 | American Federal Government (Core III) | 3 |
| B C 2813 | Strategic Communication for Business Professionals ${ }^{1}$ | 3 |
| World Culture (Core IV) ${ }^{2}$ |  | 3 |
| Free Elective |  | 3 |
|  | Credit Hours | 18 |


| Second Semester |  | 3 |
| :--- | :--- | ---: |
| ACCT 2123 | Fundamental Managerial Accounting | 1 |
| B AD 2091 | Career Readiness I-Transitioning to the <br> Workplace | 3 |
| FIN 2303 | Business Finance | 3 |
| PHIL 1273 | Introduction to Business Ethics (Core IV: <br>  Western Culture) |  |


| Natural Science with Lab (2nd discipline) (Core II) ${ }^{2}$ | 4 |
| :--- | ---: |
| Artistic Forms (Core IV) $^{2}$ | 3 |
| Credit Hours | $\mathbf{1 7}$ |

Third Year

| First Semester |  | 3 |
| :--- | :--- | ---: |
| ACCT 3113 | Intermediate Accounting I |  |
| ACCT 3353 | Accounting Information Systems/ <br> Databases | 3 |
| B AD 3091 | Career Readiness II-Advancing in the <br> Workplace | $\mathbf{1}$ |
| L S 3323 | Legal Environment of Business |  |
| MGT 3013 | Principles of Organization and <br> Management | 3 |
| MKT 3013 | Principles of Marketing and Supply Chain <br> Management | 3 |
|  | Credit Hours | $\mathbf{3}$ |

## Second Semester

| ACCT 3123 | Intermediate Accounting II | 3 |
| :---: | :---: | :---: |
| ACCT 3603 | Income Tax Accounting I | 3 |
| HIST 1483 or HIST 1493 | United States to 1865 or United States, 1865 to the Present | 3 |
| Upper-Division General Education ${ }^{3}$ |  | 3 |
| Free Elective |  | 3 |
|  | Credit Hours | 15 |

## Fourth Year

## First Semester

| ACCT 3313 | Cost Accounting | 3 |
| :--- | :--- | ---: |
| ACCT 4543 | Auditing | 3 |
| ACCT 5100 | Accounting Professional Development | 0 |
| FIN 3503 |  | 3 |
| FIN 3603 | Advanced Corporate Finance | 3 |
| B AD 4013 | Business Strategy and Policy | 3 |
| Free Elective |  | $\mathbf{2}$ |
|  | Credit Hours | $\mathbf{1 7}$ |

## Second Semester

Choose both of the following modules:
Module 1:

| B AD 3700 | Internship in Business Administration <br> (interviewing takes place in Year 3) | 3 |
| :--- | :--- | :--- |

Module 2:
Graduate ACCT/Business Elective 2
Shared Graduate ACCT/Business Elective or Upper Division 3
Elective
Shared Graduate ACCT/Business Elective or Upper Division 2
Elective
Credit Hours
10

## Fifth Year

First Semester
ACCT 5113 Advanced Accounting 3
Graduate ACCT/Business Elective 3

| Graduate ACCT/Business Elective | 6 |
| :--- | ---: |


| Second Semester |  |
| :--- | ---: |
| ACCT $6553 \quad$ Accounting Theory and Research | 3 |
| Graduate ACCT/Business Elective | 3 |
| Graduate ACCT/Business Elective | 2 |
| Graduate ACCT/Business Elective | 3 |
| Graduate ACCT/Business Elective | 3 |
| Credit Hours | $\mathbf{1 4}$ |
| Total Credit Hours | $\mathbf{1 5 0}$ |

1 Prebusiness course.
${ }^{2}$ University-Wide General Education course, refer to online listing.
${ }^{3}$ May be free elective if Artistic Form, World Culture, or Science course is 3000-4000-level.

## Accounting, B.B.A./Finance, M.S.

Minimum Total Credit Hours: 140-144
Minimum Upper-Division Hours: 40

Overall GPA - Combined and OU: 3.00
Major GPA - Combined and OU: 3.00
Upper-Division Businesses Courses GPA - Combined and OU: 3.00
Program Code: A003/F435 Q005

## This program has changes pending Regents approval for 2024-25. These pending changes are not reflected here.

To enroll in upper-division business courses, students must be certified for degree candidacy and meet all prerequisites.

A maximum of six hours of transfer work will apply toward the major.

## Undergraduate Major Requirements



| B AD 4013 | ${\text { Business Strategy and Policy }{ }^{1}}^{\text {Additional Requirements }}$B AD 2091 Career Readiness I-Transitioning to the <br> Workplace <br> B AD 3091 Career Readiness II-Advancing in the <br> Workplace <br> ENT 2113 Innovation \& Entrepreneurship <br> FIN 2303 Business Finance |
| :---: | :--- | ---: |
| Total Credit Hours | $\mathbf{2 0}$ |

1 Requires completion of all other business core courses prior to enrollment and permission from Price Academic Advising Services.

## Graduate Requirements

The Non-Thesis degree is a coursework-only degree; a Non-Thesis examination is not required.
Up to 10 hours of graduate level courses from a list maintained by the department and approved by the Graduate College can be shared between the BBA and MS FIN.

| CodeTitle | Credit <br> Hours |
| :--- | ---: |
| Finance Core | 6 |
| FIN $5322 \quad$ Financial Derivatives ${ }^{1}$ |  |
| Graduate Electives | 30 |
| Choose 30 hours of graduate level electives from a list |  |
| maintained by the finance division and approved by the |  |
| Graduate College. Up to 10 hours of graduate level electives |  |
| can be shared between the BBA and MS Finance programs. |  |
| (p. 898 ) |  |

Total Credit Hours
1 Total hours of 140 with 12 shared hours but total hours will increase with fewer shared hours.

## General Education and College Requirements

Courses taken to fulfill the University General Education Requirements must be chosen from the approved General Education course list published at http://www.ou.edu/gened/courses.

## UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND

 COLLEGE REQUIREMENTSCode Title Credit

Core Area I: Symbolic and Oral Communication Hours

ENGL 1113 Principles of English Composition (Core I)
ENGL 1213 Principles of English Composition (Core I)
or EXPO 121 丘xpository Writing
Language (Core I) - Students who have completed two years of high school language are exempt from this general education requirement (0-10 hours).
Mathematics
MATH 1643 Functions and Modeling for Business, Life and Social Sciences (Core I) ${ }^{1}$
MATH 1743 Calculus I for Business, Life and Social Sciences (Core I) ${ }^{1}$

| Core Area II: Natural Science |  | 7 |
| :---: | :---: | :---: |
| Natural Scie biological and be from diffe include a lab | - Choose two courses taken from the or physical sciences. The two courses must nt disciplines and at least one course must atory component (Core II) ${ }^{1}$ |  |
| Core Area III: Social Science ${ }^{2}$ |  |  |
| P SC 1113 | American Federal Government (Core III) | 3 |
| Core Area IV: Arts and Humanities |  | 12 |
| or HIST 1493 United States, 1865 to the Present |  |  |
| PHIL 1273 | Introduction to Business Ethics (Core IV: Western Culture) |  |
| Choose one course in each of the following fields (Core IV): |  |  |
| Artistic Forms ${ }^{3}$ |  |  |
| World Culture ${ }^{3}$ |  |  |
| Core Area V: First-Year Experience |  | 3 |
| Choose one course |  |  |
| Basic Business ${ }^{4}$ |  | 22 |
| ACCT 2113 | Fundamental Financial Accounting ${ }^{5}$ |  |
| ACCT 2123 | Fundamental Managerial Accounting ${ }^{5}$ |  |
| B AD 1001 | Personal Computing Productivity Tools |  |
| B C 2813 | Strategic Communication for Business Professionals ${ }^{5}$ |  |
| ECON 1113 | Principles of Economics-Macro (Core III-SS) 2, 5 |  |
| ECON 1123 | Principles of Economics-Micro (Core III-SS) $2,5$ |  |
| ECON 2843 | Elements of Statistics (Core I-M) ${ }^{5}$ |  |
| MIS 2113 | Computer-Based Information Systems ${ }^{5}$ |  |
| Total Credit Hours |  | -69 |

1 Substitute: MATH 1523 for MATH 1643; MATH 1823 or MATH 1914 for MATH
2 Two courses, 6 hours, of Core III Social Science are required and one course must be P SC 1113 . ECON 1113 or ECON 1123 will meet the other 3 hours of this requirement.
${ }^{3}$ It is recommended students take either World Culture or Artistic Forms at the $3000 / 4000$ level to fulfill the university requirement of one upperdivision course outside the major from the approved University-Wide General Education. It may also be satisfied in the upper-division or free elective categories.
${ }^{4}$ College requirement: courses are part of the degree candidacy application process that students must complete to earn degree candidacy and begin upper-division business courses.
${ }^{5}$ Minimum $C$ required.

## Free Electives

Electives to bring total applicable hours to the minimum total required for the degree including a minimum of 40 upper-division hours. B AD 2110, B AD 2113, MGT 2013, and MKT 2013 will not count for credit toward a BBA.

## Additional Requirements

1. Pass/No Pass will not be accepted for any Business or General Education courses or any specifically required courses.
2. Students must complete the GMAT exam with a score of 500 or greater.
3. Comprehensive written exam required at end of program.
4. Sixty hours, excluding physical education activity courses, must be taken at a baccalaureate degree-granting institution.
5. A combined maximum of 8 hours of general military experience and flight instruction courses will count toward the required hours.

## Suggested Semester Plan of Study

Additional hours may be required if remedial math or language is required. Please see an academic counselor to develop a plan of study.

Apply for permission to take upper division business courses the semester in which you will complete the prebusiness courses ${ }^{1}$.

During the 2nd semester, third year.

- Take GMAT
- Interview for internships
- Apply for admission to BBA/MS program


## First Year

First Semester Credit

| ECON 1113 | Principles of Economics-Macro (Core III) $^{1}$ | 3 |
| :--- | :--- | :--- |
| ENGL 1113 | Principles of English Composition (Core I) | 3 |
| ENT 2113 | Innovation \& Entrepreneurship | 3 |
| MATH 1643 | Functions and Modeling for Business, Life | 3 |

First-Year Experience (Core V) ${ }^{2} \quad 3$

Credit Hours 15

## Second Semester

| B AD 1001 | Personal Computing Productivity Tools | 1 |
| :--- | :--- | :--- |
| ECON 1123 | Principles of Economics-Micro (Core III) |  |
| ENGL 1213 | Principles of English Composition (Core I) | 3 |

ATH dr/AKPO 1213 or Expository Writing

| MATH 1743 | Calculus I for Business, Life and Social <br> Sciences (Core I) | 3 |
| :--- | :--- | :--- |

MIS 2113 Computer-Based Information Systems 3
Natural Science (Core II) ${ }^{2} \quad 3$

Credit Hours 16

## Second Year

First Semester

| ACCT 2113 | Fundamental Financial Accounting ${ }^{1}$ | 3 |
| :--- | :--- | ---: |
| B AD 2091 | Career Readiness I-Transitioning to the <br> Workplace | 1 |
| B C 2813 | Strategic Communication for Business <br> Professionals | 3 |
| ECON 2843 | Elements of Statistics ${ }^{1}$ | 3 |
| HIST 1483 <br> or HIST 1493 | United States to 1865 (Core IV) <br> or United States, 1865 to the Present | 3 |
| Free Elective |  | 3 |
|  | Credit Hours | $\mathbf{1 6}$ |

## Second Semester

| ACCT 2123 | Fundamental Managerial Accounting | 3 |
| :--- | :--- | :--- |
| FIN 2303 | Business Finance | 3 |
| P SC 1113 | American Federal Government (Core III) | 3 |
| Natural Science | with Lab (2nd discipline) $\left(\right.$ Core II) ${ }^{2}$ | 4 |



| Second Semester |  |  |
| :---: | :---: | :---: |
| ACCT 3123 | Intermediate Accounting II | 3 |
| ACCT 3603 | Income Tax Accounting I | 3 |
| PHIL 1273 | Introduction to Business Ethics | 3 |
| Upper-Division General Education ${ }^{3}$ |  | 3 |
| Artistic Forms (Core IV) |  | 3 |
|  | Credit Hours | 15 |
| Fourth Year |  |  |
| First Semester |  |  |
| ACCT 3313 | Cost Accounting | 3 |
| ACCT 4543 | Auditing | 3 |
| MS Finance Graduate Elective ${ }^{4}$ |  | 2 |
| MS Finance Graduate Elective ${ }^{4}$ |  | 2 |
| MS Finance Graduate Elective ${ }^{4}$ |  | 3 |
| Free Elective |  | 3 |
|  | Credit Hours | 16 |


| Second Semester |  |
| :--- | :--- | :--- |
| FIN 5322 | Financial Derivatives |${ }^{4} \quad 2$

MS Finance Graduate Elective ${ }^{4} 3$
B AD 4013 Business Strategy and Policy 3
MS Finance Graduate Elective 2

MS Finance Graduate Elective 2

| Free Elective | 2 |
| :--- | :--- |
|  | Credit Hours |

Fifth Year

| First Semester |  |
| :--- | :--- |
| MS Finance Graduate Elective | 2 |
| MS Finance Graduate Elective | 2 |
| MS Finance Graduate Elective | 2 |
| MS Finance Graduate Elective | 2 |
| Credit Hours | $\mathbf{8}$ |


| Second Semester | 2 |
| :--- | :--- |
| MS Finance Graduate Elective | 2 |
| MS Finance Graduate Elective | 2 |
| MS Finance Graduate Elective |  |


| MS Finance Graduate Elective | 2 |
| :---: | ---: |
| Credit Hours | $\mathbf{8}$ |
| Total Credit Hours | $\mathbf{1 4 0}$ |

${ }^{1}$ Prebusiness course
2 University-Wide General Education course, refer to online listing.
${ }^{3}$ May be free elective if Artistic Form, World Culture, or Science course is 3000-4000-level.
${ }^{4}$ These courses are dual-counted, fulfilling requirements for both the undergraduate degree and the graduate business degree ( 140 total hours with 12 shared hours).

## Accounting/Finance Graduate Electives Course List

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| FIN 5102 | Financial Management | 2 |
| FIN 5112 | Investments | 2 |
| FIN 4413 | Commercial Banking | 3 |
| FIN 5613 | Student Investment Fund | 3 |
| FIN 5970 | Special Topics in Finance (Fundamentals | $1-3$ |
| B AD 5122 | for FIN Analysts (3 hours) | 2 |
| LS 5802 | Business Ethics/Legal | 2 |
| FIN 5132 | Corporate Finance Strategy | 2 |
| FIN 5332 | Risk Management | 2 |
| FIN 5342 | Advanced Corporate Finance | 2 |
| FIN 5352 | International Financial Management | 2 |
| FIN 5362 | Fixed Income Securities and Markets | 2 |
| FIN 5362 | Fixed Income Securities and Markets | 2 |
| FIN 5372 | Mergers \& Acquisitions and Corporate | 2 |
| FIN 5392 | Restructuring | 2 |
| FIN 5402 | Financial Intermediation and Banking | 2 |
| FIN 5412 | Equity Fund Management | 2 |
| FIN 5432 | Advanced Topics in Investments | 2 |
| FIN 5442 | Venture Capital \& Private Equity | 2 |
| FIN 5462 | Real Estate Finance and Investments | 2 |
| FIN 5482 | Economics for Finance | 2 |
| Any other graduate level FIN elective | 2 |  |
|  | Financial Ethics | 2 |
|  | Corporate Risk Management | 2 |

## Accounting, B.B.A./Management of Information and Technology, M.S.

Minimum Total Credit Hours: 140-152
Minimum Upper-Division Hours: 40
Overall GPA - Combined and OU: 3.00
Major GPA - Combined and OU: 3.00
Upper-Division Businesses Courses GPA - Combined and OU: 3.00

Program Code: A002/F657 Q005

## This program has changes pending Regents approval for 2024-25. These pending changes are not reflected here.

To enroll in upper-division business courses, students must be certified for degree candidacy and meet all prerequisites.

A maximum of six hours of transfer work will apply toward the major.

| Undergraduate Major Requirements <br> Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| ACCT 3113 | Intermediate Accounting I | 3 |
| ACCT 3123 | Intermediate Accounting II | 3 |
| ACCT 3313 | Cost Accounting | 3 |
| ACCT 3603 | Income Tax Accounting I | 3 |
| ACCT 3353 | Accounting Information Systems/ | 3 |
|  | Databases |  |
| ACCT 4543 | Auditing | 3 |


| Total Credit Hours | 18 |
| :--- | :--- |

## Required Courses

Code Title
Credit
Hours
Core Requirements

| LS 3323 | Legal Environment of Business |
| :--- | :--- |
| MGT 3013 | Principles of Organization and <br> Management |
| MKT 3013 | Principles of Marketing and Supply Chain <br> Management |
| B AD 4013 | Business Strategy and Policy ${ }^{1}$ |


| Additional Requirements | 8 |
| :---: | :--- |
| B AD 2091 | Career Readiness I-Transitioning to the <br> Workplace |
| B AD 3091 | Career Readiness II-Advancing in the <br> Workplace |
| ENT 2113 | Innovation \& Entrepreneurship <br> FIN 2303 |

Total Credit Hours
1 Requires completion of all other business core courses prior to enrollment and permission from Price Academic Advising Services.

## Graduate Requirements

Up to 12 hours of graduate level MIT or MIS courses from a list maintained by the department and approved by the graduate liaison can be shared between BBA and MS-MIT programs.

| Code | Title | Credit |
| :---: | :---: | :---: |
|  |  | Hours |
| Required |  | 2 |
| MIT 5602 | Management Information Systems |  |
| MIT Electives |  | 10-13 |
| Choose 10 <br> as necessa | 3 credit hours of graduate level MIT courses o reach 32 hours for the degree |  |



| B C 2813 | Strategic Communication for Business Professionals ${ }^{5}$ | First Year First Semester |  | Credit |
| :---: | :---: | :---: | :---: | :---: |
| ECON 1113 | Principles of Economics-Macro (Core III-SS)2,5 |  |  | Hours |
|  |  | ECON 1113 | Principles of Economics-Macro (Core III) ${ }^{1}$ | 3 |
| ECON 1123 | Principles of Economics-Micro (Core III-SS) 2, 5 | ENGL 1113 | Principles of English Composition (Core I) | 3 |
|  |  | ENT 2113 | Innovation \& Entrepreneurship | 3 |
| ECON 2843 | Elements of Statistics (Core I-M) ${ }^{5}$ | MATH 1643 | Functions and Modeling for Business, Life and Social Sciences | 3 |
| MIS 2113 | Computer-Based Information Systems ${ }^{5}$ |  |  |  |
| Total Credit Ho | 59-69 | First-Year Experience (Core V) ${ }^{2}$ |  | 3 |
|  |  |  | Credit Hours | 15 |
| 1 Substitute: MATH 1523 for MATH 1643; MATH 1823 or MATH 1914 for MATH 1743 Semester |  |  |  |  |
| course mus | P SC 1113. ECON 1113 or ECON 1123 will meet the | B AD 1001 | Personal Computing Productivity Tools | 1 |
| other 3 hou | is requirement. | ECON 1123 | Principles of Economics-Micro (Core III) ${ }^{1}$ | 3 |
| It is recommended students take either World Culture or Artistic Forms at the 3000/4000 level to fulfill the university requirement of one upperdivision course outside the major from the approved University-Wide General Education. It may also be satisfied in the upper-division or free elective categories. |  | ENGL 1213 or EXPO 1213 | Principles of English Composition (Core I) or Expository Writing | 3 |
|  |  | MATH 1743 | Calculus I for Business, Life and Social Sciences (Core I) | 3 |
|  |  | MIS 2113 | Computer-Based Information Systems ${ }^{1}$ | 3 |
| ${ }^{4}$ College requirement: courses are part of the degree candidacy application process that students must complete to earn degree candidacy and begin upper-division business courses. |  | Natural Science (Core II) ${ }^{2}$ |  | 3 |
|  |  |  | Credit Hours | 16 |
| 5 Minimum C in ACCT 2113 | uired. ACCT majors must earn a 2.5 GPA | Second Year |  |  |
|  | ACCT 2123. | First Semester |  |  |
|  |  | ACCT 2113 | Fundamental Financial Accounting ${ }^{1}$ | 3 |
| Free Electives |  | B AD 2091 | Career Readiness I-Transitioning to the Workplace | 1 |
| Electives to bring total applicable hours to the minimum total required for the degree including a minimum of 40 upper-division hours. B AD 2110, B AD 2113, MGT 2013, and MKT 2013 will not count for credit toward a BBA. |  | B C 2813 | Strategic Communication for Business Professionals ${ }^{1}$ | 3 |
|  |  | ECON 2843 | Elements of Statistics ${ }^{1}$ | 3 |
|  |  | Artistic Forms (Core IV) ${ }^{2}$ |  | 3 |
| Additional Requirements |  |  | Credit Hours | 13 |
| 1. Pass/No Pass will not be accepted for any Business or General Education courses or any specifically required courses. |  | Second Semester |  |  |
|  |  | ACCT 2123 | Fundamental Managerial Accounting | 3 |
| 2. Students must complete the GMAT exam with a score of 500 or greater. |  | PHIL 1273 | Introduction to Business Ethics (Core IV: Western Culture) | 3 |
| 3. Comprehensive written exam required at end of program. |  | FIN 2303 | Business Finance | 3 |
| 4. Sixty hours, excluding physical education activity courses, must be taken at a baccalaureate degree-granting institution. |  | Natural Science with Lab (2nd discipline) (Core II) ${ }^{2}$ |  | 4 |
|  |  | World Culture (Co | re IV) ${ }^{2}$ | 3 |
| 5. A combined maximum of 8 hours of general military experience and flight instruction courses will count toward the required hours. |  | Third Year | Credit Hours | 16 |
| Suggested Semester Plan of Study |  | First Semester |  |  |
|  |  | ACCT 3113 | Intermediate Accounting I | 3 |
| Additional hours may be required if remedial math or language is required. Please see an academic counselor to develop a plan of study. |  | ACCT 3353 | Accounting Information Systems/ Databases | 3 |
| Apply for permission to take upper division business courses the semester in which you will complete the prebusiness courses ${ }^{1}$. |  | L S 3323 | Legal Environment of Business | 3 |
|  |  | MGT 3013 | Principles of Organization and | 3 |
| During the 2nd semester, third year. |  |  | Management |  |
|  |  | MKT 3013 | Principles of Marketing and Supply Chain | 3 |
| - Take GMAT |  |  | Management |  |
| - Interview for internship |  |  | Credit Hours | 15 |
| - Apply for admission to MIT program |  | Second Semester |  |  |
|  |  | ACCT 3123 | Intermediate Accounting II | 3 |
|  |  | ACCT 3603 | Income Tax Accounting I | 3 |
|  |  | HIST 1483 or HIST 1493 | United States to 1865 or United States, 1865 to the Present | 3 |


| P SC 1113 | American Federal Government (Core III) | 3 |
| :---: | :---: | :---: |
| Free Elective |  | 2 |
|  | Credit Hours | 14 |
| Fourth Year |  |  |
| First Semester |  |  |
| ACCT 3313 | Cost Accounting | 3 |
| B AD 3091 | Career Readiness II-Advancing in the Workplace | 1 |
| MIT 5602 | Management Information Systems ${ }^{4}$ | 2 |
| Graduate Requirement Course ${ }^{4}$ |  | 2 |
| Graduate Requirement Course ${ }^{4}$ |  | 2 |
| Free Elective |  | 3 |
|  | Credit Hours | 13 |
| Second Semester |  |  |
| ACCT 4543 | Auditing | 3 |
| Free Elective |  | 3 |
| Graduate Requirement Course ${ }^{4}$ |  | 3 |
| Graduate Requirement Course ${ }^{4}$ |  | 3 |
| Graduate Requirement Course |  | 2 |
|  | Credit Hours | 14 |

## Fifth Year

## First Semester

Graduate Requirement Course 3
Graduate Requirement Course 2
Graduate Requirement Course 2
Graduate Requirement Course 2

| Upper-Division General Education |  |
| :--- | ---: |
|  | 3 |Second Semester


| Graduate Requirement Course | 2 |  |  |
| :--- | ---: | :---: | :---: |
| Graduate Requirement Course | 2 |  |  |
| Graduate Requirement Course | 2 |  |  |
| Graduate Requirement Course | 3 |  |  |
| B AD 4013 | Business Strategy and Policy |  |  |
| Credit Hours | $\mathbf{3}$ |  |  |
| Total Credit Hours |  |  | $\mathbf{1 4 0}$ |

1 Prebusiness course.
2 University-Wide General Education course, refer to online listing.
${ }^{3}$ May be free elective if Artistic Form, World Culture, or Science course is 3000-4000-level.

4 These courses are dual counted, fulfilling requirements for both the undergraduate degree and the graduate business degree (140 total hours with 12 shared hours).

## Accounting Advanced Standing, M.Acc.

Minimum Total Hours (Non-Thesis): 33
Program Code: M011


## General Requirements for all Master's Degrees

The master's degree requires the equivalent of at least two semesters of satisfactory graduate work and additional work as may be prescribed for the degree.

All coursework applied to the master's degree must carry graduate credit.
Master's degree programs which require a thesis consist of at least 30 credit hours. All non-thesis master's degree programs require at least 30 credit hours.

Credit transferred from other institutions must meet specific criteria and is subject to certain limitations.

Courses completed through correspondence study may not be applied to the master's degree.

To qualify for a graduate degree, students must achieve an overall grade point average of 3.0 or higher in the degree program coursework and in all resident graduate coursework attempted. A student must also have at least a 3.0 in all coursework (including undergraduate coursework if any).

Additional information for master's degree students may be found in the Graduate College Bulletin.

## Online Accounting Advanced Standing, M. Acc.

Minimum Total Hours (Non-Thesis): 33
Program Code: M012

## Required Courses

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Required Coursework |  |  |
| ACCT 5113 | Advanced Accounting | 3 |
| ACCT 6553 | Accounting Theory and Research | 3 |
| Choose one course: | 3 |  |

ACCT 5703 Income Tax Accounting II
An appropriate 5000 or 6000 level tax course as
determined by the Graduate Liaison.
Accounting Electives
Choose twelve hours of 5000- or 6000-level Accounting 12

## courses ${ }^{1}$

Graduate Business Electives
Choose twelve hours of graduate courses in B AD, ECON, ENT, 12
FIN, L S, MGT, MIT, MKT, SCM, or ACCT ${ }^{2}$
Total Credit Hours
${ }^{1}$ Except ACCT 5202 and ACCT 5212.
2 Maximum three hours of ACCT coursework.

The Non-Thesis degree is a coursework-only degree; a Non-Thesis examination is not required.

## General Requirements for all Master's Degrees

The master's degree requires the equivalent of at least two semesters of satisfactory graduate work and additional work as may be prescribed for the degree.

All coursework applied to the master's degree must carry graduate credit.
Master's degree programs which require a thesis consist of at least 30 credit hours. All non-thesis master's degree programs require at least 30 credit hours.

Credit transferred from other institutions must meet specific criteria and is subject to certain limitations.

Courses completed through correspondence study may not be applied to the master's degree.

To qualify for a graduate degree, students must achieve an overall grade point average of 3.0 or higher in the degree program coursework and in all resident graduate coursework attempted. A student must also have at least a 3.0 in all coursework (including undergraduate coursework if any).

Additional information for master's degree students may be found in the Graduate College Bulletin.

## Online Accounting, M.Acc.

Minimum Total Hours (Non-Thesis): 51
Program Code: M013

## Program Requirements

| Code | Title | Credit <br> Hours |
| :---: | :---: | :---: |
| Required Coursework |  |  |
| ACCT 5232 | Financial Reporting Foundations | 2 |
| ACCT 5242 | Financial Reporting for Assets and Investments | 2 |
| ACCT 5252 | Financial Reporting for Liabilities and Equity | 2 |
| ACCT 5222 | Fundamentals of Cost Accounting | 2 |
| ACCT 5262 | Fundamentals of Income Taxation \& Tax Accounting | 2 |
| ACCT 5272 | Fundamentals of Taxation of Business \& Employment Income | 2 |
| ACCT 5282 | Fundamentals of Accounting Information Systems | 2 |
| ACCT 5292 | Fundamentals of Internal Control | 2 |
| ACCT 5302 | Fundamentals of Auditing | 2 |
| ACCT 5113 | Advanced Accounting | 3 |
| ACCT 6553 | Accounting Theory and Research | 3 |
| Choose one course: |  |  |
| ACCT 5703 | Income Tax Accounting II | 3 |
| An appropriate 5000 or 6000 level tax course as determined by the Graduate Liaison. |  |  |
| Accounting Electives |  |  |
| Choose twe courses ${ }^{1}$ | urs of 5000- or 6000-level Accounting | 12 |
| Graduate Business Electives |  |  |
| Choose twelve hours of graduate courses in B AD, ECON, ENT, FIN, L S, MGT, MIT, MKT, SCM, or ACCT ${ }^{2}$ |  | 12 |
| Total Credit Hours |  | 51 |
| $\begin{aligned} & 1 \\ & 2 \\ & 2 \\ & \text { Except AC } \\ & \text { Maximum } \end{aligned}$ | 02 and ACCT 5212. urs of ACCT coursework. |  |

The Non-Thesis degree is a coursework only degree; a Non-Thesis examination is not required.

## General Requirements for all Master's Degrees

The master's degree requires the equivalent of at least two semesters of satisfactory graduate work and additional work as may be prescribed for the degree.

All coursework applied to the master's degree must carry graduate credit.
Master's degree programs which require a thesis consist of at least 30 credit hours. All non-thesis master's degree programs require at least 30 credit hours.

Credit transferred from other institutions must meet specific criteria and is subject to certain limitations.

Courses completed through correspondence study may not be applied to the master's degree.

To qualify for a graduate degree, students must achieve an overall grade point average of 3.0 or higher in the degree program coursework and in
all resident graduate coursework attempted. A student must also have at least a 3.0 in all coursework (including undergraduate coursework if any).

Additional information for master's degree students may be found in the Graduate College Bulletin.

## Tom Love Division of Entrepreneurship and Economic Development

Keith Brigham, Director
Michael F. Price Hall
1003 Asp Ave., Room 3050
(405) 325-1638
kbrigham@ou.edu
www.ou.edu/price/entecdev

## General Information

OU's Entrepreneurship Program has consistently been ranked among the top entrepreneurship programs in the country by The Princeton Review and Entrepreneur Magazine.

The division's central mission is to help students connect to the world of opportunity. The program builds excellent thinking skills, solid content, hands-on innovation-based projects, leadership/communication skills, and interpersonal/team skills. Students experience entrepreneurship and learn by doing.

As a part of the Price College of Business, the Tom Love Division of Entrepreneurship and Economic Development continues to build an entrepreneurial ecosystem that includes experiential learning and enables the launching of successful ventures and successful careers.

Students are immersed in the entrepreneurial process through handson innovation curriculum and programs enabling them to learn how to build new ventures with the help of practicing entrepreneurs and leading entrepreneurship scholars. We empower students with the resources and opportunities they need to launch a successful business venture to economically impact Oklahoma and the world.

## Programs \& Facilities

## Tom Love Center for Entrepreneurship

The Tom Love Center for Entrepreneurship enables students to discover entrepreneurship, develop specialized skills, test emerging business ideas and launch breakthrough ventures to transform our state, nation and world.

## Tom Love Innovation Hub

The Tom Love Innovation Hub offers a variety of resources such as digital fabrication lab, code lab, visualization lab, legal clinic, and collaborative spaces and classrooms.

## OU Startup Programs

OU Startup Programs is a collection of programs designed to foster and grow entrepreneurial development at the University of Oklahoma. Purposed with creating good companies and exceptional founders, OU Startup Programs supports entrepreneurs at critical stages of development. Our programs provide guidance and resources to carry entrepreneurs from ideation to testing to funding. Each Startup Program is adaptive to an entrepreneur's individual needs and remain a viable option for businesses at any size and at any stage. Our programs are
open to University of Oklahoma students and University affiliates (i.e., alumni, faculty and staff).

## Ronnie K. Irani Center for the Creation of Economic Wealth (I-CCEW)

I-CCEW is an economic development organization at the University of Oklahoma specializing in technology commercialization, software business development, social entrepreneurship, and agile product design. This program offers learning experiences, collaborative spaces, high-impact programming, and entrepreneurial consulting to graduate and undergraduate students, young professionals, entrepreneurs, and community members in Norman, Tulsa and Oklahoma City. As a client or team member, all OU students can take advantage of these opportunities.

## Undergraduate Study

## Bachelor of Business Administration

Entrepreneurship and Venture Management, Bachelor of Business Administration (p. 908) immerses students in the entrepreneurial process through hands-on innovation programs. Students learn how to build new ventures with the help of practicing entrepreneurs and leading entrepreneurship scholars.

## Accelerated Program

The Entrepreneurship \& Venture Management, B.B.A./Management of Information and Technology, M.S. (p. 911) accelerated program is a great opportunity for undergraduate students who are pursuing a BBA degree to earn a master's degree with a specialization in data analytics.

## Minors

An Entrepreneurship for Non-Business Majors Minor (p. 910) and an Entrepreneurship for Business Majors Minor (p. 910) are offered.

## Graduate Study

## Master of Science

In today's global economy, entrepreneurship and innovation have become essential drivers of economic growth, national competitiveness and societal progress. They create new opportunities, industries and jobs in fields ranging from energy to health care, and manufacturing to sustainability. As the world grapples with unprecedented challenges, the need for novel ideas and business models has become even more pressing. The Master of Science in Entrepreneurship and Innovation (p. 913) addresses these issues in a hybrid delivery mode that combines an in-residence week of project-focused learning and networking with online delivery of content and interaction.

## Graduate Certificates

The Graduate Certificate in Business Entrepreneurship (p. 914) teaches students how to assess the feasibility of a new venture, chart a commercialization path for an innovation, analyze other people's plans, and plan for successful capitalization and launch.

## Courses

ENT 2113 Innovation \& Entrepreneurship 3 Credit Hours
Explore the basic concepts of innovation and entrepreneurship. The class will be a mix of lectures and discussions, presentations, experiential exercises and guest speakers. This course will not count towards the 9 hours of additional ENT coursework for ENT majors or the ENT elective for business majors pursuing the ENT minor. (F, Sp)

ENT 3103 Entrepreneurial Methods 3 Credit Hours
Prerequisite: ECON 1123, ENT 2113 or MGT 2013; Not available to Price College of Business majors; Required for non-business students who obtain a minor in entrepreneurship from the Price College of Business. Entrepreneurial Methods introduces non-business students to the practices associated with obtaining and managing the money and resources needed when launching a new venture. Students learn why understanding sources of income and funding, and the costs of doing business, is vital for entrepreneurial success. (F,Sp)

## ENT 3113 New Venture Development I

3 Credit Hours
Prerequisite: Student must be approved for degree candidacy by Price College, Entrepreneurship majors and minors or permission; ACCT 2123 or concurrent enrollment. Focuses on developing a better understanding of the nature of entrepreneurial opportunities and how these opportunities relate to the external environment and to students' entrepreneurial careers. Topics in this course include understanding the opportunity environment, determining the feasibility of an opportunity, preparing for the launch, growth and harvesting of an entrepreneurial venture and planning for a career in entrepreneurship. (F, Sp)
ENT 3123 Corporate Innovation
3 Credit Hours
Prerequisite: Student must be approved for degree candidacy by Price College; ENT 3113 and ENT 3513 or concurrent enrollment. In today's hypercompetitive environment, corporate innovation is essential. This course is about understanding how some firms are able to achieve and maintain an entrepreneurial spirit and superior performance. ( $\mathrm{F}, \mathrm{Sp}$ )
ENT 3133 Entrepreneurial Resources 3 Credit Hours
Prerequisite: Student must be approved for degree candidacy by Price College; ACCT 2123 or concurrent enrollment. A central facet of the entrepreneurial process is the attainment and management of key resources. The focus of this course is to offer a practical exploration of key resources available to entrepreneurs. Examples include angels and angel groups, venture capital, crowdfunding, accelerators/incubators, grant funding, among others. Students will learn about each resource, and why/when they might be utilized by entrepreneurs. (F, Sp)

## ENT 3193 Social Entrepreneurship

3 Credit Hours
Prerequisite: Student must be approved for degree candidacy by Price College, ENT 3113, and ENT 3513 or concurrent enrollment. Introduction to social entrepreneurship in for-profit ventures, and practices to start and grow mission-driven ventures. Social ventures aim for a double or triple bottom line with meaningful social and/or environmental returns, and sustainable financial returns through their products, services or other business practices. ( $\mathrm{F}, \mathrm{Sp}$ )

ENT 3203 Entrepreneurial Process
3 Credit Hours
Prerequisite: student must be approved for degree candidacy by Price College. Course focuses on the early development of independent ventures as well as those within established organizations. Individual and organizational level issues will be addressed. Entrepreneurial thinking will explore the thought processes that challenge existing norms and pave the way for novel solutions to problems in any field. The venture life-cycle of opportunity, launch, growth, and harvest is highlighted. (Sp)

ENT 3213 Entrepreneurial Leadership
3 Credit Hours
Prerequisite: Student must be approved for degree candidacy by Price College. To lead ventures in new or established organizations, cultivating entrepreneurial leadership is essential. This requires leaders to expand their worldviews and continually learn to better lead themselves and others. Entrepreneurial leadership involves a mentality of coordinating resources by collaboratively turning problems into opportunities. Entrepreneurial leaders value character, relationships, curiosity, communication, action, and the processes by which impactful outcomes are achieved. ( $\mathrm{F}, \mathrm{Sp}$ )
ENT 3423 International Entrepreneurship
3 Credit Hours
Prerequisite: Student must be approved for degree candidacy by Price College; ACCT 2123 or concurrent enrollment. Designed to emerge the student in the European Union consumer experience. A practicum course that provides students with opportunities to apply concepts mastered in previous business courses. The class materials are two major assignments, three cases, and a book. Materials will also be supplemented with corporate visits that reinforce the concepts from the in-class materials. (Su)
ENT 3433 Global Entrepreneurship
3 Credit Hours
Prerequisite: Student must be approved for degree candidacy by Price College. To launch and lead new ventures outside the United States, entrepreneurs must develop a global perspective and exercise crosscultural business and communication skills. In this course, students learn to assess and navigate global contexts for entrepreneurship. Students practice the entrepreneurship skills required to advance global ventures. Special attention is given to differing institutional settings and markets. (F, Sp)
ENT 3440 Mentored Research Experience 3 Credit Hours 0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)
ENT 3513 Venture Capitalization I
3 Credit Hours
Prerequisite: Student must be approved for degree candidacy by Price College, course is not open to Freshmen; ENT 3113, and FIN 2303 or FIN 3303 or concurrent enrollment in FIN 2303 or FIN 3303. Teaches students the functional tools to engage in the management of entrepreneurial capital in ventures from early stage to mature. (F, Sp)

## ENT 3603 New Venture Development II

3 Credit Hours Prerequisite: student must be approved for degree candidacy by Price College, ENT 3113, and ENT 3513 or concurrent enrollment. Teaches student to conduct elaborate research relevant to the starting of a new venture. Focus is on researching and assessing the market, industry and customer context of a potential venture. Course forms the foundation for writing a solid business plan. ( $\mathrm{F}, \mathrm{Sp}$ )
ENT 3613 Launching the New Venture 3 Credit Hours Prerequisite: student must be approved for degree candidacy by Price College. This class covers issues an entrepreneur might face during the launch of their new venture or product. The case-based curriculum teaches the critical questions that must be addressed to turn products and ideas into sales and revenue. Issues to be covered are opportunity identification, manufacturing, pricing, market segmentation, advertising, promotions, public relations, branding, sales, negotiations, channels, franchising, competition and strategy. (F, Sp)

ENT 3710 Topics in Entrepreneurship
1-3 Credit Hours
1 to 3 hours. Prerequisite: student must be approved for degree candidacy in Price College of Business. May be repeated; maximum credit nine hours. Permits students to study topics in entrepreneurship not included in standard course offerings. Subject of course will vary. (F, $\mathrm{Sp}, \mathrm{Su}$ )

ENT 3880 Directed Reading 1-3 Credit Hours
Prerequisite: Student must be approved for degree candidacy by
Price College, permission. Directed readings and problems under staff supervision for advanced students. A comprehensive report and/or examination is required. (Irreg.)
ENT 3913 Entrepreneurial Growth Strategies
3 Credit Hours
Prerequisite: student must be approved for degree candidacy by Price College, and MGT 3013 or concurrent enrollment. Focuses on growth processes and systems; attracting the right people; managing cash-flow; shareholder decision-making; financial and market-driven options for long-run competitiveness, organizational structures, and management team issues; strategic planning from a resource-based perspective; transition planning for the corporate entity, family dynamics and communication issues; and leadership empowerment. (F)

## ENT 3960 Honors Reading

1-3 Credit Hours
1 to 3 hours. Prerequisite: Admission to Honors Program. May be repeated; maximum credit six hours. Consists of topics designated by the instructor in keeping with the student's major program. The topics will cover materials not usually presented in the regular courses. (F, Sp, Su)

## ENT 3970 Honors Seminar

1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Subjects covered vary. Deals with concepts not usually treated in regular courses. (Irreg.)

ENT 3980 Honors Research 1-3 Credit Hours
Prerequisite: Admission to Honors College, and 3113 or concurrent enrollment. May be repeated, maximum credit six hours. Provides an opportunity for the gifted Honors candidate to work at a special project in the student's field. (Irreg.)
ENT 3990 Independent Study
1-3 Credit Hours
Prerequisite: Student must be approved for degree candidacy by Price College, all 3000-level business core courses, ENT 3113 or concurrent enrollment. Provides an opportunity for the student to work at a special project in the student's field. (F, Sp, Su)
ENT 4503 Ronnie K. Irani Center for the Creation of Economic Wealth Internship 3 Credit Hours
Prerequisite: Student must be approved for degree candidacy by Price College, ENT 3113 or concurrent enrollment; students must apply for and be accepted in the Fall for a Spring internship, or in the Spring for a Fall internship, and must have selected to receive credit for their internship; department/Instructor approval required. I-CCEW provides OU with an enhanced mechanism to offer practical experience to promote the entrepreneurial spirit and assist in developing Oklahoma's economy. The Ronnie K. Irani Center for the Creation of Economic Wealth operates alongside the University's Office of Technology Development which is the primary source of the center's intellectual property. Through internship programs, I-CCEW participants engage in entrepreneurial outreach. (F, Sp)

ENT 4603 New Venture Development III
3 Credit Hours
Prerequisite: Business majors must be approved for degree candidacy by Price College; ENT 3603 and ENT 3513 for both ENT majors and ENT minor for business majors; or ENT 3603 and ENT 3103 for ENT minor for non-business majors. Teaches students the critical skills and processes associated with the commercialization of innovate ventures. The commercialization process involves building the resources and financial requirements for successfully launching a new venture. Success in this course requires application of prior learning the New Venture Development I and II. (F, Sp)

ENT 4710 Topics in Entrepreneurship
1-3 Credit Hours
1 to 3 hours. Prerequisite: Student must be approved for degree candidacy by Price College, ENT 3113 or concurrent enrollment. Topics in Entrepreneurship. May be repeated with change of topic; maximum credit six hours. (F, Sp, Su)
ENT 4813 Entrepreneurial Law
3 Credit Hours
Prerequisite: Students must be approved for degree candidacy by Price College, L S 3323. Designed to provide the would-be entrepreneur with a working knowledge of certain essential substantive areas of the law and the ability to work with and use lawyers effectively. The focus will be on the practical legal considerations in forming and sustaining an entrepreneurial enterprise, including entity organization, securities laws, employment benefits, operational liabilities, financing, mergers and acquisitions and intellectual property (Sp)

## ENT 4960 Directed Readings

## 1-4 Credit Hours

1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean. May be repeated; maximum credit four hours. Designed for upper-division students who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)

ENT 4970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: Senior standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)
ENT 4990 Independent Study 1-3 Credit Hours 1 to 3 hours. Prerequisite: Senior standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)

## ENT 5102 Entrepreneurship \& Innovation

2 Credit Hours
Prerequisite: graduate standing and admitted to the MBA program or permission of instructor. Innovation \& Entrepreneurship offers MBA candidates the opportunity to understand how starting your own business can alter your life's path. The course offers an overview of the concepts and tools of entrepreneurship involving 1) finding or creating opportunities 2) critical success factors in the creation of new ventures and 3) the significance of entrepreneurship for economic development. (Irreg.)
ENT 5111 Social Entrepreneurship
1 Credit Hour
Prerequisite: Graduate standing and departmental permission. The course will challenge students to look beyond traditional business practices by using entrepreneurial principles to create public good. The design of the course assumes that entrepreneurs are powerful agents of social and economic change who, if properly harnessed, can drive a sustainable economy and environment as well as improve the equity, health, and wellbeing of the population. (Irreg.)

ENT 5112 Corporate Entrepreneurship 2 Credit Hours
Prerequisite: Graduate standing and departmental permission. Corporate Entrepreneurship is about understanding how and why some firms can maintain their entrepreneurial spirit, competitiveness, and growth, whereas others cannot. It is about creating work environments where innovation is the norm, where employees are encouraged to work entrepreneurially, where leadership is supportive (not controlling), and where firms are organized to take advantage of opportunities. (Irreg.)
ENT 5121 Entrepreneurial Family Business 1 Credit Hour
Prerequisite: Graduate standing and departmental permission. The course provides an overview of family businesses and the skills and knowledge needed to operate an entrepreneurial and sustainable family business. Topics include family business social and economic impact, strategy, performance, governance, succession, family business dynamics, and family business roles. (Irreg.)
ENT 5122 Entrepreneurship for Science and Technology 2 Credit Hours (Crosslisted with ENGR 5122) Prerequisite: Graduate standing and departmental permission. This course will introduce entrepreneurship from the science and technology perspective. We will start with ideas, analyze them, and see how they could grow into a business. The course will cover areas such as innovation, prototyping, competition, customer discovery, business model canvas, networking, funding, and legal issues, including patents and intellectual property. (F, Sp)
ENT 5131 Design Thinking for Entrepreneurship
1 Credit Hour
Prerequisite: Graduate standing and departmental permission. This course introduces design thinking for budding business titans, policy makers, social innovators, and anyone else interested in learning an approach that can be applied to a variety of "wicked" problems, helping foster equity, and transforming product, services, and organizations. (Irreg.)

## ENT 5132 Global Entrepreneurship

2 Credit Hours
Prerequisite: Graduate standing and departmental permission. This course will explore the basic concepts of global entrepreneurship. The class will be a mix of lectures, cases studies, discussions, experiential exercises, and guest speakers. (Irreg.)
ENT 5141 Entrepreneurial Law
1 Credit Hour
Prerequisite: Graduate standing and departmental permission. This course will provide the entrepreneur with a working knowledge of certain essential substantive areas of the law and the ability to work with and use lawyers effectively. The focus will be on the practical legal considerations in forming and sustaining an entrepreneurial enterprise, including entity organization, securities law, operational liabilities, financing, mergers and acquisitions, and intellectual property law. (Irreg.)

## ENT 5142 Economics of Innovation

2 Credit Hours
Prerequisite: Graduate Standing and Departmental Permission. This is a graduate-level course on economics of innovation. The ultimate learning objective of this course is to improve students' analytical skills and critical thinking in topics that relate to the key determinants of innovative activities in modern economies and the implications of innovation for growth and development. (Irreg.)

## ENT 5151 Entrepreneurial Resources

1 Credit Hour
Prerequisite: Graduate standing and departmental permission. A central facet of the entrepreneurial process is the attainment and management of key resources. The focus of this course is to offer a practical exploration of key resources available to entrepreneurs. Examples include angels and angel groups, venture capital, crowdfunding, accelerators/ incubators, and grant funding, among others. (Sp)

ENT 5152 Entrepreneurship Law
2 Credit Hours
Prerequisite: Graduate Standing and Departmental Permission. This course will provide the entrepreneur with a working knowledge of essential substantive areas of the law and the ability to work with lawyers effectively. The focus will be on the practical legal considerations in forming and sustaining an entrepreneurial enterprise, including entity organization; sources of funding; securities laws; employment benefits; operational liabilities; financing; mergers and acquisitions; and intellectual property. (Irreg.)
ENT 5161 Sustainable Entrepreneurship
1 Credit Hour
Prerequisite: Graduate Standing and Departmental Permission. Sustainable entrepreneurship uses the tools of entrepreneurship to address environmental challenges in for-profit and nonprofit contexts. The course will cover concepts such as systems thinking, life cycle assessments, and climate change as sources of opportunities for entrepreneurs. Understanding the underlying principles allows for improving the environment while maintaining financial viability. (Irreg.)

## ENT 5162 Product Design \& Development <br> 2 Credit Hours

Prerequisite: Graduate Standing and Departmental Permission. The focus of Product Design and Development is integration of the marketing, design, and manufacturing functions of the firm in creating a new product. It is expected that each student will prepare for and attend all of the class sessions and enhance class discussions. Participation in a team project is central to this course. (Irreg.)

ENT 5172 Innovation \& Change
2 Credit Hours
Prerequisite: Graduate Standing and Departmental Permission. The primary purpose of the course is developing an understanding of innovation and change management skills and processes (by focusing on the interrelated concepts of Innovation, Change, \& New Value Creation) and applying this knowledge to fostering the creation of new value. Students will also be exposed to real world entrepreneurial ecosystems which are designed to enable innovation and entrepreneurship. (Irreg.)
ENT 5182 Strategic New Venture Development 2 Credit Hours Prerequisite: Graduate Standing and Departmental Permission. This class provides hands-on learning on what it's like to start a company. Our goal is to create an entrepreneurial experience for you with all the pressures and demands of the real world in an early-stage startup. The class is designed to provide the experience of how to work as a team and turn an idea into a company. (Irreg.)
ENT 5902 Entrepreneurial Leadership
2 Credit Hours
Prerequisite: Graduate standing and MGT 5702. To lead ventures in new or established organizations, cultivating entrepreneurial leadership is essential. This requires leaders to expand their worldviews and continually learn to better lead themselves and others. Entrepreneurial leadership involves a mentality of coordinating resources by collaboratively turning problems into opportunities. Entrepreneurial leaders value character, relationships, curiosity, communication, action, and the processes by which impactful outcomes are achieved. (Irreg.)

## ENT 5912 Capitalizing the New Venture

2 Credit Hours
Prerequisite: graduate standing in Business. This course will cover various aspects of financing entrepreneurial ventures. Topics will include methods of financing, financials, techniques for valuing new businesses and financial structure. Funding sources examined will include commercial banks, small business investment companies SBIC, Business Angels, IPO, Series A \& B \& C financing, acquisitions, LBO, and venture capital companies. These processes are often referred to as sourcing, diligence and valuation. Concepts are illustrated through Harvard Business School, Babson College, and Stanford Cases, supplemented by notes and readings. (Irreg.)

## ENT 5934 Strategic Venture Development 4 Credit Hours FaCulty <br> Prerequisite: graduate standing in Price College of Business.

 Entrepreneurship is about the identification and enactment of entrepreneurial opportunities. This class is about evaluation of technology and commercialization, opportunity feasibility analysis, initial industry and market analysis, designing and writing a quality business plan, full industry and market analysis, development of sales and distribution structures, resources and financial capital requirements, selling a venture concept to potential investors, oral presentation skills, and compete in business plan competitions. (Irreg.)
## ENT 5942 Launching the New Venture 2 Credit Hours

Prerequisite: graduate standing in Business. This class deals with the issues entrepreneurs might face during the launch phase of their new venture and/or new product. The case-based curriculum teaches students the critical questions that must be answered in order to turn products and ideas into sales and revenue. Issues to be covered are opportunity identification, manufacturing, pricing, market segmentation, advertising, promotions, public relations, branding, sales, negotiations, channels, service, franchising, competition, and strategy. (Irreg.)
ENT 5960 Directed Readings 1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing and permission of department. May be repeated; maximum credit twelve hours. Directed readings and/or literature reviews under the direction of a faculty member. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
ENT 5970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)
ENT 5990 Independent Study 1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)
ENT 5992 Entrepreneurial Growth Strategies
2 Credit Hours
Prerequisites: graduate standing, majors only. Focuses on growth processes and systems, attracting the right people, managing cash-flow, shareholder decision-making; financial and market-driven options for long-run competitiveness, organizational structures, and management team issues; strategic planning from a resource-based perspective; transition planning for the corporate entity, family dynamics and communication issues; and leadership empowerment. (F)

## ENT 6960 Directed Readings 1-3 Credit Hours

1 to 3 hours. Prerequisite: graduate standing and permission of department. May be repeated; maximum credit six hours. Directed readings and /or literature reviews under the direction of a faculty member. (F, Sp, Su)

## ENT 6970 Special Topics/Seminar

1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit 12 hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or research and field projects. (Irreg.)
ENT 6980 Research for Doctoral Dissertation 2-16 Credit Hours
2 to 16 hours. Prerequisite: Graduate standing and permission of instructor; may be repeated. Directed research culminating in the completion of the doctoral dissertation. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

# Last Name 






| Last Name | First/Middle Middle <br> Name | OU <br> init. | Ser <br> sta |
| :--- | :--- | :--- | :--- |
| Bolen | Ronald | E | 201 |




| Tucker | Reginald | L | 2023 | ASSISTANT <br> PROFESSOR OF <br> ENTREPRENEURSHIP <br> AND ECONOMIC <br> DEVELOPMENT, 2023 | PhD, Univ of Alabama, 2016; JD, Louisiana State Univ (LSU), 2008; MBA, LSU, 2008; BA, LSU, 2004 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Wavering | Thomas | A | 2016 | EXECUTIVE <br> DIRECTOR, TOM <br> LOVE INNOVATION <br> HUB, 2016; <br> INSTRUCTOR OF <br> ENTREPRENEURSHIP <br> AND ECONOMIC DEVELOPMENT, 2019 | MS, Virginia Tech 1998; BS, Virginia Tech 1996 |
| Wood | Matthew | S | 2022 | PROFESSOR OF ENTREPRENEURSHIP AND ECONOMIC DEVELOPMENT, MICHAEL F. <br> PRICE CHAIR IN ENTREPRENEURSHIP, 2022 | PhD, Southern Illinois Univ, 2009; MBA, Bradley Univ, 2005; BA, Eureka College, 1992 |

## Entrepreneurship and Venture Management, B.B.A.

Minimum Total Credit Hours: 120
Minimum Upper-Division Hours: 40

Overall GPA - Combined and OU: 2.50
Major GPA - Combined and OU: 2.50
Upper-Division Businesses Courses GPA - Combined and OU: 2.50
Program Code: B380

## This program has changes pending Regents approval for 2024-25. These pending changes are not reflected here.

To enroll in upper-division business courses, students must be certified for degree candidacy and meet all prerequisites.

A maximum of six hours of transfer work will apply toward the major.

## Major Requirements

Any 3000- or 4000-level ENT course will count in the Entrepreneurship and Venture Management major grade point average unless otherwise specified, including additional hours taken to fulfill electives.

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| B AD 3013 | Integrated Business Core Practicum |  |
| ENT 3113 | New Venture Development I | 3 |
| ENT 3513 | Venture Capitalization I | 3 |
| ENT 3603 | New Venture Development II | 3 |
| ENT 4603 | New Venture Development III | 3 |
| Total Credit Hours | $\mathbf{3}$ |  |

${ }^{1}$ B AD 3013 is preferred; any 3000/4000 level ENT course not used in the major or as a required ENT course may be substituted.

Required Courses

| Code | Title | Credit <br> Hours |
| :---: | :---: | :---: |
| Core Requirements ${ }^{1}$ |  | 12 |
| L S 3323 | Legal |  |
| MGT 3013 | Princ <br> Mana |  |
| MKT 3013 | Princ <br> Mana |  |
| B AD 4013 | Busin (to be |  |
| Additional Requirements |  | 8 |
| B AD 2091 | Care Work |  |
| B AD 3091 | Care <br> Work |  |
| ENT 2113 | Innov |  |
| FIN 2303 | Busin |  |
| Required ENT Courses |  | 9 |
| Choose three 3000/4000 level courses from any ENT course not used in the major or 3000/4000 level courses as approved by the ENT Division |  |  |
| Total Credit Hours |  | 29 |
| 1 The Integrated Business Core is strongly recommended. <br> 2 Requires completion of all other business core courses prior to enrollment and permission from Price Academic Advising Services. |  |  |

## General Education and College Requirements

Courses taken to fulfill the University General Education Requirements must be chosen from the approved General Education course list published at http://www.ou.edu/gened/courses.

## UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS

| Code | Title | Credit |
| :---: | :---: | :---: |
| Core Area I: Symbolic and Oral Communication |  | 6-16 |
| ENGL 1113 | Principles of English Composition (Core I) |  |
| $\begin{array}{r} \text { ENGL } 1213 \\ \text { or EXPO } \end{array}$ | Principles of English Composition (Core I) 1 IExpository Writing |  |
| Language (C years of high education re | I) - Students who have completed two chool language are exempt from this general uirement (0-10 hours) |  |
| Mathematics |  | 6 |
| MATH 1643 | Functions and Modeling for Business, Life and Social Sciences (Core I) ${ }^{1}$ |  |
| MATH 1743 | Calculus I for Business, Life and Social Sciences (Core I) ${ }^{1}$ |  |
| Core Area II: Natural Science |  | 7 |
| Natural Scien biological an be from diffe include a lab | es - Choose two courses taken from the /or physical sciences. The two courses must nt disciplines and at least one course must atory component (Core II) |  |

Core Area III: Social Science ${ }^{2}$

| P SC 1113 | American Federal Government (Core III) | 3 |
| :---: | :---: | :---: |
| Core Area IV: Arts and Humanities |  | 12 |
| HIST 1483 or HIST 149 | United States to 1865 (Core IV) 3United States, 1865 to the Present |  |
| PHIL 1273 | Introduction to Business Ethics (Core IV: Western Culture) |  |
| Choose one course in each of the following fields (Core IV): |  |  |
| Artistic Forms ${ }^{3}$ |  |  |
| World Culture ${ }^{3}$ |  |  |
| Core Area V: First-Year Experience |  |  |
| Choose one course |  |  |
| Basic Business ${ }^{4}$ |  |  |
| ACCT 2113 Fundamental Financial Accounting ${ }^{5}$ |  |  |
| ACCT 2123 Fundamental Managerial Accounting |  |  |
| B AD 1001 | Personal Computing Productivity Tools |  |
| B C 2813 | Strategic Communication for Business Professionals ${ }^{5}$ |  |
| ECON 1113 | Principles of Economics-Macro (Core III-SS) 2, 5 |  |
| ECON 1123 | Principles of Economics-Micro (Core III-SS) 2, 5 |  |
| ECON 2843 | Elements of Statistics (Core I-M) ${ }^{5}$ |  |
| MIS 2113 | Computer-Based Information Systems ${ }^{5}$ |  |
| Total Credit Hours 59-69 |  |  |
| ${ }^{2}$ Two courses, 6 hours, of Core III Social Science are required and one course must be P SC 1113 . ECON 1113 or ECON 1123 will meet the other 3 hours of this requirement. |  |  |
| ${ }^{3}$ It is recommended students take either World Culture or Artistic Forms at the 3000/4000 level to fulfill the university requirement of one upperdivision course outside the major from the approved University-Wide General Education. It may also be satisfied in the upper-division or free elective categories. |  |  |
| ${ }^{4}$ College requirement: courses are part of the degree candidacy application process that students must complete to earn degree candidacy and begin upper-division business courses. |  |  |

## Free Electives

Electives to bring total applicable hours to the minimum total required for the degree including a minimum of 40 upper-division hours. B AD 2110, B AD 2113, MGT 2013, and MKT 2013 will not count for credit toward a BBA.

## Additional Requirements

1. Candidates for the B.B.A. degree must complete their last 30 hours as resident students in Price College. However, if a candidate has completed the last 51 hours as a resident student at the University of Oklahoma, 9 of the last 60 hours may be taken at another university or by correspondence from OU. Students must take a minimum of 24 hours of their upper-division business courses in residence for the Bachelor of Business Administration degree.
2. Pass/No Pass will not be accepted for any upper-division Business or General Education courses or any specifically required courses.
3. Sixty hours, excluding physical education activity courses, must be taken at a baccalaureate degree-granting institution.
4. A combined maximum of 8 hours of general military experience and flight instruction courses will count toward the required hours.

## Suggested Semester Plan of Study

Additional hours may be required if remedial math or language is required. Please see an academic counselor to develop a plan of study.

3 This major normally requires three semesters of study beyond the business core requirements.

## During the second semester, sophomore year.

- Apply for degree candidacy
- Recommended semester to study abroad


## Freshman

| First Semester |  | Credit |
| :---: | :---: | :---: |
|  |  | Hours |
| ECON 1113 | Principles of Economics-Macro (Core III) | 3 |
| ENGL 1113 | Principles of English Composition (Core I) | 3 |
| MATH 1643 | Functions and Modeling for Business, Life and Social Sciences | 3 |
| General Education Artistic Forms (Core IV) ${ }^{1}$ |  | 3 |
| First-Year Experience (Core V) ${ }^{1}$ |  | 3 |
| ATH 1743 <br> Second Semester |  |  |
|  |  |  |
| B AD 1001 | Personal Computing Productivity Tools | 1 |
| ECON 1123 | Principles of Economics-Micro (Core III) | 3 |
| ENGL 1213 or EXPO 1213 | Principles of English Composition (Core I) or Expository Writing | 3 |
| MATH 1743 | Calculus I for Business, Life and Social Sciences (Core I) | 3 |
| MIS 2113 | Computer-Based Information Systems | 3 |
| Natural Science (Core II) ${ }^{1}$ |  | 3 |
|  | Credit Hours | 16 |

## Sophomore

First Semester

| ACCT 2113 | Fundamental Financial Accounting | 3 |
| :--- | :--- | ---: |
| B AD 2091 | Career Readiness I-Transitioning to the <br> Workplace | 1 |
| B C 2813 | Strategic Communication for Business <br> Professionals | 3 |
| ECON 2843 | Elements of Statistics | 3 |
| P SC 1113 | American Federal Government (Core III) | 3 |
| Free Elective |  | $\mathbf{3}$ |
|  | Credit Hours | $\mathbf{1 6}$ |

## Second Semester

| ACCT 2123 | Fundamental Managerial Accounting | 3 |
| :--- | :--- | :--- |
| ENT 2113 | Innovation \& Entrepreneurship | 3 |
| FIN 2303 | Business Finance | 3 |
| PHIL 1273 | Introduction to Business Ethics (Core IV: | 3 |


| Natural Science with lab (2nd discipline) (Core II) ${ }^{1}$ |  | 4 |
| :---: | :---: | :---: |
|  | Credit Hours | 16 |
| Junior |  |  |
| First Semester |  |  |
| B AD 3091 | Career Readiness II-Advancing in the Workplace | 1 |
| L S 3323 | Legal Environment of Business | 3 |
| MGT 3013 | Principles of Organization and Management | 3 |
| MKT 3013 | Principles of Marketing and Supply Chain Management | 3 |
| General Education World Culture (Core IV) ${ }^{1}$ |  | 3 |
| Choose one of the following: |  | 3 |
| B AD 3013 | Integrated Business Core Practicum |  |
| Free Elective |  |  |
|  | Credit Hours | 16 |
| Second Semester |  |  |
| ENT 3113 | New Venture Development I | 3 |
| HIST 1483 or HIST 1493 | United States to 1865 (Core IV) or United States, 1865 to the Present | 3 |
| Required ENT Course (Upper-Division) |  | 3 |
| Required ENT Course (Upper-Division) |  | 3 |
| Upper-Division General Education Elective ${ }^{2}$ |  | 3 |
|  | Credit Hours | 15 |


| Senior |  |  |
| :--- | :--- | ---: |
| First Semester |  | 3 |
| ENT 3513 | Venture Capitalization I | 3 |
| ENT 3603 | New Venture Development II | 3 |
| Required ENT course (Upper-Division) | 1 |  |
| Free Elective |  | 3 |
| Free Elective |  | $\mathbf{1 3}$ |
|  | Credit Hours |  |



| Free Elective |  |  |
| :---: | :--- | ---: |
| B AD 3013 | Integrated Business Core Practicum <br> (substitute course) |  |
| ENT 4603 | New Venture Development III | 3 |
| Free Elective |  | $\mathbf{1}$ |
| Free Elective | Credit Hours | $\mathbf{3}$ |
|  | Total Credit Hours | $\mathbf{1 3}$ |

1 University-Wide General Education course, refer to online listing.
${ }^{2}$ May be free elective if artistic form, World culture, or science is 3000 - or 4000-level.

## Entrepreneurship for Business Majors, Minor

Minimum Total Credit Hours: 15

## Overall GPA - Combined and OU: 2.50

## Program Code: N379

The requirements for a minor must be completed concurrently with the major degree requirements.

No minor may be added by completing courses after receiving the bachelor's degree.

Students must complete at least nine (9) minor hours in residence at the University of Oklahoma.

Courses for the minor may not be taken Pass/No Pass.
No single course may be used to satisfy a major requirement and a minor requirement. A course may be used, however, to satisfy both a major support requirement and a minor requirement.

- The minor is only available to undergraduate students with a declared major within Price College of Business.
- If the minor is officially declared, successfully completed, and noted on the graduation application, the student's transcript will so indicate at the time the bachelor's degree is posted.


## Required Courses

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Required |  |  |
| ENT 3113 | New Venture Development I | 3 |
| ENT 3513 | Venture Capitalization I | 3 |
| ENT 3603 | New Venture Development II | 3 |
| ENT 4603 | New Venture Development III | 3 |
| ENT Elective |  | 3 |
| Choose one of the following: |  |  |
| ENT 3000/4000 level course not listed above |  |  |
| 3000/4000 level course as approved by the ENT Division |  |  |

Total Credit Hours

## Entrepreneurship for Non-Business Majors, Minor

Minimum Total Credit Hours: 18

Program Code: N381
The requirements for a minor must be completed concurrently with the major degree requirements.

No minor may be added by completing courses after receiving the bachelor's degree.

Students accepted in the minor will be given permission to enroll in the upper-division credit hours of the minor.

All upper division courses must be completed at OU.

Courses for the minor may not be taken Pass/No Pass.

Minimum OU and Combined GPA of 2.50 in all specifically required business and all specifically required upper division business courses. Lower division courses must be taken before upper-division courses.

No single course may be used to satisfy a major requirement and a minor requirement. A course may be used, however, to satisfy both a major support requirement and a minor requirement.

- The minor is only available to undergraduate students with a declared major outside Price College of Business.
- Students must achieve a minimum 2.50 GPA (OU and overall) in the minor coursework.


## Required Courses

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Prerequisite |  | 3 |
| Choose one of the following: |  |  |
| ECON 1123 | Principles of Economics-Micro |  |
| ENT 2113 | Innovation \& Entrepreneurship |  |
| MGT 2013 | Introduction to Management |  |
| Required |  | 3 |
| ENT 3103 | Entrepreneurial Methods | 3 |
| ENT 3113 | New Venture Development I | 3 |
| ENT 3603 | New Venture Development II | 3 |
| ENT 4603 | New Venture Development III |  |
| ENT Elective |  | 3 |
| Choose one of the following: |  |  |

Any ENT course not listed above
3000/4000 level non-ENT course as approved by the ENT Division

Total Credit Hours

If the minor is officially declared, successfully completed, and noted on the graduation application, the student's transcript will so indicate at the time the bachelor's degree is posted.

## Entrepreneurship \& Venture Management, B.B.A./Management of Information and Technology, M.S.

Minimum Total Credit Hours: 140-152
Minimum Upper-Division Hours: 40
Overall GPA - Combined and OU: 3.00
Major GPA - Combined and OU: 3.00
Upper-Division Businesses Courses GPA - Combined and OU: 3.00
Program Code: A380/F657 Q241
This program has changes pending Regents approval for 2024-25. These pending changes are not reflected here.
To enroll in upper-division business courses, students must be certified for degree candidacy and meet all prerequisites.

A maximum of six hours of transfer work will apply toward the major.

## Undergraduate Major Requirements

Any 3000- or 4000-level ENT course will count in the major grade point average unless otherwise specified.

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| B AD 3013 | Integrated Business Core Practicum |  |
| ENT 3113 | New Venture Development I | 3 |
| ENT 3513 | Venture Capitalization I | 3 |
| ENT 3603 | New Venture Development II | 3 |
| ENT 4603 | New Venture Development III | 3 |
| Total Credit Hours | $\mathbf{3}$ |  |

## Required Courses

| Code | Title | Credit Hours |
| :---: | :---: | :---: |
| Core Requirements ${ }^{1}$ |  | 12 |
| L S 3323 | Legal Environment of Business |  |
| MGT 3013 | Principles of Organization and Management |  |
| MKT 3013 | Principles of Marketing and Supply Chain Management |  |
| B AD 4013 | Business Strategy and Policy ${ }^{2}$ |  |

Additional Requirements 8
B AD 2091 Career Readiness I-Transitioning to the Workplace
B AD 3091 Career Readiness II-Advancing in the Workplace
ENT 2113 Innovation \& Entrepreneurship
FIN 2303 Business Finance
Required ENT Courses
Choose three 3000/4000 level courses from any ENT
course not used in the major
Total Credit Hours
1 The Integrated Business Core is strongly recommended.
${ }^{2}$ Requires completion of all other business core courses prior to enrollment and permission from Price Academic Advising Services.

## Graduate Requirements

Up to 12 hours of graduate level MIT or MIS courses from a list maintained by the department and approved by the graduate liaison can be shared between BBA and MS-MIT programs.

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Required |  | 2 |
| MIT 5602 | Management Information Systems |  |
| MIT Elective |  | $\mathbf{1 0 - 1 3}$ |

Choose 10 to 13 credit hours of graduate level MIT courses
as necessary to reach 32 hours for the degree
Graduate Electives
Choose 13 credit hours of graduate-level Business, MIT
electives or other electives as approved by MIT Division
Choose one of the following options:

| Non-Thesis Option (coursework-only degree; exam is not |
| :--- |
| required) |
| MIT $5980 \quad$Research for Master's Thesis (Thesis <br> Option; 3 credit hours) |
| Choose 4 credit hours of additional coursework from a list |
| maintained by the department and approved by the Graduate |
| Liaison |

## Total Credit Hours

## General Education and College Requirements

Courses taken to fulfill the University General Education Requirements must be chosen from the approved General Education course list published at http://www.ou.edu/gened/courses.

## UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS

| Code | Title | Credit |
| :---: | :---: | :---: |
|  |  | Hours |
| Core Area I: Symbolic and Oral Communication |  | 6-16 |
| ENGL 1113 | Principles of English Composition (Core I) |  |
| $\begin{array}{r} \text { ENGL } 1213 \\ \text { or EXPO } \end{array}$ | Principles of English Composition (Core I) 1 IExpository Writing |  |
| Language (Core I) - Students who have completed two years of high school language are exempt from this general education requirement ( $0-10$ hours). |  |  |
| Mathematics |  | 6 |
| MATH 1643 | Functions and Modeling for Business, Life and Social Sciences (Core I) ${ }^{1}$ |  |
| MATH 1743 | Calculus I for Business, Life and Social Sciences (Core I) ${ }^{1}$ |  |
| Core Area II: Natural Science |  | 7 |
| Natural Scie biological and be from diffe include a lab | ees - Choose two courses taken from the /or physical sciences. The two courses must ent disciplines and at least one course must ratory component (Core II) |  |
| Core Area III: Social Science ${ }^{2}$ |  |  |
| P SC 1113 | American Federal Government (Core III) | 3 |
| Core Area IV: Arts and Humanities |  | 12 |
| or HIST 1493United States, 1865 to the Present |  |  |
| PHIL 1273 | Introduction to Business Ethics (Core IV: Western Culture) |  |
| Choose one course in each of the following fields (Core IV): |  |  |
| Artistic Forms ${ }^{3}$ |  |  |
| World Culture ${ }^{3}$ |  |  |
| Core Area V: First-Year Experience |  | 3 |
| Choose one course |  |  |
| Basic Business ${ }^{4}$ |  | 22 |
| ACCT 2113 | Fundamental Financial Accounting ${ }^{5}$ |  |
| ACCT 2123 | Fundamental Managerial Accounting |  |


| B AD 1001 | Personal Computing Productivity Tools |
| :--- | :--- |
| B C 2813 | Strategic Communication for Business <br> Professionals |
| ECON 1113 | Principles of Economics-Macro (Core III-SS) <br> 2,5 |
| ECON 1123 | Principles of Economics-Micro (Core III-SS) <br> 2,5 |
| ECON 2843 | Elements of Statistics (Core I-M) ${ }^{5}$ |
| MIS 2113 | Computer-Based Information Systems $^{5}$ |

Total Credit Hours 59-69

1 Substitute: MATH 1523 for MATH 1643; MATH 1823 or MATH 1914 for MATH 174
2 Two courses, 6 hours, of Core III Social Science are required and one course must be P SC 1113 . ECON 1113 or ECON 1123 will meet the other 3 hours of this requirement.
${ }^{3}$ It is recommended students take either World Culture or Artistic Forms at the 3000/4000 level to fulfill the university requirement of one upperdivision course outside the major from the approved University-Wide General Education. It may also be satisfied in the upper-division or free elective categories.
${ }^{4}$ College requirement: courses are part of the degree candidacy application process that students must complete to earn degree candidacy and begin upper-division business courses.
${ }^{5}$ Minimum grade of $C$ required.

## Free Electives

Electives to bring total applicable hours to the minimum total required for the degree including a minimum of 40 upper-division hours. B AD 2110, B AD 2113 , MKT 2013 and MGT 2013 will not count for credit toward a BBA.

## Additional Requirements

1. Pass/No Pass will not be accepted for any Business or General Education courses or any specifically required courses.
2. Students must complete the GMAT exam with a score of 500 or greater.
3. Comprehensive written exam required at end of program.
4. Sixty hours, excluding physical education activity courses, must be taken at a baccalaureate degree-granting institution.
5. A combined maximum of 8 hours of general military experience and flight instruction courses will count toward the required hours.

## Suggested Semester Plan of Study

Additional hours may be required if remedial math or foreign language is required. Please see an academic counselor to develop a plan of study.

Apply for permission to take upper division business courses the semester in which you will complete the prebusiness courses ${ }^{1}$.

During the 2nd semester, third year.

- Take GMAT
- Interview for internship
- Apply for admission to Master's program

| Freshman |  |  |
| :---: | :---: | :---: |
| First Semester |  | Credit |
|  |  | Hours |
| ECON 1113 | Principles of Economics-Macro (Core III) ${ }^{1}$ | 3 |
| ENGL 1113 | Principles of English Composition (Core I) | 3 |
| ENT 2113 | Innovation \& Entrepreneurship | 3 |
| MATH 1643 | Functions and Modeling for Business, Life and Social Sciences | 3 |
| First-Year Experience (Core V) ${ }^{2}$ |  | 3 |
|  | Credit Hours | 15 |
| Second Semester |  |  |
| B AD 1001 | Personal Computing Productivity Tools | 1 |
| ECON 1123 | Principles of Economics-Micro (Core III) ${ }^{1}$ | 3 |
| ENGL 1213 or EXPO 1213 | Principles of English Composition (Core I) or Expository Writing | 3 |
| MATH 1743 | Calculus I for Business, Life and Social Sciences (Core I) | 3 |
| MIS 2113 | Computer-Based Information Systems ${ }^{1}$ | 3 |
| Natural Science (Core II) ${ }^{2}$ |  | 3 |
|  | Credit Hours | 16 |
| Sophomore |  |  |
| First Semester |  |  |
| ACCT 2113 | Fundamental Financial Accounting ${ }^{1}$ | 3 |
| B AD 2091 | Career Readiness I-Transitioning to the Workplace | 1 |
| B C 2813 | Strategic Communication for Business Professionals ${ }^{1}$ | 3 |
| ECON 2843 | Elements of Statistics ${ }^{1}$ | 3 |
| P SC 1113 | American Federal Government (Core III) | 3 |
|  | Credit Hours | 13 |
| Second Semester |  |  |
| ACCT 2123 | Fundamental Managerial Accounting | 3 |
| FIN 2303 | Business Finance | 3 |
| PHIL 1273 | Introduction to Business Ethics (Core IV: Western Culture) | 3 |
| Natural Science with lab (2nd discipline) (Core II) ${ }^{2}$ |  | 4 |
| Artistic Forms (Core IV) ${ }^{2}$ |  | 3 |
|  | Credit Hours | 16 |
| Junior |  |  |
| First Semester |  |  |
| Required ENT course (Upper Division) |  | 3 |
| LS 3323 | Legal Environment of Business | 3 |
| MGT 3013 | Principles of Organization and Management | 3 |
| MKT 3013 | Principles of Marketing and Supply Chain Management | 3 |
| Choose one of the following: |  | 3 |
| B AD 3013 | Integrated Business Core Practicum |  |
| Upper-division elective |  |  |
| B AD 3091 | Career Readiness II-Advancing in the Workplace | 1 |
|  | Credit Hours | 16 |

## Second Semester

| ENT 3113 New Venture Development I | 3 |
| :---: | :---: |
| Required ENT Course (Upper-Division) | 3 |
| Required ENT Course (Upper-Division) | 3 |
| $\begin{array}{lr}\text { HIST } 1483 & \text { United States to } 1865 \\ \text { or HIST } 1493 & \text { or United States, } 1865 \text { to the Present }\end{array}$ | 3 |
| World Culture (Core IV) ${ }^{2}$ | 3 |
| Credit Hours | 15 |

## Senior

First Semester
ENT 3513 Venture Capitalization I 3
ENT 3603 New Venture Development II 3
Graduate Requirement Course ${ }^{4} 2$
Graduate Requirement Course ${ }^{4} 2$

| MIT 5602 | Management Information Systems ${ }^{4}$ | 2 |
| :--- | :--- | ---: |
|  | Credit Hours | $\mathbf{1 2}$ |

## Second Semester

ENT 4603 New Venture Development III 3

Graduate Requirement Course ${ }^{4} 3$
Upper-Division General Education Elective ${ }^{3} 3$
Graduate Requirement Course 2
Free Elective 2

Credit Hours
13

## Fifth Year

First Semester
Graduate Requirement Course 4
Graduate Requirement Course 2
Graduate Requirement Course 3
Graduate Requirement Course 2

| Graduate Requirement Course | 2 |
| ---: | ---: |
| Credit Hours | 12 |

Second Semester
Graduate Requirement Course 2
Graduate Requirement Course 2
Graduate Requirement Course 2
Graduate Requirement Course 3
B AD 4013 Business Strategy and Policy 3

| Credit Hours | 12 |
| :--- | ---: |
| Total Credit Hours | 140 |

1 Prebusiness course.
2 University-Wide General Education course, refer to online listing.
${ }^{3}$ May be free elective if Artistic Form, World Culture, or Science course is 3000-4000-level.
4 These courses are dual-counted, fulfilling requirements for both the undergraduate degree and the graduate business degree ( 140 total hours with 12 shared hours).

## Entrepreneurship and Innovation (Online), M.S.

Minimum Total Hours (Non-Thesis): 30

| Program Code: M383 |  |  |
| :---: | :---: | :---: |
| Major Requirements |  |  |
| - This program is coursework only. |  |  |
| Code | Title | Credit |
|  |  | Hours |
| Required Courses |  |  |
| ENT 5102 | Entrepreneurship \& Innovation | 2 |
| ENT 5182 | Strategic New Venture Development | 2 |
| ACCT 5202 | Financial Accounting | 2 |
| FIN 5102 | Financial Management | 2 |
| Major Electives |  |  |
| Students wil maintained from the de Business and | ose 22 hours of electives from a list academic unit or seek additional approval ent for a course outside of Price College of roved by the Graduate College. (p. 914) | 22 |

Total Credit Hours

## General Requirements for all Master's Degrees

The master's degree requires the equivalent of at least two semesters of satisfactory graduate work and additional work as may be prescribed for the degree.

All coursework applied to the master's degree must carry graduate credit.
Master's degree programs which require a thesis consist of at least 30 credit hours. All non-thesis master's degree programs require at least 30 credit hours.

Credit transferred from other institutions must meet specific criteria and is subject to certain limitations.

Courses completed through correspondence study may not be applied to the master's degree.

To qualify for a graduate degree, students must achieve an overall grade point average of 3.0 or higher in the degree program coursework and in all resident graduate coursework attempted. A student must also have at least a 3.0 in all coursework (including undergraduate coursework if any).

Additional information for master's degree students may be found in the Graduate College Bulletin.

## Entrepreneurship and Innovation Major Electives List

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| B AD 5312 | Strategic Communication | 2 |
| ENT 5111 | Social Entrepreneurship | 1 |
| ENT 5112 | Corporate Entrepreneurship | 2 |
| ENT 5151 | Entrepreneurial Resources | 1 |
| ENT 5152 | Entrepreneurship Law | 2 |
| ENT 5161 | Sustainable Entrepreneurship | 1 |
| ENT 5162 | Product Design \& Development | 2 |
| ENT 5172 | Innovation \& Change | 2 |
| ENT 5902 | Entrepreneurial Leadership | 2 |


| ENT 5970 | Special Topics/Seminar | $1-3$ |
| :--- | :--- | ---: |
| ENT 5992 | Entrepreneurial Growth Strategies | 2 |
| L S 5802 | Business Ethics/Legal | 2 |
| MGT 5702 | Organizational Behavior | 2 |

## Business Entrepreneurship, Graduate Certificate

Minimum Total Hours: 12

Program Code: G023
The Business Entrepreneurship Certificate program teaches students the theory and principles of entrepreneurship for the development of business opportunity projects, how to commercialize technologies from their respective fields of study, encourages interdisciplinary graduate teams exploring cutting edge innovations from our university laboratories, provides the tools to evaluate their economic feasibility, encourages interdisciplinary graduate teams to build business plans for the commercialization of innovative solutions for opportunities in today's global marketplace, and enhances career opportunities through involvement with entrepreneurial opportunities and business development. A total of 12 hours is required for the certificate.

## Certificate Requirements

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| ENT 5102 | Entrepreneurship \& Innovation | 2 |
| ENT 5934 | Strategic Venture Development | 4 |
| Choose 4 hours of guided electives (p. 914) | 4 |  |
| Choose 2 hours general electives (p. 914) | $\mathbf{2}$ |  |
| Total Credit Hours | $\mathbf{1 2}$ |  |

A graduate certificate is not a graduate degree. A graduate degree represents a program of independent inquiry beyond the depth of coursework alone, while a graduate certificate represents a set of courses only.

- All courses must be taken at OU. No transfer credit will apply.
- No course substitutions are permitted for graduate certificates.
- Coursework applied to a graduate certificate cannot be more than five years old as of the semester the graduate certificate is awarded.
- Students must earn a grade point average of 3.00 or higher on all coursework applied to the graduate certificate.


## Guided Electives

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| ENT 5111 | Social Entrepreneurship | 1 |
| ENT 5112 | Corporate Entrepreneurship | 2 |
| ENT 5121 | Entrepreneurial Family Business | 1 |
| ENT 5122 | Entrepreneurship for Science and | 2 |
|  | Technology | 1 |
| ENT 5131 | Design Thinking for Entrepreneurship | 2 |
| ENT 5132 | Global Entrepreneurship | 1 |
| ENT 5141 | Entrepreneurial Law | 1 |


| ENT 5902 | Entrepreneurial Leadership | 2 |
| :--- | :--- | :--- |
| ENT 5912 | Capitalizing the New Venture | 2 |
| ENT 5942 | Launching the New Venture | 2 |
| ENT 5992 | Entrepreneurial Growth Strategies | 2 |

## Division of Finance

Chitru S. Fernando, Director
3250 Adams Hall
307 W. Brooks
Norman OK 73019
(405) 325-5591
finance@ou.edu
www.ou.edu/price/finance

## General Information

The Division of Finance offers required and elective courses in corporate finance, investments, financial modeling, risk management, banking, real estate and financial planning that enable students to major and minor in finance while specializing in various finance career tracks. The division also offers an online Master of Science in Finance program and a PhD in Finance program. Additionally, the division supports the Price MBA program, including by offering a concentration in Finance. Despite enrolling more than 1000 undergraduate majors and 150 MSF and PhD graduate students, the Finance Division strives to provide students an individualized cutting-edge learning experience deploying a highly trained and experienced faculty team that is dedicated to achieving excellence in teaching and student experiences.

The Division of Finance recently ranked 56th in North America based on the per capita research productivity of its faculty. Finance Division faculty have served as editors of major journals, served as conference chairs, and received recognition through major research excellence awards. Finance faculty have received research grants in excess of \$2 million from the U.S. National Science Foundation, U.S. Department of Energy, and other federal agencies and private foundations. The Finance Division is especially well known for the biennial Oklahoma Energy and Climate Finance Research Conference that it hosts on the OU campus in partnership with the Review of Financial Studies. The Finance Division faculty routinely serve as consultants to international, federal, and state agencies, and private companies, including as litigation experts.

## Programs \& Facilities <br> Center for Financial Studies

The mission of the Center for Financial Studies is to foster and support finance research and scholarship at the University of Oklahoma and to facilitate interaction between students, faculty and the external business and academic community, including by supporting PhD students, procuring data, sponsoring a seminar speaker series that brings leading finance scholars from other universities to present their research at OU and supporting the biennial Energy and Climate Finance Research Conference that the Finance Division hosts in partnership with the Review of Financial Studies, one of the top-3 finance journals.

## Finance Seminar Series

The Finance Seminar Series features faculty presentations by faculty visitors from other universities as well as University of Oklahoma faculty, and OU PhD student presentations.

## Student Investment Fund

The Student Investment Fund is a stock fund for which Mr. Michael Price provided the seed money in 1996 and which has since then been successfully managed by students.

## Finance Student Association

The Finance Student Association and the various clubs associated with the FSA are important venues connecting students to employers, faculty, and fellow students.

## Undergraduate Study <br> Bachelor of Business Administration

The Finance, Bachelor of Business Administration (p. 923) program is designed to train students to succeed in multiple career tracks, including corporate finance, investment management, commercial banking, investment banking, trading, financial analysis, corporate finance, risk management, financial planning, real estate, and more.

## Accelerated Programs

The Bachelor of Business Administration/Master of Science (p. 925) in Finance accelerated program is an excellent opportunity to combine the BBA with a master's degree in Finance which will provide students a significant competitive advantage when they search for finance jobs. Students may also choose to pursue a Ph.D. in Finance.

The Finance, B.B.A/Management of Information and Technology, M.S. (p. 928) program provides an opportunity for undergraduate students who are pursuing a BBA degree to earn a master's degree with a specialization in data analytics.

## Minor

The Finance Division also offers a Minor in Finance for Business Majors (p. 925).

## Graduate Study

## Master of Science

The Master of Science (p. 931) in Finance provides a unique and highlevel educational experience focused on fundamental and advanced topics in the field of modern finance. The curriculum is designed around state-of-the-art thinking and best practices and is taught by scholars who are both high-quality instructors and at the forefront of modern finance research. The curriculum is a build-up structure in which fundamental building blocks are followed by in-depth advanced topical courses which integrate and build upon the courses already competed.

## Graduate Certificates

The Graduate Certificate in The Business of Energy (p. 932) provides students with a rigorous curriculum in energy finance that includes a broad overview of the energy sector, along with in-depth examinations of the regulatory, accounting, and tax issues in energy. The curriculum provides preparation for placement in the business and finance side of the energy industry. Courses also provide students with a comprehensive review of energy company decision making as it pertains to the analysis of financing and the valuation of energy projects as well as company-level risk management. In addition, the curriculum focuses on the market for energy assets and commodities, the trading of such assets, asset pricing, and the role of financial derivative contracts and hedging strategies.

The Graduate Certificate in Finance (p. 932) provides students with rigorous analysis, hands-on practice, and intense discussions to prepare
them for and provide the concepts, approaches, and experience to manage portfolios, advise clients, analyze investments, or contribute to a corporate finance practice in industry or banking. Learn how to value financial securities, price and manage assets, manage risk, and model finances. Gain perspective on financing and financial decision making, reporting, and analysis.

## Courses

ENGB 5131 Energy Upstream/Downstream 1 Credit Hour
Prerequisite: open to MBA students only. Students will gain an understanding of the operations and economics of the upstream sector in most of its aspects: reserves, players, investments, costs, benchmarking, etc. Understand the operations and the main economic characteristics of the refining and distribution. (F)

ENGB 5142 Introduction to Energy 2 Credit Hours
Prerequisite: Graduate standing in Price College of Business and departmental permission. Experiential learning course including video overview of oil and gas business. Site visits will include some or all of the following: drilling rig, oil and gas production and midstream facilities, power generation plant, and OU Well Construction Technology Center. Valuation project requires students to contact investor relations department and complete strategic analysis with financial model to analyze an energy company. (Irreg.)
ENGB 5152 Energy Accounting and Regulations 2 Credit Hours
Prerequisite: Graduate standing in Price College of Business, ENGB 5142, and departmental permission. This course provides an overview of federal and state regulatory law in the US affecting natural gas and oil producers and developers, interstate and intrastate pipelines, gas and power marketing companies, and power generating and transmission companies. The major accounting and tax issues affecting the energy industry are also covered. (Irreg.)

## ENGB 5162 Energy Corporate Finance

2 Credit Hours
Prerequisite: graduate standing in Price College of Business, FIN 5312; FIN 5322; and ENGB 5142. Provides students specialized knowledge of the corporate finance of firms in the energy sector. Provides an integrated perspective on assessing and financing energy projects, corporate risk management in the energy industry, and issues pertaining to mergers, acquisitions and restructuring in energy firms. While the course will be rigorous and solidly grounded in theoretical concepts, it will provide a thoroughly applied perspective on topics covered by the use of case studies and other hands-on learning opportunities. (Sp)

## ENGB 5172 Energy Assets and Commodities: Financial Instruments,

 Pricing and Trading 2 Credit HourPrerequisite: Graduate standing in Price College of Business; FIN 5322; and ENGB 5142. Provides a comprehensive and in-depth review of the market for energy assets and commodities: including trading platforms, pricing issues, forecasting, role and linkage with associated futures, forwards and options contracts, study of "basis" and spreads, and hedging strategies. The course will be anchored solidly within a theoretical conceptual framework and be supported with relevant case studies. (F)

ENGB 5182 Enterprise Valuation, Mergers and Acquisitions, and
Corporate Restructuring 2 Credit Hours
Prerequisite: MBA majors only; ENGB 5162. Covers divestitures and the entire Mergers and Acquisitions continuum from valuation, through postmerger integration for energy companies. Provides tools, templates, and proven techniques managers need to efficiently combine different processes and organizations, and cultures. The course presents and examines the latest case studies and research findings in the energy industry. (F)

ENGB 5490 Readings in Energy for Business 1-3 Credit Hours 1 to 3 hours. Prerequisite: graduate standing and permission. May be repeated; maximum credit six hours. Preparation and submission of a research report on an assigned comprehensive topic relating to a topic in energy not offered in the current curriculum. (F, Sp, Su)

## ENGB 5970 Special Topics/ Seminar in Energy for

## Business

1-3 Credit Hours
Prerequisite: graduate standing, permission of instructor. May be repeated with change of topic; maximum credit six hours. Seminar in latest developments in research and theory from the energy field. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (F, Sp, Su)
FIN 2303 Business Finance
3 Credit Hours
Prerequisite: ACCT 2113 and declared business major. The goal of this course is to provide students with a working knowledge of fundamental concepts in financial management and the ability to apply these concepts to real-world problems. In particular, the student should learn the following subjects: time value of money, interest rates, risk and return, stock and bond valuation, cash flow analysis, and capital budgeting. ( $F$, $\mathrm{Sp}, \mathrm{Su}$ )

FIN 2970 Special Topics/Seminar 1-3 Credit Hours
Special Topics. 1 to 3 hours. May be repeated; Maximum credit nine hours. Special topics course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research, and field projects. (Irreg.)
FIN 3013 Principles of Real Estate
3 Credit Hours
Prerequisite: Student must be approved for degree candidacy by Price College; Acct 2123 or concurrent enrollment, FIN 2303, and MATH 1743 or MATH 1823 or MATH 1914. An introductory course designed to cover the legal, financial, economic and marketing concepts related to real estate. Topics include property rights (contracts, deeds, mortgages, leases, liens); property ownership (titles, closing of settlement, insurance, taxes); financing (interest rates and mortgage types); brokerage; and property evaluation. This course serves as an introduction to the field of real estate. (F, Sp)

FIN 3203 Principles of Insurance
3 Credit Hours
Prerequisite: student must be approved for degree candidacy by Price College. The course is built to introduce students to how individuals and organizations assess and manage risk with special focus on insurance. No previous knowledge of risk management is required. The course will cover principles of risk management, insurance companies and markets, underwriting and pricing, industry structure and regulation. (F, Sp)

FIN 3213 Estate Planning
3 Credit Hours
Prerequisite: Student must be approved for degree candidacy by Price College; Acct 2123, FIN 2303, and MATH 1743 or MATH 1823 or MATH 1914. The course will provide students with the fundamentals of the general estate process in the United States. Furthermore, the class will explore the limitations of the financial planner in the estate process. The course will prepare students for estate planning topics that may be tested on the CFP exam. (Irreg.)
FIN 3223 Retirement Planning
3 Credit Hours
Prerequisite: Student must be approved for degree candidacy by Price College; ACCT 2123, FIN 2303, and MATH 1743 or MATH 1823 or MATH 1914. The course will teach the fundamentals of the general retirement process in the U.S. The class will discuss legal and financial topics involving both private and public sources of retirement income. Retirement needs and the advantages and disadvantages of various retirement plans will be explored. The course will prepare students for retirement planning topics on the CFP exam. (Irreg.)
FIN 3403 Financial Intermediaries and Markets 3 Credit Hours
Prerequisite: Economics 1113 and 1123. Investigates the determination of the level of domestic rates of interest and their implications for international currency markets. Describes the important financial institutions in U.S. financial markets. Details the structure of interest rates. Analyzes the behavior of fixed income prices. Discusses techniques of domestic and international institutions to immunize portfolios. (F, Sp, Su)
FIN 3440 Mentored Research Experience
3 Credit Hours
0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)
FIN 3453 Financial Modeling and Analysis in Excel 3 Credit Hours Prerequisite: Finance and Risk Management majors only; Price College degree candidacy; FIN 2303 or FIN 3303 . The application of quantitative financial concepts through extensive use of Excel. Students will become proficient in the use of Excel, will have a working knowledge of quantitative concepts used in financial modeling, and will be able to apply these skills in building and solving financial models. (F, Sp)
FIN 3603 Advanced Corporate Finance
3 Credit Hours
Prerequisite: student must be approved for degree candidacy by Price College; junior standing; FIN 2303 or FIN 3303. Development of theory and applications of financial management of the firm with both domestic and international investment decisions, structure and cost of capital, working capital management, dividend policy, long term financial planning and forecasting. The course emphasizes the development of problem solving skills and the use of computerized financial modeling. ( $F$, Sp )

## FIN 3710 Topics in Finance

## 1-3 Credit Hours

1 to 3 hours. Prerequisite: student must be approved for degree candidacy in Price College of Business. May be repeated; maximum credit nine hours. Permits students to study topics in finance not included in standard course offerings. Subject of course will vary. (F, Sp, Su )

FIN 3960 Honors Reading
1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program and approval for Degree Candidacy by Price College. May be repeated; maximum credit three hours. Provides an opportunity for the gifted Honors candidate to study materials not usually presented in regular courses. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
FIN 3970 Honors Seminar 1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Subjects covered vary. Deals with concepts not usually treated in regular courses. (Irreg.)
FIN 3980 Honors Research
1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program; junior standing. May be repeated; maximum credit six hours. Independent research on special projects. (F, Sp, Su)
FIN 3990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: permission of instructor and junior standing. May be repeated once with change of content. Independent study may be arranged to study a subject not available through regular course offerings. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

FIN 4013 Real Estate Finance
3 Credit Hours
Prerequisite: Degree Candidacy and completed FIN 2303. The student should learn the following subjects: legal principles related to property, legal principles related to mortgages, time value of money as applied specifically to real estate finance, interest rates and their impact on real estate, risk and return, underwriting principles, and the institutional framework surrounding primary and secondary mortgage markets. (F, Sp)

FIN 4103 Investments
3 Credit Hours
(Slashlisted with FIN 5103) Prerequisite: Student must be approved for degree candidacy by Price College; ACCT 2123 or concurrent enrollment, FIN 2303, and FIN 3453 or concurrent enrollment. Topics covered include the structure and operation of securities markets, introduction to portfolio management and capital market theory, the valuation of common stocks and fundamental analysis, determinants of option prices, the determinants of future prices, portfolio performance measurement and risk management, international portfolio management and international investing. Computer exercises are required. No student may earn credit for both 4103 and 5103. (F, Sp, Su)
FIN 4113 Derivative Securities and Markets
3 Credit Hours
(Slashlisted with 5113) Prerequisite: FIN 2303 or FIN 3303, student must be approved for degree candidacy by Price College. Uses of futures, option, and swap contracts in investments, banking, business finance, and foreign trade. Topics include valuation, trading mechanics and strategies, and applications. Hedging foreign currencies is included. The course is math and computer intensive. No student may earn credit for both 4113 and 5113 . ( $\mathrm{F}, \mathrm{Sp}$ )
FIN 4133 International Financial Management 3 Credit Hours Prerequisite: Student must be approved for degree candidacy by Price College; FIN 2303 or FIN 3303. Provides the student with the analytical tools needed to evaluate and provide solutions for problems that are commonly encountered in international financial management. Emphasizes basic theoretical models of exchange rate determination and hedging exchange rate risk, international financial transactions, the link between a nation's macroeconomic accounts and its balance of payments accounts, privatization of state-owned enterprises, and international banking. (Irreg.)

FIN 4143 Retirement Planning 3 Credit Hours Prerequisite: Majors only; FIN 2303; MATH 1743, MATH 1823, or MATH 1914; ACCT 2123 or concurrent enrollment; Student must be approved for degree candidacy by Price College. The course will provide students with the fundamentals of the general retirement process in the United States and will discuss legal and financial topics involving both private and public sources of retirement income. Retirement needs and the advantages and disadvantages of various retirement plans will be explored. CFP exam topics that may be tested on (Retirement Planning) will be covered. (Sp)
FIN 4153 Estate Planning 3 Credit Hours
Prerequisite: Majors only; FIN 2303; MATH 1743, MATH 1823, or MATH 1914; ACCT 2123 or concurrent enrollment; Student must be approved for degree candidacy by Price College. The course will provide students with the fundamentals of the general estate process in the United States. The class will discuss the various financial implications associated with death, including the pre-planning for the disposition of assets. Furthermore, the class will explore the limitations of the financial planner in the estate process and estate planning topics on the CFP exam. (Sp)
FIN 4213 Real Estate Investments
3 Credit Hours
Prerequisite: Student must be approved for degree candidacy by Price College; ACCT 2123, FIN 2303, FIN 4013, and MATH 1743 or MATH 1823 or MATH 1914. The class will introduce students to real estate investments and the evaluation of real estate investment opportunities. The class will cover the fundamentals of real estate cash flows, the analysis of various lease terms on those cash flows, the integration of real estate financing into the investment decision, and the evaluation of factors influencing the real estate investment decision. (Irreg.)
FIN 4223 Real Estate Modeling and Analysis 3 Credit Hours
Prerequisite: Student must be approved for degree candidacy by Price College; FIN 2303, FIN 4013, FIN 4213 or concurrent enrollment; ACCT 2123, AND MATH 1743 or MATH 1823 or MATH 1914. The class will provide students practical experience in real estate valuations using Excel and the ARGUS Enterprise ("AE") real estate valuation and asset management software. Students will apply concepts from pre- and corequisite real estate courses to build cases and evaluate investments in new and existing retail, office, and residential real estate. (F, Sp)
FIN 4303 Advanced Corporate Finance
3 Credit Hours
(Slashlisted with FIN 5303) Prerequisite: Student must be approved for degree candidacy by Price College; FIN 2303 or FIN 3303; ACCT 2123 or concurrent enrollment. Development of theory and applications of financial management of the firm with both domestic and international investment decisions, structure and cost of capital, working capital management, dividend policy, long term financial planning and forecasting. The course emphasizes the development of problem solving skills and the use of computerized financial modeling. No student may earn credit for both 4303 and 5303. (Irreg.)
FIN 4403 Advanced Topics in Investments 3 Credit Hours Prerequisite: FIN 2303 or FIN 3303, FIN 3503; student must be approved for degree candidacy by Price College. An advanced course providing indepth analysis of portfolio management and strategic asset allocation; fund performance measurement; coverage of alternative investments (such as real estate, private equity and venture capital); analyzes activities of hedge funds, closely-held companies and inactively traded securities; discusses investing in financially distressed firms; and covers investing in commodities. (F, Sp)

FIN G4413 Commercial Banking
3 Credit Hours
Prerequisite: FIN 2303, FIN 3403, and student must be approved for degree candidacy by Price College. Financial management of the banking firm, including analysis of bank financial performance, bond portfolio analysis, interest rate risk management, capital management, cost of funds, and loan administration. Regulation of the banking system is discussed as is competition from foreign banks. A computerized bank simulation game is used, and international aspects of financial markets are discussed. ( $\mathrm{F}, \mathrm{Sp}$ )
FIN 4423 Mergers \& Acquisitions
3 Credit Hours
Prerequisite: Student must be approved for degree candidacy by Price College; ACCT 2123, FIN 2303, FIN 3453, and MATH 1743 or MATH 1823 or MATH 1914. The objective of the course is to develop an understanding of mergers and acquisitions (M\&A), as well as other corporate restructuring transactions, from the perspective of the corporate executive. Discussing major elements of the acquisition process including the legal environment surrounding an acquisition, the valuation of the firms involved, financing decisions, transaction structures, restructuring options, takeover defenses, and post-acquisition integration. (F, Sp)
FIN 4433 Financial Technology and Applications
3 Credit Hours
Prerequisite: Student must be approved for degree candidacy by Price College; FIN 2303, FIN 3503, and ACCT 2123. Introduction to financial technologies (FinTech) and how these technologies have disrupted traditional financial markets and institutions. Topics covered include the structure and functionality of blockchain technology and applications, cryptocurrencies, decentralized finance (DeFi) on blockchains, innovative credit-scoring and lending technologies, the evolution of crowdfunding and online banking, and the impact of FinTech on investing and investment advising. (F, Sp)
FIN 4443 Sustainable Finance
3 Credit Hours
Prerequisite: Student must be approved for degree candidacy by Price College; FIN 2303 or FIN 3303; ACCT 2123 or concurrent enrollment. This course aims to provide students with a fundamental grasp of key financial market issues concerning ESG, responsible business, and climate change. The course employs a blend of lectures, group presentations, and case studies. The curriculum is divided into two parts: Part 1 focuses on ESG, while Part 2 delves into climate change. ( $F, S p$ )
FIN 4453 Corporate Financial Planning \& Analysis 3 Credit Hours Prerequisite: Student must be approved for degree candidacy by Price College; FIN 2303 or FIN 3303; FIN 3453; ACCT 2123 or concurrent enrollment. The course will provide students with skills \& knowledge necessary to be successful in a corporate FP\&A role and/or be successful in executing the FP\&A related functions/duties that are commonly required in corporate finance roles. Students will learn how to use financial data to assess a company's financial health, develop financial plans \& budgets, track performance, and make informed decisions. ( $\mathrm{F}, \mathrm{Sp}$ )
FIN 4513 Financial Risk Management
3 Credit Hours
Prerequisite: FIN 2303 or FIN 3303, FIN 3503; Student must be approved for degree candidacy by Price College. Emphasizes financial and commodity derivative securities and their use as risk management tools. Emphasis on the commodity side is given to energy related products. A financial market simulator will be used to develop students' trading and valuation skills. (Sp)

FIN 4543 Financial Trading Strategies 3 Credit Hours
Prerequisite: FIN 2303 or FIN 3303 , FIN 3503; student must be approved for degree candidacy by Price College. Focus is on practical application of theoretical models of pricing and valuation in finance. In addition to learning about trading in general (market structure, trading mechanics, and trading environment and regulation), students will also learn to trade based on their knowledge of various topics: asset allocation, equity valuation, mergers and acquisitions, fixed income valuation and risk, and derivative securities. ( $\mathrm{F}, \mathrm{Sp}$ )
FIN 4613 Student Investment Fund 3 Credit Hours
(Slashlisted with 5613) Prerequisite: FIN 2303 or FIN 3303; FIN 3503; Departmental Permission; student must be approved for degree candidacy by Price College. The management of a real dollar portfolio of common stocks using the value style approach. Emphasis is on the application of fundamental analysis. Frequent class presentations are required. No student may earn credit for both 4613 and 5613 . ( $F, S p$ )

## FIN 4703 Internship in Finance

3 Credit Hours
Prerequisite: FIN 2303 or FIN 3303; departmental permission; student must be approved for degree candidacy by Price College. Academic projects in the business world applied to practical on-the-job situations. ( $\mathrm{F}, \mathrm{Su}$ )
FIN 4713 Fixed Income Securities and Markets 3 Credit Hours Prerequisite: FIN 2303 or FIN 3303 , FIN 3503; student must be approved for degree candidacy by Price College. Students are involved in the management of a fixed income (bond) portfolio. Emphasis is given to the analytics of fixed income security valuation, and the analysis of investment opportunities. (F)
FIN 4960 Directed Readings 1-4 Credit Hours
1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean. May be repeated; maximum credit four hours. Designed for upper-division students who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)

## FIN 4970 Special Topics/Seminar 1-3 Credit Hours

1 to 3 hours. Prerequisite: Degree candidacy, FIN 2303 or FIN 3303, and Finance majors or minors only. May be repeated, maximum credit 9 hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

## FIN G4990 Special Studies

1-3 Credit Hours
1 to 3 hours. Prerequisite: FIN 2303, departmental permission, and student must be approved for degree candidacy by Price College. May be repeated with change of subject; maximum credit 3 hours. Variable as to subject and credit for areas of specialty and/or interest not otherwise provided in the standard offering of courses. The only passing grade given is the neutral grade of S . ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

## FIN 5102 Financial Management

2 Credit Hours
Prerequisite: Graduate standing and departmental permission. The goal of this course is to provide a working knowledge of fundamental concepts in financial management and the ability to apply these concepts to real-world problems. The student should learn the following subjects: time value of money, interest rates, risk and return, stock and bond valuation, cash flow analysis, and capital budgeting. (Irreg.)

FIN 5103 Investments
3 Credit Hours
(Slashlisted with FIN 4103) Prerequisite: Graduate standing, majors only, and Permission (Director, CBA Graduate Programs). Topics covered include the structure and operation of securities markets, introduction to portfolio management and capital market theory, the valuation of common stocks and fundamental analysis, determinants of option prices, the determinants of future prices, portfolio performance measurement and risk management, international portfolio management and international investing. Computer exercises are required. No student may earn credit for both 4103 and 5103. (F, Sp, Su)

FIN 5112 Investments
2 Credit Hours
Prerequisite: Graduate standing and departmental permission. The purpose of this course is to provide the fundamentals of investment analysis. This course will place an emphasis on topics such as risk and return, asset pricing models, portfolio theory, hedge funds, behavioral finance, bond valuation, introduction to futures markets and options, and basics on financial instruments and trading of securities. (Irreg.)

FIN 5113 Derivative Securities and Markets
3 Credit Hours
(Slashlisted with FIN 4113) Prerequisite: 5043 or Business Administration 5283. Uses of futures, option, and swap contracts in investments, banking, business finance, and foreign trade. Topics include valuation, trading mechanics and strategies, and applications. Hedging foreign currencies is included. The course is math and computer intensive. No student may earn credit for both 4113 and 5113. (Sp)

FIN 5132 Corporate Finance Strategy
2 Credit Hours
Prerequisite: Graduate standing and Permission of Instructor. Corporate Finance Strategy Seminar is a comprehensive course in corporate financial management. The course builds on the main concepts taught in the core finance and accounting courses. The objective is to develop your ability to make strategic decisions within a corporate setting. (Irreg.)

## FIN 5302 Financial Markets and Securities

2 Credit Hours
Prerequisite: ACCT 5202 and graduate standing. The aim of this course is to provide a strong foundation for an understanding of financial markets and the main types of securities traded in these markets. The topics covered in the course include trading structure, present value calculations, risk and return, portfolio theory, asset pricing models, market efficiency and an introduction to the nature and valuation of equities, bonds, futures, and options. The course will strike a balance between the theoretical paradigms and the empirical literature, and the important links between theory and the real world. The emphasis will be both on principles and on problem solving. The lectures and examinations will focus both on quantitative and conceptual foundations. (Irreg.)
FIN 5303 Advanced Corporate Finance 3 Credit Hours
(Slashlisted with FIN 4303) Prerequisite: Graduate standing and permission of department. Development of theory and applications of financial management of the firm with both domestic and international investment decisions, structure and cost of capital, working capital management, dividend policy, and long term financial planning and forecasting. The course emphasizes the development of problem-solving skills and the use of computerized financial modeling. No student may earn credit for both 4303 and 5303. (Irreg.)

FIN 5312 Corporate Finance
2 Credit Hours
Prerequisite: graduate standing and 5302. This course aims to provide students with the basic analytical and conceptual skills required in the modern practice of corporate financial management. Students enrolled in this class will already have been exposed to the concepts of risk and return, the determination of financial security prices, and models useful in predicting the required returns demanded by investors. In addition, students enrolled in this class will already have been exposed to the fundamentals of financial statements and the analysis of such statements. The course will focus on three key areas of financial management: (1) the optimal allocation of capital; (2) the optimal choices for raising capital; (3) the optimal management of risk in conjunction with (1) and (2). The course includes application of finance theory to solving real business problems, and emphasizes the importance of technology and globalization to the modern practice of finance. (Irreg.)
FIN 5322 Financial Derivatives 2 Credit Hours
Prerequisite: Graduate standing; departmental permission; FIN 5112 and $B A D 5122$. This course is an introduction to derivative securities, markets in which they trade, and how they are used. Derivative securities are constantly changing with new types of derivative securities being developed and traded. The goal of this course is to introduce students to the most common types of derivative securities, though the principles can be applied to more general securities. (Irreg.)
FIN 5332 Risk Management 2 Credit Hours
Prerequisite: Graduate standing, FIN 5322, and departmental permission. This course focuses on defining, measuring, and managing risk in financial institutions as well as in non-financial corporations. Introduces different types of risk, including market, credit, liquidity, and operational risk. The risks are discussed in the general framework of Enterprise Risk Management. Covers several major tools of risk measurement and management with the emphasis on the use of derivatives. (Irreg.)
FIN 5342 Advanced Corporate Finance
2 Credit Hours
Prerequisite: Graduate standing and FIN 5102. This course is for students aspiring to careers in financial management in corporations, banks, and other financial institutions. It covers topics on the corporate financial management function, including advanced capital project evaluation, financing, dividends, corporate risk management, and mergers, acquisitions and corporate restructuring. The course provides the conceptual aspects of corporate finance and an applied perspective on the subject. (Irreg.)
FIN 5352 International Financial Management 2 Credit Hours Prerequisite: Graduate standing, Permission of Department, FIN 5102, and FIN 5112. This course develops the analytical framework required for understanding the interactions between exchange rates, crossborder trade and capital flows, inflation, interest rates, economic growth, and government policy. The course will then examine international financial markets and the opportunities they present for achieving risk management, financing, and investment objectives. The principal focus will be on financial instruments used for these purposes. (Irreg.)

## FIN 5362 Fixed Income Securities and Markets

2 Credit Hours
Prerequisite: Graduate standing and FIN 5112. The aim of this course is to develop an intellectual and practical understanding of the principles governing the valuation of fixed income securities and their derivatives, the main problems and issues relevant in the management of interest rate risk, and the organization and structure of debt markets, all from the perspective of fixed income fund management. (Irreg.)

FIN 5372 Mergers \& Acquisitions and Corporate Restructuring Credit

Hours
Prerequisite: Graduate standing, departmental permission, and FIN 5102. The course deals with acquiring or disposing of corporate assets (taking into consideration legal issues, accounting, and tax and how they affect the outcome of M\&A transactions). Topics include valuation of assets being sold/purchased by corporations, economic motivations for mergers and acquisitions, structuring of the transactions, deal tactics/strategies, leveraged buyouts, and corporate restructuring. (Irreg.)
FIN 5382 Financial Modeling
2 Credit Hours
Prerequisite: Graduate standing and FIN 5112. The application of quantitative concepts in financial modeling using Excel. Students will become proficient in Excel and use it in building financial models. In addition, students will gain a working knowledge of quantitative concepts such as corporate valuation, portfolio theory, and Monte Carlo methods. (Irreg.)
FIN 5392 Financial Intermediation and Banking
2 Credit Hours
Prerequisite: graduate standing, FIN 5302, and FIN 5322. This course will focus on the core economic reasoning behind commercial and investment banking and the modern management and valuation of financial intermediaries. Specific topics will include loan evaluation techniques, asset and liability management, risk management and Value-at-Risk, and managing within the confines of regulation. Exposure to modern econometric calculation systems such as Eviews, Stata, MATLAB, or similar. (Sp)
FIN 5402 Equity Fund Management
2 Credit Hours
Prerequisite: graduate standing, FIN 5302, FIN 5322, and B AD 5001.
This course will focus on the modern practice of equity portfolio management including the estimation and evaluation of critical parameters, implementation of the Markowitz and Black-Litterman models, the implications of measurement error for assessing portfolio risk, Value-at-Risk, the application of simulation methods for assessing risk exposure, and the computational issues involved with management of portfolios containing many securities and work-arounds. (Sp)

## FIN 5412 Advanced Topics in Investments

2 Credit Hours
Prerequisite: graduate standing and FIN 5302. The course will focus on advanced areas of the field of investments, including econometric and statistical techniques for the analysis and modeling of financial markets. Additional focus will be on modeling of volatility, estimation and utilization of modern asset pricing models, and computation of critical parameters for the valuation of derivative securities. (Sp)
FIN 5422 Alternative Investments
2 Credit Hours
Prerequisite: Graduate standing, FIN 5112, and departmental permission.
This course provides an overview of alternative investments from the perspective of a portfolio manager. The course will provide a basic understanding of the types of alternative investments such as hedge funds, real assets, and private equity. The course will cover the investment process, construction, and management of portfolios with alternative investments. (Irreg.)
FIN 5432 Venture Capital \& Private Equity

## 2 Credit Hours

Prerequisite: Graduate standing and departmental permission. This course will explain the structure, funding methods, investment patterns, and financial performance of the private equity industry (venture capital and buyout funds) in the United States and examine how private equity practices developed here have spread worldwide. The course will be taught online--recorded lectures posted for students to download and view asynchronously--with weekly synchronous, live discussion sessions. (Irreg.)

FIN 5442 Real Estate Finance and Investments 2 Credit Hours
Prerequisite: Graduate standing, departmental permission, and FIN 5102.
The course introduces students to the fundamentals of real estate and real estate finance. The class reviews the time value of money, and explores in more depth quantitative computational principles, underwriting analysis, and the ultimate source of funds for real estate finance. Focus is on the legal, economic, quantitative, and strategic elements of the real estate finance and investing process. (Irreg.)
FIN 5452 Financial Statement Analysis for Financial Decisions

2 Credit Hours
Prerequisite: Graduate Standing and Departmental Permission. The objective of this course is to provide necessary tools to analyze and interpret firms' financial statements for tasks such as credit analysis, fraud detection, estimating future performance, and conducting fundamental analysis. The emphasis is on integrating financials for more effective financial decision-making. Earnings management and mitigation is also addressed. (Irreg.)
FIN 5462 Economics for Finance 2 Credit Hours
Prerequisite: Graduate Standing and Departmental Permission. The purpose of this course is to cover microeconomic and macroeconomic principles that underlie financial decision-making. Supply and demand analysis, production and cost, optimal profit-maximizing behavior of firms, industrial structure, inflation, unemployment, fiscal and monetary policy are topics covered in the course. The objective is to incorporate economic principles for effective operational and investment decisions. (Irreg.)

## FIN 5472 Financial Ethics

2 Credit Hours
Prerequisite: FIN 5102, graduate standing, and departmental permission. This course covers ethical dimensions of finance. Topics covered range from morality of market institutions to the ethical issues involved in the relations between finance professionals and their clients, employers and their employees, and firms and their shareholders. Moral theories philosophers are presented to explain and justify ethical judgments. CFA Institute Ethics and Standards of Practice are also covered. (Irreg.)

## FIN 5482 Corporate Risk Management

2 Credit Hours
Prerequisite: Graduate standing and departmental permission; FIN 5102 and FIN 5112. This course will cover a broad range of topics pertaining to financial risk management, especially those related to operational and financial risk exposure faced by modern corporations, volatility of commodity prices, exchange rates, interest rates etc. Techniques covering how risk is assessed; whether it should be managed; and how it should be managed are included in the class. (Irreg.)

FIN 5492 Real Estate Modeling \& Analysis
2 Credit Hours
Prerequisite: Graduate standing, departmental permission, and FIN 5442.
The goal of this course is to build upon prior real estate finance coursework and provide students with the ability to analyze, model and evaluate investment opportunities in commercial real estate. Topics include: commercial real estate market analysis, lease terms, cash flow modeling and investment evaluation with extensive application of CoStar, ARGUS Enterprise, and Excel. (Irreg.)
FIN 5502 Mortgage Backed Securities 2 Credit Hours
Prerequisite: FIN 5102 and FIN 5112, graduate standing, and departmental permission. This course is designed to provide students with opportunities to learn how the mortgage market operates, how structured products are packed, valued, and traded, and how the concepts of default and prepayment impact specific structures and individual packages. (Irreg.)

FIN 5613 Student Investment Fund
3 Credit Hours
(Slashlisted with FIN 4613) Prerequisite: graduate standing and by permission. The management of a real dollar portfolio of common stocks using the value style approach. Emphasis is on the application of fundamental analysis. Frequent class presentations are required. No student may earn credit for both 4613 and 5613. (F, Sp)
FIN 5960 Directed Readings
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing and permission of department. May be repeated; maximum credit twelve hours. Directed readings and/or literature reviews under the direction of a faculty member. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
FIN 5970 Special Topics in Finance
1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing and FIN 5312. May be repeated with change of content; maximum credit 6 hours. Special topics in finance of interest to students in the MBA program. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
FIN 5980 Research for Master's Thesis 2-9 Credit Hours 2 to 9 hours. Prerequisite: graduate standing. Variable enrollment, two to nine hours; maximum credit applicable toward degree, four hours. (F, Sp, Su )
FIN 5990 Directed Readings in Finance 1-3 Credit Hours Prerequisite: 5043 or Business Administration 5283. May be repeated; maximum credit six hours. Individual graduate study of a specific narrow topic not offered in the current curriculum. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
FIN 6603 Introduction to Finance Theory
3 Credit Hours
Prerequisite: graduate standing and permission. Topics include decision making under uncertainty, portfolio theory, models of asset pricing, efficient markets, option pricing, capital structure and agency theory. (Irreg.)
FIN 6803 Corporate Finance Theory 3 Credit Hours Prerequisite: 6603 and Economics 5213. Topics include complete and incomplete markets, capital structure theory, agency theory, property rights, dividend policy, signaling models, corporate control issues, mergers and acquisitions. (lrreg.)
FIN 6903 Financial Markets and Institutions 3 Credit Hours
Prerequisite: 6603 and Economics 5213. Topics include the term and risk structure of interest rates, debt pricing, financial contracting, information economics, duration and immunization, futures and options. (Irreg.)
FIN 6960 Directed Readings in Finance
1-3 Credit Hours
1 to 3 hours. Prerequisite: 12 hours in finance and/or specifically related subjects, graduate standing, and permission of instructor. May be repeated with change of topic; maximum credit nine hours. Directed readings in various lines of specialization in finance. Conducted on a conference basis by the staff. Scope of reading and credit to be arranged on entry into the course. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

FIN 6970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit 12 hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or research and field projects. (Irreg.)
FIN 6973 Seminar
3 Credit Hours
Prerequisite: 12 hours of finance and/or economics, graduate standing, permission. May be repeated with change of topic; maximum credit nine hours. Seminar in latest developments in research and theory from one of the following general areas of the finance field: business finance, capital markets, insurance, investments, money and banking, public finance, real estate. A specific topic is announced for each time of offering. (F, Sp)

FIN 6980 Research for Doctoral Dissertation 2-16 Credit Hours
2 to 16 hours. Prerequisite: Graduate standing and permission of instructor; may be repeated. Directed research culminating in the completion of the doctoral dissertation. (F, Sp, Su)
FIN 6990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)

## Faculty

| Last Name | First/Middle <br> Name | Middle init. |  | Title(s), date(s) appointed | Degrees Earned, <br> Schools, Dates <br> Completed |  |  |  |  | THE MICHAEL F. PRICE COLLEGE OF BUSINESS, 2014; JOHN A. AND |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Broussard | John Paul |  | 2021 | PROFESSOR OF FINANCE, 2021; ASSISTANT DIRECTOR OF | PhD, Louisiana <br> State Univ; MBA, <br> Millsaps College; BS, <br> Louisiana State Univ |  |  |  |  | DONNIE BROCK <br> CHAIR IN ENERGY <br> ECONOMICS AND <br> PUBLIC POLICY, 2014 |  |
|  |  |  |  | FINANCE, 2021 |  | Litov | Lubomir | P | 2015 | ASSOCIATE |  |
| Burt | Aaron |  | 2017 | ASSISTANT PROFESSOR OF FINANCE, 2017 | PhD, Univ of Washington, 2017; MSBA, Univ of Washington, 2015; MBA, Brigham Young Univ, 2009; BS, Brigham Young Univ, 2005 |  |  |  |  | PROFESSOR OF FINANCE, 2015; AFFILIATE ASSOCIATE PROFESSOR OF LAW, 2015; DAVID M. MOFFETT PROFESSOR OF | 2005; MS, New York Univ, 2002; BBA, Univ of National \& World Economy, 1997 |
| Cain | Chris |  | 2021 | ASSISTANT PROFESSOR OF | PhD, Univ of Alabama, 2004; MA, Univ of |  |  |  |  | CORPORATE <br> FINANCE, 2018 |  |
|  |  |  |  | FINANCE, 2022; REAL ESTATE AND FINANCIAL PLANNING TRACK | Alabama, 2000; JD, Univ of Alabama, 1998; BS, Univ of Alabama, 1995 | Luo | Shikong "Scott" |  | 2021 | LECTURER OF <br> FINANCE, 2021 | PhD, Univ of Oklahoma; BSc, Univ of Sri Jayewardenpura |
|  |  |  |  | DIRECTOR, 2022 |  | McCown | James |  | 2016 | LECTURER OF | PhD, Ohio State Univ, |
| Farnsworth | Heber | K | 2018 | ASSISTANT <br> PROFESSOR <br> OF FINANCE, <br> 2018; MICHAEL F. | PhD, Univ of Washington, 1997; BA, Brigham Young Univ, 1992 |  |  |  |  | FINANCE, 2016 | 1997; MBA, Univ of Texas at Austin, 1983; BBA, Univ of Texas at Austin, 1981 |
|  |  |  |  | PRICE STUDENT INVESTMENT FUND PROFESSOR, 2018 |  | Megginson | William | L | 1998 | GEORGE LYNN CROSS RESEARCH PROFESSOR OF | PhD, Florida State Univ, 1986; MBA, Louisiana State Univ, |
| Fathollahi | Maryam |  | 2020 | ASSISTANT PROFESSOR OF FINANCE, 2020 | PhD, Univ of Arizona, 2020; MBA, Old Dominion Univ, 2015; MSc, Sharif Univ of Technology, 2012; BSc Iran Univ of Science and |  |  |  |  | FINANCE, 2010; MICHAEL F. PRICE CHAIR IN BUSINESS, 2014; CO-DIRECTOR, CENTER FOR FINANCIAL STUDIES, 2014 | 1982; BS, Mississippi College, 1976 |
|  |  |  |  |  | Technology, 2009 | Pan | Nick |  | 2019 | ASSISTANT | PhD, McGill Univ, |
| Fernando | Chitru | S | 2002 | PROFESSOR OF <br> FINANCE, 2012; | PhD, Univ of Pennsylvania, |  |  |  |  | PROFESSOR OF FINANCE, 2019 | Montreal, 2012 |
|  |  |  |  | RAINBOLT CHAIR OF FINANCE, 2014 | 1992; MA, Univ of Pennsylvania, 1990; MS, Mass Inst of Tech, 1986; BS, Univ of Sri Lanka, 1979 | Stanfield | Jared |  | 2019 | ASSISTANT PROFESSOR OF FINANCE, 2019 | PhD, Univ of Washington, 2011; MS, Univ of Washington, 2009; BS, Univ of Utah, |
| Ganguly | Abhishek |  | 2021 | ASSISTANT | PhD, Indiana Univ; |  |  |  |  |  |  |
|  |  |  |  | PROFESSOR OF <br> FINANCE, 2021 | MBA, Univ of Pittsburgh; BS VisvaBharati Univ | Stanhouse | Bryan | E | 1983 | ASSOCIATE PROFESSOR OF FINANCE, 1984; | PhD, Univ of Illinois, 1976; MA, Univ of Illinois, 1973; BA, Univ |
| Holland | Sara | B | 2018 | ASSISTANT <br> PROFESSOR OF <br> FINANCE, 2018 | PhD, Univ of California Berkeley, 2010; MS, Univ of California Berkeley, 2006; BA, Trinity Univ, 2001 |  |  |  |  | MILUS E. HINDMAN PROFESSOR OF BANKING AND FINANCE, 2007; HAROLD S. COOKSEY LECTURER, 2010 | of California Berkeley, 1998 |


| Stock | Duane | R | 1979 | PROFESSOR OF <br> FINANCE, 1998; <br> OKLAHOMA <br> BANKERS CHAIR IN FINANCE, 2014 | PhD, Univ of Illinois, 1979; MS, Southern Illinois Univ, 1973; BA, Southern III Univ, 1971 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Turkiela | Jason |  | 2021 | LECTURER OF <br> FINANCE, 2021 | PhD, Univ of <br> Alabama; MA, Univ of Alabama; BS, Univ of Alabama |
| Wang | Tong |  | 2018 | ASSISTANT PROFESSOR OF FINANCE, 2018 | PhD, Univ of Southern <br> California, 2013; MA, <br> Univ of Southern <br> California, 2009; MA, <br> Univ of Southern <br> California, 2006; BS, <br> Fudan Univ, 2003 |
| Wei | Wei |  | 2018 | ASSISTANT PROFESSOR OF FINANCE, 2018 | PhD, Duke Univ, 2014 |
| Yadav | Pradeep | K | 2005 | PROFESSOR OF <br> FINANCE, 2005; W. <br> ROSS JOHNSTON <br> CHAIR IN FINANCE, <br> 2005 | PhD, Univ of Strathclyde, 1992; MSc, Univ of Strathclyde, 1987;M SC, Univ of Delhi, 1975; BSc, Univ of Delhi, 1973 |

## Finance, B.B.A.

Minimum Total Credit Hours: 120
Minimum Upper-Division Hours: 40

Overall GPA - Combined and OU: 2.50
Major GPA - Combined and OU: 2.50
Upper-Division Businesses Courses GPA - Combined and OU: 2.50

Program Code: B435

## This program has changes pending Regents approval for 2024-25. These pending changes are not reflected here.

To enroll in upper-division business courses, students must be certified for degree candidacy and meet all prerequisites.

A maximum of six hours of transfer work will apply toward the major.

## Major Requirements

Any 3000- or 4000-level FIN course will count in the Finance major grade point average unless otherwise specified.

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Required |  | 12 |
| FIN 3403 | Financial Intermediaries and Markets |  |
| FIN 3453 | Financial Modeling and Analysis in Excel |  |
| FIN 3503 |  |  |
| FIN 3603 | Advanced Corporate Finance | $\mathbf{9}$ |
| Major Electives |  |  |
| Choose 9 hours of upper-division FIN courses |  |  |

Total Credit Hours

Note: FIN 3133 and FIN 3513 will not count toward the BBA or in the FIN major GPA.

Major Requirements Recommended for CFA (Chartered Financial Analyst): FIN 3403, FIN 3503, FIN 3603, FIN 4113, FIN 4713, and one course chosen from FIN 4133, FIN 4403, or FIN 4613.

## Required Courses



## General Education and College Requirements

Courses taken to fulfill the University General Education Requirements must be chosen from the approved General Education course list published at http://www.ou.edu/gened/courses.

## UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND

 COLLEGE REQUIREMENTSCode Title Credit
Core Area I: Symbolic and Oral CommunicationHours

ENGL 1113 Principles of English Composition (Core I)
ENGL 1213 Principles of English Composition (Core I) or EXPO 121 Expository Writing

Language (Core I) - Students who have completed two years of high school language are exempt from this general education requirement (0-10 hours).

| MATH 1643 | Functions and Modeling for Business, Life and Social Sciences (Core I) ${ }^{1}$ |  |
| :---: | :---: | :---: |
| MATH 1743 | Calculus I for Business, Life and Social Sciences (Core I) ${ }^{1}$ |  |
| Core Area II: Natural Science |  | 7 |
| Natural Scienc biological and/ be from differe include a labor | es - Choose two courses taken from the or physical sciences. The two courses must nt disciplines and at least one course must atory component (Core II) |  |
| Core Area III: Social Science ${ }^{2}$ |  |  |
| P SC 1113 | American Federal Government (Core III) | 3 |
| Core Area IV: Arts and Humanities |  | 12 |
| HIST 1483 or HIST 1493 | United States to 1865 (Core IV) 3United States, 1865 to the Present |  |
| PHIL 1273 | Introduction to Business Ethics (Core IV: Western Culture) |  |
| Choose one course in each of the following fields (Core IV): |  |  |
| Artistic Forms ${ }^{3}$ |  |  |
| World Culture ${ }^{3}$ |  |  |
| Core Area V: First-Year Experience |  | 3 |
| Choose one course |  |  |
| Basic Business ${ }^{4}$ |  | 22 |
| ACCT 2113 | Fundamental Financial Accounting ${ }^{5}$ |  |
| ACCT 2123 | Fundamental Managerial Accounting ${ }^{5}$ |  |
| B AD 1001 | Personal Computing Productivity Tools |  |
| B C 2813 | Strategic Communication for Business Professionals ${ }^{5}$ |  |
| ECON 1113 | Principles of Economics-Macro (Core III-SS) 2, 5 |  |
| ECON 1123 | Principles of Economics-Micro (Core III-SS) $2,5$ |  |
| ECON 2843 | Elements of Statistics (Core I-M) ${ }^{5}$ |  |
| MIS 2113 | Computer-Based Information Systems ${ }^{5}$ |  |

Total Credit Hours 59-69

1 Substitute: MATH 1523 for MATH 1643; MATH 1823 or MATH 1914 for MA
2 Two courses, 6 hours, of Core III Social Science are required and one course must be P SC 1113 . ECON 1113 or ECON 1123 will meet the other 3 hours of this requirement.
${ }^{3}$ It is recommended students take either World Culture or Artistic Forms at the 3000/4000 level to fulfill the university requirement of one upperdivision course outside the major from the approved University-Wide General Education. It may also be satisfied in the upper-division or free elective categories.
${ }^{4}$ College requirement: courses are part of the degree candidacy application process that students must complete to earn degree candidacy and begin upper-division business courses.
${ }^{5}$ Minimum $C$ required.

## Free Electives

Electives to bring total applicable hours to the minimum total required for the degree including a minimum of 40 upper-division hours. B AD 2110, B AD 2113, MGT 2013, and MKT 2013 will not count for credit toward a BBA.

## Additional Requirements

1. Candidates for the B.B.A. degree must complete their last 30 hours as resident students in Price College. However, if a candidate has completed the last 51 hours as a resident student at the University of Oklahoma, 9 of the last 60 hours may be taken at another university or by correspondence from OU. Students must take a minimum of 24 hours of their upper-division business courses in residence for the Bachelor of Business Administration degree.
2. Pass/No Pass will not be accepted for any upper-division Business or General Education courses or any specifically required courses.
3. Sixty hours, excluding physical education activity courses, must be taken at a baccalaureate degree-granting institution.
4. A combined maximum of 8 hours of general military experience and flight instruction courses will count toward the required hours.

## Suggested Semester Plan of Study

Additional hours may be required if remedial math or language is required. Please see an academic counselor to develop a plan of study.

Apply for permission to take upper division business courses the semester in which you will complete the prebusiness courses ${ }^{1}$.

This major normally requires three semesters of study beyond the business core requirements.

## Freshman

$\left.\begin{array}{llr}\text { First Semester } & & \begin{array}{c}\text { Credit } \\ \text { Hours }\end{array} \\ \text { ECON 1113 } & \text { Principles of Economics-Macro (Core III) }\end{array}\right)$

Second Semester

| B AD 1001 | Personal Computing Productivity Tools | 1 |
| :--- | :--- | :--- |
| ECON 1123 | Principles of Economics-Micro (Core III) |  |${ }^{1}$| 3 |
| :--- |
| ENGL 1213 <br> or EXPO 1213 |
| Principles of English Composition (Core I) |
| or Expository Writing |


| MATH 1743 | Calculus I for Business, Life and Social <br> Sciences (Core I) | 3 |
| :--- | :--- | :--- |

MIS 2113 Computer-Based Information Systems ${ }^{1} 3$

| Natural Science (Core II) ${ }^{2}$ | 3 |
| :--- | :--- |

Credit Hours 16

## Sophomore

First Semester

| ACCT 2113 | Fundamental Financial Accounting ${ }^{1}$ | 3 |
| :---: | :---: | :---: |
| B AD 2091 | Career Readiness I-Transitioning to the Workplace | 1 |
| B C 2813 | Strategic Communication for Business Professionals ${ }^{1}$ | 3 |
| ECON 2843 | Elements of Statistics ${ }^{1}$ | 3 |


| P SC 1113 | American Federal Government (Core III) | 3 |
| :--- | :--- | ---: |
| Free Elective |  | 1 |
| Credit Hours |  |  |
| Second Semester | $\mathbf{1 4}$ |  |
| ACCT 2123 | Fundamental Managerial Accounting |  |
| ENT 2113 | Innovation \& Entrepreneurship | 3 |
| FIN 2303 | Business Finance | 3 |
| PHIL 1273 | Introduction to Business Ethics (Core IV: | 3 |
|  | Western Culture) | 3 |
| Natural Science with lab (2nd discipline) (Core II) |  |  |


| Junior <br> First Semester <br> B AD 3091 | Career Readiness II-Advancing in the <br> Workplace | 1 |
| :--- | :--- | ---: |
| FIN 3453 | Financial Modeling and Analysis in Excel | 3 |
| FIN 3603 | Advanced Corporate Finance | 3 |
| MKT 3013 | Principles of Marketing and Supply Chain <br> Management | 3 |
| General Education World Culture (Core IV) | 3 |  |
| Free Elective |  | 3 |
|  | Credit Hours | $\mathbf{1 6}$ |

Second Semester
ACCT $3113 \quad 3$

| FIN 3503 |  | 3 |
| :--- | :--- | :--- |
| FIN 3403 | Financial Intermediaries and Markets | 3 |
| MGT 3013 | Principles of Organization and <br>  | 3 |
|  |  |  |


| Artistic Forms (Core IV) $^{2}$ | 3 |
| :---: | ---: |
| Credit Hours | 15 |

## Senior First Semester

ACCT 3123 Intermediate Accounting II 3
ECON 3113 Intermediate Microeconomic Theory ${ }^{3} 3$
LS 3323 Legal Environment of Business 3
FIN Elective (Upper-Division Major Elective) 3

| Free Elective | 3 |  |
| :--- | ---: | ---: |
|  | Credit Hours | 15 |


| Second Semester |  |
| :--- | ---: |
| B AD 4013 | Business Strategy and Policy |
| FIN Elective (Upper-Division Major Elective) | 3 |
| FIN Elective (Upper-Division Major Elective) | 3 |
| Free Elective |  |
|  | $\mathbf{4}$ |
|  | $\mathbf{1 3}$ |
|  | Total Credit Hours |

[^28]
## Finance for Business Majors, Minor

Minimum Total Credit Hours: 15

Program Code: N435
The requirements for a minor must be completed concurrently with the major degree requirements.

No minor may be added by completing courses after receiving the bachelor's degree.

Students must complete prerequisites for all courses.
Students must complete at least nine (9) minor hours in residence at the University of Oklahoma.

Courses for the minor may not be taken Pass/No Pass.
No single course may be used to satisfy a major requirement and a minor requirement. A course may be used, however, to satisfy both a major support requirement and a minor requirement.

- The minor is only available to undergraduate students with a declared major within Price College of Business.
- Students must achieve a minimum 2.50 GPA (OU and overall) in the minor coursework.


## Required Courses

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Prerequisite |  |  |
| FIN 2303 | Business Finance | 3 |
| Required |  | 3 |
| FIN 4103 | Investments | 3 |
| FIN 4303 | Advanced Corporate Finance | 6 |
| Electives | 15 |  |
| Choose 6 hours of 3000/4000-level Finance courses |  |  |
| Total Credit Hours |  |  |

## Finance, B.B.A./Finance, M.S.

Minimum Total Credit Hours: 140-144
Minimum Upper-Division Hours: 40

Overall GPA - Combined and OU: 3.00
Major GPA - Combined and OU: 3.00
Upper-Division Businesses Courses GPA - Combined and OU: 3.00
Program Code: A434/F435 Q253

## This program has changes pending Regents approval for 2024-25. These pending changes are not reflected here.

To enroll in upper-division business courses, students must be certified for degree candidacy and meet all prerequisites.

A maximum of six hours of transfer work will apply toward the major.

## Undergraduate Major Requirements

Any 3000- or 4000-level FIN course will count in the Finance major grade point average unless otherwise specified.

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Required |  | 12 |
| FIN 3403 | Financial Intermediaries and Markets |  |
| FIN 3453 | Financial Modeling and Analysis in Excel |  |
| FIN 3503 |  |  |
| FIN 3603 | Advanced Corporate Finance | $\mathbf{9}$ |
| Major Electives |  |  |
| Choose 9 hours of upper-division FIN courses | $\mathbf{2 1}$ |  |

## Total Credit Hours

Note: FIN 3133 and FIN 3513 will not count toward the BBA or in the FIN major GPA.

Major Requirements Recommended for CFA (Chartered Financial
Analyst): FIN 3403, FIN 3503, FIN 3603, FIN 4113, FIN 4713, and one course chosen from FIN 4133, FIN 4403, or FIN 4613.

Required Courses

| Code | Title | Credit <br> Hours <br> Core Requirements |
| :---: | :--- | ---: |
| L S 3323 | Legal Environment of Business | 12 |
| MGT 3013 | Principles of Organization and <br> Management |  |
| MKT 3013 | Principles of Marketing and Supply Chain <br> Management |  |
| B AD 4013 | Business Strategy and Policy (Capstone - <br> to be taken last semester of senior year) |  |


| Additional Requirements | $\mathbf{8}$ |
| :---: | :--- |
| B AD 2091 | Career Readiness I-Transitioning to the <br> Workplace |
| B AD 3091 | Career Readiness II-Advancing in the <br> Workplace |
| ENT 2113 | Innovation \& Entrepreneurship |
| FIN 2303 | Business Finance |

Upper-Division Business 9

ECON 3113 Intermediate Microeconomic Theory (fulfills upper-division general education requirement)
ACCT 3113 Intermediate Accounting I (must earn a C in this course)
ACCT 3123 Intermediate Accounting II

Total Credit Hours
${ }^{1}$ May not be completed online.
${ }^{2}$ Requires completion of all other business core courses prior to enrollment and permission from Price Academic Advising Services.

## Graduate Requirements

The Non-Thesis degree is a coursework-only degree; a Non-Thesis examination is not required.
Up to 12 hours of graduate level courses from a list maintained by the department and approved by the graduate liaison can be shared between the BBA and MS-FIN.

Code Title Credit Hours
Finance Core 2
FIN 5322 Financial Derivatives ${ }^{1}$
Graduate Electives 30
Choose 30 hours of graduate level electives from a list maintained by the finance division and approved by the Graduate College. Up to 10 hours of graduate level electives can be shared between the BBA and MS Finance programs. (p. 928) ${ }^{1}$

Total Credit Hours

1 Total hours of 140 with 12 shared hours but total hours will increase with fewer shared hours.

## General Education and College Requirements

Courses taken to fulfill the University General Education Requirements must be chosen from the approved General Education course list published at http://www.ou.edu/gened/courses.

## UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS

Code Title Credit

Core Area I: Symbolic and Oral Communication 6-16
ENGL 1113 Principles of English Composition (Core I)
ENGL 1213 Principles of English Composition (Core I)
or EXPO 121 IFxpository Writing
Language (Core I) - Students who have completed two years of high school language are exempt from this general education requirement (0-10 hours).
Mathematics
MATH 1643 Functions and Modeling for Business, Life and Social Sciences (Core I) ${ }^{1}$
MATH 1743 Calculus I for Business, Life and Social Sciences (Core I) ${ }^{1}$
Core Area II: Natural Science
Natural Sciences - Choose two courses taken from the biological and/or physical sciences. The two courses must be from different disciplines and at least one course must include a laboratory component (Core II)
Core Area III: Social Science ${ }^{2}$

| P SC 1113 | American Federal Government (Core III) | 3 |
| :---: | :---: | :---: |
| Core Area IV: Arts and Humanities |  | 12 |
| HIST 1483 or HIST 149 | United States to 1865 (Core IV) 3United States, 1865 to the Present |  |
| PHIL 1273 | Introduction to Business Ethics (Core IV: Western Culture) |  |
| Choose one course in each of the following fields (Core IV): |  |  |
| Artistic Forms ${ }^{3}$ |  |  |
| World Culture ${ }^{3}$ |  |  |
| Core Area V: First- | Year Experience | 3 |
| Choose one course |  |  |
| Basic Business ${ }^{4}$ |  | 22 |
| ACCT 2113 | Fundamental Financial Accounting ${ }^{5}$ |  |
| ACCT 2123 | Fundamental Managerial Accounting ${ }^{5}$ |  |
| B AD 1001 | Personal Computing Productivity Tools |  |
| B C 2813 | Strategic Communication for Business Professionals ${ }^{5}$ |  |
| ECON 1113 | Principles of Economics-Macro (Core III-SS) 2, 5 |  |
| ECON 1123 | Principles of Economics-Micro (Core III-SS) $2,5$ |  |
| ECON 2843 | Elements of Statistics (Core I-M) ${ }^{5}$ |  |
| MIS 2113 | Computer-Based Information Systems ${ }^{5}$ |  |

Total Credit Hours 59-69
1 Substitute: MATH 1523 for MATH 1643; MATH 1823 or MATH 1914 for MA
2 Two courses, 6 hours, of Core III Social Science are required and one course must be P SC 1113 . ECON 1113 or ECON 1123 will meet the other 3 hours of this requirement.
${ }^{3}$ It is recommended students take either World Culture or Artistic Forms at the 3000/4000 level to fulfill the university requirement of one upperdivision course outside the major from the approved University-Wide General Education. It may also be satisfied in the upper-division or free elective categories.
4 College requirement: courses are part of the degree candidacy application process that students must complete to earn degree candidacy and begin upper-division business courses.
${ }^{5}$ Minimum C required.

## Free Electives

Electives to bring total applicable hours to the minimum total required for the degree including a minimum of 40 upper-division hours. B AD 2110, B AD 2113, MGT 2013, and MKT 2013 will not count for credit toward a BBA.

## Additional Requirements

1. Pass/No Pass will not be accepted for any Business or General Education courses or any specifically required courses.
2. Students must complete the GMAT exam with a score of 500 or greater.
3. Comprehensive written exam required at end of program.
4. Sixty hours, excluding physical education activity courses, must be taken at a baccalaureate degree-granting institution.
5. A combined maximum of 8 hours of general military experience and flight instruction courses will count toward the required hours.

## Suggested Semester Plan of Study

Additional hours may be required if remedial math or language is required. Please see an academic counselor to develop a plan of study.

Apply for permission to take upper division business courses the semester in which you will complete the prebusiness courses ${ }^{1}$.

During the 2nd semester, third year:

- Take GMAT
- Interview for internships
- Apply for admission to Master of Accountancy program


## First Year

$\left.\begin{array}{llr}\text { First Semester } & & \begin{array}{c}\text { Credit } \\ \text { Hours }\end{array} \\ \text { ECON 1113 } & \text { Principles of Economics-Macro (Core III) }\end{array}\right)$

## Second Semester

| B AD 1001 | Personal Computing Productivity Tools | 1 |
| :---: | :---: | :---: |
| ECON 1123 | Principles of Economics-Micro (Core III) ${ }^{1}$ | 3 |
| $\begin{aligned} & \text { ENGL } 1213 \\ & \text { ATH 1743PO } 1213 \\ & \text { or EXPO } \end{aligned}$ | Principles of English Composition (Core I) or Expository Writing | 3 |
| MATH 1743 | Calculus I for Business, Life and Social Sciences (Core I) | 3 |
| P SC 1113 | American Federal Government | 3 |
| Natural Science (Core II) ${ }^{2}$ |  | 3 |
|  | Credit Hours | 16 |

## Second Year

## First Semester

| ACCT 2113 | Fundamental Financial Accounting ${ }^{1}$ | 3 |
| :---: | :---: | :---: |
| B AD 2091 | Career Readiness I-Transitioning to the Workplace | 1 |
| ECON 2843 | Elements of Statistics ${ }^{1}$ | 3 |
| MIS 2113 | Computer-Based Information Systems ${ }^{1}$ | 3 |
| PHIL 1273 | Introduction to Business Ethics (Core IV: Western Culture) | 3 |
| World Culture (Core IV) ${ }^{2}$ |  | 3 |
|  | Credit Hours | 16 |

## Second Semester

| ACCT 2123 | Fundamental Managerial Accounting | 3 |
| :--- | :--- | ---: |
| B C 2813 | Strategic Communication for Business <br> Professionals | 3 |
| FIN 2303 | Business Finance | 3 |
| HIST 1483 <br> or HIST 1493 | United States to 1865 (Core IV) <br> or United States, 1865 to the Present | 3 |
| Natural Science with Lab (2nd discipline) (Core II) |  |  | ( | Credit Hours | $\mathbf{1 6}$ |
| :--- | :--- |


| Third Year |  |  |
| :--- | :--- | ---: |
| First Semester |  |  |
| B AD 3091 | Career Readiness II-Advancing in the <br> Workplace | 1 |
| FIN 3453 | Financial Modeling and Analysis in Excel | 3 |
| FIN 3603 | Advanced Corporate Finance | 3 |
| MGT 3013 | Principles of Organization and <br> Management | 3 |
| MKT 3013 | Principles of Marketing and Supply Chain <br> Management | 3 |
| ECON 3113 | Intermediate Microeconomic Theory | 3 |
|  | Credit Hours | $\mathbf{1 6}$ |


| Second Semester |  |  |
| :--- | :--- | ---: |
| ACCT 3113 | Intermediate Accounting I | 3 |
| FIN 3503 | 3 | 3 |
| FIN 3403 | Financial Intermediaries and Markets | 3 |
| LS 3323 | Legal Environment of Business $^{\text {Artistic Forms (Core IV) }}$ 2 | 3 |
| Credit Hours | $\mathbf{1 2}$ |  |


| Fourth Year |  |
| :--- | ---: |
| First Semester |  |
| ACCT $3123 \quad$ Intermediate Accounting II | 3 |
| FIN Elective (Major Elective) | 3 |
| Shared Graduate Course $^{3}$ | 2 |
| Shared Graduate Course $^{3}$ | 3 |
| Shared Graduate Course $^{3}$ | 3 |
| Credit Hours | $\mathbf{1 4}$ |


| Second Semester |  |
| :---: | :---: |
| B AD 4013 Business Strategy and Policy | 3 |
| FIN Elective (Major Elective) | 3 |
| FIN Elective (Major Elective) | 3 |
| FIN 5322 Financial Derivatives ${ }^{3}$ | 2 |
| MS Finance Graduate Elective ${ }^{3}$ | 2 |
| Credit Hours | 13 |
| Summer |  |
| MS Finance Graduate Elective | 2 |
| MS Finance Graduate Elective | 2 |
| Credit Hours | 4 |

Fifth Year

## First Semester

MS Finance Graduate Elective 2
MS Finance Graduate Elective 2
MS Finance Graduate Elective 2

| MS Finance Graduate Elective | 2 |
| :---: | :---: |
| Credit Hours | 8 |

Second Semester

| MS Finance Graduate Elective | 2 |
| :--- | ---: |
| MS Finance Graduate Elective | 2 |
| MS Finance Graduate Elective | 2 |
| MS Finance Graduate Elective | 2 |
| Credit Hours | $\mathbf{8}$ |
| Total Credit Hours | $\mathbf{1 3 8}$ |

1 Prebusiness course.
2 University-Wide General Education course, refer to online listing.
3 These courses are dual-counted, fulfilling requirements for both the undergraduate degree and the graduate business degree. For 6 of the shared hours, students may use a graduate level Finance elective to fulfill finance major requirements.

## Finance BBA/MS Graduate Electives Course List

| Code | Title | Credit <br> Hours |
| :---: | :---: | :---: |
| FIN 5102 | Financial Management | 2 |
| FIN 4413 | Commercial Banking | 3 |
| FIN 5613 | Student Investment Fund | 3 |
| FIN 5970 | Special Topics in Finance (Fundamentals for FIN Analysts (3 hours) | 1-3 |
| B AD 5122 | Quantitative Analysis I | 2 |
| L S 5802 | Business Ethics/Legal | 2 |
| FIN 5132 | Corporate Finance Strategy | 2 |
| FIN 5332 | Risk Management | 2 |
| FIN 5342 | Advanced Corporate Finance | 2 |
| FIN 5352 | International Financial Management | 2 |
| FIN 5362 | Fixed Income Securities and Markets | 2 |
| FIN 5372 | Mergers \& Acquisitions and Corporate Restructuring | 2 |
| FIN 5392 | Financial Intermediation and Banking | 2 |
| FIN 5402 | Equity Fund Management | 2 |
| FIN 5412 | Advanced Topics in Investments | 2 |
| FIN 5432 | Venture Capital \& Private Equity | 2 |
| FIN 5442 | Real Estate Finance and Investments | 2 |
| FIN 5452 | Financial Statement Analysis for Financial Decisions | 2 |
| FIN 5462 | Economics for Finance | 2 |
| FIN 5472 | Financial Ethics | 2 |
| FIN 5482 | Corporate Risk Management | 2 |
| Any other graduate level FIN elective |  |  |

## Finance, B.B.A./Management of Information and Technology, M.S.

Minimum Total Credit Hours: 140-152
Minimum Upper-Division Hours: 40
Overall GPA - Combined and OU: 3.00
Major GPA - Combined and OU: 3.00
Upper-Division Businesses Courses GPA - Combined and OU: 3.00
Program Code: A435/F657 Q253

## This program has changes pending Regents approval for 2024-25. These pending changes are not reflected here.

To enroll in upper-division business courses, students must be certified for degree candidacy and meet all prerequisites.

A maximum of six hours of transfer work will apply toward the major.

## Undergraduate Major Requirements

Any 3000- or 4000-level FIN course will count in the Finance major grade point average unless otherwise specified.

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Required |  | 12 |
| FIN 3403 | Financial Intermediaries and Markets |  |
| FIN 3453 | Financial Modeling and Analysis in Excel |  |
| FIN 3503 |  |  |
| FIN 3603 | Advanced Corporate Finance | $\mathbf{9}$ |
| Major Electives |  |  |
| Choose 9 hours of upper-division FIN courses |  |  |

Total Credit Hours

Note: FIN 3133 and FIN 3513 will not count toward the BBA or in the FIN major GPA.

Major Requirements Recommended for CFA (Chartered Financial Analyst): FIN 3403, FIN 3503, FIN 3603, FIN 4113, FIN 4713, and one course chosen from FIN 4133, FIN 4403, or FIN 4613.

## Required Courses

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Core Requirements | $\mathbf{1 2}$ |  |
| L S 3323 | Legal Environment of Business |  |
| MGT 3013 | Principles of Organization and <br> Management |  |
| MKT 3013 | Principles of Marketing and Supply Chain <br> Management |  |
| B AD 4013 | Business Strategy and Policy ${ }^{2}$ |  |
| Upper-Division Business Requirements | $\mathbf{9}$ |  |


| ECON 3113 | Intermediate Microeconomic Theory <br> (fulfills upper-division general education <br> requirement) |
| :--- | :--- |
| ACCT 3113 | Intermediate Accounting I (must earn a C in <br> this course) |
| ACCT 3123 | Intermediate Accounting II |
| Additional Requirements |  |
| B AD 2091 | Career Readiness I-Transitioning to the <br> Workplace |
| B AD 3091 | Career Readiness II-Advancing in the <br> Workplace |
| ENT 2113 | Innovation \& Entrepreneurship |
| FIN 2303 Business Finance |  |

Total Credit Hours

1 May not be completed online.
${ }^{2}$ Requires completion of all other business core courses prior to enrollment and permission from Price Academic Advising Services.

## Graduate Requirements

Up to 12 hours of graduate level MIT or MIS courses from a list maintained by the department and approved by the graduate liaison can be shared between BBA and MS- MIT programs.


## General Education and College Requirements

Courses taken to fulfill the University General Education Requirements must be chosen from the approved General Education course list published at http://www.ou.edu/gened/courses.

## UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS

Code Title Credit

Core Area I: Symbolic and Oral Communication 6-16
ENGL 1113 Principles of English Composition (Core I)
ENGL 1213 Principles of English Composition (Core I) or EXPO 121 Expository Writing
Language (Core I) - Students who have completed two years of high school language are exempt from this general education requirement (0-10 hours).
Mathematics 6
MATH 1643 Functions and Modeling for Business, Life and Social Sciences (Core I) ${ }^{1}$
MATH 1743 Calculus I for Business, Life and Social Sciences (Core I) ${ }^{1}$
Core Area II: Natural Science
Natural Sciences - Choose two courses taken from the biological and/or physical sciences. The two courses must be from different disciplines and at least one course must include a laboratory component (Core II)

| Core Area III: Social Science ${ }^{2}$ |  |  |
| :---: | :---: | :---: |
| P SC 1113 | American Federal Government (Core III) | 3 |
| Core Area IV: Arts and Humanities |  | 12 |
| HIST 1483 or HIST 149 | United States to 1865 (Core IV) 3United States, 1865 to the Present |  |
| PHIL 1273 | Introduction to Business Ethics (Core IV: Western Culture) |  |
| Choose one course in each of the following fields (Core IV): |  |  |
| Artistic Forms ${ }^{3}$ |  |  |
| World Culture ${ }^{3}$ |  |  |
| Core Area V: First- | Year Experience | 3 |
| Choose one course |  |  |
| Basic Business ${ }^{4}$ |  | 22 |
| ACCT 2113 | Fundamental Financial Accounting ${ }^{5}$ |  |
| ACCT 2123 | Fundamental Managerial Accounting ${ }^{5}$ |  |
| B AD 1001 | Personal Computing Productivity Tools |  |
| B C 2813 | Strategic Communication for Business Professionals ${ }^{5}$ |  |
| ECON 1113 | Principles of Economics-Macro (Core III-SS) 2, 5 |  |
| ECON 1123 | Principles of Economics-Micro (Core III-SS) 2, 5 |  |
| ECON 2843 | Elements of Statistics (Core I-M) ${ }^{5}$ |  |
| MIS 2113 | Computer-Based Information Systems ${ }^{5}$ |  |

Total Credit Hours
59-69
1 Substitute: MATH 1523 for MATH 1643; MATH 1823 or MATH 1914 for MA
2 Two courses, 6 hours, of Core III Social Science are required and one course must be P SC 1113 . ECON 1113 or ECON 1123 will meet the other 3 hours of this requirement.
${ }^{3}$ It is recommended students take either World Culture or Artistic Forms at the 3000/4000 level to fulfill the university requirement of one upperdivision course outside the major from the approved University-Wide General Education. It may also be satisfied in the upper-division or free elective categories.
4 College requirement: courses are part of the degree candidacy application process that students must complete to earn degree candidacy and begin upper-division business courses.
${ }^{5}$ Minimum grade of $C$ required.

## Free Electives

Electives to bring total applicable hours to the minimum total required for the degree including a minimum of 40 upper-division hours. B AD 2110, B AD 2113 , MKT 2013 and MGT 2013 will not count for credit toward a BBA.

## Additional Requirements

1. Pass/No Pass will not be accepted for any Business or General Education courses or any specifically required courses.
2. Students must complete the GMAT exam with a score of 500 or greater.
3. Comprehensive written exam required at end of program.
4. Sixty hours, excluding physical education activity courses, must be taken at a baccalaureate degree-granting institution.
5. A combined maximum of 8 hours of general military experience and flight instruction courses will count toward the required hours.

## Suggested Semester Plan of Study

Additional hours may be required if remedial math or language is required. Please see an academic counselor to develop a plan of study.

Apply for permission to take upper division business courses the semester in which you will complete the prebusiness courses ${ }^{1}$.

During the 2nd semester, third year.

- Take GMAT
- Interview for internship
- Apply for admission to Master's program


## Freshman

| First Semester |  | Credit |
| :---: | :---: | :---: |
|  |  | Hours |
| ECON 1113 | Principles of Economics-Macro (Core III) ${ }^{1}$ | 3 |
| ENGL 1113 | Principles of English Composition (Core I) | 3 |
| ENT 2113 | Innovation \& Entrepreneurship | 3 |
| MATH 1643 | Functions and Modeling for Business, Life and Social Sciences | 3 |
| First-Year Experience (Core V) ${ }^{2}$ |  | 3 |
|  | Credit Hours | 15 |
| Second Semester |  |  |
| B AD 1001 | Personal Computing Productivity Tools | 1 |
| A ECON 1123 | Principles of Economics-Micro (Core III) ${ }^{1}$ | 3 |
| ENGL 1213 or EXPO 1213 | Principles of English Composition (Core I) or Expository Writing | 3 |
| MATH 1743 | Calculus I for Business, Life and Social Sciences (Core I) | 3 |
| MIS 2113 | Computer-Based Information Systems ${ }^{1}$ | 3 |
| Natural Science (Core II) ${ }^{2}$ |  | 3 |
|  | Credit Hours | 16 |

## Sophomore

First Semester

| ACCT 2113 | Fundamental Financial Accounting ${ }^{1}$ | 3 |
| :---: | :---: | :---: |
| B AD 2091 | Career Readiness I-Transitioning to the Workplace | 1 |
| B C 2813 | Strategic Communication for Business Professionals ${ }^{1}$ | 3 |
| ECON 2843 | Elements of Statistics ${ }^{1}$ | 3 |
| P SC 1113 | American Federal Government (Core III) | 3 |
|  | Credit Hours | 13 |

Second Semester
ACCT 2123 Fundamental Managerial Accounting 3
FIN 2303 Business Finance 3
HIST 1483 United States to 1865

| or HIST 1493 | or United States, 1865 to the Present |
| :---: | :---: | :---: |
| PHIL 1273 | Introduction to Business Ethics (Core IV: |

Western Culture)
Natural Science with lab (2nd discipline) (Core II) ${ }^{2} \quad 4$
Credit Hours

## Junior

| First Semester |  | 1 |
| :--- | :--- | ---: |
| B AD 3091 | Career Readiness II-Advancing in the <br> Workplace | 1 |
| FIN 3453 | Financial Modeling and Analysis in Excel | 3 |
| FIN 3603 | Advanced Corporate Finance | 3 |
| MGT 3013 | Principles of Organization and <br>  <br> MKT 3013 <br>  <br>  <br>  <br> Management <br> Principles of Marketing and Supply Chain <br> Management | 3 |
| ECON 3113 | Intermediate Microeconomic Theory | 3 |
|  | Credit Hours | $\mathbf{3}$ |

## Second Semester

| ACCT 3113 | Intermediate Accounting I | 3 |
| :--- | :--- | ---: |
| FIN 3503 | 3 | 3 |
| FIN 3403 | Financial Intermediaries and Markets | 3 |
| LS 3323 | Legal Environment of Business $^{\text {Artistic Forms (Core IV) }}{ }^{2}$ | 3 |
|  | Credit Hours | $\mathbf{3}$ |

## Senior <br> First Semester

ACCT 3123 Intermediate Accounting II 3
FIN Elective (Major Elective) 3
Graduate Requirement Course ${ }^{3} 2$
MIT 5602 Management Information Systems ${ }^{3} 2$

| World Culture (Core IV) $^{2}$ | 3 |
| :--- | ---: |


| Second Semester |  |
| :--- | :---: |
| FIN Elective (Major Elective) | 3 |
| FIN Elective (Major Elective) | 3 |
| Graduate Requirement Course $^{3}$ | 3 |
| Graduate Requirement Course $^{3}$ | 2 |
| Graduate Requirement Course | $\mathbf{2}$ |
| Credit Hours | $\mathbf{1 3}$ |

## Fifth Year

First Semester

| Graduate Requirement Course |  |
| :--- | :---: |
| Graduate Requirement Course | 3 |
| Graduate Requirement Course | 2 |
| Graduate Requirement Course | 2 |
| Graduate Requirement Course | $\mathbf{2}$ |
| Credit Hours | $\mathbf{1 2}$ |


| Second Semester |  |
| :--- | ---: |
| Graduate Requirement Course | 2 |
| Graduate Requirement Course | 2 |
| Graduate Requirement Course | 2 |
| Graduate Requirement Course | 3 |
| B AD 4013 | Business Strategy and Policy |
| Credit Hours | $\mathbf{3}$ |
| Total Credit Hours | $\mathbf{1 4 1}$ |

[^29]3 These courses are dual-counted, fulfilling requirements for both the undergraduate degree and the graduate business degree. For 3 of the shared hours, students may share either FIN 5103 as an alternative to FIN 3503 or FIN 5303 as an alternative to FIN 3603, which will meet both the undergraduate requirement and 3 hours of graduate electives to total 140 hours.

## Finance, M.S.

Minimum Total Hours (Non-Thesis): 32
Program Code: M435

## Required Courses

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Core Courses |  |  |
| FIN 5322 | Financial Derivatives | 2 |
| Electives |  | 30 |
| 30 hours from a list approved by the Division of Finance <br> (p. 931$)$ | $\mathbf{3 2}$ |  |

Note: The M.S. in Finance is coursework only; a non-thesis examination is not required.

## General Requirements for all Master's Degrees

The master's degree requires the equivalent of at least two semesters of satisfactory graduate work and additional work as may be prescribed for the degree.

All coursework applied to the master's degree must carry graduate credit.
Master's degree programs which require a thesis consist of at least 30 credit hours. All non-thesis master's degree programs require at least 30 credit hours.

Credit transferred from other institutions must meet specific criteria and is subject to certain limitations.

Courses completed through correspondence study may not be applied to the master's degree.

To qualify for a graduate degree, students must achieve an overall grade point average of 3.0 or higher in the degree program coursework and in all resident graduate coursework attempted. A student must also have at least a 3.0 in all coursework (including undergraduate coursework if any).

Additional information for master's degree students may be found in the Graduate College Bulletin.

## Finance Electives Course List

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| FIN 5102 | Financial Management | 2 |
| FIN 5112 | Investments | 2 |
| ACCT 5202 | Financial Accounting | 2 |
| B AD 5102 | Managerial Economics | 2 |
| B AD 5122 | Quantitative Analysis I | 2 |


| LS 5802 | Business Ethics/Legal | 2 |
| :--- | :--- | :--- |
| FIN 5132 | Corporate Finance Strategy | 2 |
| FIN 5332 | Risk Management | 2 |
| FIN 5342 | Advanced Corporate Finance | 2 |
| FIN 5352 | International Financial Management | 2 |
| FIN 5362 | Fixed Income Securities and Markets | 2 |
| FIN 5372 | Mergers \& Acquisitions and Corporate | 2 |
|  | Restructuring | 2 |
| FIN 5392 | Financial Intermediation and Banking | 2 |
| FIN 5402 | Equity Fund Management | 2 |
| FIN 5412 | Advanced Topics in Investments | 2 |
| FIN 5432 | Venture Capital \& Private Equity | 2 |
| FIN 5442 | Real Estate Finance and Investments | 2 |
| FIN 5452 | Financial Statement Analysis for Financial |  |
|  | Decisions | 2 |
| FIN 5462 | Economics for Finance | 2 |
| FIN 5472 | Financial Ethics | 2 |

Any other graduate level FIN elective

## Business of Energy, Graduate Certificate

Minimum Total Hours: 12
Program Code: G022
The Graduate Certificate in The Business of Energy provides students with a rigorous curriculum in energy finance that includes a broad overview of the energy sector, along with in-depth examinations of the regulatory, accounting, and tax issues in energy. The curriculum provides preparation for placement in the business and finance side of the energy industry. Courses also provide students with a comprehensive review of energy company decision making as it pertains to the analysis of financing and the valuation of energy projects as well as company-level risk management. In addition, the curriculum focuses on the market for energy assets and commodities, the trading of such assets, asset pricing, and the role of financial derivative contracts and hedging strategies. A total of 12 hours is required for the certificate.

## Certificate Requirements

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| ENGB 5142 | Introduction to Energy | 2 |
| ENGB 5152 | Energy Accounting and Regulations | 2 |
| ENGB 5162 | Energy Corporate Finance | 2 |
| ENGB 5172 | Energy Assets and Commodities: Financial <br> Instruments, Pricing and Trading | 2 |
| ENGB 5182 | Enterprise Valuation, Mergers and | 2 |
| FIN 5322 | Acquisitions, and Corporate Restructuring | 2 |
| Total Credit Hours | Financial Derivatives | $\mathbf{2}$ |

A graduate certificate is not a graduate degree. A graduate degree represents a program of independent inquiry beyond the depth of coursework alone, while a graduate certificate represents a set of courses only.

- All courses must be taken at OU. No transfer credit will apply.
- No course substitutions are permitted for graduate certificates.
- Coursework applied to a graduate certificate cannot be more than five years old as of the semester the graduate certificate is awarded.
- Students must earn a grade point average of 3.00 or higher on all coursework applied to the graduate certificate.


## Finance, Graduate Certificate

Minimum Total Hours: 12
Program Code: G039
The Graduate Certificate in Finance provides students with rigorous analysis, hands-on practice, and intense discussions to prepare them for and provide the concepts, approaches, and experience to manage portfolios, advise clients, analyze investments, or contribute to a corporate finance practice in industry or banking. Learn how to value financial securities, price and manage assets, manage risk, and model finances. Gain perspective on financing and financial decision making, reporting, and analysis. A total of 12 hours is required for the certificate.

## Certificate Requirements

| Code $\quad$ Title | Credit <br> Hours |  |
| :--- | :--- | ---: |
| Required Courses |  |  |
| FIN 5112 | Investments | 2 |
| FIN 5322 | Financial Derivatives | 2 |
| Elective Courses | 8 |  |
| Choose 4 courses from a list maintained by the department <br> and approved by the Graduate College. (p. 932) | 8 |  |

Total Credit Hours
A graduate certificate is not a graduate degree. A graduate degree represents a program of independent inquiry beyond the depth of coursework alone, while a graduate certificate represents a set of courses only.

- All courses must be taken at OU. No transfer credit will apply.
- No course substitutions are permitted for graduate certificates.
- Coursework applied to a graduate certificate cannot be more than five years old as of the semester the graduate certificate is awarded.
- Students must earn a grade point average of 3.00 or higher on all coursework applied to the graduate certificate.


## Departmental List of Courses

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| FIN 5132 | Corporate Finance Strategy | 2 |
| FIN 5332 | Risk Management | 2 |
| FIN 5342 | Advanced Corporate Finance | 2 |
| FIN 5352 | International Financial Management | 2 |
| FIN 5362 | Fixed Income Securities and Markets | 2 |
| FIN 5372 | Mergers \& Acquisitions and Corporate | 2 |
|  | Restructuring | 2 |
| FIN 5382 | Financial Modeling | 2 |
| FIN 5442 | Real Estate Finance and Investments | 2 |


| FIN 5613 | Student Investment Fund | 3 |
| :--- | :--- | :--- |
| ENGB 5162 | Energy Corporate Finance | 2 |
| ACCT 5352 | Financial Statement Analysis Theory and | 2 |
|  | Methods |  |

Additional MBA courses may be approved by the department and Graduate Liaison.

Any other graduate level FIN elective as approved by the graduate liaison and graduate college.

## Division of Management and International Business

Mark Bolino, Director
206 Adams Hall
307 W. Brooks
Norman OK 73019
(405) 325-3982
mbolino@ou.edu
www.ou.edu/price/management_ib

## General Information

The goal of the Division of Management and International Business is to educate students so that they can make strategic, administrative and/ or supervisory contributions to organizations through critical thinking plus mastery of fundamental skills and concepts. Faculty are active in research plus have publications in leading academic and practitioneroriented journals in the areas of Human Resources Management, International Business, Organizational Behavior, Social/Environmental Issues in Business, and Strategic Management. The course portfolio ranges from survey courses in cross-cultural management, human resource management, the legal environment of business, organizational behavior and the management of professional sports to skills based courses in consulting, contract law, negotiation and supervision as well as specialty courses including international human resources, natural gas markets, sports logistics and real property law. The award-winning faculty consists of both academics and practitioners which provides students with both an intellectual framework within which to understand world of management and real-world insights to help insure students' success. This combined approach is a dynamic strength of our unit, leading to an application oriented, integrative core approach to the classroom.

## Programs \& Facilities

## Sports Business Association

The Sports Business Association is a student run organization that serves to develop business and leadership skills of our members. The SBA works with local, regional, and national organizations, industry leaders, and program alumni to design programming that fits all levels of professional development. The club is open to any OU student who wants to learn more about the sports business industry.

## Energy Management Student Association

The EMSA provides an abundance of activities including energy industry programs, internship opportunities, scholarship interviews, community service, and more.

## Capstone and International Business in Spain

The Division of Management \& International Business offers B AD 4013, Business Policy and Strategy (Capstone), during the summer (late May,

June) in Alcalá de Henares, a historic college town and UNESCO World Heritage Site just 30 minutes from Madrid. Transportation is readily available to allow students access to everything Madrid has to offer including concert halls, museums, shopping, and restaurants. Students from Price College will be on campus in Alcalá de Henares with other Spanish and international students. All classes are taught in English by Price College faculty, with the additional participation of professors from the University of Alcalá de Henares. Lectures complement other program activities that include business tours, trips to other cities and areas of Spain, visits to museums, and an introduction to Spanish culture and cuisine.

## First Fidelity Bank Integrated Business Core

Undergraduate students have the opportunity to enroll in a one-semester ( 12 hours) project-based program called the First Fidelity Bank Integrated Business Core (IBC), which provides both real-world experience and an integrated introduction to concepts in at least three business disciplines. IBC students gain experience by creating and managing an actual start-up company funded by a loan up to $\$ 10,000$ and a handson community service project on behalf of a non-profit campus or community organization. The program has had a nearly $\$ 13$ million economic impact since 2000 and has received local, regional and national acclaim.

## Undergraduate Study <br> Bachelor of Business Administration

The Energy Management, Bachelor of Business Administration (p. 941) is the first (and largest) of its kind in the nation - created in 1958. The energy-focused curriculum is comprised of classes in business, law, petroleum engineering, geology, and meteorology.

The Management, Bachelor of Business Administration
(p. 947) prepares students to lead and communicate with people in a professional role. Jobs are available in almost every industry worldwide for managers with strong leadership qualities.

The International Business, Bachelor of Business Administration (p. 944) prepares students for the global business world of the 21 st century. A unique feature of the program is that it is a Dual-Major program. Students are required to major in International Business, which provides an across-business-disciplines appreciation of the challenges and strategies for coping in the global business world in which we live today and will continue to live during your lifetime. Additionally, students are required to double major in Accounting, Economics, Entrepreneurship, Finance, Human Resource Management, Management Information Systems, Marketing, or Supply Chain Management.

The Sports Business, Bachelor of Business Administration (p. 949) program combines courses from faculty with extensive experience, exposure to hands-on projects, plus internship opportunities with all types of sports organizations.

## Accelerated Program

- Management, B.B.A./Management of Information and Technology, M.S. (p. 955)


## Minor

The Division of Management and International Business offers these Minors:

- Leadership for Business Majors Minor (p. 952)
- Management Minor (p. 952)
- Sports Business Minor for Business Majors (p. 952)
- Sports Business Minor for Non-Business Majors (p. 953)


## Undergraduate Certificates

The Division of Management and International Business offers these undergraduate certificates:

- Esports Business (p. 954)
- Human Resource Management (p. 954)
- Leadership (p. 954)
- Legal Studies (p. 955)
- Renewable Energy Management (p. 955)


## Courses

EMGT 2001 Introduction to Energy Management 1 Credit Hour
Prerequisite: Sophomore standing. Designed to give students interested in the energy industry an understanding of and appreciation for the history and dynamics of the OU Energy Management program and the energy industry, includes industry lecturers and on-site operation visits. ( $\mathrm{F}, \mathrm{Sp}$ )
EMGT 3113 Energy Production and Markets 3 Credit Hours
Prerequisite: Student must be approved for Degree Candidacy; Energy Management majors only; MATH1743, MATH1823 or MATH1914; ACCT2123 or concurrent enrollment. Survey of the energy landscape and introduction to local, regional, national and international energy issues from a management perspective. Provides comprehensive coverage of all facets of energy production and use. Introduces students to contemporary issues shaping the industry such as deregulation and emergence of new energy markets. ( $F, S p$ )
EMGT 3123 Introduction to Exploration and Production 3 Credit Hours Prerequisite: Student must be approved for Degree Candidacy; Energy Management majors only; MATH1743, MATH1823 or MATH1914; ACCT2123 or concurrent enrollment. Overview of hydrocarbons and world energy; exploration technology; drilling and completion methods; hydraulic fracturing; production systems; well completions and stimulation; common industry terminology and acronyms. (F, Sp)
EMGT 3440 Mentored Research Experience 3 Credit Hours
0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)

EMGT 3513 Sustainable Policy and Regulations 3 Credit Hours Prerequisite: Student must be approved for degree candidacy by Price College or departmental permission for non-business majors in the Renewable Energy Management certificate program. The course will provide a comprehensive understanding of developing law and policy for renewable energy and its effects on energy policy for the US and the world. Course work will include a comparative understanding of existing energy policy and the effects on the environment. The course will include guest speakers addressing topical work in this fast-paced area of study. ( $\mathrm{F}, \mathrm{Sp}$ )

EMGT 3523 Natural Gas Marketing and Power Trading 3 Credit Hours Prerequisite: Student must be approved for Degree Candidacy by Price College or departmental permission for non-business majors in the Renewable Energy Management certificate program; Energy Management majors only; MATH1743, MATH1823 or MATH1914; ACCT2123 or concurrent enrollment. An overview of the supply \& demand of natural gas and electricity markets with an introduction to risk management techniques associated with the physical and financial aspects of the commodities. (F, Sp)
EMGT 3533 Commercial Applications in Power Markets 3 Credit Hours Prerequisite: Students must be approved for degree candidacy by Price College or departmental permission for non-business majors in the Renewable Energy Management certificate program. The course will provide a comprehensive understanding of all commercial applications around the electricity sector. Course work will include comprehensive understanding of all aspects of energy supply and electricity demand, the US power grids, financial and physical trading, and economic deal structures for business development. The course will include guest speakers addressing topical work in this fast-paced area of study. (F, Sp)
EMGT 3603 Energy Law I
3 Credit Hours
Prerequisite: Student must be approved for Degree Candidacy by Price College; majors only; EMGT 2001 or EMGT 3001 and L S 3323; MATH 1743 or MATH 1823 or MATH 1914; ACCT 2123 or concurrent enrollment. The format of this course has been designed to give students a fundamental understanding of the importance of law and regulation in the energy industry. The emphasis of the course will be oil and gas law and regulation. We will focus on ownership of minerals, the oil and gas lease, oil and gas contracts and certain environmental issues. (F, Sp)
EMGT 3960 Honors Reading 1-3 Credit Hours
1 to 3 hours. Prerequisite: Admission to Honors Program. May be repeated; maximum credit six hours. Consists of topics designated by the instructor in keeping with the student's major program. The topics will cover materials not usually presented in the regular courses. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
EMGT 3970 Honors Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Subjects covered vary. Deals with concepts not usually treated in regular courses. (Irreg.)

EMGT 3980 Honors Research 1-3 Credit Hours
1 to 3 hours. Prerequisite: Admission to Honors Program. May be repeated; maximum credit six hours. Will provide an opportunity for the gifted Honors candidate to work at a special project in the student's field. (F, Sp, Su)
EMGT 3990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: permission of instructor and junior standing. May be repeated once with change of content. Independent study may be arranged to study a subject not available through regular course offerings. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

EMGT 4960 Directed Readings
1-41 Credit Hours
1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean. May be repeated; maximum credit four hours. Designed for upper-division students who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)
EMGT 4970 Special Topics/Seminar 1-3 Credit Hours 1 to 3 hours. Prerequisite: Senior standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

EMGT 4990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: Senior standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (lrreg.)

## L S 2970 Special Topics

1-3 Credit Hours Special Topics. 1 to 3 hours. May be repeated; Maximum credit nine hours. Special topics course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research, and field projects. (Irreg.)

## L S 3323 Legal Environment of Business

3 Credit Hours
Prerequisite: Student must be approved for degree candidacy by Price College; ACCT 2123 or concurrent enrollment; MATH 1743 or MATH 1823 or MATH 1914 prerequisite. The legal environment of business organizations with ethical considerations and the social and political influences affecting such environments. (F, Sp, Su)
LS 3423 Legal Environment of Business II 3 Credit Hours
Prerequisite: LS 3323, and student must be approved for degree candidacy by Price College. A thorough knowledge of the legal and regulatory environment in which businesses operate is essential. This course provides an overview of the legal and regulatory environment in the United States and is designed as an enhancement to your LS3323 Legal Environment of Business course. Topics include forms of business organization, sales contracts, intellectual property, business crimes, environmental law, and antitrust. (F, Sp)

## L S 3440 Mentored Research Experience

3 Credit Hours
0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)

## LS 3960 Honors Reading <br> 1-3 Credit Hours

1 to 3 hours. Prerequisite: Admission to Honors Program. May be repeated; maximum credit six hours. Consists of topics designated by the instructor in keeping with the student's major program. The topics will cover materials not usually presented in the regular courses. (F, Sp, Su)

## L S 3970 Honors Seminar

1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Subjects covered vary. Deals with concepts not usually treated in regular courses. (Irreg.)

## L S 3980 Honors Research 1-3 Credit Hours

1 to 3 hours. Prerequisite: Admission to Honors Program. May be repeated; maximum credit six hours. Will provide an opportunity for the gifted Honors candidate to work at a special project in the student's field. (F, Sp, Su)
L S 3990 Independent Study 1-3 Credit Hours
1 to 3 hours. Prerequisite: permission of instructor and junior standing. May be repeated once with change of content. Independent study may be arranged to study a subject not available through regular course offerings. (F, Sp, Su)

LS 4413 The Law of Business Organization 3 Credit Hours
Prerequisite: Student must be approved for degree candidacy by Price College; LS 3323; ACCT 2123 or concurrent enrollment; MATH 1743 or MATH 1823 or MATH 1914. Course will trace the law and ethics of agency, agency problem and various types of business organizations. Each form of business ownership has advantages and disadvantages and presents peculiar ethical and legal issues associated with governance. (F, Sp)
L S 4523 The Law of Commercial Transactions 3 Credit Hours (Slashlisted with L S 5523) Prerequisite: L S 3323 and ACCT 2123 or concurrent enrollment; MATH 1743 or MATH 1823 or MATH 1914; student must be approved for degree candidacy by Price College. A comprehensive survey of commercial transactions, including the law of sales, warranties, risk of loss, negotiable instruments, bank collections and deposits, electronic fund transfers, secured transactions and bankruptcy. No student may earn credit for both 4523 and 5523. (F, Sp)

## L S G4613 Real Property Law

3 Credit Hours
Prerequisite: Student must be approved for degree candidacy by Price College; and L S 3323; and ACCT 2123 or concurrent enrollment; and MATH 1743 or MATH 1823 or MATH 1914. General law of real property; historical development, acquisition of title to personal property, estates in land, landlord and tenant relations, easements, deeds, mortgages, adverse possession, wills and trusts. ( $F, S p$ )

## L S G4713 The Law of International Business Transactions 3 Credit

 HoursPrerequisite: Student must be approved for degree candidacy by Price College; LS 3323; ACCT 2123 or concurrent enrollment; MATH 1743 or MATH 1823 or MATH 1914. Examines the legal and ethical environment of international business. Topics include international treaties and conventions, comparative legal systems, extraterritoriality of U.S. and foreign laws, the Act of State Doctrine and the resolution of international business disputes. (Sp)
L S 4960 Directed Readings
1-4 Credit Hours
1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean. May be repeated; maximum credit four hours. Designed for upper-division students who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)

L S 4970 Special Topics/Seminar 1-3 Credit Hours
1 to 3 hours. Prerequisite: Senior standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

## L S 4990 Independent Study

1-3 Credit Hours
1 to 3 hours. Prerequisite: Senior standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)
LS 5523 The Law of Commercial Transactions 3 Credit Hours
(Slashlisted with L S 4523) Prerequisite: L S 3323, graduate standing and permission of instructor. A comprehensive survey of commercial transactions, including the law of sales, warranties, risk of loss, negotiable instruments, bank collections and deposits, electronic fund transfers, secured transactions and bankruptcy. No student may earn credit for both 4523 and 5523. (Irreg.)

## L S 5612 Employment Law

2 Credit Hours
Prerequisites: Departmental permission; graduate standing; admission into Price College graduate program. Employment law affects not only the employee/employer relationship, but can also affect the bottom line. This course is designed to explore the most common employment laws along with the ramifications of non-compliance of federal and state laws. Students will get an overview of federal discrimination laws and how they can impact the employment environment. (Su)
L S 5802 Business Ethics/Legal
2 Credit Hours
Prerequisites: graduate standing; departmental permission. Review of the American legal process and ethical frameworks for gauging business decisions. (Irreg.)

LS 5960 Directed Readings
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit six hours. Directed readings and/or literature review under the direction of a faculty member. (Irreg.)
LS 5970 Topics in Legal Studies 1-6 Credit Hours
1 to 6 hours. Prerequisite: 5323 or permission. May be repeated with change of subject matter. (Irreg.)
LS 5990 Independent Study 1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)
MGT 2013 Introduction to Management
3 Credit Hours
A survey course covering the fundamental processes of management in terms of planning, organizing, leading and controlling in an organization. This course will not count for credit toward any Price College of Business major. (F, Sp)
MGT 2153 Introduction to Esports
3 Credit Hours
Prerequisite: ENGL 1213/EXPO 1213; Sophomore standing or permission of the instructor. This course introduces students to the business concepts that apply to the esports industry, including marketing, finance, leadership, management information systems, and supply chain management. Students will examine the various components of the esports industry, including players, teams, sponsors, and event organizers, and will learn about the key factors that contribute to success in the industry. ( $\mathrm{F}, \mathrm{Sp}$ )

MGT 2700 Management Internship for Credit 1-3 Credit Hours
1 to 3 hours. Prerequisite: Departmental permission showing approval from the designated faculty or advisor overseeing internships for credit. The internship experience will provide students with the opportunity to work in positions related to their field of study and to gain valuable professional experience while enhancing their academic career. An internship normally covers one academic semester and may be either paid or unpaid. (F, Sp, Su)
MGT 2970 Special Topics/Seminar
1-3 Credit Hours
Special Topics. 1 to 3 hours. May be repeated; maximum credit nine hours. Special topics course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research, and field projects. (Irreg.)

MGT 3013 Principles of Organization and Management 3 Credit Hours Prerequisite: Student must be approved for degree candidacy by Price College; ACCT 2123 or concurrent enrollment. An introductory course presenting the basic concepts and practices of management, both private and public. Historical development of management; basic definitions and philosophy; fundamental managerial functions, including planning, organizing, staffing, directing, and controlling; a survey approach to quantification in organizational life; current trends in management; possible future developments in organization and administration. (F, Sp, Su)

MGT 3113 Managing Corporate Communication 3 Credit Hours (Crosslisted with B AD 3113) Prerequisite: Majors only; Student must be approved for degree candidacy by Price College; ACCT 2123 or concurrent enrollment; MATH 1743 or MATH 1823 or MATH 1914; B C 2813. Strategic Communication challenges students to master their writing, listening, presentation, and interpersonal communication skills to excel in various business environments. Students will also develop strategies to promote customer engagement and loyalty through social media review sites. Emphasis is placed on credibility management, audience analysis, research, revision, and rehearsal to equip students for professional success. (F, Sp)

MGT 3123 Supervision Skills
3 Credit Hours
Prerequisite: Student must be approved for degree candidacy by Price College, or permission; ACCT 2123 or concurrent enrollment; MGT 3013 or concurrent enrollment. Designed to introduce basic managerial skills required to build personal effectiveness and effective working relationships with employees. Through a variety of teaching methods, students will learn "real world" skills in various types of communication including coaching, motivation, goal setting, and performance feedback. (F, Sp)
MGT 3133 Leading Individuals, Teams, and Organizations 3 Credit Hours
Prerequisite: MGT 3013; MGT 3363 or concurrent enrollment and ACCT 2123 or concurrent enrollment; student must be approved for degree candidacy by Price College. This course is designed to expose students to a variety of leadership perspectives and practices in order to enhance individual development and effectiveness as a leader. Focus will be on a repertoire of practical and theoretical leadership principles. This course will offer opportunities for students to improve their leadership skills through exercises and simulations. (F, Sp)
MGT 3143 Legal Issues for Managers 3 Credit Hours Prerequisite: Student must be approved for degree candidacy by Price College; MGT 3013 or departmental permission; ACCT 2123 or concurrent enrollment. Provide students a basic understanding of state \& federal employment law, encourage critical thinking and evaluation of legal issues to successfully navigate issues in a management environment. Topics covered will include U.S. employment laws such as family leave, equal pay, wrongful discharge, independent contractors, undocumented workers, workplace privacy, safety, discrimination, management practices, and other current developments. (Sp)

MGT 3153 An Introduction to the Business of Sports 3 Credit Hours Prerequisite: Student must be approved for degree candidacy by Price College; ACCT 2123 or concurrent enrollment. Study of the management principles of both collegiate and professional athletics. This class will cover the management of every major department of a collegiate athletic department and of a professional sport team. Guest speakers from the industry as well as field trips to witness the operation of a sporting event are a vital part of this class. (F, Sp, Su)

MGT 3163 Licensing and Intellectual Property Management in Sports

3 Credit Hours
Prerequisite: MGT 3013 or permission; ACCT 2123 or concurrent enrollment; Must be approved for degree candidacy by Price College and a Sports Business or Sports Management major or minor for Business major or Non-business major. Provides students with an introductory view into the world of collegiate licensing. This information will be extremely useful in application for all areas within athletics, where an understanding of the principles of intellectual propertyspecifically trademark law and licensing-will assist in understanding of the happenings within a department or professional organization. ( $F, S p$ )
MGT 3173 Sports Logistics 3 Credit Hours
Prerequisite: MGT 3013 or permission; ACCT 2123 or concurrent enrollment; Student must be approved for degree candidacy by Price College and a Sports Business or Sports Management major or minor for Business major or Non-Business major. Principles in sports logistics. Instruction emphasizes intercollegiate athletics and deals with practical application. Provides an understanding of all phases of intercollegiate sports logistics. Opportunities for hands-on learning will be provided and guest speakers will be included. (F, Sp)
MGT 3193 Sports Marketing and Management 3 Credit Hours Prerequisite: MGT 3013 and ACCT 2123 or concurrent enrollment; student must be approved for degree candidacy by Price College and a Sports Management major or Sports Business minors. Introduction to Sports Marketing Management designed to expose students to the concepts of collegiate sports marketing while giving a real world, behind the scenes exposure to managing a major college athletics department through the marketing side of the industry. ( $\mathrm{F}, \mathrm{Sp}$ )

MGT 3203 Pay for Play: College Sports at the Precipice 3 Credit Hours Prerequisite: MGT 3013; must be enrolled in one of the following fields of study - sports business or sports management major or minor for business majors or non-business majors; student must be approved for degree candidacy by Price College. This course is designed to understand the history, legal foundations, dynamics, and alternatives for the pay for play debate raging in the courts and the media. The contributions and missions of college athletics to higher education will be discussed in depth as well as its value to student-athletes. The course is designed as an undergraduate seminar. (Sp)
MGT 3213 Sports Sales and Revenue Generation 3 Credit Hours Prerequisite: MGT 3013 and ACCT 2123 or concurrent enrollment; sports business or sports management major or minor for business majors or non-business majors; student must be approved for degree candidacy by Price College. This course examines various business disciplines as they apply to generating revenue in the sports industry. (F)

## MGT 3223 Sports Analytics

3 Credit Hours
Prerequisite: MGT 3013 and ACCT 2123 or concurrent enrollment; student must be approved for degree candidacy by Price College; must be declared in Sports Business or Sports Management major or minor for Business majors or Non-Business majors. Students will use analytics to study a wide variety of issues affecting the sport industry. Topics examined include: player performance measurement; in-game decision making; player selection/team building; general administration such as marketing, pricing, contracts, stadium management, etc. Students will learn how the recent application of analytics has improved each of these areas within the professional and collegiate sport industry. (Irreg.)

MGT 3233 Leadership in International Settings 3 Credit Hours
Prerequisite: Junior standing; student must be approved for degree candidacy by Price College; departmental permission; ACCT 2123 or concurrent enrollment. This class will help students become culturally sensitive and knowledgeable leaders. The unique setting in Costa Rica, class discussions, current readings, and business site visits will enrich the learning environment, broaden students' perspectives and contribute to their life experiences and thus leadership development. (Sp)
MGT 3243 Financing in Sports Business
3 Credit Hours
Prerequisite: MGT 3013 and ACCT 2123 or concurrent enrollment; must be declared in Sports Business or Sports Management major or minor for business or non-business majors. This course is designed to introduce students to the concepts of financial management as applied to the unique world of sports. Topics examined include: time value of money, risk, sport ticket options, deferred compensation, financial statements, roster depreciation allowance, capital budgeting, sport team valuation, and conference realignment. (Irreg.)

MGT 3253 The Economics of Sports Business
3 Credit Hours Prerequisite: MGT 3013 and ACCT 2123 or concurrent enrollment; student must be approved for degree candidacy by Price College; must be declared in the Sports Business or Sports Management major or minor for Business majors or Non-Business majors. Economic analysis of a wide variety of issues affecting the sport industry. Topics include: optimal ticket pricing strategies; effects of free agency and collective bargaining processes on player salaries; effects of league-wide polices such as revenue-sharing, salary caps, and luxury taxes on team financial performance and league competitive balance; and impacts and rationales for government subsidization of stadiums. (Irreg.)

MGT 3263 The Future of Sports Business
3 Credit Hours
Prerequisite: Students must be approved for degree candidacy by Price College and MGT 3013; ACCT 2123 or concurrent enrollment; must be declared in Sports Business major/minor or Sports Business minor for non-business majors. This course is themed around emerging categories, technologies, and companies that may not be relevant in the Sports industry today, but will be soon. Categories include betting and gambling in sports, artificial intelligence and machine learning, metaverse, startup businesses and entrepreneurship, data privacy and policy, and emerging sports. (F)
MGT 3273 Esports Revenue Streams and Monetization 3 Credit Hours Prerequisite: Student must be approved for degree candidacy by Price College or departmental permission for non-business majors in the Esports Certificate program; Sports Business major or Sports Business minor; ACCT 2123 or concurrent enrollment; MATH 1743 or MATH 1823 or MATH 1914. This course focuses on the diverse revenue streams that drive the Esports industry. Students will gain insights into how Esports organizations, teams, and events generate income through sponsorships, advertising, merchandise, and other monetization strategies. (F, Sp)
MGT 3283 The Esports Front Office and Beyond 3 Credit Hours
Prerequisite: Student must be approved for degree candidacy by Price College or departmental permission for non-business majors in the Esports Certificate; Sports Business major or Sports Business minor; ACCT 2123 or concurrent enrollment; MATH 1743 or MATH 1823 or MATH 1914. This course provides a comprehensive exploration of the essential aspects involved in leading the front office of an esports company. Students will gain insights into the unique challenges and opportunities within the esports industry, focusing on leadership, strategic planning, and operational management. (F, Sp)

MGT 3363 Understanding Organizational Behavior 3 Credit Hours
Prerequisite: Student must be approved for degree candidacy by Price College; MGT 3013 or permission; ACCT 2123 or concurrent enrollment. Covers the structure of organizations and the dynamics of behavior within organizations. Included are such topics as job design, perception, communication, decision making, motivation, groups, leadership, and organizational change and effectiveness. (F, Sp, Su)
MGT 3440 Mentored Research Experience 3 Credit Hours
0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)
MGT 3513 Managing Human Capital and Talent 3 Credit Hours Prerequisite: Student must be approved for degree candidacy by Price College, MGT 3013 or permission; ACCT 2123 or concurrent enrollment. A survey course that focuses on developing students' understanding of human resource issues and the practical application of methods for solving these issues. Topics covered include job analysis, recruitment, interviewing, selection, performance appraisal, training, compensation, and equal employment opportunity. Issues are reviewed within the context of historical and current social, labor market, legal and global economic conditions influencing practice. (F, Sp, Su)
MGT 3700 Management Internship for Credit 1-3 Credit Hours 1 to 3 hours. Prerequisite: student must be approved for degree candidacy by Price College; permission showing approval from the designated faculty or advisor overseeing internships for credit; MGT 3013. The internship experience will provide students with the opportunity to work in positions related to their field of study and to gain valuable professional experience while enhancing their academic career. An internship normally covers one academic semester and may be either paid or unpaid. (F,Sp,Su)

## MGT 3710 Topics in Management <br> 1-3 Credit Hours

1 to 3 hours. Prerequisite: student must be approved for degree candidacy in Price College of Business. May be repeated; maximum credit nine hours. Permits students to study topics in management not included in standard course offerings. Subject of course will vary. (F, Sp, Su )
MGT 3960 Honors Reading
1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Provides an opportunity for the gifted Honors candidate to study materials not usually presented in regular courses. (F, Sp, Su)

MGT 3970 Honors Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Subjects covered vary. Deals with concepts not usually treated in regular courses. (Irreg.)
MGT 3980 Honors Research
1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Provides an opportunity for the gifted Honors candidate to work at a special project in the student's field. (F, Sp, Su)

MGT 3990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: permission of instructor and junior standing. May be repeated once with change of content. Independent study may be arranged to study a subject not available through regular course offerings. (F, Sp, Su)

MGT 4143 Evidence-Based Human Resources Management 3 Credit Hours
Prerequisite: MGT 3013; MGT 3513; student must be approved for degree candidacy by Price College. May be repeated once; maximum credit six hours. The purpose of this course is to survey topics in human resource management practices and systems concerning financial and/ or operational impact of HR practices (or what is often called utility analysis). (F, Sp)

MGT 4173 Sports Management Practicum 3 Credit Hours Prerequisite: MGT 3013, MGT 3153, and ACCT 2123 or concurrent enrollment; student must be approved for degree candidacy by Price College and a Sports Business or Sports Management major or minor for Business major or Non-Business Major. Designed to allow students to both gain conceptual knowledge of project management and to conduct a semester length project for a professional or intercollegiate sports organization. (F, Sp)
MGT 4183 Managing Negotiations and Conflict 3 Credit Hours Prerequisite: Student must be approved for degree candidacy by Price College; ACCT 2123 or concurrent enrollment; MGT 3013 or concurrent enrollment. This course explores the principles behind effective negotiation and mediation while helping students develop and refine their own unique styles. Students will learn negotiation strategies in a nonthreatening classroom context. The readings and lectures will provide students with a framework for analyzing negotiations and tools and concepts useful in negotiating more effectively. (F, Sp)

MGT 4233 Applying Organizational Behavior
3 Credit Hours
Prerequisite: Student must be approved for degree candidacy by Price College; MGT 3013 and MGT 3363 or permission; ACCT 2123 or concurrent enrollment. Designed to introduce basic managerial skills required to build personal effectiveness and effective working relationships with employees. Through a variety of teaching methods, students will learn "real world" skills in various types of communication including coaching, motivation, goal setting, and performance feedback. (F, Sp)

MGT 4323 Managing Across Cultures
3 Credit Hours
Prerequisite: Student must be approved for degree candidacy by Price College; ACCT 2123 or concurrent enrollment; MGT 3013 or concurrent enrollment. The purpose of the Managing Across Cultures is to improve students' understanding of the international business environment by: (a) discussing the role of culture and its influence on business interactions; (b) developing the students' capacity to effectively manage themselves in intercultural situations, and (c) exploring the challenges organizations face when leading and managing employees in the context of global operations. (F, Sp)

MGT G4710 Special Problems in Management 1-3 Credit Hours 1 to 3 hours. Prerequisite: Student must be approved for degree candidacy by Price College. Special Topics. Special topics course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research, and field projects. (F, Sp, Su)

MGT 4960 Directed Readings
1-4 Credit Hours
1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean. May be repeated; maximum credit four hours. Designed for upper-division students who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)
MGT 4970 Special Topics/Seminar 1-3 Credit Hours
1 to 3 hours. Prerequisite: Senior standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)
MGT 4973 International Human Resource Management 3 Credit Hours Prerequisite: Student must be approved for degree candidacy by Price College; ACCT 2123 or concurrent enrollment; MGT 3013 or concurrent enrollment. Aspects of managing people in the global workplace. Caters to students aspiring to become either global managers who work for multi-national corporations located in different countries or managers who work for diversified enterprises with plants and branches in different locations. Covers global HR issues arising in relation to the management of workforces functioning in cross-cultural operating contexts. (F, Sp, Su)

## MGT 4990 Independent Study <br> 1-3 Credit Hours

1 to 3 hours. Prerequisite: Senior standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)
MGT 5101 Leadership Academy Part 1
1 Credit Hour Prerequisite: Graduate standing; majors only; admission to Professional MBA program; departmental permission. This course is the first in a twocourse sequence forming the Professional MBA Leadership Academy. In the first half of the academy, we will split our focus between participant's self-assessment feedback and major leadership frameworks from our readings. We will focus on a range of rigorous, scientifically valid, and time-tested leadership self-assessments. (F)

## MGT 5102 PMBA Leadership Academy

2 Credit Hours
Prerequisite: Graduate standing, departmental permission, and PMBA students only. In this course, focus is split between participants' self-assessment feedback and major leadership frameworks from readings. Focus is on a range of rigorous, scientifically valid, and timetested leadership self-assessments. In addition, focus of hearing from and discussing leadership development with successful industry professionals from the OKC area. (Irreg.)
MGT 5112 International Management
2 Credit Hours
Prerequisite: Graduate standing and departmental permission. This course will provide students with a comprehensive and relevant overview of managing a business in a global context. The knowledge and skills acquired will help students to develop a global mindset and to understand and respond effectively to the challenges and complexities of international business. (Sp)
MGT 5201 Leadership Academy Part $2 \quad 1$ Credit Hour
Prerequisite: MGT 5101; graduate standing; majors only; admission to Professional MBA program; departmental permission. This course is the second in a two-course sequence forming the Professional MBA Leadership Academy. The second half will add the focus of hearing from and discussing leadership development with successful industry professionals from the OKC area. We will continue our focus on reading, applying, and discussing additional leadership frameworks. (Sp)

MGT 5702 Organizational Behavior
2 Credit Hours
Prerequisites: graduate standing; departmental permission. Concepts and theories of organizational behavior and human resources management for MBAs. (Irreg.)
MGT 5712 Negotiations
2 Credit Hours
Prerequisite: graduate standing and departmental permission. The course is designed to provide students with knowledge of the foundations of effective negotiating, opportunities to apply this knowledge through simulations and class discussions, and a written development plan to reflect on their skills and chart a path for continued progress. (Irreg.)
MGT 5960 Directed Readings
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing and permission of department. May be repeated; maximum credit twelve hours. Directed readings and/or literature reviews under the direction of a faculty member. (F, Sp, Su)
MGT 5970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)
MGT 5980 Research for Master's Thesis
2-9 Credit Hours
Variable enrollment, two to nine hours; maximum credit applicable toward degree, four hours. The only passing grade given is the neutral grade of S . (F, Sp, Su)

MGT 5990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)
MGT 6253 Seminar in Organizational Theory
3 Credit Hours
Prerequisite: graduate standing. A consideration of major topics in organization structure and macroorganization theory. Emphasis will be given to applications in a wide variety of organizational and administrative contexts. (F, Sp)
MGT 6273 Seminar in Organizational Behavior 3 Credit Hours Prerequisite: graduate standing and admission to the PhD program in the Price College of Business. Addresses personal and interpersonal issues in marketing and management. Application of social science theory to explain the behavior of organization members. (F, Sp)
MGT 6293 Seminar in Strategic Management
3 Credit Hours
Prerequisite: Graduate standing and permission of instructor. Reviews the major theories, concepts, and frames of reference regarding strategic management. (Irreg.)

MGT 6960 Readings in Selected Fields of Management 1-4 Credit Hours 1 to 4 hours. Prerequisite: 12 hours of management, graduate standing and permission. Guided reading in selected fields of management theory and application, conducted on a conference basis by staff. Scope of reading and credit to be arranged on entry into course. The only passing grade in this course is the neutral grade of S . (F, Sp, Su)
MGT 6963 Seminar in Human Resources Management 3 Credit Hours Prerequisite: graduate standing and permission of instructor. Introduces doctoral-level students to major areas within the field of human resources management (HRM). Students will review and critique the literature in these selected areas and develop ideas for future research that further our understanding of HRM issues in organizations. The topics and readings covered in this course are not exhaustive, but are representative of HRM research. (Irreg.)

## MGT 6970 Special Topics/Seminar 1-3 Credit Hours Bolino Ana V 2005

1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit 12 hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or research and field projects. (Irreg.)

## MGT 6973 Seminar

## 3 Credit Hours

Prerequisite: graduate standing and permission. May be repeated with change of topic; maximum credit 12 hours. A seminar for graduate students with topics to be announced each time course is offered. ( $\mathrm{F}, \mathrm{Su}$ )

MGT 6980 Research for Doctoral Dissertation
2-16 Credit Hours
2 to 16 hours. Prerequisite: Graduate standing and permission of instructor; may be repeated. Directed research culminating in the completion of the doctoral dissertation. (F, Sp, Su)

## MGT 6983 Research Methods and Design

3 Credit Hours
Prerequisite: graduate standing and permission of instructor. Survey of research design and methods issues. Designed to introduce the Ph.D. student to the broad range of issues from the idea creation to publishing. Topics include theory, models, designs, data, measurement, data collection, analysis, theory development to academic writing and ethical issues. (Irreg.)

## MGT 6990 Independent Study

1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)

## Faculty

| Last Name | First/Middle <br> Name | Middle init. | OU <br> Service start | Title(s), date(s) appointed | Degrees Earned, Schools, Dates Completed |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Anderson | Ronald | H | 2009 | ASSISTANT <br> PROFESSOR OF <br> MANAGEMENT AND <br> INTERNATIONAL <br> BUSINESS, 2009 | PhD, Univ of Oklahoma, 2009; JD, Univ of Oklahoma, 2008; MBA, Cal State Univ-Fresno, 1995; BA, Cal State UnivFresno, 1992 |
| Baker | Colleen | M | 2017 | ASSISTANT <br> PROFESSOR OF MANAGEMENT AND INTERNATIONAL BUSINESS, 2017, ASSOCIATE PROFESSOR OF LEGAL STUDIES, ZINKE CHAIR IN ENERGY MANAGEMENT, 2023 | PhD, Univ of Pennsylvania, 2010; JD, Univ of Virginia, 2004; MBA, Univ of Virginia, 2004; MS, Carnegie Mellon Univ, 1998; BA, Univ of Notre Dame, 1995 |
| Bartkoski | Nick | $N$. | 2020 | LECTURER IN <br> STRATEGIC <br> MANAGEMENT, 2020 | Ph.D., Univ of Oklahoma, 2012; MBA, Univ of Kansas, 2004; B.A., Univ of Kansas, 2000; B.S., Univ of Kansas, 1999 |

ASSISTANT PhD, Univ of South PROFESSOR OF Carolina, 2009; MANAGEMENT AND MBA, Winthrop Univ, INTERNATIONAL 1997; BS, Acad of BUSINESS, 2011; Economic Studies, COORDINATOR, 1994 INTERNATIONAL BUSINESS STUDIES PROGRAM, 2011; EXECUTIVE DIRECTOR O UNDERGRADUATE PROGRAMS, 2021

| MICHAEL F. | PhD, Univ of South |
| :--- | :--- |
| PRICE CHAIR IN | Carolina, 2000; MBA, | INTERNATIONAL George Washington BUSINESS, 2011; Univ, 1994; BBA, PROFESSOR OF James Madison Univ, MANAGEMENTAND 1991 INTERNATIONAL BUSINESS, 2012; DAVID L. BOREN PROFESSOR, 2017; DIRECTOR, MANAGEMENT \& INTERNATIONAL BUSINESS, 2021

Bradley Bret H 2008

ASSOCIATE PROFESSOR OF MANAGEMENT AND Young Univ, 2003, INTERNATIONAL MA, Brigham Young BUSINESS, 2014 Univ, 2003

| Burink Rebecca | D. 2024 | LECTURER OF <br> MANAGEMENT, 2024 | PhD., University of <br> Oklahoma, 2021, |
| :--- | :--- | :--- | :--- | :--- |

MBA, Washington State University,
2013, BA Washington State University, 1999

|  |  |  |  |  | State University, 1999 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Daly | Sean | F | 2022 | ASSOCIATE | PhD., Univ of |
|  |  |  |  | PROFESSOR OF | Northern Colorado, |

MANAGEMENT; M.Ed., Springfield COORDINATOR, College, B.Sc., Keene SPORTS BUSINESS State College PROGRAM, 2022

| Fisackerly William A 2024 | LECTURER OF <br>  <br> $\quad$MANAGEMENT, 2024 PhD., University of <br> South Carolina, 2024,  |
| :--- | :--- | :--- | :--- | MS, Coker University, 2020, BS, Florida Southern College, 2018


|  |  |  |  |  | 2018 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Gee | Inn Hee |  | 2022 | ASSISTANT PROFESSOR OF MANAGEMENT, 2022 | Ph.D., Texas A\&M Univ, MA., BA., Yonsei Univ |
| Grunsted | Michelle | L. | 2004 | ASSOCIATE PROFESSOR OF LEGAL STUDIES, 2004 | MA, Univ of Michigan, 2017; LLM, Univ of Tulsa, 2004; JD, Univ of Oklahoma, 1998; BA, University of Illinois, 1996 |
| Harvey | Bruce | Jaron | 2024 | LECTURER OF <br> MANAGEMENT, 2024 | PhD., University of Oklahoma, 2010, BS, Utah Valley State College, 2006 |
| Hilty Caruso | Kristen |  | 2020 | LECTURER OF MANAGEMENT AND LEGAL STUDIES, 2020 | JD, Univ of Oklahoma College of Law, BA., Univ of Oklahoma |




- Nine hours of Finance beyond FIN 3303 or an additional major in Finance.
- Preferred Course Sequence:

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| EMGT 3523 | Natural Gas Marketing and Power <br> Trading | 3 |
| FIN 3503 |  | 3 |
| FIN 3403 | Financial Intermediaries and Markets | 3 |
| FIN 4113 | Derivative Securities and Markets | 3 |
| FIN 4513 | Financial Risk Management | 3 |

## Energy Related Electives

12 hours chosen from the following list. A course may not be used to fulfill a major requirement and an elective requirement.

| Code | Title | Credit Hours |
| :---: | :---: | :---: |
| Recommended Electives |  |  |
| ENT 4813 | Entrepreneurial Law | 3 |
| GIS 2023 | Introduction to Spatial Thinking and Computer Mapping | 3 |
| LS 4523 | The Law of Commercial Transactions (if not used in major requirements) | 3 |
| LS 4413 | The Law of Business Organization (if not used in major requirements) | 3 |
| Other Electives |  |  |
| B AD 3013 | Integrated Business Core Practicum | 3 |
| ECON 3713 | Governmental Relations to Business | 3 |
| ENST 3503 | Energy Use, Climate Change, and the Environment | 3 |
| FIN 4113 | Derivative Securities and Markets (if not taken as FIN elective) | 3 |
| FIN 4513 | Financial Risk Management (if not taken as FIN elective) | 3 |


| IAS 3653 | Energy, Climate, and Security | 3 |
| :--- | :--- | :--- |
| LS 4713 | The Law of International Business | 3 |
|  | Transactions |  |
| METR 4553 | Climate and Renewable Energy |  |
| Other Options |  |  |
| Other options may be available on a semester basis |  |  |

## Finance Electives

6 hours chosen from the following list. A course may not be used to fulfill a major requirement and an elective requirement.

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| FIN 3403 | Financial Intermediaries and Markets | 3 |
| FIN 3503 |  | 3 |
| FIN 3603 | Advanced Corporate Finance | 3 |
| FIN 4113 | Derivative Securities and Markets | 3 |
| FIN 4413 | Commercial Banking | 3 |
| FIN 4513 | Financial Risk Management | 3 |
| FIN 4613 | Student Investment Fund | 3 |

## General Education and College Requirements

Courses taken to fulfill the University General Education Requirements must be chosen from the approved General Education course list published at http://www.ou.edu/gened/courses.

## UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS

| Code Title | Credit |
| :--- | :--- |
|  | Hours |

Core Area I: Symbolic and Oral Communication 6-16
ENGL 1113 Principles of English Composition (Core I) ENGL 1213 Principles of English Composition (Core I) or EXPO 121 Ixpository Writing
Language (Core I) - Students who have completed two years of high school language are exempt from this general education requirement ( $0-10$ hours).
Mathematics 6

| MATH 1643 | Functions and Modeling for Business, Life <br> and Social Sciences (Core I) |
| :--- | :--- | ---: |
| MATH 1743 | Calculus I for Business, Life and Social <br> Sciences (Core I) |
| Core Area II: Natural Science |  |$\quad$ 8


| Artistic Forms ${ }^{3}$ |  |  |
| :---: | :---: | :---: |
| World Culture ${ }^{3}$ |  |  |
| Core Area V: First- | Year Experience | 3 |
| Choose one course |  |  |
| Basic Business ${ }^{4}$ |  | 22 |
| ACCT 2113 | Fundamental Financial Accounting ${ }^{5}$ |  |
| ACCT 2123 | Fundamental Managerial Accounting |  |
| B AD 1001 | Personal Computing Productivity Tools |  |
| B C 2813 | Strategic Communication for Business Professionals ${ }^{5}$ |  |
| ECON 1113 | Principles of Economics-Macro (Core III-SS) 2, 5 |  |
| ECON 1123 | Principles of Economics-Micro (Core III-SS) 2, 5 |  |
| ECON 2843 | Elements of Statistics (Core I-M) ${ }^{5}$ |  |
| MIS 2113 | Computer-Based Information Systems ${ }^{5}$ |  |

Total Credit Hours
60-70
1 Substitute: MATH 1523 for MATH 1643; MATH 1823 or MATH 1914 for M
2 Two courses, 6 hours, of Core III Social Science are required and one course must be P SC 1113 . ECON 1113 or ECON 1123 will meet the other 3 hours of this requirement.
${ }^{3}$ It is recommended students take either World Culture or Artistic Forms at the 3000/4000 level to fulfill the university requirement of one upperdivision course outside the major from the approved University-Wide General Education. It may also be satisfied in the upper-division or free elective categories.
${ }^{4}$ College requirement: courses are part of the degree candidacy application process that students must complete to earn degree candidacy and begin upper-division business courses.
${ }^{5}$ Minimum grade of $C$ required.

## Free Electives

Electives to bring total applicable hours to the minimum total required for the degree including a minimum of 40 upper-division hours.
B AD 2110, B AD 2113 , MGT 2013, and MKT 2013 will not count for credit toward a BBA.

## Additional Requirements

1. Candidates for the B.B.A. degree must complete their last 30 hours as resident students in Price College. However, if a candidate has completed the last 51 hours as a resident student at the University of Oklahoma, 9 of the last 60 hours may be taken at another university or by correspondence from OU. Students must take a minimum of 24 hours of their upper-division business courses in residence for the Bachelor of Business Administration degree.
2. Pass/No Pass will not be accepted for any upper-division Business or General Education courses or any specifically required courses.
3. Sixty hours, excluding physical education activity courses, must be taken at a baccalaureate degree-granting institution.
4. A combined maximum of 8 hours of general military experience and flight instruction courses will count toward the required hours.

## Suggested Semester Plan of Study

Additional hours may be required if remedial math or language is required. Please see an academic counselor to develop a plan of study.

Apply for permission to take upper division business courses the semester in which you will complete the prebusiness courses ${ }^{1}$.

This major normally requires three semesters of study beyond the business core requirements.

## Freshman

| First Semester |  | Credit |
| :---: | :---: | :---: |
|  |  | Hours |
| ECON 1113 | Principles of Economics-Macro (Core III) ${ }^{1}$ | 3 |
| ENGL 1113 | Principles of English Composition (Core I) | 3 |
| MATH 1643 | Functions and Modeling for Business, Life and Social Sciences | 3 |
| General Education Artistic Forms (Core IV) ${ }^{2}$ |  | 3 |
| First-Year Experience (Core V) ${ }^{2}$ |  | 3 |
| ATH 1743 | Credit Hours | 15 |
| Second Semester |  |  |
| B AD 1001 | Personal Computing Productivity Tools | 1 |
| ECON 1123 | Principles of Economics-Micro (Core III) ${ }^{1}$ | 3 |
| $\begin{aligned} & \text { ENGL } 1213 \\ & \text { or EXPO } 1213 \end{aligned}$ | Principles of English Composition (Core I) or Expository Writing | 3 |
| MATH 1743 | Calculus I for Business, Life and Social Sciences (Core I) | 3 |
| METR 1014 | Introduction to Weather and Climate (Core II) | 4 |
| MIS 2113 | Computer-Based Information Systems ${ }^{1}$ | 3 |
|  | Credit Hours | 17 |
| Sophomore |  |  |
| First Semester |  |  |
| ACCT 2113 | Fundamental Financial Accounting ${ }^{1}$ | 3 |
| B AD 2091 | Career Readiness I-Transitioning to the Workplace | 1 |
| B C 2813 | Strategic Communication for Business Professionals ${ }^{1}$ | 3 |
| ECON 2843 | Elements of Statistics ${ }^{1}$ | 3 |
| P SC 1113 | American Federal Government (Core III) | 3 |
|  | Credit Hours | 13 |
| Second Semester |  |  |
| ACCT 2123 | Fundamental Managerial Accounting | 3 |
| ENT 2113 | Innovation \& Entrepreneurship | 3 |
| FIN 2303 | Business Finance | 3 |
| PHIL 1273 | Introduction to Business Ethics (Core IV: Western Culture) | 3 |
| GEOL 1114 | Physical Geology for Science and Engineering Majors | 4 |
|  | Credit Hours | 16 |
| Junior |  |  |
| First Semester |  |  |
| B AD 3091 | Career Readiness II-Advancing in the Workplace | 1 |


| HIST 1483 <br> or HIST 1493 | United States to 1865 (Core IV) <br> or United States, 1865 to the Present | 3 |
| :--- | :--- | ---: |
| LS 3323 | Legal Environment of Business | 3 |
| MGT 3013 | Principles of Organization and <br> Management |  |
| MKT 3013 | Principles of Marketing and Supply Chain <br> Management | 3 |
| EMGT 3001 |  | 3 |
| General Education World Culture (Core IV) ${ }^{2}$ | 1 |  |
|  | Credit Hours | 3 |


| Second Semester |  |  |
| :--- | :--- | ---: |
| EMGT 3603 | Energy Law I | 3 |
| EMGT 3123 | Introduction to Exploration and Production | 3 |
| EMGT 3523 | Natural Gas Marketing and Power Trading | 3 |
| Finance Elective (Upper-Division) | 3 |  |
| Finance Elective (Upper-Division) | 3 |  |
|  | Credit Hours | $\mathbf{1 5}$ |


| Senior |  |  |  |  |
| :--- | :--- | ---: | :---: | :---: |
| First Semester |  |  |  |  |
| EMGT 3113 | Energy Production and Markets | 3 |  |  |
| ACCT 3033 | Financial Reporting Issues in Energy | 3 |  |  |
| LS 4613 | Real Property Law | 3 |  |  |
| GEOL 4143 | Petroleum Geology for Business Majors | 3 |  |  |
| FIN 3453, MIS 3213, or SCM 4013 | 3 |  |  |  |
| Credit Hours |  |  |  | $\mathbf{1 5}$ |

Second Semester

| B AD 4013 | Business Strategy and Policy | 3 |
| :--- | :--- | ---: |
| LS 4523 <br> or L S 4413 | The Law of Commercial Transactions <br> or The Law of Business Organization | 3 |
| MGT 4183 | Managing Negotiations and Conflict |  |
| Energy Elective |  | 3 |
|  | Credit Hours | $\mathbf{3}$ |
|  | Total Credit Hours | $\mathbf{1 2}$ |
|  |  | $\mathbf{1 2 0}$ |

${ }^{1}$ Prebusiness course.
${ }^{2}$ University-Wide General Education course, refer to online listing. One course (Artistic Forms, World Culture, or Science) must be 3000-4000level.

## International Business, B.B.A.

## Minimum Total Credit Hours: 120

Minimum Upper-Division Hours: 40

Overall GPA - Combined and OU: 2.50
Major GPA - Combined and OU: 2.50
Upper-Division Businesses Courses GPA - Combined and OU: 2.50
Program Code: B590

## This program has changes pending Regents approval for 2024-25. These pending changes are not reflected here.

To enroll in upper-division business courses, students must be certified for degree candidacy and meet all prerequisites.

A maximum of six hours of transfer work will apply toward the major.

## Major Requirements

| Code $\quad$ Title | Credit <br> Hours |
| :--- | :--- | ---: |
| B AD 3513 $\quad$ International Business | 3 |
| Choose 12 hours from major electives list (p. 945) | $\mathbf{1 2}$ |
| Total Credit Hours | $\mathbf{1 5}$ |

## Required Courses



## MAJOR ELECTIVES

12 hours chosen from the following with a maximum of three hours of non-Business courses:

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| ACCT 3023 | International Financial Statement Analysis | 3 |
| ECON 3613 International Trade Theory and Problems <br> L S 4713 The Law of International Business <br> Transactions  <br> or IAS 3013 International Law | 3 |  |
| MGT 4323 | Managing Across Cultures | 3 |
| MGT 4973 | International Human Resource <br> Management | 3 |
| MKT 4523 | International Marketing | 3 |
| Study Abroad Course (must be pre-approved by IB Major <br> Coordinator or Division Director) <br> Choose a maximum of one of the following: | 3 |  |
| FIN 3133 |  | 3 |
| FIN 4133 | International Financial Management | 3 |
| ECON 3633 | International Finance Theory and Problems |  |

## Free Electives

Electives to bring total applicable hours to the minimum total required for the degree including a minimum of 40 upper-division hours. B AD 2110, B AD 2113, MGT 2013, and MKT 2013 will not count for credit toward a BBA.

## PRE-APPROVED INTERNATIONAL EXPERIENCE REQUIREMENT

- A minimum 8 weeks, full cultural immersion in a foreign country with exception of Canada. Alternative study abroad programs could be considered case by case basis. Method of completion must be approved by Price College IB Committee.
- Complete and submit the Declaration of Intent to Study Abroad to Price Hall, Suite 1010
- Earn passing credits while abroad (passing credits are determined by foreign institution)


## Language Concentration Codes

- Language Met (P408)
- Arabic (P041)
- Chinese (P106)
- French (P266)
- German (P271)
- Hebrew (P311)
- Italian (P386)
- Japanese (P391)
- Portuguese (P526)
- Russian (P571)
- Spanish (P621)


## General Education and College Requirements

Courses taken to fulfill the University General Education Requirements must be chosen from the approved General Education course list published at http://www.ou.edu/gened/courses.

| UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS |  |  |
| :---: | :---: | :---: |
| Code | Title | Credit |
|  |  | Hours |
| Core Area I: Symbolic and Oral Communication |  | 6-16 |
| ENGL 1113 | Principles of English Composition (Core I) |  |
| or EXPO 121 Expository Writing |  |  |
| Language (Core I) - Students who have completed two years of high school language are exempt from this general education requirement ( $0-10$ hours) ${ }^{1}$ |  |  |
| Mathematics |  | 6 |
| MATH 1643 | Functions and Modeling for Business, Life and Social Sciences (Core I) ${ }^{2}$ |  |
| MATH 1743 | Calculus I for Business, Life and Social Sciences (Core I) ${ }^{2}$ |  |

Core Area II: Natural Science
Natural Sciences - Choose two courses taken from the biological and/or physical sciences. The two courses must be from different disciplines and at least one course must include a laboratory component (Core II)
Core Area III: Social Science ${ }^{3}$
P SC 1113 American Federal Government (Core III) 3
Core Area IV: Arts and Humanities 12

HIST 1483 United States to 1865 (Core IV) or HIST 1493United States, 1865 to the Present
PHIL 1273 Introduction to Business Ethics (Core IV: Western Culture)
Choose one course in each of the following fields (Core IV):
Artistic Forms ${ }^{4}$
World Culture ${ }^{4}$
Core Area V: First-Year Experience 3
Choose one course

| Basic Business $^{\mathbf{5}}$ |  |
| :---: | :--- |
| ACCT 2113 | Fundamental Financial Accounting ${ }^{6}$ |
| ACCT 2123 | Fundamental Managerial Accounting |
| B AD 1001 | Personal Computing Productivity Tools |
| B C 2813 | Strategic Communication for Business <br> Professionals |

ECON 1113 Principles of Economics-Macro (Core III-SS) 3, 6

ECON $1123 \quad \begin{aligned} & \text { Principles of Economics-Micro (Core III-SS) } \\ & 3,6\end{aligned}$
ECON 2843 Elements of Statistics (Core I-M) ${ }^{6}$
MIS 2113 Computer-Based Information Systems ${ }^{6}$
Total Credit Hours
59-69
1 Additional language may be required to meet the prerequisite requirement for 2000 level language courses.
2 Substitute: MATH 1523 for MATH 1643; MATH 1823 or MATH 1914 for MATH 174

3 Two courses, 6 hours, of Core III Social Science are required and one course must be P SC 1113 . ECON 1113 or ECON 1123 will meet the other 3 hours of this requirement.
4 It is recommended students take either World Culture or Artistic Forms at the 3000/4000 level to fulfill the university requirement of one upperdivision course outside the major from the approved University-Wide General Education. It may also be satisfied in the upper-division or free elective categories.
${ }^{5}$ College requirement: courses are part of the degree candidacy application process that students must complete to earn degree candidacy and begin upper-division business courses.
${ }^{6}$ Minimum grade of C required.

## Additional Requirements

1. Candidates for the B.B.A. degree must complete their last 30 hours as resident students in Price College. However, if a candidate has completed the last 51 hours as a resident student at the University of Oklahoma, 9 of the last 60 hours may be taken at another university or by correspondence from OU. Students must take a minimum of 24 hours of their upper-division business courses in residence for the Bachelor of Business Administration degree.
2. Pass/No Pass will not be accepted for any upper-division Business or General Education courses or any specifically required courses.
3. Sixty hours, excluding physical education activity courses, must be taken at a baccalaureate degree-granting institution.
4. A combined maximum of 8 hours of general military experience and flight instruction courses will count toward the required hours.

## Suggested Semester Plan of Study

Additional hours may be required if remedial math or language is required. Please see an academic counselor to develop a plan of study.

Apply for permission to take upper division business courses the semester in which you will complete the prebusiness courses ${ }^{1}$.

This major normally requires three semesters of study beyond the business core requirements.

## Freshman

First Semester
Credit
Hours

| ECON 1113 | Principles of Economics-Macro (Core III) $^{1}$ | 3 |
| :--- | :--- | :--- |
| ENGL 1113 | Principles of English Composition (Core I) | 3 |
| MATH 1643 | Functions and Modeling for Business, Life | 3 |


| and Social Sciences |  |
| :--- | :--- |
| First-Year Experience (Core V) |  |

Language 3

## Credit Hours

| Second Semester |  |  |
| :---: | :---: | :---: |
| B AD 1001 | Personal Computing Productivity Tools | 1 |
| ECON 1123 | Principles of Economics-Micro (Core III) ${ }^{1}$ | 3 |
| ENGL 1213 or EXPO 1213 | Principles of English Composition (Core I) or Expository Writing | 3 |
| MATH 1743 | Calculus I for Business, Life and Social Sciences (Core I) | 3 |
| MIS 2113 | Computer-Based Information Systems ${ }^{1}$ | 3 |


| Language | 3 |  |
| :--- | ---: | ---: |
|  | Credit Hours | 16 |

## Sophomore

| First Semester |  |  |
| :---: | :---: | :---: |
| ACCT 2113 | Fundamental Financial Accounting ${ }^{1}$ | 3 |
| B AD 2091 | Career Readiness I-Transitioning to the Workplace | 1 |
| B C 2813 | Strategic Communication for Business Professionals ${ }^{1}$ | 3 |
| ECON 2843 | Elements of Statistics ${ }^{1}$ | 3 |
| HIST 1483 or HIST 1493 | United States to 1865 (Core IV) or United States, 1865 to the Present | 3 |
| Free Elective |  | 2 |
|  | Credit Hours | 15 |
| Second Semester |  |  |
| ACCT 2123 | Fundamental Managerial Accounting | 3 |
| ENT 2113 | Innovation \& Entrepreneurship | 3 |
| FIN 2303 | Business Finance | 3 |
| PHIL 1273 | Introduction to Business Ethics (Core IV: Western Culture) | 3 |
| Natural Science (Core III) ${ }^{2}$ |  | 3 |

Credit Hours 15

## Junior

First Semester

| B AD 3091 | Career Readiness II-Advancing in the <br> Workplace | 1 |
| :--- | :--- | ---: |
| B AD 3513 | International Business | 3 |
| LS 3323 | Legal Environment of Business | 3 |
| MGT 3013 | Principles of Organization and <br> MKT 3013 | Principles of Marketing and Supply Chain <br> Management |
|  | Ma | 3 |


| Second Major Requirement | 3 |
| :---: | ---: |
| Credit Hours | $\mathbf{1 6}$ |

## Second Semester

P SC 1113 American Federal Government (Core III) 3
Second Major Requirement ..... 3
Second Major Requirement ..... 3
Natural Science with lab (2nd discipline) (Core II) ${ }^{2}$ ..... 4
Credit Hours ..... 13
Senior
First Semester
Major Elective ..... 3
Major Elective ..... 3
Second Major Requirement ..... 3
Artistic Forms (Core IV) ${ }^{2}$ ..... 3
World Culture (Core IV) ${ }^{2}$ ..... 3
Credit Hours ..... 15
Second Semester
B AD 4013 Business Strategy and Policy ..... 3
Major Elective ..... 3
Major Elective ..... 3
Second Major Requirement ..... 3

| Second Major Requirement | 3 |
| :--- | ---: |
| Credit Hours | $\mathbf{1 5}$ |
| Total Credit Hours | $\mathbf{1 2 0}$ |

1 Prebusiness course.
2 University-Wide General Education course, refer to online listing. One course (Artistic Forms, World Culture, or Science) must be 3000-4000level.

Management, B.B.A.

Minimum Total Credit Hours: 120
Minimum Upper-Division Hours: 40

Overall GPA - Combined and OU: 2.50
Major GPA - Combined and OU: 2.50
Upper-Division Businesses Courses GPA - Combined and OU: 2.50

## Program Code: B658

## This program has changes pending Regents approval for 2024-25. These pending changes are not reflected here.

To enroll in upper-division business courses, students must be certified for degree candidacy and meet all prerequisites.

A maximum of six hours of transfer work will apply toward the major.

## Major Requirements

Any 3000- or 4000-level MGT course will count in the General Management major grade point average unless otherwise specified.

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| MGT 3513 | Managing Human Capital and Talent | 3 |
| SCM 3523 | Production/Operations Management | 3 |
| Choose 3 hours from the following: | 3 |  |


| B AD 3513 | International Business |
| :---: | :--- | :--- |
| MGT 4973 | International Human Resource <br> Management |
| MGT 4323 | Managing Across Cultures |
| LS 4713 | The Law of International Business  <br>  Transactions |
| Choose 9 hours of 3000/4000 level Management classes ${ }^{1}$ | 9 |
| Tours | 18 |

${ }^{1}$ MGT 4973 and/or MGT 4323 allowed in 9 hours of 3000/4000 level MGT if not previously used.

## Required Courses

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Core Requirements | 12 |  |
| LS 3323 | Legal Environment of Business |  |
| MGT 3013 | Principles of Organization and <br>  <br> Management |  |


| MKT 3013 | Principles of Marketing and Supply Chain <br> Management |
| :--- | :--- |
| B AD 4013 | Business Strategy and Policy (Capstone - <br> to be taken last semester of senior year) |


| Additional Requirements | 8 |
| :---: | :--- |
| B AD 2091 | Career Readiness I-Transitioning to the <br> Workplace |
| ENT AD 3091 2113 | Career Readiness II-Advancing in the <br> Workplace |
| FIN 2303 | Innovation \& Entrepreneurship |

Total Credit Hours20

1 Requires completion of all other business core courses prior to enrollment and permission from Price Academic Advising Services.

## General Education and College Requirements

Courses taken to fulfill the University General Education Requirements must be chosen from the approved General Education course list published at http://www.ou.edu/gened/courses.

| UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS |  |  |
| :---: | :---: | :---: |
| Code | Title | Credit <br> Hours |
| Core Area I: Symbolic and Oral Communication |  | 6-16 |
| ENGL 1113 | Principles of English Composition (Core I) |  |
| $\begin{array}{r} \text { ENGL } 1213 \\ \text { or EXPO } \end{array}$ | Principles of English Composition (Core I) 1 IExpository Writing |  |
| Language (Core I) - Students who have completed two years of high school language are exempt from this general education requirement (0-10 hours). |  |  |
| Mathematics |  | 6 |
| MATH 1643 | Functions and Modeling for Business, Life and Social Sciences (Core I) ${ }^{1}$ |  |
| MATH 1743 | Calculus I for Business, Life and Social Sciences (Core I) ${ }^{1}$ |  |

Core Area II: Natural Science 7
Natural Sciences - Choose two courses taken from the biological and/or physical sciences. The two courses must be from different disciplines and at least one course must include a laboratory component (Core II)
Core Area III: Social Science ${ }^{2}$
P SC 1113 American Federal Government (Core III) 3
Core Area IV: Arts and Humanities 12
HIST 1483 United States to 1865 (Core IV)
or HIST 1493United States, 1865 to the Present
PHIL 1273 Introduction to Business Ethics (Core IV: Western Culture)
Choose one course in each of the following fields (Core IV):
Artistic Forms ${ }^{3}$
World Culture ${ }^{3}$
Core Area V: First-Year Experience 3
Choose one course
Basic Business ${ }^{4} 22$

| ACCT 2113 | Fundamental Financial Accounting ${ }^{5}$ |
| :--- | :--- |
| ACCT 2123 | Fundamental Managerial Accounting |
| B AD 1001 | Personal Computing Productivity Tools |
| B C 2813 | Strategic Communication for Business <br> Professionals ${ }^{5}$ |
| ECON 1113 | Principles of Economics-Macro (Core III-SS) <br> 2,5 |
| ECON 1123 | Principles of Economics-Micro (Core III-SS) <br> 2,5 | | ECON 2843 |
| :--- |
| MIS 2113 |$\quad$| Elements of Statistics (Core I-M) |
| :--- |

## Free Electives

Electives to bring total applicable hours to the minimum total required for the degree including a minimum of 40 upper-division hours. The following are recommended: ACCT 3023, FIN 3133, MKT 4523, ECON 3613, ECON 3633, IAS 3073, IAS 3273. The following courses will not count for credit toward a BBA: B AD 2110 , B AD 2113, MGT 2013 and MKT 2013.

## Additional Requirements

1. Candidates for the B.B.A. degree must complete their last 30 hours as resident students in Price College. However, if a candidate has completed the last 51 hours as a resident student at the University of Oklahoma, 9 of the last 60 hours may be taken at another university or by correspondence from OU. Students must take a minimum of 24 hours of their upper-division business courses in residence for the Bachelor of Business Administration degree.
2. Pass/No Pass will not be accepted for any upper-division Business or General Education courses or any specifically required courses.
3. Sixty hours, excluding physical education activity courses, must be taken at a baccalaureate degree-granting institution.
4. A combined maximum of 8 hours of general military experience and flight instruction courses will count toward the required hours.

## Suggested Semester Plan of Study

Additional hours may be required if remedial math or language is required. Please see an academic counselor to develop a plan of study.

Apply for permission to take upper division business courses the semester in which you will complete the prebusiness courses ${ }^{1}$.

This major normally requires three semesters of study beyond the business core requirements.

## Freshman

| First Semester |  | Credit |
| :---: | :---: | :---: |
|  |  | Hours |
| ECON 1113 | Principles of Economics-Macro (Core III) ${ }^{1}$ | 3 |
| ENGL 1113 | Principles of English Composition (Core I) | 3 |
| MATH 1643 | Functions and Modeling for Business, Life and Social Sciences | 3 |
| General Education Artistic Forms (Core IV) ${ }^{2}$ |  | 3 |
| AFirsit-7 ${ }^{\text {asar }}$ Experience (Core V) ${ }^{2}$ |  | 3 |
|  | Credit Hours | 15 |
| Second Semester |  |  |
| B AD 1001 | Personal Computing Productivity Tools | 1 |
| ECON 1123 | Principles of Economics-Micro (Core III) ${ }^{1}$ | 3 |
| ENGL 1213 | Principles of English Composition (Core I) | 3 |
| MATH 1743 | Calculus I for Business, Life and Social Sciences (Core I) | 3 |
| MIS 2113 | Computer-Based Information Systems ${ }^{1}$ | 3 |
| Natural Science (Core II) ${ }^{2}$ |  | 3 |
|  | Credit Hours | 16 |
| Sophomore |  |  |
| First Semester |  |  |
| ACCT 2113 | Fundamental Financial Accounting ${ }^{1}$ | 3 |
| B AD 2091 | Career Readiness I-Transitioning to the Workplace | 1 |
| B C 2813 | Strategic Communication for Business Professionals ${ }^{1}$ | 3 |
| ECON 2843 | Elements of Statistics ${ }^{1}$ | 3 |
| P SC 1113 | American Federal Government (Core III) | 3 |
| Free Elective |  | 3 |
|  | Credit Hours | 16 |

## Second Semester

| ACCT 2123 | Fundamental Managerial Accounting | 3 |
| :--- | :--- | :--- |
| ENT 2113 | Innovation \& Entrepreneurship | 3 |
| FIN 2303 | Business Finance | 3 |
| PHIL 1273 | Introduction to Business Ethics (Core IV: | 3 |
|  | Western Culture) |  |

Natural Science with lab (2nd discipline) (Core II) ${ }^{2} 4$

Credit Hours ..... 16

Junior
First Semester

| B AD 3091 | Career Readiness II-Advancing in the <br> Workplace | 1 |
| :--- | :--- | ---: |
| L S 3323 | Legal Environment of Business | 3 |
| MGT 3013 | Principles of Organization and <br> Management | 3 |
| MKT 3013 | Principles of Marketing and Supply Chain <br> Management | 3 |
| Free Elective |  | 3 |


| Free Elective | 1 |
| :---: | :---: |
| Credit Hours | 14 |
| Second Semester |  |
| HIST 1483 United States to 1865 (Core IV) <br> or 1493 or | 3 |
| MGT 3513 Managing Human Capital and Talent | 3 |
| SCM 3523 Production/Operations Management | 3 |
| General Education World Culture (Core IV) | 3 |
| Upper-Division General Education Elective ${ }^{3}$ | 3 |
| Credit Hours | 15 |
| Senior |  |
| First Semester |  |
| MGT Guided Elective (Upper-Division) | 3 |
| MGT Elective (Upper-Division) | 3 |
| Free Elective | 3 |
| Free Elective | 3 |
| Free Upper-Division Elective | 3 |
| Credit Hours | 15 |
| Second Semester |  |
| B AD 4013 Business Strategy and Policy | 3 |
| MGT Elective (Upper-Division) | 3 |
| MGT Elective (Upper-Division) | 3 |
| Free Upper-Division Elective | 3 |
| Free Elective | 1 |
| Credit Hours | 13 |
| Total Credit Hours | 120 |

1 Prebusiness course.
2 University-Wide General Education course, refer to online listing.
${ }^{3}$ May be free elective if artistic form, World culture, or science is 3000 - or 4000-level.

## Sports Business, B.B.A.

Minimum Total Credit Hours: 120
Minimum Upper-Division Hours: 40

Overall GPA - Combined and OU: 2.50
Major GPA - Combined and OU: 2.50
Upper-Division Businesses Courses GPA - Combined and OU: 2.50
Program Code: B856

## This program has changes pending Regents approval for 2024-25. These pending changes are not reflected here.

To enroll in upper-division business courses, students must be certified for degree candidacy and meet all prerequisites.

A maximum of six hours of transfer work will apply toward the major.

## Major Requirements



${ }^{1}$ Requires completion of all other business core courses prior to enrollment and permission from Price Academic Advising Services.

## SPORTS BUSINESS TOPICS

Choose three from the Division's approved Sports Topics course list (see the Sports Business Program webpage for the current list). One course must be offered by Price College of Business.

Available courses include the following:

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| HES 4273 | Sport Finance | 3 |
| HES 4283 | Sports Economics and Policy | 3 |
| MGT 3163 | Licensing and Intellectual Property | 3 |
|  | Management in Sports | 3 |
| MGT 3173 | Sports Logistics | 3 |
| MGT 3193 | Sports Marketing and Management | 3 |
| MGT 3203 | Pay for Play. College Sports at the Precipice | 3 |
| MGT 3213 | Sports Sales and Revenue Generation | 3 |
| MGT 3223 | Sports Analytics | 3 |
| MGT 3243 | Financing in Sports Business | 3 |
| MGT 3253 | The Economics of Sports Business | 3 |

NOTE: Internship must be pre-approved by Sports Program Director. If used for Analytics Track, must be approved for that purpose. Only one internship can be used for credit.

## SPORTS BUSINESS ELECTIVES

Choose one from the Division's approved Sports Business Elective course list (see the Sports Business Program webpage for the current list).
Additionally, any Sports Business Topics course not used previously can be used to fulfill this requirement.

Available courses include the following:

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| MKT 4123 | Professional Selling and Negotiations | 3 |
| H R 3313 | Ethical Issues in Intercollegiate Athletics | 3 |
| H R 4313 | Intercollegiate Athletic Administration | 3 |
| PSY 4940 | Seminar in Psychology | $1-3$ |

## SPORTS ANALYTICS TRACK

Students pursuing the Analytics Track must pick three of the following or choose courses from the Division's approved Sports Analytics course list:

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| MGT 3223 | Sports Analytics | 3 |
| Choose two courses from the following list: |  |  |
| SOC 3123 | Social Statistics | 3 |
| ECON 4223 | Econometric Analysis | 3 |
| MIS 3213 | Business Data Analysis | 3 |

## General Education and College Requirements

Courses taken to fulfill the University General Education Requirements must be chosen from the approved General Education course list published at http://www.ou.edu/gened/courses.

## UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS

| Code Title | Credit |
| :--- | :--- |
|  | Hours |

Core Area I: Symbolic and Oral Communication 6-16

ENGL 1213 Principles of English Composition (Core I) or EXPO 121 Fexpository Writing
Language (Core I) - Students who have completed two years of high school language are exempt from this general education requirement ( $0-10$ hours).
Mathematics
MATH 1643 Functions and Modeling for Business, Life and Social Sciences (Core I) ${ }^{1}$
MATH 1743 Calculus I for Business, Life and Social Sciences (Core I) ${ }^{1}$
Core Area II: Natural Science
Natural Sciences - Choose two courses taken from the biological and/or physical sciences. The two courses must be from different disciplines and at least one course must include a laboratory component (Core II)

| Core Area III: Social Science ${ }^{2}$ |  |
| :--- | ---: | ---: |
| P SC $1113 \quad$ American Federal Government (Core III) | 3 |
| Core Area IV: Arts and Humanities | $\mathbf{1 2}$ |

HIST 1483 United States to 1865 (Core IV) or HIST 1493United States, 1865 to the Present
PHIL 1273 Introduction to Business Ethics (Core IV: Western Culture)
Choose one course in each of the following fields (Core IV):
Artistic Forms ${ }^{3}$
World Culture ${ }^{3}$
Core Area V: First-Year Experience 3
Choose one course
Basic Business ${ }^{4} 22$
ACCT 2113 Fundamental Financial Accounting ${ }^{5}$
ACCT 2123 Fundamental Managerial Accounting ${ }^{5}$
B AD 1001 Personal Computing Productivity Tools
B C 2813 Strategic Communication for Business Professionals ${ }^{5}$
ECON 1113 Principles of Economics-Macro (Core III-SS) 2, 5

ECON 1123 Principles of Economics-Micro (Core III-SS) 2, 5

ECON 2843 Elements of Statistics (Core I-M) ${ }^{5}$
MIS 2113 Computer-Based Information Systems ${ }^{5}$
Total Credit Hours
59-69

1 Substitute: MATH 1523 for MATH 1643; MATH 1823 or MATH 1914 for MATH 174
2 Two courses, 6 hours, of Core III Social Science are required and one course must be P SC 1113 . ECON 1113 or ECON 1123 will meet the other 3 hours of this requirement.
${ }^{3}$ It is recommended students take either World Culture or Artistic Forms at the 3000/4000 level to fulfill the university requirement of one upperdivision course outside the major from the approved University-Wide General Education. It may also be satisfied in the upper-division or free elective categories.
${ }^{4}$ College requirement: courses are part of the degree candidacy application process that students must complete to earn degree candidacy and begin upper-division business courses.
${ }^{5}$ Minimum grade of C required.

## Free Electives

Electives to bring total applicable hours to the minimum total required for the degree including a minimum of 40 upper-division hours. B AD 2110, B AD 2113, MGT 2013, and MKT 2013 will not count for credit toward a BBA.

## Additional Requirements

1. Candidates for the B.B.A. degree must complete their last 30 hours as resident students in Price College. However, if a candidate has completed the last 51 hours as a resident student at the University of Oklahoma, 9 of the last 60 hours may be taken at another university or by correspondence from OU. Students must take a minimum of 24 hours of their upper-division business courses in residence for the Bachelor of Business Administration degree.
2. Pass/No Pass will not be accepted for any upper-division Business or General Education courses or any specifically required courses.
3. Sixty hours, excluding physical education activity courses, must be taken at a baccalaureate degree-granting institution.
4. A combined maximum of 8 hours of general military experience and flight instruction courses will count toward the required hours.

## Suggested Semester Plan of Study

Additional hours may be required if remedial math or language is required. Please see an academic counselor to develop a plan of study.

Apply for permission to take upper division business courses the semester in which you will complete the prebusiness courses ${ }^{1}$.

This major normally requires three semesters of study beyond the business core requirements.

| Freshman |  |  |
| :---: | :---: | :---: |
| First Semester |  | Credit |
|  |  | Hours |
| ECON 1113 | Principles of Economics-Macro (Core III) ${ }^{1}$ | 3 |
| ENGL 1113 | Principles of English Composition (Core I) | 3 |
| MATH 1643 | Functions and Modeling for Business, Life and Social Sciences | 3 |
| First-Year Experience (Core V) ${ }^{2}$ |  | 3 |
| Artistic Forms (Core IV) ${ }^{2}$ |  | 3 |
|  | Credit Hours | 15 |

## Second Semester

| B AD 1001 | Personal Computing Productivity Tools | 1 |
| :--- | :--- | :--- |
| ECON 1123 | Principles of Economics-Micro (Core III) $^{1}$ | 3 |
| ENGL 1213 | Principles of English Composition (Core I) | 3 |

or EXPO 1213 or Expository Writing
$\begin{array}{lll}\text { MATH 1743 } & \begin{array}{l}\text { Calculus I for Business, Life and Social } \\ \text { Sciences (Core I) }\end{array} & 3 \\ \text { MIS 2113 } & \text { Computer-Based Information Systems }{ }^{1} & 3\end{array}$

| Natural Science (Core II) ${ }^{2}$ | 3 |
| :---: | ---: |
| Credit Hours | $\mathbf{1 6}$ |

## Sophomore

## First Semester

ACCT $2113 \quad$ Fundamental Financial Accounting ${ }^{1}$3

| B AD 2091 | Career Readiness I-Transitioning to the Workplace | 1 |
| :---: | :---: | :---: |
| B C 2813 | Strategic Communication for Business Professionals ${ }^{1}$ | 3 |
| ECON 2843 | Elements of Statistics ${ }^{1}$ | 3 |
| P SC 1113 | American Federal Government (Core III) | 3 |
| Free Elective |  | 3 |
|  | Credit Hours | 16 |
| Second Semester |  |  |
| ACCT 2123 | Fundamental Managerial Accounting | 3 |
| PHIL 1273 | Introduction to Business Ethics (Core IV: Western Culture) | 3 |
| FIN 2303 | Business Finance | 3 |
| ENT 2113 | Innovation \& Entrepreneurship | 3 |
| Natural Science with lab (2nd discipline) (Core II) |  | 4 |
|  | Credit Hours | 16 |
| Junior |  |  |
| First Semester |  |  |
| B AD 3091 | Career Readiness II-Advancing in the Workplace | 1 |
| L S 3323 | Legal Environment of Business | 3 |
| MGT 3013 | Principles of Organization and Management | 3 |
| MKT 3013 | Principles of Marketing and Supply Chain Management | 3 |
| World Culture (Core IV) ${ }^{2}$ |  | 3 |
| Free Elective |  | 1 |
|  | Credit Hours | 14 |

## Second Semester

| HIST 1483 <br> or HIST 1493 | United States to 1865 (Core IV) <br> or United States, 1865 to the Present | 3 |
| :--- | :--- | ---: |
| MGT 3153 | An Introduction to the Business of Sports | 3 |
| MGT 3700 | Management Internship for Credit | 3 |
| Sports Business Topic Course (Upper-Division) | 3 |  |
| Upper-Division General Education Elective $^{3}$ | 3 |  |
| Credit Hours | $\mathbf{1 5}$ |  |

## Senior

First Semester
Sports Business Topic Course (Upper-Division) 3
Sports Business Topic Course (Upper-Division) 3
Free Elective 6
Upper-Division Free Elective 3

## Second Semester

B AD 4013 Business Strategy and Policy 3
Sports Business Elective (Upper-Division) 3
Management Skills Elective (Upper-Division) 3
Free Elective 4
Credit Hours 13
Total Credit Hours 120
1 Prebusiness course.

2 University-Wide General Education course, refer to online listing.
${ }^{3}$ May be free elective if artistic form, World culture or science is 3000 - or 4000-level.

## Leadership for Business Majors, Minor

Minimum Total Credit Hours: 15
Program Code: N635
The requirements for a minor must be completed concurrently with the major degree requirements.

No minor may be added by completing courses after receiving the bachelor's degree.

Students must complete prerequisites for all courses.
A minimum of nine (9) hours must be completed at OU.
Courses for the minor may not be taken Pass/No Pass.
No single course may be used to satisfy a major requirement and a minor requirement. A course may be used, however, to satisfy both a major support requirement and a minor requirement.

- The minor is only available to undergraduate students with a declared major within Price College of Business.
- Students must achieve a minimum 2.50 GPA (OU and overall) in the minor coursework.


## Required Courses

Code
Prerequisite

MGT 3013 | Credit |
| :---: |
| Hours |

| PSY 4703 | Psychology of Leadership (Prerequisite: <br> senior standing or permission from <br> instructor) |
| :--- | :--- |
| H R 3013 | Introduction to Human Relations |

Total Credit Hours

If the minor is officially declared, successfully completed, and noted on the graduation application, the student's transcript will so indicate at the time the bachelor's degree is posted.

## Management, Minor

Minimum Total Credit Hours: 15
Program Code: N658
The requirements for a minor must be completed concurrently with the major degree requirements.

No minor may be added by completing courses after receiving the bachelor's degree.

Students must complete prerequisites for all courses.
Courses for the minor may not be taken Pass/No Pass.
No single course may be used to satisfy a major requirement and a minor requirement. A course may be used, however, to satisfy both a major support requirement and a minor requirement.

- The minor is only available to undergraduate students with a declared major within Price College of Business.
- Students must achieve a minimum 2.50 GPA (OU and overall) in the minor coursework.


## Required Courses

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Prerequisite |  | 3 |
| MGT 3013 | Principles of Organization and <br> Management | 3 |
| Required |  | 3 |
| MGT 3363 | Understanding Organizational Behavior | 3 |
| MGT 3513 | Managing Human Capital and Talent | 6 |
| Electives |  | $\mathbf{1 5}$ |
| Choose 6 hours of upper-division MGT (3000-4000) |  |  |
| Total Credit Hours |  |  |

If the minor is officially declared, successfully completed, and noted on the graduation application, the student's transcript will so indicate at the time the bachelor's degree is posted.

## Sports Business for Business Majors, Minor

Minimum Total Credit Hours: 15
Program Code: N853

The requirements for a minor must be completed concurrently with the major degree requirements.

No minor may be added by completing courses after receiving the bachelor's degree.

Students must complete prerequisites for all courses.
Students must complete at least nine (9) minor hours in residence at the University of Oklahoma.

Courses for the minor may not be taken Pass/No Pass.
No single course may be used to satisfy a major requirement and a minor requirement. A course may be used, however, to satisfy both a major support requirement and a minor requirement.

- The minor is only available to undergraduate students with a declared major within Price College of Business.
- Students must achieve a minimum 2.50 GPA (OU and overall) in the minor coursework.


## Required Courses

| Code | Title | Credit Hours |
| :---: | :---: | :---: |
| Prerequisite |  |  |
| MGT 3013 | Principles of Organization and Management | 3 |
| Required |  |  |
| MGT 3153 | An Introduction to the Business of Sports | 3 |
| Electives |  |  |
| Choose 9 hour | GGT electives from the following: | 9 |
| MGT 3163 | Licensing and Intellectual Property Management in Sports |  |
| MGT 3173 | Sports Logistics |  |
| MGT 3193 | Sports Marketing and Management |  |
| MGT 3700 | Management Internship for Credit ${ }^{1}$ |  |
| MGT 4173 | Sports Management Practicum |  |
| HES 4273 | Sport Finance |  |
| HES 4283 | Sports Economics and Policy |  |


| Total Credit Hours | 15 |
| :--- | :--- |

${ }^{1}$ Internship must be pre-approved by Division Director. Only one internship may be used towards minor requirement.

If the minor is officially declared, successfully completed, and noted on the graduation application, the student's transcript will so indicate at the time the bachelor's degree is posted.

## Sports Business for Non-Business Majors, Minor

Minimum Total Credit Hours: 21
Program Code: N854
The requirements for a minor must be completed concurrently with the major degree requirements.

No minor may be added by completing courses after receiving the bachelor's degree.

Students accepted in the minor will be given permission to enroll in the upper-division credit hours of the minor.

Sports Management minor for non-business majors will be restricted to no more than 15 new students per year. Student must have a 3.0 retention combined grade point average or better at the time of application. Students must have completed or be concurrently enrolled in the required lower division courses for the minor. Accepted students in the minor will be given permission to enroll in as many as eighteen upperdivision credit hours for the minor.

The Sports Management Review Committee will evaluate applicants. Acceptance into the program will be based on academic performance in courses, activities, awards, work experience, and other measures indicative of future performance. Submit Application online at https:// ousurvey.qualtrics.com/jfe/form/SV_5urBtBzwht3Uh93.

All upper division courses must be completed at OU.
Courses for the minor may not be taken Pass/No Pass.
Minimum OU and Combined GPA of 2.75 in courses completed in the minor.

No single course may be used to satisfy a major requirement and a minor requirement. A course may be used, however, to satisfy both a major support requirement and a minor requirement.

- The minor is only available to undergraduate students with a declared major outside Price College of Business.
- Students must achieve a minimum 2.75 GPA (OU and overall) in the minor coursework.


## Required Courses

| Code | Title | Credit Hours |
| :---: | :---: | :---: |
| Prerequisite |  |  |
| ECON 1123 | Principles of Economics-Micro (grade of B or better) | 3 |
| Required |  |  |
| MGT 2013 or MGT 3013 | Introduction to Management <br> Principles of Organization and Management | 3 |
| MGT 3153 | An Introduction to the Business of Sports | 3 |
| Electives |  |  |
| Choose 12 hours | MGT electives from the following: ${ }^{1}$ | 12 |
| MGT 3163 | Licensing and Intellectual Property Management in Sports |  |
| MGT 3173 | Sports Logistics |  |
| MGT 3183 |  |  |
| MGT 3193 | Sports Marketing and Management |  |
| MGT 3700 | Management Internship for Credit ${ }^{2}$ |  |
| MGT 4173 | Sports Management Practicum |  |
| HES 4273 | Sport Finance |  |
| HES 4283 | Sports Economics and Policy |  |
| Total Credit Hours |  | 21 |

${ }^{1}$ Students pursuing the minor must complete MGT 3153 prior to taking these courses.
2 Internship must be pre-approved by Division Director. Only one internship may be used towards minor requirement.

If the minor is officially declared, successfully completed, and noted on the graduation application, the student's transcript will so indicate at the time the bachelor's degree is posted.

## Esports Business, Undergraduate Certificate

Minimum Total Credit Hours: 15
Program Code: T162
Certificate Requirements

| Code | Title | Credit Hours |
| :---: | :---: | :---: |
| Required Courses |  |  |
| MGT 2153 | Introduction to Esports | 3 |
| MGT 3273 | Esports Revenue Streams and Monetization | 3 |
| MGT 3283 | The Esports Front Office and Beyond | 3 |
| Esports Topics |  |  |
| Choose one of the following courses: |  | 3 |
| MGT 3173 | Sports Logistics |  |
| MGT 3223 | Sports Analytics |  |
| MGT 3253 | The Economics of Sports Business |  |
| Esports Elective |  |  |
| Choose one additional course from the list above or any approved course from a list maintained by the division, including the following: |  | 3 |
| MIS 3213 | Business Data Analysis |  |
| MKT 3513 | Social Media Marketing |  |
| MKT 4123 | Professional Selling and Negotiations |  |
| ECON 4363 | Sports Economics |  |
| HES 4273 | Sport Finance |  |
| JMC 4433 | Sports Public Relations |  |

Total Credit Hours

## Human Resource Management, Undergraduate Certificate

Minimum Total Credit Hours: 15

Program Code: T264

This program has changes for 2024 that are pending OU Board of Regents approval which are not reflected here. Certificate Requirements

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| MGT 2013 | Introduction to Management | 3 |
| or MGT 3013 | Principles of Organization and Management |  |
| MGT 3513 | Managing Human Capital and Talent | 3 |
| MGT 3143 | Legal Issues for Managers | 3 |
| Choose two courses from a list of approved electives <br> maintained by the department, with at least one course from <br> the Price College of Business. $($ p. 954) | 6 |  |

Total Credit Hours

## Human Resource Management Electives Course List

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| ECON 3513 | Labor Problems | 3 |
| MGT 4973 | International Human Resource | 3 |
| MGT 3363 | Management | 3 |
| MGT 4143 | Evidence-Based Human Resources | 3 |
| MGT 4183 | Management | 3 |
| PSY 3753 | Managing Negotiations and Conflict | 3 |
| MGT 3700 | Introduction to Industrial Organizational | $1-3$ |
|  | Psychology | Management Internship for Credit (HRM |
|  | Internship with departmental permission) |  |

## Leadership, Undergraduate Certificate

Minimum Total Credit Hours: 15
Program Code: T371

## This program has changes pending Regents approval for 2024-25. These pending changes are not reflected here.

## Certificate Requirements



| B AD 3513 | International Business |
| :--- | :--- |
| MGT 4323 | Managing Across Cultures |
| MGT 4973 | International Human Resource <br> Management |
| Human Capital and Leadership |  |
| MGT 3363 | Understanding Organizational Behavior |
| MGT 3513 | Managing Human Capital and Talent |
| MGT 4183 | Managing Negotiations and Conflict |
| Experiential Leadership (With Departmental Permission) |  |
| B AD 3700 | Internship in Business Administration |
| Outside of Price College |  |
| From a list maintained by the department. | $\mathbf{1 5}$ |
| Total Credit Hours |  |

## Legal Studies, Undergraduate Certificate

Minimum Total Credit Hours: 15

Program Code: T375
Certificate Requirements

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| L S 3323 | Legal Environment of Business | 3 |
| LS 3423 | Legal Environment of Business II | 3 |
| Choose three courses from a list of approved electives | 9 |  |
| maintained by the department, with at least two courses from |  |  |
| the Price College of Business. (p. 955) |  |  |

Total Credit Hours

## Legal Studies Electives Course List

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| EMGT 3603 | Energy Law I | 3 |
| ENT 4813 | Entrepreneurial Law | 3 |
| LS 4413 | The Law of Business Organization | 3 |
| L S 4523 | The Law of Commercial Transactions | 3 |
| L S 4613 | Real Property Law | 3 |
| L S 4713 | The Law of International Business | 3 |
| MGT 3143 | Transactions |  |
| MGT 4183 | Legal Issues for Managers | 3 |

## Renewable Energy Management, Undergraduate Certificate

Minimum Total Credit Hours: 15

Program Code: T566

## Certificate Requirements

| Code | Title | Credit |
| :---: | :---: | :---: |
| L S 3323 | Legal Environment of Business | 3 |
| EMGT 3113 | Energy Production and Markets | 3 |
| EMGT 3523 | Natural Gas Marketing and Power Trading | 3 |
| EMGT 3533 | Commercial Applications in Power Markets | 3 |
| Choose 3 hours from the list of approved courses maintained by the department: |  | 3 |
| EMGT 3513 | Sustainable Policy and Regulations |  |
| GEOG 3443 | Environment and Society |  |
| GEOG 4583 | Energy Systems and Sustainability |  |
| Other courses as approved by the EMGT Program Director. |  |  |
| Total Credit Hours |  | 15 |

## Management, B.B.A./Management of Information and Technology, M.S.

Minimum Total Credit Hours: 140-152

Overall GPA - Combined and OU: 3.00
Major GPA - Combined and OU: 3.00
Upper-Division Businesses Courses GPA - Combined and OU: 3.00

Program Code: A658/F657 Q268

## This program has changes pending Regents approval for 2024-25. These pending changes are not reflected here.

To enroll in upper-division business courses, students must be certified for degree candidacy and meet all prerequisites.

A maximum of six hours of transfer work will apply toward the major.

## Undergraduate Major Requirements

Any 3000- or 4000-level MGT course will count in the General Management major grade point average unless otherwise specified.

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| MGT 3513 | Managing Human Capital and Talent | 3 |
| SCM 3523 | Production/Operations Management | 3 |
| Choose 3 hours from the following: | 3 |  |


| B AD 3513 | International Business |
| :--- | :--- | :--- |
| MGT 4973 | International Human Resource |
|  | Management | | MGT 4323 | Managing Across Cultures |
| :--- | :--- |
| L S 4713 | The Law of International Business <br> Transactions |
| Choose 9 hours of upper-division 3000/4000 level |  |
| Management courses ${ }^{1}$ | 9 |
| Total Credit Hours | $\mathbf{1 8}$ |

${ }^{1}$ MGT 4973 and/or MGT 4323 allowed in 9 hours of 3000/4000 level MGT if not previously used.

## Required Courses

| Code | Title | Credit <br> Hours |
| :---: | :--- | ---: |
| Core Requirements | 12 |  |
| L S 3323 | Legal Environment of Business |  |
| MGT 3013 | Principles of Organization and <br> Management |  |
| MKT 3013 | Principles of Marketing and Supply Chain <br> Management |  |
| B AD 4013 | Business Strategy and Policy ${ }^{1}$ |  |

## Additional Requirements

B AD 2091 Career Readiness I-Transitioning to the Workplace
B AD 3091 Career Readiness II-Advancing in the Workplace
ENT 2113 Innovation \& Entrepreneurship
FIN 2303 Business Finance
Total Credit Hours
${ }^{1}$ Requires completion of all other business core courses prior to enrollment and permission from Price Academic Advising Services.

## Graduate Requirements

Up to 12 hours of graduate level MIT or MIS courses from a list maintained by the department and approved by the graduate liaison can be shared between BBA and MS-MIT programs.

| Code | Title | Credit Hours |
| :---: | :---: | :---: |
| Required |  | 2 |
| MIT 5602 | Management Information Systems |  |
| MIT Electives |  | 10-13 |
| Choose 10 to 13 credit hours of graduate level MIT courses as necessary to reach 32 hours for the degree |  |  |
| Graduate Elec |  | 13 |
| Choose 13 credit hours of graduate-level Business, MIT electives or other electives as approved by MIT Division |  |  |
| Choose one o | e following options: | 0-3 |
| Non-Thesis Option (coursework-only degree; exam is not required) |  |  |
| MIT 5980 Research for Master's Thesis (Thesis <br> Option; 3 credit hours) |  |  |
| Choose 4 credit hours of additional required coursework from a list maintained by the department and approved by the Graduate Liaison |  |  |
| Total Credit Hour |  | 32 |


| Recommended Free Elective options |  |  |
| :--- | :--- | ---: |
| Code | Title | Credit <br> Hours |
| ACCT 3023 | International Financial Statement Analysis | 3 |
| ECON 3613 | International Trade Theory and Problems | 3 |
| ECON 3633 | International Finance Theory and Problems | 3 |
| FIN 3133 |  |  |
| IAS 3073 | Global Economic Relations | 3 |
| IAS 3273 | The European Union | 3 |
| MKT 4523 | International Marketing | 3 |

## General Education and College Requirements

Courses taken to fulfill the University General Education Requirements must be chosen from the approved General Education course list published at http://www.ou.edu/gened/courses.

## UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS

Code Title CreditCore Area I: Symbolic and Oral CommunicationHours

ENGL 1113 Principles of English Composition (Core I)
ENGL 1213 Principles of English Composition (Core I) or EXPO 121 Ixpository Writing
Language (Core I) - Students who have completed two years of high school language are exempt from this general education requirement ( $0-10$ hours).
Mathematics
MATH 1643 Functions and Modeling for Business, Life and Social Sciences (Core I) ${ }^{1}$
MATH 1743 Calculus I for Business, Life and Social Sciences (Core I) ${ }^{1}$
Core Area II: Natural Science
Natural Sciences - Choose two courses taken from the biological and/or physical sciences. The two courses must be from different disciplines and at least one course must include a laboratory component (Core II)
Core Area III: Social Science ${ }^{2} \quad 3$
P SC 1113 American Federal Government (Core III)
Core Area IV: Arts and Humanities 12
HIST 1483 United States to 1865 (Core IV) or HIST 1493United States, 1865 to the Present
PHIL 1273 Introduction to Business Ethics (Core IV: Western Culture)
Choose one course in each of the following fields (Core IV):
Artistic Forms ${ }^{3}$
World Culture ${ }^{3}$
Core Area V: First-Year Experience
Choose one course
Basic Business ${ }^{4}$
ACCT 2113 Fundamental Financial Accounting ${ }^{5}$
ACCT 2123 Fundamental Managerial Accounting
B AD 1001 Personal Computing Productivity Tools
B C 2813 Strategic Communication for Business Professionals ${ }^{5}$


## Additional Requirements

1. Pass/No Pass will not be accepted for any Business or General Education courses or any specifically required courses.
2. Students must complete the GMAT exam with a score of 500 or greater.
3. Comprehensive written exam required at end of program.
4. Sixty hours, excluding physical education activity courses, must be taken at a baccalaureate degree-granting institution.
5. A combined maximum of 8 hours of general military experience and flight instruction courses will count toward the required hours.

## Suggested Semester Plan of Study

Additional hours may be required if remedial math or language is required. Please see an academic counselor to develop a plan of study.

Apply for permission to take upper division business courses the semester in which you will complete the prebusiness courses ${ }^{1}$.

During the 2nd semester, third year:

- Take GMAT
- Interview for internship
- Apply for admission to Master's program


## Freshman

| First Semester |  | Credit <br> Hours |
| :--- | :--- | ---: |
| ECON 1113 | Principles of Economics-Macro (Core III) | 3 |
| ENGL 1113 | Principles of English Composition (Core I) | 3 |
| ENT 2113 | Innovation \& Entrepreneurship | 3 |


| First-Year Experience (Core V) |  | 3 |
| :---: | :---: | :---: |
| MATH 1643 | Functions and Modeling for Business, Life and Social Sciences | 3 |
|  | Credit Hours | 15 |
| Second Semester |  |  |
| B AD 1001 | Personal Computing Productivity Tools | 1 |
| ECON 1123 | Principles of Economics-Micro (Core III) ${ }^{1}$ | 3 |
| $\begin{aligned} & \text { ENGL } 1213 \\ & \text { ATH drexpo } 1213 \end{aligned}$ | Principles of English Composition (Core I) or Expository Writing | 3 |
| MATH 1743 | Calculus I for Business, Life and Social Sciences (Core I) | 3 |
| MIS 2113 | Computer-Based Information Systems ${ }^{1}$ | 3 |
| Natural Science (Core II) ${ }^{2}$ |  | 3 |
|  | Credit Hours | 16 |
| Sophomore |  |  |
| First Semester |  |  |
| ACCT 2113 | Fundamental Financial Accounting ${ }^{1}$ | 3 |
| B AD 2091 | Career Readiness I-Transitioning to the Workplace | 1 |
| ECON 2843 | Elements of Statistics ${ }^{1}$ | 3 |
| P SC 1113 | American Federal Government (Core III) | 3 |
| B C 2813 | Strategic Communication for Business Professionals ${ }^{1}$ | 3 |
|  | Credit Hours | 13 |


| Second Semester |  |  |
| :--- | :--- | :--- |
| ACCT 2123 | Fundamental Managerial Accounting | 3 |
| FIN 2303 | Business Finance | 3 |
| PHIL 1273 | Introduction to Business Ethics (Core IV: | 3 |
|  | Western Culture) |  |

Natural Science with lab (2nd discipline) (Core II) ${ }^{2} 4$

| Artistic Forms (Core IV) $^{2}$ | 3 |
| :---: | ---: |
| Credit Hours | 16 |

Junior
First Semester

| L S 3323 | Legal Environment of Business | 3 |
| :---: | :---: | :---: |
| MGT 3013 | Principles of Organization and Management | 3 |
| MKT 3013 | Principles of Marketing and Supply Chain Management | 3 |
| World Culture (Core IV) ${ }^{2}$ |  | 3 |
| B AD 3091 | Career Readiness II-Advancing in the Workplace | 1 |
|  | Credit Hours | 13 |


| Second Semester |  |  |
| :--- | :--- | ---: |
| MGT 3513 | Managing Human Capital and Talent | 3 |
| SCM 3523 | Production/Operations Management | 3 |
| Upper-Division General Education Elective |  |  |
| HIST 1483 <br> or HIST 1493 | United States to 1865 <br> or United States, 1865 to the Present | 3 |
| Free Elective |  | 3 |
|  | Credit Hours | $\mathbf{3}$ |



## Division of Management Information Systems

Radhika Santhanam, Director
307 Adams Hal
307 W. Brooks
Norman OK 73019
(405) 325-5721
laku@ou.edu
www.ou.edu/price/mis

## General Information

The Management Information Systems (MIS) Division includes a vibrant group of faculty, staff and students, collaborating to develop student skills, research and advance knowledge on information technologies for organizational use. Since its inception in 1995, the division has grown and thrived as a place for high quality information technology education and research.

The undergraduate major and minor program provides students the knowledge on latest information technologies and organizational applications, practical skill experiences with current tools, that enable them to design, develop, manage and use computer-based information systems in global organizations. The coursework prepares students to understand and apply technology concepts and tools on topics such as data structures, database management, programming, web design, systems analysis and design, business infrastructure and cybersecurity, business analysis, data analytics, enterprise resource planning, enterprise system architecture and project management. Through a field project capstone course, students interact and conduct work for a real-world organization, through an actual system design. The graduate program offers a full set of courses to obtain knowledge and skills on business data analytics by coverage of topics such as business intelligence, data warehousing, data science, predictive modeling, analytics programming, social analytics, visual analytics, health informatics, and health analytics. The doctoral program develops students that can conduct high-quality research and teaching to pursue careers in academia.

The MIS division has dedicated faculty who excel at teaching and research, and their accomplishments are globally recognized. They often earn awards from the college, university and professional organizations for outstanding research, teaching excellence, innovations and service to students and the institution. All faculty members work in a collaborative manner, engaging with students and business partners to regularly improve curriculum and offer the best information technology education.

## Programs \& Facilities

## MIS Student Association

The MIS Student Association (MISSA) is one of the most active in the college. Through MISSA, students receive the opportunity to meet and talk with leading business professionals. Many students spend one or more summers in well-paid internship positions during their program here.

## Center for MIS Studies

The Center for MIS Studies (CMISS) is a thriving industry-academic partnership that connect business and government leaders with MIS faculty and students on a regular basis for the mutual exchange of ideas to develop future technology talent and scholarship.

## Undergraduate Study <br> Bachelor of Business Administration

The Management Information Systems, Bachelor of Business Administration (p. 964) provides a strong foundation and knowledge to apply information technologies to empower organizations. The program helps students understand the fundamentals of information technology, learn to apply it to solve business problems and add value in ways that could not have been done without the use of data and information.

## Accelerated Program

The Management Information Systems, B.B.A./Management of Information and Technology, M.S. (p. 967) program is a great opportunity for undergraduate students who are pursuing a BBA degree to earn a master's degree with a specialization in data analytics

## Minors

The MIS Minor coursework is designed to give students a practical understanding of the information technology tools businesses use to achieve their goals and complete their operations. The minor is perfect for students who wish to know how technologies can be used in different areas of business, and how they can productively use information technologies at work, thereby increasing potential job opportunities in their chosen areas of study.

- MIS Minor for Non-Business Majors (p. 966)
- MIS Minor for Business Majors (p. 966)


## Undergraduate Certificate

- Business Intelligence and Analytics (p. 967)


## Graduate Study

## Master of Science

## Management of Information and Technology

The Master of Science in Management of Information and Technology (p. 970) program offers a gamut of courses on applied organizational aspects of Big Data and Analytics with several choices available. Course topics include enterprise data modeling, enterprise data analytics with enterprise systems, business intelligence, social analytics, visual analytics, data science, predictive modeling, database design, data warehousing, advanced database technologies, cloud computing, distributed file processing systems, advanced analytics programming, project management, business infrastructure and cyber security. Popular analytics software and tools will be taught and students will conduct projects using these tools.

## Business Analytics

The Master of Science in Business Analytics (p. 970) program focuses on statistical modeling, data warehousing and mining, programming, forecasting, and operations research techniques applied to the analysis of business organizations and performance.

## Graduate Certificate

The Graduate Certificate in Digital Technologies (p. 971) provides an educational opportunity for those with a specific interest in the core MIT coursework, but do not wish to complete the full MS in MIT. Further, this program serves as a focus for those students matriculating in business or non-business OU graduate degree program who would benefit from a facility with information technology and using IT to solve problems and make decisions.

## Dual MBA/MS in MIT

The joint MBA/MS in MIT program allows students to develop a broad general business background along with a deeper understanding of information technology. Students are given the information needed to manage information technology firms as well as other areas of business.

## Courses

BIA 3713 Introduction to Business Intelligence and Analytics

3 Credit Hours
Prerequisite: MIS 2113; departmental permission; Student must be approved for degree candidacy by Price College of Business and must be accepted into the Business Intelligence and Analytics Certificate Program. This course will introduce concepts in Business Analytics (BA) and develop basic analytics skills with tools such Microsoft Power BI. Through case studies, lectures and hands-on exercise, students will learn about Business Intelligence and Analytics relevant to business organizations. (Irreg.)

## BIA 3723 Data Management and Presentation for Business Intelligence <br> 3 Credit Hours

Prerequisite: MIS 2113 and BIA 3713 or concurrent enrollment in BIA 3713; departmental permission required; Student must be approved for degree candidacy by Price College and must be accepted into the Business Intelligence and Analytics Certificate Program. Students will learn to use dashboards to communicate large amounts of critical information as a narrative. There will be discussions through case studies of actual BI implementation in well-known corporations. This course is designed to show a managerial perspective to data and BI, but will involve practical hands-on experiences through which students can become skilled in using BI software. (Irreg.)

## BIA 3733 Programming for Business and Artificial

 Intelligence3 Credit Hours
Prerequisite: BIA 3713, BIA 3723, and departmental permission; must be accepted into the Business Intelligence and Analytics Certificate Program. An introduction to the tools for management and development of business intelligence. The course will introduce and compare several of the emerging tools for conducting data analysis in a business environment. (Irreg.)

## BIA 4743 Data Mining for Business and Artificial

## Intelligence

## 3 Credit Hours

Prerequisite: BIA 3733 and departmental permission; must be accepted into the Business Intelligence and Analytics Certificate Program. In this course, we will review techniques that we have used quite often in data science, and then spend time in learning new methods in analytics. We will conduct data mining exercises and develop predictive models based on observed patterns in data. (Irreg.)
MIS 2113 Computer-Based Information Systems 3 Credit Hours Prerequisite: undergraduate major in Business, prerequisite or concurrent enrolled in B AD 1001. The course educates students on how information technology facilitates organizations to achieve its goals and solve problems. Students will learn to use latest tools of information technology, conduct hands-on-exercises and solve problems. Hence, students will become familiar with advanced use of spreadsheet and database software, networking technologies, web and application programming languages, and business analytics methods. (F, Sp, Su)

## MIS 3013 Introduction to Programming

3 Credit Hours
Prerequisite: MIS 2113 and Junior standing; student must be approved for degree candidacy by Price College. Introduce the basic principles of programming and design. Topics covered are language syntax, algorithm, development, logic structures, arrays and math function. (F, Sp)

MIS 3033 Business Programming Languages 3 Credit Hours
Prerequisite: student must be approved for degree candidacy by Price College; majors only; MIS 3013; and MIS 3353 or concurrent enrollment. May be repeated once with change of topic; maximum credit six hours. Various emerging programming languages and tools relevant to MIS applications. The basic syntax, code construction, and Object-oriented programming concepts and the business use of programming languages will be covered. Possible languages could include Visual Basic in the .Net framework, Java, and C\#. (F, Sp)

## MIS 3213 Business Data Analysis

3 Credit Hours
Prerequisite: student must have been approved for degree candidacy by Price College. This course will cover the use of end user computing tools such as spreadsheets to analyze various business problems. The course will introduce fundamental principles of business analysis and computer programming to develop solutions. Students may not receive credit for both MIS 3213 and MIS 3223. (F, Sp)

## MIS 3353 Databases

3 Credit Hours
Prerequisite: Student must be approved for degree candidacy by Price College; majors only; or permission. As organizations depend on data for their decisions, understanding database management is crucial. This course covers the structure, flow, and use of business data with an emphasis on data integrity. It covers conceptual data modeling, normalization, structured query language (SQL), physical database design and implementation, and data warehousing concepts. A team project with phased deliverables serves as the focal point. ( $F, S p$ )
MIS 3373 Systems Analysis and Design Theory 3 Credit Hours Prerequisite: 3353 or permission. A study of the structure and application of tools, technologies, and models for analyzing, designing, and evaluating information systems. Topics include: case tools, structured analysis, I/O design, rapid application development, simulation models, prototyping, human factors, alternatives, cost/benefit analysis, recommendations for a new system, implementation and post-evaluation. ( $\mathrm{F}, \mathrm{Sp}$ )
MIS 3383 Electronic Business
3 Credit Hours
Prerequisite: Student must be approved for degree candidacy by Price College or permission. The application of information technology to enable business processes (e.g., sales, manufacturing, procurement, financial accounting) across business enterprises. There is a substantial focus on Enterprise Resource Planning (ERP) systems, and students become familiar with the value and use of these systems in supporting everyday business activities. Students will make use and develop competency on popular ERP software. ( $F, S p$ )

## MIS 3440 Mentored Research Experience

3 Credit Hours
0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)
MIS 3960 Honors Reading
1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Provides an opportunity for the gifted Honors candidate to study materials not usually presented in regular courses. ( $F, S p$ )

## MIS 3970 Honors Seminar

1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be
repeated; maximum credit six hours. Subjects covered vary. Deals with concepts not usually treated in regular courses. (Irreg.)

MIS 3980 Honors Research
1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Provides an opportunity for the gifted Honors candidate to work at a special project in the student's field. ( $\mathrm{F}, \mathrm{Sp}$ )
MIS 3990 Independent Study 1-3 Credit Hours
1 to 3 hours. Prerequisite: permission of instructor and junior standing. May be repeated once with change of content. Independent study may be arranged to study a subject not available through regular course offerings. (F, Sp, Su)
MIS G4013 E-Commerce Web Design
3 Credit Hours
Prerequisite: Student must be approved for degree candidacy by Price College; MIS 3013 or MIS 3033, or instructor/departmental permission. Students will be exposed to fundamental principles of web design and development that can enable e-commerce and add business value. By programming and using tools, students will design and develop a website for an organization. They will understand how the website can be evaluated from an e-commerce perspective. (Sp)
MIS G4313 Introduction to Business Analytics 3 Credit Hours Prerequisite: Student must be approved for degree candidacy by Price College; senior standing; MIS 2113 or MIT 5602. Introduces students to concepts of business analytics and helps them develop skills to identify interesting insights from data. Students will be introduced to tools, techniques, and digital technologies that are relevant to business analysis and decision-making. While exploring these tools, the course will attend to applications across the different functional areas of business and organizations. (F, Sp)
MIS G4363 Business Infrastructure and Cyber Security 3 Credit Hours (Crosslisted with HCB 4363) Prerequisite: Student must be approved for degree candidacy by Price College. Provides information necessary to gain an understanding of communications and telecommunications networks and cyber security concepts. Key topic areas of the course are: OSI and internet network models, standards and protocols, business infrastructure design (LAN, WLAN, Backbone Networks, WAN, Connection to the Internet), cyber security concepts, basic technical and managerial aspects of business infrastructure, and practitioner's concerns and perspectives. ( $F, S p$ )
MIS G4393 Enterprise Resource Planning Configuration 3 Credit Hours Prerequisite: MIS 3383, and student must be approved for degree candidacy by Price College; or permission of instructor. This course is designed to present an overview of key enterprise systems design concepts from a functional, technical, and implementation perspective. Emphasis is on the process-centered organization and how integrated systems are designed to support cross-functional business. (F, Sp)
MIS G4433 Project Management 3 Credit Hours Prerequisite: Student must be approved for degree candidacy by Price College; MIS 3353 or MGT 3013, or permission of instructor. Presents the technical, managerial, and organizational concepts and tactics associated with managing software development and/or acquisition projects. A project management software tool will be introduced and used at a very basic level. (Irreg.)

MIS G4663 MIS Field Project
3 Credit Hours
Prerequisite: MIS 3013, MIS 3353, and MIS 3033 or concurrent enrollment in MIS 3033; student must be approved for degree candidacy by Price College; or permission of instructor. Involves a field project for a clientbusiness firm or other organization. Students will work closely with their client to perform an analysis, provide design alternatives, evaluate alternatives, develop and demonstrate a working model (prototype) of a part of the system, prepare a recommendation, and make a formal presentation to their client. (F,Sp)
MIS G4693 Intelligent Robotic Automation 3 Credit Hours Prerequisite: MIS 3033 or MIS 3013 or departmental permission. This course introduces students to the latest intelligent robotic automation and AI technology (e.g., Chat GPT). Particular attention is given to emerging issues associated with the building and applications of Al technology architectures to enable efficient, effective, and adaptable business operations and strategies. It also provides hands-on exercises for building intelligent robots to address emerging business needs. (Sp)
MIS G4703 Mobile Application Development
3 Credit Hours Prerequisite: MIS 3013, MGT 3013, MKT 3013, LS 3323, and FIN 3303; student must be approved for degree candidacy by Price College. Students will learn elements of good interface design for mobile devices, get an overall view of mobile app development, and build their own basic mobile app. (F, Sp)
MIS G4723 Information Security
3 Credit Hours
Prerequisite: MIS 3013; student must be approved for degree candidacy by Price College. The course covers the essentials of information security using a hands-on approach. Students will learn how computer security breaches occur and apply concepts learned. (F, Sp)
MIS 4960 Directed Readings in Management Information Systems

1-3 Credit Hours
1 to 3 hours. Prerequisite: 2113,3013 or 3033 , or permission. May be repeated once with change of topic; maximum credit six hours. Topics in the management of information systems. (F, Sp, Su)
MIS 4970 Special Topics/Seminar 1-3 Credit Hours 1 to 3 hours. Prerequisite: Senior standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)
MIS 4990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: Senior standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)
MIT 5012 Programming Fundamentals 2 Credit Hours
Prerequisite: Graduate standing and MIT 5602 corequisite. This course will introduce programming concepts used for business data analysis. (F, Sp)
MIT 5032 Analytics Programming
2 Credit Hours
Prerequisite: graduate standing. Programming in languages used for data extraction and preparation of data for data analytics and data mining.
Can be repeated with change of content; maximum credit 6 hours.
MIT 5052 Programming Concepts for Business Data
Analysis 2 Credit Hours
Prerequisite: Graduate standing. This course will introduce programming concepts used for business data analysis. It is intended to get students comfortable with programming and to give them insight into how data is used in an application. (F)

MIT 5302 E-Business Architectures
2 Credit Hours
Prerequisite: Graduate standing in the Price College of Business and MIT 5602 or concurrent enrollment. A study of the basic concepts of telecommunications and distribution processing and their applications to e-business. Focus is on managerial issues related to telecommunications. (Irreg.)

MIT 5352 Digital Innovation
2 Credit Hours
Prerequisite: Graduate standing and MIT 5602. Digital innovation, enabled by various information and communication technologies, is quickly changing the world around us. This course will provide an understanding of digital innovation-enabled transformations in the business environment, and how individuals and teams leverage such innovations to create value and gain competitive advantage for organizations. (Irreg.)

## MIT 5432 Machine Learning

2 Credit Hours
Prerequisite: Graduate standing and MIT 5032 (Python) or equivalent. This course will introduce machine learning and artificial intelligence techniques applied in business scenarios. Natural language processing as a tool to enable organizational problem-solving capability will be introduced. The course will assist students in enhancing their computational thinking and skills. (Irreg.)
MIT 5602 Management Information Systems
2 Credit Hours
Prerequisites: graduate standing; departmental permission. This course examines the role of information technology, and its management, in supporting an organization's (internally- and externally-focused) operations and strategies. Particular attention is given to issues associated with the funding and building of business and technology architectures to enable efficient, effective, and adaptable operational, tactical and strategic actions. (Irreg.)
MIT 5612 Database Design and Administration 2 Credit Hours
Prerequisite: graduate standing. This course is concerned with the design and governance of organizational data and its use. In this module, students will learn about the roles of database designers and administrators. Along the way, students will learn about the modeling techniques used by database designers to develop organizational databases and the standard language used to interface with databases. (Irreg.)
MIT 5642 Emerging Topics in Information Technology 2 Credit Hours Prerequisite: Graduate standing and MIT 5602. Examines current issues and approaches to information technology. Students will examine issues involved in the management and understanding of emerging topics in IT. (Irreg.)

## MIT 5662 Project Management

2 Credit Hours
Prerequisite: MIT 5602 or MIT 5622 and graduate standing. Focus on managing projects, including their implementation within an organization. A project is a complex, non-routine, one-time effort limited by time, budget, resources, and performance specifications designed to meet customer needs. The characteristics make project management a particularly challenging management task. Project management concepts apply to many other types of organizational activities, e.g., managing task forces and committees. Planning, organizing, staffing and controlling projects require traditional management skills, an understanding of quality assurance techniques, and an appreciation of the unique challenges of managing projects. (Irreg.)
MIT 5672 ERP Business Processes
2 Credit Hours
Prerequisite: Graduate standing in the Price College of Business and MIT 5602. This course covers key issues and trends of business strategies and technologies associated with Enterprise Resource Planning (ERP) systems. (Irreg.)

MIT 5682 Business Data Analysis 2 Credit Hours
Prerequisite: graduate standing. Surveys analysis tools available in Excel relevant to business decision-making. The objective of the course is to be aware and comfortable with analytical techniques used for knowledge discovery, and to understand the power and potential of these tools in business settings. Also examines illustrations and applications across different functional areas. (Irreg.)

MIT 5692 Managing ERP Systems 2 Credit Hours
Prerequisite: Graduate standing in the Price College of Business and MIT 5602. Enterprise Resource Planning (ERP) introduces students to enterprise systems and provides an overview of the managerial and technical issues in planning, designing, implementing, and extending enterprise systems and technologies. Focus of the course is managerial with some technical content and several hands-on exercises involving enterprise software from the industry leader SAP. (Irreg.)
MIT 5702 Social Analytics
2 Credit Hours
Prerequisite: MIS 5682 or instructor permission. Introduce students to analytic and visualization techniques required for processing social and social media data. (Sp)

## MIT 5722 Cyber Security

2 Credit Hours
Prerequisite: Graduate standing. The course covers the essentials of information security using a hands-on approach. Students will learn how computer security breaches occur and apply concepts learned in an isolated lab environment. (F)
MIT 5732 Management of Business Intelligence 2 Credit Hours Prerequisites: graduate standing, MIT 5602; MIT 5612 or MIT 5772, or permission of instructor. This course will adopt a managerial perspective to recognizing the role of Business Intelligence and provide practical hands-on experience. Course sessions will help students understand how organizations could develop strategies to discover patterns in data and use this to compete in the global marketplace. (F, Sp)
MIT 5742 Data Science and Analytics 2 Credit Hours
Prerequisite: graduate standing, MIT 5602 and MIT 5612, or permission of instructor. Students will compare and experience data science tools along with the newer tools and methods of analytics, with the goal of becoming knowledgeable in both sets of tools. (Sp)

MIT 5752 Cloud Computing
2 Credit Hours
Prerequisite: graduate standing and departmental permission. Offers detailed discussion and hands-on exploration of technologies used to process, manage and store 'big data'. The ecosystem of products we will be focusing on surrounds Hadoop, including the Hadoop File System, MapReduce, and others. This course involves many labs and familiarity with SQL is helpful. Programming expertise is not required but optional materials will be provided. ( $\mathrm{F}, \mathrm{Sp}$ )
MIT 5762 Enterprise Modeling
2 Credit Hours
Prerequisite: graduate standing; MIT 5602 and MIT 5742; or permission of instructor. An in-depth study of enterprise modeling techniques using an industry standard data mining technology suite. Students will develop a conceptual understanding of the major concepts used in data analytics along with in-depth use of corresponding computer software. (Sp)

## MIT 5772 Principles of Data Warehousing 2 Credit Hours

Prerequisite: Departmental permission, graduate standing, and MIT 5612.
This class will introduce students to concepts relating to a data warehouse (DW), considered a core component of business intelligence and data analytics in an organization. Students will learn to use current tools to develop requirements and create and maintain a DW. Students will also learn to manipulate data in the DW to extract and generate analytical reports for employees. (Irreg.)

MIT 5802 Advanced Database Management 2 Credit Hours
Prerequisite: Graduate standing; MIT 5612 and MIT 5602. This course covers the principles of design, use, and management of database technology, including data warehouses from a manager's perspective. Involves a number of exercises using a multi-user relational database management system and associated tools to address typical business problems. (F)
MIT 5812 Cyberanalytics
2 Credit Hours
Prerequisite: MIT 5602, graduate standing, and departmental permission. The course introduces analytical methods and concepts focused on the use of cyber-analytics for security management. Topics of coverage span organizational strategies and policies, network and data management, plus internal and operational controls. (F, Sp)
MIT 5822 Health Information Technologies
2 Credit Hours
Prerequisite: graduate standing, MIT 5602, or departmental permission. This course examines the application of health information technologies. It explores human computer interactions and emerging technologies for their impact on patient care and safety. The course also discusses the role of legal, regulatory, ethical, and security issues as they apply to clinical and consumer information technologies. (F)

MIT 5832 Healthcare Information Systems
2 Credit Hours
Prerequisite: graduate standing, MIT 5602, or departmental permission. Students will apply project management and information systems development principles in developing an electronic health record software application to support healthcare decision-making. Students will also explore data manipulation and analytics using structured query language (SQL) and healthcare data analytics tools. (Irreg.)

## MIT 5842 Healthcare Analytics I

2 Credit Hours
Prerequisite: Graduate standing and MIT 5602 or concurrent enrollment. This course covers data management and presentation appropriate to understanding healthcare data.
MIT 5852 Healthcare Analytics 2
2 Credit Hours
Prerequisite: Graduate standing and MIT 5602 or concurrent enrollment. This course covers various methods for analyzing and predicting outcomes from healthcare data using modern data modeling tools and systems. (Irreg.)
MIT 5960 Directed Readings
1-3 Credit Hours
Prerequisite: graduate standing. 1 to 3 hours. May be repeated with change of topic; maximum credit six hours. Topics in management of information technology. (Irreg.)
MIT 5970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses.
May include library and/or laboratory research and field projects. (Irreg.)
MIT 5980 Research for Master's Thesis
2-9 Credit Hours Prerequisite: MIS 5622 and instructor permission, graduate standing. Variable enrollment, two to nine hours; maximum credit applicable toward degree, three hours. Acquaints students with the research process. Students propose research project, and then conduct the research including but not limited to, performing a literature review, collecting and analyzing data, and writing the thesis prior to the end of the semester. $(F$, Sp )

MIT 5990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)

## MIT 6713 Cognition and Decision Making in Management Information <br> \section*{3 Credit Hours}

 SystemsPrerequisite: graduate standing. May be repeated; maximum credit nine hours. Ph.D. seminar addressing issues of cognition and decision making in information technology enabled settings. The course focuses on these issues in an organizational setting and considers cognition and decision making at the individual, group, and organizational levels. Topics may include: fundamental theories of cognition and decision making; technology support and influence on decision making and cognition; mechanisms to coordinate cognition across individuals, groups and organizations. (Irreg.)

MIT 6733 Governance and Control 3 Credit Hours Prerequisite: PhD program, Price College of Business. Examines theories and empirical research regarding the governance and control (G\&C) in organizations, with special attention to the role of technology in G\&C equations. The assigned readings sample the arena of governance and control and should provide students with the range of topics that are informed and influenced by the arena as well as exposure to the state-of-the-art in theory and empirics of governance and control. (Irreg.)
MIT 6753 The Science and Analytics of Human-Technology Interactions

3 Credit Hours
Prerequisite: Graduate Standing. Attention will be focused on research relating to interactions between Humans and Information Technology (IT) artifacts, to identify facets that make these interactions productive and enjoyable. The course goals will be to get familiar on the theory foundations that help the science of HTI, become skilled in the use of data analytics tools, and complete a limited research study. Class discussions will span a broad range of topics that include among others, the science of human-technology interactions, visualization of data, designs of visual displays, support for employee's learning of IT, and gamification of HTI interactions. (F)
MIT 6960 Directed Readings in MIT
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing and permission of instructor. May be repeated as needed by Ph.D. students; maximum credit twelve hours. A study of current research and practice in information technology. (F, Sp, Su)

MIT 6970 Special Topics/Seminar

## 1-3 Credit Hours

1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit 12 hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or research and field projects. (Irreg.)
MIT 6973 Seminar in Management Information Systems 3 Credit Hours
Prerequisite: graduate standing. Covers topics from current research in information systems. May be repeated three time with change of content. (Irreg.)

MIT 6980 Research for Doctoral Dissertation 2-16 Credit Hours
2 to 16 hours. Prerequisite: Graduate standing and permission of instructor; may be repeated. Directed research culminating in the completion of the doctoral dissertation. (F, Sp, Su)

MIT 6990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)

## Faculty



| Santhanam Radhika |  | 2013 | PROFESSOR OF MANAGEMENT INFORMATION SYSTEMS, 2013; MICHAEL F. PRICE CHAIR IN BUSINESS, 2013 | MBA, Univ of Mumbai, 1983; PhD, Univ of Nebraska, 1989; MS, Texas A\&M Univ, 1986; BS, Univ of Madras, 1978 |
| :---: | :---: | :---: | :---: | :---: |
| Schwarzkopf Albert | B | 1970 | ASSOCIATE PROFESSOR OF MANAGEMENT INFORMATION SYSTEMS, 1998; REGENTS' PROFESSOR OF MANAGEMENT INFORMATION SYSTEMS, 2015 | PhD, Univ of Virginia, 1968; BA, Vanderbilt Univ, 1964 |
| Shaft Teresa | M | 1999 | ASSOCIATE PROFESSOR OF MANAGEMENT INFORMATION SYSTEMS, 2005 | PhD, Pennsylvania State, 1992; BS, Univ of Arizona, 1983 |
| Sun Heshan |  | 2018 | ASSOCIATE PROFESSOR OF MANAGEMENT INFORMATION SYSTEMS, 2018 | PhD, Syracuse Univ, 2007; MS, Peking Univ, 2002; BA, Nankai Univ, 1999 |

## Management Information Systems, B.B.A.

Minimum Total Credit Hours: 120
Minimum Upper-Division Hours: 40
Overall GPA - Combined and OU: 2.50
Major GPA - Combined and OU: 2.50
Upper-Division Businesses Courses GPA - Combined and OU: 2.50

## Program Code: B660

## This program has changes pending Regents approval for 2024-25. These pending changes are not reflected here.

To enroll in upper-division business courses, students must be certified for degree candidacy and meet all prerequisites.

A maximum of six hours of transfer work will apply toward the major

## Major Requirements

Any 3000- or 4000-level MIS course will count in the Management Information Systems major grade point average unless otherwise specified, including additional hours taken to fulfill electives.

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| MIS 3013 | Introduction to Programming | 3 |
| MIS 3033 | Business Programming Languages | 3 |
| MIS 3353 | Databases | 3 |
| MIS 4663 | MIS Field Project | 3 |
| Choose six hours of 3000/4000 level MIS courses. | 6 |  |
| Total Credit Hours | $\mathbf{1 8}$ |  |



## General Education and College Requirements

Courses taken to fulfill the University General Education Requirements must be chosen from the approved General Education course list published at http://www.ou.edu/gened/courses.

## UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS

Code Title | Credit |
| :--- | :--- |

Core Area I: Symbolic and Oral Communication 6-16
ENGL 1113 Principles of English Composition (Core I)
ENGL 1213 Principles of English Composition (Core I) or EXPO 121 Fxpository Writing
Language (Core I) - Students who have completed two years of high school language are exempt from this general education requirement (0-10 hours).

Mathematics
MATH 1643 Functions and Modeling for Business, Life and Social Sciences (Core I) ${ }^{1}$

MATH 1743 Calculus I for Business, Life and Social Sciences (Core I) ${ }^{1}$
Core Area II: Natural Science
Natural Sciences - Choose two courses taken from the biological and/or physical sciences. The two courses must be from different disciplines and at least one course must include a laboratory component (Core II)
Core Area III: Social Science ${ }^{2}$
P SC 1113 American Federal Government (Core III) 3

Core Area IV: Arts and Humanities 12
HIST 1483 United States to 1865 (Core IV)
or HIST 1493United States, 1865 to the Present

| PHIL 1273 | Introduction to Business Ethics (Core IV: |
| :--- | :--- |
|  | Western Culture) |

Choose one course in each of the following fields (Core IV):
Artistic Forms ${ }^{3}$
World Culture ${ }^{3}$
Core Area V: First-Year Experience
Choose one course
Basic Business ${ }^{4}$

| ACCT 2113 | Fundamental Financial Accounting ${ }^{5}$ |
| :--- | :--- |
| ACCT 2123 | Fundamental Managerial Accounting |
| B AD 1001 | Personal Computing Productivity Tools |
| B C 2813 | Strategic Communication for Business <br> Professionals |
| ECON 1113 | Principles of Economics-Macro (Core III-SS) <br> 2,5 |
| ECON 1123 | Principles of Economics-Micro (Core III-SS) <br> 2,5 |
| ECON 2843 | Elements of Statistics (Core I-M) 5 |
| MIS 2113 | Computer-Based Information Systems ${ }^{5}$ |

Total Credit Hours
59-69
1 Substitute: MATH 1523 for MATH 1643; MATH 1823 or MATH 1914 for MA
2 Two courses, 6 hours, of Core III Social Science are required and one course must be P SC 1113 . ECON 1113 or ECON 1123 will meet the other 3 hours of this requirement.
${ }^{3}$ It is recommended students take either World Culture or Artistic Forms at the 3000/4000 level to fulfill the university requirement of one upperdivision course outside the major from the approved University-Wide General Education. It may also be satisfied in the upper-division or free elective categories.
4 College requirement: courses are part of the degree candidacy application process that students must complete to earn degree candidacy and begin upper-division business courses.
${ }^{5}$ Minimum grade of $C$ required.

## Free Electives

Electives to bring total applicable hours to the minimum total required for the degree including a minimum of 40 upper-division hours. B AD 2110, B AD 2113, MGT 2013, and MKT 2013 will not count for credit toward a BBA.

## Additional Requirements

1. Candidates for the B.B.A. degree must complete their last 30 hours as resident students in Price College. However, if a candidate has completed the last 51 hours as a resident student at the University of Oklahoma, 9 of the last 60 hours may be taken at another university or by correspondence from OU. Students must take a minimum of 24 hours of their upper-division business courses in residence for the Bachelor of Business Administration degree.
2. Pass/No Pass will not be accepted for any upper-division Business or General Education courses or any specifically required courses.
3. Sixty hours, excluding physical education activity courses, must be taken at a baccalaureate degree-granting institution.
4. A combined maximum of 8 hours of general military experience and flight instruction courses will count toward the required hours.

## Suggested Semester Plan of Study

Additional hours may be required if remedial math or language is required. Please see an academic counselor to develop a plan of study.

Apply for permission to take upper division business courses the semester in which you will complete the prebusiness courses ${ }^{1}$.

This major normally requires three semesters of study beyond the business core requirements.

## Freshman

| First Semester |  | Credit |
| :---: | :---: | :---: |
|  |  | Hours |
| ECON 1113 | Principles of Economics-Macro (Core III) ${ }^{1}$ | 3 |
| ENGL 1113 | Principles of English Composition (Core I) | 3 |
| HIST 1483 or HIST 1493 | United States to 1865 (Core IV) or United States, 1865 to the Present | 3 |
| MATH 1643 | Functions and Modeling for Business, Life and Social Sciences | 3 |
| First-Year Experience (Core V) ${ }^{2}$ ATH 1743. |  | 3 |
|  | Credit Hours | 15 |

## Second Semester

| B AD 1001 | Personal Computing Productivity Tools | 1 |
| :---: | :---: | :---: |
| ECON 1123 | Principles of Economics-Micro (Core III) ${ }^{1}$ | 3 |
| ENGL 1213 or EXPO 1213 | Principles of English Composition (Core I) or Expository Writing | 3 |
| MATH 1743 | Calculus I for Business, Life and Social Sciences (Core I) | 3 |
| MIS 2113 | Computer-Based Information Systems ${ }^{1}$ | 3 |
| Natural Science (Core II) ${ }^{2}$ |  | 3 |
|  | Credit Hours | 16 |
| Sophomore |  |  |
| First Semester |  |  |
| ACCT 2113 | Fundamental Financial Accounting ${ }^{1}$ | 3 |
| B AD 2091 | Career Readiness I-Transitioning to the Workplace | 1 |
| B C 2813 | Strategic Communication for Business Professionals ${ }^{1}$ | 3 |
| ECON 2843 | Elements of Statistics ${ }^{1}$ | 3 |
| P SC 1113 | American Federal Government (Core III) | 3 |
| Free Elective |  | 1 |
|  | Credit Hours | 14 |

## Second Semester

| ACCT 2123 | Fundamental Managerial Accounting | 3 |
| :--- | :--- | ---: |
| ENT 2113 | Innovation \& Entrepreneurship | 3 |
| FIN 2303 | Business Finance | 3 |
| PHIL 1273 | Introduction to Business Ethics (Core IV: | 3 |
| Natural Science with lab (2nd discipline) (Core II) |  |  |
|  | Credit Hours | $\mathbf{4}$ |

Junior

| First Semester |  | 1 |
| :--- | :--- | :--- |
| B AD 3091 | Career Readiness II-Advancing in the <br>  <br> Workplace | 1 |
| LS 3323 | Legal Environment of Business | 3 |
| MGT 3013 | Principles of Organization and |  |
|  | Management | 3 |
| MIS 3013 | Introduction to Programming | 3 |
| MIS 3353 | Databases | 3 |
| MKT 3013 | Principles of Marketing and Supply Chain | 3 |
|  | Management |  |
|  | Credit Hours | $\mathbf{1 6}$ |

## Second Semester

MIS 3033 Business Programming Languages 3
MIS Major Elective (Upper-Division) 3
Artistic Forms (Core IV) ${ }^{2} \quad 3$
World Culture (Core IV) ${ }^{2} 3$
Free Elective 3

| Credit Hours |  |
| :--- | ---: |
| Senior |  |
| First Semester | 3 |
| MIS Major Elective (Upper-Division) | 2 |
| Free Elective | 3 |
| Free Elective | 3 |
| Upper-Division General Education Elective ${ }^{3}$ | 3 |
| Free Upper-Division Elective | $\mathbf{1 4}$ |

Second Semester

| B AD 4013 | Business Strategy and Policy | 3 |
| :--- | :--- | :--- |
| MIS 4663 | MIS Field Project | 3 |

Free Upper-Division Elective 3
Free Elective 3
Free Elective 2

| Credit Hours | 14 |
| :--- | ---: |
| Total Credit Hours | 120 |

${ }^{1}$ Prebusiness course.
${ }^{2}$ University-Wide General Education course, refer to online listing.
${ }^{3}$ May be free elective if artistic form, World culture, or science is 3000 - or 4000-level.

## MIS for Business Majors, Minor

Minimum Total Credit Hours: 15

## Program Code: N660

The requirements for a minor must be completed concurrently with the major degree requirements.

## No minor may be added by completing courses after receiving the bachelor's degree.

Students must complete prerequisites for all courses.
A minimum of nine (9) hours must be completed at OU.

Courses for the minor may not be taken Pass/No Pass.
No single course may be used to satisfy a major requirement and a minor requirement. A course may be used, however, to satisfy both a major support requirement and a minor requirement.

- The minor is only available to undergraduate students with a declared major within Price College of Business.
- Students must achieve a minimum 2.50 GPA (OU and overall) in the minor coursework.


## Required Courses

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Prerequisite |  |  |
| MIS 2113 | Computer-Based Information Systems | 3 |
| Minor Courses |  | 3 |
| MIS 3213 | Business Data Analysis | 3 |
| MIS 3353 | Databases | 3 |
| MIS 3383 | Electronic Business | 3 |
| Electives |  |  |
| Choose one of the following: |  |  |
| MIS 3013 | Introduction to Programming |  |
| MIS 4363 | Business Infrastructure and Cyber Security | $\mathbf{3}$ |
| MIS 4433 | Project Management |  |
| Total Credit Hours |  |  |

If the minor is officially declared, successfully completed, and noted on the graduation application, the student's transcript will so indicate at the time the bachelor's degree is posted.

## MIS for Non-Business Majors, Minor

Minimum Total Credit Hours: 15

## Program Code: N661

The requirements for a minor must be completed concurrently with the major degree requirements.

No minor may be added by completing courses after receiving the bachelor's degree.

A minimum of nine (9) upper division courses must be completed at OU.

Courses for the minor may not be taken Pass/No Pass.

No single course may be used to satisfy a major requirement and a minor requirement. A course may be used, however, to satisfy both a major support requirement and a minor requirement.

- The minor is only available to undergraduate students with a declared major outside Price College of Business.
- Students must achieve a minimum 2.50 GPA (OU and overall) in the minor coursework.
Required Courses

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Prerequisite |  | 3 |
| MIS 2113 | Computer-Based Information Systems |  |
| Minor Courses |  | 3 |
| MIS 3213 | Business Data Analysis | 3 |
| MIS 3353 | Databases | 3 |
| MIS 3383 | Electronic Business | 3 |
| Electives |  |  |
| Choose one of the following: |  |  |
| MIS 3013 |  | Introduction to Programming |
| MIS 4363 | Business Infrastructure and Cyber Security |  |
| MIS 4433 | Project Management |  |

Total Credit Hours

If the minor is officially declared, successfully completed, and noted on the graduation application, the student's transcript will so indicate at the time the bachelor's degree is posted.

## Business Intelligence and Analytics, Undergraduate Certificate

Minimum Total Credit Hours: 15
Program Code: T065
This program has changes pending Regents
approval for 2024-25. These pending changes are not reflected here.

## Certificate Requirements

Every employee requires data literacy. Therefore, all students graduating with an undergraduate degree must have data literacy skills. For students at the Price College of Business, this certificate is intended to provide the level of data literacy required by the companies that recruit business majors at the University of Oklahoma.

All courses counted toward the certificate must be completed with a C or better.

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| MIS 2113 | Computer-Based Information Systems | 3 |
| BIA 3713 | Introduction to Business Intelligence and <br> Analytics | 3 |
| BIA 3723 | Data Management and Presentation for <br> Business Intelligence | 3 |
| BIA 3733 | Programming for Business and Artificial <br> Intelligence | 3 |
| BIA 4743 | Data Mining for Business and Artificial <br> Intelligence | 3 |
| Total Credit Hours | $\mathbf{1 5}$ |  |

## Management Information Systems,

## B.B.A./Management of Information and Technology, M.S.

Minimum Total Credit Hours: 140-152<br>Minimum Upper-Division Hours: 40<br>Overall GPA - Combined and OU: 3.00<br>Major GPA - Combined and OU: 3.00<br>Upper-Division Businesses Courses GPA - Combined and OU: 3.00<br>Program Code: A660/F657 Q429

## This program has changes pending Regents approval for 2024-25. These pending changes are not reflected here.

To enroll in upper-division business courses, students must be certified for degree candidacy and meet all prerequisites.

A maximum of six hours of transfer work will apply toward the major.

## Undergraduate Major Requirements

Any 3000- or 4000-level MIS course will count in the Management Information Systems major grade point average unless otherwise specified, including additional hours taken to fulfill electives.

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| MIS 3013 | Introduction to Programming | 3 |
| MIS 3033 | Business Programming Languages | 3 |
| MIS 3353 | Databases | 3 |
| MIS 4363 | Business Infrastructure and Cyber Security | 3 |
| MIS 4663 | MIS Field Project | 3 |
| Choose 6 hours of 3000/4000 level MIS electives as approved | 6 |  |
| by the MIS division |  |  |

Total Credit Hours

## Required Courses

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Core Requirements | 12 |  |
| LS 3323 | Legal Environment of Business |  |
| MGT 3013 | Principles of Organization and <br> Management |  |
| MKT 3013 | Principles of Marketing and Supply Chain <br> Management |  |
| B AD 4013 | Business Strategy and Policy ${ }^{1}$ |  |
| Additional Requirements |  |  |
| B AD 2091 | Career Readiness I-Transitioning to the <br> Workplace | 8 |
| B AD 3091 | Career Readiness II-Advancing in the <br> Workplace |  |
| ENT 2113 | Innovation \& Entrepreneurship |  |

- At most one course may be shared with other programs within MIS.


## FIN 2303 Business Finance

## Total Credit Hours

${ }^{1}$ Requires completion of all other business core courses prior to enrollment and permission from Price Academic Advising Services.

## Graduate Requirements

Up to 12 hours of graduate level MIT or MIS courses from a list maintained by the department and approved by the graduate liaison can be shared between BBA and MS-MIT programs.


## General Education and College Requirements

Courses taken to fulfill the University General Education Requirements must be chosen from the approved General Education course list published at http://www.ou.edu/gened/courses.

## UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS

Code Title Credit
Core Area I: Symbolic and Oral Communication 6-16 ENGL 1113 Principles of English Composition (Core I) ENGL 1213 Principles of English Composition (Core I) or EXPO 121 Fxpository Writing Language (Core I) - Students who have completed two years of high school language are exempt from this general education requirement ( $0-10$ hours).
Mathematics

| MATH 1643 | Functions and Modeling for Business, Life <br> and Social Sciences (Core I) |
| :--- | :--- |
| MATH 1743 | Calculus I for Business, Life and Social <br> Sciences (Core I) $^{1}$ |

Core Area II: Natural Science

Natural Sciences - Choose two courses taken from the biological and/or physical sciences. The two courses must be from different disciplines and at least one course must include a laboratory component (Core II)

| Core Area III: Social Science ${ }^{2}$ |  |  |
| :---: | :---: | :---: |
| P SC 1113 | American Federal Government (Core III) | 3 |
| Core Area IV: Arts | \& Humanities | 12 |
| HIST 1483 or HIST 1493 | United States to 1865 (Core IV) United States, 1865 to the Present |  |
| PHIL 1273 | Introduction to Business Ethics (Core IV: Western Culture) |  |
| Choose one course in each of the following fields (Core IV): |  |  |
| Artistic Forms ${ }^{3}$ |  |  |
| World Culture ${ }^{3}$ |  |  |
| Core Area V: First- | Year Experience | 3 |
| Choose one course |  |  |
| Basic Business ${ }^{4}$ |  | 22 |
| ACCT 2113 | Fundamental Financial Accounting ${ }^{5}$ |  |
| ACCT 2123 | Fundamental Managerial Accounting |  |
| B AD 1001 | Personal Computing Productivity Tools |  |
| B C 2813 | Strategic Communication for Business Professionals ${ }^{5}$ |  |
| ECON 1113 | Principles of Economics-Macro (Core III-SS) 2, 5 |  |
| ECON 1123 | Principles of Economics-Micro (Core III-SS) 2, 5 |  |
| ECON 2843 | Elements of Statistics (Core I-M) ${ }^{5}$ |  |
| MIS 2113 | Computer-Based Information Systems ${ }^{5}$ |  |

Total Credit Hours
1 Substitute: MATH 1523 for MATH 1643; MATH 1823 or MATH 1914 for MATH 174
${ }^{2}$ Two courses, 6 hours, of Core III Social Science are required and one course must be P SC 1113 . ECON 1113 or ECON 1123 will meet the other 3 hours of this requirement.
${ }^{3}$ It is recommended students take either World Culture or Artistic Forms at the 3000/4000 level to fulfill the university requirement of one upperdivision course outside the major from the approved University-Wide General Education. It may also be satisfied in the upper-division or free elective categories.
${ }^{4}$ College requirement: courses are part of the degree candidacy application process that students must complete to earn degree candidacy and begin upper-division business courses.
${ }^{5}$ Minimum grade of C required.

## Free Electives

Electives to bring total applicable hours to the minimum total required for the degree including a minimum of 40 upper-division hours. B AD 2110, B AD 2113, MGT 2013, and MKT 2013 will not count for credit toward a BBA.

## Additional Requirements

1. Pass/No Pass will not be accepted for any Business or General Education courses or any specifically required courses.
2. Students must complete the GMAT exam with a score of 500 or greater.
3. Comprehensive written exam required at end of program.
4. Sixty hours, excluding physical education activity courses, must be taken at a baccalaureate degree-granting institution.
5. A combined maximum of 8 hours of general military experience and flight instruction courses will count toward the required hours.

## Suggested Semester Plan of Study

Additional hours may be required if remedial math or language is required. Please see an academic counselor to develop a plan of study.

Apply for permission to take upper division business courses the semester in which you will complete the prebusiness courses ${ }^{1}$.

During the 2nd semester, third year.

- Take GMAT
- Interview for internship
- Apply for admission to Master's program


## Freshman

| First Semester |  | Credit <br> Hours |
| :--- | :--- | ---: |
| ECON 1113 | Principles of Economics-Macro (Core III) ${ }^{1}$ | 3 |
| ENGL 1113 | Principles of English Composition (Core I) | 3 |
| ENT 2113 | Innovation \& Entrepreneurship | 3 |
| MATH 1643 | Functions and Modeling for Business, Life <br> and Social Sciences | 3 |
| First-Year Experience (Core V) ${ }^{2}$ | 3 |  |

## Second Semester

| B AD 1001 | Personal Computing Productivity Tools | 1 |
| :---: | :---: | :---: |
| ECON 1123 | Principles of Economics-Micro (Core III) ${ }^{1}$ | 3 |
| $\begin{aligned} & \text { ENGL } 1213 \\ & \text { or EXPO } 1213 \end{aligned}$ | Principles of English Composition (Core I) or Expository Writing | 3 |
| MATH 1743 | Calculus I for Business, Life and Social Sciences (Core I) | 3 |
| MIS 2113 | Computer-Based Information Systems ${ }^{1}$ | 3 |
| Natural Science (Core II) ${ }^{2}$ |  | 3 |

## Sophomore

First Semester

| ACCT 2113 | Fundamental Financial Accounting ${ }^{1}$ | 3 |
| :--- | :--- | ---: |
| B AD 2091 | Career Readiness I-Transitioning to the <br> Workplace | 1 |
| B C 2813 | Strategic Communication for Business <br> Professionals ${ }^{1}$ | 3 |
| ECON 2843 | Elements of Statistics $^{1}$ | 3 |
| P SC 1113 | American Federal Government (Core III) | 3 |
|  | Credit Hours | $\mathbf{1 3}$ |


| Second Semester |  | 3 |
| :--- | :--- | ---: |
| ACCT 2123 | Fundamental Managerial Accounting | 3 |
| FIN 2303 | Business Finance | 3 |
| PHIL 1273 | Introduction to Business Ethics (Core IV: |  |
|  | Western Culture) | 4 |
| Natural Science with lab (2nd discipline) (Core II) |  |  |

Junior

| First Semester |  |  |
| :--- | :--- | ---: |
| MIS 3013 | Introduction to Programming | 3 |
| MIS 3353 | Databases | 3 |
| LS 3323 | Legal Environment of Business | 3 |
| MGT 3013 | Principles of Organization and <br>  <br>  <br> Management | 3 |
| MKT 3013 | Principles of Marketing and Supply Chain <br> Management | 3 |
| B AD 3091 | Career Readiness II-Advancing in the <br> Workplace | $\mathbf{1}$ |
|  | Credit Hours | $\mathbf{1 6}$ |

## Second Semester

| HIST 1483 or HIST 1493 | United States to 1865 or United States, 1865 to the Present | 3 |
| :---: | :---: | :---: |
| MIS 3033 | Business Programming Languages | 3 |
| MIS Major Elective (Upper-Division) |  | 3 |
| Upper-Division General Education ${ }^{3}$ |  | 3 |
| World Culture (Core IV) ${ }^{2}$ |  | 3 |
|  | Credit Hours | 15 |

## Senior <br> First Semester

MIS Major Elective (Upper Division) 3
Free Upper Division Elective 3
MIS 4663 MIS Field Project 3
MIT 5602 Management Information Systems 2

MIT Graduate Elective ${ }^{4} 2$
Free Elective $\quad 1-2$
Credit Hours ..... 15
Second Semester
MIS 4363 Business Infrastructure and Cyber Security 3
Additional Required Coursework ..... 2
Additional Required Coursework ..... 2
Graduate Business Elective ${ }^{4}$ ..... 2Fifth YearFirst Semester
MIT Graduate Elective ..... 2
MIT Graduate Elective ..... 2
Graduate Business Elective ${ }^{4}$ ..... 2
Graduate Business Elective ..... 2
Graduate Business Elective ..... 2
10
Second Semester
Graduate Capstone or Thesis ..... 2-3
MIT Graduate Elective ${ }^{4}$ ..... 2
MIT Graduate Elective ${ }^{4}$ ..... 2
MIT Graduate Elective ${ }^{4}$ ..... 2


## Business Analytics (Online), M.S.

Minimum Total Hours (Non-Thesis): 32
Program Code: M145

| Non-Thesis Option |  |  |
| :---: | :---: | :---: |
| Code | Title | Credit |
|  |  | Hours |
| Required Courses |  |  |
| MIT 5602 | Management Information Systems | 2 |
| Electives |  |  |
| Choose 30 of maintain | hours of graduate level courses from a list the MIS Division. (p. 970) | 30 |

## General Requirements for all Master's Degrees

The master's degree requires the equivalent of at least two semesters of satisfactory graduate work and additional work as may be prescribed for the degree.

All coursework applied to the master's degree must carry graduate credit.
Master's degree programs which require a thesis consist of at least 30 credit hours. All non-thesis master's degree programs require at least 30 credit hours.

Credit transferred from other institutions must meet specific criteria and is subject to certain limitations.

Courses completed through correspondence study may not be applied to the master's degree.

To qualify for a graduate degree, students must achieve an overall grade point average of 3.0 or higher in the degree program coursework and in all resident graduate coursework attempted. A student must also have at least a 3.0 in all coursework (including undergraduate coursework if any).

Additional information for master's degree students may be found in the Graduate College Bulletin.

## Business Analytics Course List

## Approved Electives

Additional courses may be chosen with MIS Division approval

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| MIT 5612 | Database Design and Administration | 2 |
| MIT 5052 | Programming Concepts for Business Data <br>  <br>  <br> Analysis | 2 |
| MIT 5732 | Management of Business Intelligence | 2 |
| MIT 5032 | Analytics Programming | 2 |
| MIT 5672 | ERP Business Processes | 2 |
| MIT 5742 | Data Science and Analytics | 2 |
| MIT 5762 | Enterprise Modeling | 2 |
| MIT 5772 | Principles of Data Warehousing | 2 |
| MIT 5702 | Social Analytics | 2 |
| MIT 5352 | Digital Innovation | 2 |
| MIT 5752 | Cloud Computing | 2 |
| MIT 5662 | Project Management | 2 |
| MIT 5970 | Special Topics/Seminar (Cyber Analytics) | $1-3$ |
| MIT 5970 | Special Topics/Seminar (in IT) | $1-3$ |

## Management of Information and Technology, M.S.

Minimum Total Hours (Thesis): 32
Minimum Total Hours (Non-Thesis): 32
Program Code: M657 (Online: M658)

## Thesis Option

| Code Title | Credit |
| :---: | :---: |
| Required Courses |  |
| MIT 5602 Management Information Systems | 2 |
| Thesis |  |
| MIT 5980 Research for Master's Thesis (Thesis) | 3 |
| Choose four credit hours of additional required coursework from a list maintained by the department and approved by the Graduate Liaison. | 4 |
| Electives |  |
| MIT Electives |  |
| Choose 10 credit hours of graduate level MIT courses. | 10 |
| MIT or Graduate Business Electives |  |
| Choose 13 credit hours of graduate-level Business, MIT electives or other electives as approved by graduate liaison and advisor. | 13 |

Total Credit Hours 32

## Non-Thesis Option

The Non-Thesis degree is a coursework-only degree; a Non-Thesis exam is not required.

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Required Courses |  | 2 |
| MIT 5602 | Management Information Systems | 2 |

Choose four credit hours of additional required coursework from a list maintained by the department and approved by the Graduate Liaison.

## Electives

MIT Electives
Choose 13 credit hours of graduate level MIT courses.

## MIT or Graduate Business Electives

Choose 13 credit hours of graduate-level Business, MIT
electives or other electives as approved by graduate liaison and advisor.
Total Credit Hours

## General Requirements for all Master's Degrees

The master's degree requires the equivalent of at least two semesters of satisfactory graduate work and additional work as may be prescribed for the degree.

All coursework applied to the master's degree must carry graduate credit.
Master's degree programs which require a thesis consist of at least 30 credit hours. All non-thesis master's degree programs require at least 30 credit hours.

Credit transferred from other institutions must meet specific criteria and is subject to certain limitations.

Courses completed through correspondence study may not be applied to the master's degree.

To qualify for a graduate degree, students must achieve an overall grade point average of 3.0 or higher in the degree program coursework and in all resident graduate coursework attempted. A student must also have at least a 3.0 in all coursework (including undergraduate coursework if any).

Additional information for master's degree students may be found in the Graduate College Bulletin.

## Digital Technologies, Graduate Certificate

Minimum Total Hours: 12
Program Code: G317
The Graduate Certificate in Digital Technologies is intended to impart critical information technology and development skills to individuals with no formal training in Management of Information Technology. The graduate certificate will provide an educational opportunity for those with a specific interest in the core MIT coursework, but do not wish to complete the full MS in MIT. Further, it can serve as a focus for students matriculating in business or non-business graduate degree programs that would benefit from a facility with information technology and using IT to solve problems and make decisions. A total of 12 hours is required for the certificate.

## Certificate Requirements

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| MIT 5602 | Management Information Systems | 2 |
| Choose 10 hours from a list of graduate electives (p. 971) | 10 |  |
| Total Credit Hours | $\mathbf{1 2}$ |  |

4 A graduate certificate is not a graduate degree. A graduate degree represents a program of independent inquiry beyond the depth of coursework alone, while a graduate certificate represents a set of courses only.

- All courses must be taken at OU. No transfer credit will apply.
- No course substitutions are permitted for graduate certificates.
- Coursework applied to a graduate certificate cannot be more than five years old as of the semester the graduate certificate is awarded.
- Students must earn a grade point average of 3.00 or higher on all coursework applied to the graduate certificate.


## Graduate Electives

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| MIT 5032/5970 | Analytics Programming | 2 |
| MIT 5970 | Special Topics/Seminar (Topic: Analytics <br> Programming II) | $1-3$ |
| MIT 5612 | Database Design and Administration | 2 |
| MIT 5662 | Project Management | 2 |
| MIT 5682 | Business Data Analysis | 2 |
| MIT 5692 | Managing ERP Systems | 2 |
| MIT 5702 | Social Analytics | 2 |
| MIT 5732 | Management of Business Intelligence | 2 |
| MIT 5742 | Data Science and Analytics | 2 |
| MIT 5752 | Cloud Computing | 2 |
| MIT 5762 | Enterprise Modeling | 2 |
| MIT 5772 | Principles of Data Warehousing | 2 |
| MIT 5822 | Health Information Technologies | 2 |
| MIT 5832 | Healthcare Information Systems | 2 |

## Division of Marketing and Supply Chain Management

Kenneth J. Petersen, Director
8 Adams Hall
307 W. Brooks
Norman OK 73019
(405) 325-2792
www.ou.edu/price/marketing_supplychainmanagement

## General Information

The Division of Marketing and Supply Chain Management offers courses that prepare students for positions in marketing, supply chain management, and the business of healthcare. Classes provide comprehensive coverage of topics including product/service design, development, and commercialization, pricing of products and services; and promotion (through advertising sales promotion, and personal selling). Primary emphasis is placed on the distribution of products/ services, including channel structure and physical delivery/logistics.

The division's faculty have a national reputation for expertise in marketing channels, marketing strategy, supply chain management, and the business of healthcare. All have academic credentials from leading U.S. schools, and many have significant business experience. The division faculty have a strong record of publication and research and use this knowledge in the classroom and as consultants to corporations.

Members have been elected to prominent leadership positions in professional associations.

Students will find a wide range of opportunities to interact with successful business executives, both formally in the classroom, and informally, through professional student organizations.

## Programs \& Facilities

## Integrated Business Core

Students get hands-on, real-world training through Integrated Business Core. From brainstorming and market analysis to managing employees and the legal implications of business transactions to selling products and closing the books on the last sale, IBC develops the skills it takes to launch a successful business. All profits go to local non-profit charities along with 'sweat equity' of up to 500 hours of community service each semester.

## Full Semester Study in Italy Program

Marketing \& Supply Chain Management offers a full semester study in Italy program that allows students to study in Italy throughout the spring semester, and also provides opportunities for internships abroad as a part of this program, as well as the chance to experience Italian and European culture.

## Undergraduate Study

## Bachelor of Business Administration

Healthcare Business, Bachelor of Business Administration (p. 979) students take specialized interdisciplinary courses in healthcare marketing, ethical and regulatory issues, and supply chain. They obtain employment in organizations that sell to and service the hospitals and clinics in the healthcare industry, including pharmaceutical reps, and medical equipment agents.

Marketing, Bachelor of Business Administration (p. 981) students take courses that prepare them for careers involving retailing, negotiation/ selling, international marketing, and new product development. Internships can greatly facilitate the job search process and prepare students for their first jobs. Students are strongly encouraged to do an internship.

Supply Chain Management, Bachelor of Business Administration ( p . 983) provides an invaluable education experience based of realworld application of distribution, marketing, and management practices. Students take courses in logistics management, purchasing and buying behavior, production operations management, and inventory and materials management.

## Accelerated Programs

The Marketing, B.B.A./Management of Information and Technology, M.S. (p. 989)and Supply Chain Management, B.B.A./Management of Information and Technology, M.S. (p. 995) accelerated programs are great opportunities for undergraduate students who are pursuing a BBA degree to earn a master's degree with a specialization in data analytics.

The Marketing, B.B.A./Supply Chain Management (Online), M.S. (p. 992) and Supply Chain Management, B.B.A./Supply Chain Management (Online), M.S. (p. 997) accelerated programs are great opportunities for undergraduate students who are pursuing a BBA degree to earn a master's degree in the field of supply chain management.

## Minors

The Digital Marketing for Business Majors, Minor (p. 986) and Digital Marketing for Non-Business Majors, Minor (p. 986) provide the practical knowledge and insights required to establish objectives and strategies, properly select the digital marketing platforms to engage consumers, and monitor and measure the results of these efforts.

The Franchising Minor (p. 987) enhances the credentials of Price College students and creates a more attractive recruit. The minor serves all Price College majors but is particularly beneficial in conjunction with a Marketing Major as a means to increase placement opportunities.

The Healthcare Minor (p. 987) offers additional perspective and credentials that supplements the student's business degree, making them desirable recruits and better prepared employees for hospitals, clinics, and related healthcare organizations.

The Marketing Minor (p. 987) and the Marketing for Non-Business Majors, Minor ( p .988 ) introduce the field of marketing.

The Supply Chain Management for Business Majors, Minor (p. 988) and the Supply Chain Management for Non-Business Majors, Minor (p. 989) introduce the field of supply chain management.

## Graduate Study

## Master of Science

The Master of Science in Supply Chain Management (Online) (p. 1000) seeks to enhance and expand the career and educational opportunities for working professionals in a variety of key industries such as aerospace, defense, healthcare, and high tech, telecommunication, transportation, supply chain, within the State of Oklahoma, the United States, and the broader global community, by providing a unique and high-level educational experience focused on fundamental and advanced topics in the field of supply chain management. The course of study will be delivered in a fully online format. The program will be taught by leading scholars in the field, who are faculty of the Division of the Price College of Business and leading executives and practitioners, who will bring modern thought on best practices from the literature and field into the classroom.

## Graduate Certificate

The Graduate Certificate in Supply Chain Management (Online) (p. 1000) is designed for professionals, particularly those who have advanced leadership, analysis, innovation and technology skills to adapt to current and future disruption of technology in SCM.

## Courses

HCB 3440 Mentored Research Experience 3 Credit Hours
0 to 3 hours. Prerequisite: ENGL 1113 or equivalent, and permission of instructor; ACCT 2123 or concurrent enrollment; Math 1743 or Math 1823 or MATH 1914; May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)

HCB 3613 Healthcare Marketing and Administration 3 Credit Hours (Crosslisted with MKT 3613) Prerequisite for Business Majors: Business Candidacy \& MKT 3013 Prerequisite for Non-business Majors: MKT 2013 or 3013. Healthcare organizations must be prepared to shift their strategies in order to meet the increasing demands in this dynamic market. The purpose of this course is to apply the systems of marketing and administration to the problems of health care organizations and provide an insight to the business problems healthcare organizations are likely to encounter. (F, Sp)

## HCB 3633 Healthcare Finance

3 Credit Hours
Prerequisite: HCB 3613, student must be approved for degree candidacy by Price College, sophomore standing, ACCT 2123 or concurrent enrollment, and MATH 1743 or MATH 1823 or MATH 1914. This course will be organized into four separate modules designed to provide students with a background in finance within the healthcare industry. Students will be impacted with the necessary knowledge of tools utilized in accounting and finance, financial management strategy and principles in the Healthcare industry. ( $F, S p$ )
HCB 3643 Healthcare Planning, Budgeting \& Accounting 3 Credit Hours Prerequisite: HCB 3613; student must be approved for degree candidacy by Price College; ACCT 2123 or concurrent enrollment; MATH 1743 or MATH 1823 or MATH 1914. A budget is an organization's operating plan expressed in monetary terms. It defines goals, outlines how operations are conducted and sets performance standards. Budgets provide a framework to set and pursue goals and evaluate the organization's performances. This course is designed to give students knowledge of different types of budgeting procedures and how to apply them to the healthcare industry. ( $\mathrm{F}, \mathrm{Sp}$ )

## HCB 3653 Decision Modeling for Healthcare 3 Credit Hours

Prerequisite: HCB 3613; student must be approved for degree candidacy by Price College; ACCT 2123 or concurrent enrollment; MATH 1743 or MATH 1823 or MATH 1914. This course will provide an overview of analytical techniques used to model complex healthcare problems to address strategic, tactical, and operational issues. We will address how decisions relating to forecasting,, resource allocation, project management, healthcare supply chain can be improved through the use of analytical models. (F, Sp)
HCB 3703 Applied Project in the Business of Healthcare 3 Credit Hours Prerequisite: HCB 3613; student must be approved for degree candidacy by Price College; ACCT 2123 or concurrent enrollment; MATH 1743 or MATH 1823 or MATH 1914. The purpose of this course is to introduce the student to the various nuances of health care organizations and provide an insight to the business problems healthcare organizations are likely to encounter. ( $F, S p$ )
HCB 3980 Honors Research
1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Provides an opportunity for the gifted Honors candidate to work at a special project in the student's field. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
HCB 3990 Independent Study 1-3 Credit Hours
1 to 3 hours. Prerequisite: permission of instructor and junior standing. May be repeated once with change of content. Independent study may be arranged to study a subject not available through regular course offerings. (F, Sp, Su)

HCB 4613 Ethical and Regulatory Issues in Healthcare 3 Credit Hours (Crosslisted with MKT 4613) Prerequisite: MKT 3013, HCB 3613 or MKT 3613, LS 3323 prerequisite or concurrent enrollment; student must be approved for degree candidacy by Price College. This course explores the complex moral, ethical and legal issues that continue to arise within the healthcare profession, providing an opportunity to apply concepts learned in previous course studies. Case studies and supplemental readings will augment the text in guiding the student to a better understanding of healthcare economics. ( $F, \mathrm{Sp}$ )
HCB 4623 Competitive and Economic Environment of

## Healthcare

## 3 Credit Hours

(Crosslisted with MKT 4623) Prerequisite: for Business Majors: Business Candidacy, MKT/HCB 3613; for Non-business Majors: ECON 1123 and MKT/HCB 3613. A range of new governmental regulatory interventions in the healthcare arena and changes to the economic environment are linked to uncertainty in the structure of health insurance; the contractual arrangements and relationships that exist between patients, doctors, and hospitals. Explore these issues in detail and case studies that will guide the student to a better understanding of healthcare economics. (F, Sp)
HCB G4633 Healthcare Supply Chain Management 3 Credit Hours (Crosslisted with SCM 4633) Prerequisite: MKT 3613 or HCB 3613; student must be approved for degree candidacy by Price College; ACCT 2123 or concurrent enrollment; MATH 1743 or MATH 1823 or MATH 1914. The healthcare supply chain is a critical core business component of the healthcare delivery system. The purpose of this course is to bring an overview of the healthcare supply chain through the elements of the supply chain, the operational aspects and the strategic aspects of the integration of the supply chain with the clinical delivery of care. (F, Sp)
HCB 4643 Lean Six-Sigma in Healthcare 3 Credit Hours
Prerequisite: Student must be approved for degree candidacy by Price College; Math 1743 or MATH 1823 or MATH 1914; ACCT 2123 or concurrent enrollment; MKT 3613 or HCB 3613. Lean Six Sigma in Healthcare is designed to provide a step-by-step guide to the DMAIC process, which will provide a valuable continuous improvement framework for students to address problems in the healthcare industry and other sectors of business. Students will be given a thorough overview of Lean Six Sigma. (Sp)
HCB 4970 Special Topics/Seminar 1-3 Credit Hours
1 to 3 hours. Prerequisite: Senior standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)
MKT 2013 Introduction to Marketing and Supply Chain
Management
3 Credit Hours
Prerequisite: Non-Majors only and sophomore standing. This course provides a foundational understanding of the intertwined disciplines of Marketing \& Supply Chain Management; two critical components of modern business operations. Not open to Business majors and may not count toward degree requirements for the BBA degree. (F, Sp)
MKT 2970 Special Topics/Seminar
1-3 Credit Hours
Special Topics. 1 to 3 hours. May be repeated; maximum credit nine hours. Special topics course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research, and field projects. (Irreg.)

## MKT 3013 Principles of Marketing and Supply Chain

## Management

3 Credit Hours
Prerequisite: ACCT 2123 or concurrent enrollment, MATH 1743 or MATH 1823 or MATH 1914, and student must be approved for degree candidacy by Price College. MKT 3013 provides a foundational understanding of the intertwined disciplines of Marketing \& Supply Chain Management; two critical components of modern business operations. Students will gain a familiarity with each field and the terminology, learn core concepts, strategies, and best practices of both areas, explore the interaction between the two fields. ( $F, \mathrm{Sp}, \mathrm{Su}$ )

## MKT 3053 Marketing Research

3 Credit Hours
Prerequisite: Students must be approved for degree candidacy by Price College; MKT 3013. Provides students with an understanding of the role of marketing research in organizations and how marketing research is implemented. Topics include: the value of primary and secondary data, methods for data collection and analysis, and how research errors can be avoided. The course will enhance students' ability to work in teams and effectively communicate facts and opinions to solve problems. (F, Sp)
MKT 3223 Logistics Management 3 Credit Hours
(Crosslisted with SCM 3223) Prerequisite: Student must be approved for degree candidacy by Price College, 3013 or concurrent enrollment. The physical supply and distribution function in business management, including channel selection, transportation, facility location and materials management; concentrates on the analytical and managerial methods necessary for the development and control of an integrated logistics system. (F, Sp)
MKT 3323 Consumer Behavior
3 Credit Hours
Prerequisite: Students must be approved for degree candidacy by Price College; MKT 3013 or concurrent enrollment; ACCT2123 or concurrent enrollment. This course is an introduction to the world of consumer (customer) behavior and their purchasing habits. The internal and external influences on the consumer are studied in the context of forming marketing strategies and tactics. Topics include cultural values, demographics, subcultures, reference groups, lifestyles, perception, learning, memory, motivation, personality, emotion, and attitudes. ( $F, S p$ )

## MKT 3343 Retailing Management

3 Credit Hours
Prerequisite: Student must be approved for degree candidacy by Price College, MKT 3013. An analytical approach to the management of retail institutions. Addresses strategic and operating level decision making related to delivery of products and services to consumers, focusing on each of the four dimensions of the marketing mix. Includes modules on electronic commerce and ethical responsibility. (F, Sp)

MKT 3413 New Product Development
3 Credit Hours
Prerequisite: Student must be approved for degree candidacy by Price College; MKT3013 \& MKT3053. Focuses on the development of ideas for new or established organizations, creating an environment conducive to innovation, recognizing business opportunities, assessing the market, customer and competitor situation. The development of these ideas leads to a feasibility analysis. Examines the development of a sales and distribution structure (including franchising, distributorship, and licensing and alliances), understanding segmentation, targeting, and niching. (F, Sp )

MKT 3440 Mentored Research Experience
3 Credit Hours
0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)
MKT 3513 Social Media Marketing
3 Credit Hours
Prerequisite: Student must be approved for degree candidacy by Price College; MKT3013 or concurrent enrollment; ACCT2123 or concurrent enrollment. The new sectors of Social Media and Digital Marketing are exploding in new technology, resulting in fundamental shifts in the way marketers communicate and interact with consumers. This course provides the practical knowledge and insights required to establish objectives and strategies, properly select the social media platforms to engage consumers and monitor the results of these efforts. (F, Sp)

MKT 3613 Healthcare Marketing and Administration 3 Credit Hours (Crosslisted with HCB 3613) Prerequisite for Business Majors: Business Candidacy \& MKT 3013 Prerequisite for Non-business Majors: MKT 2013 or 3013. Healthcare organizations must be prepared to shift their strategies in order to meet the increasing demands in this dynamic market. The purpose of this course is to apply the systems of marketing and administration to the problems of health care organizations and provide an insight to the business problems healthcare organizations are likely to encounter. (F, Sp)
MKT 3713 Fundamentals of Franchising
3 Credit Hours
(Crosslisted with FRAN 3713) Prerequisite: Business Candidacy and 3000 level core or concurrent enrollment. Provides a fundamental understanding of the franchising business model to showcase its unique differential advantages over alternative conventional systems of distribution. In particular, the course will focus on introducing students to operational issues, information flows, financial considerations and relationship processes involved in franchising. (F, Sp)

## MKT 3960 Honors Reading <br> 1-3 Credit Hours

Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Provides an opportunity for the gifted honors candidate to study materials not usually presented in regular courses. (F, Sp, Su)

MKT 3970 Honors Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Subjects covered vary. Deals with concepts not usually treated in regular courses. (Irreg.)
MKT 3980 Honors Research 1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Provides an opportunity for the gifted Honors candidate to work at a special project in the student's field. (F, Sp, Su)

MKT 3990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: permission of instructor and junior standing. May be repeated once with change of content. Independent study may be arranged to study a subject not available through regular course offerings. (F, Sp, Su)

MKT 4123 Professional Selling and Negotiations 3 Credit Hours
Prerequisite: Student must be approved for degree candidacy by Price College; МКТ3013. Addresses the field sales effort of the firm with emphasis on tactical analysis. It examines professional selling as the negotiation process that provides the link between firm and customer with a focus on both the oral and written communication involved. The thrust of the course is application and the view is first line and tactical. ( $F$, Sp )

## MKT 4143 Digital Marketing

3 Credit Hours
Prerequisite: Student must be approved for degree candidacy by Price College; MKT 3013. This course provides the practical knowledge and insights required to establish objectives and strategies, properly select the digital marketing platforms to engage consumers, monitor and measure the results of these efforts. Learn how to manage, analyze a successful digital marketing presence for an organization, techniques for gaining internal/external influences to achieve organizational goals that benefit society as a whole. ( $\mathrm{F}, \mathrm{Sp}$ )
MKT 4173 Marketing Analytics 3 Credit Hours
Prerequisite: Students must be approved for degree candidacy by Price College; MKT3013 and MKT3053. This will be an exciting, hands-on course which will give you a variety of tools to help you understand, manipulate and add value to data thereby allowing you and others to make better business decisions. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
MKT 4303 International Advertising 3 Credit Hours
(Crosslisted with JMC 4303) Prerequisite: JMC 3303 or special permission. May be repeated once with change of subject matter; maximum credit six hours. Designed to provide basic understanding of advertising and culture that applies to advertising in non-American locations. (Irreg.)
MKT G4333 Marketing Strategy and Policy 3 Credit Hours Prerequisite: Student must be approved for degree candidacy by Price College; MKT3013, MKT3053 \& MKT3323. Major topics addresses are strategic marketing, product management, pricing management and marketing ethics. (F, Sp)

## MKT 4523 International Marketing

3 Credit Hours
Prerequisite: Student must be approved for degree candidacy by Price College; МКТ3013. Study of marketing concepts and their international marketing implications, dealing with international market structure, framework for multinational marketing, strategic guidelines for global marketing strategies, pricing, promotion, product and distribution strategies for international markets. Special assignments include case studies, country analysis, article reviews and a term paper on topic of special interest related to international marketing. (F, Sp)
MKT 4613 Ethical and Regulatory Issues in Healthcare 3 Credit Hours (Crosslisted with HCB 4613) Prerequisite: MKT 3013, HCB 3613 or MKT 3613, LS 3323 or concurrent enrollment; student must be approved for degree candidacy by Price College. This course explores the complex moral, ethical and legal issues that continue to arise within the healthcare profession, providing an opportunity to apply concepts learned in previous course studies. Case studies and supplemental readings will augment the text in guiding the student to a better understanding of healthcare economics. (F, Sp)

MKT 4623 Competitive and Economic Environment of Healthcare

3 Credit Hours
(Crosslisted with HCB 4623) Prerequisite: for Business Majors: Business Candidacy, MKT/HCB 3613; for Non-business Majors: ECON 1123 and MKT/HCB 3613; Not open to Marketing majors. A range of governmental regulatory interventions in the healthcare arena and changes to the economic environment are linked to uncertainty in the structure of health insurance; the contractual arrangements and relationships that exist between patients, doctors, and hospitals. Explore these issues in detail and case studies that will guide the student to a better understanding of healthcare economics. (F, Sp)
MKT 4970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: Senior standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)
MKT 4990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: Senior standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)
MKT 5402 Marketing Management
2 Credit Hours
Prerequisite: graduate standing; departmental permission. Covers marketing concepts of use to MBAs. Topics include the use of management information systems, pricing, product offerings, promotion, distribution and consumer behavior, as well as marketing segmentation and strategic marketing. ( $\mathrm{F}, \mathrm{Sp}$ )
MKT 5960 Readings in Selected Fields of Marketing 1-4 Credit Hours 1 to 4 hours. Prerequisite: graduate standing and permission. May be repeated; maximum credit eight hours. Guided reading in selected fields of marketing; conferences with staff. Scope of reading and credit to be arranged on entry into course. The only passing grade given in this course is the neutral grade of S . $(\mathrm{F}, \mathrm{Sp}, \mathrm{Su})$
MKT 5970 Special Topics/Seminar 1-3 Credit Hours 1 to 3 hours. Prerequisite: Graduate standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

## MKT 5990 Independent Study 1-3 Credit Hours

1 to 3 hours. Prerequisite: Graduate standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)
MKT 6393 Core Theories in Marketing Research 3 Credit Hours Prerequisite: Graduate standing and departmental permission of the Director, Price College of Business graduate programs. This seminar is designed to provide students with a broad exposure to the major theories in marketing research, especially in the marketing strategy literature. The goal is to provide a working knowledge of the important substantive topics and conceptual ideas that underlie historic and ongoing marketing strategy research. (Irreg.)

MKT 6960 Directed Readings in Marketing 1-4 Credit Hours
1 to 4 hours. Prerequisite: graduate standing; permission of instructor, permission (Director, Price College of Business Graduate Programs). May be repeated as needed by Ph.D. students. Special reading programs are designed to enable graduate students (1) to extend their study to fields of marketing that are not covered in other courses and/or (2) to provide an opportunity for more extensive or intensive study of subjects covered in other courses. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
MKT 6970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit 12 hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or research and field projects. (Irreg.)

MKT 6980 Research for Doctoral Dissertation 2-16 Credit Hours 2 to 16 hours. Prerequisite: Graduate standing and permission of instructor; may be repeated. Directed research culminating in the completion of the doctoral dissertation. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
MKT 6990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)

## SCM 2113 Introduction to Logistics and Supply Chain

## Management

## 3 Credit Hours

Course is designed to familiarize and present business related topics to majors in other disciplines of study. Topics will vary and may encompass all divisions within the Price College of Business. (F, Sp)
SCM 3113 Principles of Supply Chain Management 3 Credit Hours Prerequisite: Student must be approved for business degree candidacy; ACCT 2123 or concurrent enrollment; MATH 1743 or MATH 1823 or MATH 1914. Firms of all kinds are attempting to improve their competitive positions by strategically managing the flow of raw materials, work-in-process inventories and finished goods. This course is built around the topic of managing the supply chain that plans, sources, makes and delivers an organization's good and/or services - from suppliers of raw materials through to the final customer. (F, Sp)
SCM 3123 Procurement and Strategic Sourcing 3 Credit Hours Prerequisite: Student must be approved for degree candidacy by Price College; SCM 3113; ACCT 2123 or concurrent enrollment; MATH 1743 or MATH 1823 or MATH 1914. Procurement and Strategic Sourcing addresses the processes that facilitate the structure, creation and management of value-added transaction and relationships between supplier and customer organizations in a channel, supply chain, and integrated value system context. (F)
SCM 3223 Logistics Management
3 Credit Hours
(Crosslisted with MKT 3223) Prerequisite: Student must be approved for degree candidacy by Price College, Marketing 3013 or concurrent enrollment. The physical supply and distribution function in business management, including channel selection, transportation, facility location and materials management; concentrates on the analytical and managerial methods necessary for the development and control of an integrated logistics system. (F, Sp)

SCM 3440 Mentored Research Experience
3 Credit Hours
0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)
SCM 3523 Production/Operations Management 3 Credit Hours
Prerequisite: Student must be approved for degree candidacy by Price College, SCM 3113 ; ACCT 2123 or concurrent enrollment; MATH 1743 or MATH 1823 or MATH 1914. A study of the principles and practices related to production and operations management including product decisions, process planning, project planning, work measurement, plant location, facilities layout, scheduling and associated analytical techniques. (F, Sp)

SCM 3960 Honors Reading 1-3 Credit Hours
1 to 3 hours. Prerequisite: Admission to Honors Program. May be repeated; maximum credit six hours. Consists of topics designated by the instructor in keeping with the student's major program. The topics will cover materials not usually presented in the regular courses. (F, Sp, Su)
SCM 3970 Honors Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Subjects covered vary. Deals with concepts not usually treated in regular courses. (Irreg.)
SCM 3980 Honors Research 1-3 Credit Hours
1 to 3 hours. Prerequisite: Admission to Honors Program. May be repeated; maximum credit six hours. Will provide an opportunity for the gifted Honors candidate to work at a special project in the student's field. (F, Sp, Su)
SCM 3990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: permission of instructor and junior standing. May be repeated once with change of content. Independent study may be arranged to study a subject not available through regular course offerings. (F, Sp, Su)

SCM G4003 Global Supply Chain Management
3 Credit Hours
Prerequisite: Student must be approved for degree candidacy by Price College; SCM 3113, SCM 3123, SCM 3223, SCM 3523; ACCT 2123 or concurrent enrollment; MATH 1743 or MATH 1823 or MATH 1914. Overview of current transportation and supply chain management practices, which is a dynamic process involving a constant flow of information, products, and funds between the supplier, manufacturer, wholesaler, retailer and the consumer. Includes a review of current case studies and provides managerial insights into what is considered the best practices. (F, Sp)
SCM G4013 Supply Chain Modeling and Decision Making3 Credit Hours Prerequisite: Student must be approved for degree candidacy by Price College; SCM 3113, SCM 3123, SCM 3223, SCM 3523; ACCT 2123 or concurrent enrollment; MATH 1743 or MATH 1823 or MATH 1914. This course involves the development and application of analytical techniques to model complex supply chains to address strategic, tactical and operational issues. We will address how decisions relating to forecasting, resource allocation, transportation, project management, inventory management and supply networks can be improved through the use of analytical models. (F)

SCM 4323 Applied Strategic Projects 3 Credit Hours
Prerequisite: Majors only; SCM 3123, SCM 3223 or MKT 3223, and SCM 3523; Student must be approved for degree candidacy by Price College. Supply chain management is of critical importance to businesses, households and the health and welfare of the country and the world. SCM 4323 will provide an overview of current supply chain management practices, which is a dynamic process that involves a constant flow of information, products, and funds between the supplier, manufacturer, wholesaler, retailer, and the consumer. (Sp)
SCM G4633 Healthcare Supply Chain Management 3 Credit Hours (Crosslisted with HCB 4633) Prerequisite: MKT 3613 or HCB 3613; student must be approved for degree candidacy by Price College; ACCT 2123 or concurrent enrollment; MATH 1743 or MATH 1823 or MATH 1914. The healthcare supply chain is a critical core business component of the healthcare delivery system. The purpose of this course is to bring an overview of the healthcare supply chain through the elements of the supply chain, the operational aspects and the strategic aspects of the integration of the supply chain with the clinical delivery of care. ( $\mathrm{F}, \mathrm{Sp}$ )

## SCM 4960 Directed Readings

1-4 Credit Hours
1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean. May be repeated; maximum credit four hours. Designed for upper-division students who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)
SCM 4970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: Senior standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)
SCM 4990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: Senior standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)
SCM 5402 Logistics, Distribution and Transportation Management 2 Credit

Hours
Prerequisite: Graduate Standing; departmental permission; and SCM 5502 or concurrent enrollment. This course explores logistics, distribution, and transportation management by leveraging current events and case studies. Topics include planning, controlling, implementing, forwarding, and reversing the flows of goods, services, and information. This is an integrated course meant to offer a framework to improve personal managerial skills and professionalism in supplies management practices through analyzing logistics activities. (Irreg.)
SCM 5422 Strategic Sourcing and Supply Management 2 Credit Hours Prerequisite: Graduate Standing; departmental permission; and SCM 5502 or concurrent enrollment. Recognized as one of the key areas in supply chain management, strategic sourcing and supply management plays a role in maximizing value in the integrated supply chain. We will discuss advanced concepts, analytical tools, strategic and practical issues, and solutions in strategic sourcing and supply management across multiple major industry sectors. (Irreg.)

SCM 5502 Fundamentals of Supply Chain
2 Credit Hours
Prerequisite: Graduate standing; departmental permission. This course dives into the fundamentals of supply chain and is divided into five sections, including (1) supply chain management: an overview, (2) supply issues in supply chain management, (3) operations issues in supply chain management (4) distribution issues in supply chain management, and (5) integration issues in supply chain management. (F)
SCM 5522 Planning and Operations Management 2 Credit Hours Prerequisite: Graduate standing; departmental permission. In this course, we will discuss advanced concepts of operations planning, operations functions, current operations management practices, analytical techniques related to operations management problems, and applying these concepts and techniques in practice. (Irreg.)
SCM 5562 Supply Chain Excellence in a Global World 2 Credit Hours Prerequisite: Graduate Standing; departmental permission; and SCM 5402 or concurrent enrollment; and SCM 5422 or concurrent enrollment; and SCM 5522 or concurrent enrollment. Supply Chain is truly global in today's world markets, and an up-to-date perspective is needed as the world is changing daily. Logistics is a key driver of globalization, and a facilitator of international trade and development with an ever search for excellence. We will focus on interdependent flows: materials, data, and resources worldwide, with a lens on quality and distinction. (Irreg.)
SCM 5572 Modeling, Analytics, and Decision Making 2 Credit Hours Prerequisite: Graduate standing; departmental permission; and SCM 5402 or concurrent enrollment; and SCM 5422 or concurrent enrollment; and SCM 5522 or concurrent enrollment. This course will provide an overview of analytical techniques used to model complex supply chain problems to address strategic, tactical, and operational issues. We will address how decisions relating to forecasting, resource allocation, transportation, project management, inventory management, and supply networks can be improved by analytical models. (Irreg.)
SCM 5582 Current Topics in Supply Chain Management 2 Credit Hours Prerequisite: Graduate standing; departmental permission; and SCM 5402 or concurrent enrollment; and SCM 5422 or concurrent enrollment; and SCM 5522 or concurrent enrollment. Supply chain management occurs in a world that is constantly changing. This course is designed to examine the current issues and challenges that face the supply chain managers and executives during the period that this course is taught. (Irreg.)
SCM 5602 Integrated Supply Chain Capstone 2 Credit Hours Prerequisite: Graduate standing; departmental permission; and SCM 5562 or concurrent enrollment; and SCM 5572 or concurrent enrollment; and SCM 5582 or concurrent enrollment. The student will gain an understanding of strategic sourcing and SCM and will develop critical thinking skills involving how the components of supply chain management work together to create value. The student will be introduced to decision analytic tools and their use in decision-making in SCM to develop an appreciation of the impact on the performance of the company. (Irreg.)

SCM 5960 Directed Readings

## 1-3 Credit Hours

1 to 3 hours. Prerequisite: graduate standing and permission of department. May be repeated; maximum credit twelve hours. Directed readings and/or literature reviews under the direction of a faculty member. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
SCM 5970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)
SCM 5990 Independent Study 1-3 Credit Hours

1 to 3 hours. Prerequisite: Graduate standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)

## Faculty

| Last Name | First/Middle Name | Middle init. | OU <br> Service start | Title(s), date(s) appointed | Degrees Earned, Schools, Dates Completed |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Abernathy | Amelia |  | 2022 | Instructor, Marketing and Supply Chain Management | MBA, University of South Carolina BBA, Supply Chain Management and International Business, University of Oklahoma |
| Bood | June |  | 2022 | Instructor, Marketng and Supply Chain Management | M.A., English and Creative Writing, Southern New Hampshire University B.S., Accounting, University of Virginia |
| Briney | Alicia |  | 2023 | Lecturer of Marketing, Marketing and Supply Chain Management | Ph.D., Marketing, University of North Texas MBA, Louisiana State University, Shreveport B.S., Marketing, Louisiana State University, Shreveport |
| Chen | Jiayu |  | 2023 | Assistant Professor, Marketing and Supply Chain Management | Ph.D., Management Science, The University of Texas at Dallas M.S., Applied Mathematics, University of IllinosChampaign B.S., Mathematics, B.S. Graphic Design, Syracuse University |
| Cravens | Sherad |  | 2019 | Instructor of Marketing and Supply Chain Management | BS Accounting, UNT; MBA Duke Univ |
| Davidson | Ronald | L | 2015 | Assistant Director of Marketing and Supply Chain Management, 2020; Executive Director, Center for the Business of Healthcare, 2017; Instructor of Marketing and Supply Chain Management, 2012 | MBA, Univ of Central Oklahoma, 1992 |


| Dogan | Orhan | Bahadr <br> (Baha) |  | Marketing and Supply Chain Management | Ph.D. in Marketing, Georgia State University, Atlanta, GA, 2021 M.S. in Marketing, Georgia State University, Atlanta, GA, 2013 B.S. in Business Administration, Marmara University, Istanbul, Turkey, 2011 Visiting, B.S. in Business Administration, SRH Berlin University of Applied Sciences, Berlin, Germany, 2010 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Gaddie | Kim |  |  | Lecturer of Marketing, Marketing and Supply Chain Management |  |
| Greco | Sam |  | 2018 | Instructor of Marketing and Supply Chain Management | BS Accounting |
| Jayaram | Jayanth <br> "Jay" |  |  | Professor, Marketing and Supply Chain Management | Ph.D. in supply chain management, Michigan State University; M.B.A., Central Michigan University; B.S., University of Bombay |
| Li | Mei |  |  | Associate Professor of Supply Chain Management | Ph.D., Arizona State University |
| Malhotr | Pankhuri |  |  | Assistant Professor of Marketing, Marketing and Supply Chain Management | postdoctoral Scholar in Quantitative Marketing, <br> Northwestern University, 2022; PhD in Information Systems, University of Illinois at Chicago, 2020; MSc in <br> Business Analytics, University of Manchester, 2015; BSc Physics Honors, Miranda House, 2013 |
| Muralidhar | Krishnamurty |  | 2015 | Professor of <br> Marketing and Supply <br> Chain Management, <br> 2015; Baldwin <br> Chair of Business <br> Administration, 2018 | PhD, Texas A\&M Univ, 1986; MBA, Sam Houston State Univ, 1982; BS, Univ of Madras, 1977 |
| Petersen | Kenneth | J | 2018 | Professor of Marketing and Supply Chain Management, 2018; Helen Robson Walton Chair, 2018 | PhD, Michigan State Univ; MBA, Univ of Akron; BS, Univ of Alabama |
| Poularikas | Natasha |  | 2019 | Instructor, Marketing and Supply Chain Management | BS Mathematics, MBA Vandeerbulity Univ, Director-Master of Science in Supply Chain Management |
| Schmidt | Jeffrey | B | 2005 | Associate Director, <br> Associate Professor <br> of Marketing and <br> Supply Chain <br> Management, 2005 | PhD, Michigan State Univ, 1996; MBA, Oakland Univ, 2991; BS, Michigan State Univ, 1988 |


| Steyn | Derik |  |  | Lecturer, Marketing and Supply Chain Management | Ph.D., Potchefstroom University, South Africa; Masters of Commerce (Cum Laude), Potchefstroom University, South Africa; Honors Bachelors of Commerce, Potchefstroom University, South Africa |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Vargo | Stephen | L. |  | Professor of Market SysSiegfried Centennial Chair of Marketing and Supply Chain Management; Professor of Market Systems | Ph.D., Marketing, The University of Oklahoma; M.S., Social Psychology, The University of Oklahoma; B.A., Psychology, The University of Oklahoma |
| Wang | Qiong |  | 2011 | Associate Professor of Marketing and Supply Chain Management, 2018 | PhD, Univ of Florida, 2006; MA, Wuhan Univ, 1999; BA, Wuhan Univ, 1996 |

## Healthcare Business, B.B.A.

Minimum Total Credit Hours: 120
Minimum Upper-Division Hours: 40
Overall GPA - Combined and OU: 2.50
Major GPA - Combined and OU: 2.50
Upper-Division Businesses Courses GPA - Combined and OU: 2.50

## Program Code: B498

## This program has changes pending Regents approval for 2024-25. These pending changes are not reflected here.

To enroll in upper-division business courses, students must be certified for degree candidacy and meet all prerequisites.

A maximum of six hours of transfer work will apply toward the major.

## Major Requirements

Any 3000- or 4000 -level HCB course will count in the Healthcare Business major grade point average unless otherwise specified, including additional hours taken to fulfill electives.

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Required Courses | 15 |  |
| HCB 3613 | Healthcare Marketing and Administration |  |
| HCB 4613 | Ethical and Regulatory Issues in Healthcare |  |
| HCB 4623 | Competitive and Economic Environment of <br> Healthcare |  |
| HCB 4633 | Healthcare Supply Chain Management |  |
| HCB 3703 | Applied Project in the Business of <br> Healthcare |  |
| Major Elective |  | $\mathbf{3}$ |

Choose 3 credit hours from the following:

| HCB 3633 | Healthcare Finance |
| :--- | :--- |
| HCB 3643 |  <br> Accounting |
| HCB 3653 | Decision Modeling for Healthcare |

Total Credit Hours 18

Required Courses

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: | :--- |
| Core Requirements |  |  |
| LS 3323 | Legal Environment of Business |  |
| MGT 3013 | Principles of Organization and <br> Management |  |
| MKT 3013 | Principles of Marketing and Supply Chain <br> Management |  |
| B AD 4013 | Business Strategy and Policy (Capstone - <br> to be taken last semester of senior year) |  |
| Additional Requirements |  |  |
| B AD 2091 | Career Readiness I-Transitioning to the <br> Workplace |  |
| B AD 3091 | Career Readiness II-Advancing in the <br> Workplace | $\mathbf{8}$ |
| FIN 2303 | Business Finance |  |
| ENT 2113 | Innovation \& Entrepreneurship |  |
| Total Credit Hours | $\mathbf{2 0}$ |  |
| Requires completion of all other business core courses prior to |  |  |

## General Education and College Requirements

Courses taken to fulfill the University General Education Requirements must be chosen from the approved General Education course list published at http://www.ou.edu/gened/courses.

## UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS

| Code | Title | Credit <br> Hours |
| :---: | :---: | :---: |
| Core Area I: Symbolic and Oral Communication |  | 6-16 |
| ENGL 1113 | Principles of English Composition (Core I) |  |
| $\begin{array}{r} \text { ENGL } 1213 \\ \text { or EXPO } \end{array}$ | Principles of English Composition (Core I) 1 IExpository Writing |  |
| Language (C years of high education | I) - Students who have completed two chool language are exempt from this general irement (0-10 hours). |  |
| Mathematics |  | 6 |
| MATH 1643 | Functions and Modeling for Business, Life and Social Sciences (Core I) ${ }^{1}$ |  |
| MATH 1743 | Calculus I for Business, Life and Social Sciences (Core I) ${ }^{1}$ |  |

Core Area II: Natural Science
7

Natural Sciences - Choose two courses taken from the biological and/or physical sciences. The two courses must be from different disciplines and at least one course must include a laboratory component (Core II)

| Core Area III: Social Science ${ }^{2}$ |  |  |
| :---: | :---: | :---: |
| P SC 1113 | American Federal Government (Core III) | 3 |
| Core Area IV: Arts and Humanities |  | 12 |
| HIST 1483 or HIST 149 | United States to 1865 (Core IV) 3United States, 1865 to the Present |  |
| PHIL 1273 | Introduction to Business Ethics (Core IV: Western Culture) |  |
| Choose one course in each of the following fields (Core IV): |  |  |
| Artistic Forms ${ }^{3}$ |  |  |
| World Culture ${ }^{3}$ |  |  |
| Core Area V: First-Year Experience |  | 3 |
| Choose one course |  |  |
| Basic Business ${ }^{4}$ |  | 22 |
| ACCT 2113 | Fundamental Financial Accounting ${ }^{5}$ |  |
| ACCT 2123 | Fundamental Managerial Accounting |  |
| B AD 1001 | Personal Computing Productivity Tools |  |
| B C 2813 | Strategic Communication for Business Professionals ${ }^{5}$ |  |
| ECON 1113 | Principles of Economics-Macro (Core III-SS) <br> 2, 5 |  |
| ECON 1123 | Principles of Economics-Micro (Core III-SS) 2, 5 |  |
| ECON 2843 | Elements of Statistics (Core I-M) ${ }^{5}$ |  |
| MIS 2113 | Computer-Based Information Systems ${ }^{5}$ |  |

Total Credit Hours
59-69
${ }^{1}$ Substitute: MATH 1523 for MATH 1643; MATH 1823 or MATH 1914 for MA FieqonqbSemester
${ }^{2}$ Two courses, 6 hours, of Core III Social Science are required and one course must be P SC 1113 . ECON 1113 or ECON 1123 will meet the other 3 hours of this requirement.
${ }^{3}$ It is recommended students take either World Culture or Artistic Forms at the 3000/4000 level to fulfill the university requirement of one upperdivision course outside the major from the approved University-Wide General Education. It may also be satisfied in the upper-division or free elective categories.
${ }^{4}$ College requirement: courses are part of the degree candidacy application process that students must complete to earn degree candidacy and begin upper-division business courses.
${ }^{5}$ Minimum grade of C required.

## Free Electives

Electives to bring total applicable hours to the minimum total required for the degree including a minimum of 40 upper-division hours. B AD 2110, B AD 2113, MGT 2013, and MKT 2013 will not count for credit toward a BBA.

## Additional Requirements

1. Candidates for the B.B.A. degree must complete their last 30 hours as resident students in Price College. However, if a candidate has completed the last 51 hours as a resident student at the University of Oklahoma, 9 of the last 60 hours may be taken at another university or by correspondence from OU. Students must take a minimum of 24
hours of their upper-division business courses in residence for the Bachelor of Business Administration degree.
2. Pass/No Pass will not be accepted for any upper-division Business or General Education courses or any specifically required courses.
3. Sixty hours, excluding physical education activity courses, must be taken at a baccalaureate degree-granting institution.
4. A combined maximum of 8 hours of general military experience and flight instruction courses will count toward the required hours.

## Suggested Semester Plan of Study

Additional hours may be required if remedial math or language is required. Please see an academic counselor to develop a plan of study.

3 Apply for permission to take upper division business courses the semester in which you will complete the prebusiness courses ${ }^{1}$.

This major normally requires three semesters of study beyond the business core requirements.

## Freshman

| First Semester |  | Credit |
| :---: | :---: | :---: |
|  |  | Hours |
| ECON 1113 | Principles of Economics-Macro (Core III) ${ }^{1}$ | 3 |
| ENGL 1113 | Principles of English Composition (Core I) | 3 |
| HIST 1483 or HIST 1493 | United States to 1865 or United States, 1865 to the Present | 3 |
| MATH 1643 | Functions and Modeling for Business, Life and Social Sciences | 3 |
| First-Year Experience (Core V) ${ }^{2}$ |  | 3 |
|  | Credit Hours | 15 |


| B AD 1001 | Personal Computing Productivity Tools | 1 |
| :---: | :---: | :---: |
| ECON 1123 | Principles of Economics-Micro (Core III) ${ }^{1}$ | 3 |
| $\begin{aligned} & \text { ENGL } 1213 \\ & \text { or EXPO } 1213 \end{aligned}$ | Principles of English Composition (Core I) or Expository Writing | 3 |
| MATH 1743 | Calculus I for Business, Life and Social Sciences (Core I) | 3 |
| MIS 2113 | Computer-Based Information Systems ${ }^{1}$ | 3 |
| Natural Science (Core II) ${ }^{2}$ |  | 3 |

## Sophomore

First Semester

| ACCT 2113 | Fundamental Financial Accounting ${ }^{1}$ | 3 |
| :--- | :--- | :---: |
| B AD 2091 | Career Readiness I-Transitioning to the <br> Workplace | 1 |
| B C 2813 | Strategic Communication for Business <br> Professionals | 3 |
| ECON 2843 | Elements of Statistics $^{1}$ | 3 |
| P SC 1113 | American Federal Government (Core III) | 3 |
| Free Elective |  | $\mathbf{1}$ |
|  | Credit Hours | $\mathbf{1 4}$ |

## Second Semester

ACCT 2123 Fundamental Managerial Accounting

| PHIL 1273 | Introduction to Business Ethics (Core IV: Western Culture) | 3 |
| :---: | :---: | :---: |
| ENT 2113 | Innovation \& Entrepreneurship | 3 |
| Artistic Forms (Core IV) ${ }^{2}$ |  | 3 |
| Natural Science with lab (2nd discipline) (Core II) ${ }^{2}$ |  | 4 |
|  | Credit Hours | 16 |
| Junior |  |  |
| First Semester |  |  |
| FIN 2303 | Business Finance | 3 |
| LS 3323 | Legal Environment of Business | 3 |
| MGT 3013 | Principles of Organization and Management | 3 |
| MKT 3013 | Principles of Marketing and Supply Chain Management | 3 |
| B AD 3091 | Career Readiness II-Advancing in the Workplace | 1 |
| Free Elective |  | 3 |
|  | Credit Hours | 16 |


| Second Semester |  |
| :--- | ---: |
| HCB $3613 \quad$ Healthcare Marketing and Administration | 3 |
| World Culture (Core IV) ${ }^{2}$ | 3 |
| Upper-Division General Education Elective ${ }^{3}$ | 3 |
| Free Elective | 3 |
| Free Elective | 1 |
|  | Credit Hours |

## Senior

| First Semester |  | 3 |
| :--- | :--- | ---: |
| HCB 3703 | Applied Project in the Business of <br> Healthcare | 3 |
| HCB 4623 | Competitive and Economic Environment of <br> Healthcare | 3 |
| Healthcare Elective | 3 |  |
| Free Elective | 3 |  |
| Free Elective |  | 3 |
|  | Credit Hours | 15 |


| Second Semester |  |  |
| :--- | :--- | ---: |
| B AD 4013 | Business Strategy and Policy | 3 |
| HCB 4613 | Ethical and Regulatory Issues in Healthcare | 3 |
| HCB 4633 | Healthcare Supply Chain Management | 3 |
| Free Upper-Division Elective | 3 |  |
| Free Upper-Division Elective | 3 |  |
|  | Credit Hours | $\mathbf{1 5}$ |
| Total Credit Hours | $\mathbf{1 2 0}$ |  |

${ }^{1}$ Prebusiness course.
${ }^{2}$ University-Wide General Education course, refer to online listing.
${ }^{3}$ May be free elective if artistic form, World culture, or science is 3000 - or 4000-level.

## Marketing, B.B.A.

Minimum Total Credit Hours: 120
Minimum Upper-Division Hours: 40

## Overall GPA - Combined and OU: 2.50 <br> Major GPA - Combined and OU: 2.50 <br> Upper-Division Businesses Courses GPA - Combined and OU: 2.50 <br> Program Code: B665 <br> This program has changes pending Regents approval for 2024-25. These pending changes are not reflected here.

To enroll in upper-division business courses, students must be certified for degree candidacy and meet all prerequisites.

A maximum of six hours of transfer work will apply toward the major.

## Major Requirements

Any 3000- or 4000-level MKT course will count in the Marketing major grade point average unless otherwise specified, including additional hours taken to fulfill electives.


## Internship or Study Abroad

Students must complete an internship, study abroad, or 9 hours of coursework with an international focus that is preapproved by the MKT/SCM Division.

Total Credit Hours
${ }^{1}$ Requires completion of all other business core courses prior to enrollment and permission from Price Academic Advising Services.

## Advertising Track (12 hours)

Students who choose this track need override permission from the Gaylord College of Journalism and Mass Communication to enroll in the JMC courses.


## General Education and College Requirements

Courses taken to fulfill the University General Education Requirements must be chosen from the approved General Education course list published at http://www.ou.edu/gened/courses.

## UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS

Code Title Credit

Core Area I: Symbolic and Oral Communication 6-16
ENGL 1113 Principles of English Composition (Core I) ENGL 1213 Principles of English Composition (Core I) or EXPO 121 Expository Writing
Language (Core I) - Students who have completed two years of high school language are exempt from this general education requirement (0-10 hours).

Mathematics

| MATH 1643 | Functions and Modeling for Business, Life <br> and Social Sciences (Core I) |
| :--- | :--- |
| MATH 1743 | Calculus I for Business, Life and Social <br> Sciences (Core I) |

## Core Area II: Natural Science

Natural Sciences - Choose two courses taken from the biological and/or physical sciences. The two courses must be from different disciplines and at least one course must include a laboratory component (Core II)


## Free Electives

Electives to bring total applicable hours to the minimum total required for the degree including a minimum of 40 upper-division hours. Free electives can be used to fulfill the additional major, minor or concentration requirement. B AD 2110, B AD 2113, MGT 2013, and MKT 2013 will not count for credit toward a BBA.

## Additional Requirements

1. Candidates for the B.B.A. degree must complete their last 30 hours as resident students in Price College. However, if a candidate has completed the last 51 hours as a resident student at the University of Oklahoma, 9 of the last 60 hours may be taken at another university or by correspondence from OU. Students must take a minimum of 24 hours of their upper-division business courses in residence for the Bachelor of Business Administration degree.
2. Pass/No Pass will not be accepted for any upper-division Business or General Education courses or any specifically required courses.
3. Sixty hours, excluding physical education activity courses, must be taken at a baccalaureate degree-granting institution.
4. A combined maximum of 8 hours of general military experience and flight instruction courses will count toward the required hours.

## Suggested Semester Plan of Study

Additional hours may be required if remedial math or language is required. Please see an academic counselor to develop a plan of study.

Apply for permission to take upper division business courses the semester in which you will complete the prebusiness courses ${ }^{1}$.

This major normally requires three semesters of study beyond the business core requirements.

| Freshman |  |  |
| :---: | :---: | :---: |
| First Semester |  | Credit |
|  |  | Hours |
| ECON 1113 | Principles of Economics-Macro (Core III) ${ }^{1}$ | 3 |
| ENGL 1113 | Principles of English Composition (Core I) | 3 |
| HIST 1483 or HIST 1493 | United States to 1865 (Core IV) or United States, 1865 to the Present | 3 |
| MATH 1643 | Functions and Modeling for Business, Life and Social Sciences | 3 |
| First-Year Experience (Core V) ${ }^{2}$ |  | 3 |

## Second Semester

| B AD 1001 | Personal Computing Productivity Tools | 1 |
| :---: | :---: | :---: |
| ECON 1123 | Principles of Economics-Micro (Core III) ${ }^{1}$ | 3 |
| ENGL 1213 or EXPO 1213 | Principles of English Composition (Core I) or Expository Writing | 3 |
| MATH 1743 | Calculus I for Business, Life and Social Sciences (Core I) | 3 |
| MIS 2113 | Computer-Based Information Systems ${ }^{1}$ | 3 |
| Natural Science (Core II) ${ }^{2}$ |  | 3 |
|  | Credit Hours | 16 |

## Sophomore

First Semester

| ACCT 2113 | Fundamental Financial Accounting ${ }^{1}$ | 3 |
| :---: | :---: | :---: |
| B AD 2091 | Career Readiness I-Transitioning to the Workplace | 1 |
| ECON 2843 | Elements of Statistics ${ }^{1}$ | 3 |
| P SC 1113 | American Federal Government (Core III) | 3 |
| B C 2813 | Strategic Communication for Business Professionals ${ }^{1}$ | 3 |
| Free Elective |  | 3 |
|  | Credit Hours | 16 |

## Second Semester

| ACCT 2123 | Fundamental Managerial Accounting | 3 |
| :--- | :--- | :--- |
| ENT 2113 | Innovation \& Entrepreneurship | 3 |
| FIN 2303 | Business Finance | 3 |


| PHIL 1273 | Introduction to Business Ethics (Core IV: Western Culture) | 3 |
| :---: | :---: | :---: |
| Natural Science with lab (2nd discipline) (Core II) ${ }^{2}$ |  | 4 |
|  | Credit Hours | 16 |
| Junior |  |  |
| First Semester |  |  |
| Major, Minor or Concentration Course |  | 3 |
| B AD 3091 | Career Readiness II-Advancing in the Workplace | 1 |
| L S 3323 | Legal Environment of Business | 3 |
| MGT 3013 | Principles of Organization and Management | 3 |
| MKT 3013 | Principles of Marketing and Supply Chain Management | 3 |
| General Education World Culture (Core IV) |  | 3 |
|  | Credit Hours | 16 |
| Second Semester |  |  |
| MKT 3053 | Marketing Research | 3 |
| MKT 3323 | Consumer Behavior | 3 |
| 3000/4000 | MKT elective | 3 |
| Upper -Divis | eneral Education Elective ${ }^{3}$ | 3 |
| Major, Mino | ncentration Course | 3 |
|  | Credit Hours | 15 |
| Summer |  |  |
| Suggested summer semester pre-approved internship or study abroad experience |  |  |
|  | Credit Hours | 0 |
| Senior |  |  |
| First Semester |  |  |
| Major, Minor or Concentration Course |  | 3 |
| MKT 4123 | Professional Selling and Negotiations | 3 |
| General Education Artistic Forms (Core IV) ${ }^{2}$ |  | 3 |
| Free Elective |  | 3 |
| Free Elective |  | 2 |
|  | Credit Hours | 14 |
| Second Semester |  |  |
| B AD 4013 | Business Strategy and Policy | 3 |
| MKT 4333 | Marketing Strategy and Policy | 3 |
| Major, Minor or Concentration Course |  | 3 |
| 3000/4000 level MKT elective |  | 3 |
|  | Credit Hours | 12 |
| Total Credit Hours |  | 120 |
| 1 Prebusine <br> 2 University <br> ${ }^{3}$ May be fr 4000-leve | urse. <br> General Education course, refer to online I ctive if artistic form, World culture, or scien | $0 \text { - or }$ |

## Supply Chain Management, B.B.A.

Minimum Total Credit Hours: 120<br>Minimum Upper-Division Hours: 40

Major GPA - Combined and OU: 2.50
Upper-Division Businesses Courses GPA - Combined and OU: 2.50
Program Code: B857

## This program has changes pending Regents approval for 2024-25. These pending changes are not reflected here.

To enroll in upper-division business courses, students must be certified for degree candidacy and meet all prerequisites.

A maximum of six hours of transfer work will apply toward the major.

## Major Requirements

Any 3000- or 4000-level SCM course will count in the Supply Chain Management major grade point average unless otherwise specified.

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| SCM 3113 | Principles of Supply Chain Management | 3 |
| SCM 3123 | Procurement and Strategic Sourcing | 3 |
| SCM 3223 | Logistics Management | 3 |
| SCM 3523 | Production/Operations Management | 3 |
| SCM 4003 | Global Supply Chain Management | 3 |
| SCM 4323 | Applied Strategic Projects | 3 |
| SCM 4013 | Supply Chain Modeling and Decision | 3 |
|  | Making |  |


| Total Credit Hours | 21 |
| :--- | :--- |

Required Courses

| Code | Title | Credit |
| :---: | :---: | :---: |
| Core Requirements 12 |  |  |
| L S 3323 | Legal Environment of Business |  |
| MGT 3013 | Principles of Organization and Management |  |
| MKT 3013 | Principles of Marketing and Supply Chain Management |  |
| B AD 4013 | Business Strategy and Policy (Capstone to be taken last semester of senior year) ${ }^{1}$ |  |
| Additional Requirements |  |  |
| B AD 2091 | Career Readiness I-Transitioning to the Workplace |  |
| B AD 3091 | Career Readiness II-Advancing in the Workplace |  |
| ENT 2113 | Innovation \& Entrepreneurship |  |
| FIN 2303 | Business Finance |  |
| Internship or study abroad to be pre-approved by the MKT/ SCM Division |  |  |
| Total Credit Hours 20 |  |  |
| ${ }^{1}$ Requires com enrollment a | etion of all other business core courses prio permission from Price Academic Advising |  |

## General Education and College Requirements

Courses taken to fulfill the University General Education Requirements must be chosen from the approved General Education course list published at http://www.ou.edu/gened/courses.


Core Area II: Natural Science 7
Natural Sciences - Choose two courses taken from the biological and/or physical sciences. The two courses must be from different disciplines and at least one course must include a laboratory component (Core II)
Core Area III: Social Science ${ }^{2}$
P SC 1113 American Federal Government (Core III) 3
Core Area IV: Arts and Humanities 12

HIST 1483 United States to 1865 (Core IV)
or HIST 1493United States, 1865 to the Present
PHIL 1273 Introduction to Business Ethics (Core IV: Western Culture)
Choose one course in each of the following fields (Core IV):
Artistic Forms ${ }^{3}$
World Culture ${ }^{3}$
Core Area V: First-Year Experience 3
Choose one course
Basic Business ${ }^{4} \quad 22$
ACCT 2113 Fundamental Financial Accounting ${ }^{5}$
ACCT 2123 Fundamental Managerial Accounting
B AD 1001 Personal Computing Productivity Tools
B C 2813 Strategic Communication for Business Professionals ${ }^{5}$
ECON 1113 Principles of Economics-Macro (Core III-SS) 2, 5

ECON $1123 \underset{2,5}{\text { Principles of Economics-Micro (Core III-SS) }}$
ECON 2843 Elements of Statistics (Core I-M) ${ }^{5}$
MIS 2113 Computer-Based Information Systems ${ }^{5}$
Total Credit Hours
59-69
1 Substitute: MATH 1523 for MATH 1643; MATH 1823 or MATH 1914 for MATH 174
2 Two courses, 6 hours, of Core III Social Science are required and one course must be P SC 1113 . ECON 1113 or ECON 1123 will meet the other 3 hours of this requirement.
${ }^{3}$ It is recommended students take either World Culture or Artistic Forms at the 3000/4000 level to fulfill the university requirement of one upperdivision course outside the major from the approved University-Wide General Education. It may also be satisfied in the upper-division or free elective categories.
4 College requirement: courses are part of the degree candidacy application process that students must complete to earn degree candidacy and begin upper-division business courses.
${ }^{5}$ Minimum grade of $C$ required.

## Free Electives

Electives to bring total applicable hours to the minimum total required for the degree including a minimum of 40 upper-division hours. The following is suggested: MKT 4123. The following courses will not count for credit toward a BBA: B AD 2110, B AD 2113, MGT 2013, and MKT 2013.

## Additional Requirements

1. Candidates for the B.B.A. degree must complete their last 30 hours as resident students in Price College. However, if a candidate has completed the last 51 hours as a resident student at the University of Oklahoma, 9 of the last 60 hours may be taken at another university or by correspondence from OU. Students must take a minimum of 24 hours of their upper-division business courses in residence for the Bachelor of Business Administration degree.
2. Pass/No Pass will not be accepted for any upper-division Business or General Education courses or any specifically required courses.
3. Sixty hours, excluding physical education activity courses, must be taken at a baccalaureate degree-granting institution.
4. A combined maximum of 8 hours of general military experience and flight instruction courses will count toward the required hours.

## Suggested Semester Plan of Study

Additional hours may be required if remedial math or language is required. Please see an academic counselor to develop a plan of study.

Apply for permission to take upper division business courses the semester in which you will complete the prebusiness courses ${ }^{1}$.

This major normally requires three semesters of study beyond the business core requirements.

## Freshman

| First Semester |  | Credit |
| :---: | :---: | :---: |
|  |  | Hours |
| ECON 1113 | Principles of Economics-Macro (Core III) ${ }^{1}$ | 3 |
| ENGL 1113 | Principles of English Composition (Core I) | 3 |
| HIST 1483 or HIST 1493 | United States to 1865 (Core IV) or United States, 1865 to the Present | 3 |
| MATH 1643 | Functions and Modeling for Business, Life and Social Sciences | 3 |
| First-Year Experience (Core V) ${ }^{2}$ |  | 3 |
|  | Credit Hours | 15 |
| Second Semester |  |  |
| B AD 1001 | Personal Computing Productivity Tools | 1 |
| ECON 1123 | Principles of Economics-Micro (Core III) ${ }^{1}$ | 3 |
| ENGL 1213 | Principles of English Composition (Core I) | 3 |


| MATH 1743 | Calculus I for Business, Life and Social Sciences (Core I) | 3 |
| :---: | :---: | :---: |
| MIS 2113 | Computer-Based Information Systems ${ }^{1}$ | 3 |
| Natural Science (Core II) ${ }^{2}$ |  | 3 |
|  | Credit Hours | 16 |
| Sophomore |  |  |
| First Semester |  |  |
| ACCT 2113 | Fundamental Financial Accounting ${ }^{1}$ | 3 |
| B AD 2091 | Career Readiness I-Transitioning to the Workplace | 1 |
| ECON 2843 | Elements of Statistics ${ }^{1}$ | 3 |
| P SC 1113 | American Federal Government (Core III) | 3 |
| B C 2813 | Strategic Communication for Business Professionals ${ }^{1}$ | 3 |
| Free Elective |  | 2 |
|  | Credit Hours | 15 |
| Second Semester |  |  |
| ACCT 2123 | Fundamental Managerial Accounting | 3 |
| ENT 2113 | Innovation \& Entrepreneurship | 3 |
| FIN 2303 | Business Finance | 3 |
| PHIL 1273 | Introduction to Business Ethics (Core IV: Western Culture) | 3 |
| Natural Science with lab (2nd discipline) (Core II) ${ }^{2}$ |  | 4 |
|  | Credit Hours | 16 |
| Junior |  |  |
| First Semester |  |  |
| B AD 3091 | Career Readiness II-Advancing in the Workplace | 1 |
| MGT 3013 | Principles of Organization and Management | 3 |
| MKT 3013 | Principles of Marketing and Supply Chain Management | 3 |
| SCM 3113 | Principles of Supply Chain Management | 3 |
| General Educ | Artistic Forms (Core IV) ${ }^{2}$ | 3 |
| Free Elective |  | 3 |
|  | Credit Hours | 16 |
| Second Semester |  |  |
| L S 3323 | Legal Environment of Business | 3 |
| SCM 3123 | Procurement and Strategic Sourcing | 3 |
| SCM 3223 | Logistics Management | 3 |
| SCM 3523 | Production/Operations Management | 3 |
| General Education World Culture (Core IV) ${ }^{2}$ |  | 3 |
|  | Credit Hours | 15 |
| Summer |  |  |
| Suggested summer semester pre-approved internship or study abroad experience |  |  |
|  | Credit Hours | 0 |
| Senior |  |  |
| First Semester |  |  |
| SCM 4003 | Global Supply Chain Management | 3 |
| SCM 4013 | Supply Chain Modeling and Decision Making | 3 |
| Upper-Division | neral Education Elective ${ }^{3}$ | 3 |


| Free Elective | 3 |
| :---: | :---: |
| Free Elective | 3 |
| Credit Hours | 15 |
| Second Semester |  |
| B AD 4013 Business Strategy and Policy (Capstone) | 3 |
| SCM 4323 Applied Strategic Projects | 3 |
| Free Upper -Division Elective | 3 |
| Free Elective | 3 |
| Credit Hours | 12 |
| Total Credit Hours | 120 |
| 1 Prebusiness course. |  |
| ${ }^{2}$ University-Wide General Education course, refer to online I <br> ${ }^{3}$ May be free elective if artistic form, World culture, or scien 4000-level. |  |

## Digital Marketing for Business Majors, Minor

## Minimum Total Credit Hours: 15

## Program Code: N292

The requirements for a minor must be completed concurrently with the major degree requirements.

No minor may be added by completing courses after receiving the bachelor's degree.

Students must complete prerequisites for all courses
Students must complete at least nine (9) minor hours in residence at the University of Oklahoma.

Courses for the minor may not be taken Pass/No Pass.
No single course may be used to satisfy a major requirement and a minor requirement. A course may be used, however, to satisfy both a major support requirement and a minor requirement.

- The minor is only available to undergraduate students with a declared major within Price College of Business.
- Students must achieve a minimum 2.50 GPA (OU and overall) in the minor coursework.


## Required Courses

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| MKT 3513 | Social Media Marketing ${ }^{1}$ | 3 |
| MKT 3013 | Principles of Marketing and Supply Chain <br> Management | 3 |
| MKT 4143 | Digital Marketing | 3 |
| MKT 3053 | Marketing Research |  |

${ }^{1}$ For Marketing majors only - Choose six hours of MKT courses (excluding MKT 3013) not already applied towards major requirements to substitute for MKT 3513 and MKT 3053.

If the minor is officially declared, successfully completed, and noted on the graduation application, the student's transcript will so indicate at the time the bachelor's degree is posted.

## Digital Marketing for Non-Business Majors, Minor

Minimum Total Credit Hours: 15
Program Code: N293
The requirements for a minor must be completed concurrently with the major degree requirements.

No minor may be added by completing courses after receiving the bachelor's degree.

Students accepted in the minor will be given permission to enroll in the upper-division credit hours of the minor.

Students must have a 3.0 retention combined grade point average or better at the time of application.

The Marketing Review Committee will evaluate applicants. Acceptance into the program will be based on academic performance in courses, activities, awards, work experience, and other measures indicative of future performance.

Students must complete at least nine (9) minor hours in residence at the University of Oklahoma.

Courses for the minor may not be taken Pass/No Pass.
Minimum OU and Combined GPA of 2.50 in courses completed in the minor.

No single course may be used to satisfy a major requirement and a minor requirement. A course may be used, however, to satisfy both a major support requirement and a minor requirement.

- The minor is only available to undergraduate students with a declared major outside Price College of Business.
- Students must achieve a minimum 2.50 GPA (OU and overall) in the minor coursework.


## Required Courses

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| MKT 2013 | Introduction to Marketing and Supply Chain | 3 |
|  | Management |  |
| MKT 3053 | Marketing Research | 3 |
| MKT 3513 | Social Media Marketing | 3 |
| MKT 4143 | Digital Marketing | 3 |
| MKT 4173 | Marketing Analytics | 3 |
| Total Credit Hours | $\mathbf{1 5}$ |  |

If the minor is officially declared, successfully completed, and noted on the graduation application, the student's transcript will so indicate at the time the bachelor's degree is posted.

## Franchising, Minor

Minimum Total Credit Hours: 15

## Program Code: N440

The requirements for a minor must be completed concurrently with the major degree requirements.

No minor may be added by completing courses after receiving the bachelor's degree.

Students must complete prerequisites for all courses.
Students must complete at least nine (9) minor hours in residence at the University of Oklahoma.

Courses for the minor may not be taken Pass/No Pass.
No single course may be used to satisfy a major requirement and a minor requirement. A course may be used, however, to satisfy both a major support requirement and a minor requirement.

- The minor is only available to undergraduate students with a declared major within Price College of Business.
- Students must achieve a minimum 2.50 GPA (OU and overall) in the minor coursework.


## Required Courses

| Code | Title | Credit |
| :--- | :--- | :--- |
|  | Hours |  |


| Prerequisite |  | 3 |
| :--- | :--- | :--- |
| MKT 3013 | Principles of Marketing and Supply Chain <br> Management |  |


| Required |
| :--- |
| FRAN 3343 |

FRAN 3713 3

FRAN 3723
FRAN 4713

## Recommended

The following are recommended:

| MKT 3323 | Consumer Behavior |
| :--- | :--- |
| MKT 4123 | Professional Selling and Negotiations |

Total Credit Hours

If the minor is officially declared, successfully completed, and noted on the graduation application, the student's transcript will so indicate at the time the bachelor's degree is posted.

## Healthcare Business, Minor

Minimum Total Credit Hours: 15
Program Code: N499

The requirements for a minor must be completed concurrently with the major degree requirements.

No minor may be added by completing courses after receiving the bachelor's degree.

Students must complete prerequisites for all courses.
Students must complete at least nine (9) minor hours in residence at the University of Oklahoma.

Courses for the minor may not be taken Pass/No Pass.
No single course may be used to satisfy a major requirement and a minor requirement. A course may be used, however, to satisfy both a major support requirement and a minor requirement.

- The minor is only available to undergraduate students with a declared major within Price College of Business.
- Students must achieve a minimum 2.50 GPA (OU and overall) in the minor coursework.


## Required Courses

| Code | Title | Credit <br> Hours |
| :---: | :---: | :---: |
| Prerequisite |  |  |
| MKT 3013 | Principles of Marketing and Supply Chain Management | 3 |
| Required |  |  |
| HCB 3613 | Healthcare Marketing and Administration | 3 |
| HCB 4613 | Ethical and Regulatory Issues in Healthcare | 3 |
| HCB 4623 | Competitive and Economic Environment of Healthcare | 3 |
| HCB 4633 | Healthcare Supply Chain Management | 3 |
| Total Credi |  | 15 |
| If the minor is officially declared, successfully completed, and noted on the graduation application, the student's transcript will so indicate at the time the bachelor's degree is posted. |  |  |
| Marketing, Mínor |  |  |
| Minimum Total Credit Hours: 15 |  |  |
| Program Code: N665 |  |  |
| The requirements for a minor must be completed concurrently with the major degree requirements. |  |  |
| No minor may be added by completing courses after receiving the bachelor's degree. |  |  |
| Students must complete prerequisites for all courses. |  |  |
| A minimum of nine (9) hours must be completed at OU. |  |  |
| Courses for the minor may not be taken Pass/No Pass. |  |  |
| No single requiremen support req | may be used to satisfy a major requirement and urse may be used, however, to satisfy both a nt and a minor requirement. | minor or |

- The minor is only available to undergraduate students with a declared major within Price College of Business.
- Students must achieve a minimum 2.50 GPA (OU and overall) in the minor coursework.

Required Course

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Prerequisite |  |  |
| MKT 3013 | Principles of Marketing and Supply Chain <br> Management | 3 |
| Required |  | 3 |
| MKT 3053 | Marketing Research | 3 |
| MKT 3323 | Consumer Behavior | 3 |
| MKT 4123 | Professional Selling and Negotiations |  |
| Electives |  | 3 |
| Choose 3 hours of upper-division MKT (3000-4000) | $\mathbf{1 5}$ |  |
| Total Credit Hours |  |  |

If the minor is officially declared, successfully completed, and noted on the graduation application, the student's transcript will so indicate at the time the bachelor's degree is posted.

## Marketing for Non-Business Majors, Minor

Minimum Total Credit Hours: 15

## Program Code: N668

The requirements for a minor must be completed concurrently with the major degree requirements.

No minor may be added by completing courses after receiving the bachelor's degree.

Students accepted in the minor will be given permission to enroll in the upper-division credit hours of the minor.

Students must have a 3.0 retention combined grade point average or better at the time of application. The Marketing Review Committee will evaluate applicants. Acceptance into the program will be based on academic performance in courses, activities, awards, work experience, and other measures indicative of future performance.

Students must complete at least nine (9) minor hours in residence at the University of Oklahoma.

Courses for the minor may not be taken Pass/No Pass.
No single course may be used to satisfy a major requirement and a minor requirement. A course may be used, however, to satisfy both a major support requirement and a minor requirement.

- The minor is only available to undergraduate students with a declared outside Price College of Business.
- Students must achieve a minimum 2.50 GPA (OU and overall) in the minor coursework.


## Required Courses



## Supply Chain Management for Business Majors, Minor

Minimum Total Credit Hours: 15
Program Code: N857
The requirements for a minor must be completed concurrently with the major degree requirements.

No minor may be added by completing courses after receiving the bachelor's degree.

Students must complete prerequisites for all courses
Students must complete at least nine (9) minor hours in residence at the University of Oklahoma.

Courses for the minor may not be taken Pass/No Pass.
No single course may be used to satisfy a major requirement and a minor requirement. A course may be used, however, to satisfy both a major support requirement and a minor requirement.

- The minor is only available to undergraduate students with a declared major within Price College of Business.
- Students must achieve a minimum 2.50 GPA (OU and overall) in the minor coursework.


## Required Courses

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| SCM 3113 | Principles of Supply Chain Management | 3 |
| SCM 3123 | Procurement and Strategic Sourcing | 3 |
| SCM 3223 | Logistics Management | 3 |
| SCM 3523 | Production/Operations Management | 3 |
| Plus choose one of the following: | 3 |  |
| SCM 4003 | Global Supply Chain Management |  |


| SCM 4013 | Supply Chain Modeling and Decision <br> Making |
| :--- | :--- |
| SCM 4633 | Healthcare Supply Chain Management |

## Total Credit Hours

If the minor is officially declared, successfully completed, and noted on the graduation application, the student's transcript will so indicate at the time the bachelor's degree is posted.

## Supply Chain Management for NonBusiness Majors, Minor

Minimum Total Credit Hours: 15
Program Code: N858
The requirements for a minor must be completed concurrently with the major degree requirements.

No minor may be added by completing courses after receiving the bachelor's degree.

Students accepted in the minor will be given permission to enroll in the upper-division credit hours of the minor.

Students must have a 3.0 retention combined grade point average or better at the time of application.

Students must complete at least nine (9) minor hours in residence at the University of Oklahoma.

Courses for the minor may not be taken Pass/No Pass.
Minimum OU and Combined GPA of 2.50 in courses completed in the minor.

No single course may be used to satisfy a major requirement and a minor requirement. A course may be used, however, to satisfy both a major support requirement and a minor requirement.

- The minor is only available to undergraduate students with a declared major outside Price College of Business.
- Students must achieve a minimum 2.50 GPA (OU and overall) in the minor coursework.


## Required Courses

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| SCM 2113 | Introduction to Logistics and Supply Chain <br> Management | 3 |
| SCM 3123 | Procurement and Strategic Sourcing | 3 |
| SCM 3223 | Logistics Management | 3 |
| SCM 3523 | Production/Operations Management | 3 |
| Plus choose one of the following: | 3 |  |


| SCM 4003 | Global Supply Chain Management |  |
| :---: | :--- | :--- |
| SCM 4013 | Supply Chain Modeling and Decision <br> Making |  |
| SCM 4633 | Healthcare Supply Chain Management | $\mathbf{1 5}$ |
| Total Credit Hours | $\mathbf{1 5}$ |  |

Total Credit Hours

If the minor is officially declared, successfully completed, and noted on the graduation application, the student's transcript will so indicate at the time the bachelor's degree is posted.

# Marketing, B.B.A./Management of Information and Technology, M.S. 

Minimum Total Credit Hours: 140-152
Minimum Upper-Division Hours: 40
Overall GPA - Combined and OU: 3.00
Major GPA - Combined and OU: 3.00
Upper-Division Businesses Courses GPA - Combined and OU: 3.00

## Program Code: A665/F657 Q434

## This program has changes pending Regents approval for 2024-25. These pending changes are not reflected here.

To enroll in upper-division business courses, students must be certified for degree candidacy and meet all prerequisites.

A maximum of six hours of transfer work will apply toward the major.

## Undergraduate Major Requirements

Any 3000- or 4000-level MKT course will count in the Marketing major grade point average unless otherwise specified, including additional hours taken to fulfill electives.

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Required Courses |  | 12 |
| MKT 3053 | Marketing Research |  |
| MKT 3323 | Consumer Behavior |  |
| MKT 4123 | Professional Selling and Negotiations |  |
| MKT 4333 | Marketing Strategy and Policy |  |
| Major Electives | $\mathbf{6}$ |  |
| Choose six hours of upper-division MKT courses |  |  |
| Total Credit Hours | $\mathbf{1 8}$ |  |

## Required Courses

| Code | Title | Credit <br> Hours |
| :---: | :--- | ---: |
| Core Requirements | 12 |  |
| L S 3323 | Legal Environment of Business |  |
| MGT 3013 | Principles of Organization and <br> Management |  |
| MKT 3013 | Principles of Marketing and Supply Chain <br> Management |  |
| B AD 4013 | Business Strategy and Policy ${ }^{1}$ |  |

Marketing Majors must complete one of the following (12 hours):

Supply Chain Management Minor, Digital Marketing Minor, additional major or minor in Price College of Business, or Advertising Track ${ }^{2}$

| B AD 2091 | Career Readiness I-Transitioning to the <br> Workplace |
| :--- | :--- |
| B AD 3091 Career Readiness II-Advancing in the <br> Workplace <br> ENT 2113 Innovation \& Entrepreneurship |  |
| FIN 2303 | Business Finance | | Internship or Study Abroad |
| :--- |
| Students must complete an internship, study abroad, or |
| 9 hours of course work with an international focus that is |
| pre-approved by the MKT/SCM Division |

## Total Credit Hours

1 Requires completion of all other business core courses prior to enrollment and permission from Price Academic Advising Services.
2 Additional major met by MS MIT in accelerated degree program.

## Graduate Requirements

Up to 12 hours of graduate level MIT or MIS courses from a list maintained by the department and approved by the graduate liaison can be shared between BBA and MS-MIT programs.

| Code Title | Credit <br> Hours |
| :---: | :---: |
| Required | 2 |
| MIT 5602 Management Information Systems |  |
| MIT Electives | 10-13 |
| Choose 10 to 13 credit hours of graduate level MIT courses as necessary to reach 32 hours for the degree |  |
| Graduate Electives | 13 |
| Choose 13 credit hours of graduate-level Business, MIT electives or other electives as approved by MIT Division |  |
| Choose one of the following options: | 0-3 |
| Non-Thesis Option (coursework-only degree; exam is not required) |  |
| MIT 5980 Research for Master's Thesis (Thesis Option; 3 credit hours) |  |
| Choose 4 credit hours of additional required coursework from a list maintained by the department and approved by the Graduate Liaison | 4 |
| Total Credit Hours | 32 |

## Advertising Track (12 hours)

Students who choose this track need override permission from the Gaylord College of Journalism and Mass Communication to enroll in the JMC courses.

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| JMC 3303 | Introduction to Advertising | 3 |
| JMC 3333 | Advertising Research | 3 |
| Choose two of the following: | 6 |  |
| JMC 3333 | Advertising Research |  |
| JMC 4223 | Digital Advertising |  |
| JMC 4323 | Advertising Account Planning |  |
| JMC 4333 | Contemporary Problems in Advertising |  |

Choose one of the following (this course will fulfill an upper division elective):

| MKT 3343 | Retailing Management |
| :--- | :--- |
| MKT 3413 | New Product Development |
| MKT 3613 | Healthcare Marketing and Administration |
| MKT 3713 | Fundamentals of Franchising |

## General Education and College Requirements

Courses taken to fulfill the University General Education Requirements must be chosen from the approved General Education course list published at http://www.ou.edu/gened/courses.

## UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS

| Code Title | Credit |
| :--- | :--- |
|  | Hours |

Core Area I: Symbolic and Oral Communication

ENGL 1113 Principles of English Composition (Core I)
ENGL 1213 Principles of English Composition (Core I)
or EXPO 121 Fxpository Writing
Language (Core I) - Students who have completed two years of high school language are exempt from this general education requirement (0-10 hours).

Mathematics
MATH 1643 Functions and Modeling for Business, Life and Social Sciences (Core I) ${ }^{1}$

MATH 1743 Calculus I for Business, Life and Social Sciences (Core I) ${ }^{1}$

## Core Area II: Natural Science

Natural Sciences - Choose two courses taken from the biological and/or physical sciences. The two courses must be from different disciplines and at least one course must include a laboratory component (Core II)

## Core Area III: Social Science ${ }^{2}$

P SC 1113 American Federal Government (Core III) 3
Core Area IV: Arts and Humanities 12
HIST $1483 \quad$ United States to 1865 (Core IV) or HIST 1493United States, 1865 to the Present
PHIL 1273 Introduction to Business Ethics (Core IV: Western Culture)
Choose one course in each of the following fields (Core IV):
Artistic Forms ${ }^{3}$
World Culture ${ }^{3}$
Core Area V: First-Year Experience
Choose one course ${ }^{1}$
Basic Business ${ }^{4}$
ACCT 2113 Fundamental Financial Accounting ${ }^{5}$
ACCT 2123 Fundamental Managerial Accounting
B AD 1001 Personal Computing Productivity Tools
B C 2813 Strategic Communication for Business Professionals ${ }^{5}$

ECON 1113 Principles of Economics-Macro (Core III-SS) 2, 5

ECON 1123 Principles of Economics-Micro (Core III-SS) 2, 5

| 843 |  |
| :---: | :---: |
| MIS 2113 | Computer-Based Information Systems ${ }^{5}$ |
| Total Credit H |  |
| ${ }^{1}$ Substitute: MATH 1523 for MATH 1643; MATH 1823 or MATH 1914 for 2 Two courses, 6 hours, of Core III Social Science are required and one course must be P SC 1113 . ECON 1113 or ECON 1123 will meet the other 3 hours of this requirement. |  |
|  |  |
| ${ }^{3}$ It is recommended students take either World Culture or Artistic Forms at the $3000 / 4000$ level to fulfill the university requirement of one upperdivision course outside the major from the approved University-Wide General Education. It may also be satisfied in the upper-division or free elective categories. |  |
| ${ }^{4}$ College requirement: courses are part of the degree candidacy application process that students must complete to earn degree candidacy and begin upper-division business courses. <br> ${ }^{5}$ Minimum grade of C required. |  |

## Free Electives

Electives to bring total applicable hours to the minimum total required for the degree including a minimum of 40 upper-division hours. B AD 2110, B AD 2113, MKT 2013 and MGT 2013 will not count for credit toward a BBA.

## Additional Requirements

1. Pass/No Pass will not be accepted for any Business or General Education courses or any specifically required courses.
2. Students must complete the GMAT exam with a score of 500 or greater.
3. Comprehensive written exam required at end of program.
4. Sixty hours, excluding physical education activity courses, must be taken at a baccalaureate degree-granting institution.
5. A combined maximum of 8 hours of general military experience and flight instruction courses will count toward the required hours.

## Suggested Semester Plan of Study

Additional hours may be required if remedial math or language is required. Please see an academic counselor to develop a plan of study.

Apply for permission to take upper division business courses the semester in which you will complete the prebusiness courses ${ }^{1}$.

During the 2nd semester, third year.

- Take GMAT
- Interview for internship
- Apply for admission to Master's program

| Freshman |  |  |
| :---: | :---: | :---: |
| First Semester |  | Credit |
|  |  | Hours |
| ECON 1113 | Principles of Economics-Macro (Core III) ${ }^{1}$ | 3 |
| ENGL 1113 | Principles of English Composition (Core I) | 3 |
| ENT 2113 | Innovation \& Entrepreneurship | 3 |
| MATH 1643 | Functions and Modeling for Business, Life and Social Sciences | 3 |
| First-Year Experience (Core V) ${ }^{2}$ |  | 3 |
|  | Credit Hours | 15 |

## Second Semester

| B AD 1001 | Personal Computing Productivity Tools | 1 |
| :--- | :--- | :--- |
| ECON 1123 | Principles of Economics-Micro (Core III) |  |
| ENGL 1213 | Principles of English Composition (Core I) | 3 |

ATH drigespo 1213 or Expository Writing

| MATH 1743 | Calculus I for Business, Life and Social <br> Sciences (Core I) | 3 |
| :--- | :--- | ---: |
| MIS 2113 | Computer-Based Information Systems $^{1}$ | 3 |
| Natural Science (Core II) ${ }^{2}$ | 3 |  |
| Credit Hours | $\mathbf{1 6}$ |  |

## Sophomore

First Semester

| ACCT 2113 | Fundamental Financial Accounting ${ }^{1}$ | 3 |
| :--- | :--- | ---: |
| B AD 2091 | Career Readiness I-Transitioning to the <br> Workplace | 1 |
| B C 2813 | Strategic Communication for Business <br> Professionals ${ }^{1}$ | 3 |
| ECON 2843 | Elements of Statistics $^{1}$ | 3 |
| P SC 1113 | American Federal Government (Core III) $^{\text {World Culture (Core IV) }}{ }^{2}$ | 3 |
|  | Credit Hours | 3 |

## Second Semester

| ACCT 2123 | Fundamental Managerial Accounting | 3 |
| :--- | :--- | :--- |
| FIN 2303 | Business Finance | 3 |
| PHIL 1273 | Introduction to Business Ethics (Core IV: | 3 |
|  | Western Culture) |  |

Natural Science with lab (2nd discipline) (Core II) ${ }^{2} 4$
Artistic Forms (Core IV) ${ }^{2} 3$

Credit Hours 16
Junior
First Semester
Upper-division general education elective ${ }^{3}$ 3

| LS 3323 | Legal Environment of Business | 3 |
| :--- | :--- | ---: |
| MGT 3013 | Principles of Organization and <br> Management | 3 |
| MKT 3013 | Principles of Marketing and Supply Chain <br> Management | 3 |
| B AD 3091 | Career Readiness II-Advancing in the <br> Workplace | 1 |
|  | Credit Hours | $\mathbf{1 3}$ |

## Second Semester

| MKT 3053 | Marketing Research | 3 |
| :--- | :--- | ---: |
| MKT 3323 | Consumer Behavior | 3 |
| MKT 3513 | Social Media Marketing | 3 |
| Free Elective |  | 5 |
|  | Credit Hours | $\mathbf{1 4}$ |

## Summer

Suggested summer semester pre-approved internship or study abroad experience

Credit Hours

## Senior

First Semester
3000/4000 level MKT major elective


## Marketing, B.B.A./Supply Chain Management (Online), M.S.

Minimum Total Credit Hours: 140
Minimum Upper-Division Hours: 40

Overall GPA - Combined and OU: 3.00
Major GPA - Combined and OU: 3.00
Upper-Division Businesses Courses GPA - Combined and OU: 3.00
Program Code: A667/F861 Q434

## This program has changes pending Regents approval for 2024-25. These pending changes are not reflected here.

To enroll in upper-division business courses, students must be certified for degree candidacy and meet all prerequisites.

A maximum of six hours of transfer work will apply toward the major.

## Undergraduate Major Requirements

Any 3000- or 4000-level MKT course will count in the Marketing major grade point average unless otherwise specified, including additional hours taken to fulfill electives.

| Code T | Title | Credit <br> Hours |
| :---: | :---: | :---: |
| Required Courses |  | 12 |
| MKT 3053 M | Marketing Research |  |
| MKT 3323 C | Consumer Behavior |  |
| MKT 4123 P | Professional Selling and Negotiations |  |
| MKT 4333 M | Marketing Strategy and Policy |  |
| Major Electives |  | 6 |
| Choose six hours of upper-division MKT courses |  |  |
| Total Credit Hours |  | 18 |
| Required Courses |  |  |
| Code T | Title | Credit <br> Hours |
| Core Requirements |  | 12 |
| LS 3323 L | Legal Environment of Business |  |
| MGT 3013 | Principles of Organization and Management |  |
| MKT 3013 | Principles of Marketing and Supply Chain Management |  |
| B AD 4013 | Business Strategy and Policy (Capstone to be taken last semester of senior year) |  |


| Marketing Majors must complete one of the following: | 12-30 |
| :--- | ---: |
| Supply Chain Management for Business Majors, Minor |  |
| (p. 988) |  |
| Healthcare, Minor (p. 987) |  |
| Digital Marketing for Business Majors, Minor (p. 986) |  |
| Advertising Track |  |
| Additional Price College of Business major or minor | $\mathbf{8}$ |

B AD 2091 Career Readiness I-Transitioning to the Workplace
B AD 3091 Career Readiness II-Advancing in the Workplace
ENT 2113 Innovation \& Entrepreneurship
FIN 2303 Business Finance
Internship or Study Abroad

Students must complete an internship, study abroad, or 9 hours of coursework with an international focus that is preapproved by the MKT/SCM Division.

## Total Credit Hours

${ }^{1}$ Requires completion of all other business core courses prior to enrollment and permission from Price Academic Advising Services.

## Graduate Requirements

Up to 12 hours of graduate level courses from a list maintained by the department and approved by the graduate liaison can be shared between BBA and MS-SCM programs.

| Code | Title | Credit |
| :---: | :---: | :---: |
|  |  | Hours |
| Core Requirements |  |  |
| SCM 5502 | Fundamentals of Supply Chain ${ }^{1}$ | 2 |
| SCM 5602 | Integrated Supply Chain Capstone | 2 |
| Graduate Electives |  |  |
| MKT 4333 | Marketing Strategy and Policy ${ }^{1}$ | 3 |
| SCM 4013 | Supply Chain Modeling and Decision Making ${ }^{1}$ | 3 |
| Choose 22 the division | hours from a list of courses maintained by 00) ${ }^{1}$ | 22 |

${ }^{1}$ Shared hours. Total hours may increase if fewer hours are shared.

## General Education and College Requirements

Courses taken to fulfill the University General Education Requirements must be chosen from the approved General Education course list published at http://www.ou.edu/gened/courses.

## UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS

Code Title Credit
Core Area I: Symbolic and Oral Communication

ENGL 1113 Principles of English Composition (Core I)
ENGL 1213 Principles of English Composition (Core I)
or EXPO 121 Expository Writing
Language (Core I) - Students who have completed two years of high school language are exempt from this general education requirement ( $0-10$ hours).
Mathematics
MATH 1643 Functions and Modeling for Business, Life and Social Sciences (Core I) ${ }^{1}$
MATH 1743 Calculus I for Business, Life and Social Sciences (Core I) ${ }^{1}$
Core Area II: Natural Science
Natural Sciences - Choose two courses taken from the biological and/or physical sciences. The two courses must be from different disciplines and at least one course must include a laboratory component (Core II)

## Core Area III: Social Science ${ }^{2}$

P SC 1113
American Federal Government (Core III)

${ }^{1}$ Substitute: MATH 1523 for MATH 1643; MATH 1823 or MATH 1914 for MATH 174
${ }^{2}$ Two courses, 6 hours, of Core III Social Science are required and one course must be P SC 1113 . ECON 1113 or ECON 1123 will meet the other 3 hours of this requirement.
${ }^{3}$ It is recommended students take either World Culture or Artistic Forms at the $3000 / 4000$ level to fulfill the university requirement of one upperdivision course outside the major from the approved University-Wide General Education. It may also be satisfied in the upper-division or free elective categories.
${ }^{4}$ College requirement: courses are part of the degree candidacy application process that students must complete to earn degree candidacy and begin upper-division business courses.
${ }^{5}$ Minimum grade of C required.

## Free Electives

Electives to bring total applicable hours to the minimum total required for the degree including a minimum of 40 upper-division hours. B AD 2110, B AD 2113, MKT 2013 and MGT 2013 will not count for credit toward a BBA.

## Additional Requirements

1. Pass/No Pass will not be accepted for any Business or General Education courses or any specifically required courses.
2. Students must complete the GMAT exam with a score of 500 or greater.
3. Comprehensive written exam required at end of program.
4. Sixty hours, excluding physical education activity courses, must be taken at a baccalaureate degree-granting institution.
5. A combined maximum of 8 hours of general military experience and flight instruction courses will count toward the required hours.

## Suggested Semester Plan of Study

Additional hours may be required if remedial math or language is required. Please see an academic counselor to develop a plan of study.

Apply for permission to take upper division business courses the semester in which you will complete the prebusiness courses ${ }^{1}$.

During the 2nd semester, third year.

- Take GMAT
- Interview for internship
- Apply for admission to Master's program
$\left.\begin{array}{llr}\begin{array}{l}\text { Freshman } \\ \text { First Semester }\end{array} & & \begin{array}{r}\text { Credit } \\ \text { Hours }\end{array} \\ \text { ECON 1113 } & \text { Principles of Economics-Macro (Core III) }\end{array}\right)$


## Second Semester

| B AD 1001 | Personal Computing Productivity Tools | 1 |
| :--- | :--- | :--- |
| ECON 1123 | Principles of Economics-Micro (Core III) $^{1}$ | 3 |
| ENGL 1213 | Principles of English Composition (Core I) | 3 |

$\begin{array}{ccc}\text { or EXPO } 1213 & \text { or Expository Writing } & \\ \text { MATH } 1743 & \text { Calculus I for Business, Life and Social }\end{array}$

|  | Sciences (Core I) | 3 |
| :--- | :--- | :--- |
| MIS 2113 | Computer-Based Information Systems ${ }^{1}$ | 3 |


| Natural Science (Core II) ${ }^{2}$ | 3 |
| :---: | ---: |
| Credit Hours | 16 |

## Sophomore

First Semester

| ACCT 2113 | Fundamental Financial Accounting ${ }^{1}$ | 3 |
| :---: | :---: | :---: |
| B AD 2091 | Career Readiness I-Transitioning to the Workplace | 1 |
| ECON 2843 | Elements of Statistics ${ }^{1}$ | 3 |
| P SC 1113 | American Federal Government (Core III) | 3 |
| B C 2813 | Strategic Communication for Business Professionals ${ }^{1}$ | 3 |
| Artistic Forms (Core IV) ${ }^{2}$ |  | 3 |
|  | Credit Hours | 16 |


| Second Semester |  |  |
| :--- | :--- | ---: |
| ACCT 2123 | Fundamental Managerial Accounting | 3 |
| ENT 2113 | Innovation \& Entrepreneurship | 3 |
| FIN 2303 | Business Finance | 3 |
| PHIL 1273 | Introduction to Business Ethics (Core IV: | 3 |
|  | Western Culture) |  |
| Natural Science with lab (2nd discipline) (Core II) |  |  |

Junior
First Semester

| B AD 3091 | Career Readiness II-Advancing in the <br> Workplace | 1 |
| :--- | :--- | :---: |
| MGT 3013 | Principles of Organization and <br> Management | 3 |
| MKT 3013 | Principles of Marketing and Supply Chain <br> Management | 3 |
| L S 3323 | Legal Environment of Business $^{\text {World Culture (Core IV) }}{ }^{2}$ | 3 |
| Major, Minor, or Concentration Course (SCM 3113 <br> encouraged) | 3 |  |
|  | Credit Hours | $\mathbf{3}$ |


| Second Semester |  |
| :---: | :---: |
| MKT 3323 Consumer Behavior | 3 |
| MKT 3053 Marketing Research | 3 |
| Major, Minor, or Concentration Course (SCM 3123 encouraged) | 3 |
| Major, Minor, or Concentration Course (SCM 3223 encouraged) | 3 |
| 3000/4000 level MKT major elective | 3 |
| Credit Hours | 15 |

## Summer

Suggested summer semester pre-approved internship or
study abroad experience
Credit Hours
0

## Senior

First Semester

| MKT 4123 | Professional Selling and Negotiations | 3 |
| :--- | :--- | :--- |
| SCM 4013 | Supply Chain Modeling and Decision <br> Making |  |
| SCM 5502 | Fundamentals of Supply Chain ${ }^{4}$ | 3 |

Major, Minor, or Concentration Course (SCM 35233
encouraged)
Graduate Elective 4
Free Elective ${ }^{3} \quad 2$

Second Semester
B AD 4013 Business Strategy and Policy 3
MKT $4333 \quad 3$
3000/4000 level MKT major elective 3
Graduate Elective ${ }^{4} 2$
Graduate Elective 2

Graduate Elective 2
Credit Hours 15
Fifth Year
First Semester
Graduate Elective 2
Graduate Elective 2
Graduate Elective 2

| Graduate Elective | 2 |
| :---: | :---: |
| Credit Hours | 8 |


| Second Semester |  |  |  |  |
| :--- | ---: | :---: | :---: | :---: |
| SCM $5602 \quad$ Integrated Supply Chain Capstone | 2 |  |  |  |
| Graduate Elective | 2 |  |  |  |
| Graduate Elective | 2 |  |  |  |
| Graduate Elective | 2 |  |  |  |
| Credit Hours |  |  |  | $\mathbf{8}$ |
| Total Credit Hours | $\mathbf{1 4 0}$ |  |  |  |

1 Prebusiness course.
2 University-Wide General Education course, refer to online listing. Students are encouraged to take their Artistic Forms or World Culture at the 3000 - or 4000 -level.
${ }^{3}$ Must be a 3000- or 4000-level General Education course if student has not completed a University-Wide General Education course at the 3000or 4000-level.
4 These courses are dual-counted, fulfilling requirements for both the undergraduate degree and the graduate degree.

## Supply Chain Management, B.B.A./ Management of Information and Technology, M.S.

Minimum Total Credit Hours: 140-152
Minimum Upper-Division Hours: 40
Overall GPA - Combined and OU: 3.00
Major GPA - Combined and OU: 3.00
Upper-Division Businesses Courses GPA - Combined and OU: 3.00

## Program Code: A857/F657 Q632

## This program has changes pending Regents approval for 2024-25. These pending changes are not reflected here.

To enroll in upper-division business courses, students must be certified for degree candidacy and meet all prerequisites.

A maximum of six hours of transfer work will apply toward the major.

## Undergraduate Major Requirements

Any 3000- or 4000-level SCM course will count in the Supply Chain Management major grade point average unless otherwise specified.

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| SCM 3113 | Principles of Supply Chain Management | 3 |
| SCM 3123 | Procurement and Strategic Sourcing | 3 |
| SCM 3223 | Logistics Management | 3 |
| SCM 3523 | Production/Operations Management | 3 |
| SCM 4003 | Global Supply Chain Management | 3 |
| SCM 4013 | Supply Chain Modeling and Decision | 3 |
| SCM 4323 | Making | $\mathbf{3}$ |
| Total Credit Hours | $\mathbf{2 1}$ |  |


| Required Courses |  |  |
| :--- | :--- | ---: |
| Code | Title | Credit <br> Hours |
| Core Requirements | 12 |  |
| L S 3323 | Legal Environment of Business |  |
| MGT 3013 | Principles of Organization and <br> Management |  |
| MKT 3013 | Principles of Marketing and Supply Chain <br> Management |  |
| B AD 4013 | Business Strategy and Policy 1 |  |
| MKT 4123 | Professional Selling and Negotiations |  |

Additional Requirements 8

B AD 2091 Career Readiness I-Transitioning to the Workplace
B AD 3091 Career Readiness II-Advancing in the Workplace
ENT 2113 Innovation \& Entrepreneurship
FIN 2303 Business Finance
Internship or study abroad to be pre-approved by the MKT/ SCM Division

Total Credit Hours
1 Requires completion of all other business core courses prior to enrollment and permission from Price Academic Advising Services.

## Graduate Requirements

Up to 12 hours of graduate level MIT or MIS courses from a list maintained by the department and approved by the graduate liaison can be shared between BBA and MS-MIT programs.

| Code Title | Credit Hours |
| :---: | :---: |
| Required | 2 |
| MIT 5602 Management Information Systems |  |
| MIT Electives | 10-13 |
| Choose 10 to 13 credit hours of graduate level MIT courses as necessary to reach 32 hours for the degree |  |
| Graduate Electives | 13 |
| Choose 13 credit hours of graduate-level Business, MIT electives or other electives as approved by MIT Division |  |
| Choose one of the following options: | 0-3 |
| Non-Thesis Option (coursework-only degree; exam is not required) |  |
| MIT 5980 Research for Master's Thesis (Thesis Option; 3 credit hours) |  |
| Choose 4 credit hours of additional required coursework from a list maintained by the department and approved by the Graduate Liaison | 4 |
| Total Credit Hours | 32 |

## General Education and College Requirements

Courses taken to fulfill the University General Education Requirements must be chosen from the approved General Education course list published at http://www.ou.edu/gened/courses.

| UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS |  |  |
| :---: | :---: | :---: |
| Code | Title | Credit |
|  |  | Hours |
| Core Area I: Symbolic and Oral Communication |  | 6-16 |
| ENGL 1113 | Principles of English Composition (Core I) |  |
| ENGL 1213 <br> or EXPO | Principles of English Composition (Core I) 1 IIxpository Writing |  |
| Language (Core I) - Students who have completed two years of high school language are exempt from this general education requirement ( $0-10$ hours). |  |  |
| Mathematics |  | 6 |
| MATH 1643 | Functions and Modeling for Business, Life and Social Sciences (Core I) ${ }^{1}$ |  |
| MATH 1743 | Calculus I for Business, Life and Social Sciences (Core I) ${ }^{1}$ |  |
| Core Area II: Natural Science |  | 7 |
| Natural Sciences - Choose two courses taken from the biological and/or physical sciences. The two courses must be from different disciplines and at least one course must include a laboratory component (Core II) |  |  |
| Core Area III: Social Science ${ }^{2}$ |  |  |
| P SC 1113 | American Federal Government (Core III) | 3 |
| Core Area IV: Arts and Humanities |  | 12 |
| HIST 1483 United States to 1865 (Core IV) or HIST 1493United States, 1865 to the Present |  |  |
| $\begin{array}{ll}\text { PHIL } 1273 \text { Introduction to Business Ethics (Core IV: } \\ & \text { Western Culture) }\end{array}$ |  |  |
| Choose one course in each of the following fields (Core IV): |  |  |
| Artistic Forms ${ }^{3}$ |  |  |
| World Culture ${ }^{3}$ |  |  |
| Core Area V: First-Year Experience |  | 3 |
| Choose one course |  |  |
| Basic Business ${ }^{4}$ |  | 22 |
| ACCT 2113 | Fundamental Financial Accounting ${ }^{5}$ |  |
| ACCT 2123 | Fundamental Managerial Accounting |  |
| B AD 1001 | Personal Computing Productivity Tools |  |
| B C 2813 | Strategic Communication for Business Professionals ${ }^{5}$ |  |
| ECON 1113 | $\underset{2,5}{\text { Principles of Economics-Macro (Core III-SS) }}$ |  |
| ECON 1123 | $\underset{2,5}{\text { Principles of Economics-Micro (Core III-SS) }}$ |  |
| ECON 2843 | Elements of Statistics (Core I-M) ${ }^{5}$ |  |
| MIS 2113 | Computer-Based Information Systems ${ }^{5}$ |  |

Total Credit Hours 59-69
${ }^{1}$ Substitute: MATH 1523 for MATH 1643; MATH 1823 or MATH 1914 for MA
${ }^{2}$ Two courses, 6 hours, of Core III Social Science are required and one course must be P SC 1113. ECON 1113 or ECON 1123 will meet the other 3 hours of this requirement.
${ }^{3}$ It is recommended students take either World Culture or Artistic Forms at the 3000/4000 level to fulfill the university requirement of one upperdivision course outside the major from the approved University-Wide General Education. It may also be satisfied in the upper-division or free elective categories.
${ }^{4}$ College requirement: courses are part of the degree candidacy application process that students must complete to earn degree candidacy and begin upper-division business courses.
${ }^{5}$ Minimum grade of C required.

## Free Electives

Electives to bring total applicable hours to the minimum total required for the degree including a minimum of 40 upper-division hours. B AD 2110, B AD 2113, MKT 2013 and MGT 2013 will not count for credit toward a BBA.

## Additional Requirements

1. Pass/No Pass will not be accepted for any Business or General Education courses or any specifically required courses.
2. Students must complete the GMAT exam with a score of 500 or greater.
3. Comprehensive written exam required at end of program.
4. Sixty hours, excluding physical education activity courses, must be taken at a baccalaureate degree-granting institution.
5. A combined maximum of 8 hours of general military experience and flight instruction courses will count toward the required hours.

## Suggested Semester Plan of Study

Additional hours may be required if remedial math or language is required. Please see an academic counselor to develop a plan of study.

Apply for permission to take upper division business courses the semester in which you will complete the prebusiness courses ${ }^{1}$.

During the 2nd semester, third year.

- Take GMAT
- Interview for internship
- Apply for admission to Master's program


## Freshman

| First Semester |  | Credit |
| :---: | :---: | :---: |
|  |  | Hours |
| ECON 1113 | Principles of Economics-Macro (Core III) ${ }^{1}$ | 3 |
| ENGL 1113 | Principles of English Composition (Core I) | 3 |
| ENT 2113 | Innovation \& Entrepreneurship | 3 |
| MATH 1643 | Functions and Modeling for Business, Life and Social Sciences | 3 |
| First-Year Experience (Core V) ${ }^{2}$ |  | 3 |
|  | Credit Hours | 15 |
| Second Semester |  |  |
| B AD 1001 | Personal Computing Productivity Tools | 1 |
| ECON 1123 | Principles of Economics-Micro (Core III) ${ }^{1}$ | 3 |
| $\begin{aligned} & \text { ENGL } 1213 \\ & \text { AFHYY } 13 \\ & \text { or EXPO } 1213 \end{aligned}$ | Principles of English Composition (Core I) or Expository Writing | 3 |
| MATH 1743 | Calculus I for Business, Life and Social Sciences (Core I) | 3 |
| MIS 2113 | Computer-Based Information Systems ${ }^{1}$ | 3 |
| Natural Science (Core II) ${ }^{2}$ |  | 3 |
|  | Credit Hours | 16 |


| Sophomore |  |  |
| :---: | :---: | :---: |
| First Semester |  |  |
| ACCT 2113 | Fundamental Financial Accounting ${ }^{1}$ | 3 |
| B AD 2091 | Career Readiness I-Transitioning to the Workplace | 1 |
| ECON 2843 | Elements of Statistics ${ }^{1}$ | 3 |
| P SC 1113 | American Federal Government (Core III) | 3 |
| B C 2813 | Strategic Communication for Business Professionals ${ }^{1}$ | 3 |
|  | Credit Hours | 13 |
| Second Semester |  |  |
| ACCT 2123 | Fundamental Managerial Accounting | 3 |
| FIN 2303 | Business Finance | 3 |
| PHIL 1273 | Introduction to Business Ethics (Core IV: Western Culture) | 3 |
| Natural Science with lab (2nd discipline) (Core II) ${ }^{2}$ |  | 4 |
| Artistic Forms (Core IV) ${ }^{2}$ |  | 3 |
|  | Credit Hours | 16 |
| Junior |  |  |
| First Semester |  |  |
| MGT 3013 | Principles of Organization and Management | 3 |
| MKT 3013 | Principles of Marketing and Supply Chain Management | 3 |
| SCM 3113 | Principles of Supply Chain Management | 3 |
| B AD 3091 | Career Readiness II-Advancing in the Workplace | 1 |
| Upper-Division General Education ${ }^{3}$ |  | 3 |
|  | Credit Hours | 13 |


| Second Semester |  |  |
| :--- | :--- | ---: |
| HIST 1483 <br> or HIST 1493 | United States to 1865 (Core IV) <br> or United States, 1865 to the Present | 3 |
| LS 3323 | Legal Environment of Business | 3 |
| SCM 3223 | Logistics Management | 3 |
| SCM 3523 | Production/Operations Management $^{\text {World Culture (Core IV) }}{ }^{2}$ | 3 |
|  | Credit Hours | 3 |

Summer
Suggested summer semester pre-approved internship or
study abroad experience

> Credit Hours

## Senior

First Semester

| SCM 3123 | Procurement and Strategic Sourcing | 3 |
| :---: | :---: | :---: |
| SCM 4013 | Supply Chain Modeling and Decision Making | 3 |
| Graduate Requirement Course ${ }^{4}$ |  | 2 |
| Graduate Requirement Course ${ }^{4}$ |  | 2 |
| MIT 5602 | Management Information Systems | 2 |
| Free Elective |  | 3 |
|  | Credit Hours | 15 |

## Second Semester

| SCM 4323 | Applied Strategic Projects | 3 |
| :---: | :---: | :---: |
| Graduate Requirement Course ${ }^{4}$ 3 |  |  |
| Graduate Requirement Course ${ }^{4}$ |  |  |
| Free Elective 2 |  |  |
|  | Credit Hours | 13 |
| Fifth Year |  |  |
| First Semester |  |  |
| Graduate Requirement Course ${ }^{4} 3$ |  |  |
| Graduate Requirement Course 2 |  |  |
| Graduate Requirement Course 2 |  |  |
| Graduate Requirement Course 2 |  |  |
| Graduate Requirement Course 3 |  |  |
| Credit Hours 12 |  |  |
| Second Semester |  |  |
| Graduate Requirement Course 2 |  |  |
| Graduate Requirement Course 2 |  |  |
| Graduate Requirement Course 2 |  |  |
| Graduate Requirement Course 3 |  |  |
| B AD 4013 | Business Strategy and Policy (Capstone) | 3 |
|  | Credit Hours | 12 |
| Total Credit Hours 140 |  |  |
| ${ }^{2}$ University-Wide General Education course, refer to online listing. <br> ${ }^{3}$ May be free elective if Artistic Form, World Culture, or Science is 3000or 4000-level. |  |  |
| ${ }^{4}$ These courses are dual-counted, fulfilling requirements for both the undergraduate degree and the graduate business degree ( 140 total hours with 12 shared hours). |  |  |

## Supply Chain Management, B.B.A./Supply Chain Management (Online), M.S.

Minimum Total Credit Hours: 140
Minimum Upper-Division Hours: 40

Overall GPA - Combined and OU: 3.00
Major GPA - Combined and OU: 3.00
Upper-Division Businesses Courses GPA - Combined and OU: 3.00

## Program Code: A858/F861 Q632

## This program has changes pending Regents approval for 2024-25. These pending changes are not reflected here.

To enroll in upper-division business courses, students must be certified for degree candidacy and meet all prerequisites.

A maximum of six hours of transfer work will apply toward the major.

## Undergraduate Major Requirements

Any 3000- or 4000-level SCM course will count in the Supply Chain Management major grade point average unless otherwise specified.

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| SCM 3113 | Principles of Supply Chain Management | 3 |
| SCM 3123 | Procurement and Strategic Sourcing | 3 |
| SCM 3223 | Logistics Management | 3 |
| SCM 3523 | Production/Operations Management | 3 |
| SCM 4003 | Global Supply Chain Management | 3 |
| SCM 4013 | Supply Chain Modeling and Decision | 3 |
|  | Making |  |
| SCM 4323 | Applied Strategic Projects | 3 |
| Total Credit Hours | $\mathbf{2 1}$ |  |

## Required Courses

| Code | Title |
| :--- | ---: |
|  | Credit |
|  | Hours |
| Core Requirements | 12 |

Core Requirements 12

| LS 3323 | Legal Environment of Business |
| :--- | :--- |
| MGT 3013 | Principles of Organization and <br> Management |
| MKT 3013 | Principles of Marketing and Supply Chain <br> Management |
| B AD 4013 | ${\text { Business Strategy and Policy }{ }^{1}}^{8}$ |

Additional Requirements 8

B AD 2091 Career Readiness I-Transitioning to the Workplace
B AD 3091 Career Readiness II-Advancing in the Workplace
ENT 2113 Innovation \& Entrepreneurship
FIN 2303 Business Finance
Internship or study abroad to be pre-approved by the MKT/
SCM Division
Total Credit Hours
1 Requires completion of all other business core courses prior to enrollment and permission from Price Academic Advising Services.

## Graduate Requirements

Up to 12 hours of graduate level courses from a list maintained by the department and approved by the graduate liaison can be shared between BBA and MS-SCM programs.

| Code | Title | Credit |
| :---: | :---: | :---: |
|  |  | Hours |
| Core Requirements |  |  |
| SCM 5502 | Fundamentals of Supply Chain ${ }^{1}$ | 2 |
| SCM 5602 | Integrated Supply Chain Capstone | 2 |
| Graduate Electives |  |  |
| SCM 4003 | Global Supply Chain Management ${ }^{1}$ | 3 |
| SCM 4013 | Supply Chain Modeling and Decision Making ${ }^{1}$ | 3 |
| Choose 22 the division | hours from a list of courses maintained by 00) ${ }^{1}$ | 22 |

## General Education and College Requirements

Courses taken to fulfill the University General Education Requirements must be chosen from the approved General Education course list published at http://www.ou.edu/gened/courses.

## UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS

Code Title Credit
Core Area I: Symbolic and Oral Communication 6-16

ENGL 1113 Principles of English Composition (Core I)
ENGL 1213 Principles of English Composition (Core I) or EXPO 121 IIxpository Writing
Language (Core I) - Students who have completed two years of high school language are exempt from this general education requirement ( $0-10$ hours).

Mathematics

MATH 1643 Functions and Modeling for Business, Life and Social Sciences (Core I) ${ }^{1}$
MATH 1743 Calculus I for Business, Life and Social Sciences (Core I) ${ }^{1}$
Core Area II: Natural Science 7
Natural Sciences - Choose two courses taken from the biological and/or physical sciences. The two courses must be from different disciplines and at least one course must include a laboratory component (Core II)
Core Area III: Social Science ${ }^{2}$
P SC 1113 American Federal Government (Core III) 3
Core Area IV: Arts and Humanities 12
HIST 1483 United States to 1865 (Core IV)
or HIST 1493United States, 1865 to the Present
PHIL 1273 Introduction to Business Ethics (Core IV: Western Culture)
Choose one course in each of the following fields (Core IV):
Artistic Forms ${ }^{3}$
World Culture ${ }^{3}$
Core Area V: First-Year Experience 3
Choose one course
Basic Business ${ }^{4}$
ACCT 2113 Fundamental Financial Accounting ${ }^{5}$
ACCT 2123 Fundamental Managerial Accounting
B AD 1001 Personal Computing Productivity Tools
B C 2813 Strategic Communication for Business Professionals ${ }^{5}$

ECON $1113 \quad \underset{2,5}{\text { Principles of Economics-Macro (Core III-SS) }}$
ECON $1123 \underset{2,5}{ }$ Principles of Economics-Micro (Core III-SS) 2, 5
ECON 2843 Elements of Statistics (Core I-M) ${ }^{5}$
MIS 2113 Computer-Based Information Systems ${ }^{5}$
1 Substitute: MATH 1523 for MATH 1643 ; MATH 1823 or MATH 1914 for MA
2 Two courses, 6 hours, of Core III Social Science are required and one
course must be P SC 1113 . ECON 1113 or ECON 1123 will meet the
other 3 hours of this requirement.
3 It is recommended students take either World Culture or Artistic Forms
at the 3000/4000 level to fulfill the university requirement of one upper-
division course outside the major from the approved University-Wide
General Education. It may also be satisfied in the upper-division or free
elective categories.
College requirement: courses are part of the degree
candidacy application process that students must complete to earn
degree candidacy and begin upper-division business courses.
5 Minimum grade of C required.
Free Electives
Electives to bring total applicable hours to the minimum total
required for the degree including a minimum of 40 upper-division
hours. B AD 2110 , B AD 2113 , MKT 2013 and MGT 2013 will not count for
credit toward a BBA.

## Additional Requirements

1. Pass/No Pass will not be accepted for any Business or General Education courses or any specifically required courses.
2. Students must complete the GMAT exam with a score of 500 or greater.
3. Comprehensive written exam required at end of program.
4. Sixty hours, excluding physical education activity courses, must be taken at a baccalaureate degree-granting institution.
5. A combined maximum of 8 hours of general military experience and flight instruction courses will count toward the required hours.

## Suggested Semester Plan of Study

Additional hours may be required if remedial math or language is required. Please see an academic counselor to develop a plan of study.

Apply for permission to take upper division business courses the semester in which you will complete the prebusiness courses ${ }^{1}$.

During the 2nd semester, third year:

- Take GMAT
- Interview for internship
- Apply for admission to Master's program

| Freshman |  |  |
| :---: | :---: | :---: |
| First Semester |  | Credit |
|  |  | Hours |
| ECON 1113 | Principles of Economics-Macro (Core III) ${ }^{1}$ | 3 |
| ENGL 1113 | Principles of English Composition (Core I) | 3 |
| HIST 1483 or HIST 1493 | United States to 1865 (Core IV) or United States, 1865 to the Present | 3 |
| MATH 1643 | Functions and Modeling for Business, Life and Social Sciences | 3 |
| First-Year Experience (Core V) ${ }^{2}$ |  | 3 |
|  | Credit Hours | 15 |

## Second Semester

B AD 1001 Personal Computing Productivity Tools

| ECON 1123 | Principles of Economics-Micro (Core III) ${ }^{1}$ | 3 |
| :---: | :---: | :---: |
| ANGL4313 or EXPO 1213 | Principles of English Composition (Core I) or Expository Writing | 3 |
| MATH 1743 | Calculus I for Business, Life and Social Sciences (Core I) | 3 |
| MIS 2113 | Computer-Based Information Systems ${ }^{1}$ | 3 |
| Natural Science (Core II) ${ }^{2}$ |  | 3 |
|  | Credit Hours | 16 |

## Sophomore

First Semester

| ACCT 2113 | Fundamental Financial Accounting ${ }^{1}$ | 3 |
| :---: | :---: | :---: |
| B AD 2091 | Career Readiness I-Transitioning to the Workplace | 1 |
| ECON 2843 | Elements of Statistics ${ }^{1}$ | 3 |
| P SC 1113 | American Federal Government (Core III) | 3 |
| B C 2813 | Strategic Communication for Business Professionals ${ }^{1}$ | 3 |
| Free Elective |  | 3 |
|  | Credit Hours | 16 |

## Second Semester

| ACCT 2123 | Fundamental Managerial Accounting | 3 |
| :--- | :--- | :--- |
| ENT 2113 | Innovation \& Entrepreneurship | 3 |
| FIN 2303 | Business Finance | 3 |
| PHIL 1273 | Introduction to Business Ethics (Core IV: | 3 |

Natural Science with lab (2nd discipline) (Core II)

Credit Hours 16
Junior
First Semester

| B AD 3091 | Career Readiness II-Advancing in the <br> Workplace | 1 |
| :--- | :--- | ---: |
| MGT 3013 | Principles of Organization and <br> MKT 3013 | Principles of Marketing and Supply Chain <br> Management |
| SCM 3113 | Principles of Supply Chain Management | 3 |

Artistic Forms (Core IV) ${ }^{2}$ ..... 3

| Free Elective | 3 |
| :--- | ---: |
|  | $\mathbf{C r e d i t}$ Hours |

## Second Semester

| L S 3323 | Legal Environment of Business | 3 |
| :--- | :--- | ---: |
| SCM 3123 | Procurement and Strategic Sourcing | 3 |
| SCM 3223 | Logistics Management | 3 |
| SCM 3523 | Production/Operations Management | 3 |
| World Culture (Core IV) |  |  |
|  | Credit Hours | $\mathbf{3}$ |

## Summer

Suggested summer semester pre-approved internship or study abroad experience

Credit Hours

## Senior

## First Semester

SCM $4003 \quad$ Global Supply Chain Management ${ }^{4}$


## General Requirements for all Master's Degrees

The master's degree requires the equivalent of at least two semesters of satisfactory graduate work and additional work as may be prescribed for the degree.

All coursework applied to the master's degree must carry graduate credit.
Master's degree programs which require a thesis consist of at least 30 credit hours. All non-thesis master's degree programs require at least 30 credit hours.

Credit transferred from other institutions must meet specific criteria and is subject to certain limitations

Courses completed through correspondence study may not be applied to the master's degree.

To qualify for a graduate degree, students must achieve an overall grade point average of 3.0 or higher in the degree program coursework and in all resident graduate coursework attempted. A student must also have at least a 3.0 in all coursework (including undergraduate coursework if any).

Additional information for master's degree students may be found in the Graduate College Bulletin.

## Supply Chain Management Online Course List

## Approved Electives

Additional courses may be chosen with division approval

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| ACCT 5202 | Financial Accounting | 2 |
| ACCT 5212 | Managerial Accounting | 2 |
| B AD 5122 | Quantitative Analysis I | 2 |
| FIN 5102 | Financial Management | 2 |
| SCM 5402 | Logistics, Distribution and Transportation | 2 |
|  | Management |  |
| SCM 5522 | Planning and Operations Management | 2 |
| B AD 5102 | Managerial Economics | 2 |
| SCM 5422 | Strategic Sourcing and Supply | 2 |
|  | Management | 2 |
| MIT 5602 | Management Information Systems | 2 |
| SCM 5562 | Supply Chain Excellence in a Global World | 2 |
| SCM 5572 | Modeling, Analytics, and Decision Making | 2 |
| MKT 5402 | Marketing Management | 2 |
| MGT 5702 | Organizational Behavior | 2 |
| SCM 5582 | Current Topics in Supply Chain |  |

## Supply Chain Management (Online), Graduate Certificate

Minimum Total Hours: 12

Program Code: G108

## Certificate Requirements

| Code | Title | Credit <br> Hours |
| :--- | ---: | ---: |
| SCM 5502 | Fundamentals of Supply Chain | 2 |
| Choose 10 hours of additional SCM Graduate courses | 10 |  |
| Total Credit Hours | $\mathbf{1 2}$ |  |

A graduate certificate is not a graduate degree. A graduate degree represents a program of independent inquiry beyond the depth of coursework alone, while a graduate certificate represents a set of courses only.

- All courses must be taken at OU. No transfer credit will apply.
- No course substitutions are permitted for graduate certificates.
- Coursework applied to a graduate certificate cannot be more than five years old as of the semester the graduate certificate is awarded.
- Students must earn a grade point average of 3.00 or higher on all coursework applied to the graduate certificate.


# COLLEGE OF CONTINUING EDUCATION 



1700 Asp Avenue
Norman, OK 73072-6400
Phone: (405) 325-4414
FAX: (405) 325-7196
Outreach / OCCE Information
www.outreach.ou.edu

## Administrative Officers

- Belinda P. Biscoe, Ph.D., Interim Senior Associate Vice President for University Outreach/College of Continuing Education


## General Information

The University of Oklahoma Outreach/College of Continuing Education is a lifelong learning organization dedicated to helping individuals, businesses, groups, and communities transform themselves through knowledge. Nationally recognized for its pioneering efforts in continuing education, University Outreach extends the educational resources of the University of Oklahoma on campus, online, and at locations around the world.

## Oklahoma Center for Continuing Education

Both University Outreach (College of Continuing Education) and the College of Professional and Continuing Studies are housed in the Oklahoma Center for Continuing Education (OCCE) complex. Originally designed as a comprehensive adult learning community for educational activities, OCCE is one of several W.K. Kellogg Foundation-funded centers in the world. OCCE provides a unique setting for individuals who have chosen this facility for their meetings, conferences, workshops, and seminars. The Thurman White Forum Building offers facilities for 1,000 participants through a combination of 15 meeting rooms, a computer lab, and the large auditorium-sized Forum Room that seats 600. Equipped with state of the art technology, the Forum can adapt to meet almost any group's conference requirements. On-site technical support is also available for the computer lab.

The OCCE complex includes the James P. Pappas Administration Building, the Pete Kyle McCarter Hall, and the Boomer Outreach Building, all of which house administrative staff for both OU Outreach/College of Continuing Education and the College of Professional and Continuing

Studies. In addition, ten duplex cottage units (Sooner Suites) provide an intimate atmosphere with each side featuring a kitchenette, living area, two double bedrooms, and a bath.

For more information on the Oklahoma Center for Continuing Education, call 405-325-7378.

## Business, Community, and Education Services

American Indian Institute
The American Indian Institute (Aii) provides culturally sensitive conferences, training, strategic planning services, and expert technical assistance to American Indian, Alaska Native, and Canadian First Nation tribes and bands. For more information, call 405-325-4127 or visit aii.ou.edu.

## Center for Early Childhood Professional Development

The Center for Early Childhood Professional Development (CECPD) provides training and technical assistance for early care and education professionals, enabling them to provide improved educational foundations and quality of life for all Oklahoma children. CECPD professional development opportunities also include Coaching Innovations, professional development designed to train instructional coaches, and the Early Learning Quick Assessments (ELQA), literacy and numeracy formative assessments. To learn more about the CECPD and its collaborative partners, call 405-799-6383, email cecpd@ou.edu, or visit cecpd.org.

## Center for Public Management

The Center for Public Management (CPM) began in 1994 as a satellitetraining network for the Oklahoma Department of Human Services CPM has since expanded its core services to become a comprehensive solution provider for public partners. CPM works with public agencies, nonprofits, and private industries to deliver cost-effective, customeroriented solutions tailored to each client. CPM is capable of calling upon the vast resources of the entire University's faculty and staff to help continue to provide creative, effective solutions. To learn more, call 405-325-0519, email info@oucpm.org or visit oucpm.org.

## Center for the Study of Small/Rural Schools

The University of Oklahoma's Center for the Study of Small/Rural Schools (CSSRS) is endorsed by the National Rural Education Association. Its clients include school boards, teachers, administrators, businesses, community groups, rural organizations, state and federal agencies, as well as international agencies and governments. The center aids small and rural schools through workshops, surveys, needs assessments, and technical assistance.

## Conference Pros

Conference Pros began in 1996, providing conference logistics support services for federal and state programs. In 1997, they expanded services to include conference, meeting, and event planning services. Conference Pros aids local, regional, national, and international agencies and organizations in developing and conducting conferences that meet the specific needs of their direct clientele. Conference Pros benefits from the strengths of faculty at OU's College of Continuing Education, as well as a wide range of other resources and consultants in recommending appropriate expertise and presentation skills in various fields of study. The staff of Conference Pros has extensive experience and demonstrated success in designing content, providing logistical support, and conducting large national and international conferences of high impact, visibility, and national or international acclaim. For more
information, call Laurie Smith at 405-325-0751, Richard Feinberg at 405-325-7807, or visit conferencepros.org.

## Center for Institutional Data Exchange and Analysis

The Center coordinates the Consortium for Student Retention Data Exchange (CSRDE), which includes higher education institutions that share data, knowledge, and innovation. CSRDE publishes four annual reports that provide timely, comprehensive, and comparative benchmarking data on college student retention, plus the electronic book, Building Bridges for Student Success: A Sourcebook for Colleges and Universities. CSRDE hosts the National Symposium on Student Retention and monthly webinars. For more information, call (405) 325-2158, email csrde@ou.edu, or visit csrde.ou.edu.

## Corporate Online Education Programs

Outreach partners with Ed2Go to offer career-focused, online courses designed to provide the skills necessary to acquire professional caliber positions in many in-demand occupations. For more information, call 405-850-5594, email wboni@ou.edu, or visit Career Training Programs.

## Educational Technical Assistance Services (EDUTAS)

EDUTAS at the University of Oklahoma Outreach engages and leads partners and stakeholders in learning conversations and collaborative work to improve education systems, policies, and practices. Our educational technical assistance and professional learning services focus on:

- Guiding complex systems change processes and initiatives;
- Improving instructional practice using evidence-based strategies;
- Developing leaders' capacity for building collective teacher efficacy to improve learner outcomes; and
- Driving equal opportunity through inclusive, excellent educational opportunities.

For more information visit edutas.org or call 405-325-3542.

## Educational Training, Evaluation, Assessment and Measurement

Educational Testing, Evaluation, Assessment, and Measurement (ETEAM) designs research tools and evaluations to help organizations understand and use data to solve real-world problems. E-TEAM works on projects for the public and private sectors that have a lasting effect on the community. The program helps community leaders determine what is best for the community through evaluation, assessment, and research. For more information, call 405-325-7186, e-mail us at eteam@ou.edu or visit us at eteam.ou.edu.

## Fullstack

Powered by award-winning Fullstack Academy, the OU Outreach Bootcamps on cybersecurity and web development provide condensed, immersive programs taught by industry experts in convenient $100 \%$ live, online, or hybrid formats. The Bootcamp grads leave ready for lucrative high-tech careers in Oklahoma and beyond. For more information contact Dr. Nina Barbee, director of Outreach Continuing Education, at 405-361-5720 or at nbarbee@ou.edu.

## KGOU/KROU Radio

KGOU Radio is a full-service public radio station presented as a community service through the University of Oklahoma Outreach. KGOU provides an essential program service to the citizens of Oklahoma. KGOU is an NPR-member station that delivers news, information, community
event calendars, discussion, and unique entertainment programming over the air and online. Its mission is to help people become deeply informed about issues that affect their lives, be better prepared to make decisions, and be more engaged in our community. KGOU teaches a practicum class and employs part-time student journalists from OU. For more information, call 405-325-3388, email manager@kgou.org, or visit www.kgou.org.

## Medieval Fair

The Medieval Fair, held annually each spring since 1977, began as a forum for the English Department and later moved to University Outreach reflecting its impact on our community. It was recently recognized in 2011 by Renaissance Magazine as the second largest festival in the country of its type for the number of participants attending. It has grown into a program that is supported by the strong community of medieval enthusiasts in the Norman and Oklahoma City Metropolitan areas. During the academic year, a free lecture series is provided by university faculty from across the state of Oklahoma. The Medieval Fair transports patrons away from the worries and cares of today, back in time to the first market fair of spring 1360 in the town of Avalon where they can learn about and become a part of life in the Middle Ages. For more information, call (405) 325-8610, ameckart@ou.edu, or visit the Medieval Fair website.

## National Center for Disability Education and Training

The National Center for Disability Education and Training improves independent living, employment, and career opportunities for people with disabilities. Through its model programs, NCDET proves that youth and adults with disabilities can be successfully employed. The center develops and delivers customized training programs for professionals in related disability fields. NCDET implements Project SEARCH and Pre-Employment Transition Services with high school students with disabilities across the state of Oklahoma. For more information, call 405-325-0158, email abaghda1@ou.edu or visit https://ncdet.ou.edu/en/.

## National Resource Center for Youth Services

The National Resource Center for Youth Services (NRCYS) works to enhance the quality of life for the nation's youth and families by improving the effectiveness of human services through training, technical assistance, practical resources, and other targeted services. NRCYS supports public and private non-profit organizations in Oklahoma and across the country to build their capacity to support children, youth and families to thrive. For more information, call (918) 660-3700 or visit www.nrcys.ou.edu.

## Public Service Institute

Managing change is critical for schools, faith-based organizations, public service organizations, and social organizations. A leader's response to change is often the greatest factor affecting the success or failure of his or her organization. The Public Service Institute teaches leaders how to allow their organizations to remain dynamic and supportive of clients despite a constantly changing environment. Most of the center's initiatives focus on building the capacity of multi-stakeholder partnerships to support transformational outcomes in developing countries. Through its focus on information access and capacity building, the Institute also promotes connectivity to improve living conditions in impoverished communities around the world. For more information, call 405-325-1712 or visit Public Service Institute.

## Reading Program Development

Reading Program Development is a course designed and taught by instructors from the Institute of Reading Development provides speedreading for academic, professional, and recreational reading for K12
and adult students. For more information, call 800-964-8888 or visit the Summer Reading Program at https://outreach.ou.edu/educational-services/education/reading-program/.

## Southwest Center for Human Relations Studies

Established in 1961, the Southwest Center for Human Relations Studies (SWCHRS) s a program within the Public and Community Division in OU Outreach with the primary mission of extending the resources of the University to communities in the Southwest faced with civic conflict and controversy. The core mission of the Southwest Center for Human Relations Studies is to provide opportunities for learning, facilitated training, research and knowledge dissemination on issues of intercultural and intergroup relations as they pertain to communication, conflict management, collaboration, leadership, organizational culture, decision making, and inclusive practices. The center annually hosts the National Conference on Race and Ethnicity (NCORE) in Higher Education, the largest conference of its kind in the United States. For more information, call 405-325-3694 or visit the SWCHRS website.

## Southwest Prevention Center

The Southwest Prevention Center (SWPC) is committed to preventing alcohol, tobacco and drug abuse, and high-risk behavior. This multistate program provides prevention information, training, and technical assistance and develops prevention resources. SWPC works to support healthy, drug-free environments through the community, school, and organizational capacity building. For more information, call 405-325-1454, swpc@ou.edu, or visit the Southwest Prevention Center website.

## Team Quest (Executive Training)

Team Quest equips teams and leaders with skills and tools to become more effective. Their unique approach addresses the needs of adult learners through training experiences that incorporate action learning exercises, self-assessments, focused discussions and engaging classroom instruction. For more information, call 405-325-0464, email ETTQ.

## MEWBOURNE COLLEGE OF EARTH AND ENERGY



Sarkeys Energy Center, 15th Floor, Room 1510
100 E. Boyd Street
Norman, OK 73019-1015
Main Phone: (405) 325-3821
Advising: (405) 325-4005
FAX: (405) 325-3180
mcee@ou.edu
www.ou.edu/mcee

## Administrative Officers

John Antonio, Interim Dean and Lester A. Day Family Chair email: antonio@ou.edu

## General Information

## Mewbourne College Vision

The Mewbourne College of Earth and Energy educates scientists and engineers and creates knowledge of Earth's past and present to navigate a future that meets societal needs for both energy and a livable environment.

## Mewbourne College Mission

The college offers an intellectual atmosphere combining scholarship, research, and teaching that leads to the creativity needed to address the issues of tomorrow and prepare our students for the global competition they will experience during their professional careers. We will also ensure that OU maintains and builds on its heritage in energy education by continuing to focus on exploration, development and extraction processes in petroleum geosciences and petroleum and geological engineering, while providing close ties to engineering fundamentals and the science base in geosciences. Through the Oklahoma Geological Survey, we will promote the wise use of Oklahoma's natural resources consistent with sound environmental practices.

## About Mewbourne College

In a progressive move by the University signaling its ongoing commitment to energy education and research, the Mewbourne College of Earth and Energy was established January 1, 2006. The Mewbourne College of Earth and Energy consists of the Mewbourne School of

Petroleum and Geological Engineering, the School of Geosciences, and the Oklahoma Geological Survey. Our academic programs are highly ranked nationally, and the petroleum engineering program is consistently ranked in the top three nationally.

The college provides an academic environment for the development of tomorrow's academic and industry leaders that contains the full breadth of the University of Oklahoma's educational experience while continuing to provide close ties to engineering fundamentals and the science base in geology, geophysics, and paleontology. The Mewbourne College focus is laboratory 'hands-on' education and is an academic leader for end-toend energy education and research. Distinguished faculty, exceptional students, and state-of-the-art research laboratories are the bedrock of the Mewbourne College of Earth and Energy.

The college's name honors Curtis W. Mewbourne, a Shreveport, Louisiana, native who obtained his degree in petroleum engineering from OU, where he has been honored as a Distinguished Graduate. After serving as an officer in the U.S. Army and working as a petroleum engineer, he founded Mewbourne Oil Company in 1965. Mewbourne Oil is one of the most successful privately owned oil and gas producers in America.

In recognition of his longtime support, the University named the Mewbourne School of Petroleum and Geological Engineering in his honor in 2000 and granted him the Doctor of Humane Letters in 2002. In 2007 the Mewbourne College of Earth and Energy was named in his honor, and he was presented the Oklahoma Trailblazer Award for his professional achievement and lifetime commitment to the energy sector. Curtis Mewbourne and his family have contributed millions of dollars to endowed faculty positions and student support at OU.

## Programs Offered

- College of Earth and Energy Administrated Programs (p. 1009)
- Sustainable Energy Systems, Undergraduate Certificate (p. 1009)
- Sustainable Energy Systems Electives (p. 1009)
- Mewbourne School of Petroleum and Geological Engineering (p. 1010)
- GeoEnergy Engineering, B.S. (p. 1019)
- Petroleum Engineering, B.S. (p. 1022)
- Petroleum Engineering, B.S./M.S. (p. 1024)
- Petroleum Engineering, B.S./M.B.A. (p. 1027)
- Geological Engineering, M.S. (p. 1030)
- Natural Gas Engineering \& Management, M.S. (p. 1031)
- Petroleum Engineering (Standard), M.S. (p. 1032)
- Geological Engineering, Ph.D. (p. 1032)
- Petroleum Engineering, Ph.D. (p. 1033)
- School of Geosciences (p. 1033)
- Environmental Geology, B.S. (p. 1048)
- Geology, B.S. (p. 1050)
- School of Geosciences Math \& Science Elective Lists (p. 1052)
- Geophysics, B.S. (p. 1053)
- Paleontology, B.S. (p. 1055)
- Petroleum Geology, B.S. (p. 1057)
- Geology, Minor (p. 1059)
- Geology, M.S. (p. 1059)
- Geophysics, M.S. (p. 1060)
- Geology, Ph.D. (p. 1060)
- Geophysics, Ph.D. (p. 1061)


## Programs \& Facilities

## Oklahoma Geological Survey

100 East Boyd St., Suite N131 Norman, OK 73019
Phone: (405) 325-3031
ogs@ou.edu
www.ou.edu/ogs

The Oklahoma Geological Survey was created by directive of the State Constitution written in 1907. An enabling act was presented to Oklahoma's first legislature and signed into law by Gov. Charles N. Haskell on May 29, 1908.

The Oklahoma Geological Survey is charged with investigating the land, water, mineral, and energy resources of the state, and disseminating the results of those investigations to promote the wise use of Oklahoma's natural resources consistent with sound environmental practices.

The Oklahoma Geological Survey carries out this charter through fossil energy research, activities in geological carbon sequestration and lowcarbon energy resources, geological mapping programs, earth-science education, operation of a state-wide seismograph network, development of geological databases, an industrial minerals program, and basic geological studies conducted in various areas of Oklahoma. The results of these investigations are made available through publications of technical and educational material, maps, a web site containing data for downloading, the Oklahoma Petroleum Information Center (OPIC), presentations to the public and professional organizations, and organizing workshops for technology transfer to industry and academia.

At the Oklahoma Petroleum Information Center (OPIC) in Norman, there are thousands of core and well samples, well logs, a well data library, and other petroleum-related material available to the public. The general public, industry, and academic groups have access to the OPIC facility resources and can purchase hard copies of OGS publications. Many publications, spanning over a century, are available for free on the OGS website. In pursuit of data and core preservation and seismic monitoring, the OGS works closely with local, state, and federal agencies, as well as with professional and educational organizations and agencies from other states. While not an academic unit, OGS staff serve as mentors, adjunct faculty, instructors, and committee members for students enrolled at the University of Oklahoma and other universities. As a unit of the Mewbourne College of Earth and Energy, the OGS supports a number of students with the college's research and service efforts.

## Ronnie K. Irani Center for Energy Solutions

The Ronnie K. Irani Center for Energy Solutions provides leadership to develop the energy solutions necessary to meet an ever-growing demand for energy. Under the direction of the Irani Center, students work in partnership with companies to solve real-world problems and provide innovative solutions. The Irani Center continues legacy programs established by the Energy Institute of the Americas to connect industry professionals with world-renowned faculty through professional development courses, as well as providing informative content via webinars and presentations. Through these and other efforts, the Irani Center has nurtured hundreds of students and industry participants to actively engage in the critically important mandate to provide sustainable, reliable, affordable, and responsible energy in our community, state, nation, and throughout the world.

## Institute for Resilient Environmental and Energy Systems

The University of Oklahoma's Institute for Resilient Environmental and Energy Systems (IREES) connects OU scholars from across our three campuses with national, regional, and place-based partners to understand the multiple interacting dimensions of transformational change and apply that knowledge to strengthen and empower communities, create new economic opportunities, and enable environmental improvement.

## Attribute-Assisted Seismic Processing and Interpretation Research Group

Seismic attributes have become crucial for mapping structure, stratigraphy, and quantifying reservoir properties. The AASPI research group focuses on four main goals: mapping reservoir compartments and fractures, optimizing seismic processing workflows for improved resolution, contextualizing seismic attributes with tectonic deformation and geomorphology, and developing predictive tools for guiding reservoir completion programs.

## Reservoir Geomechanics and Seismicity Research Group

The Reservoir Geomechanics and Seismicity Research Group (RGSR) at OU is recognized as a world-class experimental and numerical modeling research center. The RGSR develops and applies new knowledge of geomechanics/rock mechanics through experimental and modeling activities to develop solutions for a variety of engineering problems related to conventional and unconventional reservoirs and geothermal systems (enhanced geothermal systems) such as hydraulic fracturing, induced seismicity, wellbore stability, DFIT, injection geomechanics, etc.

## Well Construction Technology Center

The Well Construction Technology Center is an advanced technology research center that incorporates high pressure, high temperature fluid flow applications using both field scale and lab scale equipment for the oil industry.

## Integrated Core Characterization Center

The Integrated Core Characterization Center consists of the complete Amoco Rock Physics Laboratory. This lab has unparalleled industrial, commercial, and academic capabilities and offers the widest range of measurement and research opportunities in the industry. Originally established a seismic velocity measurement laboratory, it evolved into an integrated facility that provides a vast array of petrophysical, seismic, and rock mechanics capabilities.

## Jerry Holmes Leadership Program for Engineers and Scientists

The Jerry Holmes Leadership Program for Engineers and Scientists provides a variety of leadership and related development opportunities for students, faculty and staff. The program's mission is to help Gallogly College of Engineering \& Mewbourne College of Earth and Energy students learn and practice the skills they will need to be effective and ethical leaders now and throughout their careers.

## Honors Program

A high percentage of eligible University undergraduate students participate in the University-wide Honors Program (refer to the Honors College ( p .1617 ) section of this catalog for more information). Specially designed Honors courses and seminars provide the Honors student with small classes and opportunities for interaction with the University's best
and brightest faculty members, both within the student's major field of study and in other courses used to satisfy curricular requirements. Students may graduate with Latin Honorifics if they successfully meet the GPA requirements in addition to their regular degree program requirements.

## Undergraduate Study

## Admission to the College

Students will be admitted to the Mewbourne College of Earth and Energy once they declare a major within the college and complete the following requirements:

- Applicants who are direct from high school must be admitted to OU and have earned 24 semester credit hours with an OU and combined retention grade point average of 2.50 or higher.
- Students transferring to the University of Oklahoma must have a retention GPA of a 2.50 or higher.
- University of Oklahoma readmits must have an OU retention and combined retention GPA of a 2.50 or higher


## Academic Advising

The Mewbourne College of Earth and Energy Pioneer Natural Resources
Student Services Center is staffed by academic advisors who are available for student support and curricular guidance. Prior to registering for the next term, students meet with an academic advisor to discuss advising recommendations, support services, and student engagement opportunities. The Pioneer Natural Resources Student Services Center is located in Sarkeys Energy Center, 1st floor, room P119. Students may call (405) 325-4005 or use iAdvise.ou.edu to schedule their advising appointments. Although the Dean's office checks each student's records, the responsibility for meeting graduation requirements lies with the student and not with the academic advisor, the school, or the Dean.

## Scholastic Requirements

Students in the Mewbourne College of Earth and Energy must meet the following academic standards:

- A minimum grade of $C$ in each course required in the curriculum.
- No more than three attempts per course to successfully complete the course. Unsuccessful attempts include earned grades of D, F, I, $\mathrm{U}, \mathrm{AU}, \mathrm{W}$, and AW. Terms with "complete withdrawal" notated on the transcript do not count towards these totals.
- A student must maintain at least 2.50 grade point averages to be in good standing in the college. This applies to the following GPAs:
- OU retention grade point average
- Combined retention grade point average
- Term grade point average
- Major retention grade point average

Students who do not meet these standards will be notified by the Director of Student Services and guided to meet with their academic advisor for support. Students on academic performance contract who fail to meet the terms of their academic performance contract after one semester may be dismissed (stopped out) from the Mewbourne College of Earth and Energy. Students who fail to make adequate progress toward their degree may be dismissed from the college.

A student dismissed from the Mewbourne College of Earth and Energy may be eligible for enrollment in another college under the University retention policy. To continue at the University of Oklahoma, the student
will need to make an appointment with the Academic Advising Resource Center (AARC), Cate 1, room 418 or phone (405) 325-1596. However, even if the student is able to continue at the University, further enrollment in Mewbourne College of Earth and Energy courses is not allowed.

A student dismissed from the Mewbourne College of Earth and Energy is unlikely to be readmitted to the college. Students are eligible to apply for readmission after at least 2 full (fall and spring) semesters have elapsed since the date of dismissal and they have significantly improved their performance in courses that are technically demanding and relevant to an engineering/science education. Applying for readmission does not guarantee that a student will be readmitted. Each request is considered on its individual merit. If the student is readmitted to the MCEE, the student will be placed on an Academic Performance Contract. Students who are dismissed from the MCEE for a second time are not eligible for readmission.

The Mewbourne School of Petroleum and Geological Engineering and the School of Geosciences have additional grade requirements. For details, see the specific school sections of the catalog.

## College Ten-Year Limitation Rule

A student may elect to graduate under the requirements for an undergraduate degree set forth in the catalog in effect at the time of their first enrollment in the state system, provided they complete the work for a degree within a maximum of six years. If the work for a degree covers a period longer than that specified by the college, the college will determine the degree plan in effect for that student's graduation. Credit in a student's major which is more than 10 years old may not be applied toward a bachelor's degree unless it is validated by the major department.

## Transfer Students

1. Students transferring to the University of Oklahoma Mewbourne College of Earth and Energy must have a retention GPA of a 2.50 or higher.
2. Students should check transfer equivalencies on the transfer equivalency database.
3. Students should visit the Pioneer Natural Resources Student Services Center to determine exactly how their transfer credits apply toward their degree program.
4. Pass/No Pass course enrollments may not be used to satisfy Mewbourne College of Earth and Energy course requirements.
5. Academic credit from any division of the University of Oklahoma Norman campus, OU Health Sciences Center, OU-Tulsa, or Continuing Education - is considered resident credit at the University of Oklahoma. Grades and hours earned at any of these divisions are included in the OU and combined retention grade point averages for purposes of admission or readmission to the University, and to the individual colleges within the University. (See also Residence Requirements under Graduation Requirements.)

## Scholarships and Financial Aid

Students entering the University of Oklahoma are eligible to apply for scholarships. General scholarships are awarded on the basis of academic achievement and financial need. In addition to general scholarships offered through the University of Oklahoma, the Mewbourne College of Earth and Energy and both schools offer several scholarships sponsored by alumni and industry. Continuing students apply each year through the Student Financial Center's Centralized Academic Scholarship Hub (CASH). Financial questions may be directed to the Student Financial Center email: sfc@ou.edu or phone: (405) 325-9000.

## College Graduation GPA Requirements

Students recommended for a bachelor's degree in the Mewbourne College of Earth and Energy must have at least a 2.50 OU and combined retention grade point average in all coursework attempted, in their major area, and in their curriculum. The Schools of Petroleum and Geological Engineering and Geosciences may have additional grade requirements.
For details, see the specific school section in this chapter of the catalog.

## Graduation Requirements

## Basic Requirements

The Mewbourne College of Earth and Energy is organized into two schools, Mewbourne School of Petroleum and Geological Engineering (p. 1010) and School of Geosciences (p. 1033).

The student must satisfy the following requirements:

- Curricular Courses: Complete all prescribed curricular courses or equivalent courses as approved by the faculty.
- Two-year College Transfer Credits: A minimum of 60 semester hours must be earned in a 4 -year institution for a baccalaureate degree.
- Catalog Requirements: Fulfill all requirements listed in the catalog. Although the Dean's office checks each student's records, the responsibility for meeting graduation requirements lies with the student, and not with the academic advisor, the school, or the Dean.
- Be in good academic standing with the college and the University.
- Complete graduation application by December 1 for spring graduation, May 1 for fall graduation and March 1 for summer graduation.
- Residency Requirements: To be recommended for a degree, a candidate must have:
a. spent two semesters or the equivalent in residence in the Mewbourne College of Earth and Energy;
b. completed at least 36 of the last 60 hours in residence. Twentyfour of these 36 hours must be in the major field;
c. fulfilled the grade and grade point requirements of the college and school; Note: Academic credit from any division of the University of Oklahoma - Norman campus, OU Health Sciences Center, OUTulsa, or Continuing Education - is considered resident credit at the University of Oklahoma. Grades and hours earned at any of these divisions are included in the OU and combined retention grade point averages for purposes of determining completion of degree requirements.

Degrees are awarded at the end of each fall and spring semester and summer session. All diplomas are mailed to students following the official graduation date. The degree and date of the diploma are entered on the student's permanent academic record. The date of graduation is the last day of the semester or summer session in which all requirements for the degree are completed. When a student completes all requirements for a degree other than at the close of a semester or summer session, the Office of Academic Records, upon request, will issue a certified statement that the student is eligible for the degree as of the date when the requirements for the degree were completed.

## Dean's Honor Roll

To be eligible for the Mewbourne College of Earth and Energy Dean's Honor Roll, a full-time undergraduate student must earn 12 or more hours and attain a grade point average of 3.00 or higher during a regular fall or spring semester. Part-time students may qualify for the Honor Roll by earning at least 6 but less than 12 hours and attaining a grade point
average of 3.00 or higher, provided they have no withdrawals for that semester.

## Minors

The Mewbourne College of Earth and Energy offers students the option of declaring a minor. A Geology minor is available in the college, and the specific minor requirements can be found in the School of Geosciences section of the catalog. Students may complete minors in other areas, and these will be posted on the transcript after graduation. For a listing of the minors offered at the University, reference the OU General Catalog Minors page.

## Certificates

A multidisciplinary undergraduate certificate in Sustainable Energy Systems is administered by the Mewbourne College. Details can be found on the MCEE website.

## Second Bachelor's Degrees

A student who has completed the requirements for a bachelor's degree at OU may also receive a second bachelor's degree upon the completion of the curriculum prescribed for the second degree, provided that the work completed includes at least 30 additional hours of upper-division geology, geophysics or engineering (according to second undergraduate degree program), applied science and elective courses appropriate to the field of the second degree. These courses must be over and above the credit hours required for the first degree.

## Graduate Study

The Mewbourne College of Earth and Energy offers programs leading to the Master of Science degree in geology, geophysics, geological engineering, natural gas engineering and management, and petroleum engineering. The college also offers Ph.D. degrees in geology, geophysics, geological engineering, and petroleum engineering.

Refer to the Graduate tabs within the Mewbourne School of Petroleum and Geological Engineering (p. 1010)and the School of Geosciences (p. 1033) pages of this catalog for information concerning graduate programs.

## CEE 1513 Towards Just and Responsible Energy Engineering 3 Credit Hours

Prerequisite: none. Introducing students to the role and impact of energy engineering in the world, energy sources and uses, natural resources, energy justice, the environment, and sustainability. Allows students to explore individual and collective responsibilities as engineers to the energy industry and to build some of the skills needed including cultural fluency, critical thinking, civil discourse, citizenship, and community engagement. (F) [V-FYE].

## CEE 3440 Mentored Research Experience

0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)

CEE 4960 Directed Readings
1-4 Credit Hours
1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean. May be repeated; maximum credit four hours. Designed for upper-division students who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)

## CEE 4970 Special Topics/Seminar

1-3 Credit Hours
1 to 3 hours. Prerequisite: senior standing or permission of instructor.
May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)
CEE 4990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: senior standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)
CEE 5960 Directed Readings
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing and permission of department. May be repeated; maximum credit twelve hours. Directed readings and/or literature reviews under the direction of a faculty member. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

CEE 5970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

## CEE 5990 Independent Study

1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)

## College of Earth and Energy Administrated Programs

## Undergraduate Certificate

- Sustainable Energy Systems, Undergraduate Certificate (p. 1009)


## Courses

SES 2113 Fundamentals of Earth Systems, Energy, \& Sustainability

3 Credit Hours
Prerequisite: MATH 1503. A comprehensive exploration of key topics related to climate, energy, and sustainability. Study of the carbon cycle and earth system processes at multiple temporal and geographical scales. Introduction to fundamental principles of energy systems, covering diverse energy forms and their conversions. Students will develop the knowledge and skills to analyze, design, and implement sustainable energy solutions. (F)

SES 2123 Energy in Society: A Systems Perspective on Energy Transitions 3 Credit Hours
Prerequisite: ENGL 1213 or EXPO 1213. Explores how energy systems can be viewed from a social perspective. Combines several academic approaches on society to present a comprehensive overview of the components of and historical changes in energy systems. Reviews ethical theories to help identify issues of moral concern in existing energy systems, and ways energy transitions can address them. (Sp)

## Sustainable Energy Systems, Undergraduate Certificate

Minimum Total Credit Hours: 15
Program Code: T632

## Certificate Requirements

Courses presented for the undergraduate certificate must be completed with a C grade or better.

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Core Courses |  | 3 |
| SES 2113 |  <br> Sustainability | 3 |
| SES 2123 | Energy in Society: A Systems Perspective <br> on Energy Transitions | 9 |
| SES Electives | Choose 3 courses (9 hours) from a list of approved electives <br> maintained by the College. (p. 1009) |  |

Total Credit Hours

## Sustainable Energy Systems Electives

- For the most current list of SES electives, consult the MCEE website.

| Code | Title | Credit <br> Hours |
| :---: | :---: | :---: |
| Carbon Management |  |  |
| G E 4613 | Carbon Capture, Utilization and Storage | 3 |
| GEOG 4970/5970 | Special Topics/Seminar (Topic: Climate CO2 Removal Strategies) | 3 |
| Climate |  |  |
| ENST 3303 | Food, Agriculture, and the Environment | 3 |
| ENST 3503 | Energy Use, Climate Change, and the Environment | 3 |
| GEOG/METR $3523$ | Managing for a Changing Climate | 3 |
| GEOG 4343 | Climate, History, and Society | 3 |
| GEOL/METR 4533 | Earth's Past Climate | 3 |
| METR 4553/5553 | Climate and Renewable Energy | 3 |
| Communications |  |  |
| JMC 3453 | Public Relations \& Society | 3 |
| JMC 4970/5970 | Special Topics (Topic: Strategic Communication about Sustainable Energy Systems) | 3 |


| ECON 3213 | Environmental Economics | 3 |
| :---: | :---: | :---: |
| EMGT 3513 | Sustainable Policy and Regulations | 3 |
| EMGT 3603 | Energy Law I | 3 |
| ENST 3213 | Law and the Environment | 3 |
| GEOG 3443 | Environment and Society | 3 |
| GEOG 4333/5333 | Corporate Environmental Strategy | 3 |
| P SC 3233 | Environmental Policy and Administration | 3 |
| Energy Business Markets |  |  |
| EMGT 3523 | Natural Gas Marketing and Power Trading | 3 |
| EMGT 3533 | Commercial Applications in Power Markets | 3 |
| Historical, Ethical, and Artistic Perspectives |  |  |
| A HI 4623 | Contemporary Art and the Environment | 3 |
| HON 2973 | Perspectives on the American Experience (Topic: Energy in US History) | 3 |
| HSTM/P E 3343 | Revolution in Power. the Evolution of Energy Systems from Fossil Fuels to Renewables | 3 |
| PHIL 3293 | Environmental Ethics | 3 |
| Introductory Courses |  |  |
| CEE 1513 | Towards Just and Responsible Energy Engineering | 3 |
| GEOL 1033 | Earth, Energy, Environment | 3 |
| Life Cycle Analysis |  |  |
| ENGR 4513 | Introduction to Sustainable Engineering | 3 |
| GEOG 4523/5523 | Life Cycle Analysis | 3 |
| Sustainability and the Environment |  |  |
| CEES 3243 | Water and Wastewater Treatment Design | 3 |
| CEES 4324 | Environmental Biology and Ecology | 4 |
| CEES 5153 | Water Innovation: Technology, Policy, and Organizational Issues | 3 |
| CEES 5883 | Environmental Modeling | 3 |
| CEES 5933 | Climate Change and Water Sustainability | 3 |
| EDSC 3233 | Environmental Issues in the Community | 3 |
| GEOG 3233 | Principles of Sustainability | 3 |
| GEOL 3033 | Earth Resources and the Environment | 3 |
| METR 4553/5553 | Climate and Renewable Energy | 3 |
| ENST 3503 | Energy Use, Climate Change, and the Environment | 3 |
| EDSC 3233 | Environmental Issues in the Community | 3 |
| GEOL 3033 | Earth Resources and the Environment | 3 |
| Systems Perspectives |  |  |
| GEOG 4583 | Energy Systems and Sustainability | 3 |
| GEOL 2014 | The Earth System | 4 |
| Technology and Engineering |  |  |
| AME 4653 | Air Conditioning Systems | 3 |
| AME 4970 | Special Topics/Seminar (Topic: Advanced Energy Systems) | 3 |
| CH E 4323 | Chemical Process Sustainability | 3 |
| ECE 3113 | Energy Conversion I | 3 |
| G E 4623 | Energy Conversion and Storage | 3 |
| G E 4633 | Hydrogen Energy Systems | 3 |

# Mewbourne School of Petroleum and Geological Engineering 

Runar Nygaard, Director
Catalin Teodoriu, Graduate Liaison
Rouzbeh Moghanloo, Director, Natural Gas Engineering and Management Online
Sarkeys Energy Center, Suite 1210
100 E. Boyd
Norman, OK 73019-1003
Phone: (405) 325-2921
runar.nygaard@ou.edu
Website: mpge.ou.edu

## General Information

The Mewbourne School of Petroleum and Geological Engineering is nationally ranked as one of the best. Petroleum is synonymous with energy. A large fraction of the energy used in this country originates from oil or natural gas. Although the overall percentage provided by petroleum is expected to drop, the total amount provided by petroleum sources will increase. The world energy transition is occurring, and the petroleum industry will be required to meet the international demands for economical sources of fuels. Energy engineers with enhanced oil recovery, unconventional natural gas and frontier producing areas will provide a greater fraction of this production. The need for complex technology required to produce such difficult resources will require a continued demand for qualified petroleum and geological engineers.

Petroleum and geological engineering are many-faceted disciplines that are directed toward exploiting natural resources contained in a geological habitat. Our newest degree for GeoEnergy Engineers prepares individuals how to characterize, model, and monitor the ground below to design and oversee construction of wells and facilities for subsurface storage, production, and injection. Graduates from our programs can work in several different areas and at different levels of technical involvement. They may work on specific production-related problems in a technical area or they may work on broad energy solutions within their organizations. Between these extremes is the complete spectrum of job possibilities.

Petroleum and GeoEnergy Engineers are required to utilize complex technologies. Exploration and production are not simple, independent processes. Rather, projects are complex and the extreme financial and physical risks must be integrated into the engineering design of specific exploration and production projects to make them succeed. Engineers who analyze and design systems and facilities for current producing systems must be well prepared. The Mewbourne School of Petroleum and Geological Engineering is prepared to produce such engineers.

## Programs \& Facilities <br> Laboratory Facilities

Laboratories, located in the Sarkeys Energy Center and the north campus, are well-equipped to give undergraduate and graduate instruction in all phases of petroleum, geological, and geoenergy engineering. Specific laboratory items include equipment for the following: core analysis, capillary pressure and relative permeability measurements; ultrasonic velocity; nuclear magnetic resonance spectra; fines migration and formation damage control; the testing and treatment of drilling muds, emulsions, and oil field brines; pressure-volume-temperature measurements of gas and oil mixtures under
reservoir conditions; units for studying the flow of oil, gas, and water through porous media; electrolytic models; gas analysis, regulation, and metering; electrical properties of cores; high pressure PVT equipment; corrosion rate measurement and enhanced oil recovery techniques such as surfactant flooding, polymer flooding, in- situ combustion and microbial processes. Large-scale equipment includes a system for studying crude oil displacement by steam, bottom hole pressure and temperature instruments, drilling and cementing tools, cement consistometer, subsurface pumps, artificial lift equipment, scanning electron microscope, acoustic microscope, Fourier transform infrared spectrometer, load frame and models to illustrate various principles of drilling and production.

The University has access to several thousands of electrical logs and cores from oil and gas wells drilled in Oklahoma.

## Undergraduate Study

## GeoEnergy Engineering, Bachelor of Science

The GeoEnergy Engineering (p. 1019) curriculum is structured to provide a strong foundation in engineering, and to provide specialized education in energy resources, energy resource economics, carbon capture, utilization, applied geomechanics, geothermal energy, hydrogen energy utilization, energy storage, well logs and remote sensing, production and injection systems, drilling and well construction, fluid flow and heat transfer in porous media, porous media characterization. This curriculum will directly benefit students that graduate to work in the energy industry, with diversified knowledge, and abilities to work in a broader scope of energy generation, storage, and transport.

## Petroleum Engineering, Bachelor of Science

The objectives of the Petroleum Engineering, Bachelor of Science (p. 1022) are that Alumni will:

- Our alumni will have successful careers as engineers in oil and gas, government, or related industries by applying engineering judgement that is established on fundamentals and continual growth in their competencies.
- Our alumni will serve society by involvement in professional activities that positively impact health, safety, and environment through ethical behavior and contemporary knowledge

Graduates receiving the degree of Bachelor of Science in Petroleum Engineering are professionally prepared for positions in the fields of drilling, production, well completion, reservoir management and evaluation. They may work in industry or government. They are well prepared to continue their education in professional or graduate studies. Students who choose to specialize in advanced developments or research may pursue graduate studies leading to the master's or doctor's degree.

## Petroleum Engineering Bachelor of Science/Master of Science

The accelerated Bachelor of Science/Master of Science (p. 1024) program allows undergraduate students the opportunity to pursue a graduate education in petroleum engineering while completing their undergraduate degree. Having already received core instruction through OU's undergraduate studies, the introductory petroleum engineering course requirements that are required of graduate students are not necessary, which allows more time to explore course electives in complimentary disciplines such as geology, geophysics, mechanical
engineering, civil engineering and chemical engineering, making students more versatile in their discipline and increasing their marketability.

## Petroleum Engineering Bachelor of Science/Master of Business Administration

The accelerated Petroleum Engineering, Bachelor of Science/Master of Business Administration (p. 1027) program is designed for the petroleum engineering student with an interest in business. The synergy of this track is strengthened by incorporating the Energy specialization of the MBA program into the accelerated curriculum. Students graduating with this option will have a firm foundation in engineering fundamentals along with knowledge of business and energy principles.

## Laptop Requirement

Students with a major in Petroleum Engineering are expected to have a laptop computer. The laptop technologies are used to enhance the learning experience. Students should consult with faculty advisors and the Mewbourne College of Earth and Energy Dean's office for additional information.

## Graduate Study

## Areas of Specialization

The graduate program offers specialized training in drilling, well completion and stimulation, rock mechanics, production engineering, petrophysics, formation damage and control, miscible, immiscible and microbial enhanced oil recovery, reservoir engineering, natural gas engineering, coal bed methane, geological engineering, oil field management and several other allied areas.

## Master of Science Degree

Students may pursue a thesis or non-thesis option in Petroleum Engineering, Geological Engineering or Natural Gas Engineering and Management..

- Petroleum Engineering, Master of Science (p. 1032)
- Geological Engineering, Master of Science (p. 1030)
- Natural Gas Engineering and Management, Master of Science (p. 1031)


## Doctoral Programs

Candidates for the Doctor of Philosophy in Petroleum Engineering (p. 1033) or Geological Engineering (p. 1032) shall satisfy all requirements for the Ph.D. degree in engineering. The degree requires 90 post-baccalaureate credit hours of coursework including the dissertation. Each candidate must meet the general requirements as specified in the bulletin of the Graduate College, as well as all requirements as specified in the general requirements for the master's degree in Petroleum and Geological Engineering, including the satisfactory passage of the Qualifying and General Examinations.

A student should normally expect to spend the equivalent of three full academic years beyond the master's degree in study for the doctorate. As a general rule, either their bachelor's degree or master's degree (or both) will be in PE or GE. All such hours may, on recommendation of the student's Advisory Conference, be applied to their doctoral program. Exceptional applicants who have bachelor and master degrees in other engineering and science fields may be admitted to the MPGE Ph.D. program. Course work deficiencies may be necessary (such as geology), depending upon the applicant's background. Coursework deficiencies will
be determined by the Graduate Liaison and will not be counted as part of the student's Ph.D. program.

The coursework applied toward the Ph.D. degree must include a minor consisting of a minimum of 12 hours (out of 90 credit hours) of applied mathematics or other natural sciences. Courses of study are individually structured to capitalize upon each student's background and to meet their specific needs and research interests. Every candidate for the Ph.D. degree in petroleum and geological engineering must satisfactorily complete the Qualifying and General Examinations.

## Courses

G E 2013 Introduction to Energy Resources 3 Credit Hours
Prerequisite: PHYS 2514; Co-requisite: PHYS 2524. Survey of energy sources including geothermal, fossil, solar, nuclear, wind, hydropower, and biomass. Addressing societal and environmental implications of different type of energy sources. (F, Sp)

## G E 3212 Porous Media Characterization 2 Credit Hours

 Prerequisite: MATH 2934, PHYS 2524, GEOL 1114, and P E 2113; Co-requisite G E 3221. Properties of porous media and the physical processes that controls and alters these properties. How to measure, analyze and interpret porous media properties. (F, Sp)G E 3213 Porous Media Characterization 3 Credit Hours
Prerequisite: MATH 2934, PHYS 2524, GEOL 1114, and P E 2113; CoRequisite: G E 3221. Properties of porous media and the physical processes that controls and alters these properties. How to measure, analyze and interpret porous media properties. (F, Sp)

G E 3220 GeoEnergy Engineering Internship 0 Credit Hours Prerequisite: G E 2013. Full time Career-related work experience of at least eight weeks in the energy industry. The internship may also involve research with faculty members. (F, Su)

G E 3221 Porous Media Characterization Lab 1 Credit Hour
Prerequisite: None; Co-requisite: G E 3212. Laboratory experiments to understand and characterize porous media. (F, Sp)

## GE 3313 Drilling and Well Construction

3 Credit Hours
Prerequisite: P E 3223 or concurrent enrollment, G E 3343, and P E 2153.
Overview of well design and drilling engineering from surface to final depth, completion and abandonment for production and all six classes of injection wells. Topics include; casing design based on pore pressure and fracturing window, design cementing, selection of wellbore fluids for drilling and completion, and state of the art drilling equipment and processes. (F, Sp)

GE 3343 Applied Geomechanics 3 Credit Hours
Prerequisite: G E 3213, P E 2153, P E 3223, and GEOL 3003. Introduction to geomechanics. How to establish properties for rocks, subsurface stresses and pressures. Geomechanical analysis of subsurface energy applications. (F, Sp)

G E 3413 Production and Injection Systems
3 Credit Hours
Prerequisite: P E 3223, G E 3213, and P E 2153. Comprehension of well completion concepts leading to design for optimum well performance for injection and production wells. Applied understanding of the surface production systems and associated components. Included are flow assurance, surface facilities, separation, water and gas processing, pumps, compressors and flow meters. (F, Sp)

G E 3440 Mentored Research Experience
3 Credit Hours
0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)

GE 3513 Fluid Flow and Heat Transfer in Porous Media 3 Credit Hours Prerequisite: G E 3213, P E 3223, and GEOL 3003. The course covers fluid flow and heat transfer in porous media including constitutive equations and modelling methods of transport processes through porous media. ( F , Sp )

G E 3712 Energy Resource Economics
2 Credit Hours
Prerequisite: G E 2013. Application of engineering principles and economics to the evaluation/completion of energy projects, results of which to be used by regulatory agency and investors to value corporations. (F, Sp)

## G E 3813 Formation Evaluation: Well Logs \& Remote Sensing Methods <br> 3 Credit Hours

Prerequisite: ENGR 2431, GEOL 3003, and G E 3213. Comprehension of various methods of formation evaluation. Application of logging tools, geophysical methods, and other sensing techniques to formation evaluation of sub-surface rocks. (F, Sp)

G E 3960 Honors Reading 1-3 Credit Hours 1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Consists of topics designated by the instructor in keeping with the student's major program. Covers materials not usually presented in the regular courses. (F, Sp)

G E 3970 Honors Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. The projects covered will vary. Deals with concepts not usually presented in regular coursework. (Irreg.)

G E 3980 Honors Research 1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Provides an opportunity for the gifted Honors candidate to work on a special project in the student's field. (F, Sp)

G E 3990 Independent Study 1-3 Credit Hours
1 to 3 hours. Prerequisite: permission of instructor and junior standing. May be repeated once with change of content. Independent study may be arranged to study a subject not available through regular course offerings. (F, Sp, Su)

G E 4553 GeoEnergy Capstone Design
3 Credit Hours
Prerequisite: G E 3513 and G E 3712 and G E 3813, or concurrent enrollment. Team based open ended capstone project in geoenergy engineering. (F, Sp)

G E 4613 Carbon Capture, Utilization and Storage 3 Credit Hours Prerequisite: G E 3513. CO2 separation from syngas and flue gas for gasification and combustion processes. Transportation of CO2 in pipelines and sequestration in deep underground geological formations or enhanced oil recovery. Comparison of options for geological sequestration in oil and gas reservoirs, deep unmineable coal beds, and saline aquifers. (F, Sp)

G E 4623 Energy Conversion and Storage
3 Credit Hours
Prerequisite: G E 2013 and P E 2213. Overview of thermal, mechanical, and hybrid chemical energy storage systems. Surface and subsurface storage technologies are addressed. (F, Sp)

G E 4633 Hydrogen Energy Systems
3 Credit Hours
Prerequisite: G E 2013, P E 2213, and P E 3223. Production of hydrogen from natural, hydrocarbon and renewable energy sources. Transportation, storage and utilization of hydrogen. (F, Sp)
G E 4713 Overview of Geothermal Energy
3 Credit Hours
Prerequisite: G E 2013, P E 2213, P E 3223, and GEOL 3003. Geothermal exploration, surface and downhole geothermal facilities. Overview of geothermal systems such as direct use and enhanced geothermal systems. (F, Sp)

## G E 4960 Directed Readings

1-4 Credit Hours
1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean. May be repeated; maximum credit four hours. Designed for upper-division students who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)

## G E 4970 Special Topics/Seminar <br> 1-3 Credit Hours

1 to 3 hours. Prerequisite: Senior standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)
GE 4990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: Senior standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)
G E 5233 Geothermal Technologies 3 Credit Hours
(Crosslisted with P E 5233) Prerequisite: Graduate standing or permission of instructor. This course provides an overview of geothermal resources, applications, systems, surface facilities, wellbore design and completion in geothermal wells, fracture design for EGS systems, drilling challenges of deep geothermal application, well construction challenges in geothermal, and new advancements in numerical and experimental investigation of geothermal. Risk and failure analysis and economic analysis of geothermal systems are incorporated. (F)

## G E 5443 Formation Damage

3 Credit Hours
(Crosslisted with P E and GEOL 5443) Prerequisite: Graduate standing or permission of instructor. This course presents an overview of main mechanisms of formation damage (mechanical, chemical, thermal, and biological) occurring during subsurface applications, including but not limited to primary and enhanced hydrocarbon production, CO2 storage, and geothermal processes. Existing theories explaining the process and methods to mitigate the formation damage will be discussed. (Irreg.)
GE 5960 Directed Readings 1-3 Credit Hours 1 to 3 hours. Prerequisite: graduate standing and permission of department. May be repeated; maximum credit twelve hours. Directed readings and/or literature reviews under the direction of a faculty member. (F, Sp, Su)

## G E 5970 Special Topics/Seminar

1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

## G E 5980 Research for Master's Thesis

2-9 Credit Hours
Variable enrollment, 2 to 9 hours; maximum credit applicable toward degree, four hours. (F, Sp, Su)

G E 5990 Special Studies
1-4 Credit Hours
1 to 4 hours. Prerequisite: graduate standing in Geological Engineering. May be repeated with change of topic; maximum credit four hours. Supervised individual study or specialized research in geological engineering. ( $\mathrm{F}, \mathrm{Sp}$ )

G E 6273 Advanced Rock Mechanics II
3 Credit Hours
(Crosslisted with P E 6273) Prerequisite: Graduate standing and instructor permission. Advanced topics related to petroleum and geothermal reservoir rock properties, constitutive models, rock fracture, and coupled processes in rocks and rock masses. Influence of stress, fluid pressure, temperature, and chemistry on rock properties and deformation in the context of drilling, reservoir stimulation, and induced seismicity. (Irreg.)

G E 6960 Directed Readings
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit six hours. Directed readings and/or literature review under the direction of a faculty member. (Irreg.)
G E 6970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit 12 hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or research and field projects. (Irreg.)

G E 6980 Research for Doctoral Dissertation 2-16 Credit Hours
2 to 16 hours. Prerequisite: Graduate standing and permission of instructor; may be repeated. Directed research culminating in the completion of the doctoral dissertation. (F, Sp, Su)
G E 6990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)

P E 2011 Introduction to Petroleum Engineering
1 Credit Hour Discuss the various sources of energy and their uses. Outline the full value chain of fossil fuels from exploration to production in light of government regulation and political influence. Recognize the impact of fossil fuel production on society. (Sp)
P E 2022 Python for Energy Applications
2 Credit Hours
Prerequisite: MATH 1914. This course provides an introduction to programming basics, problem-solving methods and algorithm development aided with Python. The course focuses on program design, debugging, testing and documentation and covers data types, control statements, functions, passing arguments, library functions, arrays, plotting, and object-oriented design. Students will also learn about various Python libraries that aid in the manipulation and analyses of large datasets. (Sp)

P E 2113 Statics and Dynamics
3 Credit Hours
Prerequisite: Physics 2514 and Mathematics 2934 or 2433 or concurrent enrollment in Mathematics 2934 or 2433. Vector representations of forces and moments; general three-dimensional theorems of statics and dynamics; centroids and moments of area and inertia. Free-body diagrams, equilibrium of a particle and of rigid bodies, principles of work and energy; principle of impulse-momentum. Motion of particles and rigid bodies of translating and rotating reference frames. Newton's laws of motion and Lagrange's equation, including application to lumpedparameter systems. Analyses of trusses, frames, and machines. (F)

P E 2153 Mechanics of Materials
3 Credit Hours
Prerequisite: PE 2113. Basic principle of mechanics, including the definition of stress, transformations and principal values for the stress and strain tensors, kinematic relation review of conservation equations and the development and application of consecutive laws for idealized materials. Elementary elastostatics utilizing Hooke's Law; consecutive relations for a linear-elastic continuum, including elastic parameters such as youngs modulus, shear and bulk moduli and poisson-s ratio. Solution of elementary one- and two-dimensional mechanics problems, including thermal stresses and strains, beam flexure, shear and deflections, pressure vessel and buckling of columns. (Sp)
PE 2213 Thermodynamics 3 Credit Hours
Prerequisite: MATH 2934 or 2433 and PHYS 2524 or concurrent enrollment in both MATH 2934 or 2433 and PHYS 2524. First and second law of thermodynamics are developed and applied to the solutions of problems from a variety of engineering fields. Extensive use is made of differential calculus to interrelate thermodynamics functions. (Sp)

## P E 2281 Engineering Co-Op Program <br> 1 Credit Hour

(Crosslisted with AME, CH E, CEES, C S, ECE, ENGR, EPHY and I E 2281) Prerequisite: student participation in the program. The Co-Op program provides student placement in jobs outside the University, but in a position related to the student's major. On completion of a semester work period, the student submits a brief written report. One hour of credit (elective) granted for each work period, with a maximum credit of six hours. (F, Sp, Su)

P E 3021 Technical Communications
1 Credit Hour
Prerequisite: English 1213/EXPO 1213. Develop skills for communication in a business/technical setting. (Sp)
PE 3022 Technical Communications 2 Credit Hours
Prerequisite: ENGL 1213. Develop skills for communication in a business/ technical setting. (Sp)
PE 3123 Petroleum Reservoir Fluids 3 Credit Hours
Prerequisite: PE 2213. Gain knowledge of properties of naturally occurring fluids in the subsurface. Analyze and interpret contemporary field and laboratory fluid property measurements to construct fluid system models for reservoir performance during depletion. (F)

## P E 3213 Reservoir Rock Properties

3 Credit Hours
Prerequisite: PE 2011 or concurrent enrollment, PE 2213 or concurrent enrollment, and GEOL 1114; Corequisite: PE 3221. Gain knowledge of properties of reservoir rocks under subsurface conditions, as well as the physical processes which control and alter them. Analyze and interpret contemporary rock properties measurements that address storativity, transmissibility and heterogeneity. ( Sp )

## P E 3220 Petroleum Engineering Internship

0 Credit Hours
Prerequisite: PE 2011. Full time Career-related work experience of at least eight weeks in the petroleum industry. The internship may also involve research with faculty members. (F, Su)
P E 3221 Rock Properties Laboratory
1 Credit Hour
Prerequisite: PE 3022 or concurrent enrollment, co-requisite PE 3213.
Laboratory course aimed at exposing student teams to the design and conducting of experiments and the analysis and interpretation of reservoir properties. Students are expected to summarize experimental results in written research reports. The course will stress safety concerns appropriate for all laboratory procedures, error analyses and report writing. (Sp)

P E 3222 Petroleum Engineering Practice II (Internship) 2 Credit Hours Prerequisite: PE 2011. Full time Career-related work experience of at least eight weeks in the petroleum industry. The internship may also involve research with faculty members. (F, Su)
P E 3223 Fluid Mechanics
3 Credit Hours
Prerequisite: PE 2113, PE 2213 or concurrent enrollment, Mathematics 2934/2443 or concurrent enrollment, Mathematics 3113 or concurrent enrollment. Coverage of the fundamental of fluid statics and dynamics. Formulation of the equations of fluid flow such as Navier Stokes, Euler, Bernoulli, etc. and their application. Examples of ideal and viscous fluid flow in open and closed conduits. (F)

## PE 3313 Drilling I

3 Credit Hours
Prerequisite: PE 3213, PE 3223 or concurrent enrollment. Comprehension of contemporary drilling techniques including: rig systems, drilling cost and economics, drilling fluids, wellbore hydraulics, cementing, pore and fractured pressure gradients and drill bits. Design of balanced pressure systems, with professional and ethical responsibility considerations towards safety, while minimizing common drilling problems such as formation damage, fluid loss, lost circulation, stuck pipe, kick and well control incidents. (F)

## P E 3343 Revolution in Power: the Evolution of Energy Systems from Fossil Fuels to Renewables <br> 3 Credit Hours

(Crosslisted with HSTM 3343) Prerequisite: Junior standing, or completion of one History of Science lower-division course, or permission of instructor. This course provides an interdisciplinary perspective on energy systems in both their technical and human contexts, from fossil fuels to renewables, with particular focus on their social, culture, and environmental implications for Western society and the world. The history and evolution of the associated technologies will be discussed, with attention to non-western and indigenous perspectives on these global technological systems. (F) [IV-WC].

## P E 3413 Production Engineering I

3 Credit Hours
Prerequisite: PE 3123; PE 3223 or concurrent enrollment. Comprehension of well completion concepts leading to design for optimum well performance, including nodal analysis for performance prediction. (Sp)
PE 3440 Mentored Research Experience 3 Credit Hours 0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)
P E 3513 Reservoir Engineering I
3 Credit Hours
Prerequisite: PE 3123, PE 3213. Combine knowledge of rock and fluid properties in enabling performance prediction and evaluation of hydrocarbon reservoirs, encouraging the understanding of the impact of evolving technology to the development of conventional and unconventional reservoirs. (Sp)
P E 3712 Petroleum Economics
2 Credit Hours
Prerequisite: Students need to have been admitted to the PE professional program to take upper division PE courses, requires Mewbourne College of Earth and Energy qualified enrollment. Application of petroleum engineering principles and economics to the evaluation of oil and gas projects. Analysis of the petroleum reserve management system and its use by the securities exchange commission and investors to value corporations. (F)

PE 3723 Numerical Methods for Engineering Computation 3 Credit Hours
Prerequisite: MATH 3113 or MATH 3413 or concurrent enrollment. Course uses software applications tailored for petroleum engineering majors, including methods for obtaining numerical solutions with digital computers, methods for solutions of algebraic and transcendental equations, simultaneous linear equations, and curve fitting techniques. Students will solve contemporary engineering problems using computational numerical methods for solutions in varied technical, societal, global, economic, and environmental applications. Any student who earns credit for P E 3723 cannot receive duplicate credit for AME 3723, C S 3723, or CH E 3723. (F)
PE 3813 Formation Evaluation with Well Logs 3 Credit Hours
Prerequisite: PE 3213. Comprehension of various methods of formation evaluation. Application of tool responses to formation evaluation in conventional and unconventional reservoirs. Using these principles to evaluate in-place hydrocarbon volume and the selection of applicable techniques as they evolve to the ever changing exploration environment. (Sp)
P E 3960 Honors Reading 1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Consists of topics designated by the instructor in keeping with the student's major program. Covers materials not usually presented in regular coursework. ( $F, S p$ )

## P E 3970 Honors Seminar

1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. The projects covered will vary. Deals with concepts not usually presented in regular coursework. (Irreg.)
PE 3980 Honors Research 1-3 Credit Hours 1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Provides an opportunity for the gifted Honors candidate to work on a special project in the student's field. ( $\mathrm{F}, \mathrm{Sp}$ )
PE 3990 Independent Study 1-3 Credit Hours
1 to 3 hours. Prerequisite: permission of instructor and junior standing. May be repeated once with change of content. Independent study may be arranged to study a subject not available through regular course offerings. (F, Sp, Su)
P E G4033 Oil, Gas and Environmental Law
3 Credit Hours
Prerequisite: PE 3712. Review and analysis of legal principles and leading cases related to oil and gas exploration, production and marketing in the areas of land titles, leases, operating agreements, contracts, acquisitions, gas marketing, environmental regulation, pollution, and litigation. (F)
P E 4221 Petroleum Engineering Practice III
1 Credit Hour
Prerequisite: P E 3220; Majors only. Career-related work experience of at least eight weeks in the petroleum industry. (F, Su)

## P E 4323 Drilling II

3 Credit Hours
Prerequisite: PE 3313, PE 2153. Application of petroleum engineering principles, wellbore, well planning, casing design, direction control, drilling preparation, offshore operations. Team design project and presentation in casing design. Understand and evaluate environmental risk, professional and ethical responsibilities associated in drilling and production operations. Assess impact price of oil has on drilling activities, analyze and compare international drilling and completion concepts under environmental, societal contexts. (F)

PE 4331 Drilling Engineering Laboratory
1 Credit Hour
Prerequisite: P E 3313. Laboratory course aimed at exposing student teams to the design and conducting of experiments and the analysis and interpretation of drilling and production engineering. The course will stress safety concerns appropriate for all laboratory procedures, error analyses and report writing. (Sp)
P E 4423 Production Engineering II
3 Credit Hours
Prerequisite: PE 3223. Gain applied understanding of the surface production systems and associated components based on technical, professional, environmental, and safety principles. Included are flow assurance, surface facilities, separation, water and gas processing, pumps, compressors and flow meters. (F)
P E 4463 Data Analytics
3 Credit Hours
(Slashlisted with P E 5463) Prerequisite: P E 3723. Introduction to Data Mining and Machine Learning for students interested in the theory and applications of data mining/data analytics/machine learning in the petroleum industry. Will be of value to petrophysicists, geophysicists, and petroleum engineers who deal with large datasets, extracting meaning out of data. No student may earn credit for both 4463 and 5463. (Sp)
P E 4521 Reservoir Fluid Mechanics Laboratory
1 Credit Hour Prerequisite: PE 3513. Laboratory course aimed at exposing student teams to the design and conducting of experiments and the analysis and interpretation of reservoir fluid mechanics. The course stresses safety concerns appropriate for all laboratory procedures, error analyses and report writing. (F)
PE 4532 Reservoir Engineering II
2 Credit Hours
Prerequisite: PE 3513. Comprehension of primary and secondary recovery drive mechanisms, including the effects of heterogeneity, for constructing enhanced recovery performance prediction models. (F)
P E G4533 Reservoir Engineering II
3 Credit Hours
Prerequisite: PE 3513. Comprehension of primary and secondary recovery drive mechanisms, including the effects of heterogeneity, for constructing enhanced recovery performance prediction models. (F)
P E 4552 Data Analytics
2 Credit Hours
Prerequisite: PE 3723. This course provides an introduction to Data Mining and Machine Learning for students interested in the theory and applications of data mining/data analytics/machine learning in the petroleum industry. As such it will be of immense value to petrophysicists, geophysicists and petroleum engineers who deal with large datasets and want to extract meaning out of this data. (Sp)
PE 4553 Integrated Reservoir Management 3 Credit Hours (Slashlisted with P E 5553) Prerequisite: PE 3313, PE 3813, PE 4712 or PE 4711, PE 4423, PE 4533 or PE 4532, PE 4323 or concurrent enrollment. Comprehensive reservoir assessment experience based on knowledge and skills throughout PE curriculum. Results are delivered by teams in oral presentations, written technical and summary reports. Experience incorporates petroleum reserve management system (appropriate engineering standards) and multiple realistic constraints (current economic and political conditions). Requires work flow design tailored to specific reservoirs to resolve production performance, recovery and volumetrics. Capstone. No student may earn credit for both 4553 and 5553. (F, Sp) [V].

P E 4573 Well Test Analysis 3 Credit Hours
(Slashlisted with PE 5573) Prerequisite: PE 3513 or PE 3413. Review of petrophysics and fluid properties related to well testing. Material balance, diffusivity equation, steady-state flow, and pseudosteadystate flow. Analytical model for well tests. Wellbore storage and skin effects. Well test interpretation in conventional formations. Gas well test interpretation. Flow regimes and bounded reservoir behavior. Well test interpretation in fractured, faulted, and dual-porosity formations. Wellbore and near-wellbore phenomena. No student may earn credit for both 4573 and 5573. (Irreg.)

P E 4583 Improved Recovery Techniques 3 Credit Hours
(Slashlisted with P E 5583). Prerequisite: PE 3513. New wellbore and reservoir techniques for improved recovery, diagnostic techniques, waterflooding, and enhanced oil recovery. No student may earn credit for both 4583 and 5583. (Sp)
PE 4711 Petroleum Project Evaluation
1 Credit Hour
Prerequisite: PE 3413 and PE 3513; and PE 3712 can be taken concurrently. Application of petroleum engineering principles and economics to the evaluation of oil and gas projects. Analysis of the petroleum reserve management system and its use by the securities exchange commission and investors to value corporations. Evaluation of risk including developing political and scientific risks to oil and gas projects. (F, Sp)

PE 4712 Petroleum Project Evaluation
2 Credit Hours
Prerequisite: PE 3413, PE 3513, PE 3712. Application of petroleum engineering principles and economics to the evaluation of oil and gas projects. Analysis of the petroleum reserve management system and its use by the securities exchange commission and investors to value corporations. Evaluation of risk including developing political and scientific risks to oil and gas projects. (F)
P E 4960 Directed Readings 1-4 Credit Hours
1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean. May be repeated; maximum credit four hours. Designed for upper-division students who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)

## P E 4970 Special Topics/Seminar 1-3 Credit Hours

1 to 3 hours. Prerequisite: Senior standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

P E 4990 Special Studies 1-4 Credit Hours
1 to 4 hours. Prerequisite: department instructor permission. May be repeated; maximum credit 4 hours. Special research on current or special problems. (F, Sp, Su)

## PE5123 Scanning Electron Microscopy of Geological

## Materials

3 Credit Hours
Prerequisite: Graduate standing and permission of instructor. Gain the competency to operate and apply scanning electron microscopy technology to focus on geologic materials with special attention pertinent to the petroleum industry. Acquire and critically analyze SEM data suitable for scientific publication. (F)

P E 5233 Geothermal Technologies
3 Credit Hours
(Crosslisted with G E 5233) Prerequisite: Graduate standing or instructor permission. This course provides an overview of geothermal resources, applications, systems, surface facilities, wellbore design and completion in geothermal wells, fracture design for EGS systems, drilling challenges of deep geothermal application, well construction challenges in geothermal, and new advancements in numerical and experimental investigation of geothermal. Risk and failure analysis and economic analysis of geothermal systems are incorporated. (F)

P E 5243 Introduction to Rock Mechanics
3 Credit Hours
Prerequisite: Graduate standing or instructor permission. Engineering properties of rock; rock testing techniques; in-situ methods; mathematical approach to stress-strain analysis; discontinuities in rock; applications for underground openings; rock slopes; foundations and drilling. (Sp)
P E 5343 Oil Country Tubular Goods 3 Credit Hours
Prerequisite: Graduate standing or permission of instructor. Provides an overview of tubular use in the oil industry and manufacturing process of tubulars used from upstream to downstream applications. Students will learn about the design options to meet deliverables, safety, and integrity requirements in tubular applications. Main components of a well are described and analyzed by their function and design criteria. (F)
PE5353 Advanced Drilling 3 Credit Hours
Prerequisite: Graduate standing or instructor permission. Cost control, hole problems, planning a well, drilling; muds, drilling fluid solids removal, pressure losses, lifting capacity of drilling fluids, surge and swab pressures, pore pressure and fracture gradients, pressure control, well control equipment, blowouts, deviation in boreholes, rotary drilling bits. (F)

## P E 5363 Completion and Workover

3 Credit Hours
Prerequisite: Graduate standing and majors only, or P E 3313 and P E 3413. This course provides an overview of completions and workover equipment and methods in the oil and gas industry. It is designed to complement the courses on drilling and production engineering currently offered. The students will learn about the design options to meet deliverability, safety, and integrity requirements in completions and workover operations. (F)
P E 5393 Rheology of Complex Fluids
3 Credit Hours
(Crosslisted with CH E 5393) Prerequisite: Graduate standing and CH E 5971, or permission of instructor. Develop skills necessary to understand the basic principles of rheological and viscoelastic properties of complex fluids, such as polymer melts and solutions, emulsions, suspensions, multiphase flow, etc. Covers the flow behavior of nonNewtonian fluids and viscoelastic fluids. Newtonian fluid mechanics will be reviewed to describe the standard flows for rheology. Rheometry, the technique for characterization of fluids, will be discussed. (Sp)
P E 5423 Advanced Stimulation
3 Credit Hours
Prerequisite: Graduate standing or instructor permission. Theory and application of continuum mechanics concepts to hydraulic fracturing, acidizing, acid fracturing and other stimulation processes. (Irreg.)

## P E 5433 Horizontal Well Technology

3 Credit Hours
Prerequisite: Graduate standing or instructor permission. Horizontal well technology including: horizontal drilling and associated drilling problems, horizontal well completions and stimulation, horizontal well testing and logging, horizontal wells lift systems, environmental aspects of horizontal wells, economics, regulations. (Sp)

PE 5443 Formation Damage 3 Credit Hours
(Crosslisted with G E and GEOL 5443) Prerequisite: Graduate standing or permission of instructor. This course presents an overview of main mechanisms of formation damage (mechanical, chemical, thermal, and biological) occurring during subsurface applications, including but not limited to primary and enhanced hydrocarbon production, CO2 storage, and geothermal processes. Existing theories explaining the process and methods to mitigate the formation damage will be discussed. (Irreg.)
P E 5463 Data Analytics
3 Credit Hours
(Slashlisted with P E 4463) Prerequisite: Graduate standing or instructor permission. Introduction to Data Mining and Machine Learning for students interested in the theory and applications of data mining/data analytics/machine learning in the petroleum industry. Will be of value to petrophysicists, geophysicists, and petroleum engineers who deal with large datasets, extracting meaning out of data. No student may earn credit for both 4463 and 5463. (Sp)
PE 5523 Advanced Production Engineering
3 Credit Hours
Prerequisite: graduate standing or permission. Inflow performance relationship, skins of well completion \& design, single/multiple phase flow in wellbore and pipes, Nodal analysis, artificial lifting methods including gas lift, rod pump and ESP, Production stimulation technologies including acidizing and hydraulic fracturing, introduction of production logging. (F)
PE5553 Integrated Reservoir Management 3 Credit Hours
(Slashlisted with P E 4553) Prerequisite: Graduate standing, prerequisite or concurrent enrollment in P E 3313, P E 3813, P E 4423, P E 4323, P E 4712 or P E 4711, P E 4533 or P E 4532. Comprehensive reservoir assessment experience based on knowledge and skills throughout PE curriculum. Results are delivered by teams in oral presentations, written technical and summary reports. Experience incorporates petroleum reserve management system (appropriate engineering standards) and multiple realistic constraints (current economic and political conditions). Requires work flow design tailored to specific reservoirs to resolve production performance, recovery, and volumetrics. No student may earn credit for both 4553 and 5553. (F, Sp)
PE 5563 Mathematical Simulation Models
3 Credit Hours
Prerequisite: Graduate standing or instructor permission. Principles of simulating engineering systems by partial differential equation systems; considers the use of engineering principles in formulating mathematical simulation models and analytic techniques for solving the resulting mathematical models. (Sp)
P E 5573 Well Test Analysis
3 Credit Hours
(Slashlisted with P E 4573) Prerequisite: Graduate standing or instructor permission. Review of petrophysics and fluid properties related to well testing. Material balance, diffusivity equation, steady-state flow, and pseudosteady-state flow. Analytical model for well tests. Wellbore storage and skin effects. Well test interpretation in conventional formations. Gas well test interpretation. Flow regimes and bounded reservoir behavior. Well test interpretation in fractured, faulted, and dualporosity formations. Wellbore and near-wellbore phenomena. No student may earn credit for both 4573 and 5573. (Sp)
PE 5583 Improved Recovery Techniques
3 Credit Hours
(Slashlisted with P E 4583) Prerequisite: senior standing, or graduate standing. New wellbore and reservoir techniques for improved recovery, diagnostic techniques, waterflooding, and enhanced oil recovery. No student may earn credit for both 4583 and 5583. (Sp)

PE5603 Introduction to Natural Gas Engineering and

## Management

3 Credit Hours
Prerequisite: Graduate standing or instructor permission. Global natural gas supply and demand, international gas trade and infrastructure, gas policy, regulation, safety and environmental issues, natural gas resource base: conventional and unconventional, gas exploration, drilling and production, gas processing, storage and pipeline, gas trading and marketing, gas utilization, LNG, chemicals. (F)
P E 5613 Natural Gas Engineering
3 Credit Hours
Prerequisite: Graduate standing or permission of instructor. Review of properties of natural gases and condensate systems; gas flow in porous media; gas reservoir engineering; gas field development; gas condensate reservoirs; natural gas transportation and storage. (Alt. Sp)
P E 5623 Natural Gas Processing
3 Credit Hours
Prerequisite: PE 5603, graduate standing or permission of instructor. Gas conditioning; processing of gas for its liquids; design of adsorption and absorption facilities; fractionation design. (Alt. Sp)
P E 5633 Oil and Gas Laws
3 Credit Hours
Prerequisite: Graduate standing and departmental permission. The course will provide students with fundamental understanding of various oil and gas laws which control and govern different aspects of oil and gas business activities, from reservoir to ultimate customers of different products, whether they are oil and natural gas or final products, including methane, ethane, propane, LPG, NGL, etc. (Irreg.)
PE 5643 Natural Gas Finance - Valuation and Investment

## 3 Credit Hours

Prerequisite: Graduate standing or instructor permission. This course is the first in a two-course sequence in natural gas finance. The first course covers valuation and investment topics; and the second course covers risk management and natural gas trading topics. The valuation and investment course exposes students to basic concepts and practices of valuation and investment in the natural gas industry. Topics include accounting systems, financial statement analysis, valuation of company stocks, competitive comparisons, value of reserves in the ground, corporate restructuring, legal and tax environment for mergers, valuation of bonds and preferred stocks. The emphasis of the course will be on the application of the basis financial theories of valuation and investment on the natural gas industry. (F)

## P E 5653 Natural Gas Finance - Trading and Risk Management

## 3 Credit Hours

Prerequisite: Graduate standing or instructor permission. This course is the second in a two-course sequence in natural gas finance. The first course covers valuation and investment topics; and the second course covers risk management and natural gas trading topics. The gas risk management course exposes students to basic concepts and practices of risk management in the natural gas industry. Topics include basic structure of the gas physical and financial markets, derivatives, hedging strategies, futures and forward price determination, option pricing theories, value at risk and market fundamental and technical analyses. The emphasis of the course will be on the application of the basis financial risk management theories to the natural gas industry. (Sp)
P E 5663 Natural Gas Utilization 3 Credit Hours
Prerequisite: Graduate standing or permission of instructor. The course covers the uses of natural gas for combustion, power, LNG, gas conversion to chemicals and fuels, and gas transportation. (Sp)

P E 5673 Liquified Natural Gas Value Chain 3 Credit Hours Prerequisite: Graduate standing and departmental permission. The course covers the worldwide supply and demand landscape for LNG followed by all aspects of the LNG value chain, beginning with receiving feed natural gas from supply pipelines and processing it to meet required specifications for liquification to LNG and transporting it to end users. (F, Sp )
P E 5683 Natural Gas Transportation \& Storage 3 Credit Hours Prerequisite: Graduate standing and departmental permission. This course covers basic principles of hydrocarbon value chain from wellhead to the end user. Primary focus relates to mid-stream operations and covers hydrocarbon transportation fundamentals (on-shore and off-shore), transportation safety, fluid characterization, pipeline design (on-shore and off-shore), rotating and reciprocating equipment design, storage facilities, flow assurance, and integrity management. (F)
P E 5693 Safety and Human Factors
3 Credit Hours
Prerequisite: Graduate standing and departmental permission. This course is designed as an introduction to the safety and human factors that are important in delivering on the energy industries' commitment to safe and environmentally-sound development of our natural resources. Engineered systems work hand in hand with leadership and organizational culture to adapt to an ever-changing environment to ensure that safe and environmentally-sustainable performance is maintained. (Su)

## P E 5703 Advanced Energy Economics

3 Credit Hours
Prerequisite: Graduate standing. Covers the topics related to the economic analysis of the energy industry markets at both the domestic and international levels. Analysis of natural gas market including topics of energy scenarios, energy demand and supply analyses, determination of prices under different market structures, various energy sectors, role of energy efficiency, and policy. (F)

PE 5723 Environmental Sustainability 3 Credit Hours
Prerequisite: Graduate standing and departmental permission. Course will discuss trends moving toward low carbon energy sources and how natural gas technologies fit in the future energy market; will cover proactive environmental management opportunities including concepts in pollution prevention and industrial ecology applied to natural gas systems; and will review how to calculate material and energy balances for power systems as basis for sustainability analyses. (Sp)
PE 5733 Culmination Experience 3 Credit Hours Prerequisite: Graduate standing and departmental permission. Culmination research project within the online Master's Degree Program in Natural Gas Engineering and Management program. Designed to prepare Engineering Managers, Business Managers, and Government Representatives to address the wide-ranging challenges in the midstream natural gas business. This research project course is structured to demonstrate the program outcomes have been achieved and sufficient awareness of topics gained. ( $F, S p$ )
PE 5743 Advanced Project Management
3 Credit Hours
Prerequisite: Graduate standing or instructor permission. This course covers how capital-intensive projects worth billions of dollars in the oil and gas industry are executed, including the different aspects of planning from conception to closeout for successful execution. (Su)

P E 5753 Low Carbon Energy Markets
3 Credit Hours
Prerequisite: Graduate standing or departmental permission.
Comprehensive review of principles, technologies, policies, and market drivers behind the shift towards low-carbon energy. Learn about technologies that make up low-carbon energy markets and explore the role of energy storage and emerging trends. Examine policies/regulations that shape industry. Develop critical thinking and problem-solving skills to analyze complex energy markets, evaluate ethical/social implications and make strategic recommendations for stakeholders. (Su)

## PE 5763 Integrated Asset Management

3 Credit Hours
Prerequisite: Graduate standing. This course is based on the three steps to the successful completion of solutions to managing asset integration: Assessing needs and requirements; Analyzing and modeling solution candidates; Gaining organizational approval and adoption. It will provide an understanding, tools, and skills that can be used to pursue the steps to achieve successful integrated solutions in the technical realms of modern industry. (Sp)

PE5960 Directed Readings
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing and permission of department. May be repeated; maximum credit twelve hours. Directed readings and/or literature reviews under the direction of a faculty member. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
P E 5970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing or permission of instructor.
May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)
P E 5980 Research for Master's Thesis
2-9 Credit Hours
Variable enrollment, two to nine hours; maximum credit applicable toward degree, four hours. (F, Sp, Su)

## P E $5990 \quad$ Special Studies

1-4 Credit Hours
1 to 4 hours. Prerequisite: graduate standing in petroleum engineering.
May be repeated with change of topic; maximum credit twelve hours.
Supervised individual study or specialized research in petroleum engineering. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
PE 6273 Advanced Rock Mechanics II
3 Credit Hours
(Crosslisted with G E 6273) Prerequisite: Graduate standing and instructor permission. Advanced topics related to petroleum and geothermal reservoir rock properties, constitutive models, rock fracture, and coupled processes in rocks and rock masses. Influence of stress, fluid pressure, temperature, and chemistry on rock properties and deformation in the context of drilling, reservoir stimulation, and induced seismicity. (Irreg.)
P E 6283 Seismic Reservoir Modeling
3 Credit Hours
Prerequisite: Graduate standing or permission of instructor. This course is designed to explore the seismic response of rocks and how it is related to petrophysical parameters. This understanding is key to interpretation of seismic data in terms of subsurface rocks and fluids. (F)
PE 6293 Unconventional Reservoirs
3 Credit Hours
Prerequisite: Graduate standing or instructor permission. The objective of this course is to provide basic understanding of developing and producing from unconventional reservoirs, in particular, mudrocks/shales. (F)

## P E 6573 Advanced Reservoir Engineering

3 Credit Hours
Prerequisite: graduate standing. Petrophysics, Formation Evaluation,
Reservoir Fluid Properties, Flow in Porous Media, Reservoir Material
Balance, Decline Curve Analysis and Reservoir Simulation. (F)

P E 6583 Enhanced Oil Recovery
Prerequisite: graduate standing or permission. Fundamentals and principles of enhanced oil recovery; practical applications of method of characteristics to design miscible gas injection, water alternating gas flooding, and polymer flooding. (Sp)
PE 6960 Directed Readings 1-3 Credit Hours 1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit six hours. Directed readings and/or literature review under the direction of a faculty member. (Irreg.)

## P E 6970 Special Topics/Seminar

## 1-3 Credit Hours

1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit 12 hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or research and field projects. (Irreg.)
P E 6980 Research for Doctoral Dissertation 2-16 Credit Hours
2 to 16 hours. Prerequisite: Graduate standing and permission of instructor; may be repeated. Directed research culminating in the completion of the doctoral dissertation. (F, Sp, Su)

P E 6990 Independent Study 1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)

## Faculty

| Last Name | First/Middle <br> Name | Middle init. | OU <br> Service start | Title(s), date(s) appointed | Degrees Earned, Schools, Dates Completed |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Ahmed | Ramadan | M | 2008 | PROFESSOR OF PETROLEUM AND GEOLOGICAL <br> ENGINEERING, 2014; <br> MEWBOURNE CHAIR <br> IN PETROLEUM <br> ENGINEERING,2015 | PhD, Norwegian Univ of Sci \& Tech, 2001; MS, Norwegian Univ of Sci \& Tech, 1997; BS, Addis Ababa Univ, 1989 |
| Devegowda | Deepak |  | 2008 | MEWBOURNE CHAIR <br> IN PETROLEUM ENGINEERING, 2015; PROFESSOR OF PETROLEUM AND GEOLOGICAL ENGINEERING, 2015 | PhD, Texas A\&M Univ, 2008; MS, Texas A\&M Univ, 2008; BS, Indian Insti of Tech, 1998 |
| Fahs | Machhad | M | 2014 | ASSOCIATE <br> PROFESSOR OF <br> PETROLEUM AND <br> GEOLOGICAL <br> ENGINEERING, 2020 | PhD, Imperial Coll-Sci, Tech \& Med, 2007; BS, Lebanese Univ, 2002 |
| Ghanbarnezh Moghanlo | hatbuzbeh |  | 2013 | ASSOCIATE <br> PROFESSOR OF <br> PETROLEUM AND <br> GEOLOGICAL <br> ENGINEERING, 2018 | PhD, Univ of Texas, 2012; MS, Amir Kabir Univ of Tech, 2003; BS, Amir Kabir Univ of Tech, 2001 |
| Ghassemi | Ahmad |  | 2013 | MCCASLAND CHAIR <br> IN PETROLEUM ENGINEERING, 2013; PROFESSOR OF PETROLEUM AND GEOLOGICAL ENGINEERING, 2013 | PhD, Univ of Oklahoma, 1996; MS, Univ of Minnesota, 1990; MS, South Dakota Schl Mines \& Tech, 1988; BS, Univ of Oklahoma, 1984 |


| Karami <br> Mirazizi | Hamidreza |  | 2017 | ASSOCIATE <br> PROFESSOR OF <br> PETROLEUM AND <br> GEOLOGICAL <br> ENGINEERING, 2017 | PhD, Univ of Tulsa, 2015; MS, Univ of Tulsa, 2011; BS, Sharif Univ of Tech, 2009 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Nygaard | Runar |  |  | PROFESSOR OF <br> PETROLEUM AND <br> GEOLOGICAL <br> ENGINEERING, <br> EBERLY FAMILY <br> CHAIR IN <br> PETROLEUM AND <br> GEOLOGICAL <br> ENGINEERING, 2019 | PhD, Univ of Oslo, Norway, 2004; MSc, Univ of Oslo, Norway, 1996; BSc, Univ of Oslo, Norway, 1995 |
| Rai | Chandra | S | 1999 | PROFESSOR OF PETROLEUM AND GEOLOGICAL ENGINEERING, 1999; MARTIN MILLER CHAIR IN PETROLEUM AND GEOLOGICAL ENGINEERING, 2019 | PhD, Univ of Hawaii, 1977; MS, Univ of Hawaii, 1971; BS, Indian School of Mines, 1970 |
| Sajjadi | Baharak |  |  | ASSISTANT <br> PROFESSOR OF <br> PETROLEUM AND <br> GEOLOGICAL <br> ENGINEERING, 2022 | PhD, Univ of Malaya, Kuala Lampur, Malaysia, 2015; MS, Univ of Arak, Iran, 2010; BS, Univ of Arak, Iran, 2008 |
| Shiau | Bor-Jier (Ben) |  | 2008 | ADJUNCT <br> PROFESSOR OF CHEMICAL, BIOLOGICAL AND MATERIALS ENGINEERING, 2010; PROFESSOR OF PETROLEUM AND GEOLOGICAL ENGINEERING, 2018; MEWBOURNE CHAIR IN PETROLEUM ENGINEERING, 2015 | PhD, Univ of Oklahoma, 1995; MS, Univ of Oklahoma, 1991; MS, Univ of Oklahoma 1990; BS, Chun Yuan Christian Univ, 1983 |
| Teodoriu | Catalin |  | 2015 | PROFESSOR OF PETROLEUM AND GEOLOGICAL ENGINEERING, 2015; MEWBOURNE CHAIR IN PETROLEUM ENGINEERING, 2021 | PhD, Oil and Gas Univ of Ploiesti, 2005; PhD, Clausthal Univ of Tech, 2003; MS, Oil and Gas Univ of Ploiesti, 1996 |
| Wu | Xingru |  | 2012 | ASSOCIATE <br> PROFESSOR OF <br> PETROLEUM AND <br> GEOLOGICAL <br> ENGINEERING, 2012 | PhD, Univ of Texas, 2006; MS, Univ of Alaska, 2002; BS, China Petroleum Univ, 1997 |
| Zaman | Musharraf |  |  | DAVID ROSS BOYD <br> CHAIR \& AARON <br> ALEXANDER CHAIR <br> PROFESSOR OF <br> PETROLEUM AND <br> GEOLOGICAL <br> ENGINEERING | PhD, Univ of Arizona, 1982; MS, Carleton Univ, Ottawa, 1979; BS, Bangladesh Univ of Engineering and Technology, 1975 |

## GeoEnergy Engineering, B.S.

Minimum Total Credit Hours: 129
Minimum Upper-Division Hours: 40
Overall GPA - Combined and OU: 2.50
Major GPA - Combined and OU: 2.50

Curriculum GPA - Combined and OU: 2.50

Program Code: B448
This program has changes pending State Regents approval for 2024/25. These pending changes are not reflected here. Major Requirements
A minimum grade of $C$ is required for each course in the curriculum, and students must successfully complete prerequisite courses (with a minimum C grade) before proceeding to the next course.

| Code | Title | Credit |
| :---: | :---: | :---: |
|  |  | Hours |
| G E 2013 | Introduction to Energy Resources | 3 |
| P E 2113 | Statics and Dynamics | 3 |
| P E 2153 | Mechanics of Materials | 3 |
| P E 2213 | Thermodynamics | 3 |
| P E 3022 | Technical Communications | 2 |
| G E 3212 | Porous Media Characterization | 2 |
| G E 3220 | GeoEnergy Engineering Internship ${ }^{1}$ | 0 |
| G E 3221 | Porous Media Characterization Lab | 1 |
| P E 3223 | Fluid Mechanics | 3 |
| G E 3313 | Drilling and Well Construction | 3 |
| G E 3343 | Applied Geomechanics | 3 |
| G E 3413 | Production and Injection Systems | 3 |
| G E 3513 | Fluid Flow and Heat Transfer in Porous Media | 3 |
| G E 3712 | Energy Resource Economics | 2 |
| P E 3723 | Numerical Methods for Engineering Computation | 3 |
| G E 3813 | Formation Evaluation: Well Logs \& Remote Sensing Methods | 3 |
| P E 4463 | Data Analytics | 3 |
| G E 4553 | GeoEnergy Capstone Design | 3 |
| G E 4613 | Carbon Capture, Utilization and Storage | 3 |
| G E 4713 | Overview of Geothermal Energy | 3 |
| or G E 4633 | Hydrogen Energy Systems |  |
| or G E 4623 | Energy Conversion and Storage |  |
| Technical Electiv | - choose one of the following: | 3 |
| upper-divisi | (3000-4000 level) G E or P E course |  |
| a course to f | fill a geology minor |  |
| a course to f Undergradua | fill the Data Science and Analytics Certificate |  |

Total Credit Hours
${ }^{1}$ A G E or P E elective may be taken in place of G E 3220 for 1 to 3 credit hours.

## Major Support Requirements

| Code | Title | Credit |
| :---: | :---: | :---: |
|  |  | Hours |
| MATH 2924 | Differential and Integral Calculus II ${ }^{1}$ | 4 |
| MATH 2934 | Differential and Integral Calculus III ${ }^{1}$ | 4 |
| MATH 3113 | Introduction to Ordinary Differential Equations | 3 |
| CHEM 1415 or CHEM 1435 | General Chemistry (Continued) <br> General Chemistry II: Signature Course | 5 |
| GEOL 1114 | Physical Geology for Science and Engineering Majors | 4 |
| GEOL 3003 | Structural Geology and Stratigraphy for Petroleum Engineers | 3 |
| C S 1213 | Programming for Non-Majors with Python | 3 |
| ENGR 2431 | Electrical Circuits | 1 |
| Geoscience Electiv level) GEOL cours | ve: choose any upper-division (3000-4000 e | 3 |

Total Credit Hours 30

1 The MATH 1823, MATH 2423, MATH 2433, and MATH 2443 sequence can be substituted for MATH 1914, MATH 2924, and MATH 2934.

## General Education and College Requirements

Courses for fulfillment of General Education and college requirements must be from the approved General Education course list at http:// www.ou.edu/content/gened/courses.html. Courses graded P/NP will not apply

UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS
At least three hours of Upper-Division General Education coursework must be completed outside the major.

| Code | Title | Credit |
| :---: | :---: | :---: |
|  |  | Hours |
| Core Area I: Symbolic and Oral Communication |  |  |
| English Composition (6 hours) |  |  |
| ENGL 1113 | Principles of English Composition | 3 |
| ENGL 1213 | Principles of English Composition | 3 |
| or EXPO 1213 | Expository Writing |  |

[^30]| P SC 1113 | American Federal Government | 3 | First Year Experience (Core V) ${ }^{3}$ |  | 3 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Choose one course from the General Education Social Science list |  |  |  | Credit Hours | 15 |
|  |  |  | Second Semester |  |  |
| Core Area IV: Arts and Humanities - one must be Upper Division (3000-4000-level) |  |  | $\begin{aligned} & \text { ENGL } 1213 \\ & \text { or EXPO } 1213 \end{aligned}$ | Principles of English Composition (Core I) or Expository Writing | 3 |
| Artistic Forms (3 hours) |  |  | CHEM 1415 | General Chemistry (Continued) ${ }^{1}$ | 5 |
| Choose one course from the General Education Artistic Forms list. |  | 3 | MATH 2924 | Differential and Integral Calculus II ${ }^{2}$ | 4 |
|  |  | PHYS 2514 | General Physics for Engineering and Science Majors (Core II) | 4 |
| Western Culture (6 hours) |  |  |  |  |
| HIST 1483 or HIST 1493 | United States to 1865 |  | 3 | Sophomore | Credit Hours | 16 |
|  | United States, 1865 to the Present |  |  |  |  |
| Choose one course from the General Education Western Culture list (Excluding HIST 1483 and HIST 1493) |  | 3 | First Semester |  |  |
| World Culture (3 hours) |  |  | PHYS 2524 |  | 4 |
| Choose one course from the General Education World Culture list |  | 3 |  | Science Majors |  |
|  |  |  | GEOL 1114 | Physical Geology for Science and | 4 |
| Core Area V: First Year Experience (3 hours) |  |  |  | Engineering Majors |  |
| Choose one cou |  | 3 | P E 2113 | Statics and Dynamics | 3 |
| Total Credit Hours |  | 39-50 | G E 2013 | Introduction to Energy Resources | 3 |
| ${ }^{1}$ Mewborne College of Earth and Energy Sciences requirements that also satisfy University General Education requirements. |  |  |  | Credit Hours | 18 |
|  |  |  | Second Semester |  |  |
|  |  |  | P E 2213 | Thermodynamics | 3 |
| ADDITIONAL MEWBORNE COLLEGE OF EARTH \& ENERGY REQUIREMENT |  |  | P E 3022 | Technical Communications | 2 |
|  |  |  | G E 3212 | Porous Media Characterization | 2 |
| Code | Title | Credit | G E 3221 | Porous Media Characterization Lab | 1 |
|  |  | Hours | C S 1213 | Programming for Non-Majors with Python | 3 |
| PHYS 2524 | General Physics for Engineering and Science Majors | 4 | MATH 3113 | Introduction to Ordinary Differential Equations | 3 |
| Total Credit Hours |  | 4 | Approved Elective | : Social Science (Core III) ${ }^{3}$ | 3 |
| Free Electives |  |  |  | Credit Hours | 17 |
|  |  |  | Summer |  |  |
| Electives to bring total applicable hours to 129 including 40 upperdivision hours. |  |  | G E 3220 | GeoEnergy Engineering Internship ${ }^{4}$ | 0 |
|  |  |  |  | Credit Hours | 0 |
| Suggested Semester Plan of Study |  |  | First Semester |  |  |
| A minimum grade of $\mathbf{C}$ is required for each course in the curriculum. |  |  | GEOL 3003 | Structural Geology and Stratigraphy for | 3 |
|  |  |  |  | Petroleum Engineers |  |
| Students must successfully complete prerequisite courses (with a minimum C grade) before proceeding to the next course. |  |  | PE2153 | Mechanics of Materials | 3 |
|  |  |  | P E 3223 | Fluid Mechanics | 3 |
| Courses designated as Core I, II, III, IV, or V are part of the General Education curriculum. Students must complete a minimum of 40 hours of General Education courses, chosen from the approved lists. |  |  | P E 3723 | Numerical Methods for Engineering Computation | 3 |
|  |  |  | ENGR 2431 | Electrical Circuits | 1 |
| Two college-level courses in a single language are required; this may be satisfied by successful completion of 2 years in a single language in high school. Students who must take language at the University will have an additional 6-10 hours of coursework. |  |  | Approved Elective: Artistic Forms (Core IV) ${ }^{3}$ |  | 3 |
|  |  |  |  | Credit Hours | 16 |
|  |  |  | Second Semester |  |  |
|  |  |  | P E 4463 | Data Analytics | 3 |
| Freshman |  |  | G E 3343 | Applied Geomechanics | 3 |
| First Semester |  |  | Credit <br> Hours | GE 3513 | Fluid Flow and Heat Transfer in Porous Media | 3 |
| ENGL 1113 | Principles of English Composition (Core I) | 3 | G E 3813 | Formation Evaluation: Well Logs \& Remote Sensing Methods | 3 |
| CHEM 1315 | General Chemistry (Core II) ${ }^{1}$ | 5 |  |  |  |
| MATH 1914 | Differential and Integral Calculus I (Core I) ${ }^{2}$ | 4 | HIST 1483 or HIST 1493 | United States to 1865 (Core IV) or United States, 1865 to the Present | 3 |


| Approved Elec | World Culture (Core IV) ${ }^{3}$ | 3 |
| :---: | :---: | :---: |
|  | Credit Hours | 18 |
| Senior |  |  |
| First Semester |  |  |
| G E 3313 | Drilling and Well Construction | 3 |
| G E 3413 | Production and Injection Systems | 3 |
| G E 4613 | Carbon Capture, Utilization and Storage | 3 |
| G E 3712 | Energy Resource Economics | 2 |
| Geoscience Elective ${ }^{5}$ |  | 3 |
|  | Credit Hours | 4 |
| Second Semester |  |  |
| G E 4553 | GeoEnergy Capstone Design | 3 |
| $\begin{aligned} & \text { G E } 4713 \\ & \text { or G E } 4633 \\ & \text { or G E } 4623 \end{aligned}$ | Overview of Geothermal Energy or Hydrogen Energy Systems or Energy Conversion and Storage | 3 |
| Technical Elective ${ }^{6}$ |  | 3 |
| P SC 1113 | American Federal Government (Core III) | 3 |
| Approved Electi | : Western Culture (Core IV) ${ }^{3}$ | 3 |
|  | Credit Hours | 15 |
|  | Total Credit Hours | 129 |
| ${ }^{1}$ CHEM 1315 and CHEM 1415 can be substituted with CHEM 1335 (Fall only) and CHEM 1435 (Spring only), respectively. |  |  |
| ${ }^{2}$ The MATH 1823, MATH 2423, MATH 2433, and MATH 2443 sequence can be substituted for MATH 1914, MATH 2924, and MATH 2934. |  |  |
| ${ }^{3}$ To be chosen from the University-Wide General Education Approved Course List. Three of these hours must be upper-division (3000-4000). See list in the Class Schedule. |  |  |
| ${ }^{4}$ A G E or P E elective may be taken in place of G E 3220 for 1 to 3 credit hours. |  |  |
| ${ }^{6}$ Technical Elective - choose one of the following options: upperdivision (3000-4000 level) G E or P E course, or a course to fulfill a geology minor, or a course to fulfill the Data Science and Analytics Undergraduate Certificate. |  |  |

## Petroleum Engineering, B.S.

Minimum Total Credit Hours: 129
Minimum Upper-Division Hours: 40

Overall GPA - Combined and OU: 2.50
Major GPA - Combined and OU: 2.50
Curriculum GPA - Combined and OU: 2.50
Program Code: B765

## This program has changes pending State Regents approval for 2024/25. These pending changes are not reflected here. <br> Major Requirements

Bachelor of Science in Petroleum Engineering accredited by the Engineering Accreditation Commission of ABET, https://www.abet.org, under the General Criteria and the Petroleum and Similarly Named Engineering Programs Program Criteria.

A minimum grade of $C$ is required for each course in the curriculum, and students must successfully complete prerequisite courses (with a minimum $C$ grade) before proceeding to the next course.

| Code | Title | Credit Hours |
| :---: | :---: | :---: |
| P E 2011 | Introduction to Petroleum Engineering | 1 |
| P E 2113 | Statics and Dynamics | 3 |
| P E 2213 | Thermodynamics | 3 |
| P E 2153 | Mechanics of Materials | 3 |
| P E 3022 | Technical Communications | 2 |
| P E 3213 | Reservoir Rock Properties | 3 |
| P E 3221 | Rock Properties Laboratory | 1 |
| P E 3220 | Petroleum Engineering Internship ${ }^{1}$ | 0 |
| P E 3123 | Petroleum Reservoir Fluids | 3 |
| P E 3223 | Fluid Mechanics | 3 |
| P E 3313 | Drilling I | 3 |
| P E 3712 | Petroleum Economics | 2 |
| P E 3723 | Numerical Methods for Engineering Computation | 3 |
| P E 3413 | Production Engineering I | 3 |
| P E 3513 | Reservoir Engineering I | 3 |
| P E 3813 | Formation Evaluation with Well Logs | 3 |
| P E 4331 | Drilling Engineering Laboratory | 1 |
| P E 4323 | Drilling II | 3 |
| P E 4423 | Production Engineering II | 3 |
| P E 4521 | Reservoir Fluid Mechanics Laboratory | 1 |
| P E 4711 | Petroleum Project Evaluation | 1 |
| P E 4532 | Reservoir Engineering II | 2 |
| P E 4463 | Data Analytics | 3 |
| P E 4553 | Integrated Reservoir Management | 3 |
| Choose 3 hours of approved P E Elective ${ }^{1}$ |  | 3 |
| Total Credit Hours |  | 59 |

1 PE Elective: P E 4573, P E 4583, P E 4033, or any P E 5000-level course.
Major Support Requirements

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| MATH 2924 | Differential and Integral Calculus II ${ }^{1}$ | 4 |
| MATH 2934 | Differential and Integral Calculus III $^{1}$ | 4 |
| MATH 3113 | Introduction to Ordinary Differential <br> Equations | 3 |
| CHEM 1415 | General Chemistry (Continued) | 5 |
| or CHEM 1435 | General Chemistry II: Signature Course |  |
| GEOL 1114 | Physical Geology for Science and <br> GEOL 3003 | Engineering Majors <br> Structural Geology and Stratigraphy for <br> Petroleum Engineers |
| GPHY 3423 | Introductory Petroleum Geology and <br> Geophysics | 3 |

Total Credit Hours

1 The MATH 1823, MATH 2423, MATH 2433, and MATH 2443 sequence can be substituted for MATH 1914, MATH 2924, and MATH 2934.

## General Education and College Requirements

Courses for fulfillment of General Education and college requirements must be from the approved General Education course list at http:// www.ou.edu/content/gened/courses.html. Courses graded P/NP will not apply

UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS
At least three hours of Upper-Division General Education coursework must be completed outside the major.

| Code Title | Credit Hours |
| :---: | :---: |
| Core Area I: Symbolic and Oral Communication |  |
| English Composition (6 hours) |  |
| ENGL 1113 Principles of English Composition | 3 |
| ENGL 1213 Principles of English Composition or EXPO 1213 Expository Writing | 3 |
| Language (0-10 hours) |  |
| (0-10 hours in the same language) Students who have not completed two years of the same language in high school are required to take two college courses in the same language |  |
| Beginning Course | 0-5 |
| Beginning Course, continued | 0-5 |
| Mathematics (minimum 3 hours) |  |
| MATH 1914 Differential and Integral Calculus I $^{1}$ <br> or MATH 1823 Calculus and Analytic Geometry I  | 3-4 |
| Core Area II: Natural Science (minimum 7 hours, 2 courses) |  |
| CHEM 1315 General Chemistry (Science with Lab) ${ }^{1}$ <br> or CHEM 1335 General Chemistry I: Signature Course  | 5 |
| $\begin{array}{ll}\text { PHYS } 2514 & \text { General Physics for Engineering and } \\ & \text { Science Majors }{ }^{1}\end{array}$ | 4 |
| Core Area III: Social Science (6 hours) |  |
| P SC 1113 American Federal Government | 3 |
| Choose one course from the General Education Social Science list | 3 |
| Core Area IV: Arts and Humanities - one must be Upper Division (3000-4000-level) |  |
| Artistic Forms (3 hours) |  |
| Choose one course from the General Education Artistic Forms list. | 3 |
| Western Culture (6 hours) |  |
| HIST 1483 United States to 1865 <br> or HIST 1493 United States, 1865 to the Present | 3 |
| Choose one course from the General Education Western Culture list (Excluding HIST 1483 and HIST 1493) | 3 |
| World Culture (3 hours) |  |
| Choose one course from the General Education World Culture list | 3 |

Core Area V: First Year Experience (3 hours)

| Choose one course 3 |  |  |
| :---: | :---: | :---: |
| Total Credit |  | 39-50 |
| ${ }^{1}$ Mewborne College of Earth and Energy Sciences requirements that also satisfy University General Education requirements. |  |  |
| ADDITIONAL MEWBORNE COLLEGE OF EARTH \& ENERGY REQUIREMENT |  |  |
| Code | Title | Credit Hours |
| PHYS 2524 | General Physics for Engineering and Science Majors | 4 |
| Total Credit Hours 4 |  |  |

## Free Electives

Electives to bring total applicable hours to 129 including 40 upperdivision hours.

## Suggested Semester Plan of Study

Bachelor of Science in Petroleum Engineering accredited by the Engineering Accreditation Commission of ABET, https://www.abet.org, under the General Criteria and the Petroleum and Similarly Named Engineering Programs Program Criteria.

A minimum grade of $C$ is required for each course in the curriculum.
Students must successfully complete prerequisite courses (with a minimum C grade) before proceeding to the next course.

Courses designated as Core I, II, III, IV, or V are part of the General Education curriculum. Students must complete a minimum of 40 hours of General Education courses, chosen from the approved lists.

Two college-level courses in a single language are required; this may be satisfied by successful completion of 2 years in a single language in high school. Students who must take language at the University will have an additional 6-10 hours of coursework.

## Freshman

| First Semester |  | Credit |
| :---: | :---: | :---: |
|  |  | Hours |
| ENGL 1113 | Principles of English Composition (Core I) | 3 |
| CHEM 1315 | General Chemistry (Core II) ${ }^{1}$ | 5 |
| MATH 1914 | Differential and Integral Calculus I (Core I) ${ }^{2}$ | 4 |
| First Year Experience (Core V) ${ }^{3}$ |  | 3 |
|  | Credit Hours | 15 |
| Second Semester |  |  |
| $\begin{aligned} & \text { ENGL } 1213 \\ & \text { or EXPO } 1213 \end{aligned}$ | Principles of English Composition (Core I) or Expository Writing | 3 |
| CHEM 1415 | General Chemistry (Continued) ${ }^{1}$ | 5 |
| MATH 2924 | Differential and Integral Calculus II ${ }^{2}$ | 4 |
| PHYS 2514 | General Physics for Engineering and Science Majors (Core II) | 4 |
| P E 2011 | Introduction to Petroleum Engineering | 1 |
|  | Credit Hours | 17 |


| Sophomore |  |  |
| :---: | :---: | :---: |
| First Semester |  |  |
| MATH 2934 | Differential and Integral Calculus III ${ }^{2}$ | 4 |
| PHYS 2524 | General Physics for Engineering and Science Majors | 4 |
| GEOL 1114 | Physical Geology for Science and Engineering Majors | 4 |
| P E 2113 | Statics and Dynamics | 3 |
| Approved Elective: Artistic Forms (Core IV) ${ }^{3}$ |  | 3 |
|  | Credit Hours | 18 |
| Second Semester |  |  |
| P E 2213 | Thermodynamics | 3 |
| P E 3022 | Technical Communications | 2 |
| P E 3213 | Reservoir Rock Properties | 3 |
| P E 3221 | Rock Properties Laboratory | 1 |
| MATH 3113 | Introduction to Ordinary Differential Equations | 3 |
| Approved Electiv | : World Culture (Core IV) ${ }^{3}$ | 3 |
|  | Credit Hours | 15 |
| Summer |  |  |
| P E 3220 | Petroleum Engineering Internship | 0 |
|  | Credit Hours | 0 |
| Junior |  |  |
| First Semester |  |  |
| GEOL 3003 | Structural Geology and Stratigraphy for Petroleum Engineers | 3 |
| P E 3123 | Petroleum Reservoir Fluids | 3 |
| P E 3223 | Fluid Mechanics | 3 |
| P E 3313 | Drilling I | 3 |
| P E 3712 | Petroleum Economics | 2 |
| P E 3723 | Numerical Methods for Engineering Computation | 3 |
|  | Credit Hours | 17 |
| Second Semester |  |  |
| GPHY 3423 | Introductory Petroleum Geology and Geophysics | 3 |
| P E 2153 | Mechanics of Materials | 3 |
| P E 3413 | Production Engineering I | 3 |
| P E 3513 | Reservoir Engineering I | 3 |
| P E 3813 | Formation Evaluation with Well Logs | 3 |
| P E 4331 | Drilling Engineering Laboratory | 1 |
|  | Credit Hours | 16 |
| Senior |  |  |
| First Semester |  |  |
| HIST 1483 or HIST 1493 | United States to 1865 (Core IV) or United States, 1865 to the Present | 3 |
| P E 4323 | Drilling II | 3 |
| P E 4423 | Production Engineering II | 3 |
| P E 4521 | Reservoir Fluid Mechanics Laboratory | 1 |
| P E 4532 | Reservoir Engineering II | 2 |
| P E 4711 | Petroleum Project Evaluation | 1 |
| Approved Elective: Social Science (Core III) ${ }^{3}$ |  | 3 |
|  | Credit Hours | 16 |

## Second Semester

| P SC 1113 | American Federal Government (Core III) | 3 |
| :---: | :---: | :---: |
| P E 4463 | Data Analytics | 3 |
| P E 4553 | Integrated Reservoir Management | 3 |
| P E - Approved P E Elective ${ }^{4}$ |  |  |
| $\underline{\text { Approved Elective: Western Culture (Core IV) }{ }^{3}}$ |  |  |
|  | Credit Hours | 15 |
|  | Total Credit Hours | 129 |
| ${ }^{1}$ CHEM 1315 and CHEM 1415 can be substituted with CHEM 1335 (Fall only) and CHEM 1435 (Spring only), respectively. <br> 2 The MATH 1823, MATH 2423, MATH 2433, and MATH 2443 sequence can be substituted for MATH 1914, MATH 2924, and MATH 2934. |  |  |
| ${ }^{3}$ To be chosen from the University-Wide General Education Approved Course List. Three of these hours must be upper-division (3000-4000). See list in the Class Schedule. <br> ${ }^{4}$ PE Elective: P E 4573, P E 4583, P E 4033, or any P E 5000-level course. |  |  |
| Petroleum Engineering, B.S./M.S. |  |  |

Minimum Total Credit Hours: 151-157

Overall GPA - Combined and OU: 3.00
Major GPA - Combined and OU: 3.00
Curriculum GPA - Combined and OU: 3.00

## Program Code: A764/F765

## This program has changes pending State Regents approval for 2024/25. These pending changes are not reflected here. Undergraduate Major Requirements

Bachelor of Science in Petroleum Engineering accredited by the Engineering Accreditation Commission of ABET, https://www.abet.org, under the General Criteria and the Petroleum and Similarly Named Engineering Programs Program Criteria.

A minimum grade of $C$ is required for each course in the curriculum.

Students may enter the accelerated program based on the undergraduate degree pattern offered in the year they first enrolled in the Oklahoma State System of Higher Education or later.

Students must maintain a 3.0 GPA from the time of entering the accelerated program until graduation.

Students must take the GRE and apply for the MS program during the third year; minimum OU GPA and combined GPA of 3.0 is required. Students should submit an application to the School of Petroleum Engineering for the accelerated program during the fall semester of the Junior year. Students must also apply to the Graduate College during the spring semester of the Senior year to be admitted by that college to the MS program.

| Code | Title | Credit |
| :--- | :--- | ---: |
|  |  | Hours |
| P E 2011 | Introduction to Petroleum Engineering | 1 |
| P E 2113 | Statics and Dynamics | 3 |


| PE 2213 | Thermodynamics | 3 |
| :---: | :---: | :---: |
| P E 2153 | Mechanics of Materials | 3 |
| P E 3022 | Technical Communications | 2 |
| P E 3213 | Reservoir Rock Properties | 3 |
| P E 3221 | Rock Properties Laboratory | 1 |
| PE 3220 | Petroleum Engineering Internship ${ }^{1}$ | 0 |
| P E 3123 | Petroleum Reservoir Fluids | 3 |
| P E 3223 | Fluid Mechanics | 3 |
| P E 3313 | Drilling I | 3 |
| P E 3712 | Petroleum Economics | 2 |
| P E 3723 | Numerical Methods for Engineering Computation | 3 |
| P E 3413 | Production Engineering I | 3 |
| P E 3513 | Reservoir Engineering I | 3 |
| P E 3813 | Formation Evaluation with Well Logs | 3 |
| P E 4331 | Drilling Engineering Laboratory | 1 |
| P E 4323 | Drilling II | 3 |
| P E 4423 | Production Engineering II | 3 |
| P E 4463 | Data Analytics ${ }^{2}$ | 3 |
| P E 4521 | Reservoir Fluid Mechanics Laboratory | 1 |
| P E 4532 | Reservoir Engineering II | 2 |
| P E 4711 | Petroleum Project Evaluation | 1 |
| P E 5553 | Integrated Reservoir Management ${ }^{2}$ | 3 |
| Approved P E Graduate Elective ${ }^{2}$ |  | 3 |

## Total Credit Hours

${ }^{1}$ An approved PE elective may be taken in place of P E 3220 for 1 to 3 credit hours.
2 These 9 hours of coursework are applied to both the BS and MS degrees.

## Major Support Requirements

| Code | Title | Credit Hours |
| :---: | :---: | :---: |
| MATH 2924 | Differential and Integral Calculus II ${ }^{1}$ | 4 |
| MATH 2934 | Differential and Integral Calculus III ${ }^{1}$ | 4 |
| MATH 3113 | Introduction to Ordinary Differential Equations | 3 |
| CHEM 1415 <br> or CHEM 1435 | General Chemistry (Continued) General Chemistry II: Signature Course | 5 |
| GEOL 1114 | Physical Geology for Science and Engineering Majors | 4 |
| GEOL 3003 | Structural Geology and Stratigraphy for Petroleum Engineers | 3 |
| GPHY 3423 | Introductory Petroleum Geology and Geophysics | 3 |

## Total Credit Hours

[^31] can be substituted for MATH 1914, MATH 2924, and MATH 2934.

| Graduate Requirements |  |  |
| :---: | :---: | :---: |
| - Students may apply only 3 credit hours of S/U graded coursework (excluding thesis research) toward the M.S. |  |  |
| Code | Title |  |
|  |  | Hours |
| P E 5980 | Research for Master's Thesis ${ }^{1}$ |  |
| Applied |  |  |
| Choose 15 | of Approved Graduate Elective |  |
| Total Cred |  | 24 |
| ${ }^{1}$ For non-Thesis option M.S. students P E 5980 will be replaced by 12 hours of graduate-level electives approved by the graduate liaison. The Thesis option requires one of the following: 1. Publish a paper in a refereed journal or conference proceeding. 2. Paper accepted for publication in a journal. 3. Oral presentation of a paper at a conference. 4. Oral presentation as part of the department graduate seminar. The student must be listed as first or second author and the topic must relate to the student's thesis. The Graduate College will not authorize a student to defend until the graduate liaison has confirmed the student has met this requirement. |  |  |

## General Education and College Requirements

Courses for fulfillment of General Education and college requirements must be from the approved General Education course list at http:// www.ou.edu/content/gened/courses.html. Courses graded P/NP will not apply

## UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS <br> At least three hours of Upper-Division General Education coursework must be completed outside the major.

| Code Title | Credit Hours |
| :---: | :---: |
| Core Area I: Symbolic and Oral Communication |  |
| English Composition (6 hours) |  |
| ENGL 1113 Principles of English Composition | 3 |
| ENGL 1213 Principles of English Composition <br> or EXPO 1213 Expository Writing | 3 |
| Language (0-10 hours) |  |
| ( $0-10$ hours in the same language) Students who have not completed two years of the same language in high school are required to take two college courses in the same language |  |
| Beginning Course | 0-5 |
| Beginning Course, continued | 0-5 |
| Mathematics (minimum 3 hours) |  |
| MATH 1914 Differential and Integral Calculus I ${ }^{1}$ <br> or MATH 1823 Calculus and Analytic Geometry I  | 3-4 |
| Core Area II: Natural Science (minimum 7 hours, 2 courses) |  |
| CHEM 1315 General Chemistry (Science with Lab) ${ }^{1}$ <br> or CHEM 1335 General Chemistry I: Signature Course  | 5 |
| $\begin{array}{ll}\text { PHYS } 2514 & \begin{array}{l}\text { General Physics for Engineering and } \\ \text { Science Majors }{ }^{1}\end{array} \text { ( }{ }^{10} \text {. }\end{array}$ | 4 |



## Free Electives

Electives to bring total applicable hours to 151-157 including 40 upperdivision hours.

## Suggested Semester Plan of Study

Bachelor of Science in Petroleum Engineering accredited by the Engineering Accreditation Commission of ABET, https://www.abet.org, under the General Criteria and the Petroleum and Similarly Named Engineering Programs Program Criteria.

In order to progress in your curriculum, and as a specific graduation requirement, a grade of $C$ or better is required in each course in the curriculum. Students must successfully complete prerequisite courses (with a minimum C grade) before proceeding to the next course.

| Freshman <br> First Semester | Credit <br> Hours |  |
| :--- | :--- | ---: |
|  |  | 3 |
| ENGL 1113 | Principles of English Composition (Core I) | 5 |
| CHEM 1315 | General Chemistry (Core II) $^{1}$ | 4 |
| MATH 1914 | Differential and Integral Calculus I (Core I) $^{2}$ | 4 |
| First Year Experience (Core V) |  |  |
|  | Credit Hours | 3 |

## Second Semester

| ENGL 1213 <br> or EXPO 1213 | Principles of English Composition (Core I) <br> or Expository Writing | 3 |
| :--- | :--- | ---: |
| CHEM 1415 | General Chemistry (Continued) $^{1}$ | 5 |
| MATH 2924 | Differential and Integral Calculus II $^{2}$ | 4 |
| PHYS 2514 | General Physics for Engineering and <br>  <br> Science Majors (Core II) | 4 |
| PE 2011 | Introduction to Petroleum Engineering | 1 |
|  | Credit Hours | $\mathbf{1 7}$ |

## Sophomore

| First Semester |  |  |
| :--- | :--- | :--- |
| MATH 2934 | Differential and Integral Calculus III ${ }^{2}$ | 4 |
| PHYS 2524 | General Physics for Engineering and | 4 |


| PHYS 2524 | General Physics for Engineering and <br> Science Majors | 4 |
| :--- | :--- | ---: |
| GEOL 1114 | Physical Geology for Science and <br> Engineering Majors | 4 |
| P E 2113 | Statics and Dynamics | 3 |
| Approved Elective: Artistic Forms (Core IV) |  |  |


| Second Semester |  |  |
| :---: | :---: | :---: |
| P E 2213 | Thermodynamics | 3 |
| P E 3022 | Technical Communications | 2 |
| P E 3213 | Reservoir Rock Properties | 3 |
| P E 3221 | Rock Properties Laboratory | 1 |
| MATH 3113 | Introduction to Ordinary Differential Equations | 3 |
| Approved Elective: World Culture (Core IV) ${ }^{3}$ |  | 3 |
|  | Credit Hours | 15 |
| Summer |  |  |
| PE 3220 | Petroleum Engineering Internship ${ }^{7}$ | 0 |
|  | Credit Hours | 0 |

Junior
First Semester

| P E 3123 | Petroleum Reservoir Fluids | 3 |
| :--- | :--- | ---: |
| P E 3223 | Fluid Mechanics | 3 |
| P E 3313 | Drilling I | 3 |
| P E 3712 | Petroleum Economics | 2 |
| P E 3723 | Numerical Methods for Engineering | 3 |
|  | Computation |  |
| GEOL 3003 | Structural Geology and Stratigraphy for <br>  Petroleum Engineers | 3 |
|  | Credit Hours | $\mathbf{1 7}$ |


| Second Semester |  |  |
| :--- | :--- | ---: |
| PE 2153 | Mechanics of Materials | 3 |
| P E 3413 | Production Engineering I | 3 |
| PE 3513 | Reservoir Engineering I | 3 |
| PE 3813 | Formation Evaluation with Well Logs | 3 |
| PE 4331 | Drilling Engineering Laboratory | 1 |
| GPHY 3423 | Introductory Petroleum Geology and | 3 |
|  | Geophysics |  |
|  | Credit Hours | $\mathbf{1 6}$ |

## Senior

| First Semester |  |  |
| :---: | :---: | :---: |
| P E 4323 | Drilling II | 3 |
| P E 4423 | Production Engineering II | 3 |
| P E 4521 | Reservoir Fluid Mechanics Laboratory | 1 |
| P E 4532 | Reservoir Engineering II | 2 |
| P E 4711 | Petroleum Project Evaluation | 1 |
| HIST 1483 or HIST 1493 | United States to 1865 (Core IV) or United States, 1865 to the Present | 3 |
| Approved Elective: Social Science (Core III) ${ }^{3}$ |  | 3 |
|  | Credit Hours | 16 |

## Second Semester

| PE 4463 | Data Analytics ${ }^{4}$ | 3 |
| :---: | :---: | :---: |
| P E 5553 | Integrated Reservoir Management ${ }^{4}$ | 3 |
| P E Approved Graduate Elective ${ }^{4}$ |  | 3 |
| P SC 1113 | American Federal Government | 3 |
| Approved Elective: | : Western Culture (Core IV) ${ }^{3}$ | 3 |
| Free Elective |  | 1 |
|  | Credit Hours | 16 |

## Summer

| P E 5980 | Research for Master's Thesis $^{5}$ | 2 |
| :--- | :--- | :--- |
| Applied Math Course ${ }^{6}$ | 3 |  |
| Credit Hours | 5 |  |

## Fifth Year

First Semester

| P E 5980 Research for Master's Thesis ${ }^{5}$ | 2 |
| :---: | :---: |
| Approved Graduate Elective | 3 |
| Approved Graduate Elective | 3 |
| Approved Graduate Elective | 3 |
| Credit Hours | 11 |
| Second Semester |  |
| P E 5980 Research for Master's Thesis ${ }^{5}$ | 2 |
| Approved Graduate Elective | 3 |
| Credit Hours | 5 |
| Total Credit Hours | 151 |

${ }^{1}$ CHEM 1315 and CHEM 1415 can be substituted with CHEM 1335 (Fall only) and CHEM 1435 (Spring only), respectively.
2 The MATH 1823, MATH 2423, MATH 2433, and MATH 2443 sequence can be substituted for MATH 1914, MATH 2924, and MATH 2934.
3 To be chosen from the University-Wide General Education Approved Course List. Three of these twelve hours must be upper-division (3000-4000). See list in the Class Schedule.
4 Shared Hours: 9 hours may be applied to both BS and MS degrees.
${ }^{5}$ For non-Thesis option M.S. students P E 5980 will be replaced by 12 hours of graduate-level electives approved by the graduate liaison. The Thesis option M.S. requires publication or acceptance of a paper or conference proceeding with the student as first or second author in a topic relating to the student's thesis. The Graduate college will not authorize a student to defend until the graduate liaison has confirmed the student has met this requirement.
6 Applied Math course - One course from the following list or approved by the department: MATH 4163, P E 5563, or P E 5990 (Topic: Petroleum Inverse Studies).

7 An approved PE elective may be taken in place of P E 3220 for 1 to 3 credit hours.

- Courses designated as Core I, II, III, IV, or V are part of the General Education curriculum. Students must complete a minimum of 40 hours of General Education courses, chosen from the approved lists.
- Two college-level courses in a single language are required; this may be satisfied by successful completion of 2 years in a single language in high school. Students who must take language at the University will have an additional 6-10 hours of coursework.
- Students may apply only 3 credit hours of S/U graded coursework (excluding thesis research) toward the M.S.


## Petroleum Engineering, B.S./M.B.A.

Minimum Total Credit Hours: 168

Overall GPA - Combined and OU: 3.00
Major GPA - Combined and OU: 3.00
Curriculum GPA - Combined and OU: 3.00
Program Code: A765/F140 Q513

## This program has changes pending State Regents approval for 2024/25. These pending changes are not reflected here. Undergraduate Major Requirements

Bachelor of Science in Petroleum Engineering accredited by the Engineering Accreditation Commission of ABET, https://www.abet.org, under the General Criteria and the Petroleum and Similarly Named Engineering Programs Program Criteria.

A minimum grade of $C$ is required for each course in the curriculum.
Students may enter the accelerated program based on the undergraduate degree pattern offered in the year they first enrolled in the Oklahoma State System of Higher Education or later. Students must maintain a 3.0 GPA from the time of entering the accelerated program until graduation.

Students must take the GMAT and apply for the MBA program during the third year; minimum PE major GPA, OU GPA and combined GPA of 3.0 is required. Students should submit an application to the School of Petroleum Engineering for the accelerated program during the fall semester of the junior year. Students must also apply to the Price College of Business during the spring semester of the junior year to be admitted by that college to the MBA program.

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Petroleum | Engineering Major Work |  |
| P E 2011 | Introduction to Petroleum Engineering | 1 |
| P E 2113 | Statics and Dynamics | 3 |
| P E 2153 | Mechanics of Materials | 3 |
| P E 2213 | Thermodynamics | 3 |
| P E 3022 | Technical Communications | 2 |
| P E 3123 | Petroleum Reservoir Fluids | 3 |
| P E 3213 | Reservoir Rock Properties | 3 |
| P E 3220 | Petroleum Engineering Internship | 0 |


| P E 3221 | Rock Properties Laboratory | 1 |
| :---: | :---: | :---: |
| P E 3223 | Fluid Mechanics | 3 |
| PE 3313 | Drilling I | 3 |
| P E 3413 | Production Engineering I | 3 |
| PE 3513 | Reservoir Engineering I | 3 |
| PE 3712 | Petroleum Economics | 2 |
| P E 3723 | Numerical Methods for Engineering Computation | 3 |
| P E 3813 | Formation Evaluation with Well Logs | 3 |
| P E 4033 | Oil, Gas and Environmental Law ${ }^{1}$ | 3 |
| P E 4323 | Drilling II | 3 |
| P E 4331 | Drilling Engineering Laboratory | 1 |
| P E 4423 | Production Engineering II | 3 |
| P E 4463 | Data Analytics ${ }^{1}$ | 3 |
| P E 4521 | Reservoir Fluid Mechanics Laboratory | 1 |
| PE 4532 | Reservoir Engineering II | 2 |
| P E 4711 | Petroleum Project Evaluation | 1 |
| P E 5553 | Integrated Reservoir Management ${ }^{1}$ | 3 |
| Total Cred |  | 59 |

${ }^{1}$ Shared Hours: 9 hours may be applied to both the B.S. in Petroleum Engineering and the MBA degrees.

## Major Support Requirements

| Code | Title | Credit |
| :---: | :---: | :---: |
| Math, Chemistry, Geology, and Geophysics Support Work |  |  |
| MATH 2924 | Differential and Integral Calculus II ${ }^{1}$ | 4 |
| MATH 2934 | Differential and Integral Calculus III ${ }^{1}$ | 4 |
| MATH 3113 | Introduction to Ordinary Differential Equations | 3 |
| CHEM 1415 or CHEM 1435 | General Chemistry (Continued) <br> General Chemistry II: Signature Course | 5 |
| GEOL 1114 | Physical Geology for Science and Engineering Majors | 4 |
| GEOL 3003 | Structural Geology and Stratigraphy for Petroleum Engineers | 3 |
| GPHY 3423 | Introductory Petroleum Geology and Geophysics | 3 |

## Total Credit Hours

1 The MATH 1823, MATH 2423, MATH 2433, and MATH 2443 sequence can be substituted for MATH 1914, MATH 2924, and MATH 2934.

## Graduate Requirements

A student who actively and satisfactorily participates in all Prelude activities will receive a grade of 'S' for B AD 5010. A student who does not satisfactorily participate in $75 \%$ of Prelude Week will be required to participate in a make-up session within the first two weeks of the semester. Failure to complete a make-up session will result in a grade of 'U' for B AD 5010, resulting in cancellation of the student's enrollment in the MBA program.

| Code | Title | Credit <br> Hours |
| :---: | :---: | :---: |
| Graduate Business Coursework |  |  |
| B AD 5010 | Foundations of MBA Success | 0 |
| B AD 5101 | MBA - Professional Development | 1 |
| B AD 5102 | Managerial Economics | 2 |
| B AD 5201 | MBA - Professional Development II | 1 |
| B AD 5812 | Global Business Experience | 2 |
| B AD 5822 | Business Consulting Practicum | 2 |
| B AD 5832 | Applied Field Project | 2 |
| B AD 5902 | Strategic Management | 2 |
| ACCT 5202 | Financial Accounting | 2 |
| FIN 5102 | Financial Management | 2 |
| FIN 5112 | Investments | 2 |
| FIN 5322 | Financial Derivatives ${ }^{1}$ | 2 |
| ENGB 5162 | Energy Corporate Finance ${ }^{1}$ | 2 |
| ENGB 5152 | Energy Accounting and Regulations ${ }^{1}$ | 2 |
| ENGB 5172 | Energy Assets and Commodities: Financial Instruments, Pricing and Trading ${ }^{1}$ | 2 |
| ENGB 5182 | Enterprise Valuation, Mergers and Acquisitions, and Corporate Restructuring ${ }^{1}$ | 2 |
| L S 5802 | Business Ethics/Legal | 2 |
| MGT 5702 | Organizational Behavior | 2 |
| MIT 5602 | Management Information Systems | 2 |
| MKT 5402 | Marketing Management | 2 |
| Graduate Business Elective |  | 1 |
| Choose one of the following: |  | 2 |


| ACCT 5212 | Managerial Accounting |  |
| :--- | :--- | :--- |
| B AD 5182 | Quantitative Analysis II |  |
| ENT 5102 | Entrepreneurship \& Innovation | $\mathbf{3 9}$ |
| Total Credit Hours |  |  |
| ${ }^{1}$Counts toward fulfillment of the MBA Energy Specialization (10 <br> hours: ENGB 5152, ENGB 5162, ENGB 5172, ENGB 5182; FIN 5322). |  |  |

## General Education and College Requirements

Courses for fulfillment of General Education and college requirements must be from the approved General Education course list at http:// www.ou.edu/content/gened/courses.html. Courses graded P/NP will not apply

## UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS)

 AND COLLEGE REQUIREMENTSAt least three hours of Upper-Division General Education coursework must be completed outside the major.

| Code $\quad$ Title | Credit <br> Hours |  |
| :--- | :--- | ---: |
| Core Area I: Symbolic and Oral Communication |  |  |
| English Composition (6 hours) |  |  |
| ENGL 1113 | Principles of English Composition | 3 |
| ENGL 1213 | Principles of English Composition |  |
| or EXPO 1213 | Expository Writing | 3 |

[^32]

| Junior <br> First Semester |  |  |
| :---: | :---: | :---: |
|  |  |  |
| P E 3123 | Petroleum Reservoir Fluids | 3 |
| P E 3223 | Fluid Mechanics | 3 |
| PE 3313 | Drilling I | 3 |
| PE 3712 | Petroleum Economics | 2 |
| P E 3723 | Numerical Methods for Engineering Computation | 3 |
| GEOL 3003 | Structural Geology and Stratigraphy for Petroleum Engineers | 3 |
|  | Credit Hours | 17 |
| Second Semester |  |  |
| P E 2153 | Mechanics of Materials | 3 |
| P E 3413 | Production Engineering I | 3 |
| P E 3513 | Reservoir Engineering I | 3 |
| P E 3813 | Formation Evaluation with Well Logs | 3 |
| P E 4331 | Drilling Engineering Laboratory | 1 |
| GPHY 3423 | Introductory Petroleum Geology and Geophysics | 3 |
| Approved Elective: Social Science (Core III) ${ }^{2}$ |  | 3 |
|  | Credit Hours | 19 |
| Senior |  |  |
| First Semester |  |  |
| ACCT 5202 | Financial Accounting | 2 |
| B AD 5010 | Foundations of MBA Success | 0 |
| B AD 5101 | MBA - Professional Development | 1 |
| FIN 5102 | Financial Management | 2 |
| P E 4323 | Drilling II | 3 |
| P E 4423 | Production Engineering II | 3 |
| P E 4521 | Reservoir Fluid Mechanics Laboratory | 1 |
| P E 4532 | Reservoir Engineering II | 2 |
| P E 4711 | Petroleum Project Evaluation | 1 |
| Approved Elective: World Culture (Core IV) ${ }^{2}$ |  | 3 |
|  | Credit Hours | 18 |
| Second Semester |  |  |
| B AD 5201 | MBA - Professional Development II | 1 |
| B AD 5812 | Global Business Experience | 2 |
| ENGB 5162 | Energy Corporate Finance ${ }^{4}$ | 2 |
| FIN 5112 | Investments | 2 |
| FIN 5322 | Financial Derivatives ${ }^{4}$ | 2 |
| P E 4033 | Oil, Gas and Environmental Law ${ }^{3}$ | 3 |
| P E 4463 | Data Analytics ${ }^{3}$ | 3 |
| P E 5553 | Integrated Reservoir Management ${ }^{3}$ | 3 |
|  | Credit Hours | 18 |
| Fifth Year |  |  |
| First Semester |  |  |
| B AD 5102 | Managerial Economics | 2 |
| B AD 5832 | Applied Field Project | 2 |
| ENGB 5152 | Energy Accounting and Regulations ${ }^{4}$ | 2 |
| ENGB 5172 | Energy Assets and Commodities: Financial Instruments, Pricing and Trading ${ }^{4}$ | 2 |
| ENGB 5182 | Enterprise Valuation, Mergers and Acquisitions, and Corporate Restructuring ${ }^{4}$ | 2 |


| MGT 5702 | Organizational Behavior | 2 |
| :---: | :---: | :---: |
| MIT 5602 | Management Information Systems | 2 |
|  | Credit Hours | 4 |
| Second Semester |  |  |
| B AD 5822 | Business Consulting Practicum | 2 |
| B AD 5902 | Strategic Management | 2 |
| LS 5802 | Business Ethics/Legal | 2 |
| MKT 5402 | Marketing Management | 2 |
| Graduate Business Elective |  |  |
| Choose one of the following: |  |  |
| ACCT 5212 | Managerial Accounting |  |
| B AD 5182 | Quantitative Analysis II |  |
| ENT 5102 | Entrepreneurship \& Innovation |  |
|  | Credit Hours | 11 |
|  | Total Credit Hours | 168 |
| 1 The MATH 1823, MATH 2423, MATH 2433, and MATH 2443 sequence can be substituted for MATH 1914, MATH 2924, and MATH 2934. <br> 2 To be chosen from the University-Wide General Education Approved Course List. Three of these nine hours must be upper-division (3000-4000). See list in the Class Schedule. <br> ${ }^{3}$ Shared Hours: 9 hours may be applied to both the B.S. in Petroleum Engineering and the MBA degrees. <br> ${ }^{4}$ Counts toward fulfillment of the MBA Energy Specialization (10 hours: ENGB 5152, ENGB 5162, ENGB 5172, ENGB 5182; FIN 5322). |  |  |
| - Courses designated as Core I, II, III, IV, or V are part of the General Education curriculum. Students must complete a minimum of 40 hours of General Education courses, chosen from the approved lists. <br> - Two college-level courses in a single language are required; this may be satisfied by successful completion of 2 years in a single language in high school. Students who must take language at the University will have an additional 6-10 hours of coursework. |  |  |

## Geological Engineering, M.S.

Minimum Total Hours (Thesis): 30
Minimum Total Hours (Non-Thesis): 36
Program Code: M470

- Students may apply only 3 credit hours of S/U graded courses (excluding thesis hours) to the MS in Geological Engineering.


## Thesis Option

| Code Title | Credit <br> Hours |
| :--- | ---: |
| Core Courses |  |
| Geological Engineering | 6 |
| Choose two of the following: |  |
| G E 5243 |  |
| G E 6263 |  |
| G E 5143 |  |
| Applied Mathematics |  |
| Choose one of the following: |  |
| MATH $4163 \quad$ Introduction to Partial Differential |  |
|  | Equations |


| P E 5563 | Mathematical Simulation Models |
| :---: | :---: |
| AME 5763 | Introduction to the Finite Element Method |
| Graduate Seminar |  |
| Choose 2 hours, or one credit hour from each of the following: |  |
| G E 5990 | Special Studies |
| P E 5971 |  |
| Thesis Research |  |
| G E 5980 | Research for Master's Thesis |
| Electives |  |
| Choose 15 hours PGE | of approved electives with at least 9 hours in |

Total Credit Hours ..... 30
Non-Thesis Option

| Code | Title | Credit |
| :--- | :--- | :--- |
|  | Hours |  |


| Core Courses |  |
| :---: | :---: |
| Geological Engineering |  |
| Choose two of the following: | 6 |
| G E 5243 |  |
| G E 6263 |  |
| G E 5143 |  |
| Applied Mathematics |  |
| Choose one of the following: | 3 |
| MATH 4163 Introduction to Partial Differential Equations |  |
| P E 5563 Mathematical Simulation Models |  |
| AME 5763 Introduction to the Finite Element Method |  |
| Graduate Seminar |  |
| Choose 2 hours, or one credit hour from each of the following: | 2 |

GE5990 Special Studies
PE 5971
Electives
Choose 25 hours of approved electives with at least 18 hours 25
in PGE

Total Credit Hours

## General Requirements for all Master's Degrees

The master's degree requires the equivalent of at least two semesters of satisfactory graduate work and additional work as may be prescribed for the degree.

All coursework applied to the master's degree must carry graduate credit.
Master's degree programs which require a thesis consist of at least 30 credit hours. All non-thesis master's degree programs require at least 30 credit hours.

Credit transferred from other institutions must meet specific criteria and is subject to certain limitations.

Courses completed through correspondence study may not be applied to the master's degree.

To qualify for a graduate degree, students must achieve an overall grade point average of 3.0 or higher in the degree program coursework and in
all resident graduate coursework attempted. A student must also have at least a 3.0 in all coursework (including undergraduate coursework if any).

Additional information for master's degree students may be found in the Graduate College Bulletin.

## Natural Gas Engineering \& Management, M.S.

Minimum Total Hours (Thesis): 30
Minimum Total Hours (Non-Thesis): 30
Program Code: M745 (online M746)

## Thesis Option

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Required Courses | 3 |  |
| P E 5603 | Introduction to Natural Gas Engineering <br> and Management | 3 |
| P E 5643 | Natural Gas Finance - Valuation and <br> Investment | 3 |
| P E 5653 | Natural Gas Finance - Trading and Risk <br> Management | 3 |


| P E 5980 | Research for Master's Thesis | 6 |
| :---: | :---: | :---: |
| Electives |  |  |
| Choose 15 hours of coursework in consultation with the student's advisor |  | 15 |
| Total Credit Hours |  | 30 |

## Non-Thesis Option

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Required Courses | Introduction to Natural Gas Engineering <br> and Management | 3 |
| P E 5603 | Natural Gas Finance - Valuation and <br> Investment | 3 |
| P E 5643 | Natural Gas Finance - Trading and Risk <br> Management | 3 |
| E E 5653 | Mectives | 21 |
| Choose 21 hours of coursework in consultation with the |  |  |
| student's advisor | $\mathbf{3 0}$ |  |
| Total Credit Hours |  |  |

## General Requirements for all Master's Degrees

The master's degree requires the equivalent of at least two semesters of satisfactory graduate work and additional work as may be prescribed for the degree.

All coursework applied to the master's degree must carry graduate credit.
Master's degree programs which require a thesis consist of at least 30 credit hours. All non-thesis master's degree programs require at least 30 credit hours.

Credit transferred from other institutions must meet specific criteria and is subject to certain limitations.

Courses completed through correspondence study may not be applied to the master's degree.

To qualify for a graduate degree, students must achieve an overall grade point average of 3.0 or higher in the degree program coursework and in all resident graduate coursework attempted. A student must also have at least a 3.0 in all coursework (including undergraduate coursework if any).

Additional information for master's degree students may be found in the Graduate College Bulletin.

## Petroleum Engineering (Standard), M.S.

Minimum Total Hours (Thesis): 30
Minimum Total Hours (Non-Thesis): 36
Program Code: M765-Q512

- Students may apply only 3 credit hours of S/U graded courses (excluding thesis) toward a master's degree.


## Thesis Option

The Thesis option requires one of the following: 1. Publish a paper in a refereed journal or conference proceeding. 2. Paper accepted for publication in a journal. 3. Oral presentation of a paper at a conference. 4. Oral presentation as part of the department graduate seminar. The student must be listed as first or second author and the topic must relate to the student's thesis. The Graduate College will not authorize a student to defend until the graduate liaison has confirmed the student has met this requirement.

| Code | Title | Credit Hours |
| :---: | :---: | :---: |
| Core Courses ${ }^{1}$ |  |  |
| P E 5353 | Advanced Drilling | 3 |
| P E 5523 | Advanced Production Engineering | 3 |
| P E 6573 | Advanced Reservoir Engineering | 3 |
| Applied Math |  |  |
| Choose one course from the following or other approved applied math course: |  | 3 |
| MATH 4163 | Introduction to Partial Differential Equations (G) |  |
| P E 5563 | Mathematical Simulation Models |  |
| P E 5990 | Special Studies (Petroleum Inverse Problems) |  |
| Thesis Research |  |  |
| P E 5980 | Research for Master's Thesis | 6 |
| Electives |  |  |
| Choose 12 hours liaison, including | of electives approved by the graduate a maximum of 3 hours of special studies | 12 |

Total Credit Hours

## Non-Thesis Option

| Code | Title | Credit |
| :---: | :---: | :---: |
| Core Courses ${ }^{1}$ |  |  |
| P E 5353 | Advanced Drilling | 3 |
| P E 5523 | Advanced Production Engineering | 3 |
| P E 6573 | Advanced Reservoir Engineering | 3 |
| Applied Math |  |  |
| Choose one course from the following or other approved applied math course: |  |  |
| MATH 4163 | Introduction to Partial Differential Equations (G) |  |
| P E 5563 | Mathematical Simulation Models |  |
| P E 5990 | Special Studies (Petroleum Inverse Problems) |  |
| Electives |  |  |
| Choose 24 hours liaison, including | of electives approved by the graduate a maximum of 3 hours of special studies | 24 |

Total Credit Hours
${ }^{1}$ With approval of the graduate liaison, other graduate-level coursework appropriate for the degree may substitute for Core Courses on the basis of undergraduate or professional background.

## General Requirements for all Master's Degrees

The master's degree requires the equivalent of at least two semesters of satisfactory graduate work and additional work as may be prescribed for the degree.

All coursework applied to the master's degree must carry graduate credit.
Master's degree programs which require a thesis consist of at least 30 credit hours. All non-thesis master's degree programs require at least 30 credit hours.

Credit transferred from other institutions must meet specific criteria and is subject to certain limitations.

Courses completed through correspondence study may not be applied to the master's degree.

To qualify for a graduate degree, students must achieve an overall grade point average of 3.0 or higher in the degree program coursework and in all resident graduate coursework attempted. A student must also have at least a 3.0 in all coursework (including undergraduate coursework if any).

Additional information for master's degree students may be found in the Graduate College Bulletin.

## Geological Engineering, Ph.D.

Minimum Total Hours: 90
Program Code: D470

## Program Requirements

## PROGRAM REQUIREMENTS ARE CURRENTLY UNAVAILABLE FOR THE PH.D. PROGRAM IN GEOLOGICAL ENGINEERING. WHEN THIS PROGRAM HAS MADE CURRICULAR UPDATES, PROGRAM PAGES WILL BE PUBLISHED. General Requirements for Doctoral Degrees

A student should expect to spend at least the equivalent of three full academic years beyond the bachelor's degree to obtain the doctoral degree. During this period the student will take appropriate graduate coursework, successfully complete the general examination, and successfully defend and submit the final dissertation.

All coursework applied to the doctoral degree must carry graduate credit.
The doctoral degree requires at least 90 post-baccalaureate hours, including both formal coursework and hours of research.

The minimum hour requirement for a specific doctoral degree program cannot be waived.

No more than one-half of the credit hours, both OU and overall, excluding Research for Doctoral Dissertation (6980), may be $S / U$-graded coursework.

The student must be in residence at OU for at least two consecutive 16week semesters during the pursuit of the doctoral degree while enrolled and engaged in coursework or research activities as prescribed by the major academic unit.

For more detailed regulations and requirements for Doctoral degrees, please consult the Graduate College Bulletin: http://www.ou.edu/ gradcollege/forms/bulletin

## Petroleum Engineering, Ph.D.

Minimum Total Hours: 90
Program Code: D765

## Program Requirements



Requirements beyond Master's Degree

| At least 12 hours of coursework beyond the Master's Degree | 12 |  |
| :--- | :--- | ---: |
| P E 6980 | Research for Doctoral Dissertation <br> (minimum 36 hours, maximum 48 hours) | $36-48$ |

Total Credit Hours

## NOTE:

Prior to defending, a student must have published (or accepted/in press) one refereed paper as first author on their dissertation research topic and have one conference proceeding as first author on their dissertation topic. The refereed paper should be in a journal that is listed in Thomson Reuters Web of Science and have a minimum impact factor of 0.5 . The Graduate College will not authorize a student to defend until the graduate liaison has confirmed the student has met this requirement.

## General Requirements for Doctoral Degrees

A student should expect to spend at least the equivalent of three full academic years beyond the bachelor's degree to obtain the doctoral degree. During this period the student will take appropriate graduate coursework, successfully complete the general examination, and successfully defend and submit the final dissertation.

All coursework applied to the doctoral degree must carry graduate credit.
The doctoral degree requires at least 90 post-baccalaureate hours, including both formal coursework and hours of research.

The minimum hour requirement for a specific doctoral degree program cannot be waived.

No more than one-half of the credit hours, both OU and overall, excluding Research for Doctoral Dissertation (6980), may be $S / U$-graded coursework.

The student must be in residence at OU for at least two consecutive 16week semesters during the pursuit of the doctoral degree while enrolled and engaged in coursework or research activities as prescribed by the major academic unit.

For more detailed regulations and requirements for Doctoral degrees, please consult the Graduate College Bulletin: http://www.ou.edu/ gradcollege/forms/bulletin

## School of Geosciences

Matthew Pranter, Director
Sarkeys Energy Center, Suite 710
100 E. Boyd Street
Norman, OK 73019-1009
Phone: (405) 325-3253
FAX: (405) 325-3140
geology@ou.edu
geology.ou.edu

## General Information

## What is Geosciences?

Geosciences is the study of the Earth and even other planets. Geoscience is a broad, multidisciplinary field that encompasses topics such as earth's history, processes that create various landforms, water, soils, and energy.

The School of Geosciences, part of the Mewbourne College of Earth and Energy, is located in the Sarkeys Energy Center on the main campus of the University of Oklahoma. Founded in 1900 by Charles Gould, the school has been a leader in the geosciences research and education for over a century. Today, the school's faculty mentor a diverse group of undergraduate and graduate students in B.S., M.S., and Ph.D. programs in Geology and Geophysics.

The School of Geosciences has traditionally been a global leader in education and research in topics related to energy, but now includes research programs spanning aspects of organic, inorganic and environmental geochemistry and hydrochemistry, planetary geology, structure and geophysics of earthquakes and induced seismicity, near-field and solid-Earth geophysics, paleoecology and paleoclimate, sedimentary geology, paleomagnetism, and mineralogy/petrology.

The school's mission is to provide students with high-quality education and research opportunities within a creative, inclusive, and interdisciplinary environment with an emphasis on fundamental and applied geosciences.

Toward this mission, students in our Geosciences program experience learning far beyond the classroom. Extended field trips to points across the U.S. are a key component of our educational programs at both the undergraduate and graduate levels, and faculty and students conduct field work that has spanned every continent. Additionally, our students learn and conduct research using state-of-the-art software and experimental facilities.

## Vision Statement

The School of Geosciences is a leader in multidisciplinary studies of complex and dynamic geosystems and their impacts on society.

The School will provide students with high-quality education and research opportunities within a creative and interdisciplinary environment with an emphasis on fundamental and applied geosciences

## Programs \& Facilities

## Programs for Academic Excellence

For the student, excellence can be achieved through immersion in the science itself.

- Students are encouraged to participate with their peers in professional societies through local chapters.
- Seminars and colloquia are regularly offered in the school featuring presentations of the latest advances in the geosciences by experts in the field.
- Students are actively encouraged to become involved in current faculty research projects, develop their own research projects, and present these results at regional and national meetings with school support.
- Opportunities for summer employment in professional and research settings are promoted.
- Strong connections are maintained with the Oklahoma Geological Survey, where many environmentally and economically important sitespecific problems are being investigated.
- The school, together with the Oklahoma Geological Survey, maintains one of the best Geology and Geophysics libraries in the country.
- Interdisciplinary programs with other departments are encouraged.


## Aqueous Geochemistry Laboratory

The newly established Aqueous Geochemistry Laboratory provides analytical and sample processing support for research on organic matter in natural waters. Instrumentation in the AGL includes:

- TOC analyzer (Shimadzu TOC-L ${ }^{\text {TMW }}$ ) that uses a $680^{\circ} \mathrm{C}$ Combustion Catalytic Oxidation/NDIR Detection Method to measure total organic carbon (TOC) in water. Estimated TOC detection limit is $30-50 \mathrm{ppb}$.
- Horriba Aqualog ${ }^{\text {TM }}$ Spectrofluorometer that is used to measure the absorbance and fluorescence properties of organic matter. This instrument generates data that can be used to create ExcitationEmission Matrices (EEMs) commonly used by researcher to characterize organic matter.
- Organic matter isolation equipment. The AGL has several sizes of columns and ion-exchange resin that are used to isolate the humic substance (humic and fulvic acids) fraction of organic matter.
- Electrochemistry support includes a Fischer Scientific multiparameter (pH, temperature, conductivity, TDS, ORP, Dissolved Oxygen) used to support laboratory experimentation needs. A cupric ion selective electrode (Cu2+ ISE) is also available for measuring free copper (Cu2+) in solution.
- Field instrumentation includes a Hanna Instrument multi-parameter field meter, GeoTech peristaltic pump, Hach digital alkalinity titration kit, and a variety of sample bottles and filtration.

The AGL facility also contains a large fume hood, analytical balance, digital pipettes, magnetic stirring hot plate, and a ASTM Type I nanopure water purification system.

## Attribute Assisted Processing \& Interpretation (AASPI)

During the past two decades, seismic attributes have become a key component not only in mapping structure and stratigraphy but also in a quantitative reservoir characterization. In addition to enhancing individual faults and discontinuities, geometric attributes help interpreters map axial planes for structural analysis, relate curvature to intensity and orientation of fractures, and map lateral changes in reflectivity to detect channels below seismic resolution. During the 2013 AASPI Consortium research program, we will continue our focus on poststack and prestack data conditioning, calibration of attributes to geological and engineering control, and the use of LMR and AVAz analysis of unconventional reservoirs. Our research is driven by the data provided by our sponsors, such that our primary efforts will be on the application of these attributes over resource plays and mature fields of North America (US, Canada, and Mexico) that have a combination of proprietary 3D surveys, production data, well logs, microseismic data, image logs, production logs, and core, within a well-understood geologic framework. We believe that a better understanding of the impact of acquisition, processing and imaging on seismic attributes is key to quantifying the errors in reservoir characterization and hydrocarbon estimation provided by modern attribute-driven geostatistics, neural networks, and clustering technology. In addition to research reports, we provide algorithm source code to all sponsors and attribute volumes to those sponsors who wish to provide us with 3D seismic data. More information can be found on the AASPI website.

## Bartell Field Camp

The OU Bartell Field Camp, dedicated in 2011, is home to both the geology and geophysics field courses. The Bartell Field Camp is located on the northeastern edge of the Wet Mountains and overlooks the Cañon City Embayment, a structural reentrant in the Colorado Front Range. Snow\#covered Pikes Peak is visible to the north and the Great

Plains to the east. The area is an ideal geological field laboratory - the Phanerozoic section and faults associated with the mountain front are beautifully exposed and available for study. Combined with the near\# perfect weather and closeness to a variety of outdoor activities and metropolitan Denver, it's no wonder OU students have been coming here since 1950! For more information: https://www.ou.edu/mcee/ geosciences/student-life-resources/field_camp

## Computational Geophysics Laboratory

The Computational Geophysics Laboratory includes several labs assigned to individual research teams and the Wick Cary Geoscience Processing \& Imaging Center (GPIC). Their mission is to provide critical computational infrastructure for research activities in near-surface geophysics, exploration geophysics, basin- to crustal scale imaging, earthquake seismology, and microseismic monitoring. The labs are equipped with Linux, Mac and Windows workstations, Linux servers, and data storage servers. The labs also have access to dedicated computing resources at the OU's supercomputer center (http:// www.oscer.ou.edu), which includes 7 dual 12-core nodes, 250TB storage nodes, and 390 LTO-6 tapes ( $\sim 975$ TB) for data archive.

The Wick Cary Geoscience Processing and Imaging Center (GPIC) GPIC provides computer hardware, software, data, and user-support to students and researchers of the Mewbourne College of Earth and Energy for both teaching and research activities. GPIC is the primary high-end interpretation and computational facility of the School of Geosciences. Through the generosity of exploration companies, national oil companies, and data brokers, GPIC enables access to highquality 3D seismic (including multicomponent), electric log, image log, microseismic, and production data for both interdisciplinary research and education. GPIC provides students education using state-of-theart geophysical exploration and development applications via handson approaches. It provides the framework for laboratory exercises in reservoir characterization, seismic modeling and migration, 3D seismic processing, exploration geophysics, 3D seismic interpretation, and quantitative seismic interpretation. GPIC also serves as the computational platform for research in seismic processing and imaging, seismic geomorphology, computer-assisted structure and fracture analysis, reservoir characterization, and potential field imaging of the earth's crust. GPIC is housed in room 1010 Sarkeys Energy Center and includes 23 dual-monitor Windows 10 Dell Precision Tower Workstations (12-16 cores, 32 GB RAM). A Linux-based server cluster provides over 150 Terabytes of disk space and a total number of 132 dual cores. In addition, GPIC has access to dedicated processing power housed within OU's supercomputer center (http:// www.oscer.ou.edu), where very large jobs can also be run using a batch queuing system.

## Software

Through the generosity of software vendors, the School of Geosciences has access to a suite of commercial and academic software packages which our faculty and students use for research and teaching.

[^33]- Near-Surface Geophysical Imaging: ReflexW (GPR, Near-surface seismic); AGI Earthlmager 2D (Electrical Resistivity Tomography)
- Magnetic and Gravimetric Data Processing: Geosoft OASIS Montaj; GMSYS 2D/3D
- Miscellaneous: MatLAB; ArcGIS; PlatteRiver; BasinMod; NHWave


## Critical Zone Biogeochemistry Laboratory

Instruments in the Critical Zone Biogeochemistry laboratory include a LI-COR LI7815 trace gas analyzer with a small volume introduction module, an Elementar Vario EL CNS analyzer for solids and liquids, and a Thermo Fisher MultiSkan SkyHigh microplate UV-Vis analyzer with wavelength scanning capability. We also have two drying ovens, a freezer, a refrigerator, multiple shakers, a ball mill, a jar mill, a water purification system, a benchtop centrifuge with capacity to spin microcentrifuge through 50 mL centrifuge tubes up to 30,000 RCF, single and multichannel pipettes, multiple sets of soil sieves, and a full suite of reagents, glassware, and plasticware.Our field equipment consists of soil carbon dioxide sensors, soil oxygen sensors, soil moisture sensors, campbell scientific datalogers, field-deployable fixed-potential redox sensors, augers with extensions, soil probes, a bulk density sampling set, and a LICOR smartflux soil trace gas flux system.

## Devon Powder X-ray Diffraction and Clay Mineralogy Laboratory

The Devon lab includes equipment for the preparation and analysis of rock and mineral samples by powder X-ray diffraction, including clay mineral separations. A Rigaku Ultima-IV X-ray diffractometer features cross-beam optics, allowing rapid switching between Bragg-Brentano and parallel-beam optical configurations. Scintillation and Si-strip detectors are mounted with a $Y$-arm system that facilitates either extremely rapid or extremely precise data collection. The Ultima IV can also be configured for grazing incidence measurements of thin films on diffracting surfaces. Additionally, the lab is equipped for preparation of bulk rock samples, with tools such as a McCrone Micronizing mill, and for the treatment of rock samples for clay analysis, requiring a sequence of extraction steps involving a number of chemical and physical treatments. To accomplish the clay separations, the lab contains a centrifuge, a dialysis bath, desiccators, a drying oven, a furnace, a heating water bath, and a microbalance. For data analysis, updated software tools such as MDI Jade, MDI ClaySim, and Rigaku PDXL are interfaced with databases from the International Centre for Diffraction Data.

## Environmental Compound-Specific Isotope Analysis (CSIA)

The Environmental Compound-Specific Isotope Analysis (CSIA) Laboratory evolved over the past two decades from the Organic Geochemistry Group in the School of Geosciences of the University of Oklahoma. The success in development of CSIA methods for analysis of environmental samples led to establishing an in-house research program focused on CSIA of environmental contaminants, and creation of an analytical service facility, serving academic and industrial customers since 2003. Today, the laboratory houses three GC/IRMS systems for determination of carbon and hydrogen isotope ratios. A GC/qMS system is used for determination of chlorine isotope ratios. The laboratory is equipped for handling of the complete suite of environmental samples (water, organic liquids, sediment and air). In addition, GC/qMS instrumentation permits characterization of organic composition of samples.
http://enviro-isotope.oucreate.com/CSIA/

## Electron Microprobe Laboratory

The electron microprobe laboratory is built around a fully automated CAMECA SX100 microanalyzer. The five wavelength-dispersive spectrometers, Thermo Ultra-Dry SDD energy-dispersive detector, and GATAN PanaCL/F cathodoluminescence detector (CL) are fully integrated for all analytical and imaging functions (x-ray, secondary electron, backscattered electron, absorbed current, and CL signals). The system provides quantitative elemental microanalysis of boron to uranium; digital acquisition of electron, $x$-ray intensity, and cathodoluminescence images; image analysis and other data processing routines. A full description of the laboratory and its functions is available at: http://ors.ou.edu/ Microprobe/OUEMPLHome.html

## Experimental Earthquake Physics and Geotribology Lab

The equipment in this lab offers approaches to researchers from a wide range of disciplines including geosciences, petroleum engineering, mechanical engineering, and civil engineering. Determinations of earthquake physics (fault behavior) at conditions relevant for earthquake nucleation and propagation, the creation of fractures and determination of their mechanical parameters, the characterization of deformation and measurement of rock properties at shallow crustal conditions. Equipment: Double Torsion Fracture Mechanics Testing Apparatus, Bruker Tribometer System (with environmental condition chambers) and Profilometer

## Experimental Petrology Laboratory

The experimental petrology laboratory has facilities for mineral synthesis, calibration of phase equilibrium reactions, and petrologic analogue or simulation experiments. In addition to sample preparation facilities, the experimental laboratory contains 18 externally heated cold-seal reaction vessels for routine operation to $850^{\circ} \mathrm{C}, 200 \mathrm{MPa}$, and two vessels capable of operation to $700^{\circ} \mathrm{C}, 400 \mathrm{MPa}$.

## Experimental Rock Deformation and Poromechanics Lab [formerly the integrated PoroMechanics Institute (iPMI)]:

The equipment in this lab offers an integrated approach to researchers of various disciplines including petroleum engineering, geology, geophysics, civil engineering, computer science, and electrical engineering to conduct general and applied research on the mechanics of porous materials, in particular, geomechanics applied to hydrocarbon exploration/production, geothermal energy production, and carbon dioxide sequestration.

## Field Geophysics Lab

The mission of the field geophysics lab is to provide equipment for research and field-based teaching activities by students and faculty in the School of Geosciences. The lab includes a wide range of equipment for near-surface studies, basin- to crustal-scale geophysical imaging and monitoring, rapid aftershock responses, infrastructural monitoring, and field-based classes.

## Fluid Inclusion Microthermometry Laboratory

This facility is used to assess the compositions and physical properties of fluid inclusions through microthermometric techniques. In addition to specialized sample preparation equipment, the laboratory includes a new Linkam TH600 programmable heating/freezing stage on a Zeiss Research Photomicroscope.

## Gas Hydrates Laboratory

The Gas Hydrates Laboratory at the University of Oklahoma is fully equipped to conduct, monitor, and analyze gas hydrate thermodynamic and kinetic experiments. Two Parr® pressure vessels are used as hydrate reactors with external heating/cooling systems which can achieve experimental temperatures from -50 to 400 degrees Celsius. The reactors are instrumented with digital thermocouples and pressure transducers which are monitored and recorded with a custom designed Labview® system.

## High Resolution Mapping Raman User Facility

OU's High Resolution Mapping Raman User Center is housed within the School of Geosciences and managed by Dr. Megan Elwood Madden. The Renishaw InVia mapping Raman microscope and spectrometer utilizes both a 532 nm green laser and a 785 nm red laser, as well as the Wire 4.1 software for data analysis.

## Instrumental Neutron Activation Analysis Laboratory

The INAA laboratory contains gamma-ray spectrometers for the determination of rare-earth elements and other trace element abundances in neutron activated geological materials.

## Laurence S. Youngblood Energy Library

The current collection contains over 170,000 map sheets and approximately 92,000 catalogued volumes on the subjects of geochemistry, geology, geomorphology, geophysics, hydrology, mineralogy, paleontology, petrology, stratigraphy, structure and tectonics. The interdisciplinary nature of the earth sciences is supported by Chemistry, Math, Physics, and Engineering branch Libraries. Bizzell Memorial Library contains the biological sciences and the internationally recognized History of Science Collections.

## Organic Geochemistry/Stable Isotope Laboratory

The organic geochemistry /stable isotope laboratories have wet chemistry facilities and instrumentation for the isolation and analysis of organic compounds from geologic materials. Dr. Engel has two HPLC systems and a HP GC/MSD instrument used for the analysis of amino acids and peptides. He has a conventional stable isotope laboratory equipped with vacuum lines and a Delta E isotope ratio mass spectrometer for high precision stable carbon isotope analyses of organic matter and carbonates and stable oxygen isotope analyses of carbonates and water. Dr. Engel also has a state of the art Thermo Delta $\vee$ Plus isotope ratio mass spectrometer that is equipped for continuous flow as well as with a dual inlet for conventional off-line analyses. For continuous flow, the instrument is interfaced to a Costech Elemental Analyzer for stable carbon, nitrogen and sulfur isotope analyses and a Thermo TC/EA system for stable hydrogen isotope analyses. The instrument is also interfaced to a Thermo gas bench system for automated analyses of carbonates (carbon, oxygen) and water samples (oxygen). Dr. Liu has Agilent 1290 series ultra-high-performance liquid chromatography (UHPLC) system equipped with an Agilent 6530 quadrupole time-of-flight (qTOF) mass spectrometer for high-resolution accurate mass analysis on pigments and polar lipids in various types of biological and geological samples. An Agilent 5977B Inert Plus MSD system is also installed in Dr. Liu's lab for the analysis of small volatile compounds.

## Paleomagnetics Laboratory

The shielded Paleomagnetics laboratory is used for paleomagnetic and rock-magnetic studies. Equipment includes a 2G cryogenic magnetometer with DC squids, AF and thermal demagnetizers, impulse
magnetizer, field equipment, and several magnetic susceptibility systems including a AGICO MFK-FA1 Multifunction Kappabridge.

## Paleontology Laboratories, Sam Noble Oklahoma Museum of Natural History

Paleontological research is concentrated at the Sam Noble Museum, which includes fully equipped labs for invertebrate paleontology, vertebrate paleontology and paleobotany. Large collection areas house more than half-a-million specimens. In addition to various specimen preparation equipment, there are facilities for scanning electron microscopy and digital macrophotography. Exhibits in the Ancient Life Gallery are fully integrated into undergraduate classes (GEOL 1024; GEOL 3513; GEOL 4413), and allow detailed study of fossils ranging from trilobites to dinosaurs.

## Physical and Environmental Geochemistry Laboratory

The Physical and Environmental Geochemistry Laboratory is equipped for a wide range of low to moderate temperature geochemical experiments and field sample processing. Geochemical reactors of various types including polyacrylate columns, pressure vessels, and custom-designed batch reactors, as well as stir plates, water baths, and shakers, are used to synthesize analyze the reactivity and rates of natural and laboratory materials. The solution chemistry of field water samples and laboratory experiments are characterized with various electrodes and meters, calorimetric methods using a Thermo Scientific Genesys 10 S scanning UV-visible spectrophotometer, and elemental analysis with a PerkinElmer AAnalyst 800 combined flame / graphite furnace Atomic Absorption Spectrophotometer (AAS). Graphite-furnace capability allows determination of elements in the ppb range. Kinetic Phosphorescence Analysis (KPA) allows determination of sub-ppb levels of dissolved uranium. Trace element work is facilitated by a Barnstead Nanopure Diamond ultrapure water system. A Coy Labs anaerobic chamber allows experiments to be conducted at low oxygen fugacity, mimicking many subsurface/deep water environments. A Quantachrome gas adsorption analyzer determines BET surface area and pore size distribution. Contact Andy Elwood Madden or Megan Elwood Madden for more information.

## Reservoir Characterization and Modeling Laboratory (RCML)

The RCML is directed by Professor Matt Pranter - Dr. Pranter and his students investigate the controls that stratigraphy, sedimentology, and structure play in regard to reservoir architecture, lithological and petrophysical-property heterogeneity, and reservoir performance. A fundamental goal is to assess the dominant controls on reservoir quality (both matrix and fracture) to more accurately map and model the spatial distribution of reservoir properties.

## Sedimentology Laboratory

Quantitative Grain Size and Grain Shape Analysis. Grain size and texture are measured in the lab using the Malvern Mastersizer 3000 and the Malvern Morphologi G3. The Malvern Mastersizer 3000 uses laser diffraction to measure grain size distributions of sediment samples. Different modules allow the measurement of a wide range of sample sizes and grain sizes (sub micron to 2 mm ). The Malvern Morphologi G3 quantitatively measures particle size and 2-D shape by photographing and analyzing each individual grain. Grain metrics and bulk geometrical statistics are calculated with the Malvern software.

## Structural Geology Labs

The digital workroom includes two dual monitor Dell PC workstations, a Sun Blade workstation, and a SGI Octane workstation. The PCs are primarily used for GIS applications, Cross section construction and 3-D modeling. The Sun Blade and SGI workstations are primarily used for seismic interpretation (Landmark and Geoquest) and 3D visualization. The physical modeling laboratory is equipped with controlled hydraulic and electric displacement equipment. These are employed to exert a variety of displacement boundary conditions on models made of sand, clay or plaster. Most of the experiments done in this laboratory are directed toward studies of upper crustal deformation, primarily faulting and fracturing.

## Thin Section Petrography Laboratory

This laboratory contains research quality microscopes for graduate and undergraduate students, as well as faculty and researchers, to conduct petrographic research. It contains two Zeiss microscopes, including a Zeiss Imager Z1 which is capable of taking thin section photomicrographs. The lab also includes a Nikon reflecting light microscope and a Nikon binocular microscope.

## Research Opportunities

Faculty-supervised research is an important component of the School of Geosciences graduate program. Most graduate students are supported financially through research assistantships funded by federal and private industry grants and contracts. Other graduate students are financially supported through teaching assistantships awarded by their academic unit. In either case, faculty-supervised student research leads to master's theses and doctoral dissertations as part of the overall graduate degree requirements. This research is often published in scientific journals which may be useful in assisting graduates to obtain employment. Talented undergraduate students are encouraged to work with faculty on research projects. These student research projects can be an important component of the Honors Program and/or a source of part-time income and scholarship support. Such research participation provides the student with important experience in his or her discipline in addition to meeting normal academic requirements.

## Career Opportunities

According to the National Science Foundation, there are approximately 125,000 geologists and geophysicists at work in the United States today. Most are employed by private industry as petroleum geologists and geophysicists whose work is vital to oil and gas companies. Other geologists and geophysicists work for mining companies to locate ore deposits and estimate reserves. Geologists are also employed in other commercial fields such as cement and ceramic industries; sand and gravel firms; railroads; engineering companies; environmental agencies and in the banking industry. The largest single employer of geoscientists in the U.S. is the federal government. Most work for the United States Geological Survey, but others work for the U.S. Department of Energy national laboratories, Soil Conservation Service, Bureau of Land Management, Environmental Protection Agency, National Aeronautics and Space Administration, National Park Service, Bureau of Mines, Forest Service, or the U.S. Army Corps of Engineers. Many geoscientists work for the 50 state geological surveys. Colleges and universities employ about 8,000 geoscientists in teaching and research positions. Many geoscientists are self-employed. Some are independent oil operators; others work as consultants. Most consultants have acquired prior experience in industry, teaching or research. Opportunities also now exist in public school teaching.

The curricula for the Bachelor of Science in Geology and the Bachelor of Science in Geophysics are designed to provide the necessary preparation for professional work or graduate study. Options are available in petroleum geology, environmental geology, paleontology, and geophysics.

The Master's Degree in Geology or Geophysics is designed to provide a professional level degree for industry employment. Traditionally, this degree level has been favored by major petroleum companies.

The Ph.D. in Geology is a research-oriented degree which provides students the opportunity to seek employment in a variety of areas including academia, industry and government.

## Undergraduate Employment Opportunities

Geology and geophysics students are eligible to participate in research projects and part-time employment opportunities with faculty members Other opportunities for research and employment exist at the Oklahoma Geological Survey and the Youngblood Energy Library.

## Financial Support - Graduate Studies

Several types of financial aid are available to students on a competitive basis. Prospective graduate students are considered automatically for financial aid at the time of application. The school offers annually approximately 20 teaching assistantships with stipends which include a partial waiver of tuition. International students are required to pass an English language proficiency exam (administered by the English Assessment Program) before they can hold a teaching assistantship. Additionally, the school awards several research assistantships and fellowships using funds from industrial and other private sources. Funds for graduate support are also available from the Oklahoma Geological Survey, and the Institutes of the Sarkeys Energy Center. Grant-supported research assistantships are available through faculty conducted federal-, foundation- or industry-sponsored research. These assistantships carry a stipend comparable to teaching assistantships. Ph.D. students are encouraged to write research proposals with their graduate advisors for financial support and to apply for National Science Foundation Graduate Fellowships.

## Undergraduate Study

## Geology Bachelor of Science Programs

These curricula are designed to provide the necessary background for professional work or graduate studies in geology and allied sciences.

- Environmental Geology, Bachelor of Science (p. 1048)
- Geology, Bachelor of Science (p. 1050)
- Paleontology, Bachelor of Science (p. 1055)
- Petroleum Geology, Bachelor of Science (p. 1057)


## Geophysics, Bachelor of Science

The Geophysics, Bachelor of Science (p. 1053) curriculum constitutes a preparation for professional work and also provides the necessary background for graduate work in geophysics and geology.

## Minor

The Geology Minor (p. 1059) provides complimentary knowledge for students enrolled in all majors at the University of Oklahoma. The minor should give students a broad overview of Geology and the variety of subset topics within the field.

## Graduate Study

The School of Geosciences offers the Master of Science and Doctor of Philosophy degrees. Some important aspects of these degree programs are described below.

## Master of Science

The Geology, Master of Science (p. 1059) and the Geophysics, Master of Science (p. 1060) degree programs are intended primarily for those students who plan careers in the petroleum or minerals industries or with state and federal government agencies. The goal of the M.S. degree program is to prepare students by providing a broad background in the Earth sciences and related science and engineering fields through coursework; and encouraging critical thinking and analysis in the solution of geological and geophysical problems through independent thesis research.

## Doctor of Philosophy

The Ph.D. degree programs in geology and geophysics (p. 1061) are intended primarily for those students who plan research careers in the earth sciences in universities, industry or government agencies. The goals of the Ph.D. degree program are to prepare the student for a career in research by providing coursework in an area of specialization in geology or geophysics, provide a strong background in allied fields such as mathematics, physical science, biological science, and engineering to give the student the necessary tools to conduct original and significant geological research; and encourage critical thinking and analysis of geological problems through the design of original research projects.

The Ph.D. degree normally requires a minimum of three years beyond the M.S. degree. The Graduate College at the University of Oklahoma requires 90 post-baccalaureate semester hours of coursework. Generally, the first year of residence is devoted primarily to coursework in preparation for the general examination; the remaining two years are devoted to both coursework and research. There are no specified course requirements for the Ph.D. degree in Geology. Rather, a coursework program is designed for each student in consultation with a doctoral committee composed of at least five graduate faculty members, including at least one from outside the major department within the University and one member outside the University. The Ph.D. in Geophysics has specific core requirements which will be determined by the faculty advisor. The purpose of the coursework is to prepare the student for the general examination, which tests the mastery of the field of specialization and related fields as well as the capacity for synthesis, sound generalization, and critical thinking. The examination consists of a written section in the major field of study, written sections in related fields, and oral defense of an original research proposal. Frequently, the original research proposal is the student's dissertation topic.

The dissertation is the culmination of an original research project in the student's field of specialization and should make a significant contribution to scientific understanding in the field. Normally, the student works closely with the faculty advisor in the design and execution of the research project. The student and the advisor may submit proposals to foundations or industry for financial support to carry out the research, and they report the results of the research at regional, national and international meetings and in papers published by national and international journals.

## Courses

GEOL 1003 Volcanoes and Earthquakes

## 3 Credit Hours

Prerequisite: high school chemistry and algebra. Worldwide distribution of volcanic and earthquake activity; types of volcanic eruptions and associated landforms and rocks; causes of and techniques for location of earthquakes; prediction of volcanic eruptions and earthquakes; social consequences of predictions and actual volcanic and earthquake activity. ( $\mathrm{F}, \mathrm{Sp}$ ) [II-NS].
GEOL 1013 Global Environmental Change 3 Credit Hours
Relationship between humanity and the environment from an intellectual and historical perspective. Principle of progress and the Industrial Revolution, the Enlightenment and Francis Bacon, the noble savage, conservation and land ethics. Malthusians and Cornucopians, the Gaia Hypothesis, risk analysis, global warming, fossil fuels and alternative energy sources. (Sp)
GEOL 1023 Geology of National Parks 3 Credit Hours The amazing landforms and geologic features within the National Parks have a story to tell about their geologic history and tectonic setting, and are important for illustrating and describing concepts related to Earth processes and geologic time. This course blends an introduction to geology with geologic concepts as they apply to selected National Parks. ( $\mathrm{F}, \mathrm{Sp}$ ) [II-NS].
GEOL 1024 The History of the Earth and Life 4 Credit Hours Origin of the Earth/solar system. Rocks and minerals; geologic time; plate tectonics/continental drift. The ocean-atmosphere system; climate change over time; biological evolution. Fossil record of early life; the "Cambrian Explosion" of life in the oceans; invertebrate animals and their geological history. Geological history of fishes; evolution of plants. No student may earn credit for both GEOL 1024 and GEOL 1124 (Sp) [II-NSL].
GEOL 1033 Earth, Energy, Environment
3 Credit Hours
Explores Earth and its energy resources. Introduces physical geology and the link to global energy resources: their origin, properties, abundance, distribution in and on Earth, and environmental challenges. Emphasizes the advantages, disadvantages, and misconceptions of each energy resource. Also explores hydrogen as an energy resource, critical minerals and metals for energy applications, and possible methods to capture and store CO2. (Sp) [II-NS].

## GEOL 1034 Native Science and Earth Systems of North <br> \section*{America}

## 4 Credit Hours

0 to 4 hours. (Crosslisted with METR 1034) Examines Earth systems of North America using both indigenous and Western perspectives, and an Earth science approach. This team-taught course will utilize a combination of geology, geography, meteorology, and Native American sciences, as expressed through the use of art. (Sp) [II-NSL].

## GEOL 1104 The Dynamic Earth (Geology for non-Science

## Majors)

4 Credit Hours
Introduction to the fundamentals of geology and their application to landuse, groundwater, mineral use and fossil fuel problems facing society. Several guest lecturers from industry and state and federal surveys will contribute to the content of the course. Laboratory fee. Three hours lecture, two hours lab. Laboratory. (F, Sp) [II-NSL] .

## GEOL 1114 Physical Geology for Science and Engineering

Majors
4 Credit Hours
Prerequisite: equivalent knowledge of high school chemistry, algebra and trigonometry. Laboratory included. Plate tectonics, the makeup of continents and mountain building. Heat flow, magnetism, gravity, rock deformation, earthquakes and the earth's interior. Surface processes including weathering, erosion, transport and deposition. Landforms, rivers, groundwater, glaciers, ocean processes, and volcanoes. Minerals and rocks. Application of geology to land-use, groundwater, mineral and fossil fuel exploration. Laboratory. (F, Sp) [II-NSL] .

GEOL 1124 Earth History
4 Credit Hours
Prerequisite: none; 1114 helpful but not required. Laboratory included; field trip. Physical history of the earth from its origin as a planet through the Great Ice age. Origin and growth of continents and ocean basins. Systematic survey of the history of continents with emphasis on North America: growth and leveling of mountain chains, rift valleys, transgressions and regressions of seas; continental fragmentation, assembly and relative motions. Plate tectonics, particularly as it relates to continent history. Climate and evolutionary changes through geologic time. Principles and methods used to interpret earth history and date rocks. Geologic time. Laboratory includes historical studies of specific regions; study of maps and fossils. Laboratory ( $\mathrm{F}, \mathrm{Sp}$ )
GEOL 1203 The Age of Dinosaurs 3 Credit Hours
(Crosslisted with BIOL 1203) Introduction to basic principles and theories in biology (evolution, systematics, vertebrate morphology and relationships) and geology (geologic time, earth history, plate tectonics, sedimentation and stratigraphy), focusing on the evolutionary history of Dinosauria. May not be counted for major coursework in Biology or Geology. (F) [II-NS].
GEOL 2014 The Earth System
4 Credit Hours
An integrated overview of earth sciences emphasizing earth materials, the oceans and atmosphere, the solar system, and earth's evolution. The interrelationship among the different earth systems will be emphasized. Topics will be explored through a learning-cycle approach. The lab component includes both in-class experiments and one field-based research project. Laboratory (Sp) [II-NSL] .
GEOL 2224 Introduction to Mineral Sciences 4 Credit Hours
Prerequisite: GEOL 1114, CHEM 1315, and MATH 1823/1914 or concurrent enrollment. Main topics include crystal chemistry, optical properties and identification of minerals utilizing the petrographic microscope, mineral stability, crystal symmetry, and an introduction to the rock-forming minerals and their environments of formation. Laboratory (F)

GEOL 2970 Special Topics
1-3 Credit Hours
1 to 3 hours. Prerequisite: May be repeated; Maximum credit nine hours.
Special topics course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research, and field projects. (Irreg.)

## GEOL 3003 Structural Geology and Stratigraphy for Petroleum Engineers 3 Credit Hours

Prerequisite: 1114, Physics 2524 or concurrent enrollment. Treatment of structural and stratigraphic geology with an emphasis on aspects of importance to petroleum engineering. Includes an investigation of mechanical principles relating to the earth's crust, descriptive study of nomenclature, causes of tectonic deformation, sedimentary processes and environments, and stratigraphic principles. Laboratory. (Sp)

GEOL 3013 The Geology of Oklahoma
3 Credit Hours
Prerequisite: junior standing or permission of instructor. Provides an overview of geology emphasizing earth materials, surface processes, natural hazards, and the earth's evolution using Oklahoma as our natural laboratory. The course emphasizes problem solving and includes impact of anthropogenic changes and resources extraction. Required field trip. Grading based on exams, research paper and in-class exercises. (F) [IINS].

## GEOL 3023 The Geology of Natural Resources in Sub-Saharan Africa 3 Credit Hours

Prerequisite: Junior standing and one Natural Science General Education course 1000 -level or higher, or instructor permission. Content will include the carbon cycle, rock/tectonic cycle, and water/climate cycle. Students will explore, through data analysis, processes that lead to the formation, distribution and variation of fossil fuels, mineral deposits, and lake and grassland ecosystems. These concepts will be highlighted through Oil/ Gas Development, Mineral Mining, Land-use and Climate Change. (Fall) (F) [II-NS].

GEOL 3033 Earth Resources and the Environment 3 Credit Hours
Prerequisite: junior standing or permission of instructor. A geological perspective on Earth's water, energy, soil, and mineral resources, including their past, present, and potential future impact on society. By examining intersections between Earth resources and society, we will investigate the nature of science, role of science and scientists in society, evaluate scientific versus non-scientific sources of information, and communicate appropriately using scientific sources of information. (Sp) [II-NS].
GEOL 3063 Exploring Planetary Worlds
3 Credit Hours
Prerequisite: Six credits of introductory (1000 or 2000-level) natural science coursework; permission of instructor or department. Topics will include solar system and planet formation, planetary materials, and geologic processes that likely formed planetary features we observe today. Students will design a rover, lander, orbiter, or fly-by mission to gather data and test key hypotheses on a selected Planetary Body.
Students will present on mission concept, including an outreach plan, in a written proposal and group presentation. (F) [II-NS]

GEOL 3114 Structural Geology 4 Credit Hours
Prerequisite: GEOL 2224 and PHYS 2514. An introduction to the fundamental concepts of structure and deformation in the lithosphere It discusses recognition, interpretation, and mechanics (stress, strain) of faults, folds, structural features of igneous and metamorphic rocks, and introduces regional structural geology and tectonics. Laboratory includes techniques of structural analysis, recognition, and interpretation of structures on geologic maps, and construction of interpretive cross sections. (F)

GEOL 3123 Introductory Field Geology
3 Credit Hours
Prerequisite: 2224, 3114, and 3223 or 3233 , or permission (completed laboratory). Techniques of geologic fieldwork including: measuring stratigraphic sections, airphoto analysis, mapping, total station, writing reports. Course includes 10-12 field days in Oklahoma (during weekends) and a weekly laboratory. Students will be charged transportation costs. (Sp)

GEOL 3223 Igneous and Metamorphic Petrology 3 Credit Hours
Prerequisite: 2224 or permission. Laboratory included. Field trip; students will be charged transportation costs. Generation, emplacement and crystallization of magma; phase chemistry; principles of igneous rock classification; the relationship of magma types to geologic setting. Principles of metamorphic petrology; phase chemistry and metamorphic reactions; concepts of metamorphic grade, P-T regimes and relationships to geologic environments; concepts of protoliths and provenance. Laboratory study of the textures, structures and mineral assemblages of igneous and metamorphic rocks utilizing hand specimens and thin sections. Laboratory. (Sp)

GEOL 3233 Sedimentary Petrology and Sedimentology 3 Credit Hours Prerequisite: 2224 or permission. Laboratory included. Field trip; students will be charged transportation costs. Origin, evolution and interpretation of sedimentary rocks with an emphasis on terrigenous systems; interpretation of mineralogy, textures and structures of terrigenous clastic and carbonate rocks in hand specimen and thin section. Laboratory. (Sp)

GEOL 3333 Geowriting
3 Credit Hours
Prerequisite: English 1113 and English 1213 or Expository Writing 1213.
Provides student with the information and skills needed to effectively communicate as professional geoscientists. Students will actively engage in writing and scientific communication exercises through in-class activities, weekly assignments, and semester-long projects. Substitutes for English 3153. (alt. F)

GEOL 3440 Mentored Research Experience 3 Credit Hours 0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)
GEOL 3513 Fundamentals of Invertebrate Paleontology 3 Credit Hours Prerequisite: GEOL 1114 or GEOL 1024 or BIOL 1114 or permission of instructor. Fossil preservation and bias in the fossil record. Ontogeny and growth of invertebrates. Interpretation of the life habits of fossil organisms, with case histories from invertebrates and vertebrates. Speciation and macroevolution. Paleoecology of marine communities. Mass extinctions in the fossil record. Biostratigraphy. Laboratory covers classification, morphology and ecology of the major invertebrate fossil groups. Laboratory (F)

GEOL 3633 Introduction to Oceanography 3 Credit Hours General survey of the scientific framework of the four specializations of the oceanographic study - biological, chemical, geological/geophysical and physical oceanography. Applications of ocean research to social and economic problems; interrelations between the ocean disciplines and other fields of study. (Sp) [II-NL].

GEOL 3960 Honors Reading 1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Consists of topics designated by the instructor in keeping with the student's major program. Covers topics not usually presented in the regular courses. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

GEOL 3970 Honors Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Subjects covered vary. Deals with concepts not usually treated in regular courses. (Irreg.)

GEOL 3980 Honors Research 1-3 Credit Hours
1 to 3 hours. Prerequisite: Admission to Honors Program. May be repeated; maximum credit six hours. Will provide an opportunity for the gifted Honors candidate to work at a special project in the student's field. (F, Sp, Su)

GEOL 3990 Independent Study 1-3 Credit Hours
1 to 3 hours. Prerequisite: permission of instructor and junior standing. May be repeated once with change of content. Independent study may be arranged to study a subject not available through regular course offerings. (F, Sp, Su)

## GEOL 4001 Colloquium Series

1 Credit Hour
Prerequisite: Departmental Permission. May be repeated for credit, maximum credit 9 hours. Departmental seminar series which will host a new guest lecturer, faculty member or student presenter each week. These lectures will provide greater exposure to scholarly work within the field of Geology and Geophysics, along with providing a platform for discussion and department interaction. All department scholarship students are required to enroll in this course each semester. (F, Sp)
GEOL 4113 Depositional Systems and Stratigraphy 3 Credit Hours (Slashlisted with GEOL 5113) Prerequisite: GEOL 3233, and GEOL 3114 or concurrent enrollment. Basic stratigraphic principles as well as reconstruction of ancient depositional systems. The controls (climatic, tectonic, eustatic) on deposition of stratigraphic sequences, stratigraphic completeness, biostratigraphy, magnetostratigraphy, and sequence stratigraphy. Field trip; students will be charged transportation costs. Laboratory. No student may earn credit for both 4113 and 5113. (F)

GEOL 4133 Petroleum Geology for Geoscientists 3 Credit Hours Prerequisite: GEOL 3233 and GEOL 3114, majors only. Addresses the origin and distribution of conventional and unconventional petroleum resources, the petroleum system, source rocks, traps and seals, reservoir rock properties, and exploration and development methods. (F)

## GEOL 4136 Field Geology

6 Credit Hours
Prerequisite: 3123; senior standing or permission. A six-week summer course held at the Oklahoma Geology Camp at Canon City, Colorado. Applications of field techniques, including use of aerial photographs, construction of geological maps and geophysical methods, to the recognition and interpretation of geologic phenomena. (Su) [V].
GEOL 4143 Petroleum Geology for Business Majors 3 Credit Hours Prerequisite: 1104 or 1114. The integration of several fields of geology with geochemistry, geophysics, and engineering to provide an overview of the science and technology used in the exploration for and development of oil and natural gas fields. Briefly covers historical development of petroleum geology, amount and location of the world's major oil and gas reserves, and future potential for conventional and non-conventional hydrocarbon resources. (F)

## GEOL 4204 Vertebrate Paleobiology

4 Credit Hours
(Slashlisted with GEOL 5204; Crosslisted with BIOL 4204) Prerequisite: BIOL 1114 and 1121, or 1124, or 1134, or permission of instructor. Systematics, relationships, zoogeography and evolutionary morphology of the major groups of vertebrates. Field trips. Laboratory. No student may earn credit for both 4204 and 5204. (Sp)

GEOL 4223 Principles of Geochemistry (Slashlisted with 5223) 3 Credit Hours
Prerequisite: 2224, Chemistry 1315, and 1415. Experience with calculus recommended. Overview of major topics in geochemistry, emphasizing thermodynamics and kinetics within the context of natural systems. Additional topics will include nucleosynthesis and cosmochemistry, bulk Earth geochemistry, chemistry and bonding of natural materials, solutions and mineral solubility, redox processes, interfacial geochemistry, and isotope geochemistry. No student may earn credit for both 4223 and 5223. Laboratory (Alt. Sp)

GEOL G4233 Subsurface Methods
3 Credit Hours
Prerequisite: junior standing or permission of instructor/department. Concepts and methods of subsurface geoscience data analysis, modeling, and interpretation. Data integration (core, well logs, 3-D seismic, outcrops) to evaluate, map, model, and interpret subsurface geological characteristics and formation property heterogeneity. Application to subsurface reservoirs and aquifers related to energy (oil, gas, geothermal, hydrogen), water, and CO2 storage. (Fall) (F)

## GEOL 4373 History of Geology

3 Credit Hours
Prerequisite: junior standing. History of science and the scientific method with an emphasis on geology. Greek science, scholasticism, Copernican revolution Francis Bacon, principle of uniformity, evolution, continental drift, climate, progress. Discussion of writings by Plato, Geike, Kuhn, Popper, Chamberlin, Gilbert, Hubbert and others. No student may earn credit for both 4373 and 5373. (F) [IV-WC] .
GEOL 4513 Evolutionary Paleobiology 3 Credit Hours (Slashlisted with GEOL 5513) Prerequisite: GEOL 3513; MATH 2423 or MATH 2924; or permission of instructor. Advanced course on biological evolution emphasizing mathematical and computational approaches to the fossil record. Biodiversity through time, origination and extinction dynamics; Models of trait evolution (Brownian motion, Ornstein Uhlenbeck processes, and beyond), Markov processes; Phylogeny inference, parsimony, likelihood, and Bayesian approaches; Paleobiological contributions to understanding major features of evolution and the history of life, punctuated equilibrium, levels of selection. No student may earn credit for both 4513 and 5513. (Irreg.)

## GEOL 4533 Earth's Past Climate

3 Credit Hours
(Slashlisted with GEOL 5533; Crosslisted with METR 4533) Prerequisite: senior or graduate standing, or permission of instructor. Explores earth's climate system, controls on climate change, and evolution of climate history through geologic time as deciphered from climate proxies. No student may earn credit for both 4533 and 5533. (F)

GEOL 4613 Soil Genesis
3 Credit Hours
(Slashlisted with GEOL 5613) Prerequisite: GEOL 1114 or Instructor/ Department Permission. This course focuses on the formation and morphology of soils - otherwise known as the field of pedology. Pedologists research the processes that generate different soils across and within landscapes. We apply this knowledge to understand the development of landforms, biogeochemical reactions across space and time, and the distribution of plant and animal species in the biosphere. No student may earn credit for both 4613 and 5613. (F)

GEOL G4633 Hydrogeology
3 Credit Hours
Prerequisite: MATH 2924 or MATH 2443, PHYS 2524, senior standing in geology, or permission of instructor. Darcy's law, Hubbert's fluid potential, equations of groundwater flow. Physical properties of geologic materials and fluids. Free convection, compaction- and gravity-driven flow. Role of fluids in geologic phenomena, including mineralization, metamorphism, hydrocarbon migration, sedimentary diagenesis, faulting and earthquakes, paleomagnetism. Application of geologic and geophysical techniques to fluid flow problems. (F)

GEOL 4663 Biogeochemistry of the Critical Zone 3 Credit Hours
(Slashlisted with GEOL 5663) Prerequisite: GEOL 1114 or Instructor/ Department Permission. This course serves as a survey of the field of biogeochemistry through the lens of critical zone science. Biogeochemistry is the study of the fluxes and transformations of energy, water, carbon, nutrients, and other elements within and through the biosphere; critical zone science encompasses integrative works that study the near-surface interactions between rock, soil, air, water, and biota. No student may earn credit for both 4663 and 5663. (F)

GEOL 4923 Pegmatites 3 Credit Hours (Slashlisted with GEOL 5923) Prerequisite: GEOL 3223, CHEM 1415, and permission of instructor. Granitic pegmatites are the most complex rocks on earth. Class instructs students in the use of scientific methods, including historical background, working hypotheses, analytical methods, experimental test, and theory as they are utilized in solving the origins of pegmatites. No student may earn credit for both 4923 and 5923. (Sp)

GEOL 4960 Directed Readings
1-4 Credit Hours
1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean. May be repeated; maximum credit four hours. Designed for upper-division students who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)

GEOL G4970 Seminar 3 Credit Hours
1 to 3 hours. Prerequisite: permission. May be repeated; maximum credit nine hours. (F, Sp)

GEOL 4983 Senior Thesis in Geology
3 Credit Hours
Prerequisite: senior standing with a major in geology and permission. May not be repeated. Individual research of a geological topic selected by the student in consultation with the instructor. The project may involve fieldwork, theoretical analysis, computer modeling, and/or data analysis and interpretation, culminating in a written thesis. (F, Sp, Su)

## GEOL 4990 Independent Study

1-3 Credit Hours
1 to 3 hours. Prerequisite: three courses in general area to be studied; permission of instructor and department. May be repeated; maximum credit nine hours. Contracted independent study for topics not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (F, Sp, Su)

GEOL 5001 Topics in Geosciences
1 Credit Hour
Prerequisite: Graduate standing or departmental permission. This course is a broad survey of general concepts in the geosciences, delivered at an advanced level. Students will read the professional scientific literature, participate in class discussions, and complete short writings related to readings and their own research. (F)

## GEOL 5003 Diagenesis

## 3 Credit Hours

Prerequisite: 26 hours of geology or geophysics or permission.
Origin and interpretation of diagenetic features of sedimentary rocks, including porosity, permeability, fluid flow, compaction and cementation. Geochemical approaches are stressed. Laboratory. (Irreg.)

EOL 5010 Paleomagnetism/Diagenesis Seminar 1-2 Credit Hours
Prerequisite: Senior or graduate standing; GPHY 5364 suggested Seminar includes presentations by the professor on research topics as well as presentations by students on papers they read. In addition, each student will also make at least one presentation on their research. Also, students will work through a self-instruction lab with the microscopes. Focuses on recognizing diagenetic features that are important for paleomagnetism. May be taken for a total of six credit hours. (F, Sp)

GEOL 5020 Sedimentology and Stratigraphy Seminar 1-3 Credit Hours Prerequisite: graduate standing. May be repeated with change of content; maximum credit twelve hours. Directed seminar on selected aspects of sedimentology and stratigraphy. (F, Sp)

GEOL 5041 Critical Geosciences Seminar
1 Credit Hour
Prerequisite: Graduate standing and permission of instructor. Directed seminar on knowledge and inquiry, profession and practice, and careers associated with 'Critical Geosciences,' including but not limited to biogeochemistry and geophysics of planetary critical zones and critical mineral/energy resources. 1 hour/week. (F, Sp)

GEOL 5061 Topics in Critical Zone Science
1 Credit Hour
Prerequisite: Graduate Standing or Department/Instructor Permission. In this seminar-style class we will explore recent advances in the field of critical zone science. Critical zone science integrates the earth sciences to study the near-surface interactions between rock, water, soil, air, and biota. Therefore, we will read and discuss research articles that use such a systems-based approach to answer questions related to an array of topics. (F, Sp.) (F, Sp)

GEOL 5113 Depositional Systems and Stratigraphy 3 Credit Hours (Slashlisted with GEOL 4113) Prerequisite: Graduate Standing, GEOL 3233, and GEOL 3114 or equivalent. Basic stratigraphic principles as well as reconstruction of ancient depositional systems. The controls (climatic, tectonic, eustatic) on deposition of stratigraphic sequences, stratigraphic completeness, biostratigraphy, magnetostratigraphy, and sequence stratigraphy. Field trip; students will be charged transportation costs. No student may earn credit for both 4113 and 5113. Laboratory. (F)

GEOL 5173 Clastic Facies
3 Credit Hours
Prerequisite: 3233 or 4113 or equivalent. Bedforms, sedimentary structures, flow regime, intrinsic versus extrinsic controls on sedimentation, ancient depositional environments and depositional models (alluvial fan, fluvial, deltaic, lacustrine, eolian, shelf, etc.). (F)

## GEOL 5204 Vertebrate Paleobiology

 4 Credit Hours(Slashlisted with GEOL 4204) Prerequisite: graduate standing and permission of instructor. Systematics, relationships, zoogeography, and evolutionary morphology of the major groups of vertebrates. Field trips. Laboratory. No student may earn credit for both 4204 and 5204. (Sp)

GEOL 5223 Principles of Geochemistry (Slashlisted with 4223)

3 Credit Hours
Prerequisite: graduate standing or permission of instructor. Overview of major topics in geochemistry, emphasizing thermodynamics and kinetics within the context of natural systems. Additional topics will include nucleosynthesis and cosmochemistry, bulk Earth geochemistry, chemistry and bonding of natural materials, solutions and mineral solubility, redox processes, interfacial geochemistry, and isotope geochemistry. No student may earn credit for both 4223 and 5223 Laboratory (Alt. Sp)

GEOL 5343 Stable Isotope Geochemistry
3 Credit Hours
Prerequisite: Chemistry 1315, 1415; senior or graduate standing. Focuses on the stable isotopes of light elements ( $\mathrm{C}, \mathrm{H}, \mathrm{O}, \mathrm{N}, \mathrm{S}$ ) in the various processes that have resulted in their redistribution over geologic time. (Alt. F)
GEOL 5353 Carbonates and Sequence Stratigraphy 3 Credit Hours Prerequisite: Senior undergraduate or graduate standing and permission of instructor. Sedimentology, sequence stratigraphy, paleo-climate, and reservoir attributes of Paleozoic carbonates (and associated eolian, fluvial and deep-water siliciclastics) of the classic Permian basin region. A highlight is a major field trip to world-class exposures in the Sacraments (NM) and Guadalupe (TX) mountains. (Irreg.)
GEOL 5363 Carbonate Geology
3 Credit Hours
Prerequisite: 26 hours of geology and geophysics, or permission. Students will be charged field trip costs. Petrology and petrography of modern and ancient chemical rocks, the reconstruction of their physical/ chemical depositional and diagenetic environments in time and space; applied interpretation of cores, petrophysical logs, and seismic; five-day field trip to the Florida Keys. (Irreg.)

## GEOL 5413 Paleobotany

3 Credit Hours
Prerequisite: permission of instructor. Introduction to the fossil record of terrestrial plants from algae to flowering plants. Lectures will address anatomy, morphology, taphonomy and paleoecology, including climate and plant-animal interactions. Laboratories will put lecture topics into practice using fossil plants from the Oklahoma Museum of Natural History collection and from fieldwork. Field trips. No student may earn credit for both 4413 and 5413. Laboratory. (Sp, even-numbered years)
GEOL 5443 Formation Damage 3 Credit Hours
(Crosslisted with P E and G E 5443) Prerequisite: Graduate standing. This course presents an overview of main mechanisms of formation damage (mechanical, chemical, thermal, and biological) occurring during subsurface applications, including but not limited to primary and enhanced hydrocarbon production, CO 2 storage, and geothermal processes. Existing theories explaining the process and methods to mitigate the formation damage will be discussed. (Irreg.)
GEOL 5503 Clay Mineralogy
3 Credit Hours
Prerequisite: Graduate Standing or Permission of Instructor. Theoretical fundamentals, methods of investigation, and applications of clay mineral structure and reactivity. Students are required to complete a hands-on original project applying methods and concepts from the course to their research.

## GEOL 5513 Evolutionary Paleobiology

3 Credit Hours
(Slashlisted with GEOL 4513) Prerequisite: graduate standing or instructor permission. Advanced course on biological evolution emphasizing mathematical and computational approaches to the fossil record. Biodiversity through time, origination and extinction dynamics; Models of trait evolution (Brownian motion, Ornstein Uhlenbeck processes, and beyond), Markov processes; Phylogeny inference, parsimony, likelihood, and Bayesian approaches; Paleobiological contributions to understanding major features of evolution and the history of life, punctuated equilibrium, levels of selection. No student may earn credit for both 4513 and 5513. (Irreg.)
GEOL 5533 Earth's Past Climate
3 Credit Hours
(Slashlisted with GEOL 4533; Crosslisted with METR 5533) Prerequisite: senior or graduate standing, or permission of instructor. Explores earth's climate system, controls on climate change, and evolution of climate history through geologic time as deciphered from climate proxies. No student may earn credit for both 4533 and 5533. (F)

GEOL 5543 Minerals and the Environment
Prerequisite: Graduate standing or permission of instructor. Explores the bonding and reactivity of common environmental minerals, as well as laboratory methods in environmental mineral analysis, including diffraction, microscopy, and spectroscopy. (F)

GEOL 5613 Soil Genesis
3 Credit Hours
(Slashlisted with GEOL 4613) Prerequisite: Graduate standing or Instructor/Department Permission. This course focuses on the formation and morphology of soils - otherwise known as the field of pedology. Pedologists research the processes that generate different soils across and within landscapes. We apply this knowledge to understand the development of landforms, biogeochemical reactions across space and time, and the distribution of plant and animal species in the biosphere. No student may earn credit for both 4613 and 5613. (F)
GEOL 5633 Field Methods in Hydrogeology 3 Credit Hours Prerequisite: GEOL 4633 and senior standing or graduate standing in Geology, Civil Engineering, Geography \& Environmental Sustainability, or Environmental Science, or permission of instructor. This course provides students with a hands-on introduction to commonly used field methods in hydrogeology. Some aspects of surface hydrology will also be covered. Field-focused exercises in well installation, slug testing, aquifer testing, water sampling (organic and inorganic constituents), insitu measurement of water quality parameters, surface water discharge measurement techniques, and geophysical methods are covered. (F)
GEOL 5663 Biogeochemistry of the Critical Zone 3 Credit Hours (Slashlisted with GEOL 4663) Prerequisite: Graduate Standing or Instructor/Department Permission. This course serves as a survey of the field of biogeochemistry through the lens of critical zone science. Biogeochemistry is the study of the fluxes and transformations of energy, water, carbon, nutrients, and other elements within and through the biosphere; critical zone science encompasses integrative works that study the near-surface interactions between rock, soil, air, water, and biota. No student may earn credit for both 4663 and 5663. (F)
GEOL 5733 Sedimentation and Tectonics 3 Credit Hours
Prerequisite: Graduate standing or permission of instructor. Provides a basic understanding of the coupling between tectonics and sedimentation, including how the composition, geometry, and stacking of sedimentary deposits are influenced by spatial and temporal changes in tectonics. Course content is delivered through a series of basic lectures outlining fundamental concepts, followed by discussion-based analyses of primary literature that highlights fundamental couplings between sedimentation and tectonics. (F)

GEOL 5813 Basin Analysis for Oil and Gas 3 Credit Hours Prerequisite: permission. Development of exploration guidelines to oil and gas (origin, migration, accumulation) based on regional tectonic styles and related time and place associations of structure, sedimentation, heat history and fluid pressures. Laboratory. (F)

## GEOL 5923 Pegmatites

3 Credit Hours
(Slashlisted with GEOL 4923) Prerequisite: GEOL 3223, CHEM 1415, and permission of instructor. Granitic pegmatites are the most complex rocks on earth. Class instructs students in the use of scientific methods, including historical background, working hypotheses, analytical methods, experimental test, and theory as they are utilized in solving the origins of pegmatites. No student may earn credit for both 4923 and 5923. (Sp)
GEOL 5960 Directed Readings
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing and permission of department. May be repeated; maximum credit twelve hours. Directed readings and/or literature reviews under the direction of a faculty member. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

GEOL 5970 Special Topics/Seminar
3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

GEOL 5980 Research for Master's Thesis 2-9 Credit Hours Variable enrollment, two to nine hours; maximum credit applicable toward degree, four hours. (F, Sp, Su)

GEOL 5990 Special Studies 1-3 Credit Hours 1 to 3 hours. Prerequisite: permission. May be repeated; maximum credit nine hours. Advanced special studies in geological problems. May include directed reading in geology, fieldwork, laboratory research or preparation of reports. (F, Sp, Su)
GEOL 6103 Petroleum Geochemistry
3 Credit Hours
Prerequisite: graduate standing in geology or chemistry. An introduction to the basic concepts of petroleum geochemistry and their role in exploration. Includes the biomarker concept, pyrolysis techniques, isotopes in petroleum exploration, basin modeling and kinetic studies, organic petrography and detailed studies of a number of case histories. (Irreg.)

## GEOL 6113 Organic Geochemistry

3 Credit Hours
Prerequisite: graduate standing or instructor permission. This course will introduce basic concepts, methods, and hot topics of Organic Geochemistry with a focus on lipid biomarkers, the molecular fossils that are commonly studied for tracing the metabolic activities of once living organisms and reconstructing past climates.

GEOL 6633 Aqueous Geochemical Modeling 3 Credit Hours Prerequisite: Graduate standing in geology, civil engineering, environmental science, or other program with permission of instructor, and GEOL 5223/4223. Provides an interactive platform to improve our understanding of complex biogeochemical reactions and processes in natural systems. Course will cover the mathematical and thermodynamic basis for widely used geochemical modeling programs including PHREEQC, Visual MINTEQ, and Geochemists Work Bench (GWB). Various types of modeling approaches will be explored using geochemical data representative of real work applications. (Sp)

GEOL 6950 Research
1-4 Credit Hours
1 to 4 hours. Prerequisite: graduate standing and permission of faculty supervisor. May be repeated with change of content; maximum credit twelve hours. Individual research in various areas of geology. (F, Sp, Su)

GEOL 6960 Directed Readings
1-6 Credit Hours
1 to 6 hours. Prerequisite: graduate standing and permission of faculty supervisor. May be repeated; maximum credit six hours. Supervised reading at an advanced graduate level. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
GEOL 6970 Seminar
4 Credit Hours
1 to 4 hours. Prerequisite: graduate standing and permission of faculty supervisor. May be repeated with change of subject matter; maximum credit 20 hours. Directed seminar on selected aspects of geologic knowledge and inquiry. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

GEOL 6980 Research for Doctoral Dissertation 2-16 Credit Hours 2 to 16 hours. Prerequisite: Graduate standing and permission of instructor; may be repeated. Directed research culminating in the completion of the doctoral dissertation. (F, Sp, Su)

GEOL 6990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)

GPHY 1103 Adventures in Geophysics
3 Credit Hours
The field of applied near-surface geophysics will be introduced within the broader scope of the geophysical sciences. Key geophysical techniques and tools will be covered through exploration of existing case studies involving fields such as archaeology, law enforcement and ground water resources. There will also be opportunities for 'hands on' experience with high-tech geophysical tools. (Sp) [II-NS].

GPHY 2013 Frontiers of Geophysics
3 Credit Hours
Prerequisite: GEOL 1114 or co-enrollment. Introduction to the basic theories, methods, and modern applications of geophysics. This sampler course will address topics such as, but not limited to: seismology, deep earth geophysics, remote sensing, reflection seismology, computational geophysics, and machine learning. (Sp)

GPHY 3013 Data Analysis in Geoscience
3 Credit Hours
Prerequisite: GEOL 1114 , and MATH 2924 or MATH 2423. This course introduces theories and techniques in data analysis and their applications in the Earth and Environmental Sciences, with examples demonstrated in MatLab. Topics include data visualization, probability theory, linear models, periodicity detection, filtering, correlation, interpolation, approximations, and hypothesis testing. (Sp)

GPHY 3423 Introductory Petroleum Geology and Geophysics 3 Credit
Prerequisite: GEOL 1114, MATH 2924 or MATH 2423, PHYS 2514, and GEOL 3003. Fundamentals of the utilization of geological and geophysical data in the exploration for and development of petroleum reserves. Fundamental principles, geological and geophysical data acquisition, processing and interpretation. (F)

## GPHY 3440 Mentored Research Experience

3 Credit Hours
0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)

GPHY 3960 Honors Reading
1-3 Credit Hours
1 to 3 hours. Prerequisite: Admission to Honors Program. May be repeated; maximum credit six hours. Consists of topics designated by the instructor in keeping with the student's major program. The topics will cover materials not usually presented in the regular courses. (F, Sp, Su)

GPHY 3970 Honors Seminar 1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Subjects covered vary. Deals with concepts not usually treated in regular courses. (Irreg.)

GPHY 3980 Honors Research
1-3 Credit Hours
1 to 3 hours. Prerequisite: Admission to Honors Program. May be repeated; maximum credit six hours. Will provide an opportunity for the gifted Honors candidate to work at a special project in the student's field. (F, Sp, Su)

GPHY 3990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: permission of instructor and junior standing. May be repeated once with change of content. Independent study may be arranged to study a subject not available through regular course offerings. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

## GPHY 4133 Colorado Field Geophysics

3 Credit Hours
Prerequisite: 4113; Geology 3123; or permission of instructor. Students become familiar with field methods in geophysics and apply principles of geophysical methods to survey design, data acquisition, data processing, and interpretation. Students plan geophysical surveys, collect field geophysical data in small groups, interpret the acquired datasets in terms of earth structure, and learn about the tectonics and structure of the front range of the Rocky Mountains. Field course is taught at the OU field camp near Canon City, Colorado, and is predominantly field based. Three-week field experience required. (Su) [V].
GPHY 4153 Fractures, Faults, and Earthquakes
3 Credit Hours
(Slashlisted with GPHY 5153) Prerequisite: Junior Standing or permission of instructor. This course provides an introduction to the principles of fracturing, brittle faulting and earthquake mechanics. We will examine content including: brittle failure, fractures, fluid-flow and hydrothermal alteration, the state of stress in Earth's crust, borehole interpretation of fractures and faults, fault rocks and structures, the strength, rheology, and friction of faults, the seismic cycle, and scientific drilling. No student may earn credit for both 4153 and 5153. (Irreg.)

## GPHY 4413 Global Geophysics

3 Credit Hours
Prerequisite: GEOL 3114 or concurrent enrollment; MATH 2924 or 2423; PHYS 2524 or concurrent enrollment; or equivalent coursework or permission of instructor. Introduces students to geophysical methods, the structure and physical properties of earth's interior, active processes on earth, and the use of geophysical methods to study structure and processes. Laboratory (Alt. F)

GPHY G4553 Introduction to Seismology 3 Credit Hours
Prerequisite: MATH 2924 or 2423, and PHYS 2514; or permission of instructor. This course presents an overview of seismology to introduce students to the fundamentals of seismic wave, quantitative data analyses, and the utilization of seismic wave for the study of earthquakes and the Earth's interior structure. Students will gain hand-on experiences with real data analysis. Course is appropriate for upper-class undergraduates and graduate students. (Sp)

## GPHY G4874 Seismic Exploration

4 Credit Hours
Prerequisite: PHYS 2524; MATH 2433 or MATH 2924 or concurrent enrollment. Lectures, projects, and laboratory/problem sessions covering theory and advanced methods of reflection seismic methods and applications to energy exploration, carbon capture, paleosedimentation and paleotectonics. (F)

## GPHY 4953 Senior Thesis in Geophysics

3 Credit Hours
Prerequisite: senior standing with a major in geophysics and permission. May not be repeated. Individual research of a geophysical topic selected by the student in consultation with the instructor. The project may involve fieldwork, theoretical analysis, computer modeling, and/or data analysis and interpretation, culminating in a written thesis. (F, Sp, Su) [V].

## GPHY 4960 Directed Readings

1-4 Credit Hours
1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean. May be repeated; maximum credit four hours. Designed for upper-division students who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)

GPHY G4970 Seminar
3 Credit Hours
1 to 3 hours. Prerequisite: permission of instructor. May be repeated with change of content; maximum credit nine hours. (F, Sp)
GPHY 4990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: three courses in general area to be studied; permission of instructor and department. May be repeated; maximum credit nine hours. Contracted independent study for topics not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

GPHY 5021 Geophysical Journal Seminar
1 Credit Hour
Prerequisite: Graduate Standing or Instructor Permission. This seminar course involves undergraduate and graduate students in selecting, reviewing, and discussing frontier research papers in geophysics about the solid Earth system and problems related to geo-hazards, energy, and the environment. Students will share research progress and discuss important topics for career development. (F, Sp)

GPHY 5023 Computational Geophysics
3 Credit Hours
Prerequisite: Graduate standing or permission of instructor. This course introduces concepts and practices in numerical modeling in geophysics, including the formulation of finite-difference and finite-element methods and their applications in problems of heat and fluid flow, deformation, and wave propagation. Students learn to program numerical methods in MATLAB or Python, use open-source software, and discuss topics about computational methods in seismology, geomechanics, and geodynamics.
(F, Sp)
GPHY 5031 Near-Surface Geophysics Seminar 1 Credit Hour Prerequisite: Graduate Standing or Instructor Permission. In this course, we will discuss the latest scientific research and learn about new approaches for studying near-surface problems. We will also learn how to develop a proposal and how to review papers. At the end, students should be able to analyze and review scientific geophysical articles. Additionally, students should be able to prepare presentations based on the articles discussed. (F, Sp)

GPHY 5153 Fractures, Faults, and Earthquakes
3 Credit Hours
(Slashlisted with GPHY 4153) Prerequisite: Graduate Standing or permission of instructor. This course provides an introduction to the principles of fracturing, brittle faulting and earthquake mechanics. We will examine content including: brittle failure, fractures, fluid-flow and hydrothermal alteration, the state of stress in Earth's crust, borehole interpretation of fractures and faults, fault rocks and structures, the strength, rheology, and friction of faults, the seismic cycle, and scientific drilling. No student may earn credit for both 4153 and 5153. (Irreg.)

## GPHY 5203 Near-Surface Geophysics

## 3 Credit Hours

Prerequisite: graduate Standing or instructor permission. Near-surface geophysics is a branch of geophysics that deals with a zone that spans within a few 100s of meters of the Earth's surface. In near-surface geophysics, we use methods such as seismic refraction and electrical resistivity to address environmental, engineering (civil), forensic, archaeological and mineral exploration issues. There is a required Field Research project as part of this course.

## GPHY 5303 Electrical Environmental Geophysics 3 Credit Hours

 Prerequisite: graduate Standing or permission of instructor. Introduction to "electrical-based" near-surface geophysical methods and the application of these techniques to environmental and engineering studies. Participation in problems set in class is expected. A minimum of time equivalent to one day of fieldwork will be organized for each student: participation in fieldwork is mandatory as it provides an opportunity to work with the different geophysical methods.GPHY 5364 Paleomagnetism
4 Credit Hours
Prerequisite: permission. Concerns the magnetic properties of minerals and rocks and the physical and chemical processes which produce them. Laboratory techniques used in investigations are discussed. (F)

GPHY 5413 Global Geophysics
3 Credit Hours
Prerequisite: Graduate standing or permission of instructor. Introduces students to geophysical methods, the structure and physical properties of earth's interior, active processes on earth, and the use of geophysical methods to study structure and processes. Will be taught every other fall semester. Laboratory included. No student may earn credit for both 4413 and 5413. (Irreg.)

GPHY 5513 3-D Seismic Interpretation 3 Credit Hours
Prerequisite: graduate standing or permission of instructor. Principles of seismic stratigraphy, seismic geomorphology, structural geology, and rock physics to interpret seismic reflection data and associated attributes to delineate faults, fractures, folds, fluvial-deltaic complexes, turbidites, mass transport complexes, karst, and other structural and stratigraphic features of interest. Course is intended for graduate students in geophysics, geology, and petroleum engineering. Laboratory (F)

GPHY 5523 3-D Seismic Processing 3 Credit Hours
Prerequisite: GPHY 4874 or equivalent and MATH 3333. Theory and application of seismic signal analysis to modern 3-D surface seismic surveys including sorting, statics, deconvolution, coherent noise suppression, velocity analysis and migration. At the end of the course, the student will be able to apply appropriate modern work flows to 3-D land data surveys resulting in prestack time migrated images amenable to AVO, attribute, and velocity anisotropy analysis. (Sp)
GPHY 5533 Quantitative Seismic Interpretation 3 Credit Hours
Prerequisite: graduate standing, and GPHY 5513 or current research work in reservoir characterization or simulation. This course is the second part of a two-course sequence on seismic interpretation and will investigate the theoretical foundation and application of tools used in quantitative reservoir characterization. This course is intended for upper level graduate students in geophysics, geology, and petroleum engineering doing research in reservoir imaging, characterization, and simulation. (Sp-even yrs)

GPHY 5613 Introduction to Seismic Stratigraphy 3 Credit Hours Prerequisite: Physics 2524, Mathematics 3333, or permission. Introduction to the stratigraphic interpretation of reflection seismic data, emphasizing 2-D exploration seismic reflection group analysis. Topics covered include the theory and practice of borehole constrained interpretation, analysis, and mapping of seismic sequences, fault mechanical stratigraphy, chronostratigraphy, seismic facies, relative changes in sea level, and integrated geohistory analysis with emphasis upon providing a foundation for petroleum system analysis. Seismic sections for the analyses are taken from varying tectonic and depositional settings worldwide. (Alt. F)

GPHY 5864 Gravimetric and Magnetic Exploration 4 Credit Hours Prerequisite: Graduate standing, MATH 2924 or MATH 2433, PHYS 2524, or permission of instructor. Lectures and laboratory/ problem sessions covering theory and applications of gravimetric and magnetic exploration. Includes potential theory, filtering, modeling and interpretation. Emphasis is on exploration for minerals, oil and gas Concepts of geodesy and isostasy are briefly considered. Laboratory (Sp)

GPHY 5960 Directed Readings
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing and permission of department. May be repeated; maximum credit twelve hours. Directed readings and/or literature reviews under the direction of a faculty member. (F, Sp, Su)

GPHY 5970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

GPHY 5980 Research for Master's Thesis 2-9 Credit Hours Variable enrollment, two to nine hours; maximum applicable toward degree, four hours. (F, Sp, Su)

GPHY 5990 Special Studies
1-3 Credit Hours
1 to 3 hours. Prerequisite: permission. May be repeated; maximum credit nine hours. Advanced special studies in geophysical problems. May include directed reading in geophysics, fieldwork, laboratory research or preparation of reports. (F, Sp, Su)

GPHY 6873 Seismic Imaging
3 Credit Hours
Prerequisite: Graduate standing. Seismic imaging is a fundamental tool to understand Earth's structure. This class will focus on various migrations used in exploration geophysics including ray-based and wavefield-based methods. Also, it will cover velocity analyses of the structure such as travel-time tomography and full-waveform inversion. (Sp)

GPHY 6950 Research
1-4 Credit Hours
1 to 4 hours. Prerequisite: graduate standing and permission of faculty supervisor. May be repeated with change of content; maximum credit 12 hours. Individual research in various areas of geophysics. (F, Sp, Su)

GPHY 6960 Directed Readings 1-6 Credit Hours
1 to 6 hours. Prerequisite: graduate standing and permission of faculty supervisor. May be repeated; maximum credit six hours. Supervised reading at an advanced graduate level. (F, Sp, Su)

GPHY 6970 Seminar 1-4 Credit Hours
1 to 4 hours. Prerequisite: graduate standing, permission. May be repeated with change of subject matter; maximum credit twenty hours. Directed seminar on selected aspects of geophysical knowledge and inquiry. (F, Sp)

GPHY 6980 Research for Doctoral Dissertation 2-16 Credit Hours 2 to 16 hours. Prerequisite: Graduate standing and permission of instructor; may be repeated. Directed research culminating in the completion of the doctoral dissertation. (F, Sp, Su)

GPHY 6990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)

## Faculty

| Last Name | First/Middle <br> Name | Middle init. | OU <br> Service start | Title(s), date(s) appointed | Degrees Earned, Schools, Dates Completed |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Bedle | Heather |  | 2018 | ASSOCIATE <br> PROFESSOR OF GEOSCIENCES, <br> 2024; EDITH <br> KINNEY GAYLORD <br> PREIDENTIAL <br> PROFESSORSHIP, <br> 2024 | PhD, Northwestern <br> Univ, 2008; MS, <br> Northwester Univ, <br> 2005; BS, Wake <br> Forest Univ, 1999 |
| Carpenter | Brett | M | 2017 | WILLARD L. MILLER PROFESSOR, 2023; ASSOCIATE PROFESSOR OF GEOSCIENCES, 2023 | PhD, Penn State Univ, 2012; MS, Penn State Univ, 2007; BS, Mansfield Univ of Pennsylvania, 2005 |
| Cole | Selina |  | 2022 | ASSISTANT <br> PROFESSOR, SCHOOL OF GEOSCIENCES AND ASSISTANT CURATOR, SAM NOBLE MUSEUM, 2022 | PhD, The Ohio State Univ, 2017; BS, James Madison Univ, 2012; AA, Danville Community College, 2009 |
| Dulin | Shannon | A | 2014 | ASSISTANT PROFESSOR OF GEOSCIENCES, 2014; DIRECTOR, BARTELL FIELD CAMP, 2020 | PhD, Univ of Oklahoma, 2014; MS, Univ of Oklahoma, 2006; BS, Univ of Oklahoma, 2003 |
| Elwood <br> Madden | Megan | E | 2007 | ROBERT \& DORIS <br> KLABZUBA <br> CHAIR, 2020; <br> PROFESSOR OF GEOSCIENCES, 2020; <br> STUBBEMAN-DRACE <br> PRESIDENTIAL <br> PROFESSOR, 2013; <br> DIRECTOR, CENTER <br> FOR FACULTY <br> EXCELLENCE, 2020 | PhD, Virginia Polytechnic Inst, 2005; BS, Univ of Illinois, 2000 |
| Elwood Madden | Andrew | S | 2013 | JOE AND ROBERT KLABZUBA CHAIR, 2023; PROFESSOR OF GEOSCIENCES, 2020; DIRECTOR, SAMUEL ROBERTS NOBLE MICROSCOPY LABORATORY, 2020 | PhD, Virginia Polytechnic, 2005; BS, Michigan State Univ, 2000 |
| Engel | Michael | H | 1982 | PROFESSOR OF GEOSCIENCES, 1994; CLYDE BECKER, SR. CHAIR IN GEOLOGY AND GEOPHYSICS, 2009 | PhD, Univ of Arizona, 1980; MS, Univ of Arizona, 1976; BA, SUNY at Binghamton, 1973 |
| Filly | Timothy |  | 2021 | PROFESSOR, 2021; DIRECTOR OF INSTITUTE FOR RESILIENT ENVIRONMENTAL AND ENERGY SYSTEMS | Ph.D., 1997, The Pennsylvania State Univ; B.S., 1990, Loyola Univ |
| George | Sarah |  | 2022 | ASSISTANT <br> PROFESSOR, <br> SCHOOL OF <br> GEOSCIENCES, 2022 | PhD, Univ of Texas at Austin, 2019; BA, Wellesley College, 2014 |


| Pranter | Matthew | J | 2013 | DIRECTOR, SCHOOL <br> OF GEOSCEICNES <br> AND EBERLY FAMILY <br> CHAIR, 2023; <br> PROFESSOR OF <br> GEOSCIENCES, 2013 | PhD, Colorado School of Mines, 1999; MS, Baylor Univ, 1989; BS, Colorado School of Mines, 1996; BS, Oklahoma State Univ, 1987 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Saneiyan | Sina |  | 2021 | ASSISTANT PROFESSOR OF GEOSCIENCES, 2021 | Ph.D., 2019 <br> Environmental <br> Sciences - Rutgers <br> Univ, Newark, NJ; <br> M.S., 2014 Petroleum <br> Engineering - <br> Shahrood Univ of <br> Technology, Iran; <br> B.S., 2011 Mining <br> Engineering - Univ of <br> Tehran, Iran |
| Soreghan | Gerilyn | S | 1996 | EDWARD L. <br> MCCOLLOUGH <br> CHAIR, 2023; <br> DAVID L. BOREN <br> PROFESSORSHIP, $2017$ | PhD, Univ of Arizona, 1992; BS, Univ of California Los Angeles, 1986 |
| Soreghan | Michael | J | 2005 | JAMES ROY MAXEY CHAIR, 2020; ASSOCIATE PROFESSOR OF GEOSCIENCES, 2020 | PhD, Univ of Arizona, 1994; MS, Univ of Indiana, 1990; BS, Univ of California Los Angeles, 1986 |
| Wright | David |  | 2022 | ASSISTANT PROFESSOR, SCHOOL OF GEOSCIENCES; ASSISTANT CURATOR, SAM NOBLE MUSEUM, 2022 | PhD, The Ohio State Univ, 2016; MS, Ohio Univ, 2012; BS, Univ of Kansas, 2010 |

## Environmental Geology, B.S.

Minimum Total Credit Hours: 121
Minimum Upper-Division Hours: 47

Overall GPA - Combined and OU: 2.50
Major GPA - Combined and OU: 2.50

Program Code: B395

## Major Requirements

In order to progress in your curriculum, and as a specific graduation requirement, a grade of $C$ or better is required in each course listed in the curriculum. All prerequisite courses must also be completed with a grade of $C$ or better before proceeding to the next course.

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| GEOL 1114 | Physical Geology for Science and | 4 |
|  | Engineering Majors | 4 |
| GEOL 1124 | Earth History | 4 |
| GEOL 2224 | Introduction to Mineral Sciences | 3 |
| GEOL 3223 | Igneous and Metamorphic Petrology | 3 |
| GEOL 3233 | Sedimentary Petrology and Sedimentology | 4 |
| GEOL 3114 | Structural Geology | 3 |


| GEOL 4113 | Depositional Systems and Stratigraphy | 3 |
| :--- | :--- | :--- |
| GEOL 3123 | Introductory Field Geology | 3 |
| GEOL 4136 | Field Geology | 6 |
| GEOL 4983 | Senior Thesis in Geology (or GEOL/GPHY <br>  <br> Upper-Division Elective) | 3 |
| GEOL 4633 | Hydrogeology | 3 |
| GPHY 4413 | Global Geophysics | 3 |
| or GEOL 4223 | Principles of Geochemistry (Slashlisted with 5223) | $\mathbf{4 6}$ |

## Major Support Requirements

| Code T | Title | Credit |
| :---: | :---: | :---: |
| MATH 2423 C | Calculus and Analytic Geometry II | 3 |
| MATH 2433 C | Calculus and Analytic Geometry III | 3 |
| CHEM 1415 or CHEM 1435 | General Chemistry (Continued) <br> General Chemistry II: Signature Course | 5 |
| ENGL 3153 or GEOL 3333 | Technical Writing Geowriting | 3 |
| Math/Science Elect | tive (list maintained by the department) | 3 |
| Science Electives ( the college, and at | ( 9 hours including at least 3 from outside least 6 hours need to be Upper-Division) ${ }^{3}$ | 9 |
| Total Credit Hours |  | 26 |
| ${ }^{1}$ MATH 1914 and MATH 2924 may be substituted for MATH 1823, MATH 2423, MATH 2433, These tracks have a difference of one credit hour, so those enrolling in the 4 credit hour courses may need to enroll in 1 additional hour of free elective to meet the 121 total credits. |  |  |
| ${ }^{2}$ Students need to select one course in the areas of statistics, quantitative and computer programming. The School of Geosciences maintains list of approved courses. (p. 1052) |  |  |
| ${ }^{3}$ A minimum of 9 hours of advisor approved courses from ANTH, ASTR, BIOL, CEES, CHEM, CS, ENGR, ENST, GEOG, GIS, GPHY,MATH, MBIO, METR, PBIO, and/or PE. At least 6 hours need to be upper division, and 3 hours need to be outside the College of Earth and Energy. Selected courses need to have an emphasis on the environment. |  |  |

## General Education and College Requirements

Courses for fulfillment of General Education and college requirements must be from the approved General Education course list at http:// www.ou.edu/content/gened/courses.html. Courses graded P/NP will not apply

## UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS

At least three hours of Upper-Division General Education coursework must be completed outside the major.

| Code $\quad$ Title | Credit <br> Hours |  |
| :--- | :--- | ---: |
| Core Area I: Symbolic and Oral Communication |  |  |
| English Composition (6 hours) | 3 |  |
| ENGL 1113 | Principles of English Composition | 3 |
| ENGL 1213 | Principles of English Composition | 3 |
| or EXPO 1213 | Expository Writing |  |

Language (0-10 hours)

| (0-10 hours in the same language) Students who have not completed two years of the same language in high school are required to take two college courses in the same language |  |
| :---: | :---: |
| Beginning Course | 0-5 |
| Beginning Course, continued | 0-5 |
| Mathematics (minimum 3 hours) |  |
| MATH 1823 Calculus and Analytic Geometry I ${ }^{1}$ <br> or MATH 1914 Differential and Integral Calculus I  | 3-4 |
| Core Area II: Natural Science (minimum 7 hours, 2 courses) |  |
| CHEM 1315 General Chemistry (Science with Lab) ${ }^{1}$ <br> or CHEM 1335 General Chemistry I: Signature Course | 5 |
| PHYS 2514 General Physics for Engineering and Science Majors ${ }^{1}$ | 4 |
| Core Area III: Social Science (6 hours) |  |
| P SC 1113 American Federal Government | 3 |
| Choose one course from the General Education Social Science list | 3 |
| Core Area IV: Arts and Humanities |  |
| Artistic Forms (3 hours) |  |
| Choose one course from the General Education Artistic Forms list. | 3 |
| Western Culture (6 hours) |  |
| $\begin{array}{ll}\text { HIST } 1483 & \text { United States to } 1865 \\ \text { or HIST } 1493 & \text { United States, } 1865 \text { to the Present }\end{array}$ | 3 |
| Choose one course from the General Education Western Culture list (Excluding HIST 1483 and HIST 1493) | 3 |
| World Culture (3 hours) |  |
| Choose one course from the General Education World Culture list | 3 |
| Core Area V: First Year Experience (3 hours) |  |
| Choose one course | 3 |
| Total Credit Hours | 39-50 |
| ${ }^{1}$ Mewborne College of Earth and Energy Sciences requirements that also satisfy University General Education requirements. |  |
| ADDITIONAL MEWBORNE COLLEGE OF EARTH \& ENERGY REQUIREMENT |  |
| Code Title | Credit Hours |
| PHYS $2524 \quad \begin{aligned} & \text { General Physics for Engineering and } \\ & \text { Science Majors }\end{aligned}$ | 4 |

## Total Credit Hours

## Free Electives

Electives to bring total applicable hours to 121 including 47 upperdivision hours.

## Suggested Semester Plan of Study

Students who have not completed two years of the same language in high school are required to take two college courses in the same language. This additional coursework may add 6-10 hours to the minimum hours required for graduation.

To obtain an Environmental Geology B.S., a student must take the same coursework as for the Geology B.S. except for 16 hours of geology/ geophysics and allied science electives which are more narrowly specified. The student must satisfy 6 hours of geology/geophysics and allied science elective requirements by taking an upper-division GEOL/ GPHY elective and GEOL 4633. The student must also satisfy 9 additional hours of allied science elective requirements chosen from an approved course list.

In order to progress in your curriculum, and as a specific graduation requirement, a grade of $C$ or better is required in each course listed in the curriculum. Students must also successfully complete all prerequisite courses with a grade of $C$ or better before proceeding to the next course.

## Freshman

| First Semester |  | Credit |
| :---: | :---: | :---: |
|  |  | Hours |
| ENGL 1113 | Principles of English Composition (Core I) | 3 |
| MATH 1823 | Calculus and Analytic Geometry I ${ }^{1}$ | 3 |
| GEOL 1114 | Physical Geology for Science and | 4 |
|  | Engineering Majors |  |
| First Year Experience (Core V) ${ }^{3}$ |  | 3 |
| General Education Artistic Forms (Core IV) ${ }^{3}$ |  | 3 |
|  | Credit Hours | 16 |
| Second Semester |  |  |
| ```ENGL }121 or EXPO 1213``` | Principles of English Composition (Core I) or Expository Writing | 3 |
| CHEM 1315 | General Chemistry (Core II) ${ }^{2}$ | 5 |
| MATH 2423 | Calculus and Analytic Geometry II ${ }^{1}$ | 3 |
| GEOL 1124 | Earth History | 4 |
|  | Credit Hours | 15 |

## Sophomore

First Semester

| GEOL 2224 | Introduction to Mineral Sciences | 4 |
| :---: | :---: | :---: |
| CHEM 1415 | General Chemistry (Continued) ${ }^{2}$ | 5 |
| MATH 2433 | Calculus and Analytic Geometry III ${ }^{1}$ | 3 |
| General Education Western Culture (Core IV) ${ }^{3}$ |  | 3 |
|  | Credit Hours | 15 |
| Second Semester |  |  |
| PHYS 2514 | General Physics for Engineering and Science Majors (Core II) | 4 |
| GEOL 3223 | Igneous and Metamorphic Petrology | 3 |
| GEOL 3233 | Sedimentary Petrology and Sedimentology 2 | 3 |

Math/Science Elective from approved list maintained by the 3 department ${ }^{8}$

Credit Hours
13

## Junior

## First Semester

| PHYS 2524 | General Physics for Engineering and <br> Science Majors | 4 |
| :--- | :--- | ---: |
| GEOL 3114 | Structural Geology | 4 |
| GEOL 3513 | Fundamentals of Invertebrate Paleontology | 3 |
| GEOL 4113 | Depositional Systems and Stratigraphy | $\mathbf{3}$ |
|  | Credit Hours | $\mathbf{1 4}$ |


| Second Semester |  |  |
| :---: | :---: | :---: |
| GEOL 3123 | Introductory Field Geology | 3 |
| $\begin{aligned} & \text { ENGL } 3153 \\ & \quad \text { or GEOL } 3333 \end{aligned}$ | Technical Writing ${ }^{6}$ or Geowriting | 3 |
| Science Elective (outside the major) ${ }^{5}$ |  | 3 |
| General Education World Culture (Core IV) ${ }^{3}$ |  | 3 |
|  | Credit Hours | 12 |
| Summer |  |  |
| GEOL 4136 | Field Geology | 6 |
|  | Credit Hours | 6 |

## Senior

| First Semester |  |  |
| :---: | :---: | :---: |
| GPHY 4413 <br> or GEOL 4223 | Global Geophysics ${ }^{7}$ or Principles of Geochemistry (Slashlisted with 5223) | 3 |
| GEOL 4983 | Senior Thesis in Geology (or upper-division Geology/Geophysics Elective) | 3 |
| P SC 1113 | American Federal Government (Core III) | 3 |
| Science Elective (outside the College) ${ }^{5}$ |  | 3 |
| Free Elective ${ }^{4}$ |  | 3 |
|  | Credit Hours | 15 |
| Second Semester |  |  |
| GEOL 4633 | Hydrogeology | 3 |
| HIST 1483 <br> or HIST 1493 | United States to 1865 (Core IV) or United States, 1865 to the Present | 3 |
| Science Elective (outside the major) ${ }^{5}$ |  | 3 |
| General Education Social Science (Core III) ${ }^{3}$ |  | 3 |
| Free Elective ${ }^{4}$ |  | 3 |
|  | Credit Hours | 15 |
|  | Total Credit Hours | 121 |

${ }^{1}$ MATH 1914 and MATH 2924 may be substituted for MATH 1823, MATH 2423, MATH 2433, These tracks have a difference of one credit hour, so those enrolling in the 4 credit hour courses may need to enroll in 1 additional hour of free elective to meet the 121 total credits.
${ }^{2}$ CHEM 1335 and CHEM 1435 may be substituted for CHEM 1315 and CHEM 1415.
${ }^{3}$ To be chosen from the University-Wide General Education Approved Course List. Three hours of General Education must be upper-division outside the major.
4 Six hours of free electives. Foreign language courses taken to satisfy University-Wide Gen. Ed. requirements may be counted as lower-division free electives. However, in order to satisfy the college requirement of 48 hours of upper-division coursework, three hours of free electives must be taken as upper-division.
5 A minimum of 9 hours of advisor approved courses from ANTH, ASTR, BIOL, CEES, CHEM, CS, ENGR, ENST, GEOG, GIS, GPHY,MATH, MBIO, METR, PBIO, and/or PE. At least 6 hours need to be upper division, and 3 hours need to be outside the College of Earth and Energy. Selected courses need to have an emphasis on the environment.
6 GEOL 3333 is taught on an irregular basis and may be substituted for ENGL 3513
7 Only one of the following courses is required. GPHY 4413 is taught fall semesters; GEOL 4223 is taught alternate spring semesters.

8 Students need to select one course in the areas of statistics, quantitative and computer programming. The School of Geosciences maintains list of approved courses

## Geology, B.S.

Minimum Total Credit Hours: 121
Minimum Upper-Division Hours: 48
Overall GPA - Combined and OU: 2.50
Major GPA - Combined and OU: 2.50
Program Code: B475

## Major Requirements

In order to progress in your curriculum, and as a specific graduation requirement, a grade of $C$ or better is required in each course listed in the curriculum. All prerequisite courses must also be completed with a grade of $C$ or better before proceeding to the next course.

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| GEOL 1114 | Physical Geology for Science and | 4 |
|  | Engineering Majors | 4 |
| GEOL 1124 | Earth History | 4 |
| GEOL 2224 | Introduction to Mineral Sciences | 3 |
| GEOL 3223 | Igneous and Metamorphic Petrology | 3 |
| GEOL 3233 | Sedimentary Petrology and Sedimentology | 4 |
| GEOL 3114 | Structural Geology | 3 |
| GEOL 3513 | Fundamentals of Invertebrate Paleontology | 3 |
| GEOL 4113 | Depositional Systems and Stratigraphy | 3 |
| GEOL 3123 | Introductory Field Geology | 6 |
| GEOL 4136 | Field Geology | 3 |
| GEOL 4983 | Senior Thesis in Geology (or GEOL/GPHY | 3 |
| GPHY 4413 | Upper-Division Elective) | 3 |
| or GEOL 4223 | Plobal Geophysics | 3 |

Total Credit Hours

## Major Support Requirements

| Code | Title | Credit Hours |
| :---: | :---: | :---: |
| MATH 2423 | Calculus and Analytic Geometry II ${ }^{1}$ | 3 |
| MATH 2433 | Calculus and Analytic Geometry III ${ }^{1}$ | 3 |
| CHEM 1415 or CHEM 1435 | General Chemistry (Continued) <br> General Chemistry II: Signature Course | 5 |
| ENGL 3153 or GEOL 3333 | Technical Writing Geowriting | 3 |
| Math/Science Elective (list maintained by the department) ${ }^{2}$ |  | 3 |
| Science Electives ( 9 hours including at least 3 from outside the college, and at least 6 hours need to be Upper-Division) ${ }^{3}$ |  | 9 |
| Total Credit Hours |  | 26 |
| MATH 1914 and 2423, and MATH | MATH 2924 may be substituted for MATH 2433. These tracks have a difference of on | MATH dit |

hour, so those enrolling in the 4 credit hour courses may need to enroll in 1 additional hour of free elective to meet the 121 total credits.
${ }^{2}$ Students need to select one course in the areas of statistics, quantitative and computer programming. The School of Geosciences maintains list of approved courses. (p. 1052)
${ }^{3}$ A minimum of 9 hours of advisor approved courses from ANTH, ASTR, BIOL, CEES, CHEM, CS, ENGR, ENST, GEOG, GIS, GPHY, MATH, MBIO, METR, PBIO, and/or PE. At least 6 hours need to be upper division, and 3 hours need to be outside the College of Earth and Energy.

## General Education and College Requirements

Courses for fulfillment of General Education and college requirements must be from the approved General Education course list at http:// www.ou.edu/content/gened/courses.html. Courses graded P/NP will not apply

## UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS

At least three hours of Upper-Division General Education coursework must be completed outside the major.

| Code Title | Credit Hours |
| :---: | :---: |
| Core Area I: Symbolic and Oral Communication |  |
| English Composition (6 hours) |  |
| ENGL 1113 Principles of English Composition | 3 |
| $\begin{array}{ll}\text { ENGL } 1213 & \text { Principles of English Composition } \\ \text { or EXPO } 1213 \text { Expository Writing }\end{array}$ | 3 |
| Language (0-10 hours) |  |
| ( $0-10$ hours in the same language) Students who have not completed two years of the same language in high school are required to take two college courses in the same language |  |
| Beginning Course | 0-5 |
| Beginning Course, continued | 0-5 |
| Mathematics (minimum 3 hours) |  |
| MATH $1823 \quad$ Calculus and Analytic Geometry I ${ }^{1}$ or MATH 1914 Differential and Integral Calculus I | 3-4 |
| Core Area II: Natural Science (minimum 7 hours, 2 courses) |  |
| CHEM 1315 General Chemistry (Science with Lab) ${ }^{1}$ <br> or CHEM 1335 General Chemistry I: Signature Course | 5 |
| $\begin{array}{ll}\text { PHYS } 2514 & \begin{array}{l}\text { General Physics for Engineering and } \\ \text { Science Majors }{ }^{1}\end{array}\end{array}$ | 4 |
| Core Area III: Social Science (6 hours) |  |
| P SC 1113 American Federal Government | 3 |
| Choose one course from the General Education Social Science list | 3 |
| Core Area IV: Arts and Humanities |  |
| Artistic Forms (3 hours) |  |
| Choose one course from the General Education Artistic Forms list. | 3 |
| Western Culture (6 hours) |  |
| HIST 1483 United States to 1865 | 3 |
| or HIST 1493 United States, 1865 to the Present |  |
| Choose one course from the General Education Western Culture list (Excluding HIST 1483 and HIST 1493) | 3 |
| World Culture (3 hours) |  |


| Choose one course from the General Education World Culture <br> list | 3 |
| :--- | ---: |
| Core Area V: First Year Experience (3 hours) | 3 |
| Choose one course | $\mathbf{3 9 - 5 0}$ |
| Total Credit Hours |  |
| 11 <br> Mewborne College of Earth and Energy Sciences requirements that <br> also satisfy University General Education requirements. |  |

## ADDITIONAL MEWBORNE COLLEGE OF EARTH \& ENERGY REQUIREMENT

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| PHYS 2524 | General Physics for Engineering and <br> Science Majors | 4 |

Total Credit Hours

## 4

## Free Electives

Electives to bring total applicable hours to 121 including 48 upperdivision hours.

## Suggested Semester Plan of Study

Students who have not completed two years of the same language in high school are required to take two college courses in the same language. This additional coursework may add 6-10 hours to the minimum hours required for graduation.

In order to progress in your curriculum, and as a specific graduation requirement, a grade of $C$ or better is required in each course listed in this curriculum. Students must also successfully complete all prerequisite courses with a grade of C or better before proceeding to the next course.

## Freshman

| First Semester |  | Credit |
| :---: | :---: | :---: |
|  |  | Hours |
| ENGL 1113 | Principles of English Composition (Core I) | 3 |
| MATH 1823 | Calculus and Analytic Geometry I ${ }^{1}$ | 3 |
| GEOL 1114 | Physical Geology for Science and | 4 |
|  | Engineering Majors |  |
| First Year Experience (Core V) ${ }^{3}$ |  | 3 |
| General Education Artistic Forms (Core IV) ${ }^{3}$ |  | 3 |
|  | Credit Hours | 16 |
| Second Semester |  |  |
| ENGL 1213 or EXPO 1213 | Principles of English Composition (Core I) or Expository Writing | 3 |
| MATH 2423 | Calculus and Analytic Geometry II ${ }^{1}$ | 3 |
| GEOL 1124 | Earth History | 4 |
| CHEM 1315 | General Chemistry ${ }^{2}$ | 5 |
|  | Credit Hours | 15 |

## Sophomore

## First Semester

MATH 2433 Calculus and Analytic Geometry III ${ }^{1} 3$
GEOL 2224 Introduction to Mineral Sciences 4

CHEM 1415 General Chemistry (Continued) ${ }^{2} 5$
General Education Western Culture (Core IV) ${ }^{3} 3$

| Second Semester |  |  |
| :---: | :---: | :---: |
| PHYS 2514 | General Physics for Engineering and Science Majors (Core II) | 4 |
| GEOL 3223 | Igneous and Metamorphic Petrology | 3 |
| GEOL 3233 | Sedimentary Petrology and Sedimentology | 3 |
| Math/Science Elective from approved list maintained by the department ${ }^{8}$ |  | 3 |
|  | Credit Hours | 13 |
| Junior |  |  |
| First Semester |  |  |
| GEOL 3114 | Structural Geology | 4 |
| GEOL 3513 | Fundamentals of Invertebrate Paleontology | 3 |
| GEOL 4113 | Depositional Systems and Stratigraphy | 3 |
| PHYS 2524 | General Physics for Engineering and Science Majors | 4 |
|  | Credit Hours | 14 |
| Second Semester |  |  |
| GEOL 3123 | Introductory Field Geology | 3 |
| $\begin{aligned} & \text { ENGL } 3153 \\ & \text { or GEOL } 3333 \end{aligned}$ | Technical Writing ${ }^{6}$ or Geowriting | 3 |
| Science Elective | (outside the major) ${ }^{5}$ | 3 |
| Free Elective ${ }^{4}$ |  | 3 |
|  | Credit Hours | 12 |
| Summer |  |  |
| GEOL 4136 | Field Geology | 6 |
|  | Credit Hours | 6 |
| Senior |  |  |
| First Semester |  |  |
| GEOL 4983 | Senior Thesis in Geology (or upper-division GEOL/GPHY Elective ) | 3 |
| Science Elective (outside the College) ${ }^{5}$ |  | 3 |
| P SC 1113 | American Federal Government | 3 |
| General Educatio | n World Culture (Core IV) ${ }^{3}$ | 3 |
| Free Elective (Up | per-division) ${ }^{4}$ | 3 |
|  | Credit Hours | 15 |
| Second Semester |  |  |
| GPHY 4413 <br> or GEOL 4223 | ```Global Geophysics }\mp@subsup{}{}{7 or Principles of Geochemistry (Slashlisted with 5223)``` | 3 |
| HIST 1483 or HIST 1493 | United States to 1865 (Core IV) or United States, 1865 to the Present | 3 |
| Science Elective (outside the major) ${ }^{5}$ |  | 3 |
| General Education Social Science (Core III) ${ }^{3}$ |  | 3 |
| Free Elective (Upper-division) ${ }^{4}$ |  | 3 |
|  | Credit Hours | 15 |
| Total Credit Hours |  | 121 |
| 1 MATH 1914 and MATH 2924 may be substituted for MATH 1823, MATH 2423, and MATH 2433. These tracks have a difference of one credit hour, so those enrolling in the 4 credit hour courses may need to enroll in 1 additional hour of free elective to meet the 121 total credits. ${ }^{2}$ CHEM 1335 and CHEM 1435 may be substituted for CHEM 1315 and CHEM 1415. |  |  |

3 To be chosen from the University-Wide General Education Approved Course List. Three hours of General Education must be upper-division outside the major.
4 Nine hours of free electives. Foreign Language courses taken to satisfy University-Wide General Education Requirements may be counted as lower-division free electives. However, in order to satisfy the college requirement of 48 hours of upper-division coursework, six hours of free electives must be taken as upper-division
${ }^{5}$ A minimum of 9 hours of advisor approved courses from ANTH, ASTR, BIOL, CEES, CHEM, CS, ENGR, ENST, GEOG, GIS, GPHY, MATH, MBIO, METR, PBIO, and/or PE. At least 6 hours need to be upper division, and 3 hours need to be outside the College of Earth and Energy.
${ }^{6}$ GEOL 3333 is taught on an irregular basis and may be substituted for ENGL 3153.
7 Only one of the following courses is required. GPHY 4413 is taught fall semesters; GEOL 4223 is taught alternate spring semesters.
8 Students need to select one course in the areas of statistics, quantitative and computer programming. The School of Geosciences maintains list of approved courses. (p. 1052)

## School of Geosciences Math \& Science Elective Lists

For the most current list of approved courses, please consult the School of Geosciences.

| Math/Chemistry |  |  |
| :--- | :--- | ---: |
| Code | Title | Credit <br> Hours |
|  |  | 3 |
| MATH 2443 | Calculus and Analytic Geometry IV | 4 |
| MATH 2934 | Differential and Integral Calculus III | 3 |
| CHEM 3053 | Organic Chemistry I: Biological Emphasis | 3 |

## Statistics

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| ANTH 4713 | Statistical Concepts in Anthropology | 3 |
| BIOL 2913 | Intro to Quantitative Biology | 3 |
| BIOL 4913 | Quantitative Biology | 3 |
| COMM 2513 | Introduction to Statistics | 3 |
| ECON 2843 | Elements of Statistics | 3 |
| ECON 4223 | Econometric Analysis | 3 |
| ECON 4773 | Economic Game Theory | 3 |
| GIS 4923 | Spatial Statistics | 3 |
| MATH 4743 | Introduction to Mathematical Statistics | 3 |
| MATH 4753 | Applied Statistical Methods | 3 |
| MATH 4743 | Introduction to Mathematical Statistics | 3 |
| MATH 4753 | Applied Statistical Methods | 3 |
| MATH 4773 | Applied Regression Analysis | 3 |
| P SC 2013 | Introduction to Political Analysis | 3 |
| PSY 2003 | Understanding Statistics | 3 |
| PSY 3114 | Research Methods: Applications and | 4 |
| S WK 2223 | Experimental Design | 3 |


| SOC 3133 | Methods of Social Research | 3 |
| :---: | :---: | :---: |
| SOC/P SC 3123 | Social Statistics | 3 |
| Computing |  |  |
| Code | Title | Credit |
|  |  | Hours |
| ASTR 3190 | Topics in Astronomy (Topic: Introduction to Research) | 1-3 |
| C S 1213 | Programming for Non-Majors with Python | 3 |
| C S 4033 | Machine Learning Fundamentals | 3 |
| GPHY 3013 | Data Analysis in Geoscience | 3 |
| LIS 4623 | Advanced Data Analytics | 3 |
| LIS 4643 | Introduction to Data Analytics | 3 |
| MBIO 4783 | Introduction to Python Programming for Data Analytics | 3 |
| METR 1313 | Introduction to Programming for Meteorology | 3 |
| METR 4330 | Information Technology Skills for Meteorology | 1-3 |
| PSY 2503 | Computing for Behavioral Sciences | 3 |
| Quantitative |  |  |
| Code | Title | Credit |
|  |  | Hours |
| GEOG 3513 | Political Geography | 3 |
| LIS 4613 | Dynamic Web Development | 3 |
| LIS 4453 | Digital Collections | 3 |
| LIS 4673 | Introduction to Information Visualization | 3 |
| LIS 4683 | Database Design for Information Organizations | 3 |
| LIS 4693 | Information Retrieval and Text Mining | 3 |
| LIS 4970 | Special Topics/Seminar (Topic: Data Stewardship) | 1-3 |
| MATH 3333 | Linear Algebra I | 3 |
| MBIO/PBIO 3673 | Practical Bioinformatics | 3 |

## Geophysics, B.S.

Minimum Total Credit Hours: 120
Minimum Upper-Division Hours: 48

Overall GPA - Combined and OU: 2.50
Major GPA - Combined and OU: 2.50
Program Code: B481

## Major Requirements

In order to progress in your curriculum, and as a specific graduation requirement, a grade of $C$ or better is required in each course listed in the curriculum. All prerequisite courses must also be completed with a grade of $C$ or better before proceeding to the next course.

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| GEOL 1114 | Physical Geology for Science and <br> Engineering Majors | 4 |
| GEOL 1124 | Earth History | 4 |


| GEOL 2224 | Introduction to Mineral Sciences | 4 |
| :--- | :--- | ---: |
| GEOL 3233 | Sedimentary Petrology and Sedimentology | 3 |
| GEOL 3114 | Structural Geology | 4 |
| GEOL 3123 | Introductory Field Geology | 3 |
| GPHY 2013 | Frontiers of Geophysics | 3 |
| GPHY 3013 | Data Analysis in Geoscience | 3 |
| GPHY 4133 | Colorado Field Geophysics | 3 |
| GPHY 4413 | Global Geophysics | 3 |
| GPHY 4553 | Introduction to Seismology | 3 |
| GPHY 4874 | Seismic Exploration | 4 |
| 9 hours of Upper-Division Geophysics Electives | 9 |  |
| 3 hours of Upper-Division Geology Electives | 3 |  |
| Total Credit Hours | 53 |  |

## Major Support Requirements

Code Title Credit

MATH 2924 Differential and Integral Calculus II ${ }^{1} 4$
MATH 2934 Differential and Integral Calculus III ${ }^{1} 4$
MATH 3113 Introduction to Ordinary Differential 3
Equations
3 hours Upper-Division MATH elective 3
PHYS 3043 Physical Mechanics I 3
ENGL 3153 Technical Writing 3
or GEOL 3333 Geowriting
Total Credit Hours

1 MATH 1823, MATH 2423, MATH 2433, and MATH 2443 may be substituted for MATH 1914, MATH 2924 and MATH 2934.

## General Education and College Requirements

Courses for fulfillment of General Education and college requirements must be from the approved General Education course list at http:// www.ou.edu/content/gened/courses.html. Courses graded P/NP will not apply

## UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS <br> At least three hours of Upper-Division General Education coursework must be completed outside the major.

Code Title Credit

Core Area I: Symbolic and Oral Communication
English Composition (6 hours)
ENGL 1113 Principles of English Composition 3

ENGL 1213 Principles of English Composition 3
or EXPO 1213 Expository Writing
Language (0-10 hours)
(0-10 hours in the same language) Students who have not completed two years of the same language in high school are required to take two college courses in the same language Beginning Course 0-5
4 Beginning Course, continued $\quad 0-5$

| MATH 1914 or MATH 1823 | Differential and Integral Calculus I ${ }^{1}$ <br> Calculus and Analytic Geometry I | 3-4 |
| :---: | :---: | :---: |
| Core Area II: Natural Science (minimum 7 hours, 2 courses) |  |  |
| CHEM 1315 <br> or CHEM 1335 | General Chemistry (Science with Lab) ${ }^{1}$ <br> General Chemistry I: Signature Course | 5 |
| PHYS 2514 | General Physics for Engineering and Science Majors ${ }^{1}$ | 4 |
| Core Area III: Social Science (6 hours) |  |  |
| P SC 1113 | American Federal Government | 3 |
| Choose one cours Science list | se from the General Education Social | 3 |
| Core Area IV: Arts and Humanities |  |  |
| Artistic Forms (3 hours) |  |  |
| Choose one cours list. | se from the General Education Artistic Forms | 3 |
| Western Culture (6 hours) |  |  |
| HIST 1483 or HIST 1493 | United States to 1865 <br> United States, 1865 to the Present | 3 |
| Choose one cours Culture list (Exclu | se from the General Education Western ding HIST 1483 and HIST 1493) | 3 |
| World Culture (3 hours) |  |  |
| Choose one cours list | se from the General Education World Culture | 3 |
| Core Area V: First Year Experience (3 hours) |  |  |
| Choose one course 3 |  |  |
| Total Credit Hours |  | 39-50 |
| ${ }^{1}$ Mewborne College of Earth and Energy Sciences requirements that also satisfy University General Education requirements. |  |  |

ADDITIONAL MEWBORNE COLLEGE OF EARTH \& ENERGY REQUIREMENT

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| PHYS 2524 | General Physics for Engineering and <br> Science Majors | 4 |

Total Credit Hours ..... 4

## Free Electives

Electives to bring total applicable hours to 120 including 48 upperdivision hours.

## Suggested Semester Plan of Study

Students who have not completed two years of the same language in high school are required to take two college courses in the same language. This additional coursework may add 6-10 hours to the minimum hours required for graduation.

In order to progress in your curriculum, and as a specific graduation requirement, a grade of $C$ or better is required in each course listed in the curriculum. Students must also successfully complete all prerequisite courses with a grade of $C$ or better before proceeding to the next course.

## Freshman

| First Semester |  | Credit <br> Hours |
| :--- | :--- | ---: |
| GEOL 1114 | Physical Geology for Science and <br> Engineering Majors | 4 |
| ENGL 1113 | Principles of English Composition (Core I) | 3 |
| MATH 1914 | Differential and Integral Calculus I (Core I) $^{1}$ | 4 |
| First Year Experience (Core V) ${ }^{3}$ | 3 |  |
|  | Credit Hours | $\mathbf{1 4}$ |


| Second Semester |  |  |
| :---: | :---: | :---: |
| GPHY 2013 | Frontiers of Geophysics | 3 |
| $\begin{aligned} & \text { ENGL } 1213 \\ & \quad \text { or EXPO } 1213 \end{aligned}$ | Principles of English Composition (Core I) or Expository Writing | 3 |
| MATH 2924 | Differential and Integral Calculus II ${ }^{1}$ | 4 |
| CHEM 1315 | General Chemistry ${ }^{2}$ | 5 |
|  | Credit Hours | 15 |

Sophomore

| First Semester |  |  |
| :--- | :--- | ---: |
| GEOL 2224 | Introduction to Mineral Sciences | 4 |
| MATH 2934 | Differential and Integral Calculus III |  |


| Second Semester |  | 4 |
| :--- | :--- | ---: |
| GEOL 1124 | Earth History | 3 |
| GEOL 3233 | Sedimentary Petrology and Sedimentology | 3 |
| GPHY 3013 | Data Analysis in Geoscience | 4 |
| PHYS 2524 | General Physics for Engineering and | 4 |
|  | Science Majors | $\mathbf{1 4}$ |

Junior
First Semester
MATH 3113 Introduction to Ordinary Differential 3

| GEOL 3114 | Structural Geology | 4 |
| :--- | :--- | :--- |

Geophysics Elective (upper-division) 3

| General Education Artistic Forms (Core IV) ${ }^{3}$ | 3 |
| :---: | ---: |
| Credit Hours | $\mathbf{1 6}$ |

## Second Semester

| GEOL 3123 | Introductory Field Geology | 3 |
| :--- | :--- | ---: |
| GPHY 4553 | Introduction to Seismology | 3 |
| Geophysics Elective (upper-division) | 3 |  |
| General Education Social Science (Core III) |  |  |
| Credit Hours | 3 |  |


| Summer |  |  |
| :--- | :--- | :--- |
| GPHY 4133 | Colorado Field Geophysics | 3 |
|  | Credit Hours | $\mathbf{3}$ |


| Senior |  |  |
| :---: | :---: | :---: |
| First Semester |  |  |
| $\begin{aligned} & \text { ENGL } 3153 \\ & \text { or GEOL } 3333 \end{aligned}$ | Technical Writing ${ }^{4}$ or Geowriting | 3 |
| GPHY 4874 | Seismic Exploration | 4 |
| P SC 1113 | American Federal Government (Core III) | 3 |
| Geophysics Elective (upper-division) 3 |  |  |
| General Education Western Culture (Core IV) ${ }^{3}$ |  |  |
|  | Credit Hours | 16 |
| Second Semester |  |  |
| PHYS 3043 | Physical Mechanics I | 3 |
| Geology Elective (upper-division) |  |  |
| Math Elective (upper-division) |  |  |
| General Education World Culture (Core IV) ${ }^{3}$ |  |  |
| Free Elective |  |  |
|  | Credit Hours | 15 |
|  | Total Credit Hours | 120 |
| ${ }^{1}$ MATH 1823, MATH 2423, MATH 2433, and MATH 2443 may be substituted for MATH 1914, MATH 2924 and MATH 2934. |  |  |
| ${ }^{3}$ To be chosen from the University-Wide General Education Approved Course List. Three hours of general education outside the major must be upper-division. |  |  |
| ${ }^{4}$ GEOL 3333 is taught on an irregular basis and may be substituted for ENGL 3513. |  |  |

## Paleontology, B.S.

Minimum Total Credit Hours: 120
Minimum Upper-Division Hours: 48

Overall GPA - Combined and OU: 2.50
Major GPA - Combined and OU: 2.50

## Program Code: B760

## Major Requirements

In order to progress in your curriculum, and as a specific graduation requirement, a grade of $C$ or better is required in each course listed in the curriculum. All prerequisite courses must also be completed with a grade of $C$ or better before proceeding to the next course.

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| GEOL 1114 | Physical Geology for Science and <br> Engineering Majors | 4 |
| GEOL 1124 | Earth History | 4 |
| GEOL 2224 | Introduction to Mineral Sciences | 4 |
| GEOL 3223 | Igneous and Metamorphic Petrology | 3 |
| GEOL 3233 | Sedimentary Petrology and Sedimentology | 3 |
| GEOL 3114 | Structural Geology | 4 |
| GEOL 4113 | Depositional Systems and Stratigraphy | 3 |
| GEOL 3513 | Fundamentals of Invertebrate Paleontology | 3 |
| GEOL 3123 | Introductory Field Geology | 3 |
| GEOL 4513 | Evolutionary Paleobiology ${ }^{\text {1 }}$ | 3 |


| GEOL 4413 | 1 | 3 |
| :---: | :---: | :---: |
| GEOL 4136 | Field Geology | 6 |
| GPHY 4413 or GEOL 4223 | Global Geophysics <br> Principles of Geochemistry (Slashlisted | 3 |
| Total Credit Hours |  | 6 |
| ${ }^{1}$ GEOL 4513, GEOL 4413 and BIOL 4204 are taught in alternate years in the Junior and Senior Spring semesters. Students should plan their coursework based on when the courses are offered. If GEOL 4513 is offered Junior Spring, then GEOL 4413 and BIOL 4204 must be taken Senior Spring. If GEOL 4413 and BIOL 4204 are offered Junior Spring, then GEOL 4513 must be taken Senior Spring. |  |  |
| Major Support Requirements |  |  |
| Code | Title | Credit <br> Hours |
| MATH 2423 | Calculus and Analytic Geometry II ${ }^{1}$ | 3 |
| MATH 2433 | Calculus and Analytic Geometry III ${ }^{1}$ | 3 |
| CHEM 1415 or CHEM 1435 | General Chemistry (Continued) <br> General Chemistry II: Signature Course | 5 |
| BIOL 1124 | Intro Biol: Molecule/Cell/Phys | 4 |
| BIOL 2013 |  | 3 |
| BIOL 3403 | Principles of Ecology | 3 |
| BIOL 4204 | Vertebrate Paleobiology | 4 |
| $\begin{aligned} & \text { ENGL } 3153 \\ & \text { or GEOL } 3333 \end{aligned}$ | Technical Writing Geowriting | 3 |
| Math/Science Ele | ctive (list maintained by the department) ${ }^{2}$ | 3 |
| Total Credit Hours |  | 31 |
| ${ }^{1}$ MATH 1914 and MATH 2924 may be substituted for MATH 1823, MATH 2423, MATH 2433, These tracks have a difference of one credit hour, so those enrolling in the 4 credit hour courses may need to enroll in 1 additional hour of free elective to meet the 120 total credits. |  |  |

## General Education and College Requirements

Courses for fulfillment of General Education and college requirements must be from the approved General Education course list at http:// www.ou.edu/content/gened/courses.html. Courses graded P/NP will not apply

## UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS

At least three hours of Upper-Division General Education coursework must be completed outside the major.

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Core Area I: Symbolic and Oral Communication |  |  |
| English Composition (6 hours) | 3 |  |
| ENGL 1113 | Principles of English Composition | 3 |
| ENGL 1213 | Principles of English Composition |  |
| or EXPO 1213 | Expository Writing |  |


| Language (0-10 hours) |  |
| :---: | :---: |
| ( $0-10$ hours in the same language) Students who have not completed two years of the same language in high school are required to take two college courses in the same language |  |
| Beginning Course |  |
| Beginning Course, continued |  |
| Mathematics (minimum 3 hours) |  |
| MATH $1823 \quad$ Calculus and Analytic Geometry I ${ }^{1}$ or MATH 1914 Differential and Integral Calculus I |  |
| Core Area II: Natural Science (minimum 7 hours, 2 courses) |  |
| CHEM 1315 General Chemistry (Science with Lab) ${ }^{1}$ <br> or CHEM 1335 General Chemistry I: Signature Course  |  |
| $\begin{array}{ll}\text { PHYS } 2514 & \begin{array}{l}\text { General Physics for Engineering and } \\ \text { Science Majors }{ }^{1}\end{array}\end{array}$ |  |
| Core Area III: Social Science (6 hours) |  |
| P SC 1113 American Federal Government |  |
| Choose one course from the General Education Social Science list |  |
| Core Area IV: Arts and Humanities |  |
| Artistic Forms (3 hours) |  |
| Choose one course from the General Education Artistic Forms list. |  |
| Western Culture (6 hours) |  |
| HIST 1483 United States to 1865 <br> or HIST 1493 United States, 1865 to the Present |  |
| Choose one course from the General Education Western Culture list (Excluding HIST 1483 and HIST 1493) |  |
| World Culture (3 hours) |  |
| Choose one course from the General Education World Culture list |  |
| Core Area V: First Year Experience (3 hours) |  |
| Choose one course |  |
| Total Credit Hours | 39-5 |
| ${ }^{1}$ Mewborne College of Earth and Energy Sciences requireme also satisfy University General Education requirements. |  |

## ADDITIONAL MEWBORNE COLLEGE OF EARTH \& ENERGY REQUIREMENT

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| PHYS 2524 | General Physics for Engineering and <br> Science Majors | 4 |

## Total Credit Hours

4

## Free Electives

Electives to bring total applicable hours to 120 including 48 upperdivision hours.

## Suggested Semester Plan of Study

Students who have not completed two years of the same language in high school are required to take two college courses in the same language. This additional coursework may add 6-10 hours to the minimum hours required for graduation.

In order to progress in your curriculum, and as a specific graduation requirement, a grade of $C$ or better is required in each course in this curriculum. Students must also successfully complete all prerequisite courses with a grade of $C$ or better before proceeding to the next course.

## Freshman

| First Semester |  | Credit |
| :---: | :---: | :---: |
| ENGL 1113 | Principles of English Composition (Core I) | 3 |
| MATH 1823 | Calculus and Analytic Geometry I ${ }^{1}$ | 3 |
| GEOL 1114 | Physical Geology for Science and Engineering Majors | 4 |
| First Year Experience (Core V) ${ }^{3}$ |  | 3 |
| General Education | Artistic Forms (Core IV) ${ }^{3}$ | 3 |
|  | Credit Hours | 16 |
| Second Semester |  |  |
| ENGL 1213 or EXPO 1213 | Principles of English Composition (Core I) or Expository Writing | 3 |
| MATH 2423 | Calculus and Analytic Geometry II ${ }^{1}$ | 3 |
| CHEM 1315 | General Chemistry ${ }^{2}$ | 5 |
| GEOL 1124 | Earth History | 4 |

## Sophomore

First Semester

| MATH 2433 | Calculus and Analytic Geometry III $^{1}$ | 3 |
| :--- | :--- | ---: |
| GEOL 2224 | Introduction to Mineral Sciences | 4 |
| BIOL 1124 | Intro Biol: Molecule/Cell/Phys | 4 |
| CHEM 1415 | General Chemistry (Continued) $^{2}$ | 5 |
|  | Credit Hours | $\mathbf{1 6}$ |

## Second Semester

| PHYS 2514 | General Physics for Engineering and <br> Science Majors (Core II) | 4 |
| :--- | :--- | ---: |
| GEOL 3233 | Sedimentary Petrology and Sedimentology | 3 |
| GEOL 3223 Igneous and Metamorphic Petrology <br> Math $/$ Science Elective from approved list maintained by the <br> department 7 3 <br>  Credit Hours | 3 |  |

## Junior

First Semester
GEOL 3114 Structural Geology 4
GEOL 3513 Fundamentals of Invertebrate Paleontology 3
GEOL 4113 Depositional Systems and Stratigraphy 3

PHYS 2524 General Physics for Engineering and 4
Science Majors
Credit Hours14

## Second Semester

GEOL 3123 Introductory Field Geology 3
ENGL 3153 Technical Writing ${ }^{5}$ 3
or GEOL 3333 or Geowriting
Choose one (offered alternating Spring semesters): ${ }^{4} 3-7$
GEOL 4513 Evolutionary Paleobiology
GEOL 4413
\& BIOL 4204 and Vertebrate Paleobiology

| General Education Western Culture (Core IV) ${ }^{3}$ |  | 3 |
| :---: | :---: | :---: |
|  | Credit Hours | 12-16 |
| Summer |  |  |
| GEOL 4136 | Field Geology | 6 |
|  | Credit Hours | 6 |
| Senior |  |  |
| First Semester |  |  |
| GPHY 4413 <br> or GEOL 4223 | Global Geophysics ${ }^{6}$ or Principles of Geochemistry (Slashlisted with 5223) | 3 |
| BIOL 2013 |  | 3 |
| BIOL 3403 | Principles of Ecology | 3 |
| P SC 1113 | American Federal Government (Core III) | 3 |
| General Education Social Science (Core III) ${ }^{3}$ |  | 3 |
|  | Credit Hours | 15 |
| Second Semester |  |  |
| Choose one (offered alternating Spring semesters): ${ }^{4}$ |  | 3-7 |
| GEOL 4513 | Evolutionary Paleobiology |  |
| $\begin{aligned} & \text { GEOL } 4413 \\ & \& \text { BIOL } 4204 \end{aligned}$ | and Vertebrate Paleobiology |  |
| HIST 1483 or HIST 1493 | United States to 1865 (Core IV) or United States, 1865 to the Present | 3 |
| General Education World Culture (Core IV) ${ }^{3}$ |  | 3 |
|  | Credit Hours | 9-13 |
|  | Total Credit Hours | 120 |

${ }^{1}$ MATH 1914 and MATH 2924 may be substituted for MATH 1823, MATH 2423, MATH 2433, These tracks have a difference of one credit hour, so those enrolling in the 4 credit hour courses may need to enroll in 1 additional hour of free elective to meet the 120 total credits.
${ }^{2}$ CHEM 1335 and CHEM 1435 may be substituted for CHEM 1315 and CHEM 1415.
${ }^{3}$ To be chosen from the University-Wide General Education Approved Course List. Three hours of general education must be upper-division outside the major.
${ }^{4}$ GEOL 4513 , GEOL 4413 and BIOL 4204 are taught in alternate years in the Junior and Senior Spring semesters. Students should plan their coursework based on when the courses are offered. If GEOL 4513 is offered Junior Spring, then GEOL 4413 and BIOL 4204 must be taken Senior Spring. If GEOL 4413 and BIOL 4204 are offered Junior Spring, then GEOL 4513 must be taken Senior Spring.
${ }^{5}$ GEOL 3333 is taught on an irregular basis and may be substituted for ENGL 3513.
${ }^{6}$ Only one of the following courses is required. GPHY 4413 is taught alternate fall semesters; GEOL 4223 is taught alternate spring semesters.
7 Students need to select one course in the areas of statistics, quantitative and computer programming. The School of Geosciences maintains list of approved courses. (p. 1052)

## Petroleum Geology, B.S.

Minimum Total Credit Hours: 122
Minimum Upper-Division Hours: 48

Overall GPA - Combined and OU: 2.50
Major GPA - Combined and OU: 2.50

## Curriculum GPA - Combined and OU: 2.50

Program Code: B770

## Major Requirements

In order to progress in your curriculum, and as a specific graduation requirement, a grade of $C$ or better is required in each course listed in the curriculum. All prerequisite courses must also be completed with a grade of C or better before proceeding to the next course.

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| GEOL 1114 | Physical Geology for Science and | 4 |
|  | Engineering Majors | 4 |
| GEOL 1124 | Earth History | 4 |
| GEOL 2224 | Introduction to Mineral Sciences | 3 |
| GEOL 3223 | Igneous and Metamorphic Petrology | 3 |
| GEOL 3233 | Sedimentary Petrology and Sedimentology | 4 |
| GEOL 3114 | Structural Geology | 3 |
| GEOL 3513 | Fundamentals of Invertebrate Paleontology | 3 |
| GEOL 4113 | Depositional Systems and Stratigraphy | 3 |
| GEOL 3123 | Introductory Field Geology | 6 |
| GEOL 4136 | Field Geology | 3 |
| GEOL 4133 | Petroleum Geology for Geoscientists | 3 |
| GEOL 4233 | Subsurface Methods | 4 |
| GPHY 4874 | Seismic Exploration | 3 |
| GPHY 4413 | Global Geophysics | 4 |
| or GEOL 4223 | Principles of Geochemistry (Slashlisted with 5223) |  |

Total Credit Hours
50

## Major Support Requirements



## General Education and College Requirements

Courses for fulfillment of General Education and college requirements must be from the approved General Education course list at http:// www.ou.edu/content/gened/courses.html. Courses graded P/NP will not apply

## UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS

At least three hours of Upper-Division General Education coursework must be completed outside the major.

Choose one course from the General Education Artistic Forms 3
list.

| HIST 1483 | United States to 1865 | 3 |
| :--- | ---: | ---: |
| or HIST 1493 | United States, 1865 to the Present | 3 |
| Choose one course from the General Education Western |  |  |
| Culture list (Excluding HIST 1483 and HIST 1493) |  |  |
| World Culture (3 hours) <br> Choose one course from the General Education World Culture <br> list | 3 |  |
| Core Area V: First Year Experience (3 hours) | 3 |  |
| Choose one course | $39-50$ |  |

[^34]\section*{ADDITIONAL MEWBORNE COLLEGE OF EARTH \& ENERGY REQUIREMENT <br> | Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| PHYS 2524 | General Physics for Engineering and <br> Science Majors | 4 | <br> Total Credit Hours}

## Free Electives

Electives to bring total applicable hours to 122 including 48 upperdivision hours.

## Suggested Semester Plan of Study

Students who have not completed two years of the same language courses in high school are required to take two college courses in the same language. This additional coursework may add 6-10 hours to the minimum hours required for graduation.

In order to progress in your curriculum, and as a specific graduation requirement, a grade of C or better is required in each course listed in this curriculum. Students must also successfully complete all prerequisite courses with a grade of C or better before proceeding to the next course.

## Freshman

| First Semester |  | Credit <br> Hours |
| :--- | :--- | ---: |
| GEOL 1114 | Physical Geology for Science and <br> Engineering Majors | 4 |
| MATH 1823 | Calculus and Analytic Geometry I (Core I) $^{1}$ | 3 |
| ENGL 1113 | Principles of English Composition (Core I) | 3 |
| First Year Experience (Core V) $^{3}$ | 3 |  |
| General Education Artistic Forms (Core IV) $^{3}$ | 3 |  |
| Credit Hours | $\mathbf{1 6}$ |  |

## Second Semester

GEOL 1124 Earth History 4
MATH 2423 Calculus and Analytic Geometry II ${ }^{1} 3$
CHEM 1315 General Chemistry ${ }^{2}$ 5
ENGL 1213 Principles of English Composition (Core I) 3

| or EXPO 1213 or Expository Writing |  |
| :---: | :---: | :---: |
| Credit Hours |  |

## Sophomore

First Semester
GEOL 2224 Introduction to Mineral Sciences 4
MATH 2433 Calculus and Analytic Geometry III ${ }^{1} 3$
CHEM 1415 General Chemistry (Continued) ${ }^{2} 5$

General Education Western Culture (Core IV) ${ }^{3} 3$
Credit Hours 15

| Second Semester |  | 3 |
| :--- | :--- | ---: |
| GEOL 3223 | Igneous and Metamorphic Petrology | 3 |
| GEOL 3233 | Sedimentary Petrology and Sedimentology | 3 |
| PHYS 2514 | General Physics for Engineering and <br> Science Majors (Core II) | 4 |
| Math/Science Elective from approved list maintained by the <br> department ${ }^{8}$ | 3 |  |


| Junior <br> First Semester |  |  |
| :--- | :--- | :---: |
| GEOL 3114 | Structural Geology | 4 |
| GEOL 3513 | Fundamentals of Invertebrate Paleontology | 3 |
| GEOL 4113 | Depositional Systems and Stratigraphy | 3 |
| PHYS 2524 | General Physics for Engineering and <br> Science Majors | 4 |


| Credit Hours |  | $\mathbf{1 4}$ |
| :--- | ---: | ---: |
| Second Semester  <br> GEOL 3123 Introductory Field Geology | 3 |  |
| ENGL 3153 <br> or GEOL 3333 | Technical Writing <br> or Geowriting |  |
| Science Elective (outside the major) $^{6}$ | 3 |  |
| Free Elective $^{4}$ | Credit Hours | 3 |


| Summer |  |  |
| :--- | :--- | :--- |
| GEOL 4136 | Field Geology | 6 |
|  | Credit Hours | 6 |

## Senior

| First Semester |  | 3 |
| :--- | :--- | ---: |
| GEOL 4133 | Petroleum Geology for Geoscientists | 4 |
| GPHY 4874 | Seismic Exploration | 3 |
| P SC 1113 | American Federal Government (Core III) | 3 |
| Science Elective (outside the College) $^{6}$ | 3 |  |
| General Education World Culture (Core IV) $^{3}$ | $\mathbf{1 6}$ |  |
| Credit Hours |  |  |


| Second Semester |  |  |
| :---: | :---: | :---: |
| GPHY 4413 or GEOL 4223 | Global Geophysics ${ }^{5}$ or Principles of Geochemistry (Slashlisted with 5223) | 3 |
| GEOL 4233 | Subsurface Methods | 3 |
| HIST 1483 or HIST 1493 | United States to 1865 (Core IV) or United States, 1865 to the Present | 3 |
| Science Elective (outside the major) ${ }^{6}$ |  | 3 |
| General Education Social Science (Core III) ${ }^{3}$ |  | 3 |
|  | Credit Hours | 15 |
|  | Total Credit Hours | 122 |

1 MATH 1914 and MATH 2924 may be substituted for MATH 1823, MATH 2423, MATH 2433, These tracks have a difference of one credit hour, so those enrolling in the 4 credit hour courses may need to enroll in 1 additional hour of free elective to meet the 121 total credits.
${ }^{2}$ CHEM 1335 and CHEM 1435 may be substituted for CHEM 1315 and CHEM 1415.
3 To be chosen from the University-Wide General Education Approved Course List. Three hours of general education must be upper-division outside the major.
4 Three hours of electives. Foreign Language courses taken to satisfy University-Wide General Education Requirements may be counted as lower-division free electives.
${ }^{5}$ Only one of the following courses is required. GPHY 4413 is taught alternate fall semesters; GEOL 4223 is taught alternate spring semesters.
${ }^{6}$ A minimum of 9 hours of advisor approved courses from ANTH, ASTR, BIOL, CEES, CHEM, CS, ENGR, ENST, GEOG, GIS, GPHY,MATH, MBIO,

METR, PBIO, and/or PE. At least 6 hours need to be upper division, and 3 hours need to be outside the College of Earth and Energy.
${ }^{7}$ GEOL 3333 is taught on an irregular basis and may be substituted for ENGL 3513.
8 Students need to select one course in the areas of statistics, quantitative and computer programming. The School of Geosciences maintains list of approved courses. (p. 1052)

## Geology, Minor

Minimum Total Credit Hours: 19
Minimum Upper-Division Hours: 9

## Program Code: N475

The requirements for a minor must be completed concurrently with the major degree requirements.

No minor may be added by completing courses after receiving the bachelor's degree.

Courses presented for minor credit must be completed with a C grade or better.

GEOL 1104 or GEOL 1114 is the only course that may count for both a student's major and minor.

No more than three (3) credit hours may be taken in the form of an Independent Study.

No more than three (3) credit hours may be transferred from another institution or taken through correspondence courses.

Requests to substitute a minor requirement must be approved in writing by the School of Geology \& Geophysics.

## Required Courses

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| GEOL 1104 | The Dynamic Earth (Geology for non- <br> Science Majors) | 4 |
| or GEOL 1114 | Physical Geology for Science and Engineering Majors |  |
| Choose 6 hours of Geology coursework (GEOL prefix), Upper- <br> or Lower Division: | 6 |  |
| Choose an additional 9 hours of Upper Division (3000- and <br> $4000-l e v e l) ~ G E O L ~ c o u r s e s: ~$ | 9 |  |

## Total Credit Hours

19

- The successful completion of a minor will be entered on the student's permanent record at the time the degree is recorded.


## Geology, M.S.

Minimum Total Hours (Thesis): 30
Program Code: M475

- This degree is Thesis Only.

| Required Courses |  |
| :---: | :---: |
| Code Title | Credit |
| GEOL 5001 Topics in Geosciences |  |
| Core Courses |  |
| Choose one letter-graded graduate-level course in three of the following seven "Core" areas: |  |
| Sedimentary Geology |  |
| Igneous and Metamorphic Petrology |  |
| Geochemistry |  |
| Paleontology/Paleobiology |  |
| Geophysics |  |
| Structural Geology |  |
| Environmental/Hydrogeology |  |
| Science/Math/Engineering |  |
| Choose three hours of letter-graded graduate credit science, math or engineering courses (outside of geology and geophysics) as approved by the student's thesis committee |  |
| Thesis |  |
| GEOL 5980 Research for Master's Thesis | 4 |
| General Geology |  |
| Choose 13 hours of graduate coursework with advisor approval before enrolling in these courses. At least one course must be letter-graded. | 13 |

## Notes

Students must take 5 letter-graded courses. This means at least one course in addition to the Core and Science/Math/Engineering requirements must be letter-graded.

At least 14 hours (excluding thesis hours) must be in 5000 or 6000level courses. Per course prerequisite, GEOL 6970 maximum is $\mathbf{2 0}$ credit hours.

## General Requirements for all Master's Degrees

The master's degree requires the equivalent of at least two semesters of satisfactory graduate work and additional work as may be prescribed for the degree.

All coursework applied to the master's degree must carry graduate credit.
Master's degree programs which require a thesis consist of at least 30 credit hours. All non-thesis master's degree programs require at least 30 credit hours

Credit transferred from other institutions must meet specific criteria and is subject to certain limitations.

Courses completed through correspondence study may not be applied to the master's degree.

To qualify for a graduate degree, students must achieve an overall grade point average of 3.0 or higher in the degree program coursework and in all resident graduate coursework attempted. A student must also have at least a 3.0 in all coursework (including undergraduate coursework if any).

Additional information for master's degree students may be found in the Graduate College Bulletin.

## Geophysics, M.S.

Minimum Total Hours (Thesis): 30
Program Code: M480

- This degree is Thesis Only.


## Required Courses

| Code Title | Credit <br> Hours |
| :--- | ---: | ---: |
| Core Courses |  |
| Choose 18 hours of work in Geology, Geophysics and <br> Mathematics | 18 |
| Thesis |  |
| GPHY 5980 | 4 |
| Electives |  |
| Choose 8 hours of coursework from Geology, Geophysics, |  |
| Mathematics, Physics, Engineering and/or Chemistry | 8 |
| Total Credit Hours | $\mathbf{3 0}$ |

## General Requirements for all Master's Degrees

The master's degree requires the equivalent of at least two semesters of satisfactory graduate work and additional work as may be prescribed for the degree.

All coursework applied to the master's degree must carry graduate credit.

Master's degree programs which require a thesis consist of at least 30 credit hours. All non-thesis master's degree programs require at least 30 credit hours.

Credit transferred from other institutions must meet specific criteria and is subject to certain limitations.

Courses completed through correspondence study may not be applied to the master's degree.

To qualify for a graduate degree, students must achieve an overall grade point average of 3.0 or higher in the degree program coursework and in all resident graduate coursework attempted. A student must also have at least a 3.0 in all coursework (including undergraduate coursework if any).

Additional information for master's degree students may be found in the Graduate College Bulletin.

## Geology, Ph.D.

Minimum Total Hours: 90

Program Code: D475

## Program Requirements

PROGRAM REQUIREMENTS ARE CURRENTLY UNAVAILABLE FOR THE PH.D. PROGRAM IN GEOLOGY. WHEN THIS PROGRAM HAS MADE CURRICULAR UPDATES, PROGRAM PAGES WILL BE PUBLISHED.

## General Requirements for Doctoral Degrees

A student should expect to spend at least the equivalent of three full academic years beyond the bachelor's degree to obtain the doctoral degree. During this period the student will take appropriate graduate coursework, successfully complete the general examination, and successfully defend and submit the final dissertation.

All coursework applied to the doctoral degree must carry graduate credit.
The doctoral degree requires at least 90 post-baccalaureate hours, including both formal coursework and hours of research.

The minimum hour requirement for a specific doctoral degree program cannot be waived.

No more than one-half of the credit hours, both OU and overall, excluding Research for Doctoral Dissertation (6980), may be S/U-graded coursework.

The student must be in residence at OU for at least two consecutive 16week semesters during the pursuit of the doctoral degree while enrolled and engaged in coursework or research activities as prescribed by the major academic unit.

For more detailed regulations and requirements for Doctoral degrees, please consult the Graduate College Bulletin: http://www.ou.edu/ gradcollege/forms/bulletin

## Geophysics, Ph.D.

Minimum Total Hours: 90
Program Code: D480

## Program Requirements

- Students must complete at least 15 hours of (advisor approved) graded core coursework at the University of Oklahoma.
- Twelve hours of the graded core coursework must be completed before or concurrent with their General Exam.
- Core courses completed towards an MS degree at the University of Oklahoma may not be included in the required 15 hours unless additional core courses to fulfill the hours requirement are unavailable. In that case other geophysical courses with advisor approval can be substituted.

| Code | Title |
| :--- | :--- |
| Course Coursework (15 hours) | Credit <br> Hours |
| Choose 15 hours from the following courses: |  |
| GPHY 5364 | Paleomagnetism |
| GPHY 5513 | 3-D Seismic Interpretation |
| GPHY 5523 | 3-D Seismic Processing |
| GPHY 5613 | Introduction to Seismic Stratigraphy |
| GPHY 5733 |  |
| GPHY 6970 | Seminar (topic: Advanced Non-Seismic |
| GPHY 6970 | Methods) |
| Dissertation Research (minimum 2 hours) |  |
| GPHY 6980 | Research for Doctoral Dissertation |
| Additional Coursework |  |

Elective courses as needed to reach 90 post-baccalaureate 73 hours, selected with approval of doctoral advisory committee Total Credit Hours

## General Requirements for Doctoral Degrees

A student should expect to spend at least the equivalent of three full academic years beyond the bachelor's degree to obtain the doctoral degree. During this period the student will take appropriate graduate coursework, successfully complete the general examination, and successfully defend and submit the final dissertation.

All coursework applied to the doctoral degree must carry graduate credit.
The doctoral degree requires at least 90 post-baccalaureate hours, including both formal coursework and hours of research.

The minimum hour requirement for a specific doctoral degree program cannot be waived.

No more than one-half of the credit hours, both OU and overall, excluding Research for Doctoral Dissertation (6980), may be S/U-graded coursework.

The student must be in residence at OU for at least two consecutive 16week semesters during the pursuit of the doctoral degree while enrolled and engaged in coursework or research activities as prescribed by the major academic unit.

For more detailed regulations and requirements for Doctoral degrees, please consult the Graduate College Bulletin: http://www.ou.edu/ gradcollege/forms/bulletin

## JEANNINE RAINBOLT COLLEGE OF EDUCATION



100 Ellsworth Collings Hall
820 Van Vleet Oval
Norman, OK 73019-2041
Phone: (405) 325-1081
FAX: (405) 325-7390
educationinformation@ou.edu
www.ou.edu/education

## Administrative Officers

Stacy Reeder, Ph.D., Dean
Ben Heddy, Ph.D., Associate Dean for Research and Graduate Studies
Aiyana Henry, Ed.D., Associate Dean for Professional Education
Vickie Lake, Ph.D., Associate Dean for Tulsa Campus Education
Programs
Sherry Cox, Ph.D., Assistant Dean for Undergraduate Advising

## General Information

## History

One of the stated purposes of the University of Oklahoma when founded in 1890 was the study of the "art of teaching." However, education as a field of study did not become a priority until Stratton D. Brooks assumed the presidency of the University. Under Brooks' leadership, education first became a field of study (1909), then a school of study in the College of Arts and Sciences (1910), and finally an independent school (1920). Brooks brought Warren Waverly Phelan from Baylor University in 1912 to serve as the first director of the school. Phelan served until 1926.

In 1929, the School of Education became the College of Education under the direction of Ellsworth Collings, who had been director of the School of Education. He served until 1945, and nine deans have served the College of Education since Collings. The current dean is Stacy Reeder, appointed in 2021.

The College of Education was reorganized in 1986 into three departments: the Department of Educational Leadership and Policy Studies, the Department of Educational Psychology, and the Department of Instructional Leadership and Academic Curriculum. The college currently has more than 700 undergraduate and 800 graduate students who are pursuing degrees and/or certification. The College offers Bachelors, Master's, Ph.D., and Ed.D. degrees.

## Mission Statement

At the Jeannine Rainbolt College of Education we aspire to become a diverse and inclusive community of learners who engage in transformative scholarship with and in communities to advance justice and promote human dignity.

## Programs Offered

- Department of Educational Leadership and Policy Studies (p. 1069)
- Adult \& Higher Education, M.Ed. (p. 1083)
- Adult \& Higher Education: Intercollegiate Athletic Administration, M.Ed. (p. 1083)
- Intercollegiate Athletic Administration Course List (p. 1084)
- Educational Administration - Curriculum \& Supervision, M.Ed. (p. 1084)
- Educational Studies, M.Ed. (p. 1085)
- College Teaching Certificate, Graduate Certificate (p. 1086)
- Adult \& Higher Education, Ph.D. (p. 1086)
- Education Administration - Curriculum/Supervision, Ed.D. (p. 1087)
- Curriculum/Supervision, Ed.D. Elective Course Lists (p. 1088)
- Education Administration - Curriculum/Supervision, Ph.D. (p. 1089)
- Educational Studies, Ph.D. (p. 1089)
- Department of Educational Psychology (p. 1090)
- Special Education, B.S. (p. 1105)
- Clinical Professional Counseling, M.Ed. (p. 1108)
- Clinical Professional Counseling Graduate Elective Courses (p. 1109)
- Learning Experience Design and Technology, M.S. (p. 1109)
- Approved Learning Experience Design and Technology Electives (p. 1110)
- Science of Psychology, Data, and Research in Education, M.S. (p. 1110)
- Special Education, M.Ed. (p. 1110)
- Applications of Educational Research and Evaluation, Graduate Certificate (p. 1111)
- Applied Behavior Analysis, Graduate Certificate (p. 1112)
- Drug and Alcohol Counseling, Graduate Certificate (p. 1112)
- Fundamentals of Special Education, Graduate Certificate (p. 1112)
- Learning Design and Technology, Graduate Certificate (p. 1113)
- School Counseling, Graduate Certificate (p. 1113)
- Secondary Transition Education Specialist, Graduate Certificate (p. 1113)
- Learning Experience Design and Technology, Ph.D. (p. 1114)
- Science of Psychology, Data, and Research in Education, Ph.D. (p. 1114)
- Special Education, Ph.D. (p. 1115)
- Department of Instructional Leadership and Academic Curriculum (p. 1116)
- Early Childhood Education, B.S. (p. 1140)
- Early Childhood Education: Birth through Third Grade (Tulsa), B.Ed. (p. 1143)
- Early Childhood Education: Birth through Third Grade (Tulsa), B.S. (p. 1146)
- Elementary Education, B.S. (p. 1149)
- Language Arts Education, B.S. (p. 1152)
- Mathematics Education, B.S. (p. 1155)
- Science Education: Biological Sciences, B.S. (p. 1158)
- Science Education: Chemistry, B.S. (p. 1162)
- Science Education: Earth Science, B.S. (p. 1165)
- Science Education: Physical Science, B.S. (p. 1168)
- Science Education: Physics, B.S. (p. 1171)
- Social Studies Education, B.S. (p. 1175)
- World Language Education: French, B.S. (p. 1178)
- World Language Education: German, B.S. (p. 1181)
- World Language Education: Latin, B.S. (p. 1184)
- World Language Education: Spanish, B.S. (p. 1187)
- ILAC: Early Childhood Education, M.Ed. (p. 1190)
- ILAC: Elementary Education, M.Ed. (p. 1191)
- ILAC: English Education, M.Ed. (p. 1192)
- ILAC: Instructional Leadership, M.Ed. (p. 1192)
- ILAC: Mathematics Education, M.Ed. (p. 1193)
- ILAC: Reading Education, M.Ed. (p. 1194)
- ILAC: Science Education, M.Ed. (p. 1195)
- ILAC: Science, Technology, Engineering \& Math (STEM) Education, M.Ed. (p. 1196)
- ILAC: Secondary Education, M.Ed. (p. 1197)
- ILAC: Social Studies Education, M.Ed. (p. 1198)
- ILAC: Teacher Education, M.Ed. (p. 1198)
- ILAC: World Language Education, M.Ed. (p. 1199)
- Integrated Childhood Well-Being (Tulsa), M.A. (p. 1200)
- Reading Specialist, M.Ed. (p. 1201)
- Literacy Specialist, Graduate Certificate (p. 1201)
- Instructional Leadership \& Academic Curriculum, Ph.D. (p. 1201)


## Programs and Facilities

## The Oklahoma Writing Project

The Oklahoma Writing Project, directed by Crag Hill, is devoted to improving the quality of composition instruction in elementary and secondary schools. The program, which has professionally prepared more than 500 educators as teacher consultants, is part of the National Writing Project, a network of university school programs across the nation. The OWP Teacher Consultants then travel to schools throughout the state, presenting in-service workshops to assist other educators in developing students' writing performance.

## Zarrow Institute on Transition and Self Determination

The Zarrow Institute on Transition and Self-Determination implements innovative research, puts findings into practice, and disseminates knowledge through high-quality products and professional development. An endowment from the Zarrow Family Foundation of Tulsa established the Zarrow Institute in 2000.

## Center for Educational Development and Research (CEDaR)

The Center for Educational Development and Research (CEDaR) provides support for the research and scholarship of faculty and graduate students in the College of Education. Its work includes data services, academic editing, survey design and administration, and grant-writing support. In addition, CEDaR regularly sponsors workshops on research related software.

## The K20 Center for Educational and Community Renewal

The K20 Center for Educational and Community Renewal is a consortium of school-university-community partnerships committed to improving student achievement and democratic citizenship through authentic
teaching, technology integration, and cooperative networking. It is an interdisciplinary, University-wide center with a focus on educational and community renewal in the U.S. and internationally. The K20 Center proposes a model addressing the needs of children and families through interactive, action-oriented partnerships among schools, families, universities, and community and government agencies. The K20 Center brings teachers, administrators, students, parents, school board members, community members, business leaders, information technologists, University faculty and students together to share ideas, observe best practices, identify and analyze problems, and develop strategies for improved teaching, learning, and community life.

## Center for Leadership Ethics and Change

The Center for Leadership Ethics and Change's primary mission is to engage with both University-based and PK -12 practitioner initiatives that support its vision.

## Early Childhood Education Institute

The Early Childhood Education Institute at OU-Tulsa strives to advance and support early childhood programming and policies by generating, disseminating, and applying meaningful research.

## The Institute of Child Development

The Institute of Child Development, which serves approximately 50 children from the Norman and University communities, has been accredited by the National Academy of Early Childhood Programs. Working with children from 2-5 years old, the Institute meets a variety of strict standards, including providing activities appropriate for preschool children, having an adequate student-staff ratio, meeting stringent health and safety standards, and providing opportunities for parental involvement. The OU Institute of Child Development was in the first group of licensed child care facilities in the United States to be accredited.

## Sandra L. O'Brien Collaborative Learning Hub

The Sandra L. O'Brien Collaborative Learning Hub is available to students, faculty, and staff of the Jeannine Rainbolt College of Education for academic, research or personal use.

## Lew Wentz Debt-Free Teachers Initiative

The Lew Wentz Debt-Free Teachers Initiative, a merit and need based assistance initiative directed toward outstanding students in the College with significant debt associated with their education. Students who are currently in the teacher preparation program can apply and once accepted into this program can receive up to $\$ 5,000$ in debt forgiveness for each year they teach in a high need area in the state of Oklahoma upon graduation ( $\$ 20,000$ maximum).

## Institute for the Study of Education Finance

"The mission of the Institute for the Study of Education Finance (ISEF) is to promote inquiry, discourse, and dissemination of research that informs professional practice related to elementary, secondary, and higher education, and to provide service supporting best practices related to education funding that promotes learner achievement."

For more information: https://educationfinance.oucreate.com/

## THRIVE - The Leadership and Policy Center for Thriving Schools and Communities at the University of Oklahoma

 The Leadership and Policy Center for Thriving Schools and Communities (THRIVE) was established in 2021 on the campus of the University of Oklahoma in Tulsa. THRIVE is a resource for the State of Oklahoma andits education policymakers at the state, district, community, and school levels. OU social scientists from both the Norman and Tulsa campuses, and from various disciplines, are tapped as needed to address research and evaluation needs as they are identified.

For more information: https://www.ou.edu/tulsa/thrive

## Undergraduate Study

## General Information

## Admission

There is a two-step admission process for students seeking to enter the Jeannine Rainbolt College of Education.

1. Admission to the Jeannine Rainbolt College of Education (Step 1)

Students at the University of Oklahoma are eligible for admission to the college after they have:

- a minimum of 24 semester hours earned from an accredited institution of higher learning;
- a minimum of 2.75 combined retention grade point average on all coursework attempted;
- declared major in education.

2. Full Admission to a Certification Program (Step 2)

Students are eligible to apply for full admission to a teacher education certification program after they have:

- a minimum of 30 semester hours from an accredited institution of higher learning earning a grade of $C$ or better in the following 24 hours of coursework as defined by the Oklahoma State Regents for Higher Education: English (Composition and Literature) ENGL 1113 and ENGL 1213 or their equivalencies-six hours; MATH (Gen Ed Core I)-three hours; American History-three hours; American Government-three hours; Gen Ed Core IV Artistic Forms, Western Culture, World Culture; Language or other advisor approved Gen Ed course -three hours; Social Sciences (Core III)-three hours; Natural Sciences (Core II)-three hours;
- a minimum OU retention and combined retention grade point average of 2.75 on all coursework attempted;
- meet one of the five performance criteria listed by Oklahoma State Regents for Higher Education (OSRHE) that students may use to qualify for admission into an Oklahoma teacher education program. Speak with your Education Advisor for more details.

Admission to a teacher education certification program requires meeting particular program requirements, submission of an application and essay, background check, and an interview with program area faculty. Upon successful completion of the interview process and requirements, students will be fully admitted to a specific teacher education program and given permission to enroll in education classes.

Academic credit from any division of the University of Oklahoma Norman campus, Health Sciences Center, OU-Tulsa, or Continuing Education - is considered resident credit at the University of Oklahoma. Grades and hours earned in any of these divisions are included in the OU retention and cumulative grade point averages for purposes of admission or readmission to the University, and to the individual colleges within the University.

Admission requirements are subject to change on an annual basis. For information that applies to you, please consult the degree checksheet in effect at the time of your first enrollment in the state system.

## Retention

- When a student accepts an offer of admission into a JRCoE department or program, they commit to comply with all its regulations, including those regarding professional conduct and dispositions that are contained in the JRCoE Professional Conduct Policy.
- Students must maintain a minimum OU retention and combined retention grade point average of 2.75 in all undergraduate coursework and a minimum 3.00 grade point average in all graduate coursework attempted. Students whose OU retention or combined retention grade point average at the undergraduate level falls below 2.75 will be subject to dismissal from the college. Academic credit from any division of the University of Oklahoma - Norman campus, Health Sciences Center, OU-Tulsa, or Continuing Education - is considered resident credit at the University of Oklahoma. Grades and hours earned in any of these divisions are included in the OU retention and cumulative grade point averages for purposes of admission or readmission to the University, and to the individual colleges within the University.
- Students must maintain a minimum of 2.75 grade point average in all professional and all specialized education courses earning no grade less than a C.
- Students must earn a C or better in COMM 1113 or its equivalent.
- Students who have not earned OU retention or combined retention grade point averages of 2.75 after the completion of 60 semester hours will be dismissed from the college.
- Because one college level math course is a requirement for full admission into both the college and the teacher preparation program, declared education majors must complete at least one college-level math within the first four semesters of enrollment at OU. Transfer students who have not completed a college level math course will have two semesters to complete the requirement. Students who fail to meet the requirement within the time limits specified will be subject to dismissal from the college.
- Students will be withdrawn from courses for failing to observe prerequisites and corequisites. Continued disregard of prerequisites and corequisites is grounds for dismissal from the college.
- Coursework over 10 years old in the professional and specialized education must be reviewed and approved by faculty in the appropriate area before it can be credited toward the completion of a teacher education degree or certification program. There is no guarantee that work over 10 years old will be accepted.
- A student has six years to complete a teacher education degree after full admission to a teacher certification program. After the six-year period, a student must seek readmission to that program and meet the program requirements at the time of readmission.


## Requirements for Graduation

The responsibility for meeting all graduation requirements lies with the student. The requirements for graduation from the University of Oklahoma through the Jeannine Rainbolt College of Education are:

- A minimum of 124 semester hours inclusive of general education, professional education, specialized education and elective courses.
- OU retention and combined retention grade point averages of 2.75 or higher.
- Minimum grade point average of 2.75 in all professional and all specialized education coursework.
- A minimum of 40 hours of upper division coursework (3000-4000).
- A grade of C or better in all professional and specialized education coursework.
- A minimum of 60 hours from a senior institution.
- Completion of an Application for Graduation and filed by the published deadline.


## General Education

General Education introduces the student to the arts, sciences and humanities as knowledge taken to be worthy in and of itself; as being valuable to the citizen participating in the American democracy; as knowledge useful to all in a technological society; and as an introduction to the fields of knowledge exposing the college student to various career options.

General Education is based on those studies known as the liberal arts and liberal sciences, which embrace the broad areas of the humanities, mathematics, the biological and physical sciences, the social and behavioral sciences, and oral and written communication skills.

Please refer to the respective checksheets for specific General Education requirements.

## Professional Education

Professional core education courses are those classes taken by all students who are preparing to become teachers.

Admission to the student teaching internship semester requires students to be in good standing and have completed all baccalaureate degree requirements with the exception of the internship and research course.

Continued progress in the professional sequence is dependent upon successful completion of prerequisites.

## Specialized Education

Specialized education requirements vary according to the teacher certification program. Continued progress in the specialized education coursework is dependent upon successful completion of prerequisites.

## Other Requirements

## Transfer Work

All professional education coursework transferred to the University of Oklahoma and submitted by the student as the equivalent of required courses in any teacher certification preparation program will be subject to the approval of the Jeannine Rainbolt College of Education.

## Academic Residence

A student in the Jeannine Rainbolt College of Education shall satisfy the minimum academic residence requirement by completing courses offered on the University's Norman campus or at a residence center. Residency begins with full admission to teacher education. The student can meet the residence requirement through one of the two following options:

- Completing in residence 45 of the last 60 hours prior to graduation after being fully admitted to a teacher education program; or,
- Completing in residence the last 30 consecutive hours prior to graduation after being fully admitted to a teacher education program.


## Advanced Standing, Correspondence and/or Extension

Credit granted through advanced standing may be accepted as residence study. Please refer to the admissions section of this catalog for further information on the regulations governing advanced standing credit. Credit earned through correspondence cannot be used to meet the
basic professional sequence requirements. The maximum allowable accumulation of advanced standing, correspondence and extension study credit in general education, specialized education, and professional education shall be one-fourth the total semester hours required in each category.

University of Oklahoma regulations pertaining to the acceptance of correspondence and extension credit from other institutions must be met before such work may be applied toward the degree.

## Credit Hour Load

## Undergraduate Students

Sixteen semester hours constitute a normal enrollment for fall and spring. Students may enroll for 19 semester hours. Students with grade point averages of 3.00 or above may enroll for 20 semester hours if they have the approval of their advisor and the dean of the college. Students with grade point averages of 3.50 may take more than 20 , up to a maximum of 24 , semester hours if they have the approval of their advisor and the dean of the college. During the summer session the normal enrollment is 14 semester hours. Students with grade point averages of 3.00-3.49 may enroll for 15 summer semester hours or 18 hours with a 3.50 or above if they have the approval of their advisor and the dean of the college. Normal enrollment for a summer intersession is 3 hours. Students may enroll in four Intersession semester hours with grade point average of 3.00-3.49 or for five to six Intersession semester hours with a 3.50 grade point average or above if they have the approval of their advisor and the dean of the college.

## Pass/No Pass Option

The pass/no pass option may be used only on elective courses belonging to one of the general education areas of free electives. That is, if a specific course is listed as a requirement in one of these areas, it may not be completed under the pass/no pass option. Since such specific requirements vary with the individual teacher certification programs, it is the responsibility of the students to check their particular program requirements in the general education areas so that they may properly apply the pass/no pass option to their credit for graduation. All professional and specialized education course requirements are also excluded from the pass/no pass option.

## Student Responsibility

The Jeannine Rainbolt College of Education disseminates information through the various offices, particularly the Academic Advising Center. An advisor is appointed to every student enrolled in the college. Even so, the student is expected to read the catalog, and know and understand all the requirements stated therein and on the appropriate degree checksheet.
The final responsibility for meeting degree requirements rests with the student.

## Academic Retention Notice

Any student whose OU retention or combined retention grade point average falls below 2.75 will be subject to dismissal from the college.

## Degrees Awarded

A degree is awarded only upon recommendation of the college, and represents the satisfactory completion of all requirements.

## Licensure and Certification

Students who earn their degrees from the University of Oklahoma and who have satisfactorily completed state certification, including success on the required Certification Examinations for Oklahoma Educators, will
be recommended by the Jeannine Rainbolt College of Education for state certification. Teaching certification will be issued by the Oklahoma State Department of Education. Because OU's teaching certification program is nationally recognized and accredited, students can be recommended for teaching certification outside of Oklahoma and the U.S.

## Teaching Certificate Programs

The following three teacher certification programs are available exclusively through the Jeannine Rainbolt College of Education:

- Early Childhood Education
- Elementary Education
- Special Education

The following are offered either through the Jeannine Rainbolt College of Education or in collaboration with the College of Arts and Sciences:

- Language Arts Education
- Mathematics Education
- Science Education-Biological Sciences
- Science Education-Chemistry
- Science Education-Earth Science
- Science Education-Physical Science
- Science Education-Physics
- Social Studies Education
- World Language Education: French, German, Latin and Spanish

The following is offered through the Weitzenhoffer Family College of Fine Arts:

## - Music Education: Instrumental, Vocal

Graduation requirements vary according to which college a student elects to enter, and are stated on the program area checksheets.

## Field Experiences

The TE-PLUS program contains three formal field experiences where students are placed in educational environments representing rural, urban, and suburban settings. These field experiences are tied to particular coursework. Students will learn about the expectations and their placements during class. Other, more informal field experiences are affiliated with some of the courses in professional and specialized education courses. These experiences are critical to student's professional development. Each teacher certification program culminates with the student teaching internship as a 16-week full-time field experience.

## Graduate Study

Graduate programs in the Jeannine Rainbolt College of Education foster the insights and skills needed to deal with the most pressing challenges facing the education profession. They also are well regarded by professors and educational leaders throughout the nation. Outstanding faculty members construct rigorous coursework and field experiences for graduate students and engage in millions of dollars of funded research.

Master's programs generally prepare graduates for advancements or new roles within their respective fields as practitioners. For educators, the M. Ed. generally provides students with the knowledge and skills needed to obtain leadership positions in schools or to add initial or advanced
certification in teaching. Many programs also help students develop methods of inquiry and can lead to careers in research.

Doctoral programs in the Jeannine Rainbolt College of Education foster the insights and skills needed to deal with the most pressing challenges facing the education profession. Our programs are also highly regarded by deans and professors throughout the region and nation. Outstanding, internationally known faculty members construct rigorous opportunities for advanced study, mentor students and engage in millions of dollars of funded research.

The Ph.D. programs prepare researchers to serve in professional positions in universities, research agencies, policy agencies and schools. An Executive Doctor of Education (Ed.D.) degree is offered in Educational Administration, Curriculum and Supervision. All College of Education doctoral students are essential partners in developing new knowledge and in preparing the next generation of educators, practitioners, counselors and scholars.

## Student Organizations

## Graduate Student Advising \& Organizing Committee

This Committee strives to support graduate education, community, and scholarship for social transformation in connection with the goals of the Jeannine Rainbolt College of Education's Graduate Studies and Research Office.

## Kappa Delta Pi (KDP)

Kappa Delta Pi, the international honor society in education, recognizes outstanding contributions to education and encourages professional fellowship. Membership is by invitation and is offered for undergraduate and graduate education students who exhibit sound scholarship (a GPA of at least 3.25), commendable personal qualities, and worthy educational ideals.

## Oklahoma Sooners National Science Teachers Association Student Chapter (NSTA)

The Oklahoma Sooners National Science Teachers Association Student Chapter is a registered student organization at OU and an official student chapter of the National Science Teachers Association (NSTA). The purpose of our chapter is to advocate the mission of NSTA, which is to promote excellence and innovation in science teaching and learning for all; to acquaint preservice teachers of science with the support resources available from NSTA; to provide additional professional development in science education to preservice teachers; and to create a network of preservice teacher at universities or colleges across the world. Benefits of the student chapter include a free one-year NSTA electronic student membership and opportunities to gain leadership skills, to enhance career growth, to network with peers and experienced science teachers and educators, and to support science education.

## The Student Council for Exceptional Children (SCEC)

The University of Oklahoma Student Council for Exceptional Children is dedicated to enhancing the preparation of preservice special educators as they are about to embark on teaching students of all abilities. Professional development on timely topics through specific presentations is ongoing throughout the fall and spring semesters. Direct interaction with fellow students and faculty members further enriches the experiences available through this organization. Service learning provides additional opportunities to strengthen skills that will be needed
once practicing in the field. Membership is open to preservice general educators as well as special educators.

## Oklahoma Aspiring Educators Association (OAEA)

The University of Oklahoma Oklahoma Aspiring Educators Association (OAEA) is a pre-professional organization of undergraduate and graduate students currently preparing for careers in education. Through OAEA, students are affiliated with the larger Oklahoma Education Association and the National Education Association. Membership in OAEA provides networking opportunities with professional educators and the opportunity to participate in professional development workshops and unite for special projects.

## Scholarships and Financial Aid

## Undergraduate Scholarships

- Frank and Dyan Agar Scholarship
- Dr. Kent and Kayleen Thomas Advance Innovate Mentor (AIM) Scholarship
- OU College of Education Alumni and Friends Association Scholarship
- Dr. Millie Audas Study Abroad Scholarship for Education Students
- Authur-Boggs Scholarship
- Bellwether Scholarship
- Sister Mary Blaise Endowed Scholarship
- Danni and Dan Boz Endowed Education Scholarship
- Dr. John Chiodo Scholarship
- Cleveland/McClain County Retired Educators Assn. Scholarship
- Hannah Foreman Davis Scholarship
- Frances Ranson Dunham Scholarship Fund
- Carl P. and Erma W. Dunifon Education Scholarship
- Sarabeth and Gary Farney Scholarship
- Mildred L. Gibbens Memorial Scholarship
- Dawn M. Glitsch Memorial Scholarship
- Dr. Charles E. Grady, Jr. Memorial Scholarship
- Judith "Judy" Ann Head Gwinn Elementary Education Endowed Scholarship
- Clara Rusk Hastings Scholarship Trust
- Joanne Hendrick Early Childhood Endowed Scholarship
- Sue Stein House Memorial Endowed Scholarship
- Cathey A. Simmmons Humphreys Endowed Scholarship
- Eunice Lewis Mathematics Education Scholarship
- Linda L. Lytle Education Endowed Scholarship
- Mary Rule Murphy Endowed Scholarship
- Sarah Owen Memorial Scholarship
- Parks Memorial Scholarship
- Ramona Ware Emmons Paul Early Childhood Education Endowed Scholarship
- Jeanne Reeder Perkins Scholarship
- Jake Pollock and Miller McHale Early Childhood Education Scholarship
- Jeannine T. Rainbolt Scholarship
- Erin and Mary Reed Scholarship
- Landra and Grant Rezabek Scholarship Fund
- Helen Sadler Endowed Scholarship
- Lillian J. Scott Endowment Fund
- Joan K. Smith Endowed Scholarship
- Sherry S. Steel Scholarship
- Chipman Gray (Chip) Stuart Endowed Scholarship
- B.H. Taylor Scholarship
- Teach America Tomorrow Award
- Patricia A. Torczynski Endowed Scholarship
- Sharen Jester Turney Education Endowed Scholarship
- Nadine R. Vincent Scholarship Fund
- Lila Merle Welch Memorial Fund/Garnette L. Fittro Award
- Ruth D. Withrow and Family Scholarship/Fellowship Fund
- Edmund A. Marek Endowed Scholarship
- Gearldine Henderson Scholarship
- Denman/Thompson Family Endowed Scholarship
- Judith Hampton Million Education Scholarship


## Graduate Scholarships

- William Jeffrey Argo Scholarship Fund
- Anita S. Bednar Education Endowed Scholarship
- Blanche Honaker Brakebill Scholarship
- Judith Cathey Clapp Endowed Scholarship
- Leah Copass Brakebill Scholarship
- Jane Holland Browning Education Endowed Scholarship
- A.E. Clark Memorial Scholarship
- Kenny Comer Graduate Scholarship
- Janet Townsend Crain Endowed Scholarship
- Shirley Biggs Crews Education Scholarship
- Judith Bratcher Crockett Scholarship in Education
- Dallas Area Education Alumni Scholarship
- Early Childhood Education Endowed Scholarship
- Estes Family Education Scholarship
- Virginia Hallum Scholarship
- Gearldine Henderson Scholarship
- Herbert Hengst Scholarship in Administration in Higher Education
- Rosa Brink and Shirley Brink Holladay Scholarship
- R. Steven Hsu Special Education Endowed Scholarship
- Kern and Ruth Chastaine Johnson Scholarship Fund
- Fred Kierstad Memorial Scholarship
- Paul F. Kleine Graduate Scholarship
- Dr. Boleslaus S. Kurpiewski Scholarship
- Michael Langenbach Scholarship
- Katherine Elizabeth Lasseter Scholarship
- Dr. Stephen H. McDonald Endowed Scholarship
- Edmund A. Marek Endowed Scholarship
- Mary Rule Murphy Endowed Scholarship
- Sandra L. O'Brien Endowed Scholarship
- Anna and Harold Paige Scholarship
- Barbara Brite Paul Early Childhood Education Endowed Scholarship
- Robert Ragland Endowment
- Dr. Joseph Purdy Special Education Scholarship
- Dr. Tillman "Tim" Ragan Endowed Scholarship
- William B. Ragan-Dr. Gene Shepherd Elementary Education Graduate Scholarship
- Rainbolt Family Endowed Graduate Student Fund
- Donald L. Ranallo, Jr. Endowed Scholarship
- Tara Reilly Education Endowed Scholarship
- Patricia Elaine Rigney Scholarship
- Bellwether Scholarship
- Dr. John Jefferson Seaberg Jr. Graduate Assistantship Endowed Scholarship
- Dr. Lucy Freeman Smith Memorial Endowed Scholarship
- Dr. Glenn Snider Education Scholarship Fund
- Dr. Erin Simpson Graduate Education Scholarship
- Dr. Courtney Vaughn Memorial Scholaship
- Richard P. Williams Memorial Scholarship
- Diana Lewis Gross Endowed Scholarship

Visit Scholarships.ou.edu for more information on scholarship opportunities, and OU Financial Aid Services for information on financial aid opportunities.

## Courses

## EDSW 1001 Person Centered Planning <br> 1 Credit Hour

Prerequisite: Permission of the Educational Psychology department. A semesterly reoccurring course in a sequence at the University of Oklahoma for Sooner Works participants. It is designed to work in conjunction with other Sooner Works courses to lay the foundations related to education, independent living, and career planning. This course is individualized to meet the needs and work on goals for each student. (F)

## EDSW 1002 Sooner Works 101

2 Credit Hours
Prerequisite: Permission of the Educational Psychology department. The beginning course in a sequence at the University of Oklahoma for Sooner Works participants. It is designed to work in conjunction with future courses to lay the foundations related to skills for independent living, education, and employment in adulthood. (F)

EDSW 1051 Self-Advocacy/Self-Determination 1 Credit Hour Prerequisite: EDSW 1002 and permission of the Educational Psychology department. Self-Advocacy/Self-Determination is a course in a sequence at the University of Oklahoma for Sooner Works participants. It is designed to work in conjunction with past and future courses to lay the foundations related to education, independent living, and career planning. (Sp)

EDSW 1052 Person Centered Planning 2 Credit Hours Prerequisite: EDSW 1001 and permission of the Educational Psychology department. A semesterly reoccurring course in a sequence at the University of Oklahoma for Sooner Works participants. It is designed to work in conjunction with other Sooner Works courses to lay the foundations related to education, independent living, and career planning This course is individualized to meet the needs and work on goals for each student. (Sp)

## EDSW 2001 Personal Financial Literacy <br> 1 Credit Hour

Prerequisite: EDSW 1051 and permission of the Educational Psychology department. Personal Financial Literacy is a course in a sequence at the University of Oklahoma for Sooner Works participants. It is designed to work in conjunction with future courses to lay the foundations related to independent living for understanding financial concepts. (F)

EDSW 2002 Person Centered Planning 2 Credit Hours
Prerequisite: EDSW 1052 and permission of the Educational Psychology department. A semesterly reoccurring course in a sequence at the University of Oklahoma for Sooner Works participants. It is designed to work in conjunction with other Sooner Works courses to lay the foundations related to education, independent living, and career planning. This course is individualized to meet the needs and work on goals for each student. (F)
EDSW 2051 Healthy Adult Living Skills
1 Credit Hour
Prerequisite: EDSW 2001 and permission of the Educational Psychology department. Healthy Adult Living is a course in a sequence at the University of Oklahoma for Sooner Works participants. It is designed to work in conjunction with future courses to lay the foundations related to independent living for healthy adult living. (Sp)

## EDSW 2052 Person Centered Planning

2 Credit Hours
Prerequisite: EDSW 2002 and permission of the Educational Psychology department. A semesterly reoccurring course in a sequence at the University of Oklahoma for Sooner Works participants. It is designed to work in conjunction with other Sooner Works courses to lay the foundations related to education, independent living, and career planning. This course is individualized to meet the needs and work on goals for each student. (Sp)
EDSW 3001 Household Budgeting \& Paying Bills
1 Credit Hour
Prerequisite: EDSW 2051 and permission of the Educational Psychology department. A course in a sequence at the University of Oklahoma for Sooner Works participants. It is designed to work in conjunction with future courses to lay the foundations related to independent living for household and daily budgeting. (F)
EDSW 3002 Person Centered Planning
2 Credit Hours
Prerequisite: EDSW 2052 and permission of the Educational Psychology department. A semesterly reoccurring course in a sequence at the University of Oklahoma for Sooner Works participants. It is designed to work in conjunction with other Sooner Works courses to lay the foundations related to education, independent living, and career planning. This course is individualized to meet the needs and work on goals for each student. (F)
EDSW 3051 Your Adult Rights
1 Credit Hour
Prerequisite: EDSW 3001 and permission of the Educational Psychology department. A course in a sequence at the University of Oklahoma for Sooner Works participants. It is designed to work in conjunction with future courses to lay the foundations related to employment and independent living regarding knowing and advocating for your adult rights. (Sp)
EDSW 3052 Person Centered Planning
2 Credit Hours
Prerequisite: EDSW 3002 and permission of the Educational Psychology department. A semesterly reoccurring course in a sequence at the University of Oklahoma for Sooner Works participants. It is designed to work in conjunction with other Sooner Works courses to lay the foundations related to education, independent living, and career planning. This course is individualized to meet the needs and work on goals for each student. (Sp)

## EDSW 4001 Navigating the Job World

1 Credit Hour
Prerequisite: EDSW 3051 and permission of the Educational Psychology department. A course in a sequence at the University of Oklahoma for Sooner Works participants. It is designed to work in conjunction with future courses to lay the foundations related to employment and job related skills. (F)

EDSW 4002 Person Centered Planning 2 Credit Hours
Prerequisite: EDSW 3052 and permission of the Educational Psychology department. A semesterly reoccurring course in a sequence at the University of Oklahoma for Sooner Works participants. It is designed to work in conjunction with other Sooner Works courses to lay the foundations related to education, independent living, and career planning. This course is individualized to meet the needs and work on goals for each student. (F)
EDSW 4051 Living Independently 1 Credit Hour
Prerequisite: EDSW 4001 and permission of the Educational Psychology department. A final course in a sequence at the University of Oklahoma for Sooner Works participants. It is designed to work in conjunction with past courses to lay the foundations related to independent living beyond college. (Sp)
EDSW 4052 Person Centered Planning 2 Credit Hours Prerequisite: EDSW 4002 and permission of the Educational Psychology department. A semesterly reoccurring course in a sequence at the University of Oklahoma for Sooner Works participants. It is designed to work in conjunction with other Sooner Works courses to lay the foundations related to education, independent living, and career planning. This course is individualized to meet the needs and work on goals for each student. (Sp)

## Department of Educational Leadership and Policy Studies

Robin Minthorn, Ph.D., Department Chair robstarr@ou.edu<br>227 Ellsworth Collings Hall<br>820 Van Vleet Oval<br>Norman, OK 73019-2041<br>Phone: (405) 325-4202<br>FAX: (405) 325-2403<br>Mona Springfield, Sr. Staff Assistant<br>mspringfield@ou.edu

https://www.ou.edu/education/academics/educational-leadership-and-policy-studies

## General Information

There are three degree-granting programs in the department of Educational Leadership and Policy Studies (ELPS). Each of the three programs offers the M.Ed. and Ph.D. degrees. In addition, the Ed.D. is offered by the EACS program.

The Adult and Higher Education program focuses on adult learning, continuing higher and professional education, training and development, distributive learning, student affairs administration, intercollegiate athletics, community college leadership, and institutional research. Our graduates assume teaching, administrative, research and leadership positions in a variety of non-profit and for-profit organizational settings, including colleges and universities, governmental agencies, social service and learning centers, and business corporations.

The Educational Administration, Curriculum and Supervision program provides preparation for leadership positions in elementary and secondary school systems, district-level positions, administrative roles in government, researcher roles in policy and advocacy centers, and scholarly positions in colleges and universities. The diverse selection of elective courses provides for shaping the individual's degree program according to their professional interests at both the doctoral and master's
levels. Program offerings are located on both the Norman and Tulsa campuses.

Educational Studies offers a foundational core course and urban field experience for undergraduate pre-service teachers. Graduate study in EDS has an explicit research, teaching, and service mission: To foster social justice, non-violence, and democratic life through interpretive, critical, and normative inquiry in historical, philosophical, legal, social, and cultural studies of education--education for children and for adults, by various means, formal and informal, in diverse settings, local and global.

## Programs \& Facilities

## Center for Leadership Ethics and Change

The OU CLEC is an affiliate of the Consortium for the Study of Leadership and Ethics in Education of the University Council for Educational Administration, a global association of faculty and research associates representing eight international university-based centers and institutes devoted to the support, promotion and dissemination of theory, research, and practice on values and leadership.

## Institute for the Study of Education Finance

"The mission of the Institute for the Study of Education Finance (ISEF) is to promote inquiry, discourse, and dissemination of research that informs professional practice related to elementary, secondary, and higher education, and to provide service supporting best practices related to education funding that promotes learner achievement."

For more information: https://educationfinance.oucreate.com/

## THRIVE - The Leadership and Policy Center for Thriving Schools and Communities at the University of Oklahoma <br> The Leadership and Policy Center for Thriving Schools and Communities (THRIVE) was established in 2021 on the campus of the University of Oklahoma in Tulsa. THRIVE is a resource for the State of Oklahoma and its education policymakers at the state, district, community, and school levels. OU social scientists from both the Norman and Tulsa campuses, and from various disciplines, are tapped as needed to address research and evaluation needs as they are identified.

For more information: https://www.ou.edu/tulsa/thrive

## Graduate Study

## Master of Education

## Admission and Requirements

Admission to a master's degree program in education requires a 3.00 grade point average for the last 60 credits of undergraduate study. Additional qualifications may be required by faculty in some areas.

Applicants for programs leading to the Master of Education degree must present a bachelor's degree in an appropriate field from an accredited college or university. Students must complete degree requirements within six calendar years after their first graduate enrollment at the University of Oklahoma. A written comprehensive examination may be required in the department of Educational Leadership and Policy Studies.

The program for the master's degree includes intensive preparation for a specialized type of educational responsibility with study in associated fields. Work at the graduate level may be required in educational psychology and historical, philosophical and social foundations of education. The exact pattern of the program will be determined after consultation with the advisor. Students may obtain information about
specific course requirements for each program area from the department office.

## Adult and Higher Education (EDAH)

The Adult and Higher Education, Master of Education (p. 1083) prepares individuals to assume entry-level and mid-level administrative roles in appropriate adult and higher education organizations. The master's program is comprised of a comprehensive curriculum and practical experiences designed to prepare students for professional positions in a variety of educational and training organizations including colleges and universities, governmental agencies, educational planning agencies, and business and industry.

## Intercollegiate Athletics Administration

The Intercollegiate Athletic Administration, Master of Education (p. 1083) is philosophically embedded within the broader study of adult and higher education. As such, it reflects the realities of modern intercollegiate athletics programs within the context of the higher education setting. The curriculum is designed to provide a breadth of knowledge in higher education with specialized course work in intercollegiate athletics. Courses are taught by both regular faculty members and practitioners in the field. This concentration prepares students for careers in each of the main functional units of a contemporary intercollegiate athletics department.

## Educational Administration, Curriculum and Supervision (EACS)

The purpose of the Educational Administration - Curriculum and Supervision, Master of Education (p. 1084) is to provide graduatelevel preparation for professional positions such as elementary school principal, middle school principal, director of elementary education, secondary principal, secondary curriculum consultant or supervisor, general or specific supervisor, curriculum consultant, and curriculum director.

## Educational Studies (EDS)

The Educational Studies, Master of Education (p. 1085) is designed to engage experienced educators in interpretive, normative, and critical studies of children's and adults' education for social justice in diverse historical and cultural contexts, via the arts, humanities, and social sciences. Such interdisciplinary studies enhance the creative resources of educators and other persons involved in social service work who aim to be transformative leaders. For example, students consider the state's, institution's, or organization's role as an agent of acculturation or of social change. History, philosophy, sociology, economics, and anthropology are major disciplinary tools that inform the policy and practice of educators.

## Doctoral Programs

Doctoral programs in Educational Leadership and Policy Studies are designed to prepare personnel for administrative, service and faculty positions in colleges and universities, public schools and other education and training agencies in government and the private sector. It is possible to study for the doctorate in adult and higher education, educational administration, curriculum and supervision, and educational foundations.

## Adult and Higher Education (EDAH)

The doctoral program in Adult and Higher Education (p. 1086) is designed to prepare individuals for teaching and research positions in Adult and Higher Education, and for individuals interested in administrative and service positions in colleges and universities, professional organizations, and other educational and training agencies
in government and the private sector. The degree awarded in adult and higher education is the Doctor of Philosophy (Ph.D.).

Doctoral emphases within the Adult and Higher Education program include:

- Adult and Continuing Education
- Continuing Professional and Higher Education
- Higher Education Administration
- Intercollegiate Athletics Administration
- Student Affairs Personnel Services
- Workforce Learning and Development


## Education Administration: Curriculum/Supervision (EACS)

The doctoral programs (Ph.D. (p. 1089) and Ed.D. (p. 1087)) in EACS are designed to prepare individuals for careers in the education profession, including those found in higher education institutions and public schools. The Ph.D. is intended for those who wish to pursue careers in the research-oriented professions such as a faculty member in a research institution or as a professional staff member in a research center. The degree requires a high level of commitment to research and an understanding of leadership functions. The Executive Ed.D. degree is intended for those aspiring to central office or other practitioner fields in education. It is offered in a cohort format and is intended especially for those who are committed to a career in school administration. The Ph.D. program is individually tailored to support the needs, interests, and career aspirations of each student. Basic coursework in administrative and organizational theory, community, educational renewal and human relations, curriculum, supervision, finance, law, policy, politics, leadership, and evaluation is available. Doctoral study may be interdisciplinary so coursework and experiences from other departments and colleges are encouraged.

## Educational Studies (EDS)

The doctoral program in Educational Studies (p. 1089) prepares experienced educators for teaching and research positions in higher education or leadership roles in community and higher education. The program engages students in interpretive, normative, and critical research on children's and adults' education in diverse historical and cultural contexts, via the arts, humanities, or social sciences. Such research requires a broad, complex, and transformative view of teaching, learning, curriculum, and their myriad contexts, including gender, age, race, ethnicity, sexual orientation, and socioeconomic status. This interdisciplinary field brings together historical, philosophical, sociological, economic, legal, anthropological, and human relations approaches to understanding and evaluating the means and ends of education, past and present, actual and potential, especially for social justice. The program requires students to work closely with faculty to design their programs of study and residency plans so that they are tailored to each individual's own professional purposes and social justice concerns.

## Courses

EACS 2960 Individual Study

## 1-4 Credit Hours

1 to 4 hours. Prerequisite: good standing in University; fewer than 62 total hours; approval of instructor and dean. May be repeated; maximum credit four hours. Designed to provide an introduction to the study of education through a rigorous program of readings under the direction of a member of the faculty. (Irreg.)

EACS 3440 Mentored Research Experience
3 Credit Hours
0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)
EACS 3960 Honors Reading
1-3 Credit Hours
Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Provides students with the opportunity to develop an appropriate body of reading materials on topics not covered in detail in routine coursework. Students will be obliged to assume the primary initiative in selecting the topic, compiling the bibliography and completing the reading, and will report their progress in weekly sessions to their instructor. Credit will be given only after an intensive oral examination. (Irreg.)

## EACS 3970 Honors Seminar

1-3 Credit Hours
Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Covers variable subjects in education with in-depth studies of issues not covered in the standard course offerings. (Irreg.)
EACS 3980 Honors Research
1-3 Credit Hours
Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Provides an opportunity for honors students to work on a special project under the guidance of a professor in the student's major area of study. (Irreg.)
EACS 3990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: one course in general area to be studied; permission of instructor and department. May be repeated; maximum credit six hours. Contracted independent study for topic not currently offered in regularly scheduled courses. (F, Sp)
EACS 4960 Directed Readings In Education 1-4 Credit Hours 1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean. May be repeated; maximum credit four hours. Designed for upper-division students preparing to teach who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)

EACS 4970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: senior standing or permission of instructor. May be repeated with change of content; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

## EACS 4980 Practicum in Education

1-3 Credit Hours 1 to 3 hours. Prerequisite: nine hours of education courses. Provides fieldtype experience under faculty supervision and is designed to introduce the student to the practical application of theory within an environment in which professional practice takes place. (Irreg.)
EACS 4990 Special Problems in Education
1-4 Credit Hours
1 to 4 hours. Prerequisite: permission of instructor. May be repeated with change of title and subject. Variable as to subject and credit for areas of specialty and/or interest not otherwise provided in the standard offering of courses. (Irreg.)

EACS 5023 Research Literacy
3 Credit Hours
Prerequisite: Graduate standing. Rigorous social science research can inform the development of policy and practice in schools. Yet, the methodological quality of research in the social sciences varies considerably. It is thus important for educational leaders to be discerning consumers of social science research. In this course, you will develop skills for locating, appraising, and synthesizing social science research. (F, Sp, Su)
EACS 5233 The Organization of Education
3 Credit Hours
Prerequisite: graduate standing. The organization of American schools. The history, relationships, functions, present status and trends in local, state and national education agencies. The places which professional educational associations, citizen's committees and other influential groups have in relation to schools. The administrative hierarchy in schools and the special functions of each level. The multicultural aspects of schooling in America. ( $F, \mathrm{Sp}, \mathrm{Su}$ )

EACS 5263 Education and the Law
3 Credit Hours
Prerequisite: graduate standing. Legal framework of education in the United States; consideration of federal and state constitutional provisions, federal and state statutes, federal and state judicial decisions and rules and regulations of the various federal and state agencies which affect education. (F, Sp, Su)
EACS 5333 Politics in Educational Administration 3 Credit Hours Prerequisite: graduate standing. An overview of political activities at the local, state, and federal levels that will enhance the professional development of school administrators. Issues addressed include micropolitics at the school site and district offices; superintendent and school board relations; lobbying legislators and dealing with interest groups; the state political process, federal aid; and analysis of current political controversies. (F, Sp)

EACS 5343 Financial Leadership in the Schools
3 Credit Hours
Prerequisite: graduate standing. Primarily for prospective building level educational leaders, and includes a comprehensive overview of the effective management of fiscal resources in public schools. (Su)
EACS 5353 Teacher Compensation, Recruitment and Retention 3 Credit
Prerequisite: Graduate standing is required; EACS 5343 Financial Leadership in Schools or equivalent is recommended. The purpose of the seminar is to provide a forum for understanding research that informs teacher compensation, recruitment and retention practices, nationally and in Oklahoma, and to apply the research to education leadership settings. (F, Sp)
EACS 5403 Inquiry for Performance Improvement 3 Credit Hours Prerequisite: graduate standing. School administrators need to draw on knowledge and competencies related to the inquiry process, measurement and assessment, and data collection, analysis, and interpretation to lead continuous improvement. Inquiry for performance improvement is designed to develop the capacity of school leaders to manage effective performance by applying competencies of organizational research and development to the design and implementation of a balanced approach to performance management. (F, Sp )
EACS 5543 School Level Instructional Leadership 3 Credit Hours
Prerequisite: graduate standing. Focuses on school-level leadership in the areas of instructional and curriculum leadership. In the areas of instruction, the role of the principal is to develop the instructional capacity of teachers by developing human capital, enhancing the quality of teaching resources, developing instructional cultures/climate to improve teaching and learning. (F, Sp)

EACS 5573 Supervision of Instruction
3 Credit Hours
Prerequisite: graduate standing. Focuses upon the clinical supervision of the classroom environment, instructional procedures and the evaluation of teaching through the processes of observation and consultation. Participants develop control of the instrumentation and procedures which enable them to gather, display and interpret data relevant to the evaluation of classroom environments. ( $F, S p$ )

EACS 5593 Principal Leadership 3 Credit Hours Prerequisite: graduate standing. School leadership; effective schools; elementary and secondary administration; administration characteristics and responsibilities including personnel, fiscal, facility organization governance, and evaluation. (F)

EACS 5623 School and Staff Development Management 3 Credit Hours
Prerequisite: graduate standing. Provides preparation in the development of technical and conceptual skills applicable to principals in their establishment of professional cultures in school environment(s). Topics will include: staff development; school climate variables; school imaging problems, strategies, and improvement models; student special interest programs and recognition procedures; and involving external groups in school improvement. (F, Sp)

EACS 5693 Technology in Educational Administration 3 Credit Hours Prerequisite: graduate standing. Provides the administrator the training in theory and application of computer concepts and the utilization of specific software programs and applications to enhance administrative decision making. ( $F$ )

EACS 5793 Technology Staff Development in Education 3 Credit Hours Prerequisite: 5693 or equivalent. Technology in the form of computers and multimedia devices is becoming increasingly prevalent in classrooms. As school districts are expending more funds to purchase equipment and provide networking, it is important that educators have the training and development necessary to effectively utilize technology to improve the instruction of students. The course is designed to familiarize students with research and best practices in the area of technology staff development. (Sp)

EACS 5823 The Charter School Phenomenon 3 Credit Hours
Prerequisite: Graduate standing. The course provides a forum to explore the historical, foundational (including educational choice), economic, social, political, financial, and performance elements of charter schools in the United States. (F, Sp, Su)

EACS 5913 Practicum in Education--Master's 3 Credit Hours
Prerequisite: Graduate standing; May be repeated; maximum credit six hours. Provides field-type experience under faculty supervision and is designed to introduce the student to the practical application of theory within an environment in which professional practice takes place. Seminar experience is to be included. (Irreg.)
EACS 5920 Internship in Education--Master's 1-6 Credit Hours 1 to 6 hours. Prerequisite: 5910, permission of instructor. May be repeated; maximum credit six hours. Variable as to title and subject profession. Available to master's degree programs specifically requiring an internship in addition to thirty-two hours of other coursework as part of the degree. Introduces the student to the profession under the supervision of a practitioner whose credentials are equal to those of the graduate faculty. (Irreg.)

EACS 5923 Principal Internship
3 Credit Hours
Prerequisite: Graduate standing; Majors only. The internship provides field experiences and clinical practice for candidates within the school building environment to synthesize and apply the content knowledge and develop professional skills learned. Candidates are provided opportunities to gain experiences in two or more types of school settings to practice a wide range of relevant school-based knowledge and leadership skills, as well as supervision of instruction (F, Sp, Su)
EACS 5940 Field Studies in Education 1-4 Credit Hours
1 to 4 hours. Prerequisite: 12 hours of education. May be repeated with change of subject matter; maximum credit eight hours. Practical problems in education as defined by members of the classes. Typical topics: defining educational objectives, relating school programs to established objectives, developing teaching-learning aids, organization for participation in developing and evaluating instructional programs, using community resources for learning, improving evaluation procedure. (Irreg.)

EACS 5960 Directed Readings
1-4 Credit Hours
1 to 4 hours. Prerequisite: 12 hours of education, approval of instructor, adviser and dean. May be repeated; maximum undergraduate credit eight hours; maximum graduate credit four hours. (Irreg.)

EACS 5970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

EACS 5980 Research For Master'S Thesis 2-9 Credit Hours
Variable enrollment, two to nine hours; maximum credit applicable toward degree, four hours. (F, Sp, Su)

EACS 5990 Independent Study
1-4 Credit Hours
1 to 4 hours. Prerequisite: graduate standing or permission by instructor. May be repeated with change of subject matter; maximum credit six hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/ or laboratory research and field projects. (Irreg.)

EACS 6023 Applied Quantitative Research Methods in Educational Administration

3 Credit Hours
Prerequisite: graduate standing. Designed to provide advanced graduate students with research skills required of effective executive educational leaders. This course will provide students with the analytical tools necessary to become effective, critical consumers of educational research, and to enable potential educational leaders to oversee and supervise staff in the preparation, development, and dissemination of evaluative research. (F)

EACS 6103 Visionary Leadership in Education 3 Credit Hours
Prerequisite: graduate standing. The course is intended to prepare educational leaders who value and are committed to educating all students to become successful adults. Included is a detailed analysis of the role of vision and visionary leadership in educational organizations. Both scholarly literature and best practices concerning visionary leadership in education underlay course activities and discussions. (F)

EACS 6123 Administrative and Organizational Theory 3 Credit Hours Prerequisite: graduate standing. An introduction to the important theoretical bases underlying the administration of organizations, particularly educational organizations; topics include bureaucracy, social systems, leadership, decision-making, properties of systems, communication and situational analysis. (F, Sp)

EACS 6133 Qualitative Inquiry for Practitioners 3 Credit Hours
Prerequisite: graduate standing. Introduces graduate students to concepts, methods, and issues in qualitative research as it is used in educational settings. Draws attention to epistemological and ethical concerns in social science and to strategic and logistical issues in the conduct of field research. Both positivist and interpretive approaches to the use of qualitative methods will be explored. Concept and theory building, strategies and techniques, and discussions of different issues of reliability and validity in the use of qualitative data will be emphasized. (F)
EACS 6203 Instructional Leadership in Educational Administration 3 Credit Hours
Prerequisite: graduate standing. Focuses on instructional leadership and its emphasis on competencies necessary for leadership and management of school districts. The class draws from research, public policy and educational practices related to curriculum, instruction, assessment, strategic planning, and professional growth plans. Will enable school district administrators to plan for the integration of technology in curriculum implementation, instructional strategies, and evaluation/assessment. (Sp)
EACS 6213 Program Evaluation
3 Credit Hours
Prerequisite: Graduate standing or permission of instructor. This course builds knowledge and competencies on theory-based evaluation science through a review of evaluation approaches and theoretical paradigms, evaluation components, terms, and methods; and endemic issues and challenges in conducting evaluation in the social sciences. (Sp)
EACS 6223 Policy Planning and Development in Education 3 Credit Hours
Prerequisite: graduate standing or permission of instructor. An introduction to analytical techniques applicable to the development of education policy. Includes consideration of decision theory and its application to policy making. Social, political, economic and multicultural factors in the organization and its environment will be explored as contexts within which educational policy is established. (F)
EACS 6253 Financing Education
3 Credit Hours
Prerequisite: graduate standing, 5213,5223, or equivalent or permission of instructor. A consideration of the roles of federal, state and local governments in the financing of education. Attention is given to the important contemporary issues related to educational financing at all three governmental levels. Also includes an introduction to the economics of education. (Sp)
EACS 6263 Educational and Community Relations 3 Credit Hours Prerequisite: graduate standing or permission of instructor. Examines the field of intra/interpersonal relationships in the context of educational organizations and their constituent communities; topics include authenticity, organizational communication, leader behavior, group dynamics, and conflict management. (F)
EACS 6303 Strategic and Financial Planning in Education 3 Credit Hours
Prerequisite: graduate standing. Strategic planning enables a district or school to shape and guide its overall educational objectives. Through effective strategic planning an educational organization creates a framework for developing, adapting and aligning organizational vision, mission and goals to achieve and sustain its desired educational outcomes. A critical element of the planning process is financial planning, in which the organization's goals are aligned with organizational resources. Course focuses on the leadership competencies necessary to formulate, execute and monitor the strategic planning for an educational organization based on research-based analytical techniques and models. Includes an examination for school district risk management. (Sp)

EACS 6503 Ethics in Educational Administration 3 Credit Hours
Prerequisite: graduate standing. Intends to familiarize upper-level graduate students with ethical theories that can be utilized in the policy development and administration of school districts and related decision making. Prepares students to enter school district management with the skills necessary to assume a successful leadership role. Firm grounding in the current problems of today's schools will be used as an opportunity to explore decision making capacity as a district level administrator. Students will learn the foundations of ethics which will promote decision making. Challenges students to understand and apply ethical considerations with regard to 1) the rights of others with regard to confidentiality, dignity and honesty; 2) sensitivity to student diversity; and 3) impartiality in their interactions with others. Students will explain decisions based on ethical and legal principles. (Sp)

EACS 6553 Profiles in Leadership
3 Credit Hours
Prerequisite: Graduate standing. The purpose of this course is to further students' understanding and knowledge of the nature and responsibilities of a school leader. To this end, the course consists of the basic principles of effective leadership. First, we will take a deep dive into Profiles in Effective Leadership. Second, we will apply leadership behaviors to the school setting. (Sp)

EACS 6663 Special Education Law
3 Credit Hours
Prerequisite: graduate standing. Enables students to understand the legal complexities involved in identifying and providing educational services to students with special needs. (F)
EACS 6673 Advanced Inquiry
3 Credit Hours
Prerequisites: graduate standing and EACS 6023, 6713, and 6970. The course is intended to help provide advanced graduate students with necessary analytical skills to become effective consumers of research, and to produce an effective doctoral dissertation. The course focuses on skills related to formulation of research problems, developing research proposals, collection, analysis and interpretation of data. (Fa, Su)
EACS 6693 Educational Technology Leadership 3 Credit Hours Prerequisite: graduate standing, 5693. Designed to help enhance the competencies of school district administrators in the area of educational technology leadership. Focuses on technology leadership (at the central office level), rather than technology user skills. Intended for district level leaders (such as superintendents) who are not technology specialists (e.g., the course is not intended for district level technology directors or coordinators). (F)
EACS 6713 Pro Seminar
3 Credit Hours
Prerequisite: graduate standing. The purpose of this course is to introduce beginning doctoral students to the concept and process of research. Included are issues related to the role of philosophical frameworks, theory, research conceptualization, scholarly writing, and rudimentary research methods. (F, Sp, Su)
EACS 6813 Prospectus Development
3 Credit Hours
Prerequisite: Graduate standing; majors only. This seminar is designed for advanced PhD students/candidates and is a formal venue for developing a sample dissertation prospectus as a starting point to work from and further develop with the student's dissertation chair and committee. (F)
EACS 6910 Practicum in Education--Doctoral 1-6 Credit Hours 1 to 6 hours. Prerequisite: admission to doctoral program, permission of instructor. May be repeated; maximum credit six hours. Variable as to title and subject profession. An advanced practicum for post-master's level students only. The object is to provide professional experience under faculty supervision in fields requiring a high degree of professional skill. Seminar experience is to be included. (Irreg.)

EACS 6920 Internship in Education--Doctoral 2-6 Credit Hours
1 to 6 hours. Prerequisite: written permission of the instructor. May be repeated; maximum credit 12 hours. Variable as to title and subject profession. An advanced internship for post-master's level students only. The object of the internship is to cultivate within the student a high degree of proficiency and professional independence. Field supervision is by a practitioner whose credentials are equal to those of the graduate faculty. (Irreg.)
EACS 6930 Intensive Studies in Education 1-6 Credit Hours
1 to 6 hours. Prerequisite: 12 hours of education and permission of instructor. Repeatable with change of title and subject. Opportunity offered for professional educators and others interested in education, cooperatively, to seek solutions to educational problems. Organized groups work in curriculum, guidance, instruction, administration and supervision. Competent leadership and expert consultant service provided. (Irreg.)

EACS 6960 Directed Readings
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor.
May be repeated; maximum credit six hours. Directed readings and/or literature review under the direction of a faculty member. (Irreg.)

EACS 6970 Post-Master's Seminar 2-4 Credit Hours
2 to 4 hours. Prerequisite: master's degree, 24 hours of education, permission of instructor. May be repeated with change of subject matter; maximum credit twelve hours. Enrollment limited to students who hold the master's degree. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

EACS 6980 Research for Doctoral Dissertation 2-16 Credit Hours 2 to 16 hours. Prerequisite: Graduate standing and permission of instructor; may be repeated. Directed research culminating in the completion of the doctoral dissertation. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

EACS 6990 Individual Study in Education
1-4 Credit Hours
1 to 4 hours. Prerequisite: 12 hours of education, graduate standing and permission of the instructor. May be repeated with change of subject matter; maximum credit eight hours. For advanced graduate students who need to study some problem or area not adequately covered in the organized courses, under the direction of a staff member in whose area of specialization the problem lies. (Irreg.)

## EDAH 2960 Individual Study

1-4 Credit Hours
1 to 4 hours. Prerequisite: good standing in University; fewer than 62 total hours; approval of instructor and dean. May be repeated; maximum credit four hours. Designed to provide an introduction to the study of education through a rigorous program of readings under the direction of a member of the faculty. (Irreg.)

EDAH 2962 Student Affairs Leadership 2 Credit Hours Prerequisite: Departmental permission. This introduction to the field of Student Affairs explores the relationship between leadership and practice in college contexts. Course content is complemented and enhanced by practicum experiences in Student Affairs and/or leadership activities. This class also serves as a site for community building among campus leaders, fostering collaboration among students who may not have previously had opportunities to work together. ( $\mathrm{F}, \mathrm{Sp}$ )

EDAH 3440 Mentored Research Experience 3 Credit Hours 0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)

EDAH 3960 Honors Reading
1-3 Credit Hours
Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Provides students with the opportunity to develop an appropriate body of reading materials on topics not covered in detail in routine coursework. Students will be obliged to assume the primary initiative in selecting the topic, compiling the bibliography and completing the reading, and will report their progress in weekly sessions to their instructor. Credit will be given only after an intensive oral examination. (Irreg.)

EDAH 3970 Honors Seminar 1-3 Credit Hours
Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Covers variable subjects in education with in-depth studies of issues not covered in the standard course offerings. (Irreg.)

EDAH 3980 Honors Research 1-3 Credit Hours
Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Provides an opportunity for honors students to work on a special project under the guidance of a professor in the student's major area of study. (Irreg.)

EDAH 3990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: one course in general area to be studied; permission of instructor and department. May be repeated; maximum credit six hours. Contracted independent study for topic not currently offered in regularly scheduled courses. (F, Sp)

EDAH 4960 Directed Readings in Education
1-4 Credit Hours
1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean. May be repeated; maximum credit four hours. Designed for upper-division students preparing to teach who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)

## EDAH 4970 Special Topics/Seminar

1-3 Credit Hours
1 to 3 hours. Prerequisite: senior standing or permission of instructor. May be repeated with change of content; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

EDAH 4980 Practicum in Education 1-3 Credit Hours
1 to 3 hours. Prerequisite: nine hours of education courses. Provides fieldtype experience under faculty supervision and is designed to introduce the student to the practical application of theory within an environment in which professional practice takes place. (Irreg.)

EDAH 4990 Special Problems in Education
1-4 Credit Hours
1 to 4 hours. Prerequisite: permission of instructor. May be repeated with change of title and subject. Variable as to subject and credit for areas of specialty and/or interest not otherwise provided in the standard offering of courses. (Irreg.)

EDAH 4993 R.A. Training Special Problems in Education 3 Credit Hours Prerequisite: junior standing. Introduces various theories and skills that aid the student in the performance of the duties of a resident advisor. Areas of study include student development theory, community development, programming, peer counseling, and policy enforcement. The class will review current issues confronting college students. Students will also be involved in University community-building programs and special events which relate to the roll of resident advisor. ( $\mathrm{F}, \mathrm{Sp}$ )

EDAH 5013 The Adult Learner
3 Credit Hours
Prerequisite: graduate standing. Course content includes: (a) recent history; (b) social, technological and economic factors associated with changes in educational philosophy with consequences for lifelong learning: (c) trend data on adult enrollments by socio-economic, racial, ethnic and other factors; (d) major providers; (e) research and issues concerning adult learning ability, adult development, stresses upon the adult learner, teaching adults, etc. (F)

## EDAH 5023 Administration of Adult and Higher Education 3 Credit Hours

Prerequisite: graduate standing. Organization and administration of adult and higher education from legislative, legal, structural-functional, power, political, bureaucratic and social perspectives. Topics considered include: governance, central office organization, administrative position analysis, faculty organization, faculty participation in policy formation and decision making, academic freedom, goals analysis, budgetary policies and methods, and decision strategies. (F)

## EDAH 5033 Critical Literature in Adult and Higher

Education
3 Credit Hours
Prerequisite: graduate standing. Explores twentieth-century ideas and issues in adult and higher education. The majority of the literature and discussion concern the university. (F)

## EDAH 5043 Introduction to Research in Adult and Higher Education <br> 3 Credit Hours <br> Prerequisite: graduate standing. Recommend specific prior enrollment <br> -- see adviser. An introduction to data collection and analysis, research methods (experimental, quasi-experimental, qualitative), and statistics used in adult and higher education. (F, Sp, Su)

EDAH 5103 Instructional Strategies in Adult and Higher

## Education

3 Credit Hours
Prerequisite: graduate standing. Encourages a rational consideration of the problems of college teaching. A problems-based course, requiring that each student be involved in an actual college teaching experience while taking it. Topics to be considered include: learning potentials of young adults; preparation of instructional objectives; evaluation of instruction; instructional techniques. (Su)
EDAH 5133 American Community/Junior College 3 Credit Hours
A study of its purposes, functions, curriculum, organization and administration; exploring this uniquely American institution as an emerging factor and significant element in the structure of higher education in America today. (Sp)

## EDAH 5143 Leadership Development in Adult and Higher

 Education3 Credit Hours
Prerequisite: graduate standing. Apply concepts from the behavioral and social sciences to the development of techniques and strategies specific to leadership development in adult and higher education. (Sp)
EDAH 5153 Legal Aspects Of Higher Education 3 Credit Hours
Prerequisite: graduate standing. Survey of principles, legislation, and court rulings in such areas as employment, affirmative action, dismissal, contracts, tenure, civil rights, due process, student rights, and other issues of concern to higher education administrators. (F)
EDAH 5163 Diversity Issues in Higher Education 3 Credit Hours Prerequisite: graduate standing. Explores the educational participation of diverse groups in higher education. The student will gain a further understanding of issues of race, ethnicity, gender, and physical disability and their influence on colleges and universities. ( $F, S p$ )

EDAH 5173 Leadership and Administration in Student Affairs 3 Credit Hours
Prerequisite: graduate standing. Designed to provide student
foundational knowledge on topics related to leadership and administration of student affairs in collegiate settings. The course additionally exposes students to traditional and alternative leadership and administrative philosophies in college student affairs. Critical examination of how student affairs functions in the broader organizational structure and develop higher-ordered understanding of how institutional cultures (and a professional's role within those cultures) facilitate college student affairs administration. (F, Sp, Su)
EDAH 5193 Minority Serving Institutions 3 Credit Hours
Prerequisite: Graduate standing. This course is designed to provide students with a range of learning experiences that familiarize them with Minority Serving Institutions (MSIs). Students will explore the various types of MSIs, their historical development, missions, governance/ organizational structure, challenges, support/advocacy, and futures. Additionally, students will examine the student populations served by MSIs, policies that impact these institutions, and relevant contemporary issues. (Irreg.)
EDAH 5213 History of American Higher Education 3 Credit Hours Prerequisite: graduate standing or permission of instructor. The history of American higher education during the twentieth century, with an examination of the major issues which have shaped, and are shaping, the development of American colleges and universities. (Sp)
EDAH 5223 Foundations of Student Affairs in Higher

## Education

3 Credit Hours
Prerequisite: graduate standing. A comprehensive introduction to the field of student affairs and its role within the context of American higher education. Specifically, provides an introduction to the origin, history, philosophy, and current practices of the college student affairs profession. A related goal is the development of a broad foundation of knowledge to which subsequent study, practitioner skills, and research strategies may be added. (F)

EDAH 5243 Financial Management In Higher Education 3 Credit Hours Prerequisite: graduate standing. Students will be introduced to the following topics: Administrative organization function and structure; financial management of sponsored programs (grants and contracts); fund accounting and basic financial statements; state coordination policies and procedures; basic budgeting concepts and techniques; cost analysis and comparisons. (Sp)
EDAH 5253 Institutional Research In Higher Education 3 Credit Hours Prerequisite: graduate standing. Recommend specific prior enrollment-see advisor. Covers the roles and functions of institutional research, student information systems, faculty and staff analysis, facilities analysis, capital and financial analysis, environmental scanning, assessment studies, program review, student outcomes studies, and quality assessment. (F)
EDAH 5263 Planning In Higher Education
3 Credit Hours
Prerequisite: Graduate standing. Recommend specific prior enrollment-see advisor. Covers concepts, practices, issues and problems related to planning in higher education. (F)

## EDAH 5273 Athletics In Higher Education

3 Credit Hours
(Crosslisted with H R 5273) Prerequisite: Graduate standing.
Provide students with an understanding of the history, structure and administration of intercollegiate athletics, as well as an opportunity to discuss a wide variety of related contemporary issues. (Irreg.)

EDAH 5293 Academic Advising in Student Affairs 3 Credit Hours
Prerequisite: Graduate standing. This practitioner grounded course introduces the profession of academic advising through current research and campus field experiences. Topics include: history of the profession; developmental advising; theories of advising; advising models; advising skills; varying needs of diverse populations; role in student retention/ graduation; student advocacy, legal and ethical considerations; use of technology; evaluation and assessment. (Irreg.)
EDAH 5333 Program Planning For The Adult Learner 3 Credit Hours Prerequisite: graduate standing. Recommend specific prior enrollment-see advisor. Designed to develop an understanding of institutional roles and institutional differences; a knowledge of the principles of program planning in relation to the delivery of adult education. Reviews the elements of pProgram planning to include needs assessment, program design and delivery, and evaluation. (F)
EDAH 5383 Contemporary Issues In Student Personnel 3 Credit Hours Prerequisite: graduate standing. Designed to provide students an opportunity to synthesize ideas from previous coursework and practical experiences in student affairs. An integration of student development theories, current issues in the field, and analysis of case studies will be the focus of the course. (F, Sp)

EDAH 5413 Design And Delivery Of Distance Education
Programs
3 Credit Hours
Prerequisite: graduate standing. Designed to prepare student to design instruction for distance learning systems. Topics include the distance learner, facilitating learning at a distance, instructional design for distance learning systems, and assessment of learning at a distance. (Sp)

## EDAH 5433 Organizational Design and Management of First Year Experience Programs <br> 3 Credit Hours

Prerequisite: graduate standing. Focuses on the first-year experience through exploring existing research and practice in organizational design and management. Based on readings, research, national guidelines, course discussion, and personal/professional experience, graduate students will design their own first-year experience program for untraditional students within an institution of their choice. (F, Sp)
EDAH 5443 Organization Development and Change 3 Credit Hours Prerequisite: graduate standing. Designed to provide an overview of the practical skill sets required to plan, develop, and conduct organizational development activities within public as well as private sector organizations. Topics will include concepts of OD models and theories, organizational assessment procedures, various OD interventions methods, and technological tools for effect OD. Trends and contemporary solutions for organizational development will be introduced through webinars and demonstrations. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
EDAH 5453 Autobiography and Lifewriting in Adult Education

3 Credit Hours
Prerequisite: graduate standing. Explores autobiography and other forms of life writing as an instructional method and research tool within the broader field of the study and education of adults. Reviews the historical and contemporary uses of autobiography, its related concepts and theories and major authors who have contributed to the field. These are explored in light of educational principles and how autobiography can lead to understanding of self and others. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

EDAH 5473 Race, Class, and Gender in Education 3 Credit Hours
Prerequisite: graduate standing. This course attempts to achieve congruence between common and differing oppressions, challenges, and successes according to race, class, and gender. The topics are restricted to maximize integration with studies in the various educational specialties. Analysis of the work of educational institutions in light of the relationships of these institutions to the broader society in which they are situated. Particular attention is paid to the complexities of identity and multiculturalism across educational institutions and in the educational pipeline. ( $F, S p, S u$ )

EDAH 5483 College Student Development 3 Credit Hours
Prerequisite: graduate standing. Designed to expose students to a variety of college student development theories as well as research that describes typical patterns of student growth and development during the college years. In addition, a primary objective of this course is to discuss how student affairs professionals, higher education administrators, and faculty may utilize student development theory to design programs, develop services, and create learning environments that support the academic and social development of students attending postsecondary institutions. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

## EDAH 5513 Management \& Admin Of The Training Function <br> 3 Credit Hours

Prerequisite: graduate standing. This course is designed for those preparing for or having oversight responsibilities in the training and development function. Topics will include the management function, staffing, ensuring the quality of training, legal issues, marketing and financial management.

## EDAH 5523 Skills and Strategies in Designing, Developing, and Delivering Training <br> 3 Credit Hours

Prerequisite: graduate standing. Addresses the core aspects of Instructional Systems Design (ISD) as applied to workforce learning, and performance. Learn and apply key principles involved in assessing, designing, developing, implementing, and evaluating face to face (traditional) training programs. Students select training topics identified as critical to success in the training and development field, and engage the ISD process in creating active training programs. (F,Sp)

EDAH 5543 Gender, Society, and Higher Education 3 Credit Hours Prerequisite: graduate standing. Addresses issues of gender as set within the historical, economic and socio-political context of American higher and post-secondary higher education. Multiple feminist perspectives are explored including, but not limited to, liberal feminism, radical feminism, Black feminism, womanism, Chicana feminism, Native American feminism, Arab American feminism, multicultural feminism, eco- and global feminism. The connections between theory, practice, and reflection are emphasized. Social justice and ally development are strong components of this course. (F, Sp)

EDAH 5563 Inclusive Praxis in Intercollegiate Athletics 3 Credit Hours Prerequisite: graduate standing. This course focuses on developing the inclusive practice, multicultural competence, and cultural humility of aspiring athletics administrators. Taught in a workshop format, this course will increase students' understanding various issues in the context of college sports, including race, gender, religion, nationality, class, sexual orientation, and power-based violence. (F, Sp, Su)

EDAH 5573 History of Intercollegiate Athletics 3 Credit Hours
Prerequisite: graduate standing. The course will attempt to deal with the continuity and changes in college sports as part of higher education and American culture. It will include analysis of the changing ideals of the student-athlete and the college coach as well as analysis of the political economy associated with college sports at the levels of the campus, the conference, and national associations. (F, Sp, Su)
EDAH 5583 Academics in intercollegiate Athletics Administration 3 Credit

Hours
Prerequisite: Graduate standing. This course is designed to provide an indepth perspective regarding the history of academic support and student services in athletics, best practices in the profession, the relationship between the athletics and academic communities in higher education, and analysis of salient issues and challenges. (Sp)
EDAH 5613 Ethical Decision Making in Intercollegiate Athletics Administration

3 Credit Hours
Prerequisite: graduate standing. Explores ethical decision-making and conduct in the contemporary 21 st century intercollegiate athletics department. Specific issues related to the commercialization of college athletics that will be covered include: academic reform, diversity within intercollegiate athletics, pay-for-play, gender equity, fiscal management, compensation for student-athletes, and the recruiting process. Students will analyze current research and theoretical frameworks centering on ethical decision making, as well as utilize a theory to practice case-study pedagogical approach in order to evaluate their personal morals, values, and principles as they pertain to ethics in college sports to enhance future decision-making.(Sp)
EDAH 5623 Marketing \& Development in Intercollegiate Athletics
Administration 3 Credit Hours
Prerequisite: graduate standing. The theoretical and practical foundations of sport marketing and fan development in 21 st century intercollegiate athletics settings. Fundamental concepts that will be covered include: revenue generation, licensing, ticket sales, consumer marketing, and marketing matrix frameworks. Students will create an individual marketing proposal to develop an enhanced understanding of techniques and strategies used to successfully market large scale athletic events and enhance the consumer experience. (Sp)
EDAH 5633 Gender in Intercollegiate Athletics 3 Credit Hours
Prerequisite: graduate standing. The course examines how gender shapes the history, organization, and nature of higher education, sport, and society. The combination of theoretical, historical, and contemporary analysis will illuminate how gender shapes the daily interactions of all people and in turn sustains the lower social, political, and cultural standing of women in society at large. (F)

## EDAH 5653 Academic Reform and Athletic Academic Advising

## 3 Credit Hours

Prerequisite: graduate standing. Explores and provides an understanding of the National Collegiate Athletics Association's academic reform movement in the 21 st century and the subsequent effects on studentathletes in higher education. The course focuses in-depth on methods currently utilized in academic advisement of the student-athlete higher education population subset. In addition, focuses on the changes made to the current NCAA governing rules as they apply to academic support and advisement of student-athletes. Students will learn to critically analyze current academic reform measures taken by the NCAA and wrestle with present day challenges faced by athletics advisers in practitioner settings. The course will utilize case studies to frame critical inquiry and discussion to prepare future higher education leaders who work with this special population of students. (Sp)

EDAH 5673 Organization \& Administration of Intercollegiate Athletics Administration 3 Credit Hours
Prerequisite: graduate standing. Examines the organizational structure of intercollegiate athletics departments nested within NCAA Division I, II, and III institutions of higher education. Students will develop an understanding of the organizational structures of each administrative unit internal to a 21 st century intercollegiate athletics departments. Students will enhance personal leadership, communication and academic writing skills through multiple reflective exercises and case studies. Culminates with the development of a formal literature review and presentation.(F)
EDAH 5683 Race \& Ethnicity in Intercollegiate Athletics 3 Credit Hours Prerequisite: graduate standing. Using theory, research, personal narratives, and primary sources, this course examines race and ethnicity in college sports. Focus will be on racial diversity in sports, approaching the topic from a historic/structural perspective, a symbolic perspective, and an internal/personal perspective. (F, Sp, Su)

## EDAH 5693 Professional Development in Intercollegiate

## Athletics

3 Credit Hours
Prerequisite: graduate standing. Prepares students for impending job searches in a competitive 21 st century sport industry. Students complete career and professional development activities in addition to a personalized service-learning experience in intercollegiate athletics practitioner settings. Class time centers on: reflection of individual service-learning experiences, leadership growth and development, and workshop time to develop professional development portfolio. Students develop a professional portfolio over the course of the semester to include a current resume, cover letter, personal leadership philosophy, and site supervisor service-learning evaluations. This class is intended for students who have little to no previous experience in intercollegiate athletics. (F, Sp)

## EDAH 5813 NCAA Compliance I

3 Credit Hours
Prerequisites: graduate standing. Examination of the structure of the National Collegiate Athletics Association ("NCAA") from a legal framework. Drawing on legal and organizational theory, this course will present an overview of NCAA regulations, research of NCAA interpretations, waivers and secondary violations. Students will examine specific cases to analyze NCAA, conference, institutional regulations and policies. Students will develop an enhanced understanding of NCAA compliance standards in college sport, a foundational skillset for aspiring athletics administrators and specifically those who wish to work in a compliance office at an NCAA institution. (F)

## EDAH 5823 NCAA Compliance II

3 Credit Hours
Prerequisite: EDAH 5813 and graduate standing. Examines the structure of the National Collegiate Athletics Association ("NCAA") from a legal framework. Provides aspiring athletics administrators with foundational knowledge on the NCAA Enforcement procedures, the new Enforcement Model and internal compliance investigation standards paramount to successfully operating the daily activities of an intercollegiate compliance office. Students will develop an enhanced understanding of NCAA compliance standards, NCAA regulations, NCAA enforcement procedures of institutional investigation to rules violations, reporting of violations and major infraction cases in college sport. (F)

EDAH 5843 Event and Facility Management in Intercollegiate Athletics Administration
Prerequisite: graduate standing. Provides students with an enhanced understanding of the logistical and operations management skillsets that are imperative for contemporary intercollegiate athletics administrators to possess. Drawing on consumer motivation and marketing theories, students will participate in the planning and development of a specific intercollegiate athletics event. By pairing theoretical discussion and practical application, students will learn how to safely and efficiently plan large-scale intercollegiate athletics events. (F)

## EDAH 5853 Best Practices in Contemporary Intercollegiate Athletics Student Support Services 3 Credit Hours

Prerequisite: graduate standing. Designed to discuss different aspects of support services for student-athletes. Centers on developing an understanding of the role of student services units within intercollegiate athletics including athletic training, academics, nutrition, strength and condition, psychological support. Particular emphasis is placed on how these services interact with each other. Current research and perspectives from the field will be presented. Students will be expected to complete personal reflection exercises, case studies, and a culminating group project. (Sp)

## EDAH 5863 Licensing, Trademark Law and Fundraising in

IAA
3 Credit Hours
Prerequisite: graduate standing. Provide students with an introduction to the legal aspects of collegiate licensing and fundraising. Student will develop an enhanced understanding of the principles of intellectual property, trademark law and licensing. Explores the history and role that licensing plays in intercollegiate athletics. Culminates with the development of an athletic fundraising campaign group project. (Sp)

EDAH 5910 Practicum in Education--Master's 1-4 Credit Hours
1 to 4 hours. Prerequisite: graduate standing, permission of instructor and dean. May be repeated; maximum credit six hours. Variable as to title and subject profession. Provides field-type experience under faculty supervision and is designed to introduce the student to the practical application of theory within an environment in which professional practice takes place. Seminar experience is to be included.

EDAH 5920 Internship in Education--Master's 1-6 Credit Hours
1 to 6 hours. Prerequisite: 5910, permission of instructor. May be repeated; maximum credit six hours. Variable as to title and subject profession. Available to master's degree programs specifically requiring an internship in addition to thirty-two hours of other coursework as part of the degree. Introduces the student to the profession under the supervision of a practitioner whose credentials are equal to those of the graduate faculty.
EDAH 5940 Field Studies in Education
1-4 Credit Hours
1 to 4 hours. Prerequisite: 12 hours of education. May be repeated with change of subject matter; maximum credit eight hours. Practical problems in education as defined by members of the classes. Typical topics: defining educational objectives, relating school programs to established objectives, developing teaching-learning aids, organization for participation in developing and evaluating instructional programs, using community resources for learning, improving evaluation procedure.

EDAH 5960 Directed Readings
1-4 Credit Hours
1 to 4 hours. Prerequisite: 12 hours of education, approval of instructor, adviser and dean. May be repeated; maximum undergraduate credit eight hours; maximum graduate credit four hours

EDAH 5970 Special Topics/Seminar
-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses.
May include library and/or laboratory research and field projects. (Irreg.)

## EDAH 5973 Spirituality \& Religious Diversity in Higher Education <br> 3 Credit Hours

Prerequisite: Graduate standing. The course addresses issues of spirituality and religious diversity in higher education within the historical and sociopolitical context of the U.S. Multiple critical theoretical perspectives on religion and spirituality will be drawn upon throughout the semester. The connections between theory, practice in higher education, and (self) reflection are emphasized. Social justice and ally development are strong components of this course. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

EDAH 5980 Research for Master's Thesis
2-9 Credit Hours
Variable enrollment, two to nine hours; maximum credit applicable toward degree, four hours. (F, Sp, Su)
EDAH 5990 Independent Study
1-4 Credit Hours
1 to 4 hours. Prerequisite: graduate standing or permission by instructor. May be repeated with change of subject matter; maximum credit six hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/ or laboratory research and field projects. (Irreg.)

## EDAH 6013 Pro Seminar. Foundations of Research in Adult and Higher Education <br> 3 Credit Hours

Prerequisite: Graduate standing. Introduction to concepts and processes of education research, including conceptualizing a research study, and an overview of qualitative, quantitative, and mixed-method approaches. Will examine philosophical, epistemological, and paradigmatic frameworks; problem, purpose, and significance; and the varying roles of theory, methodology, and findings. Will discuss general expectations of graduate work, particularly what constitutes original research and academic writing. (F)

## EDAH 6813 Prospectus Development

3 Credit Hours
Prerequisites: Departmental permission; graduate standing. This Prospectus Development Seminar is designed for advanced doctoral students/candidates and is a formal venue for developing a sample dissertation prospectus as a starting point to work from and further develop with your dissertation chair and committee. (Sp)

EDAH 6910 Practicum in Education--Doctoral 1-6 Credit Hours 1 to 6 hours. Prerequisite: admission to doctoral program, permission of instructor. May be repeated; maximum credit six hours. Variable as to title and subject profession. An advanced practicum for post-master's level students only. The object is to provide professional experience under faculty supervision in fields requiring a high degree of professional skill. Seminar experience is to be included. (Irreg.)

EDAH 6920 Internship in Education--Doctoral 1-6 Credit Hours 1 to 6 hours. Prerequisite: written permission of the instructor. May be repeated; maximum credit 12 hours. Variable as to title and subject profession. An advanced internship for post-master's level students only. The object of the internship is to cultivate within the student a high degree of proficiency and professional independence. Field supervision is by a practitioner whose credentials are equal to those of the graduate faculty. (Irreg.)

EDAH 6930 Intensive Studies in Education 1-6 Credit Hours
1 to 6 hours. Prerequisite: 12 hours of education and permission of instructor. Repeatable with change of title and subject. Opportunity offered for professional educators and others interested in education, cooperatively, to seek solutions to educational problems. Organized groups work in curriculum, guidance, instruction, administration and supervision. Competent leadership and expert consultant service provided. (Irreg.)
EDAH 6960 Directed Readings
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit six hours. Directed readings and/or literature review under the direction of a faculty member. (Irreg.)

## EDAH 6970 Post-Master's Seminar <br> 2-4 Credit Hours

2 to 4 hours. Prerequisite: master's degree, 24 hours of education, permission of instructor. May be repeated with change of subject matter; maximum credit twelve hours. Enrollment limited to students who hold the master's degree. (F, Sp, Su)
EDAH 6980 Research for Doctoral Dissertation 2-16 Credit Hours 2 to 16 hours. Prerequisites: Graduate standing and permission of instructor; may be repeated. Directed research culminating in the completion of the doctoral dissertation. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

EDAH 6990 Individual Study in Education 1-4 Credit Hours
1 to 4 hours. Prerequisite: 12 hours of education, graduate standing and permission of the instructor. May be repeated with change of subject matter; maximum credit eight hours. For advanced graduate students who need to study some problem or area not adequately covered in the organized courses, under the direction of a staff member in whose area of specialization the problem lies. (Irreg.)

## EDS 2960 Individual Study

1-4 Credit Hours
1 to 4 hours. Prerequisite: good standing in University; fewer than 62 total hours; approval of instructor and dean. May be repeated; maximum credit four hours. Designed to provide an introduction to the study of education through a rigorous program of readings under the direction of a member of the faculty. (Irreg.)
EDS 3440 Mentored Research Experience
3 Credit Hours
0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)
EDS 3960 Honors Reading 1-3 Credit Hours
Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Provides students with the opportunity to develop an appropriate body of reading materials on topics not covered in detail in routine coursework. Students will be obliged to assume the primary initiative in selecting the topic, compiling the bibliography and completing the reading, and will report their progress in weekly sessions to their instructor. Credit will be given only after an intensive oral examination. (Irreg.)
EDS 3970 Honors Seminar 1-3 Credit Hours Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Covers variable subjects in education with in-depth studies of issues not covered in the standard course offerings. (Irreg.)

EDS 3980 Honors Research
1-3 Credit Hours
Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Provides an opportunity for honors students to work on a special project under the guidance of a professor in the student's major area of study. (Irreg.)

EDS 3990 Independent Study 1-3 Credit Hours
1 to 3 hours. Prerequisite: one course in general area to be studied;
permission of instructor and department. May be repeated; maximum credit six hours. Contracted independent study for topic not currently offered in regularly scheduled courses. (F, Sp)
EDS 4003 Schools in American Cultures 3 Credit Hours
Prerequisite: admission to Teacher Education program; EIPT 3473
or EDEC 3413. An overview of education as a profession based upon historical and philosophical principles including a treatment of current problems and affairs with specific attention given to multicultural phenomena. ( $\mathrm{F}, \mathrm{Sp}$ )

EDS 4633 Latina Feminist Epistemologies
3 Credit Hours
(Slashlisted with EDS 5633; Crosslisted with WGS 4633) Prerequisite: Junior standing. This course explores the experiences of Chicanas and Latinas through the lens of contemporary research. Topics to be discussed: community formation and activism, Chicana/Latina feminism, sexuality, religion, health, family, immigration, migration, education, work, media, and artistic expressions. Readings emphasize the links between the structural inequalities of society, and the day-to-day lived experiences of Chicanas/Latinas. No student may earn credit for both 4633 and 5633. (Irreg.)

EDS 4960 Directed Readings in Education 1-4 Credit Hours 1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean. May be repeated; maximum credit four hours. Designed for upper-division students preparing to teach who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)

## EDS 4970 Special Topics/Seminar

1-3 Credit Hours
1 to 3 hours. Prerequisite: senior standing or permission of instructor.
May be repeated with change of content; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)
EDS 4980 Practicum in Educational Studies 1-3 Credit Hours 1 to 3 hours. Prerequisite: nine hours of education courses. Provides fieldtype experience under faculty supervision and is designed to introduce the student to the practical application of theory within an environment in which professional practice takes place. (Irreg.)

EDS 4990 Special Problems in Education
1-4 Credit Hours
1 to 4 hours. Prerequisite: permission of instructor. May be repeated with change of title and subject. Variable as to subject and credit for areas of specialty and/or interest not otherwise provided in the standard offering of courses. (Irreg.)
EDS 5003 School and Society
3 Credit Hours
Prerequisite: graduate standing. Presents overview of education as a profession based upon historical, sociological, and philosophical principles, including a treatment of current problems and affairs with specific attention given to multicultural phenomena. (Sp)

EDS 5023 Linguistic and Conceptual Analysis 3 Credit Hours
Prerequisite: Graduate standing. Study of the philosophical method, linguistic and conceptual analysis, as a means to achieve greater clarity and understanding of tactical and theoretical problems faced by educators. Students using philosophical analysis in their research may pursue the beginnings of that analysis in consultation with the instructor and other students in the course. (F, Sp)

## EDS 5633 Latina Feminist Epistemologies

3 Credit Hours
(Slashlisted with EDS 4633; Crosslisted with WGS 5633) Prerequisite: Graduate standing. This course explores the experiences of Chicanas and Latinas through the lens of contemporary research. Topics to be discussed include community formation and activism, Chicana/Latina feminism, sexuality, religion, health, family, immigration, migration, education, work, media, and artistic expressions. Readings emphasize the links between the structural inequalities of society and the day-to-day lived experiences of Chicanas/Latinas. No student may earn credit for both 4633 and 5633. (Irreg.)

## EDS 5703 Sociology of Education

3 Credit Hours
Prerequisite: eight hours of education or permission. Social structure in the community wherein the school must operate and the nature of human relations within the school; social processes and patterns involved in the educational system relative to other aspects of our society; and the effect of the school on the behavior and personality of its participants.

## EDS 5783 Classics in Educational Thought

3 Credit Hours
Prerequisite: graduate standing or permission of instructor. Close critical study of selected "classics" in educational thought by Plato, Rousseau, DuBois, Dewey, Woolf, or others of comparable historical significance for multicultural co-education throughout the human lifespan, in a context of social inequalities. Intensive written and oral practice in basic conceptual skills and informal logic will require independent inquiries on topics of special interest to students. (F)

## EDS 5823 Contemporary Critical Thought and Education Studies <br> 3 Credit Hours

Prerequisite: Graduate standing or permission of instructor. Close study of contemporary critical thought that has profoundly transformed recent theorizing about education and its various social, cultural, and economic contexts. Major texts selected from philosophical movements such as analysis, existentialism, Marxism, feminism, post-structuralism, and neopragmatism. Intensive oral and written practice in educational criticism and theory, developing case studies from primary sources. (Irreg.)

EDS 5833 Topics in Gender, Values, and Education 3 Credit Hours Prerequisite: Graduate standing or permission of instructor. May be repeated with change of content; maximum credit 6 hours. Topics vary each semester and are developed from philosophical studies in and about education, politics, ethics, aesthetics, law, and religion that address the issues of gender and sexuality. Intensive oral and written theoretical inquiry. (lrreg.)

EDS 5910 Practicum in Education--Master's
1-4 Credit Hours
1 to 4 hours. Prerequisite: graduate standing, permission of instructor and dean. May be repeated; maximum credit six hours. Variable as to title and subject profession. Provides field-type experience under faculty supervision and is designed to introduce the student to the practical application of theory within an environment in which professional practice takes place. Seminar experience is to be included. (Irreg.)

EDS 5913 Latinas/os and Education
3 Credit Hours
Prerequisite: Graduate standing. This class situates the Latina/o experience in U.S. schools within an understanding of the overall history of American Education by examining the complex educational, racial, and legal history of Latinas/os in the United States. Similarly, this course will examine current trends in the education of Latinas/os and the ways that educators (both researchers and practitioners) can better serve Latina/o students. (Irreg.)

EDS 5920 Internship in Education--Master's
-6 Credit Hours
1 to 6 hours. Prerequisite: 5910, permission of instructor. May be repeated; maximum credit six hours. Variable as to title and subject profession. Available to master's degree programs specifically requiring an internship in addition to thirty-two hours of other coursework as part of the degree. Introduces the student to the profession under the supervision of a practitioner whose credentials are equal to those of the graduate faculty. (Irreg.)

EDS 5933 Girls, Women, and Educational Studies 3 Credit Hours
Prerequisite: graduate standing or permission of instructor. History, sociology, and/or philosophy of girls' and women's education in a multicultural context that includes family, work, and community life as well as coeducational public schooling and higher education in the U.S. Oral and written critical inquiry concerning selected primary sources will introduce students to the activity of interdisciplinary theorizing about gender and sexuality in education. (F)

EDS 5940 Field Studies in Education
1-4 Credit Hours
1 to 4 hours. Prerequisite: twelve hours of education. May be repeated with change of subject matter; maximum credit eight hours. Practical problems in education as defined by members of the classes. Typical topics: defining educational objectives, relating school programs to established objectives, developing teaching-learning aids, organization for participation in developing and evaluating instructional programs, using community resources for learning, improving evaluation procedure. (Irreg.)

EDS 5943 History of Race and Education in Oklahoma 3 Credit Hours Prerequisite: graduate standing. Examines the history of race and education in Oklahoma, as well as the experiences of African Americans, Native Americans, and Latinas/os as they engaged in the creation and maintenance of schooling spaces, both prior to and proceeding from statehood. (F, Sp)

EDS 5960 Directed Readings
1-4 Credit Hours
1 to 4 hours. Prerequisite: twelve hours of education, approval of instructor, adviser and dean. May be repeated; maximum undergraduate credit eight hours; maximum graduate credit four hours. (Irreg.)

EDS 5970 Special Topics/Seminar 1-3 Credit Hours 1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

EDS 5980 Research for Master's Thesis
2-9 Credit Hours Variable enrollment, two to nine hours; maximum credit applicable toward degree, four hours. (F, Sp, Su)

EDS 5990 Independent Study
1-4 Credit Hours
1 to 4 hours. Prerequisite: graduate standing or permission by instructor. May be repeated with change of subject matter; maximum credit six hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/ or laboratory research and field projects. (Irreg.)

EDS 6010 Writing Educational Inquiry

## 1-3 Credit Hours

1 to 3 hours. Prerequisite: Graduate standing and enrollment in Educational Studies program. May be repeated with change of content; maximum credit 9 hours. Individual or group tutorial study of informal logic and rhetorical theory concerning academic writing as a social practice. Emphasis on contextually appropriate documentation practices, philosophical moves, and rhetorical devices, and development of clarity and grace in written formulations of educational concepts and values. Addresses various scholarly and professional situations. Aimed toward public presentation or publication. (F, Sp)

EDS 6033 Inquiry Design 3 Credit Hours
Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit six hours. An individual or small group tutorial focused exclusively on preparation of the dissertation or prospectus for interdisciplinary critical or theoretical inquiry in Historical, Philosophical, and Social Foundations in Education. (F)

## EDS 6723 Race and Representation in Educational

 Research
## 3 Credit Hours

Prerequisite: Graduate standing. This course examines the major tenets of Critical Race Theory (CRT) and the ways to expand its use in educational research. Students will develop a research project utilizing methodologies utilized in CRT/LatCrit/TribalCrit research projects, e.g., testimonies and storytelling. (Sp)
EDS 6763 Issues in Contemporary American Education 3 Credit Hours Prerequisite: graduate standing. Backgrounds of the contemporary American social scene with such issues as extension of educational opportunity; interrelationships between church, state, and school; changing economic concepts in the age of technology; purposes of education to social policy; federal aid to education; academic freedom.

## EDS 6793 History of U.S. Education

3 Credit Hours
Prerequisite: graduate standing. Development of schools in American society from colonial times to the present as set against the background of intellectual movements and changes from the colonial period to the present. Attention is given to the development of the organization, administration, finance and curriculum in the American public school system. Major concepts relating to the maintenance of a school in American society are considered; historical treatment of nativism, populism, empiricism, associationism, a person's relation to spiritual and national self, as these topics relate to the development of educational ideals and practices in American society. (Irreg.)
EDS 6910 Practicum in Education--Doctoral 1-6 Credit Hours 1 to 6 hours. Prerequisite: admission to doctoral program, permission of instructor. May be repeated; maximum credit six hours. Variable as to title and subject profession. An advanced practicum for post-master's level students only. The object is to provide professional experience under faculty supervision in fields requiring a high degree of professional skill. Seminar experience is to be included. (Irreg.)
EDS 6920 Internship in Education--Doctoral 2-6 Credit Hours 1 to 6 hours. Prerequisite: written permission of the instructor. May be repeated; maximum credit twelve hours. Variable as to title and subject profession. An advanced internship for post-master's level students only. The object of the internship is to cultivate within the student a high degree of proficiency and professional independence. Field supervision is by a practitioner whose credentials are equal to those of the graduate faculty. (Irreg.)

EDS 6930 Intensive Studies in Education
1-6 Credit Hours
1 to 6 hours. Prerequisite: twelve hours of education and permission of instructor. Repeatable with change of title and subject. Opportunity offered for professional educators and others interested in education, cooperatively, to seek solutions to educational problems. Organized groups work in curriculum, guidance, instruction, administration and supervision. Competent leadership and expert consultant service provided. (Irreg.)

## EDS 6933 Naturalistic and Qualitative Research in

## Education

## 3 Credit Hours

Prerequisite: graduate standing. Designed to familiarize graduate students in education with naturalistic research and qualitative methodologies. (Irreg.)

## EDS 6943 In-Depth Approaches to Qualitative Inquiry in Educational Research <br> 3 Credit Hours

Prerequisite: graduate standing. Students should have had some introduction to qualitative inquiry and research. Graduate students should produce a presentable conference paper and/or publishable article. In addition, students will teach their selected methodology while applying this methodology to their own study. Students will develop a deeper understanding of the philosophical congruence of students and other classmates' research projects. (F, Sp)
EDS 6960 Directed Readings
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit six hours. Directed readings and/or literature review under the direction of a faculty member. (Irreg.)

## EDS 6970 Post-Master's Seminar <br> 2-4 Credit Hours

2 to 4 hours. Prerequisite: master's degree, 24 hours of education, permission of instructor. May be repeated with change of subject matter; maximum credit twelve hours. Enrollment limited to students who hold the master's degree. (F, Sp, Su)
EDS 6973 Historical Research Methods in Education 3 Credit Hours Prerequisite: Graduate standing. Examines problems and methods of narrative research in education. Use of primary and secondary sources, evidence, generalization, interpretation, documentation, citation, and oral history are discussed. (F)

## EDS 6980 Research for Doctoral Dissertation <br> 2-16 Credit Hours

2 to 16 hours. Prerequisite: Graduate standing and permission of instructor; may be repeated. Directed research culminating in the completion of the doctoral dissertation. Maximum of 15 hours credit for the Ed.D. and 30 hours for the Ph.D. (F, Sp, Su)
EDS 6990 Individual Study in Education 1-4 Credit Hours
1 to 4 hours. Prerequisite: twelve hours of education, graduate standing and permission of the instructor. May be repeated with change of subject matter; maximum credit eight hours. For advanced graduate students who need to study some problem or area not adequately covered in the organized courses, under the direction of a staff member in whose area of specialization the problem lies. (Irreg.)

## Faculty

| Last Name | First/Middle <br> Name | Middle init. | OU <br> Service start | Title(s), date(s) appointed | Degrees Earned, Schools, Dates Completed |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Adams | Curt |  | 2007 | ASSOCIATE <br> PROFESSOR OF EDUCATIONAL LEADERSHIP AND POLICY STUDIES AT TULSA, 2013; LINDA CLARKE ANDERSON PRESIDENTIAL PROFESSOR, 2014 | PhD, Oklahoma State Univ, 2003; MS, Univ of Tulsa, 1999; BS, Univ of Tulsa, 1997 |
| Briscoe | Kaleb |  | 2023 | ASSISTANT <br> PROFESSOR, <br> ADULT AND HIGHER <br> EDUCATION <br> (AUGUST 2023) | Ph.D., Educational Leadership and Higher Education, Univ of Nebraska; M.S., Student Affairs and Higher Education, Indiana State Univ; MBA, Albany State Univ, GA; B.S., Business Marketing, Albany State Univ, GA |
| Choi | Junghee |  | 2022 | ASSISTANT <br> PROFESSOR, <br> ADULT AND HIGHER <br> EDUCATION <br> (AUGUST 2022) | Ph.D. Higher <br> Education, <br> Department <br> of Education <br> Policy Studies, <br> Pennsylvania State <br> University; Master of <br> Development Policy, <br> KDI School of Public <br> Policy \& Management <br> - Sejong, South Korea; <br> B.A., English, Korea <br> University - Seoul, <br> South Korea |
| Edwards | Beverly |  | 2006 | PROFESSOR OF EDUCATIONAL LEADERSHIP AND POLICY STUDIES AT TULSA, 2016 | PhD, Univ of Tulsa, 1994; MS, Northeastern State Univ; BS, Northeastern State Univ |
| Ford | Timothy | G | 2014 | ASSOCIATE <br> PROFESSOR OF <br> EDUCATIONAL <br> LEADERSHIP AND <br> POLICY STUDIES AT <br> TULSA, 2014 | PhD, Michigan State Univ, 2010; MA, Univ of Kansas, 2004; BS, Truman State Univ, 1998 |
| Frick | William | C | 2006 | ADJUNCT <br> ASSOCIATE <br> PROFESSOR OF <br> LIBERAL STUDIES, <br> 2013; RAINBOLT <br> FAMILY ENDOWED <br> EDUCATION <br> PRESIDENTIAL <br> PROFESSOR, 2016; <br> PROFESSOR OF <br> EDUCATIONAL <br> LEADERSHIP AND <br> POLICY STUDIES, <br> 2018 | PhD, Pennsylvania <br> State Univ, 2006; MS, <br> Bucknell Univ, 1997; <br> BS, Cairn Univ, 1989; <br> BA, Lycoming College, <br> 1988 |


| Frick | Ed |  | 2023 | ASSISTANT <br> PROFESSOR, <br> EDUCATIONAL <br> ADMINISTRATION <br> AND CURRICULUM <br> SUPERVISION <br> (AUGUST 2023) | Ed.D., Educational <br> Leadership and <br> Management, <br> Drexel Univ; M.S., <br> Educational <br> Administration, <br> Bucknell Univ; B.A., <br> History, Lycoming <br> College |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Guthery | Sarah |  | 2023 | ASSOCIATE <br> PROFESSOR, <br> EDUCATIONAL <br> ADMINISTRATION <br> AND CURRICULUM <br> SUPERVISION <br> (AUGUST 2023) | Ph.D., Education, Southern Methodist Univ; Post-Graduate Certification in Education (PGCE), Middlesex Univ, London, U.K.; B.A. in Economics, Colorado State Univ |
| Hamlin | Daniel | E | 2018 | ASSISTANT <br> PROFESSOR OF <br> EDUCATIONAL <br> LEADERSHIP AND <br> POLICY STUDIES AT <br> TULSA, 2018 | PhD, Univ of Toronto; MA, Sejong Univ; BA, Michigan State Univ |
| Lee | Hyunju |  |  | ASSISTANT <br> PROFESSOR, <br> EDUCATIONAL <br> STUDIES (AUGUST <br> 2023) | Ph.D., Educational <br> Policy and <br> Leadership Studies, <br> Univ of Iowa; MTS, <br> Interdisciplinary <br> Religious Studies, <br> Boston Univ; <br> M.A., Religious <br> Studies, Gordon- <br> Conwell Theological <br> Seminary; B.A., <br> Educational <br> Technology (Major) <br> and Korean Language <br> and Literature <br> (Minor), Ewha <br> Womans Univ, Seoul, <br> Korea |
| Lim | Doo Hun | H | 2008 | PROFESSOR OF <br> EDUCATIONAL <br> LEADERSHIP AND <br> POLICY STUDIES, <br> 2008 | PhD, Univ of Illinois, 1998; MEd, Univ of Illinois, 1995; BS, Sogang Univ, 1987 |
| Luevanos | Anthony |  | 2023 | ASSISTANT <br> PROFESSOR, <br> EDUCATIONAL <br> ADMINISTRATION <br> AND CURRICULUM <br> SUPERVISION <br> (AUGUST 2023) | Ph.D., Education In Ed. Administration, Texas A\&M Univ; Ph.D. Curriculum \& Instruction, Baylor Univ; M.S., Education In Ed. Administration, Baylor Univ; B.A., Spanish, Baylor Univ |
| Maiden | Jeffrey |  | 1994 | PROFESSOR OF EDUCATIONAL LEADERSHIP AND POLICY STUDIES, 2009; ADJUNCT PROFESSOR OF LIBERAL STUDIES, 2010 | PhD, Univ of Florida, 1994; MEd, Univ of Florida, 1990; BAEd, Univ of Florida, 1984 |


| Minthorn | Robin | 2023 | ELPS DEPARTMENT <br> CHAIR, PROFESSOR <br> OF ADULT AND <br> HIGHER EDUCATION | Ph.D., Educational Leadership, Higher Education and Public Policy, Oklahoma State University; MA, Adult and Higher Education, University of Oklahoma; B.A. Psychology, University of Oklahoma |
| :---: | :---: | :---: | :---: | :---: |
| Oxendine | Christy | 2023 | ASSISTANT <br> PROFESSOR, <br> EDUCATIONAL <br> STUDIES | Ph.D. Social and Cultural Studies, Iowa State University; MA, Student Affairs, Minnesota State University, Mankato and Theology, Emory University; B.A., East Carolina University |
| Sperling | Jenny | 2021 | ASSISTANT <br> PROFESSOR, <br> EDUCATIONAL <br> LEADERSHIP AND <br> POLICY STUDIES, $2021$ | Ph.D., Univ of California, Santa Barbara, 2021; M.A. Univ of California, Berkeley, 2015; B.A., Univ of California, Santa Barbara, 2011. |
| Springer | Daniel | 2023 | ASSISTANT <br> PROFESSOR, <br> ADULT AND HIGHER <br> EDUCATION <br> (AUGUST 2023) | Ph.D. Kinesiology, Emphasis in Sport Management, Texas A\&M Univ, College Station, TX; M.S., Educational Leadership, Oklahoma State Univ, Stillwater, OK; B.A. Philosophy, Texas A\&M Univ, College Station, TX |
| Youngbull | Natalie | 2019 | ASSISTANT <br> PROFESSOR, <br> EDUCATIONAL <br> LEADERSHIP AND <br> POLICY STUDIES | Ph.D., Higher <br> Education, University <br> of Arizona; MA, <br> Higher Education, <br> University of Arizona; <br> B.A., Psychology/ <br> Minor in Sociology, <br> University of <br> Oklahoma |
| Zumpe | Liz | 2023 | ASSISTANT <br> PROFESSOR, <br> EDUCATIONAL <br> ADMINISTRATION <br> AND CURRICULUM <br> SUPERVISION <br> (TULSA - JANUARY <br> 2023) | Ph.D., Policy \& Organizations, University of California, Berkley; MA, Education, University of California, Berkley; B.A., English, Oberlin College, Oberlin, Ohio |

## Adult \& Higher Education, M.Ed.

Minimum Total Hours (Non-Thesis): 36
Program Code: M005 Q019

- This program is Non-Thesis Only.

| Code | Title | Credit Hours |
| :---: | :---: | :---: |
| Required Courses |  |  |
| EDAH 5033 | Critical Literature in Adult and Higher Education | 3 |
| EDAH 5043 | Introduction to Research in Adult and Higher Education | 3 |
| EDAH 5013 | The Adult Learner | 3 |
| EDAH 5023 | Administration of Adult and Higher Education | 3 |
| Core Courses - Emphasis in Adult and Higher Education |  |  |
| Choose 15 hours from any EDAH designated courses |  | 15 |
| Electives |  |  |
| Choose 9 hours of any OU graduate-level coursework chosen with advisor and committee approval |  |  |
| Total Credit Hours |  | 36 |
| Note: Practical experiences are designed to provide students with opportunities to explore possible areas of professional interest. Unpaid practica are strongly recommended for students who have not had at least one year's experience working in the field of adult and higher education. |  |  |
| General Requirements for all Master's Degrees |  |  |
| The master's degree requires the equivalent of at least two semesters of satisfactory graduate work and additional work as may be prescribed for the degree. |  |  |
| All coursework applied to the master's degree must carry graduate credit. |  |  |
| Master's degree programs which require a thesis consist of at least 30 credit hours. All non-thesis master's degree programs require at least 30 credit hours. |  |  |
| Credit transferred from other institutions must meet specific criteria and is subject to certain limitations. |  |  |
| Courses completed through correspondence study may not be applied to the master's degree. |  |  |
| To qualify for a graduate degree, students must achieve an overall grade point average of 3.0 or higher in the degree program coursework and in all resident graduate coursework attempted. A student must also have at least a 3.0 in all coursework (including undergraduate coursework if any). |  |  |
| Additional information for master's degree students may be found in the Graduate College Bulletin. |  |  |
| Adult \& Higher Education: Intercollegiate |  |  |
| Athlet | ministration, M.Ed. |  |

Minimum Total Hours (Non-Thesis): 36

## Program Code: M005 Q377

- This program is Non-Thesis Only.

| Code | Title | Credit |
| :---: | :---: | :---: |
| Required Courses |  |  |
| EDAH 5013 | The Adult Learner | 3 |
| EDAH 5023 | Administration of Adult and Higher Education | 3 |
| EDAH 5033 | Critical Literature in Adult and Higher Education | 3 |
| EDAH 5043 | Introduction to Research in Adult and Higher Education | 3 |
| Core Courses - Emphasis in Intercollegiate Athletic Administration |  |  |
| Choose 12 hour Administration from the list of department (p. 1 | from the Intercollegiate Athletic ourses list, as approved by faculty advisor proved courses maintained in the 084) | 2 |
| Social Foundations IAA Concentration Requirement |  |  |
| Choose one cour | se from the following: ${ }^{1}$ | 3 |
| EDAH 5563 | Inclusive Praxis in Intercollegiate Athletics |  |
| EDAH 5633 | Gender in Intercollegiate Athletics |  |
| EDAH 5683 | Race \& Ethnicity in Intercollegiate Athletics |  |
| Electives |  |  |
| Choose 9 hours of any OU graduate-level courses approved by the student's IAA Faculty Advisor |  | 9 |
| Total Credit Hours |  | 36 |
| ${ }^{1}$ Students may take additional Social Foundations coursework, but only one will serve as the concentration requirement. |  |  |

## General Requirements for all Master's Degrees

The master's degree requires the equivalent of at least two semesters of satisfactory graduate work and additional work as may be prescribed for the degree.

All coursework applied to the master's degree must carry graduate credit.
Master's degree programs which require a thesis consist of at least 30 credit hours. All non-thesis master's degree programs require at least 30 credit hours.

Credit transferred from other institutions must meet specific criteria and is subject to certain limitations.

Courses completed through correspondence study may not be applied to the master's degree.

To qualify for a graduate degree, students must achieve an overall grade point average of 3.0 or higher in the degree program coursework and in all resident graduate coursework attempted. A student must also have at least a 3.0 in all coursework (including undergraduate coursework if any).

Additional information for master's degree students may be found in the Graduate College Bulletin.

## Intercollegiate Athletic Administration Course List

- For the most current course list, please contact the Department of Educational Leadership \& Policy Studies.

| Code | Title | Credit <br> Hours |
| :---: | :---: | :---: |
| EDAH 5273 | Athletics In Higher Education | 3 |
| EDAH 5613 | Ethical Decision Making in Intercollegiate Athletics Administration | 3 |
| EDAH 5623 | Marketing \& Development in Intercollegiate Athletics Administration | 3 |
| EDAH 5633 | Gender in Intercollegiate Athletics | 3 |
| EDAH 5653 | Academic Reform and Athletic Academic Advising | 3 |
| EDAH 5673 | Organization \& Administration of Intercollegiate Athletics Administration | 3 |
| EDAH 5683 | Race \& Ethnicity in Intercollegiate Athletics | 3 |
| EDAH 5693 | Professional Development in Intercollegiate Athletics | 3 |
| EDAH 5813 | NCAA Compliance I | 3 |
| EDAH 5823 | NCAA Compliance II | 3 |
| EDAH 5843 | Event and Facility Management in Intercollegiate Athletics Administration | 3 |
| EDAH 5853 | Best Practices in Contemporary Intercollegiate Athletics Student Support Services | 3 |
| EDAH 5863 | Licensing, Trademark Law and Fundraising in IAA | 3 |

## Education Administration - Curriculum \& Supervision Option, M.Ed.

Minimum Total Hours (Thesis): 34
Minimum Total Hours (Non-Thesis): 36
Program Code: M315 Q203 (M316 blended/online)

## Thesis Option

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Thesis Required Courses |  |  |
| EACS 5233 | The Organization of Education | 3 |
| EACS 5543 | School Level Instructional Leadership | 3 |
| EACS 5573 | Supervision of Instruction | 3 |
| EACS 5263 | Education and the Law | 3 |
| EACS 5980 | Research For Master'S Thesis | 4 |
| Thesis Core Courses |  |  |
| Foundation Core |  | 3 |
| Choose one of the following: |  |  |
| EDS 5703 | Sociology of Education |  |
| EDS 5913 | Latinas/os and Education |  |
| EDS 5933 | Girls, Women, and Educational Studies |  |


| EDS 6763 | Issues in Contemporary American Education |  |
| :---: | :---: | :---: |
| EDS 6793 | History of U.S. Education |  |
| Choose one of the following: |  | 3 |
| EIPT 5163 | (for elementary principals) |  |
| EIPT 5173 | (for secondary principals) |  |
| EIPT 5113 | Educational Psychology of Human Development |  |
| Research Course |  |  |
| Choose one course as approved by thesis advisor |  | 3 |
| Thesis Electives |  |  |
| Choose 9 hours of courses from the Electives list as approved by the graduate liaison and EACS advisor (p. 1085) |  | 9 |
| Total Credit Hours |  | 34 |
| Non-Thesis Option |  |  |
| Code | Title | Credit Hours |
| Non-Thesis Required Courses |  |  |
| EACS 5233 | The Organization of Education | 3 |
| EACS 5343 | Financial Leadership in the Schools | 3 |
| EACS 5543 | School Level Instructional Leadership | 3 |
| EACS 5403 | Inquiry for Performance Improvement | 3 |
| EACS 5573 | Supervision of Instruction | 3 |
| EACS 5263 | Education and the Law | 3 |
| EACS 5693 | Technology in Educational Administration | 3 |
| EACS 5333 | Politics in Educational Administration | 3 |
| EACS 5923 | Principal Internship | 3 |

## Non-Thesis Electives

Choose 9 hours of courses from the Electives list as approved 9 by the graduate liaison and EACS advisor (p. 1085)

## Total Credit Hours

Note: Students who successfully complete the non-thesis program are eligible for OU endorsement for principal certification in Oklahoma.

## General Requirements for all Master's Degrees

The master's degree requires the equivalent of at least two semesters of satisfactory graduate work and additional work as may be prescribed for the degree.

All coursework applied to the master's degree must carry graduate credit.
Master's degree programs which require a thesis consist of at least 30 credit hours. All non-thesis master's degree programs require at least 30 credit hours.

Credit transferred from other institutions must meet specific criteria and is subject to certain limitations.

Courses completed through correspondence study may not be applied to the master's degree.

To qualify for a graduate degree, students must achieve an overall grade point average of 3.0 or higher in the degree program coursework and in all resident graduate coursework attempted. A student must also have at least a 3.0 in all coursework (including undergraduate coursework if any).

Additional information for master's degree students may be found in the Graduate College Bulletin.

## Electives Course List

Electives may include the following courses; other electives may count if approved by the adviser.

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| EACS 5343 | Financial Leadership in the Schools | 3 |
| EACS 5593 | Principal Leadership | 3 |
| EACS 5623 | School and Staff Development | 3 |
|  | Management | 3 |
| EACS 5693 | Technology in Educational Administration | 3 |
| EACS 6123 | Administrative and Organizational Theory | 3 |
| EACS 6213 | Program Evaluation | 3 |
| EACS 6223 | Policy Planning and Development in | 3 |
|  | Education | 3 |
| EACS 6253 | Financing Education | 3 |
| EACS 6263 | Educational and Community Relations | $2-4$ |

## Educational Studies, M.Ed.

Minimum Total Hours (Thesis): 33
Minimum Total Hours (Non-Thesis): 33
Program Code: M330
Thesis Option
Code Title Credit

## Required Courses

| EDS 6793 | History of U.S. Education | 3 |
| :---: | :---: | :---: |
| or EDS 5943 | History of Race and Education in Oklahoma |  |
| EDS 5783 or EDS 5753 | Classics in Educational Thought | 3 |
| $\begin{aligned} & \text { EDS } 5703 \\ & \text { or EDS } 5913 \end{aligned}$ | Sociology of Education Latinas/os and Education | 3 |
| Core Courses |  |  |
| Choose two or m | re of the following: | 6 |
| EDS 5823 | Contemporary Critical Thought and Education Studies |  |
| EDS 5833 | Topics in Gender, Values, and Education |  |
| EDS 5933 | Girls, Women, and Educational Studies |  |
| EDS 6933 | Naturalistic and Qualitative Research in Education |  |
| EDS 6973 | Historical Research Methods in Education |  |
| Thesis Research |  |  |
| EDS 5980 | Research for Master's Thesis | 2-5 |
| Electives |  |  |

Choose 13-16 hours from education, research, anthropology, history, history of science, literature, foreign language, philosophy, sociology, human relations, English, or psychology

## Total Credit Hours

## Non-Thesis Option

| Code | Title | Credit <br> Hours |
| :---: | :---: | :---: |
| Required Courses |  |  |
| $\begin{aligned} & \text { EDS } 6793 \\ & \text { or EDS } 5943 \end{aligned}$ | History of U.S. Education <br> History of Race and Education in Oklahoma | 3 |
| $\begin{aligned} & \text { EDS } 5783 \\ & \quad \text { or EDS } 5753 \end{aligned}$ | Classics in Educational Thought | 3 |
| EDS 5703 or EDS 5913 | Sociology of Education Latinas/os and Education | 3 |
| Core Courses |  |  |
| Choose two or | re of the following: | 6 |
| EDS 5823 | Contemporary Critical Thought and Education Studies |  |
| EDS 5833 | Topics in Gender, Values, and Education |  |
| EDS 5933 | Girls, Women, and Educational Studies |  |
| EDS 6933 | Naturalistic and Qualitative Research in Education |  |
| EDS 6973 | Historical Research Methods in Education |  |
| Electives |  |  |
| Choose 18 hours history, history o philosophy, socio | from education, research, anthropology, science, literature, foreign language, ogy, human relations, English, or psychology | 18 |

Total Credit Hours

## General Requirements for all Master's Degrees

The master's degree requires the equivalent of at least two semesters of satisfactory graduate work and additional work as may be prescribed for the degree.

All coursework applied to the master's degree must carry graduate credit.
Master's degree programs which require a thesis consist of at least 30 credit hours. All non-thesis master's degree programs require at least 30 credit hours.

Credit transferred from other institutions must meet specific criteria and is subject to certain limitations.

Courses completed through correspondence study may not be applied to the master's degree.

To qualify for a graduate degree, students must achieve an overall grade point average of 3.0 or higher in the degree program coursework and in all resident graduate coursework attempted. A student must also have at least a 3.0 in all coursework (including undergraduate coursework if any).

Additional information for master's degree students may be found in the Graduate College Bulletin.
${ }^{13 \cdot 16}$ College Teaching Certificate, Graduate Certificate

Minimum Total Hours: 12
Program Code: G026
The certificate is designed to prepare graduate students for highereducation teaching. Through the coursework, participation in the Graduate Teaching Academy, and through teaching or practicum experiences, students will learn and apply the pedagogical and institutional knowledge necessary for successful teaching and student learning. Each component of the certificate is designed with one of these goals in mind by offering direct instruction, group discussion, direct observation, and mentor relationships.

## Certificate Requirements

| Code | Title | Credit |
| :---: | :---: | :---: |
| EDAH 5103 | Instructional Strategies in Adult and Higher Education | 3 |
| EDAH 5910 | Practicum in Education--Master's (3 hours) 1 | 3 |
| Choose 2 courses | from the following: | 6 |
| EDAH 5133 | American Community/Junior College |  |
| EDAH 5153 | Legal Aspects Of Higher Education |  |
| EDAH 5163 | Diversity Issues in Higher Education |  |
| EDAH 5213 | History of American Higher Education |  |
| EDAH 5223 | Foundations of Student Affairs in Higher Education |  |
| EDAH 5243 | Financial Management In Higher Education |  |
| EDAH 5253 | Institutional Research In Higher Education |  |
| EDAH 5263 | Planning In Higher Education |  |
| EDAH 5333 | Program Planning For The Adult Learner |  |

Total Credit Hours
${ }^{1}$ EDAH 5910 Practicum is waived for students with prior college-level teaching experience. The Practicum hours must be replaced with a third course from the approved list.

A graduate certificate is not a graduate degree. A graduate degree represents a program of independent inquiry beyond the depth of coursework alone, while a graduate certificate represents a set of courses only.

- All courses must be taken at OU. No transfer credit will apply.
- No course substitutions are permitted for graduate certificates.
- Coursework applied to a graduate certificate cannot be more than five years old as of the semester the graduate certificate is awarded.
- Students must earn a grade point average of 3.00 or higher on all coursework applied to the graduate certificate.


## Adult \& Higher Education, Ph.D.

Minimum Total Hours: 90

Program Code: D005

## Program Requirements

| Code Title | Credit Hours |
| :---: | :---: |
| Introduction to Doctoral Research (1 course, 3 hours) |  |
| $\begin{array}{ll}\text { EDAH } 6013 & \text { Pro Seminar. Foundations of Research in } \\ & \text { Adult and Higher Education }\end{array}$ | 3 |
| Quantitative Data Analysis (2 courses, 6 hours) |  |
| A two course sequence approved by the student's doctoral advisory committee | 6 |
| Qualitative Research Methods \& Data Analysis (2 courses, 6 hours) |  |
| A two course sequence approved by the student's doctoral advisory committee | 6 |
| Advanced Research Methods (1 course, 3 hours) |  |
| One course approved by the student's doctoral advisory committee | 3 |
| Higher Education Core Courses (3 courses, 9 hours) |  |
| EDAH 5013 The Adult Learner | 3 |
| EDAH 5023 Administration of Adult and Higher | 3 |
| EDAH 5033 Critical Literature in Adult and Higher | 3 |
| Prospectus Development (1 course, 3 hours) |  |
| EDAH 6813 Prospectus Development | 3 |
| Dissertation Research (2 hours minimum, 15 hours maximum) |  |
| EDAH 6980 Research for Doctoral Dissertation | 2-15 |
| Elective Hours (45-58 hours) |  |
| 45-58 hours, including Master's transfer credits, as approved by student's doctoral advisory committee | 45-58 |

## Total Credit Hours

## General Requirements for Doctoral Degrees

A student should expect to spend at least the equivalent of three full academic years beyond the bachelor's degree to obtain the doctoral degree. During this period the student will take appropriate graduate coursework, successfully complete the general examination, and successfully defend and submit the final dissertation.

All coursework applied to the doctoral degree must carry graduate credit.
The doctoral degree requires at least 90 post-baccalaureate hours, including both formal coursework and hours of research.

The minimum hour requirement for a specific doctoral degree program cannot be waived.

No more than one-half of the credit hours, both OU and overall, excluding Research for Doctoral Dissertation (6980), may be S/U-graded coursework.

The student must be in residence at OU for at least two consecutive 16week semesters during the pursuit of the doctoral degree while enrolled and engaged in coursework or research activities as prescribed by the major academic unit.

For more detailed regulations and requirements for Doctoral degrees, please consult the Graduate College Bulletin: http://www.ou.edu/ gradcollege/forms/bulletin

# Education Administration - Curriculum/ Supervision Option, Ed.D. 

Minimum Total Hours: 84-90
Program Code: D317 (D318 Online)

## Program Requirements

| Code | Title | Credit |
| :---: | :---: | :---: |
| Common Core - Core Coursework (6 hours) |  |  |
| EACS 6103 | Visionary Leadership in Education | 3 |
| EACS 6263 | Educational and Community Relations | 3 |
| Common Core - Research Tools (18 hours) |  |  |
| EACS 6713 | Pro Seminar | 3 |
| EACS 6023 | Applied Quantitative Research Methods in Educational Administration | 3 |
| EACS 6133 | Qualitative Inquiry for Practitioners | 3 |
| EACS 6213 | Program Evaluation | 3 |
| EACS 6673 | Advanced Inquiry | 3 |
| EACS 6813 | Prospectus Development | 3 |
| Concentration Coursework (21-24 hours) |  |  |
| 21-24 hours graduate-lev doctoral com | ending on concentration selected) of ursework as approved by the student's ee ( p .1087 ) | 21-24 |

## Additional Hours (minimum 3 hours)

Pick at least 1 course ( 3 hours, Standard and Educational 3-42 Leadership concentrations) or 2 courses ( 6 hours, Higher Education Leadership concentration) from a list maintained by the academic unit and approved by the Graduate College. Additional electives and transfer credit (including from a completed master's degree) as approved by the doctoral advisory committee as needed to complete 84-90 hours beyond the baccalaureate degree may also count. ${ }^{1}$
Dissertation Research (3 hours minimum, 15 hours maximum)

| EACS 6980 | Research for Doctoral Dissertation | 3-15 |
| :--- | ---: | ---: |
| Total Credit Hours | $\mathbf{8 4 - 9 0}$ |  |

1 Students in the on-campus concentration (D317 R155) must complete 90 hours minimum for the degree.
Students in the online concentrations (D318 R200 or D318 R333) must complete 84-90 hours minimum for the degree.

## Concentration Coursework

Curriculum/Supervision (Standard) - Major Code: D317 R155
This concentration requires 22 hours of specific coursework:

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| EACS 6203 | Instructional Leadership in Educational | 3 |
|  | Administration |  |
| EACS 6693 | Educational Technology Leadership | 3 |
| EACS 6663 | Special Education Law | 3 |
| EACS 6303 | Strategic and Financial Planning in <br>  <br> Education | 3 |
| EACS 6503 | Ethics in Educational Administration | 3 |
| EACS 6970 | Post-Master's Seminar (Topic: Readings for <br> Prospectus) | 3 |
| EACS 6920 | Internship in Education--Doctoral (Topic: <br> Superintendent Internship) | 4 |

Total Credit Hours

## Educational Leadership (OL) - MAJOR CODE: D318 R200

This concentration requires 24 or more hours of specific coursework:

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| EACS 6303 | Strategic and Financial Planning in <br> Education | 3 |
| EACS 6203 | Instructional Leadership in Educational <br> Administration | 3 |
| EACS 6970 | Post-Master's Seminar (Topic: Readings for <br> Prospectus) | 3 |
| EDUC 6113 | Theoretical Paradigms in Educational <br> Research | 3 |
| EACS 6663 | Special Education Law <br> EACS 6920 | Internship in Education--Doctoral (Topic: <br> Superintendent Internship taken 3 hrs for <br> two semesters) |
| EDUC 6223 | Dissertation Development \& Advisory (may <br> be repeated) | 3 |

Total Credit Hours

## Higher Education Leadership (OL) - MAJOR CODE: D318 R333

| Code | Title | Credit |
| :---: | :---: | :---: |
| EACS 6303 | Strategic and Financial Planning in Education | 3 |
| EDAH 5023 | Administration of Adult and Higher Education | 3 |
| EACS 6970 | Post-Master's Seminar (Topic: Readings for Prospectus) | 3 |
| EDUC 6113 | Theoretical Paradigms in Educational Research | 3 |
| EDAH 5173 | Leadership and Administration in Student Affairs | 3 |
| EDAH 5033 | Critical Literature in Adult and Higher Education | 3 |

## EDUC 6223

Dissertation Development \& Advisory (may be repeated)

Total Credit Hours

## General Requirements for Doctoral Degrees

A student should expect to spend at least the equivalent of three full academic years beyond the bachelor's degree to obtain the doctoral degree. During this period the student will take appropriate graduate coursework, successfully complete the general examination, and successfully defend and submit the final dissertation.

All coursework applied to the doctoral degree must carry graduate credit.
The doctoral degree requires at least 90 post-baccalaureate hours, including both formal coursework and hours of research.

The minimum hour requirement for a specific doctoral degree program cannot be waived

No more than one-half of the credit hours, both OU and overall, excluding Research for Doctoral Dissertation (6980), may be S/U-graded coursework.

The student must be in residence at OU for at least two consecutive 16week semesters during the pursuit of the doctoral degree while enrolled and engaged in coursework or research activities as prescribed by the major academic unit

For more detailed regulations and requirements for Doctoral degrees, please consult the Graduate College Bulletin: http://www.ou.edu/ gradcollege/forms/bulletin

## Curriculum/Supervision, Ed.D. Elective Course Lists

- For the most current list of approved electives, please consult the Department of Educational Leadership and Policy Studies.


## Curriculum/Supervision (Standard) Concentration

| Code | Title | Credit |
| :---: | :---: | :---: |
| EACS 5333 | Politics in Educational Administration | 3 |
| EACS 6123 | Administrative and Organizational Theory | 3 |
| EACS 6223 | Policy Planning and Development in Education | 3 |
| EACS 6253 | Financing Education | 3 |
| EACS 6553 | Profiles in Leadership | 3 |
| EACS 6970 | Post-Master's Seminar (Topics: History and Philosophy of Education, Mixed Methods Research) | 2-4 |
| EDUC 6113 | Theoretical Paradigms in Educational Research | 3 |
| EDUC 6222 | Dissertation Development \& Advisory | 2 |



## Higher Education Leadership (OL) Concentration

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| EACS 5333 | Politics in Educational Administration | 3 |
| EACS 6123 | Administrative and Organizational Theory | 3 |
| EACS 6203 | Instructional Leadership in Educational | 3 |
|  | Administration |  |
| EACS 6223 | Policy Planning and Development in | 3 |
| EACS 6253 | Education | 3 |
| EACS 6503 | Ethics in Educational Administration | 3 |
| EACS 6553 | Profiles in Leadership | 3 |
| EACS 6693 | Educational Technology Leadership | 3 |
| EACS 6970 | Post-Master's Seminar (Topics: History and | $2-4$ |
|  | Philosophy of Education, Mixed Methods |  |
| EDAH 5163 | Research) | 3 |
| EDAH 5970 | Special Topics/Seminar (Topics: MSIs, | $1-3$ |
|  | Minority Serving Institutions) | 3 |

# Education Administration - Curriculum/ Supervision Option, Ph.D. 

Minimum Total Hours: 95
Program Code: D315

## Program Requirements

| Code | Title | Credit <br> Hours |
| :--- | ---: | ---: |
|  |  | 18 |
| 9 credit hours in the Major Area of Emphasis | 9 |  |
| EACS 6970 | Post-Master's Seminar | 3 |
| or EDS 6970 | Post-Master's Seminar | 3 |
| EIPT 5023 | Analysis of Quantitative Data I |  |


| EIPT 6023 | Analysis of Quantitative Data II | 3 |
| :---: | :---: | :---: |
| 2 Qualitative Rese approved by the | earch Methods courses (6 hours) as ommittee ${ }^{1}$ | 6 |
| EDAH/EACS/EDS $6970$ | Post-Master's Seminar (Title: Prospectus Development) | 3 |
| Additional research or mixed methods) | methods course (qualitative, quantitative, ) ${ }^{1}$ | 3 |
| EACS 6980 | Research for Doctoral Dissertation (15 hours maximum) | 2-15 |
| Additional electiv baccalaureate hour committee ${ }^{2}$ | e coursework to reach 95 posturs, as approved by doctoral advisory | 32-45 |
| Total Credit Hours |  | 95 |
| ${ }^{1}$ Required research courses from the Doctor of Education (Ed.D.) degree in EACS may NOT be used to fulfill these requirements. <br> 2 Includes applicable master's and post-master's credit hours. |  |  |

## General Requirements for Doctoral Degrees

A student should expect to spend at least the equivalent of three full academic years beyond the bachelor's degree to obtain the doctoral degree. During this period the student will take appropriate graduate coursework, successfully complete the general examination, and successfully defend and submit the final dissertation.

All coursework applied to the doctoral degree must carry graduate credit.
The doctoral degree requires at least 90 post-baccalaureate hours, including both formal coursework and hours of research.

The minimum hour requirement for a specific doctoral degree program cannot be waived.

No more than one-half of the credit hours, both OU and overall, excluding Research for Doctoral Dissertation (6980), may be $S / U$-graded coursework.

The student must be in residence at OU for at least two consecutive 16week semesters during the pursuit of the doctoral degree while enrolled and engaged in coursework or research activities as prescribed by the major academic unit.

For more detailed regulations and requirements for Doctoral degrees, please consult the Graduate College Bulletin: http://www.ou.edu/ gradcollege/forms/bulletin

## Educational Studies, Ph.D.

Minimum Total Hours: 90
Program Code: D330

## Program Requirements

| Code $\quad$ Title | Credit <br> Hours |
| :--- | ---: |
| Foundational Core (9 hours minimum) |  |
| Interdisciplinary Educational Studies or Philosophy of Education |  |
| Choose one of the following courses: | 3 |


| EDS 5003 | School and Society |  |
| :---: | :---: | :---: |
| EDS 5033 |  |  |
| EDS 5753 |  |  |
| EDS 5783 | Classics in Educational Thought |  |
| History of Education |  |  |
| EDS 5943 or EDS 6793 | History of Race and Education in Oklahoma History of U.S. Education | 3 |
| Sociology of Education |  |  |
| $\begin{aligned} & \text { EDS } 5703 \\ & \quad \text { or EDS } 5913 \end{aligned}$ | Sociology of Education Latinas/os and Education | 3 |
| Major Coursework (12 hours minimum) |  |  |
| 12 hours (minimum) in one of the following areas: Interdisciplinary Educational Studies (with a specified topical focus), Philosophy of Education, History of Education, Sociology of Education. ${ }^{1}$ |  |  |
| Minor Coursework (9 hours) |  |  |
| 9 hours minimum in any field(s) (such as an applied, disciplinary, or interdisciplinary specialty) directly relevant to the topical focus of the major and of the dissertation. ${ }^{2}$ |  |  |
| Research Proficiencies |  |  |
| Approaches to Educational Inquiry (9 hours, minimum) |  |  |
| Choose at least 3 courses from the following: ${ }^{3}$ |  | 9 |
| EDS 5023 | Linguistic and Conceptual Analysis |  |
| EIPT 5033 | Introduction to Research and Evaluation in Education |  |
| EDS 6010 | Writing Educational Inquiry |  |
| EDS 6723 | Race and Representation in Educational Research |  |
| EDS 6933 | Naturalistic and Qualitative Research in Education |  |
| EDS 6970 | Post-Master's Seminar (Topic: ProSeminar) |  |
| EDS 6970 | Post-Master's Seminar (topic: Advanced Qualitative Inquiry in Education) |  |
| EDS 6973 | Historical Research Methods in Education |  |
| Plans for Dissertation Inquiry (3 hours, minimum) |  |  |
| EDAH/EACS 6970 Post-Master's Seminar (with topic: <br> Prospectus Development) <br> or EDS 6033 Inquiry Design |  |  |

Dissertation Research (6 hours minimum, 15 hours
maximum)
EDS 6980 Research for Doctoral Dissertation
Additional Coursework
Remaining graduate-level hours to bring degree total to 90 .
May include master's credit, additional electives or other coursework.

## Total Credit Hours

${ }^{1}$ At least 9 hours of the Major must consist of EDS courses, but neither Foundational Core coursework nor Research Proficiencies coursework may count toward the Major.
${ }^{2}$ Neither Foundational Core coursework nor Research Proficiencies coursework may count toward the Minor. Students are encouraged to complete their minor outside of Educational Studies.
${ }^{3}$ When deemed appropriate to the dissertation by the Advisory Committee, a student may substitute for one of these courses a more
appropriate research course from any of the following academic units: Anthropology, Communication, Educational Psychology, English, Fine Arts, History, Philosophy, Political Science, or Sociology.

## General Requirements for Doctoral Degrees

A student should expect to spend at least the equivalent of three full academic years beyond the bachelor's degree to obtain the doctoral degree. During this period the student will take appropriate graduate coursework, successfully complete the general examination, and successfully defend and submit the final dissertation.

All coursework applied to the doctoral degree must carry graduate credit.
The doctoral degree requires at least 90 post-baccalaureate hours, including both formal coursework and hours of research.

The minimum hour requirement for a specific doctoral degree program cannot be waived.

No more than one-half of the credit hours, both OU and overall, excluding Research for Doctoral Dissertation (6980), may be S/U-graded coursework.

The student must be in residence at OU for at least two consecutive 16week semesters during the pursuit of the doctoral degree while enrolled and engaged in coursework or research activities as prescribed by the major academic unit.

For more detailed regulations and requirements for Doctoral degrees, please consult the Graduate College Bulletin: http://www.ou.edu/ gradcollege/forms/bulletin

# Department of Educational Psychology 

Maeghan Hennessey, Department Chair
321 Ellsworth Collings Hall
820 Van Vleet Oval
Norman, OK 73019-2041
Phone: (405) 325-5974
FAX: (405) 325-6655
edpsych@ou.edu
https://www.ou.edu/education/academics/educational-psychology

## General Information

The Educational Psychology department is committed to developing and disseminating new knowledge through research and scholarly activity, delivering quality instruction and professional training, and pursuing research and training opportunities at the junctures of the disciplines within the department.

## Research

Faculty members in the Department of Educational Psychology are active researchers. Examples of the topics under investigation in each of the program areas are listed below.

## Learning Experience Design and Technology

The LXDT program is designed to prepare students for roles such as learning/instructional designers and developers, instructional design consultants, learning experience designers, educational technologists,
trainers, curriculum developers, project managers, researchers, and more. Areas of research include instructional design, scaffolding problem solving with technology, visual literacy, and many other areas in multiple contests such P-12 schools, higher education institutions, business, industry, healthcare, government, and military.

## Professional Counseling

The guiding philosophy, goals, policies, and practices of the Professional Counseling Program are shaped by its central commitment: To develop socially-conscious professionals, facilitate a community of belonging, and engage in community-focused, ecologically sensitive research and practice. The Professional Counseling Program is committed to developing and disseminating knowledge through research and scholarly activity, delivering quality instruction and professional training to prepare students at the master's level in clinical mental counseling, school counseling, and addictions counseling to work as practitioners in a variety of settings including community mental health agencies and schools.

## Science of Psychology, Data, and Research in Education

The Science of Psychology, Data, and Research in Education program bridges the fields of educational psychology, research design, and data analytics to integrate theoretical perspectives, practical knowledge and deep understanding of research methodology necessary to successfully conduct independent research in a variety of fields and contexts. Areas of research include factors that influence student motivation and engagement in learning, teacher professional development, the development of expertise, and many other areas in multiple contexts (i.g., $\mathrm{P}-12$ schools, institutions of higher education, museums, workplaces, non-profits).

## Special Education

The Special Education program seeks to improve educational and community living outcomes for people with disabilities and their families through the development and dissemination of new knowledge, the provision of high-quality educational experiences related to personnel preparation, and a commitment to provide service and leadership to the field of education. Areas of research include academic achievement, behavioral supports, and post-secondary outcomes for students with exceptionalities.

## Programs \& Facilities

## Zarrow Institute on Transition and Self-Determination

The Zarrow Institute on Transition and Self-Determination implements innovative research, puts findings into practice, and disseminates knowledge through high-quality products and professional development. An endowment from the Zarrow Family Foundation of Tulsa established the Zarrow Institute in 2000.

Under the Zarrow Institute, the Sooner Works program is a four-year comprehensive integrated program for students with an intellectual or developmental disability who desire a postsecondary experience on a college campus. Students in Sooner Works live on campus and take traditional university courses in conjunction with courses specific to Sooner Works. In addition, students participate in internships and social organizations on the beautiful University of Oklahoma campus.

## Undergraduate Study

The Special Education, Bachelor of Science (p. 1105) program prepares students to become teachers certified to instruct students with mild and moderate disabilities.

## Graduate Study

## Master of Education

## Admission Requirements

Admission to study for the master's degree in education requires a grade point average of 3.00 in the last 60 hours of undergraduate study. Additional requirements in some areas are determined by area faculty.

Prospective students are encouraged to consult the Department of Educational Psychology Graduate Student Handbook for information about program availability, and college and departmental requirements. In addition, the section of the Graduate Bulletin, which describes the procedures and requirements for graduate study at the University, should be reviewed and kept as a reference.

## Requirements for the Master's Degree

Applicants for programs leading to the degree of Master of Education must present a bachelor's degree in an appropriate field from an accredited college or university. A student must complete work within six calendar years after the student's first graduate enrollment at the University of Oklahoma.

Depending on program area, a written examination is required and thesis, non-thesis, or special project options may be applicable.

The program for the master's degree includes intensive preparation for a specialized type of educational or professional responsibility with study in associated fields. The exact pattern of the program will be determined after consultation with the advisor. The student should check with the program area for specific course requirements.

The specific requirements of each program are tailored to provide excellence of preparation in the field of practice.

## Learning Experience Design and Technology

The Master of Science Program in Learning Experience Design and Technology prepares graduate students to be leaders in the field of learning design and technology in this digital age. They will play various roles (e.g., instructional designers, instructional design consultants, learning experience designers, educational technologists/coaches, curriculum developers, and trainers) in various contexts, such as K-12 schools, higher education institutions, business, industry, healthcare, government, and military.

> - Learning Experience Design and Technology, Master of Science (p. 1109)

## Professional Counseling

The Professional Counseling Program offers a CACREP-accredited 60credit hour clinical professional counseling track that meets the state of Oklahoma LPC requirements. A 15-hour Drug and Alcohol counseling certificate and a 15 -hour School Counseling certificate can be pursued independently or serve as a concentration in the Clinical Professional Counseling Program. The primary training goals are to facilitate student integration of counseling theory, research and practice, to cultivate an understanding of the mutual influences of practice and science, and to foster the development and appreciation of holistic counseling skills.

- Clinical Professional Counseling, Master of Education (p. 1108)


## Science of Psychology, Data, and Research in Education

The Science of Psychology, Data, and Research in Education program bridges the fields of educational psychology, research design, and data analytics. We seek to introduce students to cutting edge theoretical
and methodological frameworks to make an impact in a wide array of educational contexts. The program prepares students for a range of careers that may include higher education faculty and/or administration, program evaluation and psychological test development, and research design and data analysis within educational or business settings. Students in the program learn about cognition and motivation, the psychology of learning, quantitative and qualitative research methodologies, and measurement and assessment.

- Science of Psychology, Data, and Research in Education, Master of Science (p. 1110)


## Special Education

The Special Education, Master of Education program is designed to prepare master educators to meet the needs of individuals with disabilities in schools and other natural environments. It is possible to complete special education teacher certification requirements while working towards the M.Ed. degree. Graduates of the program typically assume positions as teachers or administrators of programs serving individuals with disabilities. Students have the opportunity to work closely with nationally recognized faculty and develop a support network of professional colleagues as they become master educators.

- Special Education, Master of Education (p. 1110)


## Graduate Certificates

- Applications of Educational Research and Evaluation (p. 1111)
- Applied Behavior Analysis (p. 1112)
- Drug \& Alcohol Counseling (p. 1112)
- Fundamentals of Special Education (p. 1112)
- Learning Design and Technology (p. 1113)
- Secondary Transition Education Specialist (p. 1113)
- School Counseling (p. 1113)


## Doctoral Programs

Educational Psychology Doctoral Programs are designed for present and prospective administrative, service and faculty positions in colleges and universities, public schools, and other education and training agencies in government and the private sector. Doctoral programs exist in the areas of Learning Experience Design and Technology (p. 1114), Science of Psychology, Data, and Research in Education (p. 1114), and Special Education (p. 1115).

Admission to doctoral study in the department requires a minimum 3.25 grade point average on all graduate work attempted. Applicants present Graduate Record Examination general test scores (Verbal, Quantitative, and Analytic), which is optional for some programs and are used along with other data as a basis for admission. Programs may impose admission requirements in addition to those set by the Graduate College and the department. The program area coordinator should be consulted for special program application requirements, and for annual admission application deadlines. A TOEFL of 550 or better is required for international students.

An advisory committee will be appointed by the graduate dean upon recommendation from the student's area and the department chair and/ or graduate studies committee in consultation with the student. The advisory committee will consist of a chairperson from the student's major field, at least one faculty representative outside the Department of Educational Psychology and other members to total at least four. The Graduate College Representative should be a regular graduate faculty
member at the University of Oklahoma Norman campus. The advisory conference will determine the program of study that must be completed to qualify for the degree.

Upon completion of the majority of required coursework (exclusive of dissertation), the student must complete the General Examination. Prior to attempting the General Examination, a student must demonstrate proficiency in research methods. For more detailed descriptions of research proficiency procedures, contact the graduate liaison in the department. The student must also meet all relevant requirements of the Graduate College, as well as those of the student's individual program area.

The candidate is expected to complete all degree requirements within five years after the General Examinations. Failure to accomplish this may require the candidate to retake the General Examination.

Prospective students are encouraged to consult the Department of Educational Psychology Graduate Student Handbook for information about program availability, and college and departmental requirements. In addition, the section of the Graduate Bulletin, which describes the procedures and requirements for graduate study at the University, should be reviewed and kept as a reference.

## Courses

## EDPC G4413 Introduction to Counseling

3 Credit Hours
Prerequisite: Senior standing or permission of instructor; Majors only. Topics covered include development of the counseling and guidance profession, various approaches and techniques employed in counseling, the work of the counselor in various settings, and an introduction to basic theoretical and philosophical positions in counseling and guidance. (F, Sp )

## EDPC 4970 Special Topics/Seminar

1-3 Credit Hours
1 to 3 hours. Prerequisite: senior standing or permission of instructor. May be repeated with change of content; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)
EDPC 5113 Human Development
3 Credit Hours
Prerequisite: Admission to Professional Counseling M.Ed. program or permission of instructor. An introductory survey of current theory and research as it applies to human development across the lifespan. Emphases include cognitive and language development, self and social development, and contextual influences on development. Particular focus will be on human development as related to counseling. (F)

EDPC 5253 Assessment in Counseling 3 Credit Hours
Prerequisite: admission to Professional Counseling, M.Ed. program or permission of instructor. Theories of personality and intelligence testing will be discussed. Students will gain knowledge and experience in administering, scoring, and interpreting personality tests and in interpreting intelligence tests with an emphasis on the Wechsler scales. (F)

EDPC 5263 Professional Issues and Ethics in Counseling 3 Credit Hours Prerequisite: Must be admitted to masters program in Professional Counseling. This course introduces graduate students in counseling to professional, legal and ethical issues in professional counseling. The course reviews literature and covers topics pertaining to counseling, supervision, teaching, and research, with special focus on areas that are most important and most current in the field. (Sp)

EDPC 5413 Occupational Information--Career Development 3 Credit Hours
Prerequisite: admission to Professional Counseling, M.Ed. program or Counseling Psychology, Ph.D. program, or permission of instructor. Methods of preparing informational files for student use; nature of educational and occupational information, job classification, sources of information, and occupational surveys and trends. Theories of career development; techniques of job and occupational analysis; individual experiences of reporting client career development. (F)
EDPC 5423 Methods and Techniques of Counseling 3 Credit Hours Prerequisite: admission to Professional Counseling, M.Ed. program or Counseling Psychology, Ph.D. program, or permission of instructor. Introduction to stages in the counseling process; interviewing skills; counseling objectives; appropriate strategies. Common theories of counseling and psychotherapy and ethical considerations are considered. (Su)

## EDPC 5433 Theories and Techniques of Group Counseling 3 Credit

## Hours

Prerequisite: admission to Professional Counseling, M.Ed. program or Counseling Psychology, Ph.D. program. Introduction to types of groups, group development, group leadership, and group dynamics with an emphasis on counseling groups. Includes experiential training in group work. (Su)

## EDPC 5443 Family Systems Theory

3 Credit Hours
Prerequisite: Admission to Professional Counseling M.Ed. program (M216). An introduction to family counseling and therapy as one of the approaches to dealing with interpersonal conflict. The focus of the course is to introduce a scientific paradigm for family systems and counseling and to use a competency-based approach to intervention that is consistent with current guidelines. Assessment approaches are also discussed. (F)
EDPC 5453 Social \& Cultural Diversity 3 Credit Hours Prerequisite: Admission to Professional Counseling M.Ed. program (M216). Focuses on increasing understanding of and sensitivity regarding cognitive aspects, discourses, political realities, and issues of awareness in various minority groups, including issues related to cultural values and spirituality. Methods for increasing multicultural communication and social justice research in counseling are discussed. (F)
EDPC 5473 Counseling Theories 3 Credit Hours Prerequisite: admission to Professional Counseling, M.Ed. program or Counseling Psychology, Ph.D. program, or permission of instructor. Surveys prevalent counseling theories within the overarching categories of psychodynamic, humanistic, behavioral and cognitive-behavioral, and contextual and constructivist approaches. In addition, multicultural counseling competencies will be reviewed. Theories presented will be discussed in terms of counseling goals, central concepts and techniques, diversity applications, and research support. (F)
EDPC 5483 Diagnosis \& Treatment in Counseling 3 Credit Hours Prerequisite: EDPC 5423,5473, 5263, and Majors only. Diagnostically oriented course in abnormal behavior stressing standard nosology exemplified by the Diagnostic and Statistical Manual of the American Psychiatric Association (DSM). (Sp)

EDPC 5493 Child and Adolescent Counseling 3 Credit Hours
Prerequisite: Graduate standing, admission to the Professional Counseling Program, EDPC 5423, EDPC 5473, and EDPC 5263. Child and Adolescent Counseling presents theories, techniques, and strategies for counseling children and adolescents and their families in both school and clinical settings. The course will explore counseling issues, special considerations, and counseling interventions related to this population. (Sp)

## EDPC 5503 Introduction to Neurofeedback in Counseling 3 Credit Hours

Prerequisite: graduate standing; admission to Professional Counseling, M.Ed. program or permission of instructor. The course provides students with an introduction to the integration of neurofeedback into counseling practice and is designed to satisfy BCIA didactic requirements for neurofeedback certification. Neurofeedback is a form of biofeedback used to empower individuals to regulate their brainwave patterns. (F)

## EDPC 5513 Introduction to Abuse and Addictions Theory and Treatment 3 Credit Hours

Prerequisite: Admission to Professional Counseling M.Ed. program or permission of instructor. An overview of various abuse and addiction theories, treatment and stages of change, including substance use disorders, gambling addictions and sex addictions. (Su)
EDPC 5523 Addictions and Family Theory 3 Credit Hours
Prerequisite: Admission to Professional Counseling M.Ed. program or permission of instructor. An overview of various addictions with emphasis on substance use disorders and their effect on individuals, families, and communities. The course will focus on prevention and treatment. (Sp)

## EDPC 5533 Psychopharmacology/Neurobiology of Addiction 3 Credit <br> Hours

Prerequisite: Admission to Professional Counseling M.Ed. program or permission of instructor. In this course, alcohol and drug dependency is explored through the study of brain chemistry and related causal factors and pathophysiological processes. The role of psychopharmacology is addressed as an agent frequently used in the management and resolution of withdrawal symptoms. (Sp)
EDPC 5543 Addictions Counseling: Theoretical Approaches and CoOccurring Disorders

3 Credit Hours
Prerequisite: Admission to Professional Counseling M.Ed. program or permission of instructor. Examines major theoretical approaches to the treatment of substance abuse. Diagnosis of co-occurring disorders will also be addressed. (F)
EDPC 5553 Addictions in Family Counseling 3 Credit Hours
Prerequisite: Admission to Professional Counseling M.Ed. program or permission of instructor. Examines major Family Counseling Treatment approaches to substance abuse and addiction. Various assessment instruments will be examined and family dynamics will be studied. Multicultural issues will also be examined. (Sp)

EDPC 5623 Advanced Counseling Techniques 3 Credit Hours Prerequisite: Admission to Professional Counseling M.Ed. program (M216). This course is for students with advanced standing in Professional Counseling with a focus on deepening understanding of counseling theory and honing applied therapeutic skill. It is designed to facilitate exploration of advanced counseling theory and technique, with an emphasis on applied procedures. (Sp)

EDPC 5633 Counseling Supervision and Consultation 3 Credit Hours Prerequisite: Graduate standing and admission to Clinical Professional Counseling M.Ed. program. The purpose of this course is to begin to familiarize students in counseling with the research and applied literature on clinical supervision. The primary model examined is the developmental approach to supervision. Consultation will also be discussed. (Sp)

EDPC 5643 Foundations of School Counseling 3 Credit Hours Prerequisite: Graduate standing and admission to the Professional Counseling program or School Counseling Certificate program. The role and functions of school counselors, including their work with students, teachers, administrators, and parents, as well as their complementary relationships with other student services personnel. (F)

EDPC 5653 Crisis Counseling
3 Credit Hours
Prerequisite: Admission to Professional Counseling M.Ed. program (M216) or permission of instructor. An overview of methods and techniques used in assessing and implementing effective interventions in crisis counseling settings. (Su)

EDPC 5913 Practicum in Counseling--Master's 3 Credit Hours Prerequisite: Admission to Professional Counseling, M.Ed. program or Counseling Psychology, Ph.D. program. May be repeated; maximum credit six hours. Variable as to title and subject profession. Provides field-type experience under faculty supervision and is designed to introduce the student to the practical application of theory within an environment in which professional practice takes place. Seminar experience is to be included. ( $\mathrm{F}, \mathrm{Sp}$ )

EDPC 5920 Optional Internship in Professional Counseling 1-3 Credit Hours 1 to 3 hours. Prerequisite: Graduate standing, departmental permission, and admission to the Professional Counseling M.Ed. program. Optional counseling internship designed to allow students to make up hours required for completion of practicum and/or internship requirements during summer semester. Introduces student to the profession under supervision of a practitioner whose professional credentials are equal to those of members of the clinical professional counseling program faculty. (Irreg.)
EDPC 5923 Internship in Professional Counseling 3 Credit Hours Prerequisite: Graduate standing and admission to the Professional Counseling M.Ed. program. May be repeated; maximum credit 6 hours. Introduces the student to the profession under the supervision of a practitioner whose credentials are equal to those of the graduate faculty. (Irreg.)
EDPC 5960 Directed Readings
1-4 Credit Hours
1 to 4 hours. Prerequisite: 12 hours of education, approval of instructor, adviser and dean. May be repeated; maximum undergraduate credit eight hours; maximum graduate credit four hours. (Irreg.)

## EDPC 5970 Special Topics/Seminar

1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

EDPC 5980 Research for Master's Thesis
2-9 Credit Hours
Variable enrollment, two to nine hours; maximum credit applicable toward degree, four hours. Laboratory (F, Sp, Su)

EDPC 6990 Individual Study in Education
1-4 Credit Hours
1 to 4 hours. Prerequisite: 12 hours of education, graduate standing and permission of the instructor. May be repeated with change of subject matter; maximum credit eight hours. For advanced graduate students who need to study some problem or area not adequately covered in the organized courses, under the direction of a staff member in whose area of specialization the problem lies. (Irreg.)
EDPY 2960 Individual Study 1-4 Credit Hours
1 to 4 hours. Prerequisite: good standing in University; fewer than 62 total hours; approval of instructor and dean. May be repeated; maximum credit four hours. Designed to provide an introduction to the study of education through a rigorous program of readings under the direction of a member of the faculty. (Irreg.)

EDPY 3440 Mentored Research Experience 3 Credit Hours
0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)

EDPY 3960 Honors Reading
1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Provides students with the opportunity to develop an appropriate body of reading materials on topics not covered in detail in routine coursework. Students will assume the primary initiative in selecting the topic, compiling the bibliography and completing the reading, and will report their progress in weekly sessions to their instructor. Credit will be given only after an intensive oral examination. (Irreg.)

EDPY 3970 Honors Seminar 1-3 Credit Hours
Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Covers variable subjects in education with in-depth studies of issues not covered in the standard course offerings. (Irreg.)

EDPY 3980 Honors Research 1-3 Credit Hours
Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Provides an opportunity for honors students to work on a special project under the guidance of a professor in the student's major area of study. (Irreg.)
EDPY 3990 Independent Study 1-3 Credit Hours
1 to 3 hours. Prerequisite: one course in general area to be studied; permission of instructor and department. May be repeated; maximum credit six hours. Contracted independent study for topic not currently offered in regularly scheduled courses. (F, Sp)

EDPY 4960 Directed Readings in Education 1-4 Credit Hours
1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean. May be repeated; maximum credit four hours. Designed for upper-division students preparing to teach who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)

EDPY 4970 Special Topics/Seminar 1-3 Credit Hours 1 to 3 hours. Prerequisite: senior standing or permission of instructor. May be repeated with change of content; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

EDPY 4980 Practicum in Educational Psychology 1-3 Credit Hours
1 to 3 hours. Prerequisite: nine hours of education courses. Provides fieldtype experience under faculty supervision and is designed to introduce the student to the practical application of theory within an environment in which professional practice takes place. (Irreg.)
EDPY 4990 Special Problems in Education 1-4 Credit Hours 1 to 4 hours. Prerequisite: permission of instructor. May be repeated with change of title and subject. Variable as to subject and credit for areas of specialty and/or interest not otherwise provided in the standard offering of courses. (Irreg.)
EDPY 5940 Field Studies in Education 1-4 Credit Hours
1 to 4 hours. Prerequisite: 12 hours of education. May be repeated with change of subject matter; maximum credit eight hours. Practical problems in education as defined by members of the classes. Typical topics: defining educational objectives, relating school programs to established objectives, developing teaching-learning aids, organization for participation in developing and evaluating instructional programs, using community resources for learning, improving evaluation procedure. (Irreg.)
EDPY 5960 Directed Readings 1-4 Credit Hours 1 to 4 hours. Prerequisite: 12 hours of education, approval of instructor, adviser and dean. May be repeated; maximum undergraduate credit eight hours; maximum graduate credit four hours. Directed readings and/or literature reviews under the direction of a faculty member. (Irreg.)
EDPY 5970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently ofered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)
EDPY 5980 Research for Master's Thesis 2-9 Credit Hours 2 to 9 hours. Prerequisite: Graduate Standing. Variable enrollment, two to nine hours; maximum credit applicable toward degree, four hours. (F, Sp, Su )

## EDPY 5990 Independent Study

1-4 Credit Hours
1 to 4 hours. Prerequisite: graduate standing or permission by instructor. May be repeated with change of subject matter; maximum credit six hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/ or laboratory research and field projects. (Irreg.)
EDPY 6920 Internship in Education--Doctoral 1-6 Credit Hours 1 to 6 hours. Prerequisite: written permission of the instructor. May be repeated; maximum credit 12 hours. Variable as to title and subject profession. An advanced internship for post-master's level students only. The object of the internship is to cultivate within the student a high degree of proficiency and professional independence. Field supervision is by a practitioner whose credentials are equal to those of the graduate faculty. (Irreg.)
EDPY 6930 Intensive Studies in Education
1-6 Credit Hours
1 to 6 hours. Prerequisite: 12 hours of education and permission of instructor. Repeatable with change of title and subject. Opportunity offered for professional educators and others interested in education, cooperatively, to seek solutions to educational problems. Organized groups work in curriculum, guidance, instruction, administration and supervision. Competent leadership and expert consultant service provided. (Irreg.)

EDPY 6960 Directed Readings
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit six hours. Directed readings and/or literature review under the direction of a faculty member. (Irreg.)
EDPY 6970 Post-Master's Seminar
2-4 Credit Hours
2 to 4 hours. Prerequisite: master's degree, 24 hours of education, permission of instructor. May be repeated with change of subject matter; maximum credit twelve hours. Enrollment limited to students who hold the master's degree. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
EDPY 6980 Research for Doctoral Dissertation 2-16 Credit Hours
2 to 16 hours. Prerequisite: Graduate standing and permission of instructor; may be repeated. Directed research culminating in the completion of the doctoral dissertation. Maximum of 15 hours credit for the Ed.D. and 30 hours for the Ph.D. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
EDPY 6990 Individual Study in Education
1-4 Credit Hours
1 to 4 hours. Prerequisite: 12 hours of education, graduate standing and permission of the instructor. May be repeated with change of subject matter; maximum credit eight hours. For advanced graduate students who need to study some problem or area not adequately covered in the organized courses, under the direction of a staff member in whose area of specialization the problem lies. (Irreg.)
EDSP 1115 American Sign Language I
5 Credit Hours
Prerequisite: permission of the department. An Introduction to American Sign Language (ASL) which includes the development of receptive and expressive skills in authentic situations and an introduction to Deaf Culture. (F, Sp, Su) [l-FL].
EDSP 1225 American Sign Language II
5 Credit Hours
Prerequisite: EDSP 1115 and permission of the department. Continuation of American Sign Language (ASL) I. This course further develops receptive and expressive skills in ASL in authentic situations and expands the study of Deaf Culture. (F, Sp) [I-FL].
EDSP 2113 American Sign Language III
3 Credit Hours
Prerequisite: EDSP 1115, EDSP 1225, and permission of the department.
Continuation of ASL II. This course emphasizes the receptive comprehension and expression of advanced ASL grammatical structures, and use of expanded knowledge of Deaf Cultural norms will be applied to engagement with the Deaf community. (F, Su) [l-FL].

## EDSP 3053 Understanding and Accommodating Exceptional Learners 3 Credit Hours

Prerequisite: admission to Teacher Education program. Course provides foundation to legislation, policies and procedures for educating children/ youth with exceptionalities. Course focuses on primary recipients of special education services, procedures for providing special education to children and youth w/educationally-related problems, understanding responsibilities associated with the implementation of special education programs and services, and emerging skills needed to ensure successful educational experiences for children/youth with exceptionalities. ( $F, S p$, Su )
EDSP 3223 American Sign Language IV
3 Credit Hours
Prerequisite: EDSP 1115, EDSP 1225, EDSP 2113, and permission of the department. Continuation of ASL III. The course emphasizes the receptive comprehension and expression of development with a more mature understanding of American Sign Language grammatical structures includes narratives and dialogues. Use of expanded knowledge of Deaf Cultural norms will be applied to engagement with the Deaf community. (Sp)

EDSP 3960 Honors Reading
-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Provides students with the opportunity to develop an appropriate body of reading materials on topics not covered in detail in routine coursework. Students will assume the primary initiative in selecting the topic, compiling the bibliography and completing the reading, and will report their progress in weekly sessions to their instructor. Credit will be given only after an intensive oral examination. (Irreg.)

## EDSP 3970 Honors Seminar 1-3 Credit Hours

Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Covers variable subjects in education with in-depth studies of issues not covered in the standard course offerings. (Irreg.)

EDSP 3980 Honors Research 1-3 Credit Hours
Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Provides an opportunity for honors students to work on a special project under the guidance of a professor in the student's major area of study. (Irreg.)

EDSP 3990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: one course in general area to be studied permission of instructor and department. May be repeated; maximum credit six hours. Contracted independent study for topic not currently offered in regularly scheduled courses. ( $F, S p$ )

EDSP 4013 Fundamental Academic Instructional Strategies 3 Credit Hours
Prerequisite: EDSP 3053. Instructional strategies and effective techniques for teaching students with mild to moderate disabilities in a variety of general and special education settings. Class objectives target remediation and progression of skills focused around an academic curriculum for students with mild/moderate disabilities. (Sp)

EDSP 4023 Assessment for Eligibility and Program
Planning
3 Credit Hours
Prerequisite: EDSP 3053 and EDSP 4013; corequisite: EDSP 4033.
Study of assessment instruments, interpretation and use in eligibility, placement and program planning for individuals with mild to moderate disabilities. Competencies addressed include: response to intervention, pre-referral, student assistance teams, administration of curriculumbased assessment and adaptive behavior scales, interpreting functional assessment results into IEPS and individual case studies. (F)

EDSP 4033 Intensifying Mathematics Interventions for Students with Disabilities 3 Credit Hours

Prerequisite: EDSP 3053 and EDSP 4013; Special Education majors only. Students will apply research-aligned mathematics practices for students with disabilities. Topics include literature on why students with disabilities struggle to learn mathematics, the use of assessment data to inform instructional decision making, and research-aligned mathematical instructional practices for students identified with disabilities. (F)

## EDSP 4043 Classroom Management in Special Education 3 Credit

 HoursPrerequisite: EDSP 3053 and EDSP 4013 and EDSP 4023 and EDSP 4033; corequisite: EDSP 4053 and EDSP 4063 and EDSP 4072. Philosophical perspectives supported by management strategies based on sound theoretical foundations and best practice. Preservice educators develop a personal plan for creating a well-managed classroom, identifying and documenting behavior concerns and developing intervention plans that remediate difficulties and increase appropriate behavior in general and special education environments. (Sp)

EDSP 4050 Internship in Special Education 6-10 Credit Hours 6 to 10 hours. Prerequisite: EDSP 3053, EDSP 4013, EDSP 4023 EDSP 4033, EDSP 4043, EDSP 4053, EDSP 4063, EDSP 4072, EDSP 4083, EDSP 4093, EDSP 4103, EDSP 4112, and departmental permission; Corequisite: EDSP 4123. The internship experience is the culminating experience for our pre-service special education teachers. Students will apply content and pedagogical knowledge acquired throughout their undergraduate preparation program. Emphasis is placed on developing their competencies in: (a) professionalism; (b) preparing, implementing, and evaluating instruction; and (c) improving student engagement and the classroom environment. (F, Sp)

EDSP 4053 Language, Literacy, and Communication Strategies 3 Credit Hours
Prerequisite: EDSP 3053 and EDSP 4013 and EDSP 4023 and EDSP 4033; corequisite: EDSP 4043 and EDSP 4063 and EDSP 4072. Competencies developed include: understanding language and literacy development; 32 hours tutoring; formal/informal literacy assessments; implementation of guided reading lesson plans; data collection monitoring; phonics/ decoding; literal/inferential/prediction comprehension; fluency and written expression; research to practice; development of learning strategies enhancing content and literacy. (Sp)

## EDSP 4063 Teaching Students with Significant Support and

 Educational Needs 3 Credit HoursPrerequisite: EDSP 3053 and EDSP 4013 and EDSP 4023 and EDSP 4033; corequisite: EDSP 4043 and EDSP 4053 and EDSP 4072. Examines how low-incidence physical and intellectual disabilities, including autism, traumatic brain injury, deafness, blindness, and other health impairments affect academic and job performance and outcomes. You will learn and demonstrate current research- based methods for teaching and training individuals with low-incidence disabilities. (Sp)

EDSP 4072 Introductory Practicum in Special Education 2 Credit Hours Prerequisite: EDSP 3053 and EDSP 4013 and EDSP 4023 and EDSP 4033; corequisite: EDSP 4043 and EDSP 4053 and EDSP 4063. Two hundred hours of special education field placement with supervision by master public school teachers and OU professionals. Weekly seminars based on reflections, discussion of course assignments implemented at school sites, competencies such as IEPS ecological assessments, parent interviews, and development of original lesson plans with articulated accommodations and modification. (F, Sp)

EDSP G4083 Individual Behavior Supports
3 Credit Hours
Prerequisite: EDSP 3053 and EDSP 4013 and EDSP 4023 and EDSP 4033 and EDSP 4043 and EDSP 4053 and EDSP 4063 and EDSP 4072. Corequisite: EDSP 4093 and EDSP 4103 and EDSP 4112 . Special techniques and materials used in the instruction and behavioral modification of students who have significant behavioral disorders. Content includes proactive classroom strategies, effective instruction, and planned behavior interventions. (F)

EDSP 4093 Transition and Self-Determination 3 Credit Hours Prerequisite: EDSP 3053, EDSP 4013, EDSP 4023, EDSP 4033, EDSP 4043, EDSP 4053, EDSP 4063, EDSP 4072; corequisite: EDSP 4083, EDSP 4103, EDSP 4112. This course will cover transition education practices, including assessment, and transition planning, to facilitate educational, employment, and independent living post-school outcomes for students with disabilities. Federal and state laws and regulations governing transition practices will be covered along with best-practice methodology. Assessment, goal writing, transition planning, self-determination instruction, multi-cultural issues, interagency collaboration, resources, among other topics will be discussed to (F)

EDSP 4103 IEP Development and Family Advocacy 3 Credit Hours Prerequisite: EDSP 3053, EDSP 4013, EIPT 3473; corequisite: EDSP 4033. In this course, students will extend their knowledge of the Individualized Education Program (IEP) process as outlined in federal legislation and case law. The course is designed to improve students' abilities developing compliant, high-quality IEPs by considering both legal and research evidence. In addition, the course will focus on how to build successful partnerships with families and strategies for improving (F)
EDSP 4112 Advanced Practicum in Special Education 2 Credit Hours Prerequisite: EDSP 3053, EDSP 4013, EDSP 4023, EDSP 4033, EDSP 4043, EDSP 4053, EDSP 4063, EDSP 4072; corequisite: EDSP 4093, EDSP 4103.
Two hundred hours of supervised field experience with instruction and behavior management provided to students with disabilities. Weekly seminars focus on self-evaluations and reflections on evidence-based practice, development, and implementation of curriculum unit with modifications and accommodations, and discrepancy analysis of past and current IEPS. (F, Sp)
EDSP 4121 Applied Research in Special Education 1 Credit Hour Prerequisite: EDSP 3053, EDSP 4013, EDSP 4023, EDSP 4033, EDSP 4043, EDSP 4053, EDSP 4063, EDSP 4072, EDSP 4083, EDSP 4093, EDSP 4103, EDSP 4112. Corequisite: EDSP 4144 and EDSP 4134. Designed to enhance understanding of research related to the education of children and youth with disabilities. Students will demonstrate a comprehension of legal and ethical aspects of research in special education. Students will improve their ability to critically review research literature and conduct applied research projects. (F, Sp) [V].
EDSP 4123 Applied Research in Special Education 3 Credit Hours Prerequisite: Prerequisites: EDSP 3053, EDSP 4013, EDSP 4023, EDSP 4033, EDSP 4043, EDSP 4053, EDSP 4063, EDSP 4072, EDSP 4083, EDSP 4093, EDSP 4103, and EDSP 4112; Corequisite: EDSP 4050. This course serves as a capstone experience, requiring students to apply their foundational knowledge of the field and their professional ethical principles to inform their special education practice. In their assigned field placements, students will develop their abilities to select, adapt, and use a repertoire of evidence-based instructional strategies to advance learning of individuals with exceptionalities. (F, Sp)
EDSP 4134 Internship in Special Education I -
Elementary 4 Credit Hours
Prerequisite: EDSP 3053, EDSP 4013, EDSP 4023, EDSP 4033, EDSP 4043, EDSP 4053, EDSP 4063, EDSP 4072, EDSP 4083, EDSP 4093, EDSP 4103, EDSP 4112; corequisite: EDSP 4121, EDSP 4144. The Special Education Internship is designed to allow students to practice teaching under the supervision and guidance of master special educators and University clinical supervisors. Special education interns learn to apply the knowledge and skills they acquired throughout the program coursework and field experiences in an authentic, extended situation. ( $F, S p$ ) [V].

## EDSP 4144 Internship in Special Education II -

## Secondary

4 Credit Hours
Prerequisite: EDSP 3053, EDSP 4013, EDSP 4023, EDSP 4033, EDSP 4043, EDSP 4053, EDSP 4063, EDSP 4072, EDSP 4083, EDSP 4093, EDSP 4103, EDSP 4112; corequisites: EDSP 4121, EDSP 4134. The Special Education Internship is designed to allow students to practice teaching under the supervision and guidance of master special educators and University clinical supervisors. Special education interns learn to apply the knowledge and skills they acquired throughout the program coursework and field experiences in an authentic, extended situation. ( $\mathrm{F}, \mathrm{Sp}$ ) $[\mathrm{V}]$.

EDSP 4970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: senior standing or permission of instructor. May be repeated with change of content; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)
EDSP 4980 Practicum in Special Education 1-3 Credit Hours
1 to 3 hours. Prerequisite: nine hours of education courses. Provides fieldtype experience under faculty supervision and is designed to introduce the student to the practical application of theory within an environment in which professional practice takes place. (Irreg.)
EDSP 4990 Special Problems in Education
1-4 Credit Hours
1 to 4 hours. Prerequisite: permission of instructor. May be repeated with change of title and subject. Variable as to subject and credit for areas of specialty and/or interest not otherwise provided in the standard offering of courses. (Irreg.)

## EDSP 5013 Evidence-Based Practices for Mathematics Instruction for

 Students with Disabilities3 Credit Hours
Prerequisite: Graduate standing. The focus of this course is on translating evidence-based instructional practices related to mathematics instruction for students with mathematical disabilities into guidelines for instruction, intervention, and assessment. This course will cover assessment procedures, instructional procedures, curriculum and instruction alternatives, and program planning for the mathematical development of students with disabilities. (F)

## EDSP 5063 Instructional Methods for Students with Significant Support Needs <br> 3 Credit Hours

Prerequisite: Graduate standing. Examines how particular types of low-incidence disabilities, including intellectual disabilities, autism, physical disabilities, traumatic brain injury, deafness, blindness, multiple disabilities, and other health impairments, affect academic and job performance. Students will learn and demonstrate current methods for teaching and training individuals with low-incidence disabilities. (Sp)

## EDSP 5093 Transition and Self-Determination

3 Credit Hours
Prerequisite: Graduate standing. Transition education practices including theory, assessments, planning processes, and instructional methods to facilitate positive postschool outcomes for individuals with disabilities. Laws and regulations governing transition practices are covered along with best practice methodology. Assessment, transition planning, selfdetermination instruction, multi-cultural issues, interagency collaboration, resources, etc., will be discussed to facilitate a successful transition for students into further education, employment, and independent (F)
EDSP 5143 Individual Behavior Planning in the Classroom 3 Credit Hours
Prerequisite: Graduate standing. This course will teach how to effectively manage challenging and severe behavior problems in the classroom using proactive classroom strategies, effective instruction, and planned behavioral interventions. This course examines applied behavior analysis (ABA) principles and techniques, including observational analysis, databased instruction, and social validity to increase students' social and task- related behavior. (F)

EDSP 5163 Leadership \& Advocacy in Special Education 3 Credit Hours Prerequisite: Graduate standing in the College of Education. This course will provide students with a history of special education litigation and legislation. Students will gain a deep understanding of the Individuals with Disabilities Education Improvement Act, the major legislation governing the provision of special education services. Students learn about federal statutes and regulations concerning assessment and evaluation procedures, due process and mediation, discipline, and individual education plans (IEPs). ( $\mathrm{F}, \mathrm{Su}$ )

EDSP 5183 Advanced Assessment
3 Credit Hours
Prerequisite: Graduate standing. Focus will be on innovative approaches to assessment and education of students with mild to moderate learning and/or behavior problems. Techniques, methods, and materials will be presented within a career/ecological framework and will be researchbased. (F, Sp)
EDSP 5193 Post-Secondary Education and Employment 3 Credit Hours Prerequisite: graduate standing and EDSP 5093. Examines options for students with disabilities in terms of post-secondary education and postsecondary employment. Learning is focused on research-based best practices. (Sp)

## EDSP 5213 Evidence-based Practices for Reading Instruction for Students with Disabilities <br> 3 Credit Hours

Prerequisite: Graduate standing. This course focuses on translating evidence-based teaching methods related to literacy instruction for students with reading disabilities (e.g., dyslexia, language-based learning disabilities) into guidelines for instruction and intervention. The course will cover instructional procedures, curriculum and instruction alternatives, and program planning for the literacy development of students with reading and/or writing disabilities. (Sp)

EDSP 5243 Applied Behavior Analysis II
3 Credit Hours
Prerequisite: EDSP 5143. This course focuses on the basic principles, procedures and underlying philosophy of applied behavior analysis (ABA) (Sp)

## EDSP 5293 Transition-Based Assessment

3 Credit Hours
Prerequisite: graduate standing and EDSP 5093. Presents the threepart transition assessment model and the means to enable students to answer long and short term questions to assist in developing good annual transition goals. (F)

EDSP 5313 Multi-Tiered Systems of Support 3 Credit Hours
Prerequisite: Graduate standing and EDSP 5413. This course will provide an overview of the historical, legal, and theoretical foundations of multitiered systems of support; review the research and evidence base of a multi-tiered system of support approach in academics and behavior; and explore the advances and controversies resulting in the proliferation of multi-tiered systems of support. (Sp)

EDSP 5343 Applied Behavior Analysis III 3 Credit Hours
Prerequisite: EDSP 5143 \& EDSP 5243. This course focuses on the identification of factors that contribute to behavioral challenges and improved performance; and on procedures that minimize behavioral challenges, improve performance, teach new behaviors and increase probability of behaviors occurring under appropriate circumstances. (F)

EDSP 5393 Research and Practicum in Transition Education

3 Credit Hours
Prerequisite: Graduate standing, EDSP 5093, EDSP 5193, and EDSP 5293.
Transition Practicum is part of the Transition Education course sequence. It is designed to work in conjunction with the first three courses in the sequence to solidify knowledge and skills in transition education. Foundation issues are interwoven into course expectations, including leadership, parent/professional partnerships, inclusion, multiculturalism, special education policies and procedures, and auxiliary service delivery. (Sp)

## EDSP 5413 Characteristics \& Methods in Teaching Students with

 Exceptionalities3 Credit Hours
Prerequisite: Graduate standing and admission to a graduate program in the College of Education. The course provides foundation to legislation, policies and procedures for educating children/youth with exceptionalities. It focuses on primary recipients of special education services, procedures for providing special education to children and youth with educationally-related problems, understanding responsibilities associated with the implementation of special education programs and services, and emerging skills needed to ensure successful educational experiences for children/youth with exceptionalities. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

## EDSP 5443 Ethical \& Professional Conduct of Behavior

 Analysts3 Credit Hours
Prerequisite: EDSP 5143. This course will familiarize the student with ethical issues and responsibilities of special educators and behavior analysts. Informed consent, due process, protection of confidentiality, and selection of least intrusive and restrictive behavior change procedures will be discussed within the context of case method. Ethical decision-making processes and the relationship between ethics and law will be discussed. (Su)
EDSP 5603 Philosophical Assumptions of Behavior Analysis 3 Credit Hours
Prerequisite: Graduate standing. This course will provide fundamental knowledge and experiences for understanding Applied Behavior Analysis principles and techniques, including the dimensions of behavior analysis, the assumptions of science, and the philosophical foundations on which the science rests. Students learn the basis of methodological and radical behaviorism, Skinner's view on human behavior, and the philosophy behind the interventions making up behavior analytics principles. (F)

## EDSP 5613 Principles and Concepts in Applied Behavior

 Analysis 3 Credit HoursPrerequisite: Graduate standing and successful completion of EDSP 5603. This course, in combination with the other courses, will provide fundamental knowledge on the concepts and principles of $A B A$. This course is heavily based on understanding the definitions and seminal articles across a variety of fundamental concepts within ABA. Students learn the basis of respondent conditioning, verbal behavior, stimulus control, motivating operations, and the role of contingencies in behavior. (Sp)

EDSP 5623 Ethics in Applied Behavior Analysis 3 Credit Hours Prerequisite: Graduate standing. This course will familiarize the student with ethical issues and responsibilities of special educators and behavior analysts by leading organizations in the fields of education and mental health. Informed consent, due process, protection of confidentiality, and selection of least intrusive, least restrictive behavior change procedures will be presented and discussed within the context of case method. (Su)

EDSP 5633 Organizational Behavior Management 3 Credit Hours
Prerequisite: Graduate standing in College of Education. This course is in a sequence of courses for the Applied Behavior Analysis Certificate Program at the University of Oklahoma. This course provides students with specific examples of effective supervision and how to create that experience when they oversee others. The course highlights behavior skills training and how to ensure they are upholding the ethical code across various supervisory relationships. (Su)

## EDSP 5643 Behavior Change in Applied Behavioral Analysis <br> 3 Credit Hours

Prerequisite: Graduate standing and permission of instructor. Behavior Change is offered toward the middle of the ABA program and provides a place for students to learn specific interventions they can implement with clients whose behavior is maladaptive. Students will learn strategies that work across a multiple of issues from social skills and eloping to compliance and transitioning. (F)

## EDSP 5653 Behavior Assessment in Applied Behavioral

## Analysis

3 Credit Hours
Prerequisite: Graduate standing and permission of instructor. This course's purpose is to take the information learned across the first set of courses and apply it to both private behavior and the behavior of others through behavior assessment. Students will engage in record reviews of both real and fictional clients. Using this information, behaviors will be selected, measured, and targeted for change using a variety of assessment tools. (Sp)
EDSP 5910 Practicum in Education--Master's 1-4 Credit Hours
1 to 4 hours. Prerequisite: graduate standing, permission of instructor and dean. May be repeated; maximum credit six hours. Variable as to title and subject profession. Provides field-type experience under faculty supervision and is designed to introduce the student to the practical application of theory within an environment in which professional practice takes place. Seminar experience is to be included. (Irreg.)
EDSP 5920 Internship in Education--Master's 1-6 Credit Hours 1 to 6 hours. Prerequisite: 5910, permission of instructor. May be repeated; maximum credit six hours. Variable as to title and subject profession. Available to master's degree programs specifically requiring an internship in addition to thirty-two hours of other coursework as part of the degree. Introduces the student to the profession under the supervision of a practitioner whose credentials are equal to those of the graduate faculty. (Irreg.)
EDSP 5940 Field Studies in Education
1-4 Credit Hours
1 to 4 hours. Prerequisite: 12 hours of education. May be repeated with change of subject matter; maximum credit eight hours. Practical problems in education as defined by members of the classes. Typical topics: defining educational objectives, relating school programs to established objectives, developing teaching-learning aids, organization for participation in developing and evaluating instructional programs, using community resources for learning, improving evaluation procedure. (Irreg.)

## EDSP 5960 Directed Readings

4 Credit Hours
1 to 4 hours. Prerequisite: 12 hours of education, approval of instructor, adviser and dean. May be repeated; maximum undergraduate credit eight hours; maximum graduate credit four hours. (Irreg.)
EDSP 5970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

EDSP 5980 Research for Master's Thesis
2-9 Credit Hours
Variable enrollment, two to nine hours; maximum credit applicable toward degree, four hours. (F, Sp, Su)
EDSP 5983 Directed Project in Special Education 3 Credit Hours Prerequisite: graduate standing and permission of instructor. Under the direct supervision of the student's adviser, the student conducts an applied project on a topic or challenge in special education related to the student's interest. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
EDSP 5990 Independent Study
1-4 Credit Hours
1 to 4 hours. Prerequisite: graduate standing or permission by instructor. May be repeated with change of subject matter; maximum credit six hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/ or laboratory research and field projects. (Irreg.)

## EDSP 6003 Critical Thinking in Special Education Research 3 Credit

 HoursPrerequisite: Graduate standing. This course provides a critical analysis of research methodologies used in special education. Emphasis is placed on developing student skills in asking and answering sound research questions as well as the analysis and critique of research articles. This course is specifically designed for developing critical thinking skills in special education research. (Irreg.)

## EDSP 6023 Single-Case Research Design

3 Credit Hours
Prerequisite: Graduate standing in the College of Education and successful completion of EDSP 5143 and EDSP 5243, or permission of instructor. This course provides a critical analysis of single-case research methodologies. Emphasis is on developing skills in asking and answering sound research questions and designing investigations to answer such questions. The course also explores the development and implementation of single-case research designs. (Sp)
EDSP 6113 Grant Writing 3 Credit Hours
Prerequisites: Admission to the Graduate College and the Special Education doctoral program D855. This core course in the special education doctoral sequence will prepare students to write competitive funding proposals and will provide opportunities to prepare funding proposals. Focus will be upon federal personnel preparation, demonstration proposal preparation and grant administration for funded proposals. (Sp)
EDSP 6123 Contemporary Issues/Research
3 Credit Hours
Prerequisite: 5173, graduate standing, and permission of instructor. Examines critical issues influencing the field of special education and services for persons with disabilities. (Sp)
EDSP 6203 Professional Seminar 1
3 Credit Hours
Prerequisite: graduate standing or permission of instructor. Designed for post-master's student who has been accepted into the Ph.D. program. Covers review and synthesis of a current research area, professional writing and dissemination. (F)
EDSP 6503 Professional Seminar III, Systematic Literature Reviews

3 Credit Hours
Prerequisite: Graduate standing and EDSP 6203. Systematic reviews have a rich history of informing research, teaching, and policy. This course provides a step-by-step approach to conducting systematic reviews. Emphasis will be placed on consulting published standards to identify essential components of the methodology that will increase the internal and external validity of the project. (Sp)

EDSP 6523 Single Case Research Design II 3 Credit Hours
Prerequisite: Graduate standing and EDSP 6023. Provides the foundation for students to conduct independent research using single case research design. Provides students with an understanding of salient features of multi-element and complex designs as well as advantages and disadvantages of these research methodologies. Explores responsible research and ethics, open science principles, advanced multi-element designs, randomization, non-parametric procedures, and randomization concepts. (Sp)

EDSP 6910 Practicum in Education--Doctoral 1-6 Credit Hours 1 to 6 hours. Prerequisite: admission to doctoral program, permission of instructor. May be repeated; maximum credit six hours. Variable as to title and subject profession. An advanced practicum for post-master's level students only. The object is to provide professional experience under faculty supervision in fields requiring a high degree of professional skill. Seminar experience is to be included. (Irreg.)

EDSP 6920 Internship in Education--Doctoral 1-6 Credit Hours 1 to 6 hours. Prerequisite: must be a student in the Special Education Ph.D. program. May be repeated; maximum credit 12 hours. Variable as to title and subject profession. An advanced internship for post-master's level students only. The object of the internship is to cultivate within the student a high degree of proficiency and professional independence. Field supervision is by a practitioner whose credentials are equal to those of the graduate faculty. (Irreg.)

EDSP 6930 Intensive Studies in Education
1-6 Credit Hours
1 to 6 hours. Prerequisite: 12 hours of education and permission of instructor. Repeatable with change of title and subject. Opportunity offered for professional educators and others interested in education, cooperatively, to seek solutions to educational problems. Organized groups work in curriculum, guidance, instruction, administration and supervision. Competent leadership and expert consultant service provided. (Irreg.)

EDSP 6960 Directed Readings
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor May be repeated; maximum credit six hours. Directed readings and/or literature review under the direction of a faculty member. (Irreg.)

## EDSP 6970 Post-Master's Seminar 2-4 Credit Hours

2 to 4 hours. Prerequisite: master's degree, 24 hours of education, permission of instructor. May be repeated with change of subject matter; maximum credit twelve hours. Enrollment limited to students who hold the master's degree. (F, Sp, Su)

EDSP 6980 Research for Doctoral Dissertation 2-16 Credit Hours 2 to 16 hours. Prerequisite: Graduate standing and permission of instructor; may be repeated. Directed research culminating in the completion of the doctoral dissertation. Maximum of 15 hours credit for the Ed.D. and 30 hours for the Ph.D. (F, Sp, Su)

EDSP 6990 Individual Study in Education
1-4 Credit Hours
1 to 4 hours. Prerequisite: 12 hours of education, graduate standing and permission of the instructor. May be repeated with change of subject matter; maximum credit eight hours. For advanced graduate students who need to study some problem or area not adequately covered in the organized courses, under the direction of a staff member in whose area of specialization the problem lies. (Irreg.)

EIPT 2960 Individual Study 1-4 Credit Hours
1 to 4 hours. Prerequisite: good standing in University; fewer than 62 total hours; approval of instructor and dean. May be repeated; maximum credit four hours. Designed to provide an introduction to the study of education through a rigorous program of readings under the direction of a member of the faculty. (Irreg.)

EIPT 3043 Learning with Educational Technologies 3 Credit Hours Prerequisite: EIPT 3473 or EDEC 3413; EDSP 3053 or concurrent enrollment. Designed to familiarize students with alternative instructional approaches using both cognitive and hardware technologies.
Development of practical skills for using technology to solve instructional problems and accomplish educational goals. (F, Sp, Su)

EIPT 3440 Mentored Research Experience
3 Credit Hours
0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)

EIPT 3473 Learning, Development, and Assessment for Teachers

3 Credit Hours
Prerequisite: Admission to Teacher Education program. Classroom implications from the study of cognition, learning, and development are presented. Topics include various perspectives on human development and learning, factors influencing individual variations in cognition, and an introduction to the assessment of educational outcomes. (F, Sp, Su)

EIPT 3483 Motivation and Classroom Management for Teachers

3 Credit Hours
Prerequisite: EIPT 3473 or EDEC 3413; Admission to Teacher Education program. Classroom implications from the study of motivation and classroom management are presented. Topics include various perspectives on motivation processes in achievement settings and holistic approaches to classroom management. (F, Sp)

EIPT 3960 Honors Reading
1-3 Credit Hours
Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Provides students with the opportunity to develop an appropriate body of reading materials on topics not covered in detail in routine coursework. Students will be obliged to assume the primary initiative in selecting the topic, compiling the bibliography and completing the reading, and will report their progress in weekly sessions to their instructor. Credit will be given only after an intensive oral examination. (Irreg.)

EIPT 3970 Honors Seminar
1-3 Credit Hours
Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Covers variable subjects in education with in-depth studies of issues not covered in the standard course offerings. (Irreg.)

EIPT 3980 Honors Research
1-3 Credit Hours
Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Provides an opportunity for honors students to work on a special project under the guidance of a professor in the student's major area of study. (lrreg.)

EIPT 3990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: one course in general area to be studied; permission of instructor and department. May be repeated; maximum credit six hours. Contracted independent study for topic not currently offered in regularly scheduled courses. (F, Sp)

EIPT 4960 Directed Readings in Education 1-4 Credit Hours
1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean. May be repeated; maximum credit four hours. Designed for upper-division students preparing to teach who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)

## EIPT 4970 Special Topics/Seminar

1-3 Credit Hours
1 to 3 hours. Prerequisite: senior standing or permission of instructor. May be repeated with change of content; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

## EIPT 4980 Practicum in Education <br> 1-3 Credit Hours

1 to 3 hours. Prerequisite: nine hours of education courses. Provides fieldtype experience under faculty supervision and is designed to introduce the student to the practical application of theory within an environment in which professional practice takes place. (Irreg.)
EIPT 4990 Special Problems in Education

## 1-4 Credit Hours

1 to 4 hours. Prerequisite: permission of instructor. May be repeated with change of title and subject. Variable as to subject and credit for areas of specialty and/or interest not otherwise provided in the standard offering of courses. (Irreg.)

## EIPT 5023 Analysis of Quantitative Data I

3 Credit Hours
Prerequisite: graduate standing in the College of Education, or permission of instructor. A brief review of descriptive statistics, introduction to basic inferential statistics, and analysis of variance. Topics covered include data screening and cleaning, correlation, simple regression, oneway ANOVA, factorial ANOVA, analysis of covariance, repeated-measures designs, and nonparametric techniques. Focus is on computer-based data analysis, and substantive conceptualization and interpretation of results. (F, Su)

## EIPT 5033 Introduction to Research and Evaluation in

## Education <br> 3 Credit Hours

Prerequisite: graduate standing. An introduction to major methods of scholarship andresearch in education. The main goal of the class is to help students developthe knowledge and skills required for critical reading of research. (F,Su-Irreg.)
EIPT 5113 Educational Psychology of Human Development 3 Credit Hours
Prerequisite: graduate standing. An introductory survey of current theory and research as it applies to human development across the lifespan. Emphases include cognitive and language development,self and social development, and contextual influences on development. (Sp)

## EIPT 5183 Learning and Motivation

3 Credit Hours
Prerequisite: Graduate standing. This course will examine our current understanding of various psychological phenomena and their relevance to teaching and learning in school or other educational settings. We will analyze, synthesize, and build upon current theories and research as we develop ways of understanding the processes involved in human learning, cognition, motivation, and emotion. (Irreg.)

EIPT 5203 Assessment and Evaluation in Education and Counseling

3 Credit Hours
Prerequisite: graduate standing. An introduction to basic concepts of assessment, measurement, and evaluation in education and counseling, with a focus on the study of concepts and instruments, procedures, methods, and techniques that may be used to assess knowledge, strengths, limitations, and behaviors. Students will study basic principles of measurement and statistics. Scaling metrics, reliability, and validity are emphasized. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

EIPT 5333 Introduction to Extended Reality (XR) for

## Education

## 3 Credit Hours

Prerequisite: Graduate standing, EIPT 5533, EIPT 6143, and EIPT 6343, or permission of instructor. This course introduces students to extended reality (XR), which covers augmented reality (AR), virtual reality (VR), and mixed reality (MR). Students will acquire both conceptual understanding and hands-on experiences about XR for education and training, specifically involving learning analysis and design and XR apps creation, implementation, and evaluation. (Irreg.)
EIPT 5513 Teaching with Technology 3 Credit Hours Prerequisite: graduate standing. Students will explore current technologies used in schools to assist learners of varying abilities succeed in educational settings. Relevant learning theory will be used to evaluate the ways in which technologies are being used with students. This course will assist students in meeting the ISTE National Educational Technology Standards for Teachers (NETS-T). (F)
EIPT 5533 Foundations of Learning Sciences 3 Credit Hours (Crosslisted with LIS 5533) Prerequisite: Graduate standing or permission of instructor. Learning Sciences is an interdisciplinary approach to investigating, understanding, and supporting learning. It draws on diverse fields and methodologies. The goal of this class is to develop a critical orientation with regard to how we use them in integrated, meaningful, contextual, and ethical ways, in service to learners and society. (F)
EIPT 5613 Classroom Management in the 21st Century 3 Credit Hours Prerequisite: graduate standing and departmental permission. Classroom management is one of the most important skills for the success of a teacher. It is based on a keen understanding of fundamental educational psychology concepts including motivation theory, child/teen development, and human learning. This course will guide students in the exploration of these topics. (Sp)

## EIPT 5683 Technology-Enhanced Problem-Based Learning 3 Credit

 HoursPrerequisite: graduate standing and departmental permission. The goal of this course is two-fold: (1) to develop collaborative problem-solving skills through problem-based or project-based learning using advanced learning technologies as tools; and (2) to design a collaborative problembased /project-based learning environment supported with advanced learning technologies. Students in the course will learn important 21 st century skills, including critical thinking, problem solving, communication, collaboration, self-regulation, and use of information and communication technology to support collaborative problem solving. (Sp)
EIPT 5693 Critical Literacy 3 Credit Hours
Prerequisite: Graduate standing. The impact and pervasiveness of media in its many forms - both in and out of formal education settings - requires development of critical awareness, discernment, and engagement by educators. This course explores the intersections of (a) media and its influences; (b) social and cross-cultural skills and perspectives; and (c) personal and pedagogical (and andragogical) responsibility. (Sp)

EIPT 5703 Building Capacity for STEM
3 Credit Hours
Prerequisite: graduate standing and departmental permission. Science Technology Engineering and Math is an area of great need of development in the United States and the world. In this course students will explore the current status of STEM education and the STEM pipeline, the need for STEM development and current barriers that exist in education for all students from a variety of backgrounds that wish to pursue STEM careers. (Su)

EIPT 5712 School and Community Relations
2 Credit Hours
Prerequisite: graduate standing and departmental permission. The course is organized around concerns that are central to the development of a thoughtful and pragmatic community relations policy for the 21 st century. Particular foci include: a) public confidence in American schools; b) leadership, development, and key mediation of school mission and capacity; c) communication with external and internal publics; d) collaboration with multiple stakeholders e) understanding the challenge and impact of high quality community relations. (Su)

EIPT 5910 Practicum in Education--Master's 1-4 Credit Hours 1 to 4 hours. Prerequisite: graduate standing, permission of instructor and dean. May be repeated; maximum credit six hours. Variable as to title and subject profession. Provides field-type experience under faculty supervision and is designed to introduce the student to the practical application of theory within an environment in which professional practice takes place. Seminar experience is to be included. (Irreg.)

EIPT 5920 Internship in Education--Master's 1-6 Credit Hours
1 to 6 hours. Prerequisite: 5910, permission of instructor. May be repeated; maximum credit six hours. Variable as to title and subject profession. Available to master's degree programs specifically requiring an internship in addition to thirty-two hours of other coursework as part of the degree. Introduces the student to the profession under the supervision of a practitioner whose credentials are equal to those of the graduate faculty. (Irreg.)

## EIPT 5940 Field Studies in Education

1-4 Credit Hours
1 to 4 hours. Prerequisite: 12 hours of education. May be repeated with change of subject matter; maximum credit eight hours. Practical problems in education selected by the students and approved by the instructor. Typical topics: defining educational objectives, relating school programs to established objectives, developing teaching-learning aids, organization for participation in developing and evaluating instructional programs, using community resources for learning, improving evaluation procedure. (Irreg.)

EIPT 5960 Directed Readings 1-4 Credit Hours
1 to 4 hours. Prerequisite: 12 hours of education, approval of instructor, adviser and dean. May be repeated; maximum undergraduate credit eight hours; maximum graduate credit four hours. (Irreg.)

EIPT 5970 Special Topics/Seminar 1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

EIPT 5980 Research for Master's Thesis 2-9 Credit Hours Variable enrollment, two to nine hours; maximum credit applicable toward degree, four hours. (F, Sp, Su)

EIPT 5990 Independent Study
1-4 Credit Hours
1 to 4 hours. Prerequisite: graduate standing or permission by instructor. May be repeated with change of subject matter; maximum credit six hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/ or laboratory research and field projects. (Irreg.)

EIPT 6023 Analysis of Quantitative Data II 3 Credit Hours
Prerequisite: 5023. A continuation of 5023. Topics include power analysis, multiple linear regression, analysis of variance models, and an introduction to non-parametric statistics. (Sp)
EIPT 6033 Research Methods in Education
3 Credit Hours
Prerequisite: Graduate standing; and EIPT 6043 and EIPT 6063. The purpose of this course is to assist doctoral students in the process of designing research. This course covers fundamental assumptions of quantitative and qualitative research, various research designs, and the underlying logic of each design. Emphasis will be given to understanding and justifying why certain research designs are appropriate for certain research questions/hypotheses and map out students' own studies. (Sp)

EIPT 6043 Qualitative Research Methods
3 Credit Hours
Prerequisite: Graduate standing. Topics include qualitative research traditions, qualitative designs, data collection techniques, qualitative data analysis. Students design, conduct, and analyze their own qualitative study during the course. (F)

## EIPT 6063 Applied Multivariate Statistics in Educational

Research
3 Credit Hours
Prerequisite:5023 and 6023, or equivalent. Covers selected multivariate techniques withan emphasis on detecting and correcting violations of assumptions, applications,and interpreting results from popular computer statistics packages. (Sp)

EIPT 6073 Program Evaluation
3 Credit Hours
Prerequisite: EIPT 5033, or an equivalent research course or instructor permission; one prior course in measurement or assessment is recommended. Designed to develop understanding and experience in systematically evaluating outcomes related to program goals and standards. Topics include: purposes and uses of evaluation; role of concepts and constructs; planning, standard setting, selecting methods, developing measures, analyzing and interpreting outcomes; reporting findings; ethics and organization; and utilization. (Sp)
EIPT 6083 Qualitative Research Methods II 3 Credit Hours Prerequisite: EIPT 6043 or permission of instructor. Topics include qualitative research design, data analysis, data interpretation, theory building, and write-up. Students should have qualitative data ready to analyze before enrolling in the course. ( Sp )

EIPT 6101 Propaedeutic Seminar
1 Credit Hour
Prerequisite: admission to Instructional Psychology and Technology doctoral program. Summarizes the history of the field ofinstructional psychology and technology and introduce research typicalof field and specific to interests of program faculty. Also discusses expectationsfor scholarship in the program and field and how students meet those expectations.(F)

## EIPT 6103 History and Philosophy of Educational Psychology and

 Research3 Credit Hours
Prerequisite: Graduate standing. This course asks students to grapple with questions that will be foundational to their development as scholars in the field of education. Students will learn foundational theories of educational psychology and research. The course surveys the broad variety of philosophical and scholarly traditions in educational psychology theory and underlying educational research. (F)

EIPT 6143 Instructional Development 3 Credit Hours
Prerequisite: graduate standing. This course is designed to develop understanding and experience in systematically designing and developing instruction and instructional systems. Topics will include: task, context, and learner analysis, assessment design, principles of educational psychology, instructional design principles and strategies, development and production techniques, formative and summative evaluation methods, and flexibly adaptive approaches to implementation. (F)

EIPT 6153 Motivation and Emotion in Education 3 Credit Hours Prerequisite: graduate standing or permission of instructor. Survey and analysis of historically significant and current theories of motivation and emotion. This course examines basic and applied issues related to motivation and emotion from a general perspective as well as motivation to learn. (F)

## EIPT 6163 Instructional Design

3 Credit Hours
Prerequisite: 6143. This course is designed to develop understanding and experience in systematically designing instruction, building on the principles, processes and skills of EIPT 6143. Topics will include: strategies of instruction for specific learning outcomes, formative and summative evaluation, learning assessment design, designing jobs aids and performance support systems, rapid application development and knowledge management. ( Sp )
$\begin{array}{ll}\text { EIPT } 6173 \text { Management of Instructional Technology Programs } & 3 \\ \text { Credit } & \text { Hours }\end{array}$ Prerequisite: graduate standing. This course is designed to introduce the core principles of project management, and then develop understanding of how those principles and practices are subject to adaptation. topics include: defining the field, contexts and influences, strategic analysis, managing risk, managing people, managing time, managing budget and other resources, managing evaluation, problem-solving, and project reporting. (F)

## EIPT 6183 Cognition and Instruction

3 Credit Hours
Prerequisite: graduate standing. Examines the contributions of cognitive psychology to issues of instruction. Surveys basic issues in cognition and examines applied issues in greater depth.(Sp)
EIPT 6203 Instrument Development
3 Credit Hours
Prerequisite: 5203 or permission of instructor. Students in this course will have the opportunity to design items for assessments, collect data, and develop them into items that will produce reliable and valid scores. Measures and procedures in affective (e.g., Likert-type, semantic differential) and cognitive (e.g., true/false, multiple choice) instrument development will be covered. Topics including scaling techniques, methods of obtaining score reliability, use of human participants, manuscript preparation, and current methodological advances will be discussed. (F)

## EIPT 6223 Mixed-Methods Research

3 Credit Hours
Prerequisite: EIPT 5023 and EIPT 6043, or equivalent courses approved by instructor. Topics include history, assumptions, and benefits of mixedmethods research along with practical implications such as design, implementation, and write-up of mixed-methods research. Students will design and write their own mixed-methods study during the course. (Sp)

EIPT 6233 Educational Design-based Research 3 Credit Hours
Prerequisite: Prerequisite: Graduate standing; EIPT 6143, EIPT 6343, and EIPT 5033 (or other research equivalent course with permission of instructor). Introduces educational design-based research (EDR) as an alternative research method and tool to address rigor, validity, and practicality for educational research. Students develop understanding of EDR concepts, models, and procedures, and additional specific skills for developing assessment tools and evaluation plans and conducting EDR research. (Sp)

EIPT 6313 Multimedia Design and Development for

## Learning

## 3 Credit Hours

Prerequisite: graduate standing. Students will go through multiple phases of instructional design to develop computer-based, interactive programs while developing their multimedia authoring skills. They will gain handson multimedia design experience by working on a real-world instructional project using advanced technologies. (F)
EIPT 6323 Game-based learning: Design, Development, and Integration 3 Credit Hours
Prerequisite: Graduate standing, EIPT 5533, EIPT 6143, and EIPT 6343, or permission of instructor. This course introduces digital game-based learning and its underlying theories and concepts, and engages students in hands-on projects of designing, developing, implementing, evaluating, and researching digital games for education. Issues related to identity development, social justice, equity and inclusiveness will be explored in game-based learning. (Irreg.)
EIPT 6343 Design of Learning Environments
3 Credit Hours
Prerequisite: Graduate standing; EIPT 5533 and EIPT 6523, or permission of instructor. Examines cognitive and theoretical foundations underlying various instructional design theories and models for designing and developing effective learning environments to support various types of learning outcomes. Various pedagogical models, approaches, and scaffolding tools will be explored and applied in a real-world design and development project. (Sp)

## EIPT 6423 Digital Audio \& Video for Learning \&

## Instruction

3 Credit Hours
Prerequisite: Graduate standing, EIPT 5533, EIPT 6143, and EIPT 6523, or permission of instructor. Designed to prepare students with theoretical understanding and practical skills for creating audio and video for learning and instruction purposes, including processes related to recording, editing, and disseminating, such as for podcasting and videocasting. (Irreg.)

## EIPT 6433 Theories, Pedagogy, and Tools for Online

## Learning

3 Credit Hours
Prerequisite; graduate standing. Focuses on theoretical understandings of building virtual learning communities; pedagogies for engaging learners in social, cognitive and reflective processes; and advanced technologies for mediating learning and enhancing online collaboration. (Sp)
EIPT 6503 Messaging \& Layout for Learning 3 Credit Hours Prerequisite: Graduate standing, EIPT 5533, EIPT 6143, and EIPT 6523, or permission of instructor. Design and development of prose-heavy learning materials for print and digital use, including considerations of message design, readability, organization, signaling and structure, effective use of graphics, and designing for accessibility and inclusion in both printed and digital forms. (Irreg.)

## EIPT 6523 Visual Literacy and Digital Development for

Learning
3 Credit Hours
Prerequisite: Graduate standing; EIPT 5533 or permission of instructor. The course is for teachers, instructional designers and developers, and other professionals to increase understanding of visual communication principles and theories, and to develop skills and abilities to produce visuals for instructional communication via a variety of digital media. Topics include visual communication, and development and manipulation of graphics, sound, animation, and video. (Sp)

## EIPT 6533 Capstone - Development for Learning with Digital Technologies <br> 3 Credit Hours

Prerequisite: Graduate standing, EIPT 5533, EIPT 6143, and EIPT 6523 or permission of instructor. Terminal and capstone course for Learning Design \& Technology (LDT) Master's Program. Designbased development, evaluation and research of LDT products (e.g. digital instructional materials, scaffolding tools, tutoring systems) or technology-supported learning environments (e.g., games-based, mobile, augmented/virtual reality). (Sp)

EIPT 6613 Research Issues in Instructional Technology 3 Credit Hours Prerequisite: doctoral standing. May be repeated with change of content; maximum credit 12 hours. Examine specified research issues in the field of Instructional Technology. Students will read and critique existing research, as well as identify directions for new and continuing research. (Irreg.)

EIPT 6713 Research Issues in Instructional Psychology 3 Credit Hours Prerequisite: doctoral standing. May be repeated with change of content; maximum credit of 12 hours. Examine specified research issues in the field of instructional psychology. Students will read and critique existing research, as well as identify directions for new and continuing research. (Irreg.)

## EIPT 6910 Practicum in Education--Doctoral 1-6 Credit Hours

1 to 6 hours. Prerequisite: admission to doctoral program, permission of instructor. May be repeated; maximum credit six hours. Variable as to title and subject profession. An advanced practicum for post-master's level students only. The object is to provide professional experience under faculty supervision in fields requiring a high degree of professional skill. Seminar experience is to be included. (Irreg.)

## EIPT 6920 Internship in Education--Doctoral 2-6 Credit Hours

 1 to 6 hours. Prerequisite: written permission of the instructor. May be repeated; maximum credit 12 hours. Variable as to title and subject profession. An advanced internship for post-master's level students only. The object of the internship is to cultivate within the student a high degree of proficiency and professional independence. Field supervision is by a practitioner whose credentials are equal to those of the graduate faculty. (Irreg.)EIPT 6930 Intensive Studies in Education
1-6 Credit Hours
1 to 6 hours. Prerequisite: 12 hours of education and permission of instructor. Repeatable with change of title and subject. Opportunity offered for professional educators and others interested in education, cooperatively, to seek solutions to educational problems. Organized groups work in curriculum, guidance, instruction, administration and supervision. Competent leadership and expert consultant service provided. (Irreg.)

EIPT 6960 Directed Readings
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit six hours. Directed readings and/or literature review under the direction of a faculty member. (Irreg.)

EIPT 6970 Post-Master's Seminar
2-4 Credit Hours
2 to 4 hours. Prerequisite: master's degree, 24 hours of education, permission of instructor. May be repeated with change of subject matter; maximum credit twelve hours. Enrollment limited to students who hold the master's degree. (F, Sp, Su)

EIPT 6980 Research for Doctoral Dissertation 2-16 Credit Hours
2 to 16 hours. Prerequisite: Graduate standing and permission of instructor; may be repeated. Directed research culminating in the completion of the doctoral dissertation. Maximum of 15 hours credit for the Ed.D. and 30 hours for the Ph.D. (F, Sp, Su)

EIPT 6990 Individual Study in Education
1-4 Credit Hours
1 to 4 hours. Prerequisite: 12 hours of education, graduate standing and permission of the instructor. May be repeated with change of subject matter; maximum credit eight hours. For advanced graduate students who need to study some problem or area not adequately covered in the organized courses, under the direction of a staff member in whose area of specialization the problem lies. (Irreg.)

## Faculty

| Last Name | First/Middle Name | Middle init. | OU <br> Service start | Title(s), date(s) appointed | Degrees Earned, Schools, Dates Completed |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Barczak | Mary | A | 2020 | ASSISTANT <br> PROFESSOR OF <br> EDUCATIONAL <br> PSYCHOLOGY, 2020 | PhD, The Ohio State Univ, 2020; MS, Univ of Memphis, 2016; BS, Austin Peay State Univ, 2013 |
| Bradshaw | Amy | C | 1998 | PROFESSOR OF EDUCATIONAL PSYCHOLOGY, 2020 | PhD, Arizona State Univ, 1997; M.Ed, Arizona State Univ, 1993; BA, Arizona State Univ, 1992 |
| Brown | Cian | L | 2021 | ASSISTANT <br> PROFESSOR OF <br> EDUCATIONAL <br> PSYCHOLOGY, 2021 | Phd, Univ of Arkansas, 2021; MS, Univ of North Texas, 2014; BS, Texas A\&M Univ, 2011 |
| Crowson | Howard | M | 2002 | ASSOCIATE <br> PROFESSOR OF <br> EDUCATIONAL <br> PSYCHOLOGY, <br> 2008; ADJUNCT <br> ASSOCIATE <br> PROFESSOR OF <br> INTERDISCIPLINARY <br> PERSPECTIVES ON <br> THE ENVIRONMENT, <br> 2010; ADJUNCT <br> ASSOCIATE <br> PROFESSOR OF <br> LIBERAL STUDIES, <br> 2015 | PhD, Univ of Alabama, 2002; MA, Univ of Alabama, 2001; MA, Univ of Alabama, 1994; BS, Univ of Alabama, 1993 |
| Davis | Gary |  | 2017 | INSTRUCTOR, DIRECTOR OF AMERICAN SIGN LANGUAGE (ASL) PROGRAM, 2017 | MS, Deaf and Hard of Hearing Rehabilitation Research and Training Center, 2001; BA, East Central Univ, 1999 |
| Fernando | Delini | M | 2016 | ASSOCIATE <br> PROFESSOR OF <br> EDUCATIONAL <br> PSYCHOLOGY, 2016 | PhD, Univ of New Orleans, 2003; MS, Loyola Univ, 1998; BS, Chestnut Hill College, 1994 |


| Heddy | Benjamin | C | 2014 | ASSOCIATE <br> PROFESSOR OF <br> EDUCATIONAL <br> PSYCHOLOGY, 2020 | PhD, Univ of Southern <br> California, 2014; MA, <br> Univ of Northern <br> Colorado, 2009; BS, <br> Ferris State Univ, 2007 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Hennessey | Maeghan | N | 2007 | ASSOCIATE <br> PROFESSOR OF <br> EDUCATIONAL <br> PSYCHOLOGY, 2013 | PhD, Pennsylvania State Univ, 2007; Lock Haven Univ, 2002; BS, Pennsylvania State Univ, 1999 |
| Hott | Brittany | L | 2019 | ASSOCIATE PROFESSOR OF EDUCATIONAL PSYCHOLOGY, 2019; ASSOCIATE DIRECTOR OF INSTITUTE FOR COMMUNITY AND SOCIETAL TRANSFORMATION (ICAST), 2021 | PhD, George Mason Univ, 2012; EdS, Univ of Virginia, 2008; MEd, Virginia Commonwealth Univ, 2002; BA, RandolphMacon College, 1999 |
| Koenka | Alison | C | 2022 | ASSISTANT PROFESSOR OF EDUCATIONAL PSYCHOLOGY, 2022 | PhD, Duke Univ, 2015; BA, McGill Univ, 2009 |
| Kuntz | Emily | M | 2019 | ASSISTANT <br> PROFESSOR OF <br> EDUCATIONAL <br> PSYCHOLOGY, 2019 | PhD, Vanderbilt <br> Univ, 2019; MEd, <br> Vanderbilt Univ, 2010; <br> BA, American Univ, 2007 |
| Peltier | Corey | J. | 2018 | ASSOCIATE PROFESSOR OF EDUCATIONAL PSYCHOLOGY, 2023 | PhD, Texas A\&M Univ, 2017; MEd, Univ of Maryland, 2014; BS, Univ of Maryland, 2012 |
| Russo | Gordon | Michael | 2023 | ASSISTANT <br> PROFESSOR <br> EDUCATIONAL <br> PSYCHOLOGY, 2023 | PhD, Univ of <br> Mississippi, 2021; <br> MS, Univ of TX, 2017; <br> BA, Univ of TX, 2014 |
| Um | Byeolbee |  | 2023 | ASSISTANT <br> PROFESSOR OF <br> EDUCATIONAL <br> PSYCHOLOGY, 2023 | PhD, Univ of Iowa, 2023; M.Ed, Seoul Nat Univ of Education, 2017; B.Ed, Seoul Nat Univ of Education, 2014 |
| Washington | LaShawn | F | 2023 | ASSISTANT <br> PROFESSOR OF <br> EDUCATIONAL <br> PSYCHOLOGY, 2023 | PhD, Univ of Wisconsin-Madison, 2023; M.Ed, Univ of TX, 2018; BA, Univ of TX, 2016 |
| WilliamsDiehm | Kendra | L | 2008 | PROFESSOR OF EDUCATIONAL PSYCHOLOGY, 2020; DIRECTOR/ ENDOWED CHAIR ZARROW INSTITUTE ON TRANSISTION \& SELF DETERMINATION, ZARROW FAMILY CHAIR IN LEARNNG ENRICHMENT, 2018 | PhD, Texas A\&M Univ, 2006; MEd, Texas A\&M Univ, 2002; BS, Texas A\&M Univ, 1999 |

## Special Education, B.S.

Minimum Total Credit Hours: 124
Minimum Upper-Division Hours: 40

Overall GPA - Combined and OU: 2.75
Major GPA - Combined and OU: 2.75

## Program Code: B855

## Admission and Retention Requirements

Admission Requirements-Jeannine Rainbolt College of Education
Students are eligible for admission to the Jeannine Rainbolt College of Education with:

1. a minimum of 24 semester hours earned from an accredited institution of higher learning;
2. a minimum of $\mathbf{2 . 7 5}$ combined retention grade point average on all coursework attempted;
3. a declared major in education.

## Full Admission Requirements-Teacher Education and Professional

 Studies ProgramsStudents are eligible for admission to Teacher Education with:

1. a minimum of 30 semester hours from an accredited institution of higher learning to include the following 24 hours as defined by the Oklahoma State Regents for Higher Education with a grade of C or better: English (Composition and Literature)-6 hours; MATH, Gen. Ed. Core I-3 hours; American History-3 hours; American Government-3 hours; Humanities to include Artistic Forms, Western Civilization, Non-Western Culture, World Language, or other advisor-approved Gen. Ed. course - 3 hours; Social and Behavioral Sciences-3 hours; Natural Sciences-3 hours.
2. a minimum of $\mathbf{2 . 7 5}$ grade point average ( OU retention and combined retention) on all coursework attempted;
3. Meet one of the six performance criteria listed by Oklahoma State Regents for Higher Education (OSRHE) that students may use to qualify for admission into an Oklahoma teacher education program. Speak with your Education Advisor for more details.

Admission to a teaching program requires submission of an application,essay, background check,and an interview with the admission committee prior to enrollment in the first education course.

## Retention Requirements-Jeannine Rainbolt College of Education

1. When a student accepts an offer of admission into a JRCoE department or program, they commit to comply with all its regulations, including those regarding professional conduct and dispositions that are contained in the JRCoE Professional Behavior Policy.
2. Students must maintain a minimum 2.75 grade point average (OU retention and combined retention) in all undergraduate coursework and a minimum 3.00 grade point average in all graduate coursework attempted.
3. Students must maintain a minimum of 2.75 undergraduate grade point average in both professional education courses and in specialized education courses with no grade less than a C and must maintain a minimum of 3.00 grade point average in graduate professional and specialized education courses, with no grade less than a B.
4. Students must earn a C or better in COMM 1113 or COMM 2613.
5. Students whose OU retention or combined retention grade point averages at the undergraduate level fall below 2.75 will be subject to
dismissal from the college. At the graduate level, students must meet Graduate College requirements.
6. Students who have not earned OU retention and combined retention grade point averages of 2.75 after the completion of 60 semester hours will be dismissed from the college.
7. Because one college level math course is a requirement for full admission into both the college and the teacher preparation program, declared Education majors must complete at least one college-level Math within the first four semesters of enrollment at OU. Transfer students who have not completed a college level Math course will have two semesters to complete the requirement. Students who fail to meet the requirement within the time limits specified will be subject to dismissal from the college.
8. Course work more than 10 years old in the teaching specialization and professional education may not be credited to ward the completion of a teacher education degree and/or certificate program. However, course work over 10 years old may be reviewed by the appropriate certificate committee for possible credit toward the completion of a teacher education degree and/or certificate program.
9. A student has 6 years to complete a teacher education degree and/ or certificate program after full admission. After the 6- year period, a student must seek readmission to that program and meet the catalog requirements in effect at the time of readmission.
10. Students will be withdrawn from courses for failing to observe prerequisites and corequisites. Continued disregard of prerequisites and corequisites is grounds for dismissal from the college.

## Major Requirements

Students must maintain a minimum of 2.75 grade point average with no grade less than a C in the Professional Education and the Specialized Education courses for graduation.

Certification: To be fully certified, students must pass Certification Examinations for Oklahoma Educators and apply for a license.


| EDSP 4023 | Assessment for Eligibility and Program <br> Planning | 3 |
| :--- | :--- | ---: |
| EDSP 4033 | Intensifying Mathematics Interventions for <br> Students with Disabilities 1 | 3 |
| EDSP 4043 | Classroom Management in Special <br> Education | 3 |
| EDSP 4053 | Language, Literacy, and Communication <br> Strategies | 3 |
| EDSP 4063 | Teaching Students with Significant Support <br> and Educational Needs | 3 |
| EDSP 4072 | Introductory Practicum in Special <br> Education | 3 |
| EDSP 4083 | Individual Behavior Supports | 2 |
| EDSP 4093 | Transition and Self-Determination | 3 |
| EDSP 4103 | IEP Development and Family Advocacy |  |

1 These courses require field experience.
2 Theses courses are taken together in the final semester.

## Free Electives

| Code | Title |
| :--- | :--- |
|  | Credit |
|  | Hours |

Choose 1 hour from General Education, World Languages, Education, or advisor approved

## General Education and College Requirements

Courses taken to fulfill the University General Education Requirements must be chosen from the University-Wide General Education Approved Course List. The General Education courses below meet minimum University, College and State General Education Requirements.

## UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND

 COLLEGE REQUIREMENTSCode Title Credit Hours
Core Area I: Symbolic and Oral Communication
English and Communication (9 hours)

| ENGL 1113 | Principles of English Composition (Core I - | 3 |
| :--- | :--- | :---: |
|  | EN1) |  |
| ENGL 1213 | Principles of English Composition (Core I - | 3 |
| or EXPO 1213 | EN2) |  |
| COMM 1113 | Principles of Communication (Core I) | 3 |
| or COMM 2613 Public Speaking |  |  |

2613 Public Speaking
Language (0-10 hours)
University-Wide General Education Requirement: Choose two 0-10 college-level courses in a single language; may be satisfied by successful completion of 2 years in a single language in high school (Core I)

Oklahoma State Regents for Higher Education Requirement: Teacher candidates must demonstrate conversational skills at a novice-high level in a language other than English OR demonstrate the knowledge and skills necessary to address the needs of Emergent Bilingual (English Learner) students in the $\mathrm{P}-12$ classroom and are proficient in the strategies required for successful delivery of $P-12$ instruction in that

$$
\text { area }^{1}
$$

Mathematics (12 hours)

| Choose two MATH courses (Core I) | 6 |  |
| :--- | :--- | :--- |
| MATH 2213 | Mathematical Systems | 3 |
| MATH 2223 | Data Analysis and Geometric Systems | 3 |

## Core Area II: Natural Science ( 12 hours, including one laboratory course)

Choose one course in biological sciences (Core II): BIOL, HES, 3-5 MBIO, or PBIO
Choose any 2000-level or higher science course 3-4
Choose one course in physical sciences (Core II): AGSC, 3-5
ASTR, CHEM, GEOG, GEOL, GPHY, METR, or PHYS
Core Area III: Social Science (6 hours)

| P SC 1113 | American Federal Government (Core III - <br> PSC) | 3 |
| :--- | :--- | :--- |
| PSY 1113 | Elements of Psychology (Core III - SS) | 3 |

Core Area IV: Arts and Humanities ( 12 hours)
HIST $1483 \quad 3$
or HIST 1493 United States, 1865 to the Present
GEOG 1103 Human Geography (Western Culture Core 3
or GEOG 2603 World Regional Geography
Artistic Forms: Choose one ENGL 2000-level or higher (Core

## IV-AF)

World Culture: Choose one course from the University-Wide
General Education Approved Course List (3000-level or above)
and advisor approved (Core IV - WDC)
Core Area V: First Year Experience (3 hours)
Choose one course (Core V - FYE)
Electives (1 hour)
Additional elective hours may be required to meet the 55 1
Liberal Arts hours required to graduate
Total Credit Hours
55-65
1 The novice-high level language requirement may be satisfied by classical, modern, Native or American Sign Language. Courses that demonstrate knowledge and skills necessary to address the needs of Emergent Bilingual students are determined by the College of Education.

## Certification and Degree Requirements

Field Experiences: Transfer students without appropriate field experiences may be required to enroll in EDUC 2400.
Pass/No Pass Enrollment: Only general education electives may be taken under the pass/no pass option.
Residence Requirements: Students must complete either the last 30 hours or 45 of the last 60 hours after being fully admitted to a teacher education program to satisfy this requirement.

Requirements to be Completed to be Eligible for Student Teaching Internship: Students must be in good standing and have completed all baccalaureate degree requirements with the exception of the appropriate internship course itself and the courses taken with it in the final semester per their major requirements.
Junior College Transfer Students: Students transferring from a junior college may use the transferred credit to meet certain lower-division course requirements only; that is, freshman and sophomore-level courses.
Degree Completion Responsibility: Although the Dean's Office checks each student's records, the responsibility for meeting degree requirements lies with the student and not with the advisor or the Dean. Each student should obtain a copy of his or her requirements for graduation and check it regularly as he or she completes his or her degree program.
Graduation Application: The final step to be completed by the student before graduation is the filing of an official Application for Graduation. The Application for Graduation should be filled out online by May 1 for fall graduation, December 1 for spring graduation, and March 1 for summer graduation. The student's degree will not be conferred, nor any completion statement entered on their transcript, until the required application is filed.

## Admission \& Retention Requirements

It is the responsibility of the student to read and be familiar with the requirements for Admission to, and Retention in, the Jeannine Rainbolt College of Education. The current Admission and Retention policies can be found in the college's overview page in the OU General Catalog, under the Undergraduate tab here: http://ou-public.courseleaf.com/rainbolt-education/\#undergraduatetext.

## Suggested Semester Plan of Study

This plan shows one possible grouping of courses that would allow students to graduate in four years. Please refer to the front of the degree checksheet for official requirements. Students must consult with College of Education academic advisors to verify that courses selected each semester fulfill the recommended plan and satisfy university, College of Education, and major requirements.

## Freshman

First Semester Credit
ENGL 1113 Principles of English Composition (Core I- 3 EN1)
MATH (Core I-MATH) 3

HIST 1483 United States to 1865 (Core IV-HIST) 3
$\begin{array}{lll}\text { or HIST } 1493 & \text { or United States, } 1865 \text { to the Present } \\ \text { PSY } 1113 & \text { Elements of Psychology (Core III-SS) }\end{array}$
First Year Experience (Core V-FYE) 3
Credit Hours15

## Second Semester

ENGL $1213 \quad$ Principles of English Composition (Core I- 3 or EXPO 1213 EN2)
or Expository Writing
ENGL 2000-level (Core IV-AF) 3
MATH (Core I) 3
P SC 1113 American Federal Government (Core III- 3
PSC)

| Biological Science (Core II) | es, one course in BIOL/HES/MBIO/PBIO | 4-5 | EDSP 4023 | Assessment for Eligibility and Program Planning | 3 |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Credit Hours | 16-17 | EDSP 4112 | Advanced Practicum in Special Education | 2 |
| Sophomore First Semester |  |  | EIPT 3483 | Motivation and Classroom Management for Teachers | 3 |
| MATH 2213 | Mathematical Systems | 3 | World Cultu Approved) | per-Division (Core IV-WDC, Advisor | 3 |
| $\begin{aligned} & \text { GEOG } 1103 \\ & \text { or GEOG } 2603 \end{aligned}$ | Human Geography (Core IV-WC) or World Regional Geography | 3 |  | Credit Hours | 17 |
| EIPT 3473 | Learning, Development, and Assessment for Teachers | 3 | Second Semester |  |  |
|  |  |  | EDSP 4123 | Applied Research in Special Education | 3 |
| EDSP 3053 | Understanding and Accommodating Exceptional Learners | 3 | EDSP 4050 | Internship in Special Education | 6 |
|  |  |  |  | Credit Hours | 9 |
| Physical Sciences, one course in ASTR, CHEM, GEOG, GEOL, GPHY, METR or PHYS (Core II) |  | 4 |  | Total Credit Hours | 124 |
| General Education/Liberal Arts Electives |  | 1 | Clinical Professional Counseling, M.Ed. |  |  |
|  | Credit Hours | 17 |  |  |  |
| Second Semester |  |  | Minimum Total Hours (Non-Thesis): 60 |  |  |
| MATH 2223 | Data Analysis and Geometric Systems | 3 | Program Code: M203 |  |  |
| COMM 1113 or COMM 2613 | Principles of Communication (Core I) or Public Speaking | 3 | - This program is Non-Thesis only. |  |  |
| EDSP 4013 | Fundamental Academic Instructional Strategies | 3 | Program Requirements |  |  |
| EDLT 3911 | Language and Literacy Practicum | 1 |  |  |  |
| EDLT 3913 | Literacy in the Primary Grades | 3 | Cod | Tite | Hours |
| Science Elective, 2000-Level and adviser-approved |  | 3-4 | Required Courses |  |  |
| Junior | Credit Hours | 16-17 | EDPC 5113 | Human Development | 3 |
|  |  |  | EDPC 5253 | Assessment in Counseling | 3 |
| First Semester |  |  | EDPC 5263 | Professional Issues and Ethics in | 3 |
| EDS 4003 | Schools in American Cultures | 3 |  | Counseling |  |
| EDSP 4033 | Intensifying Mathematics Interventions for Students with Disabilities | 3 | EDPC 5413 | Occupational Information--Career Development | 3 |
| EDSP 4103 | IEP Development and Family Advocacy | 3 | EDPC 5423 | Methods and Techniques of Counseling | 3 |
| EIPT 3043 | Learning with Educational Technologies | 3 | EDPC 5433 | Theories and Techniques of Group | 3 |
| EDMA 3353 or EDMA 4233 | PK-3 Mathematics Concepts <br> or Developing Problem-Solving Environ for Secondary Math Learning | 3 |  | Counseling |  |
|  |  |  | EDPC 5453 | Social \& Cultural Diversity | 3 |
|  |  |  | EDPC 5473 | Counseling Theories | 3 |
| Free Electives |  | 1 | EDPC 5483 | Diagnosis \& Treatment in Counseling | 3 |
|  | Credit Hours | 16 | EDPC 5513 | Introduction to Abuse and Addictions | 3 |
| Second Semester |  |  |  | Theory and Treatment |  |
| EDSP 4043 | Classroom Management in Special Education | 3 | EDPC 5653 | Crisis Counseling | 3 |
|  |  |  | EDPC 5913 | Practicum in Counseling--Master's | 3 |
| EDSP 4053 | Language, Literacy, and Communication Strategies | 3 | EDPC 5923 | Internship in Professional Counseling (3 hours in Fall \& 3 hours in Spring, taken | 6 |
| EDSP 4063 | Teaching Students with Significant Support and Educational Needs | 3 |  | sequentially for a total of 6 hours) |  |
|  |  |  | EIPT 5033 | Introduction to Research and Evaluation in | 3 |
| EDSP 4072 | Introductory Practicum in Special | 2 |  | Education |  |
|  | Education |  | EIPT 5203 | Assessment and Evaluation in Education | 3 |
| EDSC 4093 | Inquiry-Based Science Teaching | 3 |  | and Counseling |  |
| EDSS 3553 | Foundations to Social Studies Education | 3 | Electives |  |  |
| Senior | Credit Hours | 17 | Choose 12 hours with approval of advisor and Graduate Liaison (p. 1109) |  | 12 |
|  |  |  |  |  |  |
| First Semester |  |  | Total Credit Hours |  | 60 |
| EDSP 4083 |  | Individual Behavior Supports | 3 |  |  |  |
| EDSP 4093 | Transition and Self-Determination | 3 |  |  |  |

## General Requirements for all Master's Degrees

The master's degree requires the equivalent of at least two semesters of satisfactory graduate work and additional work as may be prescribed for the degree.

All coursework applied to the master's degree must carry graduate credit.
Master's degree programs which require a thesis consist of at least 30 credit hours. All non-thesis master's degree programs require at least 30 credit hours.

Credit transferred from other institutions must meet specific criteria and is subject to certain limitations.

Courses completed through correspondence study may not be applied to the master's degree.

To qualify for a graduate degree, students must achieve an overall grade point average of 3.0 or higher in the degree program coursework and in all resident graduate coursework attempted. A student must also have at least a 3.0 in all coursework (including undergraduate coursework if any).

Additional information for master's degree students may be found in the Graduate College Bulletin.

## Clinical Professional Counseling Graduate Elective Courses

- For the most current list of approved electives, please consult the Department of Educational Psychology.

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| EDPC 5523 | Addictions and Family Theory | 3 |
| EDPC 5533 | Psychopharmacology/Neurobiology of <br> Addiction | 3 |
| EDPC 5543 | Addictions Counseling: Theoretical | 3 |
| EDPC 5553 | Approaches and Co-Occurring Disorders | 3 |
| EDPC 5633 | Addictions in Family Counseling | 3 |

## Learning Experience Design and Technology, M.S.

Minimum Total Hours (Non-Thesis): 36
Program Code: M627

## Program Requirements

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Required Courses |  |  |
| EIPT 5533 | Foundations of Learning Sciences | 3 |
| EIPT 5693 | Critical Literacy | 3 |
| EIPT 6143 | Instructional Development | 3 |
| EIPT 6343 | Design of Learning Environments | 3 |
| EIPT 5970 | Special Topics/Seminar (topic: Educational <br> Design-based Research) | 3 |
| or EIPT 6233 | Educational Design-based Research |  |


| EIPT 6523 | Visual Literacy and Digital Development for Learning | 3 |
| :---: | :---: | :---: |
| EIPT 6533 | Capstone - Development for Learning with Digital Technologies | 3 |
| EIPT 5920 | Internship in Education--Master's | 3 |
| Development Core |  |  |
| Choose 6 hours from the following list with advisor approval. At least one of the two courses must be Type I. |  | 6 |
| Type I: Design and development of digital apps or multimedia courses (creating original end-user products/tools) |  |  |
| EIPT 5333 | Introduction to Extended Reality (XR) for Education |  |
| EIPT 6313 | Multimedia Design and Development for Learning |  |
| EIPT 6323 | Game-based learning: Design, Development, and Integration |  |
| EIPT 6423 | Digital Audio \& Video for Learning \& Instruction |  |
| EIPT 6503 | Messaging \& Layout for Learning |  |
| Type II: Design and development of holistic learning environments (using pre-existing end-user products/tools/ platforms) |  |  |
| EIPT 5683 | Technology-Enhanced Problem-Based Learning |  |
| EIPT 6433 | Theories, Pedagogy, and Tools for Online Learning |  |

## Electives

6 hours from a list maintained by the academic unit and 6 approved by the Graduate College. Other courses may be accepted as electives with program area approval. (p. 1110)
Total Credit Hours

## General Requirements for all Master's Degrees

The master's degree requires the equivalent of at least two semesters of satisfactory graduate work and additional work as may be prescribed for the degree.

All coursework applied to the master's degree must carry graduate credit.
Master's degree programs which require a thesis consist of at least 30 credit hours. All non-thesis master's degree programs require at least 30 credit hours.

Credit transferred from other institutions must meet specific criteria and is subject to certain limitations.

Courses completed through correspondence study may not be applied to the master's degree.

To qualify for a graduate degree, students must achieve an overall grade point average of 3.0 or higher in the degree program coursework and in all resident graduate coursework attempted. A student must also have at least a 3.0 in all coursework (including undergraduate coursework if any).

Additional information for master's degree students may be found in the Graduate College Bulletin.

## Approved Learning Experience Design and Technology Electives

- For the most current list of approved electives, please consult the Department of Educational Psychology.

| Code | Title | Credit |
| :---: | :---: | :---: |
|  |  | Hours |
| EDAH 5033 | Critical Literature in Adult and Higher | 3 |
|  | Education |  |
| EDAH 5163 | Diversity Issues in Higher Education | 3 |
| EDAH 5473 | Race, Class, and Gender in Education | 3 |
| EDAH 5513 | Management \& Admin Of The Training | 3 |
|  | Function |  |
| EIPT 5183 | Learning and Motivation | 3 |
| EIPT 6183 | Cognition and Instruction | 3 |
| Any course listed under Development Core not being counted for that category may be taken as an elective: |  |  |
| EIPT 5333 | Introduction to Extended Reality (XR) for Education |  |
| EIPT 5683 | Technology-Enhanced Problem-Based Learning |  |
| EIPT 6313 | Multimedia Design and Development for Learning |  |
| EIPT 6323 | Game-based learning: Design, Development, and Integration |  |
| EIPT 6423 | Digital Audio \& Video for Learning \& Instruction |  |
| EIPT 6433 | Theories, Pedagogy, and Tools for Online Learning |  |
| EIPT 6503 | Messaging \& Layout for Learning |  |

## Science of Psychology, Data, and Research in Education, M.S.

Minimum Total Hours (Thesis): 33
Minimum Total Hours (Non-Thesis): 33
Program Code: M835

## Thesis Option

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Required Courses |  |  |
| EIPT 5183 | Learning and Motivation | 3 |
| EIPT 5023 | Analysis of Quantitative Data I | 3 |
| EIPT 6023 | Analysis of Quantitative Data II | 3 |
| EIPT 5033 | Introduction to Research and Evaluation in <br> Education | 3 |
| EIPT 5203 | Assessment and Evaluation in Education <br> and Counseling | 3 |
| Completion | Research for Master's Thesis | 6 |
| EIPT 5980 | Res |  |

Electives

Choose 12 hours of elective coursework with approval of


## General Requirements for all Master's Degrees

The master's degree requires the equivalent of at least two semesters of satisfactory graduate work and additional work as may be prescribed for the degree.

All coursework applied to the master's degree must carry graduate credit

Master's degree programs which require a thesis consist of at least 30 credit hours. All non-thesis master's degree programs require at least 30 credit hours

Credit transferred from other institutions must meet specific criteria and is subject to certain limitations.

Courses completed through correspondence study may not be applied to the master's degree.

To qualify for a graduate degree, students must achieve an overall grade point average of 3.0 or higher in the degree program coursework and in all resident graduate coursework attempted. A student must also have at least a 3.0 in all coursework (including undergraduate coursework if any).

Additional information for master's degree students may be found in the Graduate College Bulletin.

## Special Education, M.Ed.

Minimum Total Hours (Thesis): 35-37
Minimum Total Hours (Non-Thesis): 33
Program Code: M855 Q628; Online M856 Q628

## Thesis Option



## Total Credit Hours

## Non-Thesis Option

The non-thesis degree is a coursework-only degree; a non-thesis examination is not required

| Code | Title | Credit Hours |
| :---: | :---: | :---: |
| Required Courses |  |  |
| EDSP 5413 | Characteristics \& Methods in Teaching Students with Exceptionalities | 3 |
| EDSP 5163 | Leadership \& Advocacy in Special Education | 3 |
| EDSP 6123 | Contemporary Issues/Research | 3 |
| EDSP 5183 | Advanced Assessment | 3 |
| EDSP 5143 <br> or EDSP 5603 | Individual Behavior Planning in the Classroom <br> Philosophical Assumptions of Behavior Analysis | 3 |
| EIPT 5033 <br> or EDSP 6023 | Introduction to Research and Evaluation in Education <br> Single-Case Research Design | 3 |
| Electives |  |  |
| Choose a minimum Education | of 9 hours of graduate courses in Special | 9 |
| Choose a minimum approved by facult | m of 6 hours of additional graduate electives ly advisor | 6 |

Total Credit Hours

## General Requirements for all Master's Degrees

The master's degree requires the equivalent of at least two semesters of satisfactory graduate work and additional work as may be prescribed for the degree.

All coursework applied to the master's degree must carry graduate credit.
Master's degree programs which require a thesis consist of at least 30 credit hours. All non-thesis master's degree programs require at least 30 credit hours.

Credit transferred from other institutions must meet specific criteria and is subject to certain limitations.

Courses completed through correspondence study may not be applied to the master's degree.

To qualify for a graduate degree, students must achieve an overall grade point average of 3.0 or higher in the degree program coursework and in all resident graduate coursework attempted. A student must also have at least a 3.0 in all coursework (including undergraduate coursework if any).

Additional information for master's degree students may be found in the Graduate College Bulletin.

## Applications of Educational Research and Evaluation, Graduate Certificate

Minimum Total Hours: 12
Program Code: G018
The Applications of Educational Research and Evaluation Graduate Certificate provides a strong foundation in the techniques for conducting program evaluations using educational research, and offers a series of high quality online courses.

| Certificate Requirements |  |  |
| :--- | :--- | ---: |
| Code | Title | Credit <br> Hours |
| EIPT 5033 | Introduction to Research and Evaluation in <br> Education | 3 |
| EIPT 5023 | Analysis of Quantitative Data I |  |
| EIPT 5203 | Assessment and Evaluation in Education <br> and Counseling | 3 |
| EIPT 6073 | Program Evaluation | 3 |
| Total Credit Hours | $\mathbf{1 2}$ |  |

[^35]Students must earn a grade point average of 3.00 or higher on all coursework applied to the graduate certificate.

## Applied Behavior Analysis, Graduate Certificate

Minimum Total Hours: 21
Program Code: G019
The Applied Behavior Analysis Graduate Certificate provides students with a comprehensive set of skills that integrates theory and ethical practices of applied behavior analysis.

## Certificate Requirements

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| EDSP 5603 | Philosophical Assumptions of Behavior <br> Analysis | 3 |
| EDSP 5613 | Principles and Concepts in Applied <br> Behavior Analysis | 3 |
| EDSP 5623 | Ethics in Applied Behavior Analysis | 3 |
| EDSP 5633 | Organizational Behavior Management | 3 |
| EDSP 5643 | Behavior Change in Applied Behavioral <br> Analysis | 3 |
| EDSP 5653 | Behavior Assessment in Applied Behavioral | 3 |
| EDSP 6023 | Analysis | 3 |
| Sotal Credit Hoursle-Case Research Design | 3 |  |

A graduate certificate is not a graduate degree. A graduate degree represents a program of independent inquiry beyond the depth of coursework alone, while a graduate certificate represents a set of courses only.

- All courses must be taken at OU. No transfer credit will apply.
- No course substitutions are permitted for graduate certificates
- Coursework applied to a graduate certificate cannot be more than five years old as of the semester the graduate certificate is awarded.
- Students must earn a grade point average of 3.00 or higher on all coursework applied to the graduate certificate.


## Drug and Alcohol Counseling, Graduate Certificate

Minimum Total Hours: 15

Program Code: G034
The embedded certificate in Drug \& Alcohol Counseling requires 15 hours which are specific to drug and alcohol counseling that meet or exceed all requirements for licensure in the state of Oklahoma. This is not a standalone certificate- it provides a transcripted credential for students who wish to pursue licensure as drug and alcohol counselors in the state of Oklahoma

## Certificate Requirements

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| EDPC 5513 | Introduction to Abuse and Addictions <br> Theory and Treatment | 3 |
| EDPC 5523 | Addictions and Family Theory | 3 |
| EDPC 5533 | Psychopharmacology/Neurobiology of <br>  <br> EDPC 5543 | Addiction |
|  | Addictions Counseling: Theoretical | 3 |
| EDPC 5553 | Approaches and Co-Occurring Disorders | 3 |

Total Credit Hours

A graduate certificate is not a graduate degree. A graduate degree represents a program of independent inquiry beyond the depth of coursework alone, while a graduate certificate represents a set of courses only.

- All courses must be taken at OU. No transfer credit will apply.
- No course substitutions are permitted for graduate certificates.
- Coursework applied to a graduate certificate cannot be more than five years old as of the semester the graduate certificate is awarded.
- Students must earn a grade point average of 3.00 or higher on all coursework applied to the graduate certificate.


## Fundamentals of Special Education, Graduate Certificate

Minimum Total Hours: 18
Program Code: G041
The curriculum for this embedded certificate consists of six (6) graduate courses that are the most necessary and fundamental courses for persons who are interested in teaching individuals with disabilities but have not received their undergraduate degree or master's degree in Special Education.

## Certificate Requirements

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| EDSP 5413 | Characteristics \& Methods in Teaching <br> Students with Exceptionalities | 3 |
| EDSP 5143 | Individual Behavior Planning in the <br> Classroom | 3 |
| EDSP 5183 | Advanced Assessment | 3 |
| EDSP 5163 | Leadership \& Advocacy in Special <br> Education | 3 |
| Choose two courses from the following: | 6 |  |
| EDSP 5013 | Evidence-Based Practices for Mathematics <br> Instruction for Students with Disabilities | 6 |
| EDSP 5093 | Transition and Self-Determination <br> EDSP 5213 | Evidence-based Practices for Reading <br> Instruction for Students with Disabilities |

A graduate certificate is not a graduate degree. A graduate degree represents a program of independent inquiry beyond the depth of coursework alone, while a graduate certificate represents a set of courses only.

- All courses must be taken at OU. No transfer credit will apply.
- No course substitutions are permitted for graduate certificates.
- Coursework applied to a graduate certificate cannot be more than five years old as of the semester the graduate certificate is awarded.
- Students must earn a grade point average of 3.00 or higher on all coursework applied to the graduate certificate.


## Learning Design and Technology, Graduate Certificate

Minimum Total Hours: 18
Program Code: G567

## Certificate Requirements

This combination of courses and experiences provides learners with the expertise, and evidence of that expertise, to be highly competitive for jobs related to Instructional Design, Learning Design and Technology, Instructional Consulting, and Instructional Development.

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| EIPT 5183 | Learning and Motivation | 3 |
| EIPT 5533 | Foundations of Learning Sciences | 3 |
| EIPT 5920 | Internship in Education--Master's | 3 |
| EIPT 6343 | Design of Learning Environments | 3 |
| EIPT 6523 | Visual Literacy and Digital Development for <br> Learning | 3 |
| EIPT 6533 | Capstone - Development for Learning with <br> Digital Technologies | 3 |

## Total Credit Hours

A graduate certificate is not a graduate degree. A graduate degree represents a program of independent inquiry beyond the depth of coursework alone, while a graduate certificate represents a set of courses only.

- All courses must be taken at OU. No transfer credit will apply.
- No course substitutions are permitted for graduate certificates.
- Coursework applied to a graduate certificate cannot be more than five years old as of the semester the graduate certificate is awarded.
- Students must earn a grade point average of 3.00 or higher on all coursework applied to the graduate certificate.


## School Counseling, Graduate Certificate

Minimum Total Hours: 15

Program Code: G098
The curriculum for this embedded certificate includes a sequence of five (5) graduate courses that are part of the concentration in School Counseling within the Master's program in Professional Counseling. The certificate provides a transcripted credential for students who wish
to pursue alternative certification as school counselors in the state of Oklahoma.

## Certificate Requirements

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| EDPC 5513 | Introduction to Abuse and Addictions <br> Theory and Treatment | 3 |
| EDSP 5413 | Characteristics \& Methods in Teaching <br> Students with Exceptionalities | 3 |
| EDSP 5143 | Individual Behavior Planning in the <br> Classroom | 3 |
| EDPC 5113 | Human Development | $\mathbf{3}$ |
| Total Credit Hours | Assessment in Counseling | $\mathbf{3}$ |

A graduate certificate is not a graduate degree. A graduate degree represents a program of independent inquiry beyond the depth of coursework alone, while a graduate certificate represents a set of courses only.

- All courses must be taken at OU. No transfer credit will apply.
- No course substitutions are permitted for graduate certificates.
- Coursework applied to a graduate certificate cannot be more than five years old as of the semester the graduate certificate is awarded.
- Students must earn a grade point average of 3.00 or higher on all coursework applied to the graduate certificate.


## Secondary Transition Education Specialist, Graduate Certificate

Minimum Total Hours: 12

## Program Code: G101

The Secondary Transition Education Specialist Graduate Certificate provides students with a comprehensive set of skills that integrates the theory and practice of transition education.

## Certificate Requirements

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| EDSP 5093 | Transition and Self-Determination | 3 |
| EDSP 5193 | Post-Secondary Education and <br> Employment | 3 |
| EDSP 5293 | Transition-Based Assessment | 3 |
| EDSP 5393 | Research and Practicum in Transition <br>  Education | 3 |

## Total Credit Hours

A graduate certificate is not a graduate degree. A graduate degree represents a program of independent inquiry beyond the depth of coursework alone, while a graduate certificate represents a set of courses only.

[^36]- Coursework applied to a graduate certificate cannot be more than five years old as of the semester the graduate certificate is awarded.
- Students must earn a grade point average of 3.00 or higher on all coursework applied to the graduate certificate.


## Learning Experience Design and Technology, Ph.D.

Minimum Total Credit Hours: 90
Program Code: D637

## Program Requirements

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Theoretical/Philosophical Core |  |  |
| EIPT 5533 | Foundations of Learning Sciences | 3 |
| EIPT 5693 | Critical Literacy | 3 |
| EIPT 6101 | Propaedeutic Seminar | 1 |
| EIPT 6183 | Cognition and Instruction | 3 |
| EIPT 6343 | Design of Learning Environments | 3 |


| Methodology Core |  |  |
| :--- | :--- | :--- |
| EIPT 5023 | Analysis of Quantitative Data I | 3 |
| EIPT 6023 | Analysis of Quantitative Data II | 3 |
| EIPT 6043 | Qualitative Research Methods | 3 |
| EIPT 6083 | Qualitative Research Methods II | 3 |
| EIPT 6233 | Educational Design-based Research | 3 |

Development Core
Choose 6 hours from the following list, selected with advisor 6
approval. At least 1 course must be a Type I.

| Type I: Design and development of digital apps or multimedia |
| :--- |
| products |
| EIPT $5333 \quad$Introduction to Extended Reality (XR) for <br> Education |
| EIPT 6313 |
| Multimedia Design and Development for <br> Learning |
| EIPT 6323 $\quad$Game-based learning: Design, <br> Development, and Integration |

EIPT 6423 Digital Audio \& Video for Learning \& Instruction
EIPT 6503 Messaging \& Layout for Learning
Type II: Design and development of holistic learning
environments
EIPT 5683 Technology-Enhanced Problem-Based Learning
EIPT 6433 Theories, Pedagogy, and Tools for Online Learning

## Critical Core

Choose 3 hours from the following list. Other courses may be accepted with program area approval.

| EDAH 5033 | Critical Literature in Adult and Higher <br> Education |
| :--- | :--- |
| EDAH 5163 | Diversity Issues in Higher Education |
| EDAH 5473 | Race, Class, and Gender in Education |

[^37]Choose 14 hours from the following list, selected with advisor approval.

| EIPT 5960 | Directed Readings |
| :--- | :--- |
| EIPT 5970 | Special Topics/Seminar |
| EIPT 6920 | Internship in Education--Doctoral |
| EIPT 6930 | Intensive Studies in Education |

## Electives

Choose 30 hours from a list maintained by the academic unit 30 and approve by the Graduate College. Other courses may be accepted as electives with program area approval.

## Dissertation

EIPT 6980 Research for Doctoral Dissertation 9
Total Credit Hours

## General Requirements for Doctoral Degrees

A student should expect to spend at least the equivalent of three full academic years beyond the bachelor's degree to obtain the doctoral degree. During this period the student will take appropriate graduate coursework, successfully complete the general examination, and successfully defend and submit the final dissertation.

All coursework applied to the doctoral degree must carry graduate credit.

The doctoral degree requires at least 90 post-baccalaureate hours, including both formal coursework and hours of research.

The minimum hour requirement for a specific doctoral degree program cannot be waived.

No more than one-half of the credit hours, both OU and overall, excluding Research for Doctoral Dissertation (6980), may be S/U-graded coursework.

The student must be in residence at OU for at least two consecutive 16 week semesters during the pursuit of the doctoral degree while enrolled and engaged in coursework or research activities as prescribed by the major academic unit

For more detailed regulations and requirements for Doctoral degrees, please consult the Graduate College Bulletin: http://www.ou.edu/ gradcollege/forms/bulletin

## Science of Psychology, Data, and Research in Education, Ph.D.

Minimum Total Hours: 90

Program Code: D835

## Program Requirements

| Code | Title |
| :--- | :--- |
|  | Credit |
|  | Hours |

Required Coursework (33 hours)
$\left.\begin{array}{lll}\text { EIPT 6023 } & \text { Analysis of Quantitative Data II } & 3 \\ \text { EIPT 6033 } & \text { Research Methods in Education } & 3 \\ \text { EIPT 6043 } & \text { Qualitative Research Methods } & 3 \\ \text { EIPT 6063 } & \begin{array}{l}\text { Applied Multivariate Statistics in } \\ \text { EIPT 6073 }\end{array} & \text { Educational Research }\end{array}\right]$

| EIPT 6083 | Qualitative Research Methods II | 3 |
| :---: | :---: | :---: |
| EIPT 6103 | History and Philosophy of Educational Psychology and Research | 3 |
| EIPT 6153 | Motivation and Emotion in Education | 3 |
| EIPT 6183 | Cognition and Instruction | 3 |
| EIPT 6203 | Instrument Development | 3 |
| EIPT 6223 | Mixed-Methods Research | 3 |
| Dissertation (minimum 2 hours) |  |  |
| EIPT 6980 | Research for Doctoral Dissertation | 2 |
| Electives/Additional Coursework (up to 55 hours) |  |  |
| Up to 55 hours as needed to reach 90 post-baccalaureate credit hours, as approved by faculty advisor. Credits from a previously earned master's degree may be included with advisory committee approval. |  | 55 |

Total Credit Hours

## General Requirements for Doctoral Degrees

A student should expect to spend at least the equivalent of three full academic years beyond the bachelor's degree to obtain the doctoral degree. During this period the student will take appropriate graduate coursework, successfully complete the general examination, and successfully defend and submit the final dissertation.

All coursework applied to the doctoral degree must carry graduate credit.
The doctoral degree requires at least 90 post-baccalaureate hours, including both formal coursework and hours of research.

The minimum hour requirement for a specific doctoral degree program cannot be waived.

No more than one-half of the credit hours, both OU and overall, excluding Research for Doctoral Dissertation (6980), may be S/U-graded coursework.

The student must be in residence at OU for at least two consecutive 16week semesters during the pursuit of the doctoral degree while enrolled and engaged in coursework or research activities as prescribed by the major academic unit.

For more detailed regulations and requirements for Doctoral degrees, please consult the Graduate College Bulletin: http://www.ou.edu/ gradcollege/forms/bulletin

## Special Education, Ph.D.

Minimum Total Hours: 90
Program Code: D855

## Program Requirements

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Required Courses (36 hours) |  |  |
| Content Block (15 hours) |  |  |
| EDSP 6003 | Critical Thinking in Special Education <br> Research | 3 |
| EDSP 6203 | Professional Seminar 1 | 3 |


| EDSP 6113 | Grant Writing | 3 |
| :--- | :--- | :--- |
| EDSP 6503 | Professional Seminar III, Systematic <br> Literature Reviews | 3 |
| EACS 6663 | Special Education Law | 3 |
| Educational Research (minimum 21 hours) |  |  |
| EDSP 6023 | Single-Case Research Design | 3 |
| EDSP 6523 | Single Case Research Design II | 3 |
| EIPT 5023 | Analysis of Quantitative Data I | 3 |
| EIPT 6023 | Analysis of Quantitative Data II | 3 |
| EIPT 6043 | Qualitative Research Methods | 3 |
| Choose two courses from the following: | 6 |  |


| EIPT 5203 | Assessment and Evaluation in Education <br> and Counseling |
| :--- | :--- |
| EIPT 6063 | Applied Multivariate Statistics in <br> Educational Research |
| EIPT 6073 | Program Evaluation |
| EIPT 6083 | Qualitative Research Methods II |
| EIPT 6203 | Instrument Development |
| EIPT 6223 | Mixed-Methods Research |
| EIPT 6713 | Research Issues in Instructional <br> Psychology (Topic: Structural Equation <br> Modeling) |
| EIPT 6970 | Post-Master's Seminar (Topic: Multilevel <br> Modeling) |

Dissertation (minimum 2 hours)

EDSP $6980 \quad$| Research for Doctoral Dissertation |
| :--- | :--- |
| (minimum 2 hours) |

Additional Requirements
As needed to reach 90 post-baccalaureate credit hours. Up to 52 30 credits from a previously earned master's degree may be included with advisory committee approval.
Total Credit Hours

## General Requirements for Doctoral Degrees

A student should expect to spend at least the equivalent of three full academic years beyond the bachelor's degree to obtain the doctoral degree. During this period the student will take appropriate graduate coursework, successfully complete the general examination, and successfully defend and submit the final dissertation.

All coursework applied to the doctoral degree must carry graduate credit.
The doctoral degree requires at least 90 post-baccalaureate hours, including both formal coursework and hours of research.

The minimum hour requirement for a specific doctoral degree program cannot be waived.

No more than one-half of the credit hours, both OU and overall, excluding Research for Doctoral Dissertation (6980), may be S/U-graded coursework.

The student must be in residence at OU for at least two consecutive 16week semesters during the pursuit of the doctoral degree while enrolled and engaged in coursework or research activities as prescribed by the major academic unit.

For more detailed regulations and requirements for Doctoral degrees, please consult the Graduate College Bulletin: http://www.ou.edu/ gradcollege/forms/bulletin

## Department of Instructional Leadership and Academic Curriculum

Kristy Brugar, Chair
114 Ellsworth Collings Hall
820 Van Vleet Oval
Norman, OK 73019-2041
Phone: (405) 325-1498
educationinformation@ou.edu
https://www.ou.edu/education/academics/instructional-leadership-and-academic-curriculum

## General Information

The ILAC mission is to prepare teachers and other professionals for leadership roles in education-related settings; to engage in critical inquiry through professionally recognized research and scholarship; to support and promote access, opportunity, social justice and service; and to provide leadership to the profession and society.

## Department Goals

- Interrelate teaching, research and service.
- Model reflective practice through our own teaching, research, service and advocacy.
- Facilitate OU students' learning and professional development at the initial and advanced program levels.
- Help OU students discern among multiple modes of educational practice, formulate their own philosophical orientations based on scholarly inquiry, and enact approaches consistent with these philosophical perspectives.
- Promote coherent, dynamic, robust programs with collaborative university and community partners
- Foster programmatic, departmental, college, and university coherence
- Develop, pursue, and sustain clear, dynamic, and programmatic lines of scholarly inquiry.
- Produce and disseminate scholarly artifacts through critical inquiry that meet rigorous standards of quality in relevant fields.
- Share knowledge and expertise at the international, national, regional, state and local levels of professional organizations and other constituencies.

Support, develop, and retain faculty through a collaborative departmental environment.

- Advocate for diversity and social justice within our programs, profession, and society.


## Programs \& Facilities

## Oklahoma Writing Project (OWP)

The Oklahoma Writing Project has provided the best in professional development for tens of thousands of teachers from all corners of Oklahoma for over 40 years. OWP works to help teachers become better writers and better teachers of writing. OWP works to improve writing, thinking and creativity for all learners. The goals of the OWP are to improve student achievement by improving the teaching of writing and improving learning in the Oklahoma Schools, to help every
teacher of writing realize they can be a writer, to provide professional development for teachers to enhance writing instruction, to network Oklahoma teachers for collaboration of best teaching strategies and how to implement them, to help teachers strengthen leadership skills to build leaders in local schools/districts, and to share current research strategies and practices impacting Oklahoma classrooms.

## The Early Childhood Education Institute (ECEI)

The ECEI, which is located on the Tulsa campus, is an applied research group focused on young children, birth to age 8, their families, and early care and education providers and group settings, such as Early Head Start, etc. The ECEl's mission is to advance and support early childhood programming and policy through research, evaluation, and outreach since its inception in 2006, the ECEI has conducted a variety of program evaluation projects, worked with many state and national partners, and impacted policy and programming decisions. For example, the ECEI has served as evaluation partners with Tulsa Educare and CAP-Tulsa providing data to help inform their programming for young children birth through age 5 . In addition, the ECEI has launched independent research aligned with the Institute's vision and mission. The recently aunched a Supporting Effective Educator Development (SEED) study, in collaboration with colleagues from Georgetown and Harvard, seeks to document factors that make children successful or not as they progress from preschool to grade 3.

## John W. Renner Science Education Center

The John W. Renner Science Education Center conducts research in the teaching and learning of science; provides instruction in the latest techniques and materials in the teaching of science in kindergarten, elementary, middle, and secondary schools; and assists state agencies in the introduction of science into the classrooms of the public schools. The center also has participated in national curriculum studies. For the undergraduate student in the College, the Science Education Center makes possible an approach to learning in which teacher and students participate in discovery. The center has been responsible for leadership in science education and for providing future teachers with a strong science background for the profession.

## Institute of Child Development

The National Academy of Early Childhood Programs accredits the Institute of Child Development, which serves approximately 50 children from the Norman and University communities. The OU Institute of Child Development was the first group of licensed childcare facilities in the United States to be accredited. Working with children from 2-5 years old, the Institute meets a variety of strict standards, including providing activities appropriate for preschool children, having an adequate student-staff ratio, meeting stringent health and safety standards, and providing opportunities for parental involvement. Undergraduate teacher candidates in the Early Childhood program complete a practicum at the Institute, and teachers at the Institute also teach courses in the Early Childhood program.

## Undergraduate Study

## Bachelor of Education

## Early Childhood Birth through Third Grade: Tulsa Campus

The Early Childhood: Birth through Third Grade (p. 1143) Bachelor of Education program prepares students to teach children through the third grade. In addition, students participating in the program on the OU-Tulsa Campus will have a particular focus on working with very young children (birth to age 8) and their families, in a variety of settings.

## Bachelor of Science, in Education

## Early Childhood Education: Norman Campus

The Early Childhood Education program on the Norman campus prepares students to teach children through the third grade. Students who are passionate about working with children in a preschool or elementary setting will find the University of Oklahoma College of Education's nationally recognized Early Childhood Education (p. 1140) program to be a mixture of hands-on experience and solid theoretical education.

## Elementary Education

The Elementary Education (p. 1149) program is truly a hands-on experience for students. As soon as students are fully admitted to their major within the college, they begin spending time in classrooms. This real-world education is coupled with what students learn in the classroom. The curriculum focuses on first grade through sixth grade (and possibly up to eighth grade) in social studies, science, language arts and math. Students study areas such as educational psychology, child development, pedagogy and teaching methodology.

## Language Arts Education

Students who are passionate about teaching literature, writing and speaking will find the nationally recognized Language Arts Education (p. 1152) program a stimulating blend of English literature and writing courses and diverse hands-on classroom experiences.

## Mathematics Education

The Mathematics Education (p. 1155) program offers its students excellent preparation for this responsibility with in-class education and hands-on opportunities. Mathematics teachers help to educate our doctors, engineers, scientists and business leaders in basic skills required to do their jobs every day.

## Science Education

The Science Education program includes teaching certification options that give students who wish to teach secondary school science a solid foundation in the natural sciences and proven pedagogy. After students complete a rigorous study of science content related to their certification field of study, they thoroughly investigate sound, successful, theorybased pedagogical coursework in the John W. Renner Science Education Center. At the completion of their degree program, students are highly qualified for science teaching positions at the secondary level.

- Science Education: Biological Sciences (p. 1158)
- Science Education: Chemistry (p. 1162)
- Science Education: Earth Science (p. 1165)
- Science Education: Physical Science (p. 1168)
- Science Education: Physics (p. 1171)


## Social Studies Education

The Social Studies Education (p. 1175) program prepares students to teach a variety of social sciences areas, including economics, history, geography and government, and help their students to become responsible citizens.

## World Language Education

Students who love languages and have a desire to teach will find the World Language Education program to be strong mixture of in-class education and hands-on experiences. Students take courses in grammar, conversation, composition, reading, culture, civilization, literature, history of the language, second language acquisition theory and methodology. To become experts in the language and culture, students are strongly
encouraged to participate in one of the many Study Abroad opportunities at the University of Oklahoma.

- World Language Education, French (p. 1178)
- World Language Education, German (p. 1181)
- World Language Education, Latin (p. 1184)
- World Language Education, Spanish (p. 1187)


## Graduate Study

## Admission

Admission to master's degree programs in Instructional Leadership and Academic Curriculum requires a minimum overall grade point average of 3.00 in undergraduate coursework. Applicants with grade point averages below 3.0 may apply for conditional admission. The master's degree includes intensive preparation in an area of specialization and the completion of six hours in research. Students who are not currently certified to teach may want to fulfill certification requirements as part of the program. Students seeking to combine certification with a master's degree should consult with the faculty advisor.

## Master of Education

## Early Childhood Education

The Early Childhood Education program increases the depth and breadth of understanding of developmental theory, curriculum, and instructional methodology for educating and caring for children from birth to age eight. Students explore current research and issues in the field.

## Elementary Education

The Elementary Education program provides advanced professional education and specialized academic work designed to enhance the professional competence of teachers in grades PK-8.

## English/Language Arts Education

The English Education program advances student understanding of English through teaching, curriculum, and research in literacy, language, composition, and literature.

## Instructional Leadership

The Instructional Leadership program increases understanding of the multi-disciplinary nature of the field, including inter- and crossdisciplinary studies within and outside the department.

## Mathematics Education

The Mathematics Education program promotes professional and scholarly growth in students' understanding of mathematics learning and pedagogy from theoretical, research, and practical orientations, as well as provide leadership for the community of mathematics educators.

## Reading Education

The Reading Education program fosters students' understanding of current theory and research in literacy learning, teaching, and curriculum, from birth through post-secondary education. Students may also wish to obtain a reading specialist certification in conjunction with the master's degree. Please see the Reading Specialist Certification description below.

## Science Education

Central to the Science Education program is the development of professionalism, scholarship, and leadership in pedagogy and science content. Students explore teaching and learning at all school levels and in diverse environments.

## Secondary Education

The Secondary Education program provides advanced professional education and specialized academic work designed to enhance the professional competence level of teachers in secondary schools.

## Social Studies Education

The Social Studies Education program advances student understanding in social studies teaching and content in elementary and secondary education.

## Teacher Education

The Teacher Education program is designed for students interested in the broad field of teach education, as well as in graduate-level pursuit of teaching certification.

## World Languages Education

With its flexible structure, the World Languages Education program serves:

1. certified teachers of world languages who wish to enrich their knowledge of research, theory, and best practice;
2. students with a demonstrated competency (such as a bachelor's degree or native fluency) in a language who wish to pursue a master's degree and teaching certification;
3. students seeking to become teachers of English as a Foreign Language (EFL) in international settings; and
4. teachers seeking to build expertise in instructing English Language Learners (ELLs) in American classrooms

## Reading Specialist

The Reading Specialist program prepares candidates to serve in the roles of reading specialists, literacy interventionists, or literacy coaches in K -12 schools, colleges, and universities. The program also welcomes inservice and pre-service teachers who want to remain in the classroom but who wish to gain greater knowledge and understanding in developing engaged, strategic readers and writers.

## Master of Arts

## Integrated Childhood Well-Being

The Integrated Childhood Well-Being Master of Arts (p. 1200), offered at OU's Tulsa Campus, focuses on the four domains that children need most to thrive: (1) Economic Well-Being, (2) Education, (3) Healthand (4) Family and Community.

## Graduate Certificates

## Graduate Certificate in Literacy Specialist

The embedded graduate certificate for Literacy Specialist consists of 18 hours, and contains the core courses of the nationally recognized and accredited Reading Specialist program (Master's of Education, Instructional Leadership and Academic Curriculum, Reading Education concentration). Our specialized professional association, the International Literacy Association, requires that candidates meet the following standards: Foundational Knowledge, Curriculum and Instruction, Assessment and Evaluation, Diversity, Literate Environment, and Professional Learning and Leadership. The courses included in the certificate are all required courses in the master's degree that leads to a recommendation for state certification as a Reading Specialist and have assignments that are used to assess mastery of the standards.

## Doctoral Programs

ILAC Doctoral Programs prepare students for faculty positions in colleges and universities; positions in curriculum, instruction, and
assessment in schools; and for jobs in research and curriculum design in public or private institutions. The program requires the completion of a professional core, a minimum of 12 hours of research, and concentrated study in an area of specialization.

Admission to doctoral study requires a minimum 3.25 grade point average on previous graduate work. To apply, students should provide the following:

- a brief overview of experience,
- a statement describing interest in a particular concentration and career objectives,
- a sample of writing (perhaps a piece of published writing, an old research paper, or an abstract of the thesis),
- recent GRE scores (five years old or less), and
- three letters of reference.

For international students, a 79/550 TOEFL or 6.5 IELTS are the minimum acceptable scores for admission.

No minimum requirement for Graduate Record Examination general test scores (verbal, quantitative and analytic) has been established. Program faculty consider all parts of an application when making an admissions decision. A student may be accepted into a doctoral program only after the application is complete and the student has been accepted by the program area.

Faculty in ILAC are engaged in a variety of significant writing, research, and service projects, and often invite the participation of graduate students in these projects.

## Courses

## EDEC 2203 Creative Expression in Early Childhood 3 Credit Hours

 Characteristics and processes of creativity as expressed by children from age two to eight are reviewed. Planning and production of materials that enhance creativity in self-expressive thought and play are emphasized.
## (Sp)

## EDEC 2960 Individual Study 1-4 Credit Hours

1 to 4 hours. Prerequisite: good standing in University; fewer than 62 total hours; approval of instructor and dean. May be repeated; maximum credit four hours. Designed to provide an introduction to the study of education through a rigorous program of readings under the direction of a member of the faculty. (Irreg.)
EDEC 3211 Laboratory Placement I
1 Credit Hour
Prerequisite: admission to Teacher Education program; Corequisite:
EDEC 3333. Designed to provide students with the opportunity to implement what they are learning in other courses as they interact with children in a classroom setting. Students will carry out assignments during this lab that have been assigned in EDEC 3333 as well as other specialization classes. (F)
EDEC 3221 Laboratory Placement II
1 Credit Hour
Prerequisite: admission to Teacher Education program; Corequisite: EDEC 3513 and EDEC 3233. Designed to provide students with the opportunity to implement what they are learning in other courses as they interact with children in a classroom setting. Students will carry out assignments during this lab that have been assigned in EDEC 3513 as well as other specialization classes. (Sp)

EDEC 3233 Family Engagement in Early Childhood Education

3 Credit Hours
Prerequisite: Admission into the ECE Norman/Tulsa Program; Junior Standing; EDEC 3333; corequisite: EDEC 3221, EDEC 3513, and EDLT 4123. Includes techniques for parent conferencing and referrals, planning and presenting effective parent education meetings, parent involvement in the classroom and experience in making home visits. Focuses on family needs when children are aged two to eight. (Sp)
EDEC 3333 Social Emotional Learning and Child Guidance 3 Credit Hours
Prerequisites: EDEC 3413; EDEC 2203; EDEC 3543. Teaching strategies to promote prosocial skills in young children. Principles and practices of positive child guidance and facilitating an effective classroom community. How to enhance children's social and emotional learning. (F)
EDEC 3413 Early Childhood Development 3 Credit Hours Prerequisite: Admission to Early Childhood Teacher Preparation program. Social, physical and cognitive influences on behavior during the preschool years are described and explained. The developmental implications of changing from caregiver to peer relationships are examined. (Sp)
EDEC 3513 Integrated Curriculum (Birth-5) 3 Credit Hours Prerequisite: junior standing and admission to OU Norman/Tulsa early childhood education program. Explores early childhood development domains (social, emotional, cognitive, language, fine motor, large motor, and creative development) and concepts associated with the subject areas of math, science, social studies, language, arts, music, and physical education. The course will focus on integrating the curriculum through teaching strategies, methods, and concepts that are appropriate learning experiences for young children, emphasizing ages birth through five years of age. (F Tulsa; Sp Norman)

## EDEC 3523 Field Experience with Seminar (Infants/

## Toddlers)

3 Credit Hours
Prerequisite: Junior standing and admission to OU-Tulsa early childhood education program. This course will focus on connections between developmental theory and practice. Emphasis will be placed on planning developmentally appropriate environments for infant-toddler growth and learning. This course includes 45 hours of field experience and a seminar that meets 90 minutes each week. ( Sp )
EDEC 3533 Infant-Toddler Development and Care 3 Credit Hours Prerequisite: junior standing and admission to OU-Tulsa early childhood education program. Designed to provide the student with knowledge and understanding of the importance of the developmental processes that occur in infants from conception to their third birthday. Environmental influences on each of the important stages of development (prenatal, neonatal, young, mobile and older infancy) will be explored. Theories of development, philosophies of care, and techniques for the promotion of optimal physical, motor, cognitive and social-emotional development will be shared. Cultural difference in caregiving strategies will be examined as well as the importance of a mutual supportive partnership between parents and substitute caregivers in caring for children with and without special needs. (F)
EDEC 3541 Field Placement I
1 Credit Hour
Prerequisite: admission to teacher preparation program. Co-requisite: EDEC 3543. Birth - three field placement where students will observe and interact with children. (F)

EDEC 3543 Teaching and Learning in Early Childhood
Education
3 Credit Hours
Prerequisite: admission to OU Norman/Tulsa early childhood education program. Includes theoretical and practical aspects of the four domains of development for children ages birth to age eight. A major focus will be on the theoretical dispositions of Piaget and Vygotsky and major topics of study will include: autonomy, play, children's thinking, peer interactions, and child guidance. (Sp)
EDEC 3551 Theory \& Practice in the ECE Setting 1 Credit Hour Prerequisite: Admission to OU Norman early childhood education program. This course will focus on connections between guidance, developmental theory, and practice. Students will have an opportunity to learn about and apply guidance practices in the early childhood classroom. Students will be mentored by master teachers at the Institute of Child Development. (F)
EDEC 3553 Field Experience with Seminar (3-5s) 3 Credit Hours Prerequisite: Junior standing and admission to OU-Tulsa early childhood education program. Focuses on implementing the theoretical aspects of the development of the whole child focusing primarily on ages 3-5. Emphasis will be placed on planning developmentally appropriate teaching and learning. (F)
EDEC 3563 Family and Community Connections 3 Credit Hours Prerequisite: junior standing and admission to OU-Tulsa early childhood education program. Focuses on the importance of family and community connections in the education and development of young children ( $0-8$ years). Strategies for strengthening family and community connections in early childhood classrooms will be discussed including techniques for communicating effectively with families, promoting parent involvement, engaging community agencies and members, and making home visits.
(Sp)

## EDEC 3573 Diverse Learners

3 Credit Hours
Prerequisite: junior standing and admission to OU Norman/Tulsa early childhood education program. Focuses on strategies for providing individualized, inclusive, and developmentally appropriate instruction for children 0-8. Topics addressed include cultural diversity, teaching in contexts of poverty, individualizing instruction according to learning styles, supporting dual language learners, and modifying/adapting instruction and environments for children with special needs. (F Norman, Su Tulsa)
EDEC 3960 Honors Reading
1-3 Credit Hours
Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Provides students with the opportunity to develop an appropriate body of reading materials on topics not covered in detail in routine coursework. Students will be obliged to assume the primary initiative in selecting the topic, compiling the bibliography and completing the reading, and will report their progress in weekly sessions to their instructor. Credit will be given only after an intensive oral examination. (Irreg.)

## EDEC 3970 Honors Seminar <br> 1-3 Credit Hours

Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Covers variable subjects in education with in-depth studies of issues not covered in the standard course offerings. (Irreg.)
EDEC 3980 Honors Research 1-3 Credit Hours Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Provides an opportunity for honors students to work on a special project under the guidance of a professor in the student's major area of study. (Irreg.)

EDEC 3990 Independent Study
1 to 3 hours. Prerequisite: one course in general area to be studied; permission of instructor and department. May be repeated; maximum credit six hours. Contracted independent study for topic not currently offered in regularly scheduled courses. ( $F, S p$ )

## EDEC 4123 Curriculum of Early Childhood Education 3 Credit Hours

 Prerequisite: EDEC 4513; Admission to the ECE Norman program and senior standing. Co-requisite: EDUC 4050. A comprehensive study of the scope of early childhood education with specific concern for curriculum foundation and organization. (Sp) [V].EDEC 4513 Integrated Curriculum (K-3)

## 3 Credit Hours

Prerequisite: Admission to the OU Norman/Tulsa early childhood education program; EDEC 3513; senior standing. Explores concepts associated with the major subject areas of math, science, social studies, language arts, music, and physical education. Focus is placed on integrating the curriculum through teaching strategies, methods, and concepts that are appropriate learning experiences for young children, emphasizing grades $\mathrm{K}-3$. (F)
EDEC 4523 Field Experience with Seminar (K-3rd) 3 Credit Hours Prerequisite: Junior standing and admission to OU-Tulsa early childhood education program. Focuses on implementing the theoretical aspects of the development of the whole child focusing primarily on grades K-3. Emphasis will be placed on planning developmentally appropriate teaching and learning. (F)
EDEC 4533 Assessment in Early Childhood Education 3 Credit Hours Prerequisite: Senior Standing and admission to the OU Norman/Tulsa early childhood education program. A survey of the multiple purposes and types of assessment in early childhood including classroom assessment, standardized child assessment, and program evaluation. Addresses consideration of the various forms of assessment, evaluation of assessment techniques, and examination of current trends and practices. An overview of common assessment tools and techniques used with young children birth through age 8 will be included. (F)

## EDEC 4543 Senior Seminar in Early Childhood Education

(Capstone)
3 Credit Hours
Prerequisite: Senior standing and admission to OU-Tulsa early childhood education program. Focuses on being a professional in the field of early childhood education. This includes dissecting what it means to be a leader, advocate, collaborator, researcher, mentor, and a life-long learner. (Sp)

## EDEC 4960 Directed Readings in Education <br> 1-4 Credit Hours

1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean. May be repeated; maximum credit four hours. Designed for upper-division students preparing to teach who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)

EDEC 4970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: senior standing or permission of instructor. May be repeated with change of content; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)
EDEC 4990 Special Problems in Education
1-4 Credit Hours 1 to 4 hours. Prerequisite: permission of instructor. May be repeated with change of title and subject. Variable as to subject and credit for areas of specialty and/or interest not otherwise provided in the standard offering of courses. (Irreg.)

EDEC 5233 Family Engagement in Education
3 Credit Hours
Prerequisite: graduate standing. This course includes techniques of parent conferences and referrals, planning and presenting effective parent meetings, fostering parent involvement in the classroom, and experience in making home visits. The focus is on family needs of children aged two to eight years. (Irreg)

EDEC 5333 Social and Emotional Learning
3 Credit Hours
Prerequisite: graduate standing. This course is designed to address the social and emotional development of young children and how development influences learning. This course links theory and research to the preschool early learning environment. It includes materials on ways to foster social and emotional well-being and enhance creativity in children. Effective methods of discipline and a multiethnic approach to curriculum are emphasized. (Irreg)

EDEC 5413 Early Childhood Development
3 Credit Hours
Prerequisite: graduate standing. Social, emotional, physical and cognitive influences on development from prebirth to age eight are identified. Issues associated with child development are discussed. The role of the early childhood professional is defined and examined. (Irreg)

EDEC 5533 Advanced Studies in Infant-Toddler Development Credit

3 Hours

Prerequisite: graduate standing or permission of instructor. An exploration of issues related to infant-toddler development and learning, especially as it relates to care in settings such as childcare centers and family childcare homes. Topics include exploration of the contexts in which infants and toddlers develop, and the influences of the caregiving environment on children's physical, emotional, and cognitive development, with a focus on attachment and brain development. (Irreg.)
EDEC 5573 Diverse Learners
Prerequisite: Graduate standing; admission into the Teacher Preparation Program. This course will study the needs of diverse children ages 0-8. Focus will be placed on strategies that provide for individualized inclusive and developmentally appropriate instruction, identifying historical and current factors of influence that characterize children's social environments, the roles of constructivist leadership, democratic ideals, and establishment of ethical environments essential in maximizing the individual potential of all children. (F)

EDEC 5910 Practicum in Education--Master's
1-4 Credit Hours 1 to 4 hours. Prerequisite: graduate standing, permission of instructor and dean. May be repeated; maximum credit six hours. Variable as to title and subject profession. Provides field-type experience under faculty supervision and is designed to introduce the student to the practical application of theory within an environment in which professional practice takes place. Seminar experience is to be included. (Irreg.)

## EDEC 5920 Internship in Education--Master's 1-6 Credit Hours

1 to 6 hours. Prerequisite: 5910, permission of instructor. May be repeated; maximum credit six hours. Variable as to title and subject profession. Available to master's degree programs specifically requiring an internship in addition to thirty-two hours of other coursework as part of the degree. Introduces the student to the profession under the supervision of a practitioner whose credentials are equal to those of the graduate faculty. (Irreg.)

EDEC 5940 Field Studies in Education 1-4 Credit Hours
1 to 4 hours. Prerequisite: 12 hours of education. May be repeated with change of subject matter; maximum credit eight hours. Practical problems in education as defined by members of the classes. Typical topics: defining educational objectives, relating school programs to established objectives, developing teaching-learning aids, organization for participation in developing and evaluating instructional programs, using community resources for learning, improving evaluation procedure. (Irreg.)

## EDEC 5960 Directed Readings

1-4 Credit Hours
1 to 4 hours. Prerequisite: 12 hours of education, approval of instructor, adviser and dean. May be repeated; maximum undergraduate credit eight hours; maximum graduate credit four hours. (Irreg.)
EDEC 5970 Special Topics/Seminar 1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)
EDEC 5980 Research for Master's Thesis 2-9 Credit Hours
Variable enrollment, two to nine hours; maximum credit applicable toward degree, four hours. (F, Sp, Su)
EDEC 5990 Independent Study
1-4 Credit Hours
1 to 4 hours. Prerequisite: graduate standing or permission by instructor. May be repeated with change of subject matter; maximum credit six hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/ or laboratory research and field projects. (Irreg.)

## EDEC 6033 Theory and Research in Early Childhood

## Education

3 Credit Hours
Prerequisite: graduate standing or permission of instructor. Designed to facilitate student's understanding of various theories relevant to early childhood education. In-depth analysis of various theories will be accompanied by examination of research guided by these theoretical perspectives. Discussion will include how these theoretical views and the research associated with them influences the field. (Irreg.)
EDEC 6303 Parent Involvement and Parent Education 3 Credit Hours
Prerequisite: graduate standing. This seminar explores current developments in parent involvement and parent education. Research on parent education programs and parent involvement will be discussed as well as the effects of each on children and families. Interventions designed for various populations of children and families are examined. (Irreg.)

## EDEC 6403 Advocacy and Leadership in Early Childhood

## Education

3 Credit Hours
Prerequisite: graduate standing. Focuses on developing the skills and knowledge necessary to help individuals build coalitions and design effective public policy/advocacy initiatives. (Sp)

EDEC 6433 Methods in Qualitative Research with Young Children

3 Credit Hours
Prerequisite: graduate standing. The purpose of this course is to expand student's knowledge of qualitative methods in educational research, more specifically addressing the unique methods required when children are involved in the research process. The course has both a theoretical and applied focus. First, we examine how qualitative research is used in educational research. We will discuss qualitative methods as an interpretive inquiry focusing on topics such as the development and use of theory, kinds and interpretation of data, and issues of reliability. We will compare the different methods and methodologies used by researchers. Students will analyze and critique research articles using ideas and concepts discussed in the required texts and in class. Second, students will engage in a pilot study of their own in which they apply and experience qualitative research for themselves. Here students will develop a question, examine their own theoretical position, conduct a review of the literature, collect data, and produce a research paper. Together, these two approaches will introduce students to the main questions, concerns and goals of qualitative research. (Irreg.)

## EDEC 6533 Assessment and Program Evaluation in Early Childhood

 Education: Advanced Seminar 3 Credit HoursPrerequisites: graduate standing or permission of instructor. An in-depth exploration of the multiple purposes and types of assessment in early childhood education including classroom assessment, standardized child assessment, program evaluation, and accountability assessment. Also focuses on the various forms of assessment, evaluation of assessment techniques and practices, and examination of current trends and practices. A special focus will be placed on program evaluation and accountability assessments and approaches. (F)
EDEC 6833 Advanced Qualitative Analysis
3 Credit Hours
Prerequisite: graduate standing. This course is designed to provide doctoral students with an in-depth understanding of the variety of ways to theory build, analyze \& interpret qualitative research, write up findings, and synthesize information for interpretation. It is assumed that students enrolling in this class have already completed an introductory qualitative research methods course. (Irreg.)

## EDEC 6910 Practicum in Educ--Doctoral

1-6 Credit Hours
1 to 6 hours. Prerequisite: admission to doctoral program, permission of instructor. May be repeated; maximum credit six hours. Variable as to title and subject profession. An advanced practicum for post-master's level students only. The object is to provide professional experience under faculty supervision in fields requiring a high degree of professional skill. Seminar experience is to be included. (Irreg.)
EDEC 6920 Internship in Education--Doctoral 1-6 Credit Hours 1 to 6 hours. Prerequisite: written permission of the instructor. May be repeated; maximum credit 12 hours. Variable as to title and subject profession. An advanced internship for post-master's level students only. The object of the internship is to cultivate within the student a high degree of proficiency and professional independence. Field supervision is by a practitioner whose credentials are equal to those of the graduate faculty. (Irreg.)
EDEC 6930 Intensive Studies in Education 1-6 Credit Hours
1 to 6 hours. Prerequisite: 12 hours of education and permission of instructor. Repeatable with change of title and subject. Opportunity offered for professional educators and others interested in education, cooperatively, to seek solutions to educational problems. Organized groups work in curriculum, guidance, instruction, administration and supervision. Competent leadership and expert consultant service provided. (Irreg.)

EDEC 6960 Directed Readings 1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit six hours. Directed readings and/or literature review under the direction of a faculty member. (Irreg.)
EDEC 6970 Post-Master's Seminar
2-4 Credit Hours
2 to 4 hours. Prerequisite: master's degree, 24 hours of education, permission of instructor. May be repeated with change of subject matter; maximum credit twelve hours. Enrollment limited to students who hold the master's degree. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

EDEC 6980 Research for Doctoral Dissertation 2-16 Credit Hours 2 to 16 hours. Prerequisites: Graduate standing and permission of instructor; may be repeated. Directed research culminating in the completion of the doctoral dissertation. (F, Sp, Su)
EDEC 6990 Individual Study in Education
1-4 Credit Hours
1 to 4 hours. Prerequisite: 12 hours of education, graduate standing and permission of the instructor. May be repeated with change of subject matter; maximum credit eight hours. For advanced graduate students who need to study some problem or area not adequately covered in the organized courses, under the direction of a staff member in whose area of specialization the problem lies. (Irreg.)
EDEL 2960 Individual Study
1-4 Credit Hours
1 to 4 hours. Prerequisite: good standing in University; fewer than 62 total hours; approval of instructor and dean. May be repeated; maximum credit four hours. Designed to provide an introduction to the study of education through a rigorous program of readings under the direction of a member of the faculty. (Irreg.)

## EDEL 3002 Promoting Healthy Lifestyles for Elementary

Students
2 Credit Hours
Prerequisite: admission to the teacher education program. Students explore models for teaching that transform research on human movement, physical activity and health education into effective classroom teaching practice. Students gain understanding of teaching strategies that foster active, healthy lifestyles, the practice of skills for good health and enhanced quality of life for elementary students. (F, Sp)
EDEL 3243 Integrated Arts Education
3 Credit Hours
Prerequisite: admission to the teacher education program. Promotes literacy and skills involving art principles and processes in education and life. Explores arts integration across the curriculum as a means of expressing beauty/aesthetics, self-identification, social criticism, and critical reflection. (F, Sp, Su)
EDEL 3440 Mentored Research Experience
3 Credit Hours
0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)
EDEL 3960 Honors Reading
1-3 Credit Hours
Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Provides students with the opportunity to develop an appropriate body of reading materials on topics not covered in detail in routine coursework. Students will be obliged to assume the primary initiative in selecting the topic, compiling the bibliography and completing the reading, and will report their progress in weekly sessions to their instructor. Credit will be given only after an intensive oral examination. (Irreg.)

EDEL 3970 Honors Seminar
1-3 Credit Hours
Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Covers variable subjects in education with in-depth studies of issues not covered in the standard course offerings. (Irreg.)
EDEL 3980 Honors Research
1-3 Credit Hours
Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Provides an opportunity for honors students to work on a special project under the guidance of a professor in the student's major area of study. (Irreg.)

EDEL 3990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: one course in general area to be studied;
permission of instructor and department. May be repeated; maximum credit six hours. Contracted independent study for topic not currently offered in regularly scheduled courses. ( $\mathrm{F}, \mathrm{Sp}$ )
EDEL 4063 Critical Inquiry and Integrated Instruction 3 Credit Hours Prerequisite: EDMA 4353, EDLT 4813, EDSC 4193, EDSS 4323, EDEL 4980; corequisite: EDUC 4050. Course for teacher candidates to understand how to support critical inquiry across the disciplines. Teacher candidates will also understand how to integrate and apply what they have learned throughout their coursework to organize a classroom to create a community of learners. ( $\mathrm{F}, \mathrm{Sp}$ ) [V].

## EDEL 4101 Mentoring

1 Credit Hour
Prerequisite: admission to Teacher Education program and permission of adviser. This course should be taken in the semester which precedes enrollment in EDLT 4813, EDMA 4353, EDSC 4193, EDSS 4323, EDEL 4980. Students will study and analyze current education practices existing in today's elementary classrooms. Selected readings, significant discussion, hands-on activities and practical experiences wil enable students to think critically about the challenges and rewards of becoming an elementary educator. The course also guides students in preparing program portfolios. ( $\mathrm{F}, \mathrm{Sp}$ )
EDEL 4960 Directed Readings in Education 1-4 Credit Hours
1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean. May be repeated; maximum credit four hours.
Designed for upper-division students preparing to teach who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)

EDEL 4970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: senior standing or permission of instructor. May be repeated with change of content; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

EDEL 4980 Practicum in Elementary Education 1-3 Credit Hours Prerequisite: EDEL 4101; corequisite: EDMA 4353, EDLT 4813, EDSC 4193, EDSS 4323. Provides field-type experience under faculty supervision and is designed to introduce the student to the practical application of theory within an environment in which professional practice takes place. (F, Sp)
EDEL 4990 Special Problems in Education 1-4 Credit Hours
1 to 4 hours. Prerequisite: permission of instructor. May be repeated with change of title and subject. Variable as to subject and credit for areas of specialty and/or interest not otherwise provided in the standard offering of courses. (Irreg.)

EDEL 5593 Issues in Teaching in Elementary Schools 3 Credit Hours Prerequisite: graduate standing. Interdisciplinary seminar focusing on critical analysis of issues related to teaching and learning in elementary schools. (Irreg.)

EDEL 5910 Practicum in Education--Master's 1-4 Credit Hours
1 to 4 hours. Prerequisite: graduate standing, permission of instructor and dean. May be repeated; maximum credit six hours. Variable as to title and subject profession. Provides field-type experience under faculty supervision and is designed to introduce the student to the practical application of theory within an environment in which professional practice takes place. Seminar experience is to be included. (Irreg.)
EDEL 5920 Internship in Education--Master's 1-6 Credit Hours
1 to 6 hours. Prerequisite: 5910, permission of instructor. May be repeated; maximum credit six hours. Variable as to title and subject profession. Available to master's degree programs specifically requiring an internship in addition to thirty-two hours of other coursework as part of the degree. Introduces the student to the profession under the supervision of a practitioner whose credentials are equal to those of the graduate faculty. (Irreg.)
EDEL 5940 Field Studies in Education
1-4 Credit Hours
1 to 4 hours. Prerequisite: 12 hours of education. May be repeated with change of subject matter; maximum credit eight hours. Practical problems in education as defined by members of the classes. Typical topics: defining educational objectives, relating school programs to established objectives, developing teaching-learning aids, organization for participation in developing and evaluating instructional programs, using community resources for learning, improving evaluation procedure. (Irreg.)

## EDEL 5960 Directed Readings

1-4 Credit Hours
1 to 4 hours. Prerequisite: 12 hours of education, approval of instructor, adviser and dean. May be repeated; maximum undergraduate credit eight hours; maximum graduate credit four hours. (Irreg.)
EDEL 5970 Special Topics/Seminar 1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

## EDEL 5980 Research for Master's Thesis

2-9 Credit Hours
Variable enrollment, two to nine hours; maximum credit applicable toward degree, four hours. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

## EDEL 5990 Independent Study

1-4 Credit Hours
1 to 4 hours. Prerequisite: graduate standing or permission by instructor. May be repeated with change of subject matter; maximum credit six hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/ or laboratory research and field projects. (Irreg.)
EDEL 6910 Practicum in Education--Doctoral 1-6 Credit Hours 1 to 6 hours. Prerequisite: admission to doctoral program, permission of instructor. May be repeated; maximum credit six hours. Variable as to title and subject profession. An advanced practicum for post-master's level students only. The object is to provide professional experience under faculty supervision in fields requiring a high degree of professional skill. Seminar experience is to be included. (lrreg.)
EDEL 6920 Internship in Education--Doctoral 2-6 Credit Hours 1 to 6 hours. Prerequisite: written permission of the instructor. May be repeated; maximum credit 12 hours. Variable as to title and subject profession. An advanced internship for post-master's level students only. The object of the internship is to cultivate within the student a high degree of proficiency and professional independence. Field supervision is by a practitioner whose credentials are equal to those of the graduate faculty. (Irreg.)

EDEL 6930 Intensive Studies in Education
1-6 Credit Hours
1 to 6 hours. Prerequisite: 12 hours of education and permission of instructor. Repeatable with change of title and subject. Opportunity offered for professional educators and others interested in education, cooperatively, to seek solutions to educational problems. Organized groups work in curriculum, guidance, instruction, administration and supervision. Competent leadership and expert consultant service provided. (Irreg.)
EDEL 6960 Directed Readings
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit six hours. Directed readings and/or literature review under the direction of a faculty member. (Irreg.)

## EDEL 6970 Post-Master's Seminar

2-4 Credit Hours
2 to 4 hours. Prerequisite: master's degree, 24 hours of education, permission of instructor. May be repeated with change of subject matter; maximum credit twelve hours. Enrollment limited to students who hold the master's degree. (F, Sp, Su)
EDEL 6980 Research for Doctoral Dissertation 2-16 Credit Hours 2 to 16 hours. Prerequisites: Graduate standing and permission of instructor; may be repeated. Directed research culminating in the completion of the doctoral dissertation. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
EDEL 6990 Individual Study in Education
1-4 Credit Hours
1 to 4 hours. Prerequisite: 12 hours of education, graduate standing and permission of the instructor. May be repeated with change of subject matter; maximum credit eight hours. For advanced graduate students who need to study some problem or area not adequately covered in the organized courses, under the direction of a staff member in whose area of specialization the problem lies. (Irreg.)

## EDEN 2960 Individual Study 1-4 Credit Hours

1 to 4 hours. Prerequisite: good standing in University; fewer than 62 total hours; approval of instructor and dean. May be repeated; maximum credit four hours. Designed to provide an introduction to the study of education through a rigorous program of readings under the direction of a member of the faculty. (Irreg.)

## EDEN 3223 Teaching Grammar and Composition in Middle/Secondary School <br> 3 Credit Hours

Prerequisite: admission to teacher preparation program. Emphasizes the centrality of writing in the language arts, the teaching of grammar, and socio-cultural influences on learning. (F)
EDEN 3440 Mentored Research Experience 3 Credit Hours 0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)
EDEN 3960 Honors Reading
1-3 Credit Hours
Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Provides students with the opportunity to develop an appropriate body of reading materials on topics not covered in detail in routine coursework. Students will be obliged to assume the primary initiative in selecting the topic, compiling the bibliography and completing the reading, and will report their progress in weekly sessions to their instructor. Credit will be given only after an intensive oral examination. (Irreg.)

EDEN 3970 Honors Seminar
1-3 Credit Hours
Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Covers variable subjects in education with in-depth studies of issues not covered in the standard course offerings. (Irreg.)

EDEN 3980 Honors Research
1-3 Credit Hours
Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Provides an opportunity for honors students to work on a special project under the guidance of a professor in the student's major area of study. (Irreg.)

EDEN 3990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: one course in general area to be studied permission of instructor and department. May be repeated; maximum credit six hours. Contracted independent study for topic not currently offered in regularly scheduled courses. (F, Sp)

EDEN 4273 Creativity in Teaching Composition 3 Credit Hours (Slashlisted with 5273) Prerequisite: junior standing or permission of instructor. Features visual-verbal arts integration and teaching composition at primarily middle and secondary school levels. Students will paint, write, and otherwise practice the arts as well as consider current teaching implications. No student may earn credit for both 4273 and 5273 (Su)

EDEN 4283 Mediacy and the Pop Culture 3 Credit Hours
Prerequisite: admission to the Teacher Education program. Examines the significance of youth media cultures as they intersect with literacy and learning in school settings. (Sp)

EDEN G4914 The Teaching of English
4 Credit Hours
Prerequisite: EDEN 3223, senior standing. Development of expertise in teaching the language arts at the secondary level, including classroom management, planning, data-based decision-making, and delivery of great lessons. 35 hours of field work in local schools. Written reports. (Sp) [V].

EDEN 4923 Literature for Adolescents and Young Adults 3 Credit Hours (Slashlisted with EDEN 5923) Prerequisite: EDEN 3223. A survey of literature written for adolescents and young adults and affiliated, contemporary pedagogies. No student may earn credit for both 4923 and 5923. (F)

EDEN 4960 Directed Readings in Education
1-4 Credit Hours
1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean. May be repeated; maximum credit four hours. Designed for upper-division students preparing to teach who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)

## EDEN 4970 Special Topics/Seminar

1-3 Credit Hours
1 to 3 hours. Prerequisite: senior standing or permission of instructor. May be repeated with change of content; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

EDEN 4980 Practicum in Education
1-3 Credit Hours
1 to 3 hours. Prerequisite: nine hours of education courses. Provides fieldtype experience under faculty supervision and is designed to introduce the student to the practical application of theory within an environment in which professional practice takes place. (Irreg.)

EDEN 4990 Special Problems in Education
1-4 Credit Hours
1 to 4 hours. Prerequisite: permission of instructor. May be repeated with change of title and subject. Variable as to subject and credit for areas of specialty and/or interest not otherwise provided in the standard offering of courses. (Irreg.)

EDEN 5203 Action Research in English Education 3 Credit Hours Prerequisite: graduate standing; co-requisite: 5920 (Internship). Nature and methodology of teacher research. Students will conduct a field research project with EDUC 5920, Internship in Education, to demonstrate understanding of fundamental field research design and practice, including writing the teacher research report. (F, Sp)

EDEN 5213 Secondary English Curriculum 3 Credit Hours Prerequisite: graduate standing. General principles of curriculum development and particular problems with planning literature curricula. Evaluation and revision of school curricula based on theories of curriculum planning.

EDEN 5223 The Teaching of Composition: Theory and Practice

3 Credit Hours
Prerequisite: graduate standing. Analysis of competing theories of composition instruction. Study of issues related to planning writing activities, and consider problems related to writing about literature, informal writing, writing apprehension, teaching basic writers, and teaching syntax

## EDEN 5233 The Teaching of Literature: Theory and

 Practice3 Credit Hours
Prerequisite: graduate standing. Research and methodology important to teaching literature to young people and adults with particular focus on developing reading and responding abilities to poetry and fiction. Other emphases include reading-writing interactions, creative approaches to teaching traditional literature, uses of young adult literature, and developing middle/secondary literature curricula. (Sp)

EDEN 5243 The Teaching of Language: Theory and Practice

## 3 Credit Hours

Prerequisite: graduate standing. Research and teaching methodology important to providing language instruction for young people with particular focus on oral and written language development in a culturally diverse society. Topics include grammar, usage, dialect, semantics, vocabulary instruction and curriculum design. (F)

EDEN 5253 Research in English Education 3 Credit Hours Prerequisite: graduate standing. Study of issues and methods involved with research in English education. May include experience in the collection and analysis of data. (Irreg.)

EDEN 5263 Special Topics in Literacy I
3 Credit Hours
Prerequisite: Permission of department. Possible topics include students in and out of school, culture and literacy, socio-historical perspectives on earning, and other analysis of literate activity. (F)

EDEN 5273 Creativity in Teaching Composition 3 Credit Hours (Slashlisted with 4273) Prerequisite: graduate standing or permission of instructor. This course features visual-verbal arts integration and teaching composition at primarily middle and secondary school levels. Students will paint, write, and otherwise practice the arts as well as consider current teaching implications. No student may earn credit for both 4273 and 5273 (Su)

EDEN 5283 Mediacy and the Pop Culture
3 Credit Hours
Prerequisite: graduate standing. Admission to the Teacher Education program. Examines the significance of youth media cultures as they intersect with literacy and learning in school settings. (Sp)

## EDEN 5303 Oklahoma Writing Project

3 Credit Hours
Prerequisite: graduate standing and permission of instructor. Course is offered at summer institute. Focus is on improvement of personal writing and classroom writing instruction. Participants completing course become teacher consultants with Oklahoma Writing Project. (Su)

EDEN 5910 Practicum in Education--Master's 1-4 Credit Hours
1 to 4 hours. Prerequisite: graduate standing, permission of instructor and dean. May be repeated; maximum credit six hours. Variable as to title and subject profession. Provides field-type experience under faculty supervision and is designed to introduce the student to the practical application of theory within an environment in which professional practice takes place. Seminar experience is to be included. (Irreg.)
EDEN 5920 Internship in Education--Master's 1-6 Credit Hours
1 to 6 hours. Prerequisite: 5910, permission of instructor. May be repeated; maximum credit six hours. Variable as to title and subject profession. Available to master's degree programs specifically requiring an internship in addition to thirty-two hours of other coursework as part of the degree. Introduces the student to the profession under the supervision of a practitioner whose credentials are equal to those of the graduate faculty. (Irreg.)
EDEN 5923 Literature for Adolescents and Young Adults 3 Credit Hours (Slashlisted with EDEN 4923) Prerequisite: EDEN 3223. A survey of literature written for adolescents and young adults and affiliated, contemporary pedagogies. No student may earn credit for both 4923 and 5923. (F)

EDEN 5940 Field Studies in Education 1-4 Credit Hours
1 to 4 hours. Prerequisite: twelve hours of education. May be repeated with change of subject matter; maximum credit eight hours. Practical problems in education as defined by members of the classes. Typical topics: defining educational objectives, relating school programs to established objectives, developing teaching-learning aids, organization for participation in developing and evaluating instructional programs, using community resources for learning, improving evaluation procedure. (Irreg.)
EDEN 5960 Directed Readings 1-4 Credit Hours
1 to 4 hours. Prerequisite: twelve hours of education, approval of instructor, adviser and dean. May be repeated; maximum undergraduate credit eight hours; maximum graduate credit four hours. (Irreg.)

## EDEN 5970 Special Topics/Seminar

1-3 Credit Hours 1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)
EDEN 5980 Research for Master's Thesis
2-9 Credit Hours
Variable enrollment, two to nine hours; maximum credit applicable toward degree, four hours. (F, Sp, Su)
EDEN 5990 Independent Study
1-4 Credit Hours
1 to 4 hours. Prerequisite: graduate standing or permission by instructor. May be repeated with change of subject matter; maximum credit six hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/ or laboratory research and field projects. (Irreg.)
EDEN 6910 Practicum in Education--Doctoral 1-6 Credit Hours 1 to 6 hours. Prerequisite: admission to doctoral program, permission of instructor. May be repeated; maximum credit six hours. Variable as to title and subject profession. An advanced practicum for post-master's level students only. The object is to provide professional experience under faculty supervision in fields requiring a high degree of professional skill. Seminar experience is to be included. (Irreg.)

EDEN 6920 Internship in Education--Doctoral 2-6 Credit Hours
1 to 6 hours. Prerequisite: written permission of the instructor. May be repeated; maximum credit twelve hours. Variable as to title and subject profession. An advanced internship for post-master's level students only. The object of the internship is to cultivate within the student a high degree of proficiency and professional independence. Field supervision is by a practitioner whose credentials are equal to those of the graduate faculty. (Irreg.)
EDEN 6930 Intensive Studies in Education
1-6 Credit Hours
1 to 6 hours. Prerequisite: twelve hours of education and permission of instructor. Repeatable with change of title and subject. Opportunity offered for professional educators and others interested in education, cooperatively, to seek solutions to educational problems. Organized groups work in curriculum, guidance, instruction, administration and supervision. Competent leadership and expert consultant service provided. (Irreg.)
EDEN 6960 Directed Readings 1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit six hours. Directed readings and/or literature review under the direction of a faculty member. (Irreg.)

EDEN 6970 Post-Master's Seminar
2-4 Credit Hours
2 to 4 hours. Prerequisite: master's degree, 24 hours of education, permission of instructor. May be repeated with change of subject matter; maximum credit twelve hours. Enrollment limited to students who hold the master's degree. (F, Sp, Su)
EDEN 6980 Research for Doctoral Dissertation 2-16 Credit Hours 2 to 16 hours. Prerequisites: Graduate standing and permission of instructor; may be repeated. Directed research culminating in the completion of the doctoral dissertation. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

EDEN 6990 Individual Study in Education
1-4 Credit Hours
1 to 4 hours. Prerequisite: twelve hours of education, graduate standing and permission of the instructor. May be repeated with change of subject matter; maximum credit eight hours. For advanced graduate students who need to study some problem or area not adequately covered in the organized courses, under the direction of a staff member in whose area of specialization the problem lies. (Irreg.)

## EDLT 2960 Individual Study

1-4 Credit Hours
1 to 4 hours. Prerequisite: good standing in University; fewer than 62 total hours; approval of instructor and dean. May be repeated; maximum credit four hours. Designed to provide an introduction to the study of education through a rigorous program of readings under the direction of a member of the faculty. (Irreg.)
EDLT 3143 Language and Literacy Development Birth through 5

Prerequisite: Junior standing and admission to OU-Tulsa/Norman early childhood education program. Acquaints early childhood preservice teachers with theories of language and emergent literacy development, including key precursors to conventional reading and writing, developmentally appropriate assessment practices, evidencebased curriculum and instructional practices, and materials to support language and literacy learning in early childhood settings for children from birth through age 5. (Sp)

EDLT 3440 Mentored Research Experience 3 Credit Hours
0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)

EDLT 3911 Language and Literacy Practicum
1 Credit Hour
Prerequisite: admission to Teacher Education program. Support preservice teachers in making connections between theories of language and literacy evaluation and instruction and literacy learning processes and behaviors of children in primary grades

EDLT 3913 Literacy in the Primary Grades 3 Credit Hours
Prerequisite: admission to Teacher Education program. Explore issues and factors related to language and literacy development in primary grades; examine how to develop proficiency in supporting children's language development; learn literacy assessment activities, interpret findings and identify children's strengths and needs; and choose instructional strategies to help children become strategic readers and writers. (F, Sp, Su)

## EDLT 3960 Honors Reading

1-3 Credit Hours
Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Provides students with the opportunity to develop an appropriate body of reading materials on topics not covered in detail in routine coursework. Students will be obliged to assume the primary initiative in selecting the topic, compiling the bibliography and completing the reading, and will report their progress in weekly sessions to their instructor. Credit will be given only after an intensive oral examination. (Irreg.)

## EDLT 3970 Honors Seminar <br> 1-3 Credit Hours

Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Covers variable subjects in education with in-depth studies of issues not covered in the standard course offerings. (Irreg.)

## EDLT 3980 Honors Research

1-3 Credit Hours
Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Provides an opportunity for honors students to work on a special project under the guidance of a professor in the student's major area of study. (Irreg.)

EDLT 3990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: one course in general area to be studied; permission of instructor and department. May be repeated; maximum credit six hours. Contracted independent study for topic not currently offered in regularly scheduled courses. (F, Sp)

EDLT 4113 Literacy in the Intermediate Grades 3 Credit Hours Prerequisite: EDLT 3913. Understand how to support students in the intermediate grades (4th through 6th) with a wide variety of instructional strategies and procedures to implement a balanced, comprehensive literacy program, including differentiating literacy instruction, using assessment to plan instruction, and emphasizing content area literacy. $(\mathrm{F}$, Sp, Su)

## EDLT 4123 Language and Literacy Development in Kindergarten through 3rd. grade 3 Credit Hours

Prerequisite: Senior standing and admission to OU-Tulsa/Norman early childhood education program. Acquaints early childhood preservice teachers with foundations of reading and writing development in kindergarten and the primary grades, including a comprehensive literacy curriculum for reading, writing, and oral language learning how to assess literacy understandings, use data to plan instruction, evidence based developmentally appropriate instructional practices and materials to support children becoming independent conventional readers, writers, and language users. (F)

EDLT 4813 Literature and Writing Across the Curriculum 3 Credit Hours Prerequisite: EDLT 4113. Provides pre-service teachers with the knowledge and skills needed to provide writing instruction in the elementary classroom. Students will explore children's literature as a tool for language and literacy development and writing instruction. (F, Sp)

EDLT 4960 Directed Readings in Education 1-4 Credit Hours 1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean. May be repeated; maximum credit four hours. Designed for upper-division students preparing to teach who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)

EDLT 4970 Special Topics/Seminar 1-3 Credit Hours
1 to 3 hours. Prerequisite: senior standing or permission of instructor. May be repeated with change of content; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

EDLT 4980 Practicum in Education
1-3 Credit Hours
1 to 3 hours. Prerequisite: nine hours of education courses. Provides fieldtype experience under faculty supervision and is designed to introduce the student to the practical application of theory within an environment in which professional practice takes place. (Irreg.)

EDLT 4990 Special Problems in Education 1-4 Credit Hours
1 to 4 hours. Prerequisite: permission of instructor. May be repeated with change of title and subject. Variable as to subject and credit for areas of specialty and/or interest not otherwise provided in the standard offering of courses. (lrreg.)
EDLT 5910 Practicum in Education--Master's
1-4 Credit Hours
1 to 4 hours. Prerequisite: graduate standing, permission of instructor and dean. May be repeated; maximum credit six hours. Variable as to title and subject profession. Provides field-type experience under faculty supervision and is designed to introduce the student to the practical application of theory within an environment in which professional practice takes place. Seminar experience is to be included. (Irreg.)

EDLT 5920 Internship in Education--Master's 1-6 Credit Hours 1 to 6 hours. Prerequisite: 5910, permission of instructor. May be repeated; maximum credit six hours. Variable as to title and subject profession. Available to master's degree programs specifically requiring an internship in addition to thirty-two hours of other coursework as part of the degree. Introduces the student to the profession under the supervision of a practitioner whose credentials are equal to those of the graduate faculty. (Irreg.)

EDLT 5940 Field Studies in Education
1-4 Credit Hours
1 to 4 hours. Prerequisite: 12 hours of education. May be repeated with change of subject matter; maximum credit eight hours. Practical problems in education as defined by members of the classes. Typical topics: defining educational objectives, relating school programs to established objectives, developing teaching-learning aids, organization for participation in developing and evaluating instructional programs, using community resources for learning, improving evaluation procedure. (Irreg.)
EDLT 5960 Directed Readings
1-4 Credit Hours
1 to 4 hours. Prerequisite: 12 hours of education, approval of instructor, adviser and dean. May be repeated; maximum undergraduate credit eight hours; maximum graduate credit four hours. (Irreg.)

EDLT 5970 Special Topics/Seminar 1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

EDLT 5980 Research for Master's Thesis 2-9 Credit Hours
Variable enrollment, two to nine hours; maximum credit applicable toward degree, four hours. (F, Sp, Su)
EDLT 5990 Independent Study
1-4 Credit Hours
1 to 4 hours. Prerequisite: graduate standing or permission by instructor. May be repeated with change of subject matter; maximum credit six hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/ or laboratory research and field projects. (Irreg.)
EDLT 6910 Practicum in Educ--Doctoral
1-6 Credit Hours
1 to 6 hours. Prerequisite: admission to doctoral program, permission of instructor. May be repeated; maximum credit six hours. Variable as to title and subject profession. An advanced practicum for post-master's level students only. The object is to provide professional experience under faculty supervision in fields requiring a high degree of professional skill. Seminar experience is to be included. (Irreg.)
EDLT 6920 Internship in Education--Doctoral
2-6 Credit Hours
1 to 6 hours. Prerequisite: written permission of the instructor. May be repeated; maximum credit 12 hours. Variable as to title and subject profession. An advanced internship for post-master's level students only. The object of the internship is to cultivate within the student a high degree of proficiency and professional independence. Field supervision is by a practitioner whose credentials are equal to those of the graduate faculty. (Irreg.)

EDLT 6930 Intensive Studies in Education
1-6 Credit Hours
1 to 6 hours. Prerequisite: 12 hours of education and permission of instructor. Repeatable with change of title and subject. Opportunity offered for professional educators and others interested in education, cooperatively, to seek solutions to educational problems. Organized groups work in curriculum, guidance, instruction, administration and supervision. Competent leadership and expert consultant service provided. (Irreg.)

EDLT 6960 Directed Readings
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit six hours. Directed readings and/or literature review under the direction of a faculty member. (Irreg.)

EDLT 6970 Post-Master's Seminar
2-4 Credit Hours
2 to 4 hours. Prerequisite: master's degree, 24 hours of education, permission of instructor. May be repeated with change of subject matter; maximum credit twelve hours. Enrollment limited to students who hold the master's degree. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

EDLT 6980 Research for Doctoral Dissertation 2-16 Credit Hours
2 to 16 hours. Prerequisites: Graduate standing and permission of instructor; may be repeated. Directed research culminating in the completion of the doctoral dissertation. (F, Sp, Su)

EDLT 6990 Individual Study in Education
1-4 Credit Hours
1 to 4 hours. Prerequisite: 12 hours of education, graduate standing and permission of the instructor. May be repeated with change of subject matter; maximum credit eight hours. For advanced graduate students who need to study some problem or area not adequately covered in the organized courses, under the direction of a staff member in whose area of specialization the problem lies. (Irreg.)

## EDMA 2353 Mathematical Communication and Structures 3 Credit Hours

Prerequisite: Admission to Jeannine Rainbolt College of Education and instructor permission. Manipulatives are learning tools used to create concrete and/or visual representations of abstract concepts. Students will use manipulatives to develop deeper conceptual understandings of elementary mathematics as well as their ability to communicate these understandings. Topics include number concepts, operations, algebraic reasoning, and geometric concepts. Students will develop and use multiple strategies for doing mathematics and communicating their mathematical thinking

EDMA 2960 Individual Study
1-4 Credit Hours
1 to 4 hours. Prerequisite: good standing in University; fewer than 62 total hours; approval of instructor and dean. May be repeated; maximum credit four hours. Designed to provide an introduction to the study of education through a rigorous program of readings under the direction of a member of the faculty. (Irreg.)

EDMA 3353 PK-3 Mathematics Concepts
3 Credit Hours Prerequisite: admission to the teacher education program and 1000-level Gen Ed approved Math, MATH 2213. Addresses the important "big" ideas in mathematics that are appropriate for pk-3rd grade students to learn. How research, theory and practice facilitate young children's learning will be explored. Will also be emphasis on inquiry based/problem centered curriculum, instructional strategies and assessment. (F, Sp, Su)

EDMA 3440 Mentored Research Experience
3 Credit Hours
0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)

EDMA 3960 Honors Reading
1-3 Credit Hours
Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Provides students with the opportunity to develop an appropriate body of reading materials on topics not covered in detail in routine coursework. Students will be obliged to assume the primary initiative in selecting the topic, compiling the bibliography and completing the reading, and will report their progress in weekly sessions to their instructor. Credit will be given only after an intensive oral examination. (Irreg.)

EDMA 3970 Honors Seminar
-3 Credit Hours
Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Covers variable subjects in education with in-depth studies of issues not covered in the standard course offerings. (Irreg.)

EDMA 3980 Honors Research 1-3 Credit Hours
Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Provides an opportunity for honors students to work on a special project under the guidance of a professor in the student's major area of study. (Irreg.)

EDMA 3990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: one course in general area to be studied permission of instructor and department. May be repeated; maximum credit six hours. Contracted independent study for topic not currently offered in regularly scheduled courses. (F, Sp)

## EDMA 4233 Developing Problem-Solving Environ for Secondary Math Learning <br> 3 Credit Hours

Prerequisite: Mathematics 2433 or Mathematics 2924, and full admission to the Mathematics Education Program. The development of problemsolving environments for middle and high school mathematics learning Emphasizes student characteristics, issues of equity and diversity, theories of teaching and learning, and current best practices from research into mathematics teaching and learning. Areas of focus will include problem-centered learning, appropriate uses of technology and inclusion of historical and interdisciplinary topics in teaching mathematics for all students. (F)

## EDMA 4243 Fundamental Concepts of Secondary Math

 Learning3 Credit Hours
Prerequisite: EIPT 3473, and senior standing. Fundamental concepts of mathematics relevant to the secondary school mathematics curriculum Development of secondary mathematics curriculum and appropriate instructional methods for the teaching of Algebra, relations and functions. This course will serve as the senior capstone. (Sp) [V]

EDMA 4253 Teaching and Learning of Mathematics Reasoning and Proof

3 Credit Hours
Prerequisite: full admission to Mathematics Education Program; recommend completion of EDMA 4233. This course focuses on the content and methodology of teaching middle and high school mathematics including geometry and trigonometry generally defined as reasoning and proof. (F)

EDMA 4353 4-8 Grade Mathematics Concepts 3 Credit Hours
Prerequisite: MATH 2213; MATH 2223; EDMA 3353; EDEL 4101; corequisite: EDLT 4813; EDSC 4193; EDSS 4323; EDEL 4980. Students will be engaged in planning, implementing, and evaluating mathematics curriculum and instruction in the elementary school grades 4-8. Materials and discussions relevant to learner diversity, the appropriate use of technology, and how to integrate mathematics with other subjects will be infused throughout the course. (F, Sp)

EDMA 4960 Directed Readings in Education 1-4 Credit Hours 1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean. May be repeated; maximum credit four hours. Designed for upper-division students preparing to teach who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)

EDMA 4970 Special Topics/Semina
-3 Credit Hours
1 to 3 hours. Prerequisite: senior standing or permission of instructor. May be repeated with change of content; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

EDMA 4980 Practicum in Mathematics Education 1-3 Credit Hours 1 to 3 hours. Prerequisite: nine hours of education courses. Provides fieldtype experience under faculty supervision and is designed to introduce the student to the practical application of theory within an environment in which professional practice takes place. (Irreg.)

EDMA 4990 Special Problems in Education 1-4 Credit Hours 1 to 4 hours. Prerequisite: permission of instructor. May be repeated with change of title and subject. Variable as to subject and credit for areas of specialty and/or interest not otherwise provided in the standard offering of courses. (lrreg.)

EDMA 5153 Problem Centered Learning in Mathematics 3 Credit Hours Prerequisite: graduate standing. Intended for mathematics teachers at any level, the course is designed so participants can engage in nonroutine problem solving as a basis for examining and reflecting on such an approach to the teaching and learning of mathematics. (Irreg.)

EDMA 5523 Elementary School Mathematics Curriculum 3 Credit Hours Prerequisite: graduate standing. Analysis of research, trends, and issues in elementary mathematics teaching. Special attention is given to the research and theoretical bases underpinning curricula. (Irreg.)

## EDMA 5533 The Middle School/High School Math

Curriculum 3 Credit Hours
Prerequisite: graduate standing. Analysis of research, trends, and issues in middle school and high school mathematics teaching. Special attention is given to the research and theoretical bases underpinning curricula. (Irreg.)

EDMA 5753 Theory and Research in Mathematics
Education
3 Credit Hours
Prerequisite: graduate standing. Designed to enhance appreciation for and understanding of research methods and findings in mathematics education. Students explore the history of research in mathematics education, discuss various theories of mathematics learning and understanding, evaluate, synthesize, and critique mathematics education research, understand a variety of research methodologies, and conduct original research. (Irreg.)

EDMA 5763 History of Mathematics for Educators 3 Credit Hours Prerequisite: graduate standing. Designed to offer a sense of the rich history of mathematics as an intellectual pursuit as well as for its practical significance. Will include presentation of methods and materials historical in nature that can be utilized by practicing classroom teachers to motivate and understanding of and appreciation for mathematics.
(Irreg.)
EDMA 5863 Social Justice by the Numbers 3 Credit Hours
Prerequisite: Graduate standing. This course invites students to expand their knowledge and awareness of issues of social justice in the context of numbers, develop a pedagogical model for teaching for social change, critically examine the content of school curriculum and instructional practices from the perspective of social justice, and contemplate the role of the teacher as an agent of change and transformative intellectual.
(Irreg.)

EDMA 5910 Practicum in Education--Master's 1-4 Credit Hours
1 to 4 hours. Prerequisite: graduate standing, permission of instructor and dean. May be repeated; maximum credit six hours. Variable as to title and subject profession. Provides field-type experience under faculty supervision and is designed to introduce the student to the practical application of theory within an environment in which professional practice takes place. Seminar experience is to be included. (Irreg.)
EDMA 5920 Internship in Education--Master's 1-6 Credit Hours
1 to 6 hours. Prerequisite: 5910, permission of instructor. May be repeated; maximum credit six hours. Variable as to title and subject profession. Available to master's degree programs specifically requiring an internship in addition to thirty-two hours of other coursework as part of the degree. Introduces the student to the profession under the supervision of a practitioner whose credentials are equal to those of the graduate faculty. (Irreg.)
EDMA 5940 Field Studies in Mathematics Education 1-4 Credit Hours 1 to 4 hours. Prerequisite: 12 hours of education. May be repeated with change of subject matter; maximum credit eight hours. Practical problems in education as defined by members of the classes. Typical topics: defining educational objectives, relating school programs to established objectives, developing teaching-learning aids, organization for participation in developing and evaluating instructional programs, using community resources for learning, improving evaluation procedure. (Irreg.)

EDMA 5960 Directed Readings 1-3 Credit Hours
1 to 4 hours. Prerequisite: 12 hours of education, approval of instructor, adviser and dean. May be repeated; maximum undergraduate credit eight hours; maximum graduate credit four hours. (Irreg.)
EDMA 5970 Special Topics/Seminar 1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

## EDMA 5980 Research for Master's Thesis

2-9 Credit Hours
Variable enrollment, two to nine hours; maximum credit applicable toward degree, four hours. (F, Sp, Su)
EDMA 5990 Independent Study
1-4 Credit Hours
1 to 4 hours. Prerequisite: graduate standing or permission by instructor. May be repeated with change of subject matter; maximum credit six hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/ or laboratory research and field projects. (Irreg.)

EDMA 6163 Systems Theory \& Learning Organizations 3 Credit Hours Prerequisite: Graduate standing. Examines system theories, including the development and significance of complex adaptive systems, complexity analyses, and paradigms associated with new science, especially related to the educational context. (Irreg.)
EDMA 6910 Practicum in Education--Doctoral 1-6 Credit Hours 1 to 6 hours. Prerequisite: admission to doctoral program, permission of instructor. May be repeated; maximum credit six hours. Variable as to title and subject profession. An advanced practicum for post-master's level students only. The object is to provide professional experience under faculty supervision in fields requiring a high degree of professional skill. Seminar experience is to be included. (Irreg.)

EDMA 6920 Internship in Education--Doctoral 2-6 Credit Hours
1 to 6 hours. Prerequisite: written permission of the instructor. May be repeated; maximum credit 12 hours. Variable as to title and subject profession. An advanced internship for post-master's level students only. The object of the internship is to cultivate within the student a high degree of proficiency and professional independence. Field supervision is by a practitioner whose credentials are equal to those of the graduate faculty. (Irreg.)
EDMA 6930 Intensive Studies in Education
1-6 Credit Hours
1 to 6 hours. Prerequisite: 12 hours of education and permission of instructor. Repeatable with change of title and subject. Opportunity offered for professional educators and others interested in education, cooperatively, to seek solutions to educational problems. Organized groups work in curriculum, guidance, instruction, administration and supervision. Competent leadership and expert consultant service provided. (Irreg.)
EDMA 6960 Directed Readings 1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit six hours. Directed readings and/or literature review under the direction of a faculty member. (Irreg.)
EDMA 6970 Post-Master's Seminar 2-4 Credit Hours
2 to 4 hours. Prerequisite: master's degree, 24 hours of education, permission of instructor. May be repeated with change of subject matter; maximum credit twelve hours. Enrollment limited to students who hold the master's degree. (F, Sp, Su)
EDMA 6980 Research for Doctoral Dissertation 2-16 Credit Hours
2 to 16 hours. Prerequisite: Graduate standing and permission of instructor; may be repeated. Directed research culminating in the completion of the doctoral dissertation. (F, Sp, Su)

EDMA 6990 Individual Study in Education
1-4 Credit Hours
1 to 4 hours. Prerequisite: 12 hours of education, graduate standing and permission of the instructor. May be repeated with change of subject matter; maximum credit eight hours. For advanced graduate students who need to study some problem or area not adequately covered in the organized courses, under the direction of a staff member in whose area of specialization the problem lies. (Irreg.)

EDSC 2960 Individual Study
1-4 Credit Hours
1 to 4 hours. Prerequisite: good standing in University; fewer than 62 total hours; approval of instructor and dean. May be repeated; maximum credit four hours. Designed to provide an introduction to the study of education through a rigorous program of readings under the direction of a member of the faculty. (Irreg.)
EDSC 3233 Environmental Issues in the Community 3 Credit Hours Prerequisite: 6 to 9 hours in the natural sciences and sophomore standing; Majors only. This course is designed for students to explore environmental problems and resulting issues in the surrounding community while actively engaging in scientific and engineering practices and applying crosscutting concepts to develop and deepen their understanding of core ideas in the sciences. (Irreg.)
EDSC 3440 Mentored Research Experience
3 Credit Hours 0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)

EDSC 3960 Honors Reading
1-3 Credit Hours
Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Provides students with the opportunity to develop an appropriate body of reading materials on topics not covered in detail in routine coursework. Students will be obliged to assume the primary initiative in selecting the topic, compiling the bibliography and completing the reading, and will report their progress in weekly sessions to their instructor. Credit will be given only after an intensive oral examination. (Irreg.)

## EDSC 3970 Honors Seminar 1-3 Credit Hours

Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Covers variable subjects in education with in-depth studies of issues not covered in the standard course offerings. (Irreg.)

EDSC 3980 Honors Research 1-3 Credit Hours
Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Provides an opportunity for honors students to work on a special project under the guidance of a professor in the student's major area of study. (Irreg.)

EDSC 3990 Independent Study 1-3 Credit Hours
1 to 3 hours. Prerequisite: one course in general area to be studied; permission of instructor and department. May be repeated; maximum credit six hours. Contracted independent study for topic not currently offered in regularly scheduled courses. (F, Sp)

EDSC 4093 Inquiry-Based Science Teaching 3 Credit Hours Prerequisite: majors only or admission to Teacher Education program. This course is designed to introduce students to the nature of science, scientific practices, and disciplinary concepts fundamental to science education at the PK-3 grade band including the goals of PK-12 science education. The course emphasizes understanding of science disciplinary core ideas and science and engineering practices. ( $F, S p$ )

EDSC 4193 Teaching Science in Elementary Schools 3 Credit Hours Prerequisite: admission to Teacher Education program, EDSC 4093 EDEL 4101; corequisites: EDMA 4353, EDLT 4813, EDSS 4323, EDEL 4980. Experiences are provided, following the position that science is the quest for knowledge, and that this position is compatible with modern educational theory. (F, Sp)

EDSC 4513 Teaching Science in Secondary Schools 3 Credit Hours (Slashlisted with EDSC 5513) Prerequisite: EIPT 3473 and majors only. This course establishes a vision of secondary science instruction that promotes deep understanding of science concepts, practices, and the nature of science. Students will examine the aims and purposes of science education, explore how students learn science, and develop their understanding of the nature of science. No student may earn credit for both 4513 and 5513. (Sp)

EDSC 4533 Advanced Methods in Science Teaching 3 Credit Hours (Slashlisted with EDSC 5533) Prerequisite: EDSC 4513 and senior standing; corequisite: EDUC 4060. This course follows the position that science is the quest for knowledge. Experiences with advanced science content, technology, laboratory investigations, and modern educational theory are provided. This course will serve as the senior capstone. No student may earn credit for both EDSC 4533 and EDSC 5533. (Sp) V.

EDSC 4960 Directed Readings in Education
1-4 Credit Hours
1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean. May be repeated; maximum credit four hours. Designed for upper-division students preparing to teach who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)

EDSC 4970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: senior standing or permission of instructor. May be repeated with change of content; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

EDSC 4980 Practicum in Science Education 1-3 Credit Hours
1 to 3 hours. Prerequisite: nine hours of education courses. Provides fieldtype experience under faculty supervision and is designed to introduce the student to the practical application of theory within an environment in which professional practice takes place. (Irreg.)

EDSC 4990 Special Problems in Education 1-4 Credit Hours
1 to 4 hours. Prerequisite: permission of instructor. May be repeated with change of title and subject. Variable as to subject and credit for areas of specialty and/or interest not otherwise provided in the standard offering of courses. (lrreg.)

EDSC 5513 Teaching Science in Secondary Schools 3 Credit Hours (Slashlisted with EDSC 4513) Prerequisite: graduate standing with 9 hours of Education coursework or departmental permission. This course establishes a vision of secondary science instruction that promotes deep understanding of science concepts, practices, and the nature of science. Students will examine the aims and purposes of science education, explore how students learn science, and develop their understanding of the nature of science. No student may earn credit for both 4513 and 5513. (Sp)

EDSC 5523 Learning Theories and Their Implications for Teaching and Scholarship

3 Credit Hours
Prerequisite: Graduate standing and departmental permission. What does it mean to learn? The course examines the question from various perspectives (constructivist, cognitive, sociocultural, behavioral, and more). Implications across contents and grade levels will be explored for each perspective, and points of influence, coherence, and divergence will be identified. Students need a total of 12 hours from the following courses: EDSP 3055, EIPT 3043, EIPT 3473, EIPT (Irreg.)

EDSC 5533 Advanced Methods in Science Teaching 3 Credit Hours (Slashlisted with EDSC 4533) Prerequisite: EDSC 5513 and graduate standing; corequisite: EDUC 5920 or permission of instructor. This course follows the position that science is the quest for knowledge. Experiences with advanced science content, technology, laboratory investigations, and modern educational theory are provided. No student may earn credit for both EDSC 4533 and EDSC 5533. (Sp)

EDSC 5543 The Elementary School Science Curriculum 3 Credit Hours Prerequisite: twelve hours of education, graduate standing. Elementary school science curricula are examined from a theory-based perspective which includes: the nature of science, purpose of schools, developmental learning theory, and the teaching procedure known as the learning cycle. Students trace the development of American science education from 1700 to present. (Alt. F)

EDSC 5910 Practicum in Education--Master's 1-4 Credit Hours 1 to 4 hours. Prerequisite: graduate standing, permission of instructor and dean. May be repeated; maximum credit six hours. Variable as to title and subject profession. Provides field-type experience under faculty supervision and is designed to introduce the student to the practical application of theory within an environment in which professional practice takes place. Seminar experience is to be included. (Irreg.)

EDSC 5920 Internship in Education--Master's 1-6 Credit Hours
1 to 6 hours. Prerequisite: 5910, permission of instructor. May be repeated; maximum credit six hours. Variable as to title and subject profession. Available to master's degree programs specifically requiring an internship in addition to thirty-two hours of other coursework as part of the degree. Introduces the student to the profession under the supervision of a practitioner whose credentials are equal to those of the graduate faculty. (Irreg.)
EDSC 5940 Field Studies in Education
1-4 Credit Hours
1 to 4 hours. Prerequisite: 12 hours of education. May be repeated with change of subject matter; maximum credit eight hours. Practical problems in education as defined by members of the classes. Typical topics: defining educational objectives, relating school programs to established objectives, developing teaching-learning aids, organization for participation in developing and evaluating instructional programs, using community resources for learning, improving evaluation procedure. (Irreg.)

## EDSC 5960 Directed Readings

1-4 Credit Hours
1 to 4 hours. Prerequisite: 12 hours of education, approval of instructor, adviser and dean. May be repeated; maximum undergraduate credit eight hours; maximum graduate credit four hours. (Irreg.)
EDSC 5970 Special Topics/Seminar 1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

EDSC 5980 Research for Master's Thesis
2-9 Credit Hours
Variable enrollment, two to nine hours; maximum credit applicable toward degree, four hours. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

## EDSC 5990 Independent Study

1-4 Credit Hours
1 to 4 hours. Prerequisite: graduate standing or permission by instructor. May be repeated with change of subject matter; maximum credit six hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/ or laboratory research and field projects. (Irreg.)

## EDSC 6333 Research Paradigms For Scientific Investigations 3 Credit Hours

Prerequisite: graduate standing. Current research paradigms in science education will be constructed through readings, discussions and presentations. In the context of these research paradigms, research designs and research methods will also be explored. A thorough review of the literature will include the use of professional journals, theses, and dissertations and be used to develop a sound understanding of the different approaches to research. (Irreg.)
EDSC 6910 Practicum in Education--Doctoral 1-6 Credit Hours 1 to 6 hours. Prerequisite: admission to doctoral program, permission of instructor. May be repeated; maximum credit six hours. Variable as to title and subject profession. An advanced practicum for post-master's level students only. The object is to provide professional experience under faculty supervision in fields requiring a high degree of professional skill. Seminar experience is to be included. (Irreg.)

EDSC 6920 Internship in Education--Doctoral
2-6 Credit Hours
1 to 6 hours. Prerequisite: written permission of the instructor. May be repeated; maximum credit 12 hours. Variable as to title and subject profession. An advanced internship for post-master's level students only. The object of the internship is to cultivate within the student a high degree of proficiency and professional independence. Field supervision is by a practitioner whose credentials are equal to those of the graduate faculty. (Irreg.)
EDSC 6930 Intensive Studies in Education
1-6 Credit Hours
1 to 6 hours. Prerequisite: 12 hours of education and permission of instructor. Repeatable with change of title and subject. Opportunity offered for professional educators and others interested in education, cooperatively, to seek solutions to educational problems. Organized groups work in curriculum, guidance, instruction, administration and supervision. Competent leadership and expert consultant service provided. (Irreg.)
EDSC 6960 Directed Readings 1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit six hours. Directed readings and/or literature review under the direction of a faculty member. (Irreg.)

EDSC 6970 Post-Master's Seminar
2-4 Credit Hours
2 to 4 hours. Prerequisite: master's degree, 24 hours of education, permission of instructor. May be repeated with change of subject matter; maximum credit twelve hours. Enrollment limited to students who hold the master's degree. (F, Sp, Su)
EDSC 6980 Research for Doctoral Dissertation 2-16 Credit Hours
2 to 16 hours. Prerequisite: Graduate standing and permission of instructor; may be repeated. Directed research culminating in the completion of the doctoral dissertation. Maximum of 15 hours credit for the Ed.D. and 30 hours for the Ph.D. (F, Sp, Su)
EDSC 6990 Individual Study in Education
1-4 Credit Hours
1 to 4 hours. Prerequisite: 12 hours of education, graduate standing and permission of the instructor. May be repeated with change of subject matter; maximum credit eight hours. For advanced graduate students who need to study some problem or area not adequately covered in the organized courses, under the direction of a staff member in whose area of specialization the problem lies. (Irreg.)
EDSS 2960 Individual Study
1-4 Credit Hours
1 to 4 hours. Prerequisite: good standing in University; fewer than 62 total hours; approval of instructor and dean. May be repeated; maximum credit four hours. Designed to provide an introduction to the study of education through a rigorous program of readings under the direction of a member of the faculty. (Irreg.)

## EDSS 3440 Mentored Research Experience 3 Credit Hours

0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)
EDSS 3553 Foundations to Social Studies Education 3 Credit Hours
Prerequisite: admission to Teacher Education program. Designed as a way to view social studies as an integrated body of knowledge while focusing on the various subject matter areas. (F, Sp)

EDSS 3960 Honors Reading
1-3 Credit Hours
Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Provides students with the opportunity to develop an appropriate body of reading materials on topics not covered in detail in routine coursework. Students will be obliged to assume the primary initiative in selecting the topic, compiling the bibliography and completing the reading, and will report their progress in weekly sessions to their instructor. Credit will be given only after an intensive oral examination. (Irreg.)

## EDSS 3970 Honors Seminar <br> 1-3 Credit Hours

Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Covers variable subjects in education with in-depth studies of issues not covered in the standard course offerings. (Irreg.)

## EDSS 3980 Honors Research (HONORS)

1-3 Credit Hours
Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Provides an opportunity for honors students to work on a special project under the guidance of a professor in the student's major area of study. (Irreg.)

EDSS 3990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: one course in general area to be studied; permission of instructor and department. May be repeated; maximum credit six hours. Contracted independent study for topic not currently offered in regularly scheduled courses. ( $F, S p$ )

EDSS 4323 Teaching Social Studies in Elementary/Middle
Schools 3 Credit Hours
Prerequisite: admission to Teacher Education program, EDEL 4101; corequisite: EDLT 4813, EDMA 4353, EDSC 4193, EDEL 4980. Promotes knowledge, skills, attitudes, and actions required for effective planning, implementation, and evaluation of social studies curriculum and instruction in elementary and middle schools. (F, Sp)

EDSS 4553 Foundations and Mentoring in Social Studies 3 Credit Hours Prerequisite: Full admission to the secondary social studies education program. Provides an opportunity to explore the main themes of the social sciences with limited teaching opportunities. (Sp)

EDSS G4563 Teaching Secondary School Social Studies 3 Credit Hours Prerequisite: EDSS 4553. Curriculum and instructional strategies for teaching secondary school social studies with a focus on (a) appropriate methodologies, and (b) matching these methods to content and learners. The students will study a variety of classroom techniques and the assessment of such techniques for social studies teaching. (F) [V]

EDSS 4960 Directed Readings in Education 1-4 Credit Hours
1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean. May be repeated; maximum credit four hours. Designed for upper-division students preparing to teach who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)

EDSS 4970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: senior standing or permission of instructor. May be repeated with change of content; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

EDSS 4980 Practicum in Education 1-3 Credit Hours
1 to 3 hours. Prerequisite: nine hours of education courses. Provides fieldtype experience under faculty supervision and is designed to introduce the student to the practical application of theory within an environment in which professional practice takes place. (Irreg.)

EDSS 4990 Special Problems in Education
1-4 Credit Hours
1 to 4 hours. Prerequisite: permission of instructor. May be repeated with change of title and subject. Variable as to subject and credit for areas of specialty and/or interest not otherwise provided in the standard offering of courses. (Irreg.)

EDSS 5043 Analysis of Teaching and Learning 3 Credit Hours Prerequisite: graduate standing; Corequisite: Must be enrolled in EDUC 5920, Internship. An understanding of how to analyze teaching and earning using a variety of reflective techniques including journals, oral inquiries, classroom/school studies, and theoretical analysis. (F, Sp)

EDSS 5333 Seminar in Social Studies 3 Credit Hours
Prerequisite: graduate standing. May be repeated; maximum credit 9
hours. Attend to special issues in social studies theory and practice.
Focus on social studies/citizenship educational problems and possibilities in schools and society. (lrreg.)

EDSS 5343 Global Education
3 Credit Hours
Prerequisite: Graduate standing. Explores critical issues in global education across subject areas and teaching concepts. Implications for citizenship education are examined in depth. (Irreg.)

EDSS 5503 Social Studies Curriculum, Instruction, Technology and Assessment

3 Credit Hours
Prerequisite: Graduate standing. Analysis of K-12 social studies
curriculum, instruction, technology and assessment to achieve knowledge, skills, valuing, and action capabilities in the social studies curriculum. (Irreg.)

EDSS 5910 Practicum in Education--Master's
1-4 Credit Hours
1 to 4 hours. Prerequisite: graduate standing, permission of instructor and dean. May be repeated; maximum credit six hours. Variable as to title and subject profession. Provides field-type experience under faculty supervision and is designed to introduce the student to the practical application of theory within an environment in which professional practice takes place. Seminar experience is to be included. (Irreg.)

EDSS 5920 Internship in Education--Master's 1-6 Credit Hours
1 to 6 hours. Prerequisite: 5910, permission of instructor. May be repeated; maximum credit six hours. Variable as to title and subject profession. Available to master's degree programs specifically requiring an internship in addition to thirty-two hours of other coursework as part of the degree. Introduces the student to the profession under the supervision of a practitioner whose credentials are equal to those of the graduate faculty. (Irreg.)

## EDSS 5940 Field Studies in Education

-4 Credit Hours
1 to 4 hours. Prerequisite: 12 hours of education. May be repeated with change of subject matter; maximum credit eight hours. Practical problems in education as defined by members of the classes. Typical topics: defining educational objectives, relating school programs to established objectives, developing teaching-learning aids, organization for participation in developing and evaluating instructional programs, using community resources for learning, improving evaluation procedure. (Irreg.)

EDSS 5960 Directed Readings
1-4 Credit Hours
1 to 4 hours. Prerequisite: 12 hours of education, approval of instructor, adviser and dean. May be repeated; maximum undergraduate credit eight hours; maximum graduate credit four hours. (Irreg.)

EDSS 5970 Special Topics/Seminar 1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

EDSS 5980 Research for Master's Thesis 2-9 Credit Hours
Variable enrollment, two to nine hours; maximum credit applicable toward degree, four hours. (F, Sp, Su)
EDSS 5990 Independent Study
1-4 Credit Hours
1 to 4 hours. Prerequisite: graduate standing or permission by instructor. May be repeated with change of subject matter; maximum credit six hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/ or laboratory research and field projects. (Irreg.)

EDSS 6910 Practicum in Education--Doctoral 1-6 Credit Hours 1 to 6 hours. Prerequisite: admission to doctoral program, permission of instructor. May be repeated; maximum credit six hours. Variable as to title and subject profession. An advanced practicum for post-master's level students only. The object is to provide professional experience under faculty supervision in fields requiring a high degree of professional skill. Seminar experience is to be included. (Irreg.)

EDSS 6920 Internship in Education--Doctoral 2-6 Credit Hours 1 to 6 hours. Prerequisite: written permission of the instructor. May be repeated; maximum credit 12 hours. Variable as to title and subject profession. An advanced internship for post-master's level students only. The object of the internship is to cultivate within the student a high degree of proficiency and professional independence. Field supervision is by a practitioner whose credentials are equal to those of the graduate faculty. (Irreg.)
EDSS 6930 Intensive Studies in Education
1-6 Credit Hours
1 to 6 hours. Prerequisite: 12 hours of education and permission of instructor. Repeatable with change of title and subject. Opportunity offered for professional educators and others interested in education, cooperatively, to seek solutions to educational problems. Organized groups work in curriculum, guidance, instruction, administration and supervision. Competent leadership and expert consultant service provided. (Irreg.)

## EDSS 6960 Directed Readings

1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit six hours. Directed readings and/or literature review under the direction of a faculty member. (Irreg.)

## EDSS 6970 Post-Master's Seminar

2-4 Credit Hours
2 to 4 hours. Prerequisite: master's degree, 24 hours of education, permission of instructor. May be repeated with change of subject matter; maximum credit twelve hours. Enrollment limited to students who hold the master's degree. (F, Sp, Su)
EDSS 6980 Research for Doctoral Dissertation 2-16 Credit Hours 2 to 16 hours. Prerequisite: Graduate standing and permission of instructor; may be repeated. Directed research culminating in the completion of the doctoral dissertation. Maximum of 15 hours credit for the Ed.D. and 30 hours for the Ph.D. (F, Sp, Su)
EDSS 6990 Individual Study in Education 1-4 Credit Hours 1 to 4 hours. Prerequisite: 12 hours of education, graduate standing and permission of the instructor. May be repeated with change of subject matter; maximum credit eight hours. For advanced graduate students who need to study some problem or area not adequately covered in the organized courses, under the direction of a staff member in whose area of specialization the problem lies. (Irreg.)

EDUC 1523 Growing through Education, Teaching, and Learning

3 Credit Hours
You'll explore your educational past, present, and future while positioning it in the broader context of education's past, present, and future. You'll deepen your understanding of learners and learning, what's shaped education systems, and the role of communities and society in education. (F, Sp) [V-FYE].
EDUC 2400 Field Experiences in Education
1-3 Credit Hours
1 to 3 hours. (Also listed under Professional Studies in Education.)
Introduction to education as a profession based upon assignment to public schools and other educational agencies. Students will be expected to observe the schools in action, interact with students and professionals and participate in the instructional process. (F, Sp, Su)
EDUC 2960 Individual Study
1-4 Credit Hours
1 to 4 hours. Prerequisite: good standing in University; fewer than 62 total hours; approval of instructor and dean. May be repeated; maximum credit four hours. Designed to provide an introduction to the study of education through a rigorous program of readings under the direction of a member of the faculty. (Irreg.)
EDUC 2970 Special Topics/Seminar
1-3 Credit Hours
Special Topics. 1 to 3 hours. May be repeated; Maximum credit nine hours. Special topics course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research, and field projects. (Irreg.)
EDUC 3223 Introduction to Education
3 Credit Hours
Prerequisite: junior standing and majors only. The purpose of this course is to critically explore, question, and discuss issues in education. Questions to be explored include the following: What are teaching and learning? What are the relationships between the student, the school, and society? Emphasis will be reflective learning as an active, contextualized, act of creativity that involves construction of and reflection on knowledge. (F, Sp, Su)
EDUC 3233 Development, Motivation, and Learning 3 Credit Hours Prerequisite: junior standing and majors only. The course will examine our current understanding of various psychological processes and their relevance to teaching and learning in school settings. In other words, we'll be learning about psychology research, or how and why people think, feel, and behave, and how it relates to how adults working in education settings can most effectively engage their students. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
EDUC 3440 Mentored Research Experience
3 Credit Hours
0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)

EDUC 3960 Honors Reading
1-3 Credit Hours
Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Provides students with the opportunity to develop an appropriate body of reading materials on topics not covered in detail in routine coursework. Students will assume the primary initiative in selecting the topic, compiling the bibliography and completing the reading, and will report their progress in weekly sessions to their instructor. Credit will be given only after an intensive oral examination. (Irreg.)

EDUC 3970 Honors Seminar
1-3 Credit Hours
Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Covers variable subjects in education with in-depth studies of issues not covered in the standard course offerings. (Irreg.)

EDUC 3980 Honors Research
1-3 Credit Hours
Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Provides an opportunity for honors students to work on a special project under the guidance of a professor in the student's major area of study. (Irreg.)

EDUC 3990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: one course in general area to be studied permission of instructor and department. May be repeated; maximum credit six hours. Contracted independent study for topic not currently offered in regularly scheduled courses. (F, Sp)

EDUC 4023 Global Experience: Uganda
3 Credit Hours
(Slashlisted with EDUC 5023) Prerequisite: senior standing or permission of instructor. Designed to give real-world experience in global education through a multi-disciplinary service-learning program. Lecture component will take place on the OU Norman campus and experiential component in Gulu, Uganda. Students will learn about global education in developing countries, impact of conflict on women's educational trajectories, a postcolonial view of working with educators, and active teaching and learning in diverse settings. No student may earn credit for both 4023 and 5023. (Su)

## EDUC 4050 Teaching Experiences in the Elementary

School
4-10 Credit Hours
4 to 10 hours. Prerequisite: EDMA 4353, EDLT 4713, EDSC 4193, EDSS 4323, EDUC 4980. Corequisite: EDEL 4063. Enrollment requires a signed recommendation form by the student's counselor. Laboratory activities under competent direction and supervision: orientation, observation, and classroom teaching experiences supported by seminars and conferences which focus upon the problems of teaching. Prospective teachers receive instruction, aid, and constructive supervision in classroom management, evaluation of pupil behavior, methods of teaching, selection of teaching materials and school-home-community relations. (F, Sp)

## EDUC 4060 Teaching Experiences in the Secondary School <br> 4-10 Credit Hours

4 to 10 hours. Prerequisite: permission of College of Education Undergraduate Academic Advising Office. Enrollment for fewer than eight hours requires special recommendation by the student's counselor. Correlation of theory and instructional practices in secondary education; supervised observation, teaching, classroom management, and evaluation; acquaintance with the administration of a school and the school program; selection and use of appropriate instructional materials; conferences with supervisors; seminar on problems of teaching; methodology, professional problems, and placement. (F, Sp)

EDUC 4123 Introduction to Instruction
3 Credit Hours
Prerequisite: junior standing and majors only. The purpose of this course is to critically explore, question, and discuss issues in education Questions to be explored include the following: What are teaching and learning? What are the relationships between the student, the school, and society? Emphasis will be reflective learning as an active, contextualized, act of creativity that involves construction of and reflection on knowledge. (F, Sp, Su)

EDUC 4223 Learning Environments for Diverse Learners 3 Credit Hours Prerequisite: junior standing and majors only. There are two main purposes for this course. The first is to help students develop a better understanding of different cultures and the challenges and benefits of cultural diversity as it relates to educational contexts. The second is to provide students with the background knowledge, understandings, and techniques to work effectively with learners from diverse cultural and ethnic backgrounds. (F, Sp, Su)

EDUC 4323 Scaffolded Instruction for All Learners 3 Credit Hours Prerequisite: junior standing and majors only. Students will develop an understanding of student characteristics and prior learning histories to implement scaffolded instruction in real-life settings among a wide range of learners and learning communities. Students will learn how to become keen observers and will acquire proficiency in selecting materials that will provide useful information to guide the design, implementation, and assessment appropriate for the learning community. (F, Sp, Su)

EDUC 4960 Directed Readings in Education 1-4 Credit Hours 1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean. May be repeated; maximum credit four hours. Designed for upper-division students preparing to teach who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)

EDUC 4970 Special Topics/Seminar 1-3 Credit Hours
1 to 3 hours. Prerequisite: senior standing or permission of instructor. May be repeated with change of content; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

EDUC 4980 Practicum in Education
1-3 Credit Hours
1 to 3 hours. Prerequisite: nine hours of education courses. Provides fieldtype experience under faculty supervision and is designed to introduce the student to the practical application of theory within an environment in which professional practice takes place. (Irreg.)

## EDUC 4990 Special Problems in Education

1-4 Credit Hours
1 to 4 hours. Prerequisite: permission of instructor. May be repeated with change of title and subject. Variable as to subject and credit for areas of specialty and/or interest not otherwise provided in the standard offering of courses. (lrreg.)
EDUC 5023 Global Experience: Uganda
3 Credit Hours
(Slashlisted with EDUC 4023) Prerequisite: graduate standing or permission of instructor. Designed to give real-world experience in global education through a multi-disciplinary service-learning program. Lecture component will take place on the OU Norman campus and experiential component in Gulu, Uganda. Students will learn about global education in developing countries, impact of conflict on women's educational trajectories, a postcolonial view of working with educators, and active teaching and learning in diverse settings. No student may earn credit for both 4023 and 5023. (Su)

EDUC 5910 Practicum in Education--Master's 1-4 Credit Hours 1 to 4 hours. Prerequisite: graduate standing, permission of instructor and dean. May be repeated; maximum credit six hours. Variable as to title and subject profession. Provides field-type experience under faculty supervision and is designed to introduce the student to the practical application of theory within an environment in which professional practice takes place. Seminar experience is to be included. (Irreg.)

EDUC 5920 Internship in Education--Master's 1-6 Credit Hours
1 to 6 hours. Prerequisite: permission of instructor. May be repeated; maximum credit six hours. Variable as to title and subject profession. Available to master's degree programs specifically requiring an internship in addition to thirty-two hours of other coursework as part of the degree. Introduces the student to the profession under the supervision of a practitioner whose credentials are equal to those of the graduate faculty. (Irreg.)
EDUC 5940 Field Studies in Education
1-4 Credit Hours
1 to 4 hours. Prerequisite: 12 hours of education. May be repeated with change of subject matter; maximum credit eight hours. Practical problems in education as defined by members of the classes. Typical topics: defining educational objectives, relating school programs to established objectives, developing teaching-learning aids, organization for participation in developing and evaluating instructional programs, using community resources for learning, improving evaluation procedure. (Irreg.)

## EDUC 5960 Directed Readings

1-4 Credit Hours 1 to 4 hours. Prerequisite: 12 hours of education, approval of instructor, adviser and dean. May be repeated; maximum undergraduate credit eight hours; maximum graduate credit four hours. Directed readings and/or literature reviews under the direction of a faculty member. (Irreg.)
EDUC 5970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

## EDUC 5980 Research for Master's Thesis

2-9 Credit Hours
2 to 9 hours. Prerequisite: Graduate standing; maximum credit applicable toward degree, four hours. Research and writing of a thesis for completion of a graduate degree. (F, Sp, Su)
EDUC 5990 Independent Study
1-4 Credit Hours
1 to 4 hours. Prerequisite: graduate standing or permission by instructor. May be repeated with change of subject matter; maximum credit six hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/ or laboratory research and field projects. (Irreg.)

## EDUC 6113 Theoretical Paradigms in Educational Research 3 Credit Hours

Prerequisite: Graduate standing. Designed to expose students to a variety of educational theories as well as how research uses and engages theory. In addition, a primary objective of this course is for students to understand prominent theories in educational research and how they may utilize theory to evaluate programs, design studies, and create learning environments that support students and educational institutions. ( $\mathrm{F}, \mathrm{Sp}$, ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
EDUC 6222 Dissertation Development \& Advisory 2 Credit Hours Prerequisite: Graduate standing; May be repeated; maximum credit 12 hours. This course is designed to support doctoral students postprospectus defense, during data collection, analysis, and the writing of their dissertation. As such, the course is run as a seminar in which students develop and progress their individual research projects. Particular attention is spent on data analysis processes and how to move from analysis toward the written dissertation. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

EDUC 6223 Dissertation Development \& Advisory 3 Credit Hours
Prerequisite: Graduate standing; majors only; may be repeated with maximum credits of 12 hours. This course is designed to support doctoral students post-prospectus defense, during data collection, analysis, and the writing of their dissertation. As such, the course is run as a seminar in which students develop and progress their individual research projects. Particular attention is spent on data analysis processes and how to move from analysis toward the written dissertation. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
EDUC 6910 Practicum in Education--Doctoral 1-6 Credit Hours 1 to 6 hours. Prerequisite: admission to doctoral program, permission of instructor. May be repeated; maximum credit six hours. Variable as to title and subject profession. An advanced practicum for post-master's level students only. The object is to provide professional experience under faculty supervision in fields requiring a high degree of professional skill. Seminar experience is to be included. (Irreg.)
EDUC 6920 Internship in Education--Doctoral 1-6 Credit Hours 1 to 6 hours. Prerequisite: written permission of the instructor. May be repeated; maximum credit 12 hours. Variable as to title and subject profession. An advanced internship for post-master's level students only. The object of the internship is to cultivate within the student a high degree of proficiency and professional independence. Field supervision is by a practitioner whose credentials are equal to those of the graduate faculty. (Irreg.)
EDUC 6930 Intensive Studies in Education 1-6 Credit Hours 1 to 6 hours. Prerequisite: 12 hours of education and permission of instructor. Repeatable with change of title and subject. Opportunity offered for professional educators and others interested in education, cooperatively, to seek solutions to educational problems. Organized groups work in curriculum, guidance, instruction, administration and supervision. Competent leadership and expert consultant service provided. (Irreg.)
EDUC 6960 Directed Readings
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit six hours. Directed readings and/or literature review under the direction of a faculty member. (Irreg.)
EDUC 6970 Post-Master'S Seminar 2-4 Credit Hours
2 to 4 hours. Prerequisite: master's degree, 24 hours of education, permission of instructor. May be repeated with change of subject matter; maximum credit twelve hours. Enrollment limited to students who hold the master's degree. (F, Sp, Su)
EDUC 6980 Research for Doctoral Dissertation 2-16 Credit Hours 2 to 16 hours. Prerequisite: Graduate standing and permission of instructor; may be repeated. Directed research culminating in the completion of the Doctoral dissertation. Maximum of 15 hours credit for the Ed.D. and 30 hours for the Ph.D. ( $F, S p, S u$ )
EDUC 6990 Individual Study in Education
1-4 Credit Hours
1 to 4 hours. Prerequisite: 12 hours of education, graduate standing and permission of the instructor. May be repeated with change of subject matter; maximum credit eight hours. For advanced graduate students who need to study some problem or area not adequately covered in the organized courses, under the direction of a staff member in whose area of specialization the problem lies. (Irreg.)

EDWL 3003 World Languages in the Elementary School 3 Credit Hours Prerequisite: Proficiency in a Language other than English via evidence of one of the following: Passing Completion of a 2223 level of modern language course, OR self-identification as a Heritage/Native Speaker in a language other than English, OR an OPI score of intermediate high or above. Introduction to the teaching of World Languages and multilingual learners in the PreK-6 setting by providing practical experience and introducing the tenets of language acquisition theory and research. Addresses second language teaching and learning through a combination of classroom activities, experiential learning through service-learning projects, and opportunities to expand target language knowledge and develop critical thinking and reflection skills. (F)

## EDWL 4023 Foundations and Theory for PreK-12 Second Language Acquisition 3 Credit Hours

(Slashlisted with EDWL 5023) Prerequisite: Admission to Teacher Education program. This course is a multidisciplinary approach to second language (L2) acquisition theory, application, and pedagogy. The course focuses on developing, enhancing and improving instructional expertise, pedagogical knowledge and advocacy for the role and value of languages and cultures for those planning or currently working with SLA students in a PreK-12 educational setting. No student may earn credit for both 4023 and 5023. (Irreg.)

EDWL 4033 Methods for Teaching World Languages in PreK-12 Settings 3 Credit Hours
(Slashlisted with EDWL 5033) Prerequisite: EDWL 4023 and Admission to Teacher Education program; EIPT 3483 or concurrent enrollment. This course is a multidisciplinary approach to the teaching of World Languages in the PreK-12 setting. This course is designed to provide students with practical experience in the teaching of world languages and to introduce key issues in classroom language acquisition research and teaching methodology in the PreK-12 classroom. No student may earn credit for both 4033 and 5033. (Irreg.)

EDWL 4323 Foundations and Practice for Bi/Multilingual Learners PK-12 3 Credit Hours
Prerequisite: Education Majors or instructor permission. This course focuses on the theory, research, and policy foundations for effective instruction and practice with bi/multilingual learners. We will focus on the current issues, as well as techniques in instructing and assessing students at all stages of bilingual development. (F)

EDWL 4553 Second Language Literacy for Spanish-speaking ELLs

3 Credit Hours
(Slashlisted with EDWL 5553) Prerequisite: Education Major or instructor permission; EDWL 4023 is recommended, though not required. Course explores differences in literacy development of Spanish/English, and pedagogical approaches that leverage students' home language/literacy practices. Socio-cultural factors influencing literacy development are discussed. Home literacy, biliteracy, and culturally relevant practices are integral to the course framework. Equity/bias in classroom language practices and the multitude of relationships affecting Spanish-speaking families are examined. Taught bilingually in Spanish/English (dependent on student proficiency). No student may earn credit for both 4553 and 5553. (Su)

EDWL 4970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: senior standing or permission of instructor. May be repeated with change of content; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

EDWL 5023 Foundations and Theory for PreK-12 Second Language Acquisition

3 Credit Hours
(Slashlisted with EDWL 4023) Prerequisite: graduate standing. This course is a multidisciplinary approach to second language (L2) acquisition theory, application, and pedagogy. It focuses on developing, enhancing, and improving instructional expertise, pedagogical knowledge, and advocacy for the role and value of languages and cultures for those planning or currently working with SLA students in a PreK-12 educational setting. No student may earn credit for both 4023 and 5023. (Irreg.)

EDWL 5033 Methods for Teaching World Languages in PreK-12 Settings

3 Credit Hours
(Slashlisted with EDWL 4033) Prerequisite: EDWL 5023 and graduate standing. This course is a multidisciplinary approach to the teaching of World Languages in the PreK-12 setting. This course is designed to provide students with practical experience in the teaching of world languages and to introduce key issues in classroom language acquisition research and teaching methodology in the PreK-12 classroom. No student may earn credit for both 4033 and 5033. (Irreg.)
EDWL 5043 Theory and Practice in Bi/Multilingual Education

3 Credit Hours
Prerequisite: Graduate standing. Application of theory, research, and guiding principles to providing high-quality instruction, assessment, and advocacy for bi/multilingual learners in K -12 education. This course includes a specific focus on preparing content area teachers to support the dynamic bilingualism of linguistically diverse children through effective language and literacy instruction. (Sp)

## EDWL 5553 Second Language Literacy for Spanish-speaking ELLs <br> 3 Credit Hours

Slashlisted with EDWL 4553) Prerequisite: Graduate standing and Admission into the Teacher Preparation Program; EDWL 4023/5023 is recommended, though not required. Course explores differences in literacy development of Spanish/English, and pedagogical approaches that leverage students' home language/literacy practices. Sociocultural factors influencing literacy development are discussed. Home literacy, biliteracy, and culturally relevant practices are integral to the course framework. Equity/bias in classroom language practices and the multitude of relationships affecting Spanish-speaking families are examined. Taught bilingually in Spanish/English (dependent on student proficiency). No student may earn credit for both 4553 and 5553. (Su)

EDWL 5970 Special Topics/Seminar 1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)
ILAC 2960 Individual Study
1-4 Credit Hours
1 to 4 hours. Prerequisite: good standing in University; fewer than 62 total hours; approval of instructor and dean. May be repeated; maximum credit four hours. Designed to provide an introduction to the study of education through a rigorous program of readings under the direction of a member of the faculty. (Irreg.)

ILAC 3960 Honors Reading
1-3 Credit Hours
Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Provides students with the opportunity to develop an appropriate body of reading materials on topics not covered in detail in routine coursework. Students will be obliged to assume the primary initiative in selecting the topic, compiling the bibliography and completing the reading, and will report their progress in weekly sessions to their instructor. Credit will be given only after an intensive oral examination. (Irreg.)

ILAC 3970 Honors Seminar
1-3 Credit Hours
Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Covers variable subjects in education with in-depth studies of issues not covered in the standard course offerings. (Irreg.)

ILAC 3980 Honors Research
1-3 Credit Hours
Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Provides an opportunity for honors students to work on a special project under the guidance of a professor in the student's major area of study. (Irreg.)

## ILAC 3990 Independent Study

1-3 Credit Hours
1 to 3 hours. Prerequisite: one course in general area to be studied; permission of instructor and department. May be repeated; maximum credit six hours. Contracted independent study for topic not currently offered in regularly scheduled courses. (F, Sp)

## ILAC 4003 Partnerships: Working With Parents and Community

3 Credit Hours
Prerequisite: admission to Teacher Education program. Approaches for working with students, parents, guardians, and the community (both locally and globally) will be addressed. Primary content for the course includes: student, parental and community involvement in schools, interaction/communication skills, diversity of families, available resources, and emerging trends. Community involvement and nontraditional field experiences will also be an integral part of the course. (F, Sp)
ILAC 4243 Student Teaching Seminar 3 Credit Hours
(Slashlisted with ILAC 5243) Prerequisite: Admission to Teacher Education Program; corequisite EDUC 4060. This course is designed to help students evaluate their own practice and develop educational research habits of mind. Specifically, as a result of the course students will better understand: a.) reflective practice and b.) the value of educational research. No student may earn credit for both 4243 and 5243. (Irreg.)

ILAC 4960 Directed Readings in Education
1-4 Credit Hours
1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean. May be repeated; maximum credit four hours. Designed for upper-division students preparing to teach who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)

## ILAC 4970 Special Topics/Seminar

1-3 Credit Hours
1 to 3 hours. Prerequisite: senior standing or permission of instructor. May be repeated with change of content; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)
ILAC 4980 Practicum in Education
1-3 Credit Hours
1 to 3 hours. Prerequisite: nine hours of education courses. Provides fieldtype experience under faculty supervision and is designed to introduce the student to the practical application of theory within an environment in which professional practice takes place. (Irreg.)

## ILAC 4990 Special Problems in Education

1-4 Credit Hours
1 to 4 hours. Prerequisite: permission of instructor. May be repeated with change of title and subject. Variable as to subject and credit for areas of specialty and/or interest not otherwise provided in the standard offering of courses. (Irreg.)

ILAC 5003 Models of Instruction
3 Credit Hours
Prerequisite: completion of undergraduate teacher education. Students will study teaching models and their strategies intended to improve abilities to analyze student-teacher interactions and to increase teacher effectiveness as instructor and manager in a variety of educational situations. (F, Sp)

## ILAC 5133 Multicultural Art Education

3 Credit Hours
Prerequisite: Graduate standing. Creative expression explores the arts as means of social critique, self expression, and identity development. We consider implications both for teaching and learning. (Sp)
ILAC 5143 Theory and Research in Education 3 Credit Hours Prerequisite: graduate standing or permission of instructor. An introduction to the processes and products of educational research, such as stages in designing a study, introduction to research methods, and identification of the components of a research-based article. Develops critical consumers of educational research. (F, Sp, Su)
ILAC 5233 Understanding Different Cultures 3 Credit Hours Prerequisite: graduate standing or permission of instructor. Provides information on cultural styles and characteristics of various ethnic and economic groups with emphasis on how teachers can understand and honor differences and similarities and adjust their teaching in order to be effective with a variety of students and families. (F)

ILAC 5243 Student Teaching Seminar
3 Credit Hours
(Slashlisted with 4243) Prerequisite: Graduate standing. This course
is designed to help students evaluate their own practice and develop educational research habits of mind. As a result of the course, students will better understand reflective practice and the value of educational research. No student may earn credit for both 4243 and 5243. (Irreg.)
$\begin{array}{lll}\text { ILAC } 5910 & \text { Practicum in ILAC--Master's } & \text { 1-4 Credit Hours } \\ 1 \text { to } 4 \text { hours. Prerequisite: graduate standing, permission of instructor }\end{array}$ and dean. May be repeated; maximum credit six hours. Variable as to title and subject profession. Provides field-type experience under faculty supervision and is designed to introduce the student to the practical application of theory within an environment in which professional practice takes place. Seminar experience is to be included. (Irreg.)

## ILAC 5920 Internship in Education--Master's

1-6 Credit Hours
1 to 6 hours. Prerequisite: 5910, permission of instructor. May be repeated; maximum credit six hours. Variable as to title and subject profession. Available to master's degree programs specifically requiring an internship in addition to thirty-two hours of other coursework as part of the degree. Introduces the student to the profession under the supervision of a practitioner whose credentials are equal to those of the graduate faculty. (Irreg.)

## ILAC 5940 Field Studies in ILAC

1-4 Credit Hours
1 to 4 hours. Prerequisite: 12 hours of education. May be repeated with change of subject matter; maximum credit eight hours. Practical problems in education as defined by members of the classes. Typical topics: defining educational objectives, relating school programs to established objectives, developing teaching-learning aids, organization for participation in developing and evaluating instructional programs, using community resources for learning, improving evaluation procedure. (Irreg.)
ILAC 5960 Directed Readings
1-4 Credit Hours
1 to 4 hours. Prerequisite: 12 hours of education, approval of instructor, adviser and dean. May be repeated; maximum undergraduate credit eight hours; maximum graduate credit four hours. (Irreg.)

LAC 5970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

ILAC 5980 Research for Master's Thesis 2-9 Credit Hours
Variable enrollment, two to nine hours; maximum credit applicable toward degree, four hours. (F, Sp, Su)

ILAC 5990 Independent Study 1-4 Credit Hours
1 to 4 hours. Prerequisite: graduate standing or permission by instructor. May be repeated with change of subject matter; maximum credit six hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/ or laboratory research and field projects. (Irreg.)

## ILAC 6003 Curriculum Theory 3 Credit Hours

Prerequisite: admittance to Instructional Leadership \& Academic
Curriculum doctoral program. Supports five core themes: scholarly discourse; philosophical thinking/intellectual curiosity; the praxis of curriculum and instruction; democracy, diversity, and community; research knowledge, skills, and attitudes. (F)

## ILAC 6013 Proseminar in Instructional Leadership and Academic Curriculum <br> 3 Credit Hours

Prerequisite: admittance to Instructional Leadership \& Academic
Curriculum doctoral program. Required for new doctoral students, to be taken in sequence with 6023. Intended to introduce students to interdisciplinary, cross-disciplinary, and specialization studies in the field; university educators and fellow students; and the ethos of doctoral study and the academy. (F)

ILAC 6023 Theoretical Issues in Instructional Leadership 3 Credit Hours Prerequisite: admittance to Instructional Leadership \& Academic Curriculum doctoral program. Required for new ILAC doctoral students, to be taken in sequence with 6013. Focus on important theoretical issues which impact the research, curriculum, and practice of schools and other educational agencies. (Sp)

ILAC 6033 Critical Research Paradigms
3 Credit Hours
Prerequisite: admission to Ph.D. program or permission of instructor Compares research paradigms and epistemologies and examines critical and transformative research approaches. (Irreg.)

## ILAC 6043 Multilevel Modeling Applications for the Social

## Sciences

3 Credit Hours
Prerequisite: Graduate standing, EACS 6023 or ODYN 5163, and
EACS 6673; Students must have experience with the statistical software STATA (at the level of EACS 6023 and EACS 6673). This is an advanced quantitative methods course to understand fundamental concepts and assumptions of statistics and learn applicable advanced methodologies in early childhood research. This class will provide sophisticated statistical techniques to formulate and test research hypotheses, examine rigorous research models, interpret results, and report and discuss the results. (Su)

ILAC 6233 Implications of Diversity 3 Credit Hours
Prerequisite: Doctoral-level standing. This course helps students develop a critical understanding of underlying issues related to diversity in school settings, develop a deep understanding of the complexity of different cultures, engage in scholarly and intellectual discourse related to diversity in American schools and society, develop an understanding of the implications of policy and advocacy, and understand the implications for curriculum, pedagogy, and research. (Irreg.)

LAC 6910 Practicum in Educ--Doctoral
1-6 Credit Hours
1 to 6 hours. Prerequisite: admission to doctoral program, permission of instructor. May be repeated; maximum credit six hours. Variable as to title and subject profession. An advanced practicum for post-master's level students only. The object is to provide professional experience under faculty supervision in fields requiring a high degree of professional skill. Seminar experience is to be included. (Irreg.)

ILAC 6920 Internship in Education--Doctoral
2-6 Credit Hours
1 to 6 hours. Prerequisite: written permission of the instructor. May be repeated; maximum credit 12 hours. Variable as to title and subject profession. An advanced internship for post-master's level students only. The object of the internship is to cultivate within the student a high degree of proficiency and professional independence. Field supervision is by a practitioner whose credentials are equal to those of the graduate faculty. (Irreg.)

ILAC 6930 Intensive Studies in Education
1-6 Credit Hours
1 to 6 hours. Prerequisite: 12 hours of education and permission of instructor. Repeatable with change of title and subject. Opportunity offered for professional educators and others interested in education, cooperatively, to seek solutions to educational problems. Organized groups work in curriculum, guidance, instruction, administration and supervision. Competent leadership and expert consultant service provided. (Irreg.)

ILAC 6960 Directed Readings
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor May be repeated; maximum credit six hours. Directed readings and/or literature review under the direction of a faculty member. (Irreg.)

ILAC 6970 Post-Master's Seminar
2-4 Credit Hours
2 to 4 hours. Prerequisite: master's degree, 24 hours of education, permission of instructor. May be repeated with change of subject matter; maximum credit twelve hours. Enrollment limited to students who hold the master's degree. (F, Sp, Su)

ILAC 6980 Research for Doctoral Dissertation 2-16 Credit Hours
2 to 16 hours. Prerequisite: Graduate standing and permission of instructor; may be repeated. Directed research culminating in the completion of the doctoral dissertation. Maximum of 15 hours credit for the Ed.D. and 30 hours for the Ph.D. (F, Sp, Su)

ILAC 6990 Individual Study in Education
1-4 Credit Hours
1 to 4 hours. Prerequisite: 12 hours of education, graduate standing and permission of the instructor. May be repeated with change of subject matter; maximum credit eight hours. For advanced graduate students who need to study some problem or area not adequately covered in the organized courses, under the direction of a staff member in whose area of specialization the problem lies. (Irreg.)

## Faculty

| Last Name | First/Middle Middle <br> Name <br> init. | OU <br> Service <br> start | Title(s), date(s) <br> appointed | Degrees Earned, <br> Schools, Dates <br> Completed |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Beisly | Amber | H. | 2022 | ASSISTANT <br> PROFESSOR, | PhD, Univ of <br> Oklahoma Tu; M.S, |
|  |  |  |  | INSTRUCTIONAL <br> LEADERSHIP | OSU; BA, Kalamazoo <br> College |
| Borden | Rebecca |  |  |  |  |
|  |  |  |  |  | AND ACADEMIC <br> CURRICULUM, 2022 |



| Pleasants | Jacob |  | 2021 | ASSISTANT <br> PROFESSOR, <br> INSTRUCTIONAL <br> LEADERSHIP <br> AND ACADEMIC <br> CURRICULUM, 2021 | Ph.D., Iowa State 2018; M.A.T., lowa State, 2011; B.A., Washington University in St. Louis, 2010 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Raymond | Kate | M | 2017 | ASSOCIATE PROFESSOR OF INSTRUCTIONAL LEADERSHIP \& ACADEMIC CURRICULUM, 2018 | PhD, Univ of Oklahoma, 2017; MS, Univ of North Carolina, 2002; BA, Univ of Pennsylvania, 2000 |
| Reeder | Stacy | L | 2005 | PROFESSOR OF INSTRUCTIONAL LEADERSHIP AND ACADEMIC CURRICULUM, 2009 | PhD, Univ of Oklahoma, 2002; MEd, Univ of Central Oklahoma, 1996; BS, Oklahoma Baptist Univ |
| Ruan | Jiening |  | 2000 | PROFESSOR OF <br> INSTRUCTIONAL <br> LEADERSHIP <br> AND ACADEMIC <br> CURRICULUM, 2015 | PhD, Purdue Univ, 2000; MEd, Indiana Univ of Pennsylvania, 1996; BA, Xiamen Univ, 1989 |
| Rylak | Danielle |  | 2023 | ASSISTANT <br> PROFESSOR, <br> INSTRUCTIONAL <br> LEADERSHIP <br> AND ACADEMIC <br> CURRICULUM, 2023 | Ph.D., Arizona State University, 2022; M.A., Columbia University, 20152; B.S., The College of New Jersey, 2009 |
| Torres | Heidi | J | 2016 | ASSOCIATE <br> PROFESSOR OF <br> INSTRUCTIONAL <br> LEADERSHIP <br> AND ACADEMIC <br> CURRICULUM, 2016 | PhD, Indiana Univ, 2016; MS, Indiana Univ, 2011; BS, Univ of Texas, 1994; B Journalism, Univ of Texas, 1989; BA, Univ of Texas, 1989 |
| Velasco | Richard | C. L. | 2022 | ASSISTANT <br> PROFESSOR, <br> INSTRUCTIONAL <br> LEADERSHIP <br> AND ACADEMIC <br> CURRICULUM, 2022 | Ph.D., Texas Tech Univ, 2020; M.A.T., Univ of St Mary, 2010; B.A., Univ of Guam, 2007 |

## Early Childhood Education, B.S.

Minimum Total Credit Hours: 124
Minimum Upper-Division Hours: 40

Overall GPA - Combined and OU: 2.75
Major GPA - Combined and OU: 2.75

## Program Code: B285

## Admission and Retention Requirements

Admission Requirements-Jeannine Rainbolt College of Education Students are eligible for admission to the Jeannine Rainbolt College of Education with:

1. a minimum of 24 semester hours earned from an accredited institution of higher learning;
2. a minimum of $\mathbf{2 . 7 5}$ combined retention grade point average on all coursework attempted;
3. a declared major in education.

Full Admission Requirements-Teacher Education and Professional Studies Programs

Students are eligible for admission to Teacher Education with:

1. a minimum of 30 semester hours from an accredited institution of higher learning to include the following 24 hours as defined by the Oklahoma State Regents for Higher Education with a grade of C or better: English (Composition and Literature)-6 hours; MATH, Gen. Ed. Core I-3 hours; American History-3 hours; American Government-3 hours; Humanities to include Artistic Forms, Western Civilization, Non-Western Culture, World Language, or other advisor-approved Gen. Ed. course -3 hours; Social and Behavioral Sciences-3 hours; Natural Sciences-3 hours.
2. a minimum of $\mathbf{2 . 7 5}$ grade point average (OU retention and combined retention) on all coursework attempted;
3. Meet one of the six performance criteria listed by Oklahoma State Regents for Higher Education (OSRHE) that students may use to qualify for admission into an Oklahoma teacher education program. Speak with your Education Advisor for more details.

Admission to a teaching program requires submission of an application,essay, background check,and an interview with the admission committee prior to enrollment in the first education course.

## Retention Requirements-Jeannine Rainbolt College of Education

1. When a student accepts an offer of admission into a JRCoE department or program, they commit to comply with all its regulations, including those regarding professional conduct and dispositions that are contained in the JRCoE Professional Behavior Policy.
2. Students must maintain a minimum $\mathbf{2 . 7 5}$ grade point average (OU retention and combined retention) in all undergraduate coursework and a minimum 3.00 grade point average in all graduate coursework attempted.
3. Students must maintain a minimum of 2.75 undergraduate grade point average in both professional education courses and in specialized education courses with no grade less than a C and must maintain a minimum of 3.00 grade point average in graduate professional and specialized education courses, with no grade less than a B.
4. Students must earn a C or better in COMM 1113 or COMM 2613.
5. Students whose OU retention or combined retention grade point averages at the undergraduate level fall below 2.75 will be subject to dismissal from the college. At the graduate level, students must meet Graduate College requirements.
6. Students who have not earned OU retention and combined retention grade point averages of 2.75 after the completion of 60 semester hours will be dismissed from the college.
7. Because one college level math course is a requirement for full admission into both the college and the teacher preparation program, declared Education majors must complete at least one college-level Math within the first four semesters of enrollment at OU. Transfer students who have not completed a college level Math course will have two semesters to complete the requirement. Students who fail to meet the requirement within the time limits specified will be subject to dismissal from the college.
8. Course work more than 10 years old in the teaching specialization and professional education may not be credited to ward the completion of a teacher education degree and/or certificate program. However, course work over 10 years old may be reviewed by the
appropriate certificate committee for possible credit toward the completion of a teacher education degree and/or certificate program.
9. A student has 6 years to complete a teacher education degree and/ or certificate program after full admission. After the 6- year period, a student must seek readmission to that program and meet the catalog requirements in effect at the time of readmission.
10. Students will be withdrawn from courses for failing to observe prerequisites and corequisites. Continued disregard of prerequisites and corequisites is grounds for dismissal from the college.

## Major Requirements

Students must maintain a minimum of $\mathbf{2 . 7 5}$ grade point average with no grade less than a C in the Professional Education and Specialized Education courses for graduation.

Certification: To be fully certified, students must pass Certification Examinations for Oklahoma Educators and apply for a license.

| Code | Title | Credit Hours |
| :---: | :---: | :---: |
| Professional Education (25 hours) |  |  |
| EDEC 3413 | Early Childhood Development | 3 |
| EDSP 3053 | Understanding and Accommodating Exceptional Learners | 3 |
| EIPT 3043 | Learning with Educational Technologies | 3 |
| EDS 4003 | Schools in American Cultures ${ }^{1}$ | 3 |
| EIPT 3483 | Motivation and Classroom Management for Teachers | 3 |
| EDUC 4050 | Teaching Experiences in the Elementary School ${ }^{1,2}$ | 5 |
| EDUC 4050 | Teaching Experiences in the Elementary School ${ }^{1,2}$ | 5 |
| Specialized Education (45 hours) |  |  |
| EDEC 2203 | Creative Expression in Early Childhood | 3 |
| EDEC 3543 | Teaching and Learning in Early Childhood Education | 3 |
| EDSS 3553 | Foundations to Social Studies Education | 3 |
| EDEC 3211 | Laboratory Placement I ${ }^{1}$ | 1 |
| EDEC 3333 | Social Emotional Learning and Child Guidance | 3 |
| EDEC 3551 | Theory \& Practice in the ECE Setting | 1 |
| EDLT 3143 | Language and Literacy Development Birth through 5 | 3 |
| EDMA 3353 | PK-3 Mathematics Concepts | 3 |
| EDSC 4093 | Inquiry-Based Science Teaching | 3 |
| EDEC 3221 | Laboratory Placement II ${ }^{1}$ | 1 |
| EDEC 3233 | Family Engagement in Early Childhood Education | 3 |
| EDEC 3513 | Integrated Curriculum (Birth-5) ${ }^{1}$ | 3 |
| EDLT 4123 | Language and Literacy Development in Kindergarten through 3rd. grade | 3 |
| EDEC 3573 | Diverse Learners | 3 |
| EDEC 4513 | Integrated Curriculum (K-3) ${ }^{1}$ | 3 |
| EDEC 4533 | Assessment in Early Childhood Education | 3 |


| EDEC 4123 | Curriculum of Early Childhood Education <br> (taken in the final semester) |
| :--- | :--- | :--- |

Total Credit Hours
${ }^{1}$ These courses require field experience.
${ }^{2}$ These courses are taken together in the final semester.

## General Education and College Requirements

Courses taken to fulfill the University General Education Requirements must be chosen from the approved General Education course list published in the Class Schedule or at http://www.ou.edu/gened/courses. The following courses meet minimum University, College, and State General Education Requirements.

## UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS

| Code | Title | Credit |
| :--- | :--- | :--- |
|  | Hours |  |

Core Area I: Symbolic and Oral Communication
English and Communication (9 hours)
ENGL 1113 Principles of English Composition (Core I- 3
ENGL 1213 Principles of English Composition (Core I- 3
or EXPO 1213 Expository Writing
COMM 1113 Principles of Communication (Core I) 3
or COMM 2613 Public Speaking
Language (0-10 hours)
University-Wide General Education Requirement: Choose two 0-10
college- level courses in a single language; may be satisfied by successful completion of 2 years in a single language in high school (Core I)
Oklahoma State Regents for Higher Education Requirement: Teacher candidates must demonstrate conversational skills at a novice-high level in a language other than English OR demonstrate the knowledge and skills necessary to address the needs of Emergent Bilingual (English Learner) students in the P-12 classroom and are proficient in the strategies required for successful delivery of P -12 instruction in that area ${ }^{1}$
Mathematics (12 hours)
Choose two MATH courses (Core I-MATH) 6
MATH 2213 Mathematical Systems 3
MATH 2223 Data Analysis and Geometric Systems 3
Core Area II: Natural Science (12 hours, including one
laboratory course)
Choose one course in biological sciences (Core II): BIOL, HES,
MBIO, or PBIO
Choose one course in physical sciences (Core II): AGSC,

ASTR, CHEM, GEOG, GEOL, GPHY, METR, or PHYS
Choose one 2000-level or higher advisor-approved Science 3-4 course
Core Area III: Social Science (6 hours)
$\begin{array}{ll}\text { P SC } 1113 & \text { American Federal Government (Core III- } \\ & \text { PSC) }\end{array}$
Choose one of the following (Core III-SS): 3

| ANTH 1113 | What Makes Us Human? Exploring Cultural and Biological Diversity |  |
| :---: | :---: | :---: |
| PSY 1113 | Elements of Psychology |  |
| SOC 1113 | Introduction to Sociology |  |
| Core Area IV: Arts and Humanities (12 hours) |  |  |
| HIST 1483 or HIST 1493 | United States to 1865 (Core IV-HIST) United States, 1865 to the Present | 3 |
| Artistic Forms: Choose one ENGL 2000-level or higher course (Core IV-AF) |  | 3 |
| Western Culture: Choose one PHIL course (Core IV-WC) |  | 3 |
| World Culture: Choose one course from the University-Wide General Education Approved Course List (3000-level or above) and advisor approved (Core IV - WDC) |  | 3 |
| Core Area V: First Year Experience (3 hours) |  |  |
| Choose one course (Core V-FYE) |  | 3 |
| Total Credit Hours |  |  |

${ }^{1}$ The novice-high level language requirement may be satisfied by classical, modern, Native or American Sign Language. Courses that demonstrate knowledge and skills necessary to address the needs of Emergent Bilingual students are determined by the College of Education.

## Free Electives

Additional elective hours may be required to meet the 124 total hours, and 55 Liberal Arts hours, required to graduate.

## Certification and Degree Requirements

Field Experiences: Transfer students without appropriate field experiences may be required to enroll in EDUC 2400.
Pass/No Pass Enrollment: Only general education electives may be taken under the pass/no pass option.
Residence Requirements: Students must complete either the last 30 hours or 45 of the last 60 hours after being fully admitted to a teacher education program to satisfy this requirement.
Requirements to be Completed to be Eligible for Student Teaching Internship: Students must be in good standing and have completed all baccalaureate degree requirements with the exception of the appropriate internship course itself and the courses taken with it in the final semester per their major requirements.
Junior College Transfer Students: Students transferring from a junior college may use the transferred credit to meet certain lower-division course requirements only; that is, freshman and sophomore-level courses.
Degree Completion Responsibility: Although the Dean's Office checks each student's records, the responsibility for meeting degree requirements lies with the student and not with the advisor or the Dean. Each student should obtain a copy of his or her requirements for graduation and check it regularly as he or she completes his or her degree program.
Graduation Application: The final step to be completed by the student before graduation is the filing of an official Application for Graduation. The Application for Graduation should be filled out online by May 1 for fall graduation, December 1 for spring graduation, and March 1 for summer graduation. The student's degree will not be conferred, nor any completion statement entered on their transcript, until the required application is filed.

## Admission \& Retention Requirements

It is the responsibility of the student to read and be familiar with the requirements for Admission to, and Retention in, the Jeannine Rainbolt College of Education. The current Admission and Retention policies can be found in the college's overview page in the OU General Catalog, under the Undergraduate tab here: http://ou-public.courseleaf.com/rainbolt-education/\#undergraduatetext.

## Suggested Semester Plan of Study

This plan shows one possible grouping of courses that would allow students to graduate in four years. Please refer to the front of the degree checksheet for official requirements. Students must consult with College of Education academic advisors to verify that courses selected each semester fulfill the recommended plan and satisfy university, College of Education, and major requirements.

## Freshman

| First Semester | Credit |
| :---: | :---: |
|  | Hours |
| ENGL 1113 Principles of English Composition (Core I- EN1) | 3 |
| MATH (Core I-MATH) | 3 |
| Biological Sciences, one course in BIOL/HES/MBIO/PBIO (Core II) | 4-5 |
| $\begin{array}{lr}\text { HIST } 1483 & \text { United States to } 1865 \text { (Core IV-HIST) } \\ \text { or HIST } 1493 & \text { or United States, } 1865 \text { to the Present }\end{array}$ | 3 |
| First Year Experience (Core V-FYE) | 3 |
| Credit Hours | 16 |

## Second Semester

ENGL $1213 \quad$ Principles of English Composition (Core I- 3
or EXPO 1213 EN2)
or Expository Writing
MATH (Core I-MATH) 3

Physical Sciences, one course in ASTR, CHEM, GEOG, GEOL, 4-5
GPHY, METR or PHYS (Core II)

| P SC 1113 | American Federal Government (Core III- <br> PSC) | 3 |
| :--- | :--- | ---: |
| Choose one of the following (Core III-SS): | 3 |  |
| ANTH 1113 | What Makes Us Human? Exploring Cultural <br> and Biological Diversity |  |
| SOC 1113 | Introduction to Sociology |  |
| PSY 1113 | Elements of Psychology |  |
|  | Credit Hours | $\mathbf{1 7}$ |

Sophomore
First Semester
MATH 2213 Mathematical Systems 3

ENGL 2000-level or higher (Core IV-AF) 3
COMM 1113 Principles of Communication (Core I) 3
or COMM 2613 or Public Speaking
EDSS 3553 Foundations to Social Studies Education 3
Science Elective, any 2000-level or higher advisor-approved 3-4
science course
Credit Hours
15
Second Semester
MATH 2223 Data Analysis and Geometric Systems

| EDEC 2203 | Creative Expression in Early Childhood | 3 |
| :---: | :---: | :---: |
| EDEC 3413 | Early Childhood Development | 3 |
| EDEC 3543 | Teaching and Learning in Early Childhood Education | 3 |
| EDSP 3053 | Understanding and Accommodating Exceptional Learners | 3 |
| PHIL (Core IV-WC) |  | 3 |
|  | Credit Hours | 18 |
| Junior |  |  |
| First Semester |  |  |
| EDEC 3211 | Laboratory Placement I | 1 |
| EDEC 3333 | Social Emotional Learning and Child Guidance | 3 |
| EDEC 3551 | Theory \& Practice in the ECE Setting | 1 |
| EDLT 3143 | Language and Literacy Development Birth through 5 | 3 |
| EDMA 3353 | PK-3 Mathematics Concepts | 3 |
| EDS 4003 | Schools in American Cultures | 3 |
|  | Credit Hours | 14 |
| Second Semester |  |  |
| EDEC 3221 | Laboratory Placement II | 1 |
| EDEC 3233 | Family Engagement in Early Childhood Education | 3 |
| EDEC 3513 | Integrated Curriculum (Birth-5) | 3 |
| EDLT 4123 | Language and Literacy Development in Kindergarten through 3rd. grade | 3 |
| EDSC 4093 | Inquiry-Based Science Teaching | 3 |
| EIPT 3043 | Learning with Educational Technologies | 3 |
|  | Credit Hours | 16 |
| Senior |  |  |
| First Semester |  |  |
| EDEC 3573 | Diverse Learners | 3 |
| EDEC 4513 | Integrated Curriculum (K-3) | 3 |
| EDEC 4533 | Assessment in Early Childhood Education | 3 |
| EIPT 3483 | Motivation and Classroom Management for Teachers | 3 |
| World Culture-Upper-Division (Core IV-WDC, Advisor Approved) |  | 3 |
|  | Credit Hours | 15 |
| Second Semester |  |  |
| EDEC 4123 | Curriculum of Early Childhood Education | 3 |
| EDUC 4050 | Teaching Experiences in the Elementary School | 5 |
| EDUC 4050 | Teaching Experiences in the Elementary School | 5 |
|  | Credit Hours | 13 |
|  | Total Credit Hours | 124 |

## Early Childhood Education: Birth through Third Grade (Tulsa), B.Ed.

Minimum Total Credit Hours: 120
Minimum Upper-Division Hours: 40

## Overall GPA - Combined and OU: 2.75 <br> Major GPA - Combined and OU: 2.75 <br> Program Code: B283

## Admission and Retention Requirements

## Admission Requirements-Jeannine Rainbolt College of Education

 Students are eligible for admission to the Jeannine Rainbolt College of Education with:1. a minimum of 24 semester hours earned from an accredited institution of higher learning;
2. a minimum of 2.75 combined retention grade point average on all coursework attempted;
3. a declared major in education.

Full Admission Requirements-Teacher Education and Professional Studies Programs
Students are eligible for admission to Teacher Education with:

1. a minimum of 30 semester hours from an accredited institution of higher learning to include the following 24 hours as defined by the Oklahoma State Regents for Higher Education with a grade of C or better: English (Composition and Literature)-6 hours; MATH, Gen. Ed. Core I-3 hours; American History-3 hours; American Government-3 hours; Humanities to include Artistic Forms, Western Civilization, Non-Western Culture, World Language, or other advisor-approved Gen. Ed. course -3 hours; Social and Behavioral Sciences-3 hours; Natural Sciences-3 hours.
2. a minimum of $\mathbf{2 . 7 5}$ grade point average ( OU retention and combined retention) on all coursework attempted;
3. Meet one of the six performance criteria listed by Oklahoma State Regents for Higher Education (OSRHE) that students may use to qualify for admission into an Oklahoma teacher education program. Speak with your Education Advisor for more details.

Admission to a teaching program requires submission of an application,essay, background check, and an interview with the admission committee prior to enrollment in the first education course.

## Retention Requirements-Jeannine Rainbolt College of Education

1. When a student accepts an offer of admission into a JRCoE department or program, they commit to comply with all its regulations, including those regarding professional conduct and dispositions that are contained in the JRCoE Professional Behavior Policy.
2. Students must maintain a minimum $\mathbf{2 . 7 5}$ grade point average ( OU retention and combined retention) in all undergraduate coursework and a minimum 3.00 grade point average in all graduate coursework attempted.
3. Students must maintain a minimum of 2.75 undergraduate grade point average in both professional education courses and in specialized education courses with no grade less than a C and must maintain a minimum of 3.00 grade point average in graduate professional and specialized education courses, with no grade less than a B.
4. Students must earn a $C$ or better in COMM 1113 or COMM 2613.
5. Students whose OU retention or combined retention grade point averages at the undergraduate level fall below 2.75 will be subject to
dismissal from the college. At the graduate level, students must meet Graduate College requirements.
6. Students who have not earned OU retention and combined retention grade point averages of 2.75 after the completion of 60 semester hours will be dismissed from the college.
7. Because one college level math course is a requirement for full admission into both the college and the teacher preparation program, declared Education majors must complete at least one college-level Math within the first four semesters of enrollment at OU. Transfer students who have not completed a college level Math course will have two semesters to complete the requirement. Students who fail to meet the requirement within the time limits specified will be subject to dismissal from the college.
8. Course work more than 10 years old in the teaching specialization and professional education may not be credited to ward the completion of a teacher education degree and/or certificate program. However, course work over 10 years old may be reviewed by the appropriate certificate committee for possible credit toward the completion of a teacher education degree and/or certificate program.
9. A student has 6 years to complete a teacher education degree and/ or certificate program after full admission. After the 6- year period, a student must seek readmission to that program and meet the catalog requirements in effect at the time of readmission.
10. Students will be withdrawn from courses for failing to observe prerequisites and corequisites. Continued disregard of prerequisites and corequisites is grounds for dismissal from the college.

- This program is offered only at the University of Oklahoma's Tulsa campus.


## Major Requirements

Students must maintain a minimum of 2.75 grade point average with no grade less than a C in the Professional Education and Specialized Education courses for graduation.

Certification: To be fully certified, students must pass Certification Examinations for Oklahoma Educators and apply for a license.

| Code | Title | Credit <br> Hours |
| :---: | :---: | :---: |
| Professional Education (18 hours) |  |  |
| EDEC 3413 | Early Childhood Development | 3 |
| EDS 4003 | Schools in American Cultures | 3 |
| EDSP 3053 | Understanding and Accommodating Exceptional Learners | 3 |
| EIPT 3043 | Learning with Educational Technologies | 3 |
| EIPT 3473 | Learning, Development, and Assessment for Teachers | 3 |
| EIPT 3483 | Motivation and Classroom Management for Teachers | 3 |
| Specialized Education (54 hours) |  |  |
| EDEC 2203 | Creative Expression in Early Childhood | 3 |
| EDEC 3513 | Integrated Curriculum (Birth-5) | 3 |
| EDEC 3523 | Field Experience with Seminar (Infants/ Toddlers) | 3 |
| EDEC 3533 | Infant-Toddler Development and Care | 3 |
| EDEC 3543 | Teaching and Learning in Early Childhood Education | 3 |


| EDEC 3553 | Field Experience with Seminar (3-5s) | 3 |
| :--- | :--- | :--- |
| EDEC 3563 | Family and Community Connections | 3 |
| EDEC 3573 | Diverse Learners | 3 |
| EDEC 4513 | Integrated Curriculum (K-3) | 3 |
| EDEC 4523 | Field Experience with Seminar (K-3rd) | 3 |
| EDSC 4093 | Inquiry-Based Science Teaching | 3 |
| EDEC 4543 | Senior Seminar in Early Childhood <br> Education (Capstone) | 3 |
| EDLT 3143 | Language and Literacy Development Birth <br> through 5 | 3 |
| EDLT 4123 | Language and Literacy Development in <br> Kindergarten through 3rd. grade | 3 |
| EDMA 3353 | PK-3 Mathematics Concepts |  |
| EDUC 4050 | Teaching Experiences in the Elementary <br> School | 3 |

Choose additional free elective hours to meet the 120 hour requirement for graduation, if needed

## Total Credit Hours

## General Education and College Requirements

Courses taken to fulfill the University General Education Requirements must be chosen from the approved General Education course list published in the Class Schedule or at http://www.ou.edu/gened/courses. The following courses meet minimum University, College, and State General Education Requirements.

## UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS

| Code Title | Credit |
| :--- | :--- |
|  | Hours |

Core Area I: Symbolic and Oral Communication
English and Communication (9 hours)

| ENGL 1113 | Principles of English Composition (Core I - | 3 |
| :---: | :--- | :---: |
|  | EN1) |  |
| ENGL 1213 | Principles of English Composition (Core I - | 3 |
| or EXPO 1213 | EN2) |  |
| COMM 1113 | Principles of Communication (Core I) | 3 |

or COMM 2613 Public Speaking
Language (0-10 hours)
University-Wide General Education Requirement: Choose two college-level courses in a single language; may be satisfied by successful completion of 2 years in a single language in high school (Core I)
Oklahoma State Regents for Higher Education Requirement: Teacher candidates must demonstrate conversational skills at a novice-high level in a language other than English OR demonstrate the knowledge and skills necessary to address the needs of Emergent Bilingual (English Learner) students in the P-12 classroom and are proficient in the strategies required for successful delivery of P -12 instruction in that area ${ }^{1}$
Mathematics (9 hours)
Choose one MATH 1000-level courses (Core I-MATH) 3
MATH 2213 Mathematical Systems 3

MATH 2223 Data Analysis and Geometric Systems 3

| Core Area II: Natural Science (9 hours, must include one Laboratory course) |  |
| :---: | :---: |
| Choose one course in biological sciences (Core II): BIOL, HES, MBIO, or PBIO | 4-5 |
| Choose one course in physical sciences (Core II): AGSC, ASTR, CHEM, GEOG, GEOL, GPHY, METR, or PHYS | 4-5 |
| Core Area III: Social Science (6 hours) |  |
| PSC 1113 American Federal Government (Core III - | 3 |
| Choose one of the following: | 3 |
| Any ANTH, SOC or PSY course (Core III - SS) |  |
| Core Area IV: Arts and Humanities (12 hours) |  |
| HIST 1483 United States to 1865 (Core IV - HIST) <br> or HIST 1493 United States, 1865 to the Present | 3 |
| Artistic Forms: Choose one ENGL 2000-level or higher course (Core IV-AF) | 3 |
| Western Culture: Choose one PHIL course (Core IV-WC)) | 3 |
| World Culture: Choose one course from the University-Wide General Education Approved Course List (3000-level or above) and advisor approved (Core IV - WDC) | 3 |
| Core Area V: First Year Experience (3 hours) |  |
| Choose one course (Core V - FYE) | 3 |
| Total Credit Hours | 48-58 |
| ${ }^{1}$ The novice-high level language requirement may be satisfied by classical, modern, Native or American Sign Language. Courses that demonstrate knowledge and skills necessary to address the needs of Emergent Bilingual students are determined by the College of Education. |  |

## Certification and Degree Requirements

Field Experiences: Transfer students without appropriate field experiences may be required to enroll in EDUC 2400.
Pass/No Pass Enrollment: Only general education electives may be taken under the pass/no pass option.
Residence Requirements: Students must complete either the last 30 hours or 45 of the last 60 hours after being fully admitted to a teacher education program to satisfy this requirement.
Requirements to be Completed to be Eligible for Student Teaching Internship: Students must be in good standing and have completed all baccalaureate degree requirements with the exception of the appropriate internship course itself and the courses taken with it in the final semester per their major requirements.
Junior College Transfer Students: Students transferring from a junior college may use the transferred credit to meet certain lower-division course requirements only; that is, freshman and sophomore-level courses.
Degree Completion Responsibility: Although the Dean's Office checks each student's records, the responsibility for meeting degree requirements lies with the student and not with the advisor or the Dean. Each student should obtain a copy of his or her requirements for graduation and check it regularly as he or she completes his or her degree program.
Graduation Application: The final step to be completed by the student before graduation is the filing of an official Application for Graduation. The Application for Graduation should be filled out online by May 1 for fall graduation, December 1 for spring graduation, and March 1 for summer graduation. The student's degree will not be conferred, nor
any completion statement entered on their transcript, until the required application is filed.

## Admission \& Retention Requirements

It is the responsibility of the student to read and be familiar with the requirements for Admission to, and Retention in, the Jeannine Rainbolt College of Education. The current Admission and Retention policies can be found in the college's overview page in the OU General Catalog, under the Undergraduate tab here: http://ou-public.courseleaf.com/rainbolt-education/\#undergraduatetext.

## Suggested Semester Plan of Study

This plan shows one possible grouping of courses that would allow students to graduate in four years. Please refer to the front of the degree checksheet for official requirements. Students must consult with College of Education academic advisors to verify that courses selected each semester fulfill the recommended plan and satisfy university, College of Education, and major requirements.

## Freshman

| First Semester |  | Credit |
| :---: | :---: | :---: |
|  |  | Hours |
| ENGL 1113 | Principles of English Composition (Core IEN1) | 3 |
| HIST 1483 or HIST 1493 | United States to 1865 (Core IV-HIST) or United States, 1865 to the Present | 3 |
| MATH (Core I-MATH) |  | 3 |
| Biological Sciences, one course in BIOL/MBIO/PBIO (Core II) |  | 4-5 |
| First Year Experience (Core V-FYE) |  | 3 |
|  | Credit Hours | 16 |

## Second Semester

| ENGL 1213 or EXPO 1213 | Principles of English Composition (Core IEN2) <br> or Expository Writing | 3 |
| :---: | :---: | :---: |
| Physical Sciences <br> GPHY, METR or P | , one course in ASTR, CHEM, GEOG, GEOL, HYS (Core II) | 4-5 |
| P SC 1113 | American Federal Government (Core IIIPSC) | 3 |
| Choose one of th | following (Core III-SS): | 3 |
| Any ANTH, SOC, or PSY course |  |  |
|  | Credit Hours | 14 |
| Sophomore |  |  |
| First Semester |  |  |
| MATH 2213 | Mathematical Systems | 3 |
| ENGL 2000-level or higher (Core IV-AF) |  |  |
| COMM 1113 or COMM 2613 | Principles of Communication (Core I) or Public Speaking | 3 |
| EDEC 3413 | Early Childhood Development | 3 |
|  | Credit Hours | 12 |

Second Semester
EDEC 2203 Creative Expression in Early Childhood 3
MATH 2223 Data Analysis and Geometric Systems 3

World Culture Upper Div. (Core IV-WDC, Advisor Approved) 3
PHIL (Core IV-WC) 3

Credit Hours

| Junior |  |  |
| :---: | :---: | :---: |
| First Semester |  |  |
| EIPT 3473 | Learning, Development, and Assessment for Teachers | 3 |
| EDEC 3533 | Infant-Toddler Development and Care | 3 |
| EDEC 3543 | Teaching and Learning in Early Childhood Education | 3 |
| EDEC 3553 | Field Experience with Seminar (3-5s) | 3 |
| EIPT 3043 | Learning with Educational Technologies | 3 |
|  | Credit Hours | 15 |
| Second Semester |  |  |
| EDEC 3513 | Integrated Curriculum (Birth-5) | 3 |
| EDEC 3523 | Field Experience with Seminar (Infants/ Toddlers) | 3 |
| EDLT 3143 | Language and Literacy Development Birth through 5 | 3 |
| EDSP 3053 | Understanding and Accommodating Exceptional Learners | 3 |
| EDEC 3563 | Family and Community Connections | 3 |
|  | Credit Hours | 15 |
| Summer |  |  |
| EIPT 3483 | Motivation and Classroom Management for Teachers | 3 |
| EDS 4003 | Schools in American Cultures | 3 |
| EDEC 3573 | Diverse Learners | 3 |
|  | Credit Hours | 9 |
| Senior |  |  |
| First Semester |  |  |
| EDMA 3353 | PK-3 Mathematics Concepts | 3 |
| EDLT 4123 | Language and Literacy Development in Kindergarten through 3rd. grade | 3 |
| EDEC 4513 | Integrated Curriculum (K-3) | 3 |
| EDEC 4523 | Field Experience with Seminar (K-3rd) | 3 |
| EDSC 4093 | Inquiry-Based Science Teaching | 3 |
|  | Credit Hours | 15 |
| Second Semester |  |  |
| EDEC 4543 | Senior Seminar in Early Childhood Education (Capstone) | 3 |
| EDUC 4050 | Teaching Experiences in the Elementary School | 9 |
|  | Credit Hours | 12 |
|  | Total Credit Hours | 120 |

## Early Childhood: Birth through Third Grade (Tulsa), B.S.

Minimum Total Credit Hours: 126
Minimum Upper-Division Hours: 40

Overall GPA - Combined and OU: 2.75
Major GPA - Combined and OU: 2.75
Program Code: B284

## Admission and Retention Requirements

Admission Requirements-Jeannine Rainbolt College of Education
Students are eligible for admission to the Jeannine Rainbolt College of Education with:

1. a minimum of 24 semester hours earned from an accredited institution of higher learning;
2. a minimum of $\mathbf{2 . 7 5}$ combined retention grade point average on all coursework attempted;
3. a declared major in education.

## Full Admission Requirements-Teacher Education and Professional

Studies Programs
Students are eligible for admission to Teacher Education with:

1. a minimum of 30 semester hours from an accredited institution of higher learning to include the following 24 hours as defined by the Oklahoma State Regents for Higher Education with a grade of C or better: English (Composition and Literature)-6 hours; MATH, Gen. Ed. Core I-3 hours; American History-3 hours; American Government-3 hours; Humanities to include Artistic Forms, Western Civilization, Non-Western Culture, World Language, or other advisor-approved Gen. Ed. course -3 hours; Social and Behavioral Sciences-3 hours; Natural Sciences-3 hours.
2. a minimum of $\mathbf{2 . 7 5}$ grade point average (OU retention and combined retention) on all coursework attempted;
3. Meet one of the six performance criteria listed by Oklahoma State Regents for Higher Education (OSRHE) that students may use to qualify for admission into an Oklahoma teacher education program. Speak with your Education Advisor for more details.

Admission to a teaching program requires submission of an application,essay, background check,and an interview with the admission committee prior to enrollment in the first education course.

## Retention Requirements-Jeannine Rainbolt College of Education

1. When a student accepts an offer of admission into a JRCoE department or program, they commit to comply with all its regulations, including those regarding professional conduct and dispositions that are contained in the JRCoE Professional Behavior Policy.
2. Students must maintain a minimum $\mathbf{2 . 7 5}$ grade point average (OU retention and combined retention) in all undergraduate coursework and a minimum 3.00 grade point average in all graduate coursework attempted.
3. Students must maintain a minimum of 2.75 undergraduate grade point average in both professional education courses and in specialized education courses with no grade less than a C and must maintain a minimum of 3.00 grade point average in graduate professional and specialized education courses, with no grade less than a B.
4. Students must earn a C or better in COMM 1113 or COMM 2613.
5. Students whose OU retention or combined retention grade point averages at the undergraduate level fall below 2.75 will be subject to dismissal from the college. At the graduate level, students must meet Graduate College requirements
6. Students who have not earned OU retention and combined retention grade point averages of 2.75 after the completion of 60 semester hours will be dismissed from the college.
7. Because one college level math course is a requirement for full admission into both the college and the teacher preparation program, declared Education majors must complete at least one college-level Math within the first four semesters of enrollment at OU. Transfer students who have not completed a college level Math course will have two semesters to complete the requirement. Students who fail to meet the requirement within the time limits specified will be subject to dismissal from the college.
8. Course work more than 10 years old in the teaching specialization and professional education may not be credited to ward the completion of a teacher education degree and/or certificate program. However, course work over 10 years old may be reviewed by the appropriate certificate committee for possible credit toward the completion of a teacher education degree and/or certificate program.
9. A student has 6 years to complete a teacher education degree and/ or certificate program after full admission. After the 6 - year period, a student must seek readmission to that program and meet the catalog requirements in effect at the time of readmission.
10. Students will be withdrawn from courses for failing to observe prerequisites and corequisites. Continued disregard of prerequisites and corequisites is grounds for dismissal from the college.

- This program is offered only at the University of Oklahoma's Tulsa campus.


## Major Requirements

Students must maintain a minimum of 2.75 grade point average with no grade less than a C in the Professional Education and Specialized Education courses for graduation.

Certification: To be fully certified, students must pass Certification Examinations for Oklahoma Educators and apply for a license.

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Professional Education (18 hours) |  |  |
| EDEC 3413 | Early Childhood Development | 3 |
| EDS 4003 | Schools in American Cultures | 3 |
| EDSP 3053 | Understanding and Accommodating <br> Exceptional Learners | 3 |
| EIPT 3043 | Learning with Educational Technologies | 3 |
| EIPT 3473 | Learning, Development, and Assessment <br> for Teachers | 3 |
| EIPT 3483 | Motivation and Classroom Management for  <br>  Teachers | 3 |


| Specialized Education (54 hours) |  |  |
| :---: | :---: | :---: |
| EDEC 2203 | Creative Expression in Early Childhood | 3 |
| EDEC 3513 | Integrated Curriculum (Birth-5) | 3 |
| EDEC 3523 | Field Experience with Seminar (Infants/ Toddlers) | 3 |
| EDEC 3533 | Infant-Toddler Development and Care | 3 |
| EDEC 3543 | Teaching and Learning in Early Childhood Education | 3 |
| EDEC 3553 | Field Experience with Seminar (3-5s) | 3 |
| EDEC 3563 | Family and Community Connections | 3 |
| EDEC 3573 | Diverse Learners | 3 |
| EDEC 4513 | Integrated Curriculum (K-3) | 3 |
| EDEC 4523 | Field Experience with Seminar (K-3rd) | 3 |


| EDEC 4533 | Assessment in Early Childhood Education | 3 |
| :--- | :--- | :--- |
| EDEC 4543 | Senior Seminar in Early Childhood <br> Education (Capstone) | 3 |
| EDLT 3143 | Language and Literacy Development Birth <br> through 5 | 3 |
| EDLT 4123 | Language and Literacy Development in <br> Kindergarten through 3rd. grade | 3 |
| EDMA 3353 | PK-3 Mathematics Concepts | 3 |
| EDUC 4050 | Teaching Experiences in the Elementary <br> School | 9 |

Choose additional free elective hours to meet the 120 hour requirement for graduation

## Total Credit Hours

## General Education and College Requirements

Courses taken to fulfill the University General Education Requirements must be chosen from the approved General Education course list published in the Class Schedule or at http://www.ou.edu/gened/courses. The following courses meet minimum University, College, and State General Education Requirements.

\section*{UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS <br> | Code Title | Credit |
| :--- | :--- | :--- |
|  | Hours |}

Core Area I: Symbolic and Oral Communication
English and Communication (9 hours)

| ENGL 1113 | Principles of English Composition (Core I EN1) | 3 |
| :---: | :---: | :---: |
| ENGL 1213 | Principles of English Composition (Core I EN2) | 3 |
| or EXPO 1213 | Expository Writing |  |
| COMM 1113 | Principles of Communication (Core I) | 3 |

or COMM 2613 Public Speaking
Language ( $0-10$ hours) 0-10
University-Wide General Education Requirement: Choose two college-level courses in a single language; may be satisfied by successful completion of 2 years in a single language in high school (Core I)
Oklahoma State Regents for Higher Education Requirement: Teacher candidates must demonstrate conversational skills at a novice-high level in a language other than English OR demonstrate the knowledge and skills necessary to address the needs of Emergent Bilingual (English Learner) students in the $\mathrm{P}-12$ classroom and are proficient in the strategies required for successful delivery of P -12 instruction in that area ${ }^{1}$
Mathematics (12 hours)
Choose two MATH 1000-level courses (Core I-MATH) 6
MATH 2213 Mathematical Systems 3
MATH 2223 Data Analysis and Geometric Systems 3
Core Area II: Natural Science (9 hours, must include one Laboratory course)
Choose one course in biological sciences (Core II): BIOL, HES, 4-5 MBIO, or PBIO
Choose one course in physical sciences (Core II): AGSC,
ASTR, CHEM, GEOG, GEOL, GPHY, METR, or PHYS


## Certification and Degree Requirements

Field Experiences: Transfer students without appropriate field experiences may be required to enroll in EDUC 2400.
Pass/No Pass Enrollment: Only general education electives may be taken under the pass/no pass option.
Residence Requirements: Students must complete either the last 30 hours or 45 of the last 60 hours after being fully admitted to a teacher education program to satisfy this requirement.

## Requirements to be Completed to be Eligible for Student Teaching

 Internship: Students must be in good standing and have completed all baccalaureate degree requirements with the exception of the appropriate internship course itself and the courses taken with it in the final semester per their major requirements.Junior College Transfer Students: Students transferring from a junior college may use the transferred credit to meet certain lower-division course requirements only; that is, freshman and sophomore-level courses.
Degree Completion Responsibility: Although the Dean's Office checks each student's records, the responsibility for meeting degree requirements lies with the student and not with the advisor or the Dean. Each student should obtain a copy of his or her requirements for graduation and check it regularly as he or she completes his or her degree program.
Graduation Application: The final step to be completed by the student before graduation is the filing of an official Application for Graduation. The Application for Graduation should be filled out online by May 1 for fall graduation, December 1 for spring graduation, and March 1 for summer graduation. The student's degree will not be conferred, nor any completion statement entered on their transcript, until the required application is filed.

## Admission \& Retention Requirements

It is the responsibility of the student to read and be familiar with the requirements for Admission to, and Retention in, the Jeannine Rainbolt College of Education. The current Admission and Retention policies can be found in the college's overview page in the OU General Catalog, under the Undergraduate tab here: http://ou-public.courseleaf.com/rainbolt-education/\#undergraduatetext

## Suggested Semester Plan of Study

This plan shows one possible grouping of courses that would allow students to graduate in four years. Please refer to the front of the degree checksheet for official requirements. Students must consult with College of Education academic advisors to verify that courses selected each semester fulfill the recommended plan and satisfy university, College of Education, and major requirements.

## Freshman

| First Semester |  | Credit <br> Hours |
| :--- | :--- | ---: |
| ENGL 1113 | Principles of English Composition (Core I- | 3 |
|  | EN1) |  |

## Second Semester

| ENGL 1213 or EXPO 1213 | Principles of English Composition (Core IEN2) <br> or Expository Writing | 3 |
| :---: | :---: | :---: |
| MATH (Core I) |  | 3 |
| Physical Science GPHY, METR or P | one course in ASTR, CHEM, GEOG, GEOL, HYS (Core II) | 4 |
| P SC 1113 | American Federal Government (Core IIIPSC) | 3 |
| Choose one of the following (Core III-SS): |  | 3 |
| Any ANTH, SOC, or PSY course |  |  |
| PSY 1113 | Elements of Psychology |  |
|  | Credit Hours | 16 |

## Sophomore

First Semester
MATH 2213 Mathematical Systems 3
ENGL 2000-level or higher (Core IV-AF) 3

COMM 1113 Principles of Communication (Core I) 3
or COMM 2613 or Public Speaking

| EDEC 3413 | Early Childhood Development | 3 |
| :--- | :--- | ---: |
|  | Credit Hours | $\mathbf{1 2}$ |

Second Semester
EDEC 2203 Creative Expression in Early Childhood 3
MATH 2223 Data Analysis and Geometric Systems 3

Science Elective, any 2000-level or higher course 3-4
PHIL (Core IV-WC) 3

## Junior

| First Semester |  | 3 |
| :--- | :--- | ---: |
| EIPT 3473 | Learning, Development, and Assessment <br> for Teachers | 3 |
| EDEC 3533 | Infant-Toddler Development and Care | 3 |
| EDEC 3543 | Teaching and Learning in Early Childhood <br> Education | 3 |
| EDEC 3553 | Field Experience with Seminar (3-5s) | 3 |
| EDSP 3053 | Understanding and Accommodating <br>  Exceptional Learners | 3 |

## Second Semester

| EDEC 3513 | Integrated Curriculum (Birth-5) | 3 |
| :--- | :--- | ---: |
| EDEC 3523 | Field Experience with Seminar (Infants/ <br> Toddlers) | 3 |
| EDLT 3143 | Language and Literacy Development Birth <br> through 5 | 3 |
| EIPT 3043 | Learning with Educational Technologies |  |
| World Culture Upper Div. (Core IV-WDC, Advisor Approved) | 3 |  |
|  | Credit Hours | 3 |
| Summer | Motivation and Classroom Management for | $\mathbf{1 5}$ |
| EIPT 3483 | Teachers | 3 |
| EDS 4003 | Schools in American Cultures | 3 |
| EDMA 3353 | PK-3 Mathematics Concepts | 3 |
| EDEC 3573 | Diverse Learners | 3 |
|  | Credit Hours | $\mathbf{1 2}$ |

## Senior First Semester

| EDEC 3563 | Family and Community Connections | 3 |
| :--- | :--- | ---: |
| EDLT 4123 | Language and Literacy Development in <br> Kindergarten through 3rd. grade | 3 |
| EDEC 4513 | Integrated Curriculum (K-3) | 3 |
| EDEC 4523 | Field Experience with Seminar (K-3rd) | 3 |
| EDEC 4533 | Assessment in Early Childhood Education | $\mathbf{3}$ |
|  | Credit Hours | $\mathbf{1 5}$ |

## Second Semester

| EDEC 4543 | Senior Seminar in Early Childhood <br> Education (Capstone) | 3 |
| :--- | :--- | :---: |
| EDUC 4050 | Teaching Experiences in the Elementary <br> School | 9 |


| Credit Hours | 12 |
| :--- | ---: |
| Total Credit Hours | 126 |

## Elementary Education, B.S.

Minimum Total Credit Hours: 124
Minimum Upper-Division Hours: 40
Overall GPA - Combined and OU: 2.75
Major GPA - Combined and OU: 2.75
Program Code: B355

## Admission and Retention Requirements

Admission Requirements-Jeannine Rainbolt College of Education
Students are eligible for admission to the Jeannine Rainbolt College of Education with:

1. a minimum of 24 semester hours earned from an accredited institution of higher learning;
2. a minimum of 2.75 combined retention grade point average on all coursework attempted;
3. a declared major in education.

Full Admission Requirements-Teacher Education and Professional Studies Programs
Students are eligible for admission to Teacher Education with:

1. a minimum of 30 semester hours from an accredited institution of higher learning to include the following 24 hours as defined by the Oklahoma State Regents for Higher Education with a grade of C or better: English (Composition and Literature)-6 hours; MATH, Gen. Ed. Core I-3 hours; American History-3 hours; American Government-3 hours; Humanities to include Artistic Forms, Western Civilization, Non-Western Culture, World Language, or other advisor-approved Gen. Ed. course -3 hours; Social and Behavioral Sciences-3 hours; Natural Sciences-3 hours.
2. a minimum of $\mathbf{2 . 7 5}$ grade point average ( OU retention and combined retention) on all coursework attempted;
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Admission to a teaching program requires submission of an application,essay, background check,and an interview with the admission committee prior to enrollment in the first education course.

## Retention Requirements-Jeannine Rainbolt College of Education

1. When a student accepts an offer of admission into a JRCoE department or program, they commit to comply with all its regulations, including those regarding professional conduct and dispositions that are contained in the JRCoE Professional Behavior Policy.
2. Students must maintain a minimum $\mathbf{2 . 7 5}$ grade point average (OU retention and combined retention) in all undergraduate coursework and a minimum 3.00 grade point average in all graduate coursework attempted.
3. Students must maintain a minimum of 2.75 undergraduate grade point average in both professional education courses and in specialized education courses with no grade less than a C and must maintain a minimum of 3.00 grade point average in graduate professional and specialized education courses, with no grade less than a B.
4. Students must earn a C or better in COMM 1113 or COMM 2613.
5. Students whose OU retention or combined retention grade point averages at the undergraduate level fall below 2.75 will be subject to dismissal from the college. At the graduate level, students must meet Graduate College requirements.
6. Students who have not earned OU retention and combined retention grade point averages of 2.75 after the completion of 60 semester hours will be dismissed from the college.
7. Because one college level math course is a requirement for full admission into both the college and the teacher preparation program, declared Education majors must complete at least one college-level Math within the first four semesters of enrollment at OU. Transfer students who have not completed a college level Math course will have two semesters to complete the requirement. Students who fail to meet the requirement within the time limits specified will be subject to dismissal from the college.
8. Course work more than 10 years old in the teaching specialization and professional education may not be credited to ward the completion of a teacher education degree and/or certificate program. However, course work over 10 years old may be reviewed by the appropriate certificate committee for possible credit toward the completion of a teacher education degree and/or certificate program.
9. A student has 6 years to complete a teacher education degree and/ or certificate program after full admission. After the 6 - year period, a student must seek readmission to that program and meet the catalog requirements in effect at the time of readmission.
10. Students will be withdrawn from courses for failing to observe prerequisites and corequisites. Continued disregard of prerequisites and corequisites is grounds for dismissal from the college.

## Major Requirements

Students must maintain a minimum of 2.75 grade point average with no grade less than a C in the Professional Education and Specialized Education courses for graduation.

Certification: To be fully certified, students must pass Certification Examinations for Oklahoma Educators and apply for a license.

| Code | Title | Credit <br> Hours |
| :--- | :--- | :--- |

## Professional Education (31 hours)

| EIPT 3473 | Learning, Development, and Assessment for Teachers ${ }^{1}$ | 3 |
| :---: | :---: | :---: |
| EDSP 3053 | Understanding and Accommodating Exceptional Learners | 3 |
| EIPT 3043 | Learning with Educational Technologies | 3 |
| EDS 4003 | Schools in American Cultures ${ }^{1}$ | 3 |
| EIPT 3483 | Motivation and Classroom Management for Teachers | 3 |
| ILAC 4003 | Partnerships: Working With Parents and Community ${ }^{1}$ | 3 |
| EDUC 4050 | Teaching Experiences in the Elementary School ${ }^{1,2}$ | 10 |
| EDEL 4063 | Critical Inquiry and Integrated Instruction (Capstone) $^{2}$ | 3 |

Specialized Education ( 37 hours)

| EDEL 3002 | Promoting Healthy Lifestyles for |  |
| :--- | :--- | :--- |
|  | Elementary Students | 2 |
| EDEL 3243 | Integrated Arts Education | 3 |
| EDMA 3353 | PK-3 Mathematics Concepts | 3 |
| EDLT 3911 | Language and Literacy Practicum ${ }^{1}$ | 1 |
| EDLT 3913 | Literacy in the Primary Grades | 3 |
| EDSS 3553 | Foundations to Social Studies Education | 3 |
| EDSC 4093 | Inquiry-Based Science Teaching | 3 |
| EDLT 4113 | Literacy in the Intermediate Grades | 3 |
| EDEL 4101 | Mentoring | 1 |


| EDEL 4980 | Practicum in Elementary Education ${ }^{3}$ | 3 |
| :---: | :---: | :---: |
| EDLT 4813 | Literature and Writing Across the Curriculum ${ }^{3}$ | 3 |
| EDMA 4353 | 4-8 Grade Mathematics Concepts ${ }^{3}$ | 3 |
| EDSS 4323 | Teaching Social Studies in Elementary/ Middle Schools ${ }^{3}$ | 3 |
| EDSC 4193 | Teaching Science in Elementary Schools ${ }^{3}$ | 3 |
| Total Credit Hours |  | 68 |
| These courses require field experience. <br> ${ }^{2}$ These courses are taken together in the final semester. <br> ${ }^{3}$ These courses must be taken concurrently. |  |  |
|  |  |  |
|  |  |  |

## Free Electives

Code Title Credit

Choose 1 hour from additional General Education, World 1 Languages, Education, or advisor-approved.

## General Education and College Requirements

Courses taken to fulfill the University General Education Requirements must be chosen from the approved General Education course list published in the Class Schedule or at http://www.ou.edu/gened/courses. The following courses meet minimum University, College, and State General Education Requirements.

## UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS <br> Code Title Credit Hours

Core Area I: Symbolic and Oral Communication
English (9 hours)
ENGL 1113 Principles of English Composition (Core I- 3

ENGL 1213 Principles of English Composition (Core I- 3
EN2)
or EXPO 1213 Expository Writing
COMM 1113 Principles of Communication (Core I) 3
or COMM 2613 Public Speaking
Language (0-10 hours) 0-10
University-Wide General Education Requirement: Choose two college-level courses in a single language; may be satisfied by successful completion of 2 years in a single language in high school (Core I)
Oklahoma State Regents for Higher Education Requirement: Teacher candidates must demonstrate conversational skills at a novice-high level in a language other than English OR demonstrate the knowledge and skills necessary to address the needs of Emergent Bilingual (English Learner) students in the P -12 classroom and are proficient in the strategies required for successful delivery of P -12 instruction in that area ${ }^{1}$
Mathematics (12 hours)
Choose two MATH courses (Core I-MATH) 6
MATH 2213 Mathematical Systems 3
MATH 2223 Data Analysis and Geometric Systems 3

| Core Area II: Natural Science (12 hours, must include one laboratory course) |  |
| :---: | :---: |
| Choose one course in biological sciences (Core II): BIOL, HES, MBIO, or PBIO | 4-5 |
| Choose one course in physical sciences (Core II): AGSC, ASTR, CHEM, GEOG, GEOL, GPHY, METR, or PHYS | 4-5 |
| Choose one 2000-level or higher advisor-approved Science course | 3-4 |
| Core Area III: Social Science (6 hours) |  |
| P SC 1113American Federal Government (Core III- <br>  <br> PSC) | 3 |
| Choose one ANTH or SOC course (Core III-SS) | 3 |
| Core Area IV: Arts and Humanities |  |
| HIST 1483 United States to 1865 (Core IV-HIST) <br> or HIST 1493 United States, 1865 to the Present | 3 |
| GEOG 1103 Human Geography (Core IV-WC) <br> or GEOG 2603 World Regional Geography | 3 |
| Artistic Forms: Choose one ENGL 2000-level or higher course (Core IV-AF) | 3 |
| World Culture: Choose one course from the University-Wide General Education Approved Course List (3000-level or above) and advisor approved (Core IV-WDC) | 3 |
| Core Area V: First Year Experience (3 hours) |  |
| Choose one course (Core V-FYE) | 3 |
| Electives (1 hours) |  |
| Additional elective hours may be required to meet the 55 Liberal Arts hours required to graduate | 1 |
| Total Credit Hours 55 | 55-65 |
| ${ }^{1}$ The novice-high level language requirement may be satisfied by classical, modern, Native or American Sign Language. Courses that demonstrate knowledge and skills necessary to address the needs of Emergent Bilingual students are determined by the College of Education. |  |

## Certification and Degree Requirements

Field Experiences: Transfer students without appropriate field experiences may be required to enroll in EDUC 2400.
Pass/No Pass Enrollment: Only general education electives may be taken under the pass/no pass option.
Residence Requirements: Students must complete either the last 30 hours or 45 of the last 60 hours after being fully admitted to a teacher education program to satisfy this requirement.
Requirements to be Completed to be Eligible for Student Teaching Internship: Students must be in good standing and have completed all baccalaureate degree requirements with the exception of the appropriate internship course itself and the courses taken with it in the final semester per their major requirements.
Junior College Transfer Students: Students transferring from a junior college may use the transferred credit to meet certain lower-division course requirements only; that is, freshman and sophomore-level courses.
Degree Completion Responsibility: Although the Dean's Office checks each student's records, the responsibility for meeting degree requirements lies with the student and not with the advisor or the Dean. Each student should obtain a copy of his or her requirements
for graduation and check it regularly as he or she completes his or her degree program.
Graduation Application: The final step to be completed by the student before graduation is the filing of an official Application for Graduation. The Application for Graduation should be filled out online by May 1 for fall graduation, December 1 for spring graduation, and March 1 for summer graduation. The student's degree will not be conferred, nor any completion statement entered on their transcript, until the required application is filed.

## Admission \& Retention Requirements

It is the responsibility of the student to read and be familiar with the requirements for Admission to, and Retention in, the Jeannine Rainbolt College of Education. The current Admission and Retention policies can be found in the college's overview page in the OU General Catalog, under the Undergraduate tab here: http://ou-public.courseleaf.com/rainbolt-education/\#undergraduatetext.

## Suggested Semester Plan of Study

This plan shows one possible grouping of courses that would allow students to graduate in four years. Please refer to the front of the degree checksheet for official requirements. Students must consult with College of Education academic advisors to verify that courses selected each semester fulfill the recommended plan and satisfy university, College of Education, and major requirements.

## Freshman

| First Semester |  | Credit |
| :---: | :---: | :---: |
|  |  | Hours |
| ENGL 1113 | Principles of English Composition (Core IEN1) | 3 |
| HIST 1483 or HIST 1493 | United States to 1865 (Core IV-HIST) or United States, 1865 to the Present | 3 |
| MATH (Core I-MATH) |  | 3 |
| Biological Sciences, one course in BIOL/HES/MBIO/PBIO (Core II) |  | 4-5 |
| First Year Experience (Core V-FYE) |  | 3 |
|  | Credit Hours | 16-17 |

## Second Semester

ENGL 1213 Principles of English Composition (Core I- 3
or EXPO 1213 EN2)
or Expository Writing
MATH (Core I-MATH) 3

Physical Sciences, one course in ASTR, CHEM, GEOG, GEOL, 4 GPHY, METR or PHYS (Core II)

| P SC 1113 | American Federal Government (Core III- <br> PSC) |
| :--- | :--- |

ANTH or SOC (Core III-SS) 3

## Sophomore

First Semester
MATH 2213 Mathematical Systems 3
COMM 1113 Principles of Communication (Core I) 3
or COMM 2613 or Public Speaking
GEOG 1103 Human Geography (Core IV-WC) 3
or GEOG 2603 or World Regional Geography
ENGL 2000-level or higher (Core IV-AF)

Science Elective, any 2000-level or higher advisor-approved science course

| General Educa | beral Arts Electives | 1 |
| :---: | :---: | :---: |
|  | Credit Hours | 16 |
| Second Semester |  |  |
| MATH 2223 | Data Analysis and Geometric Systems | 3 |
| EDEL 3243 | Integrated Arts Education | 3 |
| EDSS 3553 | Foundations to Social Studies Education | 3 |
| EIPT 3473 | Learning, Development, and Assessment for Teachers | 3 |
| EDSP 3053 | Understanding and Accommodating Exceptional Learners | 3 |
| Free Electives |  | 1 |
|  | Credit Hours | 16 |
| Junior |  |  |
| First Semester |  |  |
| EDLT 3911 | Language and Literacy Practicum | 1 |
| EDLT 3913 | Literacy in the Primary Grades | 3 |
| EDEL 3002 | Promoting Healthy Lifestyles for Elementary Students | 2 |
| EDMA 3353 | PK-3 Mathematics Concepts | 3 |
| EDS 4003 | Schools in American Cultures | 3 |
| EIPT 3043 | Learning with Educational Technologies | 3 |
|  | Credit Hours | 15 |


| Second Semester |  | 3 |
| :--- | :--- | :---: |
| ILAC 4003 | Partnerships: Working With Parents and <br> Community | 1 |
| EDEL 4101 | Mentoring | 3 |
| EDLT 4113 | Literacy in the Intermediate Grades | 3 |
| EDSC 4093 | Inquiry-Based Science Teaching | 3 |
| EIPT 3483 | Motivation and Classroom Management for |  |
| World Culture-Upper-Division (Core IV-WDC, Advisor  <br> Approved) Teachers | 3 |  |

Approved)
Credit Hours
Senior

| First Semester |  | 3 |
| :--- | :--- | ---: |
| EDEL 4980 | Practicum in Elementary Education | 3 |
| EDSS 4323 | Teaching Social Studies in Elementary/ |  |
|  | Middle Schools | 3 |
| EDMA 4353 | $\mathbf{4 - 8}$ Grade Mathematics Concepts | 3 |
| EDSC 4193 | Teaching Science in Elementary Schools | 3 |
| EDLT 4813 | Literature and Writing Across the | 3 |
|  | Curriculum | $\mathbf{1 5}$ |

Second Semester

| EDUC 4050 | Teaching Experiences in the Elementary | 10 |
| :--- | :--- | ---: |
|  | School |  |
| EDEL 4063 | Critical Inquiry and Integrated Instruction | $\mathbf{3}$ |
|  | Credit Hours | $\mathbf{1 3}$ |
|  | Total Credit Hours | $\mathbf{1 2 4}$ |

Overall GPA - Combined and OU: 2.75
Major GPA - Combined and OU: 2.75

Program Code: B625

## Admission and Retention Requirements

Admission Requirements-Jeannine Rainbolt College of Education Students are eligible for admission to the Jeannine Rainbolt College of Education with:

1. a minimum of 24 semester hours earned from an accredited institution of higher learning;
2. a minimum of $\mathbf{2 . 7 5}$ combined retention grade point average on all coursework attempted;
3. a declared major in education.

Full Admission Requirements-Teacher Education and Professional Studies Programs
Students are eligible for admission to Teacher Education with:

1. a minimum of 30 semester hours from an accredited institution of higher learning to include the following 24 hours as defined by the Oklahoma State Regents for Higher Education with a grade of C or better: English (Composition and Literature)-6 hours; MATH, Gen. Ed. Core I-3 hours; American History-3 hours; American Government-3 hours; Humanities to include Artistic Forms, Western Civilization, Non-Western Culture, World Language, or other advisor-approved Gen. Ed. course -3 hours; Social and Behavioral Sciences-3 hours; Natural Sciences-3 hours.
2. a minimum of $\mathbf{2 . 7 5}$ grade point average (OU retention and combined retention) on all coursework attempted;
3. Meet one of the six performance criteria listed by Oklahoma State Regents for Higher Education (OSRHE) that students may use to qualify for admission into an Oklahoma teacher education program. Speak with your Education Advisor for more details.

Admission to a teaching program requires submission of an application,essay, background check,and an interview with the admission committee prior to enrollment in the first education course.

## Retention Requirements-Jeannine Rainbolt College of Education

1. When a student accepts an offer of admission into a JRCoE department or program, they commit to comply with all its regulations, including those regarding professional conduct and dispositions that are contained in the JRCoE Professional Behavior Policy.
2. Students must maintain a minimum 2.75 grade point average (OU retention and combined retention) in all undergraduate coursework and a minimum 3.00 grade point average in all graduate coursework attempted.
3. Students must maintain a minimum of $\mathbf{2 . 7 5}$ undergraduate grade point average in both professional education courses and in specialized education courses with no grade less than a $\mathbf{C}$ and must maintain a minimum of 3.00 grade point average in graduate
professional and specialized education courses, with no grade less than a B.
4. Students must earn a C or better in COMM 1113 or COMM 2613.
5. Students whose OU retention or combined retention grade point averages at the undergraduate level fall below 2.75 will be subject to dismissal from the college. At the graduate level, students must meet Graduate College requirements.
6. Students who have not earned OU retention and combined retention grade point averages of $\mathbf{2 . 7 5}$ after the completion of 60 semester hours will be dismissed from the college.
7. Because one college level math course is a requirement for full admission into both the college and the teacher preparation program, declared Education majors must complete at least one college-level Math within the first four semesters of enrollment at OU. Transfer students who have not completed a college level Math course will have two semesters to complete the requirement. Students who fail to meet the requirement within the time limits specified will be subject to dismissal from the college.
8. Course work more than 10 years old in the teaching specialization and professional education may not be credited to ward the completion of a teacher education degree and/or certificate program. However, course work over 10 years old may be reviewed by the appropriate certificate committee for possible credit toward the completion of a teacher education degree and/or certificate program.
9. A student has 6 years to complete a teacher education degree and/ or certificate program after full admission. After the 6-year period, a student must seek readmission to that program and meet the catalog requirements in effect at the time of readmission.
10. Students will be withdrawn from courses for failing to observe prerequisites and corequisites. Continued disregard of prerequisites and corequisites is grounds for dismissal from the college.

## Major Requirements

Minimum Requirements for Certification: Undergraduate
Degree plus Graduate Certification Component
Students must maintain a minimum of $\mathbf{2 . 7 5}$ grade point average with no grade less than aC in the Professional Education and the Specialized Education courses for graduation.

| Code | Title | Credit Hours |
| :---: | :---: | :---: |
| Professional Education (38 hours) |  |  |
| EIPT 3473 | Learning, Development, and Assessment for Teachers ${ }^{1}$ | 3 |
| EDSP 3053 | Understanding and Accommodating Exceptional Learners | 3 |
| EDEN 3223 | Teaching Grammar and Composition in Middle/Secondary School | 3 |
| EDS 4003 | Schools in American Cultures ${ }^{1}$ | 3 |
| EIPT 3043 | Learning with Educational Technologies | 3 |
| EDEN 4923 | Literature for Adolescents and Young Adults | 3 |
| EIPT 3483 | Motivation and Classroom Management for Teachers | 3 |
| EDEN 4914 | The Teaching of English (Capstone) ${ }^{1}$ | 4 |
| EDUC 4060 | Teaching Experiences in the Secondary School ${ }^{1,3}$ | 10 |

ILAC 4243

Student Teaching Seminar ${ }^{3}$
3

## Specialized Education (45 hours)

## Capstone

ENGL 4853 The English Capstone Course ${ }^{2}$ ..... 3
American Literature
ENGL 2773 American Literature I ${ }^{2}$ ..... 3
or ENGL 2883 American Literature II
Choose 9 hours (advisor approved) in American Literature ..... 9
Electives
English Literature
ENGL 2543 English Literature from 1375 to $1700^{2}$ ..... 3or ENGL 2653 English Literature from 1700 to the PresentENGL 4523 Shakespeare Comedies ${ }^{2}$3
or ENGL 4533 Shakespeare Tragedies
Choose 6 hours (advisor approved) in English Literature ..... 6
Electives
World Literature
ENGL 2273 Literary and Cultural Analysis ${ }^{2}$ ..... 3
ENGL 2443 World Literature, 1700 to Present ..... 3
Choose 6 hours (advisor approved) in World Literature ..... 6
Electives
Writing Electives
Choose 6 hours (advisor approved) in Writing Electives ..... 6
Total Credit Hours ..... 83
${ }^{1}$ These courses require field experience.

2 These 14 hours along with the 41 hours listed in General Education comprise the 55 hour minimum requirement for Liberal Arts hours.
3 These courses are taken together in the final semester.

## General Education and College Requirements

Courses taken to fulfill the University General Education Requirements must be chosen from the approved General Education course list published in the Class Schedule or at http://www.ou.edu/gened/courses. The following courses meet minimum University, College, and State General Education Requirements.

## UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND

 COLLEGE REQUIREMENTSCode Title Credit

Core Area I: Symbolic and Oral Communication
English and Communication (9 hours)
ENGL 1113 Principles of English Composition (Core I- 3 EN1)
ENGL 1213 Principles of English Composition (Core I- 3
EN2)
or EXPO 1213 Expository Writing
COMM 1113 Principles of Communication (Core I) 3
or COMM 2613 Public Speaking
Mathematics (3 hours)
Choose one MATH course (Core I-MATH) 3
Language (0-10 hours) 0-10

University-Wide General Education Requirement: Choose two college-level courses in a single language; may be satisfied by successful completion of 2 years in a single language in high school (Core I)
Oklahoma State Regents for Higher Education Requirement: Teacher candidates must demonstrate conversational skills at a novice-high level in a language other than English OR demonstrate the knowledge and skills necessary to address the needs of Emergent Bilingual (English Learner) students in the P-12 classroom and are proficient in the strategies required for successful delivery of P -12 instruction in that area ${ }^{1}$
Core Area II: Natural Science (8 hours, including one laboratory course)
Biological Science (3-5 hours)
Choose one course in the biological sciences: BIOL, HES,
MBIO, or PBIO
Physical Science (3-5 hours)
Choose one course in the physical sciences: (Core II) AGSC,
ASTR, CHEM, GEOG, GEOL, METR, or PHYS
Core Area III: Social Science (6 hours)

| P SC 1113 | American Federal Government (Core III- |
| :--- | :--- |
|  | PSC) |

Choose one of the following (Core III-SS): 3

| ANTH 1113 | What Makes Us Human? Exploring Cultural and Biological Diversity |  |
| :---: | :---: | :---: |
| PSY 1113 | Elements of Psychology |  |
| SOC 1113 | Introduction to Sociology |  |
| Core Area IV: Arts and Humanities (12 hours) |  |  |
| HIST 1483 or HIST 1493 | United States to 1865 (Core IV-HIST) United States, 1865 to the Present | 3 |
| ENGL 2413 | Introduction to Literature (Core IV-AF) | 3 |
| Western Culture: Choose one PHIL course (Core IV-WC) |  | 3 |
| World Culture: Choose one course from from the UniversityWide General Education Approved Course List (3000-level or above) and advisor approved (Core IV-WDC) |  | 3 |
| Core Area V: First Year Experience (3 hours) |  |  |
| Choose one course (Core V-FYE) |  | 3 |

Total Credit Hours

1 The novice-high level language requirement may be satisfied by classical, modern, Native or American Sign Language. Courses that demonstrate knowledge and skills necessary to address the needs of Emergent Bilingual students are determined by the College of Education.

The 41 hours above, along with 14 hours of ENGL coursework in the Specialized Education requirements, comprise the 55 required Liberal Arts hours.

## Certification and Degree Requirements

Field Experiences: Transfer students without appropriate field experiences may be required to enroll in EDUC 2400.
Pass/No Pass Enrollment: Only general education electives may be taken under the pass/no pass option.

Residence Requirements: Students must complete either the last 30 hours or 45 of the last 60 hours after being fully admitted to a teacher education program to satisfy this requirement.
Requirements to be Completed to be Eligible for Student Teaching Internship: Students must be in good standing and have completed all baccalaureate degree requirements with the exception of the appropriate internship course itself and the courses taken with it in the final semester per their major requirements.
Junior College Transfer Students: Students transferring from a junior college may use the transferred credit to meet certain lower-division course requirements only; that is, freshman and sophomore-level courses.
Degree Completion Responsibility: Although the Dean's Office checks each student's records, the responsibility for meeting degree requirements lies with the student and not with the advisor or the Dean. Each student should obtain a copy of his or her requirements for graduation and check it regularly as he or she completes his or her degree program.
Graduation Application: The final step to be completed by the student before graduation is the filing of an official Application for Graduation. The Application for Graduation should be filled out online by May 1 for fall graduation, December 1 for spring graduation, and March 1 for summer graduation. The student's degree will not be conferred, nor any completion statement entered on their transcript, until the required application is filed.

## Admission \& Retention Requirements

It is the responsibility of the student to read and be familiar with the requirements for Admission to, and Retention in, the Jeannine Rainbolt College of Education. The current Admission and Retention policies can be found in the college's overview page in the OU General Catalog, under the Undergraduate tab here: http://ou-public.courseleaf.com/rainbolt-education/\#undergraduatetext

## Suggested Semester Plan of Study

This plan shows one possible grouping of courses that would allow students to graduate in four years. Please refer to the front of the degree checksheet for official requirements. Students must consult with College of Education academic advisors to verify that courses selected each semester fulfill the recommended plan and satisfy university, College of Education, and major requirements.

## Freshman

| First Semester |  | Credit |
| :---: | :---: | :---: |
|  |  | Hours |
| ENGL 1113 | Principles of English Composition (Core IEN1) | 3 |
| MATH (Core I-MATH) |  | 3 |
| HIST 1483 or HIST 1493 | United States to 1865 (Core IV-HIST) or United States, 1865 to the Present | 3 |
| First Year Experience (Core V-FYE) |  | 3 |
| Choose one of the following (Core III-SS): |  | 3 |
| ANTH 1113 | What Makes Us Human? Exploring Cultural and Biological Diversity |  |
| PSY 1113 | Elements of Psychology |  |
| SOC 1113 | Introduction to Sociology |  |
|  | Credit Hours | 15 |


| Second Semester |  |  |
| :---: | :---: | :---: |
| $\begin{aligned} & \text { ENGL } 1213 \\ & \text { or EXPO } 1213 \end{aligned}$ | Principles of English Composition (Core IEN2) <br> or Expository Writing | 3 |
| ENGL 2413 | Introduction to Literature (Core IV-AF) | 3 |
| P SC 1113 | American Federal Government (Core IIIPSC) | 3 |
| PHIL (Core IV-WC) |  | 3 |
| Biological Sciences, one course in BIOL/HES/MBIO/PBIO (Core II) |  | 3-5 |
|  | Credit Hours | 15-17 |
| Sophomore |  |  |
| First Semester |  |  |
| EDEN 3223 | Teaching Grammar and Composition in Middle/Secondary School | 3 |
| EIPT 3473 | Learning, Development, and Assessment for Teachers | 3 |
| ENGL 2273 | Literary and Cultural Analysis | 3 |
| ENGL 2773 <br> or ENGL 2883 | American Literature I or American Literature II | 3 |
| Physical Sciences, one course in ASTR, CHEM, GEOG, GEOL, GPHY, METR or PHYS (Core II) |  | 3-5 |
|  | Credit Hours | 15-17 |
| Second Semester |  |  |
| EDSP 3053 | Understanding and Accommodating Exceptional Learners | 3 |
| ENGL 2443 | World Literature, 1700 to Present | 3 |
| American Literature Elective (advisor approved) |  | 3 |
| Writing Elective (advisor approved) |  | 3 |
| English or World Literature Elective (advisor approved) |  | 3 |
|  | Credit Hours | 15 |
| Junior |  |  |
| First Semester |  |  |
| EDS 4003 | Schools in American Cultures | 3 |
| EDEN 4923 | Literature for Adolescents and Young Adults | 3 |
| ENGL 2543 or ENGL 2653 | English Literature from 1375 to 1700 or English Literature from 1700 to the Present | 3 |
| COMM 1113 or COMM 2613 | Principles of Communication (Core I) or Public Speaking | 3 |
| American Literatu | ure Elective (advisor approved) | 3 |
| English or World L | Literature Elective (advisor approved) | 3 |
|  | Credit Hours | 18 |
| Second Semester |  |  |
| EIPT 3043 | Learning with Educational Technologies | 3 |
| ENGL 4523 <br> or ENGL 4533 | Shakespeare Comedies or Shakespeare Tragedies | 3 |
| American Literature Elective (advisor approved) |  | 3 |
| Writing Elective (advisor approved) |  | 3 |
| World Culture-Upper-Division (Core IV-WDC, Advisor Approved) |  | 3 |

Credit Hours

## Senior

| First Semester |  | 4 |
| :--- | :--- | ---: |
| EDEN 4914 | The Teaching of English | 3 |
| EIPT 3483 | Motivation and Classroom Management for <br> Teachers | 3 |
| ENGL 4853 | The English Capstone Course | 3 |
| World Literature Elective (advisor approved) | 3 |  |
| English Literature Elective (advisor approved) | 3 |  |
|  | Credit Hours | $\mathbf{1 6}$ |

## Second Semester

| EDUC 4060 | Teaching Experiences in the Secondary | 10 |
| :--- | :--- | ---: |
|  | School |  |
| ILAC 4243 | Student Teaching Seminar | 3 |
|  | Credit Hours | $\mathbf{1 3}$ |
|  | Total Credit Hours | $\mathbf{1 2 4}$ |

## Mathematics Education, B.S.

Minimum Total Credit Hours: 124
Minimum Upper-Division Hours: 40
Overall GPA - Combined and OU: 2.75
Major GPA - Combined and OU: 2.75
Program Code: B673

## Admission and Retention Requirements

Admission Requirements-Jeannine Rainbolt College of Education
Students are eligible for admission to the Jeannine Rainbolt College of Education with:

1. a minimum of 24 semester hours earned from an accredited institution of higher learning;
2. a minimum of $\mathbf{2 . 7 5}$ combined retention grade point average on all coursework attempted;
3. a declared major in education.

## Full Admission Requirements-Teacher Education and Professional

 Studies ProgramsStudents are eligible for admission to Teacher Education with:

1. a minimum of 30 semester hours from an accredited institution of higher learning to include the following 24 hours as defined by the Oklahoma State Regents for Higher Education with a grade of C or better: English (Composition and Literature)-6 hours; MATH, Gen. Ed. Core I-3 hours; American History-3 hours; American Government-3 hours; Humanities to include Artistic Forms, Western Civilization, Non-Western Culture, World Language, or other advisor-approved Gen. Ed. course -3 hours; Social and Behavioral Sciences-3 hours; Natural Sciences-3 hours.
2. a minimum of $\mathbf{2 . 7 5}$ grade point average ( $O U$ retention and combined retention) on all coursework attempted;
3. Meet one of the six performance criteria listed by Oklahoma State Regents for Higher Education (OSRHE) that students may use to qualify for admission into an Oklahoma teacher education program. Speak with your Education Advisor for more details.

Admission to a teaching program requires submission of an application,essay, background check,and an interview with the admission committee prior to enrollment in the first education course.

## Retention Requirements-Jeannine Rainbolt College of Education

1. When a student accepts an offer of admission into a JRCoE department or program, they commit to comply with all its regulations, including those regarding professional conduct and dispositions that are contained in the JRCoE Professional Behavior Policy.
2. Students must maintain a minimum $\mathbf{2 . 7 5}$ grade point average ( $O U$ retention and combined retention) in all undergraduate coursework and a minimum 3.00 grade point average in all graduate coursework attempted.
3. Students must maintain a minimum of 2.75 undergraduate grade point average in both professional education courses and in specialized education courses with no grade less than a C and must maintain a minimum of 3.00 grade point average in graduate professional and specialized education courses, with no grade less than a B.
4. Students must earn a $C$ or better in COMM 1113 or COMM 2613.
5. Students whose OU retention or combined retention grade point averages at the undergraduate level fall below 2.75 will be subject to dismissal from the college. At the graduate level, students must meet Graduate College requirements.
6. Students who have not earned OU retention and combined retention grade point averages of 2.75 after the completion of 60 semester hours will be dismissed from the college.
7. Because one college level math course is a requirement for full admission into both the college and the teacher preparation program, declared Education majors must complete at least one college-level Math within the first four semesters of enrollment at OU. Transfer students who have not completed a college level Math course will have two semesters to complete the requirement. Students who fail to meet the requirement within the time limits specified will be subject to dismissal from the college.
8. Course work more than 10 years old in the teaching specialization and professional education may not be credited to ward the completion of a teacher education degree and/or certificate program. However, course work over 10 years old may be reviewed by the appropriate certificate committee for possible credit toward the completion of a teacher education degree and/or certificate program.
9. A student has 6 years to complete a teacher education degree and/ or certificate program after full admission. After the 6- year period, a student must seek readmission to that program and meet the catalog requirements in effect at the time of readmission.
10. Students will be withdrawn from courses for failing to observe prerequisites and corequisites. Continued disregard of prerequisites and corequisites is grounds for dismissal from the college.

## Major Requirements

Students must maintain a minimum of 2.75 grade point average with no grade less than a C in the Professional Education and the Specialized Education courses for graduation.

Certification: To be fully certified, students must pass Certification Examinations for Oklahoma Educators and apply for a license.

| Code | Title | Credit Hours |
| :---: | :---: | :---: |
| Professional Education (37 hours) |  |  |
| EIPT 3473 | Learning, Development, and Assessment for Teachers ${ }^{1}$ | 3 |
| EDSP 3053 | Understanding and Accommodating Exceptional Learners | 3 |
| EIPT 3043 | Learning with Educational Technologies | 3 |
| EDS 4003 | Schools in American Cultures ${ }^{1}$ | 3 |
| EIPT 3483 | Motivation and Classroom Management for Teachers | 3 |
| EDMA 4233 | Developing Problem-Solving Environ for Secondary Math Learning | 3 |
| EDMA 4243 | Fundamental Concepts of Secondary Math Learning (Capstone) ${ }^{2}$ | 3 |
| EDMA 4253 | Teaching and Learning of Mathematics Reasoning and Proof ${ }^{1}$ | 3 |
| ILAC 4243 | Student Teaching Seminar ${ }^{3}$ | 3 |
| EDUC 4060 | Teaching Experiences in the Secondary School ${ }^{1,3}$ | 10 |
| Specialized Education (42 hours) |  |  |
| Mathematics |  |  |
| EDWL 4323 | Foundations and Practice for $\mathrm{Bi} /$ Multilingual Learners PK-12 | 3 |
| MATH 1523 | Precalculus and Trigonometry | 3 |
| MATH 1823 | Calculus and Analytic Geometry I ${ }^{2}$ | 3 |
| MATH 2423 | Calculus and Analytic Geometry II ${ }^{2}$ | 3 |
| MATH 2433 | Calculus and Analytic Geometry III | 3 |
| MATH 2443 | Calculus and Analytic Geometry IV | 3 |
| MATH 2513 | Discrete Mathematical Structures | 3 |
| MATH 3113 | Introduction to Ordinary Differential Equations | 3 |
| MATH 3333 | Linear Algebra I | 3 |
| MATH 4753 | Applied Statistical Methods | 3 |
| Physics |  |  |
| PHYS 2514 | General Physics for Engineering and Science Majors ${ }^{2}$ | 4 |
| Specialization Electives |  |  |
| Choose electiv advisor (or othe 42 hours: | from the following list in consultation with advisor approved courses) to bring total to | 8 |
| CHEM 1305 | Fundamentals of General Chemistry |  |
| CHEM 1315 | General Chemistry |  |
| C S 1321 | Java for Programmers |  |
| CS 1323 | Introduction to Computer Programming for Programmers |  |
| CS 1324 | Introduction to Computer Programming for Non-Programmers |  |
| MATH 4323 | Introduction to Abstract Algebra I |  |
| MATH 4383 | Applied Modern Algebra |  |
| MATH 4673 | Graph Theory I |  |
| MATH 4733 | Mathematical Theory of Probability |  |
| MATH 4793 | Advanced Applied Statistics |  |
| MATH 4803 | Topics in Mathematics |  |

MATH 4853
Introduction to Topology
Total Credit Hours
1 These courses require field experience.
2 These 10 hours along with the 45 hours listed in General Education comprise the 55 hour minimum college requirement for General Education.
${ }^{3}$ These courses are taken together in the final semester.

## General Education and College Requirements

Courses taken to fulfill the University General Education Requirements must be chosen from the approved General Education course list published in the Class Schedule or at http://www.ou.edu/gened/courses. The following courses meet minimum University, College, and State General Education Requirements.

## UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS

| Code | Title | Credit Hours |
| :---: | :---: | :---: |
| Core Area I: Symbolic and Oral Communication |  |  |
| English and Communication (9 hours) |  |  |
| ENGL 1113 | Principles of English Composition (Core IEN1) | 3 |
| ENGL 1213 | Principles of English Composition (Core IEN2) | 3 |
| or EXPO 1213 | Expository Writing |  |
| COMM 1113 or COMM 2613 | Principles of Communication (Core I) <br> Public Speaking | 3 |
| Language (0-10 ho | us) | 0-10 |

University-Wide General Education Requirement: Choose two college-level courses in a single language; may be satisfied by successful completion of 2 years in a single language in high school (Core I)
Oklahoma State Regents for Higher Education Requirement: Teacher candidates must demonstrate conversational skills at a novice-high level in a language other than English OR demonstrate the knowledge and skills necessary to address the needs of Emergent Bilingual (English Learner) students in the P-12 classroom and are proficient in the strategies required for successful delivery of P -12 instruction in that area $1^{1}$
Mathematics (3 hours, met in major)

| MATH 1823 | Calculus and Analytic Geometry I (Core I- <br> MATH) |
| :--- | :--- |
| Core Area II: Natural Science (8-9 hours) |  |
| PHYS 2514 | General Physics for Engineering and <br> Science Majors (Core II-NS, met in the <br> major) |

Choose one biological science course from one of the
following areas (must include a laboratory component):
Biology, Microbiology, or Plant Biology (Core II-NSL)
Core Area III: Social Science (6 hours)
P SC 1113 American Federal Government (Core III-

Choose one ANTH, PSY, or SOC course (Core III-SS)
3

Core Area IV: Arts and Humanities (18 hours)

HIST 1483
United States to 1865 (Core IV-HIST) 3
or HIST 1493 United States, 1865 to the Present
Western Culture: Choose one PHIL course (Core IV-WC) 3
Artistic Forms: Choose one course from the General 3
Education approved course list (IV-AF)
World Culture: Choose one course (advisor approved) from 3
the General Education approved course list (Core IV-WDC)
HSTM 3013 History of Science to the Age of Newton 3
or HSTM 3023 History of Science Since the Seventeenth Century
Choose one contemporary world culture course from one of
the following areas:
American Ethnic Studies, Economics, Foreign Language, Geography, or World Literature
Core Area V: First Year Experience (3 hours)
Choose one course (Core V-FYE) 3
Electives (5 hours)
Choose electives to bring the total to 45 hours
Total Credit Hours 45-55
1 The novice-high level language requirement may be satisfied by classical, modern, Native or American Sign Language. Courses that demonstrate knowledge and skills necessary to address the needs of Emergent Bilingual students are determined by the College of Education.

The 45 hours above, along
with EDMA 4243, MATH 1823, MATH 2423 and PHYS 2514 (10 hours) in the Professional and Specialized Education Requirements, comprise the 55 required Liberal Arts hours.

## Certification and Degree Requirements

Field Experiences: Transfer students without appropriate field experiences may be required to enroll in EDUC 2400.
Pass/No Pass Enrollment: Only general education electives may be taken under the pass/no pass option.
Residence Requirements: Students must complete either the last 30 hours or 45 of the last 60 hours after being fully admitted to a teacher education program to satisfy this requirement.
Requirements to be Completed to be Eligible for Student Teaching Internship: Students must be in good standing and have completed all baccalaureate degree requirements with the exception of the appropriate internship course itself and the courses taken with it in the final semester per their major requirements.
Junior College Transfer Students: Students transferring from a junior college may use the transferred credit to meet certain lower-division course requirements only; that is, freshman and sophomore-level courses.
Degree Completion Responsibility: Although the Dean's Office checks each student's records, the responsibility for meeting degree requirements lies with the student and not with the advisor or the Dean. Each student should obtain a copy of his or her requirements for graduation and check it regularly as he or she completes his or her degree program.
Graduation Application: The final step to be completed by the student before graduation is the filing of an official Application for Graduation. The Application for Graduation should be filled out online by May 1 for fall graduation, December 1 for spring graduation, and March 1 for summer graduation. The student's degree will not be conferred, nor
any completion statement entered on their transcript, until the required application is filed.

## Admission \& Retention Requirements

It is the responsibility of the student to read and be familiar with the requirements for Admission to, and Retention in, the Jeannine Rainbolt College of Education. The current Admission and Retention policies can be found in the college's overview page in the OU General Catalog, under the Undergraduate tab here: http://ou-public.courseleaf.com/rainbolt-education/\#undergraduatetext.

## Suggested Semester Plan of Study

This plan shows one possible grouping of courses that would allow students to graduate in four years. Please refer to the front of the degree checksheet for official requirements. Students must consult with College of Education academic advisors to verify that courses selected each semester fulfill the recommended plan and satisfy university, College of Education, and major requirements.

| Freshman |  |  |
| :---: | :---: | :---: |
| First Semester |  | Credit |
| ENGL 1113 | Principles of English Composition (Core IEN1) | 3 |
| MATH 1523 | Precalculus and Trigonometry (Core IMATH) | 3 |
| HIST 1483 or HIST 1493 | United States to 1865 (Core IV-HIST) or United States, 1865 to the Present | 3 |
| First Year Experience (Core V-FYE) |  | 3 |
| Biological Scienc NSL) | es, one course in BIOL/MBIO/PBIO (Core II- | 4-5 |

Credit Hours 16 17

Second Semeste
ENGL 1213 Principles of English Composition (Core I-
or EXPO 1213 EN2)
or Expository Writing
MATH 1823 Calculus and Analytic Geometry I 3
P SC 1113 American Federal Government (Core III- 3
PSC)
ANTH, or PSY, or SOC (Core III-SS) 3

| Arts \& Humanities (Core IV-AF) | 3 |
| ---: | ---: |
| Credit Hours | 15 |

## Sophomore

| First Semester |  | 3 |
| :--- | :--- | ---: |
| MATH 2423 | Calculus and Analytic Geometry II | 3 |
| MATH 3333 | Linear Algebra I | 3 |
| EIPT 3473 | Learning, Development, and Assessment <br> for Teachers | 4 |
| PHYS 2514 | General Physics for Engineering and <br> SHIL (Core IV-WC) | 4 |
|  | Credit Hours | $\mathbf{3}$ |


| Second Semester |  |  |
| :--- | :--- | :--- |
| MATH 2433 | Calculus and Analytic Geometry III | 3 |
| MATH 2513 | Discrete Mathematical Structures | 3 |


| COMM 1113 or COMM 2613 | Principles of Communication (Core I) or Public Speaking | 3 |
| :---: | :---: | :---: |
| World Culture (Core IV-WDC, Advisor Approved) |  | 3 |
| Specialization Elective |  | 4-5 |
|  | Credit Hours | 16-17 |
| Junior |  |  |
| First Semester |  |  |
| EDMA 4233 | Developing Problem-Solving Environ for Secondary Math Learning | 3 |
| EDSP 3053 | Understanding and Accommodating Exceptional Learners | 3 |
| MATH 2443 | Calculus and Analytic Geometry IV | 3 |
| MATH 3113 | Introduction to Ordinary Differential Equations | 3 |
| Contemporary World Culture, one course |  | 3 |
|  | Credit Hours | 15 |
| Second Semester |  |  |
| MATH 4753 | Applied Statistical Methods | 3 |
| HSTM 3013 or HSTM 3023 | History of Science to the Age of Newton (or approved equivalent) <br> or History of Science Since the Seventeenth Century | 3 |
| EDMA 4243 | Fundamental Concepts of Secondary Math Learning | 3 |
| EDS 4003 | Schools in American Cultures | 3 |
| EIPT 3043 | Learning with Educational Technologies | 3 |
|  | Credit Hours | 15 |
| Senior |  |  |
| First Semester |  |  |
| EDMA 4253 | Teaching and Learning of Mathematics Reasoning and Proof | 3 |
| EIPT 3483 | Motivation and Classroom Management for Teachers | 3 |
| EDWL 4323 | Foundations and Practice for Bi / Multilingual Learners PK-12 | 3 |
| Specialization Elective |  | 3 |
| General Education Elective |  | 4-5 |
|  | Credit Hours | 16-17 |
| Second Semester |  |  |
| EDUC 4060 | Teaching Experiences in the Secondary School | 10 |
| ILAC 4243 | Student Teaching Seminar | 3 |
|  | Credit Hours | 13 |
|  | Total Credit Hours | 124 |

## Science Education: Biological Sciences, B.S.

Minimum Total Credit Hours: 124
Minimum Upper-Division Hours: 40

Overall GPA - Combined and OU: 2.75
Major GPA - Combined and OU: 2.75

## Program Code: B830

## Admission and Retention Requirements

## Admission Requirements-Jeannine Rainbolt College of Education

Students are eligible for admission to the Jeannine Rainbolt College of Education with:

1. a minimum of 24 semester hours earned from an accredited institution of higher learning;
2. a minimum of $\mathbf{2 . 7 5}$ combined retention grade point average on all coursework attempted;
3. a declared major in education.

Full Admission Requirements-Teacher Education and Professional Studies Programs
Students are eligible for admission to Teacher Education with:

1. a minimum of 30 semester hours from an accredited institution of higher learning to include the following 24 hours as defined by the Oklahoma State Regents for Higher Education with a grade of C or better. English (Composition and Literature)-6 hours; MATH, Gen. Ed. Core I-3 hours; American History-3 hours; American Government-3 hours; Humanities to include Artistic Forms, Western Civilization, Non-Western Culture, World Language, or other advisor-approved Gen. Ed. course - 3 hours; Social and Behavioral Sciences-3 hours; Natural Sciences-3 hours.
2. a minimum of $\mathbf{2 . 7 5}$ grade point average (OU retention and combined retention) on all coursework attempted;
3. Meet one of the six performance criteria listed by Oklahoma State Regents for Higher Education (OSRHE) that students may use to qualify for admission into an Oklahoma teacher education program. Speak with your Education Advisor for more details.

Admission to a teaching program requires submission of an application,essay, background check,and an interview with the admission committee prior to enrollment in the first education course.

## Retention Requirements-Jeannine Rainbolt College of Education

1. When a student accepts an offer of admission into a JRCoE department or program, they commit to comply with all its regulations, including those regarding professional conduct and dispositions that are contained in the JRCoE Professional Behavior Policy.
2. Students must maintain a minimum $\mathbf{2 . 7 5}$ grade point average (OU retention and combined retention) in all undergraduate coursework and a minimum 3.00 grade point average in all graduate coursework attempted.
3. Students must maintain a minimum of 2.75 undergraduate grade point average in both professional education courses and in specialized education courses with no grade less than a C and must maintain a minimum of 3.00 grade point average in graduate professional and specialized education courses, with no grade less than a B.
4. Students must earn a C or better in COMM 1113 or COMM 2613.
5. Students whose OU retention or combined retention grade point averages at the undergraduate level fall below 2.75 will be subject to dismissal from the college. At the graduate level, students must meet Graduate College requirements.
6. Students who have not earned OU retention and combined retention grade point averages of $\mathbf{2 . 7 5}$ after the completion of 60 semester hours will be dismissed from the college.
7. Because one college level math course is a requirement for full admission into both the college and the teacher preparation program, declared Education majors must complete at least one college-level Math within the first four semesters of enrollment at OU. Transfer students who have not completed a college level Math course will have two semesters to complete the requirement. Students who fail to meet the requirement within the time limits specified will be subject to dismissal from the college.
8. Course work more than 10 years old in the teaching specialization and professional education may not be credited to ward the completion of a teacher education degree and/or certificate program. However, course work over 10 years old may be reviewed by the appropriate certificate committee for possible credit toward the completion of a teacher education degree and/or certificate program.
9. A student has 6 years to complete a teacher education degree and/ or certificate program after full admission. After the 6-year period, a student must seek readmission to that program and meet the catalog requirements in effect at the time of readmission.
10. Students will be withdrawn from courses for failing to observe prerequisites and corequisites. Continued disregard of prerequisites and corequisites is grounds for dismissal from the college.

## Major Requirements

Students must maintain a minimum of $\mathbf{2 . 7 5}$ grade point average with no grade less than a C in the Professional Education and Specialized Education courses for graduation.

Certification: To be fully certified, students must pass Certification Examinations for Oklahoma Educators and apply for a license.

| Code | Title |
| :--- | :--- |
|  | Credit |
|  | Hours |

Professional Education (37 hours)

| EIPT 3473 | Learning, Development, and Assessment for Teachers ${ }^{1}$ | 3 |
| :---: | :---: | :---: |
| EDSP 3053 | Understanding and Accommodating Exceptional Learners | 3 |
| EIPT 3043 | Learning with Educational Technologies | 3 |
| EDS 4003 | Schools in American Cultures ${ }^{1}$ | 3 |
| EIPT 3483 | Motivation and Classroom Management for Teachers | 3 |
| EDWL 4323 | Foundations and Practice for $\mathrm{Bi} /$ Multilingual Learners PK-12 | 3 |
| EDSC 4513 | Teaching Science in Secondary Schools | 3 |
| EDSC 4533 | Advanced Methods in Science Teaching ${ }^{1}$ | 3 |
| EDUC 4060 | Teaching Experiences in the Secondary School ${ }^{1,2}$ | 10 |
| ILAC 4243 | Student Teaching Seminar ${ }^{2}$ | 3 |
| Specialized Education (43 hours) |  |  |
| Biological Science |  |  |
| BIOL 1134 | Introductory Biology: Evolution, Ecology and Diversity | 4 |
| BIOL 3013 | Evolution | 3 |
| BIOL 2124 | Human Physiology | 4 |
| BIOL 3113 | Cell Biology | 3 |


| BIOL 3333 | Genetics | 3 |
| :---: | :---: | :---: |
| BIOL 3403 | Principles of Ecology | 3 |
| Chemistry |  |  |
| CHEM 1315 | General Chemistry ${ }^{3}$ | 5 |
| CHEM 1415 | General Chemistry (Continued) ${ }^{3}$ | 5 |
| CHEM 3053 | Organic Chemistry I: Biological Emphasis | 3 |
| CHEM 3152 | Organic Chemistry Laboratory. Biological Emphasis | 2 |
| Physics |  |  |
| PHYS 2414 | General Physics for Life Science Oriented Majors ${ }^{3}$ | 4 |
| PHYS 2424 | General Physics for Life Science Oriented Majors | 4 |

Earth \& Space Sciences
Satisfied under General Education
Total Credit Hours
1 These courses require field experience.
2 These courses are taken together in the final semester.
3 These 14 hours along with the 41 hours listed in General Education comprise the 55 hours required for Liberal Arts \& Sciences.

## General Education and College Requirements

Courses taken to fulfill the University General Education Requirements must be chosen from the approved General Education course list published in the Class Schedule or at http://www.ou.edu/gened/courses. The following courses meet minimum University, College, and State General Education Requirements.

## UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS

Code Title
Credit Hours

Core Area I: Symbolic and Oral Communication
Communication Skills (9 hours)

| ENGL 1113 | Principles of English Composition (Core I- | 3 |
| :---: | :--- | :---: |
| ENGL 1213 | EN1) |  |
|  | Principles of English Composition (Core I- | 3 |
| or EXPO 1213 | Expository Writing |  |
| COMM 1113 | Principles of Communication (Core I) | 3 |

or COMM 2613 Public Speaking
Language (0-10 hours)
University-Wide General Education Requirement: Choose two college-level courses in a single language; may be satisfied by successful completion of 2 years in a single language in high school (Core I)
Oklahoma State Regents for Higher Education Requirement: Teacher candidates must demonstrate conversational skills at a novice-high level in a language other than English OR demonstrate the knowledge and skills necessary to address the needs of Emergent Bilingual (English Learner) students in the P-12 classroom and are proficient in the strategies required for successful delivery of P -12 instruction in that area ${ }^{1}$
Mathematics (6 hours)


1 The novice-high level language requirement may be satisfied by classical, modern, Native or American Sign Language. Courses that demonstrate knowledge and skills necessary to address the needs of Emergent Bilingual students are determined by the College of Education.

The 44 hours above, along
with CHEM 1315, CHEM 1415 and PHYS 2414 (11 hours) in the Specialized Education requirements, comprise the 55 required for Liberal Arts hours.

## Certification and Degree Requirements

Field Experiences: Transfer students without appropriate field experiences may be required to enroll in EDUC 2400.
Pass/No Pass Enrollment: Only general education electives may be taken under the pass/no pass option.
Residence Requirements: Students must complete either the last 30 hours or 45 of the last 60 hours after being fully admitted to a teacher education program to satisfy this requirement.
Requirements to be Completed to be Eligible for Student Teaching
Internship: Students must be in good standing and have completed all baccalaureate degree requirements with the exception of the appropriate internship course itself and the courses taken with it in the final semester per their major requirements.
Junior College Transfer Students: Students transferring from a junior college may use the transferred credit to meet certain lower-division course requirements only; that is, freshman and sophomore-level courses.
Degree Completion Responsibility: Although the Dean's Office checks each student's records, the responsibility for meeting degree
requirements lies with the student and not with the advisor or the Dean. Each student should obtain a copy of his or her requirements for graduation and check it regularly as he or she completes his or her degree program.
Graduation Application: The final step to be completed by the student before graduation is the filing of an official Application for Graduation. The Application for Graduation should be filled out online by May 1 for fall graduation, December 1 for spring graduation, and March 1 for summer graduation. The student's degree will not be conferred, nor any completion statement entered on their transcript, until the required application is filed.

## Admission \& Retention Requirements

It is the responsibility of the student to read and be familiar with the requirements for Admission to, and Retention in, the Jeannine Rainbolt College of Education. The current Admission and Retention policies can be found in the college's overview page in the OU General Catalog, under the Undergraduate tab here: http://ou-public.courseleaf.com/rainbolt-education/\#undergraduatetext.

## Suggested Semester Plan of Study

This plan shows one possible grouping of courses that would allow students to graduate in four years. Please refer to the front of the degree checksheet for official requirements. Students must consult with College of Education academic advisors to verify that courses selected each semester fulfill the recommended plan and satisfy university, College of Education, and major requirements.

| Freshman |  |  |
| :---: | :---: | :---: |
| First Semester |  | Credit |
|  |  | Hours |
| ENGL 1113 | Principles of English Composition (Core IEN1) | 3 |
| MATH 1643 | Functions and Modeling for Business, Life and Social Sciences (Core I-MATH) | 3 |
| HIST 1483 or HIST 1493 | United States to 1865 (Core IV-HIST) or United States, 1865 to the Present | 3 |
| BIOL 1124 | Intro Biol: Molecule/Cell/Phys (Core II-NSL) | 4 |
| First Year Experi | nce (Core V-FYE) | 3 |
|  | Credit Hours | 16 |
| Second Semester |  |  |
| ```ENGL }121 or EXPO 1213``` | Principles of English Composition (Core IEN2) <br> or Expository Writing | 3 |
| MATH 1743 | Calculus I for Business, Life and Social Sciences (or higher, Core I-MATH) | 3 |
| P SC 1113 | American Federal Government (Core IIIPSC) | 3 |
| GEOL 2014 | The Earth System (Core II-NSL) | 4 |
| BIOL 1134 | Introductory Biology: Evolution, Ecology and Diversity | 4 |
|  | Credit Hours | 17 |
| Sophomore |  |  |
| First Semester |  |  |
| EIPT 3473 | Learning, Development, and Assessment for Teachers | 3 |
| Artistic Forms (Cor | ore IV-Artistic Forms) | 3 |



## Second Semester

| EDSP 3053 | Understanding and Accommodating | 3 |
| :--- | :--- | ---: |
|  | Exceptional Learners |  |
| EDSC 4513 | Teaching Science in Secondary Schools | 3 |
| CHEM 1415 | General Chemistry (Continued) | 5 |
| BIOL 2124 | Human Physiology | 4 |
|  | Credit Hours | $\mathbf{1 5}$ |

## Junior

First Semester

| EDS 4003 | Schools in American Cultures |  |
| :--- | :--- | :---: |
| HSTM 3013 <br> or HSTM 3023 | History of Science to the Age of Newton <br> (Core IV-WC) <br> or History of Science Since the <br> Seventeenth Century | 3 |
| CHEM 3053 | Organic Chemistry I: Biological Emphasis | 3 |
| CHEM 3152 | Organic Chemistry Laboratory: Biological <br> Emphasis | 2 |
| PHYS 2414 | General Physics for Life Science Oriented <br> Majors | 4 |
|  | Credit Hours | $\mathbf{1 5}$ |

## Second Semester

| EIPT 3043 | Learning with Educational Technologies | 3 |
| :--- | :--- | ---: |
| GEOG 3253 | Environmental Conservation (Core III-SS) | 3 |
| PHYS 2424 | General Physics for Life Science Oriented | 4 |
|  | Majors | 3 |
| BIOL 3113 | Cell Biology | 3 |
|  | Genetics | $\mathbf{3} 333$ |

## Senior

First Semester
EDSC 4533 Advanced Methods in Science Teaching 3
EIPT 3483 Motivation and Classroom Management for 3 Teachers

| EDWL 4323 | Foundations and Practice for Bi/ <br> Multilingual Learners PK-12 | 3 |
| :--- | :--- | :--- |
| BIOL 3403 | Principles of Ecology | 3 |
| Choose one of the following (Core IV-WDC): | 3 |  |


| HSTM 3313 | Science and Technology in Asian History |  |
| :--- | :--- | :--- |
| HSTM 3453 | Science and Civilization in Islam |  |
| HSTM 3483 | Technology, Politics, and International |  |
|  | Development | $\mathbf{1 5}$ |

Second Semester
$\left.\begin{array}{llr}\text { EDUC 4060 } & \text { Teaching Experiences in the Secondary } & 10 \\ & \text { School }\end{array}\right)$

# Science Education: Chemistry, B.S. 

Minimum Total Credit Hours: 124

Minimum Upper-Division Hours: 40

Overall GPA - Combined and OU: 2.75
Major GPA - Combined and OU: 2.75
Program Code: B831

## Admission and Retention Requirements

Admission Requirements-Jeannine Rainbolt College of Education
Students are eligible for admission to the Jeannine Rainbolt College of Education with:

1. a minimum of 24 semester hours earned from an accredited institution of higher learning;
2. a minimum of $\mathbf{2 . 7 5}$ combined retention grade point average on all coursework attempted;
3. a declared major in education.

Full Admission Requirements-Teacher Education and Professional Studies Programs
Students are eligible for admission to Teacher Education with:

1. a minimum of 30 semester hours from an accredited institution of higher learning to include the following 24 hours as defined by the Oklahoma State Regents for Higher Education with a grade of $C$ or better: English (Composition and Literature)-6 hours; MATH, Gen. Ed. Core I-3 hours; American History-3 hours; American Government-3 hours; Humanities to include Artistic Forms, Western Civilization, Non-Western Culture, World Language, or other advisor-approved Gen. Ed. course -3 hours; Social and Behavioral Sciences-3 hours; Natural Sciences-3 hours.
2. a minimum of $\mathbf{2 . 7 5}$ grade point average (OU retention and combined retention) on all coursework attempted;
3. Meet one of the six performance criteria listed by Oklahoma State Regents for Higher Education (OSRHE) that students may use to qualify for admission into an Oklahoma teacher education program. Speak with your Education Advisor for more details.

Admission to a teaching program requires submission of an application,essay, background check,and an interview with the admission committee prior to enrollment in the first education course.

## Retention Requirements-Jeannine Rainbolt College of Education

1. When a student accepts an offer of admission into a JRCoE department or program, they commit to comply with all its regulations, including those regarding professional conduct and dispositions that are contained in the JRCoE Professional Behavior Policy.
2. Students must maintain a minimum $\mathbf{2 . 7 5}$ grade point average (OU retention and combined retention) in all undergraduate coursework and a minimum 3.00 grade point average in all graduate coursework attempted.
3. Students must maintain a minimum of 2.75 undergraduate grade point average in both professional education courses and in specialized education courses with no grade less than a C and must maintain a minimum of 3.00 grade point average in graduate
professional and specialized education courses, with no grade less than a B.
4. Students must earn a C or better in COMM 1113 or COMM 2613.
5. Students whose OU retention or combined retention grade point averages at the undergraduate level fall below 2.75 will be subject to dismissal from the college. At the graduate level, students must meet Graduate College requirements.
6. Students who have not earned OU retention and combined retention grade point averages of $\mathbf{2 . 7 5}$ after the completion of 60 semester hours will be dismissed from the college.
7. Because one college level math course is a requirement for full admission into both the college and the teacher preparation program, declared Education majors must complete at least one college-level Math within the first four semesters of enrollment at OU. Transfer students who have not completed a college level Math course will have two semesters to complete the requirement. Students who fail to meet the requirement within the time limits specified will be subject to dismissal from the college.
8. Course work more than 10 years old in the teaching specialization and professional education may not be credited to ward the completion of a teacher education degree and/or certificate program. However, course work over 10 years old may be reviewed by the appropriate certificate committee for possible credit toward the completion of a teacher education degree and/or certificate program.
9. A student has 6 years to complete a teacher education degree and/ or certificate program after full admission. After the 6-year period, a student must seek readmission to that program and meet the catalog requirements in effect at the time of readmission.
10. Students will be withdrawn from courses for failing to observe prerequisites and corequisites. Continued disregard of prerequisites and corequisites is grounds for dismissal from the college.

## Major Requirements

Students must maintain a minimum of 2.75 grade point average with no grade less than a C in the Professional Education and Specialized Education courses for graduation.

Certification: To be fully certified, students must pass Certification Examinations for Oklahoma Educators and apply for a license.

| Code | Title | Credit Hours |
| :---: | :---: | :---: |
| Professional Education (37 hours) |  |  |
| EIPT 3473 | Learning, Development, and Assessment for Teachers ${ }^{1}$ | 3 |
| EDSP 3053 | Understanding and Accommodating Exceptional Learners | 3 |
| EIPT 3043 | Learning with Educational Technologies | 3 |
| EDS 4003 | Schools in American Cultures ${ }^{1}$ | 3 |
| EIPT 3483 | Motivation and Classroom Management for Teachers | 3 |
| EDWL 4323 | Foundations and Practice for Bi / Multilingual Learners PK-12 | 3 |
| EDSC 4513 | Teaching Science in Secondary Schools | 3 |
| EDSC 4533 | Advanced Methods in Science Teaching ${ }^{1}$ | 3 |
| EDUC 4060 | Teaching Experiences in the Secondary School ${ }^{1,2}$ | 10 |
| ILAC 4243 | Student Teaching Seminar ${ }^{2}$ | 3 |


| Specialized Education (43 hours) |  |  |
| :---: | :---: | :---: |
| Biological Science - Satisfied under Gen Ed |  |  |
| Chemistry |  |  |
| Choose one of the following: |  | 5-10 |
| CHEM 1315 \& CHEM 1415 | General Chemistry and General Chemistry (Continued) ${ }^{3}$ |  |
| CHEM 1425 | Advanced General Chemistry (HONORS) ${ }^{3}$ |  |
| CHEM 3005 | Quantitative Analysis | 5 |
| CHEM 3053 | Organic Chemistry I: Biological Emphasis | 3 |
| CHEM 3152 | Organic Chemistry Laboratory: Biological Emphasis | 2 |
| CHEM 3153 | Organic Chemistry II: Biological Emphasis | 3 |
| CHEM 3653 | Introduction to Biochemistry | 3 |
| CHEM 4023 | Instrumental Methods of Chemical Analysis | 3 |
| CHEM 4333 | Advanced Inorganic Chemistry-Periodic System | 3 |
| Physics |  |  |
| Choose one of the following: |  | 8 |
| PHYS 2414 <br> \& PHYS 2424 | General Physics for Life Science Oriented Majors and General Physics for Life Science Oriented Majors ${ }^{3}$ |  |
| PHYS 2524 <br> \& PHYS 2514 | General Physics for Engineering and Science Majors and General Physics for Engineering and Science Majors |  |
| Earth \& Space Science - Satisfied under Gen Ed |  |  |
| Electives |  |  |
| Choose 3-8 hours from the following: |  | 3-8 |
| CHEM 3421 | Physical Chemistry Laboratory |  |
| CHEM 3423 | Physical Chemistry I |  |
| CHEM 3521 | Physical Chemistry Laboratory |  |
| CHEM 3523 | Physical Chemistry II |  |
| CHEM 3753 | Introduction to Biochemical Methods |  |
| CHEM 4033 | Instrumental Methods of Chemical Analysis Laboratory |  |

## Total Credit Hours

80
${ }^{1}$ These courses require field experience.
${ }^{2}$ These courses are taken together in the final semester
${ }^{3}$ These 14 hours along with the 41 hours listed in General Education comprise the 55 hours required for Liberal Arts \& Sciences.

## General Education and College Requirements

Courses taken to fulfill the University General Education Requirements must be chosen from the approved General Education course list published in the Class Schedule or at http://www.ou.edu/gened/courses. The following courses meet minimum University, College, and State General Education Requirements.

\section*{UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS <br> | Code | Title | Credit |
| :--- | :--- | :--- |
|  | Hours |  |}

Core Area I: Symbolic and Oral Communication
Communication Skills (9 hours)

| ENGL 1113 | Principles of English Composition (Core I- | 3 |
| :---: | :--- | ---: |
| ENGL 1213 | EN1) | Principles of English Composition (Core I- |
|  | EN2) | 3 |
| or EXPO 1213 | Expository Writing |  |
| COMM 1113 | Principles of Communication (Core I) | 3 |

or COMM 2613 Public Speaking
Language (0-10 hours) 0-10
University-Wide General Education Requirement: Choose two college-level courses in a single language; may be satisfied by successful completion of 2 years in a single language in high school (Core I)
Oklahoma State Regents for Higher Education Requirement: Teacher candidates must demonstrate conversational skills at a novice-high level in a language other than English OR demonstrate the knowledge and skills necessary to address the needs of Emergent Bilingual (English Learner) students in the P -12 classroom and are proficient in the strategies required for successful delivery of P - 12 instruction in that area ${ }^{1}$
Mathematics (6 hours)

| MATH 1523 | Precalculus and Trigonometry (or higher) <br> (Core I-MATH)) | 3 |
| :--- | :--- | :--- |
| MATH 1823 | Calculus and Analytic Geometry I (or higher <br> (Core I-MATH)) | 3 |


| Core Area II: Natural Science (8 hours) |  |  |
| :--- | :--- | :--- |
| BIOL 1124 | Intro Biol: Molecule/Cell/Phys (Core II-NSL) | 4 |
| GEOL 2014 | The Earth System (Core II-NSL) | 4 |

Core Area III: Social Science (6 hours)

| P SC 1113 | American Federal Government (Core III- <br> PSC) | 3 |
| :--- | :--- | :--- |
| GEOG 3253 | Environmental Conservation (Core III-SS) | 3 |

Core Area IV: Arts and Humanities ( 12 hours)
HIST 1483 United States to 1865 (Core IV-HIST) 3
or HIST 1493 United States, 1865 to the Present
HSTM 3013 History of Science to the Age of Newton 3 (Core IV-WC)
or HSTM 3023 History of Science Since the Seventeenth Century
Choose one course from Core IV-Artistic Forms 3
Choose one of the following (Core IV-WDC): 3
HSTM 3313 Science and Technology in Asian History
HSTM 3453 Science and Civilization in Islam
HSTM 3483 Technology, Politics, and International Development

| Core Area V: First Year Experience (3 hours) |
| :--- |
| Choose one course (Core V-FYE) |

Total Credit Hours 44-54

1 The novice-high level language requirement may be satisfied by classical, modern, Native or American Sign Language. Courses that
demonstrate knowledge and skills necessary to address the needs of Emergent Bilingual students are determined by the College of Education.

The 44 hours above, along with CHEM 1315, CHEM 1415, (or CHEM 1425), and one or both Physics courses (11 hours, total) in the Specialized Education requirements, comprise the 55 required Liberal Arts hours.

## Certification and Degree Requirements

Field Experiences: Transfer students without appropriate field experiences may be required to enroll in EDUC 2400.
Pass/No Pass Enrollment: Only general education electives may be taken under the pass/no pass option.
Residence Requirements: Students must complete either the last 30 hours or 45 of the last 60 hours after being fully admitted to a teacher education program to satisfy this requirement.
Requirements to be Completed to be Eligible for Student Teaching Internship: Students must be in good standing and have completed all baccalaureate degree requirements with the exception of the appropriate internship course itself and the courses taken with it in the final semester per their major requirements.
Junior College Transfer Students: Students transferring from a junior college may use the transferred credit to meet certain lower-division course requirements only; that is, freshman and sophomore-level courses.
Degree Completion Responsibility: Although the Dean's Office checks each student's records, the responsibility for meeting degree requirements lies with the student and not with the advisor or the Dean. Each student should obtain a copy of his or her requirements for graduation and check it regularly as he or she completes his or her degree program.
Graduation Application: The final step to be completed by the student before graduation is the filing of an official Application for Graduation. The Application for Graduation should be filled out online by May 1 for fall graduation, December 1 for spring graduation, and March 1 for summer graduation. The student's degree will not be conferred, nor any completion statement entered on their transcript, until the required application is filed.

## Admission \& Retention Requirements

It is the responsibility of the student to read and be familiar with the requirements for Admission to, and Retention in, the Jeannine Rainbolt College of Education. The current Admission and Retention policies can be found in the college's overview page in the OU General Catalog, under the Undergraduate tab here: http://ou-public.courseleaf.com/rainbolt-education/\#undergraduatetext.

## Suggested Semester Plan of Study

This plan shows one possible grouping of courses that would allow students to graduate in four years. Please refer to the front of the degree checksheet for official requirements. Students must consult with College of Education academic advisors to verify that courses selected each semester fulfill the recommended plan and satisfy university, College of Education, and major requirements.

## Freshman

First Semester
Credit Hours

| MATH 1523 | Precalculus and Trigonometry (Core IMATH) | 3 |
| :---: | :---: | :---: |
| HIST 1483 or HIST 1493 | United States to 1865 (Core IV-HIST) or United States, 1865 to the Present | 3 |
| BIOL 1124 | Intro Biol: Molecule/Cell/Phys (Core II-NSL) | 4 |
| First Year Experi | (Core V-FYE) | 3 |
|  | Credit Hours | 16 |
| Second Semester |  |  |
| ENGL 1213 or EXPO 1213 | Principles of English Composition (Core IEN2) <br> or Expository Writing | 3 |
| MATH 1823 | Calculus and Analytic Geometry I (or higher, Core I-MATH) | 3 |
| P SC 1113 | American Federal Government (Core IIIPSC) | 3 |
| GEOL 2014 | The Earth System (Core II-NSL) | 4 |
| CHEM 1315 | General Chemistry | 5 |
|  | Credit Hours | 18 |

## Sophomore

## First Semester

EIPT 3473 Learning, Development, and Assessment 3
for Teachers
Artistic Forms (Core IV-Artistic Forms) 3
CHEM 1415 General Chemistry (Continued) 5
COMM 1113 Principles of Communication (Core I) 3
or COMM 2613 or Public Speaking
Credit Hours 14

## Second Semester

| EDSP 3053 | Understanding and Accommodating <br> Exceptional Learners | 3 |
| :--- | :--- | ---: |
| EDSC 4513 | Teaching Science in Secondary Schools | 3 |
| PHYS 2414 | General Physics for Life Science Oriented <br> or PHYS 2514 | Majors <br> or General Physics for Engineering and <br> Science Majors |
| CHEM 3005 | Quantitative Analysis | 5 |
|  | Credit Hours | $\mathbf{1 5}$ |

Junior
First Semester
EDS 4003 Schools in American Cultures 3
HSTM 3013 History of Science to the Age of Newton 3
or HSTM 3023 (Core IV-WC)
or History of Science Since the
Seventeenth Century
PHYS 2424 General Physics for Life Science Oriented 4
or PHYS 2524 Majors
or General Physics for Engineering and
Science Majors

| CHEM 3053 | Organic Chemistry I: Biological Emphasis | 3 |
| :--- | :--- | :--- |
| CHEM 3152 | Organic Chemistry Laboratory: Biological | 2 |

Emphasis
CHEM 4023 Instrumental Methods of Chemical 3
Analysis

| Second Semester |  |  |
| :---: | :---: | :---: |
| EIPT 3043 | Learning with Educational Technologies | 3 |
| GEOG 3253 | Environmental Conservation (Core III-SS) | 3 |
| CHEM 3153 | Organic Chemistry II: Biological Emphasis | 3 |
| CHEM 3653 | Introduction to Biochemistry | 3 |
| CHEM Elective |  | 3 |
|  | Credit Hours | 15 |
| Senior |  |  |
| First Semester |  |  |
| EDSC 4533 | Advanced Methods in Science Teaching | 3 |
| EIPT 3483 | Motivation and Classroom Management for Teachers | 3 |
| EDWL 4323 | Foundations and Practice for $\mathrm{Bi} /$ Multilingual Learners PK-12 | 3 |
| CHEM 4333 | Advanced Inorganic Chemistry-Periodic System | 3 |
| Choose one of the following (Core IV, WDC): |  | 3 |
| HSTM 3313 | Science and Technology in Asian History |  |
| HSTM 3453 | Science and Civilization in Islam |  |
| HSTM 3483 | Technology, Politics, and International Development |  |
|  | Credit Hours | 15 |
| Second Semester |  |  |
| EDUC 4060 | Teaching Experiences in the Secondary School | 10 |
| ILAC 4243 | Student Teaching Seminar | 3 |
|  | Credit Hours | 13 |
|  | Total Credit Hours | 124 |

## Science Education: Earth Science, B.S.

Minimum Total Credit Hours: 124
Minimum Upper-Division Hours: 40

Overall GPA - Combined and OU: 2.75
Major GPA - Combined and OU: 2.75
Program Code: B832

## Admission and Retention Requirements

Admission Requirements-Jeannine Rainbolt College of Education Students are eligible for admission to the Jeannine Rainbolt College of Education with:

1. a minimum of 24 semester hours earned from an accredited institution of higher learning;
2. a minimum of $\mathbf{2 . 7 5}$ combined retention grade point average on all coursework attempted;
3. a declared major in education.

## Full Admission Requirements-Teacher Education and Professional Studies Programs <br> Students are eligible for admission to Teacher Education with:

1. a minimum of 30 semester hours from an accredited institution of higher learning to include the following 24 hours as defined by the Oklahoma State Regents for Higher Education with a grade of C or better. English (Composition and Literature)-6 hours; MATH, Gen. Ed.

Core I-3 hours; American History-3 hours; American Government-3 hours; Humanities to include Artistic Forms, Western Civilization, Non-Western Culture, World Language, or other advisor-approved Gen. Ed. course -3 hours; Social and Behavioral Sciences-3 hours; Natural Sciences-3 hours.
2. a minimum of $\mathbf{2 . 7 5}$ grade point average (OU retention and combined retention) on all coursework attempted;
3. Meet one of the six performance criteria listed by Oklahoma State Regents for Higher Education (OSRHE) that students may use to qualify for admission into an Oklahoma teacher education program. Speak with your Education Advisor for more details.

Admission to a teaching program requires submission of an application,essay, background check,and an interview with the admission committee prior to enrollment in the first education course.

## Retention Requirements-Jeannine Rainbolt College of Education

1. When a student accepts an offer of admission into a JRCoE department or program, they commit to comply with all its regulations, including those regarding professional conduct and dispositions that are contained in the JRCoE Professional Behavior Policy.
2. Students must maintain a minimum $\mathbf{2 . 7 5}$ grade point average (OU retention and combined retention) in all undergraduate coursework and a minimum 3.00 grade point average in all graduate coursework attempted.
3. Students must maintain a minimum of 2.75 undergraduate grade point average in both professional education courses and in specialized education courses with no grade less than a C and must maintain a minimum of 3.00 grade point average in graduate professional and specialized education courses, with no grade less than a B.
4. Students must earn a C or better in COMM 1113 or COMM 2613.
5. Students whose OU retention or combined retention grade point averages at the undergraduate level fall below 2.75 will be subject to dismissal from the college. At the graduate level, students must meet Graduate College requirements.
6. Students who have not earned OU retention and combined retention grade point averages of 2.75 after the completion of 60 semester hours will be dismissed from the college.
7. Because one college level math course is a requirement for full admission into both the college and the teacher preparation program, declared Education majors must complete at least one college-level Math within the first four semesters of enrollment at OU. Transfer students who have not completed a college level Math course will have two semesters to complete the requirement. Students who fail to meet the requirement within the time limits specified will be subject to dismissal from the college.
8. Course work more than 10 years old in the teaching specialization and professional education may not be credited to ward the completion of a teacher education degree and/or certificate program. However, course work over 10 years old may be reviewed by the appropriate certificate committee for possible credit toward the completion of a teacher education degree and/or certificate program.
9. A student has 6 years to complete a teacher education degree and/ or certificate program after full admission. After the 6-year period, a student must seek readmission to that program and meet the catalog requirements in effect at the time of readmission.
10. Students will be withdrawn from courses for failing to observe prerequisites and corequisites. Continued disregard of prerequisites and corequisites is grounds for dismissal from the college.

## Major Requirements

- Students must maintain a minimum of 2.75 grade point average with no grade less than a C in the Professional Education and Specialized Education courses for graduation.

Certification: To be fully certified, students must pass Certification Examinations for Oklahoma Educators and apply for a license.

| Code | Title | Credit Hours |
| :---: | :---: | :---: |
| Professional Education (37 hours) |  |  |
| EIPT 3473 | Learning, Development, and Assessment for Teachers ${ }^{1}$ | 3 |
| EDSP 3053 | Understanding and Accommodating Exceptional Learners | 3 |
| EIPT 3043 | Learning with Educational Technologies | 3 |
| EDS 4003 | Schools in American Cultures ${ }^{1}$ | 3 |
| EIPT 3483 | Motivation and Classroom Management for Teachers | 3 |
| EDWL 4323 | Foundations and Practice for $\mathrm{Bi} /$ Multilingual Learners PK-12 | 3 |
| EDSC 4513 | Teaching Science in Secondary Schools | 3 |
| EDSC 4533 | Advanced Methods in Science Teaching ${ }^{1}$ | 3 |
| EDUC 4060 | Teaching Experiences in the Secondary School ${ }^{1,2}$ | 10 |
| ILAC 4243 | Student Teaching Seminar ${ }^{2}$ | 3 |

## Specialized Education (43 hours)

Biological Science - Satisfied under Gen Ed
Chemistry
CHEM 1315 General Chemistry 10
\& CHEM 1415 and General Chemistry (Continued) ${ }^{3}$
Physics
Choose one of the following 10 hour Physics tracks: 10

PHYS 1205 Introductory Physics I for Physics Majors
\& PHYS 1215 and Introductory Physics II for Physics
Majors
OR
PHYS 2514 General Physics for Engineering and
\& PHYS 1311 Science Majors and General Physics Lab I
PHYS 2524 General Physics for Engineering and \& PHYS 1321 Science Majors
and General Physics Lab II

## Earth \& Space Science

| ASTR 1514 | Astronomy: Exploring the Universe with <br> Laboratory ${ }^{3}$ | 4 |
| :--- | :--- | ---: |
| GEOL 1024 | The History of the Earth and Life ${ }^{3}$ |  |


| METR/GEOL | 3 |  |
| :--- | :--- | :--- |
| 4533 | Earth's Past Climate |  |
| Science Electives |  |  |
| If additional hours are needed to meet the 124 total hours, |  |  |
| choices include: |  |  |
| ASTR 1523 | Life in the Universe |  |
| ASTR 2513 | Introductory Astrophysics |  |
| GEOL 3633 | Introduction to Oceanography |  |
| GIS 2023 | Introduction to Spatial Thinking and <br> Computer Mapping |  |
| GIS 4133 | Fundamentals of Remote Sensing |  |

## Total Credit Hours

${ }^{1}$ These courses require field experience.
${ }^{2}$ These courses are taken together in the final semester.
${ }^{3}$ These 14 hours along with the 41 hours listed in General Education comprise the 55 hours required for Liberal Arts \& Sciences.

## General Education and College Requirements

Courses taken to fulfill the University General Education Requirements must be chosen from the approved General Education course list published in the Class Schedule or at http://www.ou.edu/gened/courses. The following courses meet minimum University, College, and State General Education Requirements.

UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS
Code Title Credit

Core Area I: Symbolic and Oral Communication
Communication Skills (9 hours)

| ENGL 1113 | Principles of English Composition (Core I- | 3 |
| :--- | :--- | ---: |
|  | EN1) |  |

or EXPO 1213 Expository Writing
COMM 1113 Principles of Communication (Core I) 3
or COMM 2613 Public Speaking
Language (0-10 hours)$0-10$

University-Wide General Education Requirement: Choose two college-level courses in a single language; may be satisfied by successful completion of 2 years in a single language in high school (Core I)
Oklahoma State Regents for Higher Education Requirement: Teacher candidates must demonstrate conversational skills at a novice-high level in a language other than English OR demonstrate the knowledge and skills necessary to address the needs of Emergent Bilingual (English Learner) students in the P-12 classroom and are proficient in the strategies required for successful delivery of $\mathrm{P}-12$ instruction in that area ${ }^{1}$
Mathematics (6 hours)

| MATH 1823 | Calculus and Analytic Geometry I (or <br> higher; Core I-MATH) | 3 |
| :--- | :--- | :--- |
| MATH 2423 | Calculus and Analytic Geometry II (or <br> higher, Core I-MATH) | 3 |


Total Credit Hours 44-54

1 The novice-high level language requirement may be satisfied by classical, modern, Native or American Sign Language. Courses that demonstrate knowledge and skills necessary to address the needs of Emergent Bilingual students are determined by the College of Education.

The 44 above hours, along
with CHEM 1315, CHEM 1415, ASTR 1514, GEOL 1024, and METR 2603 (11 hours needed, total) in the Specialized Education requirements, comprise the 55 required Liberal Arts hours.

## Certification and Degree Requirements

Field Experiences: Transfer students without appropriate field experiences may be required to enroll in EDUC 2400.
Pass/No Pass Enrollment: Only general education electives may be taken under the pass/no pass option.
Residence Requirements: Students must complete either the last 30 hours or 45 of the last 60 hours after being fully admitted to a teacher education program to satisfy this requirement.
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Junior College Transfer Students: Students transferring from a junior college may use the transferred credit to meet certain lower-division course requirements only; that is, freshman and sophomore-level courses.
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for graduation and check it regularly as he or she completes his or her degree program.
Graduation Application: The final step to be completed by the student before graduation is the filing of an official Application for Graduation. The Application for Graduation should be filled out online by May 1 for fall graduation, December 1 for spring graduation, and March 1 for summer graduation. The student's degree will not be conferred, nor any completion statement entered on their transcript, until the required application is filed.

## Admission \& Retention Requirements

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## Suggested Semester Plan of Study

This plan shows one possible grouping of courses that would allow students to graduate in four years. Please refer to the front of the degree checksheet for official requirements. Students must consult with College of Education academic advisors to verify that courses selected each semester fulfill the recommended plan and satisfy university, College of Education, and major requirements.

## Freshman

| First Semester |  | Credit |
| :---: | :---: | :---: |
|  |  | Hours |
| ENGL 1113 | Principles of English Composition (Core IEN1) | 3 |
| MATH 1823 | Calculus and Analytic Geometry I (or higher) (Core I-MATH) | 3 |
| HIST 1483 or HIST 1493 | United States to 1865 (Core IV-HIST) or United States, 1865 to the Present | 3 |
| BIOL 1124 | Intro Biol: Molecule/Cell/Phys (Core II-NSL) | 4 |
| First Year Experience (Core V-FYE) |  | 3 |
|  | Credit Hours | 16 |
| Second Semester |  |  |
| $\begin{aligned} & \text { ENGL } 1213 \\ & \text { or EXPO } 1213 \end{aligned}$ | Principles of English Composition (Core IEN2) <br> or Expository Writing | 3 |
| MATH 2423 | Calculus and Analytic Geometry II (or higher, Core I-MATH) | 3 |
| P SC 1113 | American Federal Government (Core IIIPSC) | 3 |
| GEOL 1024 | The History of the Earth and Life | 4 |
| GEOL 2014 | The Earth System (Core II-NSL) | 4 |
|  | Credit Hours | 17 |
| Sophomore |  |  |
| First Semester |  |  |
| EIPT 3473 | Learning, Development, and Assessment for Teachers | 3 |
| Understanding Ar | tistic Forms (Core IV-Artistic Forms) | 3 |
| METR 1014 | Introduction to Weather and Climate | 4 |
| CHEM 1315 | General Chemistry | 5 |


| COMM 1113 or COMM 2613 | Principles of Communication (Core I) or Public Speaking | 3 |
| :---: | :---: | :---: |
|  | Credit Hours | 18 |
| Second Semester |  |  |
| EDSP 3053 | Understanding and Accommodating Exceptional Learners | 3 |
| EDSC 4513 | Teaching Science in Secondary Schools | 3 |
| CHEM 1415 | General Chemistry (Continued) | 5 |
| GEOL 1114 | Physical Geology for Science and Engineering Majors | 4 |
|  | Credit Hours | 15 |
| Junior |  |  |
| First Semester |  |  |
| EDS 4003 | Schools in American Cultures | 3 |
| HSTM 3013 or HSTM 3023 | History of Science to the Age of Newton (Core IV-WC) <br> or History of Science Since the Seventeenth Century | 3 |
| Choose one of the following: |  | 5 |
| PHYS 1205 | Introductory Physics I for Physics Majors |  |
| PHYS 2514 <br> \& PHYS 1311 | General Physics for Engineering and Science Majors and General Physics Lab I |  |
| ASTR 1514 | Astronomy: Exploring the Universe with Laboratory | 4 |
|  | Credit Hours | 15 |
| Second Semester |  |  |
| EIPT 3043 | Learning with Educational Technologies | 3 |
| GEOG 3253 | Environmental Conservation (Core III-SS) | 3 |
| Choose one of the following: |  | 5 |
| PHYS 1215 | Introductory Physics II for Physics Majors |  |
| PHYS 2524 <br> \& PHYS 1321 | General Physics for Engineering and Science Majors and General Physics Lab II |  |
| METR 2603 | Severe and Unusual Weather | 3 |
| Science Elective from approved list |  | 1 |
|  | Credit Hours | 15 |
| Senior |  |  |
| First Semester |  |  |
| EDSC 4533 | Advanced Methods in Science Teaching | 3 |
| EIPT 3483 | Motivation and Classroom Management for Teachers | 3 |
| EDWL 4323 | Foundations and Practice for Bi / Multilingual Learners PK-12 | 3 |
| $\begin{aligned} & \text { GEOL } 4533 \\ & \quad \text { or METR } 4533 \end{aligned}$ | Earth's Past Climate or Earth's Past Climate | 3 |
| Choose one of the following (Core IV-WDC): |  | 3 |
| HSTM 3313 | Science and Technology in Asian History |  |
| HSTM 3453 | Science and Civilization in Islam |  |
| HSTM 3483 | Technology, Politics, and International Development |  |
|  | Credit Hours | 15 |

Junior

Second Semester5

1. a minimum of 30 semester hours from an accredited institution of higher learning to include the following 24 hours as defined by the Oklahoma State Regents for Higher Education with a grade of C or better: English (Composition and Literature)-6 hours; MATH, Gen. Ed. Core I-3 hours; American History-3 hours; American Government-3 hours; Humanities to include Artistic Forms, Western Civilization, Non-Western Culture, World Language, or other advisor-approved Gen. Ed. course -3 hours; Social and Behavioral Sciences-3 hours; Natural Sciences-3 hours.
2. a minimum of $\mathbf{2 . 7 5}$ grade point average (OU retention and combined retention) on all coursework attempted;
3. Meet one of the six performance criteria listed by Oklahoma State Regents for Higher Education (OSRHE) that students may use to qualify for admission into an Oklahoma teacher education program. Speak with your Education Advisor for more details.

Admission to a teaching program requires submission of an application,essay, background check,and an interview with the admission committee prior to enrollment in the first education course.

## Retention Requirements-Jeannine Rainbolt College of Education

1. When a student accepts an offer of admission into a JRCoE department or program, they commit to comply with all its regulations, including those regarding professional conduct and dispositions that are contained in the JRCoE Professional Behavior Policy.
2. Students must maintain a minimum $\mathbf{2 . 7 5}$ grade point average (OU retention and combined retention) in all undergraduate coursework
and a minimum 3.00 grade point average in all graduate coursework attempted.
3. Students must maintain a minimum of 2.75 undergraduate grade point average in both professional education courses and in specialized education courses with no grade less than a $\mathbf{C}$ and must maintain a minimum of 3.00 grade point average in graduate professional and specialized education courses, with no grade less than a B.
4. Students must earn a C or better in COMM 1113 or COMM 2613.
5. Students whose OU retention or combined retention grade point averages at the undergraduate level fall below 2.75 will be subject to dismissal from the college. At the graduate level, students must meet Graduate College requirements.
6. Students who have not earned OU retention and combined retention grade point averages of $\mathbf{2 . 7 5}$ after the completion of 60 semester hours will be dismissed from the college.
7. Because one college level math course is a requirement for full admission into both the college and the teacher preparation program, declared Education majors must complete at least one college-level Math within the first four semesters of enrollment at OU. Transfer students who have not completed a college level Math course will have two semesters to complete the requirement. Students who fail to meet the requirement within the time limits specified will be subject to dismissal from the college.
8. Course work more than 10 years old in the teaching specialization and professional education may not be credited to ward the completion of a teacher education degree and/or certificate program. However, course work over 10 years old may be reviewed by the appropriate certificate committee for possible credit toward the completion of a teacher education degree and/or certificate program.
9. A student has 6 years to complete a teacher education degree and/ or certificate program after full admission. After the 6- year period, a student must seek readmission to that program and meet the catalog requirements in effect at the time of readmission.
10. Students will be withdrawn from courses for failing to observe prerequisites and corequisites. Continued disregard of prerequisites and corequisites is grounds for dismissal from the college.

## Major Requirements

Students must maintain a minimum of 2.75 grade point average with no grade less than a C in the Professional Education and the Specialized Education courses for graduation.

Certification: To be fully certified, students must pass Certification Examinations for Oklahoma Educators and apply for a license.

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Professional Education (37 hours) |  |  |
| EIPT 3473 | Learning, Development, and Assessment <br> for Teachers 1 | 3 |
| EDSP 3053 | Understanding and Accommodating <br> Exceptional Learners | 3 |
| EIPT 3043 | Learning with Educational Technologies | 3 |
| EDWL 4323 | Foundations and Practice for Bi/ <br>  <br> EDS 4ultilingual Learners PK-12 | 3 |
| EIPT 3483 | Schools in American Cultures |  |
|  | Motivation and Classroom Management for | 3 |
|  | Teachers | 3 |


| EDSC 4513 | Teaching Science in Secondary Schools | 3 |
| :---: | :---: | :---: |
| EDSC 4533 | Advanced Methods in Science Teaching ${ }^{1}$ | 3 |
| EDUC 4060 | Teaching Experiences in the Secondary School ${ }^{1,2}$ | 10 |
| ILAC 4243 | Student Teaching Seminar ${ }^{2}$ | 3 |
| Specialized Education (43 hours) |  |  |
| Biological Science - Satisfied under Gen Ed |  |  |
| Chemistry |  |  |
| Chose one of the following: |  | 5-10 |
| CHEM 1315 <br> \& CHEM 1415 | General Chemistry and General Chemistry (Continued) |  |
| CHEM 1425 | Advanced General Chemistry (HONORS) |  |
| CHEM 3005 | Quantitative Analysis | 5 |
| CHEM 4333 | Advanced Inorganic Chemistry-Periodic System | 3 |
| Physics |  |  |
| PHYS 2414 | General Physics for Life Science Oriented Majors ${ }^{3}$ | 4 |
| PHYS 1311 | General Physics Lab I | 1 |
| PHYS 2424 | General Physics for Life Science Oriented Majors | 4 |
| PHYS 1321 | General Physics Lab II | 1 |
| Earth \& Space Sciences |  |  |
| ASTR 1504 or ASTR 1514 | Astronomy: Exploring the Universe ${ }^{3}$ <br> Astronomy: Exploring the Universe with Laboratory | \% 4 |
| GEOL 1003 | Volcanoes and Earthquakes ${ }^{3}$ | 3 |
| Electives |  |  |
| Choose 8-13 hour | s from the following list or adviser approved: 8-1 | 8-13 |
| ASTR 1523 | Life in the Universe |  |
| GEOL 1034 | Native Science and Earth Systems of North America |  |
| HSTM 2133 | Science and Popular Culture |  |
| METR 1014 | Introduction to Weather and Climate |  |
| PHYS 1453 | Musical Acoustics |  |

Total Credit Hours

1 These courses require field experience.
2 These courses are taken together in the final semester.
3 These 14 hours along with the 41 hours listed in General Education comprise the 55 hours required for Liberal Arts \& Sciences.

## General Education and College Requirements

Courses taken to fulfill the University General Education Requirements must be chosen from the approved General Education course list published in the Class Schedule or at http://www.ou.edu/gened/courses. The following courses meet minimum University, College, and State General Education Requirements.

## UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS

Code Title Credit

Core Area I: Symbolic and Oral Communication
Communication Skills (9 hours)

| ENGL 1113 | Principles of English Composition (Core IEN1) | 3 |
| :---: | :---: | :---: |
| ENGL 1213 or EXPO 1213 | Principles of English Composition (Core IEN2) <br> Expository Writing | 3 |
| COMM 1113 or COMM 261 | Principles of Communication (Core I) Public Speaking | 3 |
| Language (0-10 h |  | -10 |
| University-Wide General Education Requirement: Choose two college-level courses in a single language; may be satisfied by successful completion of 2 years in a single language in high school (Core I) |  |  |
| Oklahoma State Regents for Higher Education Requirement: Teacher candidates must demonstrate conversational skills at a novice-high level in a language other than English OR demonstrate the knowledge and skills necessary to address the needs of Emergent Bilingual (English Learner) students in the P -12 classroom and are proficient in the strategies required for successful delivery of P -12 instruction in that area ${ }^{1}$ |  |  |
| Mathematics (6 hours) |  |  |
| MATH 1523 | Precalculus and Trigonometry (or higher, Core I-MATH) | 3 |
| MATH 1823 | Calculus and Analytic Geometry I (or higher, Core I-MATH) | 3 |
| Core Area II: Natural Science (8 hours) |  |  |
| BIOL 1124 | Intro Biol: Molecule/Cell/Phys (Core II-NSL) | 4 |
| GEOL 2014 | The Earth System (Core II-NSL) | 4 |
| Core Area III: Social Science (6 hours) |  |  |
| P SC 1113 | American Federal Government (Core IIIPSC) | 3 |
| GEOG 3253 | Environmental Conservation (Core III-SS) | 3 |
| Core Area IV: Arts and Humanities (12 hours) |  |  |
| HIST 1483 or HIST 1493 | United States to 1865 (Core IV-HIST) United States, 1865 to the Present | 3 |
| HSTM 3013 | History of Science to the Age of Newton (Western Culture, Core IV-WC) | 3 |
| or HSTM 3023 | History of Science Since the Seventeenth C |  |
| Choose one course from Core IV-Artistic Forms (Core IV-AF) |  |  |
| Choose one of the following Core IV-World Culture courses (Core IV-WDC): |  |  |
| HSTM 3313 | Science and Technology in Asian History |  |
| HSTM 3453 | Science and Civilization in Islam |  |
| HSTM 3483 | Technology, Politics, and International Development |  |
| Core Area V: First Year Experience (3 hours) |  |  |
| Choose one course (Core V-FYE) 3 |  |  |
| Total Credit Hours 44-54 |  |  |
| ${ }^{1}$ The novice-high level language requirement may be satisfied by classical, modern, Native or American Sign Language. Courses that demonstrate knowledge and skills necessary to address the needs of Emergent Bilingual students are determined by the College of Education. |  |  |

3 The 44 hours above, along
with PHYS 2414, ASTR 1504 or ASTR 1514, GEOL 1003 and PHYS 2414 (11
hours needed) in the Specialized Education requirements, comprise the 55 required Liberal Arts hours.

## Certification and Degree Requirements

Field Experiences: Transfer students without appropriate field experiences may be required to enroll in EDUC 2400.
Pass/No Pass Enrollment: Only general education electives may be taken under the pass/no pass option.
Residence Requirements: Students must complete either the last 30 hours or 45 of the last 60 hours after being fully admitted to a teacher education program to satisfy this requirement.
Requirements to be Completed to be Eligible for Student Teaching Internship: Students must be in good standing and have completed all baccalaureate degree requirements with the exception of the appropriate internship course itself and the courses taken with it in the final semester per their major requirements.
Junior College Transfer Students: Students transferring from a junior college may use the transferred credit to meet certain lower-division course requirements only; that is, freshman and sophomore-level courses.
Degree Completion Responsibility: Although the Dean's Office checks each student's records, the responsibility for meeting degree requirements lies with the student and not with the advisor or the Dean. Each student should obtain a copy of his or her requirements for graduation and check it regularly as he or she completes his or her degree program.
Graduation Application: The final step to be completed by the student before graduation is the filing of an official Application for Graduation. The Application for Graduation should be filled out online by May 1 for fall graduation, December 1 for spring graduation, and March 1 for summer graduation. The student's degree will not be conferred, nor any completion statement entered on their transcript, until the required application is filed.

## Admission \& Retention Requirements

It is the responsibility of the student to read and be familiar with the requirements for Admission to, and Retention in, the Jeannine Rainbolt College of Education. The current Admission and Retention policies can be found in the college's overview page in the OU General Catalog, under the Undergraduate tab here: http://ou-public.courseleaf.com/rainbolt-education/\#undergraduatetext.

## Suggested Semester Plan of Study

This plan shows one possible grouping of courses that would allow students to graduate in four years. Please refer to the front of the degree checksheet for official requirements. Students must consult with College of Education academic advisors to verify that courses selected each semester fulfill the recommended plan and satisfy university, College of Education, and major requirements.

## Freshman

First Semester Credit Hours
ENGL 1113 Principles of English Composition (Core I-
EN1)
MATH 1523 Precalculus and Trigonometry (Core I- 3 MATH)

| HIST 1483 or HIST 1493 | United States to 1865 (Core IV-HIST) or United States, 1865 to the Present | 3 |
| :---: | :---: | :---: |
| BIOL 1124 | Intro Biol: Molecule/Cell/Phys (Core II-NSL) | 4 |
| First Year Experience (Core V-FYE) |  | 3 |
|  | Credit Hours | 16 |
| Second Semester |  |  |
| $\begin{aligned} & \text { ENGL } 1213 \\ & \text { or EXPO } 1213 \end{aligned}$ | Principles of English Composition (Core IEN2) <br> or Expository Writing | 3 |
| MATH 1823 | Calculus and Analytic Geometry I (or higher, Core I-MATH) | 3 |
| P SC 1113 | American Federal Government (Core IIIPSC) | 3 |
| GEOL 2014 | The Earth System (Core II-NSL) | 4 |
| CHEM 1315 | General Chemistry | 5 |
|  | Credit Hours | 18 |
| Sophomore |  |  |
| First Semester |  |  |
| EIPT 3473 | Learning, Development, and Assessment for Teachers | 3 |
| GEOL 1003 | Volcanoes and Earthquakes | 3 |
| Understanding Artistic Forms (Core IV-Artistic Forms) |  | 3 |
| COMM 1113 or COMM 2613 | Principles of Communication (Core I) or Public Speaking | 3 |
| CHEM 1415 | General Chemistry (Continued) | 5 |
|  | Credit Hours | 17 |
| Second Semester |  |  |
| EDSP 3053 | Understanding and Accommodating Exceptional Learners | 3 |
| EDSC 4513 | Teaching Science in Secondary Schools | 3 |
| PHYS 2414 | General Physics for Life Science Oriented Majors | 4 |
| PHYS 1311 | General Physics Lab I | 1 |
| CHEM 3005 | Quantitative Analysis | 5 |
|  | Credit Hours | 16 |
| Junior |  |  |
| First Semester |  |  |
| EDS 4003 | Schools in American Cultures | 3 |
| HSTM 3013 or HSTM 3023 | History of Science to the Age of Newton (Core IV-WC) <br> or History of Science Since the Seventeenth Century | 3 |
| PHYS 2424 | General Physics for Life Science Oriented Majors | 4 |
| PHYS 1321 | General Physics Lab II | 1 |
| ASTR 1504 or ASTR 1514 | Astronomy: Exploring the Universe or Astronomy: Exploring the Universe with Laboratory | 4 |


| Credit Hours |  | $\mathbf{1 5}$ |
| :--- | :--- | :---: |
| Second Semester |  |  |
| EIPT 3043 | Learning with Educational Technologies | 3 |
| GEOG 3253 | Environmental Conservation (Core III-SS) | 3 |
| Science Elective | 3 |  |
| Science Elective | 3 |  |


| Science Elective |  | 2 |
| :---: | :---: | :---: |
|  | Credit Hours | 14 |
| Senior |  |  |
| First Semester |  |  |
| EDSC 4533 | Advanced Methods in Science Teaching | 3 |
| EIPT 3483 | Motivation and Classroom Management for Teachers | 3 |
| EDWL 4323 | Foundations and Practice for Bi/ Multilingual Learners PK-12 | 3 |
| CHEM 4333 | Advanced Inorganic Chemistry-Periodic System | 3 |
| Choose one of the following (Core IV, WDC): |  | 3 |
| HSTM 3313 | Science and Technology in Asian History |  |
| HSTM 3453 | Science and Civilization in Islam |  |
| HSTM 3483 | Technology, Politics, and International Development |  |
|  | Credit Hours | 15 |
| Second Semester |  |  |
| EDUC 4060 | Teaching Experiences in the Secondary School | 10 |
| ILAC 4243 | Student Teaching Seminar | 3 |
|  | Credit Hours | 13 |
|  | Total Credit Hours | 124 |

## Science Education: Physics, B.S.

Minimum Total Credit Hours: 124
Minimum Upper-Division Hours: 40

Overall GPA - Combined and OU: 2.75
Major GPA - Combined and OU: 2.75
Program Code: B834

## Admission and Retention Requirements

Admission Requirements-Jeannine Rainbolt College of Education
Students are eligible for admission to the Jeannine Rainbolt College of Education with:

1. a minimum of 24 semester hours earned from an accredited institution of higher learning;
2. a minimum of $\mathbf{2 . 7 5}$ combined retention grade point average on all coursework attempted;
3. a declared major in education.

Full Admission Requirements-Teacher Education and Professional Studies Programs
Students are eligible for admission to Teacher Education with:

1. a minimum of 30 semester hours from an accredited institution of higher learning to include the following 24 hours as defined by the Oklahoma State Regents for Higher Education with a grade of C or better: English (Composition and Literature)-6 hours; MATH, Gen. Ed. Core I-3 hours; American History-3 hours; American Government-3 hours; Humanities to include Artistic Forms, Western Civilization, Non-Western Culture, World Language, or other advisor-approved Gen. Ed. course -3 hours; Social and Behavioral Sciences-3 hours; Natural Sciences-3 hours.
2. a minimum of $\mathbf{2 . 7 5}$ grade point average ( OU retention and combined retention) on all coursework attempted;
3. Meet one of the six performance criteria listed by Oklahoma State Regents for Higher Education (OSRHE) that students may use to qualify for admission into an Oklahoma teacher education program. Speak with your Education Advisor for more details.

Admission to a teaching program requires submission of an application,essay, background check,and an interview with the admission committee prior to enrollment in the first education course.

## Retention Requirements-Jeannine Rainbolt College of Education

1. When a student accepts an offer of admission into a JRCoE department or program, they commit to comply with all its regulations, including those regarding professional conduct and dispositions that are contained in the JRCoE Professional Behavior Policy.
2. Students must maintain a minimum $\mathbf{2 . 7 5}$ grade point average ( $O U$ retention and combined retention) in all undergraduate coursework and a minimum 3.00 grade point average in all graduate coursework attempted.
3. Students must maintain a minimum of 2.75 undergraduate grade point average in both professional education courses and in specialized education courses with no grade less than a C and must maintain a minimum of 3.00 grade point average in graduate professional and specialized education courses, with no grade less than a B.
4. Students must earn a $C$ or better in COMM 1113 or COMM 2613.
5. Students whose OU retention or combined retention grade point averages at the undergraduate level fall below 2.75 will be subject to dismissal from the college. At the graduate level, students must meet Graduate College requirements.
6. Students who have not earned OU retention and combined retention grade point averages of 2.75 after the completion of 60 semester hours will be dismissed from the college.
7. Because one college level math course is a requirement for full admission into both the college and the teacher preparation program, declared Education majors must complete at least one college-level Math within the first four semesters of enrollment at OU. Transfer students who have not completed a college level Math course will have two semesters to complete the requirement. Students who fail to meet the requirement within the time limits specified will be subject to dismissal from the college.
8. Course work more than 10 years old in the teaching specialization and professional education may not be credited to ward the completion of a teacher education degree and/or certificate program. However, course work over 10 years old may be reviewed by the appropriate certificate committee for possible credit toward the completion of a teacher education degree and/or certificate program.
9. A student has 6 years to complete a teacher education degree and/ or certificate program after full admission. After the 6-year period, a student must seek readmission to that program and meet the catalog requirements in effect at the time of readmission.
10. Students will be withdrawn from courses for failing to observe prerequisites and corequisites. Continued disregard of prerequisites and corequisites is grounds for dismissal from the college.

## Major Requirements

Students must maintain a minimum of 2.75 grade point average with no grade less than a C in the Professional and Specialized Education courses for graduation.

Certification: To be fully certified, students must pass Certification Examinations for Oklahoma Educators and apply for a license.

| Code | Title | Credit Hours |
| :---: | :---: | :---: |
| Professional Education (37 hours) |  |  |
| EIPT 3473 | Learning, Development, and Assessment for Teachers ${ }^{1}$ | 3 |
| EDSP 3053 | Understanding and Accommodating Exceptional Learners | 3 |
| EIPT 3043 | Learning with Educational Technologies | 3 |
| EDWL 4323 | Foundations and Practice for Bi/ Multilingual Learners PK-12 | 3 |
| EDS 4003 | Schools in American Cultures ${ }^{1}$ | 3 |
| EIPT 3483 | Motivation and Classroom Management for Teachers | 3 |
| EDSC 4513 | Teaching Science in Secondary Schools | 3 |
| EDSC 4533 | Advanced Methods in Science Teaching ${ }^{1}$ | 3 |
| EDUC 4060 | Teaching Experiences in the Secondary School ${ }^{1,2}$ | 10 |
| ILAC 4243 | Student Teaching Seminar ${ }^{2}$ | 3 |
| Specialized Education (43 hours) |  |  |
| Biological Science |  |  |
| Satisfied under Gen Ed |  |  |
| Chemistry |  |  |
| CHEM 1315 | General Chemistry ${ }^{3}$ | 5 |
| CHEM 1415 | General Chemistry (Continued) ${ }^{3}$ | 5 |
| Physics |  |  |
| Choose one of the following tracks: |  | 10 |
| Track 1: |  |  |
| PHYS 1205 <br> \& PHYS 1215 | Introductory Physics I for Physics Majors and Introductory Physics II for Physics Majors |  |
| Track 2: |  |  |
| PHYS 2514 <br> \& PHYS 1311 | General Physics for Engineering and Science Majors and General Physics Lab I |  |
| PHYS 2524 \& PHYS 1321 | General Physics for Engineering and Science Majors and General Physics Lab II |  |
| PHYS 2203 | Introductory Physics III: Modern Physics | 3 |
| Earth \& Space Science |  |  |
| ASTR 1504 | Astronomy: Exploring the Universe ${ }^{3}$ | 4 |
| or ASTR 1514 | Astronomy: Exploring the Universe with Labo |  |
| GEOL 1003 | Volcanoes and Earthquakes | 3 |
| Mathematics |  |  |
| MATH 2433 | Calculus and Analytic Geometry III (or higher) | 3 |
|  |  |  |


| Choose 10 hours from the Science electives list (p. 1173) |
| :--- |
| Total Credit Hours |
| 1 These courses require field experience. |
| 2 These courses are taken together in the final semester |
| 3 These 14 hours along with the 41 hours listed in General Education |
| comprise the 55 hours required for Liberal Arts \& Sciences. |

## Science Electives <br> Science Elective

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| ASTR 1523 | Life in the Universe | 3 |
| ASTR 2513 | Introductory Astrophysics | 3 |
| ASTR 3103 | Stars | 3 |
| GIS 2023 | Introduction to Spatial Thinking and |  |
|  | Computer Mapping | 3 |
| GIS 4013 | Fundamentals of Geographic Information | 3 |
|  | Systems |  |
| GIS 4133 | Fundamentals of Remote Sensing | 3 |
| HSCI - Upper Division and Advisor approval |  |  |
| MATH 2443 | Calculus and Analytic Geometry IV | 3 |
| MATH 3333 | Linear Algebra I | 3 |
| C S 1313 | Programming for Non-Majors with C | 3 |
| C S 1323 | Introduction to Computer Programming for | 3 |
|  | Programmers |  |
| METR 2013 | Introduction to Meteorology I | 3 |
| METR 2011 | Introduction to Meteorology I Laboratory | 1 |
| PHYS 1453 | Musical Acoustics | 3 |

## General Education and College Requirements

Courses taken to fulfill the University General Education Requirements must be chosen from the approved General Education course list published in the Class Schedule or at http://www.ou.edu/gened/courses. The following courses meet minimum University, College, and State General Education Requirements.

## UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Core Area I: Symbolic and Oral Communication |  |  |

1 These courses require field experience.
${ }^{2}$ These courses are taken together in the final semester
These 14 hours along with the 41 hours listed in General Education comprise the 55 hours required for Liberal Arts \& Sciences.

Oklahoma State Regents for Higher Education Requirement: Teacher candidates must demonstrate conversational skills at a novice-high level in a language other than English OR demonstrate the knowledge and skills necessary to address the needs of Emergent Bilingual (English Learner) students in the P -12 classroom and are proficient in the strategies required for successful delivery of $\mathrm{P}-12$ instruction in that area ${ }^{1}$
Mathematics (6 hours)

| MATH 1823 | Calculus and Analytic Geometry I (or higher, <br> Core I-MATH) | 3 |
| :--- | :--- | :--- |
| MATH 2423 | Calculus and Analytic Geometry II (or <br> higher, Core I-MATH) | 3 |

Core Area II: Natural Science (8 hours)
BIOL $1124 \quad$ Intro Biol: Molecule/Cell/Phys (Core II-NSL)
GEOL 2014 The Earth System (Core II-NSL) 4

Core Area III: Social Science (6 hours)
P SC 1113 American Federal Government (Core III- 3 PSC)
GEOG 3253 Environmental Conservation (Core III-SS) 3
Core Area IV: Arts and Humanities ( $\mathbf{1 2}$ hours)
HIST $1483 \quad$ United States to 1865 (Core IV-HIST) 3
or HIST 1493 United States, 1865 to the Present
HSTM 3013 History of Science to the Age of Newton 3
(Western Culture, Core IV-WC)
or HSTM 3023 History of Science Since the Seventeenth Century
Choose one course from Core IV-Artistic Forms (Core IV-AF) 3
Choose one of the following Core IV-World Culture courses 3
(Core IV-WDC):
HSTM 3313 Science and Technology in Asian History
HSTM 3453 Science and Civilization in Islam
HSTM 3483 Technology, Politics, and International Development
Core Area V: First Year Experience (3 hours)
Choose one course (Core V-FYE)
Total Credit Hours
${ }^{1}$ The novice-high level language requirement may be satisfied by classical, modern, Native or American Sign Language. Courses that demonstrate knowledge and skills necessary to address the needs of Emergent Bilingual students are determined by the College of Education.

The 44 hours above, along
with CHEM 1315, CHEM 1415 and ASTR 1504 or ASTR 1514 ( 11 hours needed) in the Specialized Education requirements, comprise the 55 required Liberal Arts hours.

## Certification and Degree Requirements

Field Experiences: Transfer students without appropriate field experiences may be required to enroll in EDUC 2400.
Pass/No Pass Enrollment: Only general education electives may be taken under the pass/no pass option.
Residence Requirements: Students must complete either the last 30 hours or 45 of the last 60 hours after being fully admitted to a teacher education program to satisfy this requirement.

Requirements to be Completed to be Eligible for Student Teaching Internship: Students must be in good standing and have completed all baccalaureate degree requirements with the exception of the appropriate internship course itself and the courses taken with it in the final semester per their major requirements.
Junior College Transfer Students: Students transferring from a junior college may use the transferred credit to meet certain lower-division course requirements only; that is, freshman and sophomore-level courses.
Degree Completion Responsibility: Although the Dean's Office checks each student's records, the responsibility for meeting degree requirements lies with the student and not with the advisor or the Dean. Each student should obtain a copy of his or her requirements for graduation and check it regularly as he or she completes his or her degree program.
Graduation Application: The final step to be completed by the student before graduation is the filing of an official Application for Graduation. The Application for Graduation should be filled out online by May 1 for fall graduation, December 1 for spring graduation, and March 1 for summer graduation. The student's degree will not be conferred, nor any completion statement entered on their transcript, until the required application is filed.

## Admission \& Retention Requirements

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## Suggested Semester Plan of Study

This plan shows one possible grouping of courses that would allow students to graduate in four years. Please refer to the front of the degree checksheet for official requirements. Students must consult with College of Education academic advisors to verify that courses selected each semester fulfill the recommended plan and satisfy university, College of Education, and major requirements.

## Freshman

First Semester Credit

| ENGL 1113 | Principles of English Composition (Core I- <br> EN1) | 3 |
| :--- | :--- | ---: |
| MATH 1823 | Calculus and Analytic Geometry I (or higher, <br> Core I-MATH) | 3 |
| HIST 1483 <br> or HIST 1493 | United States to 1865 (Core IV-HIST) <br> or United States, 1865 to the Present |  |
| BIOL 1124 | Intro Biol: Molecule/Cell/Phys (Core II-NSL) | 3 |
| First Year Experience (Core V-FYE) | 4 |  |
|  | Credit Hours | 3 |

## Second Semester

ENGL 1213 Principles of English Composition (Core I- 3
or EXPO 1213 EN2)
or Expository Writing
MATH 2423 Calculus and Analytic Geometry II (or 3
P SC 1113 American Federal Government (Core III- 3 PSC)

| GEOL 2014 | The Earth System (Core II-NSL) | 4 |
| :--- | :--- | ---: |
| GEOL 1003 | Volcanoes and Earthquakes | 3 |
|  | Credit Hours | $\mathbf{1 6}$ |

Sophomore
First Semester

| EIPT 3473 | Learning, Development, and Assessment <br> for Teachers | 3 |
| :--- | :--- | ---: |
| Artistic Forms (Core IV-Artistic Forms) <br> COMM 1113 <br> or COMM 2613 | Principles of Communication (Core I) <br> or Public Speaking |  |
| Choose one of the following: |  |  |
| PHYS 1205 | Introductory Physics I for Physics Majors |  |
| PHYS 2514 | General Physics for Engineering and <br> \& PHYS 1311 <br> Science Majors <br> and General Physics Lab I | 3 |
| MATH 2443 | Calculus and Analytic Geometry IV | 5 |
|  | Credit Hours | 3 |

## Second Semester

| EDSP 3053 | Understanding and Accommodating <br> Exceptional Learners | 3 |
| :--- | :--- | :--- |
| EDSC 4513 | Teaching Science in Secondary Schools | 3 |
| CHEM 1315 | General Chemistry | 5 |
| Choose one of the following: | 5 |  |


| PHYS 1215 | Introductory Physics II for Physics Majors |  |
| :--- | :--- | :--- |
| PHYS 2524 | General Physics for Engineering and |  |
| \& PHYS 1321 | Science Majors <br> and General Physics Lab II |  |
|  | Credit Hours | $\mathbf{1 6}$ |

Junior

| First Semester |  |  |
| :--- | :--- | ---: |
| EDS 4003 | Schools in American Cultures |  |
| HSTM 3013 | History of Science to the Age of Newton <br> or HSTM 3023 <br> (Core IV-WC) <br> or History of Science Since the <br> Seventeenth Century | 3 |
| ASTR 1504 | Astronomy: Exploring the Universe <br> or ASTR 1514 <br> or Astronomy: Exploring the Universe <br> with Laboratory | 4 |
| PHYS 2203 | Introductory Physics III: Modern Physics <br> CHEM 1415 | General Chemistry (Continued) |
|  | Credit Hours | 3 |

Second Semester
EIPT $3043 \quad 3$
GEOG 3253 Environmental Conservation (Core III-SS) 3
Science Elective 3
Science Elective 3

| Science Elective | 2 |
| :--- | :--- | ---: |
| Credit Hours | $\mathbf{1 4}$ |


| Senior <br> First Semester |  |  |
| :--- | :--- | :---: |
| EDSC 4533 | Advanced Methods in Science Teaching | 3 |
| EIPT 3483 | Motivation and Classroom Management for <br> Teachers | 3 |


| EDWL 4323 | Foundations and Practice for Bi/ <br> Multilingual Learners PK-12 | 3 |
| :--- | :--- | ---: |
| Science Elective | 2 |  |
| Choose one of the following (Core IV-WDC): |  |  |
| HSTM 3313 | Science and Technology in Asian History |  |
| HSTM 3453 | Science and Civilization in Islam |  |
| HSTM 3483 | Technology, Politics, and International <br> Development | 3 |
|  | Credit Hours | $\mathbf{1 4}$ |
| Second Semester | Teaching Experiences in the Secondary |  |
| EDUC 4060 | School | 10 |
|  | Student Teaching Seminar | $\mathbf{3}$ |
|  | Credit Hours | $\mathbf{1 3}$ |
|  | Total Credit Hours | $\mathbf{1 2 4}$ |

## Social Studies Education, B.S.

Minimum Total Credit Hours: 124<br>Minimum Upper-Division Hours: 40

Overall GPA - Combined and OU: 2.75
Major GPA - Combined and OU: 2.75
Program Code: B837

## Admission and Retention Requirements

## Admission Requirements-Jeannine Rainbolt College of Education

Students are eligible for admission to the Jeannine Rainbolt College of Education with:

1. a minimum of 24 semester hours earned from an accredited institution of higher learning;
2. a minimum of 2.75 combined retention grade point average on all coursework attempted;
3. a declared major in education.

Full Admission Requirements-Teacher Education and Professional Studies Programs
Students are eligible for admission to Teacher Education with:

1. a minimum of 30 semester hours from an accredited institution of higher learning to include the following 24 hours as defined by the Oklahoma State Regents for Higher Education with a grade of $C$ or better: English (Composition and Literature)-6 hours; MATH, Gen. Ed. Core I-3 hours; American History-3 hours; American Government-3 hours; Humanities to include Artistic Forms, Western Civilization, Non-Western Culture, World Language, or other advisor-approved Gen. Ed. course -3 hours; Social and Behavioral Sciences-3 hours; Natural Sciences-3 hours.
2. a minimum of $\mathbf{2 . 7 5}$ grade point average (OU retention and combined retention) on all coursework attempted;
3. Meet one of the six performance criteria listed by Oklahoma State Regents for Higher Education (OSRHE) that students may use to qualify for admission into an Oklahoma teacher education program. Speak with your Education Advisor for more details.

Admission to a teaching program requires submission of an application,essay, background check,and an interview with the admission committee prior to enrollment in the first education course.

## Retention Requirements-Jeannine Rainbolt College of Education

1. When a student accepts an offer of admission into a JRCoE department or program, they commit to comply with all its regulations, including those regarding professional conduct and dispositions that are contained in the JRCoE Professional Behavior Policy.
2. Students must maintain a minimum $\mathbf{2 . 7 5}$ grade point average (OU retention and combined retention) in all undergraduate coursework and a minimum 3.00 grade point average in all graduate coursework attempted.
3. Students must maintain a minimum of 2.75 undergraduate grade point average in both professional education courses and in specialized education courses with no grade less than a C and must maintain a minimum of 3.00 grade point average in graduate professional and specialized education courses, with no grade less than a B.
4. Students must earn a C or better in COMM 1113 or COMM 2613.
5. Students whose OU retention or combined retention grade point averages at the undergraduate level fall below 2.75 will be subject to dismissal from the college. At the graduate level, students must meet Graduate College requirements.
6. Students who have not earned OU retention and combined retention grade point averages of 2.75 after the completion of 60 semester hours will be dismissed from the college.
7. Because one college level math course is a requirement for full admission into both the college and the teacher preparation program, declared Education majors must complete at least one college-level Math within the first four semesters of enrollment at OU. Transfer students who have not completed a college level Math course will have two semesters to complete the requirement. Students who fail to meet the requirement within the time limits specified will be subject to dismissal from the college.
8. Course work more than 10 years old in the teaching specialization and professional education may not be credited to ward the completion of a teacher education degree and/or certificate program. However, course work over 10 years old may be reviewed by the appropriate certificate committee for possible credit toward the completion of a teacher education degree and/or certificate program.
9. A student has 6 years to complete a teacher education degree and/ or certificate program after full admission. After the 6- year period, a student must seek readmission to that program and meet the catalog requirements in effect at the time of readmission.
10. Students will be withdrawn from courses for failing to observe prerequisites and corequisites. Continued disregard of prerequisites and corequisites is grounds for dismissal from the college.

## Major Requirements

Students must maintain a minimum of 2.75 grade point average with no grade less than a C in the Professional Education and the Specialized Education courses for graduation.

Certification: To be fully certified, students must pass Certification Examinations for Oklahoma Educators and apply for a license.

| Code | Title | Credit Hours | P SC 3053 | Global Religion and American Foreign Policy | 3 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Professional Education (34 hours) |  |  | P SC 3143 | U.S. Congress | 3 |
| EIPT 3473 | Learning, Development, and Assessment for Teachers ${ }^{1}$ | 3 | P SC 3163 | The American Presidency | 3 |
|  |  |  | P SC 3213 | Law, Politics, and Society | 3 |
| EDSP 3053 | Understanding and Accommodating Exceptional Learners | 3 | P SC 3323 | State Government | 3 |
|  |  |  | P SC 3403 | Interest Groups and Social Movements | 3 |
| EIPT 3043 | Learning with Educational Technologies | 3 | P SC 3413 | American Political Parties | 3 |
| EDS 4003 | Schools in American Cultures ${ }^{1}$ | 3 | P SC 3433 | Voters and Campaigns | 3 |
| EIPT 3483 | Motivation and Classroom Management for Teachers | 3 | P SC 3443 | Mass Media and American Politics | 3 |
|  |  |  | P SC 3723 | Foundations of American Politics | 3 |
| EDSS 4553 | Foundations and Mentoring in Social Studies | 3 | P SC 3970 | Honors Seminar | 1-3 |
| EDSS 4563 | Teaching Secondary School Social Studies | 3 | P SC 4020 | Problems in American Government | 1-3 |
| ILAC 4243 | Student Teaching Seminar ${ }^{2}$ | 3 | General Education and College Requirements |  |  |
| EDUC 4060 | Teaching Experiences in the Secondary School ${ }^{1,2}$ | 10 | Courses taken to fulfill the University General Education Requirements must be chosen from the approved General Education course list |  |  |
| Specialized Education (45 hours) |  |  | published in the Class Schedule or at http://www.ou.edu/gened/courses. The following courses meet minimum University, College, and State General Education Requirements. |  |  |
| HIST 3393 | History of Oklahoma | 3 |  |  |  |
| HIST 1613 | Western Civilization I | 3 |  |  |  |
| HIST 1623 | Western Civilization II ${ }^{3}$ | 3 | UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS |  |  |
| Choose 3 hours of World History Electives ${ }^{4}$ |  | 3 |  |  |  |
| GEOG 1114 | Physical Geography (II-Lab) ${ }^{3}$ | 4 | Code | Title | Credit Hours |
| GEOG 2603 | World Regional Geography ${ }^{3}$ | 3 | Core Area I: | olic and Oral Communication |  |
| Choose two courses from the Political Science Electives list (p. 1176) ${ }^{4}$ |  | 6 | Communication Skills (9 hours) |  |  |
|  |  | 9 | ENGL 1113 | Principles of English Composition (Core I- | 3 |
| Choose 6 hours of Social Science Perspectives from one of the following areas: ${ }^{4}$ |  | 6 | ENGL 1213 | Principles of English Composition (Core I- EN2) | 3 |
| Economics |  |  | or EXPO 1213 Expository Writing |  |  |
| Sociology |  |  | COMM 1113 Principles of Communication (Core I) or COMM 2613 Public Speaking |  | 3 |
| Psychology |  |  |  |  | or COMM 2613 Public Speaking |
| Choose advisor-approved electives, if needed, to meet the minimum of 124 total hours |  |  | Language (0-10 hours) |  | University-Wide General Education Requirement: Choose two |
| Total Credit | require field experience. | 79 | college-level courses in a single language; may be satisfied by successful completion of 2 years in a single language in high school (Core I) |  |  |
| ${ }^{2}$ These cour <br> 3 These 10 h comprise t <br> 4 A minimum Science, A completed <br> Political | are taken together in the final semester. along with the 45 hours listed in General Edu 5 hours required for General Education. 12 hours taken from electives in World History, can History, or Social Science Perspectives mu he upper-division level. <br> ience Elective Course List | litical <br> be | Oklahoma State Regents for Higher Education Requirement Teacher candidates must demonstrate conversational skills at a novice-high level in a language other than English OR demonstrate the knowledge and skills necessary to address the needs of Emergent Bilingual (English Learner) students in the P -12 classroom and are proficient in the strategies required for successful delivery of $P-12$ instruction in that area ${ }^{1}$ |  |  |
| Code | Title | Credit <br> Hours | Mathematics (3 hours) |  |  |
|  |  |  | Choose one MATH course (Core I-MATH) |  | 3 |
| P SC 2103 | Politics in America | 3 | Core Area II: Natural Science (7 hours, including one laboratory course) |  |  |
| P SC 2503 | Global Politics | 3 | Choose one course in the biological sciences: BIOL, HES, MBIO, or PBIO (Core II-NS) |  | 3-5 |
| P SC 2603 | Governments Around the World | 3 |  |  |  |
| P SC 3020 | Problems in American Government and Politics | 1-3 | One course in the physical sciences is required (AGSC, ASTR, CHEM, GEOG, GEOL, GPHY, METR, or PHYS), which is satisfied by GEOG 1114 (Core II-NSL) in the Specialized Education section |  |  |
| P SC 3033 | Religion and Politics in America | 3 |  |  |  |  |


| Core Area III: Social Science (9 hours) |  |  |
| :---: | :---: | :---: |
| P SC 1113 | American Federal Government (Core IIIPSC) | 3 |
| SOC 1113 | Introduction to Sociology (Core III-SS) | 3 |
| ECON 1113 or ECON 1123 | Principles of Economics-Macro (Core III-SS) <br> Principles of Economics-Micro | 3 |
| Core Area IV: Arts and Humanities (18 hours) |  |  |
| HIST 1483 | United States to 1865 (Core IV-HIST) | 3 |
| HIST 1493 | United States, 1865 to the Present | 3 |
| GEOG 1103 | Human Geography (Core IV-WC ) | 3 |
| Artistic Forms: Choose one course from the General Education Approved List (Core IV-AF) |  |  |
| World Culture: Choose one course from the General Education Approved List (3000-level or above, and advisor approved (Core IV-WDC) |  |  |
| Choose a World Civilization Elective (advisor approved) |  |  |
| Core Area V: First Year Experience (3 hours) |  |  |
| Choose one course (Core V-FYE) |  | 3 |

## Total Credit Hours

1 The novice-high level language requirement may be satisfied by classical, modern, Native or American Sign Language. Courses that demonstrate knowledge and skills necessary to address the needs of Emergent Bilingual students are determined by the College of Education.

The 45 hours above, along with HIST 1623, GEOG 1114, GEOG 2603 (10 hours) in the Professional and Specialized Education requirements, comprise the 55 required Liberal Arts hours.

## Certification and Degree Requirements

Field Experiences: Transfer students without appropriate field experiences may be required to enroll in EDUC 2400.
Pass/No Pass Enrollment: Only general education electives may be taken under the pass/no pass option.
Residence Requirements: Students must complete either the last 30 hours or 45 of the last 60 hours after being fully admitted to a teacher education program to satisfy this requirement.
Requirements to be Completed to be Eligible for Student Teaching Internship: Students must be in good standing and have completed all baccalaureate degree requirements with the exception of the appropriate internship course itself and the courses taken with it in the final semester per their major requirements.
Junior College Transfer Students: Students transferring from a junior college may use the transferred credit to meet certain lower-division course requirements only; that is, freshman and sophomore-level courses.
Degree Completion Responsibility: Although the Dean's Office checks each student's records, the responsibility for meeting degree requirements lies with the student and not with the advisor or the Dean. Each student should obtain a copy of his or her requirements for graduation and check it regularly as he or she completes his or her degree program.
Graduation Application: The final step to be completed by the student before graduation is the filing of an official Application for Graduation. The Application for Graduation should be filled out online by May 1 for fall graduation, December 1 for spring graduation, and March 1 for summer graduation. The student's degree will not be conferred, nor
any completion statement entered on their transcript, until the required application is filed.

## Admission \& Retention Requirements

It is the responsibility of the student to read and be familiar with the requirements for Admission to, and Retention in, the Jeannine Rainbolt College of Education. The current Admission and Retention policies can be found in the college's overview page in the OU General Catalog, under the Undergraduate tab here: http://ou-public.courseleaf.com/rainbolt-education/\#undergraduatetext.

## Suggested Semester Plan of Study

This plan shows one possible grouping of courses that would allow students to graduate in four years. Please refer to the front of the degree checksheet for official requirements. Students must consult with College of Education academic advisors to verify that courses selected each semester fulfill the recommended plan and satisfy university, College of Education, and major requirements.

## Freshman

| First Semester |  | Credit <br> Hours |
| :--- | :--- | ---: |
| ENGL 1113 | Principles of English Composition (Core I- | 3 |
|  | EN1) | 3 |
| MATH (Core I-MATH) | 3 |  |
| HIST 1483 | United States to 1865 (Core IV-HIST) | 3 |
| P SC 1113 | American Federal Government (Core III- | 3 |
|  | PSC) |  |
| First Year Experience (Core V-FYE) | 3 |  |
| Credit Hours |  |  |

## Second Semester

| ENGL 1213 <br> or EXPO 1213 | Principles of English Composition (Core I- <br> EN2) <br> or Expository Writing | 3 |
| :--- | :--- | ---: |
| HIST 1493 | United States, 1865 to the Present (Core IV- <br> HIST) | 3 |
| SOC 1113 | Introduction to Sociology (Core III-SS) | 3 |
| Arts \& Humanities (Core IV-Artistic Forms) | 3 |  |
| Biological Sciences, one course in BIOL/HES/MBIO/PBIO | $3-5$ |  |

(Core II-NS)

## Credit Hours

## Sophomore

First Semester
ECON 1113 Principles of Economics-Macro (Core III-SS) 3
or ECON 1123
or Principles of Economics-Micro
GEOG 1114 Physical Geography (Core II-NSL) 4
HIST 1613 Western Civilization I 3

P SC Chosen from list 3
$P$ SC Chosen from list $\quad 3$

Credit Hours
16

## Second Semester

| EIPT 3473 | Learning, Development, and Assessment <br> for Teachers | 3 |
| :--- | :--- | :---: |
| EDSP 3053 | Understanding and Accommodating <br> Exceptional Learners | 3 |


| EDSS 4553 | Foundations and Mentoring in Social Studies | 3 |
| :---: | :---: | :---: |
| HIST 1623 | Western Civilization II | 3 |
| GEOG 1103 | Human Geography (Core IV-WC) | 3 |
|  | Credit Hours | 15 |
| Junior |  |  |
| First Semester |  |  |
| COMM 1113 or COMM 2613 | Principles of Communication (Core I) or Public Speaking | 3 |
| EDS 4003 | Schools in American Cultures | 3 |
| GEOG 2603 | World Regional Geography (Core IV-WC) | 3 |
| History Elective |  | 3 |
| Social Science Per | rspectives Elective-ECON/SOC/PSY | 3 |
|  | Credit Hours | 15 |
| Second Semester |  |  |
| EIPT 3043 | Learning with Educational Technologies | 3 |
| American History | Elective | 3 |
| Social Science Per | rspectives Elective-ECON/SOC/PSY | 3 |
| Advisor-approved | Elective | 5 |
| World Culture-Upp Approved) | per-Division (Core IV-WDC, Advisor | 3 |
|  | Credit Hours | 17 |
| Senior |  |  |
| First Semester |  |  |
| EDSS 4563 | Teaching Secondary School Social Studies | 3 |
| EIPT 3483 | Motivation and Classroom Management for Teachers | 3 |
| HIST 3393 | History of Oklahoma | 3 |
| American History Elective |  | 3 |
| American History Elective |  | 3 |
| World Civilization/History Elective |  | 3 |
| Credit Hours |  | 18 |
| Second Semester |  |  |
| EDUC 4060 | Teaching Experiences in the Secondary School | 10 |
| ILAC 4243 | Student Teaching Seminar | 3 |
|  | Credit Hours | 13 |
|  | Total Credit Hours | 124 |

## World Language Education: French, B.S.

Minimum Total Credit Hours: 124
Minimum Upper-Division Hours: 40

Overall GPA - Combined and OU: 2.75
Major GPA - Combined and OU: 2.75
Program Code: B883 P266

## Admission and Retention Requirements

Admission Requirements-Jeannine Rainbolt College of Education Students are eligible for admission to the Jeannine Rainbolt College of Education with:

1. a minimum of 24 semester hours earned from an accredited institution of higher learning;
2. a minimum of $\mathbf{2 . 7 5}$ combined retention grade point average on all coursework attempted;
3. a declared major in education.

## Full Admission Requirements-Teacher Education and Professional

 Studies ProgramsStudents are eligible for admission to Teacher Education with:

1. a minimum of 30 semester hours from an accredited institution of higher learning to include the following 24 hours as defined by the Oklahoma State Regents for Higher Education with a grade of C or better: English (Composition and Literature)-6 hours; MATH, Gen. Ed. Core I-3 hours; American History-3 hours; American Government-3 hours; Humanities to include Artistic Forms, Western Civilization, Non-Western Culture, World Language, or other advisor-approved Gen. Ed. course - 3 hours; Social and Behavioral Sciences-3 hours; Natural Sciences-3 hours.
2. a minimum of $\mathbf{2 . 7 5}$ grade point average (OU retention and combined retention) on all coursework attempted;
3. Meet one of the six performance criteria listed by Oklahoma State Regents for Higher Education (OSRHE) that students may use to qualify for admission into an Oklahoma teacher education program. Speak with your Education Advisor for more details.

Admission to a teaching program requires submission of an application,essay, background check,and an interview with the admission committee prior to enrollment in the first education course.

## Retention Requirements-Jeannine Rainbolt College of Education

1. When a student accepts an offer of admission into a JRCoE department or program, they commit to comply with all its regulations, including those regarding professional conduct and dispositions that are contained in the JRCoE Professional Behavior Policy.
2. Students must maintain a minimum 2.75 grade point average (OU retention and combined retention) in all undergraduate coursework and a minimum 3.00 grade point average in all graduate coursework attempted.
3. Students must maintain a minimum of 2.75 undergraduate grade point average in both professional education courses and in specialized education courses with no grade less than a C and must maintain a minimum of 3.00 grade point average in graduate professional and specialized education courses, with no grade less than a B.
4. Students must earn a C or better in COMM 1113 or COMM 2613.
5. Students whose OU retention or combined retention grade point averages at the undergraduate level fall below 2.75 will be subject to dismissal from the college. At the graduate level, students must meet Graduate College requirements.
6. Students who have not earned OU retention and combined retention grade point averages of $\mathbf{2 . 7 5}$ after the completion of 60 semester hours will be dismissed from the college.
7. Because one college level math course is a requirement for full admission into both the college and the teacher preparation program declared Education majors must complete at least one college-level Math within the first four semesters of enrollment at OU. Transfer students who have not completed a college level Math course will have two semesters to complete the requirement. Students who
fail to meet the requirement within the time limits specified will be subject to dismissal from the college.
8. Course work more than 10 years old in the teaching specialization and professional education may not be credited to ward the completion of a teacher education degree and/or certificate program. However, course work over 10 years old may be reviewed by the appropriate certificate committee for possible credit toward the completion of a teacher education degree and/or certificate program.
9. A student has 6 years to complete a teacher education degree and/ or certificate program after full admission. After the 6 - year period, a student must seek readmission to that program and meet the catalog requirements in effect at the time of readmission.
10. Students will be withdrawn from courses for failing to observe prerequisites and corequisites. Continued disregard of prerequisites and corequisites is grounds for dismissal from the college.

## Major Requirements

Students must maintain a minimum of 2.75 grade point average with no grade less than a C in the Professional Education and Specialized Education courses for graduation.

Certification: To be fully certified, students must pass Certification Examinations for Oklahoma Educators and apply for a license.

| Code | Title | Credit Hours |
| :---: | :---: | :---: |
| Professional Education (34 hours) |  |  |
| EIPT 3473 | Learning, Development, and Assessment for Teachers ${ }^{1}$ | 3 |
| EDSP 3053 | Understanding and Accommodating Exceptional Learners | 3 |
| EIPT 3043 | Learning with Educational Technologies | 3 |
| EDS 4003 | Schools in American Cultures ${ }^{1}$ | 3 |
| EIPT 3483 | Motivation and Classroom Management for Teachers | 3 |
| EDWL 4023 | Foundations and Theory for PreK-12 Second Language Acquisition | 3 |
| EDWL 4033 | Methods for Teaching World Languages in PreK-12 Settings ${ }^{1}$ | 3 |
| EDUC 4050 | Teaching Experiences in the Elementary School ${ }^{1,2}$ | 5 |
| EDUC 4060 | Teaching Experiences in the Secondary School ${ }^{1,2}$ | 5 |
| ILAC 4243 | Student Teaching Seminar ${ }^{2}$ | 3 |
| Specialized Education (39 hours) |  |  |
| Core |  |  |
| FR 1115 | Beginning French ${ }^{3}$ | 5 |
| FR 1225 | Beginning French (Continued) | 5 |
| FR 2113 | Intermediate French | 3 |
| FR 2223 | Intermediate French (Continued) | 3 |
| FR 2243 | French Conversation and Literature | 3 |
| FR 3083 | Advanced French Conversation and Phonetics | 3 |
| FR 3423 | Advanced French Composition | 3 |
| FR 3853 | Introduction to Literary Analysis | 3 |
| FR 4993 | Senior Capstone in French | 3 |

Additional Requirements

Choose one of the following pairs of courses focused on
French Culture to 1800, or French Culture 1800-present:

| $\begin{aligned} & \text { FR } 4153 \\ & \text { \& FR } 4313 \end{aligned}$ | Survey of French Literature to 1800 and From Lascaux to la Terreur |
| :---: | :---: |
| FR 4163 \& FR 4323 | Survey of French Literature (Continued) and The Making of Modern French Culture |
| Electives |  |
| If additional hour undergraduate from MLLL, Cl courses | are needed to meet the 124 hour inimum for graduation, they may be taken ics, Language area, Linguistics, or Education |

Total Credit Hours
${ }^{1}$ These courses require field experience.
${ }^{2}$ These courses are taken together in the final semester.
${ }^{3}$ FR 1115 along with the 51 hours listed in General Education comprise the 55 hours required for Liberal Arts \& Sciences.

## General Education and College Requirements

Courses taken to fulfill the University General Education Requirements must be chosen from the approved General Education course list published in the Class Schedule or at http://www.ou.edu/gened/courses. The following courses meet minimum University, College, and State General Education Requirements.

## UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND

 COLLEGE REQUIREMENTSCode Title Credit


| Communication Skills (9 hours) |  |  |
| :---: | :---: | :---: |
| ENGL 1113 | Principles of English Composition (Core IEN1) | 3 |
| ENGL 1213 or EXPO 1213 | Principles of English Composition (Core IEN2) <br> Expository Writing | 3 |
| COMM 1113 <br> or COMM 2613 | Principles of Communication (Core I) Public Speaking | 3 |
| Language ${ }^{1}$ |  |  |
| University-wide general Education requirement met with major work. |  |  |
| College of Educatio two courses whic another classical, | ion Contemporary World Culture: Choose h provide an elementary knowledge of modern, Native, or American Sign Language | 10 |

Mathematics (3 hours)
Choose one MATH course (Core I-MATH) 3

Core Area II: Natural Science (8-9 hours, must include a laboratory course)
Choose one course in the biological sciences: (Core II) BIOL, 3-5
HES, MBIO, or PBIO
Choose one course in the physical sciences: (Core II) AGSC, 3-5
ASTR, CHEM, GEOG, GEOL, GPHY, METR, or PHYS
Core Area III: Social Science (6 hours)
P SC 1113 American Federal Government (Core III- 3
PSC)
Choose one ANTH, PSY, OR SOC course (Core III-SS) 3

Core Area IV: Arts and Humanities (12 hours)

| HIST 1483 | United States to 1865 (Core IV-HIST) |  |
| :---: | :---: | :---: |
| or HIST 1493 | United States, 1865 to the Present |  |
| HIST 1223 | Europe, 1500 to 1815 (Western Culture Core IV - WC) | 3 |
| or HIST 1233 | Europe since 1815 |  |
| Choose one cour Artistic Forms lis | e from the General Education Approved (Core IV-AF) |  |
| Choose one cour World Culture Lis (Core IV-WDC) | e from the General Education Approved (3000- level or above) and advisor approved | 3 |
| Core Area V: First | Year Experience (3 hours) |  |
| Choose one cour | e (Core V-FYE) | 3 |

Total Credit Hours

The 51 hours above, along with FR 1115 (4 hours) in the Specialized Education requirements, comprise the 55 hours required of Liberal Arts.
${ }^{1}$ Oklahoma State Regents for Higher Education Requirement: Teacher candidates must demonstrate conversational skills at a novice-high level in a language other than English OR demonstrate the knowledge and skills necessary to address the needs of Emergent Bilingual (English Learner) students in the P-12 classroom and are proficient in the strategies required for successful delivery of P -12 instruction in that area.
The novice-high level language requirement may be satisfied by classical, modern, Native or American Sign Language. Courses that demonstrate knowledge and skills necessary to address the needs of Emergent Bilingual students are determined by the College of Education.

## Certification and Degree Requirements

Field Experiences: Transfer students without appropriate field experiences may be required to enroll in EDUC 2400.
Pass/No Pass Enrollment: Only general education electives may be taken under the pass/no pass option.
Residence Requirements: Students must complete either the last 30 hours or 45 of the last 60 hours after being fully admitted to a teacher education program to satisfy this requirement.
Requirements to be Completed to be Eligible for Student Teaching Internship: Students must be in good standing and have completed all baccalaureate degree requirements with the exception of the appropriate internship course itself and the courses taken with it in the final semester per their major requirements.
Junior College Transfer Students: Students transferring from a junior college may use the transferred credit to meet certain lower-division course requirements only; that is, freshman and sophomore-level courses.
Degree Completion Responsibility: Although the Dean's Office checks each student's records, the responsibility for meeting degree requirements lies with the student and not with the advisor or the Dean. Each student should obtain a copy of his or her requirements for graduation and check it regularly as he or she completes his or her degree program.
Graduation Application: The final step to be completed by the student before graduation is the filing of an official Application for Graduation. The Application for Graduation should be filled out online by May 1 for fall graduation, December 1 for spring graduation, and March 1 for summer graduation. The student's degree will not be conferred, nor
any completion statement entered on their transcript, until the required application is filed.

## Admission \& Retention Requirements

It is the responsibility of the student to read and be familiar with the requirements for Admission to, and Retention in, the Jeannine Rainbolt College of Education. The current Admission and Retention policies can be found in the college's overview page in the OU General Catalog, under the Undergraduate tab here: http://ou-public.courseleaf.com/rainbolt-education/\#undergraduatetext.

## Suggested Semester Plan of Study

This plan shows one possible grouping of courses that would allow students to graduate in four years. Please refer to the front of the degree checksheet for official requirements. Students must consult with College of Education academic advisors to verify that courses selected each semester fulfill the recommended plan and satisfy university, College of Education, and major requirements.

## Freshman

| First Semester |  | Credit |
| :---: | :---: | :---: |
|  |  | Hours |
| FR 1115 | Beginning French | 5 |
| ENGL 1113 | Principles of English Composition (Core IEN1) | 3 |
| MATH (Core I-MATH) |  | 3 |
| HIST 1483 or HIST 1493 | United States to 1865 (Core IV-HIST) or United States, 1865 to the Present | 3 |
| First Year Experience (Core V-FYE) |  | 3 |
|  | Credit Hours | 17 |
| Second Semester |  |  |
| FR 1225 | Beginning French (Continued) | 5 |
| ENGL 1213 or EXPO 1213 | Principles of English Composition (Core IEN2) <br> or Expository Writing | 3 |
| P SC 1113 | American Federal Government (Core IIIPSC) | 3 |
| Biological Sciences, one course in BIOL/HES/MBIO/PBIO (Core II) |  | 3-5 |
| ANTH, or SOC, or PSY (Core III-SS) |  | 3 |
|  | Credit Hours | 17-19 |
| Sophomore |  |  |
| First Semester |  |  |
| FR 2113 | Intermediate French | 3 |
| Classical, Modern, or Native Language |  | 5 |
| Arts \& Humanities course (Core IV-Artistic Forms) |  | 3 |
| Physical Sciences, one course in AGSC, ASTR, CHEM, GEOG, GEOL, GPHY, METR, or PHYS (Core II) |  | 3-5 |
| COMM 1113 or COMM 2613 | Principles of Communication (Core I) or Public Speaking | 3 |
|  | Credit Hours | 17-19 |
| Second Semester |  |  |
| FR 2223 | Intermediate French (Continued) | 3 |
| FR 2243 | French Conversation and Literature | 3 |
| Classical, Modern | , or Native Language | 5 |


| EIPT 3473 | Learning, Development, and Assessment for Teachers | 3 |
| :---: | :---: | :---: |
| EDSP 3053 | Understanding and Accommodating Exceptional Learners | 3 |
|  | Credit Hours | 17 |
| Junior |  |  |
| First Semester |  |  |
| FR 3083 | Advanced French Conversation and Phonetics | 3 |
| FR Culture Upper-Division Specialized Education |  | 3 |
| Specialized Education Elective |  | 3 |
| EIPT 3043 | Learning with Educational Technologies | 3 |
| HIST 1223 or HIST 1233 | Europe, 1500 to 1815 (Core IV-WC) or Europe since 1815 | 3 |
|  | Credit Hours | 15 |
| Second Semester |  |  |
| FR 3423 | Advanced French Composition | 3 |
| FR 3853 | Introduction to Literary Analysis | 3 |
| FR 4993 | Senior Capstone in French | 3 |
| EDS 4003 | Schools in American Cultures | 3 |
| EDWL 4023 | Foundations and Theory for PreK-12 Second Language Acquisition | 3 |
|  | Credit Hours | 15 |
| Senior |  |  |
| First Semester |  |  |
| EIPT 3483 | Motivation and Classroom Management for Teachers | 3 |
| FR Culture Upper-Division Specialized Education |  | 3 |
| EDWL 4033 | Methods for Teaching World Languages in PreK-12 Settings | 3 |
| World Culture - Upper-Division (Core IV-WDC, AdvisorApproved) |  | 3 |
|  | Credit Hours | 12 |
| Second Semester |  |  |
| EDUC 4050 | Teaching Experiences in the Elementary School | 5 |
| EDUC 4060 | Teaching Experiences in the Secondary School | 5 |
| ILAC 4243 | Student Teaching Seminar | 3 |
|  | Credit Hours | 13 |
|  | Total Credit Hours | 124 |

## World Language Education: German, B.S.

Minimum Total Credit Hours: 124
Minimum Upper-Division Hours: 40

Overall GPA - Combined and OU: 2.75
Major GPA - Combined and OU: 2.75
Program Code: B883 P271

## Admission and Retention Requirements

Admission Requirements-Jeannine Rainbolt College of Education

Students are eligible for admission to the Jeannine Rainbolt College of Education with:

1. a minimum of 24 semester hours earned from an accredited institution of higher learning;
2. a minimum of $\mathbf{2 . 7 5}$ combined retention grade point average on all coursework attempted;
3. a declared major in education.

Full Admission Requirements-Teacher Education and Professional Studies Programs
Students are eligible for admission to Teacher Education with:

1. a minimum of 30 semester hours from an accredited institution of higher learning to include the following 24 hours as defined by the Oklahoma State Regents for Higher Education with a grade of C or better: English (Composition and Literature)-6 hours; MATH, Gen. Ed. Core I-3 hours; American History-3 hours; American Government-3 hours; Humanities to include Artistic Forms, Western Civilization, Non-Western Culture, World Language, or other advisor-approved Gen. Ed. course -3 hours; Social and Behavioral Sciences-3 hours; Natural Sciences-3 hours.
2. a minimum of $\mathbf{2 . 7 5}$ grade point average (OU retention and combined retention) on all coursework attempted;
3. Meet one of the six performance criteria listed by Oklahoma State Regents for Higher Education (OSRHE) that students may use to qualify for admission into an Oklahoma teacher education program. Speak with your Education Advisor for more details.

Admission to a teaching program requires submission of an application,essay, background check, and an interview with the admission committee prior to enrollment in the first education course.

## Retention Requirements-Jeannine Rainbolt College of Education

1. When a student accepts an offer of admission into a JRCoE department or program, they commit to comply with all its regulations, including those regarding professional conduct and dispositions that are contained in the JRCoE Professional Behavior Policy.
2. Students must maintain a minimum $\mathbf{2 . 7 5}$ grade point average (OU retention and combined retention) in all undergraduate coursework and a minimum 3.00 grade point average in all graduate coursework attempted.
3. Students must maintain a minimum of 2.75 undergraduate grade point average in both professional education courses and in specialized education courses with no grade less than a $\mathbf{C}$ and must maintain a minimum of 3.00 grade point average in graduate professional and specialized education courses, with no grade less than a B.
4. Students must earn a C or better in COMM 1113 or COMM 2613.
5. Students whose OU retention or combined retention grade point averages at the undergraduate level fall below 2.75 will be subject to dismissal from the college. At the graduate level, students must meet Graduate College requirements.
6. Students who have not earned OU retention and combined retention grade point averages of 2.75 after the completion of 60 semester hours will be dismissed from the college.
7. Because one college level math course is a requirement for full admission into both the college and the teacher preparation program, declared Education majors must complete at least one college-level

Math within the first four semesters of enrollment at OU. Transfer students who have not completed a college level Math course will have two semesters to complete the requirement. Students who fail to meet the requirement within the time limits specified will be subject to dismissal from the college.
8. Course work more than 10 years old in the teaching specialization and professional education may not be credited to ward the completion of a teacher education degree and/or certificate program. However, course work over 10 years old may be reviewed by the appropriate certificate committee for possible credit toward the completion of a teacher education degree and/or certificate program.
9. A student has 6 years to complete a teacher education degree and/ or certificate program after full admission. After the 6- year period, a student must seek readmission to that program and meet the catalog requirements in effect at the time of readmission.
10. Students will be withdrawn from courses for failing to observe prerequisites and corequisites. Continued disregard of prerequisites and corequisites is grounds for dismissal from the college.

## Major Requirements

Students must maintain a minimum of $\mathbf{2 . 7 5}$ grade point average with no grade less than a C in the Professional Education and Specialized Education courses for graduation.

Certification: To be fully certified, students must pass Certification Examinations for Oklahoma Educators and apply for a license.

| Code | Title | Credit Hours |
| :---: | :---: | :---: |
| Professional Education (34 hours) |  |  |
| EIPT 3473 | Learning, Development, and Assessment for Teachers ${ }^{1}$ | 3 |
| EDSP 3053 | Understanding and Accommodating Exceptional Learners | 3 |
| EIPT 3043 | Learning with Educational Technologies | 3 |
| EDS 4003 | Schools in American Cultures ${ }^{1}$ | 3 |
| EIPT 3483 | Motivation and Classroom Management for Teachers | 3 |
| EDWL 4023 | Foundations and Theory for PreK-12 Second Language Acquisition | 3 |
| EDWL 4033 | Methods for Teaching World Languages in PreK-12 Settings ${ }^{1}$ | 3 |
| EDUC 4050 | Teaching Experiences in the Elementary School ${ }^{1,2}$ | 5 |
| EDUC 4060 | Teaching Experiences in the Secondary School ${ }^{1,2}$ | 5 |
| ILAC 4243 | Student Teaching Seminar ${ }^{2}$ | 3 |
| Specialized Education (39 hours) |  |  |
| Core |  |  |
| GERM 1115 | Beginning German ${ }^{3}$ | 5 |
| GERM 1225 | Beginning German (Continued) | 5 |
| GERM 2113 | Intermediate German | 3 |
| GERM 2223 | Intermediate German (Continued) | 3 |
| GERM 3423 | Advanced German Composition | 3 |
| GERM 3523 | Advanced Conversation | 3 |
| GERM 3853 | Literature and Film | 3 |
| GERM 4313 | Literature and Culture Pre-1700 | 3 |

$\begin{array}{cl}\text { or GERM } 4323 & \text { Literature and Culture 1700-1890 } \\ \text { GERM } 4333 & \text { Topics in the Twentieth Century German } \\ & \text { Literature and Culture }\end{array}$
GERM 4000-5000-level, in Major Language3
Electives
If additional hours are needed to meet the 124 hour ..... 5
undergraduate minimum for graduation, they may be takenfrom MLLL, Classics, Language Area, Linguistics, or Educationcourses

1 These courses require field experience.
2 These courses are taken together in the final semester.
${ }^{3}$ GERM 1115 along with the 51 hours listed in General Education comprise the 55 hours required for Liberal Arts \& Sciences.

## General Education and College Requirements

Courses taken to fulfill the University General Education Requirements must be chosen from the approved General Education course list published in the Class Schedule or at http://www.ou.edu/gened/courses. The following courses meet minimum University, College, and State General Education Requirements.

## UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS



| HIST 1483 |
| :--- |
| or HIST 1493 | | United States to 1865 (Core IV-HIST) |
| :--- |
| United States, 1865 to the Present |


| HIST 1223 | Europe, 1500 to 1815 (Western Culture Core |
| :--- | :--- |
| IV - WC) |  |

or HIST 1233
Europe since 1815

## Certification and Degree Requirements

Field Experiences: Transfer students without appropriate field experiences may be required to enroll in EDUC 2400.
Pass/No Pass Enrollment: Only general education electives may be taken under the pass/no pass option.
Residence Requirements: Students must complete either the last 30 hours or 45 of the last 60 hours after being fully admitted to a teacher education program to satisfy this requirement.

## Requirements to be Completed to be Eligible for Student Teaching

 Internship: Students must be in good standing and have completed all baccalaureate degree requirements with the exception of the appropriate internship course itself and the courses taken with it in the final semester per their major requirements.Junior College Transfer Students: Students transferring from a junior college may use the transferred credit to meet certain lower-division course requirements only; that is, freshman and sophomore-level courses.
Degree Completion Responsibility: Although the Dean's Office checks each student's records, the responsibility for meeting degree requirements lies with the student and not with the advisor or the Dean. Each student should obtain a copy of his or her requirements for graduation and check it regularly as he or she completes his or her degree program.
Graduation Application: The final step to be completed by the student before graduation is the filing of an official Application for Graduation. The Application for Graduation should be filled out online by May 1 for fall graduation, December 1 for spring graduation, and March 1 for summer graduation. The student's degree will not be conferred, nor
any completion statement entered on their transcript, until the required application is filed.

## Admission \& Retention Requirements

It is the responsibility of the student to read and be familiar with the requirements for Admission to, and Retention in, the Jeannine Rainbolt College of Education. The current Admission and Retention policies can be found in the college's overview page in the OU General Catalog, under the Undergraduate tab here: http://ou-public.courseleaf.com/rainbolt-education/\#undergraduatetext.

## Suggested Semester Plan of Study

This plan shows one possible grouping of courses that would allow students to graduate in four years. Please refer to the front of the degree checksheet for official requirements. Students must consult with College of Education academic advisors to verify that courses selected each semester fulfill the recommended plan and satisfy university, College of Education, and major requirements.

## Freshman

| First Semester |  | Credit |
| :---: | :---: | :---: |
|  |  | Hours |
| GERM 1115 | Beginning German | 5 |
| ENGL 1113 | Principles of English Composition (Core IEN1) | 3 |
| MATH (Core I-MATH) |  | 3 |
| HIST 1483 or HIST 1493 | United States to 1865 (Core IV-HIST) or United States, 1865 to the Present | 3 |
| First Year Experience (Core V-FYE) |  | 3 |
|  | Credit Hours | 17 |
| Second Semester |  |  |
| GERM 1225 | Beginning German (Continued) | 5 |
| $\begin{aligned} & \text { ENGL } 1213 \\ & \text { or EXPO } 1213 \end{aligned}$ | Principles of English Composition (Core IEN2) or Expository Writing | 3 |
| P SC 1113 | American Federal Government (Core IIIPSC) | 3 |
| Biological Sciences, one course in BIOL/HES/MBIO/PBIO (Core II) |  | 3-5 |
| ANTH, or SOC, or PSY (Core III-SS) |  | 3 |
|  | Credit Hours | 17-19 |
| Sophomore |  |  |
| First Semester |  |  |
| GERM 2113 | Intermediate German | 3 |
| Classical, Modern, or Native Language |  | 5 |
| Arts \& Humanities course (Core IV-Artistic Forms) |  | 3 |
| Physical Sciences, one course in AGSC, ASTR, CHEM, GEOG, GEOL, GPHY, METR, or PHYS (Core II) |  | 3-5 |
|  | Credit Hours | 14-16 |
| Second Semester |  |  |
| GERM 2223 | Intermediate German (Continued) | 3 |
| GERM 3523 | Advanced Conversation | 3 |
| Classical, Modern | , or Native Language | 5 |
| EIPT 3473 | Learning, Development, and Assessment for Teachers | 3 |


| EDSP 3053 | Understanding and Accommodating Exceptional Learners | 3 |
| :---: | :---: | :---: |
|  | Credit Hours | 17 |
| Junior |  |  |
| First Semester |  |  |
| GERM 3423 | Advanced German Composition | 3 |
| GERM 3853 | Literature and Film | 3 |
| EIPT 3043 | Learning with Educational Technologies | 3 |
| HIST 1223 or HIST 1233 | Europe, 1500 to 1815 (Core IV-WC) or Europe since 1815 | 3 |
| COMM 1113 or COMM 2613 | Principles of Communication (Core I) or Public Speaking | 3 |
|  | Credit Hours | 15 |
| Second Semester |  |  |
| EDS 4003 | Schools in American Cultures | 3 |
| GERM 4000-5000-I | -level elective | 3 |
| Specialized Educa | ation Elective | 3 |
| EDWL 4023 | Foundations and Theory for PreK-12 Second Language Acquisition | 3 |
| World Culture - Upper-Division (Core IV-WDC, AdvisorApproved) |  | 3 |
|  | Credit Hours | 15 |
| Senior |  |  |
| First Semester |  |  |
| GERM 4313 or GERM 4323 | Literature and Culture Pre-1700 or Literature and Culture 1700-1890 | 3 |
| GERM 4333 | Topics in the Twentieth Century German Literature and Culture | 3 |
| EIPT 3483 | Motivation and Classroom Management for Teachers | 3 |
| EDWL 4033 | Methods for Teaching World Languages in PreK-12 Settings | 3 |
| Specialized Education Elective |  | 3 |
|  | Credit Hours | 15 |
| Second Semester |  |  |
| EDUC 4050 | Teaching Experiences in the Elementary School | 5 |
| EDUC 4060 | Teaching Experiences in the Secondary School | 5 |
| ILAC 4243 | Student Teaching Seminar | 3 |
|  | Credit Hours | 13 |
|  | Total Credit Hours | 124 |

## World Language Education: Latin, B.S.

Minimum Total Credit Hours: 124
Minimum Upper-Division Hours: 40

Overall GPA - Combined and OU: 2.75
Major GPA - Combined and OU: 2.75
Program Code: B883 P411

## Admission and Retention Requirements

Admission Requirements-Jeannine Rainbolt College of Education

Students are eligible for admission to the Jeannine Rainbolt College of Education with:

1. a minimum of 24 semester hours earned from an accredited institution of higher learning;
2. a minimum of $\mathbf{2 . 7 5}$ combined retention grade point average on all coursework attempted;
3. a declared major in education.

Full Admission Requirements-Teacher Education and Professional

## Studies Programs

Students are eligible for admission to Teacher Education with:

1. a minimum of 30 semester hours from an accredited institution of higher learning to include the following 24 hours as defined by the Oklahoma State Regents for Higher Education with a grade of C or better: English (Composition and Literature)-6 hours; MATH, Gen. Ed. Core I-3 hours; American History-3 hours; American Government-3 hours; Humanities to include Artistic Forms, Western Civilization, Non-Western Culture, World Language, or other advisor-approved Gen. Ed. course -3 hours; Social and Behavioral Sciences-3 hours; Natural Sciences-3 hours.
2. a minimum of $\mathbf{2 . 7 5}$ grade point average (OU retention and combined retention) on all coursework attempted;
3. Meet one of the six performance criteria listed by Oklahoma State Regents for Higher Education (OSRHE) that students may use to qualify for admission into an Oklahoma teacher education program. Speak with your Education Advisor for more details.

Admission to a teaching program requires submission of an application,essay, background check,and an interview with the admission committee prior to enrollment in the first education course.

## Retention Requirements-Jeannine Rainbolt College of Education

1. When a student accepts an offer of admission into a JRCoE department or program, they commit to comply with all its regulations, including those regarding professional conduct and dispositions that are contained in the JRCoE Professional Behavior Policy.
2. Students must maintain a minimum $\mathbf{2 . 7 5}$ grade point average (OU retention and combined retention) in all undergraduate coursework and a minimum 3.00 grade point average in all graduate coursework attempted.
3. Students must maintain a minimum of $\mathbf{2 . 7 5}$ undergraduate grade point average in both professional education courses and in specialized education courses with no grade less than a C and must maintain a minimum of 3.00 grade point average in graduate professional and specialized education courses, with no grade less than a B.
4. Students must earn a C or better in COMM 1113 or COMM 2613.
5. Students whose OU retention or combined retention grade point averages at the undergraduate level fall below 2.75 will be subject to dismissal from the college. At the graduate level, students must meet Graduate College requirements.
6. Students who have not earned OU retention and combined retention grade point averages of $\mathbf{2 . 7 5}$ after the completion of 60 semester hours will be dismissed from the college.
7. Because one college level math course is a requirement for full admission into both the college and the teacher preparation program, declared Education majors must complete at least one college-level

Math within the first four semesters of enrollment at OU. Transfer students who have not completed a college level Math course will have two semesters to complete the requirement. Students who fail to meet the requirement within the time limits specified will be subject to dismissal from the college.
8. Course work more than 10 years old in the teaching specialization and professional education may not be credited to ward the completion of a teacher education degree and/or certificate program. However, course work over 10 years old may be reviewed by the appropriate certificate committee for possible credit toward the completion of a teacher education degree and/or certificate program.
9. A student has 6 years to complete a teacher education degree and/ or certificate program after full admission. After the 6 - year period, a student must seek readmission to that program and meet the catalog requirements in effect at the time of readmission.
10. Students will be withdrawn from courses for failing to observe prerequisites and corequisites. Continued disregard of prerequisites and corequisites is grounds for dismissal from the college.

## Major Requirements

Students must maintain a minimum of 2.75 grade point average with no grade less than a C in the Professional Requirements and the Specialized Education courses for graduation.

Certification: To be fully certified, students must pass Certification Examinations for Oklahoma Educators and apply for a license.

| Code | Title | Credit Hours |
| :---: | :---: | :---: |
| Professional Education (34 hours) |  |  |
| EIPT 3473 | Learning, Development, and Assessment for Teachers ${ }^{1}$ | 3 |
| EDSP 3053 | Understanding and Accommodating Exceptional Learners | 3 |
| EIPT 3043 | Learning with Educational Technologies | 3 |
| EDS 4003 | Schools in American Cultures ${ }^{1}$ | 3 |
| EIPT 3483 | Motivation and Classroom Management for Teachers | 3 |
| EDWL 4023 | Foundations and Theory for PreK-12 Second Language Acquisition | 3 |
| EDWL 4033 | Methods for Teaching World Languages in PreK-12 Settings ${ }^{1}$ | 3 |
| EDUC 4050 | Teaching Experiences in the Elementary School ${ }^{1,2}$ | 5 |
| EDUC 4060 | Teaching Experiences in the Secondary School ${ }^{1,2}$ | 5 |
| ILAC 4243 | Student Teaching Seminar ${ }^{2}$ | 3 |
| Specialized Education (39 hours) |  |  |
| Core |  |  |
| Choose one of the following: |  | 5-10 |
| LAT 1115 <br> \& LAT 1215 | Beginning Latin and Beginning Latin ${ }^{3}$ |  |
| LAT 1315 | Intensive Introductory Latin |  |
| LAT 2113 | Intermediate Latin Prose | 3 |
| LAT 2213 | Intermediate Latin Poetry | 3 |
| LAT 3313 | Latin Prose Composition | 3 |
| CL C 4503 | Classics Capstone | 3 |

Choose 12 hours of LAT courses numbered 3000 or above ..... 12
Choose 9 hours of CL C courses numbered 2000 or above ..... 9
Electives
If additional hours are needed to meet the 124 hour ..... 1
undergraduate minimum for graduation, they may be takenfrom MLLL, Classics, Language area, Linguistics, or Educationcourses
Total Credit Hours73
${ }^{1}$ These courses require field experience.
${ }^{2}$ These courses are taken together in the final semester.
${ }^{3}$ LAT 1115 along with the 51 hours listed in General Education comprise the 55 hours required for Liberal Arts \& Sciences.

## General Education and College Requirements

Courses taken to fulfill the University General Education Requirements must be chosen from the approved General Education course list published in the Class Schedule or at http://www.ou.edu/gened/courses. The following courses meet minimum University, College, and State General Education Requirements.

UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS

| Code Title | Credit |
| :--- | :--- |
|  | Hours |

Core Area I: Symbolic and Oral Communication

| Communication Skills (9 hours) | 3 |  |
| :--- | :--- | :---: |
| ENGL 1113 | Principles of English Composition (Core I- <br> ENGL 1213 | Principles of English Composition (Core I- <br> EN2) |
| ON EXPO 1213 | 3 |  |
| COMM 1113 | Principles of Communication (Core I) | 3 |

or COMM 2613 Public Speaking

## Language ${ }^{1}$

University-wide General Education requirement met with major work.
College of Education Contemporary World Culture: Choose 10
two courses which provide an elementary knowledge of another classical, modern, Native, or American Sign Language
Mathematics (3 hours)
Choose one MATH course (Core I-MATH) 3

Core Area II: Natural Science (8-9 hours, must include a
laboratory course)
Choose one course in the biological sciences: (Core II) BIOL, 3-5

HES, MBIO, or PBIO
Choose one course in the physical sciences: (Core II) AGSC, 3-5
ASTR, CHEM, GEOG, GEOL, GPHY, METR, or PHYS
Core Area III: Social Science (6 hours)
P SC 1113 American Federal Government (Core III- 3
PSC)
Choose one ANTH, PSY, OR SOC course (Core III-SS) 3
Core Area IV: Arts and Humanities (12 hours)
HIST $1483 \quad 3$
or HIST 1493 United States, 1865 to the Present
Choose one of the following (Core IV-Western Culture):

| HIST 1223 | Europe, 1500 to 1815 |  |
| :---: | :---: | :---: |
| HIST 1233 | Europe since 1815 |  |
| Another advisor-approved Core IV-Western Culture |  |  |
| Choose one course from the General Education Approved Artistic Forms list (Core IV-AF) |  |  |
| Choose one course from the General Education Approved World Culture List (3000-level or above) and advisor approved (Core IV-WDC) |  |  |
| Core Area V: First Year Experience (3 hours) |  |  |
| Choose one course (Core V-FYE) |  |  |
| Total Credit Hours 51 |  |  |
| The 51 hours above, along with LAT 1115 (4 hours) from Specialized Education requirements, comprise the 55 hours required of Liberal Arts. |  |  |
| ${ }^{1}$ Oklahoma S candidates level in a lan and skills n (English Lea the strategi that area. The noviceclassical, m demonstrat of Emergen Education. | Regents for Higher Education Requirem t demonstrate conversational skills at a age other than English OR demonstrate the sary to address the needs of Emergent r) students in the P-12 classroom and ar equired for successful delivery of $\mathrm{P}-12$ in <br> level language requirement may be sati rn, Native or American Sign Language. C owledge and skills necessary to address ingual students are determined by the Co |  |

## Certification and Degree Requirements

Field Experiences: Transfer students without appropriate field experiences may be required to enroll in EDUC 2400.
Pass/No Pass Enrollment: Only general education electives may be taken under the pass/no pass option.
Residence Requirements: Students must complete either the last 30 hours or 45 of the last 60 hours after being fully admitted to a teacher education program to satisfy this requirement.
Requirements to be Completed to be Eligible for Student Teaching Internship: Students must be in good standing and have completed all baccalaureate degree requirements with the exception of the appropriate internship course itself and the courses taken with it in the final semester per their major requirements.
Junior College Transfer Students: Students transferring from a junior college may use the transferred credit to meet certain lower-division course requirements only; that is, freshman and sophomore-level courses.
Degree Completion Responsibility: Although the Dean's Office checks each student's records, the responsibility for meeting degree requirements lies with the student and not with the advisor or the Dean. Each student should obtain a copy of his or her requirements for graduation and check it regularly as he or she completes his or her degree program.
Graduation Application: The final step to be completed by the student before graduation is the filing of an official Application for Graduation. The Application for Graduation should be filled out online by May 1 for fall graduation, December 1 for spring graduation, and March 1 for summer graduation. The student's degree will not be conferred, nor any completion statement entered on their transcript, until the required application is filed.

## Admission \& Retention Requirements

It is the responsibility of the student to read and be familiar with the requirements for Admission to, and Retention in, the Jeannine Rainbolt College of Education. The current Admission and Retention policies can be found in the college's overview page in the OU General Catalog, under the Undergraduate tab here: http://ou-public.courseleaf.com/rainbolt-education/\#undergraduatetext.

## Suggested Semester Plan of Study

This plan shows one possible grouping of courses that would allow students to graduate in four years. Please refer to the front of the degree checksheet for official requirements. Students must consult with College of Education academic advisors to verify that courses selected each semester fulfill the recommended plan and satisfy university, College of Education, and major requirements.

## Freshman

| First Semester |  | Credit |
| :---: | :---: | :---: |
|  |  | Hours |
| LAT 1115 | Beginning Latin | 0-5 |
| ENGL 1113 | Principles of English Composition (Core IEN1) | 3 |
| MATH (Core I-MATH) |  | 3 |
| HIST 1483 or HIST 1493 | United States to 1865 (Core IV-HIST) or United States, 1865 to the Present | 3 |
| First Year Experience (Core V-FYE) |  | 3 |
|  | Credit Hours | 12-17 |
| Second Semester |  |  |
| $\begin{aligned} & \text { LAT } 1215 \\ & \quad \text { or LAT } 1315 \end{aligned}$ | Beginning Latin or Intensive Introductory Latin | 5 |
| ENGL 1213 or EXPO 1213 | Principles of English Composition (Core IEN2) <br> or Expository Writing | 3 |
| P SC 1113 | American Federal Government (Core IIIPSC) | 3 |
| Biological Sciences, one course in BIOL/HES/MBIO/PBIO (Core II) |  | 3-5 |
| ANTH, or SOC, or PSY (Core III-SS) |  | 3 |
|  | Credit Hours | 17-19 |
| Sophomore |  |  |
| First Semester |  |  |
| LAT 2113 | Intermediate Latin Prose | 3 |
| Arts \& Humanities course (Core IV-Artistic Forms) |  | 3 |
| COMM 1113 or COMM 2613 | Principles of Communication (Core I) or Public Speaking | 3 |
| CL C 2000-level or higher |  | 3 |
| Physical Sciences, one course in AGSC, ASTR, CHEM, GEOG, GEOL, GPHY, METR, or PHYS (Core II) |  | 3-5 |
|  | Credit Hours | 15-17 |
| Second Semester |  |  |
| LAT 2213 | Intermediate Latin Poetry | 3 |
| EIPT 3473 | Learning, Development, and Assessment for Teachers | 3 |
| EDSP 3053 | Understanding and Accommodating Exceptional Learners | 3 |


| HIST 1223 or HIST 1233 | Europe, 1500 to 1815 (Core IV-WC) or Europe since 1815 | 3 |
| :---: | :---: | :---: |
| CL C 2000-level or higher |  | 3 |
|  | Credit Hours | 15 |
| Junior |  |  |
| First Semester |  |  |
| Classical, Modern, or Native Language |  | 5 |
| EIPT 3043 | Learning with Educational Technologies | 3 |
| LAT 3313 | Latin Prose Composition | 3 |
| LAT 3000-level or higher |  | 3 |
| CL C 2000-level or higher |  | 3 |
|  | Credit Hours | 17 |
| Second Semester |  |  |
| Classical, Modern, or Native Language |  | 5 |
| EDS 4003 | Schools in American Cultures | 3 |
| LAT 3000-level or higher |  | 3 |
| LAT 3000-level or higher |  | 3 |
| EDWL 4023 | Foundations and Theory for PreK-12 Second Language Acquisition | 3 |
|  | Credit Hours | 17 |
| Senior |  |  |
| First Semester |  |  |
| CL C 4503 | Classics Capstone | 3 |
| EIPT 3483 | Motivation and Classroom Management for Teachers | 3 |
| World Culture - Upper-Division (Core IV-WDC, AdvisorApproved) |  | 3 |
| LAT 3000-level or higher |  | 3 |
| EDWL 4033 | Methods for Teaching World Languages in PreK-12 Settings | 3 |
|  | Credit Hours | 15 |
| Second Semester |  |  |
| EDUC 4050 | Teaching Experiences in the Elementary School | 5 |
| EDUC 4060 | Teaching Experiences in the Secondary School | 5 |
| ILAC 4243 | Student Teaching Seminar | 3 |
| Specialized Education Elective |  | 1 |
|  | Credit Hours | 14 |
|  | Total Credit Hours | 124 |

## World Language Education: Spanish, B.S.

Minimum Total Credit Hours: 124
Minimum Upper-Division Hours: 40

Overall GPA - Combined and OU: 2.75
Major GPA - Combined and OU: 2.75
Program Code: B883 P621

## Admission and Retention Requirements

Admission Requirements-Jeannine Rainbolt College of Education

Students are eligible for admission to the Jeannine Rainbolt College of Education with:

1. a minimum of 24 semester hours earned from an accredited institution of higher learning;
2. a minimum of $\mathbf{2 . 7 5}$ combined retention grade point average on all coursework attempted;
3. a declared major in education.

## Full Admission Requirements-Teacher Education and Professional

 Studies ProgramsStudents are eligible for admission to Teacher Education with:

1. a minimum of 30 semester hours from an accredited institution of higher learning to include the following 24 hours as defined by the Oklahoma State Regents for Higher Education with a grade of C or better: English (Composition and Literature)-6 hours; MATH, Gen. Ed. Core I-3 hours; American History-3 hours; American Government-3 hours; Humanities to include Artistic Forms, Western Civilization, Non-Western Culture, World Language, or other advisor-approved Gen. Ed. course -3 hours; Social and Behavioral Sciences-3 hours; Natural Sciences-3 hours.
2. a minimum of $\mathbf{2 . 7 5}$ grade point average (OU retention and combined retention) on all coursework attempted;
3. Meet one of the six performance criteria listed by Oklahoma State Regents for Higher Education (OSRHE) that students may use to qualify for admission into an Oklahoma teacher education program. Speak with your Education Advisor for more details.

Admission to a teaching program requires submission of an application,essay, background check,and an interview with the admission committee prior to enrollment in the first education course.

Retention Requirements-Jeannine Rainbolt College of Education

1. When a student accepts an offer of admission into a JRCoE department or program, they commit to comply with all its regulations, including those regarding professional conduct and dispositions that are contained in the JRCoE Professional Behavior Policy.
2. Students must maintain a minimum $\mathbf{2 . 7 5}$ grade point average (OU retention and combined retention) in all undergraduate coursework and a minimum 3.00 grade point average in all graduate coursework attempted.
3. Students must maintain a minimum of 2.75 undergraduate grade point average in both professional education courses and in specialized education courses with no grade less than a $\mathbf{C}$ and must maintain a minimum of 3.00 grade point average in graduate professional and specialized education courses, with no grade less than a B.
4. Students must earn a C or better in COMM 1113 or COMM 2613.
5. Students whose OU retention or combined retention grade point averages at the undergraduate level fall below 2.75 will be subject to dismissal from the college. At the graduate level, students must meet Graduate College requirements.
6. Students who have not earned OU retention and combined retention grade point averages of 2.75 after the completion of 60 semester hours will be dismissed from the college.
7. Because one college level math course is a requirement for full admission into both the college and the teacher preparation program, declared Education majors must complete at least one college-level

Math within the first four semesters of enrollment at OU. Transfer students who have not completed a college level Math course will have two semesters to complete the requirement. Students who fail to meet the requirement within the time limits specified will be subject to dismissal from the college.
8. Course work more than 10 years old in the teaching specialization and professional education may not be credited to ward the completion of a teacher education degree and/or certificate program. However, course work over 10 years old may be reviewed by the appropriate certificate committee for possible credit toward the completion of a teacher education degree and/or certificate program.
9. A student has 6 years to complete a teacher education degree and/ or certificate program after full admission. After the 6- year period, a student must seek readmission to that program and meet the catalog requirements in effect at the time of readmission.
10. Students will be withdrawn from courses for failing to observe prerequisites and corequisites. Continued disregard of prerequisites and corequisites is grounds for dismissal from the college.

## Major Requirements

Students must maintain a minimum of 2.75 grade point average with no grade less than a C in the Profession Education and the Specialized Education courses for graduation.

Certification: To be fully certified, students must pass Certification Examinations for Oklahoma Educators and apply for a license.

| Code | Title | Credit <br> Hours |
| :---: | :---: | :---: |
| Professional Education (34 hours) |  |  |
| EIPT 3473 | Learning, Development, and Assessment for Teachers ${ }^{1}$ | 3 |
| EDSP 3053 | Understanding and Accommodating Exceptional Learners | 3 |
| EIPT 3043 | Learning with Educational Technologies | 3 |
| EDS 4003 | Schools in American Cultures ${ }^{1}$ | 3 |
| EIPT 3483 | Motivation and Classroom Management for Teachers | 3 |
| EDWL 4023 | Foundations and Theory for PreK-12 Second Language Acquisition | 3 |
| EDWL 4033 | Methods for Teaching World Languages in PreK-12 Settings ${ }^{1}$ | 3 |
| EDUC 4050 | Teaching Experiences in the Elementary School ${ }^{1,2}$ | 5 |
| EDUC 4060 | Teaching Experiences in the Secondary School ${ }^{1,2}$ | 5 |
| ILAC 4243 | Student Teaching Seminar ${ }^{2}$ | 3 |
| Specialized Education (39 hours) |  |  |
| Core |  |  |
| SPAN 1115 | Beginning Spanish ${ }^{3}$ | 5 |
| SPAN 1225 | Beginning Spanish (Continued) | 5 |
| SPAN 2113 | Intermediate Spanish | 3 |
| SPAN 2223 | Intermediate Spanish Continued | 3 |
| SPAN 3073 | Grammar in Conversational Communication | 3 |
| SPAN 3423 | Grammar in Written Communication | 3 |


| SPAN 3853 | Introduction to Hispanic Literature and Culture | 3 |
| :---: | :---: | :---: |
| SPAN 4183 | Senior Capstone | 3 |
| Literature \& Culture |  |  |
| SPAN 4083 | Literature and Culture of Spain | 3 |
| SPAN 4113 | Literature and Culture of Latin America | 3 |
| Electives |  |  |
| Choose 5 hours from the following, or an advisor-approved elective: |  | 5 |
| SPAN 4143 | Transatlantic Literature and Culture |  |
| SPAN 4173 | Regional Literature and Cultures |  |
| SPAN 4503 | Hispanic Cinema Studies |  |
| SPAN 4713 | History of the Spanish Language |  |
| SPAN 4773 | Topics in Spanish Linguistics |  |
| SPAN 4913 | The Structure of the Spanish Language |  |
| SPAN 4923 | Teaching of Spanish in the United States |  |
| If additional hours are needed to meet the 124 hour undergraduate minimum for graduation, they may be taken from MLLL, Classics, Language area, Linguistics, or Education courses |  |  |

## Total Credit Hours

1 These courses require field experience.
2 These courses are taken together in the final semester.
${ }^{3}$ SPAN 1115 along with the 51 hours listed in General Education comprise the 55 hours required for Liberal Arts \& Sciences.

## General Education and College Requirements

Courses taken to fulfill the University General Education Requirements must be chosen from the approved General Education course list published in the Class Schedule or at http://www.ou.edu/gened/courses. The following courses meet minimum University, College, and State General Education Requirements.

## UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS

Code Title Credit

## Core Area I: Symbolic and Oral Communication

Communication Skills (9 hours)
ENGL 1113 Principles of English Composition (Core I- 3

ENGL 1213 Principles of English Composition (Core I- 3
EN2)
or EXPO 1213 Expository Writing
COMM 1113 Principles of Communication (Core I) 3
or COMM 2613 Public Speaking
Language ${ }^{1}$
University-wide general Education requirement met with major work.
College of Education Contemporary World Culture: Choose 10
two courses which provide an elementary knowledge of another classical, modern, Native, or American Sign Language
Mathematics (3 hours)
Choose one MATH course (Core I-MATH)


## Certification and Degree Requirements

Field Experiences: Transfer students without appropriate field experiences may be required to enroll in EDUC 2400.
Pass/No Pass Enrollment: Only general education electives may be taken under the pass/no pass option.
Residence Requirements: Students must complete either the last 30 hours or 45 of the last 60 hours after being fully admitted to a teacher education program to satisfy this requirement.

## Requirements to be Completed to be Eligible for Student Teaching

Internship: Students must be in good standing and have completed all baccalaureate degree requirements with the exception of the appropriate internship course itself and the courses taken with it in the final semester per their major requirements.
Junior College Transfer Students: Students transferring from a junior college may use the transferred credit to meet certain lower-division
course requirements only; that is, freshman and sophomore-level courses.
Degree Completion Responsibility: Although the Dean's Office checks each student's records, the responsibility for meeting degree requirements lies with the student and not with the advisor or the Dean. Each student should obtain a copy of his or her requirements for graduation and check it regularly as he or she completes his or her degree program.
Graduation Application: The final step to be completed by the student before graduation is the filing of an official Application for Graduation. The Application for Graduation should be filled out online by May 1 for fall graduation, December 1 for spring graduation, and March 1 for summer graduation. The student's degree will not be conferred, nor any completion statement entered on their transcript, until the required application is filed.

## Admission \& Retention Requirements

It is the responsibility of the student to read and be familiar with the requirements for Admission to, and Retention in, the Jeannine Rainbolt College of Education. The current Admission and Retention policies can be found in the college's overview page in the OU General Catalog, under the Undergraduate tab here: http://ou-public.courseleaf.com/rainbolt-education/\#undergraduatetext.

## Suggested Semester Plan of Study

This plan shows one possible grouping of courses that would allow students to graduate in four years. Please refer to the front of the degree checksheet for official requirements. Students must consult with College of Education academic advisors to verify that courses selected each semester fulfill the recommended plan and satisfy university, College of Education, and major requirements.

## Freshman

| First Semester |  | Credit <br> Hours |
| :---: | :---: | :---: |
| SPAN 1115 | Beginning Spanish | 5 |
| ENGL 1113 | Principles of English Composition (Core IEN1) | 3 |
| MATH (Core I-MATH) |  | 3 |
| HIST 1483 or HIST 1493 | United States to 1865 (Core IV-HIST) or United States, 1865 to the Present | 3 |
| First Year Experience (Core V-FYE) |  | 3 |
|  | Credit Hours | 17 |
| Second Semester |  |  |
| SPAN 1225 | Beginning Spanish (Continued) | 5 |
| $\begin{aligned} & \text { ENGL } 1213 \\ & \text { or EXPO } 1213 \end{aligned}$ | Principles of English Composition (Core IEN2) <br> or Expository Writing | 3 |
| P SC 1113 | American Federal Government (Core IIIPSC) | 3 |
| Biological Sciences, one course in BIOL/HES/MBIO/PBIO (Core II) |  | 3-5 |
| ANTH, or SOC, or PSY (Core III-SS) |  | 3 |
|  | Credit Hours | 17-19 |

## Sophomore

First Semester
SPAN 2113

| EIPT 3473 | Learning, Development, and Assessment | 3 | ILAC 4243 Student Teaching Seminar | 3 |
| :---: | :---: | :---: | :---: | :---: |
|  | for Teachers |  | Credit Hours | 13 |
| Classical, Modern, or Native Language |  | 5 | Total Credit Hours | 124 |
| Physical Sciences, one course in AGSC, ASTR, CHEM, GEOG, GEOL, GPHY, METR, or PHYS (Core II) |  | 3-5 | ILAC: Early Childhood Education, M.Ed. |  |
| COMM 1113 or COMM 2613 | Principles of Communication (Core I) or Public Speaking | 3 | Minimum Total Hours (Thesis): 36 <br> Minimum Total Hours (Non-Thesis): 36 |  |
|  | Credit Hours | 17-19 |  |  |
| Second Semester |  |  | Program Code: M545 Q191 |  |
| SPAN 2223 | Intermediate Spanish Continued | 3 |  |  |
| SPAN 3073 | Grammar in Conversational Communication | 3 | Thesis Option |  |
| Classical, Modern, or Native Language |  | 5 | Code Title | Hours |
| EDSP 3053 | Understanding and Accommodating Exceptional Learners | 3 | Core Courses |  |
| $\begin{aligned} & \text { HIST } 2613 \\ & \text { or HIST } 2623 \end{aligned}$ | Colonial Hispanic American History, 1492-1810 (Core IV-WC) or Modern Latin America 1810-Present | 3 | Studies in Teaching \& Learning Choose one course in teaching and learning ${ }^{1}$ Studies in Cultural Diversity | 3 |
|  | Credit Hours | 17 | Choose one course in cultural diversity ${ }^{1}$ | 3 |
| Junior |  |  | Research |  |
| First Semester |  |  | Choose 6 hours in research ${ }^{1}$ | 6 |
| SPAN 3423 | Grammar in Written Communication | 3 | Research Synthesis |  |
| SPAN 3853 | Introduction to Hispanic Literature and | 3 | Choose one of the following: | 2-3 |
|  | Culture |  | EDUC 5980 Research for Master's Thesis |  |
| SPAN 4083 | Literature and Culture of Spain | 3 | Program Equivalent |  |
| EIPT 3043 | Learning with Educational Technologies | 3 | Concentration |  |
| World Culture - Upper-Division (Core IV-WDC, AdvisorApproved) |  | 3 | Choose 20 hours ${ }^{1}$ | 20 |
|  |  | Electives |  |  |
| Second Semester Credit Hours |  |  | 15 | Choose additional electives as necessary, as approved by faculty advisor and graduate liaison, to meet the 36 -hour minimum requirement | 1-2 |
|  |  |  |  |  |
| EDS 4003 | Schools in American Cultures | 3 |  |  |
| EDWL 4023 | Foundations and Theory for Prek-12 | 3 | Total Credit Hours | 36 |
|  | Second Language Acquisition |  |  |  |
| Arts \& Humanities course (Core IV-Artistic Forms) |  | 3 | ${ }^{1}$ Chosen from from a list approved by the Graduate Liaison and Advisor, based on requirements of the specific area and student's professional interests and goals. |  |
| SPAN Upper-Division Specialized Education, advisor-approved |  | 3 |  |  |  |
| SPAN Upper-Division Specialized Education, advisor-approved |  | 3 |  |  |
| Senior | Credit Hours | 15 | Non-Thesis Option |  |
|  |  |  |  |  |  |
| First Semester |  |  | Title | Credit |
| EDWL 4033 | Methods for Teaching World Languages in PreK-12 Settings | 3 | Core Courses | Hours |
| EIPT 3483 | Motivation and Classroom Management for | 3 | Studies in Teaching \& Learning |  |
|  | Teachers |  | Choose one course in teaching and learning ${ }^{1}$ | 3 |
| SPAN 4113 | Literature and Culture of Latin America | 3 | Studies in Cultural Diversity |  |
| SPAN 4183 | Senior Capstone | 3 | Choose one course in cultural diversity ${ }^{1}$ | 3 |
|  | Credit Hours | 12 | Research |  |
| Second Semester |  |  | Choose 6 hours in research ${ }^{1}$ | 6 |
| EDUC 4050 | Teaching Experiences in the Elementary | 5 | Research Synthesis |  |
|  | School |  | Choose one of the following: | 0-3 |
| EDUC 4060 | Teaching Experiences in the Secondary | 5 | EDUC 6930 Intensive Studies in Education |  |
|  | School |  | Non-Thesis project hours |  |
|  |  |  | Concentration |  |
|  |  |  | Choose 20 hours ${ }^{1}$ | 20 |
|  |  |  | Electives |  |

Choose additional electives as necessary, as approved by faculty advisor and graduate liaison, to meet the 36 -hour minimum requirement

Total Credit Hours
1 Chosen from from a list approved by the Graduate Liaison and Advisor, based on requirements of the specific area and student's professional interests and goals.

## General Requirements for all Master's Degrees

The master's degree requires the equivalent of at least two semesters of satisfactory graduate work and additional work as may be prescribed for the degree.

All coursework applied to the master's degree must carry graduate credit.
Master's degree programs which require a thesis consist of at least 30 credit hours. All non-thesis master's degree programs require at least 30 credit hours.

Credit transferred from other institutions must meet specific criteria and is subject to certain limitations.

Courses completed through correspondence study may not be applied to the master's degree.

To qualify for a graduate degree, students must achieve an overall grade point average of 3.0 or higher in the degree program coursework and in all resident graduate coursework attempted. A student must also have at least a 3.0 in all coursework (including undergraduate coursework if any).

Additional information for master's degree students may be found in the Graduate College Bulletin.

## ILAC: Elementary Education, M.Ed.

Minimum Total Hours (Thesis): 36<br>Minimum Total Hours (Non-Thesis): 36

Program Code: M545 Q221

## Thesis Option

| Code Title | Credit |
| :---: | :---: |
|  | Hours |
| Core Courses |  |
| Studies in Teaching \& Learning |  |
| Choose one course in teaching and learning ${ }^{1}$ | 3 |
| Studies in Cultural Diversity |  |
| Choose one course in cultural diversity ${ }^{1}$ | 3 |
| Research |  |
| Choose 6 hours in research ${ }^{1}$ | 6 |
| Research Synthesis |  |
| Choose one of the following: | 2-3 |
| EDUC 5980 Research for Master's Thesis |  |
| Program Equivalent |  |
| Concentration |  |
| Concentration Coursework |  |
| EDEL 5593 Issues in Teaching in Elementary Schools | 3 |

1-4 Choose 12 additional hours of concentration coursework directly related to career goals, as approved by the faculty advisor and graduate liaison
Electives
Choose additional electives as necessary, as approved by 6-7 faculty advisor and graduate liaison, to meet the 36-hour minimum requirement
Total Credit Hours
${ }^{1}$ Chosen from from a list approved by the Graduate Liaison and Advisor, based on requirements of the specific area and student's professional interests and goals.

## Non-Thesis Option

| Code Title | Credit |
| :---: | :---: |
| Core Courses |  |
| Studies in Teaching \& Learning |  |
| Choose one course in teaching and learning ${ }^{1}$ | 3 |
| Studies in Cultural Diversity |  |
| Choose one course in cultural diversity ${ }^{1}$ | 3 |
| Research |  |
| Choose 6 hours in research ${ }^{1}$ | 6 |
| Research Synthesis |  |
| Choose one of the following: | 0-3 |
| EDUC 6930 Intensive Studies in Education |  |
| Non-Thesis project hours |  |
| Concentration |  |
| Concentration Coursework |  |
| EDEL 5593 Issues in Teaching in Elementary Schools | 3 |
| Choose 12 additional hours of concentration coursework directly related to career goals, as approved by the faculty advisor and graduate liaison | 12 |
| Electives |  |
| Choose additional electives as necessary, as approved by faculty advisor and graduate liaison, to meet the 36 -hour minimum requirement | 6-9 |
| Total Credit Hours | 36 |
| ${ }^{1}$ Chosen from from a list approved by the Graduate Liaison and Advisor, based on requirements of the specific area and student's professional interests and goals. |  |

## General Requirements for all Master's Degrees

The master's degree requires the equivalent of at least two semesters of satisfactory graduate work and additional work as may be prescribed for the degree.

All coursework applied to the master's degree must carry graduate credit.
Master's degree programs which require a thesis consist of at least 30 credit hours. All non-thesis master's degree programs require at least 30 credit hours.

Credit transferred from other institutions must meet specific criteria and is subject to certain limitations.

Courses completed through correspondence study may not be applied to the master's degree.

To qualify for a graduate degree, students must achieve an overall grade point average of 3.0 or higher in the degree program coursework and in all resident graduate coursework attempted. A student must also have at least a 3.0 in all coursework (including undergraduate coursework if any).

Additional information for master's degree students may be found in the Graduate College Bulletin.

## ILAC: English Education, M.Ed.

Minimum Total Hours (Thesis): 36<br>Minimum Total Hours (Non-Thesis): 36

Program Code: M545 Q236

## Thesis Option

| Code Title | Credit Hours |
| :---: | :---: |
| Core Courses |  |
| Studies in Teaching \& Learning |  |
| Choose one course in teaching and learning ${ }^{1}$ | 3 |
| Studies in Cultural Diversity |  |
| Choose one course in cultural diversity ${ }^{1}$ | 3 |
| Research |  |
| Choose 6 hours in research ${ }^{1}$ | 6 |
| Research Synthesis |  |
| Choose one of the following: | 2-3 |
| EDUC 5980 Research for Master's Thesis |  |
| Program Equivalent |  |
| Concentration |  |
| Choose 20 hours ${ }^{1}$ | 20 |
| Electives |  |
| Choose additional electives as necessary, as approved by faculty advisor and graduate liaison, to meet the 36 -hour minimum requirement | 1-2 |
| Total Credit Hours | 36 |
| ${ }^{1}$ Chosen from from a list approved by the Graduate Liais based on requirements of the specific area and student's interests and goals. | dvisor, ional |

## Non-Thesis Option

| Code Title | Credit <br> Hours |
| :--- | ---: |
| Core Courses |  |
| Studies in Teaching \& Learning | 3 |
| Choose one course in teaching and learning ${ }^{1}$ | 3 |
| Studies in Cultural Diversity |  |
| Choose one course in cultural diversity ${ }^{1}$ | 6 |
| Research $^{\text {Choose } 6 \text { hours in research }}{ }^{1}$ | 6 |

Research Synthesis
Choose one of the following: 0-3

EDUC 6930 Intensive Studies in Education
Non-Thesis project hours

## Concentration

Choose 20 hours ${ }^{1}$ ..... 20
Electives
additional electives as necessary, as approv ..... 1-4 faculty advisor and graduate liaison, to meet the 36-hour minimum requirement

Total Credit Hours

1 Chosen from from a list approved by the Graduate Liaison and Advisor, based on requirements of the specific area and student's professional interests and goals.

## General Requirements for all Master's Degrees

The master's degree requires the equivalent of at least two semesters of satisfactory graduate work and additional work as may be prescribed for the degree.

All coursework applied to the master's degree must carry graduate credit.
Master's degree programs which require a thesis consist of at least 30 credit hours. All non-thesis master's degree programs require at least 30 credit hours.

Credit transferred from other institutions must meet specific criteria and is subject to certain limitations.

Courses completed through correspondence study may not be applied to the master's degree.

To qualify for a graduate degree, students must achieve an overall grade point average of 3.0 or higher in the degree program coursework and in all resident graduate coursework attempted. A student must also have at least a 3.0 in all coursework (including undergraduate coursework if any).

Additional information for master's degree students may be found in the Graduate College Bulletin.

## ILAC: Instructional Leadership, M.Ed.

Minimum Total Hours (Thesis): 36
Minimum Total Hours (Non-Thesis): 36
Program Code: M545 Q361 (Online: M546 Q361)

## Thesis Option

Code Title
Credit Hours
Core Courses
Studies in Teaching \& Learning
Choose one course in teaching and learning ${ }^{1} 3$
Studies in Cultural Diversity
Choose one course in cultural diversity ${ }^{1}$
Research
Choose 6 hours in research ${ }^{1}$
6

Choose one of the following:
EDUC 5980 Research for Master's Thesis
Program Equivalent

## Concentration

Concentration Coursework
Choose 9 or more hours of concentration coursework directly related to career goals as approved by advisor and graduate liaison

Electives
Choose additional electives as necessary, as approved by
faculty advisor and graduate liaison, to meet the 36-hour minimum requirement

Total Credit Hours
${ }^{1}$ Chosen from from a list approved by the Graduate Liaison and Advisor, based on requirements of the specific area and student's professional interests and goals.

## Non-Thesis Option

| Code Title | Credit |
| :---: | :---: |
|  | Hours |
| Core Courses |  |
| Studies in Teaching \& Learning |  |
| Choose one course in teaching and learning ${ }^{1}$ | 3 |
| Studies in Cultural Diversity |  |
| Choose one course in cultural diversity ${ }^{1}$ | 3 |
| Research |  |
| Choose 6 hours in research ${ }^{1}$ | 6 |
| Research Synthesis |  |
| Choose one of the following: | 0-3 |
| EDUC 6930 Intensive Studies in Education |  |
| Non-Thesis project hours |  |
| Concentration |  |
| Concentration Coursework |  |
| Choose 9 or more hours of concentration coursework directly related to career goals as approved by advisor and graduate liaison | 9 |
| Electives |  |
| Choose additional electives as necessary, as approved by faculty advisor and graduate liaison, to meet the 36 -hour minimum requirement | 12-15 |

## Total Credit Hours

${ }^{1}$ Chosen from from a list approved by the Graduate Liaison and Advisor, based on requirements of the specific area and student's professional interests and goals.

## General Requirements for all Master's Degrees

The master's degree requires the equivalent of at least two semesters of satisfactory graduate work and additional work as may be prescribed for the degree.

[^38]Master's degree programs which require a thesis consist of at least 30 credit hours. All non-thesis master's degree programs require at least 30 credit hours.

Credit transferred from other institutions must meet specific criteria and is subject to certain limitations.

Courses completed through correspondence study may not be applied to the master's degree.

To qualify for a graduate degree, students must achieve an overall grade point average of 3.0 or higher in the degree program coursework and in all resident graduate coursework attempted. A student must also have at least a 3.0 in all coursework (including undergraduate coursework if any).

Additional information for master's degree students may be found in the Graduate College Bulletin.

## ILAC: Mathematics Education, M.Ed.

Minimum Total Hours (Thesis): 36
Minimum Total Hours (Non-Thesis): 36
Program Code: M545 Q441

## Thesis Option

| Code Title | Credit |
| :---: | :---: |
| Core Courses |  |
| Studies in Teaching \& Learning |  |
| Choose one course in teaching and learning ${ }^{1}$ | 3 |
| Studies in Cultural Diversity |  |
| Choose one course in cultural diversity ${ }^{1}$ | 3 |
| Research |  |
| Choose 6 hours in research ${ }^{1}$ | 6 |
| Research Synthesis |  |
| Choose one of the following: | 2-3 |
| EDUC 5980 Research for Master's Thesis |  |
| Program Equivalent |  |
| Concentration |  |
| Choose 20 hours ${ }^{1}$ | 20 |
| Electives |  |
| Choose additional electives as necessary, as approved by faculty advisor and graduate liaison, to meet the 36-hour minimum requirement | 1-2 |

## Total Credit Hours

36${ }^{1}$ Chosen from from a list approved by the Graduate Liaison and Advisor, based on requirements of the specific area and student's professional interests and goals.

## Non-Thesis Option

Cod
Title
Credit Hours

## Core Courses

Studies in Teaching \& Learning
Choose one course in teaching and learning ${ }^{1}$
Studies in Cultural Diversity

| Choose one course in cultural diversity ${ }^{1}$ | 3 |
| :---: | :---: |
| Research |  |
| Choose 6 hours in research ${ }^{1}$ | 6 |
| Research Synthesis |  |
| Choose one of the following: | 0-3 |
| EDUC 6930 Intensive Studies in Education |  |
| Non-Thesis project hours |  |
| Concentration |  |
| Choose 20 hours ${ }^{1}$ | 20 |
| Electives |  |
| Choose additional electives as necessary, as approved by faculty advisor and graduate liaison, to meet the 36 -hour minimum requirement | 1-4 |
| Total Credit Hours | 36 |
| ${ }^{1}$ Chosen from from a list approved by the Graduate Liaiso based on requirements of the specific area and student's interests and goals. |  |

## General Requirements for all Master's Degrees

The master's degree requires the equivalent of at least two semesters of satisfactory graduate work and additional work as may be prescribed for the degree.

All coursework applied to the master's degree must carry graduate credit.
Master's degree programs which require a thesis consist of at least 30 credit hours. All non-thesis master's degree programs require at least 30 credit hours.

Credit transferred from other institutions must meet specific criteria and is subject to certain limitations.

Courses completed through correspondence study may not be applied to the master's degree.

To qualify for a graduate degree, students must achieve an overall grade point average of 3.0 or higher in the degree program coursework and in all resident graduate coursework attempted. A student must also have at least a 3.0 in all coursework (including undergraduate coursework if any).

Additional information for master's degree students may be found in the Graduate College Bulletin.

## ILAC: Reading Education, M.Ed.

Minimum Total Hours (Thesis): 36
Minimum Total Hours (Non-Thesis): 36
Program Code: M545 Q566

## Thesis Option

| Code | Title | Credit |
| :---: | :---: | :---: |
|  |  | Hours |
| Core Courses |  |  |
| Studies in Teaching \& Learning |  |  |
| Choose one | e in teaching and learning ${ }^{1}$ | 3 |
| Studies in Cultural Diversity |  |  |
| EDRG 5573 | Culture, Language and Literacy | 3 |


| Research |  |  |
| :---: | :---: | :---: |
| EDRG 5553 | Issues and Research in Reading/Literacy | 3 |
| Choose 3 hours in Graduate Liaison | research from a list approved by the and Advisor | 3 |
| Research Synthesis |  |  |
| Choose one of the following: |  | 2-3 |
| EDUC 5980 Research for Master's Thesis |  |  |
| Program Equivalent |  |  |
| Concentration |  |  |
| EDRG 5723 | Emergent and Beginning Literacy | 3 |
| EDRG 5733 | Adolescent Literacy | 3 |
| EDRG 5803 | Theories of Reading \& Literacy | 3 |
| EDRG 5814 | Applications of Literacy Assessment and Evaluation | 4 |
| EDRG 5903 | Literacy Leadership | 3 |
| EDRG 5934 | Applications of Literacy Instructional Strategies | 4 |
| Electives |  |  |
| Choose 1-2 hours from the Reading Education Electives list(p. 1195) |  | 1-2 |
| Total Credit Hours |  | 36 |
| ${ }^{1}$ Chosen from fro based on require interests and go | m a list approved by the Graduate Liaison ements of the specific area and student's als. | sor, nal |

## Non-Thesis Option

| Code | Title | Credit |
| :---: | :---: | :---: |
|  |  | Hours |
| Core Cours |  |  |
| Studies in Te | \& Learning |  |
| Choose one | se in teaching and learning ${ }^{1}$ | 3 |
| Studies in Cult | Diversity |  |
| EDRG 5573 | Culture, Language and Literacy | 3 |
| Research |  |  |
| EDRG 5553 | Issues and Research in Reading/Literacy | 3 |
| Choose 3 h Graduate L | research from a list approved by the and Advisor | 3 |
| Research Sy |  |  |
| Choose one | e following: | 0-3 |
| EDUC 69 | Intensive Studies in Education |  |
| Non-The | jeject Hours |  |
| Concentrati |  |  |
| EDRG 5723 | Emergent and Beginning Literacy | 3 |
| EDRG 5733 | Adolescent Literacy | 3 |
| EDRG 5803 | Theories of Reading \& Literacy | 3 |
| EDRG 5814 | Applications of Literacy Assessment and Evaluation | 4 |
| EDRG 5903 | Literacy Leadership | 3 |
| EDRG 5934 | Applications of Literacy Instructional Strategies | 4 |
| Electives |  |  |

Choose 1-4 hours from the Reading Education Electives list

Total Credit Hours
${ }^{1}$ Chosen from from a list approved by the Graduate Liaison and Advisor, based on requirements of the specific area and student's professional interests and goals.

## Reading Education Electives List

| Code | Title | Credit Hours |
| :---: | :---: | :---: |
| Any course with the EDRG prefix not otherwise used towards degree requirements |  |  |
| EDEC 5940 | Field Studies in Education | 1-4 |
| EDEN 5223 | The Teaching of Composition: Theory and Practice | 3 |
| EDEN 5233 | The Teaching of Literature: Theory and Practice | 3 |
| EDEN 5243 | The Teaching of Language: Theory and Practice | 3 |
| EDEN 5263 | Special Topics in Literacy I | 3 |
| EDEN 5273 | Creativity in Teaching Composition | 3 |
| EDEN 5283 | Mediacy and the Pop Culture | 3 |
| EDEN 5303 | Oklahoma Writing Project | 3 |
| EDRG 5940 | Field Studies in Education | 1-2 |
| EDRG 5960 | Directed Readings | 1-2 |
| EDRG 6990 | Individual Study in Education | 1-2 |

## General Requirements for all Master's Degrees

The master's degree requires the equivalent of at least two semesters of satisfactory graduate work and additional work as may be prescribed for the degree.

All coursework applied to the master's degree must carry graduate credit.
Master's degree programs which require a thesis consist of at least 30 credit hours. All non-thesis master's degree programs require at least 30 credit hours.

Credit transferred from other institutions must meet specific criteria and is subject to certain limitations.

Courses completed through correspondence study may not be applied to the master's degree.

To qualify for a graduate degree, students must achieve an overall grade point average of 3.0 or higher in the degree program coursework and in all resident graduate coursework attempted. A student must also have at least a 3.0 in all coursework (including undergraduate coursework if any).

Additional information for master's degree students may be found in the Graduate College Bulletin.

## ILAC: Science Education, M.Ed.

Minimum Total Hours (Thesis): 36<br>Minimum Total Hours (Non-Thesis): 36

$\left.\begin{array}{lr}\text { Thesis Option } \\ \text { Code } \quad \text { Title } & \text { Credit } \\ \text { Hours }\end{array}\right\}$
Total Credit Hours ..... 36
${ }^{1}$ Chosen from from a list approved by the Graduate Liaison and Advisor, based on requirements of the specific area and student's professional interests and goals.

## Non-Thesis Option

| Code Title | Credit |
| :---: | :---: |
|  | Hours |
| Core Courses |  |
| Studies in Teaching \& Learning |  |
| Choose one course in teaching and learning ${ }^{1}$ | 3 |
| Studies in Cultural Diversity |  |
| Choose one course in cultural diversity ${ }^{1}$ | 3 |
| Research |  |
| Choose 6 hours in research ${ }^{1}$ | 6 |
| Research Synthesis |  |
| Choose one of the following: | 0-3 |
| EDUC 6930 Intensive Studies in Education |  |
| Non-Thesis project hours |  |
| Concentration |  |
| Choose 20 hours ${ }^{1}$ | 20 |
| Electives |  |
| Choose additional electives as necessary, as approved by faculty advisor and graduate liaison, to meet the 36 -hour minimum requirement | 1-4 |

## Total Credit Hours

36${ }^{1}$ Chosen from from a list approved by the Graduate Liaison and Advisor, based on requirements of the specific area and student's professional interests and goals.

## General Requirements for all Master's Degrees

The master's degree requires the equivalent of at least two semesters of satisfactory graduate work and additional work as may be prescribed for the degree.

All coursework applied to the master's degree must carry graduate credit.
Master's degree programs which require a thesis consist of at least 30 credit hours. All non-thesis master's degree programs require at least 30 credit hours.

Credit transferred from other institutions must meet specific criteria and is subject to certain limitations.

Courses completed through correspondence study may not be applied to the master's degree.

To qualify for a graduate degree, students must achieve an overall grade point average of 3.0 or higher in the degree program coursework and in all resident graduate coursework attempted. A student must also have at least a 3.0 in all coursework (including undergraduate coursework if any).

Additional information for master's degree students may be found in the Graduate College Bulletin.

## ILAC: Science, Technology, Engineering \& Math (STEM) Education, M.Ed.

Minimum Total Hours (Thesis): 36
Minimum Total Hours (Non-Thesis): 36
Program Code: M545 Q592

## Thesis Option

| Code Title | Credit |
| :---: | :---: |
| Core Courses |  |
| Studies in Teaching \& Learning |  |
| Choose one course in teaching and learning ${ }^{1}$ | 3 |
| Studies in Cultural Diversity |  |
| Choose one course in cultural diversity ${ }^{1}$ | 3 |
| Research |  |
| Choose 6 hours in research ${ }^{1}$ | 6 |
| Research Synthesis |  |
| Choose one of the following: | 2-3 |
| EDUC 5980 Research for Master's Thesis |  |
| Program Equivalent |  |
| Concentration Emphasis |  |
|  | 3 |
| ILAC 5940 Field Studies in ILAC (Scientific, <br>  Mathematical \& Engineering Methods, <br>  Inquiry \& Authentic Teaching) | 3 |
| ILAC $5940 \quad$ Field Studies in ILAC (Authentic Teaching and Learning of STEM) | 3 |
| Concentration Electives |  |
| Choose 15 to 20 hours from the following or as approved by Graduate Liaison and Advisor: | 15-20 |

## Concentration Electives

Graduate Liaison and Advisor:

| EDSE 5653 | Problems of Teaching in Secondary Schools |
| :---: | :---: |
| EDSP 5413 | Characteristics \& Methods in Teaching Students with Exceptionalities |
| EIPT 5183 | Learning and Motivation |
| EIPT 5513 | Teaching with Technology |
| ILAC 5940 | Field Studies in ILAC (Historical Development of Science, Math \& Epistemology) |
| A maximum of one of the following: |  |
| EDUC 5920 | Internship in Education--Master's (Teaching Experience in Math) |
| EDUC 5920 | Internship in Education--Master's (Teaching Experience in Science) |
| ENGR 4510 | Selected Topics (G) (Teaching Experience in College or University) |
| Total Credit Hours | 38 |
| Chosen from from a list approved by the Graduate Liaison and Advisor, based on requirements of the specific area and student's professional interests and goals. |  |

## Non-Thesis Option

| Code Title |  |
| :---: | :---: |
|  | Hours |
| Core Courses |  |
| Studies in Teaching \& Learning |  |
| Choose one course in teaching and learning ${ }^{1}$ | 3 |
| Studies in Cultural Diversity |  |
| Choose one course in cultural diversity ${ }^{1}$ | 3 |
| Research |  |
| Choose 6 hours in research ${ }^{1}$ | 6 |
| Research Synthesis |  |
| Choose one of the following: | 0-3 |
| EDUC 6930 Intensive Studies in Education |  |
| Portfolio/Special Project (0 credit hours) |  |
| Concentration Emphasis |  |
|  | 3 |
| ILAC 5940 Field Studies in ILAC (Scientific, <br>  Mathematical \& Engineering Methods, <br>  Inquiry \& Authentic Teaching) | 3 |
| ILAC 5940 Field Studies in ILAC (Authentic Teaching <br> and Learning of STEM) | 3 |

\(\left.$$
\begin{array}{l}\text { Concentration Electives } \\
\begin{array}{l}\text { Choose } 15 \text { to } 20 \text { hours from the following or as approved by } \\
\text { Graduate Liaison and Advisor: } \\
\text { EDSE } 5653\end{array} \begin{array}{l}\text { Problems of Teaching in Secondary } \\
\text { Schools }\end{array} \\
\hline \text { EDSP 5413 }\end{array}
$$ \begin{array}{l}Characteristics \& Methods in Teaching <br>

Students with Exceptionalities\end{array}\right]\)| EIPT 5183 | Learning and Motivation |
| :--- | :--- |
| EIPT 5513 | Teaching with Technology |


| ILAC 5940 | Field Studies in ILAC (Historical <br>  <br> Epistemology) |
| :--- | :--- |
| A maximum of one of the following: |  |
| EDUC 5920 | Internship in Education--Master's (Teaching <br> Experience in Math) |
| EDUC 5920 | Internship in Education--Master's (Teaching <br> Experience in Science) |
| ENGR 4510 | Selected Topics (G) (Teaching Experience <br> in College or University) |
| Total Credit Hours |  |
| Chosen from from a list approved by the Graduate Liaison and Advisor, |  |
| Cased on requirements of the specific area and student's professional |  |
| interests and goals. |  |

## General Requirements for all Master's Degrees

The master's degree requires the equivalent of at least two semesters of satisfactory graduate work and additional work as may be prescribed for the degree.

All coursework applied to the master's degree must carry graduate credit.
Master's degree programs which require a thesis consist of at least 30 credit hours. All non-thesis master's degree programs require at least 30 credit hours.

Credit transferred from other institutions must meet specific criteria and is subject to certain limitations.

Courses completed through correspondence study may not be applied to the master's degree.

To qualify for a graduate degree, students must achieve an overall grade point average of 3.0 or higher in the degree program coursework and in all resident graduate coursework attempted. A student must also have at least a 3.0 in all coursework (including undergraduate coursework if any).

Additional information for master's degree students may be found in the Graduate College Bulletin.

## ILAC: Secondary Education, M.Ed.

Minimum Total Hours (Thesis): 36
Minimum Total Hours (Non-Thesis): 36
Program Code: M545 Q601

## Thesis Option

Code Title

## Core Courses

| Studies in Teaching \& Learning |  |
| :--- | ---: |
| Choose one course in teaching and learning $^{1}$ | 3 |
| Studies in Cultural Diversity | 3 |
| Choose one course in cultural diversity $^{1}$ | 3 |

## Research

Choose 6 hours in research ${ }^{1}$
Credit Hours

## Research Synthesis

Choose one of the following:

## EDUC 5980 Research for Master's Thesis

Program Equivalent

## Concentration

Choose 20 hours ${ }^{1}$

## Electives

Choose additional electives as necessary, as approved by 1-2
faculty advisor and graduate liaison, to meet the 36-hour minimum requirement

Total Credit Hours
1 Chosen from from a list approved by the Graduate Liaison and Advisor, based on requirements of the specific area and student's professional interests and goals.

## Non-Thesis Option

| Code Title | Credit <br> Hours |
| :---: | :---: |
| Core Courses |  |
| Studies in Teaching \& Learning |  |
| Choose one course in teaching and learning ${ }^{1}$ | 3 |
| Studies in Cultural Diversity |  |
| Choose one course in cultural diversity ${ }^{1}$ | 3 |
| Research |  |
| Choose 6 hours in research ${ }^{1}$ | 6 |
| Research Synthesis |  |
| Choose one of the following: | 0-3 |
| EDUC 6930 Intensive Studies in Education |  |
| Non-Thesis project hours |  |
| Concentration |  |
| Choose 20 hours ${ }^{1}$ | 20 |
| Electives |  |
| Choose additional electives as necessary, as approved by faculty advisor and graduate liaison, to meet the 36 -hour minimum requirement | 1-4 |

Total Credit Hours
1 Chosen from from a list approved by the Graduate Liaison and Advisor, based on requirements of the specific area and student's professional interests and goals.

## General Requirements for all Master's Degrees

The master's degree requires the equivalent of at least two semesters of satisfactory graduate work and additional work as may be prescribed for the degree.

All coursework applied to the master's degree must carry graduate credit.
Master's degree programs which require a thesis consist of at least 30 credit hours. All non-thesis master's degree programs require at least 30 credit hours.

Credit transferred from other institutions must meet specific criteria and is subject to certain limitations.

Courses completed through correspondence study may not be applied to the master's degree.

To qualify for a graduate degree, students must achieve an overall grade point average of 3.0 or higher in the degree program coursework and in all resident graduate coursework attempted. A student must also have at least a 3.0 in all coursework (including undergraduate coursework if any).

Additional information for master's degree students may be found in the Graduate College Bulletin.

## ILAC: Social Studies Education, M.Ed.

Minimum Total Hours (Thesis): 36<br>Minimum Total Hours (Non-Thesis): 36<br>Program Code: M545 Q616<br>\section*{Thesis Option}

| Code Title | Credit |
| :---: | :---: |
|  | Hours |
| Core Courses |  |
| Studies in Teaching \& Learning |  |
| Choose one course in teaching and learning ${ }^{1}$ | 3 |
| Studies in Cultural Diversity |  |
| Choose one course in cultural diversity ${ }^{1}$ | 3 |
| Research |  |
| Choose 6 hours in research ${ }^{1}$ | 6 |
| Research Synthesis |  |
| Choose one of the following: 2-3 |  |
| EDUC 5980 Research for Master's Thesis |  |
| Program Equivalent |  |
| Concentration |  |
| Choose 20 hours ${ }^{1}$ | 20 |
| Electives |  |
| Choose additional electives as necessary, as approved by faculty advisor and graduate liaison, to meet the 36-hour minimum requirement | 1-2 |

Total Credit Hours
${ }^{1}$ Chosen from from a list approved by the Graduate Liaison and Advisor, based on requirements of the specific area and student's professional interests and goals.

| Non-Thesis Option |  |
| :---: | :---: |
| Code Title | Credit |
|  | Hours |
| Core Courses |  |
| Studies in Teaching \& Learning |  |
| Choose one course in teaching and learning ${ }^{1}$ | 3 |
| Studies in Cultural Diversity |  |
| Choose one course in cultural diversity ${ }^{1}$ | 3 |
| Research |  |
| Choose 6 hours in research ${ }^{1}$ | 6 |
| Research Synthesis |  |
| Choose one of the following: | 0-3 |


| EDUC $6930 \quad$ Intensive Studies in Education |  |
| :--- | :---: |
| $\quad$ Non-Thesis project hours |  |
| Concentration | 20 |
| Choose 20 hours ${ }^{1}$ | $1-4$ |
| Electives |  |
| Choose additional electives as necessary, as approved by |  |
| faculty advisor and graduate liaison, to meet the 36-hour |  |
| minimum requirement |  |

Total Credit Hours

Chosen from from a list approved by the Graduate Liaison and Advisor, based on requirements of the specific area and student's professional interests and goals.

## General Requirements for all Master's Degrees

The master's degree requires the equivalent of at least two semesters of satisfactory graduate work and additional work as may be prescribed for the degree.

All coursework applied to the master's degree must carry graduate credit.

Master's degree programs which require a thesis consist of at least 30 credit hours. All non-thesis master's degree programs require at least 30 credit hours.

Credit transferred from other institutions must meet specific criteria and is subject to certain limitations.

Courses completed through correspondence study may not be applied to the master's degree.

To qualify for a graduate degree, students must achieve an overall grade point average of 3.0 or higher in the degree program coursework and in all resident graduate coursework attempted. A student must also have at least a 3.0 in all coursework (including undergraduate coursework if any)

Additional information for master's degree students may be found in the Graduate College Bulletin.

## ILAC: Teacher Education, M.Ed.

Minimum Total Hours (Thesis): 36
Minimum Total Hours (Non-Thesis): 36

Program Code: M545 Q636

## Thesis Option

| Code Title | Credit <br> Hours |
| :--- | ---: |
| Core Courses |  |
| Studies in Teaching \& Learning <br> Choose one course in teaching and learning |  |
| Studies in Cultural Diversity |  |
| Choose one course in cultural diversity ${ }^{1}$ | 3 |
| Research <br> Choose 6 hours in research |  |
| Research Synthesis | 3 |
| Choose one of the following: | 6 |
| EDUC 5980 Research for Master's Thesis | $2-3$ |


| Program Equivalent |
| :--- |
| Concentration |
| Choose 18 hours ${ }^{2}$ |
| Electives |
| Choose a minimum of 6 hours of education-related courses |
| to meet degree requirement hour total as approved by faculty |
| advisor and Graduate Liaison |
| Total Credit Hours |
| 1 | | Chosen from from a list approved by the Graduate Liaison and Advisor, |
| :--- |
| based on requirements of the specific area and student's professional |
| interests and goals. |
| 2 Chosen from course work directly related to teacher education and |
| appropriate to the student's professional goals and interests, such as |
| courses leading toward teacher certification, as approved by the faculty |
| advisor and Graduate Liaison. |

## Non-Thesis Option



## General Requirements for all Master's Degrees

The master's degree requires the equivalent of at least two semesters of satisfactory graduate work and additional work as may be prescribed for the degree.

[^39]Master's degree programs which require a thesis consist of at least 30 credit hours. All non-thesis master's degree programs require at least 30 credit hours.

Credit transferred from other institutions must meet specific criteria and is subject to certain limitations.

Courses completed through correspondence study may not be applied to the master's degree.

To qualify for a graduate degree, students must achieve an overall grade point average of 3.0 or higher in the degree program coursework and in all resident graduate coursework attempted. A student must also have at least a 3.0 in all coursework (including undergraduate coursework if any).

Additional information for master's degree students may be found in the Graduate College Bulletin.

## ILAC: World Language Education, M.Ed.

Minimum Total Hours (Thesis): 36
Minimum Total Hours (Non-Thesis): 36
Program Code: M545 Q696

## Thesis Option

| Code Title | Credit |
| :---: | :---: |
|  | Hours |
| Core Courses |  |
| Studies in Teaching \& Learning |  |
| Choose one course in teaching and learning ${ }^{1}$ | 3 |
| Studies in Cultural Diversity |  |
| Choose one course in cultural diversity ${ }^{1}$ | 3 |
| Research |  |
| Choose 6 hours in research ${ }^{1}$ | 6 |
| Research Synthesis |  |
| Choose one of the following: | 2-3 |
| EDUC 5980 Research for Master's Thesis |  |
| Program Equivalent |  |
| Concentration |  |
| Choose 20 hours ${ }^{1}$ | 20 |
| Electives |  |
| Choose additional electives as necessary, as approved by faculty advisor and graduate liaison, to meet the 36-hour minimum requirement | 1-2 |
| Total Credit Hours | 36 |
| 1 Chosen from from a list approved by the Graduate Liaiso based on requirements of the specific area and student's interests and goals. | dvisor, sional |

## Non-Thesis Option

Cod
Title
Credit Hours

## Core Courses

Studies in Teaching \& Learning
Choose one course in teaching and learning ${ }^{1}$
Studies in Cultural Diversity

| Choose one course in cultural diversity ${ }^{1} 3$ | Code | Title | Credit |
| :---: | :---: | :---: | :---: |
| Research |  |  | Hours |
| Choose 6 hours in research ${ }^{1}$ ¢ 6 | Core Requirements |  |  |
| Research Synthesis | Education (9 hours) |  |  |
| Choose one of the following: 0-3 | EDEC 5333 | Social and Emotional Learning | 3 |
| EDUC 6930 Intensive Studies in Education | EDEC 5413 | Early Childhood Development | 3 |
| Non-Thesis project hours | EDEC 5920 | Internship in Education--Master's | 3 |
| Concentration | Health (6 hours) |  |  |
| Choose 20 hours $^{1}{ }^{1} 20$ | S WK 5163 | Child Abuse and Neglect | 3 |
| Electives | S WK 5263 | Biopsychosocial Aspects of Health and | 3 |
| Choose additional electives as necessary, as approved by 1-4 |  | Behavior |  |
| faculty advisor and graduate liaison, to meet the 36 -hour | Family \& Community (6 hours) |  |  |
| minimum requirement | RCPL 5033 | Sociology of Housing | 3 |
| Total Credit Hours 36 | EACS 6263 | Educational and Community Relations | 3 |
| 1 Chosen from from a list approved by the Graduate Liaison and Advisor, based on requirements of the specific area and student's professional interests and goals. | Economic Well-Being (6 hours) |  |  |
|  | P SC 5183 | Public Budgeting and Finance | 3 |
|  | P SC 5143 | Program Evaluation and Applied Policy Analysis | 3 |
| General Requirements for all Master's Degrees | Statistics (3 hours) |  |  |
|  | EACS 6023 | Applied Quantitative Research Methods in Educational Administration | 3 |
| The master's degree requires the equivalent of at least two semesters of satisfactory graduate work and additional work as may be prescribed for the degree. | Elective Requirements |  |  |
|  | Choose 6 hour | rom the following: | 6 |
| All coursework applied to the master's degree must carry graduate credit. | OCTH 7162 | (Evidence-Based Practice-OUHSC) |  |
|  | OCTH 8272 | (Developmental Disabilities-OUHSC) |  |
| Master's degree programs which require a thesis consist of at least 30 credit hours. All non-thesis master's degree programs require at least 30 credit hours. | RCPL 5463 | Geographic Information Systems for Land Use Planning |  |
|  | R S 5263 | (Family and Diversity-OUHSC) |  |
| Credit transferred from other institutions must meet specific criteria and | Other courses as approved by the Tulsa ILAC Department |  |  |

Total Credit Hours

## General Requirements for all Master's Degrees

The master's degree requires the equivalent of at least two semesters of satisfactory graduate work and additional work as may be prescribed for the degree.

All coursework applied to the master's degree must carry graduate credit.
Master's degree programs which require a thesis consist of at least 30 credit hours. All non-thesis master's degree programs require at least 30 credit hours.

Credit transferred from other institutions must meet specific criteria and is subject to certain limitations.

Courses completed through correspondence study may not be applied to the master's degree.

To qualify for a graduate degree, students must achieve an overall grade point average of 3.0 or higher in the degree program coursework and in all resident graduate coursework attempted. A student must also have at least a 3.0 in all coursework (including undergraduate coursework if any).

Additional information for master's degree students may be found in the Graduate College Bulletin.

## Reading Specialist, M.Ed.

Minimum Total Hours (Non-Thesis): 32
Program Code: M812

- This program is Non-Thesis Only.

| Code | Title | Credit |
| :---: | :---: | :---: |
|  |  | Hours |
| Core Courses |  |  |
| Studies in Teaching \& Learning |  |  |
| EDRG 5934 | Applications of Literacy Instructional Strategies | 4 |
| Studies in Cultural Diversity |  |  |
| EDRG 5573 | Culture, Language and Literacy | 3 |
| Research |  |  |
| EDRG 5553 | Issues and Research in Reading/Literacy | 3 |
| Concentration |  |  |
| EDRG 5723 | Emergent and Beginning Literacy | 3 |
| EDRG 5643 | Survey of Literacy for All Learners | 3 |
| EDRG 5814 | Applications of Literacy Assessment and Evaluation | 4 |
| EDRG 5733 | Adolescent Literacy | 3 |
| EDRG 5903 | Literacy Leadership | 3 |
| EDRG 5753 | Digital and Multimodal Literacies | 3 |
| EDRG 5843 | Writing Across the Disciplines | 3 |
| Total Credit Hours |  | 32 |

## General Requirements for all Master's Degrees

The master's degree requires the equivalent of at least two semesters of satisfactory graduate work and additional work as may be prescribed for the degree.

All coursework applied to the master's degree must carry graduate credit.
Master's degree programs which require a thesis consist of at least 30 credit hours. All non-thesis master's degree programs require at least 30 credit hours.

Credit transferred from other institutions must meet specific criteria and is subject to certain limitations.

Courses completed through correspondence study may not be applied to the master's degree.

To qualify for a graduate degree, students must achieve an overall grade point average of 3.0 or higher in the degree program coursework and in all resident graduate coursework attempted. A student must also have at least a 3.0 in all coursework (including undergraduate coursework if any).

Additional information for master's degree students may be found in the Graduate College Bulletin.

## Literacy Specialist, Graduate Certificate

Program Code: G078
The courses included in the certificate are all required courses in the master's degree that leads to a recommendation for state certification as a Reading Specialist and have assignments that are used to assess mastery of the standards.

## Certificate Requirements



## Instructional Leadership \& Academic Curriculum, Ph.D.

Minimum Total Hours: 90
Program Code: D545

## Program Requirements

Students pursuing a Ph.D. in Instructional Leadership and Academic Curriculum must choose a concentration from the following:

- Bilingual Education (concentration code: R056)
- Biomedical Education ${ }^{1}$ (concentration code: R065)
- Early Childhood Education (concentration code: R191)
- Elementary Education (concentration code: R221)
- English Education (concentration code: R236)
- Instructional Leadership ${ }^{2}$ (concentration code: R361)
- Mathematics Education (concentration code: R441)
- Reading Education (concentration code: R566)
- Science Education (concentration code: R591)
- Secondary Education (concentration code: R601)
- Social Studies Education (concentration code: R616)

| Code | Title | Credit Hours |
| :---: | :---: | :---: |
| Core (minimum 24 hours) |  |  |
| ILAC 6013 | Proseminar in Instructional Leadership and Academic Curriculum | 3 |
| ILAC 6023 | Theoretical Issues in Instructional Leadership | 3 |
| ILAC 6003 | Curriculum Theory | 3 |
| ILAC 6233 | Implications of Diversity | 3 |
| Research requireme interests a and the Gr prior cours | dologies - Courses are selected based on the specific area of concentration and students' Is, as approved by the doctoral committee Liaison. (May be partially satisfied through | 2 |
| Concentration (minimum 36 hours) |  |  |
| For all conc requiremen professiona and doctor | ions, courses are selected based on the he specific plan of study and students' ests and goals, as approved by the advisor mittee. | 36 |
| Electives (12 hour maximum) |  |  |
| Courses wil interests and committee. | lected based on the students' professional Is, as approved by the advisor and doctoral | 12 |
| Dissertation (9-12 hours) |  |  |
| ILAC 6980 | Research for Doctoral Dissertation | 9-12 |
| Additional Hours |  |  |
| Additional baccalaure committee. | work as needed to reach 90 posturs, as approved by the advisor and doctoral | 0-9 |
| Total Credit |  | 90 |
| The Biomedical Education concentration is comprised of a 36 hour concentration in medicine as approved by ILAC in consultation with OU HSC faculty: <br> 20 hours minimum in Anatomy or other coursework as approved by the faculty advisor and Graduate Liaison. <br> 10 hours Teaching Practicum. <br> 6 hours additional coursework in research or other coursework as approved by the faculty advisor and Graduate Liaison. <br> ${ }^{2}$ For the Instructional Leadership area of concentration the 36 concentration hours must include a minimum of 9 hours in ILAC taken after the master's degree (not including dissertation hours). The remaining hours may be in related educational fields or academic disciplines. |  |  |

The minimum hour requirement for a specific doctoral degree program cannot be waived.

No more than one-half of the credit hours, both OU and overall, excluding Research for Doctoral Dissertation (6980), may be $S / U$-graded coursework.

The student must be in residence at OU for at least two consecutive 16 week semesters during the pursuit of the doctoral degree while enrolled and engaged in coursework or research activities as prescribed by the major academic unit.

For more detailed regulations and requirements for Doctoral degrees, please consult the Graduate College Bulletin: http://www.ou.edu/ gradcollege/forms/bulletin

## General Requirements for Doctoral Degrees

A student should expect to spend at least the equivalent of three full academic years beyond the bachelor's degree to obtain the doctoral degree. During this period the student will take appropriate graduate coursework, successfully complete the general examination, and successfully defend and submit the final dissertation.

All coursework applied to the doctoral degree must carry graduate credit.
The doctoral degree requires at least 90 post-baccalaureate hours, including both formal coursework and hours of research.

## GALLOGLY COLLEGE OF ENGINEERING



107 Carson Engineering Center
202 W. Boyd
Norman, OK 73019-1021
Phone: (405) 325-2621
FAX: (405) 325-7508
engineering@ou.edu
coe.ou.edu

## Administrative Officers

John Klier, Ph.D., Dean of the College of Engineering Randa Shehab, Ph.D., Senior Associate Dean for Academic Affairs
Zahed Siddique, Ph.D., Associate Dean for Research
Annette Moran, Assistant Dean of Students

## General Information

Instruction in professional engineering was first given at the University of Oklahoma in 1899 when a course in surveying was offered. The following year, 1900-01, the first two years of engineering were presented. In 1902-03 a curriculum in civil engineering was established, and a School of Mines was organized. At the same time, courses in electrical and mechanical engineering were listed. In 1904 the courses in engineering were organized as a School of Applied Science. In 1909 the School of Mines and the School of Applied Science were joined and reorganized as the College of Engineering. The first professional degrees were conferred in 1909.

The college has grown substantially since that time. It now offers degrees in 11 undergraduate engineering fields, as well as computer science and environmental science. The student body includes approximately 3,200 undergraduate students and 800 graduate students. Its facilities fill eight major buildings with research facilities in portions of six other buildings.

In recent years, the college has been a major contributor to the philosophy of modern engineering education. It was one of the first to develop and adopt the "core" type engineering curricula now prevalent throughout the country. It was also one of the first to use the new approach to engineering laboratory work, wherein the student's creativity is developed through the planning and carrying out of the experiment as an exercise in engineering analysis and design. Thus, the curricula in engineering are constantly being updated and modified to meet the needs of industry and future graduate work, increase the versatility of the student, and prolong the usefulness of the material taught.

The college is organized into schools and departments with the responsibility for administering the undergraduate and graduate programs of study, or curricula, as listed in the later pages of this catalog.

The professional subjects in these curricula are supported by courses from other colleges of the University. Upon satisfactory completion of one of the curricula, a student will be recommended for a degree, in most cases qualified by the name of the engineering field pursued.

## Faculty

The University of Oklahoma celebrated its centennial of engineering education in the 2009-10 academic year. As the Gallogly College of Engineering completes its first hundred years and looks forward to the next, the faculty is dedicated to excellence in carrying out the University mission of teaching, research and service. The faculty are drawn from many of the nation's leading universities, including University of California, Georgia Tech, MIT, Rice, and Yale, to name a few. Over one in four faculty members in the college hold an endowed chair or professorship, and one in five hold Presidential Professorships. Four hold University of Oklahoma David Ross Boyd Professorships and eight hold George Lynn Cross Research Professorships. Many of them are recognized as Fellows of national professional societies. In addition, several of the faculty members advise student organizations, including design teams that compete at the championship level in national and international competitions.

## Computing

The OU Network consists of a high-speed backbone with connections to faculty, staff, laboratory, and classroom computers. Wireless technology extends the network to cover the engineering buildings, outside areas, laboratories, and classrooms. For more detailed information, visit the OU Information Technology Support page.

## Programs Offered

- College of Engineering Administrated Programs (p. 1211)
- Engineering Leadership, Undergraduate Certificate (p. 1216)
- Engineering Leadership Course Lists (p. 1217)
- Engineering Leadership: Sustainability, Undergraduate Certificate (p. 1219)
- Engineering Leadership Sustainability Course Lists (p. 1219)
- Applied Computing, M.S. (p. 1220)
- Electives Course List (p. 1221)
- Engineering, M.S. (p. 1221)
- Engineering Leadership and Management, M.S. (p. 1221)
- Electives Course List (p. 1222)
- Engineering, Ph.D. (p. 1222)
- Engineering: Engineering Education, Ph.D. (p. 1222)
- School of Aerospace and Mechanical Engineering (p. 1223)
- Aerospace Engineering, B.S. (p. 1235)
- Aerospace \& Mechanical Engineering Elective Lists (p. 1238)
- Mechanical Engineering (Standard), B.S. (p. 1239)
- Mechanical Engineering - Premedical Option, B.S. (p. 1241)
- Aerospace Engineering, B.S./M.S. (p. 1244)
- Mechanical Engineering (Standard), B.S./M.S. (p. 1247)
- Aerospace Engineering, M.S. (p. 1250)
- Mechanical Engineering, M.S. (p. 1251)
- Aerospace Engineering, Ph.D. (p. 1251)
- Mechanical Engineering, Ph.D. (p. 1252)
- Cellular and Behavioral Neurobiology: Aerospace and Mechanical Engineering, Ph.D. (p. 1253)
- Stephenson School of Biomedical Engineering (p. 1253)
- Biomedical Engineering, B.S. (p. 1260)
- BME Course Lists (p. 1263)
- Biomedical Engineering, B.S./M.S. (p. 1263)
- Biomedical Engineering, M.S. (p. 1266)
- Course Lists (p. 1266)
- Biomedical Engineering, Ph.D. (p. 1267)
- School of Sustainable Chemical, Biological and Materials Engineering (p. 1268)
- Chemical Engineering (Standard), B.S. (p. 1277)
- Course Lists (p. 1279)
- Chemical Engineering - Bioengineering Option, B.S. (p. 1279)
- Chemical Engineering - Pre-Medical Option, B.S. (p. 1282)
- Chemical Engineering - Sustainability Option, B.S. (p. 1284)
- Course Lists (p. 1287)
- Bioprocessing, Undergraduate Certificate (p. 1287)
- Chemical Engineering (Standard), B.S./M.S. (p. 1287)
- Advanced Chemistry Electives Course Lists (p. 1290)
- Chemical Engineering, M.S. (p. 1290)
- Sustainability - Energy and Materials Management, M.S. (p. 1291)
- Electives Course List (p. 1291)
- Bioprocessing, Graduate Certificate (p. 1291)
- Chemical Engineering, Ph.D. (p. 1292)
- School of Civil Engineering and Environmental Science (p. 1292)
- Architectural Engineering, B.S. (p. 1304)
- Civil Engineering, B.S. (p. 1307)
- Environmental Engineering, B.S. (p. 1309)
- Environmental Science, B.S. (p. 1312)
- Environmental Science, Minor (p. 1314)
- Water and Sanitation for Health and Sustainable Development, Minor (p. 1315)
- Architectural Engineering, B.S./Civil Engineering, M.S. (p. 1315)
- Civil Engineering, B.S./M.S. (p. 1320)
- Environmental Engineering, B.S./M.S. (p. 1326)
- Environmental Science, B.S./M.E.S. (p. 1329)
- Civil Engineering: Geotechnical Engineering, M.S. (p. 1332)
- Geotechnical Engineering Electives Course List (p. 1333)
- Civil Engineering: Geotechnical Engineering (Online), M.S. (p. 1333)
- Civil Engineering: Structural Engineering, M.S. (p. 1334)
- Structural Engineering Electives Course List (p. 1335)
- Civil Engineering: Structural Engineering (Online), M.S. (p. 1335)
- Civil Engineering: Transportation Engineering (Online), M.S. (p. 1336)
- Civil Engineering: Water Resources Engineering, M.S. (p. 1337)
- Water Resources Engineering Electives Course List (p. 1337)
- Civil Engineering: Water Resources Engineering (Online), M.S. (p. 1338)
- Environmental Engineering, M.S. (p. 1338)
- Environmental Engineering Electives Course List (p. 1339)
- Environmental Science, M.E.S. (p. 1340)
- Environmental Science Electives Course List (p. 1341)
- Hydrology and Water Security (Online), M.E.S. (p. 1341)
- Hydrology and Water Security Guided Electives (p. 1342)
- Civil Engineering, Ph.D. (p. 1342)
- Environmental Engineering, Ph.D. (p. 1343)
- Environmental Science, Ph.D. (p. 1343)
- School of Computer Science (p. 1344)
- Computer Science, B.S. (p. 1352)
- Elective Course Lists (p. 1355)
- Computer Science, Minor (p. 1355)
- Computational Technology, Minor (p. 1356)
- Computer Science, B.S./M.S. (p. 1357)
- BS/MS Elective Course Lists (p. 1360)
- Computer Science, M.S. (p. 1360)
- Computer Science, M.S. Approved Course List (p. 1361)
- Computer Science, Ph.D. (p. 1361)
- Program in Data Science and Analytics (p. 1362)
- Data Science and Analytics, Undergraduate Certificate (p. 1367)
- Data Science and Analytics Undergraduate Certificate Electives (p. 1367)
- Data Science and Analytics, M.S. (p. 1368)
- Data Science and Analytics, Graduate Certificate (p. 1368)
- Data Science and Analytics, Ph.D. (p. 1369)
- School of Electrical and Computer Engineering (p. 1369)
- Computer Engineering, B.S. (p. 1378)
- Electrical Engineering, B.S. (p. 1380)
- Electrical and Computer Engineering, Minor (p. 1382)
- Computer Engineering, B.S./Computer Science, M.S. (p. 1383)
- Computer Engineering, B.S./Electrical and Computer Engineering, M.S. (p. 1386)
- Electrical Engineering, B.S./Electrical and Computer Engineering, M.S. (p. 1389)
- Electrical and Computer Engineering, M.S. (p. 1392)
- Electrical and Computer Engineering, Ph.D. (p. 1392)
- Program in Engineering Physics (p. 1393)
- Engineering Physics, B.S. (p. 1395)
- Engineering Physics, M.S. (p. 1398)
- Engineering Physics, Ph.D. (p. 1398)
- School of Industrial and Systems Engineering (p. 1399)
- Industrial and Systems Engineering, B.S. (p. 1406)
- Industrial and Systems Engineering - Analytics Option, B.S. (p. 1408)
- Industrial and Systems Engineering - Pre-Medicine Option, B.S. (p. 1410)
- Industrial and Systems Engineering, B.S./M.S. (p. 1413)
- Industrial and Systems Engineering, B.S./Data Science and Analytics, M.S. (p. 1416)
- Industrial and Systems Engineering, B.S./M.B.A. (p. 1419)
- Industrial and Systems Engineering - Analytics, B.S./M.S. (p. 1422)
- Industrial and Systems Engineering - Analytics, B.S./Data Science and Analytics, M.S. (p. 1425)
- Industrial and Systems Engineering, M.S. (p. 1427)
- Industrial Systems and Engineering Electives Course List (p. 1429)
- Industrial and Systems Engineering, Ph.D. (p. 1429)


## Programs \& Facilities

The Gallogly College of Engineering is primarily located on the northeast corner of the University's Norman campus. Within the Gallogly College of Engineering, there are 12 engineering programs and nearly 40 degree options. In addition to these degree offerings, the college also offers a collaborative program in engineering physics and a program in data science and analytics.

## About the College:

The mission of the Gallogly College of Engineering is to foster creativity, innovation and professionalism through dynamic research, development and learning experiences. For more information, view the 2020-2025 Strategic Plan.

## Facilities Include:

- The Carson Engineering Center includes classrooms and laboratories for the School of Civil Engineering and Environmental Science, the School of Industrial and Systems Engineering and the Data Science and Analytics Institute.
- Felgar Hall houses laboratories and facilities for the School of Aerospace and Mechanical Engineering, the McCasland Foundation Engineering Pathways Hub, The Boggs Foundation Engineering Pathways Studio, and the Williams Student Services Center (WSSC).
- Sarkeys Energy Center houses the School of Sustainable Chemical, Biological and Materials Engineering.
- Devon Energy Hall houses the School of Computer Science and the School of Electrical and Computer Engineering as well as team and forum rooms, and laboratories.
- Gallogly Hall houses the Stephenson School of Biomedical Engineering and our engineering tutoring spaces.
- The Exxon-Mobil Lawrence G. Rawl Engineering Practice Facility is the home for engineering outreach and recruitment, and houses our engineering competition teams. The REPF also serves as the hub for student professional and leadership development with the Jerry Holmes Leadership Program for Engineers and Scientists, Sooner Engineering Education Center, Student Life and more than fifty student organizations and clubs. Every year, thousands of K-12 students visit the REPF to observe engineering students design, build and test their projects.
- The University's south and north campuses house additional offices and labs in support of the college's research enterprise and makes OU Engineering one of the finest engineering education complexes in the Southwest.


## Laboratories:

The laboratories of the college are well-equipped to demonstrate the principles of courses offered and are described in other sections of this catalog. Through these laboratories and the actual use of apparatus, instruments, and equipment, a student is able to make practical applications of the theories and principles which the student has learned in the classroom. Students of the college are active in fieldwork. In addition, laboratories and other facilities of the college are used by students and faculty members in the classroom and for research and experiments which add value to the global economy.

View list of nearly 50 labs in the Gallogly College of Engineering.

## Undergraduate <br> ENGINEERING PATHWAYS

The McCasland Foundation Engineering Pathways Hub

Felgar Hall Room 222
865 Asp Avenue
Norman OK 73019
Phone: (405) 325-2621
www.ou.edu\coe\academics\pathways
Engineering Pathways (EP) is a framework to bring cohesive researchinformed practices and an ethos of care to nurturing and supporting students along each stage of their journey to becoming engineers.
Components of EP provide entry to engineering through educational outreach with preK-12 schools and families and active recruitment of high school students; support students in their transition to college life and along whatever their engineering academic path may be; and ensure students have access to technical and professional development for success in the workplace. A student-focused EP faculty and staff team welcomes incoming students to the Gallogly College of Engineering in first and second-year courses required for all students, as well as through elective opportunities, student organizations, events, and so much more.

Engineering Pathways implements many programs to help young people on their engineering path, from deciding on an engineering career, choosing the University of Oklahoma for their engineering education, and successfully navigating their education for this exciting career.

## Engineering Catalyst

The Engineering Catalyst Program is a two-year radical support program designed to help students with a drive to succeed in engineering build their academic and professional success as they travel through their curriculum-to-career pathway. Engineering Catalyst is a selective, byapplication program designed for students entering engineering in mathematics prerequisites. The number of Scholars admitted is limited to ensure each Scholar receives optimal resources and support for the duration of the two-year program. As a part of the program's resource-rich framework, Engineering Catalyst Scholars engage in a variety of customtailored building blocks for success, including: Specialized classes, Robust learning support, Personalized planning, Community connections, and Financial support.

## EMPOWER - Engineering Mathematics Program for Orientation, Workshops, and Other Educational Resources

Loving mathematics is NOT required for being an engineer; engineers only need to be able to use it. Because math is one of the important tools or languages that engineers use, Engineering Pathways EMPOWER offers various degrees of support for GCoE students, beginning before students arrive on campus and continuing during their time here. These include: summer on-campus or virtual math study sessions (Math 'Til You Drop) and suggested review material to support first-year math placement for incoming students and Math 'Til You Drop study sessions, workshops, optional support classes and emailed math study tips to support firstyear math classes once students are here.

## Undergraduate Advising at Williams Student Services Center

Whether you are a prospective, first-time, continuing or graduating student, the Williams Student Services Center provides centralized support for academic and curricular guidance. Our advising team provides basic information about academic programs and advising, scholarships, student groups, organizations, college support programs, tutoring, mentoring, and graduation. Advisors are available to answer
questions and provide guidance regarding courses, academic performance, scholastic requirements and transfer equivalencies.

The Gallogly College of Engineering provides students the support of a faculty and college academic advisor related to their discipline. Students risk delaying their graduation if they do not make a timely selection of a major. Students are advised each semester prior to enrollment.

All incoming engineering freshmen are advised during the University's New Sooner Orientation program coordinated by The Office of Admissions and Recruitment. Freshmen will continue to be advised by an Academic Success Center academic advisor until the student has completed 24 credits hours in residence at OU and has maintained at least a minimum 2.0 GPA , at which point students will be switched to their degree granting college.

## Engineering Laptop Policy

Visit the Gallogly College of Engineering's webpage to learn more about the college's laptop policy.

## Admission to the Gallogly College of Engineering

The OU Gallogly College of Engineering uses the same admissions policies for accepting new students into its programs as that of the institution. Students are admitted to the University of Oklahoma using a holistic admissions process. Entry into the Gallogly College of Engineering is open to all students who wish to major in an engineering discipline.

## Freshman Admission

For more information regarding freshman admission, visit the OU Admissions webpage.

## Transfer Admission

For more information regarding transfer engineering admission, visit the OU Admissions webpage.

A 2.5 combined GPA is required for students with less than 60 hours -or2.0 for students with 60 or more hours earned.

The Office of Admissions conducts all initial assessment of transfer coursework. Transfer students who wish to apply un-equated transfer courses towards degree completion are urged to meet with one of the college's academic advisors.

Major specific transfer coursework will be reviewed by the faculty in the specific discipline for evaluation. For more information, visit the University's Transfer Equivalency Database.

## Scholastic Requirements \& Equivalencies

## Academic Standards

Students in the Gallogly College of Engineering must meet the following academic standards:

- A minimum grade of C in each course required in the curriculum.
- Both an OU retention and a combined retention grade point average of 2.00 or higher. ${ }^{1}$
- A 2.00 minimum combined retention average for all attempted courses presented to satisfy curriculum requirements. Curriculum requirements include every course on the selected degree requirement sheet. ${ }^{1}$
- A 2.00 minimum OU retention average for all courses attempted at the University of Oklahoma used to satisfy curriculum requirements. ${ }^{1}$
- No more than two unsuccessful attempts ( $D$ or less) in a course required in the curriculum.
${ }^{1}$ Note: The Gallogly College of Engineering (GCoE) requires a 2.0 OU and Combined GPA to be in good academic standing. If the OU and/ or Combined GPA remains below a 2.0 for two consecutive semesters (excluding summer term), the student might be dismissed from the GCoE. Specific accelerated degree programs within the Gallogly College of Engineering may require a higher minimum grade point average. Please contact Williams Student Services Center (WSSC) 112 Felgar Hall for specific requirements.

For purposes of graduation and retention, these grade point averages may be affected by academic forgiveness policies. Students should consult the Academic Records - Academic Forgiveness Policy (p. 46) section of this catalog for more information.

Students who do not meet these standards will be notified by the Director of Advising and guided to meet with their assigned college advisor for support.

The University of Oklahoma utilizes a 4.0 or $A=4, B=3, C=2, D=1, F=0$ system. The Gallogly College of Engineering requires:

- a minimum grade of C in any course applied toward degree completion.
- P/NP coursework does not count toward degree completion (except for those P/NP grades earned in SP2020 due to Covid-19).
- S grades are accepted toward degree completion as obtained by Advanced Placement (AP), Departmental, higher-level IBC, and CLEP exams.


## Time Limitations on Coursework

A student may elect to graduate under the requirements for an undergraduate degree plan in effect at the time of their first enrollment in the state system, provided that they complete the work for a degree within a maximum of six years, which is reflected in the degree check. If the work for a degree covers a period longer than that specified by the college, the college will determine the degree plan to be in effect for that student's graduation.

A student whose initial enrollment in the state system is during the summer session will be subject to the University of Oklahoma catalog in effect for the year following that summer.

Credit in the student's major field or area of concentration that is more than 10 years old may not be applied toward a bachelor's degree unless is it validated by the major department, or by the departments in the student's area of concentration. The term "area of concentration" is included in addition to "major field" to allow for those cases in which the equivalent of a major may be earned by a combination of work in several departments.

## Honor Roll

To be eligible for the Dean's Honor Roll, a full-time undergraduate student must earn at least 12 or more hours and attain a grade point average of 3.00 or higher during a regular fall or spring semester. Part-time students may qualify for the honor roll by earning at least six but less than 12 hours and attaining a grade point average of 3.00 or higher, provided they have no W's for that semester. There is no college honor roll during
the summer session or during Winter Session, and hours and grades earned during these sessions are not included in any way in determining eligibility for inclusion on regular semester honor rolls.

## State-Mandated Articulation Agreements that Impact Engineering Programs

To facilitate the transfer of students within Oklahoma's state system of higher education, the state Board of Regents created the Oklahoma State Regents for Higher Education Course Equivalency Matrix. The Regents established a policy that Freshman and Sophomore-level general education requirements are deemed satisfied for students who complete a two-year Associates of Arts or Associates of Science degree from an Oklahoma public college, and who transfer to a four-year university.

For these reasons, general education coursework readily transfers from Oklahoma colleges into OU. Additionally, if the student has completed the Associates of Arts or Associates of Science, and they earned a D in one of the general education courses used to complete that degree, the GCoE will accept the course toward degree completion unless it is a direct prerequisite for an engineering course.

## Non-Collegiate Learning Experiences

For more information, visit the Academic Records and Transcripts webpage.

## Enrollment \& Major Declaration <br> Enrollment Limitations

## Pass/No Pass Course Enrollments

Pass/No Pass Course Enrollments may not be used to satisfy Gallogly College of Engineering course requirements. Engineering students may not proceed in their major courses until they have achieved a minimum grade of $C$ in all prerequisites. All required courses listed on the official University of Oklahoma degree checksheet (p. 1203) for any engineering major must be completed with a grade of $C$ or better (except for those P/ NP grades earned in SP2020 due to Covid-19.)

## Minimum Grade Requirement/Course Repeats

Students may retake a course in their curriculum a maximum three times (i.e. retake due to not completing the course with a grade of $C$ or above.) If the course is completed unsuccessfully after three attempts (grades such as: $I, A U, W, A W, D, F)$, and if it is a course required in any curricula in the College of Engineering, the student will receive an Enrollment Stop from the Gallogly College of Engineering. (Note: A first course attempt which results a final grade of $I, W, A W$, or an audit $A$ ) is not counted in the "three attempts" rule.) If the course is taken unsuccessfully three times and is required only in the major, the possibility of a student continuing in the Gallogly College of Engineering in a different major will be determined on an individual basis. When courses are repeated, the grade of the last (most recent) attempt is the grade of record.

## Enrollment in Upper-division Courses

Enrollment in upper-division Gallogly College of Engineering courses, except any courses specifically exempted in the General Catalog or Class Schedule, is restricted to students who are admitted to the Gallogly College of Engineering and in some cases to those admitted to a specific degree program, have completed the necessary grade and course prerequisites, and are advised into the classes by their engineering faculty or staff advisor. Qualified students from outside the Gallogly College of Engineering are welcome in advanced courses if they have completed the necessary grade and course prerequisites, and are encouraged to explore specific interests with the schools and instructors
involved. Approval must be obtained from the professor teaching the course and the Director of Advising in the Williams Student Services Center (WSSC), 112 Felgar Hall.

## Conduct of Engineering Courses

A student is responsible for the prerequisite and the content of any course in which they are officially enrolled. The establishment of specific policy concerning class attendance requirements, as well as announced and unannounced examinations, is the responsibility of the individual instructor. When absences seriously affect a student's classwork, the instructor may report this fact to the Office of Student Affairs and the information will be directed to the student's college dean.

The Gallogly College of Engineering requires final examinations to be given during the regularly scheduled examination periods in all undergraduate courses excluding directed readings, pure laboratory courses and project type design courses and seminars. No faculty member is authorized to depart from this regulation or from the published examination schedule for a class or an individual without prior approval. Special early examinations given to individual students or groups of students as substitutes for final examinations are prohibited. A student will not be expected to take more than two examinations in one day.

## Academic Appeals

The Gallogly College of Engineering has established an Academic Appeals Panel to hear grade appeals and academic misconduct cases. To obtain the procedures to be followed, a student should contact the Dean's office in 107 Carson Engineering Center, and refer to Title 14 of the Student Code.

## Credit Hour Load

Students requesting to enroll in more than 19 maximum hours in a fall or spring semester or 9 hours in a summer semester must obtain permission from the GCoE Director of Advising.

## Change of Major Requests

Students interested in pursuing a change of major within engineering must meet with an academic advisor in the GCoE WSSC academic advising unit to change majors. To add or change majors outside of the GCoE, students must contact the advising office in that college. The advisor will assess the student's GPA and completed courses. If the student lacks necessary preparation to begin coursework in the major, the student might be advised to remain in their current major until they are adequately prepared for the course curriculum. Approved changes of major requests are only processed by the Office of the Registrar within the first 10 weeks of the semester or after final grades are posted. In accordance with State Regents' requirements, students are assigned to the degree program (p.55) year that was current at the time they entered the Oklahoma State System of Higher Education.

## Graduation Requirements

The student must satisfy the following requirements:

- Curricular Courses: complete all prescribed curricular courses or equivalent courses as approved by the faculty with a minimum grade of $C$ in each course.
- Students graduating from a program accredited by the Engineering Accreditation Commission of ABET must complete $37.5 \%$ or 48 hours of engineering and $25 \%$ or 32 hours of combined mathematics (at the calculus level or above), physics, chemistry, or other science coursework.
- Students graduating from a program accredited by the Computing Accreditation Commission of ABET must
complete a minimum of 40 hours in computing, 15 hours of mathematics and 30 hours of combined mathematics and science coursework with some exposure to laboratory work.
- Two-year College Transfer Credits: a minimum of 60 semester hours must be earned in a senior college or four-year school for a baccalaureate degree.
- Degree Requirements: fulfill all requirements listed on the official degree checksheet (p. 1203). Gallogly College of Engineering academic advisors in the Williams Student Services Center (WSSC) clear undergraduate degrees and encourage consultation on remaining degree requirements. However, responsibility for meeting graduation requirements lies with the student.
- Be in good academic standing both scholastically and in accordance with academic integrity standards of the College and University.
- Apply for graduation of your respective degree by the deadline for the semester in which you intend to graduate.
- To ensure that the above conditions will be met, students are encouraged to request a degree check in the Williams Student Services Center (WSSC). This action should be taken at least two semesters before the student expects to graduate. The student can access their degree audit at any time online through Degree Navigator.
NOTE: Students will not be cleared for graduation if they have an I or N grade on their transcript from the University of Oklahoma. These must be resolved prior to degree clearance.
- Residence Requirements - to be recommended for a degree, a candidate must have:
- spent two semesters or the equivalent in residence, with at least one semester enrolled as a Gallogly College of Engineering student;
- completed at OU 36 of the hours listed in the junior and senior years on their curriculum checksheet, 24 of these 36 hours must be in the major field;
- fulfilled the grade and grade point requirements of the college and school.
NOTE: Academic credit from any division of the University of Oklahoma - Norman campus, OU Health Sciences Center, OUTulsa, OU Polytechnic, OU Online or The College of Professional and Continuing Studies - is considered resident credit at the University of Oklahoma. Grades and hours earned at any of these divisions are included in the OU retention and cumulative grade point averages for purposes of determining completion of degree requirements.
- Undergraduate degrees offered in the Gallogly College of Engineering:
- Bachelor of Science: the Gallogly College of Engineering is organized into departments and schools. The degree of Bachelor of Science is qualified by the name of the engineering field pursued and is conferred upon graduates of the college.
- Honors: Please refer to the Office of Academic Records (p. 44).

Degrees are formally conferred at spring commencement and fall convocation exercises. However, degrees are also awarded in absentia at the end of summer session. All diplomas are mailed to students following the official graduation date. The degree and date of the diploma are entered on the student's permanent academic record. The date of graduation is the last day of the semester or summer session in which all requirements for the degree are completed. When a student completes all requirements for a degree, other than at the close of a semester or summer session, the Office of Academic Records, upon request, will issue
a certified statement that the student is eligible for the degree as of the date when the requirements for the degree were completed.

## Graduate Study <br> EMPOWERING YOU THROUGH LIFE-CHANGING LEARNING EXPERIENCES

The Gallogly College of Engineering offers advanced degrees from seven schools.

The Gallogly College of Engineering is committed to fostering creativity, innovation and professionalism through dynamic research, development and learning experiences. We are committed to attracting a talented and collaborative student body, and we empower our students through lifechanging learning experiences, high-impact discoveries and innovations. Graduate programs, research and creative activity are key components in realizing this vision.

With nationally and internationally renowned faculty, world-class research facilities and talented students, we are leaders in a number of areas including materials \& manufacturing, weather radar, water resources, medical imaging, immuno-engineering, surface transportation, energy, and data science and analytics. These areas of excellence, and many others, provide the foundation upon which our comprehensive selection of graduate degrees are built, including 12 doctoral programs and 14 masters programs.

Two closely affiliated programs are also available to students through Engineering Physics and the Mewbourne College of Earth and Energy. Please follow the links provided for a brief overview of the school or program. Please contact the appropriate school or program for further information on specific degree programs and areas of specialization offered.

## - Aerospace and Mechanical Engineering

- Biomedical Engineering
- Sustainable Chemical, Biological, and Materials Engineering
- Civil Engineering and Environmental Science
- Computer Science
- Data Science and Analytics
- Electrical and Computer Engineering
- Engineering Physics
- Industrial and Systems Engineering

Online Programs

- M.S. in Civil Engineering
- M.S. in Data Science and Analytics
- Graduate Certificate in Data Science and Analytics
- M.S. of Engineering Leadership and Management
- M.S. of Environmental Science Hydrology \& Water Security
- M.S. of Industrial and Systems Engineering
- M.S. in Sustainability
- M.S. (p. 1220)Applied Computing (p. 1220)

Related Links

- Mewbourne College of Earth and Energy
- Financial Aid
- Student Life
- Career Services
- OU One


## Opportunities

## Engineering Pathways Mentors

The Engineering Pathways Mentors Program fosters connections to the community within the Gallogly College of Engineering through student-tostudent interaction. These interactions are based on service, dedication, respect, encouragement, and professionalism. Program members are current engineering students with excellent academic credentials, and a desire to provide strong mentorship and leadership. Program members serve as mentors to first-year engineering students. EP Mentors are selected through an application process.

## Undergraduate Research

GCoE students have many opportunities to participate in individual or team research projects with faculty. The Engineering Pathways faculty offer workshops to assist students in getting started with research and in fundamental research skills. Sophomore courses are adding coursebased research projects to benefit learning. GCoE offers an Opportunity Portal to assist students in being matched with a faculty-member's project. GCoE also offers a limited number of research fellowships for students.

## Gallogly Student Affairs Team (GSAT)

Contact Randa Shehab, Senior Associate Dean for Academic Affairs and Faculty Development, for more information.

## Engineering Student Life

Engineering Student Life promotes students' professional and leadership development by hosting and supporting a variety of co-curricular opportunities. These opportunities include workshops, job and internships fairs, tech talks, and the support of a multitude of engineering and STEM focused student organizations including technical and professional societies, service organizations, social organizations, competitive student teams and more.

## Engineering Student Competition Teams

The Gallogly College of Engineering supports a variety of student organizations with the focus of competing in specific regional, national, and international engineering competitions. These teams give students a unique opportunity to work on interdisciplinary projects and apply their academic knowledge while learning hands-on skills that will help them in their future careers. Teams also work with faculty and staff on further developing their foundation of engineering and project management skills.

Competition team projects include building and designing planes, rockets, formula-one cars, off-road vehicles, steel bridges, concreate canoes, and creating and programming robots.

## Engineering Catalyst

The Engineering Catalyst Program is a two-year radical support program designed to help students with a drive to succeed in engineering build their academic and professional success as they travel through their curriculum-to-career pathway. Engineering Catalyst is a selective, byapplication program designed for students entering engineering in mathematics prerequisites. The number of Scholars admitted is limited to ensure each Scholar receives optimal resources and support for the duration of the two-year program. As a part of the program's resource-rich
framework, Engineering Catalyst Scholars engage in a variety of customtailored building blocks for success, including: Specialized classes, Robust learning support, Personalized planning, Community connections, and Financial support.

## Jerry Holmes Leadership Program for Engineers and Scientists

The Jerry Holmes Leadership Program for Engineers and Scientists (JHLP) provides leadership education for undergraduate and graduate students in the Gallogly College of Engineering and the Mewbourne College of Earth and Energy. Through JHLP's pillar-based approach, students enhance their capabilities across five domains: personal development, interpersonal relationship, management and teamwork, generative leadership, and intercultural competence. Leadership development opportunities include retreats, workshops, courses, Distinguished Speaker days, and an academic Undergraduate Certificate in Engineering Leadership. Students have the option to further develop their leadership capabilities as Holmes Leadership Associates (HLAs). HLAs work with professional mentors to design a personal leadership development plan. They attend monthly topical meetings and other events where they hone their leadership skills, and they create real impact as leaders within the University and surrounding communities.

## Study Abroad | International \& Global Opportunities

Educational and co-curricular experiences are offered through the College's Study Abroad and International \& Global Opportunities (IGO) program. This program includes engineering specific coursework, opportunities for practice related service learning, internships and research. These programs are open to current OU students in collaboration with the University's Education Abroad Office and affiliated partner universities.

## Honor Societies

In addition to University-wide honor societies and organizations, the Gallogly College of Engineering has a robust participation in engineering honor societies such as Tau Beta Pi, Pi Tau Sigma, Sigma Gamma Tau, Chi Epsilon, Eta Kappa Nu and Alpha Pi Mu.

## Tau Beta Pi

The Tau Beta Pi honor society, which was founded at Lehigh University in June 1885, offers students of technical schools membership in an honorary association. Students who are qualified in any branch of engineering may become members. The annual election to the society, which is based upon scholarship, integrity, breadth of interest (both inside and outside of engineering), adaptability and unselfish activity, is limited to the upper one-fifth of the senior class and to the students who have grade averages within the upper one-eighth of the junior class. The government of the organization in each chapter is under the direction of the elected student officers and an advisory board consisting of four faculty members of Tau Beta Pi. Membership in Tau Beta Pi is one of the highest scholastic honors that an undergraduate engineering student can receive. The Oklahoma charter was granted in 1926.

## Pre-K-12 Outreach

Engineering faculty and students engage in promoting science and engineering with pre-K-12 communities. The Boggs Family Sooner Engineering Education Student Ambassadors lead over 3000 students, teachers, and families in hands-on learning of engineering design and computer science fundamentals. Schools bring students to campus; we run Engineering Days for high school students each summer; and we host

Family Engineering nights during the academic year. GCoE schools and faculty host their own activities as well.

## Scholarships and Financial Aid Information

## Future Students

To be considered for first-year scholarships from the Gallogly College of Engineering, you must apply for admissions to the University of Oklahoma by December $15^{\text {th }}$. Scholarships are competitive for students demonstrating strong academic merit, leadership, community service, co-curricular activities, financial need, etc. Incoming students can learn more about additional scholarship opportunities through the Office of Admissions \& Recruitment.

## Transfer Students

To be considered for a transfer scholarship from the Gallogly College of Engineering, you must apply for admissions to the University of Oklahoma by March 1st and have completed 24 hours or more from an accredited two or four year institution. Scholarships are competitive for students demonstrating strong academic merit, leadership, community service, co-curricular activities, financial aid, etc. Incoming transfer students can learn more about additional scholarship opportunities through the Office of Admissions \& Recruitment.

## Current Students

All undergraduate and graduate engineering students can apply for scholarships through the Centralized Academic Scholarship Hub (CASH). The deadline is February $1^{\text {st }}$ of each year.

## Financial Aid

The FAFSA (or Free Application for Federal Student Aid) is the government-provided application for need-based funds to help pay for college. OU highly recommends completing the FAFSA regardless of family's income.

## Career Guidance

Our mission is to provide engineering students with a strong foundation for success through responsive, supportive and meaningful academic and career guidance. Each semester, students are required to meet with both their College and Faculty Advisors in order to assist with their academic progression and address concerns related to career pathways, internships, graduate school, etc. Faculty with past and/or current corporate collaborations are excellent resources for our students, as are the college's alumni, many of whom welcome connecting with students regarding career questions. During the first-year Engineering Orientation and the second-year Professional Development courses, students are introduced to the career planning process and the assistance available via the OU Career Services. These courses also introduce students to undergraduate research experience programs and graduate school. The college also hosts a Graduate School Fair for the undergraduate students. The Gallogly College of Engineering collaborates with the OU Career Services Office to host two annual Career Fairs for engineering students; one in September and the other in February. The September career fair is the largest with an average of 140 companies seeking to recruit our students. Many companies also commit to a regular presence on campus as speakers at student organizations' regular meetings or "Tech Talks."

The OU Career Services offers specialized services to students and alumni, that includes:

## Resume and cover letter writing

Major specific career advice
Internship and Job postings
Information regarding Career Fairs and on-campus interviews

## Co-op Program

The Co-op Program offers a work-study experience that combines a sequence of academic study and engineering employment in industry or government. Participating in the Co-op Program allows the engineering student to gain first-hand experience in the application of academic studies to engineering problems.

Participation in the Co-op Program is optional and open to students enrolled full-time in a degree program administered by the Gallogly College of Engineering. Students who wish to participate in the Co-op Program must have completed all of the requirements of the first year of their degree program with a minimum 2.50 GPA . Students also must have the approval of the director of the school of their major. Employment in a Co-op position requires the approval of the participating company. Interested students should apply as soon as possible during their first three semesters on campus.

The time required to complete an engineering degree program as a Co-op student will be longer than the usual eight-semester program. (Caution: Major courses in several GCoE degree programs are sequential and offered only one time per year.) For further information and application forms, contact the Gallogly College of Engineering Undergraduate Advising Office.

## Internships

The Gallogly College of Engineering encourages all students to seek an internship either with college faculty assisting with research or with industry. Both the college's Undergraduate Advising office and the OU Career Services office work to facilitate this process.

## Work Experience

Students may request to receive credit for internship or co-op experiences. Specific faculty oversee such enrollments and may require the student to provide a final project report and presentation. The faculty of the student's program determine if the credits may apply towards degree completion, and if so, if the credits will apply as a professional or technical elective in the student's program. For more information, contact the college's Undergraduate Advising Office.

## Faculty

| Last Name | First/Middle <br> Name | Middle init. | OU Service start | Title(s), date(s) appointed | Degrees Earned, Schools, Dates Completed |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Denton | Maya | E | 2023 | ASSISTANT <br> PROFESSOR <br> ENGINEERING <br> PATHWAYS, 2023 | PhD, Univ of Texas- <br> Austin, 2023; MS, Univ of Texas-Austin, 2021; BS, Purdue Univ, 2014 |
| Harvey | Tierney |  | 2022 | ASSISTANT PROFESSOR ENGINEERING PATHWAYS, 2022 | PhD, Duke Univ, 2015; BS, Univ of Virginia, 2009 |

Job search and interviewing skills

| Haskins | Casey | v | 2022 | ASSISTANT <br> PROFESSOR <br> ENGINEERING <br> PATHWAYS, 2024; <br> MATH RETENTION <br> SPECIALIST <br> ENGINEERING <br> PATHWAYS, 2022 | PhD, Univ of Oklahoma, 2023; MA, Univ of Oklahoma, 2017; BS, Univ of Oklahoma, 2015 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Kittur | Javeed |  | 2022 | ASSISTANT PROFESSOR ENGINEERING PATHWAYS, 2022 | PhD, Arizona State Univ, 2022; M.Tech, Natl Inst of Eng, Mysore, India, 2014; BVB, Coll of Eng and Tech, Hubballi, India, 2011 |
| McSkimming | Brian | M | 2022 | ASSISTANT <br> PROFESSOR <br> ENGINEERING <br> PATHWAYS, 2022 | PhD, Univ Calif, Santa Barbara, 2015; BS, BA, Univ of Buffalo, 2009 |
| Neeman | Henry | J. | 2012 | ASSOCIATE PROFESSOR OF ENGINEERING, 2012; EXECUTIVE DIRECTOR OF RESEARCH COMPUTING; DIRECTOR OF OU SUPERCOMPUTING CENTER FOR EDUCATION \& RESEARCH (OSCER) | PhD, Univ of Illinois, 1996; MS, Univ of Illinois, 1990; BA, BS, SUNY Buffalo, 1987 |
| Okolie | Jude | A | 2022 | ASSISTANT <br> PROFESSOR <br> ENGINEERING <br> PATHWAYS, 2022 | PhD, Univ of <br> Saskatchewan, 2021; <br> MS, Tallinn Univ, Estonia, 2018; MS, Imperial Coll London, 2016; B.Eng, Univ of Benin, Nigeria |
| Olayemi | Moses | 0 | 2023 | ASSISTANT <br> PROFESSOR <br> ENGINEERING <br> PATHWAYS, 2023 | PhD, Purdue Univ, 2023; BS, Univ of Lagos, Nigeria, 2011 |
| Pittenger | Dominique | M | 2008 | ASSISTANT <br> PROFESSOR <br> ENGINEERING <br> PATHWAYS, <br> 2022; RESEARCH <br> ASSISTANT <br> PROFESSOR OF <br> ENGINEERING, 2013 | PhD, Univ of Oklahoma,2012; MS, Univ of Oklahoma, 2010; BS, Univ of Oklahoma 2002 |
| Quiroga | Allison |  | 2017 | ASSISTANT <br> PROFESSOR <br> ENGINEERING <br> PATHWAYS, <br> 2022; SUMMER <br> BRIDGE PROGRAM COORDINATOR, <br> 2020; LECTURER, <br> SCHOOL OF CIVIL <br> ENGINEERING AND <br> ENVIRONMENTAL <br> SCIENCE, 2017 | PhD, Univ of Oklahoma, 2018; MS, Univ of Oklahoma, 2013; BS, Univ of Oklahoma, 2012 |


| Walden Susan | E | 1998 | EXECUTIVE | Fellow, American |
| :---: | :---: | :---: | :---: | :---: |
|  |  |  | DIRECTOR OF | Society of |
|  |  |  | ENGINEERING | Engineering |
|  |  |  | PATHWAYS, | Education, 2017; PhD, |
|  |  |  | 2022; DIRECTOR, | Univ of Oklahoma, |
|  |  |  | UNDERGRADUATE | 1997; MS, Univ of |
|  |  |  | RESEARCH | Oklahoma, 1995; BS, |
|  |  |  | PROGRAM FOR | Arkansas State, 1984 |
|  |  |  | VICE PRESIDENT |  |
|  |  |  | FOR RESEARCH, |  |
|  |  |  | 2015-2018; ADJUNCT |  |
|  |  |  | PROFESSOR OF |  |
|  |  |  | ENGINEERING, |  |
|  |  |  | 2011; ASSOCIATE |  |
|  |  |  | DIRECTOR, |  |
|  |  |  | ENGINEERING |  |
|  |  |  | OUTREACH, SOONER |  |
|  |  |  | ENGINEERING |  |
|  |  |  | EDCATION CENTER, |  |
|  |  |  | 2008; RESEARCH |  |
|  |  |  | ASSOCIATE |  |
|  |  |  | PROFESSOR OF |  |
|  |  |  | ENGINEERING, |  |
|  |  |  | 2008; RESEARCH |  |
|  |  |  | SCIENTIST, 1998 |  |
| Wolfinbarger Kim | G | 2005 | ASSISTANT | PhD, Univ of |
|  |  |  | PROFESSOR | Oklahoma, 2015; MS, |
|  |  |  | ENGINEERING | Univ of Oklahoma, |
|  |  |  | PATHWAYS, 2022; | 2000; BBA, Univ of |
|  |  |  | INTERIM DIRECTOR, | Oklahoma, 1996 |
|  |  |  | ENGINEERING |  |
|  |  |  | STUDENT LIFE, |  |
|  |  |  | 2018; DIRECTOR |  |
|  |  |  | OF JERRY HOLMES |  |
|  |  |  | LEADERSHIP |  |
|  |  |  | PROGRAM FOR |  |
|  |  |  | ENGINEERS \& |  |
|  |  |  | SCIENTISTS, |  |
|  |  |  | 2015; INDUSTRIAL |  |
|  |  |  | ENGINEERING |  |
|  |  |  | LEADERSHIP |  |
|  |  |  | PROGRAM |  |
|  |  |  | COORDINATOR, |  |
|  |  |  | 2010; RECRUITMENT |  |
|  |  |  | COORDINATOR, ISE, |  |
|  |  |  | 2006; INSTRUCOR |  |
|  |  |  | AND ACADEMIC |  |
|  |  |  | ADVISOR, ISE, 2005 |  |

## College of Engineering Administrated Programs

## Undergraduate Certificates

Graduates of engineering and applied science degree programs are often elevated to leadership positions early in their careers. Gallogly College of Engineering offers two Undergraduate Certificates in Engineering Leadership (p. 1216), and Engineering Leadership: Sustainability (p. 1219), which allow students wishing to further develop their leadership skills a tangible and intensive format for doing so. The certificates are available to undergraduate students enrolled in degree programs within the Gallogly College of Engineering or the Mewbourne College of Earth and Energy.

## Master of Science

The Applied Computing, Master of Science (p. 1220), with substantial built-in project components, will enable students to acquire knowledge
and skills necessary to identify problems and devise solutions for issues relating to computing. Graduates will be able to go into industry positions that require advanced technical skills and continue in similar industry positions throughout their careers. This program will also allow students who did not complete a bachelor's in computer science to break into the tech industry.

The Engineering, Master of Science (p. 1221) program is designed to provide students flexibility to pursue a multidisciplinary curriculum not available through a traditional departmental track.

The Engineering Leadership and Management, Master of Science (p. 1221) will enable students to successfully establish, lead, manage and work in multidisciplinary teams to solve complex real-world problems effectively and efficiently. Graduates of this program will be able to grow intellectually through practicing the skills and knowledge of Engineering Leadership and management, continue to be lifelong learners, and focus on self-improvement through professional development.

## Doctor of Philosophy

The Doctor of Philosophy in Engineering (p. 1222) is designed to provide students flexibility to pursue a multidisciplinary curriculum not available through a traditional departmental track.

The Doctor of Philosophy in Engineering with a specialization in Engineering Education (p. 1222) blends important core topics in the new science of engineering education with a solid foundation in qualitative and quantitative research methods.

## Courses

ACS 5113 Programming Principles
3 Credit Hours
Prerequisite: Graduate Standing. This course introduces the fundamental concepts of structured and object-oriented programming and provides a comprehensive introduction to programming for computer science and technology majors. Topics include software development methodology, data types, control structures, functions, arrays, classes, methods, object-oriented programming concepts, sorting and searching, and the mechanics of running, testing, and debugging. (F, Sp, Su)
ACS 5123 Mathematics for Computer Science 3 Credit Hours Prerequisite: Graduate Standing. This course covers widely applicable mathematical tools for computer science, including topics from logic, set theory, combinatorics, linear algebra, number theory, probability theory, and graph theory. It includes practice in reasoning formally and proving theorems. (F, Sp, Su)
ACS 5213 Practical Data Structures and Algorithms 3 Credit Hours Prerequisite: Graduate Standing; ACS 5113, ACS 5123. This course covers fundamental concepts and the application of data structures and algorithms. Topics include abstract data types, dynamic arrays, iterators, linked lists, generics, stacks, queues, binary search trees, collections, hashing, graphs, and sorting. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
ACS 5223 Introduction to Software Engineering 3 Credit Hours Prerequisite: Graduate Standing; ACS 5113, ACS 5213. This course is a team project course focused on the practical application of common, modern techniques to all aspects of software project development. Students will learn about effective processes for software requirements specification, planning, design, documentation, development, review, defect tracking, testing, product delivery, and product evaluation. There is some emphasis on resource tracking and software quality. (F, Sp, Su)

ACS 5313 Applied Database System Technologies 3 Credit Hours Prerequisite: Graduate Standing; ACS 5213, ACS 5223. This course concentrates on the concepts and structures necessary to design, implement, and use a database system. It is oriented towards the general principles, their applications, and the relevant theoretical foundation. This course will give you skills to design, develop, manage, and administer cutting-edge database systems. You will learn about relational database systems with SQL and databases. (F, Sp, Su)
ACS 5323 Data Security, Networks and Network Security 3 Credit Hours Prerequisite: Graduate Standing; ACS 5113, ACS 5213. This course will begin by introducing Data Security and Information Security. Discussions about Risk Management, its principles, methods, and types will be included in the course. This course will explain the different ways of securing and protecting data on both hardware and software platforms. Network Security will cover various security issues and vulnerabilities in various network layers. (F, Sp, Su)

ACS 5413 Mobile Devices Software Development
3 Credit Hours Prerequisite: Graduate Standing; ACS 5223, ACS 5313. This course introduces the concepts, practices, and technologies to design, develop, and manage cross-platform websites and applications running on modern mobile devices. The students will gain plenty of experience from hands-on exercises. The course also provides a higher-level survey of technologies, principles, strategies, and frameworks for mobile device software development. The class will focus on UI design and programming. (F, Sp, Su)
ACS 5423 Software Development for World Wide Web 3 Credit Hours Prerequisite: Graduate standing and ACS 5223. This course will introduce concepts in programming web application servers. At the conclusion of this course, you will understand the fundamental concepts of software engineering as it is applied to web application design and programming, know the modern tools used to program web application servers, and be able to produce substantial web applications as part of a team. (F, Sp, Su)
ACS 5513 Machine Learning Practice 3 Credit Hours
Prerequisite: Graduate Standing and ACS 5213. Machine learning is the data-driven process of constructing mathematical models that can be predictive of data observed in the future. In this course, we will study the use of a range of supervised, semi-supervised and unsupervised methods to solve both classification and regression problems. (F, Sp, Su)
ACS 5523 Introduction to Cloud Computing
3 Credit Hours
Prerequisite: Graduate Standing and ACS 5213. This course gives students an overview of the field of Cloud Computing, its enabling technologies, main building blocks, and hands-on experience through projects utilizing public cloud infrastructures. Cloud computing services are being adopted widely across a variety of organizations and in many domains. (F, Sp, Su)
ELM 5123 Strategic Communication for Engineering Leaders 3 Credit
Prerequisite: Graduate standing. The goal of this course is to impart effective communication abilities to engineers. The course will teach Engineers at all stages of their career skills for effective communication with teammates, clients, and employees and/or pursuing the next level of leadership opportunities. Students will learn to create and deliver powerful presentations and documents. (F, Sp, Su)

ELM 5213 Data Science and Analytics for Engineering Management Decisions

3 Credit Hours
Prerequisite: Graduate standing. It covers various tools that can be applied to data to extract the knowledge that can be applied for engineering management decision-making. The main objective is to understand the world of data science and analytics, including descriptive, predictive, and prescriptive analytics as a tool for informed decisionmaking. (F, Sp, Su)
ELM 5293 Cost Engineering
3 Credit Hours
(Crosslisted with ISE 5293) Prerequisite: Graduate Standing. This course will discuss the application of scientific principles and techniques to problems of cost estimating, cost control, business planning, profitability analysis, project management, and planning and scheduling. It will provide an understanding of both the tools and models that can be used throughout the design, development, and support phases, and examine the trade-offs between system performance and life-cycle cost. (Su)

## ELM 5313 Systems Thinking

3 Credit Hours
Prerequisite: Graduate standing. In this course, you will learn that engineering systems are made of complex interconnections of interrelated subsystems. You will learn how to recognize these subsystems and understand their relationships to build efficient engineering systems. You will learn to use and develop optimization models, understand systems engineering life-cycle, and model-based systems thinking. (F, Sp, Su)

## ELM 5323 Leading Creative Teams

3 Credit Hours
Prerequisite: Graduate Standing. In this course, you will learn to assemble the skills, talents, and resources of individuals and groups in effective and efficient ways to best solve the engineering problem at hand. You will learn inter-personnel management skills and tools for creating positive and supportive team cultures and incorporating and supporting diversity in teams. $(\mathrm{F}, \mathrm{Sp}, \mathrm{Su})$

ELM 5423 Negotiating Skills for Technical Leaders 3 Credit Hours Prerequisite: Graduate Standing. In this course, you will learn the underlying principles of negotiation and influence skills that can be effectively employed with supervisors, peers, and team members in engineering environments. Concepts such as the zone of possible agreements, the best alternative to negotiated agreements, and sources of influence are put into practice. (F, Sp, Su)

## ELM 5523 Capstone Project <br> 3 Credit Hours

Prerequisite: Graduate Standing. In this capstone course, students work on a team-based multi-disciplinary project that addresses an industrybased engineering management problem. It is meant to integrate the many tools utilized by engineering managers as taught in the course work of the engineering management and leadership program. Students are required to produce a written report and give an oral presentation. (F, Sp, Su )
ELM 5543 Decision Analysis
3 Credit Hours
(Crosslisted with ISE 5543) Prerequisite: Graduate standing. This course provides the fundamentals of decision analysis and explores how analyzing risk can be incorporated into good decision-making. Normative and prescriptive approaches to making decisions when uncertainty exists are central to this course. Topics covered include structuring decision problems, developing alternatives, single and multiple objectives, utility theory, risk tolerance, data-driven, and subjective probability, and psychological pitfalls, among others. (F, Sp, Su)

ELM 5773 Systems Requirements and Architecting 3 Credit Hours (Crosslisted with ISE 5773) Prerequisite: Graduate Standing. This course provides the fundamentals of systems engineering by offering an overview of the discipline and then focusing on the management of system requirements and developing how a system will meet them. We will discuss the definition of systems, the system development life cycle, and the systems engineering method. Topics include Detail design, requirement analysis and decomposition, and system architecting. (F, Sp, Su )
ENGR 1401 Dean's Leadership Council
1 Credit Hour
Prerequisite: must have submitted an application and be approved by the college. This course is required of all DLC mentors and lead mentors. The purpose of the Dean's Leadership Council is to engage with new students pursuing a degree in the Gallogly College of Engineering. DLC mentors provide support to assist students with the transition to college life at OU, increase student involvement in the engineering community, and increase academic student success. (F, Sp)

ENGR 1411 Pathways to Engineering Thinking 1 Credit Hour Prerequisite: Freshman standing or departmental permission. Students investigate and practice what it means to engineer. Students are empowered through building awareness of the breadth of engineering in everyday life and how engineering is embedded in society. Students engage in team-based engineering design projects at multiple scales, considering local engineering challenges. Excitement is fostered through design and creation of solutions in authentic, student-centered product development challenges. (F, Sp)
ENGR 1413 Pathways to Engineering Thinking 3 Credit Hours
Prerequisite: Freshman standing or departmental permission. Students investigate and practice what it means to engineer. They are empowered through engineering community building as they learn the impact and cultural connections of engineering in society. Students develop critical thinking and civil discourse skills in engineering design projects addressing authentic community-based engineering challenges, building excitement for their futures. Co-curricular engagements support students' transition to OU and GCoE. (F, Sp) [V-FYE].

ENGR 1421 Engineering Design in Action
1 Credit Hour
Prerequisite: ENGR 1411 and freshman standing, or departmental permission. Students apply engineering design under constraints addressing a relevant problem. Students address the needs of stakeholders as they design, build, test, and iterate solutions. The process requires developing relevant engineering or science knowledge and project management plans and applying ethical and societal considerations. The project and reflections will be documented in a comprehensive engineering design report and a design presentation. (F, Sp )
ENGR 1501 Resources for Engineers in Mathematics 1 Credit Hour Prerequisite: Departmental Permission, GCoE majors only; Co-requisite: the MATH course aligned with the section of 1501 . The course guides students to identify strategies and resources for independent studying and learning of mathematics as a novice engineer, to build transferable engineering problem-solving skills, and to work through engineering and computing applications tied to their mathematics course. May be repeated up to 3 hours in support of different math courses (i.e., MATH 1503, 1523, 1823, and/or 1914). (F, Sp, Su)
ENGR 1510 Selected Topics
3 Credit Hours
0 to 3 hours. Selected topics on current or special topics relating to engineering to be structured for students in engineering and other areas. (F, Sp, Su)

ENGR 1552 Math Catalyst
2 Credit Hours
Prerequisite: Corequisite: ENGR 1652; departmental permission and majors only; may be repeated up to 6 hours. The course guides Engineering Catalyst Scholars to build transferable problem-solving skills while developing engineering competency and confidence through applications of mathematics fundamentals. May be repeated up to 6 hours in support of different math courses (i.e., MATH 1503, MATH 1523, MATH 1823, MATH 2423). For Engineering Catalyst Scholars only. (F, Sp, Su )

ENGR 1652 Engineering Catalyst
2 Credit Hours
Prerequisite: Corequisite: ENGR 1552; departmental permission and majors only; may be repeated up to 6 hours. Prepares Engineering Catalyst Scholars to optimize their successful study of engineering. The course focuses on building academic success skills, engineering identity, and belonging in the Engineer Catalyst community and the OU Gallogly College of Engineering. May be repeated up to 6 hours. For Engineering Catalyst Scholars only. (F, Sp, Su)

## ENGR 1701 Broadening Engineering Impacts - First Year

Seminar
1 Credit Hour
Prerequisite: Freshman standing and permission of instructor. This seminar is aimed at introducing students to the various disciplines in the Gallogly College of Engineering and Mewbourne College of Earth and Energy at the University of Oklahoma. The ultimate goal of the seminar is to help students clarify and strengthen their commitment to success in engineering and STEM studies. (F, Sp)

## ENGR 2002 Professional Responsibilities and Skills of Engineers and Scientists <br> 2 Credit Hours

Prerequisite: ENGR 1410 or ENGR 1411 or ENGR 1421; or ENGR 3511 or concurrent enrollment; ENGL 1213 or EXPO 1213, sophomore standing. This course will connect what you might have learned in humanities and social science classes to your education and professional career as an engineer. Serious and diverse professional responsibilities accompany the rights and privileges that engineers and scientists enjoy. This course guides you to start developing and practicing the non-technical aspects of engineering. (F, Sp, Su)

## ENGR 2411 Applied Engineering Statics

1 Credit Hour
Prerequisites: Physics 2514 and Mathematics 2433 or concurrent enrollment in Mathematics 2433. Review of fundamentals of statics calculations and their applications to common engineering situations. (Sp)

ENGR 2431 Electrical Circuits
1 Credit Hour
Prerequisite: MATH 2423 or 2924; and PHYS 2524 or concurrent enrollment. Introduction to basic principles of electrical circuits. Topics include DC circuits analysis, DC transients, static electrical fields, static magnetic fields, capacitors, inductors, and filters. (F, Sp)

ENGR 2461 Thermodynamics 1 Credit Hour
Prerequisite: MATH 2433 or 2934; and PHYS 2524 or concurrent enrollment. Introduction to basic principles of thermodynamics. Topics include density, pressure, and temperature, the first law of thermodynamics for a system, the first law of thermodynamics for a control volume, the second law of thermodynamics, and psychometrics. (F)

ENGR 2531 Electrical Circuits II
1 Credit Hour
Prerequisite: ENGR 2431 or concurrent enrollment. Introduction to intermediate principles of electrical circuits. Topics include amplifiers, filters, signal conditioning, A/D and D/A conversion, and common digital and analog circuits. (Sp)

ENGR 2551 Intermediate Math Catalyst
1 Credit Hour
Prerequisite: ENGR 1552 Math Catalyst (4 credits); good standing in the Engineering Catalyst program; majors only; sophomore standing; departmental permission. This course guides Engineering Catalyst Scholars toward independence in their major-based learning. Students will continue to build transferable problem-solving skills in new engineering and science applications of mathematics content. Topics (through engineering learning contexts) include reading STEM-based texts, reviewing notes, studying for deep learning, dry labs, etc. May be repeated up to 4 hours in support of different math ( $F, S p, S u$ )

ENGR 2652 Research Catalyst
2 Credit Hours
Prerequisite: ENGL 1213 or EXPO 1213; ENGR 1552; ENGR 1652; and departmental permission. This course guides student development of understanding of the research process through the design, research, collaborative authorship, and iterative review-based refinement of research ideas. Students will find and analyze primary literature, think creatively, author and communicate in a scholarly fashion, and work collaboratively to solve scientific and societal problems using technology, delegation, and productive team communication. (F)

ENGR 2970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: Permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

ENGR 3051 Experiential Leadership 1 Credit Hour
Prerequisite: Instructor permission and enrollment in Engineering Leadership Undergraduate Certificate. Participatory course with formal, extended activity that provides opportunity for leadership development. Includes written proposal describing the activity; creation of a personal leadership development plan (PLDP); periodic reflections regarding leadership learning and development; and coaching and/or mentoring. The leadership develop plan will align with the Leadership Capabilities espoused by the Jerry Holmes Leadership Program for Engineers and Scientists. (F, Sp)

ENGR 3401 Engineering Economics
1 Credit Hour
Prerequisite: MATH 1823 or 1914. Introduction to basic principles of engineering economics. Topics include value and interest, cash flow diagrams and patterns, equivalence of cash flow patterns, unusual cash flows and interest periods, evaluating alternatives (annual equivalent cost comparisons, present equivalent cost comparisons, incremental approach, rate of return comparisons, benefit/cost comparisons, MARR, replacement problems, always ignore the past, break-even analysis), income tax, depreciation, and inflation. (F, Sp)

ENGR 3431 Electromechanical Systems
1 Credit Hour
Prerequisite: ENGR 2431 or concurrent enrollment. Introduction to basic principles of electromechanical systems. Topics include physical principles of sensing and actuation, types of sensors and actuators, and interfacing and communication protocols. (F, Sp)

ENGR 3440 Mentored Research Experience
3 Credit Hours
0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)

ENGR 3441 Fluid Mechanics
1 Credit Hour
Prerequisite: Mathematics 2433 or 2934; and Physics 2524 or concurrent enrollment. Introduction to basic principles of fluid mechanics. Topics include fluid properties, fluid statics, dimensionless parameters and similitude, control volume equations, open channel flow, and external flow. (Sp)

## ENGR 3511 Engineering Orientation Experience for Transfer

## Students <br> 1 Credit Hour

Prerequisite: sophomore standing. Required of all incoming transfer students with a declared major in Engineering. The lecture hours cover a variety of topics including: majors and minors; career planning; advising; and extra-curricular activities. Students also meet with mentors and work on multidisciplinary engineering projects. Also open to students with an interest in engineering. ( $F, S p$ )
ENGR 3611 Business Principles for Engineers and Scientists

## 1 Credit Hour

Prerequisite: Junior Standing and GCoE or MCEE major. This course will introduce engineering and science students to the basic business principles that they will encounter once they join the workforce. The aim is to expose students to the concepts and terminology of business to make them more effective immediately upon employment. This course will address leadership, change management, and organizational culture, business structure, capital and ethics. (F, Sp)
ENGR 3621 Finance and Accounting for Engineers and

## Scientists

1 Credit Hour
Prerequisite: Junior Standing and GCoE or MCEE major. This course introduces students to workforce principles of finance and accounting. The course addresses accounting methods and the requirements to report financial performance in a consistent manner. More specifically, the course will address income statements, balance sheets, cash flow statements and financial statement analysis. In addition, this course will address both the budgeting and forecasting process. (F, Sp)
ENGR 3631 Investment Decisions for Engineers and
Scientists
1 Credit Hour
Prerequisite: Junior Standing and GCoE or MCEE major. This course introduces engineers to basic business workplace principles. This course covers macroeconomics of commodities including interactions between supply, demand and inventory and the related impact on price. Profit measures are introduced such as profit margins, break-even calculations and cost-volume profit analysis. This course also addresses microeconomics, investment metrics, and considerations of cost of capital. (F, Sp)

## ENGR 3960 Honors Reading <br> 1-3 Credit Hours

1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Consists of topics designated by the instructor in keeping with the student's major program. Cover materials not usually presented in the regular courses. (Sp)
ENGR 3970 Honors Seminar 1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Projects covered will vary. Deal with concepts not usually presented in regular coursework. (Irreg.)

ENGR 3980 Honors Research 1-3 Credit Hours 1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Provides an opportunity for the gifted Honors candidate to work on a special project in the student's field. (F, Sp, Su)

ENGR 3990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: permission of instructor and junior standing. May be repeated once with change of content. Independent study may be arranged to study a subject not available through regular course offerings. (F, Sp, Su)

## ENGR 4003 Engineering Practice

3 Credit Hours
Prerequisites: ENGR 2002 or 2003, junior or senior standing, and permission of the instructor. Focuses on real world application of the skills taught in major courses and the core course, professional development. Allows a student to earn credit toward degree requirements through the completion of an intense internship experience. A written report detailing the responsibilities and results of the experience is required upon completion along with an oral presentation. Other service experience learning may qualify. (F, Su)
ENGR G4013 Leadership and Management for Engineers 3 Credit Hours Prerequisites: junior standing or senior standing; or graduate standing; or instructor permission. This course will help prepare students for leadership and management positions in a global culture. The course emphasizes team building attributes in a multi-cultural organization, how to build commitment among team members, and how to organize to compete in the global marketplace. Students will gain a better understanding of themselves and their personal and professional goals. (F, Sp)
ENGR G4023 Disruptive and Innovative Technology Ideation 3 Credit Hours
Prerequisites: sophomore standing, junior standing, or senior standing; or graduate standing; at least one semester of calculus, a working knowledge of basic statistics, and departmental permission. Ideation is the process of conceiving or forming ideas. In the context of this class, the process of ideation will be investigated with regard to both disruptive and innovative commercial technologies. (F, Su)
ENGR 4051 Lincoln, Leadership \& Innovation 1 Credit Hour
Prerequisite: Junior standing or instructor permission. Students will learn from the example of Lincoln's leadership, his ability to be innovative and employ technology-driven solutions, and his methods of personal and professional development. Students will reflect on and develop their own personal leadership philosophy in response to Lincoln's example. The course will provide students the opportunity to delve into an area of Lincoln's leadership of personal interest. (Sp)
ENGR G4223 Fundamentals of Project Management 3 Credit Hours Prerequisite: Senior standing or permission of instructor. Foundational survey course that considers both technical and sociocultural aspects of project management across the full project life cycle. (F, Su)
ENGR G4510 Selected Topics
1-6 Credit Hours
1 to 6 hours. Prerequisite: upper-division or graduate standing. Selected topics on current or special topics relating to engineering. May be structured for students in other areas. (Sp)
ENGR G4513 Introduction to Sustainable Engineering 3 Credit Hours Prerequisite: upper-division or graduate standing in the College of Engineering or permission of the instructor. An introduction to the concepts of sustainable development, sustainable engineering, global resource reserves, and global environmental concerns. The main focus of the class will be application of life cycle assessment to minimize the adverse environmental impacts of products (e.g., a pencil) or processes (e.g., wastewater treatment). Tools for life cycle assessment will include public domain software and SimaPro. (Sp)

ENGR 4960 Directed Readings
1-4 Credit Hours
1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean. May be repeated; maximum credit four hours. Designed for upper-division students who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)

ENGR 4970 Special Topics/Seminar 1-3 Credit Hours 1 to 3 hours. Prerequisite: Senior standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

ENGR 4990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: Senior standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)

ENGR 5122 Entrepreneurship for Science and Technology 2 Credit Hours
(Crosslisted with ENT 5122) Prerequisite: Graduate standing and departmental permission. This course will introduce entrepreneurship from the science and technology perspective. We will start with ideas, analyze them, and see how they could grow into a business. The course will cover areas such as innovation, prototyping, competition, customer discovery, business model canvas, networking, funding, and legal issues, including patents and intellectual property. (F, Sp)

ENGR 5213 Foundations of Engineering Education 3 Credit Hours Prerequisite: graduate standing in the College of Engineering or permission of instructor; undergraduate engineering students may take this course with permission of instructor. This course introduces the field of engineering education. It is designed for graduate students pursuing engineering education research and those in technical engineering disciplines who are interested in learning about engineering education. Topics include the history of engineering education, an overview of engineering education research methodologies, current issues, theoretical frameworks and applications of engineering education. (Irreg.)

ENGR 5223 Curriculum Design, Delivery and Assessment 3 Credit Hours Prerequisite: graduate standing or permission of the instructor. This course will cover curriculum design, delivery, and assessment practices in the field of engineering education. This course will enable graduate students to understand principles of student-centered teaching and learning; course design focused on student learning outcomes; active and collaborative learning strategies; use of technology for learning and design of assessment tools. (Irreg.)

ENGR 5900 Engineering Professional Practice 1-6 Credit Hours 1-6 hours. Prerequisite: Graduate standing and departmental permission. May be repeated; maximum credit six hours. Participation in a professional experience with an approved project sponsor and topic. A written report detailing the responsibilities and results of the experience is required upon completion along with an oral presentation. (F, Sp, Su)

ENGR 5960 Directed Readings 1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing and permission of department. May be repeated; maximum credit twelve hours. Directed readings and/or literature reviews under the direction of a faculty member. (F, Sp, Su)

ENGR 5970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

ENGR 5980 Research for Master's Thesis 2-9 Credit Hours
Variable enrollment, two to nine hours; maximum credit applicable toward degree, four hours. (F, Sp, Su)

ENGR 5990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)

ENGR 6960 Directed Readings
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit six hours. Directed readings and/or literature review under the direction of a faculty member. (Irreg.)

ENGR 6970 Special Topics/Seminar 1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit 12 hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or research and field projects. (Irreg.)

ENGR 6980 Research for Doctoral Dissertation 2-16 Credit Hours 2 to 16 hours. Prerequisite: Graduate standing and permission of instructor; may be repeated. Directed research culminating in the completion of the doctoral dissertation. (F, Sp, Su)

ENGR 6990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)

# Engineering Leadership, Undergraduate Certificate 

Minimum Total Credit Hours: 15

Program Code: T150

Students pursuing the Engineering Leadership Certificate will develop the skills necessary for effective and ethical leadership in professional practice. The curriculum combines required and elective engineering leadership courses with a broad selection of supporting electives in business, humanities, social sciences, physical sciences, and other fields. Certificate students are encouraged to participate in study abroad. Completion is noted on a student's transcript, providing tangible evidence of their leadership education.

- Students must be enrolled as undergraduates in the Gallogly College of Engineering or the Mewbourne College of Earth and Energy.
- All courses counted toward the certificate must be completed with a C or better.

| Code | Title | Credit |
| :--- | :--- | ---: |
| Hours |  |  |

\(\left.$$
\begin{array}{ll}\hline \text { ENGR 3051 } & \text { Experiential Leadership } \\
\hline \text { ENGR 1401 } & \begin{array}{l}\text { Dean's Leadership Council }\end{array} \\
\hline \text { ENGR 4051 } & \begin{array}{l}\text { Lincoln, Leadership \& Innovation }\end{array} \\
\hline \text { ENGR 5122 } & \begin{array}{l}\text { Entrepreneurship for Science and } \\
\text { Technology }\end{array} \\
\hline \text { ENGR 4003 } & \begin{array}{l}\text { Engineering Practice (iCCEW) }\end{array} \\
\hline \text { ENGR 4023 } & \begin{array}{l}\text { Disruptive and Innovative Technology } \\
\text { Ideation }\end{array}
$$ <br>

\hline ENGR 4223 \& Fundamentals of Project Management\end{array}\right]\)| Choose six hours: |
| :--- |
| Courses aligning with Pillars 1-4 of the JHLP Leadership <br> Capabilities (p. 1217) |
| Choose three hours: |
| Courses aligning with Pillar 5 of the JHLP Leadership <br> Capabilities (p. 1217) |

Total Credit Hours

## Engineering Leadership Course Lists

This list is occasionally updated. If you wish to inquire about a course not listed, email Dr. Wolfinbarger, kimw@ou.edu.

| Code | Title | Credit <br> Hours |
| :---: | :---: | :---: |
| Pillar 1: Personal Development |  |  |
| AME 4303 | Designing for Open Innovation | 3 |
| C S 5970 | Graduate Seminar (Section 995-AI \& Ethics) | 1-3 |
| CEES 4243 | Water Technologies for Emerging Regions | 3 |
| CEES 4273 | WaTER Technical Field Methods | 3 |
| COMM 2413 | Media Literacy | 3 |
| ECE 2523 | Probability, Statistics and Random Processes | 3 |
| ECON 1113 | Principles of Economics-Macro | 3 |
| ECON 1123 | Principles of Economics-Micro | 3 |
| ECON 3113 | Intermediate Microeconomic Theory | 3 |
| ECON 3133 | Intermediate Macroeconomic Theory | 3 |
| ECON 3213 | Environmental Economics | 3 |
| ENGR 3051 | Experiential Leadership | 1 |
| ENGR 4003 | Engineering Practice (iCCEW) | 3 |
| ENGR 4023 | Disruptive and Innovative Technology Ideation | 3 |
| ENGR 3440 | Mentored Research Experience (or similar course with school-specific prefix) | 3 |
| ENGR 4513 | Introduction to Sustainable Engineering | 3 |
| ENT 2113 | Innovation \& Entrepreneurship (Cannot receive credit for both ENT 2113 and ENGR 5970 - Entrepreneurship for Science \& Technology) | 3 |
| ENT 3193 | Social Entrepreneurship | 3 |
| HSTM 2423 | Social and Ethical Issues in Science, Technology, Environment and Medicine | 3 |
| HSTM 3413 | Biomedical Ethics | 3 |
| ISE 3293 | Applied Engineering Statistics | 3 |
| PHIL 1103 | Critical Reasoning | 3 |


| PHIL 1213 | Introduction to Ethics | 3 |
| :---: | :---: | :---: |
| PHIL 1273 | Introduction to Business Ethics | 3 |
| PHIL 3263 | Virtue Ethics | 3 |
| PHIL 3273 | Ethics and Business | 3 |
| PHIL 3293 | Environmental Ethics | 3 |
| P SC 3553 | International Political Economy | 3 |
| PSY 2403 | Introduction to Personality | 3 |
| PSY 3203 | Cognitive Psychology | 3 |
| PSY 3703 | Social Psychology | 3 |
| PSY 4313 | Motivation | 3 |
| Pillar 2: Interpersonal Relationships |  |  |
| ANTH 4903 | Race and Ethnicity | 3 |
| COMM 1113 | Principles of Communication | 3 |
| COMM 2003 | Communication in Non-Western Culture | 3 |
| COMM 2113 | Business and Professional Communication | 3 |
| COMM 2213 | Interpersonal Communication | 3 |
| COMM 2613 | Public Speaking | 3 |
| COMM 3223 | Small Group Communication | 3 |
| COMM 3253 | Persuasion Principles | 3 |
| COMM 3413 | Interethnic Communication | 3 |
| COMM 3483 | Communication and Argumentation | 3 |
| COMM 3513 | Intercultural Communication | 3 |
| COMM 3543 | Conflict Management and Negotiation | 3 |
| EDAH 2962 | Student Affairs Leadership (Cannot receive credit for both EDAH 2962 and ENGR 1401) | 2 |
| ENGL 3113 | Nature/Environment/Science Writing | 3 |
| ENGL 3153 | Technical Writing | 3 |
| GEOL 3333 | Geowriting | 3 |
| H R 3013 | Introduction to Human Relations | 3 |
| H R 3043 | Interpersonal Skills and Group Dynamics | 3 |
| H R 3403 | History of Racism | 3 |
| H R 3413 | Cultural Awareness in Human Relations | 3 |
| HR 4170 | Special Topics in Human Relations (Making Men: Media, Violence, \& Misogyny) | 1-3 |
| H R 4170 | Special Topics in Human Relations (Diversity in the Workplace) | 1-3 |
| H R 4170 | Special Topics in Human Relations (LGBTQ Issues in the Workplace) | 1-3 |
| HSTM 3253 | Race and Science | 3 |
| HSTM 3353 | Science and Empire | 3 |
| P SC 2703 | Justice, Liberty and the Good Society | 3 |
| PSY 2403 | Introduction to Personality | 3 |
| PSY 3703 | Social Psychology | 3 |
| PSY 4793 | Psychology of Groups | 3 |
| $\begin{aligned} & \text { SOC } 3353 \\ & \text { or WGS } 3353 \end{aligned}$ | Race, Class and Gender Race, Class \& Gender | 3 |
| SOC 3683 | Wealth, Power, and Prestige | 3 |
| WGS 3393 | Gender and Identity in STEM | 3 |

## Pillar 3: Management \& Teamwork

| EDAH 2962 | Student Affairs Leadership (Cannot receive <br> credit for both EDAH 2962 and ENGR 1401) | 2 |
| :--- | :--- | :---: |
| ENGR 1401 | Dean's Leadership Council (repeatable up <br> to 3 times) | 1 |


| ENGR 4003 | Engineering Practice (iCCEW section only) | 3 |
| :---: | :---: | :---: |
| ENGR 4223 | Fundamentals of Project Management | 3 |
| H R 3203 | Introduction to Organizational Studies | 3 |
| H R 4013 | Social Change Process | 3 |
| ISE 5713 | Engineering Project Management | 3 |
| MGT 3013 | Principles of Organization and Management | 3 |
| MGT 3363 | Understanding Organizational Behavior | 3 |
| NAS 3323 | Tribal Service Learning | 3 |
| NAS 4363 | Tribal Governance and Leadership | 3 |
| NPNG 2033 | Introduction to Nonprofits | 3 |
| NPNG 3033 | Nonprofit Management | 3 |
| NPNG 4033 | Leadership \& Planning | 3 |
| PSY 3703 | Social Psychology | 3 |
| PSY 3753 | Introduction to Industrial Organizational Psychology | 3 |
| PSY 4793 | Psychology of Groups | 3 |
| Pillar 4: Leadership |  |  |
| AFAM 4713 | Afrocentric Thinking and the Civil Rights Movement | 3 |
| AFAM 4823 | African American Politics and Public Policy | 3 |
| AME 4303 | Designing for Open Innovation | 3 |
| COMM 3243 | Communication and Social Change | 3 |
| COMM 3253 | Persuasion Principles | 3 |
| COMM 3543 | Conflict Management and Negotiation | 3 |
| COMM 4323 | Political Communication | 3 |
| ENGR 1401 | Dean's Leadership Council (repeatable up to 3 times) | 1 |
| GEOG 4333 | Corporate Environmental Strategy | 3 |
| HIST 3663 | The American Presidency \& the Presidents, Washington-Trump | 3 |
| H R 3203 | Introduction to Organizational Studies | 3 |
| H R 4013 | Social Change Process | 3 |
| H R 4303 | Human Relations in Action | 3 |
| MGT 3363 | Understanding Organizational Behavior | 3 |
| NAS 3323 | Tribal Service Learning | 3 |
| NAS 4363 | Tribal Governance and Leadership | 3 |
| PHIL 3273 | Ethics and Business | 3 |
| PHIL 3293 | Environmental Ethics | 3 |
| P SC 3143 | U.S. Congress | 3 |
| P SC 3163 | The American Presidency | 3 |
| P SC/WGS 3043 | Gender, Power and Leadership in Politics and Public Administration | 3 |
| P SC 3403 | Interest Groups and Social Movements | 3 |
| PSY 3703 | Social Psychology | 3 |
| PSY 3753 | Introduction to Industrial Organizational Psychology | 3 |
| PSY 4313 | Motivation | 3 |
| PSY 4793 | Psychology of Groups | 3 |
| SOC 3683 | Wealth, Power, and Prestige | 3 |
| $\begin{aligned} & \text { SOC } 3353 \\ & \text { or WGS } 3353 \end{aligned}$ | Race, Class and Gender <br> Race, Class \& Gender | 3 |
| WGS 3233 | Women Creating Social Change | 3 |


| WGS 3473 | Red Dirt Women and Power | 3 |
| :---: | :---: | :---: |
| WGS 3563 | Gender and Global Politics | 3 |
| WGS 3703 | Female Heroism in Hollywood | 3 |
| Pillar 5: Intercultural Competence |  |  |
| ANY course taken during study abroad will satisfy this requirement, as the study abroad experience is assumed to support the development of intercultural competence. |  |  |
| AFAM 2113 | Africa and the Diaspora | 3 |
| AFAM 3123 | West African and African-American Experiences | 3 |
| AFAM 3343 | Black Greek Letter Organizations | 3 |
| AFAM 4713 | Afrocentric Thinking and the Civil Rights Movement | 3 |
| AFAM 4823 | African American Politics and Public Policy | 3 |
| ANTH 2203 | Global Cultural Diversity | 3 |
| ANTH 3423 | Anthropology of Religion | 3 |
| ANTH 3453 | Contemporary Native American Issues | 3 |
| ANTH 4303 | Women and Development in Africa | 3 |
| ANTH 4623 | Approaches to Cross-Cultural Human Problems | 3 |
| CEES 4243 | Water Technologies for Emerging Regions | 3 |
| CEES 4273 | WaTER Technical Field Methods | 3 |
| COMM 2003 | Communication in Non-Western Culture | 3 |
| COMM 3413 | Interethnic Communication | 3 |
| COMM 3513 | Intercultural Communication | 3 |
| ECON 3513 | Labor Problems | 3 |
| ECON 3613 | International Trade Theory and Problems | 3 |
| ECON 4853 | World Economic Development | 3 |
| ENGR 4513 | Introduction to Sustainable Engineering (Cannot receive credit for both GEOG 3233 and ENGR 4513) | 3 |
| GEOG 3213 | Principles of Human Geography | 3 |
| GEOG 3233 | Principles of Sustainability (Cannot receive credit for both GEOG 3233 and ENGR 4513) | 3 |
| GEOG 3243 | Principles of Economic Geography | 3 |
| GEOG 3443 | Environment and Society | 3 |
| GEOG 3513 | Political Geography | 3 |
| GEOG 3523 | Managing for a Changing Climate | 3 |
| GEOG 4003 | The Global City and Planning Issues | 3 |
| GEOG 4333 | Corporate Environmental Strategy | 3 |
| GEOL 3033 | Earth Resources and the Environment | 3 |
| H R 3403 | History of Racism | 3 |
| H R 3413 | Cultural Awareness in Human Relations | 3 |
| HR 4170 | Special Topics in Human Relations (Diversity in the Workplace) | 1-3 |
| HR 4170 | Special Topics in Human Relations (Making Men: Media, Violence, \& Misogyny) | 1-3 |
| HIST 3193 | Modern France: Gender, Religion and Nation | 3 |
| HIST 3233 | Modern Spain | 3 |
| HIST 3543 | The History of Modern American Women | 3 |
| HIST 3723 | Africa Since 1945 | 3 |
| HIST 3743 | African-American History to 1877 | 3 |
| HIST 3853 | Japan to 1850 | 3 |


| HIST 3923 | China Since 1911 | 3 |
| :---: | :---: | :---: |
| HIST 3933 | U.S. Queer History | 3 |
| HIST 3953 | The Modern Middle East | 3 |
| HON 2963 | Perspectives on the Global Experience (Globalizing Africa) | 3 |
| HON 3993 | Honors Colloquium (Lives in Science: Biography in the History of Science and Medicine) | 3 |
| Other HON with approval |  |  |
| HSTM 2423 | Social and Ethical Issues in Science, Technology, Environment and Medicine | 3 |
| HSTM 3253 | Race and Science | 3 |
| HSTM 3353 | Science and Empire | 3 |
| HSTM 3533 | Science and Global Politics in the Modern Era: Cross-Cultural Perspectives | 3 |
| IAS 2003 | Understanding the Global Community | 3 |
| IAS 2123 | China Today | 3 |
| IAS 3323 | The Political Economy of Development | 3 |
| IAS 3783 | US-Arab Cultural Encounters | 3 |
| IAS 3810 | Journey to Africa (max 3 hours) | 1-6 |
| IAS 3920 | Journey to Italy (max 3 hours) | 1-6 |
| IAS 3930 | Journey to China (max 3 hours) | 1-6 |
| IAS 3940 | Journey to Latin America (max 3 hours) | 1-6 |
| Other IAS with approval |  |  |
| MLLL 3123 | Russian Culture and Civilization | 3 |
| MLLL 3393 | Italian Cultural Literacy | 3 |
| MLLL 3413 | Arabic Literature and Culture | 3 |
| MLLL 3633 | Modern Japanese Literature and Culture | 3 |
| MLLL 3753 | Modern Chinese Literature and Culture | 3 |
| MLLL 3823 | German Culture and Thought | 3 |
| MLLL 4113 | Cultures in Portuguese: Brazil, Portugal, and Beyond | 3 |
| MLLL 4553 | Lat America in its Lit: The Search for a Latin-American Identity | 3 |
| MLLL 4753 | The Chinese Way of Thinking: Language, Culture, \& Cognition | 3 |
| Other MLLL with approval |  |  |
| NAS 3113 | Native American Philosophy | 3 |
| NAS 3313 | Introduction to Native Peoples and Sustainability | 3 |
| NAS 3323 | Tribal Service Learning | 3 |
| NAS 4113 | Oklahoma Tribal History | 3 |
| NAS 4363 | Tribal Governance and Leadership | 3 |
| NAS 4373 | International Indigenous Issues | 3 |
| NAS 4433 | Native American Women | 3 |
| P SC 2703 | Justice, Liberty and the Good Society | 3 |
| P SC 3713 | The Idea of a Liberal Society | 3 |
| P SC 2503 | Global Politics | 3 |
| P SC 2603 | Governments Around the World | 3 |
| P SC 3553 | International Political Economy | 3 |
| P SC 3643 | Democracies and Democratization: A Comparative Inquiry | 3 |
| P SC 3653 | Government and Politics of Latin America | 3 |
| P SC 3663 | Politics of the Middle East | 3 |


| P SC 3923 | World Happiness | 3 |
| :--- | :--- | :--- |
| P SC 3953 | Bhutan Democracy and Happiness | 3 |
| SOC 4873 | World Religions and Society | 3 |
| WGS 3393 | Gender and Identity in STEM | 3 |

# Engineering Leadership: Sustainability, Undergraduate Certificate 

Minimum Total Credit Hours: 15

Program Code: T151
Students pursuing the Engineering Leadership Certificate will develop the skills necessary for effective and ethical leadership in professional practice. The curriculum combines required and elective engineering leadership courses with a broad selection of supporting electives in business, humanities, social sciences, physical sciences, and other fields. Certificate students are encouraged to participate in study abroad. Completion is noted on a student's transcript, providing tangible evidence of their leadership education.

- Students must be enrolled as undergraduates in the Gallogly College of Engineering or the Mewbourne College of Earth and Energy.
- All courses counted toward the certificate must be completed with a C or better.


Total Credit Hours

# Engineering Leadership Sustainability Course Lists 

Code Title Credit

[^40]| BIOL 3463 | Water and Ecological Sustainability | 3 |
| :---: | :---: | :---: |
| CEES 4243 | Water Technologies for Emerging Regions | 3 |
| ECON 3213 | Environmental Economics | 3 |
| ENGR 3440 | Mentored Research Experience (with environmental/sustainability focus; or Mentored Research with departmental code from Gallogly or Mewbourne College) | 3 |
| GEOG 3253 | Environmental Conservation | 3 |
| $\begin{aligned} & \text { GEOG } 3523 \\ & \text { or METR } 3523 \end{aligned}$ | Managing for a Changing Climate Managing for a Changing Climate | 3 |
| GEOG 3843 | Gender and Environment | 3 |
| GEOG 3890 | Selected Studies in Geography (Water and Society) | 3 |
| GEOG 3890 | Selected Studies in Geography (Environmental Justice) | 3 |
| GEOG 3890 | Selected Studies in Geography (Food Energy Water Systems) | 3 |
| GEOG 3890 | Selected Studies in Geography (Transportation Planning and Geogragphy) | 3 |
| GEOG 4583 | Energy Systems and Sustainability | 3 |
| GEOG 4970 | Special Topics/Seminar (Corporate Sustainability Strategy) | -3 |
| HSTM 2423 | Social and Ethical Issues in Science, Technology, Environment and Medicine | 3 |
| HSTM 3343 | Revolution in Power. the Evolution of Energy Systems from Fossil Fuels to Renewables | 3 |
| or PE 3343 | Revolution in Power. the Evolution of Energy Systems from Fossil Fuels to Renewables |  |
| HSTM 3483 | Technology, Politics, and International Development | 3 |
| NAS 4970 | Special Topics/Seminar (Indigenous Community Planning) | -3 |
| PHIL 3293 | Environmental Ethics | 3 |
| P SC 3553 | International Political Economy | 3 |
| HON courses with (approval required) | environmental/sustainability focus d) |  |
| Pillar 5 (Intercultu Context of Engine Professions) | ural Competence; Understanding Global ering Practices; Working with Other |  |
| ANTH 4303 | Women and Development in Africa | 3 |
| ANTH 4783 | Landscape Archaeology | 3 |
| ENST 3503 | Energy Use, Climate Change, and the Environment | 3 |
| GEOG 3443 | Environment and Society | 3 |
| $\begin{aligned} & \text { GEOG } 3523 \\ & \text { or METR } 3523 \end{aligned}$ | Managing for a Changing Climate Managing for a Changing Climate | 3 |
| GEOG 3843 | Gender and Environment | 3 |
| GEOG 3890 | Selected Studies in Geography (Water and Society) | 3 |
| GEOG 3890 | Selected Studies in Geography (Environmental Justice) | 3 |
| GEOG 3890 | Selected Studies in Geography (Food Energy Water Systems) | 3 |
| GEOG 3890 | Selected Studies in Geography <br> (Transportation Planning and Geography) | 3 |


| GEOG 4583 | Energy Systems and Sustainability | 3 |
| :---: | :---: | :---: |
| GEOG 4970 | Special Topics/Seminar (Corporate Sustainability Strategy) | 1-3 |
| HIST 4553 | Environmental History of Latin America | 3 |
| HSTM 2423 | Social and Ethical Issues in Science, Technology, Environment and Medicine | 3 |
| HSTM 3483 | Technology, Politics, and International Development | 3 |
| HSTM 3533 | Science and Global Politics in the Modern Era: Cross-Cultural Perspectives | 3 |
| IAS 3323 | The Political Economy of Development | 3 |
| IAS 3193 | Environment and Disease Crises in China | 3 |
| IAS 3283 | Culture, Power, and Global Environment | 3 |
| IAS 3353 | Modern Brazil | 3 |
| IAS 3603 | Energy, Environment \& Climate Change in China | 3 |
| IAS 3653 | Energy, Climate, and Security | 3 |
| IAS 3793 | African Politics \& Society | 3 |
| IAS 3803 | International Cooperation \& Development | 3 |
| IAS 3863 | Global Environment | 3 |
| METR 4553 | Climate and Renewable Energy | 3 |
| NAS 3313 | Introduction to Native Peoples and Sustainability | 3 |
| NAS 4373 | International Indigenous Issues | 3 |
| NAS 4423 | Issues in Native American Environment and Sustainability | 3 |
| NAS 4970 | Special Topics/Seminar (Indigenous Community Planning) | 1-3 |
| P SC 3553 | International Political Economy | 3 |
| Any course taken via Study Abroad with environmental/ sustainability focus (approval required) |  |  |
| HON courses with environmental/sustainability focus (approval required) |  |  |

Minimum Total Hours (Non-Thesis): 30

## Program Code: M028 (Online M029)

This is a coursework-only program. A non-thesis examination is not required.

## Program Requirement

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Core Courses |  |  |
| ACS 5113 | Programming Principles | 3 |
| ACS 5123 | Mathematics for Computer Science | 3 |
| ACS 5213 | Practical Data Structures and Algorithms | 3 |
| ACS 5223 | Introduction to Software Engineering | 3 |
| ACS 5313 | Applied Database System Technologies | 3 |

## Electives

Choose 15 hours of ACS elective courses from a list maintained by the program and approved by the Graduate College (p. 1221)

Total Credit Hours

## General Requirements for all Master's Degrees

The master's degree requires the equivalent of at least two semesters of satisfactory graduate work and additional work as may be prescribed for the degree.

All coursework applied to the master's degree must carry graduate credit.
Master's degree programs which require a thesis consist of at least 30 credit hours. All non-thesis master's degree programs require at least 30 credit hours.

Credit transferred from other institutions must meet specific criteria and is subject to certain limitations.

Courses completed through correspondence study may not be applied to the master's degree.

To qualify for a graduate degree, students must achieve an overall grade point average of 3.0 or higher in the degree program coursework and in all resident graduate coursework attempted. A student must also have at least a 3.0 in all coursework (including undergraduate coursework if any).

Additional information for master's degree students may be found in the Graduate College Bulletin.

## Electives Course List

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| ACS 5323 | Data Security, Networks and Network <br> Security | 3 |
| ACS 5413 | Mobile Devices Software Development | 3 |
| ACS 5423 | Software Development for World Wide Web | 3 |
| ACS 5513 | Machine Learning Practice | 3 |
| ACS 5523 | Introduction to Cloud Computing | 3 |

## Engineering, M.S.

Minimum Total Hours (Thesis): 30
Minimum Total Hours (Non-Thesis): 33
Program Code: M370 Q234
At least one year of industry experience is required for the non-thesis option.

No more than 12 credit hours of 4000 level engineering and science courses (approved for graduate credit) can be applied to the degree, and no more than 9 credit hours of these 4000 level courses can be from a single discipline.

A Bachelor of Science in Engineering or equivalent, GRE, and an aboveaverage record in the undergraduate program are required for admission. Students with degrees from non-engineering disciplines are expected to do remedial work as determined by the Graduate Engineering Program Committee.

## Thesis Option

| Code Title | Credit <br> Hours |
| :---: | :---: |
| Core Courses |  |
| Choose at least 15 hours of 5000 -level or above engineering courses | 15 |
| Electives |  |
| Choose 9 hours | 9 |
| Thesis |  |
| ENGR 5980 Research for Master's Thesis | 6 |
| Total Credit Hours | 30 |
| Non-Thesis Option |  |
| Code Title | Credit |
|  | Hours |
| Core Courses |  |
| Choose at least 15 hours of 5000 -level or above engineering courses | 15 |
| Electives |  |
| Choose 18 hours | 18 |
| Total Credit Hours | 33 |

## General Requirements for all Master's Degrees

The master's degree requires the equivalent of at least two semesters of satisfactory graduate work and additional work as may be prescribed for the degree.

All coursework applied to the master's degree must carry graduate credit.
Master's degree programs which require a thesis consist of at least 30 credit hours. All non-thesis master's degree programs require at least 30 credit hours.

Credit transferred from other institutions must meet specific criteria and is subject to certain limitations.

Courses completed through correspondence study may not be applied to the master's degree.

To qualify for a graduate degree, students must achieve an overall grade point average of 3.0 or higher in the degree program coursework and in all resident graduate coursework attempted. A student must also have at least a 3.0 in all coursework (including undergraduate coursework if any).

Additional information for master's degree students may be found in the Graduate College Bulletin.

## Engineering Leadership and Management, M.S.

Minimum Total Hours (Non-Thesis): 30
Program Code: M373 (Online M374)

| Code | Title |
| :--- | :--- |
|  | Credit |
|  | Hours |

Core Courses
ENGR 4013 Leadership and Management for Engineers

| ELM 5123 | Strategic Communication for Engineering <br> Leaders | 3 |
| :--- | :--- | ---: |
| ELM 5213 | Data Science and Analytics for Engineering <br> Management Decisions | 3 |
|  | ELM/ISE 5543 | Decision Analysis |
| ELM 5523 | Capstone Project | 3 |
| Electives |  | 3 |
|  |  | 15 |

Choose 15 hours of elective courses from a list maintained by the program and approved by the Graduate College. (p. 1222)

Total Credit Hours

## General Requirements for all Master's Degrees

The master's degree requires the equivalent of at least two semesters of satisfactory graduate work and additional work as may be prescribed for the degree.

All coursework applied to the master's degree must carry graduate credit.

Master's degree programs which require a thesis consist of at least 30 credit hours. All non-thesis master's degree programs require at least 30 credit hours

Credit transferred from other institutions must meet specific criteria and is subject to certain limitations.

Courses completed through correspondence study may not be applied to the master's degree.

To qualify for a graduate degree, students must achieve an overall grade point average of 3.0 or higher in the degree program coursework and in all resident graduate coursework attempted. A student must also have at least a 3.0 in all coursework (including undergraduate coursework if any).

Additional information for master's degree students may be found in the Graduate College Bulletin.

## Electives Course List

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| ELM 5323 | Leading Creative Teams | 3 |
| ELM/ISE 5773 | Systems Requirements and Architecting | 3 |
| ELM 5423 | Negotiating Skills for Technical Leaders | 3 |
| ELM/ISE 5293 | Cost Engineering | 3 |
| ELM 5313 | Systems Thinking | 3 |

## Engineering, Ph.D.

Minimum Total Hours: 90

Program Code: D370 R232

3 This program has changes pending State Regents approval for 2024/25. These pending changes are not reflected here. Program Requirements

| Code Title | Credit |
| :---: | :---: |
| A minimum of 9 hours of 5000 -level or above letter graded engineering courses beyond the M.S. |  |
| A minimum of 15 hours of 5000 level or above letter graded courses in engineering, science, or math ${ }^{1}$ | 15 |
| Additional Coursework | 21-64 |
| Dissertation Research |  |
| ENGR 6980 Research for Doctoral Dissertation | 2-45 |

Total Credit Hours

1 Maximum of 9 hours in science and math.

## Coursework Requirements

- A maximum of 12 hours of 4000 -level engineering and science courses approved for graduate credit may be applied (maximum of 9 hours of 4000-level courses from a single discipline).
- A maximum of 6 hours of S/U-graded courses (excluding dissertation research) may be applied.


## General Requirements for Doctoral Degrees

A student should expect to spend at least the equivalent of three full academic years beyond the bachelor's degree to obtain the doctoral degree. During this period the student will take appropriate graduate coursework, successfully complete the general examination, and successfully defend and submit the final dissertation.

All coursework applied to the doctoral degree must carry graduate credit.
The doctoral degree requires at least 90 post-baccalaureate hours
including both formal coursework and hours of research.
The minimum hour requirement for a specific doctoral degree program cannot be waived.

No more than one-half of the credit hours, both OU and overall, excluding Research for Doctoral Dissertation (6980), may be S/U-graded coursework.

The student must be in residence at OU for at least two consecutive 16week semesters during the pursuit of the doctoral degree while enrolled and engaged in coursework or research activities as prescribed by the major academic unit.

For more detailed regulations and requirements for Doctoral degrees, please consult the Graduate College Bulletin: http://www.ou.edu/ gradcollege/forms/bulletin

## Engineering: Engineering Education, Ph.D.

Minimum Total Hours: 90
Program Code: D370 R230

## This program has changes pending State

Regents approval for 2024/25. These pending changes are not reflected here. Program Requirements

| Code | Title | Credit Hours |
| :---: | :---: | :---: |
| General Coursework |  |  |
| A minimum of 15 courses in engin | hours of 5000-level or above letter graded eering, science, or math ${ }^{1}$ | 15 |
| Engineering Education Concentration |  |  |
| Engineering Education Enquiry Seminar |  |  |
| ENGR 5120 |  | 1-3 |
| Qualitative Research Methods |  |  |
| Choose one course from the following: |  | 3 |
| EIPT 6043 | Qualitative Research Methods |  |
| COMM 5313 | Qualitative Research Methods |  |
| SOC 5313 | Qualitative Research Methods |  |
| Quantitative Research Methods (3-6 hours) |  |  |
| ISE 5553 | Data-Driven Decision Making I | 3 |
| ISE 5853 | Data-Driven Decision Making II | 0-3 |
| Instructional Theory |  |  |
| ENGR 5113 |  | 0-3 |
| Diversity Topics |  |  |
| Choose one course from the following: |  | 3 |
| EDAH 5473 | Race, Class, and Gender in Education |  |
| EDAH 5940 | Field Studies in Education |  |
| EDS 5833 | Topics in Gender, Values, and Education |  |
| EDS 5933 | Girls, Women, and Educational Studies |  |
| HSTM 5550 | Topics In The History Of Science |  |


| Dissertation Research |  |
| :--- | :--- | ---: |
| ENGR $6980 \quad$ Research for Doctoral Dissertation | $2-45$ |

Additional Coursework 12-63

Total Credit Hours
${ }^{1}$ Maximum of 9 hours in science and math.

## Coursework Requirements

- At least 9 hours of 5000 -level or above letter graded engineering courses beyond the MS are required. ENGR 5120, ISE 5553, ISE 5853, and ENGR 5113 may count toward this requirement.
- A maximum of 12 hours of 4000 -level engineering and science courses approved for graduate credit may be applied (maximum of 9 hours of 4000 -level courses from a single discipline).
- A maximum of 6 hours of $S / U$-graded courses (excluding dissertation research) may be applied.


## General Requirements for Doctoral Degrees

A student should expect to spend at least the equivalent of three full academic years beyond the bachelor's degree to obtain the doctoral degree. During this period the student will take appropriate graduate coursework, successfully complete the general examination, and successfully defend and submit the final dissertation.

All coursework applied to the doctoral degree must carry graduate credit.
The doctoral degree requires at least 90 post-baccalaureate hours, including both formal coursework and hours of research.

The minimum hour requirement for a specific doctoral degree program cannot be waived.

No more than one-half of the credit hours, both OU and overall, excluding Research for Doctoral Dissertation (6980), may be S/U-graded coursework.

The student must be in residence at OU for at least two consecutive 16week semesters during the pursuit of the doctoral degree while enrolled and engaged in coursework or research activities as prescribed by the major academic unit.

For more detailed regulations and requirements for Doctoral degrees, please consult the Graduate College Bulletin: http://www.ou.edu/ gradcollege/forms/bulletin

## School of Aerospace and Mechanical Engineering

Ramkumar Parthasarathy, Ph.D., Director
Yingtao Liu, Ph.D., Graduate Liaison
Room 212 Felgar Hall
865 Asp Avenue
Norman, OK 73019-1052
Phone: (405) 325-5011
www.ou.edu/coe/ame

## General Information

## Aerospace Engineering

Aerospace engineering is one of the most rewarding and challenging branches of engineering. There is a fulfilling excitement in designing and building flying craft ranging from general aviation to high-performance military aircraft and commercial airliners to drones. There are also opportunities in the design and flight of spacecraft and unmanned vehicles. Challenging space projects are awaiting the next generation of engineers. Aerospace technology has also expanded to include ground effect machines, helicopters, hydrofoil ships, high-power lasers, wind turbines, and high-speed rail vehicles, opening up even more career opportunities for aerospace engineers.

## Careers

Aerospace engineers work in industries or government agencies whose mission is to design, test, manufacture, or operate aircraft or spacecraft. Opportunities are available in companies that build large commercial aircraft and companies that specialize in the smaller general aviation aircraft and drones. Careers in private industry and government include work on commercial and military aircraft, UAVs, missiles, spacecraft and satellites.

Engineers employed by the National Aeronautics and Space Administration (NASA) are involved in research, design, development and operation of the U.S. space program and in many aspects of aeronautics. Also, some aerospace engineers find satisfying careers in applying their broad engineering knowledge to other areas of technological development.

## Mechanical Engineering

Mechanical engineering is one of the most versatile of all engineering programs. Most branches of industry employ mechanical engineers. The profession encompasses breadth, flexibility and the opportunity for great individuality. Mechanical engineers apply knowledge of material and thermal sciences, fluid and solid mechanics, and mathematics to design, develop, and build mechanical and electromechanical devices and systems.

Since most physical devices and systems have one or more mechanical aspects, mechanical engineering is almost always required in the design, manufacture and utilization of any technical product or system.

## Careers

The career opportunities available to mechanical engineers are truly unlimited. Mechanical engineering plays a central role in all major industries including the aerospace, automotive, chemical, computer, construction, electrical, machinery, metals, petroleum and nuclear industries. Mechanical engineers are employed in most technological field including industrial machinery, oil and gas, energy farm equipment, textiles, transportation, pharmaceutical, medical instrumentation, apparel manufacturing, electronics, soap and cosmetics, paper and wood products, education, utilities, and office machinery.

In these and other fields, mechanical engineers are involved in research, development, design, production and testing, construction, operations, sales, management, consulting, and teaching. Mechanical engineers are also employed in defense laboratories and in government where they hold positions of responsibility in state and federal government, in big and small corporations, and in private practice.

## Programs \& Facilities

## Research Facilities

The school's laboratories are primarily located in Felgar Hall and the Engineering Research Center on North Campus and the South Campus. Specialized laboratories have been developed for additive manufacturing, combustion and propulsion, composite materials and structures, robotics, stress analysis and mechanical behavior of materials, fatigue, fluid flow and heat transfer, aerodynamics, hypersonics, material characterization and development, structural health monitoring and biomedical applications.

These laboratories are equipped with modern instrumentation and dedicated data acquisition systems.

Within AME, a departmental computer laboratory is available for use in courses and research. Several other computer laboratories are also available on campus.

The L.A. Comp Subsonic Wind Tunnel is located on the Norman campus at the foot of the OU water tower. It is a closed circuit, 4 ft . x 6 ft . test section tunnel, capable of producing wind speeds over 175 miles per hour.

The AME Machine Shop, located in the basement of Felgar Hall, supports the academic and research programs of the school.

See About AME Research for more information concerning Instructional labs and research labs.

## Undergraduate Study

## Aerospace and Mechanical Engineering Program Educational Objectives (PEOs)

Program Educational Objectives are broad statements that describe what graduates are expected to attain within a few years of graduation.
a. Our graduates will have successful professional careers in industry, government, academia or non-profit organizations.
b. Our graduates will be successful in solving the engineering problems associated with the lifecycle of complex systems.
c. Our graduates will continue to learn and advance their careers through activities such as participation in professional organizations, attainment of professional certification and post-graduate study.

## Aerospace Engineering Student

Student outcomes are statements that describe what students are expected to know and be able to do by the time of graduation. These relate to the skills, knowledge and behaviors that students acquire as they progress through the program.

1. An ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics
2. An ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors
3. An ability to communicate effectively with a range of audiences
4. An ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts
5. An ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives
6. An ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions
7. An ability to acquire and apply new knowledge as needed, using appropriate learning strategies
8. Knowledge of the major aeronautical topics and some astronautical topics

## Mechanical Engineering Student

Student outcomes are statements that describe what students are expected to know and be able to do by the time of graduation. These relate to the skills, knowledge and behaviors that students acquire as they progress through the program.

1. An ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics
2. An ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety,
and welfare, as well as global, cultural, social, environmental, and economic factors
3. An ability to communicate effectively with a range of audiences
4. An ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts
5. An ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives
6. An ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions
7. An ability to acquire and apply new knowledge as needed, using appropriate learning strategies
8. Knowledge of thermal and mechanical systems

## Curriculum in Aerospace Engineering

For detailed semester by semester curriculum requirements, please see Aerospace Engineering, Bachelor of Science (p. 1235). (Bachelor of Science in Aerospace Engineering accredited by the Engineering Accreditation Commission of ABET, https://www.abet.org, under the General Criteria and the Aerospace and Similarly Named Program Criteria.)

## Curriculum in Mechanical Engineering

## Standard Option

For detailed semester by semester curriculum requirements for the Standard Option, please see Mechanical Engineering (Standard), Bachelor of Science (p. 1239). (Bachelor of Science in Mechanical Engineering accredited by the Engineering Accreditation Commission of ABET, https://www.abet.org, under the General Criteria and the Mechanical and Similarly Named Engineering Programs Program Criteria.)

## Premedical Option

The understanding of many physical phenomena associated with the human body is enhanced by the knowledge gained in the study of mechanical engineering. The fluid mechanics of the cardiovascular system, the kinetics and stress analysis of orthopedics, the dynamics of the auditory system are but a few examples of the interaction of mechanical engineering and medicine. Research and development of many diagnostic and treatment techniques are intimately interwoven with principles studied in mechanical engineering.

Students enrolled in the Mechanical Engineering B.S. curriculum and interested in studying medicine or dentistry may choose a premedical elective pattern. This elective pattern allows the student to earn a B.S. degree in Mechanical Engineering and satisfy the prerequisite course requirements for the University of Oklahoma's medical or dental schools.

For detailed semester by semester curriculum requirements or the Premedical Option, please Mechanical Engineering (Premedical Option), Bachelor of Science (p. 1241).

Pre-med students should consult their Pre-Health and Pre-Medical Professions advisor as well as their Mechanical Engineering advisor for necessary medical school information.

## Accelerated Bachelor of Science/Master of Science

The School of Aerospace and Mechanical Engineering also offers an accelerated combined BS/MS program to qualified students. This program provides the opportunity for students to complete both the undergraduate and master's degrees in five years.

- Aerospace Engineering, Bachelor of Science/Master of Science (p. 1244)
- Mechanical Engineering (Standard), Bachelor of Science/Master of Science (p. 1247)

More detailed information on the M.S. degree program and its requirements may be obtained from the Student Services Coordinator of the School of Aerospace and Mechanical Engineering.

## Graduate Study

The School of Aerospace and Mechanical Engineering offers a broad range of opportunities for advanced academic study and research in the fields of aerospace and mechanical engineering and in the underlying engineering sciences.

The following paragraphs present only the standard minimum requirements and are no more than guidelines, not intended to exclude consideration of any valid academic objectives. The admission evaluation, the academic plan, and the research studies of each student should represent a unique synthesis of program strengths and resources with that student's background and aspirations.

Questions about the programs or about any specific requirement or consideration may be addressed to the Student Services Coordinator in the School of Aerospace and Mechanical Engineering, 865 Asp Avenue, 212 Felgar Hall, University of Oklahoma, Norman, OK 73019-1052.

## Areas of Specialization

There is an overlap of the graduate programs in these closely allied fields of the School, and several areas of specialization have evolved within and across these primary disciplines.

## Mechanical Engineering

These programs can be categorized into the focus areas of materials, design and manufacturing; intelligent systems; bioengineering, and energy systems and propulsion. These include solid mechanics, fluid mechanics, thermal sciences and heat transfer, controls, robotics, engineering design, and bioengineering.

- Current studies in solid mechanics include: experimental mechanics; structural dynamics; mechanical behavior of materials; analysis and processing of composite materials and structures; structural optimization; fatigue and fracture mechanics characterization, additive manufacturing of metals and composite materials; and smart structures.
- Current studies in fluid mechanics include: computational fluid dynamics; compressible and hypersonic flows; viscous flows; nonNewtonian fluids; rheology; transport phenomena; turbulent jets and boundary layers; and multiphase flows.
- Current studies in thermal sciences include: theoretical and applied studies of radiative, conductive, and convective heat transfer; thermal properties of materials; combustion and flame dynamics; propulsion; renewable and alternate energy systems including battery-based and hydrogen-based systems; mass transfer and handling of alternate
fuels for automobile applications; biological heat transfer; heat transfer in porous media and EHD enhanced heat transfer.
- Current control studies include: structural control; and non-linear, robust, autonomous, optimal, and real-time control of systems and vehicles.
- Current engineering design studies include: energy system design; materials in design applications; product and product family design; development and applications of computer-aided design and engineering; internet based design; tool integration for concurrent engineering; computer-integrated manufacturing; and rapid prototyping.
- Current studies in bioengineering include: biomechanics, biomaterials; implantable devices


## Aerospace Engineering

These graduate programs offer opportunities for specialization in aeroservoelasticity; aerospace structures; structural and multidisciplinary design optimization (MDO); flight controls; aerodynamics; propulsion; hypersonics; combustion and flame dynamics; multiphase flows; nonequilibrium flows; computational methods; aeroelasticity; robotics; intelligent systems; astrodynamics; space vehicle/mission design; computational fluid dynamics; and flight vehicle design and synthesis.

## Engineering Analysis

Coordinated graduate programs share techniques of advanced engineering analysis, with current emphasis on finite element methods, nonlinear analysis, variational calculus, perturbation methods, computational fluid mechanics, and optimization methodologies.

## Prerequisites for Full Graduate Standing

In addition to meeting the general requirements of the Graduate College, prospective students are expected to have previously earned a B.S. degree or its equivalent in the respective fields of aerospace or mechanical engineering. Students with baccalaureate degrees in other engineering disciplines, physical sciences or mathematics who meet the Graduate College requirements may be conditionally admitted to the AME graduate programs with the stipulation that they must complete specified undergraduate courses to correct identified deficiencies in their background.

Evidence of successful academic potential is considered for admission to the graduate program. This is most commonly indicated by the achievement of a grade point average of 3.2 or better on a 4.0 scale (or an equivalent achievement as reflected in the grading system of the applicant's previous education program) for the most recent two years of academic work. GRE scores (optional), letters of reference, and the statement of purpose are also considered in the admission process. Applicants who have a strong research commitment and an intention to pursue graduate studies through the doctoral level are particularly encouraged. Details concerning the admission criteria and the required background courses may be obtained from the School of Aerospace and Mechanical Engineering.

## Master of Science

## General Information

The degree of Master of Science in Aerospace or Mechanical Engineering usually requires the completion of an original research thesis in addition to coursework beyond the baccalaureate level.

## Thesis Program (Standard)

The traditional research-oriented M.S. program with thesis emphasizes an advanced study and research experience that is particularly suited to prepare students for research and development careers in the industry or the government and for further graduate studies. To be eligible for the research option, a student must have identified an appropriate research area and be accepted as an M.S. thesis student by a member of the AME graduate faculty.

## Non-Thesis Program

The coursework-emphasis plan is designed to meet the professional needs of part-time students and other students whose background and educational goals may be best served by additional instructed study in lieu of the research investigation involved in an M.S. thesis. To pursue this plan-of-study, students must indicate interest in the courseworkemphasis program on the application for admission. After admission, these students are encouraged to identify faculty members who will serve as their academic M.S. program advisors or they may complete the program under the overall guidance of the Graduate Liaison. The nonthesis M.S. program culminates in a comprehensive examination.

Students pursuing the thesis option are given preference in graduate assistantship consideration.

Students wishing to change from the thesis to non-thesis option must petition the AME graduate liaison. If the petition is approved, no more than 24 hours of credit will be transferred towards the fulfillment of the course requirements in the non-thesis option. Such a transfer cannot take place during a semester.

## Accelerated BS/MS Program

The School of Aerospace and Mechanical Engineering also offers an accelerated combined BS/MS program to qualified students. This program provides an opportunity for students to complete both the undergraduate and master's degrees in five years.

More detailed information on the M.S. degree program and its requirements may be obtained from the Student Services Coordinator of the School of Aerospace and Mechanical Engineering.

## Doctor of Philosophy

The degree of Doctor of Philosophy (Ph.D.) in aerospace engineering or mechanical engineering requires the completion of an original research dissertation in addition to coursework beyond the bachelor's/master's degree.

Our Ph.D. program emphasizes an advanced study and research experience that is particularly suited to prepare students for research careers in industry or government and for positions in academia. To be eligible for the program, a student must have been admitted into the Ph.D. program. The student must then identify an appropriate research area and must be accepted as a Ph.D. student by a member of the AME graduate faculty. A general exam and a dissertation defense at the end of the research program assures that the student meets the high standards of this terminal degree.

Students must complete at least 42 hours of coursework and at least 42 hours of dissertation work for a minimum of 90 hours beyond the undergraduate degree.

## Courses

AME 2102 Engineering Design Graphics 2 Credit Hours
Prerequisite: Sophomore standing and majors only; ENGR 1413, and MATH 1914 or MATH 2423. Visualization and modeling techniques for product design and development. Design methodology, graphic standards, projection theory, freehand sketching, and spatial geometry. Three-dimensional Computer-Aided-Design modeling, components and assemblies, graphic standards, geometric dimensioning and tolerancing, engineering drawings. Solving open-ended design and visualization problems. (Sp)
AME 2113 Statics
3 Credit Hours
Prerequisite: (PHYS 2514; MATH 1823 or 1914; MATH 2423 or 2924; and CHEM 1315 all with a minimum grade of C; MATH 2433 or 2934 or concurrent enrollment. Vector representation of forces and moments: general three-dimensional theorems of statics; centroids and moments of area and inertia. Free-body diagrams, equilibrium of a particle and of rigid bodies, distributed loads, friction and internal shear and moment loads. Analysis of trusses, frames, and machines. (F)
AME 2213 Thermodynamics 3 Credit Hours
Prerequisite: Majors only; (Physics 2514; MATH 1823 or 1914; MATH 2423 or 2924; and CHEM 1315) all with a minimum grade of C. First and second laws of thermodynamics are developed and applied to the solutions of problems from a variety of engineering fields. Extensive use is made of differential calculus to interrelate thermodynamics functions. (F)
AME 2223 Introduction to Aerospace Engineering 3 Credit Hours Prerequisite: AE majors (A010 \& B010) only; PHYS 2514; MATH 1823 or 1914; MATH 2423 or 2924; and CHEM 1315 all with a minimum grade of C. Introduction to the foundational dynamics of aerospace vehicles, propulsion system performance, and basic aerodynamic forces and conventions. (F)
AME 2303 Materials, Design and Manufacturing Processes 3 Credit Hours
(Crosslisted with I E 2303) Prerequisite: 2113 or Civil Engineering 2113 or Engineering 2113. Mechanical and physical properties of engineering materials. Introduction to design concepts, manufacturing processes and equipment used in engineering. (Sp)
AME 2402 Engineering Computing 2 Credit Hours
Prerequisite: MATH 1823 or 1914 or concurrent enrollment; Majors only. Introduction to computer programming and university computing facilities. Program design and development: computer application exercises in engineering. (F)

## AME 2533 Dynamics

3 Credit Hours
Prerequisite: AME 2113, MATH 2433 or 2934; Majors only. Dynamics (kinematics and kinetics) of particles and rigid bodies for rectilinear, curvilinear and angular motion; work and energy methods; conservations of impulse and momentum; introduction to mechanical vibrations. (Sp)
AME 2623 Circuits and Sensors
3 Credit Hours
Prerequisite: PHYS 2514; MATH 1823 or 1914; MATH 2423 or 2924; and CHEM 1315 all with a minimum grade of $C$ or better with an overall average of 3.0 in these four courses - AP credit accepted and weighted based upon score; MATH 3413 and 3401 or concurrent enrollment; PHYS 2524 or concurrent enrollment; Majors only. Formulation and solution of circuit equations, network theorems, sinusoidal steady-state analysis, simple transients. Introduction to digital logic circuits. Physical principles of sensing and actuation. Applications to engineered systems of computer programming, embedded systems, and controls. (Sp)

AME 3103 Interactive Engineering Design Simulation 3 Credit Hours
Prerequisite: AME 3143, Solid Mechanics; and AME 3153, Fluid
Mechanics or AME 3253, Aerodynamics. Visualization and introductory finite element modeling techniques for product design and development. Three-dimensional CAD modeling, components and assemblies, graphic standards, dimensions and tolerances, engineering drawings. Introduction to finite element methods for structural and fluid mechanics problems, with verification. (Sp)
AME 3112 Solid Mechanics Lab
2 Credit Hours
Prerequisite: 3143 or concurrent enrollment. Measurement of displacement; velocity, acceleration, force, torque, strain, stress, data acquisition and processing; data and uncertainty analysis; report writing. (F)

AME 3122 Heat Transfer and Fluid Mechanics Lab 2 Credit Hours Prerequisite: AME 3112; AME 3173 or concurrent enrollment. Basic measurement concepts in fluid mechanics and thermal science. Concepts and methods of measuring pressure, temperature, flow, thermal and transport properties. Laboratory. (Sp)

## AME 3143 Solid Mechanics

3 Credit Hours
Prerequisite: MATH 3113, or MATH 3413 and MATH 3401; AME 2303; AME 2533. Concepts of stress and strain; mechanical behavior of engineering materials; analysis of uniform stress states; analysis of members in torsion; stresses and deflections in beams; modes and theories of failure; design criteria. (F)

## AME 3153 Fluid Mechanics

3 Credit Hours
Prerequisite: AME 2113, AME 2213, AME 2533, and MATH 3113; majors only. Principles of fluid mechanics: fluid statics, flow descriptions, conservation equations, dimensional analysis, potential flow, viscous flow and internal flow. (F)
AME 3173 Heat Transfer
3 Credit Hours
Prerequisite: AME 2213 and AME 3153 or CEES 2223. Heat transfer by conduction, convection, and radiation; mass transfer and combined modes of heat transfer. (Sp)
AME 3253 Aerodynamics

## 3 Credit Hours

Prerequisite: AME 2213, AME 2223, AME 2533, MATH 3413 and MATH 3401. Fluid properties, fluid statics, flow description, conservation equation; incompressible inviscid flow dynamics; characteristic airfoil parameters; two-dimensional flow around thin airfoils; flow around wings of finite span; boundary layer development; compressibility; governing equations for inviscid compressible flow normal and oblique shock relations; Prandtl-Meyer expansion waves; quasi-one dimensional flow through nozzles and diffusers. (F)
AME 3272 Windtunnel Laboratory
2 Credit Hours
Prerequisite: AME 3253 or concurrent enrollment. Operation and calibration of a subsonic wind tunnel. Experimental testing of airfoils, model airplanes, and aerodynamic shapes. Calibration and use of balance and associated test equipment. Laboratory (F)
AME 3333 Flight Mechanics
3 Credit Hours
Prerequisites: AME 2223, AME 2533, and AME 3253. Classical linear stability analysis and equations of motion in the body frame for rigid body aircraft. Static and dynamic analysis of aircraft open loop stability. Aircraft design topics including weight and balance, trim, and control sizing. (Sp)
AME 3353 Design of Mechanical Components 3 Credit Hours
Prerequisite: 2303 and 3143. Analysis and design of mechanical subsystems and selection of elements such as gears, shafts, clutches, brakes and modern mechanical components. (Sp)

AME 3363 Design of Thermal-Fluid Systems 3 Credit Hours
Prerequisite: AME 2402 or C S 1313, AME 3153 or AME 3253, and
AME 3173. Design of fluid flow, heat transfer and energy systems including analysis, synthesis and optimization. Topics include but are not limited to: ducts and piping systems, fluid machinery, heat exchangers, thermal storage devices, furnaces, combustors, refrigeration and air conditioning systems. (F)

AME 3413 Vibrating Systems
3 Credit Hours
Prerequisite: 2533 and Mathematics 3113 . Free and forced vibrations in lumped-parameter linear systems of one, two or more degrees of freedom. Resonance phenomena, dynamic absorbers; vibrationmeasuring equipment. Introduction to Laplace transforms and transient vibrations, distributed systems. (Irreg.)

## AME 3440 Mentored Research Experience <br> 3 Credit Hours

0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it the with the URCP office. Not for honors credit. (F, Sp, Su)

## AME 3523 Aerospace Structural Analysis <br> 3 Credit Hours

Prerequisite: AME 3143, MATH 3401 and MATH 3413. Advanced concepts of stress and strain; introduction to the analysis of aerospace engineering structures; complex bending and torsion, shear flows in thinwalled and stringer-skin sections; buckling; introduction to the finite element method; introduction to composite materials. (Sp)

AME 3623 Embedded Real-Time Systems 3 Credit Hours Prerequisite: AME 2623 or equivalent, C S 1313 or equivalent. The fundamentals of real-time embedded systems are covered including processes, scheduling, frequency requirements, and watchdog timers. Includes work with actual real-time systems. (Sp)

## AME 3723 Numerical Methods For Engineering Computation 3 Credit

Prerequisite: AME 2402 or C S 1313, and MATH 3113 or MATH 3413. Course uses specific software applications tailored toward aerospace and mechanical engineering. Basic methods for obtaining numerical solutions with a digital computer. Included are methods for the solutions of algebraic and transcendental equations, simultaneous linear equations, ordinary and partial differential equations, and curve fitting techniques. The methods are compared with respect to computational efficiency and accuracy. (F)

## AME 3960 Honors Reading

1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Consists of topics designated by the instructor in keeping with the student's major program. Coverage includes materials not usually presented in the regular courses. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

## AME 3970 Honors Seminar <br> 1-3 Credit Hours

1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. The projects covered will vary. Deals with concepts not usually presented in regular coursework. (F, Sp, Su)

AME 3980 Honors Research 1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Provides an opportunity for the gifted Honors candidate to work on a special project in the student's field. (F, Sp, Su)

AME 3990 Independent Study
-3 Credit Hours
1 to 3 hours. Prerequisite: permission of instructor and junior standing. May be repeated once with change of content. Independent study may be arranged to study a subject not available through regular course offerings. (F, Sp, Su)

AME 4003 Introduction to Structural Health Monitoring 3 Credit Hours (Slashlisted with AME 5003) Prerequisite: AME 3112 and AME 3143. Comprehensive instruction of structural dynamics, signal processing, passive and active sensing, feature extraction, statistical pattern recognition, nondestructive evaluation methods. No student may earn credit for both 4003 and 5003. (F)

AME 4013 Introduction to Medical Device Design 3 Credit Hours (Slashlisted with AME 5013; Crosslisted with BME 4013) Prerequisite: Junior standing or permission of instructor. Introduction to medical device design with emphasis on the entire procedure of developing a medical device from identifying the unmet medical need to product launching. Topics include marketing and technology survey, concept development, the biocompatible material, device prototype, bench test, in vitro/in vivo test, clinical trial and FDA regulation. No student may earn credit for both 4013 and 5013. (Sp)

AME 4043 Analysis of Heat Pumping Systems 3 Credit Hours (Slashlisted with AME 5043) Prerequisite: AME 2213 and AME 3173. A systematic introduction of thermodynamic analysis methods for heat pumping systems, including vapor-compression, absorption and other common heat pumping technologies. A specific focus is on the applications to air-conditioning, heat pump and refrigeration equipment. No student may earn credit for both 4043 and 5043. (F)

AME 4093 Applied Biomechanics - Ear Mechanics 3 Credit Hours (Slashlisted with AME 5093; Crosslisted with BME 4093) Prerequisite: Junior standing; PHYS 2514; MATH 1823 or 1914; MATH 2423 or 2924; and CHEM 1315 all with a minimum grade of C or better. The course curriculum starts with a review of some basic solid mechanics and fluid mechanics. Then the course will review the applications of mechanics in different biosystems or organs. Finally, this course will cover how to apply mechanics on ear tissue mechanical measurements, ear modeling and ear implant design. No student may earn credit for both 4093 and 5093. (F)

AME 4133 Heat Transfer in Multiphase Systems 3 Credit Hours (Slashlisted with AME 5133) Prerequisite: MATH 2433, PHYS 2524, AME 2213, AME 3153 and AME 3173; senior standing or permission of instructor. Basic principles for analysis of transport phenomena in multiphase systems are developed and their application to a wide variety of engineering systems including phase change is presented. The scope is limited to thermodynamics and heat and mass transfer fundamentals in solid-liquid, liquid-vapor and solid- vapor phase change processes with emphasis on condensation, evaporation, sublimation, vapor deposition, boiling, melting and solidification. No student may earn credit for both 4133 and 5133. (Sp)

## AME 4143 Nanocomposites

3 Credit Hours
(Slashlisted with 5143) Prerequisite: 3143 or permission from instructor. Nanostructured materials and their interactions with polymer matrices; dispersion of nanoparticles and nanotubes; surface and interfaces; structure and characterization of nanophases; synthesis and processing of structural nanocomposites; characterization of properties of nanocomposites; nanomechanics of elastic modulii; potential applications and design. No student may earn credit for both 4143 and 5143. (Irreg.)

AME 4163 Principles of Engineering Design
3 Credit Hours
Prerequisites: AME 3103, AME 2533, AME 3353. Design process and methodology from concept through analysis, layout and prototyping. Types of design problems, human element in design, computer aid in design, specification development, concept generation, concept evaluation, product generation, function and performance evaluation, prototyping, design for manufacturing, design for assembly, design for life-cycle, sustainability, final product documentation, inclusive intergroup communication, ethics, safety and economics. (F)
AME 4183 Design Theory and Methods
3 Credit Hours
(Slashlisted with AME 5183) Prerequisite: AME 3103 and AME 3723, or permission of instructor. A general understanding of modern design theory and mainstream design methods for support of engineering design. Topics include: game and utility theories, decision-based design, single-objective design optimization, multi-objective design optimization, gradient calculation, multi-disciplinary design optimization, and practical engineering applications. Software tools installed on students' laptops for use in lectures, to work on homework, take tests, and collaborate on class project. No student may earn credit for both 4183 and 5183. (Irreg.)
AME 4193 Introduction to Computer-Aided Design 3 Credit Hours (Slashlisted with AME 5193) Prerequisite: AME 3103 and MATH 2443/2934, or permission of instructor. A general understanding of computer-aided design and underline theory of commercial CAD systems for support of engineering design. Topics include: e-Design paradigm, geometric modeling, solid modeling (CSG, B-Rep, parametric modeling, direct modeling), assembly modeling, design parametrization, and product data exchange and management. Offered as a laptop course with hands-on lab sessions. No student may earn credit for both 4193 and 5193. (Irreg.)
AME 4213 Biomechanics I
3 Credit Hours
(Slashlisted with AME 5213) Prerequisite: 3143 and 3153 or permission of instructor. Introduction to physiological systems with emphasis on structure and function of tissues and organs; application of continuum mechanics to understanding of tissue and organ behavior at microscopic and macroscopic levels; viscoelastic and solid biomaterials. No student may earn credit for both 4213 and 5213. (F)

## AME G4243 Aerospace Propulsion Systems 3 Credit Hours

 Prerequisites: AME 2213 and AME 3253. Propulsion systems, review of compressible flow, combustion and thermochemical analysis, gas turbine and jet engines, rocket vehicles, chemical rockets. This course is approved for graduate credit. (F)AME 4263 Computer Integrated Manufacturing 3 Credit Hours (Slashlisted with AME 5263) Prerequisites: AME 2303 or permission of instructor. A general understanding of computer-based methods for manufacturing and assembly of mechanical products. The concept and methods for product manufacturing and assembly will be introduced from design viewpoint. No student may earn credit for both 4263 and 5263. (Irreg.)

## AME 4273 Aerospace Systems Design I

3 Credit Hours
(Slashlisted with AME 5273) Prerequisites: AME 3103, AME 3253, AME 3333, and AME 3523 or permission of the instructor. Analysis, design, and optimization of an aerospace system. Performance analysis, mission simulation, and multi-disciplinary optimization of flight vehicles using both classical and modern design and analysis methods. No student may earn credit for both 4273 and 5273. Laboratory (F)

AME 4281 Engineering Co-Op Program
1 Credit Hour
(Crosslisted with BME, C S, CEES, CH E, ECE, EPHY and ISE 4281)
Prerequisite: Departmental permission and junior standing. May be repeated; maximum credit 6 hours. The Co-Op program provides students an opportunity to enhance their education via career exploration in related professional work experiences. Course assignments help students articulate their experiences by completing journals; mid-term paper; final paper and/or final presentation. Faculty receive an evaluation from the student's Co-Op supervisor who monitors performance. Faculty collaborate with the Co-Op supervisor to ensure student success. ( $\mathrm{F}, \mathrm{Sp}$, Su )
AME 4283 Concurrent Design and Manufacturing 3 Credit Hours Prerequisite: 2303, 2533, and 3143. The general concepts and methods in performing concurrent design and manufacturing for product development. Fundamental design theories and methods such as utility theory, state transition matrix method, game theory, and system life-cycle modeling and optimization will be introduced. No student may earn credit for both 4283 and 5283. (F)

## AME 4303 Designing for Open Innovation

3 Credit Hours
(Slashlisted with AME 5303) Prerequisite: All seniors in engineering, business, and the sciences or permission of the instructor. Open innovation; designing for sustainability; realizing new complex engineered systems; system definition, verification and validation; identifying and managing dilemmas; Blooms Taxonomy; white space competencies, energy systems. No student may earn credit for both 4303 and 5303. (Irreg.)
AME 4373 Aerospace Systems Design II
3 Credit Hours
(Slashlisted with AME 5373) Prerequisite: AME 4273 or permission of the instructor. Synthesis course that emulates a team aircraft design program from conceptual design to flight test and mission evaluation. Conceptual design, preliminary analysis, detailed CAD, FEA, and CFD analysis; optimization of aircraft configuration. Advanced design, analysis, and fabrication methods based on a complete flight vehicle, a propulsion system, a structural system, or a control system. Laboratory. No student may earn credit for both 4373 and 5373. (Sp) [V].
AME G4383 Control Systems
3 Credit Hours
Prerequisite: 2533, Mathematics 3413 and 3401 . Introduction to the concepts and theory of feedback control systems. Representation of electromechanical systems and aerospace vehicles by transfer and state variable methods. Stability and performance analysis, design techniques and synthesis methods for linear control systems. (F)
AME 4393 Renewable Energy Systems and Control 3 Credit Hours (Slashlisted with AME 5393) Prerequisite: Senior Standing; MATH 2934 or MATH 2443; AME 2402 or CS 1313; AME 3723 or equivalent; MATH 3333 and AME 4383 or ECE G441 are preferred but not required. This course introduces students to the fundamentals of data science methods for the design and operation of energy systems. The course is oriented towards students pursuing a technical career in cleantech, or a graduate study in the energy sciences and engineering. Course contents include: mathematical modeling \& analysis, state estimation, optimization, machine learning, and optimal control. No student may earn credit for both 4393 and 5393. (Sp)
AME G4442 Internal Combustion Engines Laboratory 2 Credit Hours Prerequisite: 3122 or graduate standing. Test equipment and instrumentation, propulsion systems, reciprocating engines, supercharger fuel systems, tests and evaluation. Lecture and Laboratory (Sp)

AME 4493 Space Sciences and Astrodynamics 3 Credit Hours
(Slashlisted with AME 5493) Prerequisites: PHYS 2524, MATH 2443 or 2934. Selected topics in astrophysics which may include astrodynamics, stellar structure and evolution, stellar pulsation, supernovae black holes, interstellar medium, galactic structure and clusters and superclusters, active galaxies, quasars, and cosmology. No student may earn credit for both 4493 and 5493. (F)

AME 4503 Nonlinear Dynamical Systems and Control 3 Credit Hours (Slashlisted with AME 5503) Prerequisite: AME 4383 or Instructor's permission. Students will learn to analyze and control nonlinear dynamical systems and apply that knowledge to real engineering problems. No student may earn credit for both 4503 and 5503. (Sp)

## AME 4513 Flight Controls

3 Credit Hours
(Slashlisted with AME 5513) Prerequisites: AME 3333 and AME 4383. Classical and modern control theory with applications to aircraft flight control system design. No student may earn credit for both 4513 and 5513. (F)

## AME 4553 Design Practicum

3 Credit Hours
Prerequisite: senior standing, 3363 and 4163. Design study of actual problems in industry. Lecture and Laboratory (Sp) [V].

AME 4593 Space Systems and Mission Design 3 Credit Hours (Slashlisted with 5593) Prerequisite: 4493 or permission from instructor. Topics include basic orbital mechanics, orbit determination, perturbations, numerical techniques, interplanetary transfer, influence of space environment, atmospheric re-entry. Space vehicles subsystems design; propulsion, attitude determination and control, structural design, thermal control, power and telecommunications. Investigation into mission design concepts and consideration. No student may earn credit for both 4593 and 5593. (Sp)

AME G4653 Air Conditioning Systems 3 Credit Hours Prerequisite: 3173. Theory and design of systems for controlling properties such as temperature, humidity, air purity, air distribution and noise in enclosures. (Sp)

AME 4802 Robotics Laboratory 2 Credit Hours Prerequisite: AME major only (A010 or B010); AME 3112, C S 1313 or equivalent. Hands-on studies of robot systems with emphasis on semiautonomous mobile robots. Mechanical, electrical and computational features of robots will be investigated. Lecture and Laboratory (F)

AME G4822 Fluid and Thermal Laboratory 2 Credit Hours
Prerequisite: 3173; 3122 or equivalent or graduate standing. May be repeated with change of content; maximum credit six hours. Experimental studies in heat transfer or fluid mechanics. Lecture and Laboratory (F)
AME G4832 Micro and Nanomaterials Lab 2 Credit Hours Prerequisites: AME 3112, AME 3143 or equivalent or graduate standing. Introduction of experimental analysis and characterization techniques of different types of advanced materials to include polymeric micro composite materials and nanocomposites. Topics include fabrication methods. Determination of mechanical proper ties, microstructural analysis, nondestructive determination of properties of isotropic and anisotropic solids and microscopy techniques. Laboratory. (Irreg.)

## AME 4960 Directed Readings 1-4 Credit Hours

1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean. May be repeated; maximum credit four hours. Designed for upper-division students who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)

AME 4970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: Senior standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

AME 4971 Seminar
1 Credit Hour
(Slashlisted with 5971) Prerequisite: senior standing. May be repeated without limit; maximum credit one hour for a B.S. degree. Recent developments in selected subjects in aerospace and mechanical engineering presented by invited experts from on and off campus. No student may earn credit for both 4971 and 5971. (F, Sp)

AME 4980 Undergraduate Research Studies 1-3 Credit Hours 1 to 3 hours. Prerequisite: permission of instructor. May be repeated; maximum credit six hours. Work with various faculty members on individual research projects. The nature of the research and the hours credit varies. (F, Sp, Su)

AME 4990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: Senior standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. ndependent study may include library and/or laboratory research and field projects. (Irreg.)

AME 5003 Introduction to Structural Health Monitoring 3 Credit Hours (Slashlisted with AME 4003) Prerequisite: Graduate standing, AME 3112, AME 3143, and AME 3353. Comprehensive instruction of structural dynamics, signal processing, passive and active sensing, feature extraction, statistical pattern recognition, nondestructive evaluation methods. No student may earn credit for both 4003 and 5003. (F)

AME 5013 Introduction to Medical Device Design 3 Credit Hours (Slashlisted with AME 4013; Crosslisted with BME 5013) Prerequisite: Graduate standing or permission of instructor. Introduction to medical device design with emphasis on the entire procedure of developing a medical device, from identifying the unmet medical need to product launching. Topics include marketing and technology survey, concept development, the biocompatible material, device prototype, bench test, in vitro/in vivo test, clinical trial, and FDA regulation. No student may earn credit for both 4013 and 5013. (Sp)

AME 5023 Elastic Stress Analysis
3 Credit Hours
Prerequisite: 3143 and Mathematics 3113; or permission. Theory of stress for continuous media, large displacement strain theory, stressstrain relations for elastic media, plane elasticity, application of theory to modern engineering problems. (F)

AME 5043 Analysis of Heat Pumping Systems
3 Credit Hours
(Slashlisted with AME 4043) Prerequisite: Graduate standing or permission of instructor. A systematic introduction of thermodynamic analysis methods for heat pumping systems, including vaporcompression, absorption, and other common heat pumping technologies. A specific focus is on the applications to air-conditioning, heat pump, and refrigeration equipment. No student may earn credit for both 4043 and 5043. (F)

AME 5063 Composite Materials
3 Credit Hours
Prerequisite: 3143 or permission. Nature and scope of composite materials; stress-strain relations and strength of a single layer of a laminated composite; laminated composite-material beams, plates and cylindrical shells; micromechanics and characterization of stiffness, fracture and transport properties; applications and optimal design. (Irreg.)

AME 5093 Applied Biomechanics - Ear Mechanics 3 Credit Hours (Slashlisted with AME 4093; Crosslisted with BME 5093) Prerequisite: Graduate standing. The course curriculum starts with a review of some basic solid mechanics and fluid mechanics. Then the course will review the applications of mechanics in different biosystems or organs. Finally, this course will cover how to apply mechanics on ear tissue mechanical measurements, ear modeling and ear implant design. No student may earn credit for both 4093 and 5093. (F)
AME 5133 Heat Transfer in Multiphase Systems 3 Credit Hours (Slashlisted with AME 4133) Prerequisite: MATH 2433, PHYS 2524, AME 2213, AME 3153 and AME 3173; graduate standing or permission of instructor. Basic principles for analysis of transport phenomena in multiphase systems are developed and their applications to a wide variety of engineering systems including phase change are presented. The scope is limited to thermodynamics and heat and mass transfer fundamentals in solid-liquid, liquid-vapor and solid-vapor phase change processes with emphasis on condensation, evaporation, sublimation, vapor deposition, boiling, melting and solidification. No student may earn credit for both 4133 and 5133. (Sp)

## AME 5143 Nanocomposites

3 Credit Hours
(Slashlisted with 4143) Prerequisite: 3143 , graduate standing or permission of instructor. Nanostructured materials and their interactions with polymer matrices; dispersion of nanoparticles and nanotubes; surface and interfaces; structure and characterization of nanophases; synthesis and processing of structural nanocomposites; characterization of properties of nanocomposites; nanomechanics of elastic modulii; potential applications and design. No student may earn credit for both 4143 and 5143. (Irreg)

## AME 5183 Design Theory and Methods <br> 3 Credit Hours

(Slashlisted with AME 4183) Prerequisite: Graduate standing or permission of instructor. A general understanding of modern design theory and mainstream design methods for support of engineering design. Topics include game and utility theories, decision-based design, single-objective design optimization, multi-objective design optimization, gradient calculation, multi-disciplinary design optimization, and practical engineering applications. Software tools installed on students' laptops for use in lectures, to work on homework, take tests, and collaborate on class project. No student may earn credit for both 4183 and 5183. (Irreg.)
AME 5193 Introduction to Computer-Aided Design 3 Credit Hours (Slashlisted with AME 4193) Prerequisite: Graduate standing or permission of instructor. A general understanding of computer-aided design and underline theory of commercial CAD systems for support of engineering design. Topics include: e-Design paradigm, geometric modeling, solid modeling (CSG, B-Rep, parametric modeling, direct modeling), assembly modeling, and design parametrization. Offered as a laptop course with hands-on lab sessions. No student may earn credit for both 4193 and 5193. (Irreg.)
AME 5213 Biomechanics I
3 Credit Hours
(Slashlisted with 4213; Crosslisted with BME 5213) Prerequisite: AME 3143 and AME 3153 or permission of instructor. Introduction to physiological systems with emphasis on structure and function of tissues and organs; application of continuum mechanics to understanding of tissue and organ behavior at microscopic and macroscopic levels; viscoelastic and solid biomaterials. No student may earn credit for both 4213 and 5213. (F)

AME 5263 Computer Integrated Manufacturing 3 Credit Hours
(Slashlisted with AME 4263) Prerequisite: graduate standing in engineering or permission of instructor. A general understanding of computer-based methods for manufacturing and assembly of mechanical products. The concept and methods for product manufacturing and assembly will be introduced from design viewpoint. No student may earn credit for both 4263 and 5263. (Irreg.)
AME 5273 Aerospace Systems Design I
3 Credit Hours
(Slashlisted with AME 4273) Prerequisites: AME 3103, 3253, 3333, 3523 or permission of the instructor. Analysis, design, and optimization of an aerospace system. Performance analysis, mission simulation, and multidisciplinary optimization of flight vehicles using both classical and modern design and analysis methods. No student may earn credit for both 4273 and 5273. Laboratory (F)
AME 5283 Concurrent Design and Manufacturing 3 Credit Hours Prerequisite: graduate standing in engineering. The general concepts and methods in performing concurrent design and manufacturing for product development. Fundamental design theories and methods such as utility theory, state transition matrix method, game theory, and system life-cycle modeling and optimization will be introduced. No student may earn credit for both 4283 and 5283. (F)
AME 5303 Designing for Open Innovation 3 Credit Hours (Slashlisted with AME 4303) Prerequisite: Graduate standing in engineering, business, natural sciences, or permission of instructor. Open innovation; designing for sustainability; realizing new complex engineered systems; system definition, verification and validation; identifying and managing dilemmas; Blooms Taxonomy; white space competencies, energy systems. No student may earn credit for both 4303 and 5303. (Irreg.)
AME 5333 Thermodynamics and Combustion 3 Credit Hours
Prerequisite: Graduate standing and AME 2213, or permission of instructor. Thermodynamics of non-reacting and reacting mixtures, chemical equilibrium, flame temperature, transport processes in combustion, chemical kinetics, fuels and their combustion properties, premixed and diffusion flames, deflagrations and detonations, practical combustion systems, and pollutant emissions. (Sp)
AME 5373 Aerospace Systems Design II
3 Credit Hours
(Slashlisted with AME 4373) Prerequisite: AME 4273 or permission of the instructor. Synthesis course that emulates a team aircraft design program from conceptual design to flight test and mission evaluation. Conceptual design, preliminary analysis, detailed CAD, FEA, and CFD analysis; optimization of aircraft configuration. Advanced design, analysis, and fabrication methods based on a complete flight vehicle, a propulsion system, a structural system, or a control system. No student may earn credit for both 4373 and 5373. Laboratory. (Sp)
AME 5393 Renewable Energy Systems and Control 3 Credit Hours (Slashlisted with AME 4393) Prerequisite: Graduate Standing; MATH 2934 or MATH 2443; AME 2402 or CS 1313; AME 3723 or equivalent; MATH 3333 and AME 4383 or ECE G441 are preferred but not required. This course introduces students to the fundamentals of data science methods for the design and operation of energy systems. The course is oriented towards students pursuing a technical career in cleantech or graduate study in the energy sciences and engineering. Course contents include mathematical modeling \& analysis, state estimation, optimization, machine learning, and optimal control. No student may earn credit for both 4393 and 5393. (Sp)

AME 5493 Space Sciences and Astrodynamics 3 Credit Hours (Slashlisted with AME 4493) Prerequisite: PHYS 2524, MATH 2443 or MATH 2934. Selected topics in astrophysics, the solar system; basic orbital mechanics, orbit determination and maneuvers, perturbations, numerical techniques, rendezvous and proximity operations, the N body problem and approximations, interplanetary transfers. Design considerations. No student may earn credit for both 4493 and 5493. (F)

AME 5503 Nonlinear Dynamical Systems and Control 3 Credit Hours (Slashlisted with AME 4503) Prerequisite: Graduate standing. Students will learn to analyze and control nonlinear dynamical systems and apply that knowledge to real engineering problems. No student may earn credit for both 4503 and 5503. (Sp)

## AME 5513 Flight Controls

3 Credit Hours
(Slashlisted with AME 4513) Prerequisites: permission of instructor. Classical and modern control theory with applications to aircraft flight control system design. No student may earn credit for both 4513 and 5513. (F)

AME 5573 Advanced Engineering Analysis I 3 Credit Hours
Prerequisite: Mathematics 3413 or equivalent. Vector and tensor analysis. Calculus of variations followed by variational methods and/or the method of weighted residuals. (Irreg.)

AME 5583 Advanced Engineering Analysis II 3 Credit Hours
Prerequisite: 5573 or permission. Selected topics in Advanced
Engineering Analysis, such as lie theory for ordinary differential equations; eigenvalue problems and spectral analysis; transform methods; solution methods for partial differential equations. (Irreg.)

AME 5593 Space Systems And Mission Design 3 Credit Hours (Slashlisted with 4593) Prerequisite: 4493 or permission from instructor. Topics include basic orbital mechanics, orbit determination, perturbations, numerical techniques, interplanetary transfer, influence of space environment, atmospheric re-entry. Space vehicles subsystems design; propulsion, attitude determination and control, structural design, thermal control, power and telecommunications. Investigation into mission design concepts and consideration. No student may earn credit for both 4593 and 5593. (Sp)

AME 5710 Topics in Solid Mechanics
1-3 Credit Hours
1 to 3 hours. Prerequisite: permission of instructor. May be repeated with change of content; maximum credit nine hours for master's degree or twelve hours for a doctoral degree. Selected topics in continuum mechanics, such as theory of continuum mechanics, finite element methods, fatigue analysis and fracture mechanics.

AME 5720 Topics in Fluid Mechanics
1-3 Credit Hours
1 to 3 hours. Prerequisite: 5903 or permission of instructor. May be repeated with change of content; maximum credit nine hours for master's or 12 hours for a doctoral degree program. Concentration in a particular field of specialization in fluid mechanics, such as: rotating flows; hypersonic flow theory; advanced aerodynamics; advanced stability theory; plasma and laser dynamics. (Irreg.)

AME 5740 Topics in Design
1-3 Credit Hours
Prerequisite: permission of instructor. May be repeated with change of content; maximum credit nine hours for master's or 12 hours for doctoral degree program. Selected topics in conceptual, preliminary and final design; CAD and optimization applications.

Introduction to the Finite Element Method (Crosslisted with CEES 5763) Prerequisite: graduate standing. Weighted residual and variational approaches. Finite element formulation for rod, truss and beam elements; plane stress and plane strain problem; axisymmetric and three-dimensional analysis; isoparametric elements; conforming and nonconforming plate and shell elements. (Sp)

AME 5803 Principles of Heat Transfer
3 Credit Hours
Prerequisite: 3173 or permission. Steady and transient heat conduction in multi-dimensional systems, convective heat transfer for external flows, convective heat transfer for internal flows, radiant heat transfer in lumped systems, integral equations of thermal radiation, and combined mode heat transfer. (F)

AME 5890 Guided Individual Studies
1-4 Credit Hours
1 to 4 hours. Prerequisite: graduate standing and permission. May be repeated; maximum credit nine hours. May be subject to restricted applicability for specific degree requirements. Guided study of selected topics not offered in regularly scheduled classes. Arrangements and work requirements established by prior agreement of instructor and student(s). Students should expect to spend at least sixty hours of reading and study for each credit hour. (F, Sp, Su)

AME 5903 Fundamental Fluid Dynamics 3 Credit Hours
Prerequisite: 3153, 5573 or concurrent enrollment, or permission. Basic laws of fluid motion; Navier-Stokes equations, kinematics of the flow field, vorticity and circulation, basic theorems for inviscid, incompressible flows, potential-flow application, exact solutions. (F)

## AME 5913 Viscous Fluid Dynamics

3 Credit Hours
Prerequisite: 5903 or permission. Fundamental exact solutions of viscous flow; Stokes' flow, boundary-layer flow, drag and resistance to motion, elements of heat transfer, effects of compressibility, thin shear layers, jets and wakes, elements of turbulence. (Sp)

AME 5960 Directed Readings
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing and permission of department. May be repeated; maximum credit twelve hours. Directed readings and/or literature reviews under the direction of a faculty member. (F, Sp, Su)

AME 5970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

AME 5971 Seminar
1 Credit Hour
(Slashlisted with 4971) Prerequisite: graduate standing. May be repeated without limit; maximum credit two hours for master's degree or four hours for a doctoral degree. Recent developments in selected subjects in aerospace and mechanical engineering presented by invited experts from on and off campus. No student may earn credit for both 4971 and 5971. (F, Sp)

AME 5980 Research for Master's Thesis 2-9 Credit Hours Variable enrollment, two to nine hours; maximum credit applicable toward degree, six hours. (F, Sp, Su)

AME 5983 Computational Fluid Dynamics 3 Credit Hours Prerequisite: 5573,5903,5973, or permission of instructor. Methods for the numerical solution of the Euler, boundary-layer, Navier-Stokes and parabolized Navier-Stokes equations. (Irreg.)
AME $5990 \quad$ Special Projects
1 to 9 hours. Prerequisite: graduate standing and permission of
instructor. May be repeated but total credit applicable to any degree may
be limited. Individual or group R \& D projects involving original laboratory,
analytical or theoretical investigations and syntheses. Specific objectives
and work requirements established by prior agreement of the instructor
and student. Students should expect to spend at least 60 hours for each
credit hour and to submit appropriate reports or papers. (F, Sp, Su)

## AME 6033 Fracture Mechanics <br> 3 Credit Hours

Prerequisite: 5023 or equivalent. Elastic crack-tip stress field, cracktip plastic zone, energy principle, plane strain fracture toughness, crack opening displacement criterion, fatigue crack propagation and applications. (Irreg.)

## AME 6663 Advanced Finite Element Methods

3 Credit Hours
(Crosslisted with CEES 6663) Prerequisite: 5763. Selected topics such as: nonlinear material problems, plasticity, creep (visco-plasticity), fracture, etc.; geometrically nonlinear problems; large displacements and structural stability; dynamic problems and analytical solution procedures; soil-structure interactions, application of the finite element method to fluid and heat transfer problem. (Irreg.)

## AME 6960 Directed Readings

1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit six hours. Directed readings and/or literature review under the direction of a faculty member. (Irreg.)

## AME 6970 Advanced Topics In Aerospace And/Or Mechanical

 Engineering1-3 Credit Hours
Prerequisite: permission of instructor. May be repeated with change of content; maximum credit nine hours for a master's and twelve hours for doctoral degree program. Selected advanced topics in all aspects of aerospace and/or mechanical engineering.

## AME 6980 Research for Doctoral Dissertation 2-16 Credit Hours

2 to 16 hours. Prerequisite: Graduate standing and permission of instructor; may be repeated. Directed research culminating in the completion of the doctoral dissertation. (F, Sp, Su)
AME 6990 Independent Study 1-3 Credit Hours 1 to 3 hours. Prerequisite: Graduate standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)

## Faculty

| Last Name | First/Middle <br> Name | Middle init. | OU Service start | Title(s), date(s) appointed | Degrees Earned, Schools, Dates Completed |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Attar | Peter |  | 2006 | ASSOCIATE <br> PROFESSOR OF <br> AEROSPACE AND <br> MECHANICAL <br> ENGINEERING, 2012 | PhD, Duke Univ, 2003; MSc, Duke Univ, 1999; BS, Tufts Univ, 1997 |
| Baldwin | James |  | 1993 | DIRECTOR, DYNAMIC STRUCTURES SENSING AND CONTROL CENTER 2006; ASSOCIATE PROFESSOR OF AEROSPACE AND MECHANICAL ENGINEERING 2001 | PhD, Univ of Virginia, 1993; MS, Univ of Virginia, 1990; BS, Univ of Virginia, 1983 |

Bashetty Srikanth 2022 ASSISTANT PROFESSOR OF AEROSPACE AND
MECHANICAL
ENGINEERING, 2022

| Billings Christopher 2023 |  |  |
| :--- | :--- | :--- |
|  |  | RESEARCH |
|  |  | ASSISTANT |

PROFESSOR OF
AEROSPACE AND
MECHANICAL
ENGINEERING, 2023

|  | MECHANICAL |
| :--- | :--- |
| ENGINEERING, 2023 | En |
|  |  |

Cai Jie 2017

ASSOCIATE PROFESSOR OF AEROSPACE AND MECHANICAL ENGINEERING, 2023

| Chang | Kuang-Hua | 1997 | DAVID ROSS BOYD PROFESSOR OF AEROSPACE AND MECHANICAL ENGINEERING, 2013;WILLIAMS COMPANIES FOUNDATION PRESIDENTIAL PROFESSOR, 2005 | PhD, Univ of Iowa, 1990; MS, Univ of lowa; 1987; BS, Taipei Inst of Tech, 1980 |
| :---: | :---: | :---: | :---: | :---: |

Dai Chenkai 2018
$\begin{array}{ll}\text { ASSOCIATE } & \text { Ph.D, Biomedical } \\ \text { PROFESSOR OF } & \text { Engineering, Univ }\end{array}$ AEROSPACE AND of Oklahoma, MECHANICAL ENGINEERING, 2018 Medical College,

| Dalton | Christopher R | 2000 |
| :--- | :--- | :--- |
| Ding | Hanping | 2022 |

ASSOCIATE PROFESSOR OF AEROSPACE AND MECHANICAL ENGINEERING, 2020 ASSISTANT
PROFESSOR OF AEROSPACE AND MECHANICAL ENGINEERING,2022 2009; B.S, Jilin Univ

| Diogo Sanchez M 2022 | ASSISTANT | Ph.D Brazilian |  |
| :--- | :--- | :--- | :--- |
|  |  |  |  |
|  |  | PROFESSOR OF | National Institute |
|  | AEROSPACE AND | for Space Research, |  |
|  | MECHANICAL | INPE, 2015; M.Sc |  |
|  |  | ENGINEERING, 2022 | São Paulo State Univ |
|  |  |  | Unesp, Brazil, 2009; |
|  |  | B.Sc São Paulo State |  |
|  |  | Univ, Unesp, Brazil, |  |
|  |  | 2007 |  |

B.S, Mechanical HUST, Wuhan, China, 2000; M.S., Otorhinolaryngology Science, Tongji Medical College, HUST, Wuhan, China, 2003 PhD, Univ o China, 2006
Ph.D, Texas A\&M Univ - Kingsville, 2020; M. Tech, JNTU Hyderabad, 2014; B. Tech JNTU Hyderabad, 2012 Ph.D, Mechanical Engineering, University Of Oklahoma 2023; Engineering, University of Oklahoma, 2020 PhD, Purdue Univ, 2015; MS, Ball State Univ, 2011; BS, Dalian Univ of Tech, 2009

PhD, Univ of lowa, 1990; MS, Univ of Iowa; 1987; BS, Taipei Inst of Tech, 1980

PhD, Univ of Oklahoma, 2010; MS, Univ of Oklahoma, 2007; BS, Univ of Oklahoma, 2004 Ph.D., Univ of South Carolina, 2014; M.S, Univ of Science and Technology of China, Ph.D Brazilian for Space Research, INPE, 2015; M.Sc Unesp, Brazil, 2009; Univ, Unesp, Brazil, 2007


| Saha | Mrinal | 2006 | PROFESSOR OF <br> AEROSPACE AND <br> MECHANICAL <br> ENGINEERING, 2018 | PhD, Old Dominion Univ, 2001; MS, Tuskegee, 1996; MS, Bangladesh Univ, 1992; BS, Bangladesh Univ, 1988 |  | 2021 | ASSISTANT PROFESSOR OF AEROSPACE AND MECHANICAL ENGINEERING, 2021 | Ph.D., Systems Engineering, Univ of California, Berkeley, 2020; M.S., Systems Engineering, Univ of California, Berkeley, |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Shabgard | Hamidreza | 2016 | ASSOCIATE <br> PROFESSOR OF <br> AEROSPACE AND <br> MECHANICAL <br> ENGINEERING, 2022 | PhD, Univ of Connecticut, 2014; MS, Amirkabir Univ of Technology, 2007; BS, Azad Univ of Mashhad, 2003 |  |  |  | 2016; B.S., Electrical <br> and Computer <br> Engineering, <br> Shanghai Jiao <br> Tong Univ, China, <br> 2015 B.S., Civil <br> and Environmental <br> Engineering, Univ of <br> Michigan, Ann Arbor, <br> 2015 |
| Siddique | Zahed | 2000 | ASSOCIATE <br> DEAN FOR <br> RESEARCH,2022; <br> DICK AND <br> SHIRLEY O'SHIELD <br> PROFESSOR,2015; <br> PROFESSOR OF <br> AEROSPACE AND <br> MECHANICAL <br> ENGINEERING,2012 | PhD, Georgia Inst of Tech, 2000; MS, Georgia Inst of Tech, 1996; BS, Georgia Inst of Tech, 1994 | Aerospace Engineering, B.S. <br> Minimum Total Credit Hours: 128 <br> Overall GPA - Combined and OU: 2.00 <br> Major GPA - Combined and OU: 2.00 <br> Curriculum GPA - Combined and OU: 2.00 <br> Program Code: B010 <br> This program has changes pending State Regents approval for 2024/25. These pending changes are not reflected here. <br> Bachelor of Science in Aerospace Engineering accredited by the Engineering Accreditation Commission of ABET, https://www.abet.org, under the General Criteria and the Aerospace and Similarly Named Program Criteria. <br> In order to progress into 2nd year courses in AME, students must successfully complete (grade C or better) MATH 1914; MATH 2924; PHYS 2514 and CHEM 1315 with 3.0 Combined Retention GPA, and possess a minimum 3.0 Combined Retention GPA in 24 or more credit hours. <br> Major Requirements |  |  |  |
| Song | Li | 2009 | PROFESSOR OF <br> AEROSPACE AND <br> MECHANICAL <br> ENGINEERING, <br> 2020; LLOYD G. <br> AND JOYCE AUSTIN <br> PRESIDENTIAL <br> PROFESSOR, 2019 | PhD, Univ of Nebraska, 2004; MS, Harbin Inst of Tech, 1996; BS, Shengyang Univ, 1993 |  |  |  |  |
| Sun | Wei | 2018 | ASSISTANT <br> PROFESSOR OF <br> AEROSPACE AND <br> MECHANICAL <br> ENGINEERING, 2018 | PhD, Georgia Inst of Tech, 2017; MS, Georgia Inst of Tech, 2015; BS, Peking Univ, 2010 |  |  |  |  |
| Vedula | Prakash | 2006 | PROFESSOR OF <br> AEROSPACE AND <br> MECHANICAL <br> ENGINEERING, 2018 | PhD, Georgia Inst of Tech, 2001; MS, Georgia Inst of Tech, 1998; BS, India Inst of Tech, 1996 |  |  |  |  |
| Xu | Bin | 2021 | ASSISTANT <br> PROFESSOR OF <br> AEROSPACE AND <br> MECHANICAL <br> ENGINEERING, 2021 | Ph.D., Automotive <br> Engineering, <br> Clemson Univ, 2017 <br> B.S., Automotive <br> Engineering, Hunan <br> Univ, China, 2013 |  |  |  |  |
| Xu | Shuozhi | 2023 | ASSISTANT PROFESSOR OF AEROSPACE AND MECHANICAL ENGINEERING 2023 | Ph.D. Georgia institute of Technology Atlanta, Georgia,2016; M.S Georgia Institute of Technology, Atlanta, Georgia, 2015; M.S China Academy of Engineering Physics, Mianyang, China, 2011;B.S, Beihang University Beijing, China, 2008 |  |  |  |  |
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| AME 3523 | Aerospace Structural Analysis | 3 |
| :--- | :--- | :--- |
| AME 3623 | Embedded Real-Time Systems | 3 |
| AME 4243 | Aerospace Propulsion Systems | 3 |
| AME 4273 | Aerospace Systems Design I | 3 |
| AME 4493 | Space Sciences and Astrodynamics | 3 |
| AME 4513 | Flight Controls | 3 |
| AME 4373 | Aerospace Systems Design II | 3 |
| Experimental Elective |  |  |
| Choose a two hour approved experimental elective ${ }^{1}$ | 2 |  |


| Total Credit Hours | 60 |
| :--- | :--- |

${ }^{1}$ AME 4802 is recommended for the experimental elective.

## Major Support Requirements

| Code | Title | Credit |
| :---: | :---: | :---: |
|  |  | Hours |
| Math and Science |  |  |
| MATH 2924 | Differential and Integral Calculus II | 4 |
| MATH 2934 | Differential and Integral Calculus III | 4 |
| MATH 3413 | Physical Mathematics I | 3 |
| MATH 3401 | Numerical Methods With Matlab | 1 |
| PHYS 2524 | General Physics for Engineering and Science Majors | 4 |
| Technical Electives |  |  |
| Choose 6 ho approved co | technical electives from the list of maintained by the department ${ }^{1}$ | 6 |
| Additional College Requirements |  |  |
| ENGR 1411 | Pathways to Engineering Thinking ${ }^{2}$ | 1 |
| ENGR 2002 | Professional Responsibilities and Skills of Engineers and Scientists | 2 |
| C S 1313 | Programming for Non-Majors with C | 3 |
| Total Credit Hours |  | 28 |

1 A list of Technical, Experimental, and Engineering Science electives can be found at: https://www.ou.edu/coe/ame/undergraduate/ame-current
2 Engineering transfer students may take ENGR 3511 in place of ENGR 1411.

## General Education and College Requirements

Courses designated as Core I, II, III, IV, or V are part of the General Education curriculum. Students must complete a minimum of 40 hours of General Education courses, chosen from the approved list, including at least one upper-division Gen. Ed. course outside of the student's major. Courses graded P/NP will not apply.

A grade of $C$ or better is required in each course in the curriculum, including all prerequisite courses.

UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) and College Requirements
Code Title

Core Area I: Symbolic and Oral Communication
English Composition
ENGL 1113 Principles of English Composition
Credit
Hours


## Free Electives

Electives to bring total applicable hours to the minimum total required for the degree including a minimum of 40 upper-division hours.

## Suggested Semester Plan of Study

Bachelor of Science in Aerospace Engineering accredited by the Engineering Accreditation Commission of ABET, https://www.abet.org, under the General Criteria and the Aerospace and Similarly Named Program Criteria.

In order to progress in your curriculum in the Gallogly College of Engineering, and as a specific graduation requirement, a grade of $C$ or better is required in each course in the curriculum, including all
prerequisite courses. AME courses are sequential and usually offered only in the semester shown; note prerequisites.

- DEPARTMENTAL PROGRESSION REQUIREMENTS: In order to progress into 2nd year courses in AME, students must successfully complete (grade C or better) MATH 1914; MATH 2924; PHYS 2514 and CHEM 1315 with 3.0 Combined Retention GPA, and possess a minimum 3.0 Combined Retention GPA in 24 or more credit hours. AP credit is acceptable for any of these required courses.

Two college-level courses in a single world language are required; this may be satisfied by successful completion of 2 years in a single world language in high school. Students who must take a language at the University will have an additional 6-10 hours of coursework.

Courses designated as Core I, II, III, IV or V are part of the General Education curriculum. Students must complete a minimum of 40 hours of General Education courses, chosen from the approved list.

## Freshman

| First Semester |  | Credit |
| :---: | :---: | :---: |
|  |  | Hours |
| ENGL 1113 | Principles of English Composition (Core I) | 3 |
| CHEM 1315 | General Chemistry (Core II-Lab) ${ }^{1}$ | 5 |
| MATH 1914 | Differential and Integral Calculus I (Core I) ${ }^{2}$ | 4 |
| HIST 1483 or HIST 1493 | United States to 1865 (Core IV) or United States, 1865 to the Present | 3 |
| ENGR 1411 | Pathways to Engineering Thinking ${ }^{3}$ | 1 |
|  | Credit Hours | 16 |

## Second Semester

ENGL 1213 Principles of English Composition (Core I) 3

| or EXPO $1213 \quad$ or Expository Writing |  |
| :---: | :---: |
| MATH $2924 \quad$ Differential and Integral Calculus II $^{2}$ | 4 |

PHYS 2514 General Physics for Engineering and 4
Science Majors (Core II)
C S 1313 Programming for Non-Majors with C 3
Approved Elective: First-Year Experience (Core V) ${ }^{4} 3$

| Credit Hours | 17 |
| :--- | :--- |


| Sophomore <br> First Semester <br> MATH 2934 | Differential and Integral Calculus III ${ }^{2}$ |  |
| :--- | :--- | ---: |
| PHYS 2524 | General Physics for Engineering and <br> Science Majors | 4 |
| AME 2113 | Statics | 4 |
| AME 2213 | Thermodynamics | 3 |
| AME 2223 | Introduction to Aerospace Engineering | 3 |
|  | Credit Hours | $\mathbf{3}$ |

## Second Semester

| MATH 3413 | Physical Mathematics I | 3 |
| :--- | :--- | ---: |
| MATH 3401 | Numerical Methods With Matlab | 1 |
| AME 2303 | Materials, Design and Manufacturing | 3 |
|  | Processes | 3 |
| AME 2533 | Dynamics | 3 |
| AME 2623 | Circuits and Sensors | $\mathbf{3}$ |
| Approved Elective: Artistic Forms (Core IV) |  |  |

Junior
First Semester

| AME 3112 | Solid Mechanics Lab | 2 |
| :--- | :--- | :--- |
| AME 3143 | Solid Mechanics | 3 |
| AME 3253 | Aerodynamics | 3 |
| AME 3272 | Windtunnel Laboratory | 2 |
| AME 4383 | Control Systems | 3 |
| ENGR 2002 | Professional Responsibilities and Skills of | 2 |
|  | Engineers and Scientists |  |
|  | Credit Hours | $\mathbf{1 5}$ |

## Second Semester

| AME 3103 | Interactive Engineering Design Simulation | 3 |
| :--- | :--- | ---: |
| AME 3333 | Flight Mechanics | 3 |
| AME 3523 | Aerospace Structural Analysis | 3 |
| AME 3623 | Embedded Real-Time Systems | 3 |
| P SC 1113 | American Federal Government (Core III) | 3 |
| Approved Experimental Elective ${ }^{5}$ | $\mathbf{2}$ |  |
|  | Credit Hours | $\mathbf{1 7}$ |

Senior
First Semester
AME 4243 Aerospace Propulsion Systems 3
AME 4273 Aerospace Systems Design I 3
AME 4493 Space Sciences and Astrodynamics 3
AME 4513 Flight Controls 3
AME Approved Technical Elective ${ }^{6} \quad 3$

Second Semester
AME 4373 Aerospace Systems Design II 3
AME Approved Technical Elective ${ }^{6} 3$
COMM 3513 Intercultural Communication (or an advisor- 3 approved substitution) (Western Culture Core IV) ${ }^{4}$
ANTH 4623 Approaches to Cross-Cultural Human 3

Problems (or an advisor-approved substitution) (World Culture - Core IV) ${ }^{4}$
Approved Elective: Social Science (Core III) ${ }^{4} \quad 3$

| Credit Hours | 15 |
| :--- | ---: |
| Total Credit Hours | 128 |

${ }^{1}$ CHEM 1315 can be substituted with CHEM 1335 (Fall only).
2 MATH 1823, MATH 2423, MATH 2433, and MATH 2443 sequence can be substituted for MATH 1914, MATH 2924, and MATH 2934.
3 Engineering transfer students may take ENGR 3511 in place of ENGR 1411.
4 To be chosen from the University-Wide General Education Approved Course List. Three of these hours must be upper-division (3000-4000).
5 It is recommended that a student take AME 4802 for the experimental elective.
${ }^{6}$ A list of Technical Electives can be found at: https://www.ou.edu/coe/ ame/undergraduate/ame-current

## Aerospace \& Mechanical Engineering Elective Lists

## Approved Electives for Undergraduates

Students wishing to use courses such as Technical, Engineering Science, and/or Experimental electives that do not appear on this list should submit a petition to the AME faculty for approval before enrolling. Courses taken during intersessions will not qualify for Engineering Science/Technical Elective credit.

Courses that have not been approved in advance may not count for elective credit. A maximum of 6 credit hours from courses that are not centrally scheduled by the University with regular meeting hours (e.g., AME 3440, AME 3960, AME 3980, AME 3990, AME 4980, AME 4990) can be used for Technical, Engineering Science, and Experimental electives.

## I. Engineering Science Electives

A. AME courses, 3000 level and above, not specifically listed on the required curriculum. NOTE: For AME 4980 - a consent form signed by the instructor is required.
B. All courses offered by the different schools in the College of Engineering and the School of Petroleum Engineering that are 3000 level and above, excluding courses that are equivalent to AME courses in the required curriculum and excluding ENGR courses.
II. Math/Science Electives

| Code | Title | Credit <br> Hours |
| :---: | :---: | :---: |
| Chemistry |  |  |
| CHEM 3053 | Organic Chemistry I: Biological Emphasis | 3 |
| Any higher numbered Chemistry courses (above 3053) |  |  |
| Math |  |  |
| MATH 3333 | Linear Algebra I | 3 |
| Any MATH 4000 Level and above |  |  |
| Physics |  |  |
| PHYS 3043 | Physical Mechanics I | 3 |
| PHYS 3183 | Electricity and Magnetism I | 3 |
| PHYS 3223 | Modern Physics for Engineers | 3 |
| PHYS 3803 | Introduction to Quantum Mechanics I | 3 |
| Any PHYS 4000 level and above |  |  |
| Astronomy |  |  |
| ASTR 3113 | Galaxies and Cosmology | 3 |
| ASTR 4303 | Stellar Astrophysics | 3 |
| Biology |  |  |
| BIOL 5374 | Scanning Electron Microscopy | 4 |
| BIOL/PBIO 5364 | Transmissn Electron Microscopy | 4 |
| BIOL/PBIO 5394 | Advanced Light Microscopy | 4 |
| Geology |  |  |
| GEOL 3633 | Introduction to Oceanography | 3 |

## III. Simulation Electives

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| AME 4193 | Introduction to Computer-Aided Design | 3 |
| AME 4133 | Heat Transfer in Multiphase Systems | 3 |
| AME 4970 | Special Topics/Seminar (Topic: <br> Advanced Energy Systems) | $1-3$ |
| AME 4970 | Special Topics/Seminar (Topic: Applied <br> Machine Learning) | $1-3$ |
| AME 4970 | Special Topics/Seminar (Topic: <br> Computational Materials Science) | $1-3$ |
| AME 5763 | Introduction to the Finite Element <br> Method | 3 |
| AME 5983 | Computational Fluid Dynamics | 3 |

IV. Technical Electives

| Code | Title | Credit |
| :---: | :---: | :---: |
| Any Engineering Science Elective listed above |  |  |
| Any Math/Science Elective listed above |  |  |
| Any Simulation Elective listed above |  |  |
| A maximum of 3 credit hours from this list can count toward the degree: |  |  |
| ENGR 4003 | Engineering Practice |  |
| ENGR 4013 | Leadership and Management for Engineers |  |
| ENGR 4023 | Disruptive and Innovative Technology Ideation |  |
| ENGR 4223 | Fundamentals of Project Management |  |
| ENGR 4513 | Introduction to Sustainable Engineering |  |
| AME 4281 | Engineering Co-Op Program (Co-Op students may substitute up to 3 hours of this course for a Technical Elective) | 1 |
| Other options: |  |  |
| Meteorology: Any METR 4000 level and above |  |  |
| Naval Science |  |  |
| N S 3223 | Naval Ship Systems I: Naval Engineering Systems | 3 |
| N S 3433 | Naval Ship Systems II - Naval Weapons Systems | 3 |
| Experimental Electives |  |  |
| Code | Title | Credit |
| Aerospace Engineering Experimental Electives |  |  |
| AME 4802 | Robotics Laboratory | 2 |
| AME 4832 | Micro and Nanomaterials Lab | 2 |
| AME 4980 | Undergraduate Research Studies (Special Lab - NOTE: a consent form signed by the instructor is required. Course content must have experimental emphasis, and a report must be submitted.) | 1-3 |


| Mechanical Engineering Experimental Electives |  |  |
| :--- | :--- | ---: |
| AME 3272 | Windtunnel Laboratory (Spring offering) | 2 |
| AME 4442 | Internal Combustion Engines Laboratory | 2 |
| AME 4822 | Fluid and Thermal Laboratory | 2 |
| AME 4832 | Micro and Nanomaterials Lab |  |
| AME 4980 | Undergraduate Research Studies <br> (Special Lab - NOTE: A consent form <br> signed by the instructor is required. <br> Course content must have experimental <br> emphasis and a report must be <br> submitted.) | $1-3$ |

## Mechanical Engineering (Standard), B.S.

Minimum Total Credit Hours: 123

Overall GPA - Combined and OU: 2.00
Major GPA - Combined and OU: 2.00
Curriculum GPA - Combined and OU: 2.00
Program Code: B675
This program has changes pending State Regents approval for 2024/25. These pending changes are not reflected here.
Bachelor of Science in Mechanical Engineering accredited by the Engineering Accreditation Commission of ABET, https://www.abet.org, under the General Criteria and the Mechanical and Similarly Named Engineering Programs Program Criteria.

In order to progress into 2nd year courses in AME, students must successfully complete (grade C or better) MATH 1914; MATH 2924; PHYS 2514 and CHEM 1315 with 3.0 Combined Retention GPA, and possess a minimum 3.0 Combined Retention GPA in 24 or more credit hours.

## Major Requirements

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Required Courses |  |  |
| AME 2113 | Statics | 3 |
| AME 2213 | Thermodynamics | 3 |
| AME 2402 | Engineering Computing | 2 |
| AME 2303 | Materials, Design and Manufacturing | 3 |
|  | Processes | 3 |
| AME 2533 | Dynamics | 2 |
| AME 3112 | Solid Mechanics Lab | 3 |
| AME 3143 | Solid Mechanics | 3 |
| AME 3153 | Fluid Mechanics | 3 |
| AME 3723 | Numerical Methods For Engineering | 3 |
| AME 3103 | Computation | 2 |
| AME 3122 | Heat Transfer and Fluid Mechanics Lab | 2 |
| AME 3173 | Heat Transfer | 3 |
| AME 3353 | Design of Mechanical Components | 3 |
| AME 3363 | Design of Thermal-Fluid Systems | 3 |


| AME 4163 | Principles of Engineering Design | 3 |
| :---: | :---: | :---: |
| AME 4553 | Design Practicum | 3 |
| Experimental Elective |  |  |
| Choose a 2 hour experimental elective from the list of approved courses maintained by the department ${ }^{1}$ |  | 2 |
| Total Credit Hours |  | 47 |
| A list of Technic be found at: htt | al, Experimental, and Engineering S s://www.ou.edu/coe/ame/undergr |  |

## Major Support Requirements

| Code | Title | Credit <br> Hours |
| :---: | :---: | :---: |
| Math and Science |  |  |
| MATH 2924 | Differential and Integral Calculus II | 4 |
| MATH 2934 | Differential and Integral Calculus III | 4 |
| MATH 3113 | Introduction to Ordinary Differential Equations | 3 |
| PHYS 2524 | General Physics for Engineering and Science Majors | 4 |
| PHYS 3223 | Modern Physics for Engineers | 3 |
| Engineering Science Elective |  |  |
| Choose 6 h of approved | Engineering science electives from the list ses maintained by the department ${ }^{1}$ | 6 |
| Technical Elective |  |  |
| Choose 6 ho approved | f technical electives from the list of maintained by the department ${ }^{1}$ | 6 |
| Additional College Requirements |  |  |
| ENGR 1411 | Pathways to Engineering Thinking ${ }^{2}$ | 1 |
| ENGR 2431 | Electrical Circuits | 1 |
| ENGR 2531 | Electrical Circuits II | 1 |
| ENGR 3431 | Electromechanical Systems | 1 |
| ENGR 2002 | Professional Responsibilities and Skills of Engineers and Scientists | 2 |
| Total Credit |  | 36 |
| A list of Technical, Experimental, and Engineering Science electives can be found at: https://www.ou.edu/coe/ame/undergraduate/ame-current ${ }^{2}$ Engineering transfer students may take ENGR 3511 in place of ENGR 1411. |  |  |
| General Education and College Requirements |  |  |
| Courses designated as Core I, II, III, IV, or V are part of the General Education curriculum. Students must complete a minimum of 40 hours of General Education courses, chosen from the approved list, including at least one upper-division Gen. Ed. course outside of the student's major. Courses graded P/NP will not apply. |  |  |
| A grade of $C$ or better is required in each course in the curriculum, including all prerequisite courses. |  |  |

## UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS)



Core Area II: Natural Science (including one laboratory)

| PHYS 2514 | General Physics for Engineering and <br> Science Majors (Core II) |
| :--- | :--- | ---: |
| CHEM 1315 ILLab) |  |

or CHEM 1335 General Chemistry I: Signature Course
Core Area III: Social Science
PSC 1113 American Federal Government 3
Choose one course ${ }^{3} 3$

Core Area IV: Arts \& Humanities

| Artistic Forms |  |  |
| :---: | :---: | :---: |
| Choose one course ${ }^{3}$ |  | 3 |
| Western Culture |  |  |
| HIST 1483 | United States to 1865 | 3 |
| or HIST 1493 | United States, 1865 to the Present |  |
| COMM 3513 | Intercultural Communication ( or approved substitute Core IV-Western Culture) ${ }^{3}$ | 3 |
| World Culture |  |  |
| ANTH 4623 | Approaches to Cross-Cultural Human Problems (or approved substitute Core IVWorld Culture) ${ }^{3}$ | 3 |

Core Area V: First-Year Experience

| Choose one course $^{3}$ | 3 |
| :--- | ---: |
| Total Credit Hours | $\mathbf{4 0 - 5 0}$ |

${ }^{1}$ MATH 1914, MATH 2924, and MATH 2934 can be substituted with MATH 1823, MATH 2423, MATH 2433, and MATH 2443.
${ }^{2}$ Major support requirements that also satisfy University General Education requirements
${ }^{3}$ To be chosen from the University-Wide General Education Approved Course List. Three of these hours must be upper-division (3000-4000).

## Free Electives

Electives to bring total applicable hours to the minimum total required for the degree including a minimum of 40 upper-division hours.

## Suggested Semester Plan of Study

Bachelor of Science in Mechanical Engineering accredited by the Engineering Accreditation Commission of ABET, https://www.abet.org, under the General Criteria and the Mechanical and Similarly Named Engineering Programs Program Criteria.

In order to progress in your curriculum in the Gallogly College of Engineering, and as a specific graduation requirement, a grade of C or better is required in each course in the curriculum, including all prerequisite courses. AME courses are sequential and usually offered only in the semester shown; note prerequisites.

DEPARTMENTAL PROGRESSION REQUIREMENTS:
In order to progress into 2nd year courses in AME, students must successfully complete (grade C or better) MATH 1914; MATH 2924; PHYS 2514 and CHEM 1315 with 3.0 Combined Retention GPA, and possess a minimum 3.0 Combined Retention GPA in $\mathbf{2 4}$ or more credit hours. AP credit is acceptable for any of these required courses.

Two college-level courses in a single world language are required; this may be satisfied by successful completion of 2 years in a single world language in high school. Students who must take a language at the University will have an additional 6-10 hours of coursework.

Courses designated as Core I, II, III, IV, or V are part of the General Education curriculum. Students must complete a minimum of 40 hours of General Education courses, chosen from the approved list.

## Freshman

| First Semester |  | Credit <br> Hours |
| :--- | :--- | ---: |
| ENGL 1113 | Principles of English Composition (Core I) | 3 |
| CHEM 1315 | General Chemistry (Core II-Lab) $^{1}$ | 5 |
| MATH 1914 | Differential and Integral Calculus I (Core I) $^{2}$ | 4 |
| ENGR 1411 | Pathways to Engineering Thinking ${ }^{3}$ | 1 |
| HIST 1483 | United States to 1865 (Core IV) | 3 |
| or HIST 1493 | or United States, 1865 to the Present |  |
|  | Credit Hours | $\mathbf{1 6}$ |


| Second Semester <br> ENGL 1213 <br> or EXPO 1213 | Principles of English Composition (Core I) <br> or Expository Writing | 3 |
| :--- | :--- | ---: |
| MATH 2924 | Differential and Integral Calculus II ${ }^{2}$ | 4 |
| PHYS 2514 | General Physics for Engineering and <br> Science Majors (Core II) | 4 |
| Approved Elective: First-Year Experience (Core V) |  |  |


| Second Semester |  |  |
| :---: | :---: | :---: |
| MATH 3113 | Introduction to Ordinary Differential Equations | 3 |
| AME 2303 | Materials, Design and Manufacturing Processes | 3 |
| AME 2533 | Dynamics | 3 |
| ENGR 2431 | Electrical Circuits | 1 |
| ENGR 2531 | Electrical Circuits II | 1 |
| ENGR 3431 | Electromechanical Systems | 1 |
| Approved Elective: | Social Science (Core III) ${ }^{4}$ | 3 |
|  | Credit Hours | 15 |
| Junior |  |  |
| First Semester |  |  |
| AME 3112 | Solid Mechanics Lab | 2 |
| AME 3143 | Solid Mechanics | 3 |
| AME 3153 | Fluid Mechanics | 3 |
| AME 3723 | Numerical Methods For Engineering Computation | 3 |
| ENGR 2002 | Professional Responsibilities and Skills of Engineers and Scientists | 2 |


| Approved Technical Elective $^{5}$ | 3 |
| ---: | ---: |
| Credit Hours | 16 |


| Second Semester |  |  |
| :--- | :--- | :--- |
| AME 3103 | Interactive Engineering Design Simulation | 3 |
| AME 3122 | Heat Transfer and Fluid Mechanics Lab | 2 |
| AME 3173 | Heat Transfer | 3 |
| AME 3353 | Design of Mechanical Components | 3 |
| P SC 1113 | American Federal Government (Core III) | 3 |
| Approved Technical Elective 5 | 3 |  |
|  | Credit Hours | $\mathbf{1 7}$ |


| Senior |  |  |
| :---: | :---: | :---: |
| First Semester |  |  |
| PHYS 3223 | Modern Physics for Engineers | 3 |
| AME 3363 | Design of Thermal-Fluid Systems | 3 |
| AME 4163 | Principles of Engineering Design | 3 |
| Approved Engineering Science Elective ${ }^{5}$ |  | 3 |
| Approved Experimental Elective ${ }^{5}$ |  | 2 |
|  | Credit Hours | 14 |
| Second Semester |  |  |
| AME 4553 | Design Practicum | 3 |
| COMM 3513 | Intercultural Communication (or an advisor approved substitution) (Western Culture Core IV) ${ }^{4}$ | 3 |
| ANTH 4623 | Approaches to Cross-Cultural Human Problems ((or an advisor-approved substitution) (World Culture - Core IV) ${ }^{4}$ | 3 |
| Approved Engineering Science Elective ${ }^{5}$ |  | 3 |
| Approved Elective: Artistic Forms (Core IV) ${ }^{4}$ |  | 3 |
|  | Credit Hours | 15 |
|  | Total Credit Hours | 123 |

[^41]3 Engineering transfer students may take ENGR 3511 in place of ENGR 1411.
4 To be chosen from the University-Wide General Education Approved Course List. Three of these hours must be upper-division (3000-4000).
5 A list of Technical, Experimental, and Engineering Science electives can be found at: https://www.ou.edu/coe/ame/undergraduate/ame-current

## Mechanical Engineering - Premedical Option, B.S.

Minimum Total Credit Hours: 132

Overall GPA - Combined and OU: 2.00
Major GPA - Combined and OU: 2.00
Curriculum GPA - Combined and OU: 2.00
Program Code: B676

## This program has changes pending State Regents approval for 2024/25. These pending changes are not reflected here.

Bachelor of Science in Mechanical Engineering accredited by the Engineering Accreditation Commission of ABET, https://www.abet.org, under the General Criteria and the Mechanical and Similarly Named Engineering Programs Program Criteria.

In order to progress into 2nd year courses in AME, students must successfully complete (grade C or better) MATH 1914; MATH 2924; PHYS 2514 and CHEM 1315 with 3.0 Combined Retention GPA, and possess a minimum 3.0 Combined Retention GPA in 24 or more credit hours.

## Major Requirements

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Required Courses |  |  |
| AME 2113 | Statics | 3 |
| AME 2213 | Thermodynamics | 3 |
| AME 2402 | Engineering Computing | 2 |
| AME 2303 | Materials, Design and Manufacturing | 3 |
| AME 2533 | Processes | 3 |
| AME 3112 | Solid Mechanics Lab | 2 |
| AME 3143 | Solid Mechanics | 3 |
| AME 3153 | Fluid Mechanics | 3 |
| AME 3723 | Numerical Methods For Engineering | 3 |
| AME 3103 | Computation | 3 |
| AME 3122 | Heat Transfer and Fluid Mechanics Lab | 2 |
| AME 3173 | Heat Transfer | 3 |
| AME 3353 | Design of Mechanical Components | 3 |
| AME 3363 | Design of Thermal-Fluid Systems | 3 |
| AME 4163 | Principles of Engineering Design | 3 |
| AME 4553 | Design Practicum | 3 |
| Total Credit Hours | 45 |  |

# Major Support Requirements 

| Code | Title | Credit Hours |
| :---: | :---: | :---: |
| Math and Science |  |  |
| BIOL 1124 | Intro Biol: Molecule/Cell/Phys | 4 |
| CHEM 1415 | General Chemistry (Continued) | 5 |
| CHEM 3053 | Organic Chemistry I: Biological Emphasis | 3 |
| CHEM 3153 | Organic Chemistry II: Biological Emphasis | 3 |
| CHEM 3152 | Organic Chemistry Laboratory: Biological Emphasis | 2 |
| MATH 2924 | Differential and Integral Calculus II | 4 |
| MATH 2934 | Differential and Integral Calculus III | 4 |
| MATH 3113 | Introduction to Ordinary Differential Equations | 3 |
| PHYS 2524 | General Physics for Engineering and Science Majors | 4 |
| PHYS 3223 | Modern Physics for Engineers | 3 |
| Biology Elective |  |  |
| Choose one | ved Biology elective ${ }^{1}$ | 3 |
| Engineering Science Elective |  |  |
| Choose a 3 h approved co | Engineering science elective from the list of maintained by the department | 3 |
| Additional College Requirements |  |  |
| ENGR 1411 | Pathways to Engineering Thinking ${ }^{2}$ | 1 |
| ENGR 2002 | Professional Responsibilities and Skills of Engineers and Scientists | 2 |
| ENGR 2431 | Electrical Circuits | 1 |
| ENGR 2531 | Electrical Circuits II | 1 |
| ENGR 3431 | Electromechanical Systems | 1 |
| Total Credit Hours |  | 47 |

1 Biology elective to be chosen from BIOL 3113, BIOL 3333, or BIOL 4843.
${ }^{2}$ Engineering transfer students may take ENGR 3511 in place of ENGR 1411.

## General Education and College Requirements

Courses designated as Core I, II, III, IV, or V are part of the General Education curriculum. Students must complete a minimum of 40 hours of General Education courses, chosen from the approved list, including at least one upper-division Gen. Ed. course outside of the student's major. Courses graded P/NP will not apply.

A grade of C or better is required in each course in the curriculum, including all prerequisite courses.

## UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS)

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Core Area I: Symbolic and Oral Communication |  |  |
| English Composition | 3 |  |
| ENGL 1113 | Principles of English Composition | 3 |
| ENGL 1213 | Principles of English Composition |  |

Language (0-10 hours in the same language)
This requirement can be met by two years of the same
language in high school:

> Beginning Course (0-5 hours)

Beginning Course, continued (0-5 hours)
Mathematics


Core Area II: Natural Science (including one laboratory)
PHYS 2514 General Physics for Engineering and 4

|  | Science Majors (Core II) |  |
| :--- | :--- | :--- |
|  |  |  |
| CHEM 1315 | General Chemistry (Core II-Lab) $^{2}$ | 5 |

or CHEM 1335 General Chemistry I: Signature Course
Core Area III: Social Science

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P SC 1113 American Federal Government 3
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Choose one course ${ }^{3} \quad 3$

Core Area IV: Arts \& Humanities
Artistic Forms
Choose one course ${ }^{3} 3$

Western Culture
HIST $1483 \quad 3$
or HIST 1493 United States, 1865 to the Present

| COMM 3513 | Intercultural Communication (or approved <br> substitute Core IV-Western Culture) |
| :--- | :--- | :--- |

World Culture
ANTH 4623 Approaches to Cross-Cultural Human 3
Problems (or approved substitute Core IV-
World Culture) ${ }^{3}$
Core Area V: First-Year Experience
Choose one course ${ }^{3} \quad 3$

Total Credit Hours

1 MATH 1823, MATH 2423, MATH 2433, and MATH 2443 sequence can be substituted for MATH 1914, MATH 2924, and MATH 2934.
2 Major support requirements that also satisfy University General Education requirements.
${ }^{3}$ To be chosen from the University-Wide General Education Approved Course List. Three of these hours must be upper-division (3000-4000).

## Free Electives

Electives to bring total applicable hours to the minimum total required for the degree including a minimum of 40 upper-division hours.

## Suggested Semester Plan of Study

Bachelor of Science in Mechanical Engineering accredited by the Engineering Accreditation Commission of ABET, https://www.abet.org, under the General Criteria and the Mechanical and Similarly Named Engineering Programs Program Criteria.

In order to progress in your curriculum in the Gallogly College of Engineering, and as a specific graduation requirement, a grade of C or better is required in each course in the curriculum, including all prerequisite courses. AME courses are sequential and usually offered only in the semester shown; note prerequisites.

- DEPARTMENTAL PROGRESSION REQUIREMENTS:

In order to progress into 2nd year courses in AME, students must successfully complete (grade C or better) MATH 1914; MATH 2924; PHYS 2514 and CHEM 1315 with 3.0 Combined Retention GPA, and possess a minimum 3.0 Combined Retention GPA in 24 or more credit hours. AP credit is acceptable for any of these required courses.

Two college-level courses in a single world language are required; this may be satisfied by successful completion of 2 years in a single world language in high school. Students who must take a language at the University will have an additional 6-10 hours of coursework.

Courses designated as Core I, II, III, IV, or V are part of the General Education curriculum. Students must complete a minimum of 40 hours of General Education courses, chosen from the approved list.

Students who wish to take the MCAT in their junior year are encouraged to take the required biology elective and the organic chemistry during their junior year. Some may also wish to take an additional biology elective (not required in the curriculum).

## Freshman

| First Semester |  | Credit Hours |
| :---: | :---: | :---: |
| ENGL 1113 | Principles of English Composition (Core I) | 3 |
| CHEM 1315 | General Chemistry (Core II-Lab) ${ }^{1}$ | 5 |
| MATH 1914 | Differential and Integral Calculus I (Core I) ${ }^{2}$ | 4 |
| ENGR 1411 | Pathways to Engineering Thinking ${ }^{3}$ | 1 |
| Advised Elective: F | First-Year Experience (Core V) ${ }^{6}$ | 3 |
|  | Credit Hours | 16 |
| Second Semester |  |  |
| $\begin{aligned} & \text { ENGL } 1213 \\ & \text { or EXPO } 1213 \end{aligned}$ | Principles of English Composition (Core I) or Expository Writing | 3 |
| CHEM 1415 | $\underset{1,4}{\text { General Chemistry (Continued) (Core II-Lab) }}$ | 5 |
| MATH 2924 | Differential and Integral Calculus II ${ }^{2}$ | 4 |
| PHYS 2514 | General Physics for Engineering and Science Majors (Core II) | 4 |
|  | Credit Hours | 16 |

## Sophomore

First Semester

| MATH 2934 | Differential and Integral Calculus III ${ }^{2}$ | 4 |
| :--- | :--- | ---: |
| PHYS 2524 | General Physics for Engineering and <br> Science Majors | 4 |
| CHEM 3053 | Organic Chemistry I: Biological Emphasis ${ }^{4}$ | 3 |
| AME 2113 | Statics | 3 |
| AME 2213 | Thermodynamics | 3 |
| AME 2402 | Engineering Computing | $\mathbf{2}$ |
|  | Credit Hours | $\mathbf{1 9}$ |

## Second Semester

| MATH 3113 | Introduction to Ordinary Differential <br> Equations | 3 |
| :--- | :--- | :---: |
| AME 2303 | Materials, Design and Manufacturing <br> Processes | 3 |
| AME 2533 | Dynamics | 3 |
| ENGR 2431 | Electrical Circuits | 1 |


| ENGR 2531 | Electrical Circuits II | 1 |
| :---: | :---: | :---: |
| ENGR 3431 | Electromechanical Systems | 1 |
| CHEM 3153 | Organic Chemistry II: Biological Emphasis | 3 |
| CHEM 3152 | Organic Chemistry Laboratory: Biological Emphasis | 2 |
|  | Credit Hours | 17 |
| Junior |  |  |
| First Semester |  |  |
| BIOL 1124 | Intro Biol: Molecule/Cell/Phys | 4 |
| AME 3112 | Solid Mechanics Lab | 2 |
| AME 3143 | Solid Mechanics | 3 |
| AME 3153 | Fluid Mechanics | 3 |
| AME 3723 | Numerical Methods For Engineering Computation | 3 |
| ENGR 2002 | Professional Responsibilities and Skills of Engineers and Scientists | 2 |
|  | Credit Hours | 17 |

## Second Semester

BIOL Elective ${ }^{5} 3$
AME 3103 Interactive Engineering Design Simulation 3
AME 3122 Heat Transfer and Fluid Mechanics Lab 2
AME 3173 Heat Transfer 3
AME 3353 Design of Mechanical Components 3

| HIST 1483 | United States to 1865 (Core IV) | 3 |
| :---: | :---: | :---: |
| or HIST 1493 | or United States, 1865 to the Present |  |

Credit Hours 17

## Senior

First Semester

| PHYS 3223 | Modern Physics for Engineers | 3 |
| :--- | :--- | ---: |
| P SC 1113 | American Federal Government (Core III) | 3 |
| AME 3363 | Design of Thermal-Fluid Systems | 3 |
| AME 4163 | Principles of Engineering Design | 3 |
| Approved Elective: Social Science (Core III) |  |  |
|  | Credit Hours | 3 |

## Second Semester

| AME 4553 | Design Practicum | 3 |
| :---: | :---: | :---: |
| COMM 3513 | Intercultural Communication (or an advisor approved substitution) (Western Culture Core IV) ${ }^{6}$ | 3 |
| ANTH 4623 | Approaches to Cross-Cultural Human Problems (or an advisor-approved substitution) (World Culture - Core IV) ${ }^{6}$ | 3 |
| Approved Engineering Science Elective ${ }^{7}$ |  | 3 |
| Approved Elective: Artistic Forms (Core IV) ${ }^{6}$ |  | 3 |
|  | Credit Hours | 15 |
|  | Total Credit Hours | 132 |

1 CHEM 1315 and CHEM 1415 can be substituted with CHEM 1335 (Fall only) and CHEM 1435 (Spring only), respectively.
2 MATH 1823, MATH 2423, MATH 2433, and MATH 2443 sequence can be substituted for MATH 1914, MATH 2924, and MATH 2934.
${ }^{3}$ Engineering transfer students may take ENGR 3511 in place of ENGR 1411.
4 Pre-med students are required to consult the OU Pre-Med Advisor, Cate 1, Room 416, or call (405) 325-2457, and their Mechanical Engineering
advisor each semester prior to enrolling. NOTE: Most medical schools also require PHYS 1311 and PHYS 1321
5 Biology elective to be chosen from BIOL 3113, BIOL 3333, or BIOL 4843.
6 To be chosen from the University-Wide General Education Approved Course List. Three of these hours must be upper-division (3000-4000).
7 A list of Engineering Science electives can be found at: https:// www.ou.edu/coe/ame/undergraduate/ame-current

## Aerospace Engineering, B.S./M.S.

Minimum Total Credit Hours: 147-153

Overall GPA - Combined and OU: 3.25
Major GPA - Combined and OU: 3.25
Curriculum GPA - Combined and OU: 3.25
Program Code: A010/F010

## This program has changes pending State Regents approval for 2024/25. These pending changes are not reflected here.

Bachelor of Science in Aerospace Engineering accredited by the Engineering Accreditation Commission of ABET, https://www.abet.org, under the General Criteria and the Aerospace and Similarly Named Program Criteria.

## Major Requirements

Code Title

Required Courses

| AME 2102 | Engineering Design Graphics | 2 |
| :--- | :--- | :--- |
| AME 2113 | Statics | 3 |
| AME 2213 | Thermodynamics | 3 |
| AME 2223 | Introduction to Aerospace Engineering | 3 |
| AME 2303 | Materials, Design and Manufacturing | 3 |
|  | Processes | 3 |
| AME 2533 | Dynamics | 3 |
| AME 2623 | Circuits and Sensors | 2 |
| AME 3112 | Solid Mechanics Lab | 3 |
| AME 3143 | Solid Mechanics | 3 |
| AME 3253 | Aerodynamics | 2 |
| AME 3272 | Windtunnel Laboratory | 3 |
| AME 4383 | Control Systems | 3 |
| AME 3333 | Flight Mechanics | 3 |
| AME 3523 | Aerospace Structural Analysis | 3 |
| AME 4243 | Aerospace Propulsion Systems | 3 |
| AME 4273 | Aerospace Systems Design I | 3 |
| AME 5493 | Space Sciences and Astrodynamics ${ }^{1}$ | 3 |
| AME 4513 | Flight Controls | 3 |

AME Electives
6 hours of graduate level AME courses from a list of approved courses maintained by the department

## Experimental Elective

Choose a two hour approved experimental elective ${ }^{2}$2

Simulation Elective
Choose a three hour approved simulation elective ${ }^{3} \quad 3$
Total Credit Hours
${ }^{1}$ Shared courses between the BS and MS degrees.
${ }^{2}$ AME 4802 is recommended for the experimental elective
${ }^{3}$ Refer to the department-maintained list (p. 1238) of Simulation electives for course options.

## Major Support Requirements

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Math and Science |  |  |
| MATH 2924 | Differential and Integral Calculus II | 4 |
| MATH 2934 | Differential and Integral Calculus III | 4 |
| MATH 3413 | Physical Mathematics I | 3 |
| MATH 3401 | Numerical Methods With Matlab | 1 |
| PHYS 2524 | General Physics for Engineering and <br>  Science Majors | 4 |

Additional College Requirements

| ENGR 2002 | Professional Responsibilities and Skills of <br> Engineers and Scientists | 2 |
| :--- | :--- | :--- |
| C S 1313 | Programming for Non-Majors with C | 3 |

Total Credit Hours

## Graduate Requirements

Up to 9 hours of graduate level AME courses that satisfy MS in aerospace engineering requirements can be shared between BS and MS degrees.

## Thesis Option

| Code Title | Credit <br> Hours |
| :--- | ---: |
| Course Requirements |  |
| Choose 24 hours of graduate level coursework from the <br> following: |  |
| At least 3 hours of graduate level coursework in <br> mathematics or advanced engineering analysis |  |
| At least 12 hours of AME courses at the 5000 level or <br> higher ${ }^{1}$ <br> Up to 9 hours of approved graduate-level courses ${ }^{2}$ |  |
| Thesis | 24 |
| AME 5980 | Research for Master's Thesis |
| Total Credit Hours | $\mathbf{3 0}$ |

${ }^{1}$ No more than 3 hours in Special Projects, Guided Individual Studies, or other non-competitively graded enrollments.
2 Approved graduate-level courses chosen from other fields of engineering, the physical sciences, and mathematics; or AME courses, including G4000-level courses not required for the B.S. degree in the major field. Thesis students who elect a 2-hour laboratory course may include 1 additional hour of Special Projects of Guided Individual Studies in their program.

## Non-Thesis Option

Code Title

## Course Requirements

Choose 36 hours of graduate level coursework from the

## following:

At least 3 hours of graduate level coursework in mathematics or advanced engineering analysis

At least 18 hours of AME courses at the 5000 level or higher ${ }^{1}$
Up to 12 hours of approved graduate-level courses ${ }^{2}$
Total Credit Hours

1 AME hours may include up to 3 hours Special Projects and up to 3 hours Guided Independent Studies. (Students who elect a 2-hour laboratory course may include 1 additional hour of either of these individual instruction enrollments.)
2 Approved graduate-level courses chosen from other fields of engineering, the physical sciences, and mathematics; or AME courses, including G4000-level courses not required for the B.S. degree in the major field. For non-thesis students, the 12 hours may include up to 3 hours of additional enrollment in non-competitively graded courses, and up to 6 hours of G4000-level AME courses not required for the B.S. degree in the major field.

## General Education and College Requirements

Courses designated as Core I, II, III, IV, or V are part of the General Education curriculum. Students must complete a minimum of 40 hours of General Education courses, chosen from the approved list, including at least one upper-division Gen. Ed. course outside of the student's major. Courses graded P/NP will not apply.

A grade of $C$ or better is required in each course in the curriculum, including all prerequisite courses.

UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS

| Code Title | Credit |
| :--- | :--- |
|  | Hours |

Core Area I: Symbolic and Oral Communication
English Composition
ENGL 1113 Principles of English Composition 3
ENGL 1213 Principles of English Composition 3
or EXPO 1213 Expository Writing
Language (0-10 hours in the same language)
This requirement can be met by two years of the same 0-10
language in high school:
Beginning Course ( $0-5$ hours)
Beginning Course, continued (0-5 hours)
Mathematics
MATH 1914 Differential and Integral Calculus I (Core I)
1,2
Core Area II: Natural Science (including one laboratory)

| PHYS 2514 | General Physics for Engineering and <br> Science Majors (Core II) |
| :---: | :--- | :---: |
| CHEM 1315 General Chemistry (Core II-Lab) $^{2}$ | 4 |
| or CHEM 1335 | General Chemistry I. Signature Course |


| Core Area III: Social Science |  |
| :---: | :---: |
| P SC 1113 American Federal Government | 3 |
| Choose one course ${ }^{3}$ | 3 |
| Core Area IV: Arts \& Humanities |  |
| Artistic Forms |  |
| Choose one course ${ }^{3}$ | 3 |
| Western Culture |  |
| HIST 1483 United States to 1865 | 3 |
| or HIST 1493 United States, 1865 to the Present |  |
| Choose one approved elective Core IV-Western Culture ${ }^{3}$ | 3 |
| World Culture |  |
| Choose one approved elective Core IV-World Culture ${ }^{3}$ | 3 |
| Core Area V: First Year Experience |  |
| ENGR 1413 Pathways to Engineering Thinking (Core V- $\text { FYE) }{ }^{4}$ | 3 |
| Total Credit Hours | 40-50 |
| ${ }^{1}$ MATH 1823, MATH 2423, MATH 2433, and MATH 2443 sequence can be substituted for MATH 1914, MATH 2924, and MATH 2934. |  |
| ${ }^{3}$ To be chosen from the University-Wide General Education Approved Course List. Three of these hours must be upper-division (3000-4000). |  |
| ${ }^{4}$ Transfer students will need to meet the requirements of the first-year experience course as well as the engineering transfer course. Please see your advisor for your specific enrollment. |  |

## Free Electives

Electives to bring total applicable hours to the minimum total required for the degree including a minimum of 40 upper-division hours.

## Suggested Semester Plan of Study

## Bachelor of Science in Aerospace Engineering accredited by the

 Engineering Accreditation Commission of ABET, https://www.abet.org, under the General Criteria and the Aerospace and Similarly Named Program Criteria.In order to progress in your curriculum in the Gallogly College of Engineering, and as a specific graduation requirement, a grade of C or better is required in each course in the curriculum, including all prerequisite courses. AME courses are sequential and usually offered only in the semester shown; note prerequisites.

Approval for admission to the accelerated BS/MS program must be initiated at the beginning of the second semester of the junior year. Students may enter the accelerated program based on the undergraduate degree pattern offered in the year they first enrolled in the Oklahoma State System of Higher Education or later. Students are eligible for graduate status upon graduation with the Bachelor of Science in Aerospace Engineering.

Two college-level courses in a single world language are required; this may be satisfied by successful completion of 2 years in a single world language in high school. Students who must take a language at the University will have an additional 6-10 hours of coursework.

| Freshman |  |  |
| :---: | :---: | :---: |
| First Semester |  | Credit |
| ENGL 1113 | Principles of English Composition (Core I) | 3 |
| CHEM 1315 | General Chemistry (Core II-Lab) ${ }^{1}$ | 5 |
| MATH 1914 | Differential and Integral Calculus I (Core I) ${ }^{2}$ | 4 |
| ENGR 1413 | Pathways to Engineering Thinking (Core V- $\text { FYE) }{ }^{3}$ | 3 |
|  | Credit Hours | 15 |
| Second Semester |  |  |
| $\begin{aligned} & \text { ENGL } 1213 \\ & \text { or EXPO } 1213 \end{aligned}$ | Principles of English Composition (Core I) or Expository Writing | 3 |
| MATH 2924 | Differential and Integral Calculus II ${ }^{2}$ | 4 |
| PHYS 2514 | General Physics for Engineering and Science Majors (Core II) | 4 |
| C S 1313 | Programming for Non-Majors with C | 3 |
| HIST 1483 or HIST 1493 | United States to 1865 or United States, 1865 to the Present | 3 |


| Sophomore <br> First Semester |  |  |
| :--- | :--- | ---: |
| MATH 2934 | Differential and Integral Calculus III ${ }^{2}$ |  |


| Second Semester |  |  |
| :--- | :--- | ---: |
| MATH 3413 | Physical Mathematics I | 3 |
| MATH 3401 | Numerical Methods With Matlab | 1 |
| AME 2102 | Engineering Design Graphics | 2 |
| AME 2303 | Materials, Design and Manufacturing | 3 |
|  | Processes |  |
| AME 2533 | Dynamics | 3 |
| AME 2623 | Circuits and Sensors | 3 |
| ENGR 2002 | Professional Responsibilities and Skills of | 2 |
|  | Engineers and Scientists |  |
|  | Credit Hours | $\mathbf{1 7}$ |


| Junior |  |  |
| :--- | :--- | ---: |
| First Semester |  | 2 |
| AME 3112 | Solid Mechanics Lab | 3 |
| AME 3143 | Solid Mechanics | 3 |
| AME 3253 | Aerodynamics | 2 |
| AME 3272 | Windtunnel Laboratory | 3 |
| AME 4383 | Control Systems | 3 |
| Approved Elective: Artistic Forms (Core IV) | Credit Hours | $\mathbf{1 6}$ |

## Second Semester

| AME 3333 | Flight Mechanics | 3 |
| :--- | :--- | :--- |
| AME 3523 | Aerospace Structural Analysis | 3 |
| P SC 1113 | American Federal Government (Core III) | 3 |
| Approved Experimental Elective ${ }^{5}$ | 2 |  |


| Approved Simulation Elective ${ }^{5}$ | 3 |
| :---: | :---: |
| Credit Hours | 14 |
| Senior |  |
| First Semester |  |
| AME 4243 Aerospace Propulsion Systems | 3 |
| AME 4273 Aerospace Systems Design I | 3 |
| AME 5493 Space Sciences and Astrodynamics ${ }^{6}$ | 3 |
| AME 4513 Flight Controls | 3 |
| AME Graduate Elective ${ }^{6,7}$ | 3 |
| Credit Hours | 15 |
| Second Semester |  |
| AME 4373 Aerospace Systems Design II | 3 |
| Approved Elective: Social Science (Core III) ${ }^{4}$ | 3 |
| Approved Elective: Western Culture(Core IV) ${ }^{4}$ | 3 |
| Approved Elective: World Culture (Core IV) ${ }^{4}$ | 3 |
| AME Graduate Elective ${ }^{6,7}$ | 3 |
| Credit Hours | 15 |

## Fourth Year

## Summer

AME $5990 \quad$ Special Projects (Non-thesis students only) 0-3

| ${ }^{8}$ |  |
| :--- | :--- |
| Credit Hours | $0-3$ |

## Fifth Year

## First Semester

AME 5573 Advanced Engineering Analysis I (or MATH 3
Choose one of the following: ${ }^{8} 3$

| AME 5980 | Research for Master's Thesis (Thesis <br> Option) |
| :--- | :--- |
| Graduate-level Elective (Non-Thesis Option) $^{7}$ |  |
| AME Graduate Elective $^{7}$ |  |

AME Graduate Elective ${ }^{7} 3$
Credit Hours 12

| Second Semester |  |
| :---: | :---: |
| Choose one of the following: ${ }^{8}$ | 3 |
| AME 5980 Research for Master's Thesis (Thesis Option) |  |
| Graduate-level Elective (Non-Thesis Option) ${ }^{7}$ |  |
| AME Graduate Elective ${ }^{7,8}$ | 3 |
| AME Graduate Elective ${ }^{7}$ | 3 |
| AME Graduate Elective (Non-Thesis Option) | 0-3 |
| Credit Hours | 9-12 |
| Total Credit Hours | 147-153 |

${ }^{1}$ CHEM 1315 can be substituted with CHEM 1335 (Fall only).
${ }^{2}$ MATH 1823, MATH 2423, MATH 2433, and MATH 2443 sequence can be substituted for MATH 1914, MATH 2924, and MATH 2934.
${ }^{3}$ Transfer students will need to meet the requirements of the first-year experience course as well as the engineering transfer course. Please see your advisor for your specific enrollment.
${ }^{4}$ To be chosen from the University-Wide General Education Approved Course List. Three of these hours must be upper-division (3000-4000). See list online.
${ }^{5}$ It is recommended that a student take AME 4802 for the experimental elective. Refer to the department-maintained list (p. 1238) of Simulation electives for course options.
${ }_{7}^{6}$ Courses applied to both BS and MS degrees.
7 Fourth and fifth year graduate electives must satisfy MS in aerospace engineering requirements.
8 Dependent upon whether a student chooses the thesis or non-thesis option. Non-thesis option additionally requires: AME 5990 (3 hrs.) to be taken in the Summer between the Senior and the Fifth Year, and Comprehensive Exam to be taken in the last semester of study.

Courses designated as Core I, II, III, IV or V are part of the General Education curriculum. Students must complete a minimum of 40 hours of General Education courses, chosen from the approved list.

## Mechanical Engineering (Standard), B.S./ M.S.

Minimum Total Credit Hours: 145-149

Overall GPA - Combined and OU: 3.25
Major GPA - Combined and OU: 3.25
Curriculum GPA - Combined and OU: 3.25
Program Code: A675/F675

## This program has changes pending State Regents approval for 2024/25. These pending changes are not reflected here.

Bachelor of Science in Mechanical Engineering accredited by the Engineering Accreditation Commission of ABET, https://www.abet.org, under the General Criteria and the Mechanical and Similarly Named Engineering Programs Program Criteria.

In order to progress into 2nd year courses in AME, students must successfully complete (grade C or better) MATH 1914; MATH 2924; PHYS 2514 and CHEM 1315 with 3.0 Combined Retention GPA, and possess a minimum 3.0 Combined Retention GPA in $\mathbf{2 4}$ or more credit hours.

## Major Requirements

Code Title Credit

## Required Courses

| AME 2113 | Statics | 3 |
| :--- | :--- | :--- |
| AME 2213 | Thermodynamics | 3 |
| AME 2402 | Engineering Computing | 2 |
| AME 2303 | Materials, Design and Manufacturing | 3 |
|  | Processes | 3 |
| AME 2533 | Dynamics | 2 |
| AME 3112 | Solid Mechanics Lab | 3 |
| AME 3143 | Solid Mechanics | 3 |
| AME 3153 | Fluid Mechanics | 3 |
| AME 3723 | Numerical Methods For Engineering | 3 |
| AME 3103 | Computation | 2 |
| AME 3122 | Interactive Engineering Design Simulation |  |



## Major Support Requirements

| Code | Title |  |
| :---: | :---: | :---: |
|  |  | Hours |
| Math and Science |  |  |
| MATH 2924 | Differential and Integral Calculus II | 4 |
| MATH 2934 | Differential and Integral Calculus III | 4 |
| MATH 3113 | Introduction to Ordinary Differential Equations | 3 |
| PHYS 2524 | General Physics for Engineering and Science Majors | 4 |
| PHYS 3223 | Modern Physics for Engineers | 3 |
| Technical Electives |  |  |
| Choose 6 ho approved co | technical electives from the list of maintained by the department ${ }^{1}$ | 6 |
| Additional College Requirements |  |  |
| ENGR 1411 | Pathways to Engineering Thinking ${ }^{2}$ | 1 |
| ENGR 2431 | Electrical Circuits | 1 |
| ENGR 2531 | Electrical Circuits II | 1 |
| ENGR 3431 | Electromechanical Systems | 1 |
| ENGR 2002 | Professional Responsibilities and Skills of Engineers and Scientists | 2 |

## Total Credit Hours <br> 30

1 A list of Technical, Experimental, and Engineering Science electives can
be found at: https://www.ou.edu/coe/ame/undergraduate/ame-current

2 Engineering transfer students may take ENGR 3511 in place
of ENGR 1411.

## Graduate Requirements

Up to 6 hours of graduate level electives that satisfy MS in mechanical engineering requirements can be shared between the BS and MS degrees.

## Thesis Option



## Non-Thesis Option

Code Title

## Mathematics/Advanced Engineering Analysis <br> Choose 3 hours of graduate-level coursework in mathematics or advanced engineering analysis

| Choose 18-21 hours of AME courses at the 5000 level or higher ${ }^{1}$ | 18-21 |
| :---: | :---: |
| Electives |  |
| Choose 12-15 hours ${ }^{2}$ | 12-15 |

1 AME hours may include up to 3 hours Special Projects and up to 3 hours Guided Independent Studies. (Students who elect a 2-hour laboratory course may include 1 additional hour of either of these individual instruction enrollments.)
2 Approved graduate-level courses chosen from other fields of engineering, the physical sciences, and mathematics; or AME courses, including G4000-level courses not required for the B.S. degree in the major field. For non-thesis students, the 12 hours may include up to 3 hours of additional enrollment in non-competitively graded courses, and up to 6 hours of G4000-level AME courses not required for the B.S. degree in the major field.

## General Education and College Requirements

Courses designated as Core I, II, III, IV, or V are part of the General Education curriculum. Students must complete a minimum of 40 hours of General Education courses, chosen from the approved list, including at least one upper-division Gen. Ed. course outside of the student's major. Courses graded P/NP will not apply.

A grade of $C$ or better is required in each course in the curriculum, including all prerequisite courses.

UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS)

| Code | Title | redit |
| :---: | :---: | :---: |
| Core Area I: Symbolic and Oral Communication |  |  |
| English Composition |  |  |
| ENGL 1113 | Principles of English Composition | 3 |
| ENGL 1213 or EXPO 1213 | Principles of English Composition Expository Writing | 3 |
| Language (0-10 hours in the same language) |  |  |
| This requirement can be met by two years of the same language in high school: |  | 0-10 |
| Beginning Course (0-5 hours) |  |  |
| Beginning Course, continued (0-5 hours) |  |  |
| Mathematics |  |  |
| MATH 1914 | Differential and Integral Calculus I (Core I) $1,2$ | 4 |
| Core Area II: Natural Science (including one laboratory) |  |  |
| PHYS 2514 | General Physics for Engineering and Science Majors (Core II) ${ }^{2}$ | 4 |
| CHEM 1315 <br> or CHEM 1335 | General Chemistry (Core II-Lab) ${ }^{2}$ <br> General Chemistry I: Signature Course | 5 |
| Core Area III: Social Science |  |  |
| P SC 1113 | American Federal Government | 3 |
| Choose one course ${ }^{3}$ |  | 3 |
| Core Area IV: Arts \& Humanities |  |  |
| Artistic Forms |  |  |
| Choose one course ${ }^{3}$ |  | 3 |
| Western Culture |  |  |
| HIST 1483 or HIST 1493 | United States to 1865 <br> United States, 1865 to the Present | 3 |
| COMM 3513 | Intercultural Communication (or approved substitute Core IV-Western Culture) ${ }^{3}$ | 3 |
| World Culture |  |  |
| ANTH 4623 | Approaches to Cross-Cultural Human Problems (or approved substitute Core IVWorld Culture) ${ }^{3}$ | 3 |

## Core Area V: First-Year Experience

Choose one course $^{3} \quad 3$
Total Credit Hours $\quad$ 40-50

1 MATH 1914, MATH 2924, and MATH 2934 can be substituted with MATH 1823, MATH 2423, MATH 2433, and MATH 2443.
2 Major support requirements that also satisfy University General Education requirements.
3 To be chosen from the University-Wide General Education Approved Course List. Three of these hours must be upper-division (3000-4000).

## Free Electives

Electives to bring total applicable hours to the minimum total required for the degree including a minimum of 40 upper-division hours.

## Suggested Semester Plan of Study

Bachelor of Science in Mechanical Engineering accredited by the Engineering Accreditation Commission of ABET, https://www.abet.org, under the General Criteria and the Mechanical and Similarly Named Engineering Programs Program Criteria.

In order to progress in your curriculum in the Gallogly College of Engineering, and as a specific graduation requirement, a grade of C or better is required in each course in the curriculum, including all prerequisite courses. AME courses are sequential and usually offered only in the semester shown; note prerequisites.

- DEPARTMENTAL PROGRESSION REQUIREMENTS: In order to progress into 2nd year courses in AME, students must successfully complete (grade C or better) MATH 1914; MATH 2924; PHYS 2514 and CHEM 1315 with 3.0 Combined Retention GPA, and possess a minimum 3.0 Combined Retention GPA in 24 or more credit hours. AP credit is acceptable for any of these required courses.

Approval for admission to the accelerated BS/MS program must be initiated at the beginning of the second semester of the junior year. Students may enter the accelerated program based on the undergraduate degree pattern offered in the year they first enrolled in the Oklahoma State System of Higher Education or later. Students are eligible for graduate status upon graduation with the Bachelor of Science in Mechanical Engineering.

## Freshman

| First Semester |  | Credit |
| :---: | :---: | :---: |
|  |  | Hours |
| ENGL 1113 | Principles of English Composition (Core I) | 3 |
| CHEM 1315 | General Chemistry (Core II-Lab) ${ }^{1}$ | 5 |
| MATH 1914 | Differential and Integral Calculus I (Core I) ${ }^{2}$ | 4 |
| ENGR 1411 | Pathways to Engineering Thinking ${ }^{3}$ | 1 |
| HIST 1483 or HIST 1493 | United States to 1865 (Core IV) or United States, 1865 to the Present | 3 |
|  | Credit Hours | 16 |

## Second Semester

| ENGL 1213 <br> or EXPO 1213 | Principles of English Composition (Core I) <br> or Expository Writing | 3 |
| :--- | :--- | ---: |
| MATH 2924 | Differential and Integral Calculus II ${ }^{2}$ |  |

## Sophomore

First Semester

| MATH 2934 | Differential and Integral Calculus III ${ }^{2}$ | 4 |
| :--- | :--- | ---: |
| PHYS 2524 | General Physics for Engineering and | 4 |
|  | Science Majors | 3 |
| AME 2113 | Statics | 3 |
| AME 2213 | Thermodynamics | $\mathbf{2}$ |
| AME 2402 | Engineering Computing | $\mathbf{1 6}$ |

[^42]| AME 2303 | Materials, Design and Manufacturing |  |
| :--- | :--- | ---: |
|  | Processes | 3 |
| AME 2533 | Dynamics | 3 |
| ENGR 2431 | Electrical Circuits | 1 |
| ENGR 2531 | Electrical Circuits II | 1 |
| ENGR 3431 | Electromechanical Systems | 1 |
| Approved Elective: Social Science (Core III) ${ }^{4}$ | 3 |  |
|  | Credit Hours | $\mathbf{1 5}$ |

Junior
First Semester

| AME 3112 | Solid Mechanics Lab | 2 |
| :--- | :--- | ---: |
| AME 3143 | Solid Mechanics | 3 |
| AME 3153 | Fluid Mechanics | 3 |
| AME 3723 | Numerical Methods For Engineering <br>  <br> ENGR 2002 | Professional Responsibilities and Skills of <br> Engineers and Scientists |
| Approved Technical Elective ${ }^{5}$ | $\mathbf{3}$ |  |
|  | Credit Hours | $\mathbf{2}$ |

## Second Semester

| AME 3103 | Interactive Engineering Design Simulation | 3 |
| :--- | :--- | ---: |
| AME 3122 | Heat Transfer and Fluid Mechanics Lab | 2 |
| AME 3173 | Heat Transfer | 3 |
| AME 3353 | Design of Mechanical Components | 3 |
| P SC 1113 | American Federal Government (Core III) | 3 |
| Approved Technical Elective 5 | 3 |  |
| Credit Hours |  |  |

Senior
First Semester
PHYS 3223 Modern Physics for Engineers 3
AME 3363 Design of Thermal-Fluid Systems 3
AME 4163 Principles of Engineering Design 3

AME Graduate-level Elective ${ }^{6,7} 3$
Approved Experimental Elective $^{5} \quad 2$

Credit Hours
14

Second Semester
AME 4553 Design Practicum 3
AME Graduate-level Elective 6,7 3

COMM 3513 Intercultural Communication (or an advisor 3 approved substitution) (Western Culture Core IV) ${ }^{4}$
ANTH 4623 Approaches to Cross-Cultural Human 3
Problems (or an advisor-approved substitution) (World Culture - Core IV) ${ }^{4}$
Approved Elective: Artistic Forms (Core IV) ${ }^{4} 3$

Credit Hours 15

## Fifth Year

First Semester
Choose one of the following: ${ }^{7} 3$
AME 5573 Advanced Engineering Analysis I
MATH Graduate-level Elective
AME Graduate-level Elective ${ }^{7}$
AME Graduate-level Elective $^{7} \quad 3$



Two college-level courses in a single world language are required; this may be satisfied by successful completion of 2 years in a single world language in high school. Students who must take a language at the University will have an additional 6-10 hours of coursework.

Courses designated as Core I, II, III, IV, or V are part of the General Education curriculum. Students must complete a minimum of 40 hours of General Education courses, chosen from the approved list.

## Aerospace Engineering, M.S.

Minimum Total Hours (Thesis): 30
Minimum Total Hours (Non-Thesis): 36

## Program Code: M010

The requirements listed apply to the following concentrations in Aerospace Engineering:

## - Aerodynamics - M010 Q026

- Aerospace Engineering General - M010 Q028
- Composites - M010 Q136
- Fluid Mechanics - M010 Q256
- Structures - M010 Q631


## Thesis Option



## Non-Thesis Option

| Code Title | Credit <br> Hours |
| :--- | ---: |
| Course Requirements | 36 |
| Choose 36 hours of graduate level coursework from the |  |
| following: |  |
| At least 18 hours of AME courses at the 5000 level or |  |
| higher ${ }^{1}$ |  |
| At least 3 hours of graduate-level coursework in |  |
| Mathematics or advanced Engineering analysis |  |
| Up to 12 hours of approved graduate-level courses ${ }^{2}$ |  |

Total Credit Hours
${ }^{1}$ AME hours may include up to 3 hours Special Projects and up to 3 hours Guided Independent Studies. (Students who elect a 2-hour laboratory course may include 1 additional hour of either of these individual instruction enrollments.)
${ }^{2}$ Approved graduate-level courses chosen from other fields of engineering, the physical sciences, and mathematics; or AME courses, including G4000-level courses not required for the B.S. degree in the major field. For non-thesis students, the 12 hours may include up to 3 hours of additional enrollment in non-competitively graded courses, and up to 6 hours of G4000-level AME courses not required for the B.S. degree in the major field.

## General Requirements for all Master's Degrees

The master's degree requires the equivalent of at least two semesters of satisfactory graduate work and additional work as may be prescribed for the degree.

All coursework applied to the master's degree must carry graduate credit.

Master's degree programs which require a thesis consist of at least 30 credit hours. All non-thesis master's degree programs require at least 30 credit hours.

Credit transferred from other institutions must meet specific criteria and is subject to certain limitations.

Courses completed through correspondence study may not be applied to the master's degree.

To qualify for a graduate degree, students must achieve an overall grade point average of 3.0 or higher in the degree program coursework and in all resident graduate coursework attempted. A student must also have at least a 3.0 in all coursework (including undergraduate coursework if any).

Additional information for master's degree students may be found in the Graduate College Bulletin.

## Mechanical Engineering, M.S.

Minimum Total Hours (Thesis): 30<br>Minimum Total Hours (Non-Thesis): 36<br>Program Code: M675<br>The requirements listed on this degree check sheet apply to the following concentrations in Mechanical Engineering:

- Combustion - M675 Q126
- Controls - M675 Q151
- Fluid Mechanics - M675 Q256
- Heat Transfer - M675 Q321
- Mechanical Engineering General - M675 Q448
- Solid Mechanics - M675 Q618


## Thesis Option



## Non-Thesis Option

| Code Title |
| :--- |
| Course Requirements |
| Choose 36 hours of graduate level coursework from the |
| following: |
| At least 18 hours of AME courses at the 5000 level or |
| higher ${ }^{1}$ |
| At least 3 hours of graduate-level coursework in |
| Mathematics or advanced Engineering analysis |
| Up to 12 hours of approved graduate-level courses ${ }^{2}$ |
| Total Credit Hours |
| AME hours may include up to 3 hours Special Projects and up to 3 |
| hours Guided Independent Studies. (Students who elect a 2-hour |
| laboratory course may include 1 additional hour of either of these |
| individual instruction enrollments.) |
| 2 Approved graduate-level courses chosen from other fields of |
| engineering, the physical sciences, and mathematics; or AME courses, |
| including G4000-level courses not required for the B.S. degree in the |
| major field. For non-thesis students, the 12 hours may include up to 3 |
| hours of additional enrollment in non-competitively graded courses, |
| and up to 6 hours of G4000-level AME courses not required for the B.S. |
| degree in the major field. |

## General Requirements for all Master's Degrees

The master's degree requires the equivalent of at least two semesters of satisfactory graduate work and additional work as may be prescribed for the degree.

All coursework applied to the master's degree must carry graduate credit.
Master's degree programs which require a thesis consist of at least 30 credit hours. All non-thesis master's degree programs require at least 30 credit hours.

Credit transferred from other institutions must meet specific criteria and is subject to certain limitations.

Courses completed through correspondence study may not be applied to the master's degree.

To qualify for a graduate degree, students must achieve an overall grade point average of 3.0 or higher in the degree program coursework and in all resident graduate coursework attempted. A student must also have at least a 3.0 in all coursework (including undergraduate coursework if any).

Additional information for master's degree students may be found in the Graduate College Bulletin.

## Aerospace Engineering, Ph.D.

Minimum Total Hours: 90
Program Code: D010

## Program Requirements

## Concentrations:

- Aerodynamics (R026)
- Aerospace Engineering Standard (R028)
- Composites (R136)
- Fluid Mechanics (R256)
- Structures (R631)

| Code | Title | Credit |
| :---: | :---: | :---: |
|  |  | Hours |
| Course Requer | nts |  |
| Advanced higher (m | ring graduate courses at the 5000 -level or 24 hours) ${ }^{1}$ | 24 |
| Graduate | -related coursework (minimum 3 hours) | 3 |
| Graduate-I 3 hours) | th-related or science coursework (minimum | 3 |
| Additional | work as needed to reach 42 hours ${ }^{2}$ | 0-12 |
| Dissertatio | arch |  |
| AME 6980 | Research for Doctoral Dissertation (42 hours minimum) | 42 |

Total Credit Hours
${ }^{1}$ As determined by the student's doctoral advisory conference.
${ }^{2}$ Students enrolled in the thermal science program are required to take the following: AME 5333, AME 5803, AME 5973Computational Heat and Fluid Flow.

## Coursework Requirements

- The program requires satisfactory completion of at least 42 course credit hours beyond the baccalaureate degree for a total of 90 credit hours.
- A maximum of 9 credit hours of Special Projects, Guided Individual Studies, or other non-competitively graded courses (including 6 credit hours of MS thesis) may be included.
- Students may include up to 42 credit hours from previous graduate work as follows:
- All of a M.S. degree up to 30 hours but including no more than 6 thesis hours
- All of a M.S. non-thesis degree up to 36 hours
- Up to 12 hours of post-master's work


## General Requirements for Doctoral Degrees

A student should expect to spend at least the equivalent of three full academic years beyond the bachelor's degree to obtain the doctoral degree. During this period the student will take appropriate graduate coursework, successfully complete the general examination, and successfully defend and submit the final dissertation.

All coursework applied to the doctoral degree must carry graduate credit.
The doctoral degree requires at least 90 post-baccalaureate hours, including both formal coursework and hours of research.

The minimum hour requirement for a specific doctoral degree program cannot be waived.

No more than one-half of the credit hours, both OU and overall, excluding Research for Doctoral Dissertation (6980), may be $S / U$-graded coursework.

The student must be in residence at OU for at least two consecutive 16week semesters during the pursuit of the doctoral degree while enrolled
and engaged in coursework or research activities as prescribed by the major academic unit.

For more detailed regulations and requirements for Doctoral degrees, please consult the Graduate College Bulletin: http://www.ou.edu/ gradcollege/forms/bulletin

## Mechanical Engineering, Ph.D.

Minimum Total Hours: 90

Program Code: D675

## Program Requirements

## Concentrations:

- Combustion (R126)
- Controls (R151)
- Fluid Mechanics (R256)
- Heat Transfer (R321)
- Mechanical Engineering Standard (R448)
- Solid Mechanics (R616)

| Code | Title | Credit |
| :--- | :--- | :--- |
| Hours |  |  |

## Course Requirements

| Advanced engineering graduate courses at the 5000-level or higher (minimum 24 hours) ${ }^{1}$ | 24 |
| :---: | :---: |
| Graduate-level math-related coursework (minimum 3 hours) | 3 |
| Graduate-level math-related or science coursework (minimum 3 hours) | 3 |
| Additional coursework as needed to reach 42 hours ${ }^{2}$ | 0-12 |

Dissertation Research

| AME 6980 | Research for Doctoral Dissertation (42 <br> hours minimum) | 42 |
| :--- | :--- | :--- |

## Total Credit Hours

${ }^{1}$ As determined by the student's doctoral advisory conference.
${ }^{2}$ Students enrolled in the thermal science program are required to take the following: AME 5333, AME 5803, AME 5973Computational Heat and Fluid Flow.

## COURSEWORK REQUIREMENTS

- The program requires satisfactory completion of at least 42 course credit hours beyond the baccalaureate degree for a total of 90 credit hours.
- A maximum of 9 credit hours of Special Projects, Guided Individual Studies, or other non-competitively graded courses (including 6 credit hours of MS thesis) may be included.
- Students may include up to 42 credit hours from previous graduate work as follows:
- All of a M.S. degree up to 30 hours but including no more than 6 thesis hours
- All of a M.S. non-thesis degree up to 36 hours
- Up to 12 hours of post-master's work


## General Requirements for Doctoral Degrees

A student should expect to spend at least the equivalent of three full academic years beyond the bachelor's degree to obtain the doctoral
degree. During this period the student will take appropriate graduate coursework, successfully complete the general examination, and successfully defend and submit the final dissertation.

All coursework applied to the doctoral degree must carry graduate credit.
The doctoral degree requires at least 90 post-baccalaureate hours, including both formal coursework and hours of research.

The minimum hour requirement for a specific doctoral degree program cannot be waived.

No more than one-half of the credit hours, both OU and overall, excluding Research for Doctoral Dissertation (6980), may be S/U-graded coursework.

The student must be in residence at OU for at least two consecutive 16week semesters during the pursuit of the doctoral degree while enrolled and engaged in coursework or research activities as prescribed by the major academic unit.

For more detailed regulations and requirements for Doctoral degrees, please consult the Graduate College Bulletin: http://www.ou.edu/ gradcollege/forms/bulletin

## Cellular and Behavioral Neurobiology: Aerospace \& Mechanical Engineering, Ph.D.

Minimum Total Hours: 90
Program Code: D145

## Program Requirements

| Code | Title | Credit |
| :---: | :---: | :---: |
| Course Requirements |  |  |
| BIOL 5833 | Neurobiology | 3 |
| BIOL 5871 | Current Topics in Neurobiology (Including 2 presentations) | 1 |
| AME 5990 | Special Projects (2-3 lab rotations) | 6-9 |
| Advanced higher (24 doctoral ad | ering graduate courses at the 5000-level or minimum - as determined by the student's conference) | 24 |
| Graduate | th-related coursework (3 hours minimum) | 3 |
| Graduate le minimum) | th-related or science coursework (3 hours | 3 |
| Additional (minimum) | work as needed to reach 42 hours | 0-2 |
| Dissertation Research |  |  |
| AME 6980 | Research for Doctoral Dissertation (42 hours minimum) | 42 |
| Total Credit |  | 90 |
| ${ }^{1}$ Students enrolled in the thermal science program are required to take the following: AME 5333, AME 5803, AME 5973 Computational Heat and Fluid Flow. |  |  |

## Coursework Requirements

- The program requires satisfactory completion of at least 42 course credit hours beyond the baccalaureate degree for a total of 90 credit hours.
- A maximum of 9 credit hours of Special Projects, Guided Individual Studies, or other non-competitively graded courses (including 6 credit hours of MS thesis) may be included.
- Students may include up to 42 credit hours from previous graduate work as follows:
- All of a M.S. degree up to 30 hours but including no more than 6 thesis hours
- All of a M.S. non-thesis degree up to 36 hours
- Up to 12 hours of post-master's work


## General Requirements for Doctoral Degrees

A student should expect to spend at least the equivalent of three full academic years beyond the bachelor's degree to obtain the doctoral degree. During this period the student will take appropriate graduate coursework, successfully complete the general examination, and successfully defend and submit the final dissertation.

All coursework applied to the doctoral degree must carry graduate credit.
The doctoral degree requires at least 90 post-baccalaureate hours, including both formal coursework and hours of research.

The minimum hour requirement for a specific doctoral degree program cannot be waived.

No more than one-half of the credit hours, both OU and overall, excluding Research for Doctoral Dissertation (6980), may be S/U-graded coursework.

The student must be in residence at OU for at least two consecutive 16week semesters during the pursuit of the doctoral degree while enrolled and engaged in coursework or research activities as prescribed by the major academic unit.

For more detailed regulations and requirements for Doctoral degrees, please consult the Graduate College Bulletin: http://www.ou.edu/ gradcollege/forms/bulletin

## Stephenson School of Biomedical Engineering

Wei Chen, Ph.D., Interim Director, Graduate Liaison, Chair of Graduate Studies, and Professor
Rebecca Scott, Ph.D., Assistant Professor and Chair of Undergraduate Studies
Sarah Breen, Ph.D., Associate Professor and Chair of Access and Belonging

Gallogly Hall, Room 101
173 Felgar St.
Norman, OK 73019
Phone: (405) 325-0789
biomedical@ou.edu
www.ou.edu/coe/sbme

## General Information

The Peggy and Charles Stephenson School of Biomedical Engineering ties together OU's Gallogly College of Engineering, Health Sciences Center, College of Arts and Sciences, Price College of Business, the Oklahoma Medical Research Foundation, and the regional bioscience industry, offering an unprecedented level of health care collaboration and discovery in Oklahoma. The successful and highly multidisciplinary graduate program was established after a Whitaker Foundation grant in the late 1990s and the undergraduate program was launched in the fall of 2016. SBME is housed in Gallogly Hall, completed in the fall of 2019, which is located in the engineering quad.

The faculty of the OU Stephenson School of Biomedical Engineering (SBME) focus on the development of new and improved materials and technologies for the diagnosis and treatment for a wide variety of healthcare needs. While SBME has two strategic research clusters Immunoengineering and Neuroengineering, the SBME faculty have a variety of research specialties in the following areas:

- Peptide-based materials and applications in biomedical engineering
- Nano-engineered sensing and treatment
- Scholarship of teaching \& learning and clinical biomechanics
- Local ablation-based immunotherapy for metastatic cancers
- Neuro-immuno-engineering immunotherapies for neurological diseases
- Computational neuroimaging and neuroengineering
- Regenerative medicine
- Engineering education and single particle elemental analysis
- Multi-omics analysis for cancer therapy and vaccine development
- Engineering education and biomimetic therapeutics/cell-instructive materials
- Biomedical imaging for diagnostics and imaging-guided therapeutics
- Biomaterials
- Nanomaterials
- Brain and psychological networks
- Neuroimaging and neuromodulation


## Mission Statement

The mission of the Stephenson School of Biomedical Engineering is to educate the next generation of biomedical engineers and to create new technologies that advance human health.

## Biomedical Engineering

Biomedical engineers enhance the quality of life through transformative research that provides solutions to complex medical challenges. From developing immunoengineering approaches for treatment of metastatic cancers, nanotechnologies for drug delivery, neuroimaging and neuromodulation for brain research, to developing multimodality biomedical imaging for diagnostics and imaging-guided therapeutics, biomedical engineers are making an impact - one life at a time.

## Institute for Biomedical Engineering, Science and Technology

The University of Oklahoma Institute for Biomedical Engineering, Science and Technology (IBEST) spans research and education activities in
bioscience and biomedical engineering on the Norman and Oklahoma City campuses.

Faculty from the lead departments - School of Sustainable Chemical, Biological and Materials Engineering, School of Aerospace and Mechanical Engineering, School of Electrical and Computer Engineering, and School of Computer Science - work with bioscientists and biomedical engineers from OU's College of Arts and Sciences in Norman and OU Health Sciences Center and Oklahoma Medical Research Foundation in Oklahoma City.

## Facilities

In the fall of 2019, Gallogly Hall opened its doors. This 70,000-square-foot building offers lab space for biomedical engineering research and training programs.

The Bachelor of Science in Biomedical Engineering is accredited by the Engineering Accreditation Commission (EAC) of ABET, under the General Criteria and the Bioengineering and Biomedical and Similarly Named Engineering Programs Program Criteria.

## Bachelor of Science , under the General Criteria and the Bioengineering and Biomedical and Similarly Named Engineering Programs Program Criteria.

The Bachelor of Science (p. 1260) in Biomedical Engineering focuses on the current and strategic future strengths of our faculty members: Bioimaging, Biotransport, Neural Engineering, Biomechanics, Molecular, Cellular and Tissue Engineering, and Biomedical Micro-/Nano-Technology. Courses are intended to build on previous engineering and life science courses to truly integrate engineering with biology and medicine. They are also pathways to advanced biomedical engineering courses and research, allowing students the flexibility to individualize their curriculum to meet their career objectives. Our bachelor's degree graduates will have a strong foundation in biomedical engineering with opportunities for focus within areas of the field. In addition to engineering principles, the program is built on a solid foundation of the basic sciences (chemistry, physics, and biology) and mathematics.

Undergraduate students and prospective students interested in biomedical engineering or bioengineering can also follow the pre-med option available in the Schools of Aerospace and Mechanical Engineering (AME) or Industrial and Systems Engineering (ISE), or either the premedical/biomedical engineering option or biotechnology option available in the School of Chemical, Biological and Materials Engineering (CBME). These curricula provide a solid foundation in engineering and biosciences that can be supplemented with elective courses and undergraduate research opportunities available from the University of Oklahoma Biomedical Engineering Center.

## Bachelor of Science/Master of Science

The Accelerated B.S./M.S. degree program (p. 1263) in Biomedical Engineering may be of interest to some students. Among the courses offered are introduction to biomedical engineering, biochemical engineering, bioinstrumentation, neural engineering, biotransport, medical imaging, biomaterials, biomechanics, cellular and tissue engineering, and biosensors.

## Program Educational Objectives for BME B.S. Graduates to Attain Within a Few Years of Graduation:

1. Successful career advancement: Graduates are advancing in their careers, either in technical roles in the healthcare/life sciences
industry, or continuing their education in professional school (e.g., medicine, dentistry, law, business) or graduate school.
2. Positive contributors to society: Graduates are solving healthcare problems with the goal of benefiting the quality of life for people of varied communities, infusing creative, technically competent, evidence-based, and global perspectives.
3. Interdisciplinary team contributors: Graduates are communicating effectively, valuing the views and contributions of interdisciplinary team members, and contributing to team success.

The Bachelor of Science in Biomedical Engineering is accredited by the Engineering Accreditation Commission (EAC) of ABET, under the General Criteria and the Bioengineering and Biomedical and Similarly Named Engineering Programs Program Criteria.

## BME B.S. Students are Assessed for the Following Outcomes:

1. An ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics.
2. An ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors.
3. An ability to communicate effectively with a range of audiences.
4. An ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts.
5. An ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives.
6. An ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions.
7. An ability to acquire and apply new knowledge as needed, using appropriate learning strategies.

## Accelerated Dual B.S. / M.S.

BS in Biomedical Engineering / MS in Biomedical Engineering (A108/ F109 Q062)

Students completing this program will receive two degrees: a B.S. and an M.S. in Biomedical Engineering. This program is accelerated because students may share 12 hours of credit that apply to both their undergraduate and graduate degrees. Students should apply for this program option by March 1 of their junior year. Please contact Nicole Palmeter (npalmeter@ou.edu) for the application materials to apply.

## Master of Science

The Biomedical Engineering, Master of Science (p. 1266) degree program can be readily completed in two years. A thesis is required.

## Application Information

In addition to meeting the general requirements of the Graduate College, any student with an undergraduate degree in engineering from an accredited school may be admitted as a student in full standing. It is recommended that students entering the program have taken at least one college biology course and one college organic chemistry course. A student with an undergraduate degree in the sciences may
be admitted on the condition that specified undergraduate engineering and/or mathematics courses will have to be taken for completion of the degree program, which will depend on the background of each individual student. While here the master's student will continue to follow the general procedures of the Graduate College as well as the procedures of the Biomedical Engineering Program. More application information and application forms are available on the SBME website.

## Doctor of Philosophy

The Ph.D. degree in Biomedical Engineering requires ninety postbaccalaureate hours. A student with a B.S. degree can enter the Biomedical Engineering, Doctor of Philosophy (p. 1267) degree program directly; the student does not have to complete the M.S. thesis as part of the Ph.D. degree. A student with an M.S. degree can enter the Ph.D. program directly. At the end of the program, the student will demonstrate excellence in scholarly research by authoring and successfully defending a Ph.D. Dissertation.

During the Ph.D. program, the student is required to take a general examination in accordance with Graduate College requirements. For students entering with a B.S. degree, the general examination must be taken as soon as possible after the student has completed three semesters (not including the summer semester). For students entering with an M.S. degree, the general examination must be taken as soon as possible after the student has completed one semester (not including the summer semester). While here, the doctoral student will continue to follow the general procedures of the Graduate College as well as the procedures of the Biomedical Engineering Program. More application information and application forms are available on the SBME website.

## Doctor of Medicine / Doctor of Philosophy in Biomedical Engineering

Students completing this program will receive two degrees: M.D. and Ph.D. in Biomedical Engineering. The M.D. program satisfies the requirements for both degrees including completion of the clinical, advisory conference, general exam, written dissertation, and oral defense components. Individuals pursuing this degree will be prepared to practice and teach medicine in a research setting and/or conduct biomedical research that requires a combination of expertise in medicine and biomedical engineering.

Admission to the program requires a B.S. degree in engineering from an accredited program. In exceptional cases, students with degrees in other technical areas may be admitted upon addressing deficiencies identified by the M.D./Ph.D. Advisory Committee and the Graduate Program Coordinator of the Bioengineering Program. Admission means acceptance by the University of Oklahoma College of Medicine (includes sitting for the MCAT, the AMCAS report, etc.) the Graduate College of the University of Oklahoma-Norman, the Stephenson School of Biomedical Engineering, and the M.D./Ph.D. Advisory Committee. The GRE is not required but may be submitted with the application. The minimum GPA (4.0 scale) for the Biomedical Engineering Program and the College of Medicine is 3.0 .

Additional information about degree options and application forms are available on the SBME website or from the SBME administrative office. Information about the OU Medical School at the Health Sciences Center in Oklahoma City can be found on their web pages.

## Courses

BME 1421 Introduction to Biomedical Engineering
1 Credit Hour
Prerequisite: Freshman Standing. This course serves as an introduction to and overview of biomedical engineering. Course content serves to provide appreciation for the breadth of the biomedical engineering field and to guide first year students in making curriculum, major, and career choices. (F, Sp)

BME 2333 Biomedical Engineering Fundamentals 3 Credit Hours Prerequisite: Course is not open to freshmen; Majors only; MATH 1823 or 1914; MATH 2423 or 2924; CHEM 1315 or 1335; CHEM 1415 or 1435; and PHYS 2514, and BME 1421 or permission of instructor. Introduction to material, energy, charge, and momentum balances in biological systems. Steady state and transient conservation equations for mass, energy, charge, and momentum will be derived and applied using basic mathematical principles, physical laws, stoichiometry, and thermodynamic properties. (F)

## BME 2433 Signals and Systems for Biomedical Engineering 3 Credit

## Hours

Prerequisite: BME 2333; ECE 2723 or concurrent enrollment; course is not open to freshmen. Students learn circuits and linear systems concepts necessary for analysis and design of biomedical systems. Theory is motivated by examples from biomedical engineering. Topics covered include electrical circuit fundamentals, operational amplifiers, frequency response, electrical transients, impulse response, transfer functions, and convolution, all motivated by circuit and biomedical examples. Elements of continuous time domain-frequency domain analytical techniques are developed. (Sp)
BME 2970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

BME 3113 Bioimaging 3 Credit Hours
Prerequisite: BME 2333; BME 2433; PHYS 2524 and MATH 3113.
Introduction to medical imaging techniques such as $x$-ray, computed tomography, magnetic resonance, and ultrasound. ( $\mathrm{F}, \mathrm{Sp}$ )

## BME 3123 Biotransport

3 Credit Hours
Prerequisite: BME 2333; PHYS 2524 and MATH 3113. Covers key transport concepts in biomedical engineering. Emphasis is put on mass and momentum transport with applications related to biology, medical science and biotechnology. (F, Sp)

BME 3133 Bioelectricity 3 Credit Hours
Prerequisite: BME 2333; 2433; PHYS 2524 and MATH 3113. The electrophysiology of excitable cells from a quantitative perspective. Topics include the ionic basis of action potentials, quantitative models for nerve and muscle including the Hodgkin-Huxley equations, impulse propagation, synaptic dynamics, source-field relationships, and an introduction to functional electrical stimulation. (F, Sp)

BME 3143 Biomechanics
3 Credit Hours
Prerequisite: BME 2333, PHYS 2524, and MATH 3113. Analysis of human motion, evaluation of tissue solid mechanics, and use of momentum balance in fluid mechanics. ( $\mathrm{F}, \mathrm{Sp}$ )
BME 3153 Molecular, Cellular and Tissue Engineering 3 Credit Hours Prerequisite: BME 2333, MATH 3113 and BIOL 1124. Application of engineering methods to study, measure, repair, or replace biological functions at the molecular, cellular, or tissue-level length scales. (F,Sp)

BME 3163 Biomedical Micro-/Nano-Technology 3 Credit Hours Prerequisite: BME 2333; PHYS 2524; MATH 3113; majors only. Introduction to micro/nanotechnology in biomedical settings, including micro/nanotechnologies used to investigate biological systems, physiological responses to nanotherapeutics, and first principles of microfluidics and microfabrication. ( $\mathrm{F}, \mathrm{Sp}$ )

BME 3171 Biomedical Engineering Lab 1
1 Credit Hour
Prerequisite: Junior standing; ISE 3293 or departmental permission; BME 3143 or concurrent enrollment; majors only. Hands-on lab that teaches students technical skills associated with BME biomechanics, and also includes topics such as bioelectricity and bioimaging. Lab components include hypothesis testing and analysis, computer simulation, lab safety and instrument training, and technical communication. (F)
BME 3181 Biomedical Engineering Lab 2
1 Credit Hour
Prerequisite: Junior standing; BME 3171; BME 3123 or concurrent enrollment, and BME 4813 or concurrent enrollment; majors only. Hands-on lab that teaches students technical skills associated with biotransport and quantitative physiology, and includes topics such as molecular, cellular \& tissue engineering, bioimaging, and micro/ nanotechnology. Lab components include hypothesis testing and analysis, computer simulation, lab safety and instrument training, and technical communication. (Sp)

BME 3233 Biomaterials
3 Credit Hours
Prerequisite: BIOL 1124, BME 2333, PHYS 2524, and BME 3143; majors only; permission of instructor. Introduction to materials used in biomedical environment, the design and use of implantable materials, such as metals, polyethylene, ceramics, and composites, biocompatibility, test methods, and tissue growth on biomaterials. (F)
BME 3243 Biomechanics of Human Movement
3 Credit Hours
Prerequisite: BME 3143. This course introduces advanced undergraduate students to musculoskeletal biomechanics and the quantitative analysis of human movement. Topics covered will include rigid-body kinematics, dynamics, motion capture, external force measurement, electromyography, and mechanical properties of muscles and tendons. (Sp)

## BME 3440 Mentored Research Experience

3 Credit Hours
0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)

BME 3531 Bioinstrumentation Lab 1 Credit Hour Prerequisite: BME 2433, corequisite BME 3533; Majors only. Fundamental circuit elements and concepts include resistance, capacitance, inductance, op-amps, impedance, voltage, current, power, and frequency. Fundamental analog measurement concepts include adequate bandwidth and amplitude and phase linearity. Examples of medical measurements and devices are included for the fundamental circuit and measurement concepts covered above. Introduction of laboratory instruments used to simulate measurements of and direct measure physiological events. (F)
BME 3533 Biomedical Instrumentation
3 Credit Hours
Prerequisite: Majors only; BME 2433 and ECE 2723. Measurement and analysis of biopotentials and biomedical transducer characteristics; electrical safety applications of FET's; integrated circuits, operational amplifiers for signal processing and computer interfacing; signal analysis and display on the laboratory minicomputer. (Sp)

BME 3722 Numerical Methods in Biomedical Engineering 2 Credit Hours
Prerequisite: Majors only; C S 1213, MATH 3113, and BME 2333. Introduces principles and techniques of numerical analysis of biomedical engineering problems using software packages. Covers numerical methods of interpolation, curve fitting, solving linear systems, analysis of ordinary and partial differential equations, numerical modeling of biomedical engineering systems, symbolic computation, and scientific visualization. (F)
BME 3723 Numerical Methods in Biomedical Engineering 3 Credit Hours
Prerequisite: Majors only; CS 1213; MATH 3113; and BME 2333. Introduces principles and techniques of numerical analysis of biomedical engineering problems using software packages. Covers numerical methods of interpolation, curve fitting, solving linear systems, analysis of ordinary and partial equations, numerical modeling of biomedical engineering systems, symbolic computation, and scientific visualization. (F)

BME 3960 Honors Reading 1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Consists of topics designated by the instructor in keeping with the student's major program. Covers materials not usually presented in the regular courses. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

## BME 3980 Honors Research

1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit 6 hours. Selected students work with individual faculty members on research problems in biomedical engineering. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
BME 4013 Introduction to Medical Device Design 3 Credit Hours (Slashlisted with BME 5013; Crosslisted with AME 4013) Prerequisite: Junior standing or permission of instructor. Introduction to medical device design with emphasis on the entire procedure of developing a medical device from identifying the unmet medical need to product launching. Topics include marketing and technology survey, concept development, the biocompatible material, device prototype, bench test, in vitro/in vivo test, clinical trial and FDA regulation. No student may earn credit for both 4013 and 5013. (Sp)
BME 4050 Design Projects in Biomedical Engineering 3 Credit Hours 0 to 3 hours. Prerequisite: Permission of Instructor. May be repeated; maximum credit 6 hours. This course is designed for students who are participating in design and project based experiences. This course is different from mentored research in that the student is expected to have completed a functioning prototype or design solution by the end of the experience. Credit hours may vary, based on the size, scope, and expectations of the project. ( $\mathrm{F}, \mathrm{Sp}$ )
BME 4093 Applied Biomechanics - Ear Mechanics 3 Credit Hours (Slashlisted with BME 5093; Crosslisted with AME 4093) Prerequisite: Junior Standing; PHYS 2514; MATH 1823 or 1914; MATH 2423 or 2924; and CHEM 1315 all with a minimum grade of C or better. The course curriculum starts with a review of some basic solid mechanics and fluid mechanics. Then the course will review the applications of mechanics in different biosystems or organs. Finally, this course will cover how to apply mechanics on ear tissue mechanical measurements, ear modeling and ear implant design. No student may earn credit for both 4093 and 5093. (F)

BME 4243 Biochemical Engineering
3 Credit Hours
(Slashlisted with BME 5243; Crosslisted with CH E 4243) Prerequisite: CH E 3113 or permission of instructor. Current bioprocesses for reaction and separation with emphasis on fundamental principles of biochemical engineering, biochemistry, and microbiology. No student may earn credit for both 4243 and 5243. (Sp)

BME 4281 Engineering Co-Op Program
1 Credit Hour
(Crosslisted with AME, C S, CEES, CH E, ECE, ISE and EPHY 4281)
Prerequisite: Departmental permission and junior standing. May be repeated; maximum credit 6 hours. The Co-Op program provides students an opportunity to enhance their education via career exploration in related professional work experiences. Course assignments help students articulate their experiences by completing journals; mid-term paper; final paper and/or final presentation. Faculty receive an evaluation from the student's Co-Op supervisor who monitors performance. Faculty collaborate with the Co-Op supervisor to ensure student success. (F, Sp, Su )

## BME 4373 Tissue Engineering

## 3 Credit Hours

(Slashlisted with BME 5373; Crosslisted with CH E 4373) Prerequisite: senior standing or permission of instructor. Examines the background and recent advances in the science of combining multiple cell types with an appropriate support to provide a construct that can replace or support damaged tissue. No student may earn credit for both 4373 and 5373. (Irreg.)
BME 4423 Genetic Engineering and Biotechnology 3 Credit Hours (Slashlisted with BME 5423; Crosslisted with CH E 4423) Prerequisite: permission of instructor for upper-class undergraduates. The course will cover state-of-the-art technologies of manipulating and controlling genes, genomes and cellular pathways with a goal of engineering human (stem) cells and microbes for health, environmental and industrial applications. No student may earn credit for both 4423 and 5423. (F)
BME 4533 Neural Engineering
3 Credit Hours
(Slashlisted with BME 5533) Prerequisite: BME 3113 or BME 3133 or concurrent enrollment, or instructor permission. Principles and technologies of applying engineering to neuroscience, including areas as neural tissue engineering, models of neural function, neural interface and neuromodulation technology. Examples of neural engineering systems focus on brain-controlled interface and prosthetic systems currently in development or produced commercially, neurofeedback and brain stimulation systems for treating disorders such as depression. $\operatorname{MATLAB}(R)$ programming is required. No student may earn credit for both 4533 and 5533. (F)

BME 4713 Biomedical Engineering Design I
3 Credit Hours
Prerequisite: BME 3533 or concurrent enrollment; Senior standing in the BS in BME curriculum. Structured methodologies for designing systems or to interface with living systems. Creative design, analysis, selection, development, and fabrication of biomedical components and systems. (F)
BME G4813 Quantitative Physiology
3 Credit Hours
Prerequisite: BME 3722, junior standing, and majors only. Introduces students to the mathematical and numerical techniques used to develop, solve, and analyze quantitative models of physiology systems. (Sp)
BME 4823 Biomedical Engineering Design II 3 Credit Hours Prerequisite: BME 4713. Development of team projects in biomedical engineering with emphasis on prototype development and quantitative analysis, and written and oral reporting of the outcome. Capstone. (Sp) [V].

## BME 4873 Network Modeling and Analysis of Complex

## Systems

3 Credit Hours
(Slashlisted with BME 5873) Prerequisite: BME 3722 or permission of instructor. In this course, we will cover the key concepts and methodologies for studying the structure and dynamics of complex biological systems such as protein, genetic, and neural networks. No student may earn credit for both 4873 and 5873. (Sp)

BME 4970 Special Topics/Seminar 1-3 Credit Hours
1 to 3 hours. Prerequisite: Senior standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

BME 4980 Senior Thesis
1-3 Credit Hours
1 to 3 hours. Prerequisite: Senior standing, BME 3440 or BME 3980, and permission of instructor. The Senior Thesis is an option for seniors who are especially interested in research and/or intending to continue on to a PhD program. Students who have completed the first semester (fall of their senior year) and have satisfactorily passed the fall semester report will enroll in this course for the Spring of their senior year only. (Sp)

BME 5013 Introduction to Medical Device Design 3 Credit Hours (Slashlisted with BME 4013; Crosslisted with AME 5013) Prerequisite: Graduate standing or permission of instructor. Introduction to medical device design with emphasis on the entire procedure of developing a medical device, from identifying the unmet medical need to product launching. Topics include marketing and technology survey, concept development, the biocompatible material, device prototype, bench test, in vitro/in vivo test, clinical trial, and FDA regulation. No student may earn credit for both 4013 and 5013. (Sp)
BME 5093 Applied Biomechanics - Ear Mechanics 3 Credit Hours (Slashlisted with BME 4093; Crosslisted with AME 5093) Prerequisite: Graduate Standing. The course curriculum starts with a review of some basic solid mechanics and fluid mechanics. Then the course will review the applications of mechanics in different biosystems or organs. Finally, this course will cover how to apply mechanics on ear tissue mechanical measurements, ear modeling and ear implant design. No student may earn credit for both 4093 and 5093. (F)

BME 5113 Special Topics in Cancer
3 Credit Hours
Prerequisite: Graduate standing and permission of instructor. Students will develop an appreciation of the tools available at hand to dissect the molecular mechanisms controlling cancer development such that they can take this knowledge to the bench to develop their own graduate research. (Sp)

## BME 5123 Biophotonics Imaging Microscopy <br> 3 Credit Hours

Prerequisite: Graduate standing; BME 2333; BME 2433; PHYS 2524 and MATH 3113; or instructor permission. Optical imaging, spectroscopy, and microscopy have become indispensable tools in modern biomedical research. This course will cover the principles and instrumentation of various biomedical optical techniques, including fluorescence and Raman spectroscopy, confocal and multi-photon microscopy, optical coherence tomography, and diffuse optical tomography. Biomedical applications, particularly on cancer and brain research, will also be discussed. (F)

BME 5133 Therapeutic Biophotonics
3 Credit Hours
Prerequisite: Graduate standing, BME 4813 or permission of the instructor. This course will introduce the effects of photothermal, photochemical, photomechanical, photoimmunological, and photomodulational interactions. Applications of biophotonics in treatment of cancer and other diseases in basic, translational, and clinical studies will be discussed. Modern multiomics technologies, such as spatial and/or single cell transcriptomics for analysis of phototherapy induced biological effects will also be discussed. (Sp)

BME 5143 Biosensor: Fundamentals and Applications 3 Credit Hours Prerequisite: Graduate standing or Permission of Instructor. Healthcare, precision medicine, and self-monitoring of health all depend on biosensors. The goal of the course is to provide students a thorough introduction to the topic of biosensors as well as a quantitative and indepth understanding of device design and performance evaluation. (Sp)
BME 5213 Biomechanics I
3 Credit Hours
(Crosslisted with AME 5213) Prerequisite: AME 3143 and AME 3153 or permission of instructor. Introduction to physiological systems with emphasis on structure and function of tissues and organs; application of continuum mechanics to understanding of tissue and organ behavior at microscopic and macroscopic levels; viscoelastic behavior at microscopic and macroscopic levels; viscoelastic and solid biomaterials. (F)

## BME 5233 Biomaterials

3 Credit Hours
Prerequisite: Graduate standing, BME 3233, and permission of instructor. Introduction to materials used in biomedical environment, the design and use of implantable materials (such as metals, polyethylene, ceramics, composites), biocompatibility, test methods, and tissue growth on biomaterials. (Sp)

BME 5243 Biochemical Engineering
3 Credit Hours
(Slashlisted with BME 4243; Crosslisted with CH E 5243) Prerequisite: CH E 5971; graduate standing or instructor permission. Current bioprocesses for reaction and separation with emphasis on fundamental principles of biochemical engineering, biochemistry, and microbiology. No student may earn credit for both 4243 and 5243. (Sp)

BME 5283 ImmunoEngineering
3 Credit Hours
Prerequisite: Graduate standing or permission of instructor. The immune system plays a big role to maintain the homeostasis in our body. It provides the first reaction to external stresses, such as pathogens, biomaterials and implants, and cancer. Dysregulations in immune system can cause autoimmune diseases or determine our fate when we are exposed to external diseases. (Sp)
BME 5293 Transport in Biological Systems
3 Credit Hours
(Crosslisted with CH E 5293) Prerequisite: Chemical Engineering Graduate standing or permission of instructor; CH E 5971. Theoretical and practical aspects of transport phenomena in living organisms and biomedical technologies. Applications include hemorheology, drug delivery, extracorporeal circulation and artificial organs. (Irreg.)

BME 5363 Optical Engineering
3 Credit Hours
(Crosslisted with ECE 5363) Prerequisite: ECE 3793 . Underlying theory and design of optical systems. Interference, diffraction and coherence phenomena will be examined as a basis for studying the limits of optical system performance. Other topics include a detailed study of polarization, the interaction of light with various media and geometrical optics. (Sp)

BME 5373 Tissue Engineering 3 Credit Hours
(Slashlisted with BME 4373; Crosslisted with CH E 5373) Prerequisite: CH E 5971; graduate standing, admission into Gallogly College of Engineering or permission of instructor. Examines the background and recent advances in the science of combining multiple cell types with an appropriate support to provide a construct that can replace or support damaged tissue. No student may earn credit for both 4373 and 5373. (Irreg.)

## BME 5413 Nanomedicine

3 Credit Hours
Prerequisite: BME 3163 and permission of instructor. Introduction to nanomaterials used in preclinical and clinical stages; the design, application, and evaluation of nanomaterials to diagnose and treat diseases, including cancer. (Sp)
BME 5423 Genetic Engineering and Biotechnology 3 Credit Hours (Slashlisted with BME 4423; Crosslisted with CH E 5423) Prerequisite: Graduate standing in CBME or SBME, or permission of instructor. The course will cover state-of-the-art technologies of manipulating and controlling genes, genomes and cellular pathways with a goal of engineering human (stem) cells and microbes for health, environmental and industrial applications. No student may earn credit for both 4423 and 5423. (F)

BME 5443 Neural System and Rehabilitation Engineering 3 Credit Hours Prerequisite: Graduate standing or permission of instructor. Advanced knowledge of neural control of movement, musculoskeletal system, and movement impairment and disability will be discussed. Topics include the frontiers of rehabilitation engineering, including assistive technologies, brain-computer interfaces, non-invasive brain stimulation, regenerative rehabilitation, and machine learning in rehabilitation. The students will learn writing skills for NIH/AHA aims page for research projects in the field of rehabilitation (Sp)
BME 5453 Polymer Science and Engineering 3 Credit Hours (Crosslisted with CH E 5453) Prerequisite: Chemical Engineering Graduate standing or permission of instructor; CH E 5971. This course will be focused on the synthesis, characterization, processing, and properties of state-of-the-art polymeric and multicomponent polymeric materials. Students should come into the course with a background knowledge of polymers such as that found in an Engineering Materials and/or Organic Chemistry Course. (Sp)
BME 5533 Neural Engineering 3 Credit Hours
(Slashlisted with BME 4533) Prerequisite: Graduate standing or permission of instructor. Principles and technologies of applying engineering to neuroscience, including neural tissue engineering, models of neural function, neural interface, and neuromodulation technology. Examples of neural engineering systems focus on brain-controlled interface and prosthetic systems currently in development or produced commercially, and neurofeedback and brain stimulation systems for treating disorders such as depression. $\operatorname{MATLAB}(\mathrm{R})$ programming is required. No student may earn credit for both 4533 and 5533. (F)

## BME 5853 Biomedical Signals and Systems

3 Credit Hours
(Crosslisted with ECE 5853) Prerequisites: ECE 3723 and ECE 3793, or equivalent course in electrical circuits and signal processing, or permission of instructor. Comprehensive coverage of topics related to signals in humans. Emphasis on using engineering tools to interpret signals and underlying physiological principles. Focus on emerging engineering technologies, physiological knowledge and clinical application. (Sp)

BME 5863 Bioinstrumentation
3 Credit Hours
(Crosslisted with ECE 5863) Prerequisite: ECE 4213 or permission of the instructor. A comprehensive coverage of topics related to principles, applications, and design of medical instruments widely used in hospitals and clinical researches. Emphasis is placed on general design concepts, discussions on a great variety of medical devices, and medical device safety issues. Materials cover different levels and various aspects of human systems, such as heart, brain, circulation, respiration. (F, Sp)
BME 5873 Network Modeling and Analysis of Complex Systems

3 Credit Hours
(Slashlisted with BME 4873) Prerequisite: graduate standing or permission of instructor. In this course, we will cover the key concepts and methodologies for studying the structure and dynamics of complex biological systems such as protein, genetic, and neural networks. No student may earn credit for both 4873 and 5873. (Sp)
BME 5960 Directed Readings
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of department. May be repeated; maximum credit sic hours. Directed readings and/or literature reviews under the direction of a faculty member. (Irreg.)
BME 5970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)
BME 5971 Seminar in Biomedical Engineering Research 1 Credit Hour Prerequisite: Graduate standing and BME majors only; May be repeated with change of content; maximum credit 6 hours. The department will invite speakers and the graduate students to present their ongoing research. Students will learn the frontiers in biomedical engineering and relevant fields and will have the opportunity for discussion with leading scientists. Students will also be encouraged to present their own research work and get feedback from faculty and peers. (F,Sp)

## BME 5973 Special Topics in Electrical and Computer

 Engineering
## 3 Credit Hours

(Crosslisted with ECE 5973) Prerequisite: Graduate standing and permission of instructor. May be repeated with change of content; maximum credit 12 hours. Selected topics of current research interest not covered by regularly scheduled coursework. (F, Sp, Su)
BME 5980 Research for Master's Thesis
2-6 Credit Hours
2 to 6 hours. Prerequisite: graduate standing or permission by instructor. May be repeated; maximum credit toward degree six hours. Directed research culminating in the completion of the master's thesis. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
BME 5990 Independent Study 1-3 Credit Hours 1 to 3 hours. Prerequisite: graduate standing or permission by instructor. May be repeated with change of subject matter; maximum credit six hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/ or laboratory research and field projects. (Irreg.)
BME 6213 Optical Information Processing
3 Credit Hours
Prerequisite: ECE 5213 and ECE 5353. Application of Fourier transforms, linear systems, and diffraction theory to the analysis of optical systems. Emphasis is on the use of optical systems for information processing, including image enhancement, pattern recognition, data processing, optical switching, and computing. (F)

BME 6960 Directed Readings 1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor.
May be repeated; maximum credit six hours. Directed readings and/or literature review under the direction of a faculty member. (Irreg.)
BME 6970 Advanced Topics in Bioengineering 1-6 Credit Hours
1 to 6 hours. Prerequisite: graduate standing or instructor permission. May be repeated with change of topic; maximum credit towards degree six hours. Selected topics of current faculty research interest at the PhD level not covered by regularly scheduled courses. (Irreg.)

BME 6980 Research for Doctoral Dissertation 2-16 Credit Hours 2 to 16 hours. Prerequisite: Graduate standing and permission of instructor; may be repeated. Directed research culminating in the completion of the doctoral dissertation. (F, Sp, Su)
BME 6990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)

## Faculty

| Last Name | First/Middle <br> Name | Middle init. |  | Title(s), date(s) appointed | Degrees Earned, Schools, Dates Completed |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Acar | Handan |  | 2017 | ASSISTANT PROFESSOR OF BIOMEDICAL ENGINEERING, 2017; STEPHENSON PROFESSOR IN BIOMEDICAL ENGINEERING 2017 | PhD, Bilkent University, 2013; MS, Ankara University, 2008; BS/MA, Gazi University, 2006 |
| Breen | Sarah |  | 2021 | ASSOCIATE <br> PROFESSOR OF <br> BIOMEDICAL <br> ENGINEERING, 2021 | PhD , University of Limerick, 2012; BS, University of Limerick, 2008 |
| Chen | Wei | R | 2020 | INTERIM DIRECTOR, <br> PROFESSOR OF BIOMEDICAL <br> ENGINEERING, <br> 2020; STEPHENSON <br> PROFESSOR IN BIOMEDICAL <br> ENGINEERING 2020 | PhD , University of Oregon, 1988; MS, University of Oregon, 1984; BS, Shandong University, 1982 |
| Clegg | John |  | 2021 | ASSISTANT <br> PROFESSOR OF <br> BIOMEDICAL <br> ENGINEERING, 2021 | PhD , University of Texas, 2019; MA, University of Texas, 2018; MS, University of Texas, 2016; BS, University of South Carolina, 2014 |
| Detamore | Michael | S | 2016 | FOUNDING <br> DIRECTOR, 2016; <br> STEPHENSON CHAIR, <br> 2016; PROFESSOR <br> OF BIOMEDICAL <br> ENGINEERING, 2016 | PhD, Rice University, 2004; BS, University of Colorado, 2000 |


| Ding | Lei | 2007 | PROFESSOR OF BIOMEDICAL <br> ENGINEERING, <br> 2018; DIRECTOR <br> OF INSTITUTE <br> FOR BIOMEDCIAL <br> ENGINEERING, <br> SCIENCE, AND <br> TECHNOLOGY <br> (IBEST), 2016 | PhD, University of Minnesota, 2007; BE, Zhejiang University, 2000 |
| :---: | :---: | :---: | :---: | :---: |
| Frickenstein | Alex | 2023 | ASSISTANT <br> PROFESSOR, 2023 | PhD, University of Oklahoma, 2023; BS Colorado State University, 2019 |
| Liu | Kaili | 2023 | RESEARCH <br> ASSISTANT <br> PROFESSOR OF <br> BIOMEDICAL <br> ENGINEERING, 2023 | PhD, Chinese Academy of Sciences, 2011; BS, Nanjing Agricultural University, 2005 |
| Rouf | Tahrima Binte | 2022 | VISITING ASSISTANT <br> PROFESSOR OF <br> BIOMEDICAL <br> ENGINEERING, 2022 | PhD, Purdue <br> University, 2019; <br> BS Bangladesh <br> University of <br> Engineering and <br> Technology, 2012 |
| Scott | Rebecca | 2021 | ASSISTANT <br> PROFESSOR OF <br> BIOMEDICAL <br> ENGINEERING, 2021 | PhD, Purdue <br> University, 2014; BS, Saint Louis University, 2010 |
| Tang | Qinggong | 2018 | ASSISTANT <br> PROFESSOR OF <br> BIOMEDICAL <br> ENGINEERING, 2018 | PhD, University of Maryland, 2017; BP, Huazhong University of Science and Technology, 2012 |
| Townsend | Jakob | 2023 | RESEARCH <br> ASSISTANT <br> PROFESSOR OF <br> BIOMEDICAL <br> ENGINEERING, 2023 | PhD, University of Oklahoma, 2017; BS, Oregon State University, 2014 |
| Wilhelm | Stefan | 2017 | ASSOCIATE <br> PROFESSOR OF <br> BIOMEDICAL <br> ENGINEERING, <br> 2017; STEPHENSON <br> PROFESSOR IN <br> BIOMEDICAL <br> ENGINEERING, 2017 | PhD, University of Regensburg 2014; MS, University of Regensburg, 2010; BS, University of Regensburg, 2006 |
| Yuan | Han | 2015 | ASSOCIATE <br> PROFESSOR OF <br> BIOMEDICAL <br> ENGINEERING, 2015 | PhD, University of Minnesota, 2010; BS, Tsinghua University, 2005 |
| Zamani Esfahlani | Farnaz | 2023 | ASSISTANT <br> PROFESSOR OF <br> BIOMEDICAL <br> ENGINEERING, 2023 | PhD, State University of New York at Binghamton, 2018; MS, State University of New York at Binghamton, 2015; BA, University of Tabriz, 2012 |

## Biomedical Engineering, B.S.

Minimum Total Credit Hours: 130

Overall GPA - Combined and OU: 2.00
Major GPA - Combined and OU: 2.00
Curriculum GPA - Combined and OU: 2.00

## This program has changes pending State Regents approval for 2024/25. These pending changes are not reflected here.

Bachelor of Science in Biomedical Engineering accredited by the Engineering Accreditation Commission of ABET, https://www.abet.org, under the General Criteria and the Bioengineering, Biomedical and Similarly Named Program Criteria.

In order to progress in your curriculum in the Gallogly College of Engineering, and as a specific graduation requirement, a grade of C or better is required in each course in the curriculum, including all prerequisite courses.

## Major Requirements

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Required Courses |  |  |
| BME 1421 | Introduction to Biomedical Engineering | 1 |
| BME 2333 | Biomedical Engineering Fundamentals | 3 |
| BME 2433 | Signals and Systems for Biomedical <br> Engineering | 3 |
| BME 3143 | Biomechanics |  |
| BME 3722 | Numerical Methods in Biomedical | 3 |
| BME 3533 | Engineering | 2 |
| BME 3531 | Biomedical Instrumentation | 3 |
| BME 3171 | Biomedical Engineering Lab 1 | 1 |
| BME 3123 | Biotransport | 1 |
| BME 3233 | Biomaterials | 3 |
| BME 4813 | Quantitative Physiology | 3 |
| BME 3181 | Biomedical Engineering Lab 2 | 3 |
| BME 4713 | Biomedical Engineering Design I | 1 |
| BME 4823 | Biomedical Engineering Design II | 3 |
| Total Credit Hours | 3 |  |

## Major Support Requirements

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Math and Science |  |  |
| BIOL 1124 | Intro Biol: Molecule/Cell/Phys | 4 |
| CHEM 1415 | General Chemistry (Continued) | 5 |
| C S 1213 | Programming for Non-Majors with Python | 3 |
| ECE 2723 | Electrical Circuits I | 3 |
| ISE 3293 | Applied Engineering Statistics | 3 |
| MATH 2924 | Differential and Integral Calculus II | 4 |
| MATH 2934 | Differential and Integral Calculus III | 4 |
| MATH 3113 | Introduction to Ordinary Differential | 3 |
| PHYS 2524 | Equations | General Physics for Engineering and |
|  | Science Majors | 4 |

## Upper-Division Biology Elective

Course chosen per BME faculty approval

BME Electives
Choose 12 hours of electives from the list of approved
courses maintained by the department
Science, Math, and Engineering Electives
Choose 6 hours of electives from the list of approved courses 6
maintained by the department
Additional College Requirements

| ENGR 1411 | Pathways to Engineering Thinking ${ }^{1}$ | 1 |
| :--- | :--- | :--- |
| ENGR 2002 | Professional Responsibilities and Skills of <br> Engineers and Scientists | 2 |

Total Credit Hours

## ${ }^{1}$ Engineering transfer students may take ENGR 3511 in place of ENGR 1411.

## General Education and College Requirements

Courses designated as Core I, II, III, IV, or V are part of the General Education curriculum. Students must complete a minimum of 40 hours of General Education courses, chosen from the approved list, including at least one upper-division Gen. Ed. course outside of the student's major. Courses graded P/NP will not apply.

## A grade of C or better is required in each course in the curriculum, including all prerequisite courses. <br> UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS

Code Title Credit

Core Area I: Symbolic and Oral Communication
English Composition
ENGL 1113 Principles of English Composition 3
ENGL 1213 Principles of English Composition 3
or EXPO 1213 Expository Writing
Language ( $0-10$ hours in the same language)
This requirement can be met by two years of the same 0-10
language in high school:
Beginning Course ( $0-5$ hours)
Beginning Course, continued (0-5 hours)
Mathematics
MATH $1914 \underset{\substack{\text { Differential and Integral Calculus I (Core I) } \\ 1,2}}{ }$
Core Area II: Natural Science (including one laboratory)
PHYS $2514 \quad$ General Physics for Engineering and

| PHYS 2514 | General Physics for Engineering and <br> Science Majors (Core II) |  |
| :--- | :--- | :--- |
| CHEM 1315 | General Com $^{2}$ | 4 |

CHEM $1315 \quad$ General Chemistry (Core II-Lab) ${ }^{2} \quad 5$
or CHEM 1335 General Chemistry I: Signature Course
Core Area III: Social Science
PSC 1113 American Federal Government 3
Choose one course ${ }^{3} 3$
Core Area IV: Arts \& Humanities
Artistic Forms
Choose one course ${ }^{3}$
Western Culture
HIST $1483 \quad$ United States to 1865
3


## Free Electives

Electives to bring total applicable hours to the minimum total required for the degree including a minimum of 40 upper-division hours.

## Suggested Semester Plan of Study

## Bachelor of Science in Biomedical Engineering accredited by the

 Engineering Accreditation Commission of ABET, https://www.abet.org, under the General Criteria and the Bioengineering, Biomedical and Similarly Named Program Criteria.In order to progress in your curriculum in the Gallogly College of Engineering, and as a specific graduation requirement, a grade of C or better is required in each course in the curriculum, including all prerequisite courses.

Two college-level courses in a single world language are required; this may be satisfied by successful completion of 2 years in a single world language in high school. Students who must take a language at the University will have an additional 6-10 hours of coursework.

Courses designated as Core I, II, III, IV or V are part of the General Education curriculum. Students must complete a minimum of 40 hours of General Education courses, chosen from the approved list.

## Freshman

| First Semester |  | Credit |
| :---: | :---: | :---: |
| ENGL 1113 | Principles of English Composition (Core I) | 3 |
| CHEM 1315 | General Chemistry (Core II-Lab) ${ }^{1}$ | 5 |
| MATH 1914 | Differential and Integral Calculus I (Core I) ${ }^{2}$ | 4 |
| ENGR 1411 | Pathways to Engineering Thinking ${ }^{3}$ | 1 |
| Approved Elective | : First-Year Experience (Core V) ${ }^{5}$ | 3 |
|  | Credit Hours | 16 |
| Second Semester |  |  |
| ENGL 1213 or EXPO 1213 | Principles of English Composition (Core I) or Expository Writing | 3 |
| CHEM 1415 | General Chemistry (Continued) (Core II-Lab) 1 | 5 |
| MATH 2924 | Differential and Integral Calculus II ${ }^{2}$ | 4 |
| PHYS 2514 | General Physics for Engineering and Science Majors (Core II) | 4 |


| BME 1421 | Introduction to Biomedical Engineering | 1 |
| :---: | :---: | :---: |
|  | Credit Hours | 17 |
| Sophomore |  |  |
| First Semester |  |  |
| MATH 2934 | Differential and Integral Calculus III ${ }^{2}$ | 4 |
| PHYS 2524 | General Physics for Engineering and Science Majors | 4 |
| BIOL 1124 | Intro Biol: Molecule/Cell/Phys (Core II-Lab) | 4 |
| ENGR 2002 | Professional Responsibilities and Skills of Engineers and Scientists | 2 |
| BME 2333 | Biomedical Engineering Fundamentals | 3 |
|  | Credit Hours | 17 |
| Second Semester |  |  |
| MATH 3113 | Introduction to Ordinary Differential Equations | 3 |
| C S 1213 | Programming for Non-Majors with Python | 3 |
| HIST 1483 <br> or HIST 1493 | United States to 1865 (Core IV) or United States, 1865 to the Present | 3 |
| ECE 2723 | Electrical Circuits I | 3 |
| BME 2433 | Signals and Systems for Biomedical Engineering | 3 |
| ISE 3293 | Applied Engineering Statistics | 3 |
|  | Credit Hours | 18 |

## Junior



| Second Semester |  |  |
| :---: | :---: | :---: |
| BME 3123 | Biotransport | 3 |
| BME 3233 | Biomaterials | 3 |
| BME 4813 | Quantitative Physiology | 3 |
| BME 3181 | Biomedical Engineering Lab 2 | 1 |
| BME Elective (p. 1263) ${ }^{6}$ (p) 3 |  |  |
| BME Elective (p. 1263) ${ }^{6}$ |  | 3 |

## Senior

## First Semester

BME 4713 Biomedical Engineering Design I 3
Science, Math, Engineering Elective (Per Advisor Approval) 3
Approved Elective: Social Science (Core III) ${ }^{5} 3$
Approved Elective: Western Culture (Core IV) ${ }^{5} 3$
Approved Elective: Artistic Forms (Core IV) ${ }^{5} \quad 3$

## Second Semester

BME 4823 Biomedical Engineering Design II


## BME Course Lists

## APPROVED LIST OF BME ELECTIVES MAINTAINED BY THE STEPHENSON SCHOOL OF BIOMEDICAL ENGINEERING

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| BME 3113 | Bioimaging | 3 |
| BME 3133 | Bioelectricity | 3 |
| BME 3153 | Molecular, Cellular and Tissue Engineering | 3 |
| BME 3163 | Biomedical Micro-/Nano-Technology | 3 |
| BME 3440 | Mentored Research Experience | 3 |
| BME 3980 | Honors Research | $1-3$ |
| BME 4050 | Design Projects in Biomedical Engineering | 3 |
| BME 4281 | Engineering Co-Op Program | 1 |
| BME 4013/5013 | Introduction to Medical Device Design | 3 |
| BME 4533/5533 | Neural Engineering | 3 |
| BME 4970/5970 | Special Topics/Seminar | $1-3$ |
| AME 4213/5213 | Biomechanics I | 3 |
| BME/CH E 5243 | Biochemical Engineering | 3 |
| BME/CH E 5293 | Transport in Biological Systems | 3 |
| BME/CH E 5373 | Tissue Engineering | 3 |
| CH E 5453 | Polymer Science and Engineering | 3 |
| ECE 4823 | Engineering Principles of the Human Body | 3 |
| ECE 5843 | Medical Imaging Systems | 3 |
| ECE/BME 5853 | Biomedical Signals and Systems | 3 |
| ECE 6813 | Advanced Topics in Biomedical Engineering | 3 |
| ECE 5973 | Special Topics in Electrical and Computer | 3 |
|  | Engineering | 3 |

## LIST OF APPROVED COURSES FOR UPPER-DIVISION BIOLOGY ELECTIVE

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| BIOL 3113 | Cell Biology | 3 |
| BIOL 3333 | Genetics | 3 |
| BIOL 3833 | Introduction to Neurobiology | 3 |
| BIOL 4843 | Molecular Biology | 3 |
| CHEM 3653 | Introduction to Biochemistry | 3 |
| MBIO 3813 | Fundamentals of Microbiology | 3 |
| MBIO 4833 | Basic Immunology | 3 |

## Biomedical Engineering, B.S./M.S.

Minimum Total Credit Hours: 145

Overall GPA - Combined and OU: 3.25
Major GPA - Combined and OU: 3.25
Curriculum GPA - Combined and OU: 3.25
Program Code: A108/F109 Q062

## This program has changes pending State Regents approval for 2024/25. These pending changes are not reflected here.

Bachelor of Science in Biomedical Engineering accredited by the Engineering Accreditation Commission of ABET, https://www.abet.org, under the General Criteria and the Bioengineering, Biomedical and Similarly Named Program Criteria.

In order to progress in your curriculum in the Gallogly College of Engineering, and as a specific graduation requirement, a grade of C or better is required in each course in the curriculum, including all prerequisite courses.

## Major Requirements

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Required Courses |  |  |
| BME 1421 | Introduction to Biomedical Engineering | 1 |
| BME 2333 | Biomedical Engineering Fundamentals | 3 |
| BME 2433 | Signals and Systems for Biomedical <br> Engineering | 3 |
| BME 3143 | Biomechanics | 3 |
| BME 3723 | Numerical Methods in Biomedical | 3 |
| BME 3533 | Engineering | 3 |
| BME 3531 | Biomedical Instrumentation | 1 |
| BME 3171 | Biomedical Engineering Lab 1 | 1 |
| BME 3123 | Biotransport | 3 |
| BME 3233 | Biomaterials | 3 |
| BME 4813 | Quantitative Physiology | 3 |
| BME 3181 | Biomedical Engineering Lab 2 | 1 |
| BME 4713 | Biomedical Engineering Design I | 3 |

$\qquad$
Total Credit Hours

# Major Support Requirements 

| Code | Title | Credit Hours |
| :---: | :---: | :---: |
| Math and Science |  |  |
| BIOL 1124 | Intro Biol: Molecule/Cell/Phys | 4 |
| CHEM 1415 | General Chemistry (Continued) | 5 |
| C S 1213 | Programming for Non-Majors with Python | 3 |
| ECE 2723 | Electrical Circuits I | 3 |
| ISE 3293 | Applied Engineering Statistics | 3 |
| MATH 2924 | Differential and Integral Calculus II | 4 |
| MATH 2934 | Differential and Integral Calculus III | 4 |
| MATH 3113 | Introduction to Ordinary Differential Equations | 3 |
| PHYS 2524 | General Physics for Engineering and Science Majors | 4 |
| BME Electives |  |  |
| Choose 15 h courses main | of electives from the list of approved ed by the department (p. 1263) | 15 |
| Science, Math, and Engineering Electives |  |  |
| Choose 3 ho maintained by | electives from the list of approved courses department | 3 |
| Additional College Requirements |  |  |
| ENGR 2002 | Professional Responsibilities and Skills of Engineers and Scientists | 2 |

## Total Credit Hours

## Graduate Requirements

Up to 12 hours of graduate level courses that satisfy MS in biomedical engineering requirements can be shared between BS and MS degrees.

## Thesis Option

| CodeTitle | Credit <br> Hours |
| :--- | ---: |
| Core Courses |  |
| Biomedical Engineering Electives |  |
| Choose four courses in Biomedical Engineering from a list <br> maintained by the School of Biomedical Engineering <br> 1,2 | 12 |
| Life Sciences Electives |  |
| Choose two courses in Life Sciences from a list maintained by |  |
| the School of Biomedical Engineering 2 |  |$\quad 6$

through prior coursework will not receive credit toward the degree for additional physiology courses taken at OU unless the SBME graduate liaison approves in advance.
2 Electives must be chosen from an approved list maintained by the School of Biomedical Engineering. (p. 1266)

## General Education and College Requirements

Courses designated as Core I, II, III, IV, or V are part of the General Education curriculum. Students must complete a minimum of 40 hours of General Education courses, chosen from the approved list, including at least one upper-division Gen. Ed. course outside of the student's major. Courses graded P/NP will not apply.

A grade of $C$ or better is required in each course in the curriculum, including all prerequisite courses.

UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS
Code Title Credit

Core Area I: Symbolic and Oral Communication
English Composition
ENGL 1113 Principles of English Composition 3
ENGL 1213 Principles of English Composition 3
or EXPO 1213 Expository Writing
Language ( $0-10$ hours in the same language)
This requirement can be met by two years of the same 0-10
language in high school:
Beginning Course (0-5 hours)
Beginning Course, continued (0-5 hours)

## Mathematics

| MATH 1914 | Differential and Integral Calculus I (Core I) <br> I, 2 | 4 |
| :--- | :--- | :--- |

Core Area II: Natural Science (including one laboratory)
PHYS 2514 General Physics for Engineering and 4 Science Majors (Core II) ${ }^{2}$
CHEM 1315 General Chemistry (Core II-Lab) ${ }^{2} 5$
or CHEM 1335 General Chemistry I: Signature Course
Core Area III: Social Science
P SC 1113 American Federal Government 3
Choose one course ${ }^{3} 3$
Core Area IV: Arts \& Humanities
Artistic Forms
Choose one course ${ }^{3} 3$

Western Culture
HIST $1483 \quad 3$
or HIST 1493 United States, 1865 to the Present
Choose one course (excluding HIST 1483 and HIST 1493) ${ }^{3} 3$
World Culture
Choose one course ${ }^{3} 3$
Core Area V: First-Year Experience
ENGR 1413 Pathways to Engineering Thinking (Core V- 3

Total Credit Hours
40-50
${ }^{1}$ MATH 1914, MATH 2924, and MATH 2934 can be substituted with MATH 1823, MATH 2423, MATH 2433, and MATH 2443.
2 Major support requirements that also satisfy University General Education requirements.
${ }^{3}$ To be chosen from the University-Wide General Education Approved Course List. Three of these hours must be upper-division (3000-4000). See list in the Class Schedule.
4 Transfer students will need to meet the requirements of the first-year experience course as well as the engineering transfer course. Please see your advisor for your specific enrollment.

## Free Electives

Electives to bring total applicable hours to the minimum total required for the degree including a minimum of 40 upper-division hours.

## Suggested Semester Plan of Study

Bachelor of Science in Biomedical Engineering accredited by the Engineering Accreditation Commission of ABET, https://www.abet.org, under the General Criteria and the Bioengineering, Biomedical and Similarly Named Program Criteria.

In order to progress in your curriculum in the Gallogly College of Engineering, and as a specific graduation requirement, a grade of C or better is required in each course in the curriculum, including all prerequisite courses.

Two college-level courses in a single world language are required; this may be satisfied by successful completion of 2 years in a single world language in high school. Students who must take a language at the University will have an additional 6-10 hours of coursework.

Courses designated as Core I, II, III, IV or V are part of the General Education curriculum. Students must complete a minimum of 40 hours of General Education courses, chosen from the approved list.

## Freshman

| First Semester |  | Credit |
| :---: | :---: | :---: |
| ENGL 1113 | Principles of English Composition (Core I) | 3 |
| CHEM 1315 | General Chemistry (Core II-Lab) ${ }^{1}$ | 5 |
| MATH 1914 | Differential and Integral Calculus I (Core I) ${ }^{2}$ | 4 |
| ENGR 1413 | Pathways to Engineering Thinking (Core VFYE) ${ }^{3}$ | 3 |
|  | Credit Hours | 15 |
| Second Semester |  |  |
| $\begin{aligned} & \text { ENGL } 1213 \\ & \text { or EXPO } 1213 \end{aligned}$ | Principles of English Composition (Core I) or Expository Writing | 3 |
| CHEM 1415 | General Chemistry (Continued) (Core II-Lab) 1 | 5 |
| MATH 2924 | Differential and Integral Calculus II ${ }^{2}$ | 4 |
| PHYS 2514 | General Physics for Engineering and Science Majors (Core II) | 4 |
| BME 1421 | Introduction to Biomedical Engineering | 1 |
|  | Credit Hours | 17 |
| Sophomore |  |  |
| First Semester |  |  |
| MATH 2934 | Differential and Integral Calculus III ${ }^{2}$ | 4 |


| PHYS 2524 | General Physics for Engineering and <br> Science Majors | 4 |
| :--- | :--- | ---: |
| BIOL 1124 | Intro Biol: Molecule/Cell/Phys (Core II-Lab) | 4 |
| ENGR 2002 | Professional Responsibilities and Skills of <br> BME 2333 | Engineers and Scientists |

## Second Semester

| MATH 3113 | Introduction to Ordinary Differential <br> Equations | 3 |
| :--- | :--- | ---: |
| C S 1213 | Programming for Non-Majors with Python | 3 |
| HIST 1483 <br> or HIST 1493 | United States to 1865 (Core IV) <br> or United States, 1865 to the Present | 3 |
| ECE 2723 | Electrical Circuits I |  |
| BME 2433 | Signals and Systems for Biomedical <br> Engineering | 3 |
| ISE 3293 | Applied Engineering Statistics | 3 |
|  | Credit Hours | 3 |

## Junior

First Semester

| BME 3143 | Biomechanics | 3 |
| :--- | :--- | ---: |
| BME 3533 | Biomedical Instrumentation | 3 |
| BME 3531 | Bioinstrumentation Lab | 1 |
| BME 3171 | Biomedical Engineering Lab 1 | 1 |
| BME 3723 | Numerical Methods in Biomedical <br>  <br>  <br> BME Elective $(\text { p. } 1263)^{5}$ | 3 |
|  | Credit Hours | $\mathbf{3}$ |


| Second Semester |  |  |
| :---: | :---: | :---: |
| BME 3123 | Biotransport | 3 |
| BME 3233 | Biomaterials | 3 |
| BME 4813 | Quantitative Physiology | 3 |
| BME 3181 | Biomedical Engineering Lab 2 | 1 |
| BME Elective (p. 1263) ${ }^{5}$ |  | 3 |
| P SC 1113 | American Federal Government | 3 |
| Approved Elective: Social Science (Core III) ${ }^{4}$ |  | 3 |
| Credit Hours |  | 19 |

## Senior

First Semester
BME 4713 Biomedical Engineering Design I 3

Graduate-level Biomedical Engineering Elective (per a list 3
maintained by the department) (p. 1266) ${ }^{6}$
Graduate-level Biomedical Engineering Elective (per a list 3
maintained by the department) $(\mathrm{p} .1266)^{6}$
Approved Elective: Artistic Forms (Core IV) ${ }^{4}$

## Second Semester

BME 4823 Biomedical Engineering Design II 3
Graduate-level Biomedical Engineering Elective (per a list 3
maintained by the department) (p. 1266) ${ }^{6}$
Graduate-level Additional Science, Math, Eng. Elective (per 3
advisor) ${ }^{6}$
Approved Elective: World Culture (Core IV) ${ }^{4}$


## Biomedical Engineering, M.S.

Minimum Total Hours (Thesis): 30
Program Code: M109

## Thesis Option

| Code Title | Credit |
| :---: | :---: |
| Core Courses |  |
| Biomedical Engineering Electives |  |
| Choose four courses in Biomedical Engineering from a list maintained by the School of Biomedical Engineering (p. 1266) ${ }^{1,2}$ | 12 |
| Life Sciences Electives |  |
| Choose two courses in Life Sciences from a list maintained by the School of Biomedical Engineering (p. 1266) ${ }^{2}$ | 6 |
| Additional Engineering, Science, or Math Electives |  |
| Choose two courses in engineering, science or math selected in consultation with the student's research supervisor (p. 1266) ${ }^{2}$ | 6 |
| Thesis |  |


| BME 5980 | Research for Master's Thesis | 6 |
| :--- | ---: | ---: |
| Total Credit Hours | $\mathbf{3 0}$ |  |

## Total Credit Hours

30${ }^{1}$ For engineering background students (non-biomedical engineering students), a 3-hour physiology course is required unless completed through prior study (as determined by the Graduate Studies Committee). Students who have fulfilled the physiology requirement through prior coursework will not receive credit toward the degree for additional physiology courses taken at OU unless the SBME graduate liaison approves in advance.
2 Electives must be chosen from an approved list maintained by the School of Biomedical Engineering. (p. 1266)

## General Requirements for all Master's Degrees

The master's degree requires the equivalent of at least two semesters of satisfactory graduate work and additional work as may be prescribed for the degree.

All coursework applied to the master's degree must carry graduate credit.
Master's degree programs which require a thesis consist of at least 30 credit hours. All non-thesis master's degree programs require at least 30 credit hours.

Credit transferred from other institutions must meet specific criteria and is subject to certain limitations.

Courses completed through correspondence study may not be applied to the master's degree.

To qualify for a graduate degree, students must achieve an overall grade point average of 3.0 or higher in the degree program coursework and in all resident graduate coursework attempted. A student must also have at least a 3.0 in all coursework (including undergraduate coursework if any).

Additional information for master's degree students may be found in the Graduate College Bulletin.

## Course Lists

## Biomedical Engineering Electives (BME Electives)

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| BME/AME 5213 | Biomechanics I | 3 |
| BME 5233 | Biomaterials | 3 |
| BME/CH E 5243 | Biochemical Engineering | 3 |
| BME/CH E 5293 | Transport in Biological Systems | 3 |
| BME/CH E 5373 | Tissue Engineering | 3 |
| BME 5413 | Nanomedicine | 3 |
| BME/AME 5970 | Special Topics/Seminar (Intro to Medical | $1-3$ |
|  | Device Design) | 3 |
| BME 5533 | Neural Engineering | 3 |
| BME 5283 | ImmunoEngineering | 3 |
| BME 5113 | Special Topics in Cancer | $1-3$ |
| BME 5990 | Independent Study (limit 3 hours) | 1 |
| BME 5971 | Seminar in Biomedical Engineering |  |
| ECE 4823 | Engineering Principles of the Human Body | 3 |
| ECE 5843 | Medical Imaging Systems | 3 |


| ECE/BME 5853 | Biomedical Signals and Systems | 3 |
| :---: | :---: | :---: |
| ECE 5973 | Special Topics in Electrical and Computer Engineering | 3 |
| ECE 6813 | Advanced Topics in Biomedical Engineering | 3 |
| Life Sciences Electives |  |  |
| Code | Title | Credit |
| CHEM 3653 | Introduction to Biochemistry | 3 |
| CHEM 5291 | Seminar in Biochemistry | 1 |
| CHEM 5260 | Special Topics in Biochemistry I | 1-3 |
| HES 5823 | Exercise Physiology | 3 |
| HES 5833 | Advanced Exercise Physiology Laboratory | 3 |
| HES 5863 | Physiology of Aging | 3 |
| MBIO 4833 | Basic Immunology | 3 |
| MBIO 5620 | Investigations in Microbiology | 1-6 |
| MBIO 5971 | Seminar in Microbiology | 1 |
| BIOL 3101 | Principles of Physiology Lab | 1 |
| BIOL 3103 | Principles of Physiology | 3 |
| BIOL 3333 | Genetics | 3 |
| BIOL 4913 | Quantitative Biology | 3 |
| BIOL 5364 | Transmissn Electron Microscopy | 4 |
| BIOL 5374 | Scanning Electron Microscopy | 4 |
| BIOL 5871 | Current Topics in Neurobiology | 1 |
| BIOL 5893 | Behavioral Neurobiology | 3 |
| PSY 4253 | Selected Topics in Cognitive Science | 3 |
| PSY 4920 | Current Topics in Basic and Applied Psychology | 1-3 |

## Addtional Science, Engineering, and Math Electives (STEM Electives)

Code Title

Open list, but courses in this category should NOT be those in the lists for BME or Life Sciences electives.

- According to the Graduate College requirement, only courses that carry graduate credit are counted toward graduate study programs. When enrolling in courses cross-listed for both undergraduate and graduate sections, make sure to enroll in the graduate section. If a course no longer offers graduate credit, please do not enroll, and contact the departmental program assistant for help.
- The lists here only indicate the courses that are allowed to be counted toward each course category for the graduate programs of study. They do not necessarily indicate that any combination of them is a valid graduate program of study. Check out the degree requirements at both Graduate College and the Stephenson School of Biomedical Engineering.
- Courses in other engineering disciplines and outside of engineering will require a permission override from the course department. Contact the departmental program assistant for an override.


## Biomedical Engineering, Ph.D.

Minimum Total Hours: 90

## Program Code: D109

## Program Requirements

The Ph.D. degree in Biomedical Engineering requires 90 postbaccalaureate hours, which include the courses required for the M.S. degree in Biomedical Engineering. A student with a B.S. degree can enter the Ph.D. program directly; the student does not have to complete the M.S. thesis as part of the Ph.D. degree. At the end of the program, the student will demonstrate excellence in scholarly research by authoring and successfully defending a Ph.D. Dissertation.

During the Ph.D. program, the student is required to take a general examination in accordance with Graduate College requirements. For students entering with a B.S. degree, the general examination must be taken as soon as possible after the student has completed three semesters (not including the summer semester). For students entering with an M.S. degree, the general examination must be taken as soon as possible after the student has completed one semester (not including the summer semester).


1 Must include 3 hours of physiology unless this requirement has been satisfied through prior undergraduate or graduate study (as determined by the Graduate Studies Committee). Students who have fulfilled the physiology requirement through prior coursework will not receive credit toward the degree for additional physiology courses taken at OU unless the SBME graduate liaison approves in advance.

## Note:

For students who hold a Master of Science degree in Biomedical Engineering from the University of Oklahoma, the Ph.D. requires a minimum of nine (9) graduate credit hours beyond the M.S. The M.S. degree requires two courses in life sciences and two courses in engineering/science/math; the Ph.D. requires one additional life sciences course and two additional engineering/science/math courses beyond the M.S.

## General Requirements for Doctoral Degrees

A student should expect to spend at least the equivalent of three full academic years beyond the bachelor's degree to obtain the doctoral degree. During this period the student will take appropriate graduate
coursework, successfully complete the general examination, and successfully defend and submit the final dissertation.

All coursework applied to the doctoral degree must carry graduate credit.
The doctoral degree requires at least 90 post-baccalaureate hours, including both formal coursework and hours of research.

The minimum hour requirement for a specific doctoral degree program cannot be waived.

No more than one-half of the credit hours, both OU and overall, excluding Research for Doctoral Dissertation (6980), may be $S / U$-graded coursework.

The student must be in residence at OU for at least two consecutive 16week semesters during the pursuit of the doctoral degree while enrolled and engaged in coursework or research activities as prescribed by the major academic unit.

For more detailed regulations and requirements for Doctoral degrees, please consult the Graduate College Bulletin: http://www.ou.edu/ gradcollege/forms/bulletin

## School of Sustainable Chemical, Biological and Materials Engineering

Dimitrios Papavassiliou, Director
M. Ulli Nollert, Graduate Liaison

Sarkeys Energy Center T-301
100 E. Boyd
Norman, OK 73019-1004
Phone: (405) 325-5811
scbme@ou.edu
www.ou.edu/coe/scbme

## General Information

Chemical engineering was first taught at OU in 1912 and the first graduate degree was granted in 1918. Over the years that followed, the program has developed curricula with traditional strength in fundamentals, while tailoring electives for specializations suited to contemporary and future industrial need. In 1963, the Schools of Chemical Engineering and Metallurgical Engineering were combined into the School of Chemical Engineering and Materials Science. The name was changed in 2008 to the School of Chemical, Biological and Materials Engineering (CBME). This was done to reflect increasing activities in the bioengineering area. The name was changed to the School of Sustainable Chemical, Biological and Materials Engineering in 2023. This was done to reflect the current and anticipated changes in the profession, and the academic and research emphasis shift towards sustainability.

Our dynamic faculty are dedicated to a program of the highest quality and to leadership at the forefront of the profession it serves. This dedication and the cooperative spirit of CBME faculty has fueled a superior level of productivity. The school has developed a very broad base of external research support. A listing of recent research projects shows support from 22 different sources, including the National Science Foundation, the U. S. Environmental Protection Agency, the U.S. Department of Energy, The Department of Defense, The National Institutes of Health, the Oklahoma Center for the Advancement of Science and Technology, and 10 companies. Every faculty member has an active research program and is expected to receive external funding.

## Mission Statement

The mission of the School of Sustainable Chemical, Biological and Materials Engineering is to serve the changing needs of society through the training of outstanding engineers in the creation and utilization of chemical engineering knowledge.

## Chemical Engineering

Perhaps the most striking facts about chemical engineering are youth and variety. At the turn of the century people were discontented with simply observing chemical phenomena in the laboratory. Chemical engineering was born out of the desire to use these chemical behaviors to serve people and make the world a better place in which to live.

The world has entered an extremely critical period because of shortages and/or environmental impacts of nonrenewable energy. The chemical engineer is an important factor in solving problems in production and use of fossil fuel resources, nuclear energy and alternate energy resources, including biofuels and bioenergy. Chemical engineers have made important contributions to the production and refining of petroleum products. They are now playing an important part in liquefaction of natural gas and gasification of coal. The use of alternate energy sources such as biomass, geothermal, ocean thermal differences, and solar are dependent on contributions made by chemical engineers.

In the space age, chemical engineers are developing nanoengineered materials that will have structural and electronic properties never before encountered. They must perfect processes for life-support systems in other environments. Chemical engineers are needed to provide the fuels for rockets and booster propulsion. They utilize computers to control and analyze complex chemical processes.

Biotechnology and medicine, which have taken tremendous strides in the past few decades, are quite dependent on the efforts of the chemical engineer. It is the chemical engineer who develops ways to produce new recombinant proteins such as insulin at large scale for mass distribution. The vaccines that have saved a whole generation of children from crippling are available because the chemical engineer worked out the ways to produce them safely and economically. The field of mental health has been revolutionized by drugs, astronomical in cost until the chemical engineer mass-produced them so that they are accessible to nearly everyone who needs them.

Briefly, the job of the chemical engineer is to make commercial application of the chemist's and biologist's discoveries. This is not as easy as it sounds, for enormous problems are encountered when the company tries to produce by the ton material that the chemist made by the milligram in the laboratory. The chemical engineer works in a variety of industries, not only the chemical industry, but also in fields of computer systems, electronic materials, environmental control, pharmaceuticals, leather, metals, space, fertilizers, textiles, glass, detergents, paper, food, pesticides, paint, and rubber. New fields are constantly being added.

It is the chemical engineer who develops an economical process for producing a marketable product. The development of penicillin is just such a case. The chemist Sir Alexander Fleming discovered the wonder antibiotic in a Petri dish in his laboratory. The batches produced in a laboratory can hardly supply the millions of people around the world that need the drug, and the cost of a prescription would be exorbitant. Chemical engineers had to develop a continuous process for producing penicillin. Through the efforts of these engineers, millions of lives have been saved.

There are many other kinds of jobs for chemical engineers. A chemical engineer in plant operations must supervise the production process to see that the plant produces a scheduled amount of high-quality material economically. To do this, the engineer is very much involved in managing people and machines.

The research chemical engineer has an analytical mind and likes to solve problems in the technical frontier. If the engineer plans to concentrate on research, exploring new areas and applying untried methods, an advanced chemical engineering degree is probably needed.

Still another type of job appeals to many chemical engineers. This is technical sales. The material that is produced in a plant must be sold. The salesman needs extensive technical training because technical people are the customers.

All chemical engineering jobs - plant operations, research and development, and technical sales - may lead into management or executive positions if the chemical engineer is interested in the broad aspects of a company's business.

There are, of course, major fields besides industry that need chemical engineers. College teaching, for instance, is offering more and more to the engineer, particularly if the person is research-minded. Many college teachers are, in addition, consultants to industry, and the government too is constantly improving the opportunities for chemical engineers in its service. Private research institutes call for chemical engineers. A chemical engineer may choose to work in practically any field.

The curriculum in chemical engineering at the University of Oklahoma is planned to prepare students for the design, construction, and operation of processes in which materials undergo chemical, biological, and physical change. Graduates are prepared to accept a job in chemical engineering practice or to continue studies in graduate school.

Since the chemical engineer must be acquainted with so many diversified subjects, the education at the University is necessarily broad. Students receive solid foundations in mathematics, physics, chemistry, and engineering courses which will prepare them to apply effectively these fundamental principles to the solution of engineering problems. In addition, students in the biotechnology engineering elective patterns receive training in our pre-medical/ biomedical life science and bioengineering courses. Because computers play a vital role in the solution of many chemical engineering problems, students are required to use modern computational tools in their coursework. In addition, there is increasing emphasis on electives in the life sciences and humanisticsocial studies. Because of this broad educational background, the engineer is better prepared to accept leadership in the community, as well as in the company, in a management capacity.

## Programs \& Facilities <br> Facilities

Laboratories and offices for chemical engineering are located in Sarkeys Energy Center, Carson Engineering Center, Stephenson Research and Technology Center, and the Core Bioprocessing Facility. Facilities include a unit operations laboratory and laboratories dedicated to research in separations and purification, polymers, small angle x-ray scattering, catalysis, biomass conversion and biofuels, thin films, biomedical and biotechnology, and surfactants and other graduate research project laboratories. We occupy several fully equipped laboratories in Carson Engineering Center focusing on applied surfactant technology and enhanced oil recovery. The facilities in Stephenson includes laboratory
areas specifically designed for bioengineering research, and we occupy over 3,000 square feet of the space shared with the Bioengineering Center. Areas of research emphasis include biofuels and bioenergy, nano technology, remediation of polluted soil and water, process systems engineering, bone and vascular tissue engineering, rheology of blood, polymer fibers processing and polymer characterization, biotechnology and biomedical engineering, advanced design, catalysis, electrochemistry, surface modification using ultrathin films, carbon nanotube production, and natural gas utilization. The Core Bioprocessing Facility is used for teaching in the Bioprocessing Certificate and is located at Suite 310, Bld 655 Research Parkway, Oklahoma City, 73104.

## Undergraduate Study

## Sustainable Chemical, Biological and Materials Engineering Program Educational Objectives

Our chemical engineering undergraduate program is preparing our recent graduates to meet the following objectives:

1. Graduates will perform successfully as professionals in businesses, industries and government.
2. Graduates will perform successfully in their pursuit of advanced degrees in chemical engineering and other technical or professional fields.
3. Graduates will continually improve their professional competencies through further training or education.

## Chemical Engineering Undergraduate Student Outcomes

- an ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics
- an ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors
- an ability to communicate effectively with a range of audiences
- an ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts
- an ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives
- an ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions
- an ability to acquire and apply new knowledge as needed, using appropriate learning strategies.


## Curriculum in Chemical Engineering

The Bachelor of Science in Chemical Engineering accredited by the Engineering Accreditation Commission of ABET, https://www.abet.org, under the General Criteria and the Chemical, Biochemical, Biomolecular and Similarly Named Program Criteria.

The degree is offered with three options:

## Standard Option

The Standard Option (p. 1277) prepares students for a career in the wide variety of chemical process industries or for graduate engineering
studies. Technical electives allow emphasis on energy, materials, process systems, environment, or other areas of interest.

## Premedical Option

The Premedical Option (p. 1282) is designed so that the student is prepared to enter schools of medicine, dentistry or osteopathic medicine as early as the end of the junior year (although most students who pursue a medical career complete the chemical engineering degree). If the student elects not to enter medical school, a normal chemical engineering degree is obtained, so there is no disadvantage to being in the program. Biology courses useful in preparation for the Medical College Admission Test are scheduled in the junior year. The biomedical engineering pattern is similar to the pre-med pattern, differing in suggested technical electives.

Pre-med students should consult their Pre-Health and Pre-Medical Professions advisor as well as their Chemical Engineering or Mechanical Engineering advisor for necessary medical school information.

## Bioengineering Option

The Bioengineering Option (p. 1279) is designed to prepare the student for work on the engineering of biological systems and systems in which cells and biochemicals are processed. It includes courses in microbiology, biochemistry, and biochemical engineering. The elective sequence requires two additional credit hours over the basic chemical engineering curriculum.

## Sustainability Option

The Sustainability Option (p. 1284) is designed to prepare the student to fully understand the requirements for achieving sustainability across the wide variety of chemical process industries. Building on this quantitative understanding, the student will be able to modify existing processes as well as design new ones to enhance sustainability. The Option includes courses emphasizing sustainability in both general education electives and technical electives.

## Undergraduate Certificate

- Bioprocessing (p. 1287)


## Accelerated Dual Degree B.S./M.S.

(Bachelor of Science in Chemical Engineering accredited by the Engineering Accreditation Commission of ABET, https://www.abet.org, under the General Criteria and the Chemical, Biochemical, Biomolecular and Similarly Named Program Criteria.)

- Bachelor of Science in Chemical Engineering/Master of Science
(Chemical Engineering-Standard) (p. 1287)

The School of Sustainable Chemical, Biological and Materials Engineering offers one accelerated dual degree (B.S./M.S.) program to qualified undergraduate students. The programs allow students to pursue a graduate degree in conjunction with the undergraduate degree requirements. Students admitted into this program can use up to four courses ( 12 credit hours) to simultaneously satisfy the requirements of both the B.S. and M.S. degrees.

## Graduate Study

The School of Sustainable Chemical, Biological \& Materials Engineering offers master and doctor of philosophy degrees in chemical engineering. Research can be in a variety of areas including: advanced energy systems, biochemical and biomedical engineering, catalysis, process
optimization, nanotechnology, novel separation methods, polymers, reaction kinetics, surface science, thermodynamics and thin films.

Any student with an undergraduate degree in chemical engineering or its equivalent from an accredited school and a grade point average (GPA) of at least 3.00 (on a 4.00 scale) during the last 60 hours of undergraduate coursework may be admitted as a student in full standing.

## Master of Science

The Chemical Engineering, Master of Science (p. 1290) curriculum is available for students with an undergraduate degree in chemistry, physics, biology, or a similar area and high qualifications. Students who have their degree in an area other than chemical engineering will likely have to take additional courses besides those listed in the special curriculum. Interested students can contact the school for more information.

The Sustainability - Energy and Materials Management (p. 1291), Master of Science intends to enable graduates from a variety of undergraduate disciplines to fast progress their careers via developing strong capabilities in identifying and implementing engineering solutions to achieve sustainable development for our society.

## Graduate Certificate

- Bioprocessing (p. 1291)


## Doctor of Philosophy

The School of Sustainable Chemical, Biological and Materials Engineering offers the Doctor of Philosophy degree program in Chemical Engineering (p. 1292). Students can apply directly for the Ph.D. degree without obtaining an M.S. degree first.

## Courses

CH E 2003 Chemical Engineering Computing/Statistics 3 Credit Hours Prerequisite: CHE 2033 (or concurrent enrollment in CHE 2033), and MATH 1823 or 1914 or concurrent enrollment. Introduction to engineering computing and programming using prevalent engineering computing software; program design and development; computer application exercises in engineering. Basic statistical concepts. Computer application exercise in engineering and statistics. (Sp)
CH E 2033 Chemical Engineering Fundamentals
3 Credit Hours Prerequisite: MATH 1823 or 1914, and CHEM 1415 or CHEM 1425 or CHEM 1435 or equivalent. Material balances involving physical equilibria and chemical reaction; energy balances; gas behavior including vapor pressure and Raoult's Law. (F, Sp)
CH E 3113 Momentum, Heat and Mass Transfer I 3 Credit Hours Prerequisite: CH E 2033; MATH 2443 or 2934 or concurrent enrollment in 2443 or 2934; completion or concurrent enrollment in PHYS 2524 and completion or concurrent enrollment in MATH 3113. The common mathematical and physical basis of these processes is presented. Calculation methods for all three processes are developed. Design procedures of equipment for fluid flow, heat transfer and diffusional processes are given. (Sp)
CH E 3123 Momentum, Heat and Mass Transfer II 3 Credit Hours Prerequisite: CH E 3113 and MATH 3113. The common mathematical and physical basis of these processes is presented. Calculation methods for all three processes are developed. Design procedures of equipment for fluid flow, heat transfer and diffusional processes are given. (F)

CHE 3313 Structure and Properties of Materials 3 Credit Hours Prerequisite: CHEM 1415 or CHEM 1425 or CHEM 1435, PHYS 2524, and CHE 3123 or instructor permission. The behavior of materials under various conditions and environments is correlated to atomic and molecular structure and bonding. (Sp)

## CH E 3333 Separation Processes

3 Credit Hours
Prerequisite: CH E 3123 and CH E 3473. Coverage of the fundamentals and modeling techniques of various separation processes found in the chemical process industries. Discussion of various computational approaches for binary and multicomponent separations; factors affecting efficiency, capacity and energy requirements. (Sp)
CH E 3432 Unit Operations Laboratory
2 Credit Hours
Prerequisite: CH E 3123, CH E 3333 or concurrent enrollment in CH E 3333, and CH E 3473. Experimental examination of processes involving fluid flow, heat and mass transfer, kinetics and process control. Process parameters and physical properties are measured. Results are presented in written reports and oral presentations. Laboratory. (Sp)
CH E 3440 Mentored Research Experience 3 Credit Hours
0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)
CH E 3473 Chemical Engineering Thermodynamics 3 Credit Hours Prerequisite: CH E 2033, CH E 3113, MATH 2443 or 2934, and CHEM 3423; junior standing. Application of the first and second laws of thermodynamics to the analysis of phase change, solution behavior and chemical equilibria and reaction. (F)
CHE 3723 Numerical Methods for Engineering Computation 3 Credit Hours
Prerequisite: CHE 2003 and MATH 3113 or 3413. Course uses specific software applications tailored toward chemical engineering. Basic methods for obtaining numerical solutions with a digital computer. Included are methods for the solutions of algebraic and transcendental equations, simultaneous linear equations, ordinary and partial differential equations, and curve fitting techniques. The methods are compared with respect to computational efficiency and accuracy. (F)

## CHE 3953 Undergraduate Research

3 Credit Hours
Prerequisite: Permission of instructor. Students work on an individual research project in Chemical Engineering. (F, Sp, Su)
CH E 3960 Honors Reading 1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Consists of topics designated by the instructor in keeping with the student's major program. Covers materials not usually presented in the regular courses. (F, Sp, Su)
CH E 3970 Honors Seminar 1-3 Credit Hours 1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. The projects covered will vary. Deals with concepts not usually presented in regular coursework. (Irreg.)

## CH E 3983 Honors Research

3 Credit Hours
Prerequisite: Admission to Honors Program, and instructor permission. Provides an opportunity for the Honors candidate to work on a special project in the student's field. Laboratory (F, Sp, Su)

CH E G4153 Process Dynamics and Control
3 Credit Hours
Prerequisite: 4473. Formulation of first-order models for storage tanks, chemical reactors and heated, stirred tanks; transient and steady-state process dynamics; three-mode control of unit operations; higher-order systems and counter-current operations; analog simulation and digital control of chemical processes. (F)

CH E 4203 Bioengineering Principles
3 Credit Hours
(Slashlisted with CH E 5203) Prerequisite: MATH 3113 and PHYS 2524; or permission of instructor. Principles of bioengineering including biomechanics of solids and fluids and mass transfer as they apply to the human body, biomaterials, drug delivery, and tissue engineering. No student may earn credit for both 4203 and 5203. (Sp)

CH E 4243 Biochemical Engineering
3 Credit Hours
(Slashlisted with CH E 5243; Crosslisted with BME 4243) Prerequisite: CH E 3113 or permission of instructor. Current bioprocesses for reaction and separation with emphasis on fundamental principles of chemical engineering, biochemistry, and microbiology. No student may earn credit for both 4243 and 5243. (Sp)
CH E G4253 Process Design \& Safety
3 Credit Hours
Prerequisite: Graduate standing or CH E 3333. Processes and process equipment design including safety considerations; technical design of units combined into plants. (F)

CH E G4262 Chemical Engineering Design Laboratory 2 Credit Hours Prerequisite: CH E 3432 and CH E 4253 or concurrent enrollment in CH E 4253. Experimental techniques for the acquisition of pilot plant data, using unit operations equipment and reactors for use in process design. Results are presented in written reports and oral presentations. Laboratory. (F)
CH E G4273 Advanced Process Design
3 Credit Hours
Prerequisite: CH E 3333, CH E 4153, CH E 4253, CH E 4262, and
CHE 4473. Process and process equipment design, complete design of process plants including complete flow sheets, estimated plant costs, costs of process development, economics of investment. Results are presented in written reports and oral presentations. (Sp) [V].
CH E 4281 Engineering Co-Op Program 1 Credit Hour (Crosslisted with AME, CEES, C S, ECE, EPHY, ISE and BME 4281) Prerequisite: Departmental permission and junior standing. May be repeated; maximum credit 6 hours. The Co-Op program provides students an opportunity to enhance their education via career exploration in related professional work experiences. Course assignments help students articulate their experiences by completing journals; mid-term paper; final paper and/or final presentation. Faculty receive an evaluation from the student's Co-Op supervisor who monitors performance. Faculty collaborate with the Co-Op supervisor to ensure student success. (F, Sp, Su )
CH E 4323 Chemical Process Sustainability 3 Credit Hours
Prerequisite: permission of instructor. Concepts of sustainability relevant to chemical processes, including energy and waste minimization, reduction, of greenhouse gas emissions, economic impact of sustainable practices. (Sp)
CH E 4373 Tissue Engineering
3 Credit Hours
(Slashlisted with CH E 5373; Crosslisted with BME 4373) Prerequisite: senior standing or permission of instructor. Examines the background and recent advances in the science of combining multiple cell types with an appropriate support to provide a construct that can replace or support damaged tissue. No student may earn credit for both 4373 and 5373. (Irreg.)

CH E 4423 Genetic Engineering and Biotechnology 3 Credit Hours
(Slashlisted with CH E 5423; Crosslisted with BME 4423) Prerequisite: Permission of instructor for upper-class undergraduates. The course will cover state-of-the-art technologies of manipulating and controlling genes and genomes with a goal of engineering human and non-human cells for health and industrial applications. No student may earn credit for both 4423 and 5423. (F)

CH E G4473 Kinetics
3 Credit Hours
Prerequisite: 3473,3723 , Mathematics 3113 . Fundamentals of rates, homogeneous isothermal reactions, non-isothermal reactions, reactors and design, heterogeneous reactions, fixed and fluidized bed reactors, experimental data reduction, non-ideal flow reaction systems. (Sp)

CH E 4583 Advanced Techniques in Biomanufacturing 3 Credit Hours (Slashlisted with CH E 5583) Prerequisite: CHE 4373 or CHE 5373 or BME 5373 or CHE 4423 or CHE 5423 or BME 5423; co-requisite CHE 4243 or ChE 5243 or BME 5243; or permission of instructor. Biomanufacturing is a multidisciplinary program that requires a strong collaboration among diverse functional groups. This course aims to impact knowledge about biomanufacturing workflow including fermentation, and downstream bioprocessing, with a focus on biological products, design and industrial practices. The main objective is to train students to develop hands-on experience through working with advanced unit operations being used in this field. No student may earn credit for both 4583 and 5583. (Sp)

CH E 4953 Undergraduate Research II
3 Credit Hours
Prerequisite: CHE 3953 and permission of instructor. Students interested in pursuing and advanced Chemical Engineering degree work on an individual research project in Chemical Engineering. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

CH E 4960 Directed Readings
1-4 Credit Hours
1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean. May be repeated; maximum credit four hours. Designed for upper-division students who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)

## CH E 4970 Special Topics/Seminar

1-3 Credit Hours
1 to 3 hours. Prerequisite: Senior standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

## CH E 4983 Honors Research II

3 Credit Hours
Prerequisite: CHE 3983, admission to Honors Program and instructor permission. Honors students interested in pursuing an advanced CH E degree work on an individual research project in Chemical Engineering. (F, $\mathrm{Sp}, \mathrm{Su}$ )

## CH E 4990 Independent Study

1-3 Credit Hours
1 to 3 hours. Prerequisite: Senior standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)

## CHE 5003 Management \& Leadership

3 Credit Hours
Prerequisite: MATH 1914 or equivalent and graduate standing. The graduates will master the differences between management and leadership, will be able to assemble teams based on main personality traits, will effectively design risk mitigation strategies, and will be proficient in managing financial resources. Invited speakers from academia and industry will allow the graduates understand that effective management/leadership depends on the circumstances. (F)

CH E 5013 Decision \& Risk Analysis
3 Credit Hours
Prerequisite: MATH 1914 or equivalent and graduate standing. The graduates will master methods for predicting capital and operational costs of chemical plants, approaches for the quantification of uncertainties and how such uncertainty could affect the profitability of industrial operations, and the most common approaches for decision making in industry, with their pros and cons. Industrial speakers will provide a framework for the material discussed in class. (Sp)

CH E 5023 Challenge Group Project
3 Credit Hours
Prerequisite: MATH 1914 or equivalent and graduate standing. The Challenge consists primarily of a group research project on a topic relevant to the MS in Sustainability. Projects will be offered by Faculty members in the School of Chemical, Biological and Materials Engineering. The instructor will coordinate the activities and assign some individual tasks. Specialistic presentations will be offered to support the projects development. (Su)

CH E 5033 Environmental Separations
3 Credit Hours
Prerequisite: MATH 1914 or equivalent and graduate standing.
The graduates will master fundamentals and applied aspects of: 1. Sustainable aspects of gas and liquid separations 2. Emergent technologies for the prevention and remediation of liquid contamination. The course will cover existing technologies, as well as current cuttingedge research in these fields, with an emphasis on the potential applicability in the field. (F)

CH E 5043 Business Sustainability
3 Credit Hours
Prerequisite: MATH 1914 or equivalent and graduate standing. The graduates will be able to plan and assess the efficacy of business strategies to ensure the sustainability of commercial operations. In particular, the graduates will be able to (a) Achieve and maintain the social license to operate; (b) Operate within the boundaries of environmental regulations; and (c) Promote the goals of a diverse, inclusive, and equitable work force. (Sp)

CH E 5053 Carbon Capture \& Utilization 3 Credit Hours
Prerequisite: MATH 1914 or equivalent and graduate standing. The graduates will quantify pros and cons of cutting-edge technologies available for capturing, storing, and utilizing CO2 (CCUS). They will become familiar with technological developments in catalysis (for carbon utilization), materials design (carbon capture), and sequestration (geological repositories, hydrates, mineralization, direct capture from air). The graduates will quantify capital and operational costs associated with these technologies. (Sp)

CH E 5063 Sustainable Energy Applications
3 Credit Hours
Prerequisite: Graduate standing. This class presents the fundamental concepts of thermal-, electro-, and photo-catalysis and then builds on that knowledge to cover important sustainable energy conversion applications. Topics to be covered include fuel cells, water electrolyzers, CO2 conversion to valuable fuels and chemicals, ammonia synthesis, batteries and other state-of-the-art technologies. (F)

CH E 5123 Sustainable Separations
3 Credit Hours
Prerequisite: Graduate Standing or Permission of Instructor. Students will learn the fundamentals of membrane separations. Lectures will connect the mechanism of small molecule transport in polymer membranes to the design of functional membrane materials exhibiting pre-assigned permeability, selectivity, and durability. Details of a variety of membrane processes for gas, vapor, organic liquid and water separation, as well as selective ion separation, will be presented and discussed. (Sp)

CHE5133 Water Sustainability
3 Credit Hours
(Crosslisted with CEES 5133) Prerequisite: Chemical Engineering Graduate standing or permission of instructor. Introduction to water reclamation and reuse. Wastewater characteristics. Conventional approaches for wastewater treatment. Emerging materials and technologies for water remediation. Water reuse applications and outlook. (Irreg.)
CH E 5143 Multiscale Modeling of Matter 3 Credit Hours Prerequisite: Chemical Engineering Graduate standing or permission of instructor; CH E 5971. The course is suitable for students who are already familiar with classical thermodynamics, differential and integral calculus. This course covers multiscale modeling methods at atomistic and meso scales. By a combination of method discussions and hands-on tutorials, students will learn fundamentals of structures and properties of matter. Both molecular dynamics simulation and Monte Carlo method will be discussed in detail. (F)

## CHE5163 Heterogeneous Catalysis

3 Credit Hours
Prerequisite: Chemical Engineering Graduate standing or permission of instructor; CHE5971. Physical characterization of heterogeneous catalysts; catalytic activity of metals, semiconductors, solid acids, and shape-selective materials. Theories of catalytic activity, catalytic reactors, basics of catalyst surface characterization and activity measurement. (F)
CH E 5183 Graduate Transport Phenomena 3 Credit Hours
Prerequisite: Chemical Engineering Graduate standing or permission of instructor; CH E 5971. Fundamentals of the theory of transport process; heat, mass, momentum transfer combined with chemical reactions; derivation of different equations to describe processes and process units; analytical and numerical solutions of systems of describing equations. (F)

CH E 5203 Bioengineering Principles
3 Credit Hours
(Slashlisted with CHE 4203) Prerequisite: MATH 3113 and PHYS 2524; graduate standing. Principles of bioengineering for the areas of the biomechanics of solids and fluids, mass transfer, biomaterials, electrical networks, imaging, and ionizing radiation as they apply to the human body. No student may earn credit for both 4203 and 5203. (Sp)
CHE5213 Experimental Methods in Materials Research 3 Credit Hours Prerequisite: Graduate standing or permission of instructor; CHE 5971. Course will focus on theory and application of experimental techniques to characterize hard and soft materials including metals, ceramics, polymers, and composites. This course will include lectures, lab visits with demonstrations, and hands-on laboratory activities. (Sp)

## CH E 5223 Refining Principles

3 Credit Hours
Prerequisite: Chemical Engineering Graduate standing or permission of instructor; CHE5971. Introduction to petroleum refining and how feedstocks are valued and selected. Covers more in-depth operation and modeling of several treatment and conversion processes including hydrotreating, catalytic cracking, hydrocracking, and coking. Additional concepts covered include crude oil fractionation, solids handling, and an introduction to several supporting processes. ( Sp )
CH E 5233 Colloidal Assembly 3 Credit Hours
Prerequisite: Chemical Engineering Graduate standing or permission of instructor; CH E 5971. The aim of this course is to provide fundamental knowledge of colloid and interface science with a focus on the assembly phenomenon at the nano and colloidal scale. The concepts discussed in this class will equip students with essential skills helpful in understanding and analyzing literature that entails colloidal building blocks. (F)

CH E 5243 Biochemical Engineering
3 Credit Hours
(Slashlisted with CH E 4243; Crosslisted with BME 5243) Prerequisite: CH E 5971; Chemical Engineering Graduate standing or permission of instructor. Current bioprocesses for reaction and separation with emphasis on fundamental principles of chemical engineering, biochemistry, and microbiology. No student may earn credit for both 4243 and 5243. (Sp)
CH E 5263 Industrial and Environmental Transport Processes 3 Credit Hours
Prerequisite: Chemical Engineering Graduate standing or permission of instructor; CH E 5971. This course is designed to introduce students to areas in transport phenomena that are critical to common applications. We will cover theory, predictive modeling, applications and numerical methods for multiphase flows (gas-liquid and flows with small particles), turbulent flows with transport of heat or mass, and (time permitting) microfluidics. (Sp)
CH E 5293 Transport in Biological Systems
3 Credit Hours
(Crosslisted with BME 5293) Prerequisite: Chemical Engineering Graduate standing or permission of instructor; CH E 5971. Theoretical and practical aspects of transport phenomena in living organisms and biomedical technologies. Applications include hemorheology, drug delivery, extracorporeal circulation, and artificial organs. (Irreg.)
CH E 5323 Sustainable Engineering Principles
3 Credit Hours
Prerequisite: Chemical Engineering Graduate standing or permission of instructor; CH E 5971. Basic concepts of sustainability will be discussed including elements relevant to materials manufacturing, chemical processes, energy production, waste minimization, and reduction of greenhouse gas emissions. Emphasis will be given to equity, diversity, and inclusion in the workplace. Students will also learn to quantify the environmental impact of materials, products and processes via the implementation of a life cycle assessment. (F)
CH E 5333 Sustainable Polymer Manufacturing 3 Credit Hours
Prerequisite: Chemical Engineering Graduate standing or permission of instructor; CH E 5971. Course will provide opportunities for students to develop skills necessary to understand the basic principles of polymer life cycles, polymer properties and environmental footprints, manufacturing, design guidelines for sustainability, and recycling/ upcycling. Provides an overview of the contradictory positive and negative characteristics of polymers with respect to sustainability. Discuss conventional processing and additive manufacturing methods for producing polymeric parts and goods. (F)
CH E 5343 Sustainable Process Design
3 Credit Hours
Prerequisite: Chemical Engineering graduate standing or permission of instructor; CHE5971. This course will cover concepts of sustainable design of chemical processes, including issues related to energy usage and GHG emissions, long-term availability of raw materials, and changes to process design that can lead to sustainable outcomes, including 'green' chemistry options. (Sp)

## CH E 5353 Emerging Technologies toward Water Sustainability 3 Credit Hours

Prerequisite: Chemical Engineering Graduate standing or permission of instructor; CH E 5971. This course will provide an introduction to water reclamation and reuse, wastewater characteristics, conventional approaches for wastewater treatment, emerging materials and technologies for water remediation, and water reuse applications and outlook. (F)

CH E 5373 Tissue Engineering
(Slashlisted with CH E 4373; Crosslisted with BME 5373) Prerequisite: CH E 5971; graduate standing, admission into Gallogly College of Engineering or permission of instructor. Examines the background and recent advances in the science of combining multiple cell types with an appropriate support to provide a construct that can replace or support damaged tissue. No student may earn credit for both 4373 and 5373. (Irreg.)
CH E 5393 Rheology of Complex Fluids
3 Credit Hours
(Crosslisted with P E 5393) Prerequisite: Chemical Engineering Graduate standing or permission of instructor; CH E 5971. Develop skills necessary to understand the basic principles of rheological and viscoelastic properties of complex fluids, such as polymer melts and solutions, emulsions, suspensions, multiphase flow, etc. Covers the flow behavior of non-Newtonian fluids and viscoelastic fluids. Newtonian fluid mechanics will be reviewed to describe the standard flows for rheology. Rheometry, the technique for characterization of fluids, will be discussed. (Sp)

CH E 5423 Genetic Engineering and Biotechnology 3 Credit Hours
(Slashlisted with CH E 4423; Crosslisted with BME 5423) Prerequisite: Graduate standing in CBME or SBME, or permission of instructor. The course will cover state-of-the-art technologies of manipulating and controlling genes, genomes and cellular pathways with a goal of engineering human (stem) cells and microbes for health, environmental and industrial applications. No student may earn credit for both 4423 and 5423. (F)

CH E 5453 Polymer Science and Engineering 3 Credit Hours (Crosslisted with BME 5453) Prerequisite: Chemical Engineering Graduate standing or permission of instructor; CH E 5971. This course will be focused on the synthesis, characterization, processing, and properties of state-of-the-art polymeric and multicomponent polymeric materials. Students should come into the course with a background knowledge of polymers such as that found in an Engineering Materials and/or Organic Chemistry Course. (Sp)
CH E 5463 Polymer Processing
3 Credit Hours
Prerequisite: Chemical Engineering Graduate standing or permission of instructor; CH E 5971. The theory and practice of the production of finished polymer shapes (tubes, sheets, fibers, bottles, etc.) from polymeric raw materials. (Alt. F)

CH E 5480 Topics in Chemical Engineering
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor.
May be repeated with change of content. Seminar course in specialized topics in chemical engineering. (Irreg.)
CH E5523 Advanced Mathematical Methods in Science and Engineering 3 Credit Hours
Prerequisite: Chemical Engineering Graduate standing or permission of instructor; CH E 5971. Scale and vector field theory. Ordinary and partial differential equations. Matrix algebra. Complex analysis. (F)

CH E 5533 Materials Design for Energy Application 3 Credit Hours Prerequisite: Chemical Engineering Graduate standing or permission of instructor; CH E 5971. This course is focused on electrochemical engineering and its application in several energy-related research areas such as lithium ion batteries, fuel cells, and water electrolysis and photolysis. We will introduce basic principles of electrochemistry and materials science and discuss various issues in these energy-related applications and how to address them from a materials science and engineering perspective. (Irreg.)

CH E 5583 Advanced Techniques in Biomanufacturing 3 Credit Hours (Slashlisted with CH E 4583) Prerequisite: CHE 5373 or BME 5373 or CHE 5423 or BME 5423; co-requisite CHE 5243 or BME 5243; graduate standing or permission of instructor. Biomanufacturing is a multidisciplinary program that requires a strong collaboration among diverse functional groups. This course aims to impact knowledge about biomanufacturing workflow including fermentation, and downstream bioprocessing, with a focus on biological products, design and industrial practices. The main objective is to train students to develop hands-on experience through working with advanced unit operations being used in this field. No student may earn credit for both 4583 and 5583. (Sp)
CH E 5673 Colloid and Surface Science 3 Credit Hours
(Crosslisted with CEES 5673) Prerequisite: Chemical Engineering Graduate standing or permission of instructor. Capillarity, surface thermodynamics, adsorption from vapor and liquid phases, contact angles, micelle formation, solubilization, emulsions and foams. Applications to be discussed include detergency, enhanced oil recovery and adsorption for pollution control. (Irreg.)
CH E 5843 Advanced Chemical Engineering Thermodynamics 3 Credit
Prerequisite: Chemical Engineering Graduate standing or permission of instructor; CH E 5971. Advanced thermodynamics as applied to engineering problems and design. ( $F$ )

CH E 5960 Directed Readings
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing and permission of department. May be repeated; maximum credit twelve hours. Directed readings and/or literature reviews under the direction of a faculty member. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
CHE5970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: Chemical Engineering Graduate standing or permission of instructor; CH E 5971; May be repeated, maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)
CH E 5971 Seminar in Chemical Engineering Research 1 Credit Hour Prerequisite: Graduate Standing or departmental permission. Speakers from academia and industry elaborate on methods and results from research in their areas of expertise to provide the student with an appreciation of the problems of current interest in chemical engineering. ( $\mathrm{F}, \mathrm{Sp}$ )

CH E 5980 Research for Master's Thesis
2-9 Credit Hours
Variable enrollment, two to nine hours; maximum credit applicable toward degree, six hours. Laboratory ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

CH E 5990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)
CH E 6522 Designing Circular Materials
2 Credit Hours
Prerequisite: Graduate standing or instructor permission. This course will adapt the economic concept of 'circular economy' to the design of new materials and products for a variety of practical applications, including recycling and up-cycling. Techniques to quantify sustainability in materials science will also be introduced.

## CH E 6523 Materials Discovery <br> 3 Credit Hours <br> Prerequisite: Graduate standing or instructor permission. This course

 will introduce a variety of cutting-edge computational tools, ranging from data analysis to simulations, from machine learning to artificial intelligence, and others, and will discuss methods in which these techniques can be used to discover new advanced materials for a variety of cutting-edge applications. (F, Sp)
## CH E 6524 Advanced Characterization of Materials 4 Credit Hours

Prerequisite: Graduate standing or instructor permission. This course will explore several cutting-edge experimental techniques currently used to characterize the electronic, atomic, and molecular structure of materials. The course will have both class and laboratory sections. (F, Sp)

## CH E 6533 Fundamentals of Materials Structural Properties 3 Credit

 HoursPrerequisite: Graduate standing or instructor permission. This course will explore the molecular features of different materials, including but not limited to metals, ceramics, and polymers. The relation between structure and properties of these materials will be developed, achieving a quantitative understanding of how defects can lead to peculiar properties, or perhaps failure. (F, Sp)

## CHE 6723 Advanced Kinetics and Reaction Engineering 3 Credit Hours

 Prerequisite: Chemical Engineering Graduate standing or permission of instructor; CH E 5971. Understanding and analysis of complex kinetics and reactor systems: free radical and cracking reactions, polymerization, biokinetics and catalytic kinetics with mass heat transfer limitations. Advanced reactor systems such as catalytic fixed bed reactors in oneand two-dimensions, equilibrium limited reaction systems, fluidized and trickle bed reactors, etc. are considered. (F)CH E 6960 Directed Readings 1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit six hours. Directed readings and/or literature review under the direction of a faculty member. (Irreg.)

## CH E 6970 Special Topics/Seminar 1-3 Credit Hours

1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit 12 hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or research and field projects. (Irreg.)

## CH E 6980 Research for Doctoral Dissertation 2-16 Credit Hours

2 to 16 hours. Prerequisite: Chemical Engineering Graduate standing or permission of instructor; CH E 5971 Laboratory. Directed research culminating in the completion of the doctoral dissertation. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
CH E 6990 Special Chemical Engineering Problems 1-2 Credit Hours 1 to 2 Hours. Prerequisite: permission. May be repeated; maximum credit four hours. Special research problems are pursued by the students either as individuals or as a group under staff direction. (F, Sp, Su)

## Faculty

| Last Name | First/Middle <br> Name | Middle init. | OU <br> Service start | Title(s), date(s) appointed | Degrees Earned, Schools, Dates Completed |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Bajpai | Vivek |  | 2023 | ASSISTANT <br> PROFESSOR <br> SUSTAINABLE <br> CHEMICAL, <br> BIOLOGICAL <br> AND MATERIALS <br> ENGINEERING 2023 | Ph.D. Chemical Engineering (2015) Univ at Buffalo-SUNY; M.S. Biological Sciences \& Bioengineering (2008) Indian Institute of Technology Kanpur (India); M.B.B.S. Medicine \& Surgery (2005) Maharani Laxmi Bai Medical College (India) |
| Bui | Ngoc |  | 2020 | ASSISTANT <br> PROFESSOR <br> SUSTAINABLE <br> CHEMICAL, <br> BIOLOGICAL, <br> AND MATERIALS <br> ENGINEERING 2020 | PhD, Univ of Connecticut, 2014; MS Chonnam National Univ, 2007; BS HoChiMinh City Univ of Technology, 2005 |
| Crossley | Steven |  | 2011 | PROFESSOR OF SUSTAINABLE CHEMICAL, BIOLOGICAL AND MATERIALS ENGINEERING, 2017; SAM A. WILSON PROFESSOR OF CHEMICAL ENGINEERING, 2017; ROGER AND SHERRY TEIGEN PRESIDENTIAL PROFESSOR, 2017 | PhD, Univ of Oklahoma, 2009; BS, Univ of Oklahoma, 2004 |
| Foudazi | Reza |  | 2021 | ASSOCIATE <br> PROFESSOR OF <br> SUSTAINABLE <br> CHEMICAL, <br> BIOLOGICAL <br> AND MATERIALS <br> ENGINEERING 2021 | Doctorate of Technology in Chemical Engineering, Cape Peninsula Univ of Technology, Cape Town, South Africa (2007-2010); <br> Master in Polymer Engineering at Amirkabir Univ of Technology (Tehran Polytechnic), Tehran, Iran (2002 2004); Bachelor in Polymer Engineering, Amirkabir Univ of Technology (Tehran Polytechnic), Tehran, Iran (1998-2002) |
| Galizia | Michele |  | 2017 | ASSOCIATE PROFESSOR OF SUSTAINABLE CHEMICAL, BIOLOGICAL AND MATERIALS ENGINEERING, 2017 | PhD, Univ of Bologna 2010; MS, Univ of Bologna, 2006 |


| Gao | Jie |  | 2018 | ASSOCIATE <br> PROFESSOR OF <br> SUSTAINABLE <br> CHEMICAL, <br> BIOLOGICAL <br> AND MATERIALS <br> ENGINEERING, 2018 | PhD, East China Univ of Science \& Tech, 2010; BS, East China Univ of Science \& Tech, 2005 | Lobban | Lance | L | 1987 | FRANCIS W. WINN CHAIR IN SUSTAINABLE CHEMICAL, BIOLOGICAL AND MATERIALS ENGINEERING, | PhD, Univ of Houston, 1987; BS, Univ of Kansas, 1981 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Grady | Brian |  | 1994 | PROFESSOR <br> OF CHEMICAL, <br> BIOLOGICAL <br> AND MATERIALS <br> ENGINEERING, <br> 2005; PRESIDENT'S <br> ASSOCIATES <br> PRESIDENTIAL <br> PROFESSOR, 2006 | PhD, Univ of Wisconsin, 1994; BS, Univ of Illinois, 1987 |  |  |  |  | 2000; PROFESSOR OF SUSTAINABLE CHEMICAL, BIOLOGICAL AND MATERIALS ENGINEERING, 2000; LLOYD G. AND JOYCE AUSTIN PRESIDENTIAL PROFESSOR, 2000 |  |
| Gunasooriya | G.T. Kasun | Kalhara | 2022 | ASSISTANT <br> PROFESSOR OF <br> SUSTAINABLE <br> CHEMICAL, <br> BIOLOGICAL <br> AND MATERIALS <br> ENGINEERING 2022 | Ph.D. Chemical <br> Engineering (2019) <br> Ghent Univ, Belgium; <br> M.Eng. Chemical <br> and Biomolecular <br> Engineering (2014) <br> National Univ of <br> Singapore (NUS), | Nollert | Matthias | U |  | ASSOCIATE <br> PROFESSOR OF <br> SUSTAINABLE <br> CHEMICAL, <br> BIOLOGICAL <br> AND MATERIALS <br> ENGINEERING, 1997 | PhD, Cornell Univ, 1987; BS, Univ of Virginia, 1981 |
|  |  |  |  |  | Singapore; B.Eng. <br> Chemical and <br> Biomolecular <br> Engineering (2011) <br> National Univ of <br> Singapore (NUS), <br> Singapore | O'Rear | Edgar A. |  | 1981 | PROFESSOR OF SUSTAINABLE CHEMICAL, BIOLOGICAL AND MATERIALS ENGINEERING, 1991; DIRECTOR, | PhD, Rice Univ, 1981; <br> SM, Mass Inst of Tech, 1977; BS, Rice Univ, 1975 |
| Hahn | Horst |  | 2022 | DISTINGUISH <br> MATERIALS <br> RESEARCH <br> PROFESSOR | Ph.D. Materials <br> Physics (1982) <br> Technical Univ <br> Berlin; B.S. Materials <br> Science (1978) <br> Univ of Saarland, <br> Saarbrücken |  |  |  |  | OKLAHOMA BIOENGINEERING CENTER, 2001; FRANCIS W. WINN PROFESSOR OF SUSTAINABLE CHEMICAL, |  |
| Harrison | Roger | G | 1988 | PROFESSOR OF SUSTAINABLE CHEMICAL, | PhD, Univ of Wisconsin, 1975; MS, Univ of Wisconsin, |  |  |  |  | BIOLOGICAL <br> AND MATERIALS <br> ENGINEERING, 2001 |  |
|  |  |  |  | BIOLOGICAL <br> AND MATERIALS <br> ENGINEERING, <br> 2007; PROFESSOR <br> OF BIOMEDICAL <br> ENGINEERING, 2016 | 1969; BS, Univ of Oklahoma, 1967 | Papava | Dimitrios |  | 1999 | PRESIDENT'S ASSOCIATES PRESIDENTIAL PROFESSOR, 2006; PROFESSOR OF SUSTAINABLE | PhD, Univ of Illinois, 1996; MS, Univ of Illinois, 1993; BS, Aristotle Univ, 1989 |
| Huang | Liangliang <br> (Paul) |  | 2014 | ASSOCIATE <br> PROFESSOR OF <br> SUSTAINABLE <br> CHEMICAL, <br> BIOLOGICAL <br> AND MATERIALS <br> ENGINEERING, 2014 | PhD, North Carolina <br> State Univ 2012; BS, <br> Nanjing Univ of Tech, 2003 |  |  |  |  | CHEMICAL, <br> BIOLOGICAL <br> AND MATERIALS <br> ENGINEERING, 2009; <br> C.M. SLIEPCEVICH <br> PROFESSOR <br> OF CHEMICAL <br> ENGINEERING, 2014 |  |
| Klier | John |  | 2020 | GCOE DEAN, AT\&T CHAIR, PROFESSOR | B.S. in Chemical <br> Engineering <br> Massachussets <br> Institute of <br> Technology 1984; <br> M.S. in Chemical <br> Engineering Purdue <br> 1986; Ph.D. in <br> Chemical Engineering <br> Purdue 1989 | Razavi | Sepideh |  | 2018 | ASSOCIATE <br> PROFESSOR OF <br> SUSTAINABLE <br> CHEMICAL, <br> BIOLOGICAL <br> AND MATERIALS <br> ENGINEERING, 2018; <br> SUSAN K. MALLISON <br> PROFESSOR, 2024 | PhD, City College of New York, 2015; MS, City College of New York, 2012; MS, Sharif Univ of Tech, 2007; BS, Arak Univ, 2005 |


| Resasco | Daniel | 1993 | EMERITUS FACULTY, $2024$ | Ph.D., Chemical <br> Engineering 1984- <br> Yale University; BS, <br> Chemical Engineering <br> 1975 - Universidad <br> Nacional del Sur, <br> Argentina |
| :---: | :---: | :---: | :---: | :---: |
| Sikavitsas | Vassilios | 2002 | PROFESSOR OF SUSTAINABLE CHEMICAL, BIOLOGICAL AND MATERIALS ENGINEERING, 2018; UNDERGRADUATE STUDIES CHAIR, 2016 | PhD, SUNY at Buffalo, 2000; MS, SUNY at Buffalo, 1995; Diploma, Aristotle Univ, 1991 |
| Striolo | Alberto | 2021 | PROFESSOR OF SUSTAINABLE CHEMICAL, BIOLOGICAL AND MATERIALS ENGINEERING 2021; ASAHI GLASS CHAIR IN CHEMICAL ENGINEERING, LLOYD AND JANE AUSTIN PRESIDENTIAL PROFESSOR | PhD in Chemical <br> Engineering (2002) <br> Univ of Padova, Italy; BS in Chemical Engineering (1998) Univ of Padova (Italy) |
| Talebnia <br> Rowshan | Farid | 2023 | RESEARCH <br> ASSISTANT <br> PROFESSOR OF <br> SUSTAINABLE <br> CHEMICAL, <br> BIOLOGICAL <br> AND MATERIALS <br> ENGINEERING 2023 | Ph.D. Biochemical <br> Engineering <br> Chalmers University <br> of Technology, <br> Gothenburg, Sweden |
| Wang | Bin | 2014 | PROFESSOR OF SUSTAINABLE CHEMICAL, BIOLOGICAL AND MATERIALS ENGINEERING, 2014 | PhD, École Normale Supérieure de Lyon, 2010; BA, East China Univ of Science \& Tech, 2004 |

## Chemical Engineering (Standard), B.S.

Minimum Total Credit Hours: 127

Overall GPA - Combined and OU: 2.00
Major GPA - Combined and OU: 2.00
Curriculum GPA - Combined and OU: 2.00

## Program Code: B160

## This program has changes pending State Regents approval for 2024/25. These pending changes are not reflected here.

Bachelor of Science in Chemical Engineering accredited by the Engineering Accreditation Commission of ABET, https://www.abet.org, under the General Criteria and the Chemical, Biochemical, Biomolecular and Similarly Named Program Criteria.

In order to progress in your curriculum in the Gallogly College of Engineering, and as a specific graduation requirement, a grade of

C or better is required in each course in the curriculum, including all prerequisite courses.
Major Requirements

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Required Courses |  |  |
| CH E 2033 | Chemical Engineering Fundamentals | 3 |
| CH E 2003 | Chemical Engineering Computing/ |  |
|  | Statistics | 3 |
| CH E 3113 | Momentum, Heat and Mass Transfer I | 3 |
| CH E 3123 | Momentum, Heat and Mass Transfer II | 3 |
| CH E 3473 | Chemical Engineering Thermodynamics | 3 |
| CH E 3723 | Numerical Methods for Engineering | 3 |
|  | Computation | 3 |
| CH E 3333 | Separation Processes | 2 |
| CH E 3432 | Unit Operations Laboratory | 3 |
| CH E 4473 | Kinetics | 2 |
| CH E 4262 | Chemical Engineering Design Laboratory | 3 |
| CH E 4153 | Process Dynamics and Control | 3 |
| CH E 4253 | Process Design \& Safety | 3 |
| CH E 4273 | Advanced Process Design | 3 |
| CH E 3313 | Structure and Properties of Materials | 40 |
| Total Credit Hours |  | 3 |

## Major Support Requirements

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Math and Science |  | 5 |
| CHEM 1435 | General Chemistry II: Signature Course | 4 |
| CHEM 3064 | Organic Chemistry I | 3 |
| CHEM 3423 | Physical Chemistry I | 4 |
| CHEM 3164 | Organic Chemistry II | 1 |
| CHEM 3421 | Physical Chemistry Laboratory | 4 |
| MATH 2924 | Differential and Integral Calculus II | 4 |
| MATH 2934 | Differential and Integral Calculus III | 3 |
| MATH 3113 | Introduction to Ordinary Differential | 4 |
|  | Equations | 4 |
| PHYS 2524 | General Physics for Engineering and | 4 |
|  | Science Majors |  |

## Technical Electives

Technical Elective I ${ }^{1} \quad 3$
Technical Elective II ${ }^{1} 3$
Advance Chemistry Elective
Chosen from approved list of courses maintained by the 3
department ${ }^{1}$
Additional College Requirements

| ENGR 1411 | Pathways to Engineering Thinking ${ }^{2}$ | 1 |
| :--- | :--- | :--- |
| ENGR 2002 | Professional Responsibilities and Skills of | 2 |
|  | Engineers and Scientists |  |
| ENGR 2411 | Applied Engineering Statics | 1 |
| ENGR 2431 | Electrical Circuits | 1 |

ENGR 3431 Electromechanical Systems 1

Total Credit Hours
${ }^{1}$ Chosen from approved list of courses maintained by the department. Technical Elective I, Technical Elective II, or the Advanced Chemistry elective must be CH E. Prior faculty approval is needed.
${ }^{2}$ Engineering transfer students may take ENGR 3511 in place of ENGR 1411.

## General Education and College Requirements

Courses designated as Core I, II, III, IV, or V are part of the General Education curriculum. Students must complete a minimum of 40 hours of General Education courses, chosen from the approved list, including at least one upper-division Gen. Ed. course outside of the student's major. Courses graded P/NP will not apply.

A grade of C or better is required in each course in the curriculum, including all prerequisite courses.

UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS

| Code Title | Credit |
| :---: | :---: |
| Core Area I: Symbolic and Oral Communication |  |
| English Composition |  |
| ENGL 1113 Principles of English Composition | 3 |
| ENGL 1213 Principles of English Composition <br> or EXPO 1213 Expository Writing | 3 |
| Language (0-10 hours in the same language) |  |
| This requirement can be met by two years of the same language in high school: | 0-10 |
| Beginning Course (0-5 hours) |  |
| Beginning Course, continued ( $0-5$ hours) |  |
| Mathematics |  |
|  | 4 |
| Core Area II: Natural Science (including one laboratory) |  |
| $\begin{array}{ll}\text { PHYS } 2514 & \begin{array}{l}\text { General Physics for Engineering and } \\ \text { Science Majors (Core II) }\end{array}\end{array}$ | 4 |
| CHEM 1315 General Chemistry (Core II-Lab) ${ }^{\text {2,3 }}$ | 5 |
| Core Area III: Social Science |  |
| P SC 1113 American Federal Government | 3 |
| Choose one course ${ }^{4}$ | 3 |
| Core Area IV: Arts \& Humanities |  |
| Artistic Forms |  |
| Choose one course ${ }^{4}$ | 3 |
| Western Culture |  |
| HIST 1483 United States to 1865 | 3 |
| or HIST 1493 United States, 1865 to the Present |  |
| Choose one course ${ }^{4}$ | 3 |
| World Culture |  |
| Choose one course ${ }^{4}$ | 3 |
| Core Area V: First-Year Experience |  |
| Choose one course ${ }^{4}$ | 3 |

${ }^{1}$ MATH 1914, MATH 2924, and MATH 2934 can be substituted with MATH 1823, MATH 2423, MATH 2433, and MATH 2443.
${ }^{2}$ Major support requirements that also satisfy University General Education requirements.
${ }^{3}$ CHEM 1315 can be substituted with CHEM 1335 or CHEM 1425.
${ }^{4}$ To be chosen from the University-Wide General Education Approved Course List. Three of these hours must be upper-division (3000-4000). See list in the Class Schedule.

## Free Electives

Electives to bring total applicable hours to the minimum total required for the degree including a minimum of 40 upper-division hours.

## Suggested Semester Plan of Study

Bachelor of Science in Chemical Engineering accredited by the Engineering Accreditation Commission of ABET, https://www.abet.org, under the General Criteria and the Chemical, Biochemical, Biomolecular and Similarly Named Program Criteria.

In order to progress in your curriculum in the Gallogly College of Engineering, and as a specific graduation requirement, a grade of C or better is required in each course in the curriculum, including all prerequisite courses. Chemical engineering courses are sequential and usually offered only in the semester shown; note prerequisites.

Two college-level courses in a single world language are required; this may be satisfied by successful completion of 2 years in a single world language in high school. Students who must take a language at the University will have an additional 6-10 hours of coursework.

Courses designated as Core I, II, III, IV or V are part of the General Education curriculum. Students must complete a minimum of 40 hours of General Education courses, chosen from the approved list.

## Freshman

| First Semester |  | Credit |
| :---: | :---: | :---: |
|  |  | Hours |
| ENGL 1113 | Principles of English Composition (Core I) | 3 |
| CHEM 1315 | General Chemistry (Core II-Lab) ${ }^{1}$ | 5 |
| MATH 1914 | Differential and Integral Calculus I (Core I) ${ }^{2}$ | 4 |
| ENGR 1411 | Pathways to Engineering Thinking ${ }^{3}$ | 1 |
| Approved Elective: First-Year Experience (Core V) ${ }^{4}$ |  | 3 |
|  | Credit Hours | 16 |

## Second Semester

| $\begin{aligned} & \text { ENGL } 1213 \\ & \text { or EXPO } 1213 \end{aligned}$ | Principles of English Composition (Core I) or Expository Writing | 3 |
| :---: | :---: | :---: |
| CHEM 1435 | General Chemistry II: Signature Course $\left(\right.$ Core II-Lab) ${ }^{1}$ | 5 |
| MATH 2924 | Differential and Integral Calculus II ${ }^{2}$ | 4 |
| PHYS 2514 | General Physics for Engineering and Science Majors (Core II) | 4 |

## Sophomore

First Semester
MATH 2934 Differential and Integral Calculus III ${ }^{2} 4$
PHYS 2524 General Physics for Engineering and 4

| CH E 2033 | Chemical Engineering Fundamentals | 3 |
| :---: | :---: | :---: |
| CHEM 3064 | Organic Chemistry I | 4 |
|  | Credit Hours | 15 |
| Second Semester |  |  |
| MATH 3113 | Introduction to Ordinary Differential Equations | 3 |
| CHEM 3164 | Organic Chemistry II | 4 |
| CHE 3113 | Momentum, Heat and Mass Transfer I | 3 |
| CHEM 3423 | Physical Chemistry I | 3 |
| CH E 2003 | Chemical Engineering Computing/ Statistics | 3 |
|  | Credit Hours | 16 |
| Junior |  |  |
| First Semester |  |  |
| CH E 3123 | Momentum, Heat and Mass Transfer II | 3 |
| CH E 3473 | Chemical Engineering Thermodynamics | 3 |
| CH E 3723 | Numerical Methods for Engineering Computation | 3 |
| CHEM 3421 | Physical Chemistry Laboratory | 1 |
| ENGR 2002 | Professional Responsibilities and Skills of Engineers and Scientists | 2 |
| Approved Elective | , Social Science (Core III) ${ }^{4}$ | 3 |
|  | Credit Hours | 15 |
| Second Semester |  |  |
| CH E 3333 | Separation Processes | 3 |
| CH E 3432 | Unit Operations Laboratory | 2 |
| CH E 4473 | Kinetics | 3 |
| HIST 1483 or HIST 1493 | United States to 1865 (Core IV) or United States, 1865 to the Present | 3 |
| Approved Electiv | , Western Culture (Core IV) ${ }^{4}$ | 3 |
| Approved Electiv | , Artistic Forms (Core IV) ${ }^{4}$ | 3 |
|  | Credit Hours | 17 |
| Senior |  |  |
| First Semester |  |  |
| P SC 1113 | American Federal Government (Core III) | 3 |
| CHE 4153 | Process Dynamics and Control | 3 |
| CH E 4253 | Process Design \& Safety | 3 |
| CH E 4262 | Chemical Engineering Design Laboratory | 2 |
| ENGR 2431 | Electrical Circuits ${ }^{5}$ | 1 |
| ENGR 3431 | Electromechanical Systems ${ }^{5}$ | 1 |
| Technical Elective ${ }^{6}$ |  | 3 |
|  | Credit Hours | 16 |
| Second Semester |  |  |
| CH E 4273 | Advanced Process Design | 3 |
| CH E 3313 | Structure and Properties of Materials | 3 |
| Technical Elective II ${ }^{6}$ |  | 3 |
| Advanced Chemi maintained by de | stry Elective chosen from approved list partment (p. 1279) ${ }^{6}$ | 3 |
| Approved Electiv | , World Culture (Core IV) ${ }^{4}$ | 3 |
| ENGR 2411 | Applied Engineering Statics | 1 |
|  | Credit Hours | 16 |
|  | Total Credit Hours | 127 |

${ }^{1}$ CHEM 1315 can be substituted with CHEM 1335 or CHEM 1425 (H) (Fall only). CHEM 1435 can be substituted with CHEM 1415.
2 MATH 1823, MATH 2423, MATH 2433, and MATH 2443 sequence can be substituted for MATH 1914, MATH 2924, and MATH 2934.
${ }^{3}$ Engineering transfer students may take ENGR 3511 in place of ENGR 1411.
${ }^{4}$ To be chosen from the University-Wide General Education Approved Course List. Three of these hours must be upper-division (3000-4000). See list in the Class Schedule.
${ }^{5}$ It is recommended that ENGR 2431 and ENGR 3431 be taken in the same semester. The courses are offered in sequential five-week blocks during the semester.
${ }^{6}$ One of the Technical Elective I, Technical Elective II, or the Advanced Chemistry elective must be CH E. Prior faculty approval is needed.

## Advanced Chemistry Electives Course Lists

## Approved list of advanced chemistry electives maintained by School of Chemical Engineering <br> - For most current course lists, please consult the School of Chemical Engineering.

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| CHEM 3523 | Physical Chemistry II | 3 |
| CHEM 3653 | Introduction to Biochemistry | 3 |
| CHEM 4333 | Advanced Inorganic Chemistry-Periodic | 3 |
|  | System | 3 |
| CH E 5163 | Heterogeneous Catalysis | 3 |
| CH E 5213 | Experimental Methods in Materials | 3 |
| CH E 5223 | Research | 3 |
| CH E 5243 | Refining Principles | 3 |
| CH E 5373 | Tissue Engineering | 3 |
| CH E 5453 | Polymer Science and Engineering | 3 |
| CH E 5533 | Materials Design for Energy Application | 3 |
| CH E 5673 | Colloid and Surface Science | 3 |

## Chemical Engineering - Bioengineering Option, B.S.

Minimum Total Credit Hours: 128
Overall GPA - Combined and OU: 2.00
Major GPA - Combined and OU: 2.00
Curriculum GPA - Combined and OU: 2.00
Program Code: B164

## This program has changes pending State Regents approval for 2024/25. These pending changes are not reflected here.

Bachelor of Science in Chemical Engineering accredited by the Engineering Accreditation Commission of ABET, https://www.abet.org,
under the General Criteria and the Chemical, Biochemical, Biomolecular and Similarly Named Program Criteria.

In order to progress in your curriculum in the Gallogly College of Engineering, and as a specific graduation requirement, a grade of C or better is required in each course in the curriculum, including all prerequisite courses.

## Major Requirements

| Code | Title | Credit Hours |
| :---: | :---: | :---: |
| Required Courses |  |  |
| CH E 2033 | Chemical Engineering Fundamentals | 3 |
| CH E 2003 | Chemical Engineering Computing/ Statistics | 3 |
| CHE 3113 | Momentum, Heat and Mass Transfer I | 3 |
| CH E 3123 | Momentum, Heat and Mass Transfer II | 3 |
| CH E 3473 | Chemical Engineering Thermodynamics | 3 |
| CH E 3723 | Numerical Methods for Engineering Computation | 3 |
| CH E 3333 | Separation Processes | 3 |
| CH E 3432 | Unit Operations Laboratory | 2 |
| CH E 4473 | Kinetics | 3 |
| CH E 4262 | Chemical Engineering Design Laboratory | 2 |
| CH E 4153 | Process Dynamics and Control | 3 |
| CH E 4253 | Process Design \& Safety | 3 |
| CH E 4273 | Advanced Process Design | 3 |
| CH E 3313 | Structure and Properties of Materials | 3 |

Total Credit Hours

## Major Support Requirements

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Math and Science |  |  |
| BIOL 1124 | Intro Biol: Molecule/Cell/Phys | 4 |
| CHEM 1435 | General Chemistry II: Signature Course | 5 |
| CHEM 3053 | Organic Chemistry I: Biological Emphasis | 3 |
| CHEM 3152 | Organic Chemistry Laboratory: Biological | 2 |
|  | Emphasis |  |
| CHEM 3423 | Physical Chemistry I | 3 |
| CHEM 3421 | Physical Chemistry Laboratory | 1 |
| MATH 2924 | Differential and Integral Calculus II | 4 |
| MATH 2934 | Differential and Integral Calculus III | 4 |
| MATH 3113 | Introduction to Ordinary Differential | 3 |
| PHYS 2524 | Equations | General Physics for Engineering and |

Technical Electives
Technical Elective I $^{1}$
Technical Elective II
Bioengineering Core Electives
CH E $4203 \quad$ Bioengineering Principles
or CH E 524ミBiochemical Engineering

Additional College Requirements

| ENGR 1411 | Pathways to Engineering Thinking ${ }^{2}$ | 1 |
| :--- | :--- | ---: |
| ENGR 2002 | Professional Responsibilities and Skills of | 2 |
|  | Engineers and Scientists |  |
| ENGR 2411 | Applied Engineering Statics | 1 |
| ENGR 2431 | Electrical Circuits | 1 |
| ENGR 3431 | Electromechanical Systems | 1 |
| Total Credit Hours | $\mathbf{4 8}$ |  |

${ }^{1}$ Choose between CHEM 3653, MBIO 3813, BIOL 3103, BIOL 3113, BIOL 3333,BIOL 4843, CH E 5243, CH E 4203, CH E 5293, CH E 5373, CHEM 3753.
2 Engineering transfer students may take ENGR 3511 in place of ENGR 1411.

## General Education and College Requirements

Courses designated as Core I, II, III, IV, or V are part of the General Education curriculum. Students must complete a minimum of 40 hours of General Education courses, chosen from the approved list, including at least one upper-division Gen. Ed. course outside of the student's major. Courses graded P/NP will not apply.

A grade of $C$ or better is required in each course in the curriculum, including all prerequisite courses.

## UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS

Code Title Credit

## Core Area I: Symbolic and Oral Communication

## English Composition

ENGL 1113 Principles of English Composition 3
ENGL 1213 Principles of English Composition 3
or EXPO 1213 Expository Writing
Language (0-10 hours in the same language)
This requirement can be met by two years of the same 0-10
language in high school:
Beginning Course (0-5 hours)
Beginning Course, continued (0-5 hours)
Mathematics
MATH 1914 Differential and Integral Calculus I (Core I) 4

| Core Area II: Natural Science (including one laboratory) |  |  |
| :--- | :--- | ---: |
| PHYS 2514 | General Physics for Engineering and <br> Science Majors (Core II) |  |
| CHEM 1315 | General Chemistry (Core II-Lab) $^{2,3}$ | 4 |

Core Area III: Social Science
P SC 1113 American Federal Government 3
Choose one course ..... 3

Core Area IV: Arts \& Humanities
Artistic Forms
Choose one course ${ }^{4} 3$

Western Culture
HIST $1483 \quad$ United States to 1865
or HIST 1493 United States, 1865 to the Present
Choose one course ${ }^{4}$


## Free Electives

Electives to bring total applicable hours to the minimum total required for the degree including a minimum of 40 upper-division hours.

## Suggested Semester Plan of Study

Bachelor of Science in Chemical Engineering accredited by the Engineering Accreditation Commission of ABET, https://www.abet.org, under the General Criteria and the Chemical, Biochemical, Biomolecular and Similarly Named Program Criteria.

In order to progress in your curriculum in the Gallogly College of Engineering, and as a specific graduation requirement, a grade of C or better is required in each course in the curriculum, including all prerequisite courses. Chemical engineering courses are sequential and usually offered only in the semester shown; note prerequisites.
(Exception: CH E 5243 is taught alternate spring semesters).
Two college-level courses in a single world language are required; this may be satisfied by successful completion of 2 years in a single world language in high school. Students who must take a language at the University will have an additional 6-10 hours of coursework.

Courses designated as Core I, II, III, IV or V are part of the General Education curriculum. Students must complete a minimum of 40 hours of General Education courses, chosen from the approved list.

## Freshman

First Semester Credit Hours

| ENGL 1113 | Principles of English Composition (Core I) | 3 |
| :---: | :---: | :---: |
| CHEM 1315 | General Chemistry (Core II-Lab) ${ }^{1}$ | 5 |
| MATH 1914 | Differential and Integral Calculus I (Core I) ${ }^{2}$ | 4 |
| ENGR 1411 | Pathways to Engineering Thinking ${ }^{3}$ | 1 |


| Approved Elective: First-Year Experience (Core V) ${ }^{4}$ | 3 |
| :---: | ---: |
| Credit Hours | $\mathbf{1 6}$ |

## Second Semester

| ENGL 1213 <br> or EXPO 1213 | Principles of English Composition (Core I) <br> or Expository Writing | 3 |
| :--- | :--- | ---: |
| CHEM 1435 | General Chemistry II: Signature Course <br> (Core II-Lab) |  |
| MATH 2924 | Differential and Integral Calculus II ${ }^{2}$ | 5 |


| PHYS 2514 | General Physics for Engineering and <br> Science Majors (Core II) | 4 |
| :--- | :--- | ---: |
|  | Credit Hours | $\mathbf{1 6}$ |

## Sophomore

First Semester

| MATH 2934 | Differential and Integral Calculus III ${ }^{2}$ | 4 |
| :--- | :--- | ---: |
| PHYS 2524 | General Physics for Engineering and | 4 |
|  | Science Majors |  |
| CH E 2033 | Chemical Engineering Fundamentals | 3 |
| CHEM 3053 | Organic Chemistry I: Biological Emphasis | 3 |
| BIOL 1124 | Intro Biol: Molecule/Cell/Phys | 4 |
|  | Credit Hours | $\mathbf{1 8}$ |

## Second Semester

| MATH 3113 | Introduction to Ordinary Differential <br>  <br> Equations | 3 |
| :--- | :--- | ---: |
| ENGR 2002 | Professional Responsibilities and Skills of <br> Engineers and Scientists | 2 |
| CH E 2003 | Chemical Engineering Computing/ <br> Statistics | 3 |
| CH E 3113 | Momentum, Heat and Mass Transfer I | 3 |
| CHEM 3152 | Organic Chemistry Laboratory: Biological <br> Emphasis | 2 |
| CHEM 3423 | Physical Chemistry I | 3 |
|  | Credit Hours | $\mathbf{1 6}$ |

## Junior

First Semester

| CHEM 3421 | Physical Chemistry Laboratory | 1 |
| :--- | :--- | ---: |
| CH E 3123 | Momentum, Heat and Mass Transfer II |  |
| CH E 3473 | Chemical Engineering Thermodynamics |  |
| CH E 3723 | Numerical Methods for Engineering <br> Computation | 3 |
| HIST 1483 | United States to 1865 (Core IV) <br> or HIST 1493 <br> or United States, 1865 to the Present | 3 |
| Approved Elective, Social Science (Core III) |  |  | | Credit Hours |
| :--- |




## Chemical Engineering - Pre-Medical Option, B.S.

Minimum Total Credit Hours: 135

Overall GPA - Combined and OU: 2.00
Major GPA - Combined and OU: 2.00
Curriculum GPA - Combined and OU: 2.00

Program Code: B163

## This program has changes pending State Regents approval for 2024/25. These pending changes are not reflected here.

Bachelor of Science in Chemical Engineering accredited by the Engineering Accreditation Commission of ABET, https://www.abet.org, under the General Criteria and the Chemical, Biochemical, Biomolecular and Similarly Named Program Criteria.

In order to progress in your curriculum in the Gallogly College of Engineering, and as a specific graduation requirement, a grade of C or better is required in each course in the curriculum, including all prerequisite courses.

## Major Requirements

Code Title

Credit
Hours

Required Courses
CH E 2033 Chemical Engineering Fundamentals

| CH E 2003 | Chemical Engineering Computing/ <br> Statistics | 3 |
| :--- | :--- | :---: |
| CH E 3113 | Momentum, Heat and Mass Transfer I | 3 |
| CH E 3123 | Momentum, Heat and Mass Transfer II | 3 |
| CH E 3473 | Chemical Engineering Thermodynamics | 3 |
| CH E 3723 | Numerical Methods for Engineering | 3 |
|  | Computation |  |
| CH E 3333 | Separation Processes | 3 |
| CH E 3432 | Unit Operations Laboratory | 2 |
| CH E 4473 | Kinetics | 3 |
| CH E 4262 | Chemical Engineering Design Laboratory | 2 |
| CH E 4153 | Process Dynamics and Control | 3 |
| CH E 4253 | Process Design \& Safety | 3 |
| CH E 4273 | Advanced Process Design | 3 |
| CH E 3313 | Structure and Properties of Materials | 3 |

## Total Credit Hours

## Major Support Requirements


${ }^{2}$ Engineering transfer students may take ENGR 3511 in place of ENGR 1411.

## General Education and College Requirements

Courses designated as Core I, II, III, IV, or V are part of the General Education curriculum. Students must complete a minimum of 40 hours of General Education courses, chosen from the approved list, including at least one upper-division Gen. Ed. course outside of the student's major. Courses graded P/NP will not apply.

A grade of C or better is required in each course in the curriculum, including all prerequisite courses.
UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS


| Core Area II: Natural Science (including one laboratory) |  |  |
| :--- | :--- | ---: |
| PHYS 2514 | General Physics for Engineering and <br> Science Majors (Core II) |  |
| CHEM 1315 | General Chemistry (Core II-Lab) $^{2,3}$ | 4 |

Core Area III: Social Science
PSC $1113 \quad$ American Federal Government
Choose one course ${ }^{4} 3$

Core Area IV: Arts \& Humanities
Artistic Forms
Choose one course ${ }^{4} 3$
Western Culture
HIST 1483 United States to 1865
or HIST 1493 United States, 1865 to the Present
Choose one course (excluding HIST 1483 and HIST 1493) ${ }^{4}$
World Culture
Choose one course ${ }^{4} 3$
Core Area V: First-Year Experience
Choose one course ${ }^{4}$

| Total Credit Hours | $40-50$ |
| :--- | :--- |

${ }^{1}$ MATH 1914, MATH 2924, and MATH 2934 can be substituted with MATH 1823, MATH 2423, MATH 2433, and MATH 2443.
${ }^{2}$ Major support requirements that also satisfy University General Education requirements.
${ }^{3}$ CHEM 1315 can be substituted with CHEM 1335 or CHEM 1425.
${ }^{4}$ To be chosen from the University-Wide General Education Approved Course List. Three of these hours must be upper-division (3000-4000). One of these courses should be an English course 2000-level or above. See list in the Class Schedule.

## Free Electives

Electives to bring total applicable hours to the minimum total required for the degree including a minimum of 40 upper-division hours.

## Suggested Semester Plan of Study

Bachelor of Science in Chemical Engineering accredited by the Engineering Accreditation Commission of ABET, https://www.abet.org, under the General Criteria and the Chemical, Biochemical, Biomolecular and Similarly Named Program Criteria.

In order to progress in your curriculum in the Gallogly College of Engineering, and as a specific graduation requirement, a grade of C or better is required in each course in the curriculum, including all prerequisite courses. Chemical engineering courses are sequential and usually offered only in the semester shown; note prerequisites.

Two college-level courses in a single world language are required; this may be satisfied by successful completion of 2 years in a single world language in high school. Students who must take a language at the University will have an additional 6-10 hours of coursework.

Courses designated as Core I, II, III, IV, or V are part of the General Education curriculum. Students must complete a minimum of 40 hours of General Education courses, chosen from the approved list.

## Freshman

First Semester Credit
ENGL 1113 Principles of English Composition (Core I) 3
CHEM 1315 General Chemistry (Core II-Lab) ${ }^{1} \quad 5$

MATH 1914 Differential and Integral Calculus I (Core I) ${ }^{2} \quad 4$
ENGR 1411 Pathways to Engineering Thinking ${ }^{3} \quad 1$
Approved Elective: First-Year Experience (Core V) ${ }^{4} 3$
Credit Hours 16

## Second Semester

| ENGL 1213 <br> or EXPO 1213 | Principles of English Composition (Core I) <br> or Expository Writing | 3 |
| :--- | :--- | ---: |
| CHEM 1435 | General Chemistry II: Signature Course <br> (Core II-Lab) $^{1}$ | 5 |
| MATH 2924 | Differential and Integral Calculus II ${ }^{2}$ | 4 |
| PHYS 2514 | General Physics for Engineering and <br> Science Majors (Core II) | 4 |
|  | Credit Hours | $\mathbf{1 6}$ |

## Sophomore

First Semester

| MATH 2934 | Differential and Integral Calculus III ${ }^{2}$ | 4 |
| :--- | :--- | ---: |
| PHYS 2524 | General Physics for Engineering and <br>  <br>  <br> CH E 2033 <br> Science Majors | 4 |
| CHEM 3053 | Chemical Engineering Fundamentals | 3 |
| BIOL 1124 | Intro Biol: Molecule/Cell/Phys | 3 |
|  | Credit Hours | $\mathbf{4}$ |


| Second Semester |  |  |
| :--- | :--- | ---: |
| MATH 3113 | Introduction to Ordinary Differential | 3 |
|  | Equations | 3 |
| CH E 2003 | Chemical Engineering Computing/ |  |
|  | Statistics |  |
| CH E 3113 | Momentum, Heat and Mass Transfer I | 3 |
| CHEM 3153 | Organic Chemistry II: Biological Emphasis | 3 |
| CHEM 3152 | Organic Chemistry Laboratory: Biological | 2 |
|  | Emphasis |  |
| CHEM 3423 | Physical Chemistry I | 3 |
|  | Credit Hours | $\mathbf{1 7}$ |

## Junior

| First Semester |  |  |
| :--- | :--- | ---: |
| ENGR 2002 | Professional Responsibilities and Skills of <br>  <br>  <br> Engineers and Scientists | 2 |
| CH E 3123 | Momentum, Heat and Mass Transfer II | 3 |
| CH E 3473 | Chemical Engineering Thermodynamics | 3 |
| CH E 3723 | Numerical Methods for Engineering | 3 |
|  | Computation |  |
| CHEM 3653 | Introduction to Biochemistry $^{5}$ | 3 |
| Technical Elective ${ }^{5}$ | 3 |  |
|  | Credit Hours | $\mathbf{1 7}$ |


| Second Semester |  |  |
| :---: | :---: | :---: |
| CHE 3333 | Separation Processes | 3 |
| CHE 3432 | Unit Operations Laboratory | 2 |
| CH E 4473 | Kinetics | 3 |
| CHEM 3421 | Physical Chemistry Laboratory | 1 |
| Approved Elective, Social Science (Core III) ${ }^{4}$ |  | 3 |
| P SC 1113 | American Federal Government (Core III) | 3 |
| Technical Elective II ${ }^{5}$ |  | 3 |
|  | Credit Hours | 18 |

## Senior

First Semester


## Second Semester

| ENGR 2411 | Applied Engineering Statics | 1 |
| :---: | :---: | :---: |
| CH E 3313 | Structure and Properties of Materials | 3 |
| CH E 4273 | Advanced Process Design | 3 |
| BIOL 3101 | Principles of Physiology Lab | 1 |
| HIST 1483 <br> or HIST 1493 | United States to 1865 (Core IV) or United States, 1865 to the Present | 3 |
| Approved Elective, World Culture (Core IV) ${ }^{4}$ |  | 3 |
| Approved Elective, Artistic Forms (Core IV) ${ }^{4}$ |  | 3 |
|  | Credit Hours | 17 |
|  | Total Credit Hours | 135 |

${ }^{1}$ CHEM 1315 can be substituted with CHEM 1335 or CHEM 1425 (H) (Fall only). CHEM 1435 can be substituted with CHEM 1415.
2 MATH 1823, MATH 2423, MATH 2433, and MATH 2443 sequence can be substituted for MATH 1914, MATH 2924, and MATH 2934.
${ }^{3}$ Engineering transfer students may take ENGR 3511 in place of ENGR 1411.
${ }^{4}$ To be chosen from the University-Wide General Education Approved Course List. Three of these hours must be upper-division (3000-4000). One of these courses should be an English course 2000-level or above. See list in the Class Schedule.
${ }^{5}$ Choose one of the following: BIOL 3113, BIOL 3333, or BIOL 4843. Pre-med students are required to consult the Pre-Med advisor as well as their Chemical Engineering advisor for necessary medical school information. Note: Additional Electives for Pre-Medical are required.
${ }^{6}$ It is recommended that ENGR 2431 and ENGR 3431 be taken in the same semester. The courses are offered in sequential five-week blocks during the semester.

## Chemical Engineering - Sustainability Option, B.S.

## Minimum Total Credit Hours: 127

Overall GPA - Combined and OU: 2.00
Major GPA - Combined and OU: 2.00
Curriculum GPA - Combined and OU: 2.00
Program Code: B165

## This program has changes pending State Regents approval for 2024/25. These pending changes are not reflected here.

Bachelor of Science in Chemical Engineering accredited by the Engineering Accreditation Commission of ABET, https://www.abet.org, under the General Criteria and the Chemical, Biochemical, Biomolecular and Similarly Named Program Criteria.

In order to progress in your curriculum in the Gallogly College of Engineering, and as a specific graduation requirement, a grade of C or better is required in each course in the curriculum, including all prerequisite courses.

## Major Requirements

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Required Courses |  | 3 |
| CH E 2033 | Chemical Engineering Fundamentals | 3 |
| CH E 3113 | Momentum, Heat and Mass Transfer I | 3 |
| CH E 2003 | Chemical Engineering Computing/ |  |
|  | Statistics | 3 |
| CH E 3123 | Momentum, Heat and Mass Transfer II | 3 |
| CH E 3473 | Chemical Engineering Thermodynamics | 3 |
| CH E 3723 | Numerical Methods for Engineering | 3 |
| CH E 3333 | Computation | Separation Processes |


| CH E 4473 | Kinetics | 3 |
| :--- | :--- | ---: |
| CH E 4153 | Process Dynamics and Control | 3 |
| CH E 4253 | Process Design \& Safety | 3 |
| CH E 4262 | Chemical Engineering Design Laboratory | 2 |
| CH E 4273 | Advanced Process Design | 3 |
| CH E 3313 | Structure and Properties of Materials | 3 |
| CH E 4323 | Chemical Process Sustainability | 3 |
| Total Credit Hours | 43 |  |

Major Support Requirements

| Code | Title | Credit Hours |
| :---: | :---: | :---: |
| Math and Science |  |  |
| CHEM 1435 | General Chemistry II: Signature Course | 5 |
| CHEM 3064 | Organic Chemistry I | 4 |
| CHEM 3164 | Organic Chemistry II | 4 |
| CHEM 3423 | Physical Chemistry I | 3 |
| CHEM 3421 | Physical Chemistry Laboratory | 1 |
| MATH 2924 | Differential and Integral Calculus II | 4 |
| MATH 2934 | Differential and Integral Calculus III | 4 |
| MATH 3113 | Introduction to Ordinary Differential Equations | 3 |
| PHYS 2524 | General Physics for Engineering and Science Majors | 4 |
| Technical Electives |  |  |
| Sustainability | hnical Elective I ${ }^{1}$ | 3 |
| Sustainability | hnical Elective II ${ }^{1}$ | 3 |
| Additional College Requirements |  |  |
| ENGR 1411 | Pathways to Engineering Thinking ${ }^{2}$ | 1 |
| ENGR 2002 | Professional Responsibilities and Skills of Engineers and Scientists | 2 |
| ENGR 2411 | Applied Engineering Statics | 1 |
| ENGR 2431 | Electrical Circuits | 1 |
| ENGR 3431 | Electromechanical Systems | 1 |
| Total Credit Hours |  | 44 |

1 Chosen from a list of approved courses maintained by the department (p. 1287). One elective must have a significant chemistry content and may be chosen from, but not limited to, the following: CH E 5163, CH E 5223, CH E 5453, CH E 5533, and CH E 5133.
2 Engineering transfer students may take ENGR 3511 in place of ENGR 1411.

## General Education and College Requirements

Courses designated as Core I, II, III, IV, or V are part of the General Education curriculum. Students must complete a minimum of 40 hours of General Education courses, chosen from the approved list, including at least one upper-division Gen. Ed. course outside of the student's major. Courses graded P/NP will not apply.

A grade of $C$ or better is required in each course in the curriculum, including all prerequisite courses.


## Free Electives

Electives to bring total applicable hours to the minimum total required for the degree including a minimum of 40 upper-division hours.

## Suggested Semester Plan of Study

Bachelor of Science in Chemical Engineering accredited by the Engineering Accreditation Commission of ABET, https://www.abet.org,
under the General Criteria and the Chemical, Biochemical, Biomolecular and Similarly Named Program Criteria.

## In order to progress in your curriculum in the Gallogly College of

 Engineering, and as a specific graduation requirement, a grade of C or better is required in each course in the curriculum, including all prerequisite courses. Chemical engineering courses are sequential and usually offered only in the semester shown; note prerequisites.Two college-level courses in a single world language are required; this may be satisfied by successful completion of 2 years in a single world language in high school. Students who must take a language at the University will have an additional 6-10 hours of coursework.

Courses designated as Core I, II, III, IV, or V are part of the General Education curriculum. Students must complete a minimum of 40 hours of General Education courses, chosen from the approved list.

## Freshman

| First Semester |  | Credit |
| :---: | :---: | :---: |
|  |  | Hours |
| ENGL 1113 | Principles of English Composition (Core I) | 3 |
| CHEM 1315 | General Chemistry (Core II-Lab) ${ }^{1}$ | 5 |
| MATH 1914 | Differential and Integral Calculus I (Core I) ${ }^{2}$ | 4 |
| ENGR 1411 | Pathways to Engineering Thinking ${ }^{3}$ | 1 |
| Approved Elective | : First-Year Experience (Core V) ${ }^{4}$ | 3 |
|  | Credit Hours | 16 |
| Second Semester |  |  |
| ENGL 1213 <br> or EXPO 1213 | Principles of English Composition (Core I) or Expository Writing | 3 |
| CHEM 1435 | General Chemistry II: Signature Course $\left(\right.$ Core II-Lab) ${ }^{1}$ | 5 |
| MATH 2924 | Differential and Integral Calculus II ${ }^{2}$ | 4 |
| PHYS 2514 | General Physics for Engineering and Science Majors (Core II) | 4 |
|  | Credit Hours | 16 |
| Sophomore |  |  |
| First Semester |  |  |
| MATH 2934 | Differential and Integral Calculus III ${ }^{2}$ | 4 |
| PHYS 2524 | General Physics for Engineering and Science Majors | 4 |
| CH E 2033 | Chemical Engineering Fundamentals | 3 |
| CHEM 3064 | Organic Chemistry I | 4 |
|  | Credit Hours | 15 |
| Second Semester |  |  |
| MATH 3113 | Introduction to Ordinary Differential Equations | 3 |
| CH E 2003 | Chemical Engineering Computing/ Statistics | 3 |
| CH E 3113 | Momentum, Heat and Mass Transfer I | 3 |
| CHEM 3164 | Organic Chemistry II | 4 |
| CHEM 3423 | Physical Chemistry I | 3 |
|  | Credit Hours | 16 |

## Junior

First Semester
CH E 3123
Momentum, Heat and Mass Transfer II
3
CH E 3473 Chemical Engineering Thermodynamics

| CHE 3723 | Numerical Methods for Engineering Computation | 3 |
| :---: | :---: | :---: |
| CHEM 3421 | Physical Chemistry Laboratory | 1 |
| ENGR 2002 | Professional Responsibilities and Skills of Engineers and Scientists | 2 |
| Approved Elective, Social Science (Core III) ${ }^{4}$ |  | 3 |
|  | Credit Hours | 15 |
| Second Semester |  |  |
| CH E 3333 | Separation Processes | 3 |
| CH E 3432 | Unit Operations Laboratory | 2 |
| CH E 4473 | Kinetics | 3 |
| HIST 1483 or HIST 1493 | United States to 1865 (Core IV) or United States, 1865 to the Present | 3 |
| Approved Elective, Western Culture (Core IV) ${ }^{4}$ |  | 3 |
| Approved Elective, Artistic Forms (Core IV) ${ }^{4}$ |  | 3 |
|  | Credit Hours | 17 |

## Senior

## First Semester

| P SC 1113 | American Federal Government | 3 |
| :---: | :---: | :---: |
| CHE 4153 | Process Dynamics and Control | 3 |
| CH E 4253 | Process Design \& Safety | 3 |
| CH E 4262 | Chemical Engineering Design Laboratory | 2 |
| ENGR 2431 | Electrical Circuits ${ }^{6}$ | 1 |
| ENGR 3431 | Electromechanical Systems ${ }^{6}$ | 1 |
| Sustainability Technical Elective (p. 1287) ${ }^{6}$ |  | 3 |
|  | Credit Hours | 16 |

## Second Semester

| CH E 3313 | Structure and Properties of Materials | 3 |
| :---: | :---: | :---: |
| CH E 4323 | Chemical Process Sustainability | 3 |
| CH E 4273 | Advanced Process Design | 3 |
| ENGR 2411 | Applied Engineering Statics | 1 |
| Approved Elective, World Culture (Core IV) ${ }^{4}$ |  |  |
| Sustainability Technical Elective II (p. 1287) ${ }^{6} \quad 3$ |  |  |
|  | Credit Hours | 16 |
|  | Total Credit Hours | 127 |

${ }^{1}$ CHEM 1315 can be substituted with CHEM 1335 or CHEM 1425 (H) (Fall only). CHEM 1435 can be substituted with CHEM 1415.
${ }^{2}$ MATH 1823, MATH 2423, MATH 2433, and MATH 2443 sequence can be substituted for MATH 1914, MATH 2924, and MATH 2934.
${ }^{3}$ Engineering transfer students may take ENGR 3511 in place of ENGR 1411
${ }^{4}$ To be chosen from the University-Wide General Education Approved Course List. See list in the Class Schedule. Three of these hours must be upper-division (3000-4000) and have significant content related to Sustainability chosen from the approved list of courses maintained by the School of Chemical, Biological, and Materials Engineering (p. 1287).

5 It is recommended that ENGR 2431 and ENGR 3431 be taken in the same semester. The courses are offered in sequential five-week blocks during the semester.
${ }^{6}$ Sustainability Technical Electives must have significant content related to sustainability, renewable energy and materials, greenhouse gas reductions, or related topics chosen from a list of approved courses maintained by the School of Chemical, Biological, and Materials Engineering. At least one Sustainability elective must have a significant
chemistry content and may be chosen from, but not limited to, the following: CH E 5163, CH E 5223, CH E 5453, CH E 5533, and CH E 5133.

## Course Lists

## Approved Technical Electives

| Additional courses may be chosen with departmental approval |  |  |
| :--- | :--- | ---: |
| Code | Title | Credit <br> Hours |
| CH E 5163 | Heterogeneous Catalysis | 3 |
| CH E 5223 | Refining Principles | 3 |
| CH E 5453 | Polymer Science and Engineering | 3 |
| CH E 5533 | Materials Design for Energy Application | 3 |
| CH E 5133 | Water Sustainability | 3 |
| AME 4013 | Introduction to Medical Device Design | 3 |
| BIOL 3463 | Water and Ecological Sustainability | 3 |
| CEES 5933 | Climate Change and Water Sustainability | 3 |
| ENGR 4513 | Introduction to Sustainable Engineering | 3 |
| ENST 3503 | Energy Use, Climate Change, and the | 3 |
| GEOG 4523 | Environment |  |
| GEOG 4583 Cycle Analysis | Energy Systems and Sustainability | 3 |
| GEOG 5433 | Sustainability: Theory and Practice | 3 |
| METR 4553 | Climate and Renewable Energy | 3 |

## Approved Gen Ed Electives

Additional courses may be chosen with departmental approval

| Code | Title | Credit <br> Hours |
| :---: | :---: | :---: |
| Core III Approved Courses |  |  |
| ENST 1013 | Consumption and the Environment | 3 |
| GEOG 1203 | Global Environmental Issues | 3 |
| GEOG 3253 | Environmental Conservation | 3 |
| GEOG 3443 | Environment and Society | 3 |
| GEOG 3843 | Gender and Environment | 3 |
| Core IV WC Approved Courses |  |  |
| HIST 2063 | History of Activism | 3 |
| HIST 3493 | American Environmental History | 3 |
| HSTM 1113 | Science, Nature and Society: Historical Perspectives | 3 |
| HSTM 2423 | Social and Ethical Issues in Science, Technology, Environment and Medicine | 3 |
| HSTM 3473 | History of Ecology and Environmentalism | 3 |
| P E/HSTM 3343 | Revolution in Power. the Evolution of Energy Systems from Fossil Fuels to Renewables | 3 |
| PHIL 3293 | Environmental Ethics | 3 |
| Core IV WDC Approved Courses |  |  |
| HIST 4553 | Environmental History of Latin America | 3 |

## Bioprocessing, Undergraduate Certificate

Minimum Total Credit Hours: 15
Program Code: $T 045$

## Certificate Requirements

| Code | Title | Credit |
| :---: | :---: | :---: |
|  |  | Hours |
| Required Courses |  |  |
| CH E/BME 4423 | Genetic Engineering and Biotechnology | 3 |
| CH E/BME 4243 | Biochemical Engineering | 3 |
| CH E 4583 | Advanced Techniques in Biomanufacturing | 3 |
| Electives |  |  |
| Choose two of the | e following courses: | 6 |
| $\begin{aligned} & \text { CH E/BME } \\ & 4373 \end{aligned}$ | Tissue Engineering |  |
| CH E 4203 | Bioengineering Principles |  |
| DSA 5103 | Intelligent Data Analytics |  |
| Total Credit Hours |  | 15 |

## Chemical Engineering (Standard), B.S./ M.S.

Minimum Total Credit Hours: 143

Overall GPA - Combined and OU: 3.25
Major GPA - Combined and OU: 3.25
Curriculum GPA - Combined and OU: 3.25
Program Code: A160/F160

## This program has changes pending State

 Regents approval for 2024/25. These pending changes are not reflected here.Bachelor of Science in Chemical Engineering accredited by the Engineering Accreditation Commission of ABET, https://www.abet.org, under the General Criteria and the Chemical, Biochemical, Biomolecular and Similarly Named Program Criteria.

In order to progress in your curriculum in the Gallogly College of Engineering, and as a specific graduation requirement, a grade of C or better is required in each course in the curriculum, including all prerequisite courses.

| Major Requirements |  |
| :--- | :--- | :--- |
| Code $\quad$ Title | Credit |
|  | Hours |

## Required Courses

| CH E 2033 | Chemical Engineering Fundamentals | 3 |
| :--- | :--- | :---: |
| CH E 2003 | Chemical Engineering Computing/ <br> Statistics | 3 |
| CH E 3113 | Momentum, Heat and Mass Transfer I | 3 |
| CH E 3123 | Momentum, Heat and Mass Transfer II | 3 |
| CH E 3473 | Chemical Engineering Thermodynamics | 3 |


| CH E 3723 | Numerical Methods for Engineering <br> Computation | 3 |
| :--- | :--- | :--- |
| CH E 3333 | Separation Processes | 3 |
| CH E 3432 | Unit Operations Laboratory | 2 |
| CH E 4473 | Kinetics | 3 |
| CH E 4153 | Process Dynamics and Control | 3 |
| CH E 4253 | Process Design \& Safety | 3 |
| CH E 4262 | Chemical Engineering Design Laboratory | 2 |
| CH E 3313 | Structure and Properties of Materials | 3 |
| CH E 4273 | Advanced Process Design | 3 |
| CH E 5971 | Seminar in Chemical Engineering Research | 1 |

## Total Credit Hours

# Major Support Requirements 

| Code | Title | Credit <br> Hours |
| :---: | :---: | :---: |
| Math and Science |  |  |
| CHEM 1435 | General Chemistry II: Signature Course | 5 |
| CHEM 3064 | Organic Chemistry I | 4 |
| CHEM 3423 | Physical Chemistry I | 3 |
| CHEM 3164 | Organic Chemistry II | 4 |
| MATH 2924 | Differential and Integral Calculus II | 4 |
| MATH 2934 | Differential and Integral Calculus III | 4 |
| MATH 3113 | Introduction to Ordinary Differential Equations | 3 |
| PHYS 2524 | General Physics for Engineering and Science Majors | 4 |
| Technical Electives |  |  |
| Technical Elective I ${ }^{1}$ |  | 3 |
| Technical Elective II ${ }^{1}$ |  | 3 |
| Technical Elective III ${ }^{1}$ |  | 3 |

## Advance Chemistry Elective

Chosen from approved list of courses maintained by the 3 department (p. 1290) ${ }^{1}$

## Additional College Requirements

| ENGR 2002 | Professional Responsibilities and Skills of | 2 |
| :--- | :--- | :--- |
|  | Engineers and Scientists |  |

## Total Credit Hours

${ }^{1}$ Chosen from approved list of courses maintained by the department. One of the Technical Electives or the Advanced Chemistry elective must be CH E. Prior faculty approval is needed.

## Graduate Requirements

Up to 13 hours of graduate-level CH E and/or science, math, engineering or technical courses (as approved by the graduate liaison) are shared/ double-counted and fulfill requirements in both the B.S. and M.S. portions of the Accelerated Degree Program.

Thesis Option


## General Education and College Requirements

Courses designated as Core I, II, III, IV, or V are part of the General Education curriculum. Students must complete a minimum of 40 hours of General Education courses, chosen from the approved list, including at least one upper-division Gen. Ed. course outside of the student's major. Courses graded P/NP will not apply.

A grade of $C$ or better is required in each course in the curriculum, including all prerequisite courses.
UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS
Code Title Credit

Core Area I: Symbolic and Oral Communication
English Composition
ENGL 1113 Principles of English Composition 3
ENGL 1213 Principles of English Composition 3
or EXPO 1213 Expository Writing
Language (0-10 hours in the same language)
This requirement can be met by two years of the same 0-10 language in high school:
Beginning Course ( $0-5$ hours)
Beginning Course, continued ( $0-5$ hours)
Mathematics

| MATH 1914 | Differential and Integral Calculus I (Core I) |
| :--- | :--- | :--- |
|  | 4 |

Core Area II: Natural Science (including one laboratory)
PHYS 2514 General Physics for Engineering and

Core Area III: Social Science


## Total Credit Hours

40-50
${ }^{1}$ MATH 1914, MATH 2924, and MATH 2934 can be substituted with MATH 1823, MATH 2423, MATH 2433, and MATH 2443.
2 Major support requirements that also satisfy University General Education requirements.
${ }^{3}$ CHEM 1315 can be substituted with CHEM 1335 or CHEM 1425 .
${ }^{4}$ To be chosen from the University-Wide General Education Approved Course List. Three of these hours must be upper-division (3000-4000). See list in the Class Schedule.
${ }^{5}$ Transfer students will need to meet the requirements of the first-year experience course as well as the engineering transfer course. Please see your advisor for your specific enrollment.

## Free Electives

Electives to bring total applicable hours to the minimum total required for the degree including a minimum of 40 upper-division hours.

## Suggested Semester Plan of Study

Bachelor of Science in Chemical Engineering accredited by the Engineering Accreditation Commission of ABET, https://www.abet.org, under the General Criteria and the Chemical, Biochemical, Biomolecular and Similarly Named Program Criteria.

In order to progress in your curriculum in the Gallogly College of Engineering, and as a specific graduation requirement, a grade of C or better is required in each course in the curriculum, including all prerequisite courses. Chemical engineering courses are sequential and usually offered only in the semester shown; note prerequisites.

Students must be admitted to the accelerated program before the beginning of the senior year. Students are eligible for graduate status upon graduation with the Bachelor of Science in Chemical Engineering.

Up to 13 hours of graduate-level CH E and/or science, math, engineering or technical courses (as approved by the graduate liaison) are shared/ double-counted and fulfill requirements in both the B.S. and M.S. portions of the Accelerated Degree Program.

Two college-level courses in a single world language are required; this may be satisfied by successful completion of 2 years in a single world
language in high school. Students who must take a language at the University will have an additional 6-10 hours of coursework.

Courses designated as Core I, II, III, IV or V are part of the General Education curriculum. Students must complete a minimum of 40 hours of General Education courses, chosen from the approved list.

## Freshman

| First Semester |  | Credit <br> Hours |
| :--- | :--- | ---: |
| ENGL 1113 | Principles of English Composition (Core I) | 3 |
| CHEM 1315 | General Chemistry (Core II-Lab) $^{1}$ | 5 |
| MATH 1914 | Differential and Integral Calculus I (Core I) $^{2}$ | 4 |
| ENGR 1413 $^{\text {Pathways to Engineering Thinking (Core V- }}$ | 3 |  |
|  | FYE) $^{3}$ |  |
|  | Credit Hours | $\mathbf{1 5}$ |

## Second Semester

| $\begin{aligned} & \text { ENGL } 1213 \\ & \text { or EXPO } 1213 \end{aligned}$ | Principles of English Composition (Core I) or Expository Writing | 3 |
| :---: | :---: | :---: |
| CHEM 1435 | General Chemistry II: Signature Course (Core II-Lab) ${ }^{1}$ | 5 |
| MATH 2924 | Differential and Integral Calculus II ${ }^{2}$ | 4 |
| PHYS 2514 | General Physics for Engineering and Science Majors (Core II) | 4 |
|  | Credit Hours | 16 |

## Sophomore

First Semester

| MATH 2934 | Differential and Integral Calculus III ${ }^{2}$ | 4 |
| :--- | :--- | ---: |
| PHYS 2524 | General Physics for Engineering and | 4 |
|  | Science Majors |  |
| CH E 2033 | Chemical Engineering Fundamentals | 3 |
| CHEM 3064 | Organic Chemistry I | 4 |
|  | Credit Hours | $\mathbf{1 5}$ |

## Second Semester

$\left.\begin{array}{llr}\text { MATH 3113 } & \text { Introduction to Ordinary Differential } & 3 \\ & \text { Equations }\end{array}\right)$

Junior
First Semester

| CH E 3123 | Momentum, Heat and Mass Transfer II | 3 |
| :--- | :--- | ---: |
| CH E 3473 | Chemical Engineering Thermodynamics | 3 |
| CH E 3723 | Numerical Methods for Engineering <br> Computation | 3 |
| ENGR 2002 | Professional Responsibilities and Skills of <br>  <br> Approved Elective, Social Science (Core III-SS) | $\mathbf{2}$ |
|  | Credit Hours | $\mathbf{3}$ |

## Second Semester

| CHE 3333 | Separation Processes | 3 |
| :--- | :--- | :--- |
| CHE 3432 | Unit Operations Laboratory | 2 |


| CHE 4473 | Kinetics | 3 |
| :---: | :---: | :---: |
| HIST 1483 or HIST 1493 | United States to 1865 (Core IV) or United States, 1865 to the Present | 3 |
| Approved Elective, Western Culture (Core IV-WC) ${ }^{3}$ |  | 3 |
| Approved Elective, Artistic Forms (Core IV-AF) ${ }^{3}$ |  | 3 |
|  | Credit Hours | 17 |
| Senior |  |  |
| First Semester |  |  |
| P SC 1113 | American Federal Government (Core III) | 3 |
| CHE 4153 | Process Dynamics and Control | 3 |
| CHE 4253 | Process Design \& Safety | 3 |
| CHE 4262 | Chemical Engineering Design Laboratory | 2 |
| Technical Elective ${ }^{4}$ |  | 3 |
| Technical Elective II ${ }^{4}$ |  | 3 |
|  | Credit Hours | 17 |
| Second Semester |  |  |
| CHE 3313 | Structure and Properties of Materials | 3 |
| CHE 4273 | Advanced Process Design | 3 |
| CHE 5971 | Seminar in Chemical Engineering Research | 1 |
| Advanced Chemistry Elective chosen from approved list of courses maintained by department (p. 1290) ${ }^{5}$ |  | 3 |
| Technical Elective III ${ }^{4}$ |  | 3 |
| Approved Elective, World Culture (Core IV-WDC) ${ }^{3}$ |  | 3 |
|  | Credit Hours | 16 |
| Fifth Year |  |  |
| First Semester |  |  |
| CHE5183 | Graduate Transport Phenomena | 3 |
| CHE 5971 | Seminar in Chemical Engineering Research | 1 |
| CHE 6723 | Advanced Kinetics and Reaction Engineering | 3 |
|  | Credit Hours | 7 |
| Second Semester |  |  |
| CHE5843 | Advanced Chemical Engineering Thermodynamics | 3 |
| CHE 5971 | Seminar in Chemical Engineering Research | 1 |
| CHE5980 | Research for Master's Thesis | 6 |
|  | Credit Hours | 10 |
|  | Total Credit Hours | 143 |

${ }^{1}$ CHEM 1315 can be substituted with CHEM 1335 (Fall only) or CHEM 1425 (Fall only). CHEM 1435 can be substituted with CHEM 1415.
2 MATH 1823, MATH 2423, MATH 2433, and MATH 2443 sequence can be substituted for MATH 1914, MATH 2924, and MATH 2934.
${ }^{3}$ Transfer students will need to meet the requirements of the first-year experience course as well as the engineering transfer course. Please see your advisor for your specific enrollment.
${ }^{4}$ One of the Technical Electives or the Advanced Chemistry elective must be CH E. Prior faculty approval is needed

## Advanced Chemistry Electives Course Lists

## APPROVED LIST OF ADVANCED CHEMISTRY ELECTIVES MAINTAINED BY SCHOOL OF CHEMICAL ENGINEERING <br> - For most current course lists, please consult the School of Chemical Engineering.

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| CHEM 3523 | Physical Chemistry II | 3 |
| CHEM 3653 | Introduction to Biochemistry | 3 |
| CHEM 4333 | Advanced Inorganic Chemistry-Periodic | 3 |
|  | System |  |
| CH E 5163 | Heterogeneous Catalysis | 3 |
| CH E 5213 | Experimental Methods in Materials | 3 |
|  | Research | 3 |
| CH E 5223 | Refining Principles | 3 |
| CH E 5243 | Biochemical Engineering | 3 |
| CH E 5373 | Tissue Engineering | 3 |
| CH E5453 | Polymer Science and Engineering | 3 |
| CH E5533 | Materials Design for Energy Application | 3 |
| CH E 5673 | Colloid and Surface Science | 3 |

## Chemical Engineering, M.S.

Minimum Total Hours (Thesis): 30-31
Program Code: M160

## Thesis Option



## General Requirements for all Master's Degrees

The master's degree requires the equivalent of at least two semesters of satisfactory graduate work and additional work as may be prescribed for the degree.

All coursework applied to the master's degree must carry graduate credit.
Master's degree programs which require a thesis consist of at least 30 credit hours. All non-thesis master's degree programs require at least 30 credit hours.

Credit transferred from other institutions must meet specific criteria and is subject to certain limitations.

Courses completed through correspondence study may not be applied to the master's degree.

To qualify for a graduate degree, students must achieve an overall grade point average of 3.0 or higher in the degree program coursework and in all resident graduate coursework attempted. A student must also have at least a 3.0 in all coursework (including undergraduate coursework if any).

Additional information for master's degree students may be found in the Graduate College Bulletin.

# Sustainability - Energy and Materials Management, M.S. 

Minimum Total Hours (Non-Thesis): 30
Program Code: M868 (Online M869)
Note: Transfer credits will not be accepted into this program.

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Core Courses |  | 3 |
| CH E 5323 | Sustainable Engineering Principles | 3 |
| CH E 5333 | Sustainable Polymer Manufacturing | 3 |
| CH E 5343 | Sustainable Process Design | 3 |
| CH E 5353 | Emerging Technologies toward Water |  |
|  | Sustainability | 3 |
| CH E 5023 | Challenge Group Project | $\mathbf{1 5}$ |

Choose 15 hours of elective courses from a list maintained by the program and approved by the Graduate College. (p. 1291)
Total Credit Hours

## General Requirements for all Master's Degrees

The master's degree requires the equivalent of at least two semesters of satisfactory graduate work and additional work as may be prescribed for the degree.

All coursework applied to the master's degree must carry graduate credit.
Master's degree programs which require a thesis consist of at least 30 credit hours. All non-thesis master's degree programs require at least 30 credit hours.

Credit transferred from other institutions must meet specific criteria and is subject to certain limitations.

Courses completed through correspondence study may not be applied to the master's degree.

To qualify for a graduate degree, students must achieve an overall grade point average of 3.0 or higher in the degree program coursework and in all resident graduate coursework attempted. A student must also have at least a 3.0 in all coursework (including undergraduate coursework if any).

Additional information for master's degree students may be found in the Graduate College Bulletin.

## Electives Course List

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| CH E 5003 | Management \& Leadership | 3 |
| CH E 5013 | Decision \& Risk Analysis | 3 |
| CH E 5033 | Environmental Separations | 3 |
| CH E 5043 | Business Sustainability | 3 |
| CH E 5053 | Carbon Capture \& Utilization | 3 |

## Bioprocessing, Graduate Certificate

Minimum Total Hours: 12
Program Code: G245

## Certificate Requirements

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Required Courses |  |  |
| CH E/BME 5423 | Genetic Engineering and Biotechnology | 3 |
| CH E/BME 5243 | Biochemical Engineering | 3 |
| CH E 5583 | Advanced Techniques in Biomanufacturing | 3 |
| Electives |  | 3 |
| Choose one course from the following: |  |  |
| CH E/BME <br> 5373 | Tissue Engineering |  |
| CH E 5203 | Bioengineering Principles |  |
| DSA 5103 | Intelligent Data Analytics |  |

Total Credit Hours
A graduate certificate is not a graduate degree. A graduate degree represents a program of independent inquiry beyond the depth of coursework alone, while a graduate certificate represents a set of courses only.

- All courses must be taken at OU. No transfer credit will apply.
- No course substitutions are permitted for graduate certificates.
- Coursework applied to a graduate certificate cannot be more than five years old as of the semester the graduate certificate is awarded.
- Students must earn a grade point average of 3.00 or higher on all coursework applied to the graduate certificate.


# Chemical Engineering, Ph.D. 

Minimum Total Hours: 90
Program Code: D160

## Program Requirements

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Core (12 hours) |  | 3 |
| CH E 5183 | Graduate Transport Phenomena | 3 |
| CH E 5523 | Advanced Mathematical Methods in <br> Science and Engineering |  |
| CH E 5843 | Advanced Chemical Engineering <br> Thermodynamics | 3 |
| CH E 6723 | Advanced Kinetics and Reaction <br> Engineering | 3 |

## Electives (18 hours)

Must include a minimum of 5 hours of advanced CH E
courses and a minimum of 9 hours advanced science, math, engineering or technical courses; as approved by the advisory conference committee and graduate liaison

Research Seminars (4-8 hours)

| CH E 5971 | Seminar in Chemical Engineering Research <br> (1 credit per semester, minimum 4 hours <br> and maximum 8 hours) | $4-8$ |
| :--- | :--- | :---: |
| Dissertation Research (46-56 hours) |  |  |
| CH E 6980 $\quad$ Research for Doctoral Dissertation | $46-56$ |  |
| Additional Coursework (0-10 hours) |  |  |
| As necessary to reach 90 post-baccalaureate hours, as |  |  |
| approved by the student's advisory conference committee | $0-10$ |  |

Total Credit Hours

## General Requirements for Doctoral Degrees

A student should expect to spend at least the equivalent of three full academic years beyond the bachelor's degree to obtain the doctoral degree. During this period the student will take appropriate graduate coursework, successfully complete the general examination, and successfully defend and submit the final dissertation.

All coursework applied to the doctoral degree must carry graduate credit.
The doctoral degree requires at least 90 post-baccalaureate hours, including both formal coursework and hours of research.

The minimum hour requirement for a specific doctoral degree program cannot be waived

No more than one-half of the credit hours, both OU and overall, excluding Research for Doctoral Dissertation (6980), may be S/U-graded coursework.

The student must be in residence at OU for at least two consecutive 16week semesters during the pursuit of the doctoral degree while enrolled and engaged in coursework or research activities as prescribed by the major academic unit.

For more detailed regulations and requirements for Doctoral degrees, please consult the Graduate College Bulletin: http://www.ou.edu/ gradcollege/forms/bulletin

## School of Civil Engineering and Environmental Science

Randall Kolar, Director
Carson Engineering Center, Room 334
202 W. Boyd St.
Norman, OK 73019-1004
Phone: (405) 325-5911
cees@ou.edu
www.ou.edu/coe/cees/

## General Information <br> Vision

Through a community of scholars committed to excellence in research and teaching, the mission of CEES is to provide our students with the technical education and critical thinking skills needed to lead the country in addressing the complex infrastructure and environmental problems facing today's society.

## Careers in Architectural Engineering

Architectural engineers design buildings and other structures and understand the design of a building involves more than its appearance. Buildings also must be functional, safe and economical and meet the needs of the people who use them. Architectural engineers design a variety of structures, including office and apartment buildings, schools, churches, factories, hospitals, houses and airport terminals. They also design such complexes as urban centers, college campuses, industrial parks and communities. In addition, they may advise on the selection of building sites, prepare cost analysis and land-use studies and do longrange planning for land development.

## Careers in Civil Engineering

Civil engineering is the oldest of the modern engineering disciplines with historical roots dating back to the 1700s. Responsibilities of the first civil engineers increased during the industrial revolution and included the construction of canals, roads and railroads.

Civil engineers are responsible for the design and construction of society's infrastructure, such as buildings, highways, bridges, mass transit systems, dams and locks, and municipal water and sewage treatment systems. They often are responsible for planning, managing, operating and maintaining these facilities. Consequently, civil engineering is frequently referred to as the "the people-serving profession."

Spurred by general population growth and an expanding economy, more civil engineers will be needed to design and construct higher-capacity transportation, water supply and pollution control systems as well as large buildings and building complexes. They also will be needed to repair or replace existing roads, bridges and other public structures.

## Careers in Environmental Engineering

Using the principles of physics, biology and chemistry, environmental engineers develop methods to meet such environmental challenges as water and air pollution control, recycling, waste disposal, hydrology, river management and control, and public health issues. Environmental engineers conduct hazardous waste management studies in which they
evaluate the significance of the hazard, offer analysis on treatment and containment and develop regulations to prevent mishaps. They also design municipal sewage and industrial wastewater systems, analyze scientific data, conduct research projects and perform quality control checks.
Past environmental engineering graduates have been employed by state and federal environmental agencies, including the Oklahoma Department of Environmental Quality, the U.S. Environmental Protection Agency and the U.S. Geological Survey as well as various private industries and consulting firms.

## Careers in Environmental Science

Environmental scientists have a variety of job responsibilities, including collecting and analyzing air, water and soil samples, monitoring compliance with environmental laws and regulations, assisting industrial companies in complying with environmental regulations, and addressing public meetings on local environmental challenges.

Past environmental science graduates have been employed by the U.S. Environmental Protection Agency, Oklahoma Department of Environmental Quality, Oklahoma Department of Health and numerous private industrial and consulting firms.

## Programs \& Facilities

CEES is currently housed in the Carson Engineering Center, the Engineering Laboratory Building and Sarkey's Energy Center on the main campus as well as in the Donald G. Fears Structurual Engineering Laboratory and the National Weather Center on the south research campus.

## Student Team Room and Computing Laboratory

The student team room and computing laboratory is located in Carson Engineering Center and is available to all CEES students.

## Teaching and Research Laboratories

CEES has laboratory facilities for teaching and research in environmental science and engineering, geotechnical engineering and structural engineering.

- The traditional wet laboratories in the Carson Engineering Center are associated with teaching and research efforts in environmental science and environmental engineering.
- The materials and soils laboratory is located in Carson Engineering Center and is used for teaching and research in soils and materials science.
- The Donald G. Fears Structural Engineering laboratory is devoted to teaching and research programs in geotechnical and structural engineering.
- The Ray Broce Materials laboratory is devoted to teaching and research in asphalt and other transportation materials.
- The Transportation, Risk, and Information Commons (TRICS) laboratory focuses on how transportation systems depend on social and other physical systems in the context of natural and man-made hazards.


## Undergraduate

## Civil Engineering and Environmental Science Program Educational Objectives

Program educational objectives (PEOs) are broad statements that describe what graduates are expected to attain within a few years
of graduation. The PEOs were developed to meet the needs of the constituencies of CEES. The primary constituents of CEES programs are our students, alumni and the employers that hire our graduates. The PEO's are focused on providing well trained engineers for employers and to empower those engineers to advance during their careers. The PEOs for CEES engineering graduates are:

## Program Educational Objective 1

CEES alumni will embark on successful careers in areas associated with the development, implementation, and management of architectural, civil, and environmental engineering systems, or will continue their education through graduate or professional school.

## Program Educational Objective 2

CEES alumni will advance in their careers by employing the latest technical knowledge, creativity, inclusive teamwork, and ethical decision making to find sustainable solutions for pressing environmental and infrastructure problems; they will continue their professional development through lifelong learning; and they will support the profession and the University.

## Civil Engineering and Environmental Science Undergraduate Student Outcomes

Student Outcomes describe what students are expected to know and be able to do by the time of graduation. The Student Outcomes for engineering students in CEES are:

1. an ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics
2. an ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors
3. an ability to communicate effectively with a range of audiences
4. an ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts
5. an ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives
6. an ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions
7. an ability to acquire and apply new knowledge as needed, using appropriate learning strategies

## Bachelor of Science

Students enrolled in the Bachelor of Science in Architectural Engineering (p. 1304) ${ }^{1}$ program take the same core engineering, mathematics, science and English courses taken by other engineering students. They also take a series of architectural planning and methods courses from the College of Architecture.

The Bachelor of Science in Civil Engineering (p. 1307) ${ }^{2}$ curriculum is comprised of four areas of emphasis; environmental, geotechnical, structural, and transportation engineering. The undergraduate civil engineering student must complete a sequence of core engineering courses plus one or two courses in each of these areas. Students then
choose three upper division Professional Electives in their preferred area of emphasis.

The core curriculum for the Bachelor of Science in Environmental Engineering (p.1309) ${ }^{3}$ is similar to civil engineering; however, the last two years of the program focus strictly on environmental courses. Students are required to take courses in air pollution control engineering; water and wastewater engineering, and solid and hazardous waste management.

Students pursuing the Bachelor of Science in Environmental Science (p. 1312) complete fundamental courses in chemistry, math, physics, biology, microbiology, and environmental science. Students then choose three upper division track electives electives in one of four areas: chemistry, biology, math, or physical sciences. Students also choose two upper division Professional Electives in the preferred area of emphasis within environmental science. This flexible program prepares students for careers in government, consulting, and industry.
${ }^{1}$ Bachelor of Science in Architectural Engineering accredited by the Engineering Accreditation Commission of ABET, https://www.abet.org, under the General Criteria and the Architectural and Similarly Named Program Criteria.
2 Bachelor of Science in Civil Engineering accredited by the Engineering Accreditation Commission of ABET, https://www.abet.org, under the General Criteria and the Civil and Similarly Named Program Criteria.
${ }^{3}$ Bachelor of Science in Environmental Engineering accredited by the Engineering Accreditation Commission of ABET, https://www.abet.org, under the General Criteria and the Environmental Engineering and Similarly Named Program Criteria.

## Minor

Students earning a bachelor's of science degree in specific areas are eligible to apply for the Environmental Science Engineering Minor (p. 1314). Additional majors will be considered on a case-by-case basis.

The Water and Sanitation for Health and Sustainable Development Minor (p. 1315) is designed for engineering and non-engineering majors who have an interest in development work in emerging regions, particularly the sectors of water, sanitation, and health.

## Accelerated Bachelor of Science/Master of Science

The combined BS/MS program is offered to qualified undergraduate students in the School of Civil Engineering and Environmental Science, University of Oklahoma, who wish to pursue their graduate education while completing their undergraduate degree requirements. The Bachelor of Science portion is accredited by the Engineering Accreditation Commission of ABET.

- Architectural Engineering, Bachelor of Science/Civil Engineering, Master of Science (p. 1315)
- Civil Engineering, Bachelor of Science/Master of Science (p. 1320)
- Environmental Engineering, Bachelor of Science/Master of Science (p. 1326)
- Environmental Science, Bachelor of Science/Master of Environmental Science (p. 1329)


## Graduate

## Master of Science Civil Engineering

The Civil Engineering Master of Science program is open to students with undergraduate degrees in environmental or civil engineering or related
engineering or science disciplines who have completed certain minimum undergraduate coursework.

- Civil Engineering: Geotechnical Engineering, Master of Science (p. 1332)
- Civil Engineering: Geotechnical Engineering (Online), Master of Science (p. 1333)
- Civil Engineering: Structural Engineering, Master of Science (p. 1334)
- Civil Engineering: Structural Engineering (Online), Master of Science (p. 1335)
- Civil Engineering: Transportation Engineering (Online), Master of Science (p. 1336)
- Civil Engineering: Water Resources Engineering, Master of Science (p. 1337)
- Civil Engineering: Water Resources Engineering (Online), Master of Science (p. 1338)


## Master of Science in Environmental Engineering

The Master of Science in Environmental Engineering program is open to students with undergraduate degrees in environmental or civil engineering or related engineering or science disciplines who have completed certain minimum undergraduate coursework.

- Environmental Engineering Master of Science (p. 1338)


## Master of Environmental Science

The Master of Environmental Science programs are open to students with undergraduate degrees in the physical, natural, or life sciences or related disciplines who have completed certain minimum undergraduate coursework.

- Environmental Science (p. 1340)
- Environmental Science: Hydrology and Water Security Online (p. 1341)


## Doctoral Programs

The School of Civil Engineering and Environmental Science offers doctoral programs in environmental science, (p. 1343) environmental engineering (p. 1343), and civil engineering. (p. 1342) A master's degree in a related discipline is typically required for admission to all CEES Ph.D. degree programs, although students who have outstanding academic credentials and a documented record of research experience at the undergraduate level may occasionally be admitted to the doctoral program without a master's degree.

## Courses

CEES 1000 CEES Seminar
0 Credit Hours
Seminar provides a common meeting time for students and faculty for department activities, such as invited speakers, project presentations, educational surveys, cross-course project coordination, and policy announcements. Students must enroll every semester that they are matriculated in CEES at OU after the freshman year, but in no case can a student graduate without successfully completing four semesters of seminar. (F, Sp)
CEES 1111 Exploring CEES 1 Credit Hour
Prerequisite: Majors only. Introduction to fundamental concepts (principles of mechanics, energy balances, simple circuits), problem solving and design, simple computing software, and disciplinary topics for architectural, civil or environmental engineers and environmental scientists. (Sp)

CEES 1112 Introduction to Civil Engineering and Environmental Science

2 Credit Hours
Prerequisite: Freshman only. Introduction to fundamental concepts (mass/flow balance), problem solving and design, and simple computing software for architectural, civil or environmental engineers and environmental scientists. (F)

CEES 2113 Statics
3 Credit Hours
Prerequisite: PHYS 2514 and MATH 2433 or MATH 2934 or concurrent enrollment in MATH 2433 or MATH 2934. Vector representation of forces and moments; general three-dimensional theorems of statics; centroids and moments of area and inertia. Free-body diagrams, equilibrium of a particle and of rigid bodies, distributed loads, friction and internal shear and moment loads. Analysis of trusses, frames, and machines. (F)

## CEES 2153 Mechanics of Materials 3 Credit Hours

Prerequisites: 2113 or AME 2113 or PE 2113. Basic principles of mechanics, including the definition of stress and strain, transformations and principal values for the stress and strain tensors, kinematic relations, review of conservation equations and the development and application of constitutive laws for idealized materials. Elementary elastostatics utilizing Hooke's law; constitutive relations for a linear-elastic continuum, including elastic parameters such as Young's modulus, shear and bulk moduli and Poisson's ratio. Solution of elementary one- and twodimensional mechanics problems, including thermal stresses and strains, beam flexure, shear and deflections, pressure vessels and buckling of columns. (Sp)
CEES 2213 CADD Fundamentals
3 Credit Hours
Prerequisite: CEES Majors only and Sophomore standing. Introduction to computer aided design and drafting with a focus on the AutoCAD and MicroStation platforms. This course is primarily about learning to use the software and learning how to convey an engineering design graphically. (F)

## CEES 2223 Fluid Mechanics <br> 3 Credit Hours

Prerequisites: 2113 or AME 2113 or PE 2113, and Math 3113 or concurrent enrollment. Coverage of the fundamentals of fluid statics and dynamics. Formulation of the equation of fluid flow, i.e., Navier-Stokes equation, Eulers equations, Bernoulli equations, etc. and their application. Examples of ideal fluid flow, such as flow in open and closed conduits. (Sp)
CEES 2313 Water Quality Fundamentals 3 Credit Hours Prerequisite: CHEM 1415, MATH 2423 or MATH 2924. Introduction to environmental mass balance and fate processes. Studies of mass and energy transfer, introductory environmental chemistry, water quality parameters, mathematics of growth, statistics and data analysis, introduction to environmental laws and regulations. (F)
CEES 2323 Environmental Transport and Fate Process 3 Credit Hours Prerequisite: 2313. Physicochemical and biological processes controlling contaminant distribution and fate; hydrological processes controlling contaminant transport; sources, prevention and remediation of environmental pollutants. (Sp)
CEES 2412 Earth Systems and Processes 2 Credit Hours Prerequisite: CHEM 1315, and MATH 1823 or MATH 1914. This course provides environmental engineering and science students with a working knowledge of earth systems and their processes, specifically emphasizing the atmosphere, hydrological systems, limnology, soils, and ocean systems. This course will exam the physical structure of these systems, as well as their physical-chemical processes, and how the transfer of energy and mass between earth systems influences the global climate. (Sp)

CEES 2970 Special Topics/Seminar
1-3 Credit Hours
Special Topics. 1 to 3 hours. May be repeated; Maximum credit nine hours. Special topics course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research, and field projects. (Irreg.)
CEES 3213 Water Resources Engineering
3 Credit Hours
Prerequisite: 2223 or permission of instructor. Municipal water demands, surface water hydrology, ground water hydrology, water distribution systems, pump design, wastewater collection systems, storm water management, water law. (F)
CEES 3243 Water and Wastewater Treatment Design 3 Credit Hours Prerequisite: CEES 2223. Design of municipal water and wastewater treatment plants. Emphasis is placed on the characterization of water and wastewater and physical, chemical and biological treatment methods. Sludge processing advanced treatment methods and treatment plant hydraulics are also considered. (Sp)

CEES 3251 WaTER Center Integrated Seminar 1 Credit Hour Prerequisite: permission of instructor. This course is a weekly hour-long seminar in which students will hear from guest speakers discussing WASH projects in emerging regions, present their intercultural experience in the form of a case study, and listen to other case study presentations. Students may also read and discuss assigned readings (e.g., published peer-reviewed papers of other researchers doing similar work). (F,SP)
CEES 3263 Introduction to Dynamics for Architectural and Civil Engineers

3 Credit Hours
Prerequisite: CEES 2153 and MATH 3113. Kinematics and kinetics of rigid bodies; free and forced vibrations of undamped and damped single degree-of-freedom systems; concept of mass, stiffness, and damping for typical structures; introduction to vibrations of two and more degrees-of-freedom systems; and determination of loads on structures from dynamic events such as earthquakes. (F)
CEES 3361 Soil Mechanics Laboratory
1 Credit Hour
Prerequisite: CEES 2153 or PE 2153; CEES 3363 or concurrent enrollment (you must be enrolled in both lecture and lab section together the first time you attempt either). This is one of two complimentary courses taken in the area of Geotechnical Engineering and serves as an introduction to soil mechanics. During this course, the student will conduct simple laboratory tests to identify and classify soils, characterize the compacted properties of soil, and quantify soil permeability, compressibility and strength. (F)

CEES 3363 Soil Mechanics
3 Credit Hours
Prerequisite: CEES 2153 or PE 2153; CEES 3361 or concurrent enrollment (you must be enrolled in both lecture and a lab section together the first time you attempt either). General treatment of the physical and mechanical properties of soils. Topics include soil composition, classification, phase relationships, compaction, effective stress, consolidation, shear strength and permeability and seepage. (F)

CEES 3403 Materials
3 Credit Hours
Prerequisite: CEES 2153 or PE 2153 or concurrent enrollment. Study of the properties of materials utilized by architectural and civil engineers; analyses of aggregates, concrete, masonry, steel, asphalt, plastics and wood. Laboratory. (Sp)

CEES 3413 Structural Analysis I
3 Credit Hours
Prerequisite: CEES 2153 or PE 2153. Loads, reactions and force systems; introduction to design codes; analysis of frames and trusses; calculation of structural deformations; and analysis of indeterminate structures. Emphasis on classical solutions and time-tested approaches to structural engineering. Introduction to structural analysis computer programs to solve complex problems. (F)
CEES 3422 Intercultural Immersion Experience in an Emerging Region

2 Credit Hours
Prerequisite: permission of instructor. This course is intended to be a 3-6 week summer international immersion experience with a WaTER component (technological, cultural, business lens on water, sanitation, hygiene in a particular context). Students design their own experience/ internship, write a proposal of planned activities, and secure CEES faculty advisor approval. After completion, students submit a written report and oral presentation to a review committee. (Su)
CEES 3440 Mentored Research Experience 3 Credit Hours 0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)
CEES 3453 Introduction to Construction Management 3 Credit Hours Prerequisite: CEES 2213 and junior level standing in CEES. Introduction to methods for managing construction projects including scheduling, cost estimating, contracts, pay request, change orders, and requests for information. Students will also learn how to read construction documents and understand project specifications. (Sp)
CEES 3663 Structural Design - Steel I
3 Credit Hours
Prerequisite: CEES 3413 and CEES 3403 or concurrent enrollment in CEES 3403. Design of steel structural members including tension elements, columns, beams, and beam-columns; bolted and welded connection design; composite beam design; introduction to plastic design. Laboratory. (Sp)
CEES 3673 Structural Design - Concrete I
3 Credit Hours
Prerequisite: CEES 3403, CEES 3413. Analysis and design of reinforced concrete beams, columns, slabs, footings, etc., along with discussion of current building practice. Laboratory (F or Sp)

## CEES 3883 Transportation Engineering

3 Credit Hours
Prerequisite: CEES 2153 or P E 2153 and CEES 3403 or concurrent enrollment. Introduction to transportation planning, design, construction, operations and maintenance emphasizing the highway/street mode. Includes demand modeling, route location and design, pavements including hot mix asphalt volumetrics and stability, drainage, and traffic control devices. (Sp)

CEES 3960 Honors Reading 1-3 Credit Hours 1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Consists of topics designated by the instructor in keeping with the student's major program. The topics will cover materials not usually presented in the regular courses. (F, Sp, Su)
CEES 3970 Honors Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. The projects covered will vary. Deals with concepts not usually presented in regular coursework. (Irreg.)

CEES 3980 Honors Research
1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Provides an opportunity for the gifted Honors candidate to work on a special project in the field. (Sp)
CEES 3990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: permission of instructor and junior standing. May be repeated once with change of content. Independent study may be arranged to study a subject not available through regular course offerings. (F, Sp, Su)
CEES 4113 Building Lighting and Electrical Systems 3 Credit Hours Prerequisite: MATH 2423 or MATH 2924; PHYS 2524; and ENGR 2431 or concurrent enrollment, CEES majors only. Fundamentals of building lighting and electrical systems. Lighting topics include the determination of appropriate lighting quantity and quality, luminaires and lighting design procedures for residential, commercial and industrial buildings. Electrical topics will include service voltages, overcurrent protection, short circuit analysis and branch circuit design for residential, commercial and industrial buildings. (F or Sp)
CEES 4114 Aquatic Chemistry
4 Credit Hours
(Slashlisted with CEES 5114) Prerequisite: CHEM 1415 and CEES 2323 or permission of instructor. Environmental kinetics and thermodynamics in aquatic systems; acid/base, precipitation/solubility, metal complexation and oxidation/reduction reactions; environmental colloidal and solidliquid interface chemistry. No student may earn credit for both 4114 and 5114 or Environmental Science 4114 and 5114. Laboratory. No student may earn credit for both 4114 and 5114. (F)

CEES G4123 Open Channel Flow
3 Credit Hours
Prerequisite: CEES 2223. Theory, analysis and design of channels, aqueducts, headworks, siphons, spillways and hydraulic structures. An in-depth study of critical flow and measurement techniques. Backwater analysis by analytical, calculator and computer methods. Special emphasis on practical problems of general interest. (F)
CEES G4243 Water Technologies for Emerging Regions 3 Credit Hours Prerequisite: 2223 or 2323 or equivalent or instructor permission. Students will gain an understanding of water and sanitation issues in remote villages of developing countries. Explore and design sustainable technologies appropriate to these settings including cultural, political and economic factors. (Sp)
CEES G4253 Statistics and Probability 3 Credit Hours
Prerequisite: MATH 2423 or 2924 and PHYS 2524 or 2424. Designed to help students understand the fundamentals of probability, statistics, reliability, and risk methods in support of decision making for future engineers and scientists. Fundamental concepts in probability and statistics will be reviewed and used. Engineering decisions are often based on data that contain uncertainty; future scientists and engineers should understand how uncertainty affects calculated quantities, accuracy, precision, and reliability. (Sp)

CEES G4263 Hazardous and Solid Waste Management 3 Credit Hours Prerequisite: junior or above status in CEES or permission of instructor. Sources and types of solid wastes; identification and classification of hazardous wastes; waste handling, transportation, treatment and disposal techniques, federal and state legislation; and environmental and health effects. (F)

CEES G4273 WaTER Technical Field Methods 3 Credit Hours
Prerequisite: permission of instructor. A hands-on practicum for construction and implementation of water and sanitation projects in developing countries. Course modules reflect the typical projects and skills needed by development workers in organizations such as Peace Corps, USAID, Engineers Without Borders, and faith-based organizations. Emphasis will be on sustainable technologies using methods and materials appropriate to emerging regions. Non-engineering students are encouraged to participate. (Su)

## CEES 4281 Engineering Co-Op Program 1 Credit Hour

(Crosslisted with AME, CH E, C S, ECE, EPHY, ISE and BME 4281)
Prerequisite: Departmental permission and junior standing. May be repeated; maximum credit 6 hours. The Co-Op program provides students an opportunity to enhance their education via career exploration in related professional work experiences. Course assignments help students articulate their experiences by completing journals; mid-term paper; final paper and/or final presentation. Faculty receive an evaluation from the student's Co-Op supervisor who monitors performance. Faculty collaborate with the Co-Op supervisor to ensure student success. (F, Sp, Su )
CEES 4324 Environmental Biology and Ecology 4 Credit Hours
(Slashlisted with CEES 5324) Prerequisite: CEES 2323. Examines applied environmental biology; biological consequences of environmental impacts; mitigation of environmental impacts via biogeochemical, ecological and microbial processes. No student may earn credit for both 4324 and 5324. Laboratory (F)
CEES G4333 Foundation Engineering
3 Credit Hours
Prerequisite: CEES 3363. Substructure analysis and design to meet various soil conditions; footings and rafts, shoring and underpinning, piles, cofferdams, caissons, breakwaters, piers, wharves, vibratory effects on foundations. (Sp)

## CEES 4363 Ecological Engineering Science <br> 3 Credit Hours

(Slashlisted with 5363) Prerequisite: Senior standing or permission of instructor. Exploration of the design of sustainable ecosystems integrating human society with its natural environment for the benefit of both. Uses a systems perspective that resilient and sustainable solutions involve working with natural ecological and biogeochemical processes and not against them, and require less fossil fuel input, produce less pollution, and represent cost-effective alternatives to traditional energyand resource-intensive technologies. No student may earn credit for both 4363 and 5363. (Sp)
CEES 4373 Water Resources Systems Modeling 3 Credit Hours
(Slashlisted with CEES 5373) Prerequisite: CEES 3213 or concurrent enrollment or instructor permission. Theory and concept of water resources management. An in-depth study of theory of optimization, hydrologic modeling, reservoir and dams operation. Data analysis and computational methods for hydrology and water resources management. Special emphasis on system modeling and parameter tuning using automatic calibration approaches. Basic level of scientific programming. No student may earn credit for both 4373 and 5373. (F)

CEES 4423 CEES Professional Internship or Co-op 3 Credit Hours
Prerequisite: completion of at least 19 hours of Civil Engineering and Environmental Science (CEES) coursework (for Civil Engineering and Environmental Engineering majors); or completion of at least 19 hours of CEES and science coursework (for Environmental Science majors); or completion of at least 19 hours CEES and Architecture (ARCH) coursework (for Architectural Engineering majors). Provides three hours of professional elective credit for 400 hours of internship. Prior to starting the internship, students should write a proposal of planned activities and secure the approval from a CEES faculty member to serve as an of the advisor. After completion of the internship or co-op, the students should enroll in this course. The student must then submit a written report, and make an oral presentation for a three-member review committee that includes the faculty advisor. (F, Sp, Su)

CEES G4453 Geomatics Engineering
3 Credit Hours
Prerequisites: CEES 2213, CEES 3403 and MATH 2433 or MATH 2934 or instructor permission. Geomatics engineering deals with the science of determining relative positions of features for mapping, engineering and construction plans. Topics include digital leveling, orientation, distance measurement, traversing and control surveys, accuracy, error sources, precise horizontal and zenith angle measurements, and introduction of global navigation satellite system. Laboratory (F)

## CEES G4663 Introduction to Matrix Methods in Structural

Analysis
3 Credit Hours
Prerequisite: CEES 3413. Review of matrix algebra and solution of linear equations; energy concepts and principle of virtual work; fundamentals of flexibility and stiffness methods; coordinate transformation and matrix assemblage; computer-oriented direct stiffness method and computer code developments; secondary effects; support settlement and temperature change; method of finite differences and application to beam and plate problems. (F or Sp)
CEES G4753 Structural Design - Wood
3 Credit Hours
Prerequisite: CEES 3413 or equivalent. Material properties and behavior of wood. Analysis and design of solid and laminated structural members, connections, systems, trusses and arches. Current developments in structural wood design and research. (F)
CEES 4843 Hydrology
3 Credit Hours
(Slashlisted with CEES 5843) Prerequisite: MATH 2924/2423 and CEES 4253 (pre-or co-requisite) or instructor permission. Hydrology is the study of water across the globe. This is an applied course on hydrology dealing with environmental water problems; principles of hydrologic systems, their structure and components; and methods of analysis and their application to various purposes of water resources planning and development. No student may earn credit for both 4843 and 5843. (Sp)
CEES G4883 Traffic Analysis, Design and Control 3 Credit Hours
Prerequisite: CEES 3883 or Permission of Instructor. Study of fundamentals of traffic engineering; components of the traffic system; intersection types and design elements; basic variables of the traffic system (flow, capacity, level of service, delay); design and analysis of traffic signals and intersections; traffic control and traffic impact analysis; safety performance and traffic crash analysis; use of the Highway Capacity Manual and traffic analysis software. (F)

CEES 4901 Introduction to CE Capstone
1 Credit Hour
Prerequisite: CEES 3213, CEES 3363, and CEES 3663 or CEES 3673 (or concurrent enrollment). Introduction to the capstone design project, which is a two-semester-long, open-ended engineering design problem that requires applying the skills and techniques acquired in earlier engineering course work. This course will focus on introducing the project requirements; forming multi-disciplinary teams of students; developing team identities; assigning team roles; evaluating project constraints; and developing a project design schedule. (F)

## CEES 4903 Civil Engineering Capstone

3 Credit Hours
Prerequisite: CEES 3213, and CEES 3363, and CEES 3663 or CEES 3673, and CEES 4901. Solution of major design problems by a team approach of disciplines. Problems to be varied within the areas of civil engineering (structural; geotechnical; and transportation) according to the student's major interest. The capstone project will be under direct faculty supervision. (Sp) [V].
CEES 4911 Introduction to ES Capstone 1 Credit Hour
Prerequisite: CEES 4114 or CEES 5114 (or concurrent enrollment), CEES 4324 or CEES 5324 (or concurrent enrollment). Introduction to the capstone design project, which is a two-semester-long, openended engineering design problem that requires applying the skills and techniques acquired in earlier engineering course work. This course will focus on introducing the project requirements; forming multi-disciplinary teams of students; developing team identities; assigning team roles; evaluating project constraints; and developing a project design schedule. (F)

CEES 4913 Environmental Science Capstone 3 Credit Hours Prerequisite: CEES 4911 and CEES 4253 (or concurrent enrollment). The capstone experience draws upon undergraduate course work in environmental science, biology, chemistry, physics, mathematics, and related sciences. Student teams address a client-driven, open-ended, realworld problem. Faculty coordinators serve in advisory capacities only, introducing field, laboratory, and computer methods and coordinating class meetings and presentations. Any other in-class presentations cover non-traditional (non-technical) topics. (Sp) [V].

CEES 4921 Introduction to EE Capstone 1 Credit Hour
Prerequisite: CEES 3213, CEES 4114 or CEES 5114 (or concurrent enrollment), CEES 4324 or CEES 5324 (or concurrent enrollment). Introduction to the capstone design project, which is a two-semesterlong, open-ended engineering design problem that requires applying the skills and techniques acquired in earlier engineering course work. This course will focus on introducing the project requirements; forming multidisciplinary teams of students; developing team identities; assigning team roles; evaluating project constraints; and developing a project design schedule. ( F )
CEES 4923 Environmental Engineering Capstone 3 Credit Hours Prerequisite: CEES 4921 and CEES 4253 (or concurrent enrollment). The capstone experience is a course where students draw upon their undergraduate course work for analysis of an open-ended, real world problem. Faculty coordinators serve in advisory capacities only. All inclass presentations will cover non-traditional (non-technical) topics. Students are presumed to have been trained in basic natural and engineering sciences and introduced to environmental sampling/analysis and impact/risk assessment methods. (Sp) [V].
CEES 4943 Air Quality Management 3 Credit Hours Prerequisite: CEES 2313 or CEES 2223 or instructor permission. Important aspects of air quality will be covered, including air quality legislation, major sources and effects of air pollutants, monitoring, atmospheric dispersion, and air quality modeling. (Sp)

CEES 4951 Contemporary Topics in Professional Practice 1 Credit Hour Prerequisite: Junior standing in Civil Engineering or Environmental Engineering. Civil engineering is a dynamic profession, as methods of practice evolve to address the many pressing problems in today's built and natural environment. This course provides an introduction to contemporary topics in professional practice, such as basic concepts of sustainability in engineering design, modern tools for project management, and the role of business/policy considerations in practice. (F)

CEES 4960 Directed Readings
1-4 Credit Hours
1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean. May be repeated; maximum credit four hours. Designed for upper-division students who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)
CEES 4970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: Senior standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)
CEES 4980 Environmental Science Senior Research 1-12 Credit Hours Prerequisite: senior standing. Maximum credit twelve hours. Intensive research investigation of a special project under the direction of a faculty member. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
CEES 4990 Independent Study

## 1-3 Credit Hours

1 to 3 hours. Prerequisite: Senior standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)

CEES 4991 Introduction to AE Capstone
1 Credit Hour
Prerequisite: CEES 3663 (or concurrent enrollment), CEES 3673 (or concurrent enrollment), CEES 4113, and AME 4653 (or concurrent enrollment). Introduction to the capstone design project, which is a two-semester-long, open-ended engineering design problem that requires applying the skills and techniques acquired in earlier engineering course work. This course will focus on introducing the project requirements; forming multi-disciplinary teams of students; developing team identities; assigning team roles; evaluating project constraints; and developing a project design schedule. (F)

CEES 4993 Architecture Engineering Capstone 3 Credit Hours Prerequisite: CEES 3663, CEES 3673, CEES 4991 and AME 4653; CEES 4113 and CEES 4333 or concurrent enrollment. A capstone course emphasizing design of structural components and environmental systems of buildings. Requires students to have knowledge and skills from prerequisite courses to address a real-world, open-ended design problem. (Sp) [V].

CEES 5010 Civil Engineering Problems
1-4 Credit Hours Prerequisite: senior or graduate standing and permission of instructor. May be repeated; maximum credit four hours for a master's program or six hours for a doctoral program, including hours taken as part of another graduate program. Independent or small group study under the supervision of one or more faculty members. ( $F, \mathrm{Sp}, \mathrm{Su}$ )
CEES 5020 Special Topics in Civil Engineering
1-6 Credit Hours
1 to 6 hours. Prerequisite: senior or graduate standing and permission of instructor. May be repeated with change of topic; maximum credit twelve hours. Examines subject matter in civil engineering not covered by existing course offerings as a regular course. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

CEES 5021 Technical Communications 1 Credit Hour
Prerequisite: CEES graduate standing or permission of instructor. Focused on enabling students to improve oral and written communications skills. Examines appropriate formats for various technical publications, as well as methods and practices for developing effective oral presentations. Each student will be required to develop an oral presentation about his/her written product. (Sp)
CEES 5103 Water Policy and Institutions 3 Credit Hours
Prerequisite: Graduate standing or permission of instructor. This course examines the evolution of water policy in the United States and the substantive roles that federal and state water resource institutions have played. Students will gain an understanding of the legal and institutional frameworks within which water resources are managed and the broader implications of climate change for water security. (F)
CEES 5113 Water Management Chemistry 3 Credit Hours Prerequisite: Graduate standing or permission of instructor. This course provides knowledge of water chemistry encountered in the management and assessment of water quality. Course goals are: 1) to become proficient interpreting water chemistry data so to be able to successfully evaluate the water quality status of a water resource, and 2 ) to know which specific water chemistry parameters are essential to measure for monitoring water quality problems. (F)
CEES 5114 Aquatic Chemistry
4 Credit Hours
(Slashlisted with 4114) Prerequisite: graduate standing, one year general chemistry. Environmental kinetics and thermodynamics in aquatic systems; acid/base, precipitation/solubility, metal complexation and oxidation/reduction reactions; environmental colloidal and solid-liquid interface chemistry. No student may earn credit for both 4114 and 5114 or Environmental Science 4114 and 5114. Laboratory. (F)

## CEES 5123 Climate Change and Impacts on Water Energy Food Nexus 3 Credit Hours

Prerequisite: Graduate standing or permission of instructor. An interdisciplinary course to learn the basics of climate change and its impacts on the interactions among water, energy and food nexus. The course provides fundamental theories of climate change, water cycle, and technologies about renewable energy (hydro, wind, solar, ocean, biomass, geothermal) and non-renewable energy (fossil fuels). The course talks about global food production and teaches basic Python programming. (Sp)
CEES 5133 Water Sustainability
3 Credit Hours
(Crosslisted with CH E 5133) Prerequisite: Civil Engineering,
Environmental Engineering, or Environmental Science Graduate standing; or permission of instructor. Introduction to water reclamation and reuse. Wastewater characteristics. Conventional approaches for wastewater treatment. Emerging materials and technologies for water remediation. Water reuse applications and outlook. (Irreg.)
CEES 5153 Water Innovation: Technology, Policy, and Organizational Issues

3 Credit Hours
Prerequisite: Graduate standing or permission of instructor. This course encompasses water technologies and their extended innovation processes in three substantive sections. A basic understanding of technological innovation frameworks precedes discussion of water systems. The second section addresses water policy in general as well as specific cases of policy innovation. The final section covers organizations and how they can become more innovative with respect to water systems. (Sp)

CEES 5233 Biological Waste Treatment Design 3 Credit Hours
Prerequisite: Graduate standing or permission of instructor. Waste treatment design using biological processes; emphasis on treatment biokinetics, municipal wastewater treatment processes, and design of municipal wastewater unit processes; application of biological treatment concepts to other wastes including industrial wastes, groundwater, and solid or hazardous wastes. (F)
CEES 5243 Physical-Chemical Water Treatment 3 Credit Hours Prerequisite: graduate standing or permission of instructor. The course covers physical and chemical processes for water purification, primarily for drinking water treatment, including governing regulations (the Safe Drinking Water Act), reactor kinetics, coagulation, flocculation, sedimentation, filtration, disinfection, demineralization, taste and odor removal, and advanced treatment. (Sp)
CEES 5244 Physicochemical Water Treatment Processes 4 Credit Hours Prerequisite: graduate standing or permission of instructor. Physical and chemical processes for drinking water, ground water and industrial water treatment. Processes discussed include coagulation/flocculation, gravity separation, filtration, disinfection, adsorption, advanced oxidation, and phase transfer (e.g., air stripping). (Sp even years)
CEES 5313 Engineering Geology
3 Credit Hours
Prerequisites: CEES 3363, CEES 3361 and permission of instructor. Understanding geology in engineering design and mitigation: topics include weathering and soil-forming processes; engineering properties of rock; landslides and debris flow (slope stability); fluvial processes and hazards; land subsidence; expansive soil; hazard, risk and land-use planning. (F)
CEES 5323 Geosynthetics
3 Credit Hours
Prerequisites: CEES 3363 and CEES 3361. To introduce students to concepts and design methods involving the use of geosynthetics in geotechnical and transportation engineering applications. (F)
CEES 5324 Environmental Biology and Ecology 4 Credit Hours (Slashlisted with CEES 4324) Prerequisite: Graduate standing in CEES. Examines applied environmental biology; biological consequences of environmental impacts; mitigation of environmental impacts via biogeochemical, ecological and microbial processes. Laboratory No student may earn credit for both 4324 and 5324. (F)
CEES 5343 Advanced Soil Mechanics 3 Credit Hours Prerequisites: CEES 3363, CEES 3361 and permission of instructor. Advanced treatment of theories and principles of shearing strength, stress distribution and settlement analysis. (F)
CEES 5353 Introduction to Soil Dynamics
3 Credit Hours
Prerequisite: Graduate Standing, CEES 3363 or permission of instructor. Review of basic concepts (single- and multi-degree of freedom system, wave propagation, behavior of dynamically loaded soils), liquefaction, vibrations of footings on elastic half space, analog models, dynamics of pile foundations, machine foundations, design of foundations for dynamic loads including earthquake loading. (Irreg.)
CEES 5363 Ecological Engineering Science
3 Credit Hours
(Slashlisted with CEES 4363) Prerequisite: senior or graduate standing. Exploration of the design of sustainable ecosystems integrating human society with its natural environment for the benefit of both. Uses a systems perspective that resilient and sustainable solutions involve working with natural ecological and biogeochemical processes and not against them, and require less fossil fuel input, produce less pollution, and represent cost-effective alternatives to traditional energy-and resource-intensive technologies. No student may earn credit for both 4363 and 5363. (Sp)

CEES 5373 Water Resources Systems Modeling 3 Credit Hours
(Slashlisted with CEES 4373) Prerequisite: Graduate standing or permission of instructor. Theory and concept of water resources management. An in-depth study of theory of optimization, hydrologic modeling, reservoir and dams operation. Data analysis and computational methods for hydrology and water resources management. Special emphasis on system modeling and parameter tuning using automatic calibration approaches. Basic level of scientific programming. No student may earn credit for both 4373 and 5373. (F)
CEES 5383 Earthquake Engineering 3 Credit Hours
Prerequisite: senior or graduate standing. To provide students with an understanding of the effects of earthquakes on civil engineering structures and analytical tools for their seismic analysis. (F)

## CEES 5393 Reinforced Soil Structures <br> 3 Credit Hours

Prerequisites: CEES 3363 and CEES 3361. Introduce students to the analysis and design methods related to geotechnical structures reinforced with geosynthetics. The main focus of this course will be on reinforced soil walls, slopes and embankments. (Sp)
CEES 5413 Soil-Structure Interaction
3 Credit Hours
Prerequisite: Graduate standing and CEES 3363, or permission of instructor. Introduction-definition, methods of solution; beams on deformable foundations; analysis and design of axially loaded structures -- single pile, pile groups, retaining walls; plates on deformable foundations; role of interfaces and joints; wave equation for pile behavior. (Irreg.)
CEES 5433 In-Situ Soil Testing
3 Credit Hours
Prerequisites: CEES 3363, CEES 3361 and permission of instructor. This is a "hands-on" course that focuses on conducting and interpreting laboratory and in-situ tests for geotechnical engineering. Topics can include but are not limited to drilling, sampling, soil characterization, triaxial shear testing, one-dimensional compression, flexible wall permeability testing, pressuremeter, cone penetrometer, borehole shear, and pile load testing. Laboratory (Sp)

## CEES 5443 Unsaturated Soil Mechanics

3 Credit Hours
Prerequisites: CEES 3363 and CEES 3361. Provide students with an understanding of the theoretical and practical fundamentals of unsaturated soil mechanics with applications in geotechnical engineering. (F)
CEES 5473 Forensic Geotechnical Engineering 3 Credit Hours Prerequisites: CEES 3363 and CEES 3361. Examines methods for investigating and analyzing geotechnical failures. Examples include slope failures, pavement subgrade failures, foundation failures, excessive seepage from earth dams, and excavation failures. The course also addresses the role of the engineer as a consultant and/or expert witness in legal cases involving geotechnical failures. (F or Sp)
CEES 5493 Transportation and Land Development 3 Credit Hours (Crosslisted with RCPL 5493) Prerequisite: graduate standing or permission. Study of interactions between land development activity and the transportation network. Application of planning and design techniques to manage the impacts of development upon the transportation system.

CEES 5503 Highway Engineering
3 Credit Hours
Prerequisite: Graduate standing or permission of instructor. In this course, students will study geometric elements of highway design, with emphasis on highway safety and traffic flow, design controls, route analysis, and alignment. Highway engineering includes corridor selection, design of vertical and horizontal alignments, evaluation of earthwork requirements, drainage and culvert design, and safety considerations. (Su)
CEES 5513 Traffic Engineering
3 Credit Hours
Prerequisite: Graduate standing or permission of instructor. This course focuses on traffic flow theory, analysis of traffic data, and advanced technology applications for data collection, traffic control, and real-time system management. It will include emphasis on highway capacity, signal integration, intelligent transportation systems (ITS), and impacts of advanced technology, including automated vehicles. (Sp)
CEES 5523 Transportation Asset Management 3 Credit Hours
Prerequisite: Graduate standing or permission of instructor. This course focuses on fundamental elements of transportation asset management and application of its principles; explores the impetus, philosophy, and policy for implementing a long term, comprehensive plan for managing infrastructure assets; presents engineering and economic analysis concepts and processes used to evaluate and support strategic and systematic planning, finance, investment, performance, measurement, management, and preservation of a transportation system. (Su)

## CEES 5533 Multimodal Transportation 3 Credit Hours

Prerequisite: Graduate standing or permission of instructor. Course focuses on fundamental elements of system performance for the multimodal transportation system and application of its principles; explores the impetus, philosophy, and policy for implementing a long term, comprehensive plan; presents transportation modes, including land, air and marine, modal shift and impact; presents engineering/economic analysis concepts used to evaluate and support planning, design, and financing processes for multimodal system. (Sp)
CEES 5543 Hazards Mitigation \& Community Resilience 3 Credit Hours
Prerequisite: Graduate standing or permission of instructor. This course will address, describe, and quantify in time and space the physical phenomena of several natural and man-made hazards. Students will learn about the current best practices and identify novel approaches to mitigate such risks and hazards to be able to sustain and protect the well-being of the residents as well as the infrastructure systems in the community. (F)
CEES 5583 Water Law
3 Credit Hours
Prerequisite: Graduate standing or permission of instructor. A course for non-lawyers that explores systems of water rights; riparian, appropriation, and prescriptive rights; stream, surface, and ground water; development of water supplies; nationwide conflicts; water pollution control; federal and Indian rights and federal water resource issues and problems, so that water managers, environmental scientists or policy makers can provide needed input to threats to and protection of water. (Su)

CEES 5623 Watershed Management and Restoration 3 Credit Hours Prerequisite: Graduate standing or permission of instructor. Course provides a comprehensive examination of watershed assessment, management, planning, protection, and restoration. Processes governing drainage-basin scale physiography, hydrology, hydrogeomorphology, and ecology are examined, emphasizing water quality-driven approaches to watershed management and restoration. (F even years)

CEES 5624 Biological Waste Treatment 4 Credit Hours
Treatment of waste using biological processes; emphasis on treatment kinetics, municipal wastewater treatment processes, and design of municipal wastewater unit processes; application of biological treatment concepts to other wastes including industrial wastes, groundwater, and solid or hazardous wastes. Laboratory (F)
CEES 5643 Quantitative Hydrometeorology 3 Credit Hours
(Crosslisted with METR 5643) Prerequisite: Graduate standing or permission of instructor. Theory and concept of hydrometeorology and remote sensing, across atmospheric science and hydrology and across water science and engineering. An in-depth study of precipitation estimation from in-situ, radar, satellite, uncertainty modeling and decision making. Data analysis and computational methods for hydrometeorology. Special emphasis on probabilities/statistics and decision making. Basic level of scientific programming is helpful but not mandatory. (Irreg.)
CEES 5653 Advanced Mechanics of Materials 3 Credit Hours
Prerequisite: CEES 2153 or PE 2153 and senior or graduate standing. Principal stresses and strains; theories of failure; introduction to elasticity; unsymmetrical bending and shear; torsion of noncircular solid cross sections, cellular sections and open sections; introduction to plate bending and buckling. (F)
CEES 5663 Structural Analysis II
3 Credit Hours
Prerequisite: Graduate standing and CEES 3413, or permission of instructor. This course addresses many of the classical methods used in the analysis of structures before the advent of the computer, such as virtual work, force method, slope-deflection, and approximate methods. Second-order analysis, stability, and matrix methods are also covered, and modern structural analysis software is introduced. (Sp)
CEES 5673 Colloid and Surface Science
3 Credit Hours
(Crosslisted with CH E 5673) Prerequisite: Civil Engineering,
Environmental Engineering, or Environmental Science Graduate standing or permission of instructor. Capillarity, surface thermodynamics, adsorption from vapor and liquid phases, contact angles, micelle formation, solubilization, emulsions and foams. Applications to be discussed include detergency, enhanced oil recovery and adsorption for pollution control. (Irreg.)

## CEES 5683 Dynamics of Structures

3 Credit Hours
Prerequisite: Graduate standing, CEES 3263, and CEES 3413. Topics covered include free vibration, forced vibration, and transient response of structures having one, multiple or infinite number of degrees-offreedom; structural damping effects; numerical solution techniques; Lagrange's equation of motion; and Rayleigh-Ritz method. General matrix formulation for multiple degrees-of-freedom and modal coordinate transformation. Introduction to earthquake engineering concepts. (F)

## CEES 5693 Structural Design of Pavements

3 Credit Hours
Prerequisites: CEES 3363, 3361 and 3883 . Effect of load and climate on the design of rigid and flexible pavements and interaction of pavement components. (Irreg.)
CEES 5713 Structural Design - Masonry 3 Credit Hours Prerequisite: Graduate standing or permission of instructor. A course for students who desire to learn how to design structures using a composite material such as masonry. From its historical use to the modern design involving reinforced masonry, the student will become familiar with the material properties, the different structural elements and their role in transferring horizontal and vertical loads. Code provisions will be reviewed throughout the course. (Sp)

CEES 5723 Design of RC Structures with Fiber Reinforced Polymers

3 Credit Hours
Prerequisite: Graduate standing or permission of instructor. This class will be focused on understanding behavior of Fiber Reinforced Polymer (FRP) materials; the design of reinforced concrete structures using FRP reinforcement; the strengthening of existing structures using FRP materials. (F)
CEES 5733 Hydroclimatology
3 Credit Hours
(Crosslisted with METR 5733) Prerequisite: Graduate standing or permission of instructor. Theory and concept of hydroclimatology across atmospheric science and hydrology. An in-depth study of the local to global climate of precipitation with specific foci on drought, pluvials, and how they vary in a changing climate system. Data analysis and computational methods for hydroclimatology. Basic level of scientific programming is helpful but not mandatory. (Su)
CEES 5763 Introduction to Finite Element Method 3 Credit Hours (Crosslisted with AME 5763) Prerequisite: graduate standing. Weighted residual and variational approaches. Finite element formulation for rod, truss and beam elements; plane stress and plane strain problem; axisymmetric and three-dimensional analysis; isoparametric elements; conforming and nonconforming plate and shell elements. (Sp)
CEES 5773 Structural Design--Steel II 3 Credit Hours
Prerequisite: CEES 3663. Advanced structural steel design including steel deck diaphragms, column and beam bracing, composite beam design, rigid frame design, torsional member design, plate girder design, and design of building connections. (F or Sp)
CEES 5783 Structural Design--Concrete II
3 Credit Hours
Prerequisite: CEES 3673. Advanced reinforced concrete behavior and design including limit design, anchorage slender columns, truss models for shear and torsion on beams, two-way and flat slabs, and the art of detailing. (F or Sp)
CEES 5793 Design of Prestressed Concrete Structures 3 Credit Hours Prerequisite: CEES 3673. Design procedures for pretensioned and post-tensioned concrete structures, with emphasis on the behavior of prestressed concrete. Topics include methods of analysis, time dependent effects, fabrication and construction procedures, connections, highway bridges, frames, composite construction, continuous structures, and anchorage zone detailing. (Irreg.)
CEES 5813 Water Treatment, Reuse, and Health Impacts 3 Credit Hours Prerequisite: Graduate standing or permission of instructor. An introduction to water quality applications and the health impacts of water and wastewater. The course covers the basic principles of public health epidemiology and water-related diseases. Conventional and advanced water treatment methods are presented, along with various types of potable and non-potable water reuse to supplement public water supply in times of water stress. (Sp)
CEES 5833 Ground Water Quality Protection
3 Credit Hours
Prerequisite: graduate standing or permission. Introduction to ground water quality protection. Covers sources of ground water, ground water hydrology, ground water information sources, ground water pollution sources, subsurface transport and fate processes and monitoring of ground water systems. (F)

CEES 5843 Hydrology 3 Credit Hours
(Slashlisted with CEES 4843) Prerequisite: Graduate standing or permission of instructor. Hydrology is the study of water across the globe. This is an applied course on hydrology dealing with environmental water problems; principles of hydrologic systems, their structure and components; and methods of analysis and their application to various purposes of water resources planning and development. No student may earn credit for both 4843 and 5843. (Sp)
CEES 5853 Groundwater and Seepage
3 Credit Hours
Prerequisite: graduate standing in civil engineering, environmental engineering, environmental science, geology or permission of instructor. An applied course dealing with properties of aquifers, modeling of groundwater flow, groundwater hydrology and its interrelation with surface water, well hydraulics, pumping tests and safe yield of aquifers. (F)

CEES 5873 Water Quality Management 3 Credit Hours
Prerequisite: MATH 3113, and graduate standing, or instructor permission. Water quality in lakes, rivers, estuaries; chemical, physical and biological aspects of marine and fresh waters; waste assimilation; system modeling; water quality management; waste load allocation, and engineer controls. (Sp)
CEES 5883 Environmental Modeling 3 Credit Hours
Prerequisite: MATH 3113 , graduate standing or instructor permission. Introduction to theoretical and practical issues of computer-based environmental modeling. Covers problem formulation, implementation, and application. Topical areas include conceptualizing problems, conservation laws, partial differential equations, numerical methods, and applications ranging from coastal hydrodynamics to contaminant transport. Emphasis on understanding the model process rather than using "canned" models. (F)

## CEES 5903 Remote Sensing Hydrology

3 Credit Hours
Prerequisite: senior standing, or graduate standing, or permission of instructor. Overview of various orbital satellite platforms/sensors and introduces advances in remote sensing hydrology from space-borne observations, state-of-the-art retrieval algorithms for hydrological variables, and ground validation strategies. Required for Hydrology minors. (Sp)
CEES 5933 Climate Change and Water Sustainability 3 Credit Hours Prerequisite: Graduate standing or permission of instructor. This seminar course is for students who wish to understand the Earth's climate variability and water sustainability. In the context of an integrated Earth climate system, the course provides an overview of global water resources, impacts of climate change on various systems, and recommends practical responses to mitigate climate change. (F)

CEES 5960 Directed Readings
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing and permission of department. May be repeated; maximum credit twelve hours. Directed readings and/or literature reviews under the direction of a faculty member. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

## CEES 5963 Water Security

3 Credit Hours
Prerequisite: Graduate standing or permission of instructor. This course defines water security as existing at the water quantity-quality-equity nexus, looks at historical examples of water insecurity, discusses major water security challenges (e.g., natural disasters, global warming, the water-food-energy nexus, urbanization, transboundary issues) as well as responses to these challenges (e.g., water resilience plans, LID, desalination/reuse technologies, developing a water ethic) and evaluates pioneering water security initiatives. (Sp)

CEES 5970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)
CEES 5973 Fundamental Hydrology
3 Credit Hours
Prerequisite: Graduate standing or permission of instructor. A science-based course for students who desire to be water managers, environmental scientists, or policy makers. The course provides a quantitative introduction to atmospheric, surface, and subsurface hydrology. Modules present the storage and movement of water between the environmental compartments, the effect of human activities on the natural water cycle, and the threats to and protection of water security. (Sp)
CEES 5980 Research for Master's Thesis
2-9 Credit Hours
Variable enrollment, two to nine hours; maximum credit applicable toward degree, four hours. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
CEES 5982 CEES Non-Thesis Project
2 Credit Hours
Prerequisite: graduate standing and instructor permission. This is for all CEES non-thesis students to take as their final project for their nonthesis defense. Each student with their faculty advisor will determine what the project will cover. Each student will be required to develop an oral presentation about his/her written project. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
CEES 5990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)

CEES 6663 Advanced Finite Element Methods 3 Credit Hours (Crosslisted with AME 6663) Prerequisite: 5763. Selected topics such as: nonlinear material problems, plasticity, creep (visco-plasticity), fracture, etc.; geometrically nonlinear problems, large displacement and structural stability; dynamic problems and analytical solution procedures; soilstructure interactions; application of finite element method to fluid and heat transfer problem. (Irreg.)

CEES 6960 Directed Readings
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit six hours. Directed readings and/or literature review under the direction of a faculty member. (Irreg.)
CEES 6970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit 12 hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or research and field projects. (Irreg.)

CEES 6980 Research for Doctoral Dissertation 2-16 Credit Hours 2 to 16 hours. Prerequisites: Graduate standing and permission of instructor; may be repeated. Directed research culminating in the completion of the doctoral dissertation. (F, Sp, Su)
CEES 6990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)

## Faculty

| Last Name | First/Middle <br> Name | Middle init. | OU <br> Service start | Title(s), date(s) appointed | Degrees Earned, Schools, Dates Completed |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Bounds | Tommy | D. | 2023 | ASSISTANT <br> PROFESSOR OF CIVIL <br> ENGINEERING AND <br> ENVIRONMENTAL <br> SCIENCE, 2023 | PhD, Univ. of Oklahoma 2020; MS, Univ. of Oklahoma 2013; BS, Univ. of Oklahoma 2012 |
| Bui | Ngoc |  | 2020 | ASSISTANT <br> PROFESSOR OF CIVIL <br> ENGINEERING AND <br> ENVIRONMENTAL <br> SCIENCE, 2020; <br> ASSISTANT <br> PROFESSOR <br> OF CHEMICAL, <br> BIOLOGICAL <br> AND MATERIALS <br> ENGINEERING, 2020 | PhD, Univ. of Connecticut, 2014; MS, Chonnam National Univ., 2007; BS, HoChiMinh City Univ. of Technology, 2005 |
| Butler | Elizabeth |  | 1999 | PROFESSOR OF CIVIL ENGINEERING AND ENVIRONMENTAL SCIENCE, 2010 | PhD, Univ of Michigan, 1998; MS, Univ of Maryland, 1991; BS, Univ of Maryland, 1985 |
| Cerato | Amy |  | 2005 | ROBERT GLENN RAPP FOUNDATION PRESIDENTIAL PROFESSOR, 2009; PROFESSOR OF CIVIL ENGINEERING AND ENVIRONMENTAL SCIENCE, 2016 | PhD, Univ of Massachusetts, 2005; MS, Univ of Massachusetts, 2004; MS, Univ of Massachusetts, 2001; BS, Lafayette College, 1999 |
| Dresback | Kendra | M | 1997 | ASSISTANT <br> PROFESSOR OF CIVIL <br> ENGINEERING AND <br> ENVIRONMENTAL <br> SCIENCE, 2023, <br> RESEARCH <br> ASSISTANT <br> PROFESSOR OF CIVIL <br> ENGINEERING AND <br> ENVIRONMENTAL <br> SCIENCE, 2008; <br> ADJUNCT <br> ASSISTANT <br> PROFESSOR OF CIVIL <br> ENGINEERING AND <br> ENVIRONMENTAL <br> SCIENCE, 2017 | PhD, Univ of Oklahoma, 2005; MS, Univ of Oklahoma, 1999; BS, Univ of Oklahoma, 1997 |
| Floyd | Royce |  | 2012 | ASSOCIATE <br> PROFESSOR OF CIVIL <br> ENGINEERING AND <br> ENVIRONMENTAL <br> SCIENCE, 2018 | PhD, Univ of <br> Arkansas, 2012; BS, <br> Univ of Arkansas, $2008$ |
| Han | Lori | A. | 2023 | ASSISTANT <br> PROFESSOR OF CIVIL <br> ENGINEERING AND <br> ENVIRONMENTAL <br> SCIENCE, 2023 | PhD, Univ. of Minnesota, 2018; MS, Univ. of Minnesota, 2012; BS, Univ. of Minnesota 2010 |
| Harvey | Philip | S | 2014 | ASSOCIATE <br> PROFESSOR OF CIVIL <br> ENGINEERING AND <br> ENVIRONMENTAL <br> SCIENCE, 2020 | PhD, Duke Univ, 2013; MS, Duke Univ, 2012; BS, Duke Univ, 2009 |


| Hatami | Kianoosh |  | 2004 | PROFESSOR OF CIVIL <br> ENGINEERING AND <br> ENVIRONMENTAL <br> SCIENCE, 2017; <br> PRESIDENT'S <br> ASSOCIATES <br> PRESIDENTIAL <br> PROFESSOR, 2018 | PhD, McMaster Univ, 1997; MS, Univ of Iran, 1991; BS, Univ of Iran, 1987 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Hong | Yang |  | 2007 | CIMMS FELLOW, 2007; ADJUNCT ASSOCIATE PROFESSOR OF METEOROLOGY, 2011; PROFESSOR OF CIVIL ENGINEERING AND ENVIRONMENTAL SCIENCE, 2012; VPR PRESIDENTIAL RESEARCH PROFESSOR, 2014; DIRECTOR, INSTITUTE FOR HYDROMETEOROLOG' AND WATER ENGINEERING, 2017 | PhD, Univ of Arizona, 2003; MS, Peking Univ, 1999; BS, Peking Univ, 1996 |
| Kibbey | Tohren | C | 1999 | PROFESSOR OF CIVIL <br> ENGINEERING AND <br> ENVIRONMENTAL <br> SCIENCE, 2010; <br> LLOYD G. AND <br> JOYCE AUSTIN <br> PRESIDENTIAL <br> PROFESSOR, 2016 | PhD, Univ of Michigan, 1997; MSE, Univ of Michigan, 1993; BSE, Univ of Michigan, 1991 |
| Kirstetter | Pierre- <br> Emmanuel |  | 2019 | ASSOCIATE <br> PROFESSOR OF CIVIL <br> ENGINEERING AND <br> ENVIRONMENTAL <br> SCIENCE, 2019; <br> ASSOCIATE <br> PROFESSOR OF <br> METEOROLOGY, 2019 | PhD, Joseph <br> Fourier Universty, <br> 2008; MS, Joseph <br> Fourier University, <br> 2005; MS Ecole <br> Nationale Superieure <br> d'Hydraulique et <br> de Mecanique of <br> Grenoble, 2004 |
| Knox | Robert |  | 1986 | SAMUEL <br> ROBERTS NOBLE <br> PRESIDENTIAL <br> PROFESSOR, 1998; <br> PROFESSOR OF CIVIL <br> ENGINEERING AND <br> ENVIRONMENTAL <br> SCIENCE, 2001; <br> TED A. KRITIKOS <br> PROFESSOR OF CIVIL <br> ENGINEERING, 2006 | PhD, Univ of Oklahoma, 1983; MS, Univ of Oklahoma, 1979; BS, Univ of Oklahoma, 1978 |
| Kolar | Randall |  | 1995 | LLOYD G. AND JOYCE AUSTIN PRESIDENTIAL PROFESSOR, 2008; DAVID ROSS BOYD PROFESSOR OF CIVIL ENGINEERING AND ENVIRONMENTAL SCIENCE, 2014; SUN OIL COMPANY CHAIR IN CIVIL ENGINEERING AND ENVIRONMENTAL SCIENCE, 2023 | PhD, Univ of Notre Dame, 1992; BS, Univ of Idaho, 1983 |


| Kyprioti | Aikaterini |  | 2022 | ASSISTANT <br> PROFESSOR OF CIVIL <br> ENGINEERING AND <br> ENVIRONMENTAL <br> SCIENCE, 2022 | PhD, Univ of Notre Dame, 2022; MS, Univ of Notre Dame, 2022; MS, Aristotle Univ of Thessaloniki, 2016; BS, Aristotle Univ of Thessaloniki, 2014 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Miller | Gerald | A | 1994 | PROFESSOR OF CIVIL <br> ENGINEERING AND <br> ENVIRONMENTAL <br> SCIENCE, 2007; <br> ROBERT GLENN <br> RAPP FOUNDATION <br> PRESIDENTIAL <br> PROFESSOR, 2013 | PhD, Univ of Massachusetts, 1994; MS, Clarkson, 1989; BS, Clarkson, 1987 |
| Muraleethar | alkanthasamy |  | 1994 | PRESIDENT'S <br> ASSOCIATES <br> PRESIDENTIAL <br> PROFESSOR, 2005; <br> DAVID ROSS BOYD <br> PROFESSOR OF CIVIL <br> ENGINEERING AND <br> ENVIRONMENTAL <br> SCIENCE, 2009; <br> KIMMELL- <br> BERNARD CHAIR IN <br> ENGINEERING, 2010 | PhD, Univ of California Davis, 1990; MS, Univ of California Davis, 1987; BS, Sri Lanka Univ, 1983 |
| Nairn | Robert |  | 1997 | PROFESSOR OF CIVIL <br> ENGINEERING AND <br> ENVIRONMENTAL <br> SCIENCE, 2012; <br> SAM K. VIERSON <br> FAMILY FOUNDATION <br> PRESIDENTIAL <br> PROFESSOR, 2014; <br> DAVID L. BOREN <br> PROFESSOR, 2017; <br> ROBERT W. HUGHES <br> PROFESSOR IN <br> ENGINEERING, 2022 | PhD, Ohio State Univ, 1996; BS, Juniata College, 1989 |
| Nanny | Mark | A | 1996 | PROFESSOR <br> OF EARTH AND <br> ENERGY, 2010; <br> PROFESSOR OF CIVIL <br> ENGINEERING AND <br> ENVIRONMENTAL <br> SCIENCE, 2010 | PhD, Univ of Illinois, 1994; MS, Univ of Illinois, 1989; BS, Wayne State, 1986 |
| Pei | Jinsong |  | 2002 | ASSOCIATE <br> PROFESSOR OF CIVIL <br> ENGINEERING AND <br> ENVIRONMENTAL <br> SCIENCE, 2008 | PhD, Columbia Univ, 2001; M Engr, Nanyang Tech Univ, 1997; B Engr, Xi'an Jiaotong Univ, 1989 |
| Sadri | Arif |  | 2022 | ASSISTANT <br> PROFESSOR OF CIVIL <br> ENGINEERING AND <br> ENVIRONMENTAL <br> SCIENCE, 2022 | Phd, Purdue Univ, 2016; MS, Purdue Univ, 2012; BS, Bangladesh Univ of Engr \& Tech, 2011 |
| Strevett | Keith |  | 1995 | DAVID ROSS BOYD PROFESSOR OF CIVIL ENGINEERING AND ENVIRONMENTAL SCIENCE, 2018 | PhD, Univ of Connecticut, 1995; BS, Michigan State Univ, 1992; BS, Michigan State Univ, 1992 |
| Vemuganti | Shreya |  | 2021 | ASSISTANT <br> PROFESSOR OF CIVIL <br> ENGINEERING AND <br> ENVIRONMENTAL <br> SCIENCE, 2021 | PhD, Univ of New Mexico, 2021; MS, Univ of New Mexico, 2016; BE, Osmania Univ, 2014 |
| Vogel | Jason | R | 2017 | PROFESSOR OF CIVIL ENGINEERING AND | PhD, Oklahoma State Univ, 2001; MS, Texas |


|  |  |  | ENVIRONMENTAL SCIENCE, 2019; DIRECTOR, OKLAHOMA WATER SURVEY, 2017 | A\&M Univ, 1997; BS, Univ of Nebraska, 1995 |
| :---: | :---: | :---: | :---: | :---: |
| Volz | Jeffery | 2013 | ASSOCIATE <br> PROFESSOR OF CIVIL <br> ENGINEERING AND <br> ENVIRONMENTAL <br> SCIENCE, 2013 | PhD, Pennsylvania <br> State Univ, 2008; <br> MS, Pennsylvania <br> State Univ, 1987; BS, <br> Pennsylvania State <br> Univ, 1985 |
| Yang | Tiantian | 2018 | ASSISTANT <br> PROFESSOR OF CIVIL <br> ENGINEERING AND <br> ENVIRONMENTAL <br> SCIENCE, 2018 | PhD, Univ of California Irvine, 2015; MS, Univ of California, 2010; BS, Tsinghua Univ, 2009 |
| Zaman | Musharraf | 1982 | KERR MCGEE <br> PRESIDENTIAL <br> PROFESSOR, 1997; <br> AARON ALEXANDER <br> PROFESSOR IN CIVIL <br> ENGINEERING, 2002; <br> DAVID ROSS BOYD <br> PROFESSOR OF CIVIL <br> ENGINEERING AND <br> ENVIRONMENTAL <br> SCIENCE, 2003; <br> PROFESSOR OF <br> PETROLEUM AND <br> GEOLOGICAL <br> ENGINEERING, 2009; <br> ALUMNI CHAIR <br> IN PETROLEUM <br> AND GEOLOGICAL <br> ENGINEERING, 2014 | PhD, Univ of Arizona, 1982; MS, Carleton Univ, 1979; BS, Bangladesh Univ of Engr \& Tech, 1975 |

## Architectural Engineering, B.S.

Minimum Total Credit Hours: 130

Overall GPA - Combined and OU: 2.00
Major GPA - Combined and OU: 2.00
Curriculum GPA - Combined and OU: 2.00
Program Code: B035

## This program has changes pending State Regents approval for 2024/25. These pending changes are not reflected here.

Bachelor of Science in Architectural Engineering accredited by the Engineering Accreditation Commission of ABET, https://www.abet.org, under the General Criteria and the Architectural and Similarly Named Program Criteria.

In order to progress in your curriculum in the Gallogly College of Engineering, and as a specific graduation requirement, a grade of C or better is required in each course in the curriculum, including all prerequisite courses.

## Major Requirements

| Code Title | Credit |
| :--- | :--- |
|  | Hours |

## Required Courses

AME 2213 Thermodynamics

| AME 3173 | Heat Transfer | 3 |
| :--- | :--- | ---: |
| AME 4653 | Air Conditioning Systems | 3 |
| ARCH 1263 | Methods II - Pattern of Architecture | 3 |
| ARCH 2243 | History of the Built Environment I | 3 |
| ARCH 2363 | Materials and Form | 3 |
| CEES 1000 | CEES Seminar (minimum of four semesters | 0 |
|  | required) | 1 |
| CEES 1111 | Exploring CEES | 3 |
| CEES 2113 | Statics | 3 |
| CEES 2153 | Mechanics of Materials | 3 |
| CEES 2213 | CADD Fundamentals | 3 |
| CEES 2223 | Fluid Mechanics | 3 |
| CEES 3263 | Introduction to Dynamics for Architectural | 1 |
|  | and Civil Engineers | 3 |
| CEES 3361 | Soil Mechanics Laboratory | 3 |
| CEES 3363 | Soil Mechanics | 3 |
| CEES 3403 | Materials | 3 |
| CEES 3413 | Structural Analysis I | 3 |
| CEES 3453 | Introduction to Construction Management | 3 |
| CEES 3663 | Structural Design - Steel I | 3 |
| CEES 3673 | Structural Design - Concrete I | 3 |
| CEES 4113 | Building Lighting and Electrical Systems | 3 |
| CEES 4333 | Foundation Engineering | 1 |
| CEES 4753 | Structural Design - Wood | 3 |
| CEES 4991 | Introduction to AE Capstone | 1 |
| CEES 4993 | Architecture Engineering Capstone | 1 |
| ENGR 2431 | Electrical Circuits | 3 |
| ENGR 3401 | Engineering Economics | 3 |


| Professional Elective | 3 |
| :--- | ---: |
| Choose any 3000-level or higher course in CEES | 71 |

## Major Support Requirements

| Code | Title | Credit |
| :---: | :---: | :---: |
|  |  | Hours |
| Math and Science |  |  |
| MATH 2924 | Differential and Integral Calculus II | 4 |
| MATH 2934 | Differential and Integral Calculus III | 4 |
| MATH 3113 | Introduction to Ordinary Differential Equations | 3 |
| PHYS 2524 | General Physics for Engineering and Science Majors | 4 |
| Choose one of the following: |  | 4 |
| GEOL $1114 \quad$Physical Geology for Science and <br> Engineering Majors (Core II-Lab) |  |  |
| Basic Science Elective |  |  |
| Math (calculus or above) |  |  |
| Additional College Requirements |  |  |
| ENGR 1410 | 1 | 0 |
| ENGR 1411 | Pathways to Engineering Thinking ${ }^{1}$ | 1 |


| ENGR 2002 | Professional Responsibilities and Skills of <br> Engineers and Scientists | 2 |
| :--- | :--- | ---: |
| Total Credit Hours | $\mathbf{2 2}$ |  |
| 1 |  |  |
| Engineering transfer students may take ENGR 3410 in place <br> of ENGR 1410 and ENGR 3511 in place of ENGR 1411. |  |  |

## General Education and College Requirements

Courses designated as Core I, II, III, IV, or V are part of the General Education curriculum. Students must complete a minimum of 40 hours of General Education courses, chosen from the approved list, including at least one upper-division Gen. Ed. course outside of the student's major. Courses graded P/NP will not apply.

A grade of $C$ or better is required in each course in the curriculum, including all prerequisite courses.

UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS
Code Title Credit
Hours

I: Symbolic and Oral Communication
English Composition
ENGL 1113 Principles of English Composition 3
ENGL 1213 Principles of English Composition 3
or EXPO 1213 Expository Writing
Language (0-10 hours in the same language)
This requirement can be met by two years of the same 0-10 language in high school:

Beginning Course (0-5 hours)
Beginning Course, continued (0-5 hours)
Mathematics
MATH 1914 Differential and Integral Calculus I (Core I) 4
1, 2
Core Area II: Natural Science (including one laboratory)

| PHYS 2514 | General Physics for Engineering and <br> Science Majors (Core II) |
| :--- | :--- | :---: |
| CHEM 1315 | General Chemistry (Core II-Lab) |

Core Area III: Social Science
PSC1113 American Federal Government 3
Choose one course ${ }^{3} 3$

Core Area IV: Arts \& Humanities
Artistic Forms
Choose one course ${ }^{3}$3

Western Culture
HIST 1483 United States to 1865
or HIST 1493 United States, 1865 to the Present
Will be satisfied in major requirements 0

| ARCH 2243 | History of the Built Environment I (Core IV- <br> Western Culture) |  |
| :--- | :--- | :--- |
| World Culture |  | 3 |
| ANTH 4623 | Approaches to Cross-Cultural Human <br> Problems (or approved substitute Core IV- <br> World Culture) |  |


| Core Area V: First-Year Experience |
| :--- |
| Choose one course 3 |
| Total Credit Hours |
| 1 MATH 1823, MATH 2423, MATH 2433, and MATH 2443 sequence can |
| be substituted for MATH 1914, MATH 2924, and MATH 2934. |
| 2 Major support requirements that also satisfy University General |
| Education requirements. |
| 3 To be chosen from the University-Wide General Education Approved |
| Course List. Three of these hours must be upper-division (3000-4000). |

## Free Electives

Electives to bring total applicable hours to the minimum total required for the degree including a minimum of 40 upper-division hours.

## Suggested Semester Plan of Study

Bachelor of Science in Architectural Engineering accredited by the Engineering Accreditation Commission of ABET, https://www.abet.org, under the General Criteria and the Architectural and Similarly Named Program Criteria.

In order to progress in your curriculum in the Gallogly College of Engineering, and as a specific graduation requirement, a grade of $\mathbf{C}$ or better is required in each course in the curriculum, including all prerequisite courses.

Two college-level courses in a single world language are required; this may be satisfied by successful completion of 2 years in a single world language in high school. Students who must take a language at the University will have an additional 6-10 hours of coursework.

| Freshman |  |  |
| :---: | :---: | :---: |
| First Semester |  | Credit |
|  |  | Hours |
| ENGL 1113 | Principles of English Composition (Core I) | 3 |
| Choose one of the following: |  | 4 |
| GEOL 1114 | Physical Geology for Science and Engineering Majors (Core II-Lab) |  |
| MATH (calculus or above) |  |  |
| Basic Science Elective |  |  |
| MATH 1914 | Differential and Integral Calculus I (Core I) ${ }^{1}$ | 4 |
| ENGR 1410 | 2 | 0 |
| ENGR 1411 | Pathways to Engineering Thinking ${ }^{2}$ | 1 |
| ARCH 2363 | Materials and Form | 3 |
|  | Credit Hours | 15 |

## Second Semester

ENGL 1213 Principles of English Composition (Core I) 3
$\begin{array}{cc}\text { or EXPO } 1213 & \text { or Expository Writing } \\ \text { MATH } 2924 & \text { Differential and Integral Calculus II }\end{array}{ }^{1} \quad 4$
PHYS 2514 General Physics for Engineering and 4
Science Majors (Core II)
ARCH 1263 Methods II - Pattern of Architecture 3
CEES 1111 Exploring CEES 1

| Approved Elective: First-Year Experience (Core V) ${ }^{6} \quad 3$ |
| :--- | :--- |

## Sophomore

| First Semester |  |  |
| :--- | :--- | ---: |
| ARCH 2243 | History of the Built Environment I (Core IV: <br> Western Culture) | 3 |
| MATH 2934 | Differential and Integral Calculus III ${ }^{1}$ | 4 |
| PHYS 2524 | General Physics for Engineering and <br> Science Majors | 4 |
| CEES 1000 | CEES Seminar ${ }^{3}$ | 0 |
| CEES 2213 | CADD Fundamentals | 3 |
| CEES 2113 | Statics | 3 |
|  | Credit Hours | $\mathbf{1 7}$ |


| Second Semester |  |  |
| :---: | :---: | :---: |
| CHEM 1315 | General Chemistry (Core II-Lab) ${ }^{4}$ | 5 |
| ENGR 2002 | Professional Responsibilities and Skills of Engineers and Scientists | 2 |
| MATH 3113 | Introduction to Ordinary Differential Equations | 3 |
| CEES 1000 | CEES Seminar ${ }^{3}$ | 0 |
| CEES 2153 | Mechanics of Materials | 3 |
| CEES 2223 | Fluid Mechanics | 3 |
|  | Credit Hours | 16 |

Junior
First Semester

| AME 2213 | Thermodynamics | 3 |
| :--- | :--- | ---: |
| CEES 1000 | CEES Seminar ${ }^{3}$ | 0 |
| CEES 3263 | Introduction to Dynamics for Architectural <br> and Civil Engineers | 3 |
| CEES 3363 | Soil Mechanics | 3 |
| CEES 3361 | Soil Mechanics Laboratory | 1 |
| CEES 3413 | Structural Analysis I | 3 |
| ENGR 2431 | Electrical Circuits | 1 |
| P SC 1113 | American Federal Government (Core III) | $\mathbf{3}$ |
|  | Credit Hours | $\mathbf{1 7}$ |

## Second Semester

| AME 3173 | Heat Transfer | 3 |
| :--- | :--- | :---: |
| CEES 1000 | CEES Seminar ${ }^{3}$ | 0 |
| CEES 3403 | Materials | 3 |
| CEES 3663 | Structural Design - Steel I | 3 |
| CEES 4113 | Building Lighting and Electrical Systems | 3 |
| CEES 3453 | Introduction to Construction Management | 3 |
| ENGR 3401 | Engineering Economics | $\mathbf{1}$ |
|  | Credit Hours | $\mathbf{1 6}$ |

## Senior

First Semester
AME 4653 Air Conditioning Systems 3
CEES 1000 CEES Seminar ${ }^{3} 0$

CEES 3673 Structural Design - Concrete I 3
CEES Professional Elective ${ }^{5} 3$
CEES 4753 Structural Design - Wood 3
CEES 4991 Introduction to AE Capstone 1
HIST $1483 \quad 3$
or HIST 1493 or United States, 1865 to the Present

| Second Semester |  |  |
| :---: | :---: | :---: |
| Choose one of the following: 3 |  |  |
| ANTH 4623 Approaches to Cross-Cultural Human Problems (Core IV-World Culture) |  |  |
| Approved substitute (Core IV-World Culture) |  |  |
| CEES 1000 | CEES Seminar ${ }^{3}$ | 0 |
| CEES 4333 | Foundation Engineering | 3 |
| CEES 4993 | Architecture Engineering Capstone | 3 |
| Approved Elective: Social Science (Core III) ${ }^{6}$ |  |  |
| Approved Elective: Artistic Forms (Core IV) ${ }^{6}$ |  |  |
|  | Credit Hours | 15 |
|  | Total Credit Hours | 130 |
| ${ }^{1}$ MATH 1823, MATH 2423, MATH 2433, and MATH 2443 sequence can be substituted for MATH 1914, MATH 2924, and MATH 2934. |  |  |
| ${ }^{2}$ Engineering transfer students may take ENGR 3410 in place of ENGR 1410 and ENGR 3511 in place of ENGR 1411. |  |  |
| ${ }^{3}$ Students must complete a minimum of four semesters of CEES 1000. <br> ${ }^{4}$ CHEM 1315 can be substituted with CHEM 1335 (Fall only). |  |  |
| ${ }^{5}$ Professional Elective can be chosen from any 3000-level or higher course in CEES |  |  |
| ${ }^{6}$ To be chosen Course List. Th See list in the | om the University-Wide General Educa ree of these hours must be upper-divis lass Schedule. |  |

Courses designated as Core I, II, III, IV, or V are part of the General Education curriculum. Students must complete a minimum of 40 hours of General Education courses, chosen from the approved list.

## Civil Engineering, B.S.

Minimum Total Credit Hours: 126

Overall GPA - Combined and OU: 2.00
Major GPA - Combined and OU: 2.00
Curriculum GPA - Combined and OU: 2.00
Program Code: B190
This program has changes pending State Regents approval for 2024/25. These pending changes are not reflected here.
Bachelor of Science in Civil Engineering accredited by the Engineering Accreditation Commission of ABET, https://www.abet.org, under the General Criteria and the Civil and Similarly Named Program Criteria.

In order to progress in your curriculum in the Gallogly College of Engineering, and as a specific graduation requirement, a grade of C or better is required in each course in the curriculum, including all prerequisite courses.

## Major Requirements

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Required Courses |  |  |
| CEES 1000 | CEES Seminar (a minimum of four <br> semesters required) | 0 |


| CEES 1111 | Exploring CEES | 1 |
| :---: | :---: | :---: |
| CEES 2113 | Statics | 3 |
| CEES 2153 | Mechanics of Materials | 3 |
| CEES 2213 | CADD Fundamentals | 3 |
| CEES 2223 | Fluid Mechanics | 3 |
| CEES 3213 | Water Resources Engineering | 3 |
| CEES 3243 | Water and Wastewater Treatment Design | 3 |
| CEES 3263 | Introduction to Dynamics for Architectural and Civil Engineers | 3 |
| CEES 3361 | Soil Mechanics Laboratory | 1 |
| CEES 3363 | Soil Mechanics | 3 |
| CEES 3403 | Materials | 3 |
| CEES 3413 | Structural Analysis I | 3 |
| CEES 3663 | Structural Design - Steel I (OR Professional Elective) ${ }^{1,2}$ | 3 |
| CEES 3673 | Structural Design - Concrete I (OR Professional Elective) ${ }^{1,2}$ | 3 |
| CEES 3883 | Transportation Engineering | 3 |
| CEES 4253 | Statistics and Probability | 3 |
| CEES 4453 | Geomatics Engineering | 3 |
| CEES 4901 | Introduction to CE Capstone | 1 |
| CEES 4903 | Civil Engineering Capstone | 3 |
| CEES 4951 | Contemporary Topics in Professional Practice | 1 |

Total Credit Hours
${ }^{1}$ Students must take either CEES 3663 or CEES 3673 or they may take both courses if desired.

## Major Support Requirements

| Code | Title |
| :--- | :--- |
|  | Credit |
|  | Hours |

## Math and Science

| MATH 2924 | Differential and Integral Calculus II | 4 |
| :--- | :--- | :--- |
| MATH 2934 | Differential and Integral Calculus III | 4 |
| MATH 3113 | Introduction to Ordinary Differential | 3 |
|  | Equations | 5 |

$\begin{array}{cll}\text { or CHEM } 1435 & \text { General Chemistry II: Signature Course } \\ \text { GEOL } 1114 & \text { Physical Geology for Science and } & 4\end{array}$
Engineering Majors ( or Basic Science, Core II-Lab)
PHYS 2524 General Physics for Engineering and 4 Science Majors

## Professional Electives

Choose any two 3000-level or higher course in CEES (one
three-hour professional elective can be taken outside CEES with advisor approval)

| Additional College Requirements |  |  |
| :--- | :--- | :--- |
| ENGR 1410 | 1 | 0 |
| ENGR 1411 | Pathways to Engineering Thinking ${ }^{1}$ | 1 |
| ENGR 2002 | Professional Responsibilities and Skills of <br> Engineers and Scientists | 2 |


| ENGR $3401 \quad$ Engineering Economics | 1 |
| :--- | ---: | ---: |
| Total Credit Hours | 34 |

${ }^{1}$ Engineering transfer students may take ENGR 3410 in place of ENGR 1410 and ENGR 3511 in place of ENGR 1411.

## General Education and College Requirements

Courses designated as Core I, II, III, IV, or V are part of the General Education curriculum. Students must complete a minimum of 40 hours of General Education courses, chosen from the approved list, including at least one upper-division Gen. Ed. course outside of the student's major. Courses graded P/NP will not apply.

A grade of C or better is required in each course in the curriculum, including all prerequisite courses.

## UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND

 COLLEGE REQUIREMENTS| Code Title | Credit |
| :--- | :--- |
|  | Hours |


| Core Area I: Symbolic and Oral Communication |  |  |
| :---: | :---: | :---: |
| English Composition |  |  |
| ENGL 1113 | Principles of English Composition | 3 |
| ENGL 1213 or EXPO 1213 | Principles of English Composition Expository Writing | 3 |
| Language (0-10 hours in the same language) |  |  |
| This requirement can be met by two years of the same language in high school: |  | 0-10 |
| Beginning Course ( $0-5$ hours) |  |  |
| Beginning Course, continued (0-5 hours) |  |  |
| Mathematics |  |  |
| MATH 1914 | Differential and Integral Calculus I (Core I) 1, 2 | 4 |


| Core Area II: Natural Science (including one laboratory) |  |  |
| :---: | :---: | :---: |
| PHYS 2514 | General Physics for Engineering and Science Majors (Core II) ${ }^{2}$ | 4 |
| CHEM 1315 or CHEM 1335 | General Chemistry (Core II-Lab) ${ }^{2}$ <br> General Chemistry I: Signature Course | 5 |
| Core Area III: Social Science |  |  |
| P SC 1113 | American Federal Government | 3 |
| Choose one cours |  | 3 |

Core Area IV: Arts \& Humanities
Artistic Forms

| Choose one cou |  | 3 |
| :---: | :---: | :---: |
| Western Culture |  |  |
| HIST 1483 | United States to 1865 | 3 |
| or HIST 1493 | United States, 1865 to the Present |  |
| HSTM 3333 | Technology and Society in World History (or approved substitute Core IV-Western Culture) ${ }^{3}$ | 3 |
| World Culture |  |  |
| ANTH 4623 | Approaches to Cross-Cultural Human Problems (or approved substitute Core IVWorld Culture) ${ }^{3}$ | 3 |

Core Area V: First-Year Experience

| Choose one course $^{3}$ | 3 |
| :--- | ---: |
| Total Credit Hours | $40-50$ |

${ }^{1}$ MATH 1823, MATH 2423, MATH 2433, and MATH 2443 sequence can be substituted for MATH 1914, MATH 2924, and MATH 2934.
${ }^{2}$ Major support requirements that also satisfy University General Education requirements.
${ }^{3}$ To be chosen from the University-Wide General Education Approved Course List. Three of these hours must be upper-division (3000-4000). See list in the Class Schedule.

## Free Electives

Electives to bring total applicable hours to the minimum total required for the degree including a minimum of 40 upper-division hours.

## Suggested Semester Plan of Study

Bachelor of Science in Civil Engineering accredited by the Engineering Accreditation Commission of ABET, https://www.abet.org, under the General Criteria and the Civil and Similarly Named Program Criteria.

In order to progress in your curriculum in the Gallogly College of Engineering, and as a specific graduation requirement, a grade of C or better is required in each course in the curriculum, including all prerequisite courses.

Two college-level courses in a single world language are required; this may be satisfied by successful completion of 2 years in a single world language in high school. Students who must take language at the University will have an additional 6-10 hours of coursework.

## Freshman

| First Semester |  | Credit <br> Hours |
| :--- | :--- | ---: |
| ENGL 1113 | Principles of English Composition (Core I) | 3 |
| CHEM 1315 | General Chemistry (Core II-Lab) $^{1}$ | 5 |
| MATH 1914 | Differential and Integral Calculus I (Core I) $^{2}$ | 4 |
| ENGR 1410 | $3^{2}$ | 0 |
| ENGR 1411 | Pathways to Engineering Thinking $^{3}$ | 1 |
| Approved Elective: First-Year Experience (Core V) ${ }^{7}$ | 3 |  |
|  | Credit Hours | $\mathbf{1 6}$ |

## Second Semester

ENGL 1213 Principles of English Composition (Core I) 3
or EXPO 1213 or Expository Writing
CHEM 1415 General Chemistry (Continued) (Core II-Lab) 5
MATH 2924 Differential and Integral Calculus II ${ }^{2} 4$
PHYS $2514 \quad$ General Physics for Engineering and 4

| CEES 1111 | Exploring CEES | 1 |
| :--- | :--- | ---: |
|  | Credit Hours | $\mathbf{1 7}$ |

## Sophomore

First Semester
MATH 2934 Differential and Integral Calculus III ${ }^{2} 4$

PHYS 2524 General Physics for Engineering and 4 Science Majors
CEES 1000 CEES Seminar ${ }^{4} 0$


| Major Requirements |  |  |
| :---: | :---: | :---: |
| Code | Title | Credit Hours |
| Required Courses |  |  |
| CEES 1000 | CEES Seminar (minimum of four semesters required) | 0 |
| CEES 1111 | Exploring CEES | 1 |
| CEES 2113 | Statics | 3 |
| CEES 2153 | Mechanics of Materials | 3 |
| CEES 2213 | CADD Fundamentals | 3 |
| CEES 2223 | Fluid Mechanics | 3 |
| CEES 2313 | Water Quality Fundamentals | 3 |
| CEES 2323 | Environmental Transport and Fate Process | 3 |
| CEES 3213 | Water Resources Engineering | 3 |
| CEES 3243 | Water and Wastewater Treatment Design | 3 |
| CEES 3361 | Soil Mechanics Laboratory | 1 |
| CEES 3363 | Soil Mechanics | 3 |
| CEES 4114 | Aquatic Chemistry | 4 |
| CEES 4253 | Statistics and Probability | 3 |
| CEES 4263 | Hazardous and Solid Waste Management | 3 |
| CEES 4324 | Environmental Biology and Ecology | 4 |
| CEES 4921 | Introduction to EE Capstone | 1 |
| CEES 4923 | Environmental Engineering Capstone | 3 |
| CEES 4943 | Air Quality Management | 3 |
| CEES 4951 | Contemporary Topics in Professional Practice | 1 |

Total Credit Hours

## Major Support Requirements

| Code | Title | Credit Hours |
| :---: | :---: | :---: |
| Math and Science |  |  |
| CHEM 1415 or CHEM 1435 | General Chemistry (Continued) <br> General Chemistry II: Signature Course | 5 |
| CHEM 3053 | Organic Chemistry I: Biological Emphasis | 3 |
| MATH 2924 | Differential and Integral Calculus II | 4 |
| MATH 2934 | Differential and Integral Calculus III | 4 |
| MATH 3113 | Introduction to Ordinary Differential Equations | 3 |
| PHYS 2524 | General Physics for Engineering and Science Majors | 4 |
| Professional Electives |  |  |
| Choose any two 3 three-hour profess with advisor appro | 000 -level or higher course in CEES (one sional elective can be taken outside CEES val) | 6 |
| Additional College | Requirements |  |
| ENGR 1410 | 1 | 0 |
| ENGR 1411 | Pathways to Engineering Thinking ${ }^{1}$ | 1 |
| ENGR 2002 | Professional Responsibilities and Skills of Engineers and Scientists | 2 |
| ENGR 2461 | Thermodynamics | 1 |

ENGR 3401 Engineering Economics

## Total Credit Hours

${ }^{1}$ Engineering transfer students may take ENGR 3410 in place of ENGR 1410 and ENGR 3511 in place of ENGR 1411.

## General Education and College Requirements

Courses designated as Core I, II, III, IV, or V are part of the General Education curriculum. Students must complete a minimum of 40 hours of General Education courses, chosen from the approved list, including at least one upper-division Gen. Ed. course outside of the student's major. Courses graded P/NP will not apply.

A grade of C or better is required in each course in the curriculum, including all prerequisite courses.

UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS

| Code | Title | Credit |
| :--- | :--- | :--- |
|  | Hours |  |


| Core Area I: Symbolic and Oral Communication |  |  |
| :--- | :--- | :--- |
| English Composition |  |  |
| ENGL 1113 | Principles of English Composition | 3 |
| ENGL 1213 | Principles of English Composition | 3 |
| or EXPO 1213 | Expository Writing |  |

Language ( $0-10$ hours in the same language)
This requirement can be met by two years of the same 0-10
language in high school:
Beginning Course ( $0-5$ hours)
Beginning Course, continued ( $0-5$ hours)
Mathematics

| MATH 1914 |  |
| :---: | :---: |
|  | 1,2 |

Core Area II: Natural Science (including one laboratory)
PHYS 2514 General Physics for Engineering and 4

Science Majors (Core II) ${ }^{2}$
CHEM 1315 General Chemistry (Core II-Lab) ${ }^{2}$ 5
or CHEM 1335 General Chemistry I: Signature Course
Core Area III: Social Science
P SC 1113 American Federal Government 3
Choose one course ${ }^{3} 3$

Core Area IV: Arts \& Humanities
Artistic Forms
Choose one course ${ }^{3}$
Western Culture
HIST 1483 United States to 1865
or HIST 1493 United States, 1865 to the Present
HSTM 3333 Technology and Society in World History 3
(or approved substitute Core IV-Western
Culture) ${ }^{3}$
World Culture
ANTH 4623 Approaches to Cross-Cultural Human 3
Problems (or approved substitute Core IV-
World Culture) ${ }^{3}$
Core Area V: First-Year Experience

| Choose one course $^{3} \quad 3$ |
| :--- |
| Total Credit Hours |
| 1 MATH 1823,MATH 2423, MATH 2433, and MATH 2443 sequence can |
| be substituted for MATH 1914, MATH 2924, andMATH 2934. |
| 2 Major support requirements that also satisfy University General |
| Education requirements. |
| ${ }^{2}$ To be chosen from the University-Wide General Education Approved |
| Course List. Three of these hours must be upper-division (3000-4000). |
| See list in the Class Schedule. |

## Free Electives

Electives to bring total applicable hours to the minimum total required for the degree including a minimum of 40 upper-division hours.

## Suggested Semester Plan of Study

Bachelor of Science in Environmental Engineering accredited by the Engineering Accreditation Commission of ABET, https://www.abet.org, under the General Criteria and the Environmental Engineering and Similarly Named Program Criteria.

In order to progress in your curriculum in the Gallogly College of Engineering, and as a specific graduation requirement, a grade of C or better is required in each course in the curriculum, including all prerequisite courses.

Two college-level courses in a single world language are required; this may be satisfied by successful completion of 2 years in a single world language in high school. Students who must take a language at the University will have an additional 6-10 hours of coursework.

## Freshman

| First Semester |  | Credit |
| :---: | :---: | :---: |
|  |  | Hours |
| ENGL 1113 | Principles of English Composition (Core I) | 3 |
| CHEM 1315 | General Chemistry (Core II-Lab) ${ }^{1}$ | 5 |
| MATH 1914 | Differential and Integral Calculus I (Core I) ${ }^{2}$ | 4 |
| ENGR 1410 |  | 0 |
| ENGR 1411 | Pathways to Engineering Thinking ${ }^{3}$ | 1 |
| Approved Elective: First-Year Experience (Core V) ${ }^{6}$ |  | 3 |
|  | Credit Hours | 16 |
| Second Semester |  |  |
| $\begin{aligned} & \text { ENGL } 1213 \\ & \text { or EXPO } 1213 \end{aligned}$ | Principles of English Composition (Core I) or Expository Writing | 3 |
| CHEM 1415 | General Chemistry (Continued) (Core II-Lab) 1 | 5 |
| MATH 2924 | Differential and Integral Calculus II ${ }^{2}$ | 4 |
| PHYS 2514 | General Physics for Engineering and Science Majors (Core II) | 4 |
| CEES 1111 | Exploring CEES | 1 |
|  | Credit Hours | 17 |
| Sophomore |  |  |
| First Semester |  |  |
| MATH 2934 | Differential and Integral Calculus III ${ }^{2}$ | 4 |
| PHYS 2524 | General Physics for Engineering and Science Majors | 4 |
| CEES 1000 | CEES Seminar ${ }^{4}$ | 0 |


| CEES 2213 | CADD Fundamentals | 3 |
| :--- | :--- | ---: |
| CEES 2113 | Statics | 3 |
| CEES 2313 | Water Quality Fundamentals | 3 |
|  | Credit Hours | $\mathbf{1 7}$ |

## Second Semester

| HIST 1483 <br> or HIST 1493 | United States to 1865 (Core IV) <br> or United States, 1865 to the Present | 3 |
| :--- | :--- | ---: |
| MATH 3113 | Introduction to Ordinary Differential <br> Equations | 3 |
| CEES 1000 | CEES Seminar |  |


| Junior | Credit Hours |  |
| :--- | :--- | :--- |
| First Semester |  |  |
| CHEM 3053 | Organic Chemistry I: Biological Emphasis | 3 |
| CEES 1000 | CEES Seminar ${ }^{4}$ | 0 |
| CEES 3213 | Water Resources Engineering | 3 |
| CEES 3363 | Soil Mechanics | 3 |
| CEES 3361 | Soil Mechanics Laboratory | 1 |
| ENGR 3401 | Engineering Economics | 1 |
| Professional Elective ${ }^{5}$ | 3 |  |
|  | Credit Hours | $\mathbf{1 4}$ |

## Second Semester

| HSTM 3333 | Technology and Society in World History <br> (or approved substitute) (Core IV, Western <br> Culture) | 3 |
| :--- | :--- | ---: |
| CEES 1000 | CEES Seminar ${ }^{4}$ | 0 |
| CEES 3243 | Water and Wastewater Treatment Design | 3 |
| CEES 4253 | Statistics and Probability | 3 |
| CEES 4943 | Air Quality Management | 3 |
| Approved Elective: Social Science (Core III) |  |  |

## Senior

## First Semester

| CEES 1000 | CEES Seminar ${ }^{4}$ | 0 |
| :--- | :--- | :--- |
| CEES 4114 | Aquatic Chemistry | 4 |
| CEES 4263 | Hazardous and Solid Waste Management | 3 |
| CEES 4324 | Environmental Biology and Ecology | 4 |
| CEES 4921 | Introduction to EE Capstone | 1 |
| CEES 4951 | Contemporary Topics in Professional | 1 |
|  | Practice |  |
|  | Credit Hours | $\mathbf{1 3}$ |

## Second Semester

| ANTH 4623 | Approaches to Cross-Cultural Human <br> Problems (or approved substitute) (Core IV, <br> World Culture) | 3 |
| :--- | :--- | :--- |
| P SC 1113 | American Federal Government (Core III) | 3 |
| Professional Elective ${ }^{5}$ | 3 |  |


| Approved Elective, Artistic Forms (Core IV) ${ }^{6}$ | 3 |  |
| :--- | :--- | ---: |
| CEES 1000 | CEES Seminar ${ }^{4}$ | 0 |
| CEES 4923 | Environmental Engineering Capstone | 3 |
|  | Credit Hours | $\mathbf{1 5}$ |
|  | Total Credit Hours | $\mathbf{1 2 5}$ |

${ }^{1}$ CHEM 1315 and CHEM 1415 can be substituted with CHEM 1335 (Fall only) and CHEM 1435 (Spring only), respectively.
${ }^{2}$ MATH 1823, MATH 2423, MATH 2433, and MATH 2443 sequence can be substituted for MATH 1914, MATH 2924, and MATH 2934.
${ }^{3}$ Engineering transfer students may take ENGR 3410 in place of ENGR 1410 and ENGR 3511 in place of ENGR 1411.
${ }^{4}$ Students must complete a minimum of four semesters of CEES 1000.
${ }^{5}$ Professional electives can be chosen from any 3000 -level or higher course in CEES. One three-hour professional elective can be taken outside CEES with advisor approval.
${ }^{6}$ To be chosen from the University-Wide General Education Approved Course List. Three of these hours must be upper-division (3000-4000) See list in the Class Schedule.

Courses designated as Core I, II, III, IV or V are part of the General Education curriculum. Students must complete a minimum of 40 hours of General Education courses, chosen from the approved list.

## Environmental Science, B.S.

Minimum Total Credit Hours: 121

Overall GPA - Combined and OU: 2.00
Major GPA - Combined and OU: 2.00
Curriculum GPA - Combined and OU: 2.00

Program Code: B405

## This program has changes pending State Regents approval for 2024/25. These pending changes are not reflected here.

In order to progress in your curriculum in the Gallogly College of Engineering, and as a specific graduation requirement, a grade of C or better is required in each course in the curriculum, including all prerequisite courses.

## Major Requirements

| Code Title | Credit |
| :--- | :--- |
|  | Hours |

## Required Courses

| CEES 1000 | CEES Seminar (minimum of four semesters <br> required) | 0 |
| :--- | :--- | :---: |
| CEES 1111 | Exploring CEES | 1 |
| CEES 2213 | CADD Fundamentals | 3 |
| CEES 2313 | Water Quality Fundamentals | 3 |
| CEES 2323 | Environmental Transport and Fate Process | 3 |
| CEES 4114 | Aquatic Chemistry | 4 |
| CEES 4253 | Statistics and Probability | 3 |
| CEES 4263 | Hazardous and Solid Waste Management | 3 |
| CEES 4324 | Environmental Biology and Ecology | 4 |


| CEES 4843 | Hydrology | 3 |
| :--- | :--- | :---: |
| or CEES 5843 | Hydrology |  |
| CEES 4911 | Introduction to ES Capstone | 1 |
| CEES 4913 | Environmental Science Capstone | 3 |
| CEES 4943 | Air Quality Management | 3 |
| Professional Electives | 6 |  |
| Choose any two 3000-level or higher course in CEES (one <br> three-hour professional elective can be taken outside CEES <br> with advisor approval) |  |  |
| Total Credit Hours | $\mathbf{4 0}$ |  |

## Major Support Requirements

| Code Title | Credit |
| :--- | :--- |
|  | Hours |

## Math and Science

Choose one of the following: 4

BIOL 1134 | Introductory Biology: Evolution, Ecology |
| :--- |
| and Diversity |

or PBIO 111 4General Botany
Choose one of the following: 3
BIOL 3403 Principles of Ecology
or PBIO 3453Principles of Plant Ecology

| CHEM 1415 | General Chemistry (Continued) | 5 |
| :---: | :--- | :---: |
| or CHEM 1435 | General Chemistry II: Signature Course |  |
| CHEM 3053 | Organic Chemistry I: Biological Emphasis | 3 |
| CHEM 3153 | Organic Chemistry II: Biological Emphasis | 3 |
| MATH 2423 | Calculus and Analytic Geometry II | 3 |
| MBIO 2815 | Introduction to Microbiology | 5 |
| PHYS 2524 | General Physics for Engineering and | 4 |

or PHYS 2424 General Physics for Life Science Oriented Majors
Track Electives
Choose three courses (See Student Handbook for the list of 9
Track electives)

| Additional College Requirements |  |  |
| :--- | :--- | :--- |
| ENGR 1410 | 1 | 0 |
| ENGR 1411 | Pathways to Engineering Thinking ${ }^{1}$ | 1 |
| ENGR 2002 | Professional Responsibilities and Skills of <br> Engineers and Scientists | 2 |

Total Credit Hours
1 Engineering transfer students may take ENGR 3410 in place of ENGR 1410 and ENGR 3511 in place of ENGR 1411.

## General Education and College Requirements

Courses designated as Core I, II, III, IV, or V are part of the General Education curriculum. Students must complete a minimum of 40 hours of General Education courses, chosen from the approved list, including at least one upper-division Gen. Ed. course outside of the student's major. Courses graded P/NP will not apply.

A grade of $C$ or better is required in each course in the curriculum, including all prerequisite courses.

| UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS |  |  |
| :---: | :---: | :---: |
| Code | Title | Credit |
|  |  | Hours |
| Core Area I: Symbolic and Oral Communication |  |  |
| English Composition |  |  |
| ENGL 1113 | Principles of English Composition | 3 |
| ENGL 1213 or EXPO 1213 | Principles of English Composition Expository Writing | 3 |
| Language (0-10 hours in the same language) |  |  |
| This requirement can be met by two years of the same language in high school: |  | 0-10 |
| Beginning Course (0-5 hours) |  |  |
| Beginning Course, continued (0-5 hours) |  |  |
| Mathematics |  |  |
| MATH 1823 | $\begin{aligned} & \text { Calculus and Analytic Geometry I (Core I) } \\ & 2 \end{aligned}$ | 3 |
| Core Area II: Natural Science (including one laboratory) |  |  |
| PHYS 2514 <br> or PHYS 2414 | General Physics for Engineering and Science Majors (Core II) ${ }^{2}$ <br> General Physics for Life Science Oriented | 4 |
| CHEM 1315 or CHEM 1335 | General Chemistry (Core II-Lab) ${ }^{2}$ <br> General Chemistry I: Signature Course | 5 |
| Core Area III: Social Science |  |  |
| P SC 1113 | American Federal Government | 3 |
| Choose one cour |  | 3 |
| Core Area IV: Arts \& Humanities |  |  |
| Artistic Forms |  |  |
| Choose one course ${ }^{3}$ |  | 3 |
| Western Culture |  |  |
| HIST 1483 | United States to 1865 | 3 |
| or HIST 1493 | United States, 1865 to the Present |  |
| HSTM 3333 | Technology and Society in World History (or approved substitute Core IV-Western Culture) ${ }^{3}$ | 3 |
| World Culture |  |  |
| ANTH 4623 | Approaches to Cross-Cultural Human Problems (or approved substitute Core IVWorld Culture) ${ }^{3}$ | 3 |


| Core Area V: First-Year Experience |  |
| :--- | ---: |
| Choose one course  <br> Total Credit Hours $39-49$ 39 |  |

${ }^{1}$ MATH 1914, MATH 2924, and MATH 2934 sequence can be substituted with MATH 1823, MATH 2423, MATH 2433, and MATH 2443.
2 Major support requirements that also satisfy University General Education requirements.
3 To be chosen from the University-Wide General Education Approved Course List. Three of these hours must be upper-division (3000-4000). See list in the Class Schedule.

## Free Electives

Electives to bring total applicable hours to the minimum total required for the degree including a minimum of 40 upper-division hours.

## Suggested Semester Plan of Study

In order to progress in your curriculum in the Gallogly College of Engineering, and as a specific graduation requirement, a grade of $\mathbf{C}$ or better is required in each course in the curriculum, including all prerequisite courses.

Two college-level courses in a single world language are required; this may be satisfied by successful completion of 2 years in a single world language in high school. Students who must take a language at the University will have an additional 6-10 hours of coursework.

## Freshman

| First Semester |  | Credit <br> Hours |
| :--- | :--- | ---: |
| ENGL 1113 | Principles of English Composition (Core I) | 3 |
| CHEM 1315 | General Chemistry (Core II-Lab) $^{1}$ | 5 |
| MATH 1823 | Calculus and Analytic Geometry I (Core I) $^{2}$ | 3 |
| ENGR 1410 | 3 | 0 |
| ENGR 1411 | Pathways to Engineering Thinking |  |
| Approved Elective: First-Year Experience (Core V) |  |  |
|  | Credit Hours | $\mathbf{1}$ |

## Second Semester

| BIOL 1134 <br> or PBIO 1114 | Introductory Biology: Evolution, Ecology <br> and Diversity (Core II-Lab) <br> or General Botany | 4 |
| :---: | :--- | :---: |
| ENGL 1213 <br> or EXPO 1213 | Principles of English Composition (Core I) <br> or Expository Writing | 3 |
| CHEM 1415 | General Chemistry (Continued) (Core II-Lab) <br> 1 | 5 |
| MATH 2423 | Calculus and Analytic Geometry II |  |

## Sophomore

First Semester
CHEM 3053 Organic Chemistry I: Biological Emphasis 3
PHYS 2514 General Physics for Engineering and 4
or PHYS 2414 Science Majors (Core II) or General Physics for Life Science Oriented Majors
CEES 2313 Water Quality Fundamentals 3
CEES 1000 CEES Seminar ${ }^{4} 0$
CEES 2213 CADD Fundamentals 3
BIOL 3403 Principles of Ecology 3
or PBIO 3453 or Principles of Plant Ecology
Credit Hours 16

## Second Semester

| CHEM 3153 | Organic Chemistry II: Biological Emphasis | 3 |
| :---: | :---: | :---: |
| MBIO 2815 | Introduction to Microbiology (Core II-Lab) | 5 |
| CEES 2323 | Environmental Transport and Fate Process | 3 |
| CEES 1000 | CEES Seminar ${ }^{4}$ | 0 |
| ENGR 2002 | Professional Responsibilities and Skills of Engineers and Scientists | 2 |
| HIST 1483 or HIST 1493 | United States to 1865 (Core IV) or United States, 1865 to the Present | 3 |
|  | Credit Hours | 16 |


| Junior |  |  |
| :---: | :---: | :---: |
| First Semester |  |  |
| CEES 1000 | CEES Seminar ${ }^{4}$ | 0 |
| CEES 4263 | Hazardous and Solid Waste Management | 3 |
| $\begin{aligned} & \text { PHYS } 2524 \\ & \text { or PHYS } 2424 \end{aligned}$ | General Physics for Engineering and Science Majors or General Physics for Life Science Oriented Majors | 4 |
| CEES Track Elective ${ }^{7} 3$ |  |  |
| CEES Track Elective ${ }^{7}$ 3 3 |  |  |
|  | Credit Hours | 13 |
| Second Semester |  |  |
| ANTH 4623 | Approaches to Cross-Cultural Human Problems (or approved substitute) (Core IV, World Culture) | 3 |
| Approved Elective: Artistic Forms (Core IV) ${ }^{5}$ |  |  |
| CEES 4843/5843 Hydrology |  |  |
| CEES 1000 | CEES Seminar ${ }^{4}$ | 0 |
| CEES 4253 | Statistics and Probability | 3 |
| CEES 4943 | Air Quality Management | 3 |
|  | Credit Hours | 15 |
| Senior |  |  |
| First Semester |  |  |
| HSTM 3333 | Technology and Society in World History (or approved substitute) (Core IV, West. Culture) | 3 |
| CEES 1000 | CEES Seminar ${ }^{4}$ | 0 |
| CEES 4911 | Introduction to ES Capstone | 1 |
| CEES Professional Elective ${ }^{6}$ |  |  |
| CEES 4114 | Aquatic Chemistry | 4 |
| CEES 4324 | Environmental Biology and Ecology | 4 |
|  | Credit Hours | 15 |
| Second Semester |  |  |
| CEES 4913 | Environmental Science Capstone | 3 |
| CEES 1000 | CEES Seminar ${ }^{4}$ | 0 |
| CEES Track Elective ${ }^{7}$ |  |  |
| CEES Professional Elective ${ }^{6}$ |  |  |
| Approved Elective: Social Science (Core III) ${ }^{5}$ |  |  |
| P SC 1113 | American Federal Government (Core III) | 3 |
|  | Credit Hours | 15 |
|  | Total Credit Hours | 121 |
| ${ }^{1}$ CHEM 1315 and CHEM 1415 can be substituted with CHEM 1335 (Fall only) and CHEM 1435 (Spring only), respectively. |  |  |
| ${ }^{2}$ MATH 1914, M for MATH 1823 <br> ${ }^{3}$ Engineering tra ENGR 1410 and | 2 MATH 1914, MATH 2924, and MATH 2934 sequence can be substituted for MATH 1823, MATH 2423, MATH 2433, and MATH 2443. |  |
| ${ }^{5}$ To be chosen from the University-Wide General Education Approved Course List. Three of these hours must be upper-division (3000-4000). See list in the Class Schedule. |  |  |
| ${ }^{6}$ Professional electives can be chosen from any 3000-level or higher course in CEES. One three-hour professional elective can be taken outside CEES with advisor approval. |  |  |

7 See CEES Undergraduate Student Handbook for the list of Track electives.

Courses designated as Core I, II, III, IV or V are part of the General Education curriculum. Students must complete a minimum of 40 hours of General Education courses, chosen from the approved list.

Track electives are covered by footnote \#7 and professional electives are covered by footnote \#6.

## Environmental Science, Minor

Minimum Total Credit Hours: 16
Minimum Upper-Division Hours: 10

Program Code: N405
The requirements for a minor must be completed concurrently with the major degree requirements.

No minor may be added by completing courses after receiving the bachelor's degree.

Students must complete at least nine (9) minor hours in residence at the University of Oklahoma.

At least 9 credit hours will be in upper division courses (3000 or 4000 level).

Students must complete the following courses prior to application to the minor: MATH 1823/MATH 1914, MATH 2423/MATH 2924, CHEM 1315, CHEM 1415, BIOL 1134 or PBIO 1114, and PHYS 2514 or PHYS 2414.

A minimum grade of $C$ is required in all courses which are applied to the minor and in all prerequisite courses for the minor.

Students must complete prerequisites for all courses.

## Required Courses

$\left.\begin{array}{llr}\text { Code } & \text { Title } & \begin{array}{r}\text { Credit } \\ \text { Hours }\end{array} \\ \text { CEES 2313 } & \text { Water Quality Fundamentals (Fall only) } & 3 \\ \text { CEES 2323 } & \begin{array}{l}\text { Environmental Transport and Fate Process } \\ \text { (Spring only) }\end{array} & 3 \\ \text { CEES 4263 } & \begin{array}{l}\text { Hazardous and Solid Waste Management } \\ \text { (G) (Fall only) }\end{array} & 3 \\ \text { CEES 4114 } & \begin{array}{l}\text { Aquatic Chemistry (Fall only) } \\ \text { or CEES 4324 } \\ \text { Environmental Biology and Ecology }\end{array} \\ \hline \text { Choose one of the following: } & 4 \\ \text { CEES 4243 } & \begin{array}{l}\text { Water Technologies for Emerging Regions } \\ \text { (Spring only) }\end{array} & 3 \\ \hline \text { ENGR 4513 } & \begin{array}{l}\text { Introduction to Sustainable Engineering } \\ \text { (odd Springs only) }\end{array} & 3 \\ \hline \text { CEES 4000 or } 5000-l e v e l ~ c o u r s e ~ w i t h ~ p e r m i s s i o n ~ o f ~ a d v i s o r ~\end{array}\right]$

Total Credit Hours
Minors are available to all undergraduate students at OU. If the minor is officially declared, successfully completed, and noted on the graduation application, the student's transcript will so indicate at the time the bachelor's degree is posted.

# Water and Sanitation for Health and Sustainable Development, Minor 

Minimum Total Credit Hours: 18
Minimum Upper-Division Hours: 9
Program Code: N861
The requirements for a minor must be completed concurrently with the major degree requirements.

No minor may be added by completing courses after receiving the bachelor's degree.

Students must declare their intention to seek this minor by completing a short (one-page) application and meet with an Engineering advisor. As part of the application, the student must submit a one-page essay in response to the question: "Why I wish to pursue a minor in Water and Sanitation for Health and Sustainable Development."

At least 9 credit hours will be in upper division courses (3000 or 4000 level).

A minimum of six (6) hours of elective coursework must be taken from outside the student's major area of study.

Elective courses may require additional prerequisites for admission. Students are responsible for identifying and completing those prerequisites.

A minimum grade of $C$ is required in all courses which are applied to the minor.

Students must achieve a minimum 2.75 GPA (OU and overall) in the minor coursework.

Students must complete prequisites for all courses.

## Required Courses

| Code | Title | Credit Hours |
| :---: | :---: | :---: |
| Core Courses ${ }^{1}$ |  |  |
| CEES 4243 | Water Technologies for Emerging Regions (G) (Spring) | 3 |
| CEES 4273 | WaTER Technical Field Methods (G) (May/ Early Summer) | 3 |
| CEES 3422 | Intercultural Immersion Experience in an Emerging Region | 2 |
| CEES 3251 | WaTER Center Integrated Seminar | 1 |
| Tracks |  |  |
| Choose 9 hours from at least 2 of the following tracks preapproved by advisor. |  | 9 |
| Track 1: Engineering \& Technology, Natural and Physical Sciences (p. 1315) |  |  |
| Track 2: Policy, Economics, and Business (p. 1315) |  |  |
| Track 3: Social/Cultural/Behavioral Sciences (p. 1315) |  |  |

Total Credit Hours
${ }^{1}$ It is preferred that the core courses are completed in the following order.

## Track 1: Engineering \& Technology, Natural and Physical Sciences

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| CEES 5020 | Special Topics in Civil Engineering ${ }^{1}$ | $1-6$ |
| BSE 5113 Principles of Epidemiology (OUHSC) | 3 |  |
| CEES 5363 | Ecological Engineering Science (G) | 3 |
| ENGR 4513 | Introduction to Sustainable Engineering | 3 |
| GEOG 3233 | Principles of Sustainability | 3 |
| GEOG 4293 | Hydrologic Science | 3 |
| Or similar course(s) with advisor approval |  |  |
| ${ }^{1}$ Course recommended to fulfill the elective requirements. |  |  |

## Track 2: Policy, Economics, and Business

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| ENT 3193 | Social Entrepreneurship ${ }^{1}$ | 3 |
| IAS 3323 | The Political Economy of Development | 3 |
| HSTM 3483 | Technology, Politics, and International | 3 |
|  | Development |  |

Upper-level language course (beyond that required by OU)
Or similar course(s) with advisor approval
${ }^{1}$ Course recommended to fulfill the elective requirements.

## Track 3: Social/Cultural/Behavioral Sciences

| Code | Title | Credit <br> Hours |
| :---: | :---: | :---: |
| ANTH 4303 | Women and Development in Africa ${ }^{1}$ | 3 |
| ANTH 3423 | Anthropology of Religion | 3 |
| IAS 2003 | Understanding the Global Community | 3 |
| GEOG 3443 | Environment and Society | 3 |
| Upper-level language course (beyond that required by OU) |  |  |
| Or similar course(s) with advisor approval |  |  |
| ${ }^{1}$ Course recommended to fulfill the elective requirements. |  |  |
| Minors are available to all undergraduate students at OU. If the minor is officially declared, successfully completed, and noted on the graduation application, the student's transcript will so indicate at the time the bachelor's degree is posted. |  |  |

## Architectural Engineering, B.S./Civil Engineering, M.S.

Minimum Total Credit Hours: 150-156

Overall GPA - Combined and OU: 3.00
Major GPA - Combined and OU: 3.00

Curriculum GPA - Combined and OU: 3.00

Program Code: A035/F188, F189

## This program has changes pending State Regents approval for 2024/25. These pending changes are not reflected here.

Bachelor of Science in Architectural Engineering accredited by the Engineering Accreditation Commission of ABET, https://www.abet.org, under the General Criteria and the Architectural and Similarly Named Program Criteria.

In order to progress in your curriculum in the Gallogly College of Engineering, and as a specific graduation requirement, a grade of C or better is required in each course in the curriculum, including all prerequisite courses.

| Major Requirements |  |
| :--- | :--- |
| Code | Title | | Credit |
| :---: |


| Required Courses |  |  |
| :--- | :--- | :--- |
| AME 2213 | Thermodynamics | 3 |
| AME 3173 | Heat Transfer | 3 |
| AME 4653 | Air Conditioning Systems | 3 |
| ARCH 1263 | Methods II - Pattern of Architecture | 3 |
| ARCH 2243 | History of the Built Environment I | 3 |
| ARCH 2363 | Materials and Form | 3 |
| CEES 1000 | CEES Seminar (minimum of four semesters | 0 |
|  | required) | 1 |
| CEES 1111 | Exploring CEES | 3 |
| CEES 2113 | Statics | 3 |
| CEES 2153 | Mechanics of Materials | 3 |
| CEES 2213 | CADD Fundamentals | 3 |
| CEES 2223 | Fluid Mechanics | 3 |
| CEES 3263 | Introduction to Dynamics for Architectural |  |
|  | and Civil Engineers | 1 |


| CEES 3361 | Soil Mechanics Laboratory | 1 |
| :--- | :--- | :--- |
| CEES 3363 | Soil Mechanics | 3 |

CEES 3403 Materials 3

| CEES 3413 | Structural Analysis I | 3 |
| :--- | :--- | :--- |
| CEFS 3453 | Introduction to Construction Management | 3 |

CEES 3663 Structural Design - Steel I 3
CEES 3673 Structural Design - Concrete I 3
CEES 4113 Building Lighting and Electrical Systems 3
CEES 4333 Foundation Engineering 3
CEES 4753 Structural Design - Wood 3
CEES 4991 Introduction to AE Capstone 1
CEES 4993 Architecture Engineering Capstone 3

| ENGR 2431 | Electrical Circuits | 1 |
| :--- | :--- | :--- |
| ENGR 3401 | Engineering Economics | 1 |


| Professional Elective | 3 |
| :--- | ---: |
| Choose any 3000-level or higher course in CEES | 71 |

## Major Support Requirements

| Code | Title | Credit |
| :---: | :---: | :---: |
|  |  | Hours |
| Math and Science |  |  |
| MATH 2924 | Differential and Integral Calculus II | 4 |
| MATH 2934 | Differential and Integral Calculus III | 4 |
| MATH 3113 | Introduction to Ordinary Differential Equations | 3 |
| PHYS 2524 | General Physics for Engineering and Science Majors | 4 |
| Choose one of the following: |  | 4 |
| GEOL 1114 | Physical Geology for Science and Engineering Majors (Core II-Lab) |  |
| Basic Science Elective |  |  |
| Math (calculus or above) |  |  |
| Additional College Requirements |  |  |
| ENGR 2002 | Professional Responsibilities and Skills of Engineers and Scientists | 2 |

## Graduate Requirements

Accelerated students may dual count three to nine hours of graduatelevel electives as approved by their advisor.

All elective courses are subject to the following restrictions: one 3000G course outside CEES may be used toward the degree; no more than 9 credits of 4000G courses from CEES including required core courses, may count toward the master's degree; no more than 12 credits of 4000G courses from all departments, including CEES, may count toward the master's degree; and no more than 9 hours from departments outside CEES may count toward the master's degree.

On-Campus Concentrations:

- Geotechnical Engineering F188 Q282
- Structural Engineering F188 Q634
- Water Resources Engineering F188 Q698


## Thesis Option

| Code Title | Credit <br> Hours |
| :--- | ---: | ---: |
| Required Courses |  |
| Concentration Core (p. 1319) | 9 |
| Writing Requirement |  |
| CEES 5021 Technical Communications |  |
| Electives Courses | 15 |
| Choose 15 hours from a list of MSCE electives maintained by |  |
| the department and approved by the Graduate College. | 15 |
| Thesis $\quad$ Research for Master's Thesis | 5 |
| CEES 5980 Total Credit Hours | $\mathbf{3 0}$ |

## Non-Thesis Option

The Non-Thesis degree is a coursework-only degree; a Non-Thesis examination is not required.

| Code Title | Credit <br> Hours |
| :--- | ---: |
| Required Courses | 9 |
| Concentration Core (p. 1319) |  |
| Elective Courses | 21 |
| Choose 21 hours from a list of MSCE electives maintained by |  |
| the department and approved by the Graduate College. | $\mathbf{3 0}$ |
| Total Credit Hours |  |
| Online Concentrations |  |
| - Geotechnical Engineering (Online) F189 Q283 |  |
| - Structural Engineering (Online) F189 Q635 |  |
| - Transportation Engineering (Online) F189 Q658 |  |
| - Water Resources Engineering (Online) F189 Q699 |  |

## Non-Thesis Option (Online)

The Non-Thesis degree is a coursework-only degree; a Non-Thesis examination is not required.

## Code Title <br> Required Courses

Concentration coursework (p. 1319)

## General Education and College Requirements

Courses designated as Core I, II, III, IV, or V are part of the General Education curriculum. Students must complete a minimum of 40 hours of General Education courses, chosen from the approved list, including at least one upper-division Gen. Ed. course outside of the student's major. Courses graded P/NP will not apply.

A grade of C or better is required in each course in the curriculum, including all prerequisite courses.

## UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS

Code Title

Core Area I: Symbolic and Oral Communication

| ENGL 1113 | Principles of English Composition |
| :---: | :---: |
| ENGL 1213 or EXPO 1213 | Principles of English Composition Expository Writing |
| Language (0-10 hours in the same language) |  |
| This requirement can be met by two years of the same language in high school: |  |
| Beginning Course (0-5 hours) |  |
| Beginning Course, continued (0-5 hours) |  |
| Mathematics |  |
| MATH 1914 | Differential and Integral Calculus I (Core I) 1, 2 |

Core Area II: Natural Science (including one laboratory)
PHYS 2514 General Physics for Engineering and Science Majors (Core II) ${ }^{2}$
CHEM 1315 General Chemistry (Core II-Lab) ${ }^{2}$


## Free Electives

Electives to bring total applicable hours to the minimum total required for the degree including a minimum of 40 upper-division hours

Bachelor of Science in Architectural Engineering accredited by the Engineering Accreditation Commission of ABET, https://www.abet.org, under the General Criteria and the Architectural and Similarly Named Program Criteria.

In order to progress in your curriculum in the Gallogly College of Engineering, and as a specific graduation requirement, a grade of $C$ or better is required in each course in the curriculum, including all prerequisite courses.

Admission to the accelerated program is by application and requires a minimum GPA of 3.20 and an overall GPA of 3.00 . Once admitted, students must maintain an overall GPA of 3.00 during the bachelors. Students may enter the accelerated program based on the undergraduate degree pattern offered in the year they first enrolled in the Oklahoma State System of Higher Education or later. Students are eligible for graduate status upon graduation with the Bachelor of Science in Architectural Engineering.

Two college-level courses in a single world language are required; this may be satisfied by successful completion of 2 years in a single world language in high school. Students who must take a language at the University will have an additional 6-10 hours of coursework.

${ }^{1}$ MATH 1823, MATH 2423, MATH 2433, and MATH 2443 sequence can be substituted for MATH 1914, MATH 2924, and MATH 2934.
2 Transfer students will need to meet the requirements of the first-year experience course as well as the engineering transfer course. Please see your advisor for your specific enrollment.
3 Students must complete a minimum of four semesters of CEES 1000.
${ }^{4}$ CHEM 1315 can be substituted with CHEM 1335 (Fall only).
5 Professional Elective can be chosen from any 3000-level or higher course in CEES
6 To be chosen from the University-Wide General Education Approved Course List. Three of these hours must be upper-division (3000-4000). See list in the Class Schedule.
7 Depending on which concentration students have chosen for the masters, they must choose either on-campus thesis option, on-campus non-thesis option, or online non-thesis option. The on-campus thesis students will take CEES 5021, CEES 5980 (5-credit hours), and one 3credit hour graduate level elective. The on-campus non-thesis students will take three, 3-credit hour graduate level electives. The online nonthesis students will take three, 3-credit hour required concentration courses.
${ }^{8}$ Graduate level elective must be chosen from a list of MSCE electives maintained by the department and approved by the Graduate College.
9 Shared courses: 3-9 credit hours may count towards both the bachelors and masters degrees. If less hours are shared, total hours for the degree will increase. See concentration requirements for more information on shared course options.

Courses designated as Core I, II, III, IV, or V are part of the General Education curriculum. Students must complete a minimum of 40 hours of General Education courses, chosen from the approved list.

## Concentration Requirements

Shared Hours: Accelerated students may dual count 3-9 hours of coursework with graduate credit between the BS/MS. If less hours are shared, then the total hours for the degree will increase.

## Thesis/Non-Thesis Options

The Non-Thesis degree is a coursework-only degree; a Non-Thesis examination is not required.

- Geotechnical Engineering F188 Q282

| Code | Title | Credit Hours |
| :---: | :---: | :---: |
| Core Courses |  |  |
| CEES 4333 | Foundation Engineering ${ }^{1}$ | 3 |
| CEES 5343 | Advanced Soil Mechanics | 3 |
| CEES 5433 | In-Situ Soil Testing | 3 |
| Writing Requirement (thesis students only): |  |  |
| CEES 5021 | Technical Communications | 1 |
| Elective Courses |  |  |
| 15 hours for thesis students. 21 hours for non-thesis students. Choose from a list of MSCE electives maintained by the department and approved by the Graduate College. (p. 1333) ${ }^{1}$ |  |  |
| Thesis Research (thesis students only) |  |  |
| 5 hours CEE | 0 Research for Master's Thesis | 5 |

1 ArchE Accel BS can share (9 hours) CEES 4333, CEES 4753, and one professional elective as MS electives.

## Non-Thesis Option (Online)

The Non-Thesis degree is a coursework-only degree; a Non-Thesis examination is not required.

- Geotechnical Engineering (Online) F189 Q283

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Core Courses |  |  |
| ENGR 4223 | Fundamentals of Project Management |  |
| CEES 5653 | Advanced Mechanics of Materials | 3 |
| ENGR 4013 | Leadership and Management for Engineers | 3 |
| CEES 4333 | Foundation Engineering | 3 |
| CEES 5443 | Unsaturated Soil Mechanics | 3 |
| CEES 5353 | Introduction to Soil Dynamics | 3 |
| CEES 5693 | Structural Design of Pavements | 3 |
| CEES 5323 | Geosynthetics | 3 |
| CEES 5413 | Soil-Structure Interaction | 3 |
| CEES 5343 | Advanced Soil Mechanics | 3 |

${ }^{1}$ ArchE Accel. BS can share (6 hours) CEES 4333 and one professional elective from MS required courses.

## Thesis/Non-Thesis Options

The Non-Thesis degree is a coursework-only degree; a Non-Thesis examination is not required.

- Structural Engineering F188 Q634

| Code | Title |
| :--- | :--- |
|  | Credit |
|  | Hours |

## Core Courses

Take one course from each of the following groups:

| CEES 4663 | Introduction to Matrix Methods in | 3 |
| :--- | :--- | :--- |

or CEES 5683 Dynamics of Structures
or CEES 5763 Introduction to Finite Element Method
or AME 5763 Introduction to the Finite Element Method
CEES 5653 Advanced Mechanics of Materials 3
or CEES 5663 Structural Analysis II
CEES 5773 Structural Design--Steel II
or CEES 5783 Structural Design--Concrete II
or CEES 5793 Design of Prestressed Concrete Structures
Writing Requirement (thesis students only)
CEES 5021 Technical Communications

## Elective Courses

15 hours for the thesis completion track. 21 hours for the nonthesis completion track. Choose from a list of MSCE electives maintained by the department and approved by the Graduate College. (p. 1335) ${ }^{1}$

Thesis Research (thesis students only)

5 hours of CEES 5980 Research for Master's Thesis
${ }^{1}$ ArchE Accel BS can share ( 9 hours) CEES 4333, CEES 4753, and one professional elective as MS electives.

## Non-Thesis Option (Online)

The Non-Thesis degree is a coursework-only degree; a Non-Thesis examination is not required.

- Structural Engineering (Online) F189 Q635

| Code | Title | Credit <br> Hours |
| :---: | :---: | :---: |
| ENGR 4223 | Fundamentals of Project Management | 3 |
| CEES 5653 | Advanced Mechanics of Materials | 3 |
| ENGR 4013 | Leadership and Management for Engineers | 3 |
| CEES 4333 | Foundation Engineering ${ }^{1}$ | 3 |
| CEES 5793 | Design of Prestressed Concrete Structures | 3 |
| CEES 4753 | Structural Design - Wood ${ }^{1}$ | 3 |
| CEES 5783 | Structural Design--Concrete II | 3 |
| CEES 5773 | Structural Design--Steel II | 3 |
| CEES 5413 | Soil-Structure Interaction | 3 |
| CEES 5683 | Dynamics of Structures | 3 |

1 ArchE Accel. BS can share (9 hours) CEES 4333, CEES 4753, and one professional elective from MS required courses.

## Non-Thesis Option (Online)

The Non-Thesis degree is a coursework-only degree; a Non-Thesis examination is not required.

- Transportation Engineering (Online) F189 Q658

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Core Courses ${ }^{\mathbf{1}}$ |  |  |
| ENGR 4223 | Fundamentals of Project Management | 3 |
| CEES 5653 | Advanced Mechanics of Materials | 3 |
| ENGR 4013 | Leadership and Management for Engineers | 3 |
| GIS 5013 | Fundamentals of Geographic Information | 3 |
| CEES 5523 | Systems |  |
| CEES 5503 | Transportation Asset Management | 3 |
| CEES 5693 | Structural Design of Pavements | 3 |
| DSA 5013 | Fundamentals of Engineering Statistical | 3 |
| CEES 5513 | Analysis | 3 |
| CEES 5533 | Muffic Engineering |  |

1 ArchE Accel. BS can share (3 hours) one professional elective from MS required courses.

## Thesis/Non-Thesis Options

The Non-Thesis degree is a coursework-only degree; a Non-Thesis examination is not required.

| Water Resources Engineering F188 Q698 |  |  |
| :---: | :---: | :---: |
| Code | Title | Credit |
|  |  | Hours |
| Core Courses |  |  |
| CEES 4123 | Open Channel Flow | 3 |
| CEES 5843 | Hydrology | 3 |
| CEES 5853 | Groundwater and Seepage | 3 |
| Writing Requirement (thesis students only) |  |  |
| CEES 5021 | Technical Communications | 1 |
| Elective Courses |  |  |
| 15 hours for thesis students. 21 hours for non-thesis students. Choose from a list of MSCE electives maintained by the department and approved by the Graduate College. (p. 1337) ${ }^{1}$ |  |  |
| Thesis Research (thesis students only) |  |  |
| 5 hours CEE | 80 Research for Master's Thesis | 5 |

1 ArchE Accel BS can share (9 hours) CEES 4333, CEES 4753, and one professional elective as MS electives.

## Non-Thesis Option (Online)

The Non-Thesis degree is a coursework-only degree; a Non-Thesis examination is not required.

- Water Resources Engineering (Online) F189 Q699

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Core Courses $\mathbf{1}^{\prime}$ |  |  |
| ENGR 4223 | Fundamentals of Project Management | 3 |
| CEES 5853 | Groundwater and Seepage | 3 |
| ENGR 4013 | Leadership and Management for Engineers | 3 |
| GIS 5013 | Fundamentals of Geographic Information | 3 |
|  | Systems | 3 |
| METR 5633 | Hydrometeorology | 3 |
| CEES 5583 | Water Law | 3 |
| CEES 4123 | Open Channel Flow | 3 |
| CEES 5373 | Water Resources Systems Modeling | 3 |
| CEES 5843 | Hydrology | 3 |
| CEES 5963 | Water Security | 3 |
| or CEES 5813 | Water Treatment, Reuse, and Health Impacts |  |
| ArchE Accel. BS can share (3 hours) one professional elective from MS |  |  |

## Civil Engineering, B.S./M.S.

Minimum Total Credit Hours: 147-1 50

Overall GPA - Combined and OU: 3.00
Major GPA - Combined and OU: 3.00

Curriculum GPA - Combined and OU: 3.00
Program Code: A190/F190, F191

## This program has changes pending State Regents approval for 2024/25. These pending changes are not reflected here.

Bachelor of Science in Civil Engineering accredited by the Engineering Accreditation Commission of ABET, https://www.abet.org, under the General Criteria and the Civil and Similarly Named Program Criteria.

In order to progress in your curriculum in the Gallogly College of Engineering, and as a specific graduation requirement, a grade of C or better is required in each course in the curriculum, including all prerequisite courses.

## Major Requirements

| Code | Title | Credit Hours |
| :---: | :---: | :---: |
| Required Courses |  |  |
| CEES 1000 | CEES Seminar (a minimum of four semesters required) | 0 |
| CEES 1111 | Exploring CEES | 1 |
| CEES 2113 | Statics | 3 |
| CEES 2153 | Mechanics of Materials | 3 |
| CEES 2213 | CADD Fundamentals | 3 |
| CEES 2223 | Fluid Mechanics | 3 |
| CEES 3213 | Water Resources Engineering | 3 |
| CEES 3243 | Water and Wastewater Treatment Design | 3 |
| CEES 3263 | Introduction to Dynamics for Architectural and Civil Engineers | 3 |
| CEES 3361 | Soil Mechanics Laboratory | 1 |
| CEES 3363 | Soil Mechanics | 3 |
| CEES 3403 | Materials | 3 |
| CEES 3413 | Structural Analysis I | 3 |
| CEES 3663 | Structural Design - Steel I (OR Professional Elective) ${ }^{1,2}$ | 3 |
| CEES 3673 | Structural Design - Concrete I (OR Professional Elective) ${ }^{1,2}$ | 3 |
| CEES 3883 | Transportation Engineering | 3 |
| CEES 4253 | Statistics and Probability | 3 |
| CEES 4453 | Geomatics Engineering | 3 |
| CEES 4901 | Introduction to CE Capstone | 1 |
| CEES 4903 | Civil Engineering Capstone | 3 |
| CEES 4951 | Contemporary Topics in Professional Practice | 1 |

Total Credit Hours

[^43]
## Major Support Requirements

| Code | Title | Credit Hours |
| :---: | :---: | :---: |
| Math and Science |  |  |
| MATH 2924 | Differential and Integral Calculus II | 4 |
| MATH 2934 | Differential and Integral Calculus III | 4 |
| MATH 3113 | Introduction to Ordinary Differential Equations | 3 |
| CHEM 1415 or CHEM 1435 | General Chemistry (Continued) <br> General Chemistry II: Signature Course | 5 |
| GEOL 1114 | Physical Geology for Science and Engineering Majors ( or Basic Science, Core II-Lab) | 4 |
| PHYS 2524 | General Physics for Engineering and Science Majors | 4 |
| Professional Electives |  |  |
| Choose any two 3 three-hour profess with advisor appro | 000-level or higher course in CEES (one sional elective can be taken outside CEES val) | 6 |
| Additional College Requirements |  |  |
| ENGR 1410 | 1 | 0 |
| ENGR 1411 | Pathways to Engineering Thinking ${ }^{1}$ | 1 |
| ENGR 2002 | Professional Responsibilities and Skills of Engineers and Scientists | 2 |
| ENGR 3401 | Engineering Economics | 1 |
| Total Credit Hours |  | 34 |
| ${ }^{1}$ Engineering transfer students may take ENGR 3410 in place of ENGR 1410 and ENGR 3511 in place of ENGR 1411. |  |  |

## Graduate Requirements

Shared Hours: Accelerated students may dual count 6-9 hours of coursework with graduate credit between the BS/MS. If less hours are shared, then total hours for the degree will increase.

All elective courses are subject to the following restrictions: one 3000G course outside CEES may be used toward the degree; no more than 9 credits of 4000 G courses from CEES, including required core courses, may count toward the master's degree; no more than 12 credits of 4000G courses from all departments, including CEES, may count toward the master's degree; and no more than 9 hours from departments outside CEES may count toward the master's degree.

On-Campus Concentrations:

- Geotechnical Engineering F190 Q282
- Structural Engineering F190 Q634
- Water Resources Engineering F190 Q698


## Thesis Option

| Code Title | Credit <br> Hours |
| :--- | ---: | ---: |
| Required Courses |  |
| Concentration Core (p. 1324) | 9 |
| Writing Requirement |  |
| CEES 5021 Technical Communications | 1 |


| Electives Courses |  |
| :--- | ---: |
| Choose 15 hours from a list of MSCE electives maintained by <br> the department and approved by the Graduate College. | 15 |
| Thesis |  |
| CEES $5980 \quad$ Research for Master's Thesis | 5 |
| Total Credit Hours | $\mathbf{3 0}$ |

## Non-Thesis Option

The Non-Thesis degree is a coursework-only degree; a Non-Thesis examination is not required.
\(\left.$$
\begin{array}{lr}\text { Code Title } & \begin{array}{c}\text { Credit } \\
\text { Hours }\end{array}
$$ <br>
Required Courses \& <br>
\hline Concentration Core (p. 1324) \& <br>
\hline Elective Courses \& 21 <br>
Choose 21 hours from a list of MSCE electives maintained by <br>

the department and approved by the Graduate College.\end{array}\right]\)| Total Credit Hours |
| :--- |
| Online Concentrations |
| - Geotechnical Engineering (Online) F191 Q283 |
| - Structural Engineering (Online) F191 Q635 |
| - Transportation Engineering (Online) F191 Q658 |
| - Water Resources Engineering (Online) F191 Q699 |

## Non-Thesis Option (Online)

The Non-Thesis degree is a coursework-only degree; a Non-Thesis examination is not required.

| Code | Title | Credit |
| :--- | :--- | :--- |
|  | Hours |  |

## Required Courses

Concentration coursework (p. 1324)

## General Education and College Requirements

Courses designated as Core I, II, III, IV, or V are part of the General Education curriculum. Students must complete a minimum of 40 hours of General Education courses, chosen from the approved list, including at least one upper-division Gen. Ed. course outside of the student's major. Courses graded P/NP will not apply.

A grade of C or better is required in each course in the curriculum, including all prerequisite courses.

| UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS |  |  |
| :---: | :---: | :---: |
| Code | Title | Credit |
|  |  | Hours |
| Core Area I: Symbolic and Oral Communication |  |  |
| English Composition |  |  |
| ENGL 1113 | Principles of English Composition | 3 |
| ENGL 1213 | Principles of English Composition | 3 |
| or EXPO 1213 | Expository Writing |  |

Language (0-10 hours in the same language)

| This requirement can be met by two years of the same language in high school: |  | 0-10 |
| :---: | :---: | :---: |
| Beginning Course (0-5 hours) |  |  |
| Beginning Course, continued (0-5 hours) |  |  |
| Mathematics |  |  |
| MATH 1914 | Differential and Integral Calculus I (Core I) $1,2$ | 4 |
| Core Area II: Natural Science (including one laboratory) |  |  |
| PHYS 2514 | General Physics for Engineering and Science Majors (Core II) ${ }^{2}$ | 4 |
| CHEM 1315 or CHEM 1335 | General Chemistry (Core II-Lab) ${ }^{2}$ <br> General Chemistry I: Signature Course | 5 |
| Core Area III: Social Science |  |  |
| P SC 1113 | American Federal Government | 3 |
| Choose one cour |  | 3 |
| Core Area IV: Arts \& Humanities |  |  |
| Artistic Forms |  |  |
| Choose one course ${ }^{3}$ |  | 3 |
| Western Culture |  |  |
| HIST 1483 | United States to 1865 | 3 |
| or HIST 1493 | United States, 1865 to the Present |  |
| HSTM 3333 | Technology and Society in World History (or approved substitute Core IV-Western Culture) ${ }^{3}$ | 3 |
| World Culture |  |  |
| ANTH 4623 | Approaches to Cross-Cultural Human Problems (or approved substitute Core IVWorld Culture) ${ }^{3}$ | 3 |
| Core Area V: First-Year Experience |  |  |
| Choose one course ${ }^{3}$ |  | 3 |
| Total Credit Hours |  | 40-50 |
| 1 MATH 1823, MATH 2423, MATH 2433, and MATH 2443 sequence can be substituted for MATH 1914, MATH 2924, and MATH 2934. |  |  |
| ${ }^{2}$ Major support requirements that also satisfy University General Education requirements. |  |  |
| ${ }^{3}$ To be chosen from the University-Wide General Education Approved Course List. Three of these hours must be upper-division (3000-4000). See list in the Class Schedule. |  |  |

## Free Electives

Electives to bring total applicable hours to the minimum total required for the degree including a minimum of 40 upper-division hours

## Suggested Semester Plan of Study

Bachelor of Science in Civil Engineering accredited by the Engineering Accreditation Commission of ABET, https://www.abet.org, under the General Criteria and the Civil and Similarly Named Program Criteria.

In order to progress in your curriculum in the Gallogly College of Engineering, and as a specific graduation requirement, a grade of C or better is required in each course in the curriculum, including all prerequisite courses.

Admission to the accelerated program is by application and requires a minimum major GPA of 3.20 and overall GPA of 3.00. Once admitted,
students must maintained an overall GPA of 3.00 during the bachelors. Students may enter the accelerated program based on the undergraduate degree pattern offered in the year they first enrolled in the Oklahoma State System of Higher Education or later. Students are eligible for graduate status upon graduation with the Bachelor of Science in Civil Engineering.

Two college-level courses in a single world language are required; this may be satisfied by successful completion of 2 years in a single world language in high school. Students who must take a language at the University will have an additional 6-10 hours of coursework.

## Freshman

| First Semester |  | Credit <br> Hours |
| :--- | :--- | ---: |
| ENGL 1113 | Principles of English Composition (Core I) $_{3}$ | 3 |
| CHEM 1315 | General Chemistry (Core II-Lab) $^{1}$ | 5 |
| MATH 1914 | Differential and Integral Calculus I (Core I) $^{2}$ | 4 |
| ENGR 1411 | Pathways to Engineering Thinking $^{3}$ | 1 |
| ENGR 1410 | 3 | 0 |
| Approved Elective: First-Year Experience (Core V) ${ }^{7}$ | 3 |  |
|  | Credit Hours $^{7}$ |  |


| Second Semester |  |  |
| :--- | :--- | ---: |
| ENGL 1213 <br> or EXPO 1213 | Principles of English Composition (Core I) <br> or Expository Writing | 3 |
| CHEM 1415 | General Chemistry (Continued) (Core II-Lab) | 5 |
|  | 1 |  |

## Sophomore

## First Semester

| MATH 2934 | Differential and Integral Calculus III ${ }^{2}$ | 4 |
| :--- | :--- | ---: |
| PHYS 2524 | General Physics for Engineering and | 4 |
|  | Science Majors |  |
| CEES 1000 | CEES Seminar ${ }^{4}$ | 0 |
| CEES 2213 | CADD Fundamentals | 3 |
| CEES 2113 | Statics | 3 |
| ENGR 2002 | Professional Responsibilities and Skills of | 2 |
|  | Engineers and Scientists |  |
|  | Credit Hours | $\mathbf{1 6}$ |

## Second Semester

| MATH 3113 | Introduction to Ordinary Differential <br>  <br>  <br> Equations | 3 |
| :--- | :--- | ---: |
| CEES 1000 | CEES Seminar ${ }^{4}$ | 0 |
| CEES 2153 | Mechanics of Materials | 3 |
| CEES 2223 | Fluid Mechanics | 3 |
| GEOL 1114 | Physical Geology for Science and <br> Engineering Majors (or Basic Science; Core | 4 |
|  | II-Lab) |  |
| HIST 1483 <br> or HIST 1493 | United States to 1865 (Core IV) <br> or United States, 1865 to the Present | 3 |
|  | Credit Hours | $\mathbf{1 6}$ |

Junior

| First Semester |  |  |
| :---: | :---: | :---: |
| CEES 1000 | CEES Seminar ${ }^{4}$ | 0 |
| CEES 3213 | Water Resources Engineering | 3 |
| CEES 3263 | Introduction to Dynamics for Architectural and Civil Engineers | 3 |
| CEES 3363 | Soil Mechanics | 3 |
| CEES 3361 | Soil Mechanics Laboratory | 1 |
| CEES 3413 | Structural Analysis I | 3 |
| HSTM 3333 | Technology and Society in World History (Core IV, Western Culture) (or approved substitute) | 3 |
|  | Credit Hours | 16 |

## Second Semester

| CEES 1000 | CEES Seminar ${ }^{4}$ | 0 |
| :--- | :--- | :--- |
| CEES 3243 | Water and Wastewater Treatment Design | 3 |
| CEES 3403 | Materials | 3 |
| Choose one of the following: | 3 |  |

CEES 3663 Structural Design-Steel ${ }^{5}$
Professional Elective ${ }^{6}$

| CEES 3883 | Transportation Engineering | 3 |
| :--- | :--- | ---: |
| CEES 4253 | Statistics and Probability ${ }^{10}$ | 3 |
|  | Credit Hours | $\mathbf{1 5}$ |

## Senior

First Semester
ANTH 4623 Approaches to Cross-Cultural Human 3

|  | Problems (or approved substitute) (Core IV, World Culture) |  |
| :---: | :---: | :---: |
| CEES 1000 | CEES Seminar ${ }^{4}$ | 0 |
| Professional Elective ${ }^{6,10}$ |  | 3 |
| Choose one of the following: |  | 3 |
| CEES 367 | Structural Design - Concrete ${ }^{5}$ |  |
| Professional Elective ${ }^{6,10}$ |  |  |
| CEES 4453 | Geomatics Engineering ${ }^{10}$ | 3 |
| CEES 4901 | Introduction to CE Capstone | 1 |
| CEES 4951 | Contemporary Topics in Professional Practice | 1 |
| ENGR 3401 | Engineering Economics | 1 |
|  | Credit Hours | 15 |

## Second Semester

CEES 1000 CEES Seminar ${ }^{4} 0$
CEES 4903 Civil Engineering Capstone 3
Professional Elective ${ }^{6,10}$ ..... 3
Approved Elective, Social Science (Core III) ${ }^{7}$ ..... 3
Approved Elective, Artistic Forms (Core IV) ${ }^{7}$ ..... 3
P SC 1113 American Federal Government ..... 3
Fifth Year
First Semester
CEES Concentration Course ..... 3
CEES Concentration Course ..... 3
CEES Concentration Course ..... 3

|  |  |  |
| :---: | :---: | :---: |
|  | Credit Hours | 12 |
| Second Semester |  |  |
|  | Choose one of the fo |  |
| CEES 5980 Research for Master's Thesis |  |  |
| Graduate-level Elective or CEES Concentration Course ${ }^{9}$ |  |  |
| Choose one of the following: ${ }^{8}$ |  |  |
| CEES 5021 Technical Communications |  |  |
| Graduate-level Elective or CEES Concentration Course ${ }^{9}$ |  |  |
| CEES Graduate-level Elective or CEES Concentration Course 8,9 |  |  |
|  | Credit Hours |  |
|  | Total Credit Hours |  |
| ${ }^{1}$ CHEM 1315 and CHEM 1415 can be substituted with CHEM 1335 (Fall only) and CHEM 1435 (Spring only), respectively. <br> 2 MATH 1823, MATH 2423, MATH 2433, and MATH 2443 sequence can be substituted for MATH 1914, MATH 2924, and MATH 2934. <br> ${ }^{3}$ Engineering transfer students may take ENGR 3410 in place of ENGR 1410 and ENGR 3511 in place of ENGR 1411. <br> ${ }^{4}$ Students must complete a minimum of four semesters of CEES 1000. <br> ${ }^{5}$ Students must take at least CEES 3663 or CEES 3673. Students interested in pursuing a graduate degree are encouraged to complete both courses. |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
| ${ }^{6}$ Professional electives can be chosen from any 3000-level or higher course in CEES. One three-hour professional elective can be taken outside CEES with advisor approval. |  |  |
| ${ }^{7}$ To be chosen from the University-Wide General Education Approved Course List. Three of these hours must be upper-division (3000-4000) See list in the Class Schedule. |  |  |
| ${ }^{8}$ Depending on which concentration students have chosen for the masters, they must choose either on-campus thesis option, on-campus non-thesis option, or online non-thesis option. The on-campus thesis students will take CEES 5021, CEES 5980 ( 5 -credit hours), and one 3credit hour graduate level elective. The on-campus non-thesis students will take three, 3 -credit hour graduate level electives. The online nonthesis students will take three, 3 -credit hour required concentration courses. |  |  |
| ${ }^{9}$ Graduate level elective must be chosen from a list of MSCE electives maintained by the department and approved by the Graduate College. |  |  |
| ${ }^{10}$ Shared courses: 6-9 credit hours may count towards both the bachelors and masters degrees. If less hours are shared, total hours for the degree will increase. See concentration requirements for more information on shared course options. |  |  |

Courses designated as Core I, II, III, IV or V are part of the General Education curriculum. Students must complete a minimum of 40 hours of General Education courses, chosen from the approved list.

## Concentration Requirements

## THESIS/NON-THESIS OPTIONS

The Non-Thesis degree is a coursework-only degree; a Non-Thesis examination is not required.

- Geotechnical Engineering F190 Q282

| Code | Title | Credit <br> Hours |
| :---: | :---: | :---: |
| Core Courses |  |  |
| CEES 4333 | Foundation Engineering | 3 |
| CEES 5343 | Advanced Soil Mechanics | 3 |
| CEES 5433 | In-Situ Soil Testing | 3 |
| Writing Requirement (thesis students only): |  |  |
| CEES 5021 | Technical Communications | 1 |
| Elective Courses |  |  |
| 15 hours for thesis students. 21 hours for non-thesis students. Choose from a list of MSCE electives maintained by the department and approved by the Graduate College. (p. 1333) ${ }^{1}$ |  |  |
| Thesis Research (thesis students only) |  |  |
| 5 hours CEES 5980 Research for Master's Thesis 5 |  |  |
| ${ }^{1}$ CE Accel BS can share (9 hours) CEES 4253, CEES 4453, and one professional elective as MS electives. |  |  |

## NON-THESIS OPTION (ONLINE)

The Non-Thesis degree is a coursework-only degree; a Non-Thesis examination is not required.

- Geotechnical Engineering (Online) F191 Q283

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Core Courses $\mathbf{1}^{1}$ |  |  |
| ENGR 4223 | Fundamentals of Project Management | 3 |
| CEES 5653 | Advanced Mechanics of Materials | 3 |
| ENGR 4013 | Leadership and Management for Engineers | 3 |
| CEES 4333 | Foundation Engineering | 3 |
| CEES 5443 | Unsaturated Soil Mechanics | 3 |
| CEES 5353 | Introduction to Soil Dynamics | 3 |
| CEES 5693 | Structural Design of Pavements | 3 |
| CEES 5323 | Geosynthetics | 3 |
| CEES 5413 | Soil-Structure Interaction | 3 |
| CEES 5343 | Advanced Soil Mechanics | 3 |
| CE Accel. BS can share (6 hours) two professional electives from MS |  |  |
| required courses. |  |  |

## THESIS/NON-THESIS OPTIONS

The Non-Thesis degree is a coursework-only degree; a Non-Thesis examination is not required.

- Structural Engineering F190 Q634

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Core Courses |  |  |
| Take one course from each of the following groups: | 3 |  |
| CEES 4663 | Introduction to Matrix Methods in <br> or CEES 5683 | Dynamics of Structures |
| or CEES 5763 | Introduction to Finite Element Method |  |


| or AME 5763 | Introduction to the Finite Element Method |
| :---: | :---: |
| CEES 5653 or CEES 5663 | Advanced Mechanics of Materials Structural Analysis II |
| CEES 5773 <br> or CEES 5783 <br> or CEES 5793 | Structural Design--Steel II <br> Structural Design--Concrete II <br> Design of Prestressed Concrete Structures |
| Writing Requirement (thesis students only) |  |
| CEES 5021 | Technical Communications |
| Elective Courses |  |
| 15 hours for the thesis completion track. 21 hours for the nonthesis completion track. Choose from a list of MSCE electives maintained by the department and approved by the Graduate College. (p. 1335) ${ }^{1}$ |  |
| Thesis Research (thesis students only) |  |
| 5 hours of CEES 5 | 980 Research for Master's Thesis |
| 1 CE Accel BS can professional ele | share (9 hours) CEES 4253, CEES 4453, and one ctive as MS electives. |

## NON-THESIS OPTION (ONLINE)

The Non-Thesis degree is a coursework-only degree; a Non-Thesis examination is not required.

- Structural Engineering (Online) F191 Q635

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Core Courses $\mathbf{1}^{1}$ |  |  |
| ENGR 4223 | Fundamentals of Project Management | 3 |
| CEES 5653 | Advanced Mechanics of Materials | 3 |
| ENGR 4013 | Leadership and Management for Engineers | 3 |
| CEES 4333 | Foundation Engineering | 3 |
| CEES 5793 | Design of Prestressed Concrete Structures | 3 |
| CEES 4753 | Structural Design - Wood | 3 |
| CEES 5783 | Structural Design--Concrete II | 3 |
| CEES 5773 | Structural Design--Steel II | 3 |
| CEES 5413 | Soil-Structure Interaction | 3 |
| CEES 5683 | Dynamics of Structures | 3 |

${ }^{1}$ CE Accel. BS can share (6 hours) two professional electives from MS required courses.

## NON-THESIS OPTION (ONLINE)

The Non-Thesis degree is a coursework-only degree; a Non-Thesis examination is not required.

| - Transportation Engineering (Online) F191 Q658 |  |  |
| :--- | :--- | ---: |
| Code | Title | Credit <br> Hours |
| Core Courses ${ }^{1}$ |  | 3 |
| ENGR 4223 | Fundamentals of Project Management | 3 |
| CEES 5653 | Advanced Mechanics of Materials | 3 |
| ENGR 4013 | Leadership and Management for Engineers | 3 |
| GIS 5013 | Fundamentals of Geographic Information <br>  <br>  <br> Systems |  |


| CEES 5523 | Transportation Asset Management | 3 |
| :--- | :--- | ---: |
| CEES 5503 | Highway Engineering | 3 |
| CEES 5693 | Structural Design of Pavements | 3 |
| DSA 5013 | Fundamentals of Engineering Statistical | 3 |
| CEES 5513 | Analysis | Traffic Engineering |
| CEES 5533 | Multimodal Transportation | 3 |
| 1 | CE Accel. BS can share (6 hours) two professional electives from MS |  |

## THESIS/NON-THESIS OPTIONS

The Non-Thesis degree is a coursework-only degree; a Non-Thesis examination is not required.

| - Water Resources | Engineering F190 Q698 |  |
| :--- | :--- | :--- |
| Code | Title | Credit |
|  |  | Hours |

Core Courses
CEES 4123 Open Channel Flow 3
CEES 5843 Hydrology 3
CEES 5853 Groundwater and Seepage 3
Writing Requirement (thesis students only)

| CEES $5021 \quad$ Technical Communications | 1 |
| :--- | :--- |$l$

Elective Courses
15 hours for thesis students. 21 hours for non-thesis students. Choose from a list of MSCE electives maintained by the department and approved by the Graduate College. (p. 1337) ${ }^{1}$

Thesis Research (thesis students only)
5 hours CEES 5980 Research for Master's Thesis

1 ArchE Accel BS can share (9 hours) CEES 4333, CEES 4753, and one professional elective as MS electives.

## NON-THESIS OPTION (ONLINE)

The Non-Thesis degree is a coursework-only degree; a Non-Thesis examination is not required.

- Water Resources Engineering (Online) F191 Q699

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Core Courses $\mathbf{1}^{\prime}$ |  |  |
| ENGR 4223 | Fundamentals of Project Management | 3 |
| CEES 5853 | Groundwater and Seepage | 3 |
| ENGR 4013 | Leadership and Management for Engineers | 3 |
| GIS 5013 | Fundamentals of Geographic Information | 3 |
| METR 5633 | Systems | 3 |
| CEES 5583 | Hydrometeorology | 3 |
| CEES 4123 | Open Channel Flow | 3 |
| CEES 5373 | Water Resources Systems Modeling | 3 |
| CEES 5843 | Hydrology | 3 |

CEES 5963
Water Security
or CEES 5813 Water Treatment, Reuse, and Health Impacts
${ }^{1}$ ArchE Accel. BS can share (3 hours) one professional elective from MS required courses.

## Environmental Engineering, B.S./M.S.

Minimum Total Credit Hours: 146

Overall GPA - Combined and OU: 3.00
Major GPA - Combined and OU: 3.00
Curriculum GPA - Combined and OU: 3.00
Program Code: A390/F390
This program has changes pending State Regents approval for 2024/25. These pending changes are not reflected here.
Bachelor of Science in Environmental Engineering accredited by the Engineering Accreditation Commission of ABET, https://www.abet.org, under the General Criteria and the Environmental Engineering and Similarly Named Program Criteria.

In order to progress in your curriculum in the Gallogly College of Engineering, and as a specific graduation requirement, a grade of C or better is required in each course in the curriculum, including all prerequisite courses.

## Major Requirements

| Code | Title | Credit <br> Hours |
| :--- | :--- | :--- |
| Required Courses |  |  |
| CEES 1000 | CEES Seminar (minimum of four semesters | 0 |
| required) |  |  |
| CEES 1111 | Exploring CEES | 1 |
| CEES 2153 | Statics | 3 |
| CEES 2213 | CADD Fundamentals | 3 |
| CEES 2223 | Fluid Mechanics | 3 |
| CEES 2313 | Water Quality Fundamentals | 3 |
| CEES 2323 | Environmental Transport and Fate Process | 3 |
| CEES 3213 | Water Resources Engineering | 3 |
| CEES 3243 | Water and Wastewater Treatment Design | 3 |
| CEES 3361 | Soil Mechanics Laboratory | 3 |
| CEES 3363 | Soil Mechanics | 1 |
| CEES 4114 | Aquatic Chemistry | 3 |
| CEES 4253 | Statistics and Probability | 4 |
| CEES 4263 | Hazardous and Solid Waste Management | 3 |
| CEES 4324 | Environmental Biology and Ecology | 3 |
| CEES 4921 | Introduction to EE Capstone | 4 |
| CEES 4923 | Environmental Engineering Capstone | 1 |
| CEES 4943 | Air Quality Management | 3 |

## Math and Science

$\left.\begin{array}{lll}\hline \text { CHEM 1415 } & \text { General Chemistry (Continued) } \\ \text { or CHEM } 1435 & \text { General Chemistry II: Signature Course }\end{array}\right] 5$

| Additional College Requirements |  |  |
| :---: | :---: | :---: |
| ENGR 1410 | 1 | 0 |
| ENGR 1411 | Pathways to Engineering Thinking ${ }^{1}$ | 1 |
| ENGR 2002 | Professional Responsibilities and Skills of Engineers and Scientists | 2 |
| ENGR 2461 | Thermodynamics | 1 |
| ENGR 3401 | Engineering Economics | 1 |
| Total Credit Hours |  | 34 |
| ${ }^{1}$ Engineering tran of ENGR 1410, | sfer students may take ENGR 3410 in place and ENGR 3511 in place of ENGR 1411. |  |

## Graduate Requirements

Accelerated students may dual count nine hours of graduate-level electives as approved by their advisor.

All elective courses are subject to the following restrictions: (i) one 3000G course outside CEES may be used toward the degree; (ii) no more than 9 credits of 4000G courses from CEES, including required core courses, may count toward the master's degree; (iii) no more than 12 credits of 4000G courses from all departments, including CEES, may count toward the master's degree; (iv) and no more than 9 hours from departments outside CEES may count toward the master's degree.

## Thesis Option

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Required Courses |  |  |
| CEES 5114 | Aquatic Chemistry | 4 |
| CEES 5244 | Physicochemical Water Treatment | 4 |
|  | Processes |  |
| CEES 5624 | Biological Waste Treatment | 4 |
| CEES 5021 | Technical Communications | 1 |
| Electives |  |  |

Elective coursework from a list of MS Env. Engr. electives maintained by the department and approved by the Graduate College (p. 1339) ${ }^{1}$

## Thesis

CEES $5980 \quad$ Research for Master's Thesis 5
Total Credit Hours
1 MS Env. Engr. students may choose elective courses in civil engineering, environmental engineering, environmental science, mathematics, meteorology, computer science, and/or related subjects. Graduate courses not listed here may also be used as electives with advisor's prior approval.

## Non-Thesis Option

The Non-Thesis degree is a coursework-only degree; a Non-Thesis examination is not required.

| Code | Title | Credit Hours |
| :---: | :---: | :---: |
| Required Courses |  |  |
| CEES 5114 | Aquatic Chemistry | 4 |
| CEES 5244 | Physicochemical Water Treatment Processes | 4 |
| CEES 5624 | Biological Waste Treatment | 4 |
| Electives |  |  |
| Elective cou maintained College ( p . | ork from a list of MS Env. Engr. electives department and approved by the Graduate | 18 |

## Total Credit Hours

1 MS Env. Engr. students may choose elective courses in civil engineering, environmental engineering, environmental science, mathematics, meteorology, computer science, and/or related subjects. Graduate courses not listed here may also be used as electives with advisor's prior approval.

## General Education and College Requirements

Courses designated as Core I, II, III, IV, or V are part of the General Education curriculum. Students must complete a minimum of 40 hours of General Education courses, chosen from the approved list, including at least one upper-division Gen. Ed. course outside of the student's major. Courses graded P/NP will not apply.

A grade of C or better is required in each course in the curriculum, including all prerequisite courses.

| UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS |  |  |
| :---: | :---: | :---: |
| Code | Title | Credit |
|  |  | Hours |
| Core Area I: Symbolic and Oral Communication |  |  |
| English Composition |  |  |
| ENGL 1113 | Principles of English Composition | 3 |
| ENGL 1213 | Principles of English Composition | 3 |
| or EXPO 1213 | Expository Writing |  |

Language (0-10 hours in the same language)
This requirement can be met by two years of the same
language in high school:
Beginning Course (0-5 hours)
Beginning Course, continued (0-5 hours)
Mathematics
MATH 1914

## Core Area II: Natural Science (including one laboratory)

| PHYS 2514 | General Physics for Engineering and <br> Science Majors (Core II) |
| :--- | :--- | :--- |


| CHEM 1315 | General Chemistry (Core II-Lab) |  |
| :--- | :--- | :--- |
|  |  |  |
| or CHEM 1335 | General Chemistry I Signature Course | 5 |

Core Area II: Social Science

## Core Area III: Social Science

P SC 1113 American Federal Government ..... 3
Choose one course ${ }^{3}$ ..... 3
Core Area IV: Arts \& Humanities
Artistic Forms
Choose one course ${ }^{3}$ ..... 3
Western Culture
HIST $1483 \quad 3$
or HIST 1493 United States, 1865 to the Present
HSTM 3333 Technology and Society in World History 3
(or approved substitute Core IV-Western
Culture) ${ }^{3}$

## World Culture

ANTH 4623 Approaches to Cross-Cultural Human 3

Problems (or approved substitute Core IVWorld Culture) ${ }^{3}$

## Core Area V: First-Year Experience

Choose one course ${ }^{3}$
Total Credit Hours
1 MATH 1823,MATH 2423, MATH 2433, and MATH 2443 sequence can be substituted for MATH 1914, MATH 2924, andMATH 2934.
2 Major support requirements that also satisfy University General Education requirements.
3 To be chosen from the University-Wide General Education Approved Course List. Three of these hours must be upper-division (3000-4000). See list in the Class Schedule.

## Free Electives

Electives to bring total applicable hours to the minimum total required for the degree including a minimum of 40 upper-division hours.

## Suggested Semester Plan of Study

Bachelor of Science in Environmental Engineering accredited by the Engineering Accreditation Commission of ABET, https://www.abet.org, under the General Criteria and the Environmental Engineering and Similarly Named Program Criteria.

In order to progress in your curriculum in the Gallogly College of Engineering, and as a specific graduation requirement, a grade of C or better is required in each course in the curriculum, including all prerequisite courses.

Admission to the accelerated program is by application and requires a minimum major GPA of 3.20 and an overall GPA of 3.00. Once admitted, students must maintain an overall GPA of 3.00 during the bachelors Students may enter the accelerated program based on the undergraduate degree pattern offered in the year they first enrolled in the Oklahoma State System of Higher Education or later. Students are eligible for graduate status upon graduation with the Bachelor of Science in Environmental Engineering.

Two college-level courses in a single world language are required; this may be satisfied by successful completion of 2 years in a single world language in high school. Students who must take a language at the University will have an additional 6-10 hours of coursework.

## Freshman

| First Semester |  | Credit |
| :---: | :---: | :---: |
|  |  | Hours |
| ENGL 1113 | Principles of English Composition (Core I) | 3 |
| CHEM 1315 | General Chemistry (Core II-Lab) ${ }^{1}$ | 5 |
| MATH 1914 | Differential and Integral Calculus I (Core I) ${ }^{2}$ | 4 |
| ENGR 1410 | 3 | 0 |
| ENGR 1411 | Pathways to Engineering Thinking ${ }^{3}$ | 1 |
| Approved Elective: | : First-Year Experience (Core V) ${ }^{6}$ | 3 |
|  | Credit Hours | 16 |
| Second Semester |  |  |
| ENGL 1213 or EXPO 1213 | Principles of English Composition (Core I) or Expository Writing | 3 |
| CHEM 1415 | General Chemistry (Continued) (Core II-Lab) 1 | 5 |
| MATH 2924 | Differential and Integral Calculus II ${ }^{2}$ | 4 |
| PHYS 2514 | General Physics for Engineering and Science Majors (Core II) | 4 |
| CEES 1111 | Exploring CEES | 1 |

## Sophomore

First Semester

| MATH 2934 | Differential and Integral Calculus III ${ }^{2}$ | 4 |
| :--- | :--- | ---: |
| PHYS 2524 | General Physics for Engineering and <br>  <br>  <br> Science Majors | 4 |
| CEES 1000 | CEES Seminar ${ }^{4}$ | 0 |
| CEES 2213 | CADD Fundamentals | 3 |
| CEES 2113 | Statics | 3 |
| CEES 2313 | Water Quality Fundamentals | $\mathbf{3}$ |
|  | Credit Hours | $\mathbf{1 7}$ |

## Second Semester

| HIST 1483 <br> or HIST 1493 | United States to 1865 <br> or United States, 1865 to the Present | 3 |
| :--- | :--- | :--- |
| MATH 3113 | Introduction to Ordinary Differential <br> Equations | 3 |
| CEES 1000 | CEES Seminar 4 | 0 |
| CEES 2153 | Mechanics of Materials | 3 |
| CEES 2223 | Fluid Mechanics | 3 |
| CEES 2323 | Environmental Transport and Fate Process | 3 |
| ENGR 2002 | Professional Responsibilities and Skills of <br> Engineers and Scientists | 2 |

## Credit Hours

Junior
First Semester

| CHEM 3053 | Organic Chemistry I: Biological Emphasis | 3 |
| :--- | :--- | ---: |
| CEES 1000 | CEES Seminar ${ }^{4}$ | 0 |
| CEES 3213 | Water Resources Engineering | 3 |
| CEES 3363 | Soil Mechanics | 3 |
| CEES 3361 | Soil Mechanics Laboratory | 1 |
| ENGR 3401 | Engineering Economics | $\mathbf{1}$ |
| Professional Elective ${ }^{5}$ | 3 |  |
|  | Credit Hours | $\mathbf{1 4}$ |

## Second Semester

| HSTM 3333 | Technology and Society in World History (or approved substitute) (Core IV, Western Culture) | 3 |
| :---: | :---: | :---: |
| CEES 1000 | CEES Seminar ${ }^{4}$ | 0 |
| CEES 3243 | Water and Wastewater Treatment Design | 3 |
| CEES 4253 | Statistics and Probability | 3 |
| CEES 4943 | Air Quality Management ${ }^{9}$ | 3 |
| ENGR 2461 | Thermodynamics | 1 |
| Approved Elective: Social Science (Core III) ${ }^{6}$ |  | 3 |
|  | Credit Hours | 16 |

## Senior

First Semester

| CEES 1000 | CEES Seminar ${ }^{4}$ | 0 |
| :--- | :--- | :--- |
| CEES 4114 | Aquatic Chemistry $^{9}$ | 4 |
| CEES 4263 | Hazardous and Solid Waste Management $^{9}$ | 3 |
| CEES 4324 | Environmental Biology and Ecology ${ }^{9}$ | 4 |
| CEES 4921 | Introduction to EE Capstone | 1 |
| CEES 4951 | Contemporary Topics in Professional | 1 |
|  | Practice |  |
|  | Credit Hours | $\mathbf{1 3}$ |

## Second Semester



## Fifth Year

First Semester
CEES 5114 Aquatic Chemistry ${ }^{8,9} 4$
CEES $5624 \quad$ Biological Waste Treatment ..... 4
CEES Graduate-level Elective ${ }^{8}$ ..... 3
Credit Hours ..... 11

## Second Semester

Choose one of the following: ${ }^{7}$ 3-5
CEES 5980 Research for Master's Thesis
Graduate-level Elective ${ }^{8}$
Choose one of the following:1-3


Courses designated as Core I, II, III, IV or V are part of the General Education curriculum. Students must complete a minimum of 40 hours of General Education courses, chosen from the approved list.

## Environmental Science, B.S./M.E.S.

Minimum Total Credit Hours: 141
Overall GPA - Combined and OU: 3.00
Major GPA - Combined and OU: 3.00
Curriculum GPA - Combined and OU: 3.00
Program Code: A405/F405

## This program has changes pending State Regents approval for 2024/25. These pending changes are not reflected here.

In order to progress in your curriculum in the Gallogly College of Engineering, and as a specific graduation requirement, a grade of C or better is required in each course in the curriculum, including all prerequisite courses.

Undergraduate Major Requirements

| Code | Title | Credit <br> Hours |
| :--- | :--- | :---: |
| Required Courses |  |  |
| CEES 1000 | CEES Seminar (minimum of four semesters <br> required) | 0 |
| CEES 1111 | Exploring CEES | 1 |
| CEES 2213 | CADD Fundamentals | 3 |
| CEES 2313 | Water Quality Fundamentals | 3 |
| CEES 2323 | Environmental Transport and Fate Process | 3 |
| CEES 4114 | Aquatic Chemistry | 4 |
| CEES 4253 | Statistics and Probability | 3 |
| CEES 4263 | Hazardous and Solid Waste Management | 3 |
| CEES 4324 | Environmental Biology and Ecology | 4 |
| CEES 4843 | Hydrology | 3 |
| or CEES 5843 | Hydrology | 1 |
| CEES 4911 | Introduction to ES Capstone | 3 |
| CEES 4913 | Environmental Science Capstone | 3 |
| CEES 4943 | Air Quality Management | 3 |

## Professional Electives

Choose any two 3000-level or higher course in CEES (one 6 three-hour professional elective can be taken outside CEES with advisor approval)
Total Credit Hours

## Major Support Requirements

| Code | Title | Credit <br> Hours |
| :---: | :---: | :---: |
| Math and Science |  |  |
| Choose one of the following: |  | 4 |
| $\text { BIOL } 1134$ <br> or PBIO 111 | Introductory Biology: Evolution, Ecology and Diversity <br> 4General Botany |  |
| Choose one of the following: |  | 3 |
| $\begin{aligned} & \text { BIOL } 3403 \\ & \quad \text { or PBIO } 345 \end{aligned}$ | Principles of Ecology 3Principles of Plant Ecology |  |
| CHEM 1415 or CHEM 1435 | General Chemistry (Continued) <br> General Chemistry II: Signature Course | 5 |
| CHEM 3053 | Organic Chemistry I: Biological Emphasis | 3 |
| CHEM 3153 | Organic Chemistry II: Biological Emphasis | 3 |
| MATH 2423 | Calculus and Analytic Geometry II | 3 |
| MBIO 2815 | Introduction to Microbiology | 5 |
| PHYS 2524 | General Physics for Engineering and Science Majors | 4 |
| or PHYS 2424 | General Physics for Life Science Oriented M |  |
| Track Electives |  |  |
| Choose three courses (See Student Handbook for the list of Track electives) |  |  |
| Additional College Requirements |  |  |
| ENGR 2002 | Professional Responsibilities and Skills of Engineers and Scientists | 2 |

## Graduate Requirements

Accelerated students may dual count nine hours of graduate-level electives as approved by their advisor.

All elective courses are subject to the following restrictions: (i) one 3000G course outside CEES may be used toward the degree; (ii) no more than 9 credits of 4000G courses from CEES, including required core courses, may count toward the master's degree; (iii) no more than 12 credits of 4000 G courses from all departments, including CEES, may count toward the master's degree; (iv) and no more than 9 hours from departments outside CEES may count toward the master's degree.

## Thesis Option

| Code | Title | Credit |
| :---: | :---: | :---: |
| Required Courses |  |  |
| Choose three of the following: |  | 10-11 |
| CEES 5114 | Aquatic Chemistry |  |
| CEES 5324 | Environmental Biology and Ecology |  |
| CEES 5843 | Hydrology |  |
| CEES 5853 | Groundwater and Seepage |  |
| CEES 5021 | Technical Communications | 1 |
| Electives |  |  |
| Elective coursework from a list of MES electives maintained by the department and approved by the Graduate College (p. 1341) ${ }^{1}$ |  | 13-14 |
| Thesis |  |  |
| CEES 5980 | Research for Master's Thesis | 5 |
| Total Credit Hou |  | 30 |

1 MES students may choose elective courses in civil engineering, environmental engineering, environmental science, mathematics, meteorology, computer science, and/or related subjects. Graduate courses not listed here may also be used as electives with the advisor's prior approval.

## Non-Thesis Option

The Non-Thesis degree is a coursework-only degree; a Non-Thesis examination is not required.

| Code | Title | Credit <br> Hours |
| :--- | ---: | ---: |
| Required Courses |  |  |
| Choose three of the following: | $10-11$ |  |
| CEES 5114 | Aquatic Chemistry |  |
| CEES 5324 | Environmental Biology and Ecology |  |
| CEES 5843 | Hydrology |  |
| CEES 5853 | Groundwater and Seepage | $19-20$ |
| Electives |  |  |
| Elective coursework from a list of MS Env. Engr. electives |  |  |
| maintained by the department and approved by the Graduate |  |  |
| College (p. 1341) |  |  |

1 MES students may choose elective courses in civil engineering, environmental engineering, environmental science, mathematics,
meteorology, computer science, and/or related subjects. Graduate courses not listed here may also be used as electives with the advisor's prior approval.

## General Education and College Requirements

Courses designated as Core I, II, III, IV, or V are part of the General Education curriculum. Students must complete a minimum of 40 hours of General Education courses, chosen from the approved list, including at least one upper-division Gen. Ed. course outside of the student's major. Courses graded P/NP will not apply.

A grade of $C$ or better is required in each course in the curriculum, including all prerequisite courses.

UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS
Code Title Credit Hours
Core Area I: Symbolic and Oral Communication

## English Composition

ENGL 1113 Principles of English Composition 3
ENGL 1213 Principles of English Composition 3
or EXPO 1213 Expository Writing
Language (0-10 hours in the same language)
This requirement can be met by two years of the same 0-10
language in high school:
Beginning Course ( $0-5$ hours)
Beginning Course, continued (0-5 hours)
Mathematics

| MATH 1823 | Calculus and Analytic Geometry I (Core I) $^{1,} \quad 3$ |
| :--- | :--- | :--- |

Core Area II: Natural Science (including one laboratory)

| PHYS 2514 | General Physics for Engineering and <br> Science Majors (Core II) |
| :---: | :--- | :---: |
| or PHYS 2414 | General Physics for Life Science Oriented Majors |$\quad 4$

Core Area III: Social Science
P SC 1113 American Federal Government 3
Choose one course ${ }^{3} 3$

Core Area IV: Arts \& Humanities
Artistic Forms
Choose one course ${ }^{3} 3$

Western Culture
HIST 1483 United States to 1865
or HIST 1493 United States, 1865 to the Present
HSTM 3333 Technology and Society in World History 3
(or approved substitute Core IV-Western Culture) ${ }^{3}$
World Culture
ANTH 4623 Approaches to Cross-Cultural Human 3
Problems (or approved substitute Core IV-
World Culture) ${ }^{3}$
Core Area V: First-Year Experience

| ENGR 1413 | $\text { FYE) }{ }^{4}$ |  |
| :---: | :---: | :---: |
| Tot |  |  |
| MATH 1914, MATH 2924, and MATH 2934 sequence can be substituted with MATH 1823, MATH 2423, MATH 2433, and MATH 2443. |  |  |
| ${ }^{2}$ Major support requirements that also satisfy University General Education requirements. |  |  |
| ${ }^{3}$ To be chosen from the University-Wide General Education Approved Course List. Three of these hours must be upper-division (3000-4000). See list in the Class Schedule. |  |  |
| ${ }^{4}$ Transfer students will need to meet the requirements of the first-year experience course as well as the engineering transfer course. Please see your advisor for your specific enrollment. |  |  |

## Free Electives

Electives to bring total applicable hours to the minimum total required for the degree including a minimum of 40 upper-division hours.

## Suggested Semester Plan of Study

In order to progress in your curriculum in the Gallogly College of Engineering, and as a specific graduation requirement, a grade of C or better is required in each course in the curriculum, including all prerequisite courses.

Admission to the accelerated program is by application and requires a minimum major GPA of 3.20 and an overall GPA of 3.00 . Once admitted, students must maintain an overall GPA of 3.00 during the bachelors. Students may enter the accelerated program based on the undergraduate degree pattern offered in the year they first enrolled in the Oklahoma State System of Higher Education or later. Students are eligible for graduate status upon graduation with the Bachelor of Science in Environmental Science.

Two college-level courses in a single world language are required; this may be satisfied by successful completion of 2 years in a single world language in high school. Students who must take a language at the University will have an additional 6-10 hours of coursework.

## Freshman

| First Semester |  | Credit <br> Hours |
| :--- | :--- | ---: |
| ENGL 1113 | Principles of English Composition (Core I) | 3 |
| CHEM 1315 | General Chemistry (Core II-Lab) $^{1}$ | 5 |
| MATH 1823 | Calculus and Analytic Geometry I (Core I) $^{2}$ | 3 |
| ENGR 1413 | Pathways to Engineering Thinking (Core V- $^{\text {FYE) }}$ | 3 |
|  | Credit Hours | $\mathbf{1 4}$ |

## Second Semester

| BIOL 1134 |  |  |
| :--- | :--- | :--- |
| or PBIO 1114 | Introductory Biology: Evolution, Ecology <br> and Diversity (Core II-Lab) <br> or General Botany | 4 |
| ENGL 1213 <br> or EXPO 1213 | Principles of English Composition (Core I) <br> or Expository Writing | 3 |
| CHEM 1415 | General Chemistry (Continued) (Core II-Lab) <br> 1 | 5 |
| MATH 2423 | Calculus and Analytic Geometry II ${ }^{2}$ | 3 |


| CEES 1111 | Exploring CEES | 1 |
| :--- | :--- | ---: |
|  | Credit Hours | $\mathbf{1 6}$ |

## Sophomore

| First Semester |  |  |
| :---: | :---: | :---: |
| CHEM 3053 | Organic Chemistry I: Biological Emphasis | 3 |
| PHYS 2514 or PHYS 2414 | General Physics for Engineering and Science Majors (Core II) or General Physics for Life Science Oriented Majors | 4 |
| CEES 2313 | Water Quality Fundamentals | 3 |
| CEES 1000 | CEES Seminar ${ }^{4}$ | 0 |
| CEES 2213 | CADD Fundamentals | 3 |
| $\begin{aligned} & \text { BIOL } 3403 \\ & \text { or PBIO } 3453 \end{aligned}$ | Principles of Ecology or Principles of Plant Ecology | 3 |


| Second Semester <br> CHEM 3153 | Organic Chemistry II: Biological Emphasis | 3 |
| :--- | :--- | :--- |
| MBIO 2815 | Introduction to Microbiology (Core II-Lab) | 5 |
| CEES 2323 | Environmental Transport and Fate Process | 3 |
| CEES 1000 | CEES Seminar ${ }^{4}$ | 0 |
| ENGR 2002 | Professional Responsibilities and Skills of <br> Engineers and Scientists | 2 |
| HIST 1483 <br> or HIST 1493 | United States to 1865 <br> or United States, 1865 to the Present | 3 |
|  | Credit Hours | $\mathbf{1 6}$ |

## Junior

First Semester

| CEES 1000 | CEES Seminar |
| :--- | :--- | :--- |${ }^{4}$ Hazardous and Solid Waste Management $\quad 0$

PHYS $2524 \quad$ General Physics for Engineering and 4

or PHYS 2424 | Science Majors |
| :--- |
| or General Physics for Life Science | Oriented Majors

CEES Track Elective ${ }^{7}$ ..... 3
CEES Track Elective ${ }^{7}$ ..... 3
Credit Hours ..... 13
Second Semester

| ANTH 4623 | Approaches to Cross-Cultural Human <br> Problems (or approved substitute) (Core IV, <br> World Culture) | 3 |
| :--- | :--- | ---: |
| Approved Elective: Artistic Forms (Core IV) ${ }^{5}$ | 3 |  |
| CEES 4843/5843 | Hydrology | 3 |
| CEES 1000 | CEES Seminar ${ }^{4}$ | 0 |
| CEES 4253 | Statistics and Probability ${ }^{10}$ | 3 |
| CEES 4943 | Air Quality Management | 3 |
|  | Credit Hours | $\mathbf{1 5}$ |

## Senior

First Semester
HSTM 3333
Technology and Society in World History
(or approved substitute) (Core IV, West.
Culture)
CEES 1000 CEES Seminar ${ }^{4}$ 0

taken as a shared course in the Senior year, then a graduate elective will substitute for the CEES 5114 requirement in the Fifth year.

Courses designated as Core I, II, III, IV or V are part of the General Education curriculum. Students must complete a minimum of 40 hours of General Education courses, chosen from the approved list.

# Civil Engineering: Geotechnical Engineering, M.S. 

Minimum Total Hours (Thesis): 30<br>Minimum Total Hours (Non-Thesis): 30

## Program Code: M190 Q282

All elective courses are subject to the following restrictions: (i) one 3000G course outside CEES may be used toward the degree; (ii) no more than 9 credits of 4000 G courses from CEES, including required core courses, may count toward the master's degree; (iii) no more than 12 credits of 4000G courses from all departments, including CEES, may count toward the master's degree; and (iv) no more than 9 hours from departments outside CEES may count toward the master's degree.

The School limits the number of transfer credit hours to nine.

## Thesis Option



## Non-Thesis Option

The Non-Thesis degree is a coursework-only degree; a Non-Thesis examination is not required.

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Core Courses |  |  |
| CEES 4333 | Foundation Engineering | 3 |
| CEES 5343 | Advanced Soil Mechanics | 3 |


| CEES $5433 \quad$ In-Situ Soil Testing | 3 |
| :--- | ---: |
| Elective Courses |  |
| Choose 21 hours from a list of MSCE electives maintained |  |
| by the department and approved by the Graduate College. |  |
| $(\mathrm{p} .1333)^{1}$ | 21 |
| Total Credit Hours | $\mathbf{3 0}$ |
| ${ }^{1}$ MSCE students may choose elective courses in civil engineering, |  |
| environmental engineering, environmental science, mathematics, |  |
| meteorology, computer science, and/or related subjects. Graduate |  |
| courses not listed here may also be used as electives with the advisor's |  |
| prior approval. |  |

## General Requirements for all Master's Degrees

The master's degree requires the equivalent of at least two semesters of satisfactory graduate work and additional work as may be prescribed for the degree.

All coursework applied to the master's degree must carry graduate credit.
Master's degree programs which require a thesis consist of at least 30 credit hours. All non-thesis master's degree programs require at least 30 credit hours.

Credit transferred from other institutions must meet specific criteria and is subject to certain limitations.

Courses completed through correspondence study may not be applied to the master's degree.

To qualify for a graduate degree, students must achieve an overall grade point average of 3.0 or higher in the degree program coursework and in all resident graduate coursework attempted. A student must also have at least a 3.0 in all coursework (including undergraduate coursework if any).

Additional information for master's degree students may be found in the Graduate College Bulletin.

## Geotechnical Engineering Electives Course List

Code Title Credit

List of MSCE electives maintained by the department and approved by the Graduate College.

| CEES 4123 | Open Channel Flow |
| :--- | :--- |
| CEES 4243 | Water Technologies for Emerging Regions |
| CEES 4253 | Statistics and Probability |
| CEES 4263 | Hazardous and Solid Waste Management |
| CEES 4453 | Geomatics Engineering |
| CEES 4753 | Structural Design - Wood |
| CEES 5010 | Civil Engineering Problems |
| CEES 5020 | Special Topics in Civil Engineering |
| CEES 5021 | Technical Communications |
| CEES 5114 | Aquatic Chemistry |
| CEES 5133 | Water Sustainability |
| CEES 5244 | Physicochemical Water Treatment |
|  | Processes |

CEES 5323
CEES 5324
CEES 5353
CEES 5363
CEES 5373 Water Resources Systems Modeling
CEES 5383 Earthquake Engineering
CEES 5413 Soil-Structure Interaction
CEES 5443 Unsaturated Soil Mechanics
CEES 5473 Forensic Geotechnical Engineering
CEES 5503 Highway Engineering
CEES 5513 Traffic Engineering
CEES 5523 Transportation Asset Management
CEES 5533 Multimodal Transportation
CEES 5583 Water Law
CEES 5623 Watershed Management and Restoration
CEES 5624 Biological Waste Treatment
CEES 5643 Quantitative Hydrometeorology
CEES 5673 Colloid and Surface Science
CEES 5693 Structural Design of Pavements
CEES 5733 Hydroclimatology
CEES 5813 Water Treatment, Reuse, and Health Impacts
CEES 5833 Ground Water Quality Protection
CEES 5843 Hydrology
CEES 5853 Groundwater and Seepage
CEES 5873 Water Quality Management
CEES 5883 Environmental Modeling
CEES 5933 Climate Change and Water Sustainability
CEES 5960 Directed Readings
CEES 5963 Water Security
CEES 5970 Special Topics/Seminar
CEES 5990 Independent Study
AME 5763 Introduction to the Finite Element Method
BIOL 5553 Wetlands Ecology
C S 5743 Scientific Computing I
ENGR 4013 Leadership and Management for Engineers
ENGR 4223 Fundamentals of Project Management
ENGR 4513 Introduction to Sustainable Engineering
MATH 4753 Applied Statistical Methods
MATH 5103 Mathematical Models
MATH 5163 Partial Differential Equations
MATH 5173 Advanced Numerical Analysis I
MATH 5743 Introduction to Mathematical Statistics
METR 5344 Computational Fluid Dynamics I
METR 5633 Hydrometeorology

# Civil Engineering: Geotechnical Engineering (Online), M.S. 

Minimum Total Hours (Non-Thesis): 30

Program Code: M191 Q283

The Non-Thesis degree is a coursework-only degree; a Non-Thesis examination is not required.

All elective courses are subject to the following restrictions: (i) one 3000G course outside CEES may be used toward the degree; (ii) no more than 9 credits of 4000G courses from CEES, including required core courses, may count toward the master's degree; (iii) no more than 12 credits of 4000G courses from all departments, including CEES, may count toward the master's degree; and (iv) no more than 9 hours from departments outside CEES may count toward the master's degree.

Note: The School limits the number of transfer credit hours to nine.

## Required Courses

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Core Courses |  |  |
| ENGR 4223 | Fundamentals of Project Management | 3 |
| CEES 5653 | Advanced Mechanics of Materials | 3 |
| ENGR 4013 | Leadership and Management for Engineers | 3 |
| CEES 4333 | Foundation Engineering | 3 |
| CEES 5443 | Unsaturated Soil Mechanics | 3 |
| CEES 5353 | Introduction to Soil Dynamics | 3 |
| CEES 5693 | Structural Design of Pavements | 3 |
| CEES 5323 | Geosynthetics | 3 |
| CEES 5413 | Soil-Structure Interaction | 3 |
| CEES 5343 | Advanced Soil Mechanics | 3 |
| Total Credit Hours | $\mathbf{3 0}$ |  |

## General Requirements for all Master's Degrees

The master's degree requires the equivalent of at least two semesters of satisfactory graduate work and additional work as may be prescribed for the degree.

All coursework applied to the master's degree must carry graduate credit.
Master's degree programs which require a thesis consist of at least 30 credit hours. All non-thesis master's degree programs require at least 30 credit hours.

Credit transferred from other institutions must meet specific criteria and is subject to certain limitations.

Courses completed through correspondence study may not be applied to the master's degree.

To qualify for a graduate degree, students must achieve an overall grade point average of 3.0 or higher in the degree program coursework and in all resident graduate coursework attempted. A student must also have at least a 3.0 in all coursework (including undergraduate coursework if any).

Additional information for master's degree students may be found in the Graduate College Bulletin.

## Civil Engineering: Structural Engineering, M.S.

Minimum Total Hours (Thesis): 30
Minimum Total Hours (Non-Thesis): 30

## Program Code: M190 Q634

All elective courses are subject to the following restrictions: (i) one 3000G course outside CEES may be used toward the degree; (ii) no more than 9 credits of 4000G courses from CEES, including required core courses, may count toward the master's degree; (iii) no more than 12 credits of 4000G courses from all departments, including CEES, may count toward the master's degree; and (iv) no more than 9 hours from departments outside CEES may count toward the master's degree.

Note: The School limits the number of transfer credit hours to nine.

## Thesis Option

| Code | Title | Credit <br> Hours |
| :---: | :---: | :---: |
| Core Courses |  |  |
| CEES 4663 <br> or CEES 5683 <br> or CEES 5763 <br> or AME 5763 | Introduction to Matrix Methods in Structural Analysis <br> Dynamics of Structures <br> Introduction to Finite Element Method <br> Introduction to the Finite Element Method | 3 |
| CEES 5653 or CEES 5663 | Advanced Mechanics of Materials Structural Analysis II | 3 |
| CEES 5773 <br> or CEES 5783 <br> or CEES 5793 | Structural Design--Steel II <br> Structural Design--Concrete II <br> Design of Prestressed Concrete Structures | 3 |
| CEES 5021 | Technical Communications | 1 |
| Elective Courses |  |  |
| Choose 15 hours by the departmen (p. 1335) ${ }^{1}$ | from a list of MSCE electives maintained t and approved by the Graduate College. | 15 |
| Thesis |  |  |
| CEES 5980 | Research for Master's Thesis | 5 |
| Total Credit Hours |  | 30 |
| MSCE students may choose elective courses in civil engineering, environmental engineering, environmental science, mathematics, meteorology, computer science, and/or related subjects. Graduate courses not listed here may also be used as electives with the advisor's prior approval. |  |  |

## Non-Thesis Option

The Non-Thesis degree is a coursework-only degree; a Non-Thesis examination is not required.

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Core Courses |  | 3 |
| CEES 4663 | Introduction to Matrix Methods in <br> Structural Analysis |  |
| or CEES 5683 | Dynamics of Structures |  |
| or CEES 5763 | Introduction to Finite Element Method |  |
| or AME 5763 | Introduction to the Finite Element Method |  |
| CEES 5653 | Advanced Mechanics of Materials |  |
| or CEES 5663 | Structural Analysis II |  |
| CEES 5773 | Structural Design--Steel II | 3 |

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or CEES 5783 Structural Design--Concrete II
or CEES 5793 Design of Prestressed Concrete Structures
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## Elective Courses

Choose 21 hours from a list of MSCE electives maintained 21 by the department and approved by the Graduate College. (p. 1335) ${ }^{1}$

Total Credit Hours
${ }^{1}$ MSCE students may choose elective courses in civil engineering, environmental engineering, environmental science, mathematics, meteorology, computer science, and/or related subjects. Graduate courses not listed here may also be used as electives with the advisor's prior approval.

## General Requirements for all Master's Degrees

The master's degree requires the equivalent of at least two semesters of satisfactory graduate work and additional work as may be prescribed for the degree.

All coursework applied to the master's degree must carry graduate credit.
Master's degree programs which require a thesis consist of at least 30 credit hours. All non-thesis master's degree programs require at least 30 credit hours.

Credit transferred from other institutions must meet specific criteria and is subject to certain limitations.

Courses completed through correspondence study may not be applied to the master's degree.

To qualify for a graduate degree, students must achieve an overall grade point average of 3.0 or higher in the degree program coursework and in all resident graduate coursework attempted. A student must also have at least a 3.0 in all coursework (including undergraduate coursework if any).

Additional information for master's degree students may be found in the Graduate College Bulletin.

## Structural Engineering Electives Course List

| Code | Title | Credit <br> Hours |
| :--- | :--- | :--- |
| List of MSCE electives maintained by the department and |  |  |
| approved by the Graduate College. |  |  |
| CEES 4123 | Open Channel Flow |  |
| CEES 4243 | Water Technologies for Emerging Regions |  |
| CEES 4253 | Statistics and Probability |  |
| CEES 4263 | Hazardous and Solid Waste Management |  |
| CEES 4333 | Foundation Engineering |  |
| CEES 4453 | Geomatics Engineering |  |
| CEES 4753 | Structural Design - Wood |  |
| CEES 5010 | Civil Engineering Problems |  |
| CEES 5020 | Special Topics in Civil Engineering |  |
| CEES 5021 | Technical Communications |  |
| CEES 5114 | Aquatic Chemistry |  |
| CEES 5133 | Water Sustainability |  |


| CEES 5244 | Physicochemical Water Treatment Processes |
| :---: | :---: |
| CEES 5323 | Geosynthetics |
| CEES 5324 | Environmental Biology and Ecology |
| CEES 5353 | Introduction to Soil Dynamics |
| CEES 5363 | Ecological Engineering Science |
| CEES 5373 | Water Resources Systems Modeling |
| CEES 5383 | Earthquake Engineering |
| CEES 5413 | Soil-Structure Interaction |
| CEES 5443 | Unsaturated Soil Mechanics |
| CEES 5473 | Forensic Geotechnical Engineering |
| CEES 5503 | Highway Engineering |
| CEES 5513 | Traffic Engineering |
| CEES 5523 | Transportation Asset Management |
| CEES 5533 | Multimodal Transportation |
| CEES 5583 | Water Law |
| CEES 5623 | Watershed Management and Restoration |
| CEES 5624 | Biological Waste Treatment |
| CEES 5643 | Quantitative Hydrometeorology |
| CEES 5673 | Colloid and Surface Science |
| CEES 5693 | Structural Design of Pavements |
| CEES 5733 | Hydroclimatology |
| CEES 5813 | Water Treatment, Reuse, and Health Impacts |
| CEES 5833 | Ground Water Quality Protection |
| CEES 5843 | Hydrology |
| CEES 5853 | Groundwater and Seepage |
| CEES 5873 | Water Quality Management |
| CEES 5883 | Environmental Modeling |
| CEES 5933 | Climate Change and Water Sustainability |
| CEES 5960 | Directed Readings |
| CEES 5963 | Water Security |
| CEES 5970 | Special Topics/Seminar |
| CEES 5990 | Independent Study |
| AME 5763 | Introduction to the Finite Element Method |
| BIOL 5553 | Wetlands Ecology |
| C S 5743 | Scientific Computing I |
| ENGR 4013 | Leadership and Management for Engineers |
| ENGR 4223 | Fundamentals of Project Management |
| ENGR 4513 | Introduction to Sustainable Engineering |
| MATH 4753 | Applied Statistical Methods |
| MATH 5103 | Mathematical Models |
| MATH 5163 | Partial Differential Equations |
| MATH 5173 | Advanced Numerical Analysis I |
| MATH 5743 | Introduction to Mathematical Statistics |
| METR 5344 | Computational Fluid Dynamics I |
| METR 5633 | Hydrometeorology |

## Civil Engineering: Structural Engineering (Online), M.S.

Minimum Total Hours (Non-Thesis): 30

## Program Code: M191 Q635

The Non-Thesis degree is a coursework-only degree; a Non-Thesis examination is not required.

All elective courses are subject to the following restrictions: (i) one 3000G course outside CEES may be used toward the degree; (ii) no more than 9 credits of 4000G courses from CEES, including required core courses, may count toward the master's degree; (iii) no more than 12 credits of 4000G courses from all departments, including CEES, may count toward the master's degree; and (iv) no more than 9 hours from departments outside CEES may count toward the master's degree.

Note: The School limits the number of transfer credit hours to nine.

## Required Courses

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Core Courses |  | 3 |
| ENGR 4223 | Fundamentals of Project Management | 3 |
| CEES 5653 | Advanced Mechanics of Materials | 3 |
| ENGR 4013 | Leadership and Management for Engineers | 3 |
| CEES 4333 | Foundation Engineering | 3 |
| CEES 5793 | Design of Prestressed Concrete Structures | 3 |
| CEES 4753 | Structural Design - Wood | 3 |
| CEES 5783 | Structural Design--Concrete II | 3 |
| CEES 5773 | Structural Design--Steel II | 3 |
| CEES 5413 | Soil-Structure Interaction | 3 |
| CEES 5683 | Dynamics of Structures | 30 |

## General Requirements for all Master's Degrees

The master's degree requires the equivalent of at least two semesters of satisfactory graduate work and additional work as may be prescribed for the degree.

All coursework applied to the master's degree must carry graduate credit.
Master's degree programs which require a thesis consist of at least 30 credit hours. All non-thesis master's degree programs require at least 30 credit hours.

Credit transferred from other institutions must meet specific criteria and is subject to certain limitations.

Courses completed through correspondence study may not be applied to the master's degree.

To qualify for a graduate degree, students must achieve an overall grade point average of 3.0 or higher in the degree program coursework and in all resident graduate coursework attempted. A student must also have at least a 3.0 in all coursework (including undergraduate coursework if any).

Additional information for master's degree students may be found in the Graduate College Bulletin.

# Civil Engineering: Transportation Engineering (Online), M.S. 

Minimum Total Hours (Non-Thesis): 30

Program Code: M191 Q658
The Non-Thesis degree is a coursework-only degree; a Non-Thesis examination is not required.

All elective courses are subject to the following restrictions: (i) one 3000G course outside CEES may be used toward the degree; (ii) no more than 9 credits of 4000G courses from CEES, including required core courses, may count toward the master's degree; (iii) no more than 12 credits of 4000G courses from all departments, including CEES, may count toward the master's degree; and (iv) no more than 9 hours from departments outside CEES may count toward the master's degree.

Note: The School limits the number of transfer credit hours to nine.

## Required Courses

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Core Courses |  |  |
| ENGR 4223 | Fundamentals of Project Management | 3 |
| CEES 5653 | Advanced Mechanics of Materials | 3 |
| ENGR 4013 | Leadership and Management for Engineers | 3 |
| GIS 5013 | Fundamentals of Geographic Information | 3 |
| CEES 5523 | Systems | 3 |
| CEES 5503 | Transportation Asset Management | 3 |
| CEES 5693 | Structural Design of Pavements | 3 |
| DSA 5013 | Fundamentals of Engineering Statistical | 3 |
| CEES 5513 | Analysis | 3 |
| CEES 5533 | Multimodal Transportation | 3 |

Total Credit Hours30

## General Requirements for all Master's Degrees

The master's degree requires the equivalent of at least two semesters of satisfactory graduate work and additional work as may be prescribed for the degree.

All coursework applied to the master's degree must carry graduate credit.
Master's degree programs which require a thesis consist of at least 30 credit hours. All non-thesis master's degree programs require at least 30 credit hours.

Credit transferred from other institutions must meet specific criteria and is subject to certain limitations.

Courses completed through correspondence study may not be applied to the master's degree.

To qualify for a graduate degree, students must achieve an overall grade point average of 3.0 or higher in the degree program coursework and in all resident graduate coursework attempted. A student must also have at least a 3.0 in all coursework (including undergraduate coursework if any).

Additional information for master's degree students may be found in the Graduate College Bulletin.

# Civil Engineering: Water Resources Engineering, M.S. 

Minimum Total Hours (Thesis): 30
Minimum Total Hours (Non-Thesis): 30
Program Code: M190 Q698
All elective courses are subject to the following restrictions: (i) one 3000G course outside CEES may be used toward the degree; (ii) no more than 9 credits of 4000G courses from CEES, including required core courses, may count toward the master's degree; (iii) no more than 12 credits of 4000G courses from all departments, including CEES, may count toward the master's degree; and (iv) no more than 9 hours from departments outside CEES may count toward the master's degree.

Note: The School limits the number of transfer credit hours to nine.

## Thesis Option


${ }^{1}$ MSCE students may choose elective courses in civil engineering, environmental engineering, environmental science, mathematics, meteorology, computer science, and/or related subjects. Graduate courses not listed here may also be used as electives with the advisor's prior approval.

## Non-Thesis Option

The Non-Thesis degree is a coursework-only degree; a Non-Thesis examination is not required.

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Core Courses |  |  |
| CEES 4123 | Open Channel Flow | 3 |
| CEES 5843 | Hydrology | 3 |
| CEES 5853 | Groundwater and Seepage | 3 |

Choose 21 hours from a list of MSCE electives maintained by the department and approved by the Graduate College. (p. 1337) ${ }^{1}$

## Total Credit Hours

${ }^{1}$ MSCE students may choose elective courses in civil engineering, environmental engineering, environmental science, mathematics, meteorology, computer science, and/or related subjects. Graduate courses not listed here may also be used as electives with the advisor's prior approval.

## General Requirements for all Master's Degrees

The master's degree requires the equivalent of at least two semesters of satisfactory graduate work and additional work as may be prescribed for the degree.

All coursework applied to the master's degree must carry graduate credit.
Master's degree programs which require a thesis consist of at least 30 credit hours. All non-thesis master's degree programs require at least 30 credit hours.

Credit transferred from other institutions must meet specific criteria and is subject to certain limitations.

Courses completed through correspondence study may not be applied to the master's degree.

To qualify for a graduate degree, students must achieve an overall grade point average of 3.0 or higher in the degree program coursework and in all resident graduate coursework attempted. A student must also have at least a 3.0 in all coursework (including undergraduate coursework if any).

Additional information for master's degree students may be found in the Graduate College Bulletin.

## Water Resources Engineering Electives Course List

Code Title Credit
Hours
List of MSCE electives maintained by the department and approved by the Graduate College.

| CEES 4123 | Open Channel Flow |
| :--- | :--- |
| CEES 4243 | Water Technologies for Emerging Regions |
| CEES 4253 | Statistics and Probability |
| CEES 4263 | Hazardous and Solid Waste Management |
| CEES 4333 | Foundation Engineering |
| CEES 4453 | Geomatics Engineering |
| CEES 4753 | Structural Design - Wood |
| CEES 5010 | Civil Engineering Problems |
| CEES 5020 | Special Topics in Civil Engineering |
| CEES 5021 | Technical Communications |
| CEES 5114 | Aquatic Chemistry |
| CEES 5133 | Water Sustainability |
| CEES 5244 | Physicochemical Water Treatment |
| CEES 5323 | Grocesses |


| CEES 5324 | Environmental Biology and Ecology |
| :---: | :---: |
| CEES 5353 | Introduction to Soil Dynamics |
| CEES 5363 | Ecological Engineering Science |
| CEES 5373 | Water Resources Systems Modeling |
| CEES 5383 | Earthquake Engineering |
| CEES 5413 | Soil-Structure Interaction |
| CEES 5443 | Unsaturated Soil Mechanics |
| CEES 5473 | Forensic Geotechnical Engineering |
| CEES 5503 | Highway Engineering |
| CEES 5513 | Traffic Engineering |
| CEES 5523 | Transportation Asset Management |
| CEES 5533 | Multimodal Transportation |
| CEES 5583 | Water Law |
| CEES 5623 | Watershed Management and Restoration |
| CEES 5624 | Biological Waste Treatment |
| CEES 5643 | Quantitative Hydrometeorology |
| CEES 5673 | Colloid and Surface Science |
| CEES 5693 | Structural Design of Pavements |
| CEES 5733 | Hydroclimatology |
| CEES 5813 | Water Treatment, Reuse, and Health Impacts |
| CEES 5833 | Ground Water Quality Protection |
| CEES 5843 | Hydrology |
| CEES 5853 | Groundwater and Seepage |
| CEES 5873 | Water Quality Management |
| CEES 5883 | Environmental Modeling |
| CEES 5933 | Climate Change and Water Sustainability |
| CEES 5960 | Directed Readings |
| CEES 5963 | Water Security |
| CEES 5970 | Special Topics/Seminar |
| CEES 5990 | Independent Study |
| AME 5763 | Introduction to the Finite Element Method |
| BIOL 5553 | Wetlands Ecology |
| C S 5743 | Scientific Computing I |
| ENGR 4013 | Leadership and Management for Engineers |
| ENGR 4223 | Fundamentals of Project Management |
| ENGR 4513 | Introduction to Sustainable Engineering |
| MATH 4753 | Applied Statistical Methods |
| MATH 5103 | Mathematical Models |
| MATH 5163 | Partial Differential Equations |
| MATH 5173 | Advanced Numerical Analysis I |
| MATH 5743 | Introduction to Mathematical Statistics |
| METR 5344 | Computational Fluid Dynamics I |
| METR 5633 | Hydrometeorology |

## Civil Engineering: Water Resources Engineering (Online), M.S.

Minimum Total Hours (Non-Thesis): 30
Program Code: M191 Q699

The Non-Thesis degree is a coursework-only degree; a Non-Thesis examination is not required.

All elective courses are subject to the following restrictions: (i) one 3000G course outside CEES may be used toward the degree; (ii) no more than 9 credits of 4000G courses from CEES, including required core courses, may count toward the master's degree; (iii) no more than 12 credits of 4000G courses from all departments, including CEES, may count toward the master's degree; and (iv) no more than 9 hours from departments outside CEES may count toward the master's degree.

Note: The School limits the number of transfer credit hours to nine.

## Required Courses

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Core Courses |  |  |
| ENGR 4223 | Fundamentals of Project Management | 3 |
| CEES 5853 | Groundwater and Seepage | 3 |
| ENGR 4013 | Leadership and Management for Engineers | 3 |
| GIS 5013 | Fundamentals of Geographic Information | 3 |
|  | Systems (Or any 5000-level elective course |  |
| METR 5633 | Hydrometeorology | 3 |
| CEES 5583 | Water Law | 3 |
| CEES 4123 | Open Channel Flow | 3 |
| CEES 5373 | Water Resources Systems Modeling | 3 |
| CEES 5843 | Hydrology | 3 |
| CEES 5963 | Water Security | 3 |
| or CEES 5813 | Water Treatment, Reuse, and Health Impacts |  |

Total Credit Hours

## General Requirements for all Master's Degrees

The master's degree requires the equivalent of at least two semesters of satisfactory graduate work and additional work as may be prescribed for the degree.

All coursework applied to the master's degree must carry graduate credit.
Master's degree programs which require a thesis consist of at least 30 credit hours. All non-thesis master's degree programs require at least 30 credit hours.

Credit transferred from other institutions must meet specific criteria and is subject to certain limitations.

Courses completed through correspondence study may not be applied to the master's degree.

To qualify for a graduate degree, students must achieve an overall grade point average of 3.0 or higher in the degree program coursework and in all resident graduate coursework attempted. A student must also have at least a 3.0 in all coursework (including undergraduate coursework if any).

Additional information for master's degree students may be found in the Graduate College Bulletin.

## Environmental Engineering, M.S.

Minimum Total Hours (Thesis): 30

## This program has changes pending State Regents approval for 2024/25. These pending changes are not reflected here.

All elective courses are subject to the following restrictions: (i) one 3000G course outside CEES may be used toward the degree; (ii) no more than 9 credits of 4000G courses from CEES, including required core courses, may count toward the master's degree; (iii) no more than 12 credits of 4000G courses from all departments, including CEES, may count toward the master's degree; and (iv) no more than 9 hours from departments outside CEES may count toward the master's degree.

Note: The School limits the number of transfer credit hours to nine.

## Thesis Option



## Non-Thesis Option

The Non-Thesis degree is a coursework-only degree; a Non-Thesis examination is not required.

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Required Courses |  | 4 |
| CEES 5114 | Aquatic Chemistry | 4 |
| CEES 5244 | Physicochemical Water Treatment <br>  <br> CEES 5624 | Biological Waste Treatment |

Elective coursework from a list of MS Env. Engr. electives maintained by the department and approved by the Graduate College (p. 1339) ${ }^{1}$
Total Credit Hours

1 MS Env. Engr. students may choose elective courses in civil engineering, environmental engineering, environmental science, mathematics, meteorology, computer science, and/or related subjects. Graduate courses not listed here may also be used as electives with the advisor's prior approval.

## General Requirements for all Master's Degrees

The master's degree requires the equivalent of at least two semesters of satisfactory graduate work and additional work as may be prescribed for the degree.

All coursework applied to the master's degree must carry graduate credit.
Master's degree programs which require a thesis consist of at least 30 credit hours. All non-thesis master's degree programs require at least 30 credit hours.

Credit transferred from other institutions must meet specific criteria and is subject to certain limitations.

Courses completed through correspondence study may not be applied to the master's degree.

To qualify for a graduate degree, students must achieve an overall grade point average of 3.0 or higher in the degree program coursework and in all resident graduate coursework attempted. A student must also have at least a 3.0 in all coursework (including undergraduate coursework if any).

Additional information for master's degree students may be found in the Graduate College Bulletin.

## Environmental Engineering Electives Course List

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| CEES 4123 | Open Channel Flow | 3 |
| CEES 4243 | Water Technologies for Emerging Regions | 3 |
| CEES 4253 | Statistics and Probability | 3 |
| CEES 4263 | Hazardous and Solid Waste Management | 3 |
| CEES 4333 | Foundation Engineering | 3 |
| CEES 4453 | Geomatics Engineering | 3 |
| CEES 5010 | Civil Engineering Problems | $1-4$ |
| CEES 5020 | Special Topics in Civil Engineering | $1-6$ |
| CEES 5021 | Technical Communications | 1 |
| CEES 5133 | Water Sustainability | 3 |
| CEES 5324 | Environmental Biology and Ecology | 4 |
| CEES 5363 | Ecological Engineering Science | 3 |
| CEES 5373 | Water Resources Systems Modeling | 3 |
| CEES 5583 | Water Law | 3 |
| CEES 5623 | Watershed Management and Restoration | 3 |
| CEES 5643 | Quantitative Hydrometeorology | 3 |
| CEES 5673 | Colloid and Surface Science | 3 |


| CEES 5733 | Hydroclimatology | 3 |
| :--- | :--- | ---: |
| CEES 5813 | Water Treatment, Reuse, and Health | 3 |
|  | Impacts | 3 |
| CEES 5833 | Ground Water Quality Protection | 3 |
| CEES 5843 | Hydrology | 3 |
| CEES 5853 | Groundwater and Seepage | 3 |
| CEES 5873 | Water Quality Management | 3 |
| CEES 5883 | Environmental Modeling | 3 |
| CEES 5933 | Climate Change and Water Sustainability | $1-3$ |
| CEES 5960 | Directed Readings | 3 |
| CEES 5963 | Water Security | $1-3$ |
| CEES 5970 | Special Topics/Seminar | $1-3$ |
| CEES 5990 | Independent Study | 3 |
| BIOL 5553 | Wetlands Ecology | 3 |
| C S5743 | Scientific Computing I | 3 |
| ENGR 4013 | Leadership and Management for Engineers | 3 |
| ENGR 4223 | Fundamentals of Project Management | 3 |
| ENGR 4513 | Introduction to Sustainable Engineering | 3 |
| MATH 4753 | Applied Statistical Methods | 3 |
| MATH 5103 | Mathematical Models | 3 |
| MATH 5163 | Partial Differential Equations | 3 |
| MATH 5173 | Advanced Numerical Analysis I | 3 |
| MATH 5743 | Introduction to Mathematical Statistics | 4 |
| METR 5344 | Computational Fluid Dynamics I | 3 |
| METR 5633 | Hydrometeorology |  |

## Environmental Science, M.E.S.

Minimum Total Hours (Thesis): 30
Minimum Total Hours (Non-Thesis): 30

## Program Code: M405

All elective courses are subject to the following restrictions: (i) one 3000G course outside CEES may be used toward the degree; (ii) no more than 9 credits of 4000G courses from CEES, including required core courses, may count toward the master's degree; (iii) no more than 12 credits of 4000G courses from all departments, including CEES, may count toward the master's degree; and (iv) no more than 9 hours from departments outside CEES may count toward the master's degree.

The School limits the number of transfer credit hours to nine.

## Thesis Option

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Required Courses |  |  |
| Choose 3 of the following courses: | $10-11$ |  |
| CEES 5114 | Aquatic Chemistry |  |
| CEES 5324 | Environmental Biology and Ecology |  |
| CEES 5843 | Hydrology |  |
| CEES 5853 | Groundwater and Seepage |  |
| CEES 5021 | Technical Communications | 1 |
| Electives |  |  |


| Thesis |  |  |
| :---: | :---: | :---: |
| CEES 5980 | Research for Master's Thesis | 5 |
| Total Credit Ho |  | 30 |
| 1 MES students may choose elective courses in civil engineering, environmental engineering, environmental science, mathematics, meteorology, computer science, and/or related subjects. Graduate courses not listed here may also be used as electives with the advisor's prior approval. |  |  |
| Non-Thesis Option |  |  |
| The Non-Thesis degree is a coursework-only degree; a Non-Thesis examination is not required. |  |  |
| Code | Title | Credit |
|  |  | Hours |
| Required Courses |  |  |
| Choose 3 of the following courses: |  | 10-11 |
| CEES 5114 | Aquatic Chemistry |  |
| CEES 5324 | Environmental Biology and Ecology |  |
| CEES 5843 | Hydrology |  |
| CEES 5853 | Groundwater and Seepage |  |
| Electives |  |  |
| Elective course by the departm (p. 1341) ${ }^{1}$ | rk from a list of MES electives maintained $t$ and approved by the Graduate College | 19-20 |

(p. 1341) ${ }^{1}$

Total Credit Hours

1 MES students may choose elective courses in civil engineering, environmental engineering, environmental science, mathematics, meteorology, computer science, and/or related subjects. Graduate courses not listed here may also be used as electives with the advisor's prior approval.

## General Requirements for all Master's Degrees

The master's degree requires the equivalent of at least two semesters of satisfactory graduate work and additional work as may be prescribed for the degree.

All coursework applied to the master's degree must carry graduate credit.
Master's degree programs which require a thesis consist of at least 30 credit hours. All non-thesis master's degree programs require at least 30 credit hours.

Credit transferred from other institutions must meet specific criteria and is subject to certain limitations

Courses completed through correspondence study may not be applied to the master's degree.

To qualify for a graduate degree, students must achieve an overall grade point average of 3.0 or higher in the degree program coursework and in all resident graduate coursework attempted. A student must also have at least a 3.0 in all coursework (including undergraduate coursework if any).

Additional information for master's degree students may be found in the Graduate College Bulletin.

## Environmental Science Electives Course List

| Code | Title | Credit Hours |
| :---: | :---: | :---: |
| CEES 4123 | Open Channel Flow | 3 |
| CEES 4243 | Water Technologies for Emerging Regions | 3 |
| CEES 4253 | Statistics and Probability | 3 |
| CEES 4263 | Hazardous and Solid Waste Management | 3 |
| CEES 5020 | Special Topics in Civil Engineering | 1-6 |
| CEES 5021 | Technical Communications | 1 |
| CEES 5244 | Physicochemical Water Treatment Processes | 4 |
| CEES 5363 | Ecological Engineering Science | 3 |
| CEES 5373 | Water Resources Systems Modeling | 3 |
| CEES 5583 | Water Law | 3 |
| CEES 5623 | Watershed Management and Restoration | 3 |
| CEES 5624 | Biological Waste Treatment | 4 |
| CEES 5643 | Quantitative Hydrometeorology | 3 |
| CEES 5673 | Colloid and Surface Science | 3 |
| CEES 5733 | Hydroclimatology | 3 |
| CEES 5813 | Water Treatment, Reuse, and Health Impacts | 3 |
| CEES 5833 | Ground Water Quality Protection | 3 |
| CEES 5873 | Water Quality Management | 3 |
| CEES 5883 | Environmental Modeling | 3 |
| CEES 5933 | Climate Change and Water Sustainability | 3 |
| CEES 5960 | Directed Readings | 1-3 |
| CEES 5963 | Water Security | 3 |
| CEES 5970 | Special Topics/Seminar | 1-3 |
| CEES 5990 | Independent Study | 1-3 |
| BIOL 5553 | Wetlands Ecology | 3 |
| BIOL 5970 | Special Topics in Biology (Experimental design in Ecology) | 3 |
| BIOL 5970 | Special Topics in Biology (Introduction to Stream Ecology) | 3 |


| Any 5000-level CHEM Research course |  |  |
| :--- | :--- | :--- |
| Any 6000-level CHEM Research course |  |  |
| ENGR 4013 | Leadership and Management for Engineers | 3 |
| ENGR 4223 | Fundamentals of Project Management | 3 |
| ENGR 4513 | Introduction to Sustainable Engineering | 3 |
| GEOG 5293 | Hydrologic Science | 3 |
| GEOG 5943 | Natural Hazards | 3 |
| GEOL 5363 | Carbonate Geology | 3 |
| GEOL 6103 | Petroleum Geochemistry | 3 |
| GIS 5453 | Advanced GIS and Spatial Analysis | 3 |
| GIS 5653 | Spatial Programming and GIS | 3 |
| MATH 4753 | Applied Statistical Methods | 3 |
| MBIO 5864 | Geomicrobiology | 4 |

## Hydrology and Water Security (Online), M.E.S.

Minimum Total Hours (Non-Thesis): 30
Program Code: M518

## Required Courses

The requirements listed on the degree check sheet apply to the following concentrations in Hydrology and Water Security (Online):

- Water Management M518 Q702
- Water Quantity M518 Q703
- Water Quality M518 Q704

This a coursework-only degree; a Non-Thesis examination is not required.
Note: The School limits the number of transfer credit to nine hours.


## Water management

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| CEES 5103 | Water Policy and Institutions | 3 |
| CEES 5963 | Water Security | 3 |
| CEES 5973 | Fundamental Hydrology | 3 |
| Total Credit Hours | $\mathbf{9}$ |  |

## Water quantity

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| CEES 5373 | Water Resources Systems Modeling | 3 |
| CEES 5843 | Hydrology | 3 |


| CEES 5853 | Groundwater and Seepage | 3 |
| :--- | ---: | ---: |
| Total Credit Hours | $\mathbf{9}$ |  |
| Water quality |  |  |
| Code | Title | Credit |
|  |  | Hours |
| CEES 5113 | Water Management Chemistry | 3 |
| CEES 5843 | Hydrology | 3 |
| GEOL 6633 | Aqueous Geochemical Modeling | 3 |
| Total Credit Hours | $\mathbf{9}$ |  |

## General Requirements for all Master's Degrees

The master's degree requires the equivalent of at least two semesters of satisfactory graduate work and additional work as may be prescribed for the degree.

All coursework applied to the master's degree must carry graduate credit.
Master's degree programs which require a thesis consist of at least 30 credit hours. All non-thesis master's degree programs require at least 30 credit hours.

Credit transferred from other institutions must meet specific criteria and is subject to certain limitations.

Courses completed through correspondence study may not be applied to the master's degree.

To qualify for a graduate degree, students must achieve an overall grade point average of 3.0 or higher in the degree program coursework and in all resident graduate coursework attempted. A student must also have at least a 3.0 in all coursework (including undergraduate coursework if any).

Additional information for master's degree students may be found in the Graduate College Bulletin.

## Hydrology and Water Security Guided Electives

## Concentration/Track Electives

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Water Management Concentration |  |  |
| CEES 5623 | Watershed Management and Restoration | 3 |
| CEES 5933 | Climate Change and Water Sustainability | 3 |
| GEOG 5943 | Natural Hazards | 3 |
| Water Quantity Concentration |  |  |
| CEES 5623 | Watershed Management and Restoration | 3 |
| CEES 5643 | Quantitative Hydrometeorology | 3 |
| CEES 5963 | Water Security | 3 |
| Water Quality Concentration | 3 |  |
| CEES 4263 | Hazardous and Solid Waste Management | 3 |
| CEES 5623 | Watershed Management and Restoration | 3 |
| CEES 5813 | Water Treatment, Reuse, and Health | 3 |
| CEES 5963 | Impacts | Water Security |

## Free Electives

| Code | Title | Credit Hours |
| :---: | :---: | :---: |
| Water Management Concentration |  |  |
| CEES 5020 | Special Topics in Civil Engineering | 1-6 |
| CEES 5123 | Climate Change and Impacts on Water Energy Food Nexus | 3 |
| CEES 5153 | Water Innovation: Technology, Policy, and Organizational Issues | 3 |
| CEES 5933 | Climate Change and Water Sustainability | 3 |
| ENGR 4013 | Leadership and Management for Engineers | 3 |
| GEOG 5943 | Natural Hazards | 3 |
| Water Quantity Concentration |  |  |
| CEES 5020 | Special Topics in Civil Engineering | 1-6 |
| CEES 5123 | Climate Change and Impacts on Water Energy Food Nexus | 3 |
| CEES 5153 | Water Innovation: Technology, Policy, and Organizational Issues | 3 |
| CEES 5623 | Watershed Management and Restoration | 3 |
| CEES 5643 | Quantitative Hydrometeorology | 3 |
| CEES 5813 | Water Treatment, Reuse, and Health Impacts | 3 |
| CEES 5933 | Climate Change and Water Sustainability | 3 |
| CEES 5963 | Water Security | 3 |
| ENGR 4013 | Leadership and Management for Engineers | 3 |
| GEOG 5943 | Natural Hazards | 3 |
| Water Quality |  |  |
| CEES 4263 | Hazardous and Solid Waste Management | 3 |
| CEES 5020 | Special Topics in Civil Engineering | 1-6 |
| CEES 5123 | Climate Change and Impacts on Water Energy Food Nexus | 3 |
| CEES 5153 | Water Innovation: Technology, Policy, and Organizational Issues | 3 |
| CEES 5623 | Watershed Management and Restoration | 3 |
| CEES 5643 | Quantitative Hydrometeorology | 3 |
| CEES 5813 | Water Treatment, Reuse, and Health Impacts | 3 |
| CEES 5933 | Climate Change and Water Sustainability | 3 |
| CEES 5963 | Water Security | 3 |
| ENGR 4013 | Leadership and Management for Engineers | 3 |
| GEOG 5943 | Natural Hazards | 3 |

## Civil Engineering, Ph.D.

Minimum Total Hours: 90
Program Code: D190

## Program Requirements

| Code | Title | Credit |
| :--- | ---: | ---: |
| Hours |  |  |

Choose a minimum of 6 hours of coursework outside the department.

| Dissertation Research |  |  |
| :--- | ---: | ---: |
| CEES 6980 | Research for Doctoral Dissertation | $2-41$ |
| Total Credit Hours | $\mathbf{9 0}$ |  |

## General Requirements for Doctoral Degrees

A student should expect to spend at least the equivalent of three full academic years beyond the bachelor's degree to obtain the doctoral degree. During this period the student will take appropriate graduate coursework, successfully complete the general examination, and successfully defend and submit the final dissertation.

All coursework applied to the doctoral degree must carry graduate credit.
The doctoral degree requires at least 90 post-baccalaureate hours, including both formal coursework and hours of research.

The minimum hour requirement for a specific doctoral degree program cannot be waived.

No more than one-half of the credit hours, both OU and overall, excluding Research for Doctoral Dissertation (6980), may be S/U-graded coursework.

The student must be in residence at OU for at least two consecutive 16week semesters during the pursuit of the doctoral degree while enrolled and engaged in coursework or research activities as prescribed by the major academic unit.

For more detailed regulations and requirements for Doctoral degrees, please consult the Graduate College Bulletin: http://www.ou.edu/ gradcollege/forms/bulletin

## Environmental Engineering, Ph.D.

Minimum Total Hours: 90
Program Code: D390
Program Requirements

| Code | Citle |
| :--- | ---: |
| Required Coursework (48+ hours) | Credit <br> Hours |
| CEES $5021 \quad$ Technical Communications | 48 |
| A minimum of 24 hours of CEES or equivalent courses |  |
| A minimum of 6 hours of coursework outside the department. |  |
| Dissertation Research |  |
| CEES 6980 Research for Doctoral Dissertation | $2-41$ |
| Total Credit Hours | 90 |

## General Requirements for Doctoral Degrees

A student should expect to spend at least the equivalent of three full academic years beyond the bachelor's degree to obtain the doctoral degree. During this period the student will take appropriate graduate coursework, successfully complete the general examination, and successfully defend and submit the final dissertation.

The doctoral degree requires at least 90 post-baccalaureate hours, including both formal coursework and hours of research.

The minimum hour requirement for a specific doctoral degree program cannot be waived.

No more than one-half of the credit hours, both OU and overall, excluding Research for Doctoral Dissertation (6980), may be S/U-graded coursework.

The student must be in residence at OU for at least two consecutive 16week semesters during the pursuit of the doctoral degree while enrolled and engaged in coursework or research activities as prescribed by the major academic unit.

For more detailed regulations and requirements for Doctoral degrees, please consult the Graduate College Bulletin: http://www.ou.edu/ gradcollege/forms/bulletin

## Environmental Science, Ph.D.

Minimum Total Hours: 90
Program Code: D405

## Program Requirements

| Code | Title | Credit <br> Hours |
| :--- | ---: | ---: |
| Required Coursework (48+ hours) | 48 |  |
| CEES 5021 Technical Communications |  |  |
| A minimum of 24 hours of CEES or equivalent courses |  |  |
| A minimum of 6 hours of coursework outside the department. |  |  |
| Dissertation Research $\quad$ Research for Doctoral Dissertation | $2-41$ |  |
| CEES 6980 $\quad$ Total Credit Hours | 90 |  |

## General Requirements for Doctoral Degrees

A student should expect to spend at least the equivalent of three full academic years beyond the bachelor's degree to obtain the doctoral degree. During this period the student will take appropriate graduate coursework, successfully complete the general examination, and successfully defend and submit the final dissertation.

All coursework applied to the doctoral degree must carry graduate credit.
The doctoral degree requires at least 90 post-baccalaureate hours, including both formal coursework and hours of research.

The minimum hour requirement for a specific doctoral degree program cannot be waived.

No more than one-half of the credit hours, both OU and overall, excluding Research for Doctoral Dissertation (6980), may be S/U-graded coursework.

The student must be in residence at OU for at least two consecutive 16week semesters during the pursuit of the doctoral degree while enrolled and engaged in coursework or research activities as prescribed by the major academic unit.

All coursework applied to the doctoral degree must carry graduate credit.

For more detailed regulations and requirements for Doctoral degrees, please consult the Graduate College Bulletin: http://www.ou.edu/ gradcollege/forms/bulletin

## School of Computer Science

Dean Hougen, Interim Director
Devon Energy Hall - Rm 158
110 W. Boyd St.
Norman OK 73019
Phone: (405) 325-4042
Fax: (405) 325-4044
cs@ou.edu
www.ou.edu/coe/cs

## General Information

## School History

Graduate instruction and research in computer science began in 1969 at the University of Oklahoma with the creation of a unit called Information and Computing Sciences. This unit was under the direct supervision of the Provost until 1972, when it became part of the College of Engineering. An undergraduate program in computer science was added in 1976, and computer science became an integral part of the School of Electrical Engineering, which was later renamed as the School of Electrical Engineering and Computer Science. The first MS, degree in computer science was awarded in 1972, the first PhD, in 1973, and the first undergraduate degree in 1979-80. Computer Science remained in the School of Electrical Engineering and Computer Science until 1992, when the School of Computer Science was formed.

Beginning with the Spring 2010 semester, The School of Computer Science moved our operations to Devon Energy Hall. The five-story, 103,000-square-foot Devon Energy Hall has some of the latest in technological advancement in it's classrooms, team rooms, teaching labs and research space, providing the best for our students of today and tomorrow.

## Program Mission Statement

To generate and disseminate durable knowledge within and around the rapidly evolving discipline of computer science by:

- Educating bachelors, masters, and doctoral degree candidates within our discipline.
- Contributing to the education of degree candidates in related fields, including mathematics, meteorology, computer engineering, industrial and systems engineering, and electrical engineering.
- Generating knowledge in theoretical and applied topics within and around our discipline and disseminating the results.
- Contributing to professional societies within and around our discipline.
- Producing graduates who are highly sought by industry, government and universities.


## Programs \& Facilities

## Research \& Teaching Laboratories

The primary research and teaching laboratories of the School of Computer Science are located in Devon Energy Hall, which was opened in 2010, with additional facilities located nearby in the Engineering Quad. These labs support research and instruction in areas including algorithms \& high-performance computing; artificial intelligence/machine
learning; bioinformatics, computational biology, and neuroscience; computer security \& cryptography; databases \& data mining; networks \& networking; and visualization \& visual analytics.

## Computer Science Assistantships \& Scholarships

The School of Computer Science is able to support many students with various scholarships through University, Gallogly College of Engineering, and Computer Science program-specific opportunities. The requirements for these scholarships vary from merit-based to financial need. The department takes pride in the fact that many of the scholarships available to current and prospective students are set up by CS alumni. All scholarships for Computer Science are housed in and managed by the Scholarships Office and the OU Student Financial Center via the CASH portal. Graduate teaching and/or research assistantships (GTAs/ GRAs) may be granted to Doctoral/Ph.D. and Masters/M.S. students in the program, with priority issued to high-achieving graduate students who have progressed further into their respective graduate program and who have established consistent rapport with faculty. Any interest in a graduate assistantship should be initially directed to the student's faculty advisor or desired faculty advisor. Admission to the program does not guarantee financial assistance.

## Computer Science Software Studio

The Computer Science Software Studio provides student the opportunity to:

- Work on approved out-of-class projects with state-of-the-art software and hardware tools
- Be a part of collaborative teams
- Gain additional hands-on experience
- Participate in software competitions
- Connect with and learn from professionals in your field
- Contribute to both app and game development
- Enjoy tech talks and seminars


## Undergraduate <br> Computer Science Program Educational Objectives (PEO)

- Graduates succeed in problem-solving professions using computer science expertise.
- Graduates succeed in software design and development careers.
- Graduates may pursue and complete advanced degrees in computer science or other fields.


## Computer Science Undergraduate Student Outcomes

- Analyze a complex computing problem and to apply principles of computing and other relevant disciplines to identify solutions.
- Design, implement, and evaluate a computing-based solution to meet a given set of computing requirements in the context of the program's discipline.
- Communicate effectively in a variety of professional contexts.
- Recognize professional responsibilities and make informed judgments in computing practice based on legal and ethical principles.
- Function effectively as a member or leader of a team engaged in activities appropriate to the program's discipline.


## The program criterion pertaining to Student Outcomes for Computer Science programs is as follows:

- Apply computer science theory and software development fundamentals to produce computing-based solutions.


## Bachelor of Science

The Computer Science (p. 1352)Bachelor of Science provides a broad and flexible undergraduate curriculum. In addition to the general university requirements in the humanities and sciences, computer science students take courses covering the fundamentals of the discipline; courses in mathematics, natural science; and computer science. Bachelor of Science in Computer Science accredited by the Computing Accreditation Commission of ABET, https://www.abet.org, under the General Criteria and the Computer Science and Similarly Named Computing Programs Program Criteria.

## Minors

Students who wish to pursue a minor in computer science are strongly encouraged to check their proposed program with either the Williams Student Services Center for the College of Engineering (325-4096, Felgar Hall-Rm 112) or Dr. Deborah A. Trytten (dtrytten@ou.edu, Devon Energy Hall - Rm 252).

- Computer Science Minor (p. 1355)
- Computational Technology Minor (p. 1356)


## Computer Science, Bachelor of Science/Master of Science

The accelerated Computer Science Bachelor of Science/Master of Science (p. 1357) program allows students to pursue a graduate degree in conjunction with the undergraduate degree requirements. Bachelor of Science in Computer Science accredited by the Computing Accreditation Commission of ABET, https://www.abet.org, under the General Criteria and the Computer Science and Similarly Named Computing Programs Program Criteria.

## Graduate

## Master of Science

The Computer Science, Master of Science (p. 1360) degree is designed for those wishing to improve their professional competence or to prepare for work towards a doctoral degree.

## Doctoral Program

The Computer Science (p. 1361) doctoral degree program aims to prepare and develop professionals capable of conducting and directing research within the discipline of computer science.

## Courses

C S 1213 Programming for Non-Majors with Python 3 Credit Hours Prerequisite: Mathematics 1503 or concurrent enrollment. Introduction to the design and implementation of computer programs in the language Python. We will cover data types, control flow, iterations, functions, and the use of external libraries for text processing, graphics, image manipulation, web programming and others. Emphasis on problem solving with examples drawn from diverse disciplines. (F, Sp)

C S 1313 Programming for Non-Majors with C 3 Credit Hours
Prerequisite: MATH 1523 or concurrent enrollment. Introduction to the design and implementation of computer programs. Emphasis on problem solving. Topics include: variables and constants, arithmetic and Boolean expressions, conditional statements, loops, procedures and functions, arrays, standard libraries, input and output, structures, and program documentation. (F, Sp)
C S 1321 Java for Programmers
1 Credit Hour
Prerequisite: Departmental Permission; and Math 1523 or MATH 1743 or equivalent or concurrent enrollment, or placement into Math 1823 or higher. Introduction to computer programming using the Java programming language for students who are already proficient in another programming language. Topics include: variables and constants, arithmetic and Boolean expressions, conditional statements, repetition, methods, arrays, linear and binary search, basic sorting algorithms, object-oriented programming, documentation, and testing. Students may not take this class after passing CS 2334. (F, Sp)

## C S 1323 Introduction to Computer Programming for

## Programmers

## 3 Credit Hours

Prerequisite: Departmental Permission; and Math 1523 or MATH 1743 or equivalent or concurrent enrollment, or placement into Math 1823 or higher. Introduction to the design and implementation of computer software with an emphasis on abstraction and program organization for students with some prior programming experience. Topics include: variables and constants, arithmetic and Boolean expressions, conditional statements, repetition, methods, arrays, linear and binary search, basic sorting algorithms, object-oriented programming, documentation, and testing. Students may not take this class after passing CS 2334. (F, Sp)

## C S 1324 Introduction to Computer Programming for Non-

 Programmers4 Credit Hours
Prerequisite: Departmental Permission; and Math 1523 or MATH 1743 or equivalent or concurrent enrollment, or placement into Math 1823 or higher. Introduction to the design and implementation of computer software with an emphasis on abstraction and program organization for students with no prior programming experience. Topics include: variables and constants, arithmetic and Boolean expressions, conditional statements, repetition, methods, arrays, linear and binary search, basic sorting algorithms, object-oriented programming, documentation, and testing. Students may not take this class after passing CS 2334. (F, Sp)
C S 2334 Programming Structures and Abstractions 4 Credit Hours Prerequisite: C S 1323 or 1321 or 1324 , and MATH 1523 or higher. The design and implementation of computer programs using disciplined methodologies. Use of several abstract data types. Software reuse through encapsulation, composition, aggregation, inheritance, polymorphism, and generics. Topics include recursion, GUI development, file processing, and unit testing. A program design tool will be used. Introduction to ethics in computer science, including philosophical ethics theories. Discussion of intellectual property rights and privacy. (F, Sp)
C S 2413 Data Structures
3 Credit Hours
Prerequisite: C S 2334 and MATH 1823 or 1914; and C S 2813 or MATH 2513, or concurrent enrollment in C S 2813 or MATH 2513. Representation, analysis and implementation of data structures and associated algorithms including: algorithm complexity, sorting algorithms, lists, stacks, queues, search trees (AVL, Red-Black, Splay, 2-3), Heaps, Graphs, and Hashing. Written communications required in some projects. Ethical issues and tools and techniques used in writing secure applications will also be discussed. The primary programming language is $\mathrm{C}++$ with a debugging tool. $(\mathrm{F}, \mathrm{Sp})$

C S 2414 Data Structures 4 Credit Hours
Prerequisite: C S 2334 and MATH 1823 or 1914; and C S 2813 or
MATH 2513, or concurrent enrollment in C S 2813 or MATH 2513. Representation, analysis and implementation of data structures and associated algorithms including: algorithm complexity, sorting algorithms, lists, stacks, queues, search trees (AVL, Red-Black, Splay, 2-3), Heaps, Graphs, and Hashing. Written communications required in some projects. Ethical issues and tools and techniques used in writing secure applications will also be discussed. The primary programming language is $\mathrm{C}++$ with a debugging tool. $(\mathrm{F}, \mathrm{Sp})$

## C S 2614 Computer Organization <br> 4 Credit Hours

Prerequisite: CS 2334. An introduction to the architecture, organization and design of uniprocessor-based computer systems. Topics include processor, control and memory design and organization, pipelining and vector processing, computer arithmetic, I/O organization, and computer systems security. (F, Sp)

## C S 2813 Discrete Structures

3 Credit Hours
Prerequisite: C S 2334; MATH 2423 or MATH 2924 as prerequisite or concurrent enrollment. Introduction to the theory of discrete structures useful in computer science. Topics include combinatorics, relations, functions, computational complexity, recurrences, and graph theory. ( $F$, Sp)
C S 2970 Special Topics/Seminar 1-3 Credit Hours
Special Topics. 1 to 3 hours. May be repeated; Maximum credit nine hours. Special topics course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research, and field projects. (Irreg.)

C S 3113 Introduction to Operating Systems 3 Credit Hours
Prerequisite: C S 2413 or C S 2414, and C S 2813 or MATH 2513, and C S 2614 or ECE 3223. An introduction to the major concepts and techniques of designing and implementing operating systems including: memory management, process management, information management, and computer security. Principles of performance evaluation. Class projects require the design and implementation of software systems. A UNIX family operating system will be used. (F)

## C S 3203 Software Engineering

3 Credit Hours
Prerequisite: C S 2413 or CS 2414, and C S 2813 or MATH 2513. Methods and tools for software specification, design, implementation, testing, code management and documentation. Emphasis on architectural modularity, encapsulation of software objects, and current industrial software development processes. Students will make reasoned choices among software components. Study of professional ethics, responsibility, and legal issues. No student may obtain credit for CS 3203 and C S 5213. (F, Sp)

## C S 3323 Principles of Programming Languages 3 Credit Hours

Prerequisite: C S 2413 or C S 2414, and C S 2813 or MATH 2513, and ENGL 3153 or BC 2813 or ENGR 2002 as a prerequisite or concurrent enrollment. An introduction to theoretical foundations and paradigms of programming languages. Topics include basic concepts such as lexical analysis, syntax analysis, type systems and semantics, some practical issues such as memory management and exception handling, and programming paradigms such as imperative programming, objectoriented programming, functional programming and scripting. (Sp)

C S 3440 Mentored Research Experience
3 Credit Hours
0 to 3 hours. Prerequisite: ENGL 1213 or EXPO 1213, and permission of instructor; may be repeated; maximum credit 12 hours. For the inquisitive student to apply computer science in a project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. . (F, Sp, Su )
C S 3450 Undergraduate Research
3 Credit Hours
0 to 3 hours. Prerequisite: (CS 2413 or CS 2414 and CS 2813 or Math 2513) and permission of instructor; may be repeated, maximum credit 6 hours. For the inquisitive student to perform computer science research or creative activity under the mentorship of a faculty member. Not for honors credit. (F, Sp, Su)
C S 3823 Theory of Computation
3 Credit Hours
Prerequisite: CS 2413 and CS 2813 or MATH 2513 or CS 5005 or
DSA 5005. Introduction to abstract machine theory and formal language theory. Topics include Turing machines, finite/pushdown automata, deterministic versus nondeterministic computations, context-free grammars, and mathematical properties of these systems. (F)

C S 3960 Honors Reading 1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Consists of topics designated by the instructor in keeping with the student's major program. Covers materials not usually presented in the regular courses. (F, Sp)
C S 3970 Honors Seminar 1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated with change of topic; maximum credit eight hours. Projects covered will vary. Deals with concepts not usually presented in regular coursework. (Irreg.)

C S 3980 Honors Research 1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated with change of subject matter; maximum credit six hours. Provides an opportunity for the gifted Honors candidate to work on a special project in the student's field. (F, Sp, Su)

C S 3990 Independent Study 1-3 Credit Hours
1 to 3 hours. Prerequisite: permission of instructor and junior standing. May be repeated once with change of content. Independent study may be arranged to study a subject not available through regular course offerings. (F, Sp, Su)
C S 4013 Artificial Intelligence
3 Credit Hours
(Slashlisted with C S 5013) Prerequisite: CS 2413 or CS 5005, and CS 2813 or CS 4005 or MATH 2513. Study of the methods of search, knowledge representation, heuristics, and other aspects of automating the solution of problems requiring intelligence. No student may earn credit for both 4013 and 5013. (Sp)

C S 4023 Introduction to Intelligent Robotics 3 Credit Hours (Slashlisted with C S 5023) Prerequisite: C S 2413, and C S 2813 or MATH 2513. History of intelligent robotics; functional models approach; reactive robots; ethology for robotics; architectures and methodologies; implementation; sensing; hybrid deliberative/reactive robotics; multirobot systems; navigation; topological path planning; metric path planning; localization and mapping. No student may earn credit for both 4023 and 5023. (F)

C S 4033 Machine Learning Fundamentals 3 Credit Hours
(Slashlisted with C S 5033) Prerequisites: C S 2413, and C S 2813 or MATH 2513, and MATH 4753 or ISE 3293 or MATH 4743, and MATH 3333, and MATH 3113 or MATH 3413. Topics include decision trees, relational learning, neural networks, Bayesian learning, reinforcement learning, multiple-instance learning, feature selection, learning appropriate representations, clustering, and kernel methods. No student may earn credit for both 4033 and 5033. (F)
C S 4053 Computer Graphics
3 Credit Hours
(Slashlisted with C S 5053) Prerequisite: C S 2413, and C S 2813 or MATH 2513, and MATH 3333. An introduction to computer graphics. Topics include coordinate systems, transformations, rendering in both two and three dimensions, and graphical programming. No student may earn credit for both 4053 and 5053. (F)
C S 4063 Human Computer Interaction
3 Credit Hours
(Slashlisted with CS 5063) Prerequisite: C S 2413, and C S 2813 or
MATH 2513. An introduction to human-computer interaction and graphical user interfaces. Topics include principles of human-computer interaction, human perceptual and cognitive abilities, user interface analysis and design, window systems, and social implications of computing. Current user interface programming tools will be described and used. Oral presentations are required for some assignments. No student may earn credit for both 4063 and 5063. (Sp)

## C S 4113 Distributed Operating Systems

3 Credit Hours
(Slashlisted with C S 5113) Prerequisite: C S 3113, and Mathematics 4753 or Industrial Engineering 3293 or Mathematics 4743 or Engineering 3293. Continuation of study from 3113. Advanced topics and examples and simulation techniques used in performance evaluation. No student may earn credit for both 4113 and 5113. (Sp)
C S 4133 Data Networks
3 Credit Hours
(Slashlisted with 5133) Prerequisite: 3113 or permission of instructor. Comprehensive treatment of data networking principles including: layered protocol design and their functions, tools for performance analysis, multiaccess communication, routing and flow control. No student may earn credit for both 4133 and 5133. (F)

## C S 4173 Computer Security

3 Credit Hours
(Slashlisted with C S 5173) Prerequisite: CS 3113. An introduction to computer security. Topics include applied cryptography, access control, programming and software security, operating system security, network security protocols, and the legal and ethical aspects of security software. (F)

## C S 4273 Capstone Design Project

3 Credit Hours
Prerequisite: C S 3203, and C S major or C S minor. Students working in teams implement a significant software product, including design documents, user's guide, and process reports. Emphasis is on data abstraction and reusable components. Students will make reasoned choices among software components. Students will practice oral/ written communication skills, learn about professional social issues and responsibilities. No student may obtain credit for C S 4273 and C S 5213. (F, Sp) [V].

C S 4281 Engineering Co-Op Program
1 Credit Hour
(Crosslisted with AME, CH E, CEES, ECE, EPHY, ISE and BME 4281)
Prerequisite: Departmental permission and junior standing. May be repeated; maximum credit 6 hours. The Co-Op program provides students an opportunity to enhance their education via career exploration in related professional work experiences. Course assignments help students articulate their experiences by completing journals; mid-term paper; final paper and/or final presentation. Faculty receive an evaluation from the student's Co-Op supervisor who monitors performance. Faculty collaborate with the Co-Op supervisor to ensure student success. (F, Sp, Su)
C S G4323 Compiler Construction
3 Credit Hours
Prerequisite: 2413 and 3823. Introduction to the theory and
implementation of programming language compilers and interpreters. Class projects require the design of medium scale software systems. (Sp)
C S 4410 Programming Competition
0 Credit Hours
Prerequisite: Permission of Instructor. Prepare students to participate in regional, national, and international computer programming competitions. Students will work in teams to solve challenging computer programming problems. (F, Sp)

## C S G4413 Algorithm Analysis

3 Credit Hours
(Crosslisted with DSA 4413) Prerequisites: C S 2413 and C S 2813; or MATH 2513; or C S 5005. Design and analysis of algorithms and measurement of their complexity. This course introduces various algorithm design strategies: divide and conquer, greedy principle and dynamic programming to solve a variety of problems using algorithms of various types - deterministic and randomized, serial and parallel, centralized and decentralized, program based and circuit based. (F)
C S 4433 Computational Methods in Discrete Optimization 3 Credit Hours
(Slashlisted with C S 5433) Prerequisite: MATH 3333 and C S 4413 or concurrent enrollment in 4413. Linear programming: simplex method for LP problems, degeneracy and anticycling strategies, duality theory and complementary slackness conditions, revised simplex method, sensitivity analysis and simplex method for general LP problems. Network optimization: the transshipment problem, network simplex method, shortest path algorithms, the maximum flow problem, and the primal dual method. No student may earn credit for both 4433 and 5433. (F, Sp)
C S 4473 Parallel, Distributed, and Network Programming 3 Credit Hours
(Slashlisted with C S 5473) Prerequisite: CS 3113 and CS 4413. Parallel and distributed architectures, algorithms, programming paradigms and network communication protocols and programming. Topics include asynchronous/synchronous computation, GPU architectures, load balancing, memory hierarchies, other parallel and distributed models of computation, concepts about computer networks, including internet protocol stack and internet architecture, and socket programming using TCP and UDP. No student may earn credit for both 4473 and 5473. (Sp)

C S G4513 Database Management Systems 3 Credit Hours (Crosslisted with DSA 4513) Prerequisites: C S 2413 and C S 2813; or MATH 2513; or C S 5005. The design and implementation of a DBMS including data models, query languages, entity-relationship diagrams, functional dependencies, normalization, storage structures, access methods, query processing, security and transaction management, and applications. The impact of databases on individuals, organizations, and society, and legal and professional responsibilities including security and privacy will be discussed. A commercial DBMS is used. Students practice written communication skills. (F)

## C S G4613 Computer Architecture

(Crosslisted with ECE 4613) Prerequisite: ECE 3223 or C S 2614 or C S 2613. Covers basic concepts of computer system design and communication between components, along with current and historical examples of computer architecture. (F,Sp)

C S 4723 Neural Data Science
3 Credit Hours
(Slashlisted with C S 5723) Prerequisite: Computer Programming (CS 1213 or CS 1313 or CS 1321 or CS 1323 or CS 1324) and Statistics (ECE 2523 or ISE 3293 or Math 4743 or Math 4753); or permission of instructor. This course will introduce the fundamental concepts of neural data analysis and its implementation using computer programming. Topics include statistical modeling, connectivity analysis, time-frequency analysis, and pattern recognition. No student may earn credit for both 4723 and 5723. (F)

C S 4733 Computer Vision for Autonomous Vehicles 3 Credit Hours (Slashlisted with C S 5733) Prerequisite: C S2413 or C S 2414 or C S 5005; and MATH 3333; or permission of instructor. This course delves into the foundational principles of mathematics and the practical implementation of state-of-the-art autonomous navigation algorithms, specifically within the domains of self-driving cars, delivery robots, and autonomous aerial vehicles such as drones. Positioned within the field of robotics, it explores various aspects of autonomous navigation, covering motion planning, computer vision, localization, and mapping. No student may earn credit for both 4733 and 5733. (F)

## C S 4743 Scientific Computing I

3 Credit Hours
(Slashlisted with C S 5743) Prerequisite: MATH 3333. Interaction between applications, architectures, and algorithms. Review of linear algebra, serial, pipelined vector processors, cluster of processors. Measures of proformance of parallel algorithms. Parallel algorithms for the solution of linear systems. No student may earn credit for both 4743 and 5743. (F)

C S 4823 Cryptography
3 Credit Hours
(Slashlisted with 5823) Prerequisite: 3823 and 4413. Elementary number theory, time complexity for doing arithmetic, finite fields, RSA, discrete logarithm and Diffie-Hellman, zero-knowledge protocols and oblivious transfer. Basic elliptic curve cryptosystems, elliptic curve factorization and primality proving. No student may earn credit for both 4823 and 5823. (Sp)

C S 4910 Senior Reading and Research
1-3 Credit Hours
1 to 3 hours. Prerequisite: senior standing, permission of instructor. May be repeated with change of subject matter; maximum credit six hours. Individually supervised reading and research in computing science for gifted seniors. (F, Sp, Su)

## C S 4970 Undergraduate Seminar

1-3 Credit Hours
0 to 3 hours. May be repeated with change of subject matter; maximum credit three hours. A special type of seminar necessitated by the rapidly changing nature of modern data processing information science and computing sciences. (Irreg.)

## C S 4973 Special Topics

3 Credit Hours
Prerequisite: 2413 and permission of instructor. May be repeated with change of subject matter; maximum credit nine hours. A special topics course necessitated by the rapidly changing nature of computer sciences. Topics offered under this number will be accepted as approved Computer Science electives for Computer Science majors. (Irreg.)

1 to 3 hours. Prerequisite: Senior standing and permission of instructor. May be repeated; maximum credit nine hours but total credit applicable to any degree may be limited. Individual or group research and development projects involving original laboratory, analytical or theoretical investigations and syntheses. Specific objectives and work requirements are established by prior agreement of the instructor and student. Students should expect to spend at least 48 hours for each credit hour and to submit appropriate reports or papers ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ ).

C S 5005 Computing Structures 5 Credit Hours
(Crosslisted with DSA 5005) Prerequisite: CS 2334, MATH 1914 or MATH 1823 or with permission of graduate liaison. This course has three parts: discrete mathematics, object-oriented programming in C++, and data structures in C++. As part of the discrete mathematics students will be introduced to combinatorics, logic, relations, functions, computational complexity, automata, and graph theory. Students will be introduced to the fundamentals of object-oriented programming and learn to design, build, and analyze data structures using object-oriented principles and techniques. Credit hours earned for this course cannot be used to fulfill degree requirements for the B.S., M.S. or Ph.D. programs in computer science. (Irreg.)

C S 5013 Artificial Intelligence
3 Credit Hours
(Slashlisted with C S 4013) Prerequisite: graduate standing and C S 2413 or C S 5005, and C S 2813 or C S 4005 or MATH 2513. Study of the methods of search, knowledge representation, heuristics, and other aspects of automating the solution of problems requiring intelligence. No student may earn credit for both 4013 and 5013. (Sp)

C S 5023 Introduction to Intelligent Robotics
3 Credit Hours
(Slashlisted with C S 4023) Prerequisite: graduate standing and C S 2413, and C S 2813 or MATH 2513. History of intelligent robotics; functional models approach; reactive robots; ethology for robotics; architectures and methodologies; implementation; sensing; hybrid deliberative/reactive robotics; multi-robot systems; navigation; topological path planning; metric path planning; localization and mapping. No student may earn credit for both 4023 and 5023. (F)

C S 5033 Machine Learning Fundamentals 3 Credit Hours (Slashlisted with C S 4033) Prerequisite: Graduate standing and C S 2413; C S 2813 or MATH 2513; MATH 4753 or ISE 3293 or MATH 4743; MATH 3333; and MATH 3113 or MATH 3413. Topics include decision trees, relational learning, neural networks, Bayesian learning, reinforcement learning, multiple-instance learning, feature selection, earning appropriate representations, clustering, and kernel methods. No student may earn credit for both 4033 and 5033. (F)

C S 5043 Advanced Machine Learning 3 Credit Hours Prerequisite: Graduate standing; MATH 3333; MATH 4743 or MATH 4753 or ENGR 3293 or ISE 3293; and C S 4033/5033 or C S 5073; or permission of the instructor. Topics include deep learning, deep networks, convolutional neural networks, recurrent neural networks, transformers, autoencoders, generative adversarial networks, and explainable deep learning. (Irreg.)

C S 5053 Computer Graphics
3 Credit Hours
(Slashlisted with C S 4053) Prerequisite: graduate standing and C S 2413, and C S 2813 or MATH 2513, and MATH 3333. An introduction to computer graphics. Topics include coordinate systems, transformations, rendering in both two and three dimensions, and graphical programming. No student may earn credit for both 4053 and 5053. (F)

C S 5063 Human Computer Interaction 3 Credit Hours
(Slashlisted with CS 4063) Prerequisite: Graduate standing and C S 2413, and C S 2813 or MATH 2513; or departmental permission. An introduction to human computer interaction and graphical user interfaces. Topics include principles of human computer interaction, human perceptual and cognitive abilities, user interface analysis and design, window systems, and social implications of computing. Current user interface programming tools will be described and used. Oral presentations are required for some assignments. No student may earn credit for both 4063 and 5063. (Sp)
C S 5073 Artificial Neural Networks Evolution 3 Credit Hours Prerequisite: CS 2413 and CS 2813, or CS 5005, and MATH 3333. Overview of computational intelligence and artificial evolution, artificial neural networks and artificial evolution, introduction to artificial life and neuro-evolution, and evolutionary robotics. (F)
C S 5093 Visual Analytics
3 Credit Hours
Prerequisite: permission of instructor. Exploration and analysis of complex information through visual interactive computational tools and techniques. Topics include analytic reasoning, sense-making, knowledge dissemination, data representation and transformation, visual abstraction, coordinated interaction, visual query languages, spatiotemporal visualization, and applications of visual analysis. (Sp)

## C S 5113 Distributed Operating Systems

3 Credit Hours
(Slashlisted with C S 4113) Prerequisite: Graduate standing, C S 3113; and MATH 4753, ISE 3293, or MATH 4743. Advanced topics, examples, and simulation techniques used in performance evaluation. No student may earn credit for both 4113 and 5113. (Sp)

## C S 5133 Data Networks

3 Credit Hours
(Slashlisted with 4133) Prerequisite: 3113 or 5004 or permission of instructor. Comprehensive treatment of data networking principles including: layered protocol designs and their functions, tools for performance analysis, multi-access communication, routing and flow control. No student may earn credit for both 4133 and 5133. (F)

## C S 5143 Network Design and Management

3 Credit Hours
Prerequisite: 4133 or 5133, or equivalent. Basic concepts in networks; modeling and evaluation techniques; network analysis: delay, loss and throughput, centralized network design; distributed network design, network reliability; applications to local area wireless, wide area, multiservice networking, etc.; network management: SNMP, OSI management, distributed network management and architectures. (Sp)

## C S 5173 Computer Security

3 Credit Hours
(Slashlisted with C S 4173) Prerequisite: CS 3113. An introduction to computer security. Topics include applied cryptography, access control, programming and software security, operating system security, network security protocols, and the legal and ethical aspects of security software (F)

## C S 5183 Wireless and Mobile Networks 3 Credit Hours

Prerequisite: Graduate standing, CS 4133/5133; MATH 4743 or MATH G4753 or ISE 3293 or ECE 2523 or permission of instructor. This course provides a systematic view of designing and securing wireless mobile computing systems and networks. It covers system and security elements from the physical layer all the way to the application layer in wireless mobile computing. (Sp)

C S 5213 Software Engineering Processes
3 Credit Hours
Prerequisite: graduate standing, C S 3113 or C S 3823 or C S 5005. No student may obtain credit for C S 4263 or C S 4273 and CS 5213. Effective processes for software requirements specification, planning, design, documentation, development, review, defect tracking, testing, product delivery, and product evaluation. Emphasis on resource tracking and software quality. Students work in teams to develop, deliver, and evaluate software products. (Sp)
C S 5293 Text Analytics 3 Credit Hours
Prerequisite: C S 2413 or C S 5005; CS 2813 or MATH 2513; and
MATH 4743 or MATH 4753 or ISE 3293 or ISE 5013. The course covers the design and implementation of algorithms to extract useful knowledge from text to support decision making, including methods to obtain data sets, understanding data formats, detecting duplicates, cleaning data sets, tagging, indexing, search, evaluating algorithms, classification, clustering, topic modeling, and entity resolution. (Sp)
C S 5413 Computational Complexity 3 Credit Hours Prerequisite: 4413 and 3823 or 5813. Computational complexity theory dealing with various models of computation and a detailed analysis of $P$ and NP hard problems. (Sp)

## C S 5433 Computational Methods in Discrete Optimization 3 Credit Hours

(Slashlisted with C S 4433) Prerequisite: MATH 3333 and C S 4413 or concurrent enrollment in 4413. Linear programming: simplex method for LP problems, degeneracy and anticycling strategies, duality theory and complementary slackness conditions, revised simplex method, sensitivity analysis and simplex method for general LP problems. Network optimization: the transshipment problem, network simplex method, shortest path algorithms, the maximum flow problem, and the primal dual method. No student may earn credit for both 4433 and 5433. (F)

## C S 5463 Advanced Computer Architecture

## 3 Credit Hours

(Crosslisted with ECE 5463) Prerequisite: C S 4613. The design of modern programmable computer systems with emphases on exploiting parallelism at all levels, designing within constraints, including energy consumption, and the impact of architecture on software design. Covers state of the art computer architecture, case studies and trends. (Sp)
C S 5473 Parallel, Distributed, and Network Programming 3 Credit Hours
(Slashlisted with C S 4473) Prerequisite: Graduate standing, C S 3113, and C S 4413. Parallel and distributed architectures, algorithms, programming paradigms and network communication protocols and programming. Topics include asynchronous/synchronous computation, GPU architectures, load balancing, memory hierarchies, other parallel and distributed models of computation, concepts about computer networks, including internet protocol stack and internet architecture, and socket programming using TCP and UDP. No student may earn credit for both 4473 and 5473. (Sp)
C S 5483 Network Science
3 Credit Hours
Prerequisite: C S 4413 or DSA 4413 or permission of instructor. Topics to be covered include fundamental algorithms for network analysis, investigating properties of networks, learning community detection methods, understanding network inference methods, understanding dynamics of networks, percolation, resilience, spreading phenomenon, social influence, and cascades. A variety of application contexts will be used, including physical, informational, biological, cognitive, and social systems. (F)

C S 5513 Advanced Database Management 3 Credit Hours
Prerequisite: 4513. An advanced course dealing with both current database applied research subjects and theoretical aspects of relational databases. Selected topics such as distributed databases, objectoriented databases, real-time databases, and multimedia databases will be discussed. (Sp)

## C S 5593 Data Mining

3 Credit Hours
Prerequisite: graduate standing and permission from the instructor or department. Covers the process, concepts and techniques in data mining, including advanced techniques that deal with Big Data. It provides students with the necessary background to conduct data mining tasks for real world problems. The topics covered include understanding and preprocessing data, classification, association analysis, cluster analysis, anomaly detection, and Big Data mining. (F)

## C S 5613 Computer Networks and Distributed Processing 3 Credit Hours

Prerequisite: 4613. Provides a comprehensive treatment of the analysis and design of computer networks. Data communication techniques and distributed processing in a network architecture will be examined. (Sp)

## C S 5703 Machine Learning Practice

3 Credit Hours
(Crosslisted with DSA 5703) Prerequisite: Graduate standing;
C S 4013/5013, C S 5593, ISE/DSA 5103; or permission of instructor. Machine learning is the data-driven process of constructing mathematical models that can be predictive of data observed in the future. In this course, we will study the use of a range of supervised, semisupervised and unsupervised methods to solve both classification and regression problems. (F)

C S 5713 Computational Learning Theory 3 Credit Hours Prerequisite: Departmental Permission and C S 4413 or DSA 4413. Topics of machine learning theory. Learning using membership queries, equivalence queries, version spaces, decision trees, perceptrons. Probably approximately correct (PAC) learning, Occam algorithms, VC-dimension, sample sizes for distribution-independent learning. Representation issues, proper learning, reductions, intractability, learning in the realizable case, agnostic learning. Noise models, statistical queries, PAC learning under noise. Adversarially robust learning against poisoning attacks and against adversarial examples. (F)

## C S 5723 Neural Data Science

3 Credit Hours
(Slashlisted with C S 4723) Prerequisite: Graduate standing or permission of instructor. This course will introduce the fundamental concepts of neural data analysis and its implementation using computer programming. Topics include statistical modeling, connectivity analysis, time-frequency analysis, and pattern recognition. No student may earn credit for both 4723 and 5723. (F)

## C S 5733 Computer Vision for Autonomous Vehicles 3 Credit Hours

 (Slashlisted with C S 4733) Prerequisite: Graduate standing or permission of instructor. This course delves into the foundational principles of mathematics and the practical implementation of state-of-the-art autonomous navigation algorithms, specifically within the domains of self-driving cars, delivery robots, and autonomous aerial vehicles such as drones. Positioned within the field of robotics, it explores various aspects of autonomous navigation, covering motion planning, computer vision, localization, and mapping. No student may earn credit for both 4733 and 5733. (F)C S 5743 Scientific Computing

## 3 Credit Hours

(Slashlisted with C S 4743) Prerequisite: graduate standing and MATH 3333 and AME 3723 or MATH 4073 or ENGR 3723 or C S 3723. Interaction between applications, architectures, and algorithms. Review of linear algebra, serial, pipelined vector processors, cluster of processors. Measures of proformance of parallel algorithms. Parallel algorithms for the solution of linear systems. No student may earn credit for both 4743 and 5743. (F)
C S 5753 Scientific Computing II
3 Credit Hours
Prerequisite: 5743 . Special research topics in scientific computing. Possible topics include optimization algorithms, time series modeling, Kalman filtering techniques, and multivariate statistical techniques. (Sp)

C S 5813 Formal Languages
3 Credit Hours
Prerequisite: 3823. Theory of formal languages. Mathematical modeling of natural or artificial objects, events, and phenomena. Topics include systems for linear/nonlinear objects, their language-theoretical properties, and the related machine theory. (F)
C S 5823 Cryptography
3 Credit Hours
(Slashlisted with 4823) Prerequisite: 3823 and 4413. Elementary number theory, time complexity for doing arithmetic, finite fields, RSA, discrete logarithm and Diffie-Hellman, zero-knowledge protocols and oblivious transfer. Basic elliptic curve cryptosystems, elliptic curve factorization and primality proving. No student may earn credit for both 4823 and 5823. (Sp)

C S 5833 Blockchains \& Cryptocurrencies 3 Credit Hours
Prerequisite: Departmental Permission and C S 3823 or C S 4413 . This course attempts to bridge the gap in the technical understanding of blockchain architectures and their applications as a currency. Specifically, this course will address the following fundamental questions and more: How does Bitcoin work and what makes it different? How secure are Bitcoins? How anonymous are Bitcoin users? What applications can be built using Bitcoin as a platform? (Sp)
C S 5880 Graduate Project
2-6 Credit Hours
2 to 6 hours. Prerequisite: Graduate standing and permission of department. For students electing the non-thesis project option. Students will plan and carry out a project in computer science under the direction of their project committee. Students must take at least 6 credit hours of CS 5880 over one or more semesters; only the first 6 credits will count towards the non-thesis project program requirement. (F, Sp, Su)
C S 5903 Graduate Perspectives on Computing 3 Credit Hours Prerequisite: Graduate standing and permission of department. A broad survey of principles, pathways, practices, and research in computer science. Topics include foundations and current computing research on systems, theory, artificial intelligence \& machine learning, and people \& data; ethics, integrity, social implications, and professional practices in computing; and essential skills and tools for computing research and practice. (F, Sp)

C S 5960 Directed Readings
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing and permission of department. May be repeated; maximum credit twelve hours. Directed readings and/or literature reviews under the direction of a faculty member. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

C S 5970 Graduate Seminar
1-3 Credit Hours
Prerequisite: permission of instructor. May be repeated with a change of subject matter; maximum credit six hours. Selected topics of current research interest not covered by regularly scheduled coursework. ( $F, S p$, Su )

C S 5980 Research for Master's Thesis 2-9 Credit Hours Variable enrollment, two to nine hours; maximum credit applicable toward degree, six hours. (F, Sp, Su)

## C S 5990 Independent Studies

1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing, permission of instructor. May be repeated with change of topic; maximum graduate credit nine hours. Supervised individual reading and research in computer science for graduate students. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
C S 6960 Directed Readings
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit six hours. Directed readings and/or literature review under the direction of a faculty member. (Irreg.)
C S 6970 Special Topics/Seminar 1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit 12 hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or research and field projects. (Irreg.)

C S 6980 Research for Doctoral Dissertation 2-16 Credit Hours 2 to 16 hours. Prerequisites: Graduate standing and permission of instructor; may be repeated. Directed research culminating in the completion of the doctoral dissertation. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
C S 6990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)

## Faculty

| Last Name | First/Middle Name | Middle init. | OU <br> Service start | Title(s), date(s) appointed | Degrees Earned, Schools, Dates Completed |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Abdulhak | Mansoor |  | 2023 | ASSISTANT <br> PROFESSOR OF COMPUTER SCIENCE, 2023 | PhD, Univ Malaya, 2013; MS, Univ Technology Malaysia, 2006; BS, Osmania University, 2004 |
| Antonio | John |  | 1999 | PROFESSOR OF COMPUTER SCIENCE, 1999; HOWARD \& SUZANNE KAUFFMAN CHAIR IN ENGINEERING, 2014; INTERIM DEAN OF MEWBOURNE COLLEGE OF EARTH \& ENERGY, 2022 | PhD, Texas A\&M Univ, 1989; MS, Texas A\&M Univ, 1986; BS, Texas A\&M Univ, 1984 |
| Atiquzzama | Mohammed |  | 2001 | PROFESSOR OF COMPUTER SCIENCE, 2003; EDITH KINNEY GAYLORD PRESIDENTIAL PROFESSOR, 2009 | PhD, Univ of Manchester, 1987; MS, Univ of Manchester, 1984; BS, Bangladesh Univ Engr \& Tech, 1982 |
| Cheng | Qi |  | 2001 | PROFESSOR <br> OF COMPUTER <br> SCIENCE, 2014; <br> WILLIAMS COMPANY <br> FOUNDATION <br> PRESIDENTIAL <br> PROFESSOR, 2014 | PhD, Univ of Southern California, 2001; MS, Fudan Univ, 1995; BS, Nankai Univ, 1992 |

Dhall Sudarshan D


| Khanmoham | ņsidut | 2021 | ASSISTANT PROFESSOR OF COMPUTER SCIENCE, 2021 | PhD, State Univ of New YorkBinghamton, 2016; MS, Univ of Hertfordshire, 2012; BS, Univ of TabrizIran, 2010 |
| :---: | :---: | :---: | :---: | :---: |
| Lakshmivara | Sivaramakris\| | 1978 | Professor Emeritus of Computer Science, 2019 | PhD, Indian Institute of Science, 1973; ME, Indian Institute of Science, 1969; BE, Indian Institute of Science 1967; BSc, Univ. of Madres, 1964 |
| Lan | Chao | 2020 | ASSISTANT PROFESSOR OF COMPUTER SCIENCE, 2020 | PhD, Univ of Kansas, 2017; MS, Nanjing <br> Univ of Posts \& Telecommunications, 2011; BS, Nanjing Univ of Posts \& Telecommunications, 2008 |
| Lin | Beiyu | 2024 | ASSISTANT PROFESSOR OF COMPUTER SCIENCE, 2024 | PhD, Washington State Univ, 2020; MS, Washington State Univ, 2015; MS, SUNY-Stony Brook, 2013; BS, Shanghai Maritime Univ, 2011 |
| Maiti | Anindya | 2020 | ASSISTANT PROFESSOR OF COMPUTER SCIENCE, 2020 | PhD, Wichita State Univ, 2018; MS, Wichita State Univ, 2014; BS, Vellore Institute of Technology, 2012 |
| McGovern | Amy | 2005 | PROFESSOR OF COMPUTER SCIENCE, 2018; PROFESSOR OF METEOROLOGY, 2020; LLOYD G. <br> \& JOYCE AUSTIN PRESIDENTIAL PROFESSORSHIP, 2020 | PhD, Univ of Massachusetts- <br> Amherst, 2002; <br> MS, Univ of Massachusetts- <br> Amherst, 1998; BS, <br> Carnegie Mellon Univ, 1996 |
| Moussa | Marmar | 2023 | ASSISTANT PROFESSOR OF COMPUTER SCIENCE, 2023 | PhD, Univ of Connecticut, 2019; MS, Univ of Connecticut, 2018; MS, Alexandria Univ, 2004; BS, Alexandria Univ. |
| Mudduluru | Sanjana | 2023 | ASSISTANT PROFESSOR OF COMPUTER SCIENCE, 2023 | PhD, Univ of Oklahoma, 2023; MS, Univ of Oklahoma, 2018; BS, Jawaharlal Nehru Technological Univ, 2015 |
| Pan | Chongle | 2018 | ASSOCIATE <br> PROFESSOR OF COMPUTER SCIENCE, 2018; ASSOCIATE PROFESSOR OF microbiology and PLANT BIOLOGY, 2018 | PhD, Univ of <br> Tennessee, 2006; BS, <br> East China Normal <br> Univ, 2001 |


| Park | Ji Hwan |  | 2021 | ASSISTANT <br> PROFESSOR OF COMPUTER SCIENCE, 2021 | PhD, Stony Brook Univ, 2017; MS, Korea Advanced Institute of Science \& Technology, 2006; BS, Hongik Univ, 2004 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Quadri | Ghulam | J | 2024 | ASSISTANT PROFESSOR OF COMPUTER SCIENCE, 2024 | PhD, Univ of South Florida, 2021; MS, Univ of South Florida, 2017; BS, Univ of Mumbai, 2012 |
| Radhakr | ¢Sridhar |  | 1990 | PROFESSOR OF COMPUTER SCIENCE, 2002; INTERIM ASSOCIATE DEAN FOR PARTNERSHIPS, 2022 | PhD, Louisiana State Univ, 1990; MS, Louisiana State Univ, 1987; MLIS, Louisiana State Univ, 1986; BS, Univ of South Alabama, 1985; BSC, Univ of Madras, 1983 |
| Thulasir | Krishnaiyan |  | 1994 | Professor/Hitachi Chair Emeritus of Computer Science, 2017 | PhD, Indian Institute of Technology, 1968; MS, Univ of Madras, 1965; BE, Univ of Madras, 1963 |
| Trytten | Deborah |  | 1992 | ASSOCIATE <br> PROFESSOR OF COMPUTER SCIENCE, 1998; ASSOCIATE PROFESSOR OF WOMENS' AND GENDER STUDIES, 2014; PRESIDENT'S ASSOCIATES PRESIDENTIAL PROFESSOR, 2015 | PhD, Michigan State Univ, 1992; MS, <br> Michigan State Univ, 1988; MS, Michigan State Univ, 1984; BS, Albion College, 1982 |
| Veras | Richard | M | 2021 | ASSISTANT PROFESSOR OF COMPUTER SCIENCE, 2021 | PhD, Carnegie Mellon Univ, 2017; MS, Carnegie Mellon Univ, 2016; BS, Univ of Texas-Austin, 2011 |
| Weaver | Christopher | E | 2008 | ASSOCIATE PROFESSOR OF COMPUTER SCIENCE, 2014 | PhD, Univ of Wisconsin, 2006; MS, Univ of Wisconsin, 1997; BS, Michigan State Univ, 1991 |
| Zhao | Shangqing |  | 2021 | ASSISTANT PROFESSOR OF COMPUTER SCIENCE, 2021 | PhD, Univ of South Florida, 2021; MS, Henan Polytechnic Univ, 2015; BS, Fujian Agriculture \& Forestry Univ, 2010 |

## Computer Science, B.S.

Minimum Total Credit Hours: 120

Overall GPA - Combined and OU: 2.00
Major GPA - Combined and OU: 2.00
Curriculum GPA - Combined and OU: 2.00
Program Code: B235

## This program has changes pending State Regents approval for 2024/25. These pending changes are not reflected here.

Bachelor of Science in Computer Science is accredited by the Computing Accreditation Commission of ABET, https://www.abet.org, under the General Criteria and the Computer Science and Similarly Named Computing Programs Program Criteria.

In order to progress in your curriculum in the Gallogly College of Engineering, and as a specific graduation requirement, a grade of C or better is required in each course in the curriculum, including all prerequisite courses.

## Major Requirements

| Code | Title | Credit <br> Hours |
| :---: | :---: | :---: |
| Required Courses |  |  |
| Choose one of the | following: | 1-4 |
| C S 1323 | Introduction to Computer Programming for Programmers |  |
| C S 1321 | Java for Programmers |  |
| C S 1324 | Introduction to Computer Programming for Non-Programmers |  |
| C S 2334 | Programming Structures and Abstractions | 4 |
| C S 2413 | Data Structures | 3 |
| $\begin{aligned} & \text { C S } 2813 \\ & \text { or MATH } 2513 \end{aligned}$ | Discrete Structures <br> Discrete Mathematical Structures | 3 |
| C S 2614 | Computer Organization | 4 |
| C S 3323 | Principles of Programming Languages | 3 |
| C S 3113 | Introduction to Operating Systems | 3 |
| C S 3203 | Software Engineering | 3 |
| C S 3823 | Theory of Computation | 3 |
| C S 4173 | Computer Security | 3 |
| C S 4413 | Algorithm Analysis | 3 |
| C S 4513 | Database Management Systems | 3 |
| C S 4273 | Capstone Design Project | 3 |
| C S 4473 | Parallel, Distributed, and Network Programming | 3 |
| C S Electives |  |  |
| Choose 12 credits maintained by the | of approved C S electives from a list department (p. 1355) | 12 |

Total Credit Hours

## Major Support Requirements

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Math |  |  |
| MATH 2924 | Differential and Integral Calculus II | 4 |
| MATH 3333 | Linear Algebra I | 3 |
| Choose one of the following: | 3 |  |
| ECE 2523 | Probability, Statistics and Random |  |
| ISE 3293 | Processes |  |

## MATH 4743 Introduction to Mathematical Statistics

MATH 4753 Applied Statistical Methods
Technical Electives
Choose 9 credits of approved technical electives from a list maintained by the department. (p. 1355)

Additional College Requirements

| ENGR 1411 | Pathways to Engineering Thinking ${ }^{1}$ | 1 |
| :--- | :--- | :--- |
| ENGR 2002 | Professional Responsibilities and Skills of <br>  Engineers and Scientists | 2 |

Total Credit Hours
${ }^{1}$ Engineering transfer students may take ENGR 3511 in place of ENGR 1411.

## General Education and College Requirements

Courses designated as Core I, II, III, IV, or V are part of the General Education curriculum. Students must complete a minimum of 40 hours of General Education courses, chosen from the approved list, including at least one upper-division Gen. Ed. course outside of the student's major. Courses graded P/NP will not apply.

A grade of C or better is required in each course in the curriculum, including all prerequisite courses.

## UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS

| Code | Title | Credit |
| :--- | :--- | :--- |
|  | Hours |  |

Core Area I: Symbolic and Oral Communication
English Composition
ENGL 1113 Principles of English Composition 3
ENGL 1213 Principles of English Composition 3
or EXPO 1213 Expository Writing
Language (0-10 hours in the same language)
This requirement can be met by two years of the same 0-10
language in high school:
Beginning Course ( $0-5$ hours)
Beginning Course, continued ( $0-5$ hours)
Mathematics (minimum 3 hours)
MATH $1914 \underset{\substack{\text { Differential and Integral Calculus I (Core I) } \\ \text { l, } 2}}{ } 4$

Core Area II: Natural Science (minimum 7 hours, including
one laboratory)
Natural Science
Natural Science elective ${ }^{3} 3$
Natural Science with lab
Choose one natural science elective from a different 4
discipline, with lab
Core Area III: Social Science
P SC 1113 American Federal Government 3
Choose one course ${ }^{4} 3$
Core Area IV: Arts \& Humanities
Artistic Forms
Choose one course ${ }^{4}$
Western Culture

| HIST 1483 |
| :--- |
| or HIST 1493 |$\quad$| United States to 1865 |
| :--- |
| United States, 1865 to the Present |

Choose one course (excluding HIST 1483 and HIST 1493) 4

## Free Electives

Electives to bring total applicable hours to the minimum total required for the degree including a minimum of 40 upper-division hours.

## Suggested Semester Plan of Study

Bachelor of Science in Computer Science is accredited by the Computing Accreditation Commission of ABET, https://www.abet.org, under the General Criteria and the Computer Science and Similarly Named Computing Programs Program Criteria.

In order to progress in your curriculum in the Gallogly College of Engineering, and as a specific graduation requirement, a grade of C or better is required in each course in the curriculum, including all prerequisite courses.

Two college-level courses in a single world language are required; this may be satisfied by successful completion of 2 years in a single world language in high school. Students who must take language at the University will have an additional 6-10 hours of coursework.

| Freshman |  |  |
| :---: | :---: | :---: |
| First Semester |  | Credit |
|  |  | Hours |
| ENGL 1113 | Principles of English Composition (Core I) | 3 |
| MATH 1914 | Differential and Integral Calculus I (Core I) ${ }^{1}$ | 4 |
| ENGR 1411 | Pathways to Engineering Thinking ${ }^{2}$ | 1 |
| Choose one of the following: |  | 1-4 |
| C S 1323 | Introduction to Computer Programming for Programmers |  |
| C S 1321 | Java for Programmers |  |
| C S 1324 | Introduction to Computer Programming for Non-Programmers |  |
| Approved Elective, First-Year Experience (Core V) ${ }^{4}$ |  | 3 |
| Approved Elective, Artistic Forms (Core IV) ${ }^{4}$ |  | 3 |
|  | Credit Hours | 15-18 |

## Second Semester

| $\begin{aligned} & \text { ENGL } 1213 \\ & \text { or EXPO } 1213 \end{aligned}$ | Principles of English Composition (Core I) or Expository Writing | 3 |
| :---: | :---: | :---: |
| MATH 2924 | Differential and Integral Calculus II ${ }^{1}$ | 4 |
| C S 2334 | Programming Structures and Abstractions | 4 |
| Approved Elective, Natural Science (Core II) ${ }^{5}$ |  | 3 |
|  | Credit Hours | 14 |
| Sophomore |  |  |
| First Semester |  |  |
| ENGR 2002 | Professional Responsibilities and Skills of Engineers and Scientists | 2 |
| C S 2413 | Data Structures | 3 |
| P SC 1113 | American Federal Government (Core III) | 3 |
| $\begin{aligned} & \text { C S } 2813 \\ & \quad \text { or MATH } 2513 \end{aligned}$ | Discrete Structures or Discrete Mathematical Structures | 3 |
| $\underline{\text { Approved Elective, Social Science (Core III) }{ }^{4}}$ |  | 3 |
|  | Credit Hours | 14 |

## Second Semester

| C S 2614 | Computer Organization | 4 |
| :--- | :--- | ---: |
| C S 3323 | Principles of Programming Languages | 3 |
| Open Elective ${ }^{3}$ |  | $0-3$ |
| Approved Elective, Natural Science w/lab (Core II) | 4 |  |
| Choose one of the following: | 3 |  |


| ECE 2523 | Probability, Statistics and Random <br> Processes |  |
| :--- | :--- | :--- |
| ISE 3293 | Applied Engineering Statistics |  |
| MATH 4743 | Introduction to Mathematical Statistics |  |
| MATH 4753 | Applied Statistical Methods |  |
|  | Credit Hours | $\mathbf{1 4 - 1 7}$ |

## Junior

First Semester
C S 3113 Introduction to Operating Systems 3
C S 3203 Software Engineering 3
C S 3823 Theory of Computation 3
Approved Technical Elective (p. 1355) ..... 3
Open Elective ${ }^{3}$ ..... 3
Credit Hours ..... 15
Second Semester
MATH 3333 Linear Algebra I ..... 3
Approved C S Elective (p. 1355) ..... 3
Approved Technical Electives (p. 1355) ..... 6
Approved Elective, Western Culture (Core IV) ${ }^{4}$ ..... 3
Credit Hours ..... 15

## Senior

## First Semester

| C S 4173 | Computer Security | 3 |
| :--- | :--- | ---: |
| C S 4413 | Algorithm Analysis | 3 |
| C S 4513 | Database Management Systems | 3 |
| Approved C S Electives (p. 1355) | 6 |  |
|  | Credit Hours | $\mathbf{1 5}$ |

## Second Semester

C S $4273 \quad$ Capstone Design Project

| C S 4473 | Parallel, Distributed, and Network Programming | 3 |
| :---: | :---: | :---: |
| Approved C S Elective (p. 1355) |  | 3 |
| HIST 1483 or HIST 1493 | United States to 1865 (Core IV) or United States, 1865 to the Present | 3 |
| Approved Elective, World Culture (Core IV) ${ }^{4}$ |  | 3 |
|  | Credit Hours | 15 |
|  | Total Credit Hours | 120 |
| ${ }^{1}$ MATH 1823, MATH 2423 and MATH 2433 sequence can be substituted for MATH 1914 and MATH 2924. MATH 1523 will have to be taken by students who are not ready to start MATH 1823 or MATH 1914. Note: See an advisor in the Arts and Sciences Advising Center (EL 124) about a possible minor in mathematics. <br> ${ }^{2}$ Engineering transfer students may take ENGR 3511 in place of ENGR 1411. |  |  |
| ${ }^{4}$ To be chosen from the University-Wide General Education Approved Course List. Three of these hours must be upper-division (3000-4000). See list in the Class Schedule. |  |  |
| ${ }^{5}$ Courses taken to fulfill the Natural Science requirement must be chosen from the University-Wide General Education Approved Cour List (Core II). At least one of the Natural Science courses must be a non-Physics course. All science courses must be for science or engineering majors. Laboratory Core II requirement must be met. Courses must come from a department maintained list. |  |  |
| Computer Science Elective Course Lists |  |  |
| Courses designated as Core I, II, III, IV or V are part of the General Education curriculum. Students must complete a minimum of 40 hours of General Education courses, chosen from the approved list. |  |  |
| Students should read the Gallogly College of Engineering Scholastic Regulations posted on the WSSC website. |  |  |
| APPROVED C S ELECTIVES |  |  |
| Code | Title | Credit Hours |
| C S 4013 | Artificial Intelligence | 3 |
| C S 4023 | Introduction to Intelligent Robotics | 3 |
| C S 4033 | Machine Learning Fundamentals | 3 |
| C S 4053 | Computer Graphics | 3 |
| C S 4063 | Human Computer Interaction | 3 |
| C S 4113 | Distributed Operating Systems | 3 |
| C S 4133 | Data Networks | 3 |
| C S 4323 | Compiler Construction | 3 |
| C S 4433 | Computational Methods in Discrete Optimization | 3 |
| C S 4613 | Computer Architecture | 3 |
| C S 4823 | Cryptography | 3 |


| APPROVED technical ELECTIVES |  |  |
| :--- | :--- | ---: |
| Code | Title | Credit <br> Hours |
| Approved C S Electives Research-Related C S Classes: |  |  |

All C S 4000+ Courses

| ENGR 4013 | Leadership and Management for Engineers | 3 |
| :--- | :--- | ---: |
| ENGR 4510 | Selected Topics | $1-6$ |
| ENGR 4003 | Engineering Practice | 3 |
| MATH 2443 | Calculus and Analytic Geometry IV | $3-4$ |

or MATH 2934 Differential and Integral Calculus III
All 3000 or 4000 level Mathematics classes
All 3000 or 4000 level Electrical and Computer Engineering classes

## APPROVED C S Science CLASSES

| Code | Title | Credit <br> Hours |
| :---: | :---: | :---: |
| CHEM 1315 | General Chemistry | 5 |
| CHEM 1415 | General Chemistry (Continued) | 5 |
| PHYS 1215 | Introductory Physics II for Physics Majors | 5 |
| PHYS 1311 | General Physics Lab I | 1 |
| PHYS 2514 | General Physics for Engineering and Science Majors | 4 |
| BIOL 1013 | Introduction to Biology | 3 |
| BIOL 1124 | Intro Biol: Molecule/Cell/Phys | 4 |
| METR 2603 | Severe and Unusual Weather | 3 |
| GEOL 1033 | Earth, Energy, Environment | 3 |
| GEOL 1114 | Physical Geology for Science and Engineering Majors | 4 |
| GEOG 1114 | Physical Geography | 4 |
| ASTR 1523 | Life in the Universe | 3 |
| Other classes approved by the C S Undergraduate Committee |  |  |
| Compu | cience, Minor |  |

## Minimum Total Credit Hours: 18 <br> Minimum Upper-Division Hours: 6

Program Code: N235
The requirements for a minor must be completed concurrently with the major degree requirements.

## No minor may be added by completing courses after receiving the bachelor's degree.

Students must complete at least nine (9) minor hours in residence at the University of Oklahoma.

At least 6 credit hours will be in upper division courses (3000 or 4000 level).

A minimum grade of $C$ is required in all courses which are applied to the minor and in all prerequisite courses for the minor. Courses in the minor may be taken at most 3 times.

Students with significant experience in computer programming can get credit for C S 1323 from the Advanced Standing Examination

Students must complete prerequisites for all courses.

## Required Courses

| Code | Title | Credit |
| :---: | :---: | :---: |
|  |  | Hours |
| MATH 1823 | Calculus and Analytic Geometry I ${ }^{1}$ |  |
| MATH 2423 | Calculus and Analytic Geometry II ${ }^{1}$ |  |
| C S 2813 | Discrete Structures | 3 |
| or MATH 2513 | Discrete Mathematical Structures |  |
| Choose 6 hours of | f upper division CS coursework | 6 |
| Choose 9 hours of | CS coursework | 9 |
| Total Credit Hours |  | 18 |

${ }^{1}$ MATH 1823 as well as MATH 2423 are required for the minor, but they do not count as CS courses.

Minors are available to all undergraduate students at OU. If the minor is officially declared, successfully completed, and noted on the graduation application, the student's transcript will so indicate at the time the bachelor's degree is posted.

## Computational Technology, Minor

Minimum Total Credit Hours: 18
Minimum Upper-Division Hours: 6
Program Code: N230
The requirements for a minor must be completed concurrently with the major degree requirements.

No minor may be added by completing courses after receiving the bachelor's degree.

Students must complete at least nine (9) minor hours in residence at the University of Oklahoma.

9 credits from a single selected cognate discipline (JMC, LIS, MIS, or GIS), at least 6 of which are at the upper division (3000 or 4000 level), and one mathematics course chosen to complement the cognate discipline.

A minimum grade of $C$ is required in all courses which are applied to the minor and in all prerequisite courses for the minor.

Gallogly College of Engineering academic policies regarding repeating courses apply

Students must complete prerequisites for all courses.

## Required Courses

| Code | Title | Credit |
| :---: | :---: | :---: |
| Required Courses |  |  |
| C S 1323 | Introduction to Computer Programming for Programmers | 3 |
| C S 2334 | Programming Structures and Abstractions |  |
| Tracks |  |  |
| Choose one of the following tracks: |  | 12 |
| Journalism \& Mass Communication (p. 1356) |  |  |
| Library Information Systems (p. 1356) |  |  |
| Management Information Systems (p. 1356) |  |  |
| Geographic Information Systems (p. 1357) |  |  |
| Total Credit Hours |  | 19 |
| Tracks |  |  |
| Journalism \& Mass Communication |  |  |
| Code | Title | Credit |
| Choose one of the following: |  | 3 |
| MATH 1523 | Precalculus and Trigonometry |  |
| MATH 1743 | Calculus I for Business, Life and Social Sciences |  |
| MATH 1823 | Calculus and Analytic Geometry I |  |
| JMC 2033 | Media Writing \& Storytelling (or other writing course approved by a JMC advisor) | 3 |
| Choose two upper division JMC courses from approved list |  | 6 |
| Total Credit Hours |  | 12 |
| Library Information Systems |  |  |
| Code | Title | Credit |
|  |  |  |
| Choose one of the following: |  | 3 |
| MATH 1523 | Precalculus and Trigonometry |  |
| MATH 1743 | Calculus I for Business, Life and Social Sciences |  |
| MATH 1823 | Calculus and Analytic Geometry I |  |
| LIS 2003 | Introduction to Information Science | 3 |
| Choose two 4000 level LIS courses from approved list |  | 6 |
| Total Credit Hours |  | 12 |
| Management Information Systems |  |  |
| Code | Title | Credit |
| MATH 1743 | Calculus I for Business, Life and Social Sciences | 3 |
| or MATH 1823 | Calculus and Analytic Geometry I |  |
| MIS 3213 | Business Data Analysis | 3 |
| MIS 3353 | Databases | 3 |
| MIS 3383 | Electronic Business | 3 |
| Total Credit Hours |  | 12 |


| Geographic Information Systems <br> Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| MATH 1823 | Calculus and Analytic Geometry I | 3 |
| GIS 2023 | Introduction to Spatial Thinking and <br> Computer Mapping | 3 |
| Choose two upper division GIS courses from an approved list | 6 |  |
| Total Credit Hours | $\mathbf{1 2}$ |  |

Minors are available to all undergraduate students at OU. If the minor is officially declared, successfully completed, and noted on the graduation application, the student's transcript will so indicate at the time the bachelor's degree is posted.

## Computer Science, B.S./M.S.

Minimum Total Credit Hours: 138-141
Overall GPA - Combined and OU: 3.25
Major GPA - Combined and OU: 3.25
Curriculum GPA - Combined and OU: 3.25
Program Code: A235/F235 Q146
This program has changes pending State Regents approval for 2024/25. These pending changes are not reflected here.
Bachelor of Science in Computer Science is accredited by the Computing Accreditation Commission of ABET, https://www.abet.org, under the General Criteria and the Computer Science and Similarly Named Computing Programs Program Criteria.
In order to progress in your curriculum in the Gallogly College of Engineering, and as a specific graduation requirement, a grade of C or better is required in each course in the curriculum, including all prerequisite courses.

## Major Requirements

| Code | Title | Credit <br> Hours |
| :---: | :---: | :---: |
| Required Courses |  |  |
| Choose one of the | following: | 1-4 |
| C S 1323 | Introduction to Computer Programming for Programmers |  |
| C S 1321 | Java for Programmers |  |
| C S 1324 | Introduction to Computer Programming for Non-Programmers |  |
| C S 2334 | Programming Structures and Abstractions | 4 |
| C S 2413 | Data Structures | 3 |
| $\begin{aligned} & \text { C S } 2813 \\ & \text { or MATH } 2513 \end{aligned}$ | Discrete Structures <br> Discrete Mathematical Structures | 3 |
| C S 2614 | Computer Organization | 4 |
| C S 3323 | Principles of Programming Languages | 3 |
| C S 3113 | Introduction to Operating Systems | 3 |
| C S 3203 | Software Engineering | 3 |
| C S 3823 | Theory of Computation | 3 |
| C S 5173 | Computer Security | 3 |
| C S 4413 | Algorithm Analysis | 3 |


| C S 4513 | Database Management Systems | 3 |
| :--- | :--- | ---: |
| C S 4273 | Capstone Design Project | 3 |
| C S 5473 | Parallel, Distributed, and Network <br> Programming | 3 |
| C S Electives |  | 12 |
| Choose 12 credits of approved C S Science Electives from a <br> list maintained by the department (p. 1360) | $\mathbf{5 4 - 5 7}$ |  |

## Major Support Requirements

| Code | Title | Credit |
| :---: | :---: | :---: |
| Math |  |  |
| MATH 2924 | Differential and Integral Calculus II | 4 |
| MATH 3333 | Linear Algebra I | 3 |
| Choose one of the following: |  | 3 |
| ECE 2523 | Probability, Statistics and Random Processes |  |
| ISE 3293 | Applied Engineering Statistics |  |
| MATH 4743 | Introduction to Mathematical Statistics |  |
| MATH 4753 | Applied Statistical Methods |  |
| Choose 9 credits of approved technical electives from a list maintained by the department. (p. 1360) |  | 9 |
| Additional College Requirements |  |  |
| ENGR 1411 | Pathways to Engineering Thinking ${ }^{1}$ | 1 |
| ENGR 2002 | Professional Responsibilities and Skills of Engineers and Scientists | 2 |

Total Credit Hours
${ }^{1}$ Engineering transfer students may take ENGR 3511 in place of ENGR 1411.

## Graduate Requirements

Up to 12 hours of graduate-level courses (as approved by the department) can be shared/double-counted and fulfill requirements in both the B.S. and M.S. portions of the Accelerated Degree Program.

No more than three courses at the C S G4000 level are permitted. No more than 3 credit hours of C S 5990 are permitted (students who have the graduate liaison's approval to complete a project option may take 6 hours). No more than 6 credit hours of Special Topics in Computer Science are permitted (even with a change in subject).

## Thesis Option

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Core Courses | Algorithm Analysis (or equivalent as <br> approved by the graduate liaison) | 3 |
| C S 4413 | Database Management Systems (or <br> equivalent as approved by the graduate <br> liaison) | 3 |
| C S 4513 |  | 12 |
| Four courses selected from a list of approved Graduate C <br> S Electives maintained by the School of Computer Science <br> (p. 1360) |  |  |


| Electives |  |
| :--- | ---: |
| Choose six hours of any graduate-level C S classes ${ }^{1}$ | 6 |
| Thesis |  |
| C S 5980 $\quad$ Research for Master's Thesis | 6 |
| Total Credit Hours | $\mathbf{3 0}$ |

1 Any C S graduate class including MATH 5743, MATH 4753, MATH 4073, or ECE 4000 G or higher as approved by the Computer Science graduate liaison. Other courses outside C S require prior approval of the graduate liaison.

## Non-Thesis Option

The non-thesis degree is a coursework-only degree; a non-thesis examination is not required.

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Core Courses |  |  |
| C S 4413 | Algorithm Analysis | 3 |
| C S 4513 | Database Management Systems | 3 |
| Four courses selected from a list of approved Graduate C |  |  |
| S Electives maintained by the School of Computer Science <br> (p. 1360) | 12 |  |
| Electives |  |  |
| Choose 15 hours from any graduate-level C S class ${ }^{1}$ | 15 |  |
| Total Credit Hours | $\mathbf{3 3}$ |  |

1 Any C S graduate class including MATH 5743, MATH 4753, MATH 4073 or ECE4000G or higher as approved by the Computer Science graduate liaison. Other courses outside C S require prior approval of the graduate liaison.

## General Education and College Requirements

Courses designated as Core I, II, III, IV, or V are part of the General Education curriculum. Students must complete a minimum of 40 hours of General Education courses, chosen from the approved list, including at least one upper-division Gen. Ed. course outside of the student's major. Courses graded P/NP will not apply.

A grade of C or better is required in each course in the curriculum, including all prerequisite courses.

UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS

| Code Title | Credit |
| :---: | :---: |
| Core Area I: Symbolic and Oral Communication |  |
| English Composition |  |
| ENGL 1113 Principles of English Composition | 3 |
| $\begin{array}{cl}\text { ENGL } 1213 & \text { Principles of English Composition } \\ \text { or EXPO } 1213 & \text { Expository Writing }\end{array}$ | 3 |
| Language (0-10 hours in the same language) |  |
| This requirement can be met by two years of the same language in high school: | 0-10 |
| Beginning Course (0-5 hours) |  |
| Beginning Course, continued (0-5 hours) |  |


| Mathematics (minimum 3 hours) |  |  |
| :--- | :--- | :--- |
| MATH 1914 | Differential and Integral Calculus I (Core I) <br> 1,2 | 4 |

## Core Area II: Natural Science (minimum 7 hours, including one laboratory)

Natural Science
Natural Science Elective 3

Natural Science with lab
Choose one natural science elective from a different
discipline, with lab ${ }^{3}$
Core Area III: Social Science
PSC 1113 American Federal Government 3
Choose one course ${ }^{4}$ ..... 3

Core Area IV: Arts \& Humanities

## Artistic Forms

Choose one course ${ }^{4} 3$
Western Culture
HIST $1483 \quad 3$
or HIST 1493 United States, 1865 to the Present
Choose one course (excluding HIST 1483 and HIST 1493) ${ }^{4} 3$
World Culture
Choose one course ${ }^{4} 3$

Core Area V: First-Year Experience
Choose one course ${ }^{4} \quad 3$
Total Credit Hours 38-48

1 MATH 1823, MATH 2423, and MATH 2433 sequence can be substituted for MATH 1914 and MATH 2924.
2 Major support requirements that also satisfy University General Education requirements
${ }^{3}$ Courses taken to fulfill the Natural Science requirement must be chosen from the University-Wide General Education Approved Course List (Core II). At least one of the Natural Science courses must be a non-Physics course. All science courses must be for science or engineering majors and come from the natural science elective list maintained by the department.
4 To be chosen from the University-Wide General Education Approved Course List. Three of these hours must be upper-division (3000-4000).

## Free Electives

Electives to bring total applicable hours to the minimum total required for the degree including a minimum of 40 upper-division hours.

## Suggested Semester Plan of Study

Bachelor of Science in Computer Science is accredited by the Computing Accreditation Commission of ABET, https://www.abet.org, under the General Criteria and the Computer Science and Similarly Named Computing Programs Program Criteria.

In order to progress in your curriculum in the Gallogly College of Engineering, and as a specific graduation requirement, a grade of $C$ or better is required in each course in the curriculum, including all prerequisite courses.

Two college-level courses in a single world language are required; this may be satisfied by successful completion of 2 years in a single world
language in high school. Students who must take language at the University will have an additional 6-10 hours of coursework.

Students may enter the accelerated program based on the undergraduate degree pattern offered in the year they first enrolled in the Oklahoma State System of Higher Education or later.

Students are eligible for graduate status upon graduation with the Bachelor of Science in Computer Science.

## Freshman

| First Semester |  | Credit <br> Hours |
| :--- | :--- | ---: |
| ENGL 1113 | Principles of English Composition (Core I) | 3 |
| MATH 1914 | Differential and Integral Calculus I (Core I) | 4 |
| ENGR 1411 | Pathways to Engineering Thinking ${ }^{2}$ | 1 |
| Choose one of the following: | $1-4$ |  |


| C S 1323 | Introduction to Computer Programming for Programmers |  |
| :---: | :---: | :---: |
| C S 1321 | Java for Programmers |  |
| C S 1324 | Introduction to Computer Programming for Non-Programmers |  |
| Approved Elective, Artistic Forms (Core IV) ${ }^{4}$ |  | 3 |
| Approved Elective, First-Year Experience (Core V) ${ }^{4}$ |  | 3 |

## Second Semester

ENGL $1213 \quad$ Principles of English Composition (Core I) 3

| or EXPO 1213 | or Expository Writing |  |
| :--- | :--- | ---: |
| MATH 2924 | Differential and Integral Calculus II $^{1}$ | 4 |
| C S 2334 | Programming Structures and Abstractions | 4 |
| Approved Elective, Natural Science (Core II) ${ }^{4,5}$ | 3 |  |
| Credit Hours |  |  |

## Sophomore

## First Semester

| C S 2813 <br> or MATH 2513 | Discrete Structures <br> or Discrete Mathematical Structures | 3 |
| :--- | :--- | :--- |
| P SC 1113 | American Federal Government (Core III) | 3 |
| C S 2413 | Data Structures | 3 |
| ENGR 2002 | Professional Responsibilities and Skills of <br> Engineers and Scientists | 2 |


| Approved Elective, Social Science (Core III) $^{4}$ | 3 |
| :---: | ---: |
| Credit Hours | $\mathbf{1 4}$ |

## Second Semester

| Approved Elective, Natural Science with Lab (Core II) | 4 |
| :--- | :--- |
| Choose one of the following: | 3 |


| ECE 2523 | Probability, Statistics and Random <br> Processes |  |
| :--- | :--- | ---: |
| ISE 3293 | Applied Engineering Statistics |  |
| MATH 4743 | Introduction to Mathematical Statistics |  |
| MATH 4753 | Applied Statistical Methods |  |
| C S 2614 | Computer Organization | 4 |
| C S 3323 | Principles of Programming Languages | 3 |
| Open Elective ${ }^{3}$ |  | $0-3$ |
|  | Credit Hours | $\mathbf{1 4 - 1 7}$ |


| Junior |  |  |
| :--- | :--- | ---: |
| First Semester |  |  |
| Approved Technical Elective | 3 |  |
| C S 3113 | Introduction to Operating Systems | 3 |
| C S 3203 | Software Engineering | 3 |
| C S 3823 | Theory of Computation | $\mathbf{3}$ |
| Open Elective ${ }^{3}$ |  | $\mathbf{3}$ |
|  | Credit Hours | $\mathbf{1 5}$ |


| Second Semester |  |
| :---: | :---: |
| MATH 3333 Linear Algebra I | 3 |
| Approved Technical Electives | 6 |
| Approved Elective, Western Civ. \& Culture (Core IV) ${ }^{4}$ | 3 |
| Approved C S Elective ${ }^{7}$ | 3 |
| Credit Hours | 15 |

## Senior

First Semester

| C S 4413 | Algorithm Analysis | 3 |
| :---: | :---: | :---: |
| C S 4513 | Database Management Systems | 3 |
| C S 5173 | Computer Security | 3 |
| Approved C S Elective (p. 1360) ${ }^{7}$ |  | 3 |
| C S G4000/5000 Approved Elective ${ }^{6,7}$ |  | 3 |
|  | Credit Hours | 15 |
| Second Semester |  |  |
| HIST 1483 or HIST 1493 | United States to 1865 (Core IV) or United States, 1865 to the Present | 3 |
| C S 4273 | Capstone Design Project | 3 |
| C S 5473 | Parallel, Distributed, and Network Programming | 3 |
| C S G4000/5000 Approved Elective ${ }^{6,7}$ |  | 3 |
| Approved Elective, World Culture (Core IV) ${ }^{4}$ |  | 3 |
|  | Credit Hours | 15 |

## Fifth Year

First Semester
G5000-level Approved Elective ${ }^{6,7} 3$
G5000-level Approved Elective ${ }^{7} 3$
G5000-level C S Elective ${ }^{7,8} \quad 3$
Credit Hours 9

## Second Semester

G5000-level Approved Elective ${ }^{6,7} 3$
G5000-level C S Elective ${ }^{7,8}$ 0-9
C S 5980 Research for Master's Thesis (Thesis 0-6
option) ${ }^{7,8}$
Credit Hours 9-12

Total Credit Hours
138-141
1 MATH 1823, MATH 2423, and MATH 2433 sequence can be substituted for MATH 1914 and MATH 2924. MATH 1523 will have to be taken by students who are not ready to start MATH 1823 or MATH 1914.
2 Engineering transfer students may take ENGR 3511 in place of ENGR 1411.
${ }^{3}$ Open electives should bring the total number of credits for the Bachelor degree up to 120. Physical education courses cannot be used for open electives.

4 To be chosen from the University-Wide General Education Approved Course List. Three of these hours must be upper-division (3000-4000). See list in the Class Schedule.
${ }^{5}$ All science courses must be for science or engineering majors. Courses must come from a departmentally maintained list.
${ }^{6}$ Four electives must be chosen from an approved list maintained by the School of Computer Science.
7 No more than three credit hours of C S 5990 are allowed (students who have graduate liaison's approval to complete a project option may take 6 hours).
8 Thesis option requires a total of six hours of 5000-level electives and six hours of C S 5980. Non-thesis option requires a total of 15 hours of 5000-level electives.

Courses designated as Core I, II, III, IV or V are part of the General Education curriculum. Students must complete a minimum of 40 hours of General Education courses, chosen from the approved list.

## Approved Electives

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| C S 4323 | Compiler Construction | 3 |
| C S 4613 | Computer Architecture | 3 |
| C S 4973 | Special Topics | 3 |
| Any C S 5000-level course |  |  |

## Computer Science BS/MS Elective Course Lists

## - For most current course lists, please consult the School of Computer Science.

## APPROVED C S ELECTIVES

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| C S 4013 | Artificial Intelligence | 3 |
| C S 4023 | Introduction to Intelligent Robotics | 3 |
| C S 4033 | Machine Learning Fundamentals | 3 |
| C S 4053 | Computer Graphics | 3 |
| C S 4063 | Human Computer Interaction | 3 |
| C S 4113 | Distributed Operating Systems | 3 |
| C S 4133 | Data Networks | 3 |
| C S 4323 | Compiler Construction | 3 |
| C S 4433 | Computational Methods in Discrete | 3 |
|  | Optimization |  |
| C S 4613 | Computer Architecture | 3 |
| C S 4823 | Cryptography | 3 |
| C S 4973 | Special Topics | 3 |


| APPROVE TECHNICAL ELECTIVES |  |  |
| :--- | :--- | ---: |
| Code | Title | Credit <br> Hours |
|  |  |  |
| Approved CS Electives Research-related CS classes: |  |  |
| C S 3440 | Mentored Research Experience | 3 |
| C S 3960 | Honors Reading | $1-3$ |
| C S 3980 | Honors Research | $1-3$ |


| C S 3990 | Independent Study | $1-3$ |
| :--- | :--- | ---: |
| C S 4910 | Senior Reading and Research | $1-3$ |
| All C S 4000+ Courses |  |  |
| ENGR 4013 | Leadership and Management for Engineers | 3 |
| ENGR 4510 | Selected Topics | $1-6$ |
| ENGR 4003 | Engineering Practice | 3 |
| MATH 2443 | Calculus and Analytic Geometry IV | 3 |
| or MATH 2934 | Differential and Integral Calculus III |  |
| All 3000 or 4000 level Mathematics classes |  |  |
| All 3000 or 4000 level Electrical and Computer Engineering |  |  |
| classes |  |  |

## APPROVED C S SCIENCE ELECTIVES

| Code | Title | Credit Hours |
| :---: | :---: | :---: |
| CHEM 1315 | General Chemistry | 5 |
| CHEM 1415 | General Chemistry (Continued) | 5 |
| PHYS 2514 | General Physics for Engineering and Science Majors | 4 |
| PHYS 1311 | General Physics Lab I | 1 |
| PHYS 1205 | Introductory Physics I for Physics Majors | 5 |
| BIOL 1013 | Introduction to Biology | 3 |
| BIOL 1124 | Intro Biol: Molecule/Cell/Phys | 4 |
| METR 2603 | Severe and Unusual Weather | 3 |
| GEOL 1033 | Earth, Energy, Environment | 3 |
| GEOL 1114 | Physical Geology for Science and Engineering Majors | 4 |
| GEOG 1114 | Physical Geography | 4 |
| ASTR 1523 | Life in the Universe | 3 |
| Other classe | oved by the CS Undergraduate Committee |  |

## Approved Graduate C S Electives

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| C S 4323 | Compiler Construction | 3 |
| C S 4613 | Computer Architecture | 3 |
| C S 4973 | Special Topics | 3 |
| Any C S 5000-level course |  |  |

## Computer Science, M.S.

Minimum Total Hours (Thesis): 30
Minimum Total Hours (Non-Thesis): 33

## Program Code: M235 Q146 (Online M236 Q146)

No more than three courses at the C S G4000 level are permitted. No more than 3 credit hours of C S 5990 are permitted (students who have the graduate liaison's approval to complete a project option may take 6 hours). No more than 6 credit hours of Special Topics in Computer Science are permitted (even with a change in subject).

## Thesis Option



## General Requirements for all Master's Degrees

The master's degree requires the equivalent of at least two semesters of satisfactory graduate work and additional work as may be prescribed for the degree.

All coursework applied to the master's degree must carry graduate credit.
Master's degree programs which require a thesis consist of at least 30 credit hours. All non-thesis master's degree programs require at least 30 credit hours.

Credit transferred from other institutions must meet specific criteria and is subject to certain limitations.

Courses completed through correspondence study may not be applied to the master's degree.

To qualify for a graduate degree, students must achieve an overall grade point average of 3.0 or higher in the degree program coursework and in all resident graduate coursework attempted. A student must also have at least a 3.0 in all coursework (including undergraduate coursework if any).

Additional information for master's degree students may be found in the Graduate College Bulletin.

## Computer Science, M.S. Approved Courses List

For the most current list of approved courses, please consult the School of Computer Science.

## Approved Core C S Courses

| Code | Title | Credit |
| :---: | :---: | :---: |
|  |  | Hours |
| C S 4613 | Computer Architecture (taken for graduate credit) | 3 |
| C S 5013 | Artificial Intelligence | 3 |
| C S 5033 | Machine Learning Fundamentals | 3 |
| C S 5113 | Distributed Operating Systems | 3 |
| C S 5133 | Data Networks | 3 |
| C S 5173 | Computer Security | 3 |
| C S 5213 | Software Engineering Processes ${ }^{1}$ | 3 |
| C S 5473 | Parallel, Distributed, and Network Programming | 3 |
| C S 5813 | Formal Languages | 3 |
| ${ }^{1}$ C S 5213 is not available to C S majors who complete C S 4273 in the B.S. program for Computer Science at OU; C S 4273 is considered the undergraduate course equivalent of C S 5213. |  |  |

## Computer Science, Ph.D.

Minimum Total Hours: 90

Program Code: D235 R146

## Program Requirements

| Code | Title | Credit Hours |
| :---: | :---: | :---: |
| A minimum of 45 credit hours beyond the bachelor's degree, which must include the following: ${ }^{1,2}$ |  | 45-60 |
| C S 4413 | Algorithm Analysis (or equivalent, as approved by the graduate liaison) |  |
| C S 4513 | Database Management Systems (or equivalent, as approved by the graduate liaison) |  |
| Choose 4 courses (p. 1361) | (12 hours) selected from the following: | 12 |
| C S 4613 | Computer Architecture |  |
| C S 5013 | Artificial Intelligence |  |
| C S 5033 | Machine Learning Fundamentals |  |
| C S 5113 | Distributed Operating Systems |  |
| C S 5133 | Data Networks |  |


| C S 5173 | Computer Security |  |
| :---: | :--- | :--- |
| C S 5213 | Software Engineering Processes |  |
| C S 5473 | Parallel, Distributed, and Network <br> Programming |  |
| C S 5813 | Formal Languages |  |
| Dissertation Research | Research for Doctoral Dissertation |  |
| C S 6980 | Renimum 30 hours) | $30-45$ |

Total Credit Hours
1 Up to 30 hours of coursework from prior master's work can be used to satisfy the minimum 45 hours. The decision of which courses to use toward the course credit hours is for the student's advisory committee to decide.
2 No more than 6 hours of independent studies (including C S 5990 and/ or C S 6990) can be counted toward the required minimum 45 hours of coursework.

## General Requirements for Doctoral Degrees

A student should expect to spend at least the equivalent of three full academic years beyond the bachelor's degree to obtain the doctoral degree. During this period the student will take appropriate graduate coursework, successfully complete the general examination, and successfully defend and submit the final dissertation.

All coursework applied to the doctoral degree must carry graduate credit.
The doctoral degree requires at least 90 post-baccalaureate hours, including both formal coursework and hours of research.

The minimum hour requirement for a specific doctoral degree program cannot be waived.

No more than one-half of the credit hours, both OU and overall, excluding Research for Doctoral Dissertation (6980), may be $S / U$-graded coursework.

The student must be in residence at OU for at least two consecutive 16week semesters during the pursuit of the doctoral degree while enrolled and engaged in coursework or research activities as prescribed by the major academic unit.

For more detailed regulations and requirements for Doctoral degrees, please consult the Graduate College Bulletin: http://www.ou.edu/ gradcollege/forms/bulletin

## Program in Data Science and Analytics

Charles Nicholson, Director
Carson Engineering Center Room 107
202 W. Boyd St.
Norman, OK 73019
Phone: (405) 325-3721
cnicholson@ou.edu

## General Information

Data Science and Analytics is the development of analytical models and methods to extract new knowledge from vast, complex data. Organizations large and small employ data scientists to determine
profitable lines of business, characterize customers, evaluate and predict risks, improve operational efficiencies, predict system performance and perform complex simulations. Graduates in Data Science and Analytics will have the skills to design and build tools to extract, assimilate and analyze data, and the systems understanding to predict and enhance future performance for enterprises across all domains of the private and public sectors.

## Undergraduate

## Undergraduate Certificate

The Certificate in Data Science and Analytics will provide students with data science concepts and knowledge in a formal, stand-alone certificate format. The courses for this program are developed specifically for this certificate for undergraduate students enrolled in degree programs within Gallogly College of Engineering or the Mewbourne College of Earth and Energy. This certificate is intended to provide the level of data literacy required by the companies that recruit engineering and geoscience majors at the University of Oklahoma. Modern organizations are driven by the insights derived through extracting and analyzing the large quantities of data generated within and outside their organization. In order to accomplish this, employees must have a fair degree of understanding of data management, technology, and analytics. Hence, engineering students must acquire these skills so that they can help their organizations create analytical and statistical value.

Please contact the College's Williams Student Services Center (WSSC) for information about adding the certificate, or for guidance on course selection. The WSSC is located in 112 Felgar Hall | (405) 325-4096| coewssc@ou.edu

## Graduate

## Master of Science

The Data Science and Analytics, Master of Science (p. 1368) program merges expertise and knowledge from the Schools of Computer Science and Industrial and Systems Engineering. Students will develop a strong foundation in the theory and application of data science, including machine learning, optimization modeling, and artificial intelligence, that will give them the skills to harness big data.

## Graduate Certificate

Through the Graduate Certificate in Data Science and Analytics (p. 1368) students will build their data science and analytics skill set to enhance their current position or to allow them to seek new positions in the field.

## Doctor of Philosophy

The Data Science and Analytics, Doctor of Philosophy (p. 1369) program will allow students to examine more deeply the fundamentals, theory, and application of Algorithmic, Systems, and Statistically thinking to extract knowledge from data that arises in various application domains. The graduates of the program will be prepared to engage in creative research and development in academia or industry.

## Student Resources

The DSA Office is here for our students from application to graduation. The information on this page will help orientate our new students by providing links to student groups, campus offices and contact information. While also providing current students all the information and forms they need for enrollment through to graduation. In addition to our credit-based offerings, OU DSAI provides non-degree learning and
development opportunities and certifications for working professionals, and collaborative engagement with industry partners. For more information, visit our Industry Engagement page.

Guidance can be found via: Felgar Hall, Room 213 | (405) 325-6417| datascience@ou.edu

## Courses

DSA 3013 Machine Learning for Data Science 3 Credit Hours Prerequisite: CS 1213 or CS 1313 or CS 1321 or CS 1323 or CS 1324, and departmental permission. Machine Learning for Data Science provides a broad overview of widely accepted and state-of-the-art machine learning approaches to automatically extract information from a variety of data types. This course will include conceptual background on data, methods, and application approaches; coverage of issues of data security, privacy, and ethics related to machine learning; and practical, hands-on exercises. (Irreg.)
DSA 3023 Big Data Engineering
3 Credit Hours
Prerequisite: DSA 3013, and CS 1213 or CS 1313 or CS 1321 or CS 1323 or CS 1324, and departmental permission. Students in this course will develop basic ability to design, build, and implement data pipeline systems to allow efficient access to data and databases. Several topics will be covered including data wrangling, data ingestion, and storage engines. Cloud based systems for data processing and distributed computing will also be discussed. (Irreg.)

## DSA 4003 Applied Data Science

3 Credit Hours
Prerequisite: DSA 3013 and DSA 3023, and CS 1213 or CS 1313 or CS 1321 or CS 1323 or CS 1324; and departmental permission. In this course you will complete multiple larger-scale team projects on real-world complex data sets. The projects will allow you to develop and continue to refine your skills in problem identification, data visualization, data wrangling, data organization, machine learning, communication, and presentation. (Irreg.)

## DSA G4413 Algorithm Analysis

3 Credit Hours
(Crosslisted with C S 4413) Prerequisites: C S 2413 and C S 2813; or MATH 2513; or DSA 5005; and departmental permission. Design and analysis of algorithms and measurement of their complexity. This course introduces various algorithm design strategies--divide and conquer, greedy principle and dynamic programming--to solve a variety of problems using algorithms of various types: deterministic and randomized, serial and parallel, centralized and decentralized, and program based and circuit based. (F)
DSA G4513 Database Management Systems 3 Credit Hours (Crosslisted with C S 4513) Prerequisites: C S 2413 and C S 2813; or MATH 2513; or DSA 5005; and departmental permission. The design and implementation of a DBMS including data models, query languages, entity-relationship diagrams, functional dependencies, normalization, storage structures, access methods, query processing, security and transaction management, and applications. The impact of databases on individuals, organizations, and society, and legal and professional responsibilities including security and privacy will be discussed. A commercial DBMS is used. Students practice written communication skills. (F)

DSA 5001 Data Analytics and Media
1 Credit Hour
Prerequisites: Departmental permission; graduate standing. This course covers the application of data analytics to the media environment. Students will learn the application and usage of data analytics in media and its effectiveness; and how data analytics provides research tools to collect audiences' opinion on political, social, public issues, and consumers' responses to the brand. (Irreg)
DSA 5005 Computing Structures
5 Credit Hours
(Crosslisted with C S 5005) Prerequisite: CS 2334, MATH 1914 or MATH 1823 or with permission of graduate liaison. This course has three parts: discrete mathematics, object-oriented programming in $\mathrm{C}++$, and data structures in C++. As part of the discrete mathematics students will be introduced to combinatorics, logic, relations, functions, computational complexity, automata, and graph theory. Students will be introduced to the fundamentals of object-oriented programming and learn to design, build, and analyze data structures using object-oriented principles and techniques. Credit hours earned for this course cannot be used to fulfill degree requirements for the B.S., M.S. or Ph.D. programs in computer science. (Irreg.)
DSA 5011 Introduction to R
1 Credit Hour
Prerequisites: departmental permission; graduate standing. $R$ is a free open source statistical programming language used by professionals in every field and industry. This introductory course aims to provide students with the fundamentals of R and R Studio. Instead of passively watching videos, students will apply $R$ to solve real data problems while receiving instant and personalized feedback that guides them to the correct solution. (Irreg.)

## DSA 5013 Fundamentals of Engineering Statistical Analysis 3 Credit Hours

(Crosslisted with ISE 5013) Prerequisite: graduate standing. Introduction to probability, expectation, discrete and continuous distributions, sampling and descriptive statistics, parameter estimation, and statistical tests to aid decision making. The student will learn analysis techniques for verification of systems parameters. (F, Sp)

DSA 5021 Data Analytics Applied to Meteorology Data 1 Credit Hour Prerequisites: departmental permission; graduate standing. This course focuses on meteorology data that is stored regularly in space and time, so-called gridded data. For example, satellite or forecast data that is stored in a specific latitude-longitude grid, and available at uniform increments in time. Analysis of gridded data is abetted by programming in Python, offering an array syntax that exploits the uniformity of data. (Irreg.)

DSA 5031 Econometrics for DSA

## 1 Credit Hour

Prerequisite: Graduate standing and departmental permission. The main goal of this course is to learn a set of econometrics tools that can be applied in empirical research related to economic issues. The course will emphasize applying different estimation techniques, or quasiexperimental methods, to establish causal relationships in observational data. (Irreg.)

DSA 5041 Advanced R 1 Credit Hour Prerequisite: Graduate standing in DSA/C S/ISE and DSA 5011, or departmental permission. $R$ is a free open source statistical programming language used by professionals in every field and industry. This course will provide students with detailed knowledge of R and R Studio. Instead of passively watching videos, students will apply $R$ to solve real data problems while receiving instant and personalized feedback that guides them. (Irreg.)

DSA 5051 Data Visualization
Prerequisite: Graduate standing in DSA/C S/ISE and departmental permission; DSA 5103 and DSA 4513 recommended. Aspiring data scientists need to be able to communicate the stories of data to communities of interest. This usually requires the depiction of data in visualizations. The course combines an overview of best practices for visualizations with practical knowledge, including the use of Tableau and how to gather user requirements. (Irreg.)
DSA 5061 Python for Data Science and Analytics 1 Credit Hour
Prerequisite: Graduate standing, C S 1313 or C S 1323, and departmental permission. This course introduces core programming basics, including data types, control structures, and algorithm development with functions via the Python programming language for students without prior programming experience. The course discusses the fundamental principles of Object-Oriented Programming and their application in data science and analytics. (Irreg.)

## DSA 5103 Intelligent Data Analytics

3 Credit Hours
(Crosslisted with ISE 5103) Prerequisite: graduate standing or permission of instructor; ISE 3293 or ISE 5013; CS 1313 or CS 1323. In our society, data is rapidly increasing in volume, velocity, and variety. At the same time computing power and the sophistication of data analysis techniques are increasing. However, even with the expanding capabilities, businesses and organizations often find themselves "data rich, but information poor." Intelligent Data Analysis is a holistic approach to addressing realworld data intensive problems that integrates human intuition with data analysis tools to best draw out meaningful insights. To this end, the course has four underlying themes: defining the Problem, understanding and coping with Data, selecting and using appropriate Analytical Tools, and discovering and communicating the Insight. Techniques covered include data cleansing and pre-processing, exploratory analysis and visualization, dimension reduction, linear and logistic regression, decision trees, and clustering. This course will introduce students to a powerful open source statistical programming language (R) and include extensive hands-on data analysis and team projects. (F)

DSA 5113 Advanced Analytics and Metaheuristics 3 Credit Hours (Crosslisted with ISE 5113) Prerequisite: ISE 5013, graduate standing or permission of Instructor. Explores advanced techniques for addressing complex optimization problems. Focus is on formulating mathematical models and developing problem solving strategies using methods in the context of Data Science and Analytics. Topics include continuous and combinatorial optimization with an emphasis on both traditional and modern heuristic techniques. (Sp)

## DSA 5133 Energy Analytics

3 Credit Hours
(Crosslisted with ISE 5133) Prerequisite: Graduate standing or permission of instructor. In today's data-driven world, the ability to extract knowledge and create successful future energy projections is critical for the energy sectors. In this regard, data science body of knowledge promises a strong set of analytical tools that can be used for demand/supply forecasting and price prediction. This course aims at teaching the students the fundamentals of data analysis and interpretation. (F)

## DSA 5203 Time Series Analysis

3 Credit Hours
Prerequisite: DSA/ISE/C S graduate standing or Departmental permission. This course will cover data mining and time series analysis. Modules include: statistical estimation, transformations and decomposition of time series, quantifying correlation structure in standard models, forecasting methods, linear least squares method, and volatility models. Students will utilize MATLAB Time Series Tool Box and open source programs in R. (Irreg.)

DSA 5303 Financial Engineering Analytics
3 Credit Hours
Prerequisite: departmental permission or DSA/ISE/C S graduate standing. Course focuses on use of optimization and stochastic models to solve portfolio optimization problems; price derivative securities including energy and weather derivatives; and applications of financial engineering, including algorithmic trading, financial networks, pricing of real options, and the use of machine learning in pricing. Data driven models and big data mining in financial engineering will be also discussed. (Irreg.)
DSA 5403 Bayesian Statistics 3 Credit Hours
Prerequisite: Departmental permission or DSA graduate standing. Course topics are models, probability, Bayes' Rule and R; inference to a binomial probability; and the generalized linear model. (Irreg.)

DSA 5503 Healthcare Analytics
3 Credit Hours
(Crosslisted with ISE 5503) Prerequisite: Graduate standing and ISE 3293 or ISE/DSA 5013. This course gives an overview of the primary concepts and methods towards developing artificial intelligence (AI)-enabled healthcare systems. We will focus on foundational methods in machine learning and data analytics for prediction and pattern recognition, and apply them to specific areas in medicine and healthcare including, but not limited to, disease diagnosis, patient treatments and their outcomes prediction. (Sp)

DSA 5703 Machine Learning Practice
3 Credit Hours
(Crosslisted with C S 5703) Prerequisite: Graduate standing; C S 4013/5013, C S 5593, or ISE/DSA 5103; or permission of instructor. Machine learning is the data-driven process of constructing mathematical models that can be predictive of data observed in the future. In this course, we will study the use of a range of supervised, semisupervised and unsupervised methods to solve both classification and regression problems. (F)

DSA 5900 Professional Practice 1-4 Credit Hours 1 to 4 hours. Prerequisite: Completed or concurrent enrollment in DSA 5103, DSA 5113, DSA 4413, and DSA 4513. Graduate standing and departmental permission. May be repeated; maximum credit four hours. Participation in a professional experience with an approved project sponsor and topic. A written report detailing the responsibilities and results of the experience is required upon completion along with an oral presentation. (F, Sp, Su)

## DSA 5970 Special Topics/Seminar

1-3 Credit Hours
1 to 3 hours. Prerequisite: permission of instructor. May be repeated with a change of subject matter; maximum credit 12 hours. Selected topics of current research interest not covered by regularly scheduled coursework. (F, Sp, Su) (Irreg.)
DSA 5980 Research for Master's Thesis
2-9 Credit Hours
2 to 9 hours. Prerequisite: Graduate standing and departmental permission. Variable enrollment, two to nine hours; maximum credit applicable toward degree, six hours. (F, Sp, Su)

DSA 5990 Independent Study 1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)

DSA 6980 Research for Doctoral Dissertation 2-16 Credit Hours 2 to 16 hours. Prerequisite: Graduate standing and permission of instructor; may be repeated. Directed research culminating in the completion of the doctoral dissertation. (F, Sp, Su)

## Faculty

| Last Name | First/Middle <br> Name | Middle init. | OU Service start | Title(s), date(s) appointed | Degrees Earned, Schools, Dates Completed |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Barker | Kash |  | 2011 | PROFESSOR OF INDUSTRIAL AND SYSTEMS ENGINEERING, 2021; DAVID L. BOREN PROFESSOR, 2020; PROFESSOR DATA SCIENCE AND ANALYTICS | PhD, Univ of Virginia, 2008; MS, Univ of Oklahoma, 2004; BS, Univ of Oklahoma, 2002 |
| Beattie | Matt |  |  | Adjunct Professor | PhD , University of Oklahoma |
| Dhall | Sundarshan |  |  | Professor Emeritus | Ph.D., Computer Science, Univ of Illinois; MS, Mathematics, Univ of Illinois; MA, Delhi Univ, Delhi, India |
| Diochnos | Dimitrios |  |  | Assistant Professor | PhD, Univ of Illinois at Chicago MS, Univ of Athens BS, Univ of Athen |
| Ebert | David |  |  | Professor of Electrical and Computer Engineering and the Director of the Data Institute for Societal Challenges. | PhD, Computer Science, The Ohio State Univ; MS, Computer Science, The Ohio State Univ; BS, Computer Science, The Ohio State Univ |
| Fagg | Andrew |  |  | Presidential <br> Associates <br> Presidential <br> Professor and <br> Associate Professor of Computer Science and Bioengineering | Postdoctoral <br> Research <br> Associate, Univ of <br> Massachusetts <br> Amherst; PhD, Univ of <br> Southern California; <br> MS, Univ of Southern <br> California; BS, <br> Carnegie Mellon Univ |
| Fiedler | Brian |  |  | Professor Emeritus. <br> Meteorology | B.S., Physics, M.I.T., 1978 Ph.D., AstroGeophysics, Univ of Colorado, 1982 |
| Ghosh | Pallab |  |  | Associate Professor of Economics | Ph.D., Syracuse University, 2014 |
| Gonzalez | Andres |  |  | Assistant Professor. Industrial and Systems Engineering. | Ph.D., Civil <br> Engineering, <br> Rice Univ; Ph.D., <br> Engineering, <br> Universidad de <br> los Andes; Six <br> Sigma Black-Belt, <br> Arizona State Univ; <br> M.Eng., Industrial <br> Engineering, <br> Universidad de los <br> Andes; B.Sc. Physics, <br> Universidad de los <br> Andes |


| Gruenwald | Gia Loi | L | 1991 | SAMUEL <br> ROBERTS NOBLE <br> PRESIDENTIAL <br> PROFESSOR, 1998; <br> PROFESSOR OF <br> COMPUTER SCIENCE, 2002; DAVID W. <br> FRANKE PROFESSOR OF COMPUTER <br> SCIENCE, 2006 | PhD, Southern <br> Methodist Univ, 1990; MS, Univ of Houston, 1983; BS, Univ of Saigon, 1978 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Habibi | Golnaz |  |  | Assistant Professor in Computer Science. | PhD, Computer Science, Rice Univ, Houston, TX; MS, Electrical and Control Engineering, Tarbiat Modares Univ, Tehran; BS, Electrical and Control Engineering, K.N. Toosi Univ, Tehran |
| Hemmati | Soheil | M | 2023 | Assistant Professor of Industrial and Systems Engineering | Ph.D Industrial and Systems Engineering, University of Florida, M.S. Industrial Engineering, Sharif University of Technology, B.S. Indiustrial Engineering, Sharif Universtiy of Technology |
| Hougen | Dean |  | 2001 | ASSOCIATE <br> PROFESSOR OF <br> COMPUTER SCIENCE, <br> 2007; INTERIM <br> DIRECTOR OF <br> COMPUTER SCIENCE, 2022 | PhD, Univ of Minnesota, 1998; BS, Univ of Minnesota, 1988 |
| Khanmoha | Sina |  |  | Assistant Professor in Computer Science | PhD, Systems <br> Science, State Univ of New York at Binghamton; MSc, Manufacturing Management, Univ of Hertfordshire; BSc, Computer Science, University of Tabriz |
| Kirstetter | Pierre |  |  | Associate <br> Professor. School of Meteorology | PhD, 2008, <br> Meteorology, <br> Grenoble Alps <br> Univ, Grenoble, <br> France; MSc, 2005, <br> Environmental <br> Sciences, Grenoble <br> Alps Univ, France; <br> M.Eng, 2004, Civil <br> Engineering and <br> Environmental <br> Science, Grenoble <br> Institute of <br> Technology, France |


| Kumar | Naveen |  |  | Assistant Professor in Management Information Systems | PhD, Industrial Engineering, Univ of Washington, Seattle (2006); Graduate Certificate Holder (2004), Global Trade, Transportation \& Logistics (GTTL), Univ of Washington, Seattle; MS, Industria Engineering, Univ of Washington, Seattle (2003); MS, Industrial Engineering, Univ of Tennessee, Knoxville (2002) |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Kyprioti | Aikaterini | P | 2022 | Assistant Professor, <br> School of Civil <br> Engineering and <br> Environmental <br> Science | Ph.D. Unvierstiy of Notre Dame; M.S. University of Notre Dame; B.S. Aristotle University of Thessaloniki, Greece |
| Lakshmiv |  |  |  | Professor Emeritus | PhD, Electrical <br> Engineering, Indian Institute of Science; ME, Applied Electronics and Servos, Indian Institute of Science; BE , Electrical Technology, Indian Institute of Science; BS, Physics, Univ of Madras |
| Lan | Chao |  |  | Assistant Professor in Computer Science. | PhD, Computer Science, Univ of Kansas MS, Nanjing Univ of Posts and Telecommunication, China BS, Nanjing Univ of Posts and Telecommunication, China |
| Li | Yifu |  |  | Assistant Professor | Ph.D., Industrial and Systems Engineering, Virginia Tech; B.S., Industrial and Systems Engineering, Virginia Tech |
| Maiti | Anindya |  |  | Assistant Professor in Computer Science | PhD in Electrical Engineering and Computer Science, Wichita State Univ; MS in Electrical Engineering, Wichita State Univ; BTech in Computer Science, Vellore Institute of Tech |
| Malhotra | Pankhuri |  |  | Affiliated DSA <br> Faculty, Assistant <br> Professor of <br> Marketing | Ph.D Information Systems, University of Illinios; MSC Business Analytics and Operations Research, University of Manchestor;;BSC Physics University of Delhi, Mrianda House |


| Moussa | Marmar | 2023 | Assistant Professor Computer Science and Engineering | PhD. Computer <br> Science and <br> Engineering, <br> University of <br> Connecticut; M.S. <br> Computer Science <br> and Engineering, <br> University of <br> Connecticut; M.S. <br> Computer Science <br> and Engineering, <br> Alexandria University; <br> B.S. Computer <br> Science, Alexandria <br> University |
| :---: | :---: | :---: | :---: | :---: |
| Mudduluru | Sanjana | 2023 | Assistant Professor, Computer Science | PhD. Computer Science, University of Oklahoma; M.S. Computer Science, University of Oklahoma; BTech, Jawaharlal Nehru Technological University |
| Nicholson | Charles | 2013 | DIRECTOR OF DATA SCIENCE AND ANALYTICS INSTITUTE, 2023; ASSOCIATE PROFESSOR OF INDUSTRIAL AND SYSTEMS ENGINEERING, 2019; ASSOCIATE PROFESSOR DATA SCIENCE AND ANALYTICS | PhD, Southern <br> Methodist Univ, 2010; MS, Univ of North Texas, 2002; BS, Univ of North Texas, 1999 |
| Pan | Chongle |  | Associate Professor of Computer Science and Microbiology | PhD, Univ of Tennessee, Knoxville; BS, East China Normal Univ |
| Park | Ji Hwan |  | Assistant Professor, School of Computer Science | PhD, Computer Science, Stony Brook Univ, Stony Brook, NY; MS, Digital Media, KAIST, Daejeon, South Korea; BS, Computer Engineering, Hongik Univ, Seoul, South Korea |
| Pei | Jin-Song | 2002 | Associate Professor, <br> Civil Engineering <br> \& Environmental <br> Science | Ph.D. Columbia University, <br> New York; MS <br> Engineering, Nanyang <br> Technological University Singapore; BS Engineering Xi'an Jiaotong University, Xi'an, China |
| Radhakrishn | asridhar | 1990 | PROFESSOR OF COMPUTER SCIENCE, 2002; INTERIM ASSOCIATE DEAN FOR PARTNERSHIPS, 2022 | PhD, Louisiana <br> State Univ, 1990; MS, Louisiana State Univ, 1987; MLIS, Louisiana State Univ, 1986; BS, Univ of South Alabama, 1985 BSC, Univ of Madras, 1983 |



| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| DSA 5011 | Introduction to R | 1 |
| DSA 5021 | Data Analytics Applied to Meteorology Data | 1 |
| DSA 5133 | Energy Analytics | 3 |
| DSA 5031 | Econometrics for DSA | 1 |
| DSA 5051 | Data Visualization | 1 |
| DSA 5061 | Python for Data Science and Analytics | 1 |
| DSA 5303 | Financial Engineering Analytics | 3 |
| DSA 5001 | Data Analytics and Media | 1 |
| DSA 5041 | Advanced R | 1 |
| DSA 5970 | Special Topics/Seminar (Healthcare | $1-3$ |
|  | Analytics) | $1-3$ |
| P E 5970 | Special Topics/Seminar (Data Analytics) |  |
| or P E 4552 | Data Analytics |  |

## Data Science and Analytics, M.S.

| Minimum Total Hours (Thesis): 30 |  |  |
| :---: | :---: | :---: |
| Minimum Total Hours (Non-Thesis): 33 |  |  |
| Program Code: M267, M268 (Online) |  |  |
| Thesis Option |  |  |
| Code | Title | Credit |
| Core DSA Courses ${ }^{1}$ |  |  |
| DSA/C S 5005 | Computing Structures | 5 |
| DSA/C S 4513 | Database Management Systems ${ }^{2}$ | 3 |
| DSA/C S 4413 | Algorithm Analysis ${ }^{2}$ | 3 |
| DSA/ISE 5013 | Fundamentals of Engineering Statistical Analysis | 3 |
| DSA/ISE 5103 | Intelligent Data Analytics | 3 |
| DSA/ISE 5113 | Advanced Analytics and Metaheuristics | 3 |
| Internship/Practicum |  |  |
| DSA/ENGR 5900 | Professional Practice | 1 |
| Thesis |  |  |
| $\begin{aligned} & \text { C S/ISE/DSA } \\ & 5980 \end{aligned}$ | Research for Master's Thesis | 6 |
| Electives |  |  |
| 3 hours of CS, ISE, or DSA electives 3 |  |  |
| Total Credit Hours 30 |  |  |
| ${ }^{1}$ Core courses may be replaced with additional graduate electives at the discretion of the Graduate Liaison. <br> ${ }^{2}$ Approved for graduate credit. |  |  |

## Non-Thesis Option

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Core DSA Courses ${ }^{1}$ |  |  |
| DSA/C S 5005 | Computing Structures | 5 |
| DSA/C S 4513 | Database Management Systems $^{2}$ | 3 |
| DSA/C S 4413 | Algorithm Analysis ${ }^{2}$ | 3 |


| DSA/ISE 5013 | Fundamentals of Engineering Statistical Analysis | 3 |
| :---: | :---: | :---: |
| DSA/ISE 5103 | Intelligent Data Analytics | 3 |
| DSA/ISE 5113 | Advanced Analytics and Metaheuristics | 3 |
| Internship/Practicum |  |  |
| DSA/ENGR 5900 | Professional Practice | 4 |
| Electives |  |  |
| 3 hours of CS, ISE, | , or DSA electives | 3 |
| 6 additional hours | of electives | 6 |
| Total Credit Hours |  | 33 |
| ${ }^{1}$ Core courses may be replaced with additional graduate electives at the discretion of the Graduate Liaison. <br> ${ }^{2}$ Approved for graduate credit. |  |  |

## General Requirements for all Master's Degrees

The master's degree requires the equivalent of at least two semesters of satisfactory graduate work and additional work as may be prescribed for the degree.

All coursework applied to the master's degree must carry graduate credit.
Master's degree programs which require a thesis consist of at least 30 credit hours. All non-thesis master's degree programs require at least 30 credit hours.

Credit transferred from other institutions must meet specific criteria and is subject to certain limitations.

Courses completed through correspondence study may not be applied to the master's degree.

To qualify for a graduate degree, students must achieve an overall grade point average of 3.0 or higher in the degree program coursework and in all resident graduate coursework attempted. A student must also have at least a 3.0 in all coursework (including undergraduate coursework if any).

Additional information for master's degree students may be found in the Graduate College Bulletin.

## Data Science and Analytics, Graduate Certificate

Minimum Total Hours: 15<br>Program Code: G302, G303 (Online)

The Graduate Certificate in Data Science and Analytics provides a mechanism for full-time working students to pursue expertise in this rapidly growing discipline. Through a certificate, they will build their data science and analytics skill set to enhance their current position or to allow them to seek new positions in the field. A total of 15 hours is required for the certificate.

## Certificate Requirements

| Code | Title |
| :--- | ---: | | Credit |
| ---: |
| Hours |


| DSA/C S 4513 Database Management Systems ${ }^{1}$ |  |  |
| :---: | :---: | :---: |
| DSA/C S 4413 Algorithm Analysis ${ }^{1}$ |  |  |
| DSA/ISE 5013 | Fundamentals of Engineering Statistical Analysis |  |
| DSA/ISE 5103 Intelligent Data Analytics |  |  |
| DSA/ISE 5113 Advanced Analytics and Metaheuristics |  |  |
| 7-9 hours chosen the graduate liais | from a set of elective courses approved by on | 7-9 |

Total Credit Hours
1 4000-level courses must be taken at the graduate/G level in order to apply to completion of the graduate certificate.

A graduate certificate is not a graduate degree. A graduate degree represents a program of independent inquiry beyond the depth of coursework alone, while a graduate certificate represents a set of courses only.

- All courses must be taken at OU. No transfer credit will apply.
- No course substitutions are permitted for graduate certificates.
- Coursework applied to a graduate certificate cannot be more than five years old as of the semester the graduate certificate is awarded.
- Students must earn a grade point average of 3.00 or higher on all coursework applied to the graduate certificate.


## Data Science and Analytics, Ph.D.

Minimum Total Hours: 90
Program Code: D272, D273 (Online)

## Program Requirements

| Code | Title | Credit Hours |
| :---: | :---: | :---: |
| Core Courses (20 hours) ${ }^{1}$ |  |  |
| DSA/ISE 5013 | Fundamentals of Engineering Statistical Analysis ${ }^{2}$ | 3 |
| DSA/ISE 5103 | Intelligent Data Analytics ${ }^{2}$ | 3 |
| DSA/ISE 5113 | Advanced Analytics and Metaheuristics ${ }^{2}$ | 3 |
| DSA/C S 5005 | Computing Structures ${ }^{2}$ | 5 |
| DSA/C S 4413 | Algorithm Analysis | 3 |
| DSA/C S 4513 | Database Management Systems ${ }^{2}$ | 3 |
| Guided Elective |  | 25 |
| Dissertation Research |  |  |
| DSA 6980 | Research for Doctoral Dissertation | 2-45 |
| Total Credit Hou |  | 90 |
| ${ }^{1}$ With approval of the graduate liaison, other graduate-level coursework may substitute for core courses on the basis of undergraduate, graduate, or professional background. |  |  |
| ${ }^{2}$ One or more of these courses may be substituted with additional electives based on equivalent prior coursework. |  |  |
| ${ }^{3}$ Guided Electives could be transferred from graduate work and this decision is made by the students' doctoral committee members. |  |  |

## notes

- A minimum of 45 credit hours of coursework and a maximum of 45 credit hours of dissertation research DSA 6980 is required.
- A maximum of 30 credit hours of coursework can be transferred from prior graduate work and this decision is made by the students' doctoral committee members.
- A maximum of $6 \mathrm{~S} / \mathrm{U}$-graded credit hours is allowed as part of the 45 credit hours of coursework.


## General Requirements for Doctoral Degrees

A student should expect to spend at least the equivalent of three full academic years beyond the bachelor's degree to obtain the doctoral degree. During this period the student will take appropriate graduate coursework, successfully complete the general examination, and successfully defend and submit the final dissertation.

All coursework applied to the doctoral degree must carry graduate credit.
The doctoral degree requires at least 90 post-baccalaureate hours, including both formal coursework and hours of research.

The minimum hour requirement for a specific doctoral degree program cannot be waived.

No more than one-half of the credit hours, both OU and overall, excluding Research for Doctoral Dissertation (6980), may be S/U-graded coursework.

The student must be in residence at OU for at least two consecutive 16week semesters during the pursuit of the doctoral degree while enrolled and engaged in coursework or research activities as prescribed by the major academic unit.

For more detailed regulations and requirements for Doctoral degrees, please consult the Graduate College Bulletin: http://www.ou.edu/ gradcollege/forms/bulletin

## School of Electrical and Computer Engineering

J. R. Cruz, Director<br>Devon Energy Hall Room 150<br>110 W. Boyd St.<br>Norman OK 73019<br>Phone: (405) 325-8131<br>Fax: (405) 325-7066<br>eceschool@ou.edu<br>www.ou.edu/coe/ece

## General Information

The School of Electrical and Computer Engineering has a tradition of technological leadership demonstrated since its inception in 1906 at the University of Oklahoma. Historical highlights of the school include:

- 1906: Moved from Applied Science to College of Engineering
- 1972: Computer Science combined into the school
- 1992: Electrical Engineering and Computer Science split and became separate schools within the College of Engineering
- 1996: Curriculum reorganized to support both Electrical Engineering degrees and Computer Engineering degrees; the school was renamed the School of Electrical and Computer Engineering.

The faculty of the School of Electrical and Computer Engineering (ECE) is committed to excellence in teaching, quality research in selected areas of leading-edge technology, and the professional development of students.

Having Electrical Engineering and Computer Engineering in a single school offers the student an exciting combination of technologies with which to meet the design problems of the twenty-first century and an opportunity to develop hands-on skills at the device and system levels. Each degree is based on class offerings from both specialties within ECE, augmented by classes from the School of Computer Science and the Department of Engineering. With this balance, the student is prepared to handle both hardware and software design and analysis topics. Engineering research and career applications include bioengineering, communications, computer architecture, solid state devices and materials, electric power and radio frequency systems, image and signal processing, instrumentation and control systems, and linear and digital electronics.

## Electrical and Computer Engineering Mission Statement

The mission of the School of Electrical and Computer Engineering is to provide a high-quality educational experience for undergraduate and graduate students.

## Programs \& Facilities

## Labs \& Facilities

Excellent facilities are available for advanced studies in digital systems, power systems, medical imaging, digital signal processing, intelligent transportation systems, alternate energy, GPS, weather radar and instrumentation, communication, opto-electronics and solid state electronics. The school operates and maintains a microprocessor lab, a power systems simulator lab, a digital signal processing lab and other instructional and research laboratories. The facilities are used to provide "hands-on" experience for students.

## Quantum Device Laboratory

Unique to OU, the Quantum Device Laboratory is working on quantum engineered semiconductor structures at sub-nanometer scale for realizing functional devices and sub-systems with support from NSF, DoD, and DoE.

## Scholarships

The school annually awards many scholarships to students with superior records to help defray the cost of their education. These scholarships are awarded on the basis of merit and need.

## Undergraduate

## Electrical Engineering

## Program Educational Objectives (PEO)

The overarching Educational Objectives of the Electrical Engineering program are that our graduates will:

1. Be successfully engaged in their careers, leveraging specialized knowledge of Electrical Engineering
2. Pursue and apply new knowledge to solve constrained problems and develop new opportunities
3. Contribute to society through professional and ethical application of technology

We expect our BS Electrical Engineering graduates to successfully demonstrate abilities appropriate to these objectives within the first three-to-five years of receiving their Baccalaureate Degree in Electrical Engineering.

## Computer Engineering

Program Educational Objectives (PEO)
The overarching Educational Objectives of the Computer Engineering program are that our graduates will:

1. Be successfully engaged in their careers, leveraging specialized knowledge of Computer Engineering
2. Pursue and apply new knowledge to solve constrained problems and develop new opportunities
3. Contribute to society through professional and ethical application of technology

We expect our BS Computer Engineering graduates to successfully demonstrate abilities appropriate to these objectives within the first three-to-five years of receiving their Baccalaureate Degree in Computer Engineering.

## Electrical and Computer Engineering Undergraduate Student Outcomes

1. an ability to identify, formulate and solve complex engineering problems by applying principles of engineering, science, and mathematics
2. an ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors
3. an ability to communicate effectively with a range of audiences
4. an ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts
5. an ability to function effectively on a team whose members together provide leadership, create a collaborative environment, establish goals, plan tasks, and meet objectives
6. an ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgement to draw conclusions
7. an ability to acquire and apply new knowledge as needed, using appropriate learning strategies

## Bachelor of Science

Students enrolled in the School of Electrical and Computer Engineering (ECE) are offered a choice of two Bachelor of Science degrees. Curricula are designed to give a thorough understanding of the physical principals, the design process and the current technology in the student's chosen discipline.

- Computer Engineering, Bachelor of Science (p. 1378) ${ }^{1}$
- Electrical Engineering, Bachelor of Science (p. 1380) ${ }^{2}$
${ }^{1}$ Bachelor of Science in Computer Engineering accredited by the Engineering Accreditation Commission of ABET, https:// www.abet.org, under the General Criteria and the Electrical, Computer,

Communications, Telecommunication(s) and Similarly Named Program Criteria.
2
Bachelor of Science in Electrical Engineering accredited by the Engineering Accreditation Commission of ABET, https:// www.abet.org, under the General Criteria and the Electrical, Computer, Communications, Telecommunication(s) and Similarly Named Program Criteria.

## Minor

The Electrical and Computer Engineering Minor (p. 1382) allows students with similar math/science backgrounds to progress deeply into ECE subject areas that have strong relevance to their Major Degree and Career Objectives.

## Accelerated Bachelor of Science/Master of Science

The Accelerated Bachelor of Science/Master of Science programs allow students to pursue a graduate degree in conjunction with the undergraduate degree requirements.

- Computer Engineering, B.S./Computer Science, M.S. (p. 1383)
- Computer Engineering, B.S./Electrical and Computer Engineering, M.S. (p. 1386)
- Electrical Engineering, B.S./Electrical and Computer Engineering, M.S. (p. 1389)


## Graduate

Graduate students have an opportunity to select a research topic in one of the many exciting research programs being pursued by our faculty. In many cases, these research programs have funding to support the student participants during the period of their thesis studies.

## Master of Science

Electrical and Computer Engineering, Master of Science (p. 1392)

## Doctoral Program

Electrical and Computer Engineering, Ph.D. (p. 1392)

## Courses

ECE 2214 Digital Design
4 Credit Hours
Prerequisite: MATH 1823 or MATH 1914. Number systems, Boolean algebra, minimization procedures, combinational logic functions, introduction to sequential logic design, finite state machines and clocked (synchronous) sequential circuits. Analysis, synthesis and implementation are appropriately emphasized. (F, Sp)
ECE 2523 Probability, Statistics and Random Processes 3 Credit Hours Prerequisite: ECE major or minor; MATH 2433 or MATH 2924. Covers the role of statistics in electrical and computer engineering and includes substantial exposure to applications appropriate to the discipline: basic probability; random variables, vectors and processes; time averages, expectations and laws of large numbers; stationarity, autocorrelation and spectral analysis; minimum mean squared error estimation; detection and linear filtering; IID, Markov, independent increment, counting, Gaussian and Poisson random processes. (F, Sp)

ECE 2713 Digital Signals and Filtering
3 Credit Hours
Prerequisite: ENGR 1411 or ENGR 3511 or concurrent enrollment; CS 1313 or CS 1321 or CS 1323 or CS 1324 or concurrent enrollment; and MATH 2423 or 2924. Digital signals and filter, discrete Fourier A and Z transforms, sampling. (F, Sp)

ECE 2723 Electrical Circuits I
3 Credit Hours
Prerequisites: ECE 2713 or concurrent enrollment in ECE 2713;
MATH 2423 or 2924; PHYS 2524. Introduction to circuit elements and the laws of electrical science. Loop and nodal analysis solution methods. Thevenin and Norton equivalent circuits. Superposition and source transformation methods. Laplace transform analysis of electrical circuits. Guest lectures introducing advanced topics. (F, Sp)
ECE 2970 Special Topics/Seminar 1-3 Credit Hours 1 to 3 hours. Prerequisite: Permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

ECE 3113 Energy Conversion I
3 Credit Hours
Prerequisite: ECE 2723 and ECE 3613. Survey of methods of energy conversion; field-energy force relationships, equations of motion, incremental motion transducers, transformer theory; introduction to rotating machines. (Sp)
ECE 3223 Microprocessor System Design 3 Credit Hours
Prerequisite: ECE 3773 or concurrent enrollment. Review of clocked sequential circuits; MSI/LSI devices and applications, including registers, busing, combinational functions; use of microprocessors and logic design using microprocessors. Emphasizes assembly of full functional units into workable systems. (F, Sp)
ECE 3323 Introduction to Solid State Electronic Devices 3 Credit Hours Prerequisite: 3613. Introduction to quantum mechanics, crystal properties and growth of semiconductors, energy bands in solids, charge carriers in semi-conductors, excess carriers in semiconductors, and introduction to diodes and transistors. (F, Sp)
ECE 3440 Mentored Research Experience 3 Credit Hours
0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)

ECE 3613 Electromagnetic Fields I
3 Credit Hours
Prerequisite: ECE 2723 and MATH 2443 or MATH 2934 and Mathematics 3113. Electrostatic and magnetostatic fields and sources, boundary conditions; introduction to Laplace's and Poisson's equations; quasistationary and time-varying fields; Maxwell's equations and circuit concepts. (F, Sp)
ECE 3723 Electrical Circuits II
3 Credit Hours
Prerequisites: ECE 2713, ECE 2723; and MATH 3113 or concurrent enrollment in MATH 3113. Analysis of electrical circuits in both time and frequency domains. Continuation of AC circuit theory, use of two port network theorems, impulse response, convolution, and differential equations. Laplace and Fourier transform analysis of electrical circuits. ( $\mathrm{F}, \mathrm{Sp}$ )
ECE 3773 Electrical and Computer Engineering Circuits

## Laboratory

## 3 Credit Hours

Prerequisite: ECE 2214 and either ECE 3723 or concurrent enrollment in ECE 3723. Electrical laboratory procedures, circuit construction, debug and experimental Confirmation of the principles of circuit theory. Introduction to use of laboratory instrumentation, including skills in the use of the oscilloscope in the evaluation of DC and AC circuits. Use and application of diodes, operational amplifiers and programmable logic devices. (F, Sp)

ECE 3793 Signals and Systems 3 Credit Hours
Prerequisites: ECE 2713, ECE 2723, MATH 3113; and MATH 3333 or concurrent enrollment in MATH 3333. Linear systems; time domain analysis; frequency domain analysis; Fourier, Laplace and Z-transforms; introduction to communications and control. ( $\mathrm{F}, \mathrm{Sp}$ )

ECE 3813 Introductory Electronics 3 Credit Hours
Prerequisites: ECE 2713, and ECE 2723; CHEM 1315; and MATH 2443 or 2934 or concurrent enrollment in MATH 2443 or 2934. Small and large signal characteristics and models of electronic devices; analysis and design of elementary electronic circuits. ( $\mathrm{F}, \mathrm{Sp}$ )
ECE 3873 Electrical and Computer Engineering Electronics Laboratory

3 Credit Hours
Prerequisite: ECE 2523, ECE 3723, ECE 3773, ECE 3813, and ENGR 2002 or ENGR 2003. Electronic analog circuit design, simulation, construction, debugging and measurement of circuit behavior and noise using advanced instrumentation techniques; statistics-based circuit reliability theory; independent design skills development and technical writing. (F, Sp )
ECE 3960 Honors Reading
1-3 Credit Hours
Prerequisite: admission to Honors program. May be repeated; maximum credit six hours. Consists of topics designated by the instructor in keeping with the student's major program. Covers materials not usually presented in the regular courses. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

ECE 3970 Honors Seminar
1-3 Credit Hours
Prerequisite: Admission to Honors program. May be repeated; maximum credit six hours. Projects covered will vary. Deal with concepts not usually presented in regular coursework.

ECE 3980 Honors Research
1-3 Credit Hours
Prerequisite: admission to Honors program. May be repeated; maximum credit six hours. provides an opportunity for the gifted Honors candidate to work on a special project in the student's field. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

ECE 3990 Independent Study 1-3 Credit Hours
1 to 3 hours. Prerequisite: permission of instructor and junior standing. May be repeated once with change of content. Independent study may be arranged to study a subject not available through regular course offerings. (F, Sp, Su)

ECE G4113 Analysis of Electrical Transmission 3 Credit Hours
Prerequisite: 3113. Transmission and distribution of electrical energy, particularly addressing electrical transmission systems in the competitive energy market. (F)

ECE 4213 Digital Signal Processing
3 Credit Hours
(Slashlisted with 5213) Prerequisite: 3793. Discrete-time linear systems, finite duration impulse response digital filters, finite work length effects, spectral analysis, fast Fourie-transforms, two-dimensional signal processing and applications. No student may earn credit for both 4213 and 5213. (F)
ECE 4273 Digital Design Laboratory
3 Credit Hours
Prerequisite: Graduate standing, or ECE 3223 and ECE 3873. Design of digital systems with integrated circuits and MSI/LSI and microprocessor interfacing. (F, Sp)

ECE 4281 Engineering Co-Op Program
1 Credit Hour
(Crosslisted with AME, BME, C S, CEES, CH E, EPHY and ISE 4281)
Prerequisite: Departmental permission and junior standing. May be repeated; maximum credit 6 hours. The Co-Op program provides students an opportunity to enhance their education via career exploration in related professional work experiences. Course assignments help students articulate their experiences by completing journals; mid-term paper; final paper and/or final presentation. Faculty receive an evaluation from the student's Co-Op supervisor who monitors performance. Faculty collaborate with the Co-Op supervisor to ensure student success. ( $\mathrm{F}, \mathrm{Sp}$, Su )

ECE 4363 Optical Engineering
3 Credit Hours
(Slashlisted with ECE 5363) Prerequisite: ECE 3793 . Underlying theory and design of optical systems. Interference, diffraction and coherence phenomena will be examined as a basis for studying the limits of optical system performance. Other topics include a detailed study of polarization, the interaction of light with various media and geometrical optics. No student may earn credit for both 4363 and 5363. (Sp)

## ECE 4383 IC Fabrication Technology I <br> 3 Credit Hours

(Slashlisted with ECE 5383) Prerequisite: 3323. A treatment of the theory and processes involved in the fabrication of integrated circuits. No student may earn credit in both 4383 and 5383. (F)

ECE G4413 Introduction to Control System Engineering 3 Credit Hours Prerequisite: 3793. Analysis and synthesis of control systems; control systems performance and applications. (F)

ECE 4433 Measurement and Automation 3 Credit Hours
(Slashlisted with ECE 5433) Prerequisite: ECE 3793 or instructor permission or systems course in another major. Fundamentals of data acquisition and control. A series of design projects in data acquisition, logging and real-time analysis. Includes machine vision and image processing as well as vibration, motion and real-time control. No student may earn credit for both 4433 and 5433. (F)

ECE G4523 Introduction to Communication Theory 3 Credit Hours Prerequisite: ECE 2523 and ECE 3793. An introductory treatment of statistical communication theory; description of a random process by auto-correlation and power spectral density functions, sources and properties of electrical noise, the effects of modulation, detection And filtering on signal information content, bandwidth and signal-to-noise ratio. (Sp)

ECE 4603 Radar Imaging
3 Credit Hours
(Slashlisted with ECE 5603) Prerequisite: senior standing or permission of instructor; ECE 3793. Course coverage includes radar signal models and phase histories, the types of processing steps used to focus radar data into high-resolution imagery, and fundamental behaviors and performance metrics of radar imaging. Course also investigates various radar imaging algorithms applied to range-Doppler imaging, synthetic aperture radar (SAR), inverse SAR, and angle-of-arrival (spatial) imaging. No student may earn credit for both 4603 and 5603. (Sp)

ECE G4613 Computer Architecture 3 Credit Hours
(Crosslisted with C S 4613) Prerequisite: ECE 3223 or C S 2614 or C S 2613. Covers basic concepts of computer system design and communication between components, along with current and historical examples of computer architecture. (F, Sp)

ECE 4623 Computer Hardware Design
3 Credit Hours
(Slashlisted with 5623) Prerequisite: 3223. Design of modern digital computing circuits, computer arithmetic, number systems, state machines, control units, data transfer, bus interfacing, VHDL language elements and usage, circuit simulation. No student may earn credit for both 4623 and 5623. (F)

ECE 4643 Radio Frequency and Microwave Engineering 3 Credit Hours (Slashlisted with ECE 5643) Prerequisite: ECE 3613. Analysis of radio frequency (RF) and microwave components, circuits and systems using modern engineering tools and measurement instruments. No student may earn credit for both 4643 and 5643. (Sp)
ECE 4653 Digital Radar Systems
3 Credit Hours
(Slashlisted with ECE 5653) Prerequisite: ECE 3793. Modern and nextgeneration radar systems, with an emphasis on the digital receiver and post processing that follows the RF front-end. Several off-the-shelf receiver case studies will be conducted. These will focus on analog-todigital converter (ADC) selection followed by software defined radio (SDR) concepts for field programmable gate array (FPGA) implementation. These receivers may also be used for communication systems and have other broad applications. No student may earn credit for both 4653 and 5653. (F)

ECE 4663 Radar Engineering
3 Credit Hours
(Crosslisted with METR 4663; Slashlisted with 5663) Prerequisite: Grade of C or better in 3613, or permission. Introduction to radar system designs and applications with emphasis on weather radar; radar system architecture and their functionalities and limitations of subsystems; theories of radar detection and estimation in a noisy and cluttered environment; existing technologies and advanced techniques to improve radar performance. No student may earn credit in both 4663 and 5663. (F)

## ECE 4693 Antennas

3 Credit Hours
(Slashlisted with ECE 5693). Prerequisite: ECE 3613 and ECE 4703 or permission of instructor. Introduction to antenna theory and design. Course covers design, construction, and measurement of antennas including, but not limited to the following specific types; dipoles, loops, aperture, microstrip, and broadband antennas, as well as array theory. No student may earn credit for both 4693 and 5693. (Sp)
ECE 4703 Electromagnetic Fields and Wave Propagation 3 Credit Hours (Slashlisted with ECE 5703). Prerequisite: ECE 3613. Maxwell's Equations, time-harmonic fields, plane waves, reflections on interfaces, waveguides and transmission lines, radiation, and antenna basics. No student may earn credit for both 4703 and 5703. ( $F, S p$ )
ECE 4733 RF \& Microwave Filter Design 3 Credit Hours (Slashlisted with ECE 5733) Prerequisite: instructor permission. Introduction to advanced filter design. The use of filters is very widespread in all aspects of communication and radar systems. At the end of the semester, a student that has successfully embraced the subject will be able to design, fabricate, and test filters, using a range of different technologies and methods. No student may earn credit for both 4733 and 5733. (Sp)
ECE 4773 Laboratory (Special Projects) 3 Credit Hours
Prerequisite: 4273 or concurrent enrollment in 4273. Individually supervised special engineering problems of experimental nature. Laboratory (F, Sp) [V].

## ECE G4813 Electronics

3 Credit Hours
Prerequisite: ECE 3813 and ECE 3873. Analysis and design of electronic circuits such as multi-stage amplifiers, feedback amplifiers, oscillators and power amplifiers. (Sp)

ECE G4823 Engineering Principles of the Human Body 3 Credit Hours Prerequisites: ECE 2723, PHYS 2514, MATH 2423 or 2924. Introduction to the foundational engineering approach to analyzing the human body's anatomy and physiological function. Topics include muscle and forces, fluid dynamics of the lungs and cardiovascular system, electrical signals in the body, and vision and optics of the eye. (Sp)
ECE 4833 VLSI Digital System Design
3 Credit Hours
(Slashlisted with ECE 5833) Prerequisite: ECE 3223 and ECE 3873. An introduction to Very-Large-Scale Integrated (VLSI) systems design methods; complementary Metal-Oxide Semiconductor (CMOS) technology emphasized. VLSI Computer Aided Design (CAD) tools and CMOS layout rules and techniques. Project oriented. No student may earn credit for both 4833 and 5833. (F)

## ECE 4853 Biomedical Signals and Systems

3 Credit Hours
(Slashlisted with ECE 5853) Prerequisite: ECE 3723 and ECE 3793, or equivalent courses in electrical circuits and signal processing, or permission of instructor. Comprehensive coverage of topics related to signals in humans. Emphasis on using engineering tools to interpret signals and underlying physiological principles. Focus on emerging engineering technologies, physiological knowledge and clinical application. No student may earn credit for both 4853 and 5853. (Sp)
ECE 4863 Bioinstrumentation 3 Credit Hours
Prerequisite: ECE 3723 or ECE 4813 or permission of instructor. A comprehensive coverage of topics related to principles, applications and design of medical instruments widely used in hospitals and clinical research. Emphasis is placed on general design concepts, discussions on a great variety of medical devices and medical device safety issues. Materials cover different levels and various aspects of human systems, such as heart, brain, circulation, respiration. (F, Sp)
ECE 4960 Directed Readings
1-4 Credit Hours
1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean. May be repeated; maximum credit four hours. Designed for upper-division students who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)
ECE 4970 Special Topics/Seminar 1-3 Credit Hours
1 to 3 hours. Prerequisite: Senior standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

## ECE 4973 Special Topics

3 Credit Hours
Prerequisite: Varies with course content. May be repeated with change of subject; maximum credit six hours in combination with 4990. Devoted to special topics in Electrical and Computer Engineering not covered in the current curriculum. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
ECE 4990 Special Studies 1-3 Credit Hours
Prerequisite: Senior standing and permission. May be repeated with change of subject matter; maximum credit six hours in combination with 4973. Devoted to supervised individual studies of special topics (S/U Graded) in Electrical and Computer Engineering. (F, Sp, Su)

ECE 5123 Wireless Communications
3 Credit Hours
Prerequisite: 3793 or permission. Wireless communications principles, multiple access techniques, wireless networking, and systems and standards. (F)

ECE 5153 Emerging Topics in LTE-Advanced and 5G 3 Credit Hours Prerequisite: Graduate standing. This course will train students to master the latest developments in the rapidly evolving landscape in wireless cellular networks, preparing them for working on emerging as well as near future wireless technologies. Focuses on selected topics for research and development of LTE-A and 5G cellular networks, such as PHY and MAC layer techniques suitable LTE-A \& 5 G ; network densification techniques. (Sp)
ECE 5183 Quantum Information Theory 3 Credit Hours
Prerequisite: linear algebra. Introductory course of quantum information theory. Topics covered include quantum state, quantum measurement, quantum channels, No-Cloning Theorem, Bell's inequalities, entanglement, quantum dense coding, quantum teleportation, distance measures, quantum entropy, quantum mutual information, information of quantum channels. (F)
ECE 5213 Digital Signal Processing
3 Credit Hours
(Slashlisted with 4213) Prerequisite: 3793 . Discrete-time linear systems, finite duration impulse response digital filters, infinite impulse response digital filters, finite word length effects, spectral analysis, fast Fouriertransforms, two-dimensional signal processing and applications. No student may earn credit for both 4213 and 5213. (F)

ECE 5223 Estimation and Identification 3 Credit Hours Prerequisite: 5403 and 5523. Estimation and filtering, optimal filtering, modeling, parametric and nonparametric identification methods. (Sp)
ECE 5273 Digital Image Processing
3 Credit Hours
Prerequisite: 3793 or permission of instructor. This course covers the theory, methods, and applications of image enhancement, image restoration, image compression, image segmentation, image representation and description, and image recognition and interpretation. (Sp)

ECE 5303 Solid State Electronics I
3 Credit Hours
Prerequisite: 3323. Principles and applications of electronic properties of solids for devices with particular emphasis on semiconductor junction, bulk and field effect devices. (F)
ECE 5323 Opto-Electronics I
3 Credit Hours
Prerequisite: 3323 or Engineering 2313. Introduction to phenomenological and quantum mechanical theory of solids; introduction to lasers and masers with particular emphasis on the physical mechanisms underlying interactions between electromagnetic radiation and atomic systems. ( $F, S p$ )

ECE 5343 Quantum Structures and Devices 3 Credit Hours
Prerequisite: ECE 3323 or permission of instructor. Theory and application of KP method, strain effects, electrical and optical properties of quantum structures, semiconductor quantum devices including quantum well infrared photodetectors, quantum cascade and interband cascade lasers, type-II superlattice detectors. (Sp)

ECE 5363 Optical Engineering 3 Credit Hours (Slashlisted with 4363; Crosslisted with BME 5363) Prerequisite: ECE 3793. Underlying theory and design of optical systems. Interference, diffraction, and coherence phenomena will be examined as a basis for studying the limits of optical system performance. Other topics include a detailed study of polarization, the interaction of light with various media, and geometrical optics. No student may earn credit for both 4363 and 5363. (Sp)

ECE 5383 IC Fabrication Technology I
3 Credit Hours
(Slashlisted with ECE 4383) Prerequisite: 3323. A treatment of the theory and processes involved in the fabrication of integrated circuits. No student may earn credit for both 4383 and 5383. (F)

ECE 5393 Integrated Circuit Fabrication Technology II 3 Credit Hours Prerequisite: ECE 5383. Students will gain hands-on experiences of cleanroom technologies of the semiconductor industry, including epitaxial crystal growth, photolithography,and some techniques such as SEM. (Sp)

ECE 5403 Linear Systems Analysis
3 Credit Hours
Prerequisite: Math 3333. In-depth background course in methods of linear analysis in systems engineering. Topics include least squares methods, singular value decomposition, continuous and discrete time linear dynamical systems, controllability and state transfer. (F)

ECE 5413 Control Theory
3 Credit Hours
Prerequisite: 4413,5403. Controllability, optimal control and dynamic programming, LQR, observability, linear estimation and Kalman filter realization theory. (Sp)

ECE 5423 Power System Protection
3 Credit Hours
Prerequisite: Graduate Standing and ECE 3113 (ECE 4113 is also preferred) or permission of instructor. This course facilitates a study into the main protection system elements and their design fundamentals for modern power systems. It covers the operating principles of different types of fault sensing and interrupting components as well as coordination strategies and device settings for typical power system configurations including: generator, transformer, busbar, transmission line and distribution feeder protection. (Sp, Irreg.)

ECE 5433 Measurement and Automation
3 Credit Hours
(Slashlisted with ECE 4433) Prerequisite: Graduate standing and ECE 3793, or instructor permission, or systems course in another major. Fundamentals of data acquisition and control. A series of design projects in data acquisition, logging and real-time analysis. Includes machine vision and image processing as well as vibration, motion and real-time control. No student may earn credit for both 4433 and 5433. (F)

ECE 5463 Advanced Computer Architecture 3 Credit Hours (Crosslisted with C S 5463) Prerequisite: graduate standing. The design of modern programmable computer systems with emphases on exploiting parallelism at all levels, designing within constraints including energy consumption, and the impact of architecture on software design. Covers state of the art computer architecture, case studies and trends. (Sp)

ECE 5513 Communication Theory 3 Credit Hours Prerequisite: 4523 . Probability theory, stochastic processes, detection, extraction and predictions of signals in noise. (F)

ECE 5523 Random Signals
3 Credit Hours
Prerequisite: Graduate standing, ECE 2523, ECE 3793, or permission of instructor. This course explores random signals from two perspectives: random variables and random processes. Topics include probability, single and double random variables, and random vectors; concepts of stationarity and ergodicity; random signals as an input into linear systems and the statistical properties of their outputs; random signal parameters; and quality of estimators. (F)

ECE 5553 Telecommunications Technology
3 Credit Hours
Prerequisite: 3793 . The ways and means by which voice, data and video traffic are moved long distances. Topics include data networks, telephone systems, video, and optical systems. (F)

ECE 5583 Information Theory and Probabilistic Programming 3 Credit

Hours Prerequisite: Graduate standing, and ECE 4523 or equivalent. Introductory course in information theory. Topics include asymptotic equipartition property, entropy, Fano's inequality, Huffman coding, lossy source coding theory, and channel coding theory. (F)

ECE 5603 Radar Imaging
3 Credit Hours
(Slashlisted with ECE 4603) Prerequisite: graduate standing or permission of instructor; ECE 3793. Course coverage includes radar signal models and phase histories, the types of processing steps used to focus radar data into high-resolution imagery, and fundamental behaviors and performance metrics of radar imaging. Course also investigates various radar imaging algorithms applied to range-Doppler imaging, synthetic aperture radar (SAR), inverse SAR, and angle-of-arrival (spatial) imaging. No student may earn credit for both 4603 and 5603. (Sp)

## ECE 5623 Computer Hardware Design

3 Credit Hours
(Slashlisted with 4623) Prerequisite: 3223. Design of modern digital computing circuits, computer arithmetic, number systems, state machines, control units, data transfer, bus interfacing, VHDL language elements and usage, circuit simulation. No student may earn credit for both 4623 and 5623. (F)
ECE 5643 Radio Frequency and Microwave Engineering 3 Credit Hours (Slashlisted with ECE 4643) Prerequisite: Graduate standing. Analysis of radio frequency (RF) and microwave components, circuits, and systems using modern engineering tools and measurement instruments. No student may earn credit for both 4643 and 5643. (Sp)

## ECE 5653 Digital Radar Systems

3 Credit Hours
(Slashlisted with ECE 4653). Prerequisite: ECE 3793. Modern and nextgeneration radar systems, with an emphasis on the digital receiver and post processing that follows the RF front-end. Several off-the-shelf receiver case studies will be conducted. These will focus on analog-todigital converter (ADC) selection followed by software defined radio (SDR) concepts for field programmable gate array (FPGA) implementation. These receivers may also be used for communication systems and have other broad applications. No student may earn credit for both 4653 and 5653. (F)

## ECE 5663 Radar Engineering

3 Credit Hours
(Crosslisted with METR 5663; Slashlisted with 4663) Prerequisite: Grade of $C$ or better in 3613, or permission of instructor. Introduction to radar system designs and applications with emphasis on weather radar; radar system architecture and their functionalities and limitations of subsystems; theories of radar detection and estimation in a noisy and cluttered environment; existing technologies and advanced techniques to improve radar performance. No student may earn credit in both 4663 and 5663. (F)

ECE 5673 Weather Radar Theory and Practice 3 Credit Hours (Slashlisted with 4673, Crosslisted with METR 5673) Prerequisite: graduate standing, grade of $C$ or better in Math 3113 and Physics 2524 , or permission of instructor. Introduction to electromagnetic waves and propagation through the atmosphere, radar design tradeoffs, antennas, transmitters, and coherent receivers; analysis of radar signals as noise-corrupted stochastic processes, with emphasis on digital signal processing for Doppler spectrum and moment estimation; implementation of processing algorithms using actual Doppler radar data. No student may earn credit for both 4673 and 5673. (F)

## ECE 5683 Weather Radar Applications

3 Credit Hours
(Crosslisted with METR 5683) Prerequisite: graduate standing in Meteorology or Engineering, or permission of instructor. Interpretation of meteorological structures using weather radar. Introduces scatter from hydrometeors and refractive index variations. Presentation of quantitative precipitation estimation methods based on the radar reflectivity factor, attenuation, and dual-polarization observations. Also includes the fundamental concepts of clear-air echoes and the estimation of winds under non-precipitation conditions. (Sp)

ECE 5693 Antennas
3 Credit Hours
(Slashlisted with ECE 4693) Prerequisites: ECE 3613, ECE 4703, and permission of instructor. Introduction to antenna theory and design. Course covers design, construction, and measurement of antennas including, but not limited to the following specific types; dipoles, loops, aperture, microstrip, and broadband antennas, as well as array theory. No student may earn credit for both 4693 and 5693. (Sp)
ECE 5703 Electromagnetic Fields and Wave Propagation 3 Credit Hours (Slashlisted with ECE 4703) Prerequisite: Graduate standing, ECE 3613 and permission of instructor. Maxwell's Equations, time-harmonic fields, plane waves, reflections on interfaces, waveguides and transmission lines, radiation, and antenna basics. No student may earn credit for both 4703 and 5703. (F, Sp)

## ECE 5723 Radar Signal Processing

## 3 Credit Hours

Prerequisite: ECE 3793 or equivalent. Radar fundamentals: radar range equation, waveforms, detection and matched filtering, ambiguity functions. Processing and Applications: Pulse-Doppler radar, synthetic aperture radar (SAR), moving target indication (MTI), space time adaptive processing (STAP). (Sp)

## ECE 5733 RF \& Microwave Filter Design

3 Credit Hours
(Slashlisted with ECE 4733) Prerequisite: instructor permission. Introduction to advanced filter design. The use of filters is very widespread in all aspects of communication and radar systems. At the end of the semester, a student that has successfully embraced the subject will be able to design, fabricate, and test filters, using a range of different technologies and methods. No student may receive credit for both 4733 and 5733. (Sp)
ECE 5833 VLSI Digital System Design
3 Credit Hours
(Slashlisted with ECE 4833) Prerequisite: ECE 3223 and ECE 3873. An introduction to Very-Large-Scale Integrated (VLSI) systems design methods; complementary Metal-Oxide Semiconductor (CMOS) technology emphasized. VLSI Computer Aided Design (CAD) tools and CMOS layout rules and techniques. Project oriented. No student may earn credit for both 4833 and 5833. (F)
ECE 5843 Medical Imaging Systems
3 Credit Hours
Prerequisite: 3793 or Fourier transforms, or permission. Fundamental principles of medical image formation, image acquisition and image quality evaluation, Major medical imaging modalities, such as radiography, fluoroscopy, computed tomography, ultrasound, MRI, and nuclear medicine will be introduced. Clinical applications and limitations of each modality will also be analyzed. (Sp)
ECE 5853 Biomedical Signals and Systems

## 3 Credit Hours

(Slashlisted with 4853, Crosslisted with BME 5853) Prerequisites: ECE 3723 and ECE 3793, or equivalent course in electrical circuits and signal processing, or permission of instructor. Comprehensive coverage of topics related to signals in humans. Emphasis on using engineering tools to interpret signals and underlying physiological principles. Focus on emerging engineering technologies, physiological knowledge and clinical application. No student may earn credit for both 4853 and 5853.
(Sp)

## ECE 5863 Bioinstrumentation

3 Credit Hours
(Crosslisted with BME 5863) Prerequisite: ECE 4213 or permission of instructor. A comprehensive coverage of topics related to principles, applications, and design of medical instruments widely used in hospitals and clinical research. Emphasis is placed on general design concepts, discussions on a great variety of medical devices, and medical device safety issues. Materials cover different levels and various aspects of human systems, such as heart, brain, circulation, and respiration. (F, Sp)

ECE 5873 Advanced VLSI Design and Applications 3 Credit Hours
Prerequisite: ECE 4833 or ECE 5833. Design of sophisticated digital integrated circuits; special purpose architectures used where appropriate; silicon compiler and hardware description language used; project oriented. (Sp)

ECE 5880 Professional Internship
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing and 12 credit hours toward graduate degree. May be repeated; maximum credit six hours; grade equivalent to $B$ or better required. Professional technical internship training in electrical and computer engineering, as part of M.S. or PhD degree requirements. A written report to be graded by a member of the graduate faculty is required. $(\mathrm{F}, \mathrm{Sp}, \mathrm{Su})$

ECE 5960 Directed Readings 1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing and permission of department. May be repeated; maximum credit twelve hours. Directed readings and/or literature reviews under the direction of a faculty member. (F, Sp, Su)

ECE 5970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing or permission of instructor May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

## ECE 5973 Special Topics in Electrical and Computer

Engineering

## 3 Credit Hours

(Crosslisted with BME 5973) Prerequisite: Graduate standing and permission of instructor. May be repeated with change of content; maximum credit 12 hours. Selected topics of current research interest not covered by regularly scheduled coursework. (F, Sp, Su)

ECE 5980 Research for Master's Thesis 2-9 Credit Hours
Variable enrollment, permission of instructor required, two to nine hours; credit required for degree, six hours. (F, Sp, Su)

ECE 5990 Special Studies 1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission. May be repeated with change of subject matter; maximum credit nine hours. Devoted to special topics in electrical engineering not covered in the regular curriculum or to supervised individual study. (F, Sp, Su)

ECE 6613 Weather Radar Polarimetry 3 Credit Hours (Crosslisted with METR 6613) Prerequisite: graduate standing. Provides fundamentals and principles of weather radar polarimetry through understanding wave scattering and propogation in geophysical media subject to turbulent mixing and filled with hydrometers and other objects. The relations between polarimetric radar observables and physical parameters will be established. The methods and algorithms for retrieving cloud and precipitation microphysics for weather quantification and forecast will be introduced. (F)

ECE 6813 Advanced Topics in Biomedical Engineering 3 Credit Hours Prerequisite: 5843. May be repeated with change of content; maximum credit 12 hours. In-depth studies in biomedical engineering. Focus will be on advanced optoelectronic biomedical technologies, such as bioinstrumentation, biomedical imaging modalities. Students will learn the knowledge behind current technology and also research and development methods of applying future technology to clinical and biomedical applications. (Sp)

ECE 6950 Research in Electrical and Computer Engineering 1-4 Credit

Hours
1 to 4 hours. Prerequisite: graduate standing and permission of instructor in Electrical and Computer Engineering. May be repeated; maximum credit 24 hours. Research in electrical and computer engineering occurring prior to the General Examination. (F, Sp, Su)

ECE 6960 Directed Readings
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit six hours. Directed readings and/or literature review under the direction of a faculty member. (Irreg.)

ECE 6970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor May be repeated; maximum credit 12 hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or research and field projects. (Irreg.)

ECE 6980 Research for Doctoral Dissertation
2-16 Credit Hours
2 to 16 hours. Prerequisites: Graduate standing and permission of instructor; may be repeated. Directed research culminating in the completion of the doctoral dissertation. (F, Sp, Su)

ECE 6990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)

## Faculty

Last Name


First
ame

Ronald

| Cheng | Szeming |  | 2006 | ASSOCIATE <br> PROFESSOR <br> OF ELECTRICAL <br> AND COMPUTER <br> ENGINEERING <br> AT TULSA, 2013; <br> ASSOCIATE <br> PROFESSOR <br> OF ELECTRICAL <br> AND COMPUTER <br> ENGINEERING, 2017; <br> WILLIAM H. BARKOW <br> PRESIDENTIAL <br> PROFESSOR, 2018 | PhD, Texas A\&M Univ, 2004; MS, Univ of Hawaii, 2000; MPhil, Hong Kong Univ of Sci \& Tech, 1997; BEng, Univ of Hong Kong, 1995 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Cruz | Joao | R | 1982 | PROFESSOR <br> OF ELECTRICAL <br> AND COMPUTER <br> ENGINEERING, <br> 1992; TILLEY CHAIR <br> IN ELECTRICAL <br> ENGINEERING, 2002 | PhD, Univ of Houston, 1980; MS, Univ of Houston, 1977; BS, Univ of Porto, 1974 |

Degrees Earned,
Schools, Dates Completed

PhD, Univ of Illinois, 2005; MS, Univ of Illinois, 2002; BS, Univ of Oklahoma, 1998 AND COMPUTER

PRESIDENTIAL PROFESSOR, 2016 2004; MS, Univ of Hawaii, 2000; MPhil , Sci \& Tech, 1997; Eng, Univ of Hong ong, 1995
$\qquad$ appointed

ASSOCIATE PROFESSOR OF ELECTRICAL


| Fitzmorris | Cliff | w | 2018 | ASSISTANT <br> PROFESSOR <br> OF ELECTRICAL <br> AND COMPUTER <br> ENGINEERING, <br> 2018; ADJUNCT <br> INSTRUCTOR <br> OF CIVIL <br> ENGINEERING AND | MS, Univ of Oklahoma, 1995; BS Univ of Oklahoma, 1988 | McCann | Patrick |  | 1990 | GEORGE LYNN CROSS RESEARCH PROFESSOR OF ELECTRICAL AND COMPUTER ENGINEERING, 2006; HENRY J. FREEDE M.D. PROFESSOR OF ENGINEERING, 2010 | PhD, Mass Inst of Tech, 1990; BS, Univ of California Berkeley, 1981 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | ENVIRONMENTAL SCIENCE, 2010 |  | Metcalf | Justin | G | 2018 | ASSISTANT <br> PROFESSOR | PhD, Univ of Kansas, 2015; MS, Univ of |
| Fulton | Caleb |  | 2011 | ASSOCIATE <br> PROFESSOR <br> OF ELECTRICAL | PhD, Purdue Univ, 2011; BS, Purdue Univ, 2006 |  |  |  |  | OF ELECTRICAL <br> AND COMPUTER <br> ENGINEERING, 2018 | Kansas, 2011; BS, Kansas Sate Univ, 2006 |
|  |  |  |  | AND COMPUTER ENGINEERING, 2018; CIMMS FELLOW, 2012; PRESIDENT'S ASSOCIATES |  | Moses | Paul | S | 2017 | ASSISTANT <br> PROFESSOR <br> OF ELECTRICAL <br> AND COMPUTER <br> ENGINEERING, 2017 | PhD, Curtin Univ of Tech, 2012; BS, Curtin Univ of Tech, 2006 |
|  |  |  |  | PRESIDENTIAL PROFESSOR, 2017 |  | Qiu | Yuchen |  | 2008 | ASSISTANT <br> PROFESSOR | PhD, Univ of Oklahoma, 2013; |
| Goodman | Nathan |  | 2011 | CIMMS FELLOW, 2012; DIRECTOR OF RESEARCH, | PhD, Univ of Kansas, 2002; MS, Univ of Kansas, 1997; B, Univ of Kansas, 1995 |  |  |  |  | OF ELECTRICAL <br> AND COMPUTER ENGINEERING, 2016 | ME, Xi'an Jiaotong Univ, 2008; BE, Xi'an Jiaotong Univ, 2005 |
|  |  |  |  | RESEARCH CENTER, <br> 2015; PROFESSOR <br> OF ELECTRICAL <br> AND COMPUTER <br> ENGINEERING, 2016 |  | Refai | Hazem | H | 2001 | DIRECTOR, EMC TEST LAB, 2008; PROFESSOR OF ELECTRICAL AND COMPUTER ENGINEERING | PhD, Univ of Oklahoma, 1999; MS, Univ of Oklahoma, 1993; BS, Aleppo, 1987 |
| Havlicek | Joseph |  | 1997 | PROFESSOR OF ELECTRICAL AND COMPUTER ENGINEERING, 2007; WILLIAMS COMPANIES FOUNDATION PRESIDENTIAL | PhD, Univ of Texas, 1996; MS, Virginia Tech, 1988; BS, Virginia Tech, 1986 |  |  |  |  | AT TULSA, 2012; <br> WILLIAMS CHAIR IN TELECOMMUNICATIO NETWORKING, 2017; WILLIAMS PROFESSOR IN TELECOMMUNICATIO NETWORKING | NS |
|  |  |  |  | PROFESSOR, 2009; <br> GERALD TUMA <br> PRESIDENTIAL <br> PROFESSOR, 2017 |  | Ruyle | Jessica |  | 2011 | ASSISTANT <br> PROFESSOR <br> OF ELECTRICAL <br> AND COMPUTER | PhD, Univ of Illinois, 2011; MS, Univ of Illinois, 2008; BS, Texas A\&M Univ, |
| Imran | Ali |  | 2014 | ASSISTANT <br> PROFESSOR <br> OF ELECTRICAL | PhD, Univ of Surrey, 2011; MS, Univ of Surrey, 2007; BS, Univ of Engineering \& Tech |  |  |  |  | ENGINEERING, 2011; <br> CIMMS FELLOW, 2012 |  |
|  |  |  |  |  |  | Salazar- <br> Cerreño | Jorge | L | 2015 | CIMMS FELLOW, 2015; ASSISTANT PROFESSOR OF ELECTRICAL AND COMPUTER ENGINEERING, 2015 | PhD, Univ of Massachusetts, 2012; MA, Univ of Puerto Rico, 2002; BS, Universidad Privada Antenor Orrego, 1994 |
| Jiang | Ning |  | 2007 | ASSOCIATE <br> PROFESSOR <br> OF ELECTRICAL <br> AND COMPUTER <br> ENGINEERING, 2012; | PhD, Univ of Texas, 2005; MS, Univ of Texas, 1998; M Engr, Chinese Acad of Science, 1994; BSc, Tsinghua Univ, 1991 |  |  |  |  |  |  |
|  |  |  |  | OKLAHOMA GAS <br> AND ELECTRIC <br> CO. PROFESSOR <br> OF ELECTRICAL <br> ENGINEERING, 2012 |  | Shi | Zhisheng |  | 1997 | PROFESSOR OF ELECTRICAL AND COMPUTER ENGINEERING, 2006; GERALD TUMA | PhD, Inst AlbertLudwig Univ Freiburg; MS, Jilin Univ, 1987; BS, Jilin Univ, 1984 |
| Liu | Hong |  | 2000 | CHARLES B. JR. AND JEAN SMITH CHAIR | PhD, Worcester <br> Polytechnic Inst., |  |  |  |  | PRESIDENTIAL PROFESSOR, 2008 |  |
|  |  |  |  | IN ELECTRICAL <br> AND COMPUTER <br> ENGINEERING, <br> 2000; GEORGE LYNN <br> CROSS RESEARCH <br> PROFESSOR <br> OF ELECTRICAL <br> AND COMPUTER <br> ENGINEERING, 2007 | 1992; MS, Beijing <br>  <br> Telecom, 1982; BS, <br> Beijing Polytechnic <br> Univ, 1977 | Sigmarsson | Hjalti |  | 2011 | ASSOCIATE <br> PROFESSOR OF ELECTRICAL AND COMPUTER ENGINEERING, 2018; GERALD TUMA PRESIDENTIAL PROFESSOR, 2018; CIMMS FELLOW, 2012 | PhD, Purdue Univ, 2010; MS, Purdue Univ, 2005; BS, Univ of Iceland, 2003 |


| Sluss | James Jr. |  | 1997 | REGENTS <br> PROFESSOR <br> OF ELECTRICAL <br> AND COMPUTER <br> ENGINEERING, 2017 | PhD, Univ of Virginia, 1989; MS, Univ of Virginia, 1986; BS, Marshall Univ, 1984 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Tang | Choon Yik |  | 2006 | ASSOCIATE <br> PROFESSOR <br> OF ELECTRICAL <br> AND COMPUTER <br> ENGINEERING, 2013; <br> GERALD TUMA <br> PRESIDENTIAL <br> PROFESSOR, 2016 | PhD, Univ of <br> Michigan, 2003; MS, <br> Oklahoma State Univ, <br> 1997; BS, Oklahoma <br> State Univ, 1996 |
| Weng | Binbin |  | 2015 | CLEANROOM <br> ENGINEER, 2015; <br> ASSISTANT <br> PROFESSOR <br> OF ELECTRICAL <br> AND COMPUTER <br> ENGINEERING, 2018 | MS, Zhejiang Univ, 2008; BS, Zhejiang Univ, 2005 |
| Yang | Rui | Q | 2007 | PROFESSOR <br> OF ELECTRICAL <br> AND COMPUTER <br> ENGINEERING, 2007 | PhD, Nanjing Univ, 1987; MS, Nanjing Univ, 1984; BS, Zhejiang Univ, 1982 |
| Yeary | Mark |  | 2002 | CIMMS FELLOW, 2007; C. B. HUDSON/ TORCHMARK PRESIDENTIAL PROFESSOR, 2010; PROFESSOR OF ELECTRICAL AND COMPUTER ENGINEERING, 2012; DIRECTOR, DEFENSE, SECURITY AND INTELLIGENCE RESEARCH INITIATIVE, 2015 | PhD, Texas A\&M Univ, 1999; MS, Texas A\&M Univ, 1994; BS, Texas A\&M Univ, 1992 |
| Yu | Tian You |  | 2002 | CIMMS FELLOW, 2007; ADJUNCT ASSOCIATE PROFESSOR OF METEOROLOGY, 2008; GERALD TUMA PRESIDENTIAL PROFESSOR, 2012; PROFESSOR OF ELECTRICAL AND COMPUTER ENGINEERING, 2012 | PHD, Univ of <br> Nebraska, 2000; MS, <br> National Central Univ, 1992; BS, National Central Univ, 1990 |
| Zhang | Yan |  | 2006 | CIMMS FELLOW, <br> 2007; PROFESSOR <br> OF ELECTRICAL <br> AND COMPUTER <br> ENGINEERING, <br> 2018; PRESIDENT'S <br> ASSOCIATES <br> PRESIDENTIAL <br> PROFESSOR, 2015 | PhD, Univ of Nebraska, 2004; MSEE, Beijing Inst of Tech, 2001; BS, Beijing Inst of Tech, 1998 |

## Computer Engineering, B.S.

Minimum Total Credit Hours: 129

Overall GPA - Combined and OU: 2.00
Major GPA - Combined and OU: 2.00
Curriculum GPA - Combined and OU: 2.00

Program Code: B225

## This program has changes pending State Regents approval for 2024/25. These pending changes are not reflected here. <br> Bachelor of Science in Computer Engineering accredited by the Engineering Accreditation Commission of ABET, https://www.abet.org, under the General Criteria and the Electrical, Computer, Communications, Telecommunication(s) and Similarly Named Program Criteria.

In order to progress in your curriculum in the Gallogly College of Engineering, and as a specific graduation requirement, a grade of C or better is required in each course in the curriculum, including all prerequisite courses.

## Major Requirements

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Required Courses |  | 4 |
| ECE 2214 | Digital Design | 3 |
| ECE 2713 | Digital Signals and Filtering | 3 |
| ECE 2723 | Electrical Circuits I | 3 |
| ECE 2523 | Probability, Statistics and Random |  |
|  | Processes | 3 |
| ECE 3723 | Electrical Circuits II | 3 |
| ECE 3773 | Electrical and Computer Engineering |  |
|  | Circuits Laboratory | 3 |
| ECE 3813 | Introductory Electronics | 3 |
| ECE 3223 | Microprocessor System Design | 3 |
| ECE 3793 | Signals and Systems | 3 |
| ECE 3873 | Electrical and Computer Engineering |  |
|  | Electronics Laboratory | 3 |
| ECE 4273 | Digital Design Laboratory | 3 |
| ECE 4613 | Computer Architecture | 3 |
| ECE 4773 | Laboratory (Special Projects) | 40 |

## Major Support Requirements

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Math and Science |  | 4 |
| MATH 2924 | Differential and Integral Calculus II | 4 |
| MATH 2934 | Differential and Integral Calculus III | 3 |
| MATH 3113 | Introduction to Ordinary Differential |  |
|  | Equations | 3 |
| MATH 3333 | Linear Algebra I | 4 |
| PHYS 2524 | General Physics for Engineering and |  |

## Technical Electives

Choose two ECE/C S 3000-4000-level courses ${ }^{1}$ ..... 6
Choose two ECE/C S 4000-level or higher courses ${ }^{1}$ ..... 6
Professional Elective

Choose one course from approved list maintained by the

| Additional College Requirements |  |  |
| :--- | :--- | ---: |
| ENGR 1411 | Pathways to Engineering Thinking ${ }^{2}$ | 1 |
| ENGR 2002 | Professional Responsibilities and Skills of <br>  <br>  <br> Engineers and Scientists | 2 |
| C S 1323 | Introduction to Computer Programming for | 3 |
| C S 2334 | Programmers |  |
| C S 2813 | Programming Structures and Abstractions | 4 |
| C S 2413 | Discrete Structures | 3 |
| Total Credit Hours | Data Structures | 3 |

1 Electives to be selected from list available in the ECE Office, DEH-150. Note: One of the four technical electives must be an approved ECE course.
2 Engineering transfer students may take ENGR 3511 in place of ENGR 1411.

## General Education and College Requirements

Courses designated as Core I, II, III, IV, or V are part of the General Education curriculum. Students must complete a minimum of 40 hours of General Education courses, chosen from the approved list, including at least one upper-division Gen. Ed. course outside of the student's major. Courses graded P/NP will not apply.

A grade of C or better is required in each course in the curriculum, including all prerequisite courses.

UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS


Core Area II: Natural Science (including one laboratory)
$\begin{array}{lll}\text { PHYS } 2514 & \begin{array}{l}\text { General Physics for Engineering and } \\ \text { Science Majors (Core II) }\end{array}\end{array} \begin{aligned} & 4\end{aligned}$
CHEM 1315 General Chemistry (Core II-Lab) ${ }^{2} 5$
or CHEM 1335 General Chemistry I: Signature Course
Core Area III: Social Science
P SC 1113 American Federal Government 3
Choose one course ${ }^{3} \quad 3$
Core Area IV: Arts \& Humanities

## Artistic Forms

Choose one course ${ }^{3} 3$

## Western Culture



## Free Electives

Electives to bring total applicable hours to the minimum total required for the degree including a minimum of 40 upper-division hours.

## Suggested Semester Plan of Study

Bachelor of Science in Computer Engineering accredited by the Engineering Accreditation Commission of ABET, https://www.abet.org, under the General Criteria and the Electrical, Computer, Communications, Telecommunication(s) and Similarly Named Program Criteria.

In order to progress in your curriculum in the Gallogly College of Engineering, and as a specific graduation requirement, a grade of C or better is required in each course in the curriculum, including all prerequisite courses.

Two college-level courses in a single world language are required; this may be satisfied by successful completion of 2 years in a single world language in high school. Students who must take a language at the University will have an additional 6-10 hours of coursework.

## Freshman

| First Semester |  | Credit |
| :---: | :---: | :---: |
|  |  | Hours |
| ENGL 1113 | Principles of English Composition (Core I) | 3 |
| CHEM 1315 | General Chemistry (Core II-Lab) ${ }^{1}$ | 5 |
| MATH 1914 | Differential and Integral Calculus I (Core I) ${ }^{2}$ | 4 |
| HIST 1483 or HIST 1493 | United States to 1865 (Core IV) or United States, 1865 to the Present | 3 |
| ENGR 1411 | Pathways to Engineering Thinking ${ }^{3}$ | 1 |
|  | Credit Hours | 16 |
| Second Semester |  |  |
| ```ENGL }121 or EXPO 1213``` | Principles of English Composition (Core I) or Expository Writing | 3 |
| MATH 2924 | Differential and Integral Calculus II ${ }^{2}$ | 4 |
| PHYS 2514 | General Physics for Engineering and Science Majors (Core II) | 4 |
| C S 1323 | Introduction to Computer Programming for Programmers | 3 |
| Approved Elective: First-Year Experience (Core V) ${ }^{4}$ |  | 3 |
|  | Credit Hours | 17 |


| Sophomore |  |  |
| :---: | :---: | :---: |
| First Semester |  |  |
| MATH 2934 | Differential and Integral Calculus III ${ }^{2}$ | 4 |
| PHYS 2524 | General Physics for Engineering and Science Majors | 4 |
| C S 2334 | Programming Structures and Abstractions | 4 |
| ECE 2214 | Digital Design | 4 |
| P SC 1113 | American Federal Government (Core III) | 3 |
|  | Credit Hours | 19 |
| Second Semester |  |  |
| MATH 3113 | Introduction to Ordinary Differential Equations | 3 |
| C S 2413 | Data Structures | 3 |
| C S 2813 | Discrete Structures | 3 |
| ECE 2713 | Digital Signals and Filtering | 3 |
| ECE 2723 | Electrical Circuits I | 3 |
| ENGR 2002 | Professional Responsibilities and Skills of Engineers and Scientists | 2 |
|  | Credit Hours | 17 |
| Junior |  |  |
| First Semester |  |  |
| ECE 2523 | Probability, Statistics and Random Processes | 3 |
| ECE 3723 | Electrical Circuits II | 3 |
| ECE 3773 | Electrical and Computer Engineering Circuits Laboratory | 3 |
| ECE 3813 | Introductory Electronics | 3 |
| Approved Elective, Social Science (Core III) ${ }^{4}$ |  | 3 |
|  | Credit Hours | 15 |
| Second Semester |  |  |
| ECE 3223 | Microprocessor System Design | 3 |
| ECE 3793 | Signals and Systems | 3 |
| ECE 3873 | Electrical and Computer Engineering Electronics Laboratory | 3 |
| MATH 3333 | Linear Algebra I | 3 |
| Approved Elective, Artistic Forms (Core IV) ${ }^{4}$ |  | 3 |
|  | Credit Hours | 15 |
| Senior |  |  |
| First Semester |  |  |
| ECE 4273 | Digital Design Laboratory | 3 |
| ECE 4613 | Computer Architecture | 3 |
| Professional Elective ${ }^{5}$ |  | 3 |
| ECE/CS 3000-4000-level Elective ${ }^{5}$ |  | 3 |
| $\underline{\text { Approved Elective, Western Culture (Core IV) }{ }^{4}}$ |  | 3 |
|  | Credit Hours | 15 |
| Second Semester |  |  |
| ECE 4773 | Laboratory (Special Projects) | 3 |
| ECE/CS 4000- or higher level Elective ${ }^{5}$ |  | 3 |
| ECE/CS 4000- or higher level Elective ${ }^{5}$ |  | 3 |
| ECE/CS 3000-4000-level Elective ${ }^{5}$ |  | 3 |



## Electrical Engineering, B.S.

Minimum Total Credit Hours: 128

Overall GPA - Combined and OU: 2.00
Major GPA - Combined and OU: 2.00
Curriculum GPA - Combined and OU: 2.00

Program Code: B350

## This program has changes pending State Regents approval for 2024/25. These pending changes are not reflected here.

Bachelor of Science in Electrical Engineering accredited by the Engineering Accreditation Commission of ABET, https://www.abet.org, under the General Criteria and the Electrical, Computer, Communications, Telecommunication(s) and Similarly Named Program Criteria

In order to progress in your curriculum in the Gallogly College of Engineering, and as a specific graduation requirement, a grade of C or better is required in each course in the curriculum, including all prerequisite courses.

## Major Requirements

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Required Courses |  |  |
| ECE 2214 | Digital Design | 4 |
| ECE 2713 | Digital Signals and Filtering | 3 |
| ECE 2723 | Electrical Circuits I | 3 |
| ECE 2523 | Probability, Statistics and Random | 3 |
|  | Processes | 3 |
| ECE 3613 | Electromagnetic Fields I | 3 |
| ECE 3723 | Electrical Circuits II | 3 |
| ECE 3773 | Electrical and Computer Engineering | 3 |
| ECE 3813 | Circuits Laboratory | Introductory Electronics |


| ECE 3113 | Energy Conversion I | 3 |
| :---: | :---: | :---: |
| ECE 3223 | Microprocessor System Design | 3 |
| ECE 3793 | Signals and Systems | 3 |
| ECE 3873 | Electrical and Computer Engineering Electronics Laboratory | 3 |
| ECE 3323 | Introduction to Solid State Electronic Devices | 3 |
| ECE 4273 | Digital Design Laboratory | 3 |
| ECE 4773 | Laboratory (Special Projects) | 3 |
| ECE Electives |  |  |
| Choose three 4000-level or higher ECE electives ${ }^{1}$ |  | 9 |
| Choose one ECE course from approved list ${ }^{1}$ |  | 3 |
| Total Credit Hours |  | 58 |

${ }^{1}$ Electives to be selected from list available in the ECE Office, DEH-150.
Major Support Requirements


1 Engineering transfer students may take ENGR 3511 in place of ENGR 1411.

## General Education and College Requirements

Courses designated as Core I, II, III, IV, or V are part of the General Education curriculum. Students must complete a minimum of 40 hours of General Education courses, chosen from the approved list, including at least one upper-division Gen. Ed. course outside of the student's major. Courses graded P/NP will not apply.

A grade of $C$ or better is required in each course in the curriculum, including all prerequisite courses.


## Free Electives

Electives to bring total applicable hours to the minimum total required for the degree including a minimum of 40 upper-division hours.

## Suggested Semester Plan of Study

Bachelor of Science in Electrical Engineering accredited by the Engineering Accreditation Commission of ABET, https://www.abet.org,
under the General Criteria and the Electrical, Computer, Communications, Telecommunication(s) and Similarly Named Program Criteria.

In order to progress in your curriculum in the Gallogly College of Engineering, and as a specific graduation requirement, a grade of $\mathbf{C}$ or better is required in each course in the curriculum, including all prerequisite courses.

Two college-level courses in a single world language are required; this may be satisfied by successful completion of 2 years in a single world language in high school. Students who must take a language at the University will have an additional 6-10 hours of coursework.

## Freshman

| First Semester |  | Credit <br> Hours |
| :--- | :--- | ---: |
| ENGL 1113 | Principles of English Composition (Core I) | 3 |
| CHEM 1315 | General Chemistry (Core II-Lab) $^{1}$ | 5 |
| HIST 1483 | United States to 1865 (Core IV) | 3 |
| or HIST 1493 | or United States, 1865 to the Present |  |
| MATH 1914 | Differential and Integral Calculus I (Core I) $^{2}$ | 4 |
| ENGR 1411 | Pathways to Engineering Thinking ${ }^{3}$ | 1 |
|  | Credit Hours | $\mathbf{1 6}$ |

Second Semester

| ENGL 1213 <br> or EXPO 1213 | Principles of English Composition (Core I) <br> or Expository Writing | 3 |
| :--- | :--- | ---: |
| MATH 2924 | Differential and Integral Calculus II ${ }^{2}$ | 4 |
| PHYS 2514 | General Physics for Engineering and <br> Science Majors (Core II) | 4 |
| C S 1313 | Programming for Non-Majors with C | 3 |

Approved Elective: First-Year Experience (Core V) ${ }^{4} 3$
Credit Hours 17
Sophomore
First Semester

| MATH 2934 | Differential and Integral Calculus III ${ }^{2}$ | 4 |
| :--- | :--- | ---: |
| PHYS 2524 | General Physics for Engineering and <br> Science Majors | 4 |
| ECE 2214 | Digital Design | 4 |
| ENGR 2002 | Professional Responsibilities and Skills of <br>  <br>  <br> Engineers and Scientists | 2 |

Approved Elective, Social Science (Core III) ${ }^{4} 3$

Credit Hours17

## Second Semester

| MATH 3113 | Introduction to Ordinary Differential | 3 |
| :--- | :--- | ---: |
|  | Equations |  |
| ECE 2713 | Digital Signals and Filtering | 3 |
| ECE 2723 | Electrical Circuits I | 3 |
| ECE 2523 | Probability, Statistics and Random | 3 |
|  | Processes |  |
| PSC 1113 | American Federal Government (Core III) | 3 |


| Approved Elective, Artistic Forms (Core IV) ${ }^{4}$ | 3 |
| :---: | ---: |
| Credit Hours |  |

Junior
First Semester
PHYS 3223 Modern Physics for Engineers 3

| ECE 3723 | Electrical Circuits II | 3 |
| :---: | :---: | :---: |
| ECE 3773 | Electrical and Computer Engineering Circuits Laboratory | 3 |
| ECE 3813 | Introductory Electronics | 3 |
|  | Credit Hours | 15 |
| Second Semester |  |  |
| MATH 3333 | Linear Algebra I | 3 |
| ECE 3113 | Energy Conversion I | 3 |
| ECE 3223 | Microprocessor System Design | 3 |
| ECE 3793 | Signals and Systems | 3 |
| ECE 3873 | Electrical and Computer Engineering Electronics Laboratory | 3 |
|  | Credit Hours | 15 |
| Senior |  |  |
| First Semester |  |  |
| ECE 3323 | Introduction to Solid State Electronic Devices | 3 |
| ECE 4273 | Digital Design Laboratory | 3 |
| ECE 4000-lev | higher Elective ${ }^{5}$ | 3 |
| ECE 4000-lev | higher Elective ${ }^{5}$ | 3 |
| Approved Ele | , Western Culture (Core IV) ${ }^{4}$ | 3 |
|  | Credit Hours | 15 |
| Second Semester |  |  |
| ECE 4773 | Laboratory (Special Projects) | 3 |
| ECE Elective |  | 3 |
| ECE 4000-lev | higher Elective ${ }^{5}$ | 3 |
| Professional | tive ${ }^{5}$ | 3 |
| Approved Ele | e, World Culture (Core IV) ${ }^{4}$ | 3 |
|  | Credit Hours | 15 |
|  | Total Credit Hours | 128 |
| ${ }^{1}$ CHEM 1315 can be substituted with CHEM 1335 (Fall only). <br> 2 MATH 1823, MATH 2423, MATH 2433, and MATH 2443 sequence can be substituted for MATH 1914, MATH 2924, and MATH 2934. <br> 3 Engineering transfer students may take ENGR 3511 in place of ENGR 1411. |  |  |
| ${ }^{4}$ To be chosen from the University-Wide General Education Approved Course List. Three of these hours must be upper-division(3000-4000). See list in the Class Schedule. <br> 5 <br> Electives to be selected from list available in the ECE Office, DEH-150. |  |  |
| Courses designated as Core I, II, III, IV or V are part of the General Education curriculum. Students must complete a minimum of 40 hours of General Education courses, chosen from the approved list. |  |  |
| Electrical and Computer Engineering, |  |  |

Minimum Total Credit Hours: 19
Minimum Upper-Division Hours: 9

## Program Code: N350

The requirements for a minor must be completed concurrently with the major degree requirements.

No minor may be added by completing courses after receiving the bachelor's degree.

Students must complete at least nine (9) minor hours in residence at the University of Oklahoma.

At least 9 credit hours will be in upper division courses (3000 or 4000 level).

Students must complete prerequisites for all courses.
Required Courses


## Computer Engineering, B.S./Computer Science, M.S.

Minimum Total Credit Hours: 147-150

Overall GPA - Combined and OU: 3.25
Major GPA - Combined and OU: 3.25
Curriculum GPA - Combined and OU: 3.25
Program Code: A225/F235 Q147

## This program has changes pending State Regents approval for 2024/25. These pending changes are not reflected here.

Bachelor of Science in Computer Engineering accredited by the Engineering Accreditation Commission of ABET, https://www.abet.org, under the General Criteria and the Electrical, Computer, Communications, Telecommunication(s) and Similarly Named Program Criteria.

In order to progress in your curriculum in the Gallogly College of Engineering, and as a specific graduation requirement, a grade of C or better is required in each course in the curriculum, including all prerequisite courses.

## Major Requirements

| Code $\quad$ Title | Credit |
| :--- | :--- |
|  | Hours |

## Required Courses

| C S 1323 | Introduction to Computer Programming for <br> Programmers |
| :--- | :--- |


| C S 2334 | Programming Structures and Abstractions | 4 |
| :---: | :---: | :---: |
| C S 2413 | Data Structures | 3 |
| C S 2813 | Discrete Structures | 3 |
| C S 3113 | Introduction to Operating Systems | 3 |
| C S 3823 | Theory of Computation | 3 |
| C S 4413 | Algorithm Analysis | 3 |
| ECE 2214 | Digital Design | 4 |
| ECE 2523 | Probability, Statistics and Random Processes | 3 |
| ECE 2713 | Digital Signals and Filtering | 3 |
| ECE 2723 | Electrical Circuits I | 3 |
| ECE 3223 | Microprocessor System Design | 3 |
| ECE 3723 | Electrical Circuits II | 3 |
| ECE 3773 | Electrical and Computer Engineering Circuits Laboratory | 3 |
| ECE 3793 | Signals and Systems | 3 |
| ECE 3813 | Introductory Electronics | 3 |
| ECE 3873 | Electrical and Computer Engineering Electronics Laboratory | 3 |
| ECE 4273 | Digital Design Laboratory | 3 |
| ECE 4613 | Computer Architecture | 3 |
| ECE 4773 | Laboratory (Special Projects) | 3 |
| Total Cred |  | 62 |

## Major Support Requirements

| Code | Title | Credit |
| :---: | :---: | :---: |
| Math and Science |  |  |
| MATH 2924 | Differential and Integral Calculus II | 4 |
| MATH 2934 | Differential and Integral Calculus III | 4 |
| MATH 3113 | Introduction to Ordinary Differential Equations | 3 |
| MATH 3333 | Linear Algebra I | 3 |
| PHYS 2524 | General Physics for Engineering and Science Majors | 4 |

## Electives

Choose one ECE G4000-level or higher elective ${ }^{1} 3$
Choose one C S G4000-/5000 approved elective ${ }^{2} 3$

## Additional Requirements

| ENGR 1411 | Pathways to Engineering Thinking ${ }^{3}$ | 1 |
| :--- | :--- | :--- |
| ENGR 2002 | Professional Responsibilities and Skills of <br>  Engineers and Scientists | 2 |

Total Credit Hours
27
1 Electives to be selected from list available in the ECE Office, DEH-150.
${ }^{2}$ Chosen from an approved list of courses maintained by the School of Computer Science. (p. 1361)
${ }^{3}$ Engineering transfer students may take ENGR 3511 in place of ENGR 1411.

## Graduate Requirements

12 hours of graduate-level coursework are shared between the BS and MS degrees.

No more than three courses at the C S G4000 level are permitted. No more than 3 credit hours of C S 5990 are permitted (students who have the graduate liaison's approval to complete a project option may take 6 hours). No more than 6 credit hours of Special Topics in Computer Science are permitted (even with a change in subject).

## Thesis Option



## Non-Thesis Option

The non-thesis degree is a coursework-only degree; a non-thesis examination is not required.

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Core Courses |  |  |
| C S 4413 | Algorithm Analysis | 3 |
| C S 4513 | Database Management Systems | 3 |
| Four courses selected from a list maintained by the School of | 12 |  |
| Computer Science (p. 1361) |  |  |
| Electives |  |  |
| Choose 15 hours from any Computer Science graduate class | 15 |  |

Total Credit Hours 33

1 Any C S graduate class including MATH 5743, MATH 4753, MATH 4073 or ECE 4000G or higher as approved by the Computer Science graduate liaison. Other courses outside C S require prior approval of the graduate liaison.

## General Education and College Requirements

Courses designated as Core I, II, III, IV, or V are part of the Genera Education curriculum. Students must complete a minimum of 40 hours of General Education courses, chosen from the approved list, including at least one upper-division Gen. Ed. course outside of the student's major. Courses graded P/NP will not apply.


## Free Electives

Electives to bring total applicable hours to the minimum total required for the degree including a minimum of 40 upper-division hours

## Suggested Semester Plan of Study

Bachelor of Science in Computer Engineering accredited by the Engineering Accreditation Commission of ABET, https://www.abet.org, under the General Criteria and the Electrical, Computer, Communications, Telecommunication(s) and Similarly Named Program Criteria.

In order to progress in your curriculum in the Gallogly College of Engineering, and as a specific graduation requirement, a grade of C or better is required in each course in the curriculum, including all prerequisite courses.

Two college-level courses in a single world language are required; this may be satisfied by successful completion of 2 years in a single world language in high school. Students who must take language at the University will have an additional 6-10 hours of coursework.

Students are eligible to enter accelerated program after application is granted for unconditional enrollment in upper-division ECE courses and meeting minimum requirements, including a 3.50 retention and 3.50 combined retention grade point average. Students may enter the accelerated program based on the undergraduate degree pattern offered in the year they first enrolled in the Oklahoma State System of Higher Education or later.

Students are eligible for graduate status upon graduation with the Bachelor of Science in Computer Engineering.

Freshman

| First Semester |  | Credit |
| :---: | :---: | :---: |
|  |  | Hours |
| ENGL 1113 | Principles of English Composition (Core I) | 3 |
| CHEM 1315 | General Chemistry (Core II-Lab) ${ }^{1}$ | 5 |
| MATH 1914 | Differential and Integral Calculus I (Core I) ${ }^{2}$ | 4 |
| HIST 1483 or HIST 1493 | United States to 1865 (Core IV) or United States, 1865 to the Present | 3 |
| ENGR 1411 | Pathways to Engineering Thinking ${ }^{3}$ | 1 |
|  | Credit Hours | 16 |

## Second Semester

| ENGL 1213 <br> or EXPO 1213 | Principles of English Composition (Core I) <br> or Expository Writing | 3 |
| :--- | :--- | :--- |
| MATH 2924 | Differential and Integral Calculus II |  |

First-Year Experience (Core V) ${ }^{4} 3$
C S 1323 Introduction to Computer Programming for 3

| Programmers | 17 |
| :--- | :--- |

## Sophomore

## First Semester

| MATH 2934 | Differential and Integral Calculus III ${ }^{2}$ | 4 |
| :--- | :--- | ---: |
| PHYS 2524 | General Physics for Engineering and <br>  <br>  <br> C S 2334 | Programming Structures and Abstractions |

## Second Semester

| MATH 3113 | Introduction to Ordinary Differential Equations | 3 |
| :---: | :---: | :---: |
| C S 2413 | Data Structures | 3 |
| C S 2813 | Discrete Structures | 3 |
| ECE 2713 | Digital Signals and Filtering | 3 |
| ECE 2723 | Electrical Circuits I | 3 |
| ENGR 2002 | Professional Responsibilities and Skills of Engineers and Scientists | 2 |
|  | Credit Hours | 17 |
| Junior |  |  |
| First Semester |  |  |
| C S 3823 | Theory of Computation | 3 |
| ECE 3723 | Electrical Circuits II | 3 |
| ECE 3773 | Electrical and Computer Engineering Circuits Laboratory | 3 |
| ECE 3813 | Introductory Electronics | 3 |
| ECE 2523 | Probability, Statistics and Random Processes | 3 |
|  | Credit Hours | 15 |
| Second Semester |  |  |
| MATH 3333 | Linear Algebra I | 3 |
| ECE 3223 | Microprocessor System Design | 3 |
| ECE 3793 | Signals and Systems | 3 |
| ECE 3873 | Electrical and Computer Engineering Electronics Laboratory | 3 |
| Approved Elective, Artistic Forms (Core IV) ${ }^{4}$ |  | 3 |
|  | Credit Hours | 15 |
| Senior |  |  |
| First Semester |  |  |
| C S 3113 | Introduction to Operating Systems | 3 |
| C S 4413 | Algorithm Analysis | 3 |
| ECE 4273 | Digital Design Laboratory | 3 |
| ECE G4000 or higher Elective ${ }^{5}$ |  | 3 |
| $\underline{\text { Approved Elective, Western Culture (Core IV) }{ }^{4}}$ |  | 3 |
|  | Credit Hours | 15 |


| Second Semester |  |
| :---: | :---: |
| ECE 4773 Laboratory (Special Projects) | 3 |
| C S G4000/5000 Approved Elective ${ }^{6}$ | 3 |
| ECE 4613 Computer Architecture | 3 |
| Approved Elective, Social Science (Core III) ${ }^{4}$ | 3 |
| Approved Elective, World Culture (Core IV) ${ }^{4}$ | 3 |
| Credit Hours | 15 |
| Fifth Year |  |
| First Semester |  |
| C S 4513 Database Management Systems | 3 |
| 5000-level Approved Elective ${ }^{6}$ | 3 |
| 5000-level C S Elective ${ }^{7}$ | 3 |
| Credit Hours | 9 |
| Second Semester |  |
| 5000-level Approved Elective ${ }^{6}$ | 3 |
| 5000-level C S Elective ${ }^{7}$ | 0-9 |


| C S 5980 | Research for Master's Thesis | $0-6$ |
| :--- | :--- | ---: |
| Credit Hours | $9-12$ |  |
| Total Credit Hours | $\mathbf{1 4 7 - 1 5 0}$ |  |

${ }^{1}$ CHEM 1315 can be substituted with CHEM 1335 (Fall only).
2 MATH 1823, MATH 2423, MATH 2433, and MATH 2443 sequence can be substituted for MATH 1914, MATH 2924, and MATH 2934.
${ }^{3}$ Engineering transfer students may take ENGR 3511 in place of ENGR 1411.
${ }^{4}$ To be chosen from the University-Wide General Education Approved Course List. Three of these hours must be upper-division (3000-4000). See list in the Class Schedule.
${ }^{5}$ Electives to be selected from list available in the ECE Office, DEH-150.
${ }^{6}$ Students must choose three courses ( 9 hours) from an approved list of courses maintained by the School of Computer Science. (p. 1361)
7 Thesis option requires a total of 6 hours of 5000 -level electives and 6 hours of C S 5980. Non-thesis option requires a total of 15 hours of 5000-level electives.

No more than three credit hours of C S 5990 allowed. Outside courses require approval from the School of Computer Science.

Courses designated as Core I, II, III, IV or V are part of the General Education curriculum. Students must complete a minimum of 40 hours of General Education courses, chosen from the approved list.

## Computer Engineering, B.S./Electrical and Computer Engineering, M.S.

Minimum Total Credit Hours: 146-149
Overall GPA - Combined and OU: 3.00
Major GPA - Combined and OU: 3.00
Curriculum GPA - Combined and OU: 3.00
Program Code: A226/F226
This program has changes pending State Regents approval for 2024/25. These pending changes are not reflected here.
Bachelor of Science in Computer Engineering accredited by the Engineering Accreditation Commission of ABET, https://www.abet.org, under the General Criteria and the Electrical, Computer, Communications, Telecommunication(s) and Similarly Named Program Criteria.

In order to progress in your curriculum in the Gallogly College of Engineering, and as a specific graduation requirement, a grade of C or better is required in each course in the curriculum, including all prerequisite courses.

## Major Requirements

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Required Courses |  | 4 |
| ECE 2214 | Digital Design | 3 |
| ECE 2713 | Digital Signals and Filtering | 3 |
| ECE 2723 | Electrical Circuits I |  |


| ECE 2523 | Probability, Statistics and Random <br> Processes | 3 |
| :--- | :--- | ---: |
| ECE 3723 | Electrical Circuits II | 3 |
| ECE 3773 | Electrical and Computer Engineering <br> Circuits Laboratory | 3 |
| ECE 3813 | Introductory Electronics | 3 |
| ECE 3223 | Microprocessor System Design | 3 |
| ECE 3793 | Signals and Systems | 3 |
| ECE 3873 | Electrical and Computer Engineering | 3 |
| ECE 4273 | Electronics Laboratory | 3 |
| ECE 4613 | Digital Design Laboratory | 3 |
| ECE 4773 | Computer Architecture | 3 |
| Total Credit Hours | Laboratory (Special Projects) | $\mathbf{4 0}$ |

## Major Support Requirements

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Math and Science |  |  |
| MATH 2924 | Differential and Integral Calculus II | 4 |
| MATH 2934 | Differential and Integral Calculus III | 4 |
| MATH 3113 | Introduction to Ordinary Differential | 3 |
|  | Equations | 3 |
| MATH 3333 | Linear Algebra I | 4 |
| PHYS 2524 | General Physics for Engineering and <br>  Science Majors |  |

## Technical Electives

Choose two ECE/C S G4000 or higher electives ${ }^{1,2} 6$
Choose one ECE G4000 or higher elective ${ }^{1,2} 3$
Choose one ECE 5000 or higher electives ${ }^{1,2} 3$
Professional Elective
Choose one course from approved list maintained by the 2 department ${ }^{1}$
Additional College Requirements

| ENGR 2002 | Professional Responsibilities and Skills of <br> Engineers and Scientists | 2 |
| :--- | :--- | ---: |
| C S 1323 | Introduction to Computer Programming for <br> Programmers | 3 |
| C S 2334 | Programming Structures and Abstractions | 4 |
| C S 2813 | Discrete Structures | 3 |
| C S 2414 | Data Structures | 4 |
| Total Credit Hours | $\mathbf{4 8}$ |  |

${ }^{1}$ Electives to be selected from list available in the ECE Office, DEH-150.
${ }^{2}$ Shared courses between the BS and MS degrees. Electives must satisfy MSECE Approved Requirements.

## Graduate Requirements

Up to 12 hours of graduate level electives that satisfy MS in electrical and computer engineering requirements can be shared between the BS and MS degrees.

- All courses must be G4000 level or higher, or from a list of approved non-ECE G3000 courses (list is maintained in the ECE department).
- No more than 12 hours below the 5000 level may be applied to the degree, of which no more than 9 hours may be ECE coursework below the 5000 level.
- Any cross-listed course must be taken under the ECE prefix. Any slash-listed course must be taken at the graduate level.
- No more than 6 hours of ECE 5990 may be taken.
- No more than 12 hours of ECE 5973 may be taken.


## Thesis Option

| Code $\quad$ Title | Credit <br> Hours |
| :--- | ---: |
| Core Courses |  |
| Electrical and Computer Engineering | 12 |
| Choose at least 12 credit hours of ECE coursework at the |  |
| 5000 level or higher |  |
| Electives | 12 |
| Choose 12 hours of electives | 6 |
| Thesis $\quad$ Research for Master's Thesis | 30 |
| ECE 5980 |  |


| Total Credit Hours | 30 |
| :--- | :--- |

## Non-Thesis Option

| Code Title | Credit <br> Hours |
| :--- | ---: |
| Core Courses |  |
| Electrical and Computer Engineering |  |
| Choose at least 12 credit hours of ECE coursework at the <br> 5000 level or higher <br> Math/Physics <br> Choose at least 3 graduate credit hours in either math or <br> physics <br> Electives <br> Choose 18 hours of electives | 12 |
| Total Credit Hours | 3 |

## General Education and College Requirements

Courses designated as Core I, II, III, IV, or V are part of the General Education curriculum. Students must complete a minimum of 40 hours of General Education courses, chosen from the approved list, including at least one upper-division Gen. Ed. course outside of the student's major. Courses graded P/NP will not apply.

A grade of C or better is required in each course in the curriculum, including all prerequisite courses.

## UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS

| Code Title | Credit |
| :--- | :--- | :--- |
|  | Hours |

Core Area I: Symbolic and Oral Communication

| English Composition | 3 |  |
| :--- | :--- | ---: |
| ENGL 1113 | Principles of English Composition | 3 |
| ENGL 1213 | Principles of English Composition |  |

Language (0-10 hours in the same language)

This requirement can be met by two years of the same 0-10
language in high school:

| Beginning Course (0-5 hours) |  |
| :---: | :---: |
| Beginning Course, continued ( $0-5$ hours) |  |
| Mathematics |  |
| MATH $1914 \underset{\substack{\text { Di,2 } \\ \text { Differential }}}{\text { and Integral Calculus I (Core I) }}$ | 4 |
| Core Area II: Natural Science (including one laboratory) |  |
| PHYS 2514 General Physics for Engineering and Science Majors (Core II) ${ }^{2}$ | 4 |
| CHEM 1315 General Chemistry (Core II-Lab) <br> or CHEM 1335 General Chemistry I: Signature Course | 5 |
| Core Area III: Social Science |  |
| P SC 1113 American Federal Government | 3 |
| Choose one course ${ }^{3}$ | 3 |
| Core Area IV: Arts \& Humanities |  |
| Artistic Forms |  |
| Choose one course ${ }^{3}$ | 3 |
| Western Culture |  |
| HIST 1483 United States to 1865 | 3 |
| or HIST 1493 United States, 1865 to the Present |  |
| Choose one course (excluding HIST 1483 and HIST 1493) ${ }^{3}$ | 3 |
| World Culture |  |
| Choose one course ${ }^{3}$ | 3 |
| Core Area V: First-Year Experience |  |
| ENGR 1413 Pathways to Engineering Thinking (Core VFYE) ${ }^{4}$ | 3 |

## Total Credit Hours

${ }^{1}$ MATH 1823, MATH 2423, MATH 2433, and MATH 2443 sequence can be substituted for MATH 1914, MATH 2924, and MATH 2934.
2 Major support requirements that also satisfy University General Education requirements.
3 To be chosen from the University-Wide General Education Approved Course List. Three of these hours must be upper-division (3000-4000). See list in the Class Schedule.
4 Transfer students will need to meet the requirements of the first-year experience course as well as the engineering transfer course. Please see your advisor for your specific enrollment.

## Free Electives

Electives to bring total applicable hours to the minimum total required for the degree including a minimum of 40 upper-division hours.

## Suggested Semester Plan of Study

Bachelor of Science in Computer Engineering accredited by the Engineering Accreditation Commission of ABET, https://www.abet.org, under the General Criteria and the Electrical, Computer, Communications, Telecommunication(s) and Similarly Named Program Criteria.

In order to progress in your curriculum in the Gallogly College of Engineering, and as a specific graduation requirement, a grade of $C$ or better is required in each course in the curriculum, including all prerequisite courses.

Two college-level courses in a single world language are required; this may be satisfied by successful completion of 2 years in a single world language in high school. Students who must take a language at the University will have an additional 6-10 hours of coursework.

Students are eligible to enter accelerated program after application is granted for unconditional enrollment in upper-division ECE courses and meeting minimum requirements, including 3.25 retention and 3.25 combined retention grade point averages. Students may enter the accelerated program based on the undergraduate degree pattern offered in the year they first enrolled in the Oklahoma State System of Higher Education or later.

## Students are eligible for graduate status upon graduation with the Bachelor of Science in Computer Engineering.

## Freshman

| First Semester |  | Credit |
| :---: | :---: | :---: |
|  |  | Hours |
| ENGL 1113 | Principles of English Composition (Core I) | 3 |
| CHEM 1315 | General Chemistry (Core II-Lab) ${ }^{1}$ | 5 |
| MATH 1914 | Differential and Integral Calculus I (Core I) ${ }^{2}$ | 4 |
| HIST 1483 or HIST 1493 | United States to 1865 (Core IV) or United States, 1865 to the Present | 3 |
| ENGR 1413 | Pathways to Engineering Thinking (Core V- $\text { FYE) }{ }^{3}$ | 3 |
|  | Credit Hours | 18 |

Second Semester

| ENGL 1213 <br> or EXPO 1213 | Principles of English Composition (Core I) <br> or Expository Writing | 3 |
| :--- | :--- | ---: |
| MATH 2924 | Differential and Integral Calculus II ${ }^{2}$ | 4 |
| PHYS 2514 | General Physics for Engineering and <br> Science Majors (Core II) | 4 |
| C S 1323 | Introduction to Computer Programming for <br> Programmers | 3 |
|  | Credit Hours | $\mathbf{1 4}$ |

## Sophomore

| First Semester |  |  |
| :--- | :--- | ---: |
| MATH 2934 | Differential and Integral Calculus III ${ }^{2}$ | 4 |
| PHYS 2524 | General Physics for Engineering and <br>  <br>  <br> Science Majors | 4 |
| C S 2334 | Programming Structures and Abstractions | 4 |
| ECE 2214 | Digital Design | 4 |
| P SC 1113 | American Federal Government (Core III) | $\mathbf{4}$ |
|  | Credit Hours | $\mathbf{1 9}$ |


| Second Semester |  |  |
| :--- | :--- | :--- |
| MATH 3113 | Introduction to Ordinary Differential | 3 |
|  | Equations | 4 |
| C S 2414 | Data Structures | 3 |
| C S 2813 | Discrete Structures | 3 |
| ECE 2713 | Digital Signals and Filtering | 3 |
| ECE 2723 | Electrical Circuits I | $\mathbf{2}$ |
| ENGR 2002 | Professional Responsibilities and Skills of |  |
|  | Engineers and Scientists | $\mathbf{1 8}$ |

## Junior

First Semester

| ECE 2523 | Probability, Statistics and Random Processes | 3 |
| :---: | :---: | :---: |
| ECE 3723 | Electrical Circuits II | 3 |
| ECE 3773 | Electrical and Computer Engineering Circuits Laboratory | 3 |
| ECE 3813 | Introductory Electronics | 3 |
| Approved Elective, Social Science (Core III) ${ }^{4}$ |  | 3 |
|  | Credit Hours | 15 |

## Second Semester

| ECE 3223 | Microprocessor System Design | 3 |
| :---: | :---: | :---: |
| ECE 3793 | Signals and Systems | 3 |
| ECE 3873 | Electrical and Computer Engineering Electronics Laboratory | 3 |
| MATH 3333 | Linear Algebra I | 3 |
| Approved Elective, Artistic Forms (Core IV) ${ }^{4}$ |  | 3 |
|  | Credit Hours | 15 |
| Senior |  |  |
| First Semester |  |  |
| ECE 4273 | Digital Design Laboratory | 3 |
| ECE 4613 | Computer Architecture | 3 |
| Professional Elective ${ }^{5}$ |  | 2 |
| ECE/C S G4000 or higher Elective ${ }^{6}$ |  | 3 |
| $\underline{\text { Approved Elective, Western Culture (Core IV) }{ }^{4}}$ |  | 3 |
|  | Credit Hours | 14 |

## Second Semester

ECE 4773 Laboratory (Special Projects) 3

ECE G4000 or higher Elective ${ }^{6} 3$
ECE 5000 or higher Elective ${ }^{5,6} 3$
ECE/C S G4000-level Elective ${ }^{5,6} 3$
Approved Elective, World Culture (Core IV) ${ }^{4} 3$

Credit Hours 15

## Fifth Year

First Semester
G4000/5000 Electives ${ }^{6} \quad 6$
Choose one of the following: 3

| ECE $5980 \quad$ Research for Master's Thesis |  |
| :--- | :--- | :--- |
| 5000 or higher Elective |  |
| Credit Hours | $\mathbf{9}$ |

## Second Semester

Choose one of the following options: 9-12
Non-Thesis Option:
5000 or higher Electives (12 hours) ${ }^{6,7}$
Thesis Option:
ECE 5980 Research for Master's Thesis (3 hours)
ECE 5000 or higher Electives (6 hours) ${ }^{6,7}$

| Credit Hours | $9-12$ |
| :--- | ---: |
| Total Credit Hours | $146-149$ |

${ }_{2}^{1}$ CHEM 1315 can be substituted with CHEM 1335 (Fall only).
2 MATH 1823, MATH 2423, MATH 2433, and MATH 2443 sequence can be substituted for MATH 1914, MATH 2924, and MATH 2934.

3 Transfer students will need to meet the requirements of the first-year experience course as well as the engineering transfer course. Please see your advisor for your specific enrollment.
4 To be chosen from the University-Wide General Education Approved Course List. Three of these hours must be upper-division (3000-4000). See list in the Class Schedule.
5 Electives to be selected from list available in the ECE Office, DEH-150.
${ }^{6}$ Fourth and fifth year electives (G4000 or higher, including technical electives for MS) must satisfy MSECE Approved Requirements.
7 Thesis option requires nine hours; non-thesis requires 12 hours.

Courses designated as Core I, II, III, IV or V are part of the General Education curriculum. Students must complete a minimum of 40 hours of General Education courses, chosen from the approved list.

## Electrical Engineering, B.S./Electrical and Computer Engineering, M.S.

Minimum Total Credit Hours: 144-147

Overall GPA - Combined and OU: 3.00
Major GPA - Combined and OU: 3.00
Curriculum GPA - Combined and OU: 3.00
Program Code: A350/F350

## This program has changes pending State

 Regents approval for 2024/25. These pending changes are not reflected here.Bachelor of Science in Electrical Engineering accredited by the Engineering Accreditation Commission of ABET, https://www.abet.org, under the General Criteria and the Electrical, Computer, Communications, Telecommunication(s) and Similarly Named Program Criteria.

In order to progress in your curriculum in the Gallogly College of Engineering, and as a specific graduation requirement, a grade of C or better is required in each course in the curriculum, including all prerequisite courses.

## Major Requirements

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Required Courses |  |  |
| ECE 2214 | Digital Design | 4 |
| ECE 2713 | Digital Signals and Filtering | 3 |
| ECE 2723 | Electrical Circuits I | 3 |
| ECE 2523 | Probability, Statistics and Random | 3 |
| ECE 3613 | Processes | 3 |
| ECE 3723 | Electromagnetic Fields I | 3 |
| ECE 3773 | Electrical and Computer Engineering | 3 |
| ECE 3813 | Circuits Laboratory | 3 |
| ECE 3113 | Introductory Electronics | 3 |
| ECE 3223 | Energy Conversion I | 3 |
| ECE 3793 | Microprocessor System Design | 3 |


| ECE 3873 | Electrical and Computer Engineering Electronics Laboratory | 3 |
| :---: | :---: | :---: |
| ECE 3323 | Introduction to Solid State Electronic Devices | 3 |
| ECE 4273 | Digital Design Laboratory | 3 |
| ECE 4773 | Laboratory (Special Projects) | 3 |
| ECE Electives |  |  |
| Choose three G4000-level or higher ECE electives ${ }^{1,2}$ |  | 9 |
| Choose one 5000-level or higher ECE elective ${ }^{1,2}$ |  | 3 |
| Total Credit Hours |  | 58 |
| 1 Electives to be selected from list available in the ECE Office, DEH-150. 2 Shared hours between the BS and MS degrees. Electives must satisfy MSECE Approved Requirements. |  |  |

## Major Support Requirements

| Code | Title | Credit Hours |
| :---: | :---: | :---: |
| Math and Science |  |  |
| MATH 2924 | Differential and Integral Calculus II | 4 |
| MATH 2934 | Differential and Integral Calculus III | 4 |
| MATH 3113 | Introduction to Ordinary Differential Equations | 3 |
| MATH 3333 | Linear Algebra I | 3 |
| PHYS 2524 | General Physics for Engineering and Science Majors | 4 |
| PHYS 3223 | Modern Physics for Engineers | 3 |
| Professional Elective |  |  |
| Choose 3-ho the departm | urse from an approved list maintained by | 2 |
| Additional College Requirements |  |  |
| ENGR 2002 | Professional Responsibilities and Skills of Engineers and Scientists | 2 |
| C S 1313 | Programming for Non-Majors with C | 3 |

Total Credit Hours 28

## Graduate Requirements

Up to 12 hours of graduate level electives that satisfy MS in electrical and computer engineering requirements can be shared between the BS and MS degrees.

- All courses must be G4000 level or higher, or from a list of approved non-ECE G3000 courses (list is maintained in the ECE department).
- No more than 12 hours below the 5000 level may be applied to the degree, of which no more than 9 hours may be ECE coursework below the $\mathbf{5 0 0 0}$ level.
- Any cross-listed course must be taken under the ECE prefix. Any slash-listed course must be taken at the graduate level.
- No more than 6 hours of ECE 5990 may be taken.
- No more than 12 hours of ECE 5973 may be taken.

| Code Title | Credit |
| :---: | :---: |
|  | Hours |
| Core Courses |  |
| Electrical and Computer Engineering |  |
| Choose at least 12 credit hours of ECE coursework at the 5000 level or higher | 12 |
| Electives |  |
| Choose 12 hours of electives | 12 |
| Thesis |  |
| ECE 5980 Research for Master's Thesis | 6 |
| Total Credit Hours | 30 |
| Non-Thesis Option |  |
| Code Title | Credit |
|  | Hours |
| Core Courses |  |
| Electrical and Computer Engineering |  |
| Choose at least 12 credit hours of ECE coursework at the 5000 level or higher | 12 |
| Math/Physics |  |
| Choose at least 3 graduate credit hours in either math or physics | 3 |
| Electives |  |
| Choose 18 hours of electives | 18 |
| Total Credit Hours | 33 |

## General Education and College Requirements

Courses designated as Core I, II, III, IV, or V are part of the General Education curriculum. Students must complete a minimum of 40 hours of General Education courses, chosen from the approved list, including at least one upper-division Gen. Ed. course outside of the student's major. Courses graded P/NP will not apply.

A grade of $C$ or better is required in each course in the curriculum, including all prerequisite courses.

## UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS

| Code | Title | Credit |
| :---: | :---: | :---: |
|  |  | Hours |
| Core Area I: Symbolic and Oral Communication |  |  |
| English Composition |  |  |
| ENGL 1113 | Principles of English Composition | 3 |
| $\begin{aligned} & \text { ENGL } 1213 \\ & \text { or EXPO } 1213 \end{aligned}$ | Principles of English Composition Expository Writing | 3 |
| Language (0-10 hours in the same language) |  |  |
| This requirement can be met by two years of the same language in high school: |  | 0-10 |
| Beginning Course (0-5 hours) |  |  |
| Beginning Course, continued (0-5 hours) |  |  |
| Mathematics |  |  |
| MATH 1914 | Differential and Integral Calculus I (Core I) 1, 2 | 4 |

Core Area II: Natural Science (including one laboratory)

| PHYS 2514 | General Physics for Engineering and Science Majors (Core II) ${ }^{2}$ | 4 |
| :---: | :---: | :---: |
| CHEM 1315 or CHEM 1335 | General Chemistry (Core II-Lab) ${ }^{2}$ <br> General Chemistry I: Signature Course | 5 |
| Core Area III: Social Science |  |  |
| P SC 1113 | American Federal Government | 3 |
| Choose one cours |  | 3 |
| Core Area IV: Arts \& Humanities |  |  |
| Artistic Forms |  |  |
| Choose one course ${ }^{3}$ |  | 3 |
| Western Culture |  |  |
| HIST 1483 | United States to 1865 | 3 |
| or HIST 1493 | United States, 1865 to the Present |  |
| Choose one cours | (excluding HIST 1483 and HIST 1493) ${ }^{3}$ | 3 |
| World Culture |  |  |
| Choose one course ${ }^{3}$ |  | 3 |
| Core Area V: First-Year Experience |  |  |
| ENGR 1413 | Pathways to Engineering Thinking (Core VFYE) ${ }^{4}$ | 3 |

Total Credit Hours 40-50

1 MATH 1823, MATH 2423, MATH 2433, and MATH 2443 sequence can be substituted for MATH 1914, MATH 2924, and MATH 2934.
2 Major support requirements that also satisfy University General Education requirements.
${ }^{3}$ To be chosen from the University-Wide General Education Approved Course List. Three of these hours must be upper-division (3000-4000). See list in the Class Schedule.
4 Transfer students will need to meet the requirements of the first-year experience course as well as the engineering transfer course. Please see your advisor for your specific enrollment.

## Free Electives

Electives to bring total applicable hours to the minimum total required for the degree including a minimum of 40 upper-division hours.

## Suggested Semester Plan of Study

## Bachelor of Science in Electrical Engineering accredited by the

 Engineering Accreditation Commission of ABET, https://www.abet.org, under the General Criteria and the Electrical, Computer, Communications, Telecommunication(s) and Similarly Named Program Criteria.In order to progress in your curriculum in the Gallogly College of Engineering, and as a specific graduation requirement, a grade of $\mathbf{C}$ or better is required in each course in the curriculum, including all prerequisite courses.

Two college-level courses in a single world language are required; this may be satisfied by successful completion of 2 years in a single world language in high school. Students who must take a language at the University will have an additional 6-10 hours of coursework.

Students are eligible to enter accelerated program after application is granted for unconditional enrollment in upper-division ECE courses and meeting minimum requirements, including 3.25 retention and 3.25 combined retention grade point averages. Students may enter the accelerated program based on the undergraduate degree pattern offered
in the year they first enrolled in the Oklahoma State System of Higher Education or later.

## Students are eligible for graduate status upon graduation with the Bachelor of Science in Electrical Engineering.

## Freshman

| First Semester |  | Credit Hours |
| :---: | :---: | :---: |
| ENGL 1113 | Principles of English Composition (Core I) | 3 |
| CHEM 1315 | General Chemistry (Core II-Lab) ${ }^{1}$ | 5 |
| MATH 1914 | Differential and Integral Calculus I (Core IMATH) ${ }^{2}$ | 4 |
| ENGR 1413 | Pathways to Engineering Thinking (Core VFYE) ${ }^{3}$ | 3 |
|  | Credit Hours | 15 |
| Second Semester |  |  |
| $\begin{aligned} & \text { ENGL } 1213 \\ & \text { or EXPO } 1213 \end{aligned}$ | Principles of English Composition (Core I) or Expository Writing | 3 |
| MATH 2924 | Differential and Integral Calculus II ${ }^{2}$ | 4 |
| PHYS 2514 | General Physics for Engineering and Science Majors (Core II) | 4 |
| C S 1313 | Programming for Non-Majors with C | 3 |
| HIST 1483 or HIST 1493 | United States to 1865 or United States, 1865 to the Present | 3 |
|  | Credit Hours | 17 |

## Sophomore

| First Semester |  |  |
| :--- | :--- | ---: |
| MATH 2934 | Differential and Integral Calculus III ${ }^{2}$ | 4 |
| PHYS 2524 | General Physics for Engineering and <br> Science Majors | 4 |
| ECE 2214 | Digital Design | 4 |
| ENGR 2002 | Professional Responsibilities and Skills of <br> Engineers and Scientists | 2 |
| Approved Elective, Social Science (Core III-SS) |  |  |${ }^{4}$| Credit Hours |
| :--- |


| Second Semester |  |  |
| :--- | :--- | ---: |
| MATH 3113 | Introduction to Ordinary Differential |  |
|  | Equations | 3 |
| ECE 2713 | Digital Signals and Filtering | 3 |
| ECE 2723 | Electrical Circuits I | 3 |
| ECE 2523 | Probability, Statistics and Random | 3 |
|  | Processes |  |
| P SC 1113 | American Federal Government (Core III) | 3 |
| Approved Elective, Artistic Forms (Core IV-AF) ${ }^{4}$ | 3 |  |
|  | Credit Hours | $\mathbf{1 8}$ |

## Junior

| First Semester |  |  |
| :--- | :--- | ---: |
| PHYS 3223 | Modern Physics for Engineers | 3 |
| ECE 3613 | Electromagnetic Fields I | 3 |
| ECE 3723 | Electrical Circuits II | 3 |
| ECE 3773 | Electrical and Computer Engineering | 3 |
|  | Circuits Laboratory |  |
| ECE 3813 | Introductory Electronics | 3 |
|  | Credit Hours | $\mathbf{1 5}$ |

## Second Semester

| MATH 3333 | Linear Algebra I | 3 |
| :---: | :---: | :---: |
| ECE 3113 | Energy Conversion I | 3 |
| ECE 3223 | Microprocessor System Design | 3 |
| ECE 3793 | Signals and Systems | 3 |
| ECE 3873 | Electrical and Computer Engineering Electronics Laboratory | 3 |
|  | Credit Hours | 15 |
| Senior |  |  |
| First Semester |  |  |
| ECE 3323 | Introduction to Solid State Electronic Devices | 3 |
| ECE 4273 | Digital Design Laboratory | 3 |
| ECE G4000-level or higher Elective ${ }^{5,6}$ |  | 3 |
| ECE G4000-level or higher Elective ${ }^{5,6}$ |  | 3 |
| Approved Elective, Western Culture (Core IV-WC) ${ }^{4}$ |  | 3 |
|  | Credit Hours | 15 |
| Second Semester |  |  |
| ECE 4773 | Laboratory (Special Projects) | 3 |
| ECE G4000-level or higher Elective ${ }^{5}$ |  | 3 |
| ECE 5000-level or higher Elective 5 ,6 |  | 3 |
| Professional Elective ${ }^{5}$ |  | 2 |
| $\underline{\text { Approved Elective, World Culture (Core IV-WDC) }{ }^{4}}$ |  | 3 |
|  | Credit Hours | 14 |

## Fifth Year

First Semester

| ECE G4000/5000 Electives ${ }^{6}$ | 6 |
| :--- | :--- |
| Choose one of the following: | 3 |
| ECE 5000 or higher Elective |  |
| ECE 5980 | Research for Master's Thesis |
| Credit Hours | $\mathbf{9}$ |

## Second Semester

Choose one of the following options: ${ }^{7}$ 9-12

Non-Thesis Option:
5000 or higher Electives ( 12 hours) ${ }^{6}$
Thesis Option:
ECE 5980 Research for Master's Thesis (3 hours)
ECE 5000 or higher Electives (6 hours) ${ }^{6}$

| Credit Hours | $9-12$ |
| :--- | ---: | ---: |
| Total Credit Hours | $144-147$ |

${ }^{1}$ CHEM 1315 can be substituted with CHEM 1335 (Fall only).
${ }^{2}$ MATH 1823, MATH 2423, MATH 2433, and MATH 2443 sequence can be substituted for MATH 1914, MATH 2924, and MATH 2934.
${ }^{3}$ Transfer students will need to meet the requirements of the first-year experience course as well as the engineering transfer course. Please see your advisor for your specific enrollment.
${ }^{4}$ To be chosen from the University-Wide General Education Approved Course List. Three of these hours must be upper-division (3000-4000). See list in the Class Schedule.
${ }^{5}$ Electives to be selected from list available in the ECE Office, DEH-150.
${ }^{6}$ Fourth and fifth year electives (G4000 or higher, including technical electives for MS) must satisfy MSECE Approved Requirements.
${ }^{7}$ Thesis option requires nine hours; non-thesis requires 12 hours.

Courses designated as Core I, II, III, IV or V are part of the General Education curriculum. Students must complete a minimum of 40 hours of General Education courses, chosen from the approved list.

# Electrical and Computer Engineering, M.S. 

Minimum Total Hours (Thesis): 30<br>Minimum Total Hours (Non-Thesis): 33

## Program Code: M350 Q211

- All courses must be G4000 level or higher, or from a list of approved non-ECE G3000 courses (list is maintained in the ECE department).
- No more than 12 hours below the 5000 level may be applied to the degree, of which no more than 9 hours may be ECE coursework below the 5000 level.
- Any cross-listed course must be taken under the ECE prefix. Any slash-listed course must be taken at the graduate level.
- No more than 6 hours of ECE 5990 may be taken.
- No more than 12 hours of ECE 5973 may be taken.


## Thesis Option

| Code Title | Credit |
| :---: | :---: |
|  | Hours |
| Core Courses |  |
| Electrical and Computer Engineering |  |
| Choose at least 12 credit hours of ECE coursework at the 5000 level or higher | 12 |
| Electives |  |
| Choose 12 hours of electives | 12 |
| Thesis |  |
| ECE 5980 Research for Master's Thesis | 6 |
| Total Credit Hours | 30 |
| Non-Thesis Option |  |
| Code Title | Credit |
|  | Hours |
| Core Courses |  |
| Electrical and Computer Engineering |  |
| Choose at least 12 credit hours of ECE coursework at the 5000 level or higher | 12 |
| Math/Physics |  |
| Choose at least 3 graduate credit hours in either math or physics | 3 |
| Electives |  |
| Choose 18 hours of electives | 18 |
| Total Credit Hours | 33 |

## General Requirements for all Master's Degrees

The master's degree requires the equivalent of at least two semesters of satisfactory graduate work and additional work as may be prescribed for the degree.

All coursework applied to the master's degree must carry graduate credit.

Master's degree programs which require a thesis consist of at least 30 credit hours. All non-thesis master's degree programs require at least 30 credit hours.

Credit transferred from other institutions must meet specific criteria and is subject to certain limitations.

Courses completed through correspondence study may not be applied to the master's degree.

To qualify for a graduate degree, students must achieve an overall grade point average of 3.0 or higher in the degree program coursework and in all resident graduate coursework attempted. A student must also have at least a 3.0 in all coursework (including undergraduate coursework if any).

Additional information for master's degree students may be found in the Graduate College Bulletin.

## Electrical and Computer Engineering, Ph.D.

Minimum Total Hours: 90
Program Code: D350

## Program Requirements

| Code | Title | Credit |
| :--- | :--- | :--- |
|  | Hours |  |

## Area Coursework

Choose at least 4 courses in one ECE area from the list of 12 areas and courses maintained in the ECE grad office.
Dissertation Research

ECE $6980 \quad$| Research for Doctoral Dissertation (6 hours |
| :--- |
| minimum) |

## Electives

Additional coursework needed to reach 90 post-baccalaureate 72
hours, as approved by the doctoral advisory committee
Total Credit Hours

## Coursework Requirements

- All courses must carry graduate credit.
- Any G3000 level courses must be from an approved list.
- Maximum 16 hours below 5000 level.
- No more than 12 hours below 5000 level may be ECE coursework.
- Any cross-listed course must be taken with the ECE prefix.
- Any slash-listed course must be taken as graduate level.
- Maximum 9 hours independent/special studies (5990).
- Maximum 12 hours in each of the following categories: ECE 5973, ECE 6973, ECE 5283, ECE 6283.


## Additional Requirements

- Prior to attempting the general examination, a student must complete at least 33 credit hours that includes 18 credit hours of ECE courses. These 33 credit hours may include transferred master's degree credit and/or postbaccalaureate graduate credit.
- Students are required to pass the ECE Preliminary Exam. The School of Electrical and Computer Engineering will ensure this requirement is met before defense of the dissertation.
- Students are required to pass the final oral exam.


## General Requirements for Doctoral Degrees

A student should expect to spend at least the equivalent of three full academic years beyond the bachelor's degree to obtain the doctoral degree. During this period the student will take appropriate graduate coursework, successfully complete the general examination, and successfully defend and submit the final dissertation.

All coursework applied to the doctoral degree must carry graduate credit.
The doctoral degree requires at least 90 post-baccalaureate hours, including both formal coursework and hours of research.

The minimum hour requirement for a specific doctoral degree program cannot be waived.

No more than one-half of the credit hours, both OU and overall, excluding Research for Doctoral Dissertation (6980), may be S/U-graded coursework.

The student must be in residence at OU for at least two consecutive 16week semesters during the pursuit of the doctoral degree while enrolled and engaged in coursework or research activities as prescribed by the major academic unit.

For more detailed regulations and requirements for Doctoral degrees, please consult the Graduate College Bulletin: http://www.ou.edu/ gradcollege/forms/bulletin

## Program in Engineering Physics

Michael Santos, Director
Neilsen Hall
404 W. Brooks St.
Norman OK 73019
Phone: (405) 325-3961
Fax: (405) 325-7557
ephys@nhn.ou.edu
www.ou.edu/coe/ephysics

## General Information

## History

The Engineering Physics Program at the University of Oklahoma is one of the oldest of its kind in the nation. Established in 1924, the Engineering Physics program has been accredited by the Accreditation Board for Engineering and Technology since 1953. The program makes use of the extensive teaching and research facilities of both the Gallogly College of Engineering and the Homer L. Dodge Department of Physics and Astronomy in the College of Arts and Sciences.

## What is Engineering Physics?

The engineering physicist is interested not only in understanding physical phenomena and the underlying principles, but also in applying this knowledge to the solution of a broad range of challenges. As the miniaturization of transistors, lasers and memory elements continues, understanding of their operation increasingly requires knowledge
of quantum mechanics, statistical mechanics and other aspects of nanoscience.

## Mission

The mission of the Engineering Physics Program is to prepare students for careers in areas of technology where the disciplines of physics and engineering intersect. The Program provides an interdisciplinary environment where pure and applied science merge. The curriculum is designed to develop sufficient depth in both engineering skills and physics knowledge to produce engineers who are able to relate fundamental physical principles to practical problems in engineering.

## Programs \& Facilities Scholarships

There are many scholarships available to current Engineering Physics students.

## Student Organizations

There are many great student organizations at OU for Engineering Physics students.

## Undergraduate <br> Engineering Physics Program Educational Objectives (PEO)

## Program Educational Objective 1:

Our graduates will pursue careers as engineers, as physicists, or in other fields where an education in Engineering Physics is advantageous.

## Program Educational Objective 2:

Our graduates will be effective problem solvers in their chosen career paths.

## Program Educational Objective 3:

Our graduates will engage in life-long learning and professional development activities.

## Engineering Physics Undergraduate Student Outcomes

To prepare graduates of the Engineering Physics program to attain these educational objectives, the Engineering Physics curriculum is designed to include the following student outcomes:

1. an ability to apply knowledge of mathematics, science, and engineering;
2. an ability to design and conduct experiments, as well as to analyze and interpret data;
3. an ability to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability;
4. an ability to function on multidisciplinary teams;
5. an ability to identify, formulate, and solve engineering problems;
6. an understanding of professional and ethical responsibility;
7. an ability to communicate effectively;
8. the broad education necessary to understand the impact of engineering solutions in a global, economic, environmental, and societal context;
9. a recognition of the need for, and an ability to engage in life-long learning;
10. a knowledge of contemporary issues;
11. an ability to use the techniques, skills, and modern engineering tools necessary for engineering practice.

## Engineering Physics, Bachelor of Science

The Engineering Physics Bachelor of Science (p. 1395) curriculum is designed to develop sufficient depth in both engineering skills and physics knowledge to produce engineers capable of working at the cutting edge of developing technologies and contribute to new fields as they emerge. Bachelor of Science in Engineering Physics accredited by the Engineering Accreditation Commission of ABET, https:// www.abet.org, under the General Criteria and the Engineering, General Engineering, Engineering Physics, Engineering Science and Similarly Named Program Criteria

## Graduate

The Engineering Physics, Master of Science (p. 1398) degree program provides coursework and practical experience that prepares students for immediate placement in industrial positions.

Each student in the Engineering Physics, Ph.D. (p. 1398) is assigned an advisory committee who will determine the specific requirements within the guidelines set by the Graduate College and Gallogly College of Engineering

## Courses

## EPHY 3440 Mentored Research Experience 3 Credit Hours

0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office Not for honors credit. (F, Sp, Su)

EPHY 3960 Honors Reading
1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Consists of topics designated by the instructor in keeping with the student's major program. Cover materials not usually presented in the regular courses. (F, Sp, Su)

EPHY 3970 Honors Seminar 1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Projects covered will vary. Deal with concepts not usually presented in regular coursework. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

EPHY 3980 Honors Research 1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Provides an opportunity for the gifted Honors candidate to work on a special project in the student's field. (F, Sp, Su)

EPHY 3990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: permission of instructor and junior standing. May be repeated once with change of content. Independent study may be arranged to study a subject not available through regular course offerings. (F, Sp, Su)

EPHY 4281 Engineering Co-Op Program
1 Credit Hour
(Crosslisted with AME, CH E, CEES, C S, ECE, ISE and BME 4281)
Prerequisite: Departmental permission and junior standing. May be repeated; maximum credit 6 hours. The Co-Op program provides students an opportunity to enhance their education via career exploration in related professional work experiences. Course assignments help students articulate their experiences by completing journals; mid-term paper; final paper and/or final presentation. Faculty receive an evaluation from the student's Co-Op supervisor who monitors performance. Faculty collaborate with the Co-Op supervisor to ensure student success. (F, Sp, $\mathrm{Su})$

EPHY 4960 Directed Readings
1-4 Credit Hours
1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean. May be repeated; maximum credit four hours. Designed for upper-division students who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)

EPHY 4970 Special Topics/Seminar 1-3 Credit Hours
1 to 3 hours. Prerequisite: Senior standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

EPHY 4990 Special Studies
1-3 Credit Hours
1 to 3 hours. Prerequisite: Physics 2424 or 2524 , integral calculus, permission. May be repeated with change of subject matter; maximum credit six hours. (F, Sp, Su)

## EPHY 5960 Directed Readings <br> 1-3 Credit Hours

1 to 3 hours. Prerequisite: graduate standing and permission of department. May be repeated; maximum credit twelve hours. Directed readings and/or literature reviews under the direction of a faculty member. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
EPHY 5970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

EPHY 5980 Research for Master's Thesis 2-9 Credit Hours
Variable enrollment, two to nine hours; maximum credit applicable toward degree, four hours. (F, Sp, Su)

EPHY 5990 Special Problems
1-10 Credit Hours
Prerequisite: permission. May be repeated with change of subject matter; maximum credit four hours for the master's degree, or 10 hours for the doctoral degree. (F, Sp, Su)

EPHY 6960 Directed Readings
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit six hours. Directed readings and/or literature review under the direction of a faculty member. (Irreg.)

EPHY 6970 Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: permission. May be repeated with change of subject matter; maximum credit four hours for the master's degree, or 10 hours for the doctoral degree. Seminar in Engineering Physics. ( $F, S p$ )

EPHY 6980 Research for Doctoral Dissertation 2-16 Credit Hours
2 to 16 hours. Prerequisite: Graduate standing and permission of instructor; may be repeated. Directed research culminating in the completion of the doctoral dissertation. (F, Sp, Su)

EPHY 6990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)

## Faculty

| Last Name | First/Middle Name | Middle init. | OU <br> Service <br> start | Title(s), date(s) appointed | Degrees Earned, Schools, Dates Completed |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Abbott | Braden | K | 2000 | PROFESSOR OF <br> PHYSICS AND <br> ASTRONOMY, <br> 2013; PROFESSOR <br> ENGINEERING <br> PHYSICS | PhD, Purdue, 1994; MS, Purdue, 1992; BA, <br> Univ of Minneosta Morris, 1989 |
| Abraham | Eric | R | 1998 | ASSOCIATE PROFESSOR OF PHYSICS AND ASTRONOMY, 2004; L.J. SEMROD PRESIDENTIAL PROFESSOR, 2005; ASSOCIATE PROFESSOR ENGINEERING PHYSICS | PhD, Rice Univ, 1996; BA, St. Olaf College, 1991 |
| Bumm | LI | A | 2001 | ASSOCIATE PROFESSOR OF PHYSICS AND ASTRONOMY, 2007; ASSOCIATE PROFESSOR ENGINEERING PHYSICS | PhD, Northwestern <br> Univ, 1991; BS, <br> Clarkson Univ, 1982 |
| Gutierrez | Phillip |  | 1989 | PROFESSOR OF <br> PHYSICS AND <br> ASTRONOMY, <br> 2001; PROFESSOR <br> ENGINEERING <br> PHYSICS | PhD, Univ of California Riverside, 1983; MS, Univ of California Riverside, 1980; BS, Univ of California Riverside, 1976 |
| Marino Valle | Alberto |  | 2012 | ASSISTANT PROFESSOR OF PHYSICS AND ASTRONOMY, 2012; ASSISTANT PROFESSOR ENGINEERING PHYSICS | PhD, Univ of Rochester, 2006; MS, Univ of Rochester, 2002; BS, Universidad de Monterrey, 1998 |
| Santos | Michael | B | 1993 | SAMUEL <br> ROBERTS NOBLE <br> PRESIDENTIAL <br> PROFESSOR, 1997; <br> TED AND CUBA <br> WEBB PRESIDENTIAL <br> PROFESSOR, 2003; <br> PROFESSOR OF <br> PHYSICS AND <br> ASTRONOMY, <br> 2004; CHARLES L. <br> BLACKBURN CHAIR <br> IN ENGINEERING <br> PHYSICS, 2006 | PhD, Princeton Univ, 1992; MA, Princeton Univ, 1989; BS, Cornell Univ, 1986 |

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## Major Requirements

| Code | Title | Credit Hours |
| :---: | :---: | :---: |
| Required Courses |  |  |
| PHYS 1205 | Introductory Physics I for Physics Majors | 5 |
| PHYS 1215 | Introductory Physics II for Physics Majors | 5 |
| PHYS 2203 | Introductory Physics III: Modern Physics | 3 |
| PHYS 2303 | Electronics | 3 |
| PHYS 3043 | Physical Mechanics I | 3 |
| PHYS 3053 | Physical Mechanics II | 3 |
| PHYS 3183 | Electricity and Magnetism I | 3 |
| PHYS 3302 | Advanced Lab I | 2 |
| or PHYS 3312 | Advanced Lab II |  |
| PHYS 3803 | Introduction to Quantum Mechanics I | 3 |
| PHYS 4310 | Senior Research Project I | 1-3 |
| PHYS 4153 | Statistical Physics and Thermodynamics | 3 |
| PHYS 4320 | Senior Research Project II | 1-3 |
| Approved Physics | Elective ${ }^{1}$ | 3 |
| Total Credit Hours |  | 40 |
| ${ }^{1}$ Chosen from: PHYS 4183, PHYS 4213, PHYS 4243, PHYS 4803, or PHYS 4813. |  |  |
| Major Support Requirements |  |  |
| Code | Title | Credit |
|  |  | Hours |
| Math and Science |  |  |
| MATH 2924 | Differential and Integral Calculus II | 4 |
| MATH 2934 | Differential and Integral Calculus III | 4 |
| MATH 3413 | Physical Mathematics I | 3 |
| MATH 3423 | Physical Mathematics II | 3 |
| Engineering Electives |  |  |
| Choose three 200 | 0-4000 level courses | 9 |
| Engineering Electives - Design Sequence |  |  |
| Choose five engin | eering design courses approved by advisor | 15 |
| Technical Elective |  |  |
| Choose one 3000 physics, or math | -level or higher course from engineering, approved by advisor ${ }^{1}$ | 3 |
| Engineering Physics Elective |  |  |
| Choose one 3000 physics approved | -level or higher course from engineering or by advisor ${ }^{2}$ | 3 |
| Additional College Requirements |  |  |
| ENGR 1411 | Pathways to Engineering Thinking ${ }^{3}$ | 1 |
| ENGR 2002 | Professional Responsibilities and Skills of Engineers and Scientists | 2 |
| $\begin{aligned} & \text { CS } 1313 \\ & \text { or CS } 1323 \end{aligned}$ | Programming for Non-Majors with C <br> Introduction to Computer Programming for Programmers | 3 |
| AME 3153 or CEES 2223 | Fluid Mechanics <br> Fluid Mechanics | 3 |

Total Credit Hours
${ }^{1}$ Co-op students may substitute 3 hours of Engineering Co-op Program, on approval of advisor. A 2000- level engineering course may be used if prerequisite for engineering design sequence. Must be approved by advisor.
${ }^{2}$ A 2000-level engineering course may be used if it is a prerequisite of a design sequence and the technical elective is not a 2000-level course. Electives must be approved by Advisor.
3 Engineering transfer students may take ENGR 3511 in place of ENGR 1411.

## General Education and College Requirements

Courses designated as Core I, II, III, IV, or V are part of the General Education curriculum. Students must complete a minimum of 40 hours of General Education courses, chosen from the approved list, including at least one upper-division Gen. Ed. course outside of the student's major. Courses graded P/NP will not apply.

A grade of $C$ or better is required in each course in the curriculum, including all prerequisite courses.

UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS Code Title Credit Hours
Core Area I: Symbolic and Oral Communication
English Composition
ENGL 1113 Principles of English Composition 3
ENGL 1213 Principles of English Composition 3
or EXPO 1213 Expository Writing
Language ( $0-10$ hours in the same language)
This requirement can be met by two years of the same 0-10
language in high school:
Beginning Course (0-5 hours)
Beginning Course, continued (0-5 hours)
Mathematics

| MATH 1914 | Differential and Integral Calculus I (Core I) 1, 3 |
| :---: | :---: |


| PHYS 1205 | Introductory Physics I for Physics Majors (Core II) ${ }^{2}$ | 5 |
| :---: | :---: | :---: |
| CHEM 1315 or CHEM 1335 | General Chemistry (Core II-Lab) ${ }^{3}$ <br> General Chemistry I: Signature Course | 5 |
| Core Area III: Social Science |  |  |
| P SC 1113 | American Federal Government | 3 |
| Choose one cours |  | 3 |

Core Area IV: Arts \& Humanities
Artistic Forms
Choose one course ${ }^{4} 3$
Western Culture

HIST 1483 United States to 18653
or HIST 1493 United States, 1865 to the Present
Choose one course (excluding HIST 1483 and HIST 1493) ${ }^{4} 3$
World Culture
Choose one course ${ }^{4} 3$
Core Area V: First-Year Experience

| Choose one course ${ }^{4}$ |
| :--- |
| Total Credit Hours |
| 1 MATH 1823, MATH 2423, MATH 2433, and MATH 2443 sequence can |
| be substituted for MATH 1914, MATH 2924, and MATH 2934 . |
| 2 With approval of advisor,PHYS 2514, PHYS 2524, and PHYS 1311 and |
| PHYS 1321 |
| may substitute for PHYS 1205, PHYS 1215. |
| 3 Major support requirements that also satisfy University General |
| Education requirements. |
| 4To be chosen from the University-Wide General Education Approved <br> Course List. Three of these hours must be upper-division (3000-4000). <br> See list in the Class Schedule. |

## Free Electives

Electives to bring total applicable hours to the minimum total required for the degree including a minimum of 40 upper-division hours.

## Suggested Semester Plan of Study

Bachelor of Science in Engineering Physics accredited by the Engineering Accreditation Commission of ABET, https://www.abet.org, under the General Criteria and the Engineering, General Engineering, Engineering Physics, Engineering Science and Similarly Named Program Criteria.

In order to progress in your curriculum in the Gallogly College of Engineering, and as a specific graduation requirement, a grade of $C$ or better is required in each course in the curriculum, including all prerequisite courses.

Two college-level courses in a single world language are required; this may be satisfied by successful completion of 2 years in a single world language in high school. Students who must take language at the University will have an additional 6-10 hours of coursework.

| Freshman |  |  |
| :---: | :---: | :---: |
| First Semester |  | Credit |
|  |  | Hours |
| ENGL 1113 | Principles of English Composition (Core I) | 3 |
| MATH 1914 | Differential and Integral Calculus I (Core I) ${ }^{1}$ | 4 |
| PHYS 1205 | Introductory Physics I for Physics Majors (Core II-Lab) ${ }^{2}$ | 5 |
| First-Year Experience (Core V) ${ }^{5}$ |  | 3 |
| ENGR 1411 | Pathways to Engineering Thinking ${ }^{3}$ | 1 |
|  | Credit Hours | 16 |
| Second Semester |  |  |
| $\begin{aligned} & \text { ENGL } 1213 \\ & \text { or EXPO } 1213 \end{aligned}$ | Principles of English Composition (Core I) or Expository Writing | 3 |
| CHEM 1315 | General Chemistry (Core II) ${ }^{4}$ | 5 |
| MATH 2924 | Differential and Integral Calculus II (Core I) 1 | 4 |
| PHYS 1215 | Introductory Physics II for Physics Majors ${ }^{2}$ | 5 |
|  | Credit Hours | 17 |
| Sophomore |  |  |
| First Semester |  |  |
| MATH 2934 | Differential and Integral Calculus III ${ }^{1}$ | 4 |
| HIST 1483 or HIST 1493 | United States to 1865 (Core IV) or United States, 1865 to the Present | 3 |


| PHYS 2203 | Introductory Physics III: Modern Physics | 3 |
| :--- | :--- | ---: |
| PHYS 2303 | Electronics | 3 |
| C S 1313 | Programming for Non-Majors with C <br> or C S 1323 <br> or Introduction to Computer <br> Programming for Programmers | 3 |
|  | Credit Hours | $\mathbf{1 6}$ |

## Second Semester

MATH 3413 Physical Mathematics I 3
Engineering Elective (2000-4000 level) ..... 3
$\begin{array}{lll}\text { ENGR } 2002 & \text { Professional Responsibilities and Skills of } \\ & \text { Engineers and Scientists }\end{array}$
PHYS 3043 Physical Mechanics I 3
Approved Elective: Social Science (Core III) ${ }^{5}$ ..... 3

| P SC 1113 | American Federal Government (Core III) | 3 |
| :--- | :--- | ---: |
|  | Credit Hours | $\mathbf{1 7}$ |

Junior
First Semester

| MATH 3423 | Physical Mathematics II | 3 |
| :--- | :--- | ---: |
| PHYS 3053 | Physical Mechanics II | 3 |
| PHYS 3183 | Electricity and Magnetism I | 3 |
| Engineering Elective (2000-4000-level) | 3 |  |
| Approved Elective: Artistic Forms (Core IV) |  |  |
| Credit Hours | $\mathbf{3}$ |  |

## Second Semester

PHYS 3302 Advanced Lab I 2
or PHYS 3312 or Advanced Lab II
PHYS 3803 Introduction to Quantum Mechanics I 3
AME $3153 \quad$ Fluid Mechanics ..... 3
or CEES 2223 or Fluid Mechanics
Engineering Elective (2000-4000-level) ..... 3
Engineering Elective (Design Sequence 1) ${ }^{6}$ ..... 3
Senior
First Semester
PHYS $4310 \quad$ Senior Research Project I 2
PHYS 4153 Statistical Physics and Thermodynamics 3
Engineering Elective (Design Sequence 2) ${ }^{6}$ ..... 3
Engineering Elective (Design Sequence 3) ${ }^{6}$ ..... 3
Technical Elective ${ }^{7}$ ..... 3
Approved Elective: World Culture (Core IV) ${ }^{5}$ ..... 3
Credit Hours ..... 17
Second Semester
PHYS $4320 \quad$ Senior Research Project II
Approved Physics Elective ..... 3
Engineering Elective (Design Sequence 5) ${ }^{6}$ ..... 3
Engineering Physics Elective ${ }^{8}$ ..... 3
Approved Elective: Western Culture (Core IV) ${ }^{5}$ ..... 3
Total Credit Hours ..... 129
${ }^{1}$ MATH 1823, MATH 2423, MATH 2433, and MATH 2443 sequence can be substituted for MATH 1914, MATH 2924, and MATH 2934.
${ }^{2}$ With approval of advisor, PHYS 2514, PHYS 2524, and PHYS 1311 and PHYS 1321 may substitute for PHYS 1205, PHYS 1215.
${ }^{3}$ Engineering transfer students may take ENGR 3511 in place of ENGR 1411.
${ }^{4}$ CHEM 1315 can be substituted with CHEM 1335 (Fall only).
${ }^{5}$ To be chosen from the University-Wide General Education Approved Course List. Three of these hours must be upper-division (3000-4000). See list in the Class Schedule.
${ }^{6}$ The 15 hours of engineering electives in an engineering discipline must emphasize engineering design. Electives must be approved by advisor.
${ }^{7}$ A course numbered 3000 or above from engineering, physics or mathematics. Co-op students may substitute 3 hours of Engineering Co-op Program, on approval of advisor. A 2000- level engineering course may be used if prerequisite for engineering design sequence. Must be approved by advisor.
${ }^{8}$ A course numbered 3000 or above from engineering or physics. A 2000-level engineering course may be used if it is a prerequisite of a design sequence and the technical elective is not a 2000 -level course. Electives must be approved by Advisor.

Courses designated as Core I, II, III, IV or V are part of the General Education curriculum. Students must complete a minimum of 40 hours of General Education courses, chosen from the approved list.

## Engineering Physics, M.S.

Minimum Total Hours (Thesis): 30
Minimum Total Hours (Non-Thesis): 32
Program Code: M372
The balance of courses must be appropriate for the degree and approved by the Engineering Physics Graduate Liaison and Advisory Committee.

Graduate credit cannot be received for any course equivalent to one required in the undergraduate Engineering Physics program.

## Thesis Option

| Code Title | Credit |
| :---: | :---: |
|  | Hours |
| Core Courses |  |
| Physics |  |
| Choose 9-12 hours (if the advisor is from Engineering, a minimum of 12 hours in Physics courses is required) | 9-12 |
| Engineering |  |
| Choose 9-12 hours (if the advisor is from Physics, a minimum of 12 hours in Engineering courses is required) | 9-12 |
| Electives |  |
| Choose 5-7 hours | 5-7 |
| Thesis |  |
| EPHY 5980 Research for Master's Thesis | 2-4 |
| Total Credit Hours | 30 |

## Non-Thesis Option

Code
Title

Core Courses
Physics
Choose 12 hours ..... 12
EngineeringChoose 12 hours12
Electives
Choose 8 hours ..... 8
Total Credit Hours ..... 32

## General Requirements for all Master's Degrees

The master's degree requires the equivalent of at least two semesters of satisfactory graduate work and additional work as may be prescribed for the degree.

All coursework applied to the master's degree must carry graduate credit.
Master's degree programs which require a thesis consist of at least 30 credit hours. All non-thesis master's degree programs require at least 30 credit hours.

Credit transferred from other institutions must meet specific criteria and is subject to certain limitations.

Courses completed through correspondence study may not be applied to the master's degree.

To qualify for a graduate degree, students must achieve an overall grade point average of 3.0 or higher in the degree program coursework and in all resident graduate coursework attempted. A student must also have at least a 3.0 in all coursework (including undergraduate coursework if any).

Additional information for master's degree students may be found in the Graduate College Bulletin.

## Engineering Physics, Ph.D.

Minimum Total Hours: 90
Program Code: D372

## Program Requirements

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Required Coursework (37 hours) |  |  |
| PHYS 5001 |  | 1 |
| PHYS 5013 | Mathematical Methods in Physics | 3 |
| PHYS 5393 | Quantum Mechanics I | 3 |
| PHYS 5403 | Quantum Mechanics II | 3 |
| PHYS 5153 | Classical Mechanics | 3 |
| PHYS 5573 | Electrodynamics I | 3 |
| PHYS 5583 | Electrodynamics II | 3 |
| PHYS 5163 | Statistical Mechanics | 3 |
| 12 hours of Engineering courses at 5000-level or above | 12 |  |
| An additional course in Physics or Engineering (excluding | 3 |  |
| 5980 or 6980) |  |  |
| Additional Coursework | $0-51$ |  |
| Coursework or seminars as approved by the advisory |  |  |
| committee |  | 3 |

Dissertation Research

| EPHY 6980 | Research for Doctoral Dissertation ((2 <br> hours minimum) $)$ | 2-53 |
| :--- | :--- | :--- |

## Total Credit Hours

${ }^{1}$ May be in related fields at G4000 level or above if approved by the advisory committee and graduate liaison.

## Note:

The General Examination can only be taken after passing the internal departmental qualifying exams on Quantum Mechanics, Electrodynamics, and Classical \& Statistical Mechanics.

## General Requirements for Doctoral Degrees

A student should expect to spend at least the equivalent of three full academic years beyond the bachelor's degree to obtain the doctoral degree. During this period the student will take appropriate graduate coursework, successfully complete the general examination, and successfully defend and submit the final dissertation.

All coursework applied to the doctoral degree must carry graduate credit.
The doctoral degree requires at least 90 post-baccalaureate hours, including both formal coursework and hours of research.

The minimum hour requirement for a specific doctoral degree program cannot be waived.

No more than one-half of the credit hours, both OU and overall, excluding Research for Doctoral Dissertation (6980), may be $S / U$-graded coursework.

The student must be in residence at OU for at least two consecutive 16week semesters during the pursuit of the doctoral degree while enrolled and engaged in coursework or research activities as prescribed by the major academic unit.

For more detailed regulations and requirements for Doctoral degrees, please consult the Graduate College Bulletin: http://www.ou.edu/ gradcollege/forms/bulletin

## School of Industrial and Systems Engineering

Shivakumar Raman, Director
Carson Engineering Center Room 124
202 W. Boyd St
Norman OK 73019
Phone: (405) 325-3721
Fax: (405) 325-7555
ise@ou.edu
www.ou.edu/coe/ise

## General Information

Industrial and Systems engineering is vital to providing solutions to complex problems in wide-ranging fields including manufacturing, transportation, technology, healthcare, aerospace, and supply chain management; and our talented faculty and students lead the way in research efforts in these areas and many others. Industrial and Systems engineers improve, integrate, inform and innovate. While most engineers work with products or processes, ISEs work on a broad range of problems involving both people and technology. Companies seek ISEs for their
expertise in understanding, evaluating and improving the performance of entire technical and business systems. ISE graduates find employment in more industry sectors than any other type of engineer. Our graduates can be found working in a wide range of jobs and locations, from Wall Street financial firms to Silicon Valley start-ups and fields that include aerospace, manufacturing, energy, healthcare, entertainment, risk management, logistics, defense, and retail/wholesale distribution.

## Mission Statement

The mission of the School of Industrial and Systems Engineering is to produce graduates with the capability to make systems productive through optimization and integration of processes, resources, and information.

## Programs \& Facilities

## Research Centers

There are a number of research opportunities for faculty and students at several research centers operated by the school, the college, and the University.

## Laboratories

Many of the laboratory facilities used by ISE students are used in association with elective coursework selected by students. Most labs are available by permission 24 -hours a day.

## Student Organizations

ISE students have the opportunity to participate in a number of student organizations.

## Undergraduate

## Accreditation

The Bachelor of Science in Industrial and Systems Engineering accredited by the Engineering Accreditation Commission of ABET, https:// www.abet.org, under the General Criteria and the Industrial Engineering and Similarly Named Engineering Programs Program Criteria. This means that our program meets the quality standards set for the programs in the engineering discipline.

## Industrial and Systems Engineering Program Educational Objectives (PEO)

Our Industrial and Systems Engineering undergraduate program is preparing our recent graduates to meet the following objectives:

1. Our alumni will have successful careers strengthened by knowledge of industrial and systems engineering methods and principles.
2. Our alumni will be emerging or established leaders among their peers.
3. Our alumni will be engaged in activities of life-long learning and professional development through willingness to take on challenges and learning opportunities.

## Industrial \& Systems Engineering Student Learning Outcomes

Through our Industrial and Systems Engineering undergraduate curriculum students will attain the following learning outcomes:

1. an ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics.
2. an ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors.
3. an ability to communicate effectively with a range of audiences.
4. an ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts.
5. an ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives.
6. an ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions.
7. an ability to acquire and apply new knowledge as needed, using appropriate learning strategies.

## Bachelor of Science

The Bachelor of Science in Industrial and Systems Engineering undergraduate curriculum is designed to provide students with an outstanding professional educational experience that is practical, modern, and progressive. The Bachelor of Science in Industrial and Systems Engineering accredited by the Engineering Accreditation Commission of ABET, https://www.abet.org, under the General Criteria and the Industrial Engineering and Similarly Named Engineering Programs Program Criteria. A number of undergraduate options allow students to focus on a number of elective paths.

- Industrial and Systems Engineering (p. 1406)
- Analytics (p. 1408)
- Pre-Medicine (p. 1410)


## Accelerated Programs

Programs leading to Master of Science degrees in Industrial and Systems Engineering or Master of Business Administration degrees also are available to outstanding undergraduate students. The Bachelor of Science in Industrial and Systems Engineering accredited by the Engineering Accreditation Commission of ABET, https://www.abet.org, under the General Criteria and the Industrial Engineering and Similarly Named Engineering Programs Program Criteria.

- Industrial and Systems Engineering, B.S./M.S. (p. 1413)
- Industrial and Systems Engineering: Analytics, B.S./M.S. (p. 1422)
- Industrial and Systems Engineering: Analytics, B.S./Data Science and Analytics, M.S. (p. 1425)
- Industrial and Systems Engineering, B.S./Master of Business Administration (p. 1419)


## Graduate

Graduate programs offer students a number of paths to pursue in their graduate program, focusing on theory, methodology, and application in the classroom as well as in their research.

- Industrial and Systems Engineering (traditional and online), Master of Science (p. 1427)
- Industrial and Systems Engineering, Ph.D. (p. 1429)


## Courses

ISE 2303 Design and Manufacturing Process 3 Credit Hours
(Crosslisted with AME 2303) Prerequisite: AME 2113 or CEES 2113 or ENGR 2113. Mechanical and physical properties of engineering materials. Introduction to design concepts, manufacturing processes and equipment used in engineering. ( Sp )

## ISE 2311 Computer Aided Design and Graphics Laboratory for Industrial Engineers <br> 1 Credit Hour <br> Corequisite: 2303. Provides students with a basic understanding of technical graphics communication and computer-aided design for industrial engineering applications. By using computer-aided design/ drafting software, SolidWorks/autoCAD, students will learn basic principles of engineering graphics and geometric modeling to assist in design problem visualization and planning. (Sp)

ISE 2823 Enterprise Engineering
3 Credit Hours
Introduction to the industrial engineering role as enterprise system integrator. Systems concepts, modeling and analysis; integrated product/service and operational process design; productivity and quality improvement; computer technology insertion; project, operations, and global supply chain management. (F)

## ISE 2913 Introduction to Python for Analytics and

 Engineering
## 3 Credit Hours

Prerequisite: CS 1323 or equivalent, or special permission. This course serves as a fundamental introduction to programming using Python, with a particular focus on applications in the fields of analytics and engineering. Python has become cornerstone language in these disciplines due to its versatility, simplicity, and extensive library support. Students will learn the essential of Python programming, laying a strong foundation for more advance topics in data analytics. (Sp)
ISE 2960 Directed Reading
1-3 Credit Hours
Directed Reading. 1 To 3 Hours. Prerequisite: Engineering 1112; Permission Of The Department; Special Permission Card Required. May Be Repeated; Maximum Credit Three Hours. Individual Project Studies For University College Students In Industrial Engineering. (F)
ISE 3293 Applied Engineering Statistics
3 Credit Hours
Prerequisite: MATH 2433 or MATH 2924. Introduction to probability, one and higher dimensional random variates, function of random variables, expectation, discrete and continuous distributions, sampling and descriptive statistics, parameter estimation, use of statistical packages. (F, Sp)
ISE 3304 Design and Manufacturing II
4 Credit Hours
Prerequisite: 2303, 2311, Civil Engineering and Environmental Science 2153 (or concurrent enrollment) Or Aerospace and Mechanical Engineering 3143 (or concurrent enrollment). Dimensioning and tolerancing; tolerances-type, design and specification; assembly and fit design; tolerance standards, process planning-precedence representation in machining, operation and machine sequencing; jigs and fixturesdesign and analysis; time and cost estimation for machining; automation; process/system integration. Laboratory (F)

## ISE 3440 Mentored Research Experience

## 3 Credit Hours

0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)

ISE 3813 Statistical Computing 3 Credit Hours
Prerequisite: ISE 2913 and Math 3333. This course provides an introduction to statistical computing using the R programming language. $R$ is a powerful tool for statistical analysis, data visualization, and data manipulation. Students will learn how to perform statistical computations and data analysis using R , making it a valuable skill for careers in analytics and engineering. (F)
ISE 3913 Introduction to Machine Learning and Data

## Analytics

## 3 Credit Hours

Prerequisite: ISE 2913 or C S 1323 or special permission. This course provides a foundational understanding of machine learning and data analytics within the context of engineering and complex systems. Students will learn key concepts and techniques, including data preprocessing, anomaly detection, regression, classification, and time series analysis. The course emphasizes practical applications of machine learning and analytics and their significance in various industries. (Sp)

## ISE 3960 Honors Reading (HONORS)

1-3 Credit Hours
1 to 3 Hours. Prerequisite: Admission to Honors Program. May be repeated; maximum credit six hours. Consists of topics designated by the instructor in keeping with the Student's major program. Covers materials not usually presented in the regular courses. (F, Sp, Su)
ISE 3970 Honors Seminar 1-3 Credit Hours 1 to 3 hours. Prerequisite: admission to Honors program. May be repeated; maximum credit six hours. Projects covered will vary. Deals with concepts not usually presented in regular coursework. (Irreg.)

## ISE 3980 Honors Research (HONORS) 1-3 Credit Hours

1 to 3 hours. Prerequisite: Admission to Honors Program. May be repeated; maximum credit six hours. Will provide an opportunity for the gifted Honors candidate to work at a special project in the student's field. (F, Sp, Su)
ISE 3990 Special Topics 1-3 Credit Hours
1 to 3 hours. Directed study for undergraduates. (F, Sp, Su)
ISE 4113 Spreadsheet Dec Support Sys 3 Credit Hours
Prerequisite: I E/ISE 4623 or concurrent enrollment, and CS 1313 or CS 1321 or CS 1323 or CS 1324, or permission of instructor. Covers all aspects of spreadsheet-based software functionality that are relevant to decision-making. Microsoft Excel is used as the subject tool. Students will learn advanced functions of Excel that are available through the spreadsheet interface, the Visual Basic language and its integration with the spreadsheet environment, principles of decision-support systems studied in a variety of applications, including facility layout, and warehousing. (F)
ISE G4223 Fundamentals of Engineering Economy 3 Credit Hours Prerequisite: MATH 2423 or 2924 or permission of the department. Development and use of time value of money interest formulas. Inflation considerations and bond problems. Bases for comparison of alternatives, present worth, annual worth, rate of return and savings-investment ratio methods. Decision-making among independent, dependent, capitalconstrained and un-equal lived projects. Depreciation methods and their effect on corporate income taxes, leading to after-tax cash flow analysis. Benefit-cost and cost effectiveness analysis. (Sp)

ISE 4281 Engineering Co-Op Program
1 Credit Hour
(Crosslisted with AME, CH E, CEES, C S, EPHY, ECE and BME 4281)
Prerequisite: Departmental permission and junior standing. May be repeated; maximum credit 6 hours. The Co-Op program provides students an opportunity to enhance their education via career exploration in related professional work experiences. Course assignments help students articulate their experiences by completing journals; mid-term paper; final paper and/or final presentation. Faculty receive an evaluation from the student's Co-Op supervisor who monitors performance. Faculty collaborate with the Co-Op supervisor to ensure student success. (F, Sp, Su)
ISE 4302 Systems Thinking
2 Credit Hours
Systems thinking is a way of making sense of the world's complexity by studying whole systems and studying the relationships both among systems and among the integral part of the system. As systems engineering problems are typically complex and often embedded in complex contexts, determining effective solutions can be difficult. Systems thinking is based on systems theory and systems sciences. (Sp)

## ISE G4333 Production Systems/Operations 3 Credit Hours

Prerequisite: ISE 2823 and ISE 4623, or permission of instructor.
Operations-oriented topics for production systems. Supply chain process (tactical planning, operational scheduling and sequencing, management and planning, and demand promising). Customer service process; E-Business and information technology applications for production systems. (F)
ISE 4383 Systems Evaluation
3 Credit Hours
(Slashlisted with ISE 5383) Prerequisite: ISE 4223, ISE 4563, and
ISE 4633. Focuses on the development and evaluation of alternate system and process designs. Development of system goals, requirements, and performance measures; ranking of alternatives and decision analysis techniques. Review and development of trade studies. Applications in facility layout, maintenance, supply chain, and other contexts. No student may earn credit for both 4383 and 5383. (F)
ISE 4393 Capstone Design Project 3 Credit Hours
Prerequisite: ISE 4333 or ISE 3913, ISE 4383, ISE 4663, and ISE 4853. Restricted to graduating Industrial \& Systems Engineering students; to be taken in the last semester. Current problems drawn from production and service organizations will be presented by personnel from these organizations. Students will solve these problems under the guidance of their instructor, using industrial engineering methodology. (F, Sp) [V].
ISE 4553 Data-Driven Decision Making I
3 Credit Hours
(Slashlisted with ISE 5553) Prerequisite: ISE 3293. Fundamentals of statistical models for describing engineering systems and processes. Analysis of variance, multiple regression, logistic regression, time series, clustering. Emphasis is placed on decision making. No student may earn credit for both 4553 And 5553. (F)
ISE 4563 Quality \& Reliability Engineering
3 Credit Hours
(Slashlisted with ISE 5563) Prerequisite: ISE 3293 and ISE 4553. The use of statistical methods for quality control and improvement in product and process environments, as well as introductory applied probability for component and system reliability. Topics include philosophies of quality management, control chart theory and application, process capability, and performance metrics of reliability. Focus is given to decision making in engineering systems. No student may earn credit for both 4563 and 5563. (Sp)

ISE 4623 Deterministic Systems Models 3 Credit Hours Prerequisite: I E/ISE 2823. Problem solving using analytical models: theory, methodology, and application. Topics include linear programming, simplex algorithm and sensitivity analysis, integer programming, and dynamic programming. Practical applications in transportation networks, project management and scheduling, deterministic inventory models, decision making, and systems integration. Solution methods using computer software. (F)

ISE 4633 Probabilistic Systems Models 3 Credit Hours
Prerequisite: I E 3293 or ISE 3293 AND I E 4623 or ISE 4623. Problem solving using stochastic models: theory, methodology, and application. Topics include probability distributions, Poisson processes, Markov chains and Markov decision processes, queuing theory, and Monte Carlo simulation. Practical applications in probabilistic inventory models, maintenance activities, decision making, and systems integration. Solution methods using computer software. (Sp)

ISE 4663 Systems Analysis Using Simulation 3 Credit Hours
(Slashlisted with ISE 5663) Prerequisite: ISE 3293 or ISE 5013 or DSA 5013. Implements the science of systems analysis through the use of simulation modeling and statistical analysis; inclusive of time study analysis for performing input modeling tasks. Laboratory. No student may earn credit for both 4663 and 5663. (F)

ISE G4804 Ergonomics in Systems Design 4 Credit Hours Prerequisite: junior standing or permission of instructor. Humansystems integration, considering the impacts of the physical structure, the information flow, and the environmental conditions on human performance. Students learn how to design, evaluate and improve systems from the perspective of the human(s) working in and impacted by the system. (Sp)
ISE 4853 Data-Driven Decision Making II 3 Credit Hours
(Slashlisted with ISE 5853) Prerequisite: ISE 4553 and ISE 4804 or ISE 3913. Experimental methodology for empirical decision making. Includes the development of empirical hypotheses, designs, performance criteria, and analyses. Techniques for empirical reporting. The measurement of human performance is typically the vehicle used for students in this course. No student may earn credit for both 4853 and 5853. (F)

ISE 4913 Advanced Machine Learning and Data Analytics 3 Credit Hours
Prerequisite: ISE 3913. This advanced course builds upon the foundation established in the introductory course, delving deeper into machine learning and data analytics. Students will explore advanced machine learning algorithms, deep learning, natural language processing, reinforcement learning, big data analytics, and specialized topics like Generative Adversarial Networks (GANs). Ethical considerations, societal implications, and future trends are integral components of the course. (F)

ISE 4960 Directed Readings
1-4 Credit Hours
1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean. May be repeated; maximum credit four hours. Designed for upper-division students who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)

ISE 4970 Special Topics/Seminar 1-3 Credit Hours
1 to 3 hours. Prerequisite: permission of instructor. May be repeated with change of content; maximum credit twelve hours. Special topics in the various fields of industrial engineering -- data analysis, engineering financial analysis, human factors, manufacturing, operations research, production, simulation, sustainability, systems. (Irreg.)

SE 4990 Special Studies
1-3 Credit Hours
1 to 3 hours. Prerequisite: senior standing. May be repeated once; maximum credit six hours. Directed study for undergraduates. (F, Sp, Su)

ISE 5013 Fundamentals of Engineering Statistical Analysis 3 Credit Hours
(Crosslisted with DSA 5013) Prerequisite: graduate standing. Introduction to probability, expectation, discrete and continuous distributions, sampling and descriptive statistics, parameter estimation, and statistical tests to aid decision making. The student will learn analysis techniques for verification of systems parameters. (F, Sp)

ISE 5023 Systems Optimization
3 Credit Hours
Prerequisite: graduate standing. Introduction to basic systems models and their solution with modern computer packages. Emphasis on modeling, computer solution, and sensitivity analysis with limited reference to model theory and development of algorithmic methods. (F)

## SE 5033 Systems Engineering <br> 3 Credit Hours

Prerequisite: graduate standing. The complexities of systems, design, sustainment, and modernization in the context of systems engineering. (Irreg.)

ISE 5103 Intelligent Data Analytics
3 Credit Hours
(Crosslisted with DSA 5103) Prerequisite: graduate standing or permission of instructor; ISE 3293 or ISE 5013; CS 1313 or CS 1323. In our society, data is rapidly increasing in volume, velocity, and variety. At the same time computing power and the sophistication of data analysis techniques are increasing. However, even with the expanding capabilities, businesses and organizations often find themselves "data rich, but information poor." Intelligent Data Analysis is a holistic approach to addressing real-world data intensive problems that integrates human intuition with data analysis tools to best draw out meaningful insights. To this end, the course has four underlying themes: defining the Problem, understanding and coping with Data, selecting and using appropriate Analytical Tools, and discovering and communicating the Insight. Techniques covered include data cleansing and pre-processing, exploratory analysis and visualization, dimension reduction, linear and logistic regression, decision trees, and clustering. This course will introduce students to a powerful open source statistical programming language (R) and include extensive hands-on data analysis and team projects. (F)

ISE 5113 Advanced Analytics and Metaheuristics 3 Credit Hours (Crosslisted with DSA 5113) Prerequisite: ISE 5013, graduate standing or permission of Instructor. Explores advanced techniques for addressing complex optimization problems. Focus is on formulating mathematical models and developing problem solving strategies using methods in the context of Data Science and Analytics. Topics include continuous and combinatorial optimization with an emphasis on both traditional and modern heuristic techniques. (Sp)

ISE 5123 Software Tools-Dec Support
3 Credit Hours
Prerequisite: Computer Science 1313 or 1323, or permission of instructor Covers an integrated set of software tools that is used in development of a wide variety of decision models and support systems. Students will learn Python programming language and several of its major libraries. Applications will be developed in data extraction and processing, and development of statistical, simulation, and optimization models. (Irreg.)

ISE 5133 Energy Analytics
3 Credit Hours
(Crosslisted with DSA 5133) Prerequisite: Graduate standing or permission of instructor. In today's data-driven world, the ability to extract knowledge and create successful future energy projections is critical for the energy sectors. In this regard, data science body of knowledge promises a strong set of analytical tools that can be used for demand/ supply forecasting and price prediction. This course aims at teaching the students the fundamentals of data analysis and interpretation. (F)

## ISE 5293 Cost Engineering

3 Credit Hours
(Crosslisted with ELM 5293) Prerequisite: Graduate standing. This course will discuss the application of scientific principles and techniques to problems of cost estimating, cost control, business planning, profitability analysis, project management, and planning and scheduling. It will provide an understanding of both the tools and models that can be used throughout the design, development, and support phases, and examine the trade-offs between system performance and life-cycle cost. (Su)
ISE 5373 Intro to Additive Manufacturing
3 Credit Hours
Prerequisite: Graduate standing or permission of instructor. Students will be exposed to Additive Manufacturing (AM, also 3D Printing, Rapid Prototyping, and Direct Digital Manufacturing) in a holistic but highly technical manner. Topics include an overview of relevant AM technologies and their importance in many branches of industry (i.e., medical, aerospace, automotive, etc.), as well as the field's origins, growth, and future directions. (Sp)
ISE 5383 Systems Evaluation
3 Credit Hours
(Slashlisted with ISE 4383) Prerequisite: permission of department. Focuses on the development and evaluation of alternate system and process designs. Development of system goals, requirements, and performance measures; ranking of alternatives and decision analysis techniques. Review and development of trade studies. Applications in facility layout, maintenance, supply chain, and other contexts. (F) No student may earn credit for both 4383 and 5383.
ISE 5503 Healthcare Analytics 3 Credit Hours (Crosslisted with DSA 5503) Prerequisite: Graduate Standing and ISE 3293 or DSA/ISE 5013. This course gives an overview of the primary concepts and methods towards developing artificial intelligence (AI)enabled healthcare systems. We will focus on foundational methods in machine learning and data analytics for prediction and pattern recognition, and apply them to specific areas in medicine and healthcare including, but not limited to, disease diagnosis, patient treatments and their outcomes prediction. (Sp)
ISE 5543 Decision Analysis
3 Credit Hours
(Crosslisted with ELM 5543) Prerequisite: Graduate standing. This course provides the fundamentals of decision analysis and explores how analyzing risk can be incorporated into good decision making. Normative approaches to making decisions when uncertainty exists are central to this course. Topics covered include structuring decision problems, developing alternatives, single and multiple objectives, utility theory, risk tolerance, data-driven and subjective probability, and psychological pitfalls. (F)
ISE 5553 Data-Driven Decision Making I
3 Credit Hours
(Slashlisted with ISE 4553) Prerequisite: ISE 3293 or ISE 5013.
Fundamentals of statistical models for describing engineering systems and processes. Analysis of variance, multiple regression, logistic regression, time series, clustering. Emphasis is placed on decision making. No student may earn credit for both 4553 and 5553. (F)

ISE 5563 Quality \& Reliability Engineering 3 Credit Hours
(Slashlisted with ISE 4563) Prerequisite: ISE 3293 or ISE 5013 and ISE 4553 or ISE 5553. The use of statistical methods for quality control and improvement in product and process environments, as well as introductory applied probability for component and system reliability. Topics include philosophies of quality management, control chart theory and application, process capability, and performance metrics of reliability. Focus is given to decision making in engineering systems. No student may earn credit for both 4563 and 5563. (Sp)
ISE 5613 Multicriteria Optimization
3 Credit Hours
Prerequisite: 4623 . Survey of developments and applications of theory and methods pertinent to decision making under conflicting criteria. Goal programming and interactive methods for multicriteria mathematical programming will be emphasized with applications. (Irreg.)
ISE 5633 Supply Chain Mgt \& Transport
3 Credit Hours
Prerequisite: graduate standing or by permission. Introduces
transportation and supply chain concepts along with the important issues in supply chain system design and operation. Students learn how to formulate and analyze systems models for supply chain systems using information technology skills and decision support systems. (Irreg.)

## ISE 5643 Engineering Optimization

3 Credit Hours
Prerequisite: ISE 4623 or permission. Basic computational tools for solving nonlinear unconstrained and constrained optimization problems arising in engineering practice. Emphasis is on models and methods applicable to problems in engineering design, process operations, control, production planning, manufacturing and management. (Irreg.)
ISE 5663 Systems Analysis Using Simulation
3 Credit Hours
(Slashlisted with ISE 4663) Prerequisite: Graduate standing, and ISE 3293 or ISE 5013 or DSA 5013 . Implements the science of systems analysis through the use of simulation modeling and statistical analysis, including time study analysis for performing input modeling tasks. No student may earn credit for both 4663 and 5663. (F)
ISE 5693 Simulation Modeling and Analysis
3 Credit Hours
Prerequisite: Graduate standing; ISE 3293 or ISE 5013. This course is an advanced study of simulation methodology. Emphasis will be given to modeling of discrete event systems. Provides theoretical and practical experience in building and running computer simulation models of industrial systems. Teaches statistical methods for analyzing the output from a simulation. (Sp)
ISE 5713 Engineering Project Management
3 Credit Hours
Prerequisite: ISE 3293 or ISE 5013 or permission of instructor. Review of the various technical and managerial aspects of project management. Introduction to extensions of CPM and PERT. Specific topics include network development and analysis, precedence constraints, resource allocation, time-cost trade-off, heuristics, criticality index, computer applications, design and analysis of engineering projects, and optimization techniques for project scheduling. (Irreg.)

## ISE 5743 Mgt of Engineering Function

3 Credit Hours
Prerequisite: 2823 or graduate standing. Explores major concepts of engineering management and how to apply these concepts in managing the engineering function in an enterprise. Intensive analysis of the specialized problems of engineering organizations which include technical human power. Procedures and design for the control of engineering projects. Specific examples and cases of management problems and experiences are used. A research project is required that involves at least one of the functions of engineering management. (Irreg.)

ISE 5753 Organization Systems
Prerequisite: graduate standing or permission. The organization is examined as a complex of subsystems to accomplish production or service objectives. Individuals as members of the subsystems are examined as human factor elements in contributing to the analysis of effectiveness and efficiency of systems. Organizations are viewed from a macro standpoint with emphasis on engineering organizations. Current trends and cases are reviewed with case presentations required. A research project evaluating and organization is required from an engineering management viewpoint. (Irreg.)

ISE 5763 Project Management Methods
3 Credit Hours
Prerequisite: Graduate standing and ISE 3293 or ISE 5013. This course provides the fundamentals of project management. Projects are temporary, unique endeavors that produce a product, service, or result. Organizations in both the public and private sectors use projects to achieve strategic objectives. Projects have distinct start and end dates, and so have a life cycle. We will examine life cycle through project selection, team organization, execution, and closure. (Su)
ISE 5773 Systems Requirements and Architecting 3 Credit Hours (Crosslisted with ELM 5773) Prerequisite: Graduate standing. This course provides the fundamentals of systems engineering by offering an overview of the discipline and then focusing on the management of system requirements and developing how a system will meet them. We will discuss the definition of systems, the system development life cycle, and the systems engineering method. Topics include Detail design, requirement analysis and decomposition, and system architecting. (F)

## ISE 5783 Project Leadership <br> 3 Credit Hours

Prerequisite: Graduate standing in ISE or DSA. This course is designed to help everyone improve their ability to lead when in formal leadership roles and when in roles where influence is needed to achieve high-performing teams. This course is to prepare students to exercise leadership as influencers when in not in formal leadership roles, and to be able to excel as leaders. (F)
ISE 5813 Advanced Human Factors and Ergonomics 3 Credit Hours Prerequisite: ISE 4804 and graduate standing. Analysis, design, and evaluation of human behaviors and decision-making processes in simple and complex systems. Integration of human factors, human computer interaction, and systems engineering. (Sp)
ISE 5823 Exercise Physiology
3 Credit Hours
(Crosslisted with HES 5823) Prerequisite: 4824; Zoology 3104 or 3133; Physiology 5016 or 5019; or permission. Advanced study of physiological responses, regulatory mechanisms and adaptations of human performance and health; factors affecting performance and health; and training and evaluative techniques. (F)

## ISE 5853 Data-Driven Decision Making II

3 Credit Hours
(Slashlisted with 4853) Prerequisite: 4553 and 4804. Experimental methodology for empirical investigation. Includes the development and measurement of empirical hypotheses, designs, performance criteria, and analyses. Techniques for empirical reporting. The measurement of human performance is typically the vehicle used for students in this course. No student may earn credit for both 4853 and 5853. (F)

ISE 5893 Models Based Systems Engineering
3 Credit Hours
Prerequisite: graduate standing. Models Based System Engineering (MBSE) is concerned with the application of modeling and simulation techniques to the design, analysis, verification, and validation of complex systems throughout their lifecycle. Students will be exposed to principles, processes and tools necessary to develop and manage model-based representations of complex systems, enabling a holistic and integrated approach to systems engineering. (Sp)

ISE 5960 Directed Readings
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing and permission of department. May be repeated; maximum credit twelve hours. Directed readings and/or literature reviews under the direction of a faculty member. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

ISE 5970 Seminar-Industrial Engineering
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission. May be repeated with change of content; maximum credit 12 hours. Special topics in the various fields of industrial engineering, engineering, economy, operations research, ergonomics, production, manufacturing, simulation, engineering statistics and computer systems. (Irreg.)
ISE 5980 Research for Master's Thesis 2-9 Credit Hours
Variable enrollment, two to nine hours; maximum credit applicable toward degree, six hours. (F, Sp, Su)
ISE 5990 Special Studies
1-4 Credit Hours
1 to 4 hours. Prerequisite: senior standing, permission. May be repeated; maximum credit six hours. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
ISE 6623 Nonlinear Programming
3 Credit Hours
Prerequisite: Graduate standing and ISE 4623. Theory and computational aspects of nonlinear optimization problems. Topics include: applications and problem formulation, convexity, Kuhn-Tucker conditions, duality, quadratic programming, unconstrained optimization techniques, direct search method, penalty function, optimization methods, feasible direction methods, separable programming, geometric programming. (Irreg.)

ISE 6960 Directed Readings
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit six hours. Directed readings and/or literature review under the direction of a faculty member. (Irreg.)
ISE 6970 Special Topics/Seminar 1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit 12 hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or research and field projects. (Irreg.)
ISE 6980 Research for Doctoral Dissertation 2-16 Credit Hours
2 to 16 hours. Prerequisite: Graduate standing and permission of instructor; may be repeated. Directed research culminating in the completion of the doctoral dissertation. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

ISE 6990 Special Studies
1-9 Credit Hours
1 to 9 hours. Prerequisite: Graduate standing. May be repeated with change of content; maximum credit 9 hours. Special problems in the various fields of industrial and systems engineering. Special studies in data analytics, systems modeling and design, computational optimization, logistics and supply chain management, human-system integration, engineering education, advanced manufacturing, or biomedical manufacturing. In addition, students may need information relating to problem-specific disciplines such as weather, energy, sustainability, and psychology. (F, Sp, Su)

## Faculty

| Last Name | First/Middle <br> Name | Middle <br> init. | OU <br> Service <br> start | Title(s), date(s) <br> appointed | Degrees Earned, <br> Schools, Dates <br> Completed |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Ahsan | Manjurul | Md. | 2024 | Research Assistant <br> Professor | PhD, University of <br> Oklahoma, 2023; M.S. |
|  |  |  |  |  | Lamar University, |
|  |  |  |  |  | 2018 |


| Allen | Janet | K | 2009 | PROFESSOR OF INDUSTRIAL AND SYSTEMS ENGINEERING, 2009; JOHN AND MARY | PhD, Univ of California, Berkeley, 1973; BS, Mass Inst of Technology, 1987 | Pulat | Pakize | Simin | 1985 | PROFESSOR- <br> EMERITUS OF <br> INDUSTRIAL <br> AND SYSTEMS <br> ENGINEERING, 2018 | PhD, North Carolina St Univ, 1984; MS, North Carolina St Univ, 1977; BS, Middle East Tech Univ, 1975 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | MOORE CHAIR IN ENGINEERING, 2009 |  | Raman | Shivakumar |  | 1988 | SAMUEL <br> ROBERTS NOBLE | PhD, Pennsylvania <br> State Univ, 1989; |
| Barker | Kash |  | 2011 | PROFESSOR OF INDUSTRIAL AND SYSTEMS ENGINEERING, 2021; DAVID L. BOREN PROFESSOR, 2020; PROFESSOR DATA SCIENCE AND ANALYTICS | PhD, Univ of Virginia, 2008; MS, Univ of Oklahoma, 2004; BS, Univ of Oklahoma, 2002 |  |  |  |  | PRESIDENTIAL PROFESSOR, 1999; DAVID ROSS BOYD PROFESSOR OF INDUSTRIAL AND SYSTEMS ENGINEERING, 2004; MORRIS R. PITTMAN PROFESSOR, 2019 | MS, Univ of Texas <br> Arlington, 1985; B <br> Engr, Shivaji Univ, <br> 1983 |
| Bevans | Benjamin |  | 2024 | Research Assistant Professor | PhD., Virginia Tech, 2024; B.S. University of Nebraska, 2020 | Razzaghi | Talayeh |  | 2019 | ASSISTANT PROFESSOR OF INDUSTRIAL | PhD, Univ. of Central Florida, 2014; MS, Sharif Univ. of Tech, |
| Dodd | Owen | T | 2018 | ASSISTANT <br> PROFESSOR | PhD, Univ of Oklahoma, 2013; BS, |  |  |  |  | AND SYSTEMS <br> ENGINEERING, 2019 | 2007; BS, Univ. of Tehran, 2005 |
|  |  |  |  | OF INDUSTRIAL <br> AND SYSTEMS <br> ENGINEERING, 2018 | Univ of Oklahoma, 2004 | Riensche | Alex |  | 2024 | Research Assistant Professor | PhD. Virginia Tech, 2024;B.S. University of Nebraska, 2019 |
| Gonzalez <br> Huertas | Andres | D | 2017 | ASSISTANT <br> PROFESSOR <br> OF INDUSTRIAL <br> AND SYSTEMS <br> ENGINEERING, 2017 | PhD, Universidad de los Andes, 2017; PhD, Rice Univ, 2017; MS, Universidad de los Andes, 2012; BS, Universidad de los Andes, 2009 | Roh | Byeong-Min |  | 2022 | Assistant Professor of Industrial and Systems Engineering, 2022 | Ph.D., Mechanical Engineering, The Pennsylvania State University 2022; M.S., Mechanical Engineering, The Pennsylvania State |
| Hemmati | M. Soheil |  | 2023 | Assistant Professor of Industrial and Systems Engineering, 2023 | Ph.D., University of Florida, 2013; M.S., Sharif University of Technology, 2006; B.S., Sharif University of Technology, 2003 |  |  |  |  |  | University 2021; M.S., Industrial Engineering, The Pennsylvania State University, 2017; <br> B.S., Manufacturing |
| Kang | Ziho |  | 2014 | ASSOCIATE <br> PROFESSOR <br> OF INDUSTRIAL <br> AND SYSTEMS <br> ENGINEERING, 2020 | PhD, Purdue Univ, 2012; MS, Purdue Univ, 2006; BS, Korea Univ, 2001 |  |  |  |  |  | Systems \& Design <br> Engineering, <br> Northumbria <br> University at <br> Newcastle, UK 2014; |
| Landers | Thomas |  | 1998 | PROFESSOR- <br> EMERITUS OF <br> INDUSTRIAL <br> AND SYSTEMS <br> ENGINEERING, 2019 | PhD, Texas Tech Univ, 1985; MS, Texas Tech Univ, 1973; BS, Texas Tech Univ, 1972 |  |  |  |  |  | Systems \& Design <br> Engineering, Seoul <br> National University <br> of Science and <br> Technology, 2014 |
| Li | Yifu |  | 2020 | ASSISTANT <br> PROFESSOR <br> data science <br> AND ANALYTICS, <br> 2020; ASSISTANT <br> PROFESSOR | PhD, MS, Virginia Tech, 2020; BS, Virginia Tech, 2016 | Ruiz | Cesar |  | 2022 | Assistant Professor of Industrial and Systems Engineering, 2022 | Ph.D., University of Arkansas, 2020; M.S. University of Arkansas, 2018; B.A., ESEN, 2014 |
|  |  |  |  | OF INDUSTRIAL <br> AND SYSTEMS <br> ENGINEERING, 2020 |  | Shehab | Randa |  | 1997 | PROFESSOR OF INDUSTRIAL AND SYSTEMS ENGINEERING, | PhD, Univ of Oklahoma, 1995; MS, Univ of Oklahoma, 1993; BS, Univ of |
| Nicholson | Charles |  | 2013 | DIRECTOR OF <br> DATA SCIENCE <br> AND ANALYTICS <br> INSTITUTE, 2023; <br> ASSOCIATE <br> PROFESSOR <br> OF INDUSTRIAL <br> AND SYSTEMS <br> ENGINEERING, <br> 2019; ASSOCIATE <br> PROFESSOR DATA <br> SCIENCE AND | PhD, Southern <br> Methodist Univ, 2010; MS, Univ of North Texas, 2002; BS, Univ of North Texas, 1999 |  |  |  |  | 2009; ADJUNCT <br> PROFESSOR OF WOMEN'S AND GENDER STUDIES, 2013; NETTIE VINCENT BOGGS PROFESSOR OF ENGINEERING, 2014; CO-DIRECTOR DATA SCIENCE AND ANALYTICS |  |


| Trafalis | Theodore | B | 1991 | PROFESSOR OF INDUSTRIAL AND SYSTEMS ENGINEERING, 2002; ADJUNCT PROFESSOR OF METEOROLOGY, 2008; PROFESSOR DATA SCIENCE AND ANALYTICS | PhD, Purdue Univ, 1989; MS, Purdue Univ, 1984; BS, Athens, 1982 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Zhu | Rui |  | 2021 | ASSISTANT <br> PROFESSOR <br> OF INDUSTRIAL <br> AND SYSTEMS <br> ENGINEERING, 2021 | PhD, The <br> Pennsylvania State Univ, August 2021; MS, Harbin Inst of Technology, 2017; BS, Harbin Inst of Technology, 2014 |

## Industrial and Systems Engineering, B.S.

Minimum Total Credit Hours: 127

Overall GPA - Combined and OU: 2.00
Major GPA - Combined and OU: 2.00
Curriculum GPA - Combined and OU: 2.00
Program Code: B524

## This program has changes pending State Regents approval for 2024/25. These pending changes are not reflected here.

Bachelor of Science in Industrial and Systems Engineering accredited by the Engineering Accreditation Commission of ABET, https:// www.abet.org, under the General Criteria and the Industrial Engineering and Similarly Named Engineering Programs Program Criteria.

In order to progress in your curriculum in the Gallogly College of Engineering, and as a specific graduation requirement, a grade of C or better is required in each course in the curriculum, including all prerequisite courses.

## Major Requirements

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Required Courses |  | 3 |
| ISE 2823 | Enterprise Engineering | 1 |
| ISE 2311 | Computer Aided Design and Graphics <br> Laboratory for Industrial Engineers |  |
| ISE 2303 | Design and Manufacturing Process | 3 |
| ISE 3293 | Applied Engineering Statistics | 3 |
| ISE 3304 | Design and Manufacturing II | 4 |
| ISE 4113 | Spreadsheet Dec Support Sys | 3 |
| ISE 4553 | Data-Driven Decision Making I | 3 |
| ISE 4623 | Deterministic Systems Models | 3 |
| ISE 4223 | Fundamentals of Engineering Economy | 3 |
| ISE 4563 | Quality \& Reliability Engineering | 3 |
| ISE 4633 | Probabilistic Systems Models | 3 |
| ISE 4804 | Ergonomics in Systems Design | 4 |
| ISE 4333 | Production Systems/Operations | 3 |


| ISE 4383 | Systems Evaluation | 3 |
| :---: | :---: | :---: |
| ISE 4663 | Systems Analysis Using Simulation | 3 |
| ISE 4853 | Data-Driven Decision Making II | 3 |
| ISE 4393 | Capstone Design Project | 3 |
| ISE Elective |  |  |
| Choose a three hour approved ISE elective ${ }^{1}$ |  | 3 |
| Total Credit Hours |  | 54 |
| ${ }^{1}$ To be chosen from an approved list of ISE electives available in the ISE office, CEC 116. |  |  |

## Major Support Requirements

| Code Title | Credit |
| :--- | :--- |
|  | Hours |


| Math and Science |  |  |
| :--- | :--- | :--- |
| MATH 2924 | Differential and Integral Calculus II | 4 |
| MATH 2934 | Differential and Integral Calculus III | 4 |
| Math Elective - Choose from approved list 1 | 3 |  |
| PHYS 2524 | General Physics for Engineering and |  |
|  | Science Majors | 4 |

## ISE Technical Elective

Choose a three hour ISE Technical Elective from approved list 3 maintained by the department

## Additional College Requirements

| ENGR 1411 | Pathways to Engineering Thinking ${ }^{2}$ | 1 |
| :--- | :--- | ---: |
| ENGR 2002 | Professional Responsibilities and Skills of <br>  <br>  <br> C S 1323 | 2 |
| or C S 1313 | Introduction to Computer Programming for <br> Programmers | 3 |
| ENGR 2431 | Programming for Non-Majors with C |  |
| ENGR 2461 | Thermodynamics | 1 |
| ENGR 3441 | Fluid Mechanics | 1 |
| CEES 2113 | Statics | 1 |
| CEES 2153 | Mechanics of Materials | 3 |
| Total Credit Hours | 3 |  |

${ }^{1}$ Chosen from an approved list maintained by the department. Options include MATH 2513, MATH 3113 MATH 3333, MATH 3413, and MATH 4433.
${ }^{2}$ Engineering transfer students may take ENGR 3511 in place of ENGR 1411.

## General Education and College Requirements

Courses designated as Core I, II, III, IV, or V are part of the General Education curriculum. Students must complete a minimum of 40 hours of General Education courses, chosen from the approved list, including at least one upper-division Gen. Ed. course outside of the student's major. Courses graded P/NP will not apply.

A grade of $C$ or better is required in each course in the curriculum, including all prerequisite courses.


| ISE 4113 | Spreadsheet Dec Support Sys | 3 |
| :---: | :---: | :---: |
| ISE 4553 | Data-Driven Decision Making I | 3 |
| ISE 4623 | Deterministic Systems Models | 3 |
| Approved Elective: Social Science (Core III) ${ }^{4}$ |  | 3 |
|  | Credit Hours | 16 |
| Second Semester |  |  |
| ISE 4223 | Fundamentals of Engineering Economy | 3 |
| ISE 4563 | Quality \& Reliability Engineering | 3 |
| ISE 4633 | Probabilistic Systems Models | 3 |
| ISE 4804 | Ergonomics in Systems Design | 4 |
| ENGR 2461 | Thermodynamics | 1 |
| ENGR 3441 | Fluid Mechanics | 1 |
|  | Credit Hours | 15 |
| Senior |  |  |
| First Semester |  |  |
| ISE 4333 | Production Systems/Operations | 3 |
| ISE 4383 | Systems Evaluation | 3 |
| ISE 4663 | Systems Analysis Using Simulation | 3 |
| ISE 4853 | Data-Driven Decision Making II | 3 |
| ENGR 2431 | Electrical Circuits | 1 |
| Approved Elective: Artistic Forms (Core IV) ${ }^{4}$ |  | 3 |
|  | Credit Hours | 16 |
| Second Semester |  |  |
| ISE 4393 | Capstone Design Project | 3 |
| ISE Elective ${ }^{5}$ |  | 3 |
| ISE Technical Elective ${ }^{6}$ |  | 3 |
| Approved Elective: World Culture (Core IV) ${ }^{4}$ |  | 3 |
| Approved Elective: Western Culture (Core IV) ${ }^{4}$ |  | 3 |
|  | Credit Hours | 15 |
|  | Total Credit Hours | 127 |

${ }^{1}$ CHEM 1315 can be substituted with CHEM 1335 (Fall only).
${ }^{2}$ MATH 1823, MATH 2423, MATH 2433, and MATH 2443 sequence can be substituted for MATH 1914, MATH 2924, and MATH 2934.
${ }^{3}$ Engineering transfer students may take ENGR 3511 in place of ENGR 1411.
${ }^{4}$ To be chosen from the University-Wide General Education Approved Course List. Three of these hours must be upper-division (3000-4000). See list in the Class Schedule.
${ }^{5}$ To be chosen from an approved list of ISE electives available in the ISE office, CEC 116.
${ }^{6}$ To be chosen from an approved list of ISE technical electives available in the ISE office, CEC 116.

Courses designated as Core I, II, III, IV, or V are part of the General Education curriculum. Students must complete a minimum of 40 hours of General Education courses, chosen from the approved list.

## Approved Math Electives

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| MATH 2513 | Discrete Mathematical Structures | 3 |
| MATH 3113 | Introduction to Ordinary Differential | 3 |


| MATH 3333 | Linear Algebra I | 3 |
| :--- | :--- | :--- |
| MATH 3413 | Physical Mathematics I | 3 |
| MATH 3613 |  | 3 |
| MATH 4433 | Introduction to Analysis I | 3 |

# Industrial and Systems Engineering Analytics Option, B.S. 

Minimum Total Credit Hours: 135

Overall GPA - Combined and OU: 2.00
Major GPA - Combined and OU: 2.00
Curriculum GPA - Combined and OU: 2.00
Program Code: B529

## This program has changes pending State Regents approval for 2024/25. These pending changes are not reflected here.

## Bachelor of Science in Industrial and Systems Engineering accredited

 by the Engineering Accreditation Commission of ABET, https:// www.abet.org, under the General Criteria and the Industrial Engineering and Similarly Named Engineering Programs Program Criteria.In order to progress in your curriculum in the Gallogly College of Engineering, and as a specific graduation requirement, a grade of C or better is required in each course in the curriculum, including all prerequisite courses.

## Major Requirements

| Code | Title | Credit Hours |
| :---: | :---: | :---: |
| Required Courses |  |  |
| ISE 2823 | Enterprise Engineering | 3 |
| ISE 2311 | Computer Aided Design and Graphics Laboratory for Industrial Engineers | 1 |
| ISE 2303 | Design and Manufacturing Process | 3 |
| ISE 3293 | Applied Engineering Statistics | 3 |
| ISE 3304 | Design and Manufacturing II | 4 |
| ISE 4113 | Spreadsheet Dec Support Sys | 3 |
| ISE 4553 | Data-Driven Decision Making I | 3 |
| ISE 4623 | Deterministic Systems Models | 3 |
| ISE 4223 | Fundamentals of Engineering Economy | 3 |
| ISE 4563 | Quality \& Reliability Engineering | 3 |
| ISE 4633 | Probabilistic Systems Models | 3 |
| ISE 4804 | Ergonomics in Systems Design | 4 |
| ISE 4333 | Production Systems/Operations | 3 |
| ISE 4383 | Systems Evaluation | 3 |
| ISE 4663 | Systems Analysis Using Simulation | 3 |
| ISE 4853 | Data-Driven Decision Making II | 3 |
| ISE 4393 | Capstone Design Project | 3 |
| ISE Elective |  |  |
| Choose a three-hour approved ISE Elective ${ }^{1}$ |  | 3 |
| Total Credit Hours |  | 54 |

${ }^{1}$ List of ISE Electives and is available in the ISE office, CEC 116.

## Major Support Requirements

| Code $\quad$ Title | Credit <br>  |
| :--- | :--- |


| Math and Science |  |  |
| :--- | :--- | :--- |
| MATH 2924 | Differential and Integral Calculus II | 4 |
| MATH 2934 | Differential and Integral Calculus III | 4 |
| MATH 2513 | Discrete Mathematical Structures | 3 |
| PHYS 2524 | General Physics for Engineering and <br>  <br>  <br> Science Majors | 4 |


| Additional College Requirements |  |  |
| :--- | :--- | :--- |
| ENGR 1411 | Pathways to Engineering Thinking ${ }^{1}$ | 1 |
| C S 1323 | Introduction to Computer Programming for | 3 |
|  | Programmers |  |
| ENGR 2431 | Electrical Circuits | 1 |
| ENGR 2461 | Thermodynamics | 1 |
| ENGR 3441 | Fluid Mechanics | 3 |
| CEES 2113 | Statics | 3 |
| CEES 2153 | Mechanics of Materials | 4 |
| C S 2334 | Programming Structures and Abstractions | 3 |
| C S 2413 | Data Structures | 6 |
| 6 hours of C S Electives chosen from an approved list ${ }^{2}$ | $\mathbf{6}$ |  |
| Total Credit Hours |  | 41 |

${ }^{1}$ Engineering transfer students may take ENGR 3511 in place of ENGR 1411.
${ }^{2}$ To be chosen from the C S Elective list available in the ISE office, CEC 116. C S 3203 and C S 4513 are recommended electives.

## General Education and College Requirements

Courses designated as Core I, II, III, IV, or V are part of the General Education curriculum. Students must complete a minimum of 40 hours of General Education courses, chosen from the approved list, including at least one upper-division Gen. Ed. course outside of the student's major. Courses graded P/NP will not apply.

A grade of $C$ or better is required in each course in the curriculum, including all prerequisite courses.

UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS

| Code Title | Credit |
| :--- | :--- |
|  | Hours |

## Core Area I: Symbolic and Oral Communication

English Composition
ENGL 1113 Principles of English Composition 3
ENGL 1213 Principles of English Composition 3
or EXPO 1213 Expository Writing
Language (0-10 hours in the same language)
This requirement can be met by two years of the same
language in high school:
Beginning Course ( $0-5$ hours)
Beginning Course, continued (0-5 hours)

Mathematics


## Free Electives

Electives to bring total applicable hours to the minimum total required for the degree including a minimum of 40 upper-division hours.

## Suggested Semester Plan of Study

Bachelor of Science in Industrial and Systems Engineering accredited by the Engineering Accreditation Commission of ABET, https:// www.abet.org, under the General Criteria and the Industrial Engineering and Similarly Named Engineering Programs Program Criteria.

In order to progress in your curriculum in the Gallogly College of Engineering, and as a specific graduation requirement, a grade of $\mathbf{C}$ or better is required in each course in the curriculum, including all prerequisite courses.

Two college-level courses in a single world language are required; this may be satisfied by successful completion of 2 years in a single world language in high school. Students who must take language at the University will have an additional 6-10 hours of coursework.

| Freshman |  |  |
| :---: | :---: | :---: |
| First Semester |  | Credit |
|  |  | Hours |
| ENGL 1113 | Principles of English Composition (Core I) | 3 |
| CHEM 1315 | General Chemistry (Core II-Lab) ${ }^{1}$ | 5 |
| MATH 1914 | Differential and Integral Calculus I (Core I) ${ }^{2}$ | 4 |
| ENGR 1411 | Pathways to Engineering Thinking ${ }^{3}$ | 1 |
| Approved Elective: First-Year Experience (Core V) ${ }^{4}$ |  | 3 |
|  | Credit Hours | 16 |
| Second Semester |  |  |
| ENGL 1213 <br> or EXPO 1213 | Principles of English Composition (Core I) or Expository Writing | 3 |
| MATH 2924 | Differential and Integral Calculus II ${ }^{2}$ | 4 |
| HIST 1483 or HIST 1493 | United States to 1865 (Core IV) or United States, 1865 to the Present | 3 |
| PHYS 2514 | General Physics for Engineering and Science Majors (Core II) | 4 |
| C S 1323 | Introduction to Computer Programming for Programmers | 3 |
|  | Credit Hours | 17 |
| Sophomore |  |  |
| First Semester |  |  |
| MATH 2934 | Differential and Integral Calculus III ${ }^{2}$ | 4 |
| C S 2334 | Programming Structures and Abstractions | 4 |
| CEES 2113 | Statics | 3 |
| ISE 2823 | Enterprise Engineering | 3 |
| PHYS 2524 | General Physics for Engineering and Science Majors | 4 |
|  | Credit Hours | 18 |
| Second Semester |  |  |
| CEES 2153 | Mechanics of Materials | 3 |
| ISE 2303 | Design and Manufacturing Process | 3 |
| ISE 2311 | Computer Aided Design and Graphics Laboratory for Industrial Engineers | 1 |
| ISE 3293 | Applied Engineering Statistics | 3 |
| C S 2413 | Data Structures | 3 |
| MATH 2513 | Discrete Mathematical Structures | 3 |
|  | Credit Hours | 16 |
| Junior |  |  |
| First Semester |  |  |
| ISE 3304 | Design and Manufacturing II | 4 |
| ISE 4113 | Spreadsheet Dec Support Sys | 3 |
| ISE 4553 | Data-Driven Decision Making I | 3 |
| ISE 4623 | Deterministic Systems Models | 3 |
| C S 3203 | Software Engineering | 3 |
| P SC 1113 | American Federal Government (Core III) | 3 |
|  | Credit Hours | 19 |
| Second Semester |  |  |
| ISE 4223 | Fundamentals of Engineering Economy | 3 |
| ISE 4563 | Quality \& Reliability Engineering | 3 |
| ISE 4633 | Probabilistic Systems Models | 3 |
| ISE 4804 | Ergonomics in Systems Design | 4 |
| ENGR 2461 | Thermodynamics | 1 |


| ENGR 3441 | Fluid Mechanics | 1 |
| :---: | :---: | :---: |
| Approved Elective: Artistic Forms (Core IV) ${ }^{4}$ |  | 3 |
|  | Credit Hours | 18 |
| Senior |  |  |
| First Semester |  |  |
| ISE 4333 | Production Systems/Operations | 3 |
| ISE 4383 | Systems Evaluation | 3 |
| ISE 4663 | Systems Analysis Using Simulation | 3 |
| ISE 4853 | Data-Driven Decision Making II | 3 |
| C S 4513 | Database Management Systems (or other C S Elective) ${ }^{5}$ | 3 |
| ENGR 2431 | Electrical Circuits | 1 |
|  | Credit Hours | 16 |
| Second Semester |  |  |
| ISE 4393 | Capstone Design Project | 3 |
| ISE Elective |  | 3 |
| Approved Elective: World Culture (Core IV) ${ }^{4}$ |  | 3 |
| Approved Elective: Social Science (Core III) ${ }^{4}$ |  | 3 |
| Approved Elective: Western Culture (Core IV) ${ }^{4}$ |  | 3 |
|  | Credit Hours | 15 |
|  | Total Credit Hours | 35 |

${ }^{1}$ CHEM 1315 can be substituted with CHEM 1335 (Fall only).
2 MATH 1823, MATH 2423, MATH 2433, and MATH 2443 sequence can be substituted for MATH 1914, MATH 2924, and MATH 2934.
${ }^{3}$ Engineering transfer students may take ENGR 3511 in place of ENGR 1411.
${ }^{4}$ To be chosen from the University-Wide General Education Approved Course List. Three of these hours must be upper-division (3000-4000). See list in the Class Schedule.
${ }^{5}$ To be chosen from the C S Elective list available in the ISE office, CEC 116.

Courses designated as Core I, II, III, IV, or V are part of the General Education curriculum. Students must complete a minimum of 40 hours of General Education courses, chosen from the approved list.

# Industrial and Systems Engineering - PreMedicine Option, B.S. 

Minimum Total Credit Hours: 138

Overall GPA - Combined and OU: 2.00
Major GPA - Combined and OU: 2.00
Curriculum GPA - Combined and OU: 2.00
Program Code: B528

## This program has changes pending State Regents approval for 2024/25. These pending changes are not reflected here.

Bachelor of Science in Industrial and Systems Engineering accredited by the Engineering Accreditation Commission of ABET, https:// www.abet.org, under the General Criteria and the Industrial Engineering and Similarly Named Engineering Programs Program Criteria.

In order to progress in your curriculum in the Gallogly College of Engineering, and as a specific graduation requirement, a grade of C or better is required in each course in the curriculum, including all prerequisite courses.

## Major Requirements

| Code | Title | Credit |
| :--- | :--- | :--- |
|  | Hours |  |

## Required Courses

| ISE 2823 | Enterprise Engineering | 3 |
| :--- | :--- | :--- |
| ISE 2311 | Computer Aided Design and Graphics <br> Laboratory for Industrial Engineers | 1 |
| ISE 2303 | Design and Manufacturing Process | 3 |
| ISE 3293 | Applied Engineering Statistics | 3 |
| ISE 3304 | Design and Manufacturing II | 4 |
| ISE 4113 | Spreadsheet Dec Support Sys | 3 |
| ISE 4553 | Data-Driven Decision Making I | 3 |
| ISE 4623 | Deterministic Systems Models | 3 |
| ISE 4223 | Fundamentals of Engineering Economy | 3 |
| ISE 4563 | Quality \& Reliability Engineering | 3 |
| ISE 4633 | Probabilistic Systems Models | 3 |
| ISE 4804 | Ergonomics in Systems Design | 4 |
| ISE 4333 | Production Systems/Operations | 3 |
| ISE 4383 | Systems Evaluation | 3 |
| ISE 4663 | Systems Analysis Using Simulation | 3 |
| ISE 4853 | Data-Driven Decision Making II | 3 |
| ISE 4393 | Capstone Design Project | 3 |
| Total Credit Hours | 51 |  |

Major Support Requirements

| Code | Title | Credit Hours |
| :---: | :---: | :---: |
| Math and Science |  |  |
| CHEM 1415 | General Chemistry (Continued) | 5 |
| CHEM 3053 | Organic Chemistry I: Biological Emphasis | 3 |
| CHEM 3153 | Organic Chemistry II: Biological Emphasis | 3 |
| CHEM 3152 | Organic Chemistry Laboratory: Biological Emphasis | 2 |
| MATH 2924 | Differential and Integral Calculus II | 4 |
| MATH 2934 | Differential and Integral Calculus III | 4 |
| BIOL 1124 | Intro Biol: Molecule/Cell/Phys | 4 |
| Approved Biology | Elective ${ }^{1}$ | 3 |
| PHYS 2524 | General Physics for Engineering and Science Majors | 4 |
| Additional College Requirements |  |  |
| ENGR 1411 | Pathways to Engineering Thinking ${ }^{2}$ | 1 |
| ENGR 2002 | Professional Responsibilities and Skills of Engineers and Scientists | 2 |
| C S 1323 | Introduction to Computer Programming for Programmers | 3 |
| or C S 1313 | Programming for Non-Majors with C |  |
| ENGR 2431 | Electrical Circuits | 1 |
| ENGR 2461 | Thermodynamics | 1 |
| ENGR 3441 | Fluid Mechanics | 1 |


| CEES 2113 | Statics | 3 |
| :--- | :--- | ---: |
| CEES 2153 | Mechanics of Materials | 3 |
| Total Credit Hours | $\mathbf{4 7}$ |  |

1 To be chosen from the approved list of biology electives consisting of BIOL 3113, BIOL 3333, or BIOL 4843.
${ }^{2}$ Engineering transfer students may take ENGR 3511 in place of ENGR 1411.

## General Education and College Requirements

Courses designated as Core I, III, III, IV, or V are part of the General Education curriculum. Students must complete a minimum of 40 hours of General Education courses, chosen from the approved list, including at least one upper-division Gen. Ed. course outside of the student's major. Courses graded P/NP will not apply.

A grade of C or better is required in each course in the curriculum, including all prerequisite courses.

## UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS

Code Title Credit

Core Area I: Symbolic and Oral Communication
English Composition
ENGL 1113 Principles of English Composition 3
ENGL 1213 Principles of English Composition 3
or EXPO 1213 Expository Writing
Language (0-10 hours in the same language)
This requirement can be met by two years of the same 0-10 language in high school:

Beginning Course (0-5 hours)
Beginning Course, continued (0-5 hours)
Mathematics
$\begin{array}{lll}\text { MATH } 1914 & \text { Differential and Integral Calculus I (Core I) } \\ \text { 1,2 }\end{array}$
Core Area II: Natural Science (including one laboratory)
PHYS 2514 General Physics for Engineering and 4

CHEM 1315 General Chemistry (Core II-Lab) ${ }^{2} 5$
or CHEM 1335 General Chemistry I: Signature Course
Core Area III: Social Science
P SC 1113 American Federal Government 3
Choose one course ${ }^{3} \quad 3$
Core Area IV: Arts \& Humanities
Artistic Forms
Choose one course ${ }^{3} 3$
Western Culture
HIST $1483 \quad 3$
or HIST 1493 United States, 1865 to the Present
Choose one course (excluding HIST 1483 and HIST 1493) ${ }^{3} 3$
World Culture
Choose one course ${ }^{3} \quad 3$
Core Area V: First-Year Experience


## Free Electives

Electives to bring total applicable hours to the minimum total required for the degree including a minimum of 40 upper-division hours.

## Suggested Semester Plan of Study

Bachelor of Science in Industrial and Systems Engineering accredited by the Engineering Accreditation Commission of ABET, https:// www.abet.org, under the General Criteria and the Industrial Engineering and Similarly Named Engineering Programs Program Criteria.

In order to progress in your curriculum in the Gallogly College of Engineering, and as a specific graduation requirement, a grade of C or better is required in each course in the curriculum, including all prerequisite courses.

Two college-level courses in a single world language are required; this may be satisfied by successful completion of 2 years in a single world language in high school. Students who must take language at the University will have an additional 6-10 hours of coursework.

| Freshman |  |  |
| :---: | :---: | :---: |
| First Semester |  | Credit |
|  |  | Hours |
| ENGL 1113 | Principles of English Composition (Core I) | 3 |
| CHEM 1315 | General Chemistry (Core II-Lab) ${ }^{1}$ | 5 |
| MATH 1914 | Differential and Integral Calculus I (Core I) ${ }^{2}$ | 4 |
| ENGR 1411 | Pathways to Engineering Thinking ${ }^{3}$ | 1 |
| Approved Elective | : First-Year Experience (Core V) ${ }^{5}$ | 3 |
|  | Credit Hours | 16 |
| Second Semester |  |  |
| ```ENGL }121 or EXPO 1213``` | Principles of English Composition (Core I) or Expository Writing | 3 |
| CHEM 1415 | General Chemistry (Continued) (Core II-Lab) 1 | 5 |
| MATH 2924 | Differential and Integral Calculus II ${ }^{2}$ | 4 |
| PHYS 2514 | General Physics for Engineering and Science Majors (Core II) | 4 |
| $\begin{aligned} & \text { CS } 1323 \\ & \text { or CS } 1313 \end{aligned}$ | Introduction to Computer Programming for Programmers <br> or Programming for Non-Majors with C | 3 |

## Sophomore

## First Semester

| MATH 2934 | Differential and Integral Calculus III $^{2}$ | 4 |
| :--- | :--- | :--- |
| PHYS 2524 | General Physics for Engineering and <br> Science Majors | 4 |


| CEES 2113 | Statics | 3 |
| :---: | :---: | :---: |
| ISE 2823 | Enterprise Engineering | 3 |
| CHEM 3053 | Organic Chemistry I: Biological Emphasis | 3 |
|  | Credit Hours | 17 |
| Second Semester |  |  |
| CHEM 3153 | Organic Chemistry II: Biological Emphasis | 3 |
| CHEM 3152 | Organic Chemistry Laboratory: Biological Emphasis | 2 |
| CEES 2153 | Mechanics of Materials | 3 |
| ENGR 2002 | Professional Responsibilities and Skills of Engineers and Scientists | 2 |
| ISE 2303 | Design and Manufacturing Process | 3 |
| ISE 2311 | Computer Aided Design and Graphics Laboratory for Industrial Engineers | 1 |
| ISE 3293 | Applied Engineering Statistics | 3 |
|  | Credit Hours | 17 |

## Junior

First Semester

| ISE 3304 | Design and Manufacturing II | 4 |
| :--- | :--- | ---: |
| ISE 4113 | Spreadsheet Dec Support Sys | 3 |
| ISE 4553 | Data-Driven Decision Making I | 3 |
| ISE 4623 | Deterministic Systems Models | 3 |
| ENGR 2431 | Electrical Circuits | $\mathbf{1}$ |
| BIOL 1124 | Intro Biol: Molecule/Cell/Phys | $\mathbf{4}$ |
|  | Credit Hours | $\mathbf{1 8}$ |

## Second Semester

| ISE 4223 | Fundamentals of Engineering Economy | 3 |
| :--- | :--- | ---: |
| ISE 4563 | Quality \& Reliability Engineering | 3 |
| ISE 4633 | Probabilistic Systems Models | 3 |
| ISE 4804 | Ergonomics in Systems Design | 4 |
| ENGR 2461 | Thermodynamics | $\mathbf{1}$ |
| ENGR 3441 | Fluid Mechanics | $\mathbf{1}$ |
| Approved Biology | Elective 4 | $\mathbf{3}$ |
|  | Credit Hours | $\mathbf{1 8}$ |

## Senior

First Semester

| ISE 4333 | Production Systems/Operations | 3 |
| :--- | :--- | ---: |
| ISE 4383 | Systems Evaluation | 3 |
| ISE 4663 | Systems Analysis Using Simulation | 3 |
| ISE 4853 | Data-Driven Decision Making II | 3 |
| P SC 1113 | American Federal Government (Core III) | 3 |
| Approved Elective: World Culture (Core IV) $^{5}$ | $\mathbf{3}$ |  |
|  | Credit Hours | $\mathbf{1 8}$ |

## Second Semester

HIST $1483 \quad 3$

| or HIST 1493 | or United States, 1865 to the Present |  |
| :--- | :--- | :--- |
| ISE 4393 | Capstone Design Project | 3 |

Approved Elective: Artistic Forms (Core IV) ${ }^{5} 3$
Approved Elective: Social Science (Core III) ${ }^{5} 3$
Approved Elective: WesternCulture (Core IV) ${ }^{5} 3$
Credit Hours $\quad 15$

CHEM 1315 and CHEM 1415 can be substituted with CHEM 1335 (Fall only) and CHEM 1435 (Spring only), respectively.
2 MATH 1823, MATH 2423, MATH 2433, and MATH 2443 sequence can be substituted for MATH 1914, MATH 2924, and MATH 2934.
${ }^{3}$ Engineering transfer students may take ENGR 3511 in place of ENGR 1411.
4 To be chosen from the approved list of biology electives consisting of BIOL 3113, BIOL 3333, or BIOL 4843.
5 To be chosen from the University-Wide General Education Approved Course List. Three of these hours must be upper-division (3000-4000). See list in the Class Schedule.

Courses designated as Core I, II, III, IV, or V are part of the General Education curriculum. Students must complete a minimum of 40 hours of General Education courses, chosen from the approved list.

Admission requirements vary with medical schools. Students should consult with advisors in the Pre-Medical Professions Advising Office each semester (Cate 1, Room 416, or call 405-325-2457) as well as the Williams Student Services Center to ensure completion of the necessary prerequisite courses. This may include additional coursework not required for this specific undergraduate degree program in Industrial and Systems Engineering. Note: Most medical schools require PHYS 1311 and PHYS 1321.

# Industrial and Systems Engineering, B.S./ M.S. 

Minimum Total Credit Hours: 138

Overall GPA - Combined and OU: 3.00
Major GPA - Combined and OU: 3.00
Curriculum GPA - Combined and OU: 3.00
Program Code: A524/F524

## This program has changes pending State Regents approval for 2024/25. These pending changes are not reflected here.

Bachelor of Science in Industrial and Systems Engineering accredited by the Engineering Accreditation Commission of ABET, https:// www.abet.org, under the General Criteria and the Industrial Engineering and Similarly Named Engineering Programs Program Criteria.

In order to progress in your curriculum in the Gallogly College of Engineering, and as a specific graduation requirement, a grade of C or better is required in each course in the curriculum, including all prerequisite courses.

## Major Requirements

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Required Courses |  | 3 |
| ISE 2823 | Enterprise Engineering | 1 |
| ISE 2311 | Computer Aided Design and Graphics <br> Laboratory for Industrial Engineers |  |
| ISE 2303 | Design and Manufacturing Process | 3 |


| ISE 3293 | Applied Engineering Statistics | 3 |
| :--- | :--- | :--- |
| ISE 3304 | Design and Manufacturing II | 4 |
| ISE 4113 | Spreadsheet Dec Support Sys | 3 |
| ISE 4553 | Data-Driven Decision Making I | 3 |
| ISE 4623 | Deterministic Systems Models | 3 |
| ISE 4223 | Fundamentals of Engineering Economy | 3 |
| ISE 4302 | Systems Thinking | 2 |
| ISE 4563 | Quality \& Reliability Engineering | 3 |
| ISE 4633 | Probabilistic Systems Models | 3 |
| ISE 4804 | Ergonomics in Systems Design | 4 |
| ISE 4333 | Production Systems/Operations | 3 |
| ISE 4663 | Systems Analysis Using Simulation | 3 |
| ISE 5383 | Systems Evaluation ${ }^{1}$ | 3 |
| ISE 5853 | Data-Driven Decision Making II ${ }^{1}$ | 3 |
| ISE 4393 | Capstone Design Project | 3 |
| ISE 5033 | Systems Engineering ${ }^{\text {1 }}$ | 3 |
| or ISE 5813 | Advanced Human Factors and Ergonomics |  |

ISE Elective

| Choose a ISE 5000-level graduate elective from an approved <br> list 1 | 3 |
| :--- | ---: |
| Total Credit Hours | 59 |

1 These 12 credits are dual-counted, fulfilling requirements for both the undergraduate and graduate Industrial Engineering degrees.

## Major Support Requirements

| Code | Title | Credit |
| :---: | :---: | :---: |
|  |  | Hours |
| Math and Science |  |  |
| MATH 2924 | Differential and Integral Calculus II | 4 |
| MATH 2934 | Differential and Integral Calculus III | 4 |
| Math Elective - | ooose from approved list ${ }^{1}$ | 3 |
| Additional College Requirements |  |  |
| ENGR 2002 | Professional Responsibilities and Skills of Engineers and Scientists | 2 |
| C S 1323 | Introduction to Computer Programming for Programmers | 3 |
| or C S 1313 | Programming for Non-Majors with C |  |
| CEES 2113 | Statics | 3 |
| CEES 2153 | Mechanics of Materials | 3 |
| Total Credit Hours |  | 22 |

${ }^{1}$ Chosen from an approved list maintained by the department. Options include MATH 2513, MATH 3113, MATH 3333, MATH 3413, and MATH 4433.

## Graduate Requirements <br> Thesis Option

| Code | Title | Credit |
| :---: | :---: | :---: |
| Electives |  |  |
| Choose 12 and appro | from a list maintained by the academic unit the graduate college $(\mathrm{p} .1429)^{1}$ | 12 |
| Thesis |  |  |
| ISE 5980 | Research for Master's Thesis | 6 |
| Total Cre |  | 18 |
| ${ }^{1}$ The thesis option requires 12 hours of electives, from a list maintained by the department and approved by the Graduate College. At least 3 hours must be in Industrial and Systems Engineering. Up to 9 hours may be non-ISE courses. |  |  |

## Non-Thesis Option

| Code | Title | Credit |
| :--- | :--- | :--- |
|  | Hours |  |

Electives
Choose 18 hours from a list maintained by the academic unit 18 and approved by the graduate college (p. 1429) ${ }^{1}$

## Total Credit Hours

1 The non-thesis option requires 18 hours of electives from a list maintained by the department and approved by the Graduate College. At least 9 hours must be in Industrial and Systems Engineering. Up to 9 hours may be non-ISE courses.

- NOTE: No more than 6 credit hours of 4000-level graduate courses may be applied to the degree. These courses must be outside ISE and approved for graduate credit. No 3000-level or lower courses may be applied to the degree.


## General Education and College Requirements

Courses designated as Core I, II, III, IV, or V are part of the General Education curriculum. Students must complete a minimum of 40 hours of General Education courses, chosen from the approved list, including at least one upper-division Gen. Ed. course outside of the student's major. Courses graded P/NP will not apply.

A grade of $C$ or better is required in each course in the curriculum, including all prerequisite courses.

UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS

| Code Title | Credit |
| :--- | :--- |
|  | Hours |

Core Area I: Symbolic and Oral Communication

| English Composition |  |  |
| :--- | :--- | ---: |
| ENGL 1113 | Principles of English Composition | 3 |
| ENGL 1213 | Principles of English Composition |  |
| or EXPO 1213 | Expository Writing | 3 |
| Language (0-10 hours in the same language) |  |  |
| This requirement can be met by two years of the same <br> language in high school: |  |  | | $0-10$ |
| :--- |



## Free Electives

Electives to bring total applicable hours to the minimum total required for the degree including a minimum of 40 upper-division hours

## Suggested Semester Plan of Study

Bachelor of Science in Industrial and Systems Engineering accredited by the Engineering Accreditation Commission of ABET, https:// www.abet.org, under the General Criteria and the Industrial Engineering and Similarly Named Engineering Programs Program Criteria.

In order to progress in your curriculum in the Gallogly College of Engineering, and as a specific graduation requirement, a grade of C
or better is required in each course in the curriculum, including all prerequisite courses.

Two college-level courses in a single world language are required; this may be satisfied by successful completion of 2 years in a single world language in high school. Students who must take language at the University will have an additional 6-10 hours of coursework.

Admission to the accelerated program is by application and requires a minimum OU GPA and combined GPA of 3.25 . Students may enter the accelerated program based on the undergraduate degree pattern offered in the year they first enrolled in the Oklahoma State System of Higher Education or later.

Students are eligible for graduate status upon graduation with the Bachelor of Science in Industrial Engineering.

## Freshman

| First Semester |  | Credit Hours |
| :---: | :---: | :---: |
| ENGL 1113 | Principles of English Composition (Core I) | 3 |
| MATH 1914 | Differential and Integral Calculus I (Core I) ${ }^{2}$ | 4 |
| ENGR 1413 | Pathways to Engineering Thinking (Core VFYE) ${ }^{3}$ | 3 |
| Natural Science Elective with Lab ${ }^{1}$ |  | 4 |
|  | Credit Hours | 14 |
| Second Semester |  |  |
| $\begin{aligned} & \text { ENGL } 1213 \\ & \text { or EXPO } 1213 \end{aligned}$ | Principles of English Composition (Core I) or Expository Writing | 3 |
| $\begin{aligned} & \text { CS } 1323 \\ & \quad \text { or CS } 1313 \end{aligned}$ | Introduction to Computer Programming for Programmers or Programming for Non-Majors with C | 3 |
| MATH 2924 | Differential and Integral Calculus II ${ }^{2}$ | 4 |
| HIST 1483 or HIST 1493 | United States to 1865 (Core IV) or United States, 1865 to the Present | 3 |
| PHYS 2514 | General Physics for Engineering and Science Majors (Core II) | 4 |
|  | Credit Hours | 17 |

## Sophomore

| First Semester |  |  |
| :--- | :--- | ---: |
| MATH 2934 | Differential and Integral Calculus III ${ }^{2}$ | 4 |
| CEES 2113 | Statics | 3 |
| ISE 2823 | Enterprise Engineering | 3 |
| P SC 1113 | American Federal Government (Core III) | 3 |
| ENGR 2002 | Professional Responsibilities and Skills of | 2 |
|  | Engineers and Scientists |  |
|  | Credit Hours | $\mathbf{1 5}$ |


| Second Semester |  |  |
| :--- | :--- | ---: |
| CEES 2153 | Mechanics of Materials | 3 |
| ISE 3293 | Applied Engineering Statistics | 3 |
| ISE 2303 | Design and Manufacturing Process | 3 |
| ISE 2311 | Computer Aided Design and Graphics <br> Laboratory for Industrial Engineers | 1 |
| MATH Elective (p. 1416) | Credit Hours | $\mathbf{3}$ |
|  |  |  |

## Junior

First Semester

| ISE 3304 | Design and Manufacturing II | 4 |
| :--- | :--- | ---: |
| ISE 4113 | Spreadsheet Dec Support Sys | 3 |
| ISE 4553 | Data-Driven Decision Making I | 3 |
| ISE 4623 | Deterministic Systems Models | 3 |
| Approved Elective: Social Science (Core III) | 4 | 3 |
|  | Credit Hours | $\mathbf{1 6}$ |


| Second Semester |  |  |
| :--- | :--- | ---: |
| ISE 4223 | Fundamentals of Engineering Economy | 3 |
| ISE 4302 | Systems Thinking | 2 |
| ISE 4563 | Quality \& Reliability Engineering | 3 |
| ISE 4633 | Probabilistic Systems Models | 3 |
| ISE 4804 | Ergonomics in Systems Design | 4 |
|  | Credit Hours | $\mathbf{1 5}$ |

## Senior

## First Semester

ISE 4333 Production Systems/Operations 3
ISE 4663 Systems Analysis Using Simulation 3
ISE 5383 Systems Evaluation ${ }^{5} 3$
ISE 5853 Data-Driven Decision Making II ${ }^{5} 3$
ISE 5000-level Graduate Elective ${ }^{5,6} 3$
Credit Hours 15

| Second Semester |  |  |
| :---: | :---: | :---: |
| ISE 4393 | Capstone Design Project | 3 |
| $\begin{aligned} & \text { ISE } 5033 \\ & \text { or ISE } 5813 \end{aligned}$ | Systems Engineering ${ }^{5}$ or Advanced Human Factors and Ergonomics | 3 |
| Approved Elective: Artistic Forms (Core IV) ${ }^{4}$ |  | 3 |
| Approved Elective: World Culture (Core IV) ${ }^{4}$ |  | 3 |
| Approved Elective: Western Culture (Core IV) ${ }^{4}$ |  | 3 |
| Credit Hours |  | 15 |

## Fifth Year

## First Semester

ISE 5000-Level Graduate Elective ${ }^{7} 3$
Graduate Elective ${ }^{6} 3$
Choose one of the following: 3
ISE 5980 Research for Master's Thesis
Graduate Elective ${ }^{6}$
Credit Hours 9

## Second Semester

Graduate Elective ${ }^{6} 3$
Graduate Elective ${ }^{6} 3$

Choose one of the following: 3
ISE 5980 Research for Master's Thesis
Graduate Elective ${ }^{6}$

| Credit Hours | 9 |
| :--- | ---: |
| Total Credit Hours | 138 |

${ }^{1}$ Courses taken to fulfill the Natural Science requirement must be chosen from the University-Wide General Education Approved Course List (Core II). At least one of the Natural Science courses must be a non-Physics course. All science courses must be for science or
engineering majors and come from the natural science elective list maintained by the department.
2 be substituted for MATH 1914, MATH 2924, and MATH 2934
3 Transfer students will need to meet the requirements of the first-year experience course as well as the engineering transfer course. Please see your advisor for your specific enrollment.
4 To be chosen from the University-Wide General Education Approved Course List. Three of these hours must be upper-division (3000-4000). See list in the Class Schedule.
5 These courses are dual-counted, fulfilling requirements for both the undergraduate and graduate Industrial Engineering degrees.
6 To be chosen from an approved list of IE electives that carry graduate credit available in the ISE office, CEC 124
${ }^{7}$ Must be approved by the Thesis Committee in accordance with current Master of Science requirements available in the ISE office, CEC 124.

Courses designated as Core I, II, III, IV, or V are part of the General Education curriculum. Students must complete a minimum of 40 hours of General Education courses, chosen from the approved list.

| Approved Math Electives |  |  |
| :--- | :--- | ---: |
| Code | Title | Credit <br> Hours |
| MATH 3113 | Introduction to Ordinary Differential | 3 |
|  | Equations | 3 |
| MATH 3333 | Linear Algebra I | 3 |
| MATH 3413 | Physical Mathematics I | 3 |

# Industrial and Systems Engineering, B.S./ Data Science and Analytics, M.S. 

Minimum Total Credit Hours: 148

## Overall GPA - Combined and OU: 3.00

Major GPA - Combined and OU: 3.00
Curriculum GPA - Combined and OU: 3.00

Program Code: A531/F267 Q340

## This program has changes pending State Regents approval for 2024/25. These pending changes are not reflected here.

Bachelor of Science in Industrial and Systems Engineering accredited by the Engineering Accreditation Commission of ABET, https:// www.abet.org, under the General Criteria and the Industrial Engineering and Similarly Named Engineering Programs Program Criteria.

In order to progress in your curriculum in the Gallogly College of Engineering, and as a specific graduation requirement, a grade of C or better is required in each course in the curriculum, including all prerequisite courses.

## Major Requirements

| Code | Title | Credit Hours |
| :---: | :---: | :---: |
| Required Courses |  |  |
| ISE 2823 | Enterprise Engineering | 3 |
| ISE 2311 | Computer Aided Design and Graphics Laboratory for Industrial Engineers | 1 |
| ISE 2303 | Design and Manufacturing Process | 3 |
| ISE 3293 | Applied Engineering Statistics | 3 |
| ISE 3304 | Design and Manufacturing II | 4 |
| ISE 4113 | Spreadsheet Dec Support Sys | 3 |
| ISE 4302 | Systems Thinking | 2 |
| ISE 4553 | Data-Driven Decision Making I | 3 |
| ISE 4623 | Deterministic Systems Models | 3 |
| ISE 4223 | Fundamentals of Engineering Economy | 3 |
| ISE 4563 | Quality \& Reliability Engineering | 3 |
| ISE 4633 | Probabilistic Systems Models | 3 |
| ISE 4804 | Ergonomics in Systems Design | 4 |
| ISE 4333 | Production Systems/Operations | 3 |
| ISE 4383 | Systems Evaluation | 3 |
| ISE 5663 | Systems Analysis Using Simulation ${ }^{1}$ | 3 |
| ISE 5853 | Data-Driven Decision Making II | 3 |
| DSA 5005 | Computing Structures ${ }^{1}$ | 5 |
| ISE 4393 | Capstone Design Project | 3 |
| DSA 5113 | Advanced Analytics and Metaheuristics ${ }^{1}$ | 3 |
| Total Credit Hours |  | 61 |

${ }^{1}$ These courses are dual-counted, fulfilling requirements for both the undergraduate degree and the graduate degree.

Major Support Requirements

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Math and Science |  |  |
| MATH 2924 | Differential and Integral Calculus II | 4 |
| MATH 2934 | Differential and Integral Calculus III | 4 |
| Math Elective | Choose from approved list 1 | 3 |
| Additional College Requirements |  |  |
| ENGR 2002 | Professional Responsibilities and Skills of | 2 |
|  | Engineers and Scientists |  |
| C S 1323 | Introduction to Computer Programming for | 3 |
| C S 2334 | Programmers | 4 |
| CEES 2113 | Programming Structures and Abstractions | 3 |
| CEES 2153 | Statics | Mechanics of Materials |

${ }^{1}$ Chosen from an approved list maintained by the department. Options include MATH 2513, MATH 3113, MATH 3333, MATH 3413, and MATH 4433.

## Graduate Requirements

11 hours of graduate level courses that satisfy MS in data science analytics requirements can be shared between $B S$ and MS degrees.

## Non-Thesis Option

| Code | Title | Credit Hours |
| :---: | :---: | :---: |
| Core DSA Courses ${ }^{1}$ |  |  |
| DSA/C S 5005 | Computing Structures | 5 |
| DSA/C S 4513 | Database Management Systems ${ }^{2}$ | 3 |
| DSA/C S 4413 | Algorithm Analysis ${ }^{2}$ | 3 |
| DSA/ISE 5013 | Fundamentals of Engineering Statistical Analysis | 3 |
| DSA/ISE 5103 | Intelligent Data Analytics | 3 |
| DSA/ISE 5113 | Advanced Analytics and Metaheuristics | 3 |
| Internship/Practicum |  |  |
| DSA/ENGR 5900 | Professional Practice | 4 |
| Electives |  |  |
| Choose 3 hours of | f CS, ISE, or DSA electives | 3 |
| Choose 6 addition CS, ISE, or DSA) | nal hours of electives (which may be outside | 6 |
| Total Credit Hours |  | 33 |
| ${ }^{1}$ Core courses may be replaced with additional graduate electives at the discretion of the Graduate Liaison. <br> ${ }^{2}$ Approved for graduate credit. |  |  |

## General Education and College Requirements

Courses designated as Core I, II, III, IV, or V are part of the General Education curriculum. Students must complete a minimum of 40 hours of General Education courses, chosen from the approved list, including at least one upper-division Gen. Ed. course outside of the student's major. Courses graded P/NP will not apply.

A grade of C or better is required in each course in the curriculum, including all prerequisite courses.

UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS


[^44]

## Free Electives

Electives to bring total applicable hours to the minimum total required for the degree including a minimum of 40 upper-division hours.

## Suggested Semester Plan of Study

Bachelor of Science in Industrial and Systems Engineering accredited by the Engineering Accreditation Commission of ABET, https:// www.abet.org, under the General Criteria and the Industrial Engineering and Similarly Named Engineering Programs Program Criteria.

In order to progress in your curriculum in the Gallogly College of Engineering, and as a specific graduation requirement, a grade of C or better is required in each course in the curriculum, including all prerequisite courses.

Admission to the accelerated program is by application and requires a minimum OU GPA and combined GPA of 3.0. Students may enter the accelerated program based on the undergraduate degree pattern offered in the year they first enrolled in the Oklahoma State System of

Higher Education or later. Students are eligible for graduate status upon graduation with the Bachelor of Science in Industrial Engineering.

Two college-level courses in a single world language are required; this may be satisfied by successful completion of 2 years in a single world language in high school. Students who must take language at the University will have an additional 6-10 hours of coursework.

Courses designated as Core I, II, III, IV or V are part of the General Education curriculum. Students must complete a minimum of 40 hours of General Education courses, chosen from the approved list.

## Freshman

| First Semester |  | Credit |
| :---: | :---: | :---: |
|  |  | Hours |
| ENGL 1113 | Principles of English Composition (Core I) | 3 |
| MATH 1914 | Differential and Integral Calculus I (Core I) ${ }^{2}$ | 4 |
| ENGR 1413 | Pathways to Engineering Thinking (Core VFYE) ${ }^{3}$ | 3 |
| Natural Science Elective with Lab ${ }^{7}$ |  | 4 |
|  | Credit Hours | 14 |


| Second Semester <br> ENGL 1213 <br> or EXPO 1213 | Principles of English Composition (Core I) <br> or Expository Writing | 3 |
| :--- | :--- | :--- |
| MATH 2924 | Differential and Integral Calculus II ${ }^{2}$ | 4 |
| HIST 1483 <br> or HIST 1493 | United States to 1865 (Core IV) <br> or United States, 1865 to the Present | 3 |
| PHYS 2514 | General Physics for Engineering and <br> Science Majors (Core II) | 4 |
|  | Credit Hours | $\mathbf{1 4}$ |

## Sophomore

## First Semester

| MATH 2934 | Differential and Integral Calculus III ${ }^{2}$ | 4 |
| :--- | :--- | :--- |
| CEES 2113 | Statics | 3 |
| ISE 2823 | Enterprise Engineering | 3 |
| P SC 1113 | American Federal Government (Core III) | 3 |
| ENGR 2002 | Professional Responsibilities and Skills of | 2 |
|  | Engineers and Scientists |  |

## Second Semester

| C S 1323 | Introduction to Computer Programming for <br> Programmers | 3 |
| :--- | :--- | ---: |
| CEES 2153 | Mechanics of Materials | 3 |
| ISE 2303 | Design and Manufacturing Process | 3 |
| ISE 2311 | Computer Aided Design and Graphics <br> Laboratory for Industrial Engineers | $\mathbf{1}$ |
| ISE 3293 | Applied Engineering Statistics | 3 |
| MATH Elective (p. 1419) | Credit Hours | $\mathbf{1 6}$ |

## Junior

| First Semester |  |  |
| :--- | :--- | :--- |
| ISE 3304 | Design and Manufacturing II | 4 |
| ISE 4113 | Spreadsheet Dec Support Sys | 3 |
| ISE 4553 | Data-Driven Decision Making I | 3 |
| ISE 4623 | Deterministic Systems Models | 3 |


| Approved Elective: Social Science (Core III) ${ }^{4}$ |  | 3 |
| :---: | :---: | :---: |
|  | Credit Hours | 16 |
| Second Semester |  |  |
| ISE 4223 | Fundamentals of Engineering Economy | 3 |
| ISE 4302 | Systems Thinking | 2 |
| ISE 4563 | Quality \& Reliability Engineering | 3 |
| ISE 4633 | Probabilistic Systems Models | 3 |
| ISE 4804 | Ergonomics in Systems Design | 4 |
| C S 2334 | Programming Structures and Abstractions | 4 |
|  | Credit Hours | 19 |
| Senior |  |  |
| First Semester |  |  |
| ISE 4333 | Production Systems/Operations | 3 |
| ISE 5663 | Systems Analysis Using Simulation ${ }^{5}$ | 3 |
| ISE 4383 | Systems Evaluation | 3 |
| ISE 5853 | Data-Driven Decision Making II | 3 |
| DSA 5005 | Computing Structures ${ }^{5}$ | 5 |
|  | Credit Hours | 17 |

## Second Semester

| DSA 5113 | Advanced Analytics and Metaheuristics ${ }^{5}$ | 3 |
| :---: | :---: | :---: |
| ISE 4393 | Capstone Design Project | 3 |
| Approved Elective: World Culture (Core IV) ${ }^{4}$ |  | 3 |
| Approved Elective: Artistic Forms (Core IV) ${ }^{4}$ |  | 3 |
| Approved Elective: Western Culture (Core IV) ${ }^{4}$ |  | 3 |
|  | Credit Hours | 15 |

## Fifth Year

First Semester

| DSA 4413 | Algorithm Analysis | 3 |
| :--- | :--- | ---: |
| DSA 4513 | Database Management Systems | 3 |
| DSA 5103 | Intelligent Data Analytics | 3 |
| Graduate Elective $^{2}$ | Credit Hours | 3 |
| Second Semester |  | $\mathbf{1 2}$ |
| Graduate Elective |  |  |
| Graduate Elective |  |  |
| DSA 5900 | Professional Practice | 3 |
|  | Credit Hours | 3 |
|  | Total Credit Hours | $\mathbf{4}$ |

${ }^{1}$ CHEM 1315 can be substituted with CHEM 1335 (Fall only).
2 MATH 1823, MATH 2423, MATH 2433, and MATH 2443 sequence can be substituted for MATH 1914, MATH 2924, and MATH 2934.
${ }^{3}$ Transfer students will need to meet the requirements of the first-year experience course as well as the engineering transfer course. Please see your advisor for your specific enrollment.
4 To be chosen from the University-Wide General Education Approved Course List. Three of these hours must be upper-division (3000-4000). See list in the Class Schedule.
5 These courses are dual-counted, fulfilling requirements for both the undergraduate degree and the graduate degree.
6 To be approved by the DSA graduate liaison.
${ }^{7}$ Courses taken to fulfill the Natural Science requirement must be chosen from the University-Wide General Education Approved Course List (Core II). At least one of the Natural Science Courses must be
a non-Physics course. All science courses must be for science or engineering majors and come from the natural science elective list maintained by the department.

## Approved Math Elective

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| MATH 2513 | Discrete Mathematical Structures | 3 |
| MATH 3113 | Introduction to Ordinary Differential <br>  <br> Equations | 3 |
| MATH 3333 | Linear Algebra I | 3 |
| MATH 3413 | Physical Mathematics I | 3 |
| MATH 4433 | Introduction to Analysis I | 3 |

## Industrial and Systems Engineering, B.S./ M.B.A.

Minimum Total Credit Hours: 156

Overall GPA - Combined and OU: 3.00
Major GPA - Combined and OU: 3.00
Curriculum GPA - Combined and OU: 3.00
Program Code: A530/F140 Q340

## This program has changes pending State Regents approval for 2024/25. These pending changes are not reflected here.

Bachelor of Science in Industrial and Systems Engineering accredited by the Engineering Accreditation Commission of ABET, https:// www.abet.org, under the General Criteria and the Industrial Engineering and Similarly Named Engineering Programs Program Criteria.

In order to progress in your curriculum in the Gallogly College of Engineering, and as a specific graduation requirement, a grade of C or better is required in each course in the curriculum, including all prerequisite courses.

## Major Requirements

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Required Courses |  |  |
| ISE 2823 | Enterprise Engineering | 3 |
| ISE 2303 | Design and Manufacturing Process |  |
| ISE 2311 | Computer Aided Design and Graphics |  |
|  | Laboratory for Industrial Engineers | 3 |
| ISE 3293 | Applied Engineering Statistics | 1 |
| ISE 3304 | Design and Manufacturing II | 3 |
| ISE 4113 | Spreadsheet Dec Support Sys | 4 |
| ISE 4553 | Data-Driven Decision Making I | 3 |
| ISE 4623 | Deterministic Systems Models | 3 |
| ISE 4223 | Fundamentals of Engineering Economy | 3 |
| ISE 4633 | Probabilistic Systems Models | 3 |
| ISE 4804 | Ergonomics in Systems Design ${ }^{1}$ | 3 |
| ISE 5563 | Quality \& Reliability Engineering ${ }^{1}$ | 4 |


| ISE 4333 | Production Systems/Operations ${ }^{1}$ | 3 |
| :--- | :--- | ---: |
| ISE 4663 | Systems Analysis Using Simulation | 3 |
| ISE 5383 | Systems Evaluation | 3 |
| ISE 5853 | Data-Driven Decision Making II ${ }^{1}$ | 3 |
| ISE 4393 | Capstone Design Project | 3 |
| Total Credit Hours | 51 |  |
| 1These courses are dual-counted, fulfilling requirements for both the <br> undergraduate degree and the graduate business degree. |  |  |

Major Support Requirements

| Code Title | Credit |
| :--- | :--- |
|  | Hours |


| Math and Science |  |  |
| :--- | :--- | :--- |
| MATH 2924 | Differential and Integral Calculus II | 4 |
| MATH 2934 | Differential and Integral Calculus III | 4 |
| Math Elective | Choose from approved list ${ }^{1}$ | 3 |
| PHYS 2524 | General Physics for Engineering and <br>  <br>  <br> Science Majors | 4 |


| Additional College Requirements |  |  |
| :---: | :---: | :---: |
| ENGR 1411 | Pathways to Engineering Thinking ${ }^{2}$ | 1 |
| ENGR 2002 | Professional Responsibilities and Skills of Engineers and Scientists | 2 |
| C S 1323 | Introduction to Computer Programming for Programmers | 3 |
| or C S 1313 | Programming for Non-Majors with C |  |
| ENGR 2431 | Electrical Circuits | 1 |
| ENGR 2461 | Thermodynamics | 1 |
| ENGR 3441 | Fluid Mechanics | 1 |
| CEES 2113 | Statics | 3 |
| CEES 2153 | Mechanics of Materials | 3 |
| Total Credit Ho |  | 30 |

${ }^{1}$ Chosen from an approved list maintained by the department. Options include MATH 2513, MATH 3113, MATH 3333, MATH 3413, and MATH 4433.
2 Engineering transfer students may take ENGR 3511 in place of ENGR 1411.

## Graduate Requirements

13 hours of graduate level ISE courses that satisfy MBA requirements can be shared between BS and MBA degrees.

A student who actively and satisfactorily participates in all Prelude activities will receive a grade of 'S' for B AD 5010. A student who does not satisfactorily participate in $75 \%$ of Prelude Week will be required to participate in a make-up session within the first two weeks of the semester. Failure to complete a make-up session will result in a grade of 'U' for B AD 5010, resulting in cancellation of the student's enrollment in the MBA program.

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| B AD 5010 | Foundations of MBA Success | 0 |
| B AD 5102 | Managerial Economics | 2 |


| ACCT 5202 | Financial Accounting | 2 |
| :--- | :--- | :--- |
| FIN 5102 | Financial Management | 2 |
| MGT 5702 | Organizational Behavior | 2 |
| MKT 5402 | Marketing Management | 2 |
| MIT 5602 | Management Information Systems | 2 |
| LS 5802 | Business Ethics/Legal | 2 |
| B AD 5101 | MBA - Professional Development | 1 |
| B AD 5201 | MBA - Professional Development II | 1 |
| Choose four credit hours (2 courses) of additional required <br> coursework from the following: | 4 |  |


| ACCT 5212 | Managerial Accounting |
| :--- | :--- |
| B AD 5182 | Quantitative Analysis II |
| FIN 5112 | Investments |
| ENT 5102 | Entrepreneurship \& Innovation |


| Experiential Courses |  |  |
| :--- | :--- | ---: |
| B AD 5812 | Global Business Experience | 2 |
| B AD 5822 | Business Consulting Practicum | 2 |
| B AD 5832 | Applied Field Project | 2 |
| Capstone |  |  |
| B AD 5902 | Strategic Management |  |

Electives (20 hours)
Choose 7 hours of MBA Electives.
Choose 13 hours of graduate level ISE electives, approved by 13 the Graduate Liaison (Shared) ${ }^{2}$
Total Credit Hours
${ }^{1}$ Must make a grade of ' $B$ ' or better in B AD 5902 or it must be repeated. This is the capstone course and serves in lieu of the comprehensive examination. This requirement is non-waiveable.
${ }^{2}$ Shared coursework may be used to meet the degree requirements of both the BS and MBA.

Note: Courses may be satisfied on the basis of previous study with approval of the Graduate Liaison, which must be indicated on the Program of Study form. The satisfied hours will be made up via additional elective hours to meet the required total 48 degree applicable hours.

## General Education and College Requirements

Courses designated as Core I, II, III, IV, or V are part of the General Education curriculum. Students must complete a minimum of 40 hours of General Education courses, chosen from the approved list, including at least one upper-division Gen. Ed. course outside of the student's major. Courses graded P/NP will not apply.

A grade of C or better is required in each course in the curriculum, including all prerequisite courses.

## UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS

Code Title

Core Area I: Symbolic and Oral Communication

| English Composition |  |  |
| :--- | :--- | ---: |
| ENGL 1113 | Principles of English Composition | 3 |
| ENGL 1213 | Principles of English Composition | 3 |
| or EXPO 1213 | Expository Writing |  |


| Language (0-10 hours in the same language) |  |
| :---: | :---: |
| This requirement can be met by two years of the same language in high school: | 0-10 |
| Beginning Course ( $0-5$ hours) |  |
| Beginning Course, continued (0-5 hours) |  |
| Mathematics |  |
| MATH $1914 \underset{\substack{\text { Di,2 } \\ \text {, } \\ \text { ifferential }}}{ }$ and Integral Calculus I (Core I) | 4 |
| Core Area II: Natural Science (including one laboratory) |  |
| PHYS 2514 General Physics for Engineering and <br>  <br> Science Majors (Core II)${ }^{2}$ | 4 |
| CHEM 1315 General Chemistry (Core II-Lab) ${ }^{2}$ <br> or CHEM 1335 General Chemistry I: Signature Course | 5 |
| Core Area III: Social Science |  |
| P SC 1113 American Federal Government | 3 |
| Choose one course ${ }^{3}$ | 3 |
| Core Area IV: Arts \& Humanities |  |
| Artistic Forms |  |
| Choose one course ${ }^{3}$ | 3 |
| Western Culture |  |
| HIST 1483 United States to 1865 | 3 |
| or HIST 1493 United States, 1865 to the Present |  |
| Choose one course (excluding HIST 1483 and HIST 1493) ${ }^{3}$ | 3 |
| World Culture |  |
| Choose one course ${ }^{3}$ | 3 |
| Core Area V: First-Year Experience |  |
| Choose one course ${ }^{3}$ | 3 |
| Total Credit Hours | 40-50 |
| 1 MATH 1823, MATH 2423, MATH 2433, and MATH 2443 sequence can be substituted for MATH 1914, MATH 2924, and MATH 2934. |  |
| ${ }^{3}$ To be chosen from the University-Wide General Education Approved Course List. Three of these hours must be upper-division (3000-4000). See list in the Class Schedule. |  |

## Free Electives

Electives to bring total applicable hours to the minimum total required for the degree including a minimum of 40 upper-division hours.

## Suggested Semester Plan of Study

Bachelor of Science in Industrial and Systems Engineering accredited by the Engineering Accreditation Commission of ABET, https:// www.abet.org, under the General Criteria and the Industrial Engineering and Similarly Named Engineering Programs Program Criteria.

In order to progress in your curriculum in the Gallogly College of Engineering, and as a specific graduation requirement, a grade of C or better is required in each course in the curriculum, including all prerequisite courses.

Students must take the GMAT and apply for the MBA program during the third year; minimum OU GPA and combined GPA of 3.0 is required. Students should submit an application to the School of Industrial and Systems Engineering for the accelerated program during the fall
semester of the junior year. Students may enter the accelerated program based on the undergraduate degree pattern offered in the year they first enrolled in the Oklahoma State System of Higher Education or later. Students must maintain a 3.0 GPA from the time of entering the accelerated program until graduation.

## Freshman

| First Semester |  | Credit |
| :---: | :---: | :---: |
|  |  | Hours |
| ENGL 1113 | Principles of English Composition (Core I) | 3 |
| CHEM 1315 | General Chemistry (Core II-Lab) ${ }^{1}$ | 5 |
| MATH 1914 | Differential and Integral Calculus I (Core I) ${ }^{2}$ | 4 |
| ENGR 1411 | Pathways to Engineering Thinking ${ }^{3}$ | 1 |
| Approved Elective: First-Year Experience (Core V) ${ }^{4}$ |  | 3 |
|  | Credit Hours | 16 |

## Second Semester

| ENGL 1213 or EXPO 1213 | Principles of English Composition (Core I) or Expository Writing | 3 |
| :---: | :---: | :---: |
| MATH 2924 | Differential and Integral Calculus II ${ }^{2}$ | 4 |
| HIST 1483 or HIST 1493 | United States to 1865 (Core IV) or United States, 1865 to the Present | 3 |
| PHYS 2514 | General Physics for Engineering and Science Majors (Core II) | 4 |
|  | Credit Hours | 14 |


| Sophomore |  |  |
| :---: | :---: | :---: |
| First Semester |  |  |
| MATH 2934 | Differential and Integral Calculus III ${ }^{2}$ | 4 |
| PHYS 2524 | General Physics for Engineering and Science Majors | 4 |
| CEES 2113 | Statics | 3 |
| ENGR 2002 | Professional Responsibilities and Skills of Engineers and Scientists | 2 |
| ISE 2823 | Enterprise Engineering | 3 |
| P SC 1113 | American Federal Government (Core III) | 3 |
|  | Credit Hours | 19 |


| Second Semester |  |  |
| :---: | :---: | :---: |
| CEES 2153 | Mechanics of Materials | 3 |
| ISE 3293 | Applied Engineering Statistics | 3 |
| ISE 2303 | Design and Manufacturing Process | 3 |
| ISE 2311 | Computer Aided Design and Graphics Laboratory for Industrial Engineers | 1 |
| $\begin{aligned} & \text { CS } 1323 \\ & \quad \text { or C S } 1313 \end{aligned}$ | Introduction to Computer Programming for Programmers or Programming for Non-Majors with C | 3 |
| MATH Elective (p. 1422) |  | 3 |
|  | Credit Hours | 16 |


| Junior |  |  |
| :--- | :--- | :--- |
| First Semester |  | 4 |
| ISE 3304 | Design and Manufacturing II | 3 |
| ISE 4113 | Spreadsheet Dec Support Sys | 3 |
| ISE 4553 | Data-Driven Decision Making I | 3 |
| ISE 4623 | Deterministic Systems Models | 1 |
| ENGR 2431 | Electrical Circuits |  |


| Approved Elective: Social Science (Core III) ${ }^{4}$ | 3 |
| :---: | ---: |
| Credit Hours | $\mathbf{1 7}$ |

## Second Semester

| ISE 4223 | Fundamentals of Engineering Economy | 3 |
| :---: | :---: | :---: |
| ISE 4633 | Probabilistic Systems Models | 3 |
| ISE 4804 | Ergonomics in Systems Design ${ }^{5}$ | 4 |
| ISE 5563 | Quality \& Reliability Engineering ${ }^{5}$ | 3 |
| ENGR 2461 | Thermodynamics | 1 |
| ENGR 3441 | Fluid Mechanics | 1 |
|  | Credit Hours | 15 |
| Senior |  |  |
| First Semester |  |  |
| ISE 4333 | Production Systems/Operations ${ }^{5}$ | 3 |
| ISE 4663 | Systems Analysis Using Simulation | 3 |
| ISE 5383 | Systems Evaluation | 3 |
| ISE 5853 | Data-Driven Decision Making II ${ }^{5}$ | 3 |
| ACCT 5202 | Financial Accounting | 2 |
| FIN 5102 | Financial Management | 2 |
| B AD 5010 | Foundations of MBA Success ${ }^{6}$ | 0 |
| B AD 5101 | MBA - Professional Development | 1 |
|  | Credit Hours | 17 |

## Second Semester

MKT 5402 Marketing Management 2
ISE 4393 Capstone Design Project 3

MBA Custom Core ..... 2
Approved Elective: World Culture (Core IV) ${ }^{4}$ ..... 3
Approved Elective: Artistic Forms (Core IV) ${ }^{4}$ ..... 3
Approved Elective: Western Culture (Core IV) ${ }^{4}$ ..... 3
2

| B AD 5201 | MBA - Professional Development II | 1 |
| :--- | :--- | ---: |
|  | Credit Hours | $\mathbf{1 9}$ |

## Fifth Year

First Semester

| B AD 5102 | Managerial Economics | 2 |
| :--- | :--- | ---: |
| MGT 5702 | Organizational Behavior | 2 |
| MIT 5602 | Management Information Systems | 2 |
| B AD 5832 $_{\text {MBA Elective }}{ }^{7}$ | Applied Field Project | 2 |
| MBA Elective $^{7}$ |  | 2 |
|  | Credit Hours | $\mathbf{2}$ |

## Second Semester

| B AD 5822 | Business Consulting Practicum | 2 |
| :--- | :--- | ---: |
| B AD 5902 | Strategic Management | 2 |
| L S 5802 | Business Ethics/Legal | 2 |
| MBA Custom Core $^{\text {MBA Elective }}{ }^{7}$ |  | 2 |
| MBA Elective $^{7}$ |  | 2 |
|  | Credit Hours | 1 |
|  | Total Credit Hours | $\mathbf{1 1}$ |
|  | $\mathbf{1 5 6}$ |  |

${ }^{1}$ CHEM 1315 can be substituted with CHEM 1335 (Fall only).

2 MATH 1823, MATH 2423, MATH 2433, and MATH 2443 sequence can be substituted for MATH 1914, MATH 2924, and MATH 2934.
${ }^{3}$ Engineering transfer students may take ENGR 3511 in place of ENGR 1411.
4 To be chosen from the University-Wide General Education Approved Course List. Three of these hours must be upper-division (3000-4000). See list in the Class Schedule.
5 These courses are dual-counted, fulfilling requirements for both the undergraduate degree and the graduate business degree.
${ }^{6}$ A student who actively and satisfactorily participates in all Prelude activities will receive a grade of 'S' for B AD 5010. A student who does not satisfactorily participate in $75 \%$ of Prelude Week will be required to participate in a make-up session within the first two weeks of the semester. Failure to complete a make-up session will result in a grade of 'U' for B AD 5010, resulting in cancellation of the student's enrollment in the MBA program.
7 To be chosen from an approved list of MBA electives available in the ISE office, CEC 116.

Two college-level courses in a single world language are required; this may be satisfied by successful completion of 2 years in a single world language in high school. Students who must take language at the University will have an additional 6-10 hours of coursework.

Courses designated as Core I, II, III, IV or V are part of the General Education curriculum. Students must complete a minimum of 40 hours of General Education courses, chosen from the approved list.

## Approved MATH Elective

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| MATH 2513 | Discrete Mathematical Structures | 3 |
| MATH 3113 | Introduction to Ordinary Differential <br>  <br> Equations | 3 |
| MATH 3333 | Linear Algebra I | 3 |
| MATH 3413 | Physical Mathematics I | 3 |
| MATH 4433 | Introduction to Analysis I | 3 |

# Industrial and Systems Engineering - <br> Analytics, B.S./M.S. 

Minimum Total Credit Hours: 156

Overall GPA - Combined and OU: 3.00
Major GPA - Combined and OU: 3.00
Curriculum GPA - Combined and OU: 3.00

Program Code: A529/F529

## This program has changes pending State Regents approval for 2024/25. These pending changes are not reflected here.

Bachelor of Science in Industrial and Systems Engineering accredited by the Engineering Accreditation Commission of ABET, https:// www.abet.org, under the General Criteria and the Industrial Engineering and Similarly Named Engineering Programs Program Criteria.

In order to progress in your curriculum in the Gallogly College of Engineering, and as a specific graduation requirement, a grade of C or better is required in each course in the curriculum, including all prerequisite courses.

## Major Requirements

| Code | Title | Credit |
| :---: | :---: | :---: |
| Required Courses |  |  |
| ISE 2823 | Enterprise Engineering | 3 |
| ISE 2311 | Computer Aided Design and Graphics Laboratory for Industrial Engineers | 1 |
| ISE 2303 | Design and Manufacturing Process | 3 |
| ISE 3293 | Applied Engineering Statistics | 3 |
| ISE 3304 | Design and Manufacturing II | 4 |
| ISE 4113 | Spreadsheet Dec Support Sys | 3 |
| ISE 4553 | Data-Driven Decision Making I | 3 |
| ISE 4623 | Deterministic Systems Models | 3 |
| ISE 4223 | Fundamentals of Engineering Economy | 3 |
| ISE 4563 | Quality \& Reliability Engineering | 3 |
| ISE 4633 | Probabilistic Systems Models | 3 |
| ISE 4804 | Ergonomics in Systems Design | 4 |
| ISE 4333 | Production Systems/Operations | 3 |
| ISE 4663 | Systems Analysis Using Simulation | 3 |
| ISE 5383 | Systems Evaluation ${ }^{1}$ | 3 |
| ISE 5853 | Data-Driven Decision Making II ${ }^{1}$ | 3 |
| ISE 4393 | Capstone Design Project | 3 |
| ISE 5033 | Systems Engineering ${ }^{1}$ | 3 |
| or ISE 5813 | Advanced Human Factors and Ergonomics |  |

Total Credit Hours 54

1 These 9 credits are dual-counted, fulfilling requirements for both the undergraduate and graduate Industrial and Systems Engineering degrees.

Major Support Requirements

| Code | Title |
| :--- | :--- |
|  | Credit |
|  | Hours |


| Math and Science |  |  |
| :--- | :--- | :--- |
| MATH 2924 | Differential and Integral Calculus II | 4 |
| MATH 2934 | Differential and Integral Calculus III | 4 |
| MATH 2513 | Discrete Mathematical Structures | 3 |
| PHYS 2524 | General Physics for Engineering and <br> Science Majors | 4 |


| Additional College Requirements |  |  |
| :--- | :--- | :--- |
| ENGR 1411 | Pathways to Engineering Thinking ${ }^{1}$ | 1 |
| C S 1323 | Introduction to Computer Programming for <br>  <br>  <br>  <br> Programmers | 3 |
| ENGR 2431 | Electrical Circuits | 1 |
| ENGR 2461 | Thermodynamics | 1 |
| ENGR 3441 | Fluid Mechanics | 1 |
| CEES 2113 | Statics | 3 |
| CEES 2153 | Mechanics of Materials | 3 |


| C S 2334 | Programming Structures and Abstractions | 4 |
| :--- | :--- | ---: |
| C S 2413 | Data Structures | 3 |
| 6 hours of C S Electives chosen from an approved list ${ }^{2}$ | 6 |  |
| Total Credit Hours | 41 |  |
|  |  |  | | Engineering transfer students may take ENGR 3511 in place |
| :--- |
| of ENGR 1411. |

## Graduate Requirements Thesis Option

| Code | Title | Credit |
| :---: | :---: | :---: |
|  |  | Hours |
| Electives |  |  |
| Choose 15 hours from a list maintained by the academic unit and approved by the graduate college (p. 1429) ${ }^{1}$ |  | 15 |
| Thesis |  |  |
| ISE 5980 | Research for Master's Thesis | 6 |

## Total Credit Hours

${ }^{1}$ The thesis option requires 15 hours of electives, from a list maintained by the department and approved by the Graduate College. At least 6 hours must be in Industrial and Systems Engineering. Up to 9 hours may be non-ISE courses.

## Non-Thesis Option

| Code Title | Credit |
| :--- | :--- | :--- |
|  | Hours |

Electives
Choose 21 hours from a list maintained by the academic unit
and approved by the graduate college (p. 1429) and approved by the graduate college (p. 1429)

## Total Credit Hours

${ }^{1}$ The non-thesis option requires 21 hours of electives from a list maintained by the department and approved by the Graduate College. At least 12 hours must be in Industrial and Systems Engineering. Up to 9 hours may be non-ISE courses.

- NOTE: No more than 6 credit hours of 4000 -level graduate courses may be applied to the degree. These courses must be outside ISE and approved for graduate credit. No 3000 -level or lower courses may be applied to the degree.


## General Education and College Requirements

Courses designated as Core I, II, III, IV, or V are part of the General Education curriculum. Students must complete a minimum of 40 hours of General Education courses, chosen from the approved list, including at least one upper-division Gen. Ed. course outside of the student's major. Courses graded P/NP will not apply.

A grade of C or better is required in each course in the curriculum, including all prerequisite courses.

\section*{UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS <br> | Code | Title | Credit |
| :--- | :--- | :--- |
|  | Hours |  |}

Core Area I: Symbolic and Oral Communication
English Composition
ENGL 1113 Principles of English Composition 3
ENGL 1213 Principles of English Composition 3
or EXPO 1213 Expository Writing
Language (0-10 hours in the same language)
This requirement can be met by two years of the same 0-10
language in high school:
Beginning Course (0-5 hours)
Beginning Course, continued ( $0-5$ hours)
Mathematics

| MATH 1914 | $\substack{\text { Differential and Integral Calculus I (Core I) } \\ 1,2}$ |
| :--- | :--- | :--- |

Core Area II: Natural Science (including one laboratory)
PHYS 2514 General Physics for Engineering and 4 Science Majors (Core II) ${ }^{2}$
CHEM 1315 General Chemistry (Core II-Lab) ${ }^{2} 5$
or CHEM 1335 General Chemistry I: Signature Course
Core Area III: Social Science
P SC 1113 American Federal Government 3
Choose one course ${ }^{3} 3$

Core Area IV: Arts \& Humanities
Artistic Forms
Choose one course ${ }^{3} 3$

| Western Culture |  |
| :--- | :--- |
| HIST 1483 | United States to 1865 |

or HIST 1493 United States, 1865 to the Present
Choose one course (excluding HIST 1483 and HIST 1493) ${ }^{3} 3$
World Culture
Choose one course ${ }^{3} 3$
Core Area V: First-Year Experience
Choose one course ${ }^{3} 3$

| Total Credit Hours | $40-50$ |
| :--- | :--- |

${ }^{1}$ MATH 1823, MATH 2423, MATH 2433, and MATH 2443 sequence can be substituted for MATH 1914, MATH 2924, and MATH 2934.
${ }^{2}$ Major support requirements that also satisfy University General Education requirements.
${ }^{3}$ To be chosen from the University-Wide General Education Approved Course List. Three of these hours must be upper-division (3000-4000). See list in the Class Schedule.

## Free Electives

Electives to bring total applicable hours to the minimum total required for the degree including a minimum of 40 upper-division hours.

## Suggested Semester Plan of Study

Bachelor of Science in Industrial and Systems Engineering accredited by the Engineering Accreditation Commission of ABET, https://
www.abet.org, under the General Criteria and the Industrial Engineering and Similarly Named Engineering Programs Program Criteria.

## In order to progress in your curriculum in the Gallogly College of

 Engineering, and as a specific graduation requirement, a grade of C or better is required in each course in the curriculum, including all prerequisite courses.Two college-level courses in a single world language are required; this may be satisfied by successful completion of 2 years in a single world language in high school. Students who must take language at the University will have an additional 6-10 hours of coursework.

Admission to the accelerated program is by application and requires a minimum OU GPA and combined GPA of 3.25. Students may enter the accelerated program based on the undergraduate degree pattern offered in the year they first enrolled in the Oklahoma State System of Higher Education or later.

Students are eligible for graduate status upon graduation with the Bachelor of Science in Industrial Engineering.

| Freshman <br> First Semester |  | Credit <br> Hours |
| :--- | :--- | ---: |
| ENGL 1113 | Principles of English Composition (Core I) | 3 |
| CHEM 1315 | General Chemistry (Core II-Lab) $^{1}$ | 5 |
| MATH 1914 | Differential and Integral Calculus I (Core I) $^{2}$ | 4 |
| Approved Elective: First-Year Experience (Core V) | 4 | 3 |
| ENGR 1411 | Pathways to Engineering Thinking |  |
|  | Credit Hours | 1 |

Second Semester

| $\begin{aligned} & \text { ENGL } 1213 \\ & \text { or EXPO } 1213 \end{aligned}$ | Principles of English Composition (Core I) or Expository Writing | 3 |
| :---: | :---: | :---: |
| MATH 2924 | Differential and Integral Calculus II ${ }^{2}$ | 4 |
| HIST 1483 <br> or HIST 1493 | United States to 1865 (Core IV) or United States, 1865 to the Present | 3 |
| PHYS 2514 | General Physics for Engineering and Science Majors (Core II) | 4 |
| C S 1323 | Introduction to Computer Programming for Programmers | 3 |

## Sophomore

| First Semester |  |  |
| :--- | :--- | ---: |
| MATH 2934 | Differential and Integral Calculus III ${ }^{2}$ | 4 |
| C S 2334 | Programming Structures and Abstractions | 4 |
| CEES 2113 | Statics | 3 |
| PHYS 2524 | General Physics for Engineering and | 4 |
|  | Science Majors | 4 |
| ISE 2823 | Enterprise Engineering | $\mathbf{3}$ |
|  | Credit Hours | $\mathbf{1 8}$ |


| Second Semester |  | 3 |
| :--- | :--- | :---: |
| CEES 2153 | Mechanics of Materials | 3 |
| ISE 2303 | Design and Manufacturing Process | 1 |
| ISE 2311 | Computer Aided Design and Graphics <br> Laboratory for Industrial Engineers |  |
| ISE 3293 | Applied Engineering Statistics | 3 |
| C S 2413 | Data Structures | 3 |


| MATH 2513 | Discrete Mathematical Structures | 3 |
| :--- | :--- | ---: |
|  | Credit Hours | $\mathbf{1 6}$ |

Junior
First Semester

| ISE 3304 | Design and Manufacturing II | 4 |
| :--- | :--- | ---: |
| ISE 4113 | Spreadsheet Dec Support Sys | 3 |
| ISE 4553 | Data-Driven Decision Making I | 3 |
| ISE 4623 | Deterministic Systems Models | 3 |
| C S 3203 | Software Engineering | 3 |
| P SC 1113 | American Federal Government (Core III) | 3 |
|  | Credit Hours | $\mathbf{1 9}$ |

Second Semester

| ISE 4223 | Fundamentals of Engineering Economy | 3 |
| :--- | :--- | ---: |
| ISE 4563 | Quality \& Reliability Engineering | 3 |
| ISE 4633 | Probabilistic Systems Models | 3 |
| ISE 4804 | Ergonomics in Systems Design | 4 |
| ENGR 2461 | Thermodynamics | 1 |
| ENGR 3441 | Fluid Mechanics | 1 |
| Approved Elective: Artistic Forms (Core IV) |  |  |

## Senior

First Semester

| ISE 4333 | Production Systems/Operations | 3 |
| :--- | :--- | ---: |
| ISE 4663 | Systems Analysis Using Simulation | 3 |
| ISE 5383 | Systems Evaluation $^{5}$ | 3 |
| ISE 5853 | Data-Driven Decision Making II $^{5}$ | 3 |
| C S 4513 | Database Management Systems (or other $^{\text {C S Elective) }}{ }^{6}$ | 3 |
| ENGR 2431 | Electrical Circuits | Credit Hours |

## Second Semester

ISE 4393 Capstone Design Project 3
ISE 5033 Systems Engineering ${ }^{5} 3$
or ISE 5813 or Advanced Human Factors and Ergonomics
Approved Elective: World Culture (Core IV) ${ }^{4} 3$
Approved Elective: Social Science (Core III) ${ }^{4} 3$

| Approved Elective: Western Culture (Core IV) ${ }^{4}$ | 3 |
| :---: | ---: |
| Credit Hours | $\mathbf{1 5}$ |

## Fifth Year

First Semester
ISE 5000-Level Graduate Elective ${ }^{7} 3$
Graduate Elective 3
Graduate Elective 3
Choose one of the following: 3
ISE 5980 Research for Master's Thesis
Graduate Elective

## Credit Hours

## Second Semester

ISE 5000-Level Graduate Elective ${ }^{7} 3$
Graduate Elective 3
Choose one of the following: 3

|  | ISE 5980 | Research for Mast |  |
| :---: | :---: | :---: | :---: |
| Graduate Elective |  |  |  |
|  |  | Credit Hours | 9 |
|  |  | Total Credit Hours | 156 |
| 2 | CHEM 1315 can be substituted with CHEM 1335 (Fall only). MATH 1823, MATH 2423, MATH 2433, and MATH 2443 sequence can be substituted for MATH 1914, MATH 2924, and MATH 2934. |  |  |
| 4 | To be chosen from the University-Wide General Education Approved Course List. Three of these hours must be upper-division (3000-4000). See list in the Class Schedule. |  |  |
| These courses are dual-counted, fulfilling requirements for both the undergraduate and graduate Industrial and Systems Engineering degrees. |  |  |  |
| 6 | To be cho 116. | om the C S Elective |  |
| 7 | Must be a Master of | d by the Thesis Co ee requirements av | rent |

Courses designated as Core I, II, III, IV, or V are part of the General Education curriculum. Students must complete a minimum of 40 hours of General Education courses, chosen from the approved list.

# Industrial and Systems Engineering - Analytics, B.S./Data Science and Analytics, M.S. 

Minimum Total Credit Hours: 150

Overall GPA - Combined and OU: 3.00
Major GPA - Combined and OU: 3.00
Curriculum GPA - Combined and OU: 3.00
Program Code: A532/F267 Q343

## This program has changes pending State Regents approval for 2024/25. These pending changes are not reflected here.

Bachelor of Science in Industrial and Systems Engineering accredited by the Engineering Accreditation Commission of ABET, https:// www.abet.org, under the General Criteria and the Industrial Engineering and Similarly Named Engineering Programs Program Criteria.

In order to progress in your curriculum in the Gallogly College of Engineering, and as a specific graduation requirement, a grade of C or better is required in each course in the curriculum, including all prerequisite courses.

Major Requirements

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Required Courses |  | 3 |
| ISE 2823 | Enterprise Engineering | 1 |
| ISE 2311 | Computer Aided Design and Graphics <br> Laboratory for Industrial Engineers |  |


| ISE 2303 | Design and Manufacturing Process | 3 |
| :---: | :---: | :---: |
| ISE 3293 | Applied Engineering Statistics | 3 |
| ISE 3304 | Design and Manufacturing II | 4 |
| ISE 4113 | Spreadsheet Dec Support Sys | 3 |
| ISE 4553 | Data-Driven Decision Making I | 3 |
| ISE 4623 | Deterministic Systems Models | 3 |
| ISE 4223 | Fundamentals of Engineering Economy | 3 |
| ISE 4563 | Quality \& Reliability Engineering | 3 |
| ISE 4633 | Probabilistic Systems Models | 3 |
| ISE 4804 | Ergonomics in Systems Design | 4 |
| ISE 4333 | Production Systems/Operations | 3 |
| ISE 5663 | Systems Analysis Using Simulation ${ }^{1}$ | 3 |
| ISE 4383 | Systems Evaluation | 3 |
| ISE 5853 | Data-Driven Decision Making II ${ }^{1}$ | 3 |
| DSA 4513 | Database Management Systems ${ }^{1}$ | 3 |
| ISE 4393 | Capstone Design Project | 3 |
| DSA 5113 | Advanced Analytics and Metaheuristics ${ }^{1}$ | 3 |
| Total Credi |  | 57 |

${ }^{1}$ These courses are dual-counted, fulfilling requirements for both the undergraduate and graduate degrees.

## Major Support Requirements

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Math and Science |  | 4 |
| MATH 2924 | Differential and Integral Calculus II | 4 |
| MATH 2934 | Differential and Integral Calculus III | 3 |
| MATH 2513 | Discrete Mathematical Structures |  |
| Additional College Requirements | 3 |  |
| C S 1323 | Introduction to Computer Programming for |  |
| ENGR 2002 | Programmers | 2 |
| CEES 2113 | Professional Responsibilities and Skills of | 3 |
| CEES 2153 | Statics | Mechanics of Materials |
| C S 2334 | Programming Structures and Abstractions | 3 |
| C S 2414 | Data Structures | 4 |
| C S 3203 | Software Engineering | 4 |
| Total Credit Hours | 3 |  |

## Graduate Requirements

12 hours of graduate level courses that satisfy MS in data science and analytics requirements can be shared between BS and MS degrees.

## Non-Thesis Option

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Core DSA Courses ${ }^{1}$ |  |  |
| DSA/C S 5005 | Computing Structures | 5 |
| DSA/C S 4513 | Database Management Systems ${ }^{2}$ | 3 |
| DSA/C S 4413 | Algorithm Analysis ${ }^{2}$ | 3 |


| DSA/ISE 5013 | Fundamentals of Engineering Statistical Analysis | 3 |
| :---: | :---: | :---: |
| DSA/ISE 5103 | Intelligent Data Analytics | 3 |
| DSA/ISE 5113 | Advanced Analytics and Metaheuristics | 3 |
| Internship/Practicum |  |  |
| DSA/ENGR 5900 | Professional Practice | 4 |
| Electives |  |  |
| Choose 3 hours of | f CS, ISE, or DSA electives | 3 |
| Choose 6 addition CS, ISE, or DSA) | nal hours of electives (which may be outside | 6 |
| Total Credit Hours |  | 33 |
| ${ }^{1}$ Core courses may be replaced with additional graduate electives at the discretion of the Graduate Liaison. <br> 2 Approved for graduate credit. |  |  |

## General Education and College Requirements

Courses designated as Core I, II, III, IV, or V are part of the General Education curriculum. Students must complete a minimum of 40 hours of General Education courses, chosen from the approved list, including at least one upper-division Gen. Ed. course outside of the student's major. Courses graded P/NP will not apply.

A grade of $C$ or better is required in each course in the curriculum, including all prerequisite courses.

UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS

| Code | Title | Credit |
| :---: | :---: | :---: |
| Core Area I: Symbolic and Oral Communication |  |  |
| English Composition |  |  |
| ENGL 1113 | Principles of English Composition | 3 |
| ENGL 1213 or EXPO 1213 | Principles of English Composition Expository Writing | 3 |
| Language (0-10 hours in the same language) |  |  |
| This requirement can be met by two years of the same language in high school: |  |  |
| Beginning Course (0-5 hours) |  |  |
| Beginning Course, continued (0-5 hours) |  |  |
| Mathematics |  |  |
| MATH 1914 | Differential and Integral Calculus I (Core I) 1, 2 | 4 |


| Core Area II: Natural Science (including one laboratory) |
| :--- |
| PHYS 2514 General Physics for Engineering and <br> Science Majors (Natural Science Elective <br> with Lab) <br> Natural Science Elective with Lab |


| Core Area III: Social Science |  |  |
| :--- | :---: | :--- |
| P SC 1113 | American Federal Government | 3 |

Choose one course ${ }^{3} \quad 3$

## Core Area IV: Arts \& Humanities

## Artistic Forms

Choose one course ${ }^{3}$


## Free Electives

Electives to bring total applicable hours to the minimum total required for the degree including a minimum of 40 upper-division hours.

## Suggested Semester Plan of Study

Bachelor of Science in Industrial and Systems Engineering accredited by the Engineering Accreditation Commission of ABET, https:// www.abet.org, under the General Criteria and the OK Industrial Engineering and Similarly Named Engineering Programs Program Criteria.

In order to progress in your curriculum in the Gallogly College of Engineering, and as a specific graduation requirement, a grade of C or better is required in each course in the curriculum, including all prerequisite courses.

Admission to the accelerated program is by application and requires a minimum OU GPA and combined GPA of 3.0. Students may enter the accelerated program based on the undergraduate degree pattern offered in the year they first enrolled in the Oklahoma State System of Higher Education or later. Students are eligible for graduate status upon graduation with the Bachelor of Science in Industrial Engineering.

Two college-level courses in a single world language are required; this may be satisfied by successful completion of 2 years in a single world language in high school. Students who must take language at the University will have an additional 6-10 hours of coursework.

Courses designated as Core I, II, III, IV or V are part of the General Education curriculum. Students must complete a minimum of 40 hours of General Education courses, chosen from the approved list.

| Freshman |  |  |
| :---: | :---: | :---: |
| First Semester |  | Credit |
|  |  | Hours |
| ENGL 1113 | Principles of English Composition (Core I) | 3 |
| MATH 1914 | Differential and Integral Calculus I (Core I) ${ }^{2}$ | 4 |
| ENGR 1413 | Pathways to Engineering Thinking (Core VFYE) ${ }^{3}$ | 3 |
| Natural Science Elective with Lab ${ }^{1}$ |  | 4 |
|  | Credit Hours | 14 |
| Second Semester |  |  |
| $\begin{aligned} & \text { ENGL } 1213 \\ & \text { or EXPO } 1213 \end{aligned}$ | Principles of English Composition (Core I) or Expository Writing | 3 |
| MATH 2924 | Differential and Integral Calculus II ${ }^{2}$ | 4 |
| HIST 1483 or HIST 1493 | United States to 1865 (Core IV) or United States, 1865 to the Present | 3 |
| PHYS 2514 | General Physics for Engineering and Science Majors (Core II) | 4 |
| C S 1323 | Introduction to Computer Programming for Programmers | 3 |
|  | Credit Hours | 17 |
| Sophomore |  |  |
| First Semester |  |  |
| MATH 2934 | Differential and Integral Calculus III ${ }^{2}$ | 4 |
| CEES 2113 | Statics | 3 |
| ISE 2823 | Enterprise Engineering | 3 |
| C S 2334 | Programming Structures and Abstractions | 4 |
| ENGR 2002 | Professional Responsibilities and Skills of Engineers and Scientists | 2 |
|  | Credit Hours | 16 |
| Second Semester |  |  |
| C S 2414 | Data Structures | 4 |
| CEES 2153 | Mechanics of Materials | 3 |
| ISE 2303 | Design and Manufacturing Process | 3 |
| ISE 2311 | Computer Aided Design and Graphics Laboratory for Industrial Engineers | 1 |
| ISE 3293 | Applied Engineering Statistics | 3 |
| MATH 2513 | Discrete Mathematical Structures | 3 |
|  | Credit Hours | 17 |
| Junior |  |  |
| First Semester |  |  |
| ISE 3304 | Design and Manufacturing II | 4 |
| ISE 4113 | Spreadsheet Dec Support Sys | 3 |
| ISE 4553 | Data-Driven Decision Making I | 3 |
| ISE 4623 | Deterministic Systems Models | 3 |
| C S 3203 | Software Engineering | 3 |
| P SC 1113 | American Federal Government (Core III) | 3 |
|  | Credit Hours | 19 |


| Second Semester |  |  |
| :--- | :--- | :--- |
| ISE 4223 | Fundamentals of Engineering Economy | 3 |
| ISE 4563 | Quality \& Reliability Engineering | 3 |
| SE 4633 | Probabilistic Systems Models | 3 |
| ISE 4804 | Ergonomics in Systems Design | 4 |


| Approved Elective: Artistic Forms (Core IV) ${ }^{4}$ |  | 3 |
| :---: | :---: | :---: |
|  | Credit Hours | 16 |
| Senior |  |  |
| First Semester |  |  |
| ISE 4333 | Production Systems/Operations | 3 |
| ISE 5663 | Systems Analysis Using Simulation ${ }^{5}$ | 3 |
| ISE 4383 | Systems Evaluation | 3 |
| ISE 5853 | Data-Driven Decision Making $11{ }^{5}$ | 3 |
| DSA 4513 | Database Management Systems ${ }^{5}$ | 3 |
|  | Credit Hours | 15 |
| Second Semester |  |  |
| DSA 5113 | Advanced Analytics and Metaheuristics ${ }^{5}$ | 3 |
| ISE 4393 | Capstone Design Project | 3 |
| Approved Elective: Social Science (Core IV) ${ }^{4}$ |  | 3 |
| Approved Elective: World Culture (Core IV) ${ }^{4}$ |  | 3 |
| Approved Elective: Western Culture (Core IV) ${ }^{4}$ |  | 3 |
|  | Credit Hours | 15 |
| Fifth Year |  |  |
| First Semester |  |  |
| DSA 4413 | Algorithm Analysis | 3 |
| DSA 5103 | Intelligent Data Analytics | 3 |
| Graduate Elective ${ }^{6}$ |  | 3 |
| Graduate Elective ${ }^{6}$ |  | 3 |
|  | Credit Hours | 12 |
| Second Semester |  |  |
| Graduate Elective ${ }^{6}$ |  | 3 |
| Graduate Elective ${ }^{6}$ |  | 2 |
| DSA 5900 | Professional Practice | 1-4 |
|  | Credit Hours | 9 |
|  | Total Credit Hours | 150 |
| Courses taken to fulfill the Natural Science requirement must be chosen from the University-Wide General Education Approved Course List (Core II). At least one of the Natural Science Courses must be a non-Physics course. All science courses must be for science and or engineering majors and come from the natural science elective list maintained by the department. |  |  |
| ${ }^{2}$ MATH 1823, MATH 2423, MATH 2433, and MATH 2443 sequence can be substituted for MATH 1914, MATH 2924, and MATH 2934. |  |  |
| Transfer students will need to meet the requirements of the first-year experience course as well as the engineering transfer course. Please see your advisor for your specific enrollment requirements. |  |  |
| ${ }^{4}$ To be chosen from the University-Wide General Education Approved Course List. Three of these hours must be upper-division (3000-4000). See list in the Class Schedule. |  |  |
| ${ }^{5}$ These courses are dual-counted, fulfilling requirements for both the undergraduate degree and the graduate degree. <br> ${ }^{6}$ To be approved by the DSA graduate liaison. |  |  |

## Industrial and Systems Engineering, M.S.

Minimum Total Hours (Thesis): 30<br>Minimum Total Hours (Non-Thesis): 30

| Program Code: M524 (Online M527) |  |  |
| :---: | :---: | :---: |
| Thesis Option |  |  |
| Code | Title | Credit |
|  |  | Hours |
| Required Courses |  |  |
| Statistics: Choose one of the following |  | 3 |
| ISE 5013 | Fundamentals of Engineering Statistical Analysis ${ }^{1}$ |  |
| ISE 5553 | Data-Driven Decision Making I |  |
| ISE 5853 | Data-Driven Decision Making II |  |
| ISE 5103 | Intelligent Data Analytics |  |
| Modeling: Choose one of the following |  | 3 |
| ISE 5023 | Systems Optimization ${ }^{2}$ |  |
| ISE 5663 | Systems Analysis Using Simulation |  |
| ISE 5113 | Advanced Analytics and Metaheuristics |  |
| Systems Engineering: Choose one of the following 3 |  |  |
| ISE 5033 | Systems Engineering ${ }^{3}$ |  |
| ISE 5813 | Advanced Human Factors and Ergonomics |  |
| ISE 5543 | Decision Analysis |  |
| Electives |  |  |
| Choose 15 hours from a list maintained by the academic unit and approved by the Graduate College (p. 1429) ${ }^{4}$ |  |  |
| Thesis |  |  |
| ISE 5980 Research for Master's Thesis $\quad 6$ |  |  |
| Total Credit Hours 30 |  |  |
| ${ }^{1}$ Students with an equivalent undergraduate statistics course: ISE 5103, ISE 5553 or ISE 5853 or alternative advanced statistics course approved by the Industrial and Systems Engineering Graduate Committee. <br> ${ }^{2}$ Students with an equivalent undergraduate course in optimization: ISE 5663 or alternative advanced operations course approved by the Industrial and Systems Engineering Graduate Committee. <br> ${ }^{3}$ Students with an equivalent undergraduate course in systems engineering: ISE 5813 or another advanced course approved by the Industrial and Systems Engineering Graduate Committee. <br> ${ }^{4}$ The thesis option requires 15 hours of electives, from a list maintained by the department and approved by the Graduate College. At least 6 hours must be in Industrial and Systems Engineering. Up to 9 hours may be non-ISE courses. |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

- NOTE: No more than 6 credit hours of 4000 -level graduate courses may be applied to the degree. These courses must be outside ISE and approved for graduate credit. No 3000 -level or lower courses may be applied to the degree.


## Non-Thesis Option

| Code | Title |
| :--- | :--- |
| Required Courses |  |


| ISE 5103 | Intelligent Data Analytics |  |
| :---: | :---: | :---: |
| Modeling: Choose one of the following |  | 3 |
| ISE 5023 | Systems Optimization ${ }^{2}$ |  |
| ISE 5663 | Systems Analysis Using Simulation |  |
| ISE 5113 | Advanced Analytics and Metaheuristics |  |
| Systems Engineering: Choose one of the following |  | 3 |
| ISE 5033 | Systems Engineering ${ }^{3}$ |  |
| ISE 5813 | Advanced Human Factors and Ergonomics |  |
| ISE 5543 | Decision Analysis |  |
| Electives |  |  |
| Choose 21 h and approve | from a list maintained by the academic unit the Graduate College (p. 1429) ${ }^{4}$ | 21 |

## Total Credit Hours

301 Students with an equivalent undergraduate statistics course: ISE 5103, ISE 5553 or ISE 5853 or alternative advanced statistics course approved by the Industrial and Systems Engineering Graduate Committee.
${ }^{2}$ Students with an equivalent undergraduate course in optimization: ISE 5663 or alternative advanced operations course approved by the Industrial and Systems Engineering Graduate Committee.
${ }^{3}$ Students with an equivalent undergraduate course in systems engineering: ISE 5813 or another advanced course approved by the Industrial and Systems Engineering Graduate Committee.
4 The non-thesis option requires 21 hours of electives from a list maintained by the department and approved by the Graduate College. At least 12 hours must be in Industrial and Systems Engineering. Up to 9 hours may be non-ISE courses.

- NOTE: No more than 6 credit hours of 4000-level graduate courses may be applied to the degree. These courses must be outside ISE and approved for graduate credit. No 3000-level or lower courses may be applied to the degree.


## General Requirements for all Master's Degrees

The master's degree requires the equivalent of at least two semesters of satisfactory graduate work and additional work as may be prescribed for the degree.

All coursework applied to the master's degree must carry graduate credit.
Master's degree programs which require a thesis consist of at least 30 credit hours. All non-thesis master's degree programs require at least 30 credit hours.

Credit transferred from other institutions must meet specific criteria and is subject to certain limitations.

Courses completed through correspondence study may not be applied to the master's degree.

To qualify for a graduate degree, students must achieve an overall grade point average of 3.0 or higher in the degree program coursework and in all resident graduate coursework attempted. A student must also have at least a 3.0 in all coursework (including undergraduate coursework if any).

Additional information for master's degree students may be found in the Graduate College Bulletin.

Industrial Systems and Engineering Electives Course List

| Code | Title | Credit Hours |
| :---: | :---: | :---: |
| ISE 4223 | Fundamentals of Engineering Economy | 3 |
| ISE 4333 | Production Systems/Operations | 3 |
| ISE 4804 | Ergonomics in Systems Design | 4 |
| ISE 5103 | Intelligent Data Analytics | 3 |
| ISE 5113 | Advanced Analytics and Metaheuristics | 3 |
| ISE 5123 | Software Tools-Dec Support | 3 |
| ISE 5133 | Energy Analytics | 3 |
| ISE 5293 | Cost Engineering | 3 |
| ISE 5373 | Intro to Additive Manufacturing | 3 |
| ISE 5383 | Systems Evaluation | 3 |
| ISE 5503 | Healthcare Analytics | 3 |
| ISE 5543 | Decision Analysis | 3 |
| ISE 5553 | Data-Driven Decision Making I | 3 |
| ISE 5563 | Quality \& Reliability Engineering | 3 |
| ISE 5613 | Multicriteria Optimization | 3 |
| ISE 5633 | Supply Chain Mgt \& Transport | 3 |
| ISE 5643 | Engineering Optimization | 3 |
| ISE 5663 | Systems Analysis Using Simulation | 3 |
| ISE 5693 | Simulation Modeling and Analysis | 3 |
| ISE 5763 | Project Management Methods | 3 |
| ISE 5773 | Systems Requirements and Architecting | 3 |
| ISE 5813 | Advanced Human Factors and Ergonomics | 3 |
| ISE 5823 | Exercise Physiology | 3 |
| ISE 5970 | Seminar-Industrial Engineering | 1-3 |
| ISE 5853 | Data-Driven Decision Making II | 3 |
| DSA 4413 | Algorithm Analysis | 3 |
| DSA 4513 | Database Management Systems | 3 |
| DSA 5001 | Data Analytics and Media | 1 |
| DSA 5005 | Computing Structures | 5 |
| DSA 5011 | Introduction to R | 1 |
| DSA 5013 | Fundamentals of Engineering Statistical Analysis | 3 |
| DSA 5021 | Data Analytics Applied to Meteorology Data | 1 |
| DSA 5031 | Econometrics for DSA | 1 |
| DSA 5041 | Advanced R | 1 |
| DSA 5051 | Data Visualization | 1 |
| DSA 5061 | Python for Data Science and Analytics | 1 |
| DSA 5103 | Intelligent Data Analytics | 3 |
| DSA 5113 | Advanced Analytics and Metaheuristics | 3 |
| DSA 5133 | Energy Analytics | 3 |
| DSA 5203 | Time Series Analysis | 3 |
| DSA 5303 | Financial Engineering Analytics | 3 |
| DSA 5403 | Bayesian Statistics | 3 |
| DSA 5703 | Machine Learning Practice | 3 |
| Other graduate electives can be allowed with the graduate liaison and advisor's prior approval. |  |  |

# Industrial and Systems Engineering, Ph.D. 

Minimum Total Hours: 90

## Program Code: D526

## Program Requirements

| Code | Title | Credit |
| :---: | :---: | :---: |
|  |  | Hours |
| Statistics |  |  |
| Choose one of the following courses: |  | 3 |
| ISE 5013 | Fundamentals of Engineering Statistical Analysis |  |
| ISE 5553 | Data-Driven Decision Making I |  |
| ISE 5853 | Data-Driven Decision Making II |  |
| ISE 5103 | Intelligent Data Analytics |  |
| Modeling |  |  |
| ISE 5023 | Systems Optimization | 3 |
| or ISE 5663 | Systems Analysis Using Simulation |  |
| Systems Engineering |  |  |
| ISE 5033 | Systems Engineering | 3 |
| or ISE 5813 | Advanced Human Factors and Ergonomics |  |
| Additional Requirements |  |  |
| Elective Course advisory confer | ork (at least 9 hours as approved by the ce committee and graduate committee) | 9 |
| Additional Cour | ework | 30-44 |
| Dissertation Research |  |  |
| ISE 6980 | Research for Doctoral Dissertation (minimum 28 hours) | 28-42 |

Total Credit Hours

## Notes:

At least 12 credit hours of coursework must be taken in Industrial and Systems Engineering at the 5000-level or above.

At least 3 credit hours must be 6000-level courses in Industrial and Systems Engineering. This can include ISE 6990 Special Studies when approved by the Advisory Conference Committee.

The program requires between 18 and 30 hours of coursework beyond the M.S. Transferable hours are limited to 44.

## General Requirements for Doctoral Degrees

A student should expect to spend at least the equivalent of three full academic years beyond the bachelor's degree to obtain the doctoral degree. During this period the student will take appropriate graduate coursework, successfully complete the general examination, and successfully defend and submit the final dissertation.

All coursework applied to the doctoral degree must carry graduate credit.
The doctoral degree requires at least 90 post-baccalaureate hours, including both formal coursework and hours of research.

The minimum hour requirement for a specific doctoral degree program cannot be waived.

No more than one-half of the credit hours, both OU and overall, excluding Research for Doctoral Dissertation (6980), may be S/U-graded coursework.

The student must be in residence at OU for at least two consecutive 16week semesters during the pursuit of the doctoral degree while enrolled and engaged in coursework or research activities as prescribed by the major academic unit.

For more detailed regulations and requirements for Doctoral degrees, please consult the Graduate College Bulletin: http://www.ou.edu/ gradcollege/forms/bulletin

## WEITZENHOFFER FAMILY COLLEGE OF FINE ARTS



122 Fred Jones Art Center
540 Parrington Oval
Norman, OK 73019-3021
Phone: (405) 325-7370
FAX: (405) 325-1667
www.ou.edu/finearts/

## Administrative Officers

Mary Margaret Holt, M.F.A., Dean, John W. and Mary D. Nichols Chair, Regents and Presidential Professor of Dance
Michael Bearden, Director, School of Dance
Brian Britt, M.M., Associate Dean and Associate Professor of Music Ashton Byrum, M.F.A., Director, A. Max Weitzenhoffer School of Musical Theatre
Alison Fields, Ph.D., Acting Director, OU School of Visual Arts
Pete Froslie, M.F.A., Interim Associate Dean and Professor of Art
Harold Mortimer, D.M.A., Associate Dean and Associate Professor of Musical Theatre
Jonathan Nichol, Ph.D., Director, School of Music
Stan Renard, Ph.D., Associate Dean and Coordinator of Arts Management \& Entrepreneurship Programs
Yuanting Zhao, Director, Peggy Dow Helmerich School of Drama

## General Information

The College of Fine Arts includes the Schools of Dance, Music, the Peggy Dow Helmerich School of Drama, the A. Max Weitzenhoffer School of Musical Theatre, and the OU School of Visual Arts. Each unit offers degree programs at the undergraduate level. In addition, the schools of Dance, Music and Visual Arts offer graduate degree programs.

## History/Mission

The Weitzenhoffer Family College of Fine Arts, originally organized as the School of Fine Arts in 1903, was the fourth college to be founded at The University of Oklahoma. Today, the college includes the Schools of Dance, Music, the Peggy Dow Helmerich School of Drama, the A. Max Weitzenhoffer School of Musical Theatre, and the OU School of Visual Arts, and is the largest and most comprehensive fine arts program in the state of Oklahoma. The program has an annual enrollment of approximately 1,000 fine arts majors and a full-time faculty of more
than 100 nationally and internationally recognized educators, artists, performers, scholars, and technicians. More than 400 performances and exhibitions are presented within the college each academic year.

The Weitzenhoffer Family College of Fine Arts, an integral part of the University of Oklahoma, recognizes the universal language of the arts and its crucial role in creating and sustaining a vibrant, culturally diverse environment. The College is committed to a standard of excellence in the fine arts encompassing the University's mandate for teaching, research/creative activity, and service. The faculty, staff, and students are dedicated to the promotion of the arts within the state of Oklahoma, the nation, and the international community.

## Optional Opportunities

## Minors

The college offers the following minors; Art, Art History, Dance History, Theatre, Music, Instrumental Jazz, Commercial Music, and Arts Management \& Entrepreneurship. Any student wishing to declare a minor should do so in the Fine Arts Dean's Office, 122 Fred Jones Center. Requirements for a minor must be completed prior to graduation.

Students must audition and be accepted as a Music Minor or Jazz Minor before it may be declared. Acceptance in any given studio area is on a space available basis.

## Undergraduate Certificate

The School of Visual Arts offers an undergraduate certificate in Museum Studies.

## Honors Degrees

All of the bachelor's degree programs offered by the Weitzenhoffer Family College of Fine Arts are available to qualified students as honors degree programs. Students may graduate with Latin Honorifics (cum Laude, Magna cum Laude, Summa cum Laude) if they successfully meet the GPA requirements in addition to their regular degree program requirements. Please refer to the Honors College (p. 1617) section of this catalog for specific information regarding research opportunities and admission into the Honors College for a special notation on your final transcript.

## Concurrent/Second Degrees

Students may work toward the completion of more than one degree.
If a student has graduated and is coming back for a second degree:

- A student who has a bachelor's degree from OU or another accredited institution satisfies all general education requirements, except possibly P SC 1113 and HIST 1483 or HIST 1493. The Oklahoma State Regents for Higher Education policy requires that all students graduating with a bachelor's degree from an Oklahoma state institution must complete U.S. Government (P SC 1113) and U.S. History (HIST 1483 or HIST 1493).
- The student must choose a degree different from that of the prior degree(s).
- The student must have at least 30 credit hours in residence at OU and in the Weitzenhoffer Family College of Fine Arts.
- The student must meet all University and college residency requirements.
- The student must complete all of the published requirements for the second degree.
- They must complete a minimum of 30 hours for the second degree after graduating with the first degree. The 30 hours must be in addition to the total number of hours completed by the student for the first degree.
- At least 15 hours of the 30 must be completed at the 3000-4000 level.
- The student must complete an Application for Graduation.
- The student will receive a diploma for the second degree and have it noted on the transcript.

If a student is pursuing concurrent degrees:

- The student must choose a degree different from that of the other degree(s).
- The student must complete all of the published requirements for both degrees.
- They must have at least 30 credit hours in residence at $O U$ and in the Weitzenhoffer Family College of Fine Arts.
- The student must complete at least 30 hours for the second degree that are not used for the first degree. Academic Advisors in each college will verify what is counting toward each degree.
- At least 15 hours of the 30 must be completed at the 3000-4000 level.
- The student must complete a minimum of 150 hours -55 hours $(40+15)$ of upper-division course work between the two degrees, 64 hours [40+24] if one of the degrees is in the College of Arts and Sciences.
- The student must be cleared for graduation for both degrees in the same semester.
- The student must file an Application for Graduation for both degrees. The student will receive two diplomas.
- Once a student has been cleared with an undergraduate degree, the rules for a second degree go into effect, even though the student never actually left the University.


## Double Major Policy

In the School of Music, students may work toward the completion of more than one major. All requirements for each major must be completed including a second capstone. If there are fewer than 30 additional hours, the student will be awarded one diploma for the first major listed, but the transcript will indicate both majors. Residency requirements must also be fulfilled.

Double majors will not be granted in the OU Schools of Visual Arts, Dance, Drama and Musical Theatre.

## Programs Offered

Upon satisfactory completion of the prescribed studies, the candidate will be recommended for the degree of

- College of Fine Arts Administrated Programs (p. 1440)
- Arts Management and Entrepreneurship for Fine Arts Majors, Minor (p. 1440)
- Arts Management and Entrepreneurship for Non-Fine Arts Majors, Minor (p. 1441)
- Arts Management (Online), M.A. (p. 1441) - Arts Management Department List (p. 1441)
- Arts Management and Entrepreneurship, Graduate Certificate (p. 1442)
- Arts Management and Entrepreneurship Elective Lists (p. 1442)
- School of Dance (p. 1443)
- Ballet Pedagogy, B.F.A. (p. 1447)
- Ballet Performance, B.F.A. (p. 1450)
- Modern Dance Performance, B.F.A. (p. 1452)
- Dance History, Minor (p. 1454)
- Dance, M.F.A. in Dance (p. 1455)
- Peggy Dow Helmerich School of Drama (p. 1455)
- Theatre: Acting Emphasis, B.F.A. (p. 1463)
- Theatre: Costume Design Emphasis, B.F.A. (p. 1465)
- Theatre: Dramaturgy Emphasis, B.F.A. (p. 1468)
- Dramaturgy Departmental Course Lists (p. 1470)
- Theatre: Lighting Design Emphasis, B.F.A. (p. 1471)
- Theatre: Scenic Design Emphasis, B.F.A. (p. 1473)
- Theatre: Sound Design Emphasis, B.F.A (p. 1475)
- Theatre: Stage Management Emphasis, B.F.A. (p. 1478)
- Theatre, Minor (p. 1480)
- Drama, M.A. (p. 1480)
- School of Music (p. 1481)
- Music: Instrumental Jazz, B.A. (p. 1514)
- Music, B.A. (p. 1517)
- Composition, B.Mus. (p. 1519)
- Organ, B.Mus. (p. 1522)
- Piano, B.Mus. (p. 1524)
- Piano Pedagogy, B.Mus. (p. 1526)
- Voice, B.Mus. (p. 1529)
- W/P/S:Brass \& Percussion, B.Mus. (p. 1531)
- W/P/S:Harp, B.Mus. (p. 1534)
- W/P/S:Strings \& Guitar, B.Mus. (p. 1536)
- W/P/S:Woodwinds, B.Mus. (p. 1539)
- Music, B.M.A. (p. 1541)
- Instrumental Music Education, B.M.Ed. (p. 1544)
- Vocal Music Education, B.M.Ed. (p. 1547)
- Commercial Music, Minor (p. 1551)
- Instrumental Jazz, Minor (p. 1551)
- Music, Minor (p. 1552)
- Choral Conducting, M.M. (p. 1552)
- Instrumental Conducting, M.M. (p. 1553)
- Music Composition, M.M. (p. 1553)
- Music Theory, M.M. (p. 1554)
- Music Theory Course List (p. 1555)
- Musicology, M.M. (p. 1555)
- Organ: Standard, M.M. (p. 1555)
- Organ: Church Music, M.M. (p. 1556)
- Organ: Technology, M.M. (p. 1556)
- Piano: Performance, M.M. (p. 1557)
- Piano: Performance and Pedagogy, M.M. (p. 1558)
- Voice: Opera, M.M. (p. 1558)
- Voice: Performance, M.M. (p. 1559)
- Wind, Percussion, String, M.M. (p. 1560)
- Conducting, M.M.Ed. (p. 1560)
- General Music Education, M.M.Ed. (p. 1561)
- Instrumental, M.M.Ed. (p. 1563)
- Piano Pedagogy, M.M.Ed. (p. 1563)
- Conducting, D.M.A. (p. 1564)
- Music Composition, D.M.A. (p. 1565)
- Piano, D.M.A. (p. 1566)
- Organ, D.M.A. (p. 1567)
- Voice, D.M.A. (p. 1568)
- Wind, Percussion, String, D.M.A. (p. 1569)
- Music Education, Ph.D. (p. 1569)
- A. Max Weitzenhoffer School of Musical Theatre (p. 1571)
- Musical Theatre Performance, B.F.A. (p. 1575)
- OU School of Visual Arts (p. 1577)
- Art, B.A. (p. 1597)
- Art History, B.A. (p. 1599)
- Art, Technology \& Culture, B.F.A. (p. 1601)
- Studio Arts, B.F.A. (p. 1603)
- Visual Communication, B.F.A. (p. 1604)
- Art, Minor (p. 1606)
- Art History, Minor (p. 1607)
- Museum Studies, Undergraduate Certificate (p. 1607)
- Art History, M.A. (p. 1607)
- Art and Technology, M.A. (p. 1608)
- Art, M.F.A. in Art (p. 1608)
- Art History. Art of the American West, Ph.D. (p. 1609)
- Art History. European Art, Ph.D. (p. 1610)
- Art History. Native American Art, Ph.D. (p. 1610)
- Critical Issues in Art History, Ph.D. (p. 1611)


## Special Facilities

Facilities at the OU School of Visual Arts include classrooms, large well-equipped instructional studios, darkrooms, a technology-based fabrication lab, installation spaces, video and film editing rooms, digital photography labs, and the Lightwell Gallery exhibition space. Separate from the Fred Jones Jr. Art Center, a $5,000 \mathrm{sq}$. ft. ceramics facility is located on the University's south campus near the Lloyd Noble Arena and features state-of-the-art equipment and kilns to handle all types of ceramic production. A $12,000 \mathrm{sq}$. ft. graduate studio facility is located northwest of campus. Media and library resources include a slide/media library containing over 150,000 slides; University of Oklahoma Bizzell Library, is the largest research library in the state of Oklahoma containing almost 4 million volumes; and the Fine Arts Library houses books and periodicals on art, art history and design as well as on music, dance, drama and musical theatre. The Charles M. Russell Center for the Study of Art of the American West provides an extensive library on western art and a unique opportunity to study with authorities in the field.

The Fred Jones Jr. Museum of Art, adjacent to the OU School of Visual Arts, is one of the finest university art museums in America. Each year the museum sponsors a variety of speakers and numerous exhibitions. The Mary and Howard Lester wing of the museum permanently houses the "Weitzenhoffer Collection of French Impressionism." The wing also includes galleries for other selections from the Museum's permanent collection, an auditorium, an orientation room, and classrooms.

The Donald W. Reynolds Performing Arts Center, formerly known as Holmberg Hall, includes a 700-seat performance hall featuring a domed ceiling, modern acoustical features and a stage tower. An 18,000-squarefoot facility on the west side of Holmberg Hall for the School of Dance
includes state-of-the-art dance studios, a Pilates studio, warm-up areas, offices, and a gallery/reception area.

The Fine Arts Center provides the perfect setting for collaborative efforts in production and theatrical training. In addition to the 600-seat Elsie C. Brackett Theatre and the 250-seat Weitzenhoffer Theatre, the center contains two fully equipped dance studios and one practice studio. Classrooms, make-up room, scene and costume studios, and dressing rooms used by drama, dance, and musical theatre comprise a facility in which our students can work and learn to their fullest potential.

The School of Music is housed in three buildings: Stanley B. Catlett, Sr. Music Center, Holmberg Hall, and Carpenter Hall. The Catlett Music Center contains administrative offices, faculty offices and studios, rehearsal suites, classrooms, MIDI labs, the Grant Fine Arts Library, a recording studio, and three performance halls, including the Paul F. Sharp Concert Hall, Morris R. Pitman Recital Hall, and Grayce B. Kerr Gothic Hall (for organ and other performances). Holmberg Hall houses faculty offices and the Auditorium, a theatrical stage used by the OU Opera Theater for its productions. Studios for the voice, piano, and musical theatre faculty members are currently located in Carpenter Hall.

## Undergraduate Study

## Student Responsibilities

## Academic Advising Staff

Elizabeth Nunley, M.S., Director of Academic Advising
Shuang Liang, M.A., Academic Advisor
Carmen Marcom, Academic Advisor
Nicholas Bartell, Academic Advisor
Academic advisors are available to assist students in planning their programs of study; however, it is the responsibility of the individual student to make informed decisions to ensure academic success and timely graduation. Therefore, it is critical that students know and understand the following:

- Their academic standing based on the retention standards of the Weitzenhoffer Family College of Fine Arts;
- The degree requirements checksheets (p. 1431) as published by the Office of Academic Publications;
- Keep apprised of their degree completion progress via Degree Navigator;
- Academic deadlines, as listed on the University academic calendar;
- All rules and regulations that govern enrollment and graduation;
- University policies and procedures;
- When and where to go for assistance and to make use of the many resources provided by the University;
- Accept their course invitation and access important information via Artifacts at canvas.ou.edu.
- Students who have questions regarding policies, procedures, or resources should contact one of the academic advisors.


## Admission and Retention

## Freshman

The freshman year at the University of Oklahoma is spent in University College, which is not a degree-recommending college. Students must be formally accepted into a degree program before they may declare a fine arts major. Refer to audition and/or portfolio information below. Transfer
to the Weitzenhoffer Family College of Fine Arts from University College is automatic once the following conditions have been met:

- a declared Fine Arts major;
- 24 combined retention hours earned (excluding any remedial credit hours), and
- OU and Combined Retention of GPAs of 2.50; 2.75 for Bachelor of Music Education majors.


## Audition and Portfolio

All dance, drama, music and musical theatre majors must audition and be officially accepted into a degree program before being allowed to enroll in classes. Drama majors who have taken previous acting classes at another institution and who wish to be placed in an acting class beyond the freshman level, must audition for placement.

## Readmission Policy

A fine arts major who has not been enrolled in the college for two consecutive semesters (excluding summer) or more, must reapply to the school of their major for readmission. This reapplication must include an audition or portfolio/scholarly materials review and submission of support materials as applicable. The student must check with the appropriate school for additional information and requirements pertinent to the readmission process. The student must also apply for readmission to the University through OU Admissions.

## Retention

Students are admissible to the Weitzenhoffer Family College of Fine Arts in good standing once they have completed 24 hours (excluding any remedial credit hours), have a minimum 2.50 GPA, 2.75 for Bachelor of Music Education majors (includes both OU retention and combined retention), and have declared a fine arts major. Students must earn a grade of $C$ or better in each course in the school of their major. Musical Theatre majors must earn a grade of $C$ or better in all courses taken within the College of Fine Arts.

## Academic Performance/Probation

In order to be in good academic standing in the Weitzenhoffer Family College of Fine Arts, students must maintain a minimum 2.50 GPA, 2.75 for Bachelor of Music Education majors (includes both OU retention and combined retention). Students who do not meet the minimum GPA criteria required by the college will be placed on probation. These students are required to complete an Academic Performance/Probation Contract with the Director of Academic Advising in the Weitzenhoffer Family College of Fine Arts Dean's Office. The Academic Performance Contract is designed to be student-specific, dependent upon each student's individual circumstances.

Students who do not fulfill the requirements of their Academic Performance Contract will be dismissed from the Weitzenhoffer Family College of Fine Arts.

## Enrollment Restriction Policy for Probationary Students

Probationary students will be restricted to a maximum of 12 hours per semester. Exceptions will be made only at the discretion of the Dean or the Director of Academic Advising.

## Performance Restriction Policy for Probationary Students

Probationary students may not be cast in productions or enroll in/ perform Junior or Senior recitals until they have returned to good academic standing.

## Dismissal

Students who have been dismissed from the Weitzenhoffer Family College of Fine Arts will have an enrollment stop placed on their records by the college and are not allowed to enroll in fine arts courses designed and/or designated for majors only. Any advance enrollment will be canceled. To continue at the University of Oklahoma, the student must make an appointment and meet with an advisor in the Academic Advising Resource Center. Students who have been dismissed from the college twice are unlikely to be readmitted to the college.

## Review Process if Ineligible for Admission or Retention

The review process is: (a) written petition to the dean; (b) letters of support from the director/faculty of the school or department; and (c) dean accepts or rejects petition. There is no further appeal except to the Provost.

## Transfer Students

Transfer students admitted to the Weitzenhoffer Family College of Fine Arts may pick up a copy of their Transfer Credit Evaluation Document from their academic advisor. Faculty will review transfer coursework in the student's major and determine how those transfer credits will apply toward a baccalaureate degree from the college. A Course Substitution Form must be completed for all unequated fine arts major specific transfer courses. The academic advisor in the Dean's office is responsible for informing students of transferability of unequated General Education core requirements. The University's General Education Transfer Course Evaluation Form will be completed by the academic advisor for unequated transfer courses as appropriate.

- In the event that a lower-division transfer course is used as a substitution for an upper-division requirement at the University, a student may be required to complete additional upper-division hours for graduation.
- A minimum of 60 semester hours must be earned at an accredited (4year) institution for a baccalaureate degree.

For further regulations regarding transfer students, refer to the opening pages of this catalog as well as in subsequent sections for the College of Fine Arts.

## Enrollment and Grade Information

## Academic Course Load

Students may enroll in a maximum of 19 credit hours of work in one semester. The minimum requirement for full-time status is 12 hours. To enroll in more than 19 hours, permission must be obtained from the academic advisor in the Dean's office or School of Music Academic Advisor, depending on the student's major. Students must have a minimum combined GPA of 3.0 in order to receive overload permission. The Overload Petition form is available on the college website under Resources/Student Resources/Forms.

## Advisement

Students registered in the Weitzenhoffer Family College of Fine Arts must be advised by their academic advisor prior to each enrollment. An Academic Advisement Form is completed and signed by the advisor during the conference. The advisor then removes the student's advising hold in the enrollment system. Once the advising hold has been removed and all enrollment stops have been cleared, students may finalize their enrollment schedule in the online system. Students will schedule their advising appointment via iadvise.ou.edu.

## Fine Arts Orientation

Undergraduate fine arts students are required to complete an online orientation session after they have earned 24 hours and are in their first semester in the College of Fine Arts. The session covers college policies and procedures, the advisement and enrollment process within the college and graduation issues. Instructions for completing the college online orientation are sent to students via OU email.

## Math Policy

The Weitzenhoffer Family College of Fine Arts requires all declared fine arts students complete their college level math course within the first four semesters of enrollment at OU. Transfer students or newly declared fine arts majors who have not completed their college level math requirement will have two semesters in which to complete the requirement. Students who fail to meet this requirement will be restricted from upper-division fine arts courses except by permission of their Director and the Dean.

Completion of this requirement is tracked by the Fine Arts Dean's office. Students will receive a notification via OU email one semester prior to their deadline for fulfilling this requirement. Some schools within the college include this policy as part of their scholarship stipulations.

## Change of Major

Students wishing to change their major must contact the academic advisor for the new major. Prior to completing a change of major request in the College of Fine Arts, the student must meet the admissions criteria as outlined in the admission and retention section.

Students wishing to change to a major in another college must meet the admission requirements and be accepted by that college before the major can be changed. The new college will complete the change of major/ college request.

## Grade Information

A student must have a grade of $C$ or higher in each course in their major. Each hour of $A, B, C$ and $D$ carries a grade point value as follows: $A=4$, $B=3, C=2$, and $D=1$. Grades of $I, F$ and $U$ as well as grades $P$ and $S$ carry no grade point value. They are not figured in the computation of a student's grade point average except for grades of $F$.

Fine Arts students are required to make a C or better in all courses taken within their respective schools. When a course has been repeated and the second grade was lower than the first, the higher grade will be used toward fulfilling graduation requirements. For additional information on the impact of repeat coursework on the student's GPA, the student should consult with their academic advisor.

## Dean's Honor Roll

The Weitzenhoffer Family College of Fine Arts Honor Roll is compiled at the close of each fall and spring semester. It includes students who have completed at least 12 grade point hours and have earned an average GPA of 3.50 or higher for the semester.

## Pass/No Pass Option

Students in the Weitzenhoffer Family College of Fine Arts may present, for graduation, a maximum of 16 elective hours completed under the pass/no pass option. Courses completed under the pass/no pass option may not be used to fulfill the University-Wide General Education requirements, major requirements, or major support requirements.

## Advanced Standing

Students who feel they have a sufficient knowledge of the subject matter of a course offered by the University may take an advanced standing examination for undergraduate credit in the course. Please reference the Admissions section of this catalog for further information on the regulations governing advanced standing credit. Students who have received a grade other than a W in any course, may not subsequently take the same course by advanced standing.

## Self-Paced Courses (Correspondence)

University of Oklahoma regulations pertaining to the acceptance of selfpaced courses (correspondence) from other institutions must be met before such work may be applied toward the degree. The candidate for a degree must meet the college residence requirement. Regulations and specific criteria pertaining to students in the Weitzenhoffer Family College of Fine Arts are as follows:

- Students may enroll in self-paced (correspondence) courses any time by contacting the College of Professional and Continuing Studies.
- A student may enroll in a maximum of six hours of self-paced courses at one time.
- If students are concurrently enrolled in self-paced courses and inresidence credit, the total number of hours for one semester may not exceed the recommended maximum shown under Academic Course Load.
- A student must be in good academic standing in order to receive permission to enroll in self-paced courses.
- A student must secure written permission from the academic advisor in the Dean's office on the self-paced course application form.
- Music Education majors may not enroll in EDSP 3053 as a self-paced course.
- Undergraduate students within their last 30 hours are prohibited from enrolling in self-paced courses to satisfy degree requirements.


## Forgiveness Policy

The Forgiveness Policy instituted by the Oklahoma State Regents for Higher Education and the University of Oklahoma, consists of three components: the repeat policy, the reprieve policy and the academic renewal policy. Please reference the Admissions information in the front of this catalog for further information on these policies. Questions concerning this policy should be directed to one of the academic advisors.

## Music Education Teacher Certification

Students pursuing the Bachelor of Music Education degree in either vocal music education or instrumental music education must be admitted to the Teacher Preparation Program in the College of Education prior to enrollment in the required course sequence.

- Students should apply to the Teacher Preparation Program at the end of the sophomore year.
- Students complete and submit an Admission to the Teacher Preparation Program form to the Fine Arts Dean's office.
- To be eligible for admission, students must complete a minimum of 24 hours of general education coursework with a 2.75 GPA from the University approved list with C or better grades in the following areas: ENGL 1113 , ENGL 1213 or EXPO 1213, Natural Science without lab; Natural Science with lab; Math; P SC 1113; ANTH 1113/PSY 1113/SOC 1113; HIST 1483 or HIST 1493; Humanities.
- Students must also meet one of the six performance criteria noted below:
- Minimum 3.00 GPA in all general education courses, a minimum of 30 hours.
- 22 or higher on the ACT, including the writing portion.
- 1120 or higher on the SAT, including the essay portion with no less than a 5 on Reading, a 4 on Analysis, and a 5 on Writing.
- Score at or above the level designated by the State Regents for math, reading, and writing on the Praxis.
- Possess a bachelor's degree from an institution accredited by an organization recognized by the U.S. Department of Education and approved by the Oklahoma State Regents for Higher Education.
- Pass the Oklahoma General Education Test, OGET. Test results must be turned in with their admission form.
- Meet with Music Education faculty to complete additional forms as required (subject to change by University and State Regents).

Students must have a minimum 2.75 OU retention and combined retention GPAs in order to be admitted to the Teacher Preparation Program coursework, to graduate and to be certified. Students with a GPA between 2.50 and 2.74 may petition the MUED faculty for an exemption to begin their Teacher Preparation coursework, but will be placed on Academic Probation by the College of Fine Arts until such time as their GPA is raised to the required 2.75 for graduation. Exemptions cannot be granted for students with less than a 2.50 GPA in their OU retention and combined retention GPAs. GPA exemptions approved by the MUED faculty does not guarantee admission to the Teacher Preparation Program in the College of Education.

## Academic Appeals

For information and procedures on academic appeals, please refer to the section on Academic Appeals Boards in the Admissions section of this catalog. You may also refer to the Academic Integrity Office, https:// www.ou.edu/integrity/students. The College of Fine Arts Academic Appeals Petition form with guidelines and instructions is available on the college website under Resources/Student Resources/Forms.

## Petitions

Any departure by a student from the curriculum requirements and scholastic rules must be approved by the School and College via a petition and must not conflict with existing University regulations. Petitions should be submitted in a timely manner since time restrictions can preclude their consideration.

Petition forms in the Weitzenhoffer Family College of Fine Arts are available in the dean's office and on the college website under Resources/Student Resources/Forms. The general petition form may be used for requesting:

- exceptions to graduation/degree requirements;
- extensions of Incomplete grades;
- waiver of the residency policy; and
- waiver of the ten-year limitation policy.

In addition, petitions are available to Add a Course after the Deadline, Drop a Course after the Deadline, and a Petition for Enrollment Overload (refer to information under Academic Course Load).

## Graduation

## Requirements

The responsibility for meeting all graduation requirements lies with the student.

The following requirements must be met in order to graduate with a bachelor's degree from the Weitzenhoffer Family College of Fine Arts:

- Student must have an OU retention and combined retention grade point average of 2.50 or higher. Bachelor of Music Education majors must have an OU retention and combined retention grade point average of 2.75 or higher.
- Student must successfully complete the minimum semester hours required for the degree inclusive of general education, major course work, and electives.
- Student must earn a C or better in each course in their major.
- Student must complete a minimum of 40 hours of upper-division coursework (3000-4000).
- Student must complete a minimum of 40 hours of general education requirements as outlined by the college and the University.
- Student must complete a minimum of 40 hours of liberal arts coursework ( 80 hours for Bachelor of Arts degrees) as outlined by the Oklahoma State Regents for Higher Education for undergraduate degrees.
- Student must complete a minimum of 60 hours at accredited senior (4-year) institutions.
- Student must complete one general education course at the upperdivision level (3000-4000) outside the student's major.
- All college specific and University residency rules must be met.
- Student must be listed as a Weitzenhoffer Family College of Fine Arts student at the time of graduation.
- Student must complete a senior graduation check with one of the academic advisors in their next to last semester.


## General Education Requirements

Students are required to satisfy the University-wide General Education course requirements as outlined in the General Information section of this catalog. Courses used to satisfy these requirements should be chosen from the University-wide General Education Approved Courses. Always use the Search feature on the enrollment program to find current general education course options when enrolling each semester.

- The University requires a minimum of 40 hours of General Education coursework.
- Students must take at least one upper-division (3-4000 level) General Education approved course outside the student's major.

Some Weitzenhoffer Family College of Fine Arts degrees require specific general education courses be completed for certain core areas. Please refer to the appropriate degree sheet.

## Residence Requirements

Residency is defined as coursework taken through any University of Oklahoma campus excluding correspondence courses.

- Candidates for an undergraduate degree must complete a minimum of 30 hours in residence at the University of Oklahoma and in the Weitzenhoffer Family College of Fine Arts.
- At least 24 hours of upper-division major credit applied toward the degree must be earned in residence as a declared Dance, Music,

Musical Theatre, Drama or BA in Art or Art History major, with the exception of -

- A minimum of 15 hours of upper-division major credit must be earned in residence if a declared Bachelor of Arts in Music major.
- A minimum of 30 hours of upper-division major credit applied toward the degree must be earned in residence as a declared BFA in Art or BFA in Visual Communication major.
- A student must be listed as a Weitzenhoffer Family College of Fine Arts student at the time of graduation.
- Capstone courses must be taken in residence.


## Ten-Year Limitation Rules

The following rules must be met.

- Please refer to the Weitzenhoffer Family College of Fine Arts Readmission Policy.
- A student in the Weitzenhoffer Family College of Fine Arts may elect to graduate under the degree plan in effect at the time of their first enrollment in the state system provided they complete the work for a degree within a maximum of 10 calendar years from the time of their first enrollment in the state system. If the work for a degree covers a period longer than 10 years, the college, in consultation with the student, will determine the degree plan to be in effect for that student's graduation.
- Students returning to college whose coursework is more than 10 years old, will follow the policy outlined below in addition to the Readmission policy:
- Decisions will be made on a case by case basis at the discretion of the individual Schools.
- Students will not be allowed to complete degree plans that have been deleted (refers to a deletion formally approved by the State Regents).
- Students who wish to use coursework in the area of their specialization that is older than 10 years, must petition the School of their major for validation of those courses on a course by course basis after they have been readmitted to a degree plan.
- Students must petition the School of their major to follow an expired degree plan (refers to a degree plan of a particular year that is more than 10 years old).
- Students who have 20 hours or less remaining under an expired degree plan will receive consideration in being allowed to complete said plan (includes old GPA requirements).
- Students who have more than 20 hours to complete under an expired degree plan, normally must follow the current year's degree plan and GPA requirements.


## School of Dance

- Students wishing to be readmitted to the School of Dance after a 10year period must audition and be reaccepted.
- If accepted, the audition committee will determine the degree plan the student is to follow (ballet performance or pedagogy, or modern dance performance), as well as the technical level of their courses.
- General college policy rules apply beyond this point.


## Peggy Dow Helmerich School of Drama

- Students wishing to be readmitted to the School of Drama after a 10year period must audition or present a portfolio/scholarly materials for review, as appropriate to their major area.
- At the audition or portfolio review a decision on whether to accept the student will be made. Following acceptance, appropriate course placement within the curriculum will be determined as well as the emphasis/track the student is to follow.
- General college policy rules apply beyond this point.


## School of Music

- Students wishing to be readmitted to the School of Music after a 10year period must audition and be accepted.
- If accepted, the audition committee will determine the degree plan the student is to follow (BA, BMA, BME, BM), and the level of their applied lessons.
- General college policy rules apply beyond this point.


## A. Max Weitzenhoffer School of Musical Theatre

- Students wishing to be readmitted to the School of Musical Theatre after a 10-year period must audition and be accepted.
- If accepted, appropriate course placement within the curriculum will be determined.
- General college policy rules apply beyond this point.


## OU School of Visual Arts

- Students wishing to be readmitted to the OU School of Visual Arts after a 10-year period must schedule a portfolio review.
- At the portfolio review a decision on whether to accept the student will be made. Following acceptance, a decision will be made as to which area of specialization the student is admitted, as well as appropriate course placement within the curriculum.
- General college policy rules apply beyond this point.


## Graduate Study

Refer to the Graduate tabs within the pages of this catalog for information concerning graduate work.

- College of Fine Arts Administrated Programs (p. 1440)
- School of Dance (p. 1443)
- Peggy Dow Helmerich School of Drama (p. 1455)
- School of Music (p. 1481)
- School of Visual Arts (p. 1577)


## Scholarship Information

Students who are majors in the Weitzenhoffer Family College of Fine Arts are encouraged to apply for scholarship support. A number of scholarships and awards are available to qualified students each academic year. Applications for scholarships and awards are available through one.ou.edu to students each spring semester and are awarded for the next academic year. The individual Schools within the Weitzenhoffer Family College of Fine Arts award scholarships based on specific criteria regarding a student's major, talent, merit or need. Initial scholarship considerations and offers are made following admission auditions in the spring. On occasion, the Dean's office grants minimal scholarships to students who have exhausted all other financial resources. Scholarships awarded by the dean are based on merit, special financial need, and unusual circumstances. Additional non-departmental scholarships and financial aid are available through the University of Oklahoma Office of Financial Aid Services through one.ou.edu. The scholarship application deadline for incoming freshmen and transfer
students begins in early December. The deadline for current students is early February. Visit scholarships.ou.edu for complete details.

## Courses

AMGT 2013 Marketing in the Arts
3 Credit Hours
Any entrepreneurial or organizational role in the professional arts industry calls for an understanding of negotiation (advocating for an outcome with multiple parties) and marketing (advocating for one's mission, service, or product). This course explores the basics of negotiations and marketing. There is a particular emphasis on social media and engagement. (Irreg.)

## AMGT 3013 Fundraising for the Arts 3 Credit Hours

Prerequisite: Junior standing. An exploration of approaches to the development of capital for projects, whether for artists to arts organizations, including techniques for the facilitation of individual donations, corporate and foundation contributions, and government grants. Students will learn important frameworks and tools for organizing a number of possible avenues of financial support, including workback and follow-up schedules. (Irreg.)
AMGT 3023 Entrepreneurial Mindset in the Arts 3 Credit Hours Prerequisite: AMGT 2013 and AMGT 3013. This course is designed for students who are intent on developing artistic sustainability, entrepreneurial success, and creative/social change. A career in tomorrow's art industry benefits from a mindset that welcomes change, fast-paced decision-making, and a rock-solid foundation of values, work ethic, and reasoning. This hands-on course is delivered through exercises and mini-projects dealing with ideation, action, marketing, pitching, and strategy. (Irreg.)

AMGT 3440 Mentored Research Experience
3 Credit Hours
0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)

## AMGT 4030 Internship I in the Arts

1-3 Credit Hours
1 to 3 hours. (Slashlisted with AMGT 5030) Prerequisite: Junior standing or permission of the instructor; May be repeated; Maximum credit: six hours. Students arrange for and work in a focused professional work experience. No student may earn credit for both 4030 and 5030. (Irreg.)

## AMGT 4173 Artist Management

3 Credit Hours
(Slashlisted with AMGT 5173) Prerequisite: Junior standing. This course explores the role, importance, and function of artist managers and artistic teams. How they impact the career of the artist and their brand. Students will examine the principles of leadership dynamics and motivation to focus and empower current and potential managers. This course provides the tools necessary to manage artists' careers across various artistic disciplines. No student may earn credit for both 4173 and 5173. (Sp)

## AMGT 4213 Arts Incubation Lab

3 Credit Hours
(Slashlisted with 5213) Prerequisite: Student must be declared as a Arts Management and Entrepreneurship minor; AMGT 3023; permission of instructor. This course is based on experiential learning and runs concurrently with an external competitive program for entrepreneurial projects in the professional arts marketplace. Students in this course will have the opportunity to build on the basics of entrepreneurship and management skills acquired within the courses of the undergraduate minor in Arts Management and Entrepreneurship. No student may earn credit for both 4213 and 5213. (Su)

AMGT 4970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: Senior standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

AMGT 4990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: Senior standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)

## AMGT 5013 Overview of Arts Management and Entrepreneurship 3

 CreditHours
Prerequisite: graduate standing. This class will present an overview and historical perspective of the field of arts entrepreneurship and management. Readings will be supplemented by guest speakers and visits to professional organizations, enhancing the student's understanding of the diversity of the professional opportunities in arts administration and arts management. (Irreg.)

AMGT 5030 Internship I in The Arts 1-3 Credit Hours
1 to 3 hours. (Slashlisted with AMGT 4030) Prerequisite: Graduate standing, AMGT 5013, and permission of instructor; may be repeated, maximum 6 credits. Students arrange for and work in a focused professional work experience. No student may earn credit for both 4030 and 5030. (Irreg.)
AMGT 5033 Entrepreneurial Mindset in the Arts 3 Credit Hours Prerequisite: Graduate standing, AMGT 5013 or concurrent enrollment, and departmental permission. This course is designed for students who are intent on developing artistic sustainability, entrepreneurial success, and creative/social change. A career in tomorrow's art industry benefits from a mindset that welcomes change, fast-paced decision-making, and a rock-solid foundation of values, work ethic, and reasoning. This course is delivered through various arts-focused exercises/projects dealing with ideation, action, marketing, pitching, plans and strategy. (F, Sp)

AMGT 5173 Artist Management
3 Credit Hours
(Slashlisted with AMGT 4173) Prerequisite: Graduate standing, AMGT 5013, and permission of instructor. This course explores the role and importance and function of artist managers and artistic teams, and how they impact the career of the artist and their brand. Students will examine the principles of leadership dynamics and motivation to focus and empower current and potential managers. This course provides the tools necessary to manage artists' careers across various artistic disciplines. No student may earn credit for both 4173 and 5173. (Sp)

## AMGT 5213 Arts Incubation Lab

3 Credit Hours
(Slashlisted with AMGT 4213) Prerequisite: Graduate standing, AMGT 5013, and permission of instructor. This course is based on experiential learning and runs concurrently with an external competitive program for entrepreneurial projects in the professional arts marketplace. Students in this course will have the opportunity to build on the basics of entrepreneurship and management skills acquired within the courses of the Graduate Certificate in Arts Management and Entrepreneurship. No student may earn credit for both 4213 and 5213.

AMGT 5223 Marketing in the Arts 3 Credit Hours
Prerequisite: Graduate standing, AMGT 5013 or concurrent enrollment, and departmental permission. This course will examine the challenges of audience development and discussion of the role of art in contemporary society. This course will explore the basics of negotiations (distributive and integrative bargaining) before delving into current examples in the arts industry and explores the basics of marketing (planning, implementation, analysis) as well as how these principles relate to social media. (F, Sp)

## AMGT 5233 Financial Management and Budgeting in the

Arts
3 Credit Hours
Prerequisite: Graduate standing, AMGT 5013 or concurrent enrollment, and departmental permission. This class will examine financial models, accounting, and contractual practices of successful cultural-based organizations. Arts managers are expected to understand how to apply best financial management and budgeting practices to cultural organizations. This course provides an overview of best practices to budgeting for artistic ideas for entrepreneurs and will explore longrange planning implications and budget forecasting models for arts organizations. (F, Sp)
AMGT 5243 Leadership and Strategic Thinking in the
Arts
3 Credit Hours
Prerequisite: Graduate standing, AMGT 5013 or concurrent enrollment, and departmental permission. This course is for students who are intent on developing sustainability and use design-thinking strategies to achieve their goals as entrepreneurial artists or by serving culture-based organizations. The course provides best strategic practices for leaders of arts organizations, encouraging students to determine the importance of planning and decision-making, and will address the importance of strategic thinking, change management, and leadership. (F, Sp)
AMGT 5263 Fundraising and Development in the Arts 3 Credit Hours Prerequisite: Graduate standing, AMGT 5013 or concurrent enrollment, and departmental permission. This course explores approaches to the development of capital for projects, whether for artists or arts organizations, including techniques for facilitation of individual donations, corporate/foundation contributions, and government grants. Students will learn important frameworks and tools for organizing avenues of financial support, including workback and follow-up schedules, drafting appeal letters, managing deadlines, cultivating requests, and writing with key governing values. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
AMGT 5273 Innovative Approaches to Museum Leadership 3 Credit
Hours
Prerequisite: Graduate standing and Arts Management majors only. This course prepares students to lead effectively in the constantly evolving museum landscape. It cultivates the field knowledge, professional skills, and innovative mindset necessary to practice leadership at all organizational levels. Students will be introduced to the organizational structures, policies, and practices of museum governance, including topics such as museum mission, strategy, and administration. (Sp)
AMGT 5283 The Global Arts Market 3 Credit Hours
Prerequisite: Graduate standing and Arts Management majors only. This course offers an in-depth exploration of the art business world. It equips students with practical understanding of the various aspects of the art industry, including galleries, auction houses, art fairs, foundations, museums, and artist collectives. Through the analysis of case studies and real-world examples, students will learn about the economic, legal, and ethical considerations underpinning the art market. (F)

AMGT 5853 Theatre Management
3 Credit Hours
Prerequisite: Graduate standing, AMGT 5013 or concurrent enrollment, and majors only or permission of Program Director. This course focuses on the study of the fundamental operations of commercial, professional non-profit, stock, dinner, and university theatre in the United States. Reserved for students in the OU Online MA in Arts Management. ( $\mathrm{F}, \mathrm{Sp}$ )

## AMGT 5960 Directed Readings 1-3 Credit Hours

1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit six hours. Directed readings and/ or literature review on selected topics under the direction of a faculty member. (Irreg.)
AMGT 5970 Special Topics/Seminar 1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

## AMGT 5990 Independent Study

1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing and permission of instructor; May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)

## F A 1523 Weitzenhoffer Family College of Fine Arts

## Perspectives

## 3 Credit Hours

An examination of Visual Arts, Dance, Drama, Music, and Musical Theatre regarding their relationship and impact on history, culture, and society. Students will gain an understanding of the value and impact fine arts can have on society. Geared towards Fine Arts majors, students will interact with fellow students and faculty from all disciplines within the College of Fine Arts. (F) [V-FYE].
F A 2970 Fine Arts Seminar

## 1-2 Credit Hours

May be repeated; maximum credit eight hours. Content varies. Interdisciplinary seminar course for Fine Arts. Deals with concepts not usually presented in regular coursework and/or special creative situations, performance opportunities or projects. (Irreg.)

## F A 3440 Mentored Research Experience

3 Credit Hours
0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)

F A 3960 Honors Reading
1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated with change of subject; maximum credit six hours. Will consist of either reading topics or independent study designated by the instructor in keeping with the student's major program. (F, Sp, Su)
F A 3970 Honors Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program, junior or senior standing. May be repeated with change of subject; maximum credit six hours. The projects covered will vary. The content will deal with concepts not usually presented in regular coursework. (Irreg.)
F A 3980 Honors Research 1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated with change of subject; maximum credit six hours. Will provide an opportunity for the gifted Honors candidate to work at a special project in the student's field. (F, Sp, Su)

F A 3990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: permission of instructor and junior standing. May be repeated once with change of content. Independent study may be arranged to study a subject not available through regular course offerings. (F, Sp, Su)

F A 4960 Directed Readings 1-4 Credit Hours
1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean. May be repeated; maximum credit four hours. Designed for upper-division students who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)

## F A 4970 Fine Arts Seminar <br> 1-2 Credit Hours

(Slashlisted with 5970) 1 to 2 hours. Prerequisite: junior standing or permission of instructor. May be repeated; maximum credit eight hours. Content varies. Interdisciplinary seminar course for Fine Arts. Deals with concepts not usually presented in regular coursework and/or special creative situations, performance opportunities or projects. No student may earn credit for the same topic for both 4970 and 5970. (Irreg.)

## F A 4990 Independent Study 1-3 Credit Hours

1 to 3 hours. Prerequisite: Senior standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)
F A 5960 Directed Readings 1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing and permission of department. May be repeated; maximum credit twelve hours. Directed readings and/or literature reviews under the direction of a faculty member. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

## F A 5970 Fine Arts Seminar <br> 1-2 Credit Hours

(Slashlisted with 4970) 1 to 2 hours. Prerequisite: graduate standing. May be repeated; maximum credit eight hours. Content varies. Interdisciplinary seminar course for Fine Arts. Deals with concepts not usually presented in regular coursework and/or special creative situations, performance opportunities or projects. No student may earn credit for the same topic for both 4970 and 5970. (Irreg.)

F A 5990 Independent Study 1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)

## College of Fine Arts Administrated Programs

## Minors

The Weitzenhoffer Family College of Fine Arts offers minors in Arts Management and Entrepreneurship:

- Arts Management and Entrepreneurship for Fine Arts Majors, Minor (p. 1440)
- Arts Management and Entrepreneurship for Non-Fine Arts Majors, Minor (p. 1441)
experiences that can be completed within a 15 -month time frame. Thus, the program culminates with two significant practicums rooted in realmarket work experience, allowing students to expand their personal network with successful arts entrepreneurs, artists, arts organizations, and philanthropists, while applying the knowledge, skills, and frameworks learned throughout the program to the workplace.


## Graduate Certificate

The Arts Management and Entrepreneurship Graduate Certificate (p. 1442) is available to students in Weitzenhoffer Family College of Fine Arts. The curriculum is designed to enable students with industry knowledge and navigational skills in a dynamic arts environment through the strength of synthesizing ideologies and integrative thinking between both the fine arts and business. The strengths found in empathy, exploration, and interdisciplinary research are emphasized in the fine arts history courses detailing how artists and creatives drew inspiration from different ideologies, cultures, and thought. The general sequence of courses will teach students how to think critically, develop adaptive strategies, and negotiate positions in a creative environment.

## Arts Management and Entrepreneurship for Fine Arts Majors, Minor

Minimum Total Credit Hours: 15

Program Code: N071
The requirements for a minor must be completed concurrently with the major degree requirements. No minor may be added by completing courses after receiving the bachelor's degree.

The minor must be officially declared in the Fine Arts Dean's/Student Services Office.

No single course may be used by a student to satisfy a major requirement and a minor requirement.

A minimum of 9 hours must be upper division courses.

- Students must earn a minimum grade of $C$ in each course.
- A minimum GPA of 2.50 (OU and overall) is required in the minor coursework.


## Required Courses

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| AMGT 2013 | Marketing in the Arts | 3 |
| AMGT 3013 | Fundraising for the Arts | 3 |
| AMGT 3023 | Entrepreneurial Mindset in the Arts | 3 |
| Choose two of the following courses: | 6 |  |
| ARTC 4943 | Business of Art: Professional Practice |  |
| DRAM 4853 | Theatre Management |  |
| AMGT 4030 | Internship I in the Arts |  |
| AMGT 4173 | Artist Management |  |
| AMGT 4213 | Arts Incubation Lab |  |

Total Credit Hours

## Master of Arts

The Arts Management (Online), M.A. (p. 1441) is a 30 credit hours program that combines coursework with two immersive practicum

If the minor is officially declared and approved, successfully completed, and noted on the graduation application, the student's transcript will so indicate at the time the bachelor's degree is posted.

## Arts Management and Entrepreneurship for Non-Fine Arts Majors, Minor

Minimum Total Credit Hours: 18

## Program Code: N072

The requirements for a minor must be completed concurrently with the major degree requirements. No minor may be added by completing courses after receiving the bachelor's degree.

The minor must be officially declared in the Fine Arts Dean's/Student Services Office.

No single course may be used by a student to satisfy a major requirement and a minor requirement.

A minimum of 9 hours must be upper division courses.

- Students must earn a minimum grade of $C$ in each course.
- A minimum GPA of 2.50 ( OU and overall) is required in the minor coursework.


## Program Requirements

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| AMGT 2013 | Marketing in the Arts | 3 |
| AMGT 3013 | Fundraising for the Arts | 3 |
| AMGT 3023 | Entrepreneurial Mindset in the Arts | 3 |
| Choose three of the following: | 9 |  |
| ARTC 4943 | Business of Art: Professional Practice |  |
| DRAM 4853 | Theatre Management |  |
| AMGT 4030 | Internship I in the Arts |  |
| AMGT 4173 | Artist Management |  |
| AMGT 4213 | Arts Incubation Lab |  |
| AMGT 4990 | Independent Study |  |

Total Credit Hours
If the minor is officially declared and approved, successfully completed, and noted on the graduation application, the student's transcript will so indicate at the time the bachelor's degree is posted.

## Arts Management (Online), M.A.

Minimum Total Hours (Non-Thesis): 30
Program Code: M073

## This program has changes pending Regents approval for 2024-25. These pending changes are not reflected here.

## Required Courses

| Code | Title | Credit <br> Hours |
| :---: | :---: | :---: |
| Core Courses |  |  |
| AMGT 5013 | Overview of Arts Management and Entrepreneurship | 3 |
| AMGT 5033 | Entrepreneurial Mindset in the Arts | 3 |
| AMGT 5223 | Marketing in the Arts | 3 |
| AMGT 5233 | Financial Management and Budgeting in the Arts | 3 |
| AMGT 5263 | Fundraising and Development in the Arts | 3 |
| AMGT 5243 | Leadership and Strategic Thinking in the Arts | 3 |
| Fines Arts Electives |  |  |
| Students will choose 6 credit hours from a departmentmaintained list of approved courses (p. 1441) |  | 6 |
| Practicum Electives |  |  |
| Students will choose 6 credit hours from a departmentmaintained list of approved courses (p. 1441) |  | 6 |
| Total Credit Hours |  | 30 |
| General Requirements for all Master's Degrees |  |  |
| The master's degree requires the equivalent of at least two semesters of satisfactory graduate work and additional work as may be prescribed for the degree. |  |  |
| All coursework applied to the master's degree must carry graduate credit. |  |  |
| Master's degree programs which require a thesis consist of at least 30 credit hours. All non-thesis master's degree programs require at least 30 credit hours. |  |  |
| Credit transferred from other institutions must meet specific criteria and is subject to certain limitations. |  |  |
| Courses completed through correspondence study may not be applied to the master's degree. |  |  |
| To qualify for a graduate degree, students must achieve an overall grade point average of 3.0 or higher in the degree program coursework and in all resident graduate coursework attempted. A student must also have at least a 3.0 in all coursework (including undergraduate coursework if any). |  |  |
| Additional information for master's degree students may be found in the Graduate College Bulletin. |  |  |

## Arts Management Department List

## Approved Electives

Additional courses may be chosen with departmental approval.

| LIST OF APPROVED FINE ARTS ELECTIVES |  |  |
| :--- | :--- | ---: |
| Code | Title | Credit <br> Hours |
| DRAM 4853 | Theatre Management | 3 |
| ARTC 5943 | Business of Art: Professional Practice | 3 |
| AMGT 5173 | Artist Management | 3 |
| MST 5163 | Museum Management and Leadership | 3 |

## LIST OF APPROVED PRACTICUM ELECTIVES

Please note: some courses may be repeated for credit.

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| AMGT 5030 | Internship I in The Arts | $1-3$ |
| AMGT 5213 | Arts Incubation Lab | 3 |
| AMGT 5970 | Special Topics/Seminar | $1-3$ |

## Arts Management and Entrepreneurship, Graduate Certificate

Minimum Total Hours: 12

Program Code: G220

## This program has changes pending Regents approval for 2024-25. These pending changes are not reflected here.

The curriculum is designed to enable students with industry knowledge and navigational skills in a dynamic arts environment through the strength of synthesizing ideologies and integrative thinking between both the fine arts and business. The strengths found in empathy, exploration, and interdisciplinary research are emphasized in the fine arts history courses detailing how artists and creatives drew inspiration from different ideologies, cultures, and thought. The general sequence of courses will teach students how to think critically, develop adaptive strategies, and negotiate positions in a creative environment. Students will follow a track of interest; a total of 12 hours is required.

## Certificate Requirements



Choose an Arts Management elective from the approved list 2 maintained by the department. (p. 1442)

Total Credit Hours

A graduate certificate is not a graduate degree. A graduate degree represents a program of independent inquiry beyond the depth of coursework alone, while a graduate certificate represents a set of courses only.

- All courses must be taken at OU. No transfer credit will apply.
- No course substitutions are permitted for graduate certificates.
- Coursework applied to a graduate certificate cannot be more than five years old as of the semester the graduate certificate is awarded.
- Students must earn a grade point average of 3.00 or higher on all coursework applied to the graduate certificate.


## Arts Management and Entrepreneurship Elective Lists

## Business-Related Course Electives

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| AMGT 5173 | Artist Management | 3 |
| AMGT 5990 | Independent Study | $1-3$ |
| ARTC 5943 | Business of Art: Professional Practice | 3 |
| DRAM 4853 | Theatre Management | 3 |
| ENT 5102 | Entrepreneurship \& Innovation | 2 |
| ENT 5902 | Entrepreneurial Leadership | 2 |
| ENT 5912 | Capitalizing the New Venture | 2 |
| ENT 5942 | Launching the New Venture | 2 |
| ENT 5992 | Entrepreneurial Growth Strategies | 2 |
| LS 5612 | Employment Law | 2 |
| L S 5802 | Business Ethics/Legal | 2 |
| MGT 5112 | International Management | 2 |
| MGT 5702 | Organizational Behavior | 2 |
| MGT 5712 | Negotiations | 2 |
| MIT 5602 | Management Information Systems | 2 |
| MKT 5402 | Marketing Management | 2 |
| SCM 5502 | Fundamentals of Supply Chain | 2 |
| SCM 5522 | Planning and Operations Management | 2 |

Weitzenhoffer College of Fine Arts Courses

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| ARTC 5943 | Business of Art: Professional Practice ${ }^{1}$ | 3 |
| DANC 5743 | Dance History: Early Roots | 3 |
| DANC 5753 | Dance History: Three Centuries of <br> Development | 3 |
| DRAM 4853 | Theatre Management ${ }^{1}$ | 3 |
| DRAM 5990 | Special Studies for Graduate Students <br> (Topic: Theatre History) | $2-6$ |
| MUSC 5323 | History of Opera | 3 |
| MUSC 5373 | History of American Music | 3 |


| MUSC $5970 \quad$Seminar in Music History (Topic: <br> Aesthetics of Music) |
| :--- |
| 1 These courses may only be applied toward AME Graduate Certificate |
| once, as a Business Elective or Fine Arts Elective. |

Arts Management Electives

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| AMGT 5030 | Internship I in The Arts | $1-3$ |
| AMGT 5213 | Arts Incubation Lab | 3 |
| AMGT 5990 | Independent Study | $1-3$ |

## School of Dance

Michael Bearden, Director
Roxanne Lyst, Graduate Liaison
1000 Reynolds Performing Arts Center
560 Parrington Oval
Norman, OK 73019-3110
(405) 325-4051

FAX: (405) 325-7024
dance@ou.edu
dance.ou.edu

## General Information

Since its inception 60 years ago, the School of Dance has established a national reputation for its excellence in training in ballet and modern dance techniques, for its production values and for the quality of its graduates. Firmly rooted in a performance-oriented philosophy, the school is composed of 10 faculty members, two ballroom dance instructors, two Pilates body conditioning instructors, six accompanists, two full-time musicians, two graduate teaching assistants and approximately 80 majors. Students develop their technical and expressive gifts guided by a faculty representing an unusually fine blend of professional and academic excellence. Students work in a pre-professional environment dedicated to their development as performers, artists and educated individuals. During completion of the University's general education requirements, dance students learn about related arts from theoretical, historical and theatrical perspectives, while simultaneously perfecting their skills as emerging dance artists. Oklahoma Festival Ballet and Contemporary Dance Oklahoma provide performance opportunities on campus and throughout the state and region through fully produced performances, laboratory performances and lecture demonstrations. In addition, a production choreographed by students is presented on an annual basis. International tours are another important aspect of our students' experience.

The School of Dance is housed in the Donald W. Reynolds Performing Arts Center. This beautiful, state of the art facility includes two large dance studios, a Pilates body conditioning studio, a physical therapy room, faculty and staff offices, archive room, a gallery/reception area and the exquisitely renovated performance hall (formerly historic Holmberg Hall). Additional studios are housed in the adjacent Fine Arts Center as are the production facilities for Elsie C. Brackett Theatre and the School of Drama. This combination of facilities ensures that our students have the best possible environment in which to develop their technical, expressive and intellectual gifts and move toward professional careers.

## Programs for Excellence

The BFA and MFA programs include performance requirements. Oklahoma Festival Ballet and Contemporary Dance Oklahoma, resident performing companies of the School of Dance, provide numerous, diverse performing opportunities for dance majors in both disciplines. Each company gives an annual series of performances on campus in our home theatres. Company members also present the annual Young Choreographers' Showcase each January. Additional performance opportunities exist through musicals and operas, in addition to lecture demonstrations in public schools, informal studio concerts and state, regional and international tours. Our companies have been honored with 14 invitational performance tours to Taiwan, Japan, France, Paraguay, Ecuador, Austria, China and Mexico.

Our companies have been chosen for the National American College Dance Festival Gala Performance at The Kennedy Center for the Performing Arts as well as receiving awards at the regional ACDF conferences (South Central). In addition, the companies have been featured in Dance Magazine, Pointe Magazine, the New York Times and the foreign press. The companies perform original works as well as others by Balanchine, Robbins, Kylián, Joffrey, Stevenson, de Mille, Petipa, Pilobolus, Sonia Dawkins, Gerald Arpino, Donald McKayle, Mark Dendy, Trey McIntyre, Rena Butler, Sidra Bell and Alejandro Cerrudo. Guest performers, choreographers, scholars and teachers visit the School of Dance each semester enriching students' experience and aiding in their preparation for the profession. Participation by dancers of diverse cultural and ethnic backgrounds is encouraged.

## Scholarship Information

A number of merit based scholarships are available through the School. These include Barnett Foundation Scholarships, tuition waivers, the Mark Allen Everett Scholarship, the Indian Ballerina Scholarships, Dance Partners Scholarships and others. For specific scholarships and deadlines, contact the School of Dance at (405) 325-4051 or visit scholarships.ou.edu.

## Undergraduate Study

The School of Dance offers undergraduate degree programs in classical ballet (with performance or pedagogy as an emphasis) and modern dance.

- Ballet Pedagogy, B.F.A. (p. 1447)
- Ballet Performance, B.F.A. (p. 1450)
- Modern Dance Performance, B.F.A. (p. 1452)


## Admission

The School of Dance follows the admission requirements of the University of Oklahoma and the Weitzenhoffer Family College of Fine Arts. However, admission to a dance degree program also requires attendance at an audition on campus or on our annual, national audition tour. The entrance audition also serves as a placement class. All class assignments are based on proficiency. For specific audition dates and information, please visit http://dance.ou.edu/apply or contact the School of Dance administrative office (405) 325-4051.

## Degree Requirements

Dance majors are advised concerning course enrollment and advancement in the degree program by an academic advisor each semester. All regulations and degree requirements are available in the

School of Dance Office, 1000 Reynolds Performing Arts Center and online.

## Dance History Minor

The School of Dance offers a Minor in Dance History (p. 1454) that is open to all undergraduates in the university. For additional information, please contact the School of Dance office or the Weitzenhoffer Family College of Fine Arts Dean's office.

## Graduate Study

The Master of Fine Arts in Dance (p. 1455) emphasizes either performance, choreography, or pedagogy. Graduate applicants must submit a graduate application to the University of Oklahoma Graduate College. Applicants must also submit a portfolio containing professional performance, choreography, and/or teaching prior to an invitation to interview and audition for the School of Dance. An audition and interview will be scheduled following graduate faculty review of the video and application materials. Please contact Graduate Liaison Roxanne Lyst, rlyst@ou.edu, for further information.

## Courses

DANC 1212 Ballet Technique I
2 Credit Hours
May be repeated; maximum credit four hours. Practice of ballet technique at beginning level. This course does not count for major credit in the School of Dance. (F, Sp, Su)

## DANC 1312 Modern Technique I

2 Credit Hours
May be repeated; maximum credit four hours. Practice of modern dance technique at the beginning level. This course does not count for major credit in the School of Dance. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

## DANC 1411 Stage Makeup for the Dancer

1 Credit Hour
To develop skill in the application of basic stage makeup for the dancer, including character analysis and traditional styles. (Irreg.)

DANC 1713 Understanding Dance 3 Credit Hours
A course in dance appreciation covering all aspects of various theatrical dance styles. (F, Sp) [IV-AF].
DANC 1813 Introduction to Non-Western Dance Forms 3 Credit Hours An abbreviated examination of the history, evolution, and significance of dance in three regions of the non-western world which possess very distinct dance cultures. (F, Sp) [IV-WDC] .
DANC 1911 Rehearsal and Production
1 Credit Hour
Prerequisite: open to dance majors only. May be repeated; maximum credit four hours. Study, practice and participation in every phase of dance production work and management. Laboratory ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

## DANC 1913 Music for Dancers

3 Credit Hours
This course is designed to increase the dancer's understanding of rhythm, notation of rhythm, musical forms and styles. Music from Western and Non-Western cultural practices as well as from varying historical periods will be explored. Students will make music together in the classroom to gain a deeper understanding of these topics. ( $F, S p$ )
DANC 2212 Ballet Technique II
2 Credit Hours
Prerequisite: permission of instructor. May be repeated; maximum credit eight hours. Continuation of 1212. (F, Sp, Su)

DANC 2213 Intermediate Ballet Technique
3 Credit Hours
Prerequisite: Majors only; permission of instructor; May be repeated; maximum credit 9 hours. Class includes participation in a complete ballet barre and center including adagio, pirouettes, petit allegro and grande allegro. The emphasis will be on the practice and principles of the classical ballet vocabulary. Students will be expected to develop and demonstrate the ability to perform the movements with proper body alignment and a sense of artistic expression. (F, Sp)

## DANC 2241 Pointe Class <br> 1 Credit Hour

Prerequisites: Majors only; permission of instructor. Corequisite: must be enrolled in a ballet technique class. May be repeated; maximum credit 4 hours. Technique and practice on pointe to build strength and proficiency for ballet. (F, Sp)
DANC 2292 Ballet Company Apprentice 2 Credit Hours
Prerequisite: Majors only; permission of instructor. May be repeated; maximum credit eight hours. A practical analysis and application of the original and classical ballet repertoire. (F,Sp, Su)
DANC 2312 Modern Technique II
2 Credit Hours
Prerequisite: Majors only; permission of instructor. May be repeated; maximum credit eight hours. Continuation of 1312. (F, Sp)
DANC 2313 Intermediate Modern Technique 3 Credit Hours Prerequisite: Majors only; permission of instructor; May be repeated; maximum credit 12 hours. Intermediate modern dance technique emphasizes skill refinement, increased vocabulary, and performance capabilities. Class includes floor work, inversions, dynamic movement through space, turns and jumps. (F, Sp)
DANC 2321 Dance Improvisation
1 Credit Hour
Prerequisite: majors only; permission of instructor. May be repeated; maximum credit four hours. An introduction to improvisation as a creative and choreographic tool. Students will develop the ability to comprehend, apply, and manipulate movement in order to craft creative impulses. Also explores how to convey concepts and meaning, informing and inspiring others through various methods of non-verbal communication. (F, Sp)
DANC 2392 Modern Company Apprentice
2 Credit Hours
Prerequisite: Majors only; permission of instructor. May be repeated; maximum credit 10 hours. A practical analysis and application of the past and present choreographic dance works within the modern dance area. ( $F$, $\mathrm{Sp}, \mathrm{Su}$ )

DANC 2412 Pilates Body Conditioning 2 Credit Hours May be repeated; maximum credit eight hours. The philosophy of awareness in movement and a total body/mind workout based on the methods developed by Joseph Pilates over 75 years ago. This method is one of physical and mental conditioning designed to work every muscle in the body in an efficient and balanced manner. (F, Sp)

## DANC 2512 Ballroom Dancing I

2 Credit Hours
May be repeated; maximum credit eight hours. Instruction in traditional and popular social dances, as well as social skill and etiquette. Includes instruction in the basic ballroom dances of cha-cha, salsa, swing, tango, and waltz. Dancers take the basic skills and introduce new dances and rhythms with an added emphasis on dancing technique. (F, Sp)

DANC 2522 Ballroom Dancing II 2 Credit Hours
Prerequisite: 2512 or permission of instructor. May be repeated; maximum credit eight hours. Intermediate-level ballroom dancing which builds on the basic skills of the dancer and introduces new dances and rhythms with an added emphasis on dancing techniques. Includes instruction in the foxtrot, rumba, samba, and east and west coast swings. A brief review of basic skills is presented at the beginning of the semester. (F, Sp)

## DANC 2612 Belly Dance

2 Credit Hours
May be repeated three times; maximum credit eight hours. A course on one of the forms of dance from the Middle East, belly dancing, as referred to in North America. The class will focus on learning the technique of the dance as well providing the history of the form. ( $F, \mathrm{Sp}$ )

DANC 2632 Elements of Dance Composition 2 Credit Hours Prerequisite: Majors only; permission of instructor. Theoretical and practical experience with the principles of composition in the area of expressive movement. (Irreg.)
DANC 2712 Body Science for Dancers
2 Credit Hours
An introduction to human anatomy and body mechanics through the study of skeletal alignment and movement efficiency in dance training, teaching and performance. This course is only open to Dance majors, and is intended to be taken during the second semester of the freshman year or the first semester of the sophomore year. (Irreg.)

## DANC 2970 Special Topics

1-3 Credit Hours
1 to 3 hours. Prerequisite: May be repeated; Maximum credit nine hours. Special topics course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research, and field projects. (Irreg.)
DANC 3213 Ballet Technique III
3 Credit Hours
Prerequisite: Majors only; permission of instructor; May be repeated; maximum credit 24 hours. Class includes participation in an advanced ballet barre and center including adagio, pirouettes, petit allegro and grande allegro. The emphasis will be on the practice and advanced principles of the classical ballet vocabulary. Students will be expected to develop and demonstrate the ability to perform the movements with proper body alignment, musicality, and a sense of artistic expression. (F, Sp, Su)
DANC 3272 Performance Practices in Ballet 2 Credit Hours
Prerequisite: Majors only; permission of instructor. An introduction to and participation in performance practices in character dance and pantomime in ballet training. Emphasis on the practice, principles and style of character dance and its function as an integral part of classical ballet repertory and the use of pantomime and acting techniques for dancers. Students learn character dance technique and choreography from the classical repertoire as well as practicing individual role development through character studies culminating in the use of pantomime vocabulary and expressive movement. (Irreg.)

DANC 3292 OU Ballet Company
2 Credit Hours
Prerequisite: Majors only; permission of instructor. May be repeated; maximum credit 16 hours. Rehearsal and performance with the OU Ballet Company. Laboratory (F, Sp, Su)
DANC 3313 Modern Technique III
3 Credit Hours
Prerequisite: Majors only; permission of instructor; May be repeated; maximum credit 24 hours. Modern Technique III emphasizes advanced skill refinement and creative exploration of performance capabilities. Class includes advanced floor work, inversions, improvisation, composition, large movement through space, large turns and jumps. (F, Sp, Su)

DANC 3392 Contemporary Dance Oklahoma 2 Credit Hours
Prerequisite: Majors only; permission of instructor. May be repeated; maximum credit 16 hours. Rehearsal and performance with the Contemporary Dance Oklahoma. (F, Sp, Su)

## DANC 3412 Pilates Equipment

2 Credit Hours
Prerequisite: 2412 and permission of the instructor. May be repeated; maximum credit eight hours. Using Pilates equipment, the class foundation is built on that developed by Joseph Pilates as a method of physical and mental conditioning to work every muscle in one's body in an efficient and balanced manner. The basis throughout the semester is that philosophy of awareness in movement and a total body/mind workout. (F, Sp)
DANC 3440 Mentored Research Experience 3 Credit Hours 0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)
DANC 3632 Dance Composition

## 2 Credit Hours

Prerequisite: Majors only; permission of instructor. Theoretical and practical experience with the principles of composition in the area of expressive movement. (Irreg.)
DANC 3743 Dance History: Early Roots
3 Credit Hours
Prerequisite: junior standing or permission of instructor. A survey of the development of dance from pre-historic eras in western civilization through ancient cultures in Egypt, Greece and Rome. Investigations continue through Medieval, Renaissance and Baroque periods up to the evolution of Romantic ballet in the nineteenth century. (F) [IV-WC] .
DANC 3753 Dance History: Three Centuries of Development 3 Credit Hours
Prerequisite: junior standing or permission of instructor. From nineteenthcentury Romanticism, this course traces the development of western theatrical dancing through the current season. (Sp) [IV-WC] .
DANC 3813 History of World Dance
3 Credit Hours
Prerequisite: junior standing or permission of instructor. An examination of the history, evolution and significance of dance in regions which possess very distinct dance cultures throughout the non-European world. (Irreg.) [IV-WDC] .
DANC 3960 Honors Reading
1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated with change of subject; maximum credit six hours. Consists of either reading topics or independent study designated by the instructor in keeping with the student's major program. Covers materials not usually presented in the regular courses. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

## DANC 3970 Honors Seminar

1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program, junior or senior standing. May be repeated with change of subject; maximum credit six hours. The projects covered will vary. Deals with concepts not usually presented in regular coursework. (Irreg.)
DANC 3980 Honors Research 1-3 Credit Hours 1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated with change of subject; maximum credit six hours. Provides an opportunity for the gifted Honors candidate to work at a special project in the student's field. (F, Sp, Su)

DANC 3990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: permission of instructor and junior standing. May be repeated once with change of content. Independent study may be arranged to study a subject not available through regular course offerings. (F, Sp, Su)

DANC G4022 Ballet Repertoire
2 Credit Hours
Prerequisite: Majors only; permission of instructor. Research and analysis of some of the works of the basic classical repertoire insofar as story contents. Musical and choreographic approaches are used by renowned choreographers. (Irreg.)

## DANC 4213 Ballet Technique IV <br> 3 Credit Hours

Prerequisite: Majors only; permission of instructor; May be repeated; maximum credit 24 hours. Class includes participation in an advanced ballet barre and center including adagio, pirouettes, petit allegro and grande allegro. The emphasis will be on the strict practice and advanced principles of the classical ballet vocabulary. Students will be expected to demonstrate at an advanced level the ability to perform the movements with proper body alignment, musicality, and sense of artistic expression. (F, Sp)

## DANC 4241 Pas de Deux

1 Credit Hour
Prerequisite: Majors only; permission of instructor. May be repeated; maximum credit 2 hours. Basic techniques of partnering and being a partner in ballet performance. (Irreg.)

DANC 4313 Modern Technique IV
3 Credit Hours
Prerequisite: DANC 3313; Majors only; permission of instructor; May be repeated; maximum credit 24 hours. Modern Technique IV emphasizes advanced and complex skill refinement and creative approaches to performance capabilities. Class includes advanced floor work, inversions, improvisation, composition, musicality, large movements through space, large jumps and turns. (F, Sp, Su)

DANC 4612 Ballet Choreography 2 Credit Hours
Prerequisite: Majors only; permission of instructor. Study and practice in the principles of ballet composition, with emphasis on Romantic, Classical, Neoromantic and Neoclassical choreography. (Irreg.)

DANC 4721 Senior Capstone Lecture
1 Credit Hour
Prerequisite: Senior standing and permission of department; majors only. Professional preparation for a career in dance and related fields. Students will develop material relevant to a professional career in the industry. Topics include: goal setting, professional correspondence documents, interview techniques, audition preparation, applying for graduate school, video sample creation. Student and instructor initiated discussions with working professionals will explore the role of the dancer in the professional industry. (F) [V].

## DANC 4722 Senior Capstone Project

2 Credit Hours
Prerequisite: DANC 4721 or concurrent enrollment; senior standing; Permission of department required; majors only. An advanced, individual project which demonstrates mastery of skills and knowledge in the student's area of interest. Taken in the senior year, the project will be selected under advisement, guided by the appropriate faculty member(s) and include required submission of a written component. (F, Sp) [V].

DANC G4812 Teaching of Ballet Technique 2 Credit Hours Prerequisite: twelve hours of ballet or permission. Comprehensive study of the basic ballet exercises and body positions. Terminology and discussions on anatomy for the dancer. Experience in teaching of ballet. (Irreg.)

DANC G4821 Teaching Practicum - Ballet
1 Credit Hour
Prerequisite: Majors only; DANC 4812. May be repeated; maximum credit three hours. Teaching children's ballet classes of various levels. Student will teach an average of twelve classes per semester, and meet with the supervising professor following observation of teaching assignments. ( $F$, Sp)

DANC 4832 Methods in Teaching Dance
2 Credit Hours
Prerequisite: Majors only; permission of instructor. Methods of teaching through the creative approach. Progressions in teaching dance studies and techniques. (Irreg.)

## DANC G4851 Practical Experience in Teaching Modern

## Dance

1 Credit Hour
Prerequisite: 4832. May be repeated; maximum credit three hours.
Practical teaching experience in modern dance or creative dance for children. (F, Sp)

DANC 4960 Directed Readings 1-4 Credit Hours
1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean. May be repeated; maximum credit four hours.
Designed for upper-division students who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)

## DANC 4970 Special Topics/Seminar <br> 1-3 Credit Hours

1 to 3 hours. Prerequisite: Senior standing or permission of instructor.
May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

DANC 4990 Special Studies 1-6 Credit Hours
1 to 6 hours. Prerequisite: Departmental permission; May be repeated with change of subject matter; maximum credit eight hours. Variable as to subject and credit for areas of specialty and/or interest not otherwise provided in the standard offering of courses. (F, Sp, Su)

DANC 5023 Introduction to Graduate Study in Dance 3 Credit Hours Prerequisite: graduate standing. Developing research, organizational and refined skills for scholarly writing. Establishing a foundation to analyze existing materials in the dance field for purposes of debate and theory construction. Providing clarification of MFA in Dance expectations and defining a direction/program of study which will enrich knowledge within the discipline. (Irreg.)

DANC 5090 Graduate Special Studies 1-6 Credit Hours
1 to 6 hours. Prerequisite: permission. May be repeated; maximum credit six hours. A special creative or research project course in any phase of dance adapted to the individual student. ( $\mathrm{F}, \mathrm{Sp}$ )

DANC 5224 Graduate Ballet Technique 4 Credit Hours Prerequisite: Graduate standing and departmental permission; May be repeated; maximum credit 12 hours. Intensive study of dance techniques for proficiency in performance and teaching. (F, Sp, Su)
DANC 5292 Advanced Ballet Company Class 2 Credit Hours Prerequisite: graduate standing, permission of adviser. Continued enrollment based on performance; maximum credit ten hours. A rehearsal situation which provides the special training required in performance. It is conducted in a practicum-laboratory situation aimed at the advanced graduate student. Laboratory (F, Sp)

DANC 5322 Advanced Dance Improvisation 2 Credit Hours Prerequisite: Graduate standing and Master of Fine Arts in Dance majors only. Development of advanced skills, tools, and conceptualization around dance improvisation and its application to the creative process of choreography. (F)

DANC 5324 Graduate Modern Dance Technique 4 Credit Hours
Prerequisite: Graduate standing and departmental permission; May be repeated; maximum credit 12 hours. Intensive practice of modern dance techniques for proficiency in performance and teaching. (F, Sp)
DANC 5392 Advanced Modern Dance Company Class 2 Credit Hours Prerequisite: graduate standing, permission of adviser. Continued enrollment based on performance; maximum credit ten hours. A rehearsal situation which provides the special training required in performance. It is conducted in a practicum-laboratory situation aimed at the graduate student. Laboratory (F, Sp)
DANC 5613 Graduate Choreography
3 Credit Hours
Prerequisite: Graduate standing; DANC 3632 or DANC 4612, or departmental permission; May be repeated; maximum credit 6 hours.
Practical application of principles of choreography in original production projects. (F, Sp)

DANC 5713 History of World Dance 3 Credit Hours
Prerequisite: Graduate standing, departmental permission, and Master of Fine Arts in Dance majors only. An examination of the history, evolution, and significance of dance in regions which possess very distinct dance cultures throughout the non-European world. (Irreg.)
DANC 5743 Dance History: Early Roots 3 Credit Hours Prerequisite: graduate standing or permission of instructor. A survey of the development of dance from pre-historic eras in western civilization through ancient cultures in Egypt, Greece and Rome. Investigations continue through Medieval, Renaissance and Baroque periods up to the evolution of Romantic ballet in the nineteenth century. Will have additional meeting times, research and written assignments. (F)
DANC 5753 Dance History: Three Centuries of Development 3 Credit Hours
Prerequisite: graduate standing or permission of instructor. Development of western theatrical dancing from nineteenth-century Romanticism through the current season. Will have additional meetings, research and written assignments. (Sp)
DANC 5813 Advanced Teaching of Dance
3 Credit Hours
Prerequisite: Graduate standing. This course is designed to provide different voices and diverse points of view on teaching dance within higher education through reading assignments, discussions, and practical applications. (Irreg.)

DANC 5913 Graduate Project in Dance
3 Credit Hours
Prerequisite: permission. May be repeated with change of subject matter; maximum credit six hours. Study and practice in assuming full responsibility of a project in the area of dance. (F, Sp, Su)
DANC 5960 Directed Readings 1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing and permission of department. May be repeated; maximum credit twelve hours. Directed readings and/or literature reviews under the direction of a faculty member. (F, Sp, Su)
DANC 5970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)
DANC 5980 Research for Master's Thesis 2-9 Credit Hours
Variable enrollment, two to nine hours; maximum credit applicable toward degree, four hours. (F, Sp, Su)

DANC 5990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)

## Faculty

| Last Name | First/Middle Name | Middle init. | OU <br> Service <br> start | Title(s), date(s) appointed | Degrees Earned, Schools, Dates Completed |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Bearden | Michael |  | 2017 | DIRECTOR AND ASSOCIATE PROFESSOR OF DANCE, 2017 | BFA, Univ of Utah, 2015 |
| Dossev | Boyko |  | 2017 | ASSISTANT <br> PROFESSOR OF <br> DANCE, 2017; <br> DIRECTOR, <br> OKLAHOMA <br> FESTIVAL BALLET COMPANY | MS, Northeastern Univ; Master's in Choreography and Bachelor's in Ballet Pedagogy, The National Conservatory - Sofia |
| Edgerton | Glenn |  | 2022 | ASSOCIATE PROFESSOR, 2022 | Honorary Doctorate of the Arts, California Institute of the Arts |
| Hartel | Austin | S | 2001 | ASSOCIATE PROFESSOR OF DANCE, 2007; UNDERGRADUATE AND GRADUATE | MFA, California Institute, 2000; BFA, Univ of North Carolina, 1984 |


| Holt | Mary | M | 1979 | CY AND LISSA WAGNER PRESIDENTIAL PROFESSOR, 1997; JOHN W. AND MARY D. NICHOLS CHAIR IN DANCE, 2000; REGENTS' PROFESSOR OF DANCE, 2000 | MFA, Univ of Oklahoma, 1970; BFA, Univ of Oklahoma, 1968 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Kraus | Leslie |  | 2018 | ASSISTANT PROFESSOR OF DANCE, 2018 | MFA, Univ of <br> Washington, 2017; <br> BFA, Virginia <br> Commonwealth Univ, $2003$ |
| Lyst | Roxanne | D | 2016 | ASSOCIATE PROFESSOR OF DANCE, 2021; GRADUATE LIAISON, 2019; DIRECTOR OF CONTEMPORARY DANCE OKLAHOMA | MFA, Hollins Univ, 2013 |

## Ballet Pedagogy, B.F.A.

Minimum Total Credit Hours: 120-130
Major Hours: 61-63
Minimum Upper-Division Hours: 40
Upper-Division Hours Within Major: 24
Overall GPA - Combined and OU: 2.50

## Major Requirements

A grade of C or better is required in all courses taken within the School Dance. Audition is required for admission to degree program.

| Code | Title | Credit <br> Hours |
| :---: | :---: | :---: |
| Dance Requirements |  |  |
| Ballet Technique: 24 hours |  |  |
| Choose three sem | mesters of the following: | 9 |
| DANC 2213 or DANC 32 | Intermediate Ballet Technique 1 Ballet Technique III |  |
| Choose five sem | sters of the following: | 15 |
| DANC 3213 or DANC 42 | Ballet Technique III 1 Ballet Technique IV |  |
| Modern Technique: 4-6 hours |  |  |
| DANC 2312 or DANC 2313 | Modern Technique II Intermediate Modern Technique | 2-3 |
| DANC 2312 or DANC 2313 | Modern Technique II Intermediate Modern Technique | 2-3 |
| Company: 8 hours (4 semesters required) |  |  |
| DANC 3292 or DANC 2292 | OU Ballet Company <br> Ballet Company Apprentice | 2 |
| DANC 3292 or DANC 2292 | OU Ballet Company Ballet Company Apprentice | 2 |
| DANC 3292 or DANC 2292 | OU Ballet Company <br> Ballet Company Apprentice | 2 |
| DANC 3292 or DANC 2292 | OU Ballet Company <br> Ballet Company Apprentice | 2 |
| Additional Courses: 31 hours |  |  |
| DANC 1911 | Rehearsal and Production | 1 |
| DANC 1913 | Music for Dancers | 3 |
| Choose two semesters of the following: |  | 2 |
| DANC 2241 | Pointe Class |  |
| DANC 2321 | Dance Improvisation | 1 |
| DANC 2412 | Pilates Body Conditioning | 2 |
| DANC 2712 | Body Science for Dancers | 2 |
| DANC 3272 | Performance Practices in Ballet | 2 |
| DANC 3813 | History of World Dance (Core IV-WDC) | 3 |
| DANC 4612 | Ballet Choreography | 2 |
| DANC 4812 | Teaching of Ballet Technique | 2 |
| DANC 4821 | Teaching Practicum - Ballet | 1 |
| DANC 4821 | Teaching Practicum - Ballet | 1 |
| DANC 4721 | Senior Capstone Lecture | 1 |
| DANC 4722 | Senior Capstone Project | 2 |

Advised Electives in the School of Dance to bring total applicable hours to $120^{1}$
Total Credit Hours 61-63

1 The number of hours required is dependent in part on choices made to satisfy science and language General Education components. Courses used to fulfill General Education and/or major requirements may not fulfill electives.

## Major Support Requirements

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Musical Theatre |  |  |
| Choose one of the following: | 2 |  |
| MTHR 2162 | Introduction to Urban Dance |  |
| MTHR 3442 | Jazz III |  |
| MTHR 4442 | Jazz IV | 4 |
| Drama |  |  |
| Choose one of the following: |  |  |
| DRAM 1114 | Costume Construction |  |
| DRAM 1124 | Stagecraft |  |
| DRAM 1134 | Stage Lighting and Sound |  |

## Total Credit Hours

## General Education and College Requirements

Courses designated as Core I, II, III, IV, or V are part of the General Education curriculum. Students must complete a minimum of 40 hours of General Education courses, chosen from the approved list, including at least one upper-division Gen. Ed. course outside of the student's major. Courses graded P/NP will not apply.

## UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS <br> Code Title Credit

Core Area I: Symbolic and Oral Communication
English Composition
ENGL 1113 Principles of English Composition 3
ENGL 1213 Principles of English Composition 3
or EXPO 1213 Expository Writing
Language
This requirement is not mandatory if the student successfully 0-10
completed 2 years of the same language in high school. -2
courses (Core I)
Mathematics
Choose one course ${ }^{1} 3$
Core Area II: Natural Science
Choose two courses from different disciplines; one must 7-8
include a laboratory
Core Area III: Social Science
P SC 1113 American Federal Government 3
Choose one course 3
Core Area IV: Arts and Humanities

Artistic Forms
Choose 6 hours from the following: 6

A HI 1113 The Understanding of Art
DRAM 1713 Understanding Theatre
Western Culture
HIST $1483 \quad 3$
or HIST 1493 United States, 1865 to the Present
DANC 3743 Dance History: Early Roots
3
or DANC 3753 Dance History: Three Centuries of Development
World Culture

| Choose one course from 3000-4000 level Art or Music |
| :--- |
| Core Area V: First-Year Experience |
| Choose one course |
| Total Credit Hours |
| ${ }^{1}$ MATH 1473 is recommended. |
| Suggested Semester Plan of Study |

At least $\mathbf{2 4}$ hours of upper-division Dance credit must be earned in residence as a declared major.

This plan of study should not be used in lieu of academic advisement. Unless otherwise stated on the degree sheet, the College of Fine Arts does not permit coursework to fulfill more than one degree requirement.

## Freshman

| First Semester |  | Credit Hours |
| :---: | :---: | :---: |
| DANC 2241 | Pointe Class | 1 |
| DANC 2412 | Pilates Body Conditioning | 2 |
| DANC 2213 <br> or DANC 3213 | Intermediate Ballet Technique or Ballet Technique III | 3 |
| DANC 2292 <br> or DANC 3292 | Ballet Company Apprentice or OU Ballet Company | 2 |
| ENGL 1113 | Principles of English Composition (Core I) | 3 |
| Choose one of the | following: | 3 |
| DANC 1913 | Music for Dancers |  |
| First-Year Experience (Core V) |  |  |
|  | Credit Hours | 14 |


| Second Semester |  |  |
| :---: | :---: | :---: |
| DANC 2241 | Pointe Class | 1 |
| DANC 2213 or DANC 3213 | Intermediate Ballet Technique or Ballet Technique III | 3 |
| DANC 2321 | Dance Improvisation | 1 |
| $\begin{aligned} & \text { DANC } 2312 \\ & \text { or DANC } 2313 \end{aligned}$ | Modern Technique II or Intermediate Modern Technique | 2-3 |
| $\begin{aligned} & \text { DANC } 2292 \\ & \quad \text { or DANC } 3292 \end{aligned}$ | Ballet Company Apprentice or OU Ballet Company | 2 |
| $\begin{aligned} & \text { ENGL } 1213 \\ & \text { or EXPO } 1213 \end{aligned}$ | Principles of English Composition (Core I) or Expository Writing | 3 |
| MATH (Core I) |  | 3 |
| Choose one of the | following (not previously taken): | 3 |


| DANC $1913 \quad$ Music for Dancers |
| :--- |
| First-Year Experience (Core V) |
| Credit Hours |


|  | Credit Hours | $18-19$ |
| :--- | :---: | :---: |
| Sophomore |  |  |
| First Semester |  |  |


| DANC 2213 <br> or DANC 3213 | Intermediate Ballet Technique <br> or Ballet Technique III | 3 |
| :---: | :--- | :---: |
| DANC 3272 | Performance Practices in Ballet | 2 |
| DANC 2292 <br> or DANC 3292 | Ballet Company Apprentice <br> or OU Ballet Company | 2 |
| DANC 2712 | Body Science for Dancers | 2 |


| DANC 2312 or DANC 2313 | Modern Technique II or Intermediate Modern Technique | 2-3 |
| :---: | :---: | :---: |
| Choose one of the following Core IV, Artistic Forms: |  | 3 |
| A HI 1113 | The Understanding of Art |  |
| DRAM 1713 | Understanding Theatre |  |
| P SC 1113 | American Federal Government (Core III) | 3 |
| MTHR 3442 or MTHR 2162 or MTHR 4442 | Jazz III <br> or Introduction to Urban Dance or Jazz IV | 2 |

## Second Semester

| DANC 3213 <br> or DANC 4213 | Ballet Technique III <br> or Ballet Technique IV | 3 |
| :---: | :--- | :---: |
| DANC 2292 <br> or DANC 3292 | Ballet Company Apprentice <br> or OU Ballet Company | 2 |
| HIST 1483 <br> or HIST 1493 | United States to 1865 (Core IV) <br> or United States, 1865 to the Present | 3 |

Natural Science with lab (Core II) ..... 4
Choose one of the following: ..... 4

| DRAM 1114 | Costume Construction |  |
| :--- | :--- | :--- |
| DRAM 1124 | Stagecraft |  |
| DRAM 1134 | Stage Lighting and Sound |  |
|  | Credit Hours |  |

## Junior

First Semester
DANC 1911 Rehearsal and Production 1
DANC 3213 Ballet Technique III 3
or DANC 4213 or Ballet Technique IV
DANC 3743 Dance History: Early Roots (Core IV, 3
or DANC 3753 Western Culture)
or Dance History: Three Centuries of
Development
Illowing Core IV (previously not taken):
Choose one of the following Core IV (previously not taken): 3
A HI 1113 The Understanding of Art
DRAM 1713 Understanding Theatre
Beginning Language (Core I) 0-5

| Advised Electives, lower- or upper-division ${ }^{2}$ | $3-5$ |
| :---: | ---: |
| Credit Hours | $\mathbf{1 3 - 2 0}$ |

## Second Semester

DANC 3213 Ballet Technique III 3
or DANC 4213 or Ballet Technique IV
DANC 3813 History of World Dance (Core IV-WDC) 3
Beginning Language Cont. (Core I) 0-5
Advised Electives, lower- or upper-division ${ }^{2} \quad 5$

## Senior

## First Semester

DANC 3213 Ballet Technique III 3

| or DANC 4213 | or Ballet Technique IV |  |
| :--- | :--- | :--- |
| ANC 4612 | Ballet Choreography | 2 |

DANC 4721 Senior Capstone Lecture 1
DANC 4821 Teaching Practicum - Ballet 1
Natural Science without Lab (Core II) 3


## Ballet Performance, B.F.A.

Minimum Total Credit Hours: 120-130
Major Hours: 66-68
Minimum Upper-Division Hours: 40
Upper-Division Hours Within Major. 24
Overall GPA - Combined and OU: 2.50
Program Code: B267

## Major Requirements

A grade of $C$ or better is required in all courses taken within the School of Dance. Audition is required for admission to degree program.

| Code | Title | Credit Hours |
| :---: | :---: | :---: |
| Dance Requirements |  |  |
| Ballet Technique: 24 hours |  |  |
| Choose three sem | nesters of the following: | 9 |
| DANC 2213 or DANC 32 | Intermediate Ballet Technique 1 Ballet Technique III |  |
| Choose five seme | esters of the following: | 15 |
| DANC 3213 or DANC 42 | Ballet Technique III 1Ballet Technique IV |  |
| Modern Technique: 4-6 hours |  |  |
| DANC 2312 or DANC 2313 | Modern Technique II Intermediate Modern Technique | 2-3 |
| DANC 2312 or DANC 2313 | Modern Technique II <br> Intermediate Modern Technique | 2-3 |
| Company: 14 hours (7 semesters required) |  |  |
| DANC 3292 or DANC 2292 | OU Ballet Company <br> Ballet Company Apprentice | 2 |
| DANC 3292 or DANC 2292 | OU Ballet Company Ballet Company Apprentice | 2 |
| DANC 3292 | OU Ballet Company | 2 |
| DANC 3292 | OU Ballet Company | 2 |
| DANC 3292 | OU Ballet Company | 2 |


| DANC 3292 | OU Ballet Company | 2 |
| :---: | :---: | :---: |
| DANC 3292 | OU Ballet Company | 2 |
| Additional Courses: 24 hours |  |  |
| DANC 1911 | Rehearsal and Production | 1 |
| DANC 1913 | Music for Dancers | 3 |
| Choose two semesters of the following: |  | 2 |
| DANC 2241 | Pointe Class |  |
| DANC 2321 | Dance Improvisation | 1 |
| DANC 2412 | Pilates Body Conditioning | 2 |
| DANC 2712 | Body Science for Dancers | 2 |
| DANC 3272 | Performance Practices in Ballet | 2 |
| DANC 4022 | Ballet Repertoire | 2 |
| Choose two semesters of the following: |  | 2 |
| DANC 4241 | Pas de Deux |  |
| DANC 4612 | Ballet Choreography | 2 |
| DANC 4812 | Teaching of Ballet Technique | 2 |
| DANC 4721 | Senior Capstone Lecture | 1 |
| DANC 4722 | Senior Capstone Project (Major Support Courses) | 2 |
| Advised Electives in the School of Dance bring total applicable hours to $120^{1}$ |  |  |
| Total Credit Hours |  |  |
| 1 The number of hours required is dependent in part on choices made to satisfy science and language General Education components. Courses used to fulfill General Education and/or major requirements may not fulfill electives. |  |  |

## Major Support Requirements



## General Education and College Requirements

Courses designated as Core I, II, III, IV, or V are part of the General Education curriculum. Students must complete a minimum of 40 hours of General Education courses, chosen from the approved list, including at least one upper-division Gen. Ed. course outside of the student's major. Courses graded P/NP will not apply.

| UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS |  |  | DANC 2213 or DANC 3213 | Intermediate Ballet Technique or Ballet Technique III | 3 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Code | Title | Credit <br> Hours | DANC 3292 or DANC 2292 | OU Ballet Company or Ballet Company Apprentice | 2 |
| Core Area I: Symbolic and Oral Communication |  |  | ENGL 1113 | Principles of English Composition (Core I) | 3 |
| English Composition |  |  | Choose one of the following: |  | 3 |
| ENGL 1113 | Principles of English Composition | 3 | DANC 1913 | Music for Dancers |  |
| ENGL 1213 Principles of English Composition 3 <br> or EXPO 1213 Expository Writing  |  |  | First-Year Experience (Core V) |  |  |
|  |  |  | Second Semester |  |  |
| This requirement is not mandatory if the student successfully completed 2 years of the same language in high school. -2 courses (Core I) |  |  |  |  |  |
|  |  |  | DANC 2241 | Pointe Class | 1 |
|  |  |  | $\begin{aligned} & \text { DANC } 2312 \\ & \quad \text { or DANC } 2313 \end{aligned}$ | Modern Technique II or Intermediate Modern Technique | 2-3 |
| Mathematics |  |  |  | Intermediate Ballet Technique | 3 |
| Choose one course ${ }^{1} 3$ |  |  | or DANC 3213 | or Ballet Technique III |  |
| Core Area II: Natural Science |  |  | DANC 2321 | Dance Improvisation | 1 |
| Choose two courses from different disciplines; one must include a laboratory |  |  | DANC 3292 | OU Ballet Company or Ballet Company Apprentice | 2 |
| Core Area III: Social Science |  |  | ENGL 1213 | Principles of English Composition (Core I) | 3 |
| P SC 1113 | American Federal Government | 3 | or EXPO 1213 | or Expository Writing |  |
| Choose one course 3 |  |  | MATH (Core I) |  | 3 |
| Core Area IV: Arts and Humanities |  |  | Choose one of the | following (not previously taken): | 3 |
| Artistic Forms |  |  | DANC 1913 | Music for Dancers |  |
| Choose 3 hours from the following: 3 |  |  | First-Year Experience (Core V) |  |  |
| A HI 1113 The Understanding of Art |  |  |  | Credit Hours | 18-19 |
| DRAM 1713 Understanding Theatre |  |  | Sophomore |  |  |
| Western Culture |  |  | First Semester |  |  |
| HIST 1483 or HIST 1493 | United States to 1865 | 3 | DANC 3272 | Performance Practices in Ballet 2 |  |
|  | United States, 1865 to the Present |  |  | Intermediate Ballet Technique or Ballet Technique III | 3 |
| DANC 3743 Dance History: Early Roots 3 <br> or DANC 3753 Dance History: Three Centuries of Development  |  |  | $\begin{aligned} & \text { DANC } 2213 \\ & \text { or DANC } 3213 \end{aligned}$ |  |  |
|  |  |  | DANC 3292 | OU Ballet Company | 2 |
| World Culture |  |  | DANC 2712 | Body Science for Dancers | 2 |
| DANC 3813 | History of World Dance | 3 | DANC 2312 | Modern Technique II | 2-3 |
| Core Area V: First-Year Experience |  |  | or DANC 2313 | or Intermediate Modern Technique |  |
| Choose one course 3 |  |  | Choose one of the following (Core IV, Artistic Forms): |  | 3 |
| General Education Elective |  |  | A HI 1113 | The Understanding of Art |  |
| Choose one General Education Elective: 3000-4000 level approved course is recommended |  |  | DRAM 1713 | Understanding Theatre |  |
|  |  |  | Choose one of the following: |  | 2 |
| Total Credit Hours 40-51 |  |  | MTHR 3442 | Jazz III |  |
| ${ }^{1}$ MATH 1473 is recommended. |  |  | MTHR 2162 | Introduction to Urban Dance |  |
|  |  |  | MTHR 4442 | Jazz IV |  |
|  |  |  | Credit Hours |  | 16-17 |
| Suggested Semester Plan of Study |  |  | Second Semester |  |  |
| At least $\mathbf{2 4}$ hours of upper-division Dance credit must be earned in residence as a declared major. |  |  | DANC 3213 or DANC 4213 | Ballet Technique III or Ballet Technique IV | 3 |
| This plan of study should not be used in lieu of academic advisement. Unless otherwise stated on the degree sheet, the College of Fine Arts does not permit coursework to fulfill more than one degree requirement |  |  | DANC 3292 | OU Ballet Company | 2 |
|  |  |  | DANC 4241 | Pas de Deux | 1 |
|  |  |  | Natural Science w | ith lab (Core II) | 4 |
|  |  |  | Choose one of the following: |  | 4 |
| Freshman |  |  | DRAM 1114 | Costume Construction |  |
| First Semester |  | Credit Hours | DRAM 1124 | Stagecraft |  |
|  |  | DRAM 1134 | Stage Lighting and Sound |  |  |
| DANC 2241 | Pointe Class |  | 1 | Credit Hours |  | 14 |
| DANC 2412 | Pilates Body Conditioning | 2 |  |  |  |  |  |

Junior

| First Semester |  |  |
| :---: | :---: | :---: |
| DANC 3213 <br> or DANC 4213 | Ballet Technique III or Ballet Technique IV | 3 |
| DANC 3292 | OU Ballet Company | 2 |
| DRAM 1911 | Rehearsal and Production | 1 |
| DANC 4241 | Pas de Deux | 1 |
| $\begin{aligned} & \text { DANC } 3743 \\ & \text { or DANC } 3753 \end{aligned}$ | Dance History: Early Roots (Core IV-WC) or Dance History: Three Centuries of Development | 3 |
| P SC 1113 | American Federal Government | 3 |
|  | Credit Hours | 13 |
| Second Semester |  |  |
| DANC 3213 or DANC 4213 | Ballet Technique III or Ballet Technique IV | 3 |
| DANC 3292 | OU Ballet Company | 2 |
| DANC 3813 | History of World Dance (Core IV-WDC) | 3 |
| DANC 4812 | Teaching of Ballet Technique | 2 |
| HIST 1483 | United States to 1865 | 3 |
| HIST 1493 | United States, 1865 to the Present |  |
| DANC 4022 | Ballet Repertoire | 2 |
|  | Credit Hours | 15 |

## Senior

## First Semester

| DANC 3213 or DANC 4213 | Ballet Technique III or Ballet Technique IV | 3 |
| :---: | :---: | :---: |
| DANC 3292 | OU Ballet Company | 2 |
| DANC 4612 | Ballet Choreography | 2 |
| DANC 4721 | Senior Capstone Lecture | 1 |
| Natural Science without lab (Core II) |  | 3-4 |
| Beginning Language (Core I) |  | 0-5 |
| Advised Elective, lower- or upper-division ${ }^{2}$ |  | 5 |
|  | Credit Hours | -22 |

Second Semester

| DANC 4722 | Senior Capstone Project | 2 |
| :--- | :--- | :--- |
| DANC 3213 | Ballet Technique III | 3 |

or DANC 4213 or Ballet Technique IV
Social Science (Core III) 3

3-4000 level General Education approved Elective 3
Beginning Language Cont. (Core I) 0-5
Advised Elective, lower- or upper-division ${ }^{2}$ 0-3

| Credit Hours | $14-16$ |
| :--- | ---: |
| Total Credit Hours | $120-130$ |

${ }^{1}$ MATH 1473 is recommended
${ }^{2}$ Advised electives in the School of Dance should be adjusted to bring total applicable hours to 120.

## Modern Dance Performance, B.F.A.

Minimum Total Credit Hours: 120-130
Major Hours: 66-70
Minimum Upper-Division Hours: 40
Upper-Division Hours Within Major. 24

## Overall GPA - Combined and OU: 2.50

## Program Code: B268

## Major Requirements

A grade of $C$ or better is required in all courses taken within the School of Dance. Audition is required for admission to degree program.

| Code | Title | Credit |
| :--- | :--- | :--- |
|  | Hours |  |

Dance Requirements
Modern Technique: 24 hours (8 semesters)
Choose four semesters of the following:

DANC 2313 Intermediate Modern Technique or DANC 331 Modern Technique III

Choose four semesters of the following: 12
DANC 3313 Modern Technique III or DANC 431 Modern Technique IV

Ballet Technique: 8-12 hours (4 semesters)
Choose four semesters of the following:
DANC 2212 Ballet Technique II or DANC 221 Bhtermediate Ballet Technique
Company: 14 hours ( 7 semesters required)
DANC 3392 Contemporary Dance Oklahoma 2
or DANC 2392 Modern Company Apprentice
DANC 3392 Contemporary Dance Oklahoma 2
or DANC 2392 Modern Company Apprentice
DANC 3392 Contemporary Dance Oklahoma 2
or DANC 2392 Modern Company Apprentice
DANC 3392 Contemporary Dance Oklahoma 2
or DANC 2392 Modern Company Apprentice
DANC 3392 Contemporary Dance Oklahoma 2
DANC 3392 Contemporary Dance Oklahoma 2
DANC 3392 Contemporary Dance Oklahoma 2
Additional Courses: 20 hours
DANC $1911 \quad$ Rehearsal and Production 1
DANC 1913 Music for Dancers 3
DANC 2321 Dance Improvisation 1
DANC 2321 Dance Improvisation 1
DANC 2632 Elements of Dance Composition 2
DANC 2712 Body Science for Dancers 2
DANC 3632 Dance Composition 2
DANC 3632 Dance Composition 2
DANC 4832 Methods in Teaching Dance 2

| DANC 4851 | Practical Experience in Teaching Modern | 1 |
| :--- | :--- | :--- |
|  | Dance |  |
| DANC 4721 | Senior Capstone Lecture | 1 |
| DANC 4722 | Senior Capstone Project | 2 |

Advised Electives in the School of Dance bring total applicable hours to 120-130 ${ }^{1}$
${ }^{1}$ The number of hours required is dependent in part on choices made to satisfy science and language General Education components. Courses used to fulfill General Education and/or major requirements may not fulfill electives.

## Major Support Requirements

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Musical Theatre |  |  |
| Choose one of the following: | 2 |  |
| MTHR 2162 | Introduction to Urban Dance |  |
| MTHR 3442 | Jazz III |  |
| MTHR 4442 | Jazz IV | 4 |
| Drama |  |  |
| Choose one of the following: |  |  |
| DRAM 1114 | Costume Construction |  |
| DRAM 1124 | Stagecraft |  |
| DRAM 1134 | Stage Lighting and Sound |  |

## Total Credit Hours

## General Education and College Requirements

Courses designated as Core I, II, III, IV, or V are part of the General Education curriculum. Students must complete a minimum of 40 hours of General Education courses, chosen from the approved list, including at least one upper-division Gen. Ed. course outside of the student's major.

## Courses graded P/NP will not apply.

## UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS

Code Title Credit

| Core Area I: Symbolic and Oral Communication |  |  |
| :--- | :--- | :--- |
| English Composition |  |  |
| ENGL 1113 | Principles of English Composition | 3 |
| ENGL 1213 | Principles of English Composition | 3 |
| or EXPO 1213 | Expository Writing |  |

## Language

This requirement is not mandatory if the student successfully 0-10 completed 2 years of the same language in high school. -2 courses (Core I)

## Mathematics

Choose one course ${ }^{1} 3$

## Core Area II: Natural Science

Choose two courses from different disciplines; one must 7-8
include a laboratory

## Core Area III: Social Science

P SC 1113 American Federal Government 3
Choose one course 3

## Core Area IV: Arts and Humanities

## Artistic Forms

Choose 3 hours from the following:

| A HI 1113 | The Understanding of Art |
| :--- | :--- |
| DRAM 1713 | Understanding Theatre |

Western Culture

| HIST 1483 | United States to 1865 | 3 |
| :---: | :---: | :---: |
| or HIST 1493 | United States, 1865 to the Present |  |
| DANC 3743 | Dance History: Early Roots | 3 |
| or DANC 3753 | Dance History: Three Centuries of Development |  |
| World Culture |  |  |
| DANC 3813 | History of World Dance | 3 |
| Core Area V: First- | Year Experience |  |
| Choose one cours |  | 3 |
| General Education | Elective |  |
| Choose one Gene approved course | ral Education Elective: 3000-4000 level is recommended | 3 |
| Total Credit Hours |  |  |
| ${ }^{1}$ MATH 1473 is re | ecommended. |  |

## Suggested Semester Plan of Study

At least $\mathbf{2 4}$ hours of upper-division Dance credit must be earned in residence as a declared major.

This plan of study should not be used in lieu of academic advisement. Unless otherwise stated on the degree sheet, the College of Fine Arts does not permit coursework to fulfill more than one degree requirement.

## Freshman

| First Semester |  | Credit Hours |
| :---: | :---: | :---: |
| $\begin{aligned} & \text { DANC } 2212 \\ & \quad \text { or DANC } 2213 \end{aligned}$ | Ballet Technique II or Intermediate Ballet Technique | 2-3 |
| DANC 2321 | Dance Improvisation | 1 |
| $\begin{aligned} & \text { DANC } 2313 \\ & \text { or DANC } 3313 \end{aligned}$ | Intermediate Modern Technique or Modern Technique III | 3 |
| $\begin{aligned} & \text { DANC } 3392 \\ & \quad \text { or DANC } 2392 \end{aligned}$ | Contemporary Dance Oklahoma or Modern Company Apprentice | 2 |
| ENGL 1113 | Principles of English Composition (Core I) | 3 |
| Choose one of the | following: | 3 |
| DANC 1913 | Music for Dancers |  |
| First-Year Experience (Core V) |  |  |
|  | Credit Hours | 14-15 |

## Second Semester

DANC 2313 Intermediate Modern Technique 3
or DANC 3313 or Modern Technique III
DANC 2632 Elements of Dance Composition 2
DANC 3392 Contemporary Dance Oklahoma 2
or DANC 2392 or Modern Company Apprentice
ENGL 1213 Principles of English Composition (Core I) 3
or EXPO 1213 or Expository Writing
MATH (Core I)
Choose one of the following (not previously taken): 3
DANC 1913 Music for Dancers
First-Year Experience (Core V)
Credit Hours

## Sophomore

First Semester
DANC 2212 Ballet Technique II

| DANC 3392 or DANC 2392 | Contemporary Dance Oklahoma or Modern Company Apprentice | 2 |
| :---: | :---: | :---: |
| DANC 2313 or DANC 3313 | Intermediate Modern Technique or Modern Technique III | 3 |
| Choose one of the following: |  | 4 |
| DRAM 1114 | Costume Construction |  |
| DRAM 1124 | Stagecraft |  |
| DRAM 1134 | Stage Lighting and Sound |  |
| $\begin{aligned} & \text { HIST } 1483 \\ & \text { or HIST } 1493 \end{aligned}$ | United States to 1865 (Core IV) or United States, 1865 to the Present | 3 |
| Natural Science without lab (Core II) |  | 3-4 |
|  | Credit Hours | 17-19 |
| Second Semester |  |  |
| $\begin{aligned} & \text { DANC } 2212 \\ & \quad \text { or DANC } 2213 \end{aligned}$ | Ballet Technique II or Intermediate Ballet Technique | 2-3 |
| DANC 2321 | Dance Improvisation | 1 |
| DANC 2712 | Body Science for Dancers | 2 |
| $\begin{aligned} & \text { DANC } 2313 \\ & \quad \text { or DANC } 3313 \end{aligned}$ | Intermediate Modern Technique or Modern Technique III | 3 |
| DANC 3392 or DANC 2392 | Contemporary Dance Oklahoma or Modern Company Apprentice | 2 |
| P SC 1113 | American Federal Government (Core III) | 3 |
| MTHR 2162 or MTHR 3442 or MTHR 4442 | Introduction to Urban Dance <br> or Jazz III <br> or Jazz IV | 2 |


|  | Credit Hours | 15-16 |
| :---: | :---: | :---: |
| Junior |  |  |
| First Semester |  |  |
| DANC 3632 | Dance Composition | 2 |
| DANC 3313 or DANC 4313 | Modern Technique III or Modern Technique IV | 3 |
| DANC 3392 | Contemporary Dance Oklahoma | 2 |
| DANC 3743 or DANC 3753 | Dance History: Early Roots (Core IV, Western Culture) <br> or Dance History: Three Centuries of Development | 3 |
| DANC 4832 | Methods in Teaching Dance | 2 |
| Choose one of the following (Core IV, Artistic Forms): |  | 3 |
| A HI 1113 | The Understanding of Art |  |
| DRAM 1713 | Understanding Theatre |  |
|  | Credit Hours | 15 |
| Second Semester |  |  |
| DANC 2212 or DANC 2213 | Ballet Technique II or Intermediate Ballet Technique | 2-3 |
| DANC 3313 or DANC 4313 | Modern Technique III or Modern Technique IV | 3 |
| DANC 3392 | Contemporary Dance Oklahoma | 2 |
| DANC 3632 | Dance Composition | 2 |
| DANC 1911 | Rehearsal and Production | 1 |
| DANC 3813 | History of World Dance (Core IV-WDC) | 3 |
| DANC 4851 | Practical Experience in Teaching Modern Dance | 1 |
|  | Credit Hour | 14-15 |


| Senior |  |  |
| :---: | :---: | :---: |
| First Semester |  |  |
| DANC 3392 | Contemporary Dance Oklahoma | 2 |
| $\begin{aligned} & \text { DANC } 3313 \\ & \text { or DANC } 4313 \end{aligned}$ | Modern Technique III or Modern Technique IV | 3 |
| DANC 4721 | Senior Capstone Lecture | 1 |
| Natural Science with lab (Core II) |  |  |
| Beginning Language (Core I) |  | 0-5 |
| Advised Elective in the School of Dance ${ }^{2}$ |  | 3 |
| Credit Hours |  | 13-18 |
| Second Semester |  |  |
| DANC 3313 or DANC 4313 | Modern Technique III or Modern Technique IV | 3 |
| DANC 4722 | Senior Capstone Project | 2 |
| Social Science (Core III) |  | 3 |
| Advised Elective, lower- or upper-division ${ }^{2}$ |  | 0-5 |
| Beginning Language Cont. (Core I) |  | 0-5 |
| 3-4000 level General Education approved Elective |  | 3 |
|  | Credit Hours | 16 |
| Total Credit Hours |  | 120-130 |
| ${ }^{1}$ MATH 1473 is <br> 2 Advised electiv total applicable | ecommended. <br> es in the School of Dance should hours to 120 . | o bring |

## Dance History, Minor

Minimum Total Credit Hours: 19
Minimum Upper-Division Hours: 9
Curriculum GPA - Combined and OU: 2.50

## Program Code: N269

The requirements for a minor must be completed concurrently with the major degree requirements.

No minor may be added by completing courses after receiving the bachelor's degree.

No single course may be used by a student to satisfy a major requirement and a minor requirement.

Students must earn a minimum grade of C in each course.
A minimum of 9 hours must be upper division dance history courses.
Of the required coursework, at least 12 of the 19 credit hours must be completed in residency at the University of Oklahoma.

No courses counted toward the minor may be taken Pass/ No Pass.
The Minor in Dance History is available to all undergraduate students at OU except those majoring in dance.

- Students must achieve a minimum 2.50 GPA (OU and overall) in the minor coursework.


## Required Courses

Students must successfully complete at least 19 hours of coursework in dance history and ballet or modern dance technique, including 9 hours of upper division Dance History courses, and at least 2 semesters of courses in Ballet and/or Modern Dance technique. The following specific requirements must be met:

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| DANC 1713 | Understanding Dance | 3 |
| DANC 1813 | Introduction to Non-Western Dance Forms | 3 |
| DANC 3743 | Dance History: Early Roots |  |
| DANC 3753 | Dance History: Three Centuries of <br> Development | 3 |
| DANC 3813 | History of World Dance | 3 |
| Choose a minimum of two semesters from the following |  |  |
| technique classes: | 3 |  |
| DANC 1212 | Ballet Technique I | $4-6$ |
| DANC 1312 | Modern Technique I |  |
| DANC 2212 | Ballet Technique II (with instructor's <br> permission) |  |
| DANC 2312 | Modern Technique II (with instructor's <br> permission) |  |
| DANC 2313 | Intermediate Modern Technique (with <br> Instructors Permission) |  |
| DANC 3213 | Ballet Technique III (with Instructors <br> Permission) |  |
| DANC 3313 2512 | Modern Technique III (with Instructors <br> Permission) | Ballroom Dancing I |

Total Credit Hours
If the minor is officially declared and approved, successfully completed, and noted on the graduation application, the student's transcript will so indicate at the time the bachelor's degree is posted.

## Dance, M.F.A. in Dance

Minimum Total Hours (Thesis): 58
Program Code: M265

## This program has changes pending Regents approval for 2024-25. These pending changes are not reflected here. <br> Thesis option

| Code Title | Credit <br> Hours |
| :--- | ---: |
| Required Courses |  |
| Introductory Course <br> DANC 5023 Introduction to Graduate Study in Dance |  |
| Dance Technique According to Major <br> Choose 12 hours in one of the following: <br> DANC 5224 Graduate Ballet Technique <br> or DANC 532Graduate Modern Dance Technique | 12 |



## General Requirements for all Master's Degrees

The master's degree requires the equivalent of at least two semesters of satisfactory graduate work and additional work as may be prescribed for the degree.

All coursework applied to the master's degree must carry graduate credit.
Master's degree programs which require a thesis consist of at least 30 credit hours. All non-thesis master's degree programs require at least 30 credit hours.

Credit transferred from other institutions must meet specific criteria and is subject to certain limitations.

Courses completed through correspondence study may not be applied to the master's degree.

To qualify for a graduate degree, students must achieve an overall grade point average of 3.0 or higher in the degree program coursework and in all resident graduate coursework attempted. A student must also have at least a 3.0 in all coursework (including undergraduate coursework if any).

Additional information for master's degree students may be found in the Graduate College Bulletin.

## Peggy Dow Helmerich School of Drama

Yuanting Zhao, Director
121 Beatrice Carr Wallace Old Science Hall
640 Parrington Oval
Norman, OK 73019-3091
(405) 325-4021
drama_recruitment@ou.edu
drama.ou.edu

## General Information

The Peggy Dow Helmerich School of Drama strives to prepare students for professional careers in theatre and the greater entertainment industry. As a vital artistic training unit within a major university, the school believes the student's experience should include all aspects of theatre production along with a strong academic component of theatre history and general education. The school seeks to train and educate theatrical artists, craftspeople, and educators of the future.

Our 11:1 student/faculty ratio in the School of Drama assures the student extensive individual attention and guidance during each step of the program. Visiting artists supplement our resident faculty and staff in providing a wide range of experience for students as part of their growth and training as artists.

The Peggy Dow Helmerich School of Drama is committed to creating an inclusive experience for all our students, faculty, and staff. We believe in the unique qualities of each member of our community. We believe that the greatest art comes from a mix of minds, backgrounds, and experiences.

## Mission Statement

The mission of the University of Oklahoma Peggy Dow Helmerich School of Drama is to educate theatre artists, scholars and teachers, preparing them to enter their professions with a knowledge of evolving industry standards; to perpetuate theatrical art by encouraging and nurturing the development of new artistic endeavors; and to provide a variety of theatrical productions and programs of excellence to Oklahoma audiences.

## Student Organizations

- LatinArte
- Student Theatre Council
- Black Creative Circle


## Programs for Excellence

OU's Helmerich School of Drama is the second oldest dramatic training institution in the nation, and has a long, distinctive history and a reputation for excellence. This performance-based degree is supported by diverse production options performed in our five spaces. An average of two plays, two musicals, three dance productions, and two operas comprise the University Theatre season (nine-month academic year). In the Gilson Lab Theatre and the Studio Theatre in Beatrice Carr Wallace Old Science Hall, another four to six plays are mounted, including student directed productions. Throughout the year, students hone their skills in a professional and challenging production season.

The Helmerich School of Drama has been the birthplace of several world and regional premieres. The school's commitment to new works adds to the exciting atmosphere that permeates the student's academic career.
Students are encouraged to attend a number of professional auditions each year and our local patrons group, the Theatre Guild, provides significant travel grants to assist in this endeavor. The School of Drama is active in the Kennedy Center American College Theatre Festival and the United States Institute for Theatre Technology.

Performance majors must audition each semester for upcoming productions. Auditions are held twice a year, in August for the fall semester, and November for the spring semester. Additional auditions are held as needed for added productions which may include children's theatre shows, directing scenes, student productions and film projects.

Design and stage management assignments are made at the beginning of each semester. In addition, students have opportunities to work as dramaturgs, associate stage managers, audience development assistants, and artisans \& technicians in scenery, costume, lighting, properties, and sound.

## Special Facilities and Programs

The Helmerich School of Drama administrative offices are located at 121 Wallace Old Science Hall on the North Oval. The University Theatre building-the Rupel J. Jones Fine Arts Center-is at 563 Elm on the northwest corner of the Norman campus. Completed in 1965, the Fine Arts Center contains faculty offices, classrooms, dance studios, construction studios, and storage spaces for scenery, costumes, lights, and properties, the Draheim computer-aided design lab, the 600-seat Elsie C. Brackett Theatre, and the more intimate, flexible 250-seat Weitzenhoffer Theatre. The close proximity to the other Schools in the College gives students easy access to the Fred Jones Jr. Museum of Art, the Fine Arts Library, and the Reynolds Performing Arts Center. In addition to the facilities in the Fine Arts Center, Wallace Old Science Hall houses the 75-seat Gilson Lab Theatre, the 65-seat Studio Theatre, faculty and administrative offices, a design lab, light lab, and the Garner Drama Library.

The season auditions are open to all students in the University. Classes in many aspects of theatre are offered to non-majors for elective credit, and we offer a Theatre Minor.

## Scholarship Information

A number of scholarships and awards are available to qualified students. Students should go to scholarships.ou.edu to apply for scholarships. Financial Aid is also available through OU Financial Aid Services. The following drama scholarships are available to qualified students:

- Ben Barnett Scholarships
- Theatre Guild Scholarships
- Resident Tuition Waiver Scholarships
- Non-Resident Tuition Waiver Scholarships
- E. Frank Gilson Professional Development Grant
- Steven Draheim Memorial Lighting Design Scholarship
- E. Frank Gilson Scholarship
- James \& Mary Carmichael Scholarship
- Rance \& Jean Howard Scholarship
- Lindsay Stewart Stage Management Scholarship
- Amy Elizabeth Boe Character Acting Scholarship
- Peggy Dow Helmerich Drama Scholarships

At the close of each academic year, the School of Drama recognizes individual achievement in an awards ceremony. Many of the awards carry cash prizes. These awards are:

- The Van Heflin Award
- The A. Max Weitzenhoffer Design \& Production Award
- Theatre Guild Applause Awards
- Michael Buchwald Award for Costume Construction
- Coopie Mason Artisan Award
- Steven A. Draheim Lighting Design Award
- Rupel J. Jones Directing Award
- Ida Z. Kirk Excellence in Acting Awards
- Charles C. Suggs Stage Management Award
- A. L. Mortensen Award for Technical Excellence
- Helen F. Lauterer Costume Design Award
- Sound Design Award
- Raymond D. Larson Scene Design Award
- Oscar G. Brockett Dramaturgy Award
- Amy Elizabeth Boe Character Acting Awards


## Undergraduate Study

## Bachelor of Fine Arts

The Helmerich School of Drama offers the Bachelor of Fine Arts degree. The degree is designed to provide the student with a solid foundation in each basic area of the theatre, with an opportunity to begin specialization in the sophomore year. The concentrations are in the following areas:

- Acting (p. 1463)
- Costume Design (p. 1465)
- Dramaturgy (p. 1468)
- Lighting Design (p. 1471)
- Scenic Design (p. 1473)
- Sound Design (p. 1475)
- Stage Management (p. 1478)

Coursework at the undergraduate level includes acting, directing, voice and speech, stage movement and combat, graphics and illustration, stagecraft, costume construction and design, lighting fundamentals and design, scene design, sound techniques and design, theatre history, costume history, dramaturgy, dramatic literature, and theatre and stage management. Students are also encouraged to take advantage of coursework offered by the School of Dance and the A. Max Weitzenhoffer School of Musical Theatre.

## Theatre Minor

The School offers a Minor in Theatre (p. 1480) that is open to all undergraduates in the university. For additional information, please contact the Weitzenhoffer Family College of Fine Arts Dean's office.

## Admission

The Helmerich School of Drama follows the basic admission requirements of the University of Oklahoma and the Weitzenhoffer Family College of Fine Arts. Please refer to those sections in this catalog for specific details. In addition, admission to the OU School of Drama is by audition and/or interview only and requires an on-campus audition (for acting emphasis) or portfolio review (for all design emphases), and/or interview (for dramaturgy or stage management emphasis). Students must be officially accepted into the School of Drama by audition and/or interview before being allowed to enroll for classes.

## Degree Requirements

Students are advised each semester concerning enrollments, admission, advancement toward degree, and career options.

Students considering a major in drama should visit http://drama.ou.edu or contact the School of Drama Office, Wallace Old Science Hall, Suite 121, for curriculum plans outlining the above program and information covering auditions, admission policies and guidelines, awards and scholarships, and additional regulations, policies and practices.

## Graduate Study <br> Prerequisites for Full Graduate Standing

In addition to meeting the general requirements of the Graduate College, the student should have completed the following undergraduate coursework or its professional equivalent: six hours in acting, six hours in directing, three hours in stagecraft, three hours in costume construction, three hours in costume history, three hours each in scene, costume and lighting design, three hours in dramatic structure and analysis, and six hours in theatre history.

Students with deficiencies in any of these areas may be required to take coursework judged necessary to correct the deficiencies, without receiving graduate credit for the coursework. Once full graduate standing is achieved, the student must maintain a 3.00 grade point average and make satisfactory progress toward the degree to maintain full graduate standing.

## Master of Arts

The Master of Arts (p. 1480) is a scholarly degree with emphasis on theatre history, dramatic literature and criticism, and dramaturgy. The program is structured with the student's particular needs and interests in mind. Contact the School of Drama Office for further details: https:// www.ou.edu/finearts/drama/grad

## Courses

DRAM 1114 Costume Construction
4 Credit Hours
The theory and practice of the construction, finishing and handling of stage costumes. Includes practical production applications. Laboratory (F, Sp, Su)

## DRAM 1124 Stagecraft

4 Credit Hours
Stagecraft. The Theory And Practice Of The Construction, Painting And Handling Of Scenery And Props. Includes Practical Production Applications. Laboratory (F, Sp, Su)
DRAM 1133 Drawing and Rendering
3 Credit Hours
Exploring methods of using freehand drawing to communicate design ideas. Skill building course: form, shape, color, texture, light. Includes some mechanical drawing. (F, Sp)

## DRAM 1134 Stage Lighting and Sound <br> 4 Credit Hours

Prerequisite: Majors only. This course acquaints students with the technical procedures and equipment involved in effective lighting and sound systems for theatrical productions. Emphasis includes safe handling of equipment, understanding basics of electricity and audio, and a hands-on process of working with lighting and sound equipment. Laboratory requirement reinforces concepts taught in class. (F, Sp)
DRAM 1141 Stage Management Seminar I 1 Credit Hour
A weekly forum for sharing insights and solving problems on current production assignments, as well as examining the bigger picture of stage management and theatre in America today. ( $\mathrm{F}, \mathrm{Sp}$ )

DRAM 1411 Makeup
1 Credit Hour
To direct and provide experience in the effective application of makeup materials in creating an impression of character. (F,Sp)

## DRAM 1503 Acting for Non-Majors

3 Credit Hours
To develop a beginning understanding and appreciation of the art and skill of acting through the study of acting principles, dramatic scenes, and basic stage techniques. (F, Sp, Su)

## DRAM 1513 Introduction to Acting

3 Credit Hours
To acquaint the beginning student with the fundamentals of acting and to explore the basic elements of the actor's art. Explores the physical, vocal, emotional and technical aspects of acting in a format that encourages freedom of imagination and personal growth. (F)

DRAM 1523 Character Study for the Actor 3 Credit Hours
Prerequisite: 1513. To develop and exercise basic acting skills through practical application of the fundamental elements of the actor's art. The student will become familiar with the actor's tools and learn how to utilize them on a rudimentary level. Emphasis will be placed upon characterization and beginning script analysis required for character study. (Irreg.)

DRAM 1603 Voice And Diction for Non-Majors 3 Credit Hours
Improves the student's voice, articulation, pronunciation and expressive intonation for effective communication. (Irreg.)

DRAM 1612 Introduction to Voice and Movement 2 Credit Hours
Prerequisite: School of Drama freshmen performance majors. Skill-based course introduces the student to the foundations of voice and movement for the actor. (F)

DRAM 1643 Voice and Speech I 3 Credit Hours
Prerequisite: 1523. Improves the student's voice, articulation,
pronunciation and expressive intonation for effective communication, and performing for the stage. (F)

DRAM 1713 Understanding Theatre
3 Credit Hours
Prerequisite: Non-theatre majors only. A course in theatre appreciation covering the nature and creation of theatre, with opportunity for the students to attend theatrical productions. (F, Sp, Su) [IV-AF] .

DRAM 1731 Dramaturgy Studio 1
1 Credit Hour
Prerequisite: Majors only or permission of instructor. A weekly forum to discuss and explore the role of the dramaturg in production in the Helmerich School of Drama as well as industry practices in the United States. (F, Sp)

## DRAM 1811 Music Notation and Score Reading for Stage Managers

 and Designers1 Credit Hour
Prerequisite: Majors only. Introduces music notation and score reading to stage management and design students who may work on musical theatre, ballet and/or opera in their academic and professional careers. (F)

DRAM 1911 Rehearsal and Production 1 Credit Hour
Prerequisite: open to drama majors only. May be repeated; maximum credit four hours. Study, practice and participation in every phase of dramatic production work and management; attendance and critical discussion of plays. Kinds of service are given unit evaluations in terms of relative difficulty and time consumption. Laboratory (F, Sp, Su)

## DRAM 2013 Introduction to Theatrical Design and

 Production
## 3 Credit Hours

Prerequisite: Majors only. Explores the processes of theatrical design in the forms of scenery, lighting, sound and costume design as well as stage management and technical direction. Also focuses on the creation of a holistic design approach uniting script analysis, research, visual imagery and storytelling into one single artistic form of communication. (F, Sp)

DRAM 2052 Traditional Media 2 Credit Hours
Prerequisite: DRAM 1133; majors only. Exploration and building of illustrative skills with the traditional art mediums used by theatrical designers. (Sp)

DRAM 2053 Computer Aided Design I for the Theatre 3 Credit Hours Prerequisite: DRAM 2153 or DRAM 3353. The course will teach students to develop basic design and rendering skills using computer-aided design software currently used in the entertainment industry. (Sp)

DRAM 2062 Digital Media 2 Credit Hours
Prerequisite: DRAM 1133; majors only. A course in basic visual design principles, concepts, and techniques of computer-aided design and rendering for the theatre. (F)

DRAM 2141 Stage Management Seminar II 1 Credit Hour Prerequisite: 1141 or permission of instructor. A weekly forum for sharing insights and solving problems on current production assignment, as well as examining the bigger picture of stage management and theatre in America today. (F, Sp)

DRAM 2153 Scene Design
3 Credit Hours
Prerequisite: 1124 and 1133. Acquaints the student with the practical and aesthetic principles involved, and provides experience in designing scenery. (F)

DRAM 2223 Lighting Design 3 Credit Hours
Prerequisite: DRAM 1134, majors only. Acquaints the student with advanced design, presentation, visual awareness and "styles" in lighting design. Includes practical production applications. (F)

DRAM 2233 Introduction to Technical Production 3 Credit Hours Prerequisite: 1114, 1124, and major in drama. Survey of technical production skills in scene technology and costume technology including communications. Shop management and safety. (F)

DRAM 2243 Draping And Pattern Drafting I 3 Credit Hours Prerequisite: permission of instructor, and sophomore standing. Topics and experiences related to draping skills and pattern drafting for the theatre. Demonstrations and hands-on experience using techniques discussed. Laboratory (F)

DRAM 2253 Draping and Pattern Drafting II 3 Credit Hours
Prerequisite: 2243. Continuation of 2243. Topics and experiences related to draping skills and pattern drafting for the theatre. Demonstrations and hands-on experience using techniques discussed. Laboratory (Sp)

DRAM 2323 Stage Movement
3 Credit Hours
Prerequisite: 1523. To give the drama student an understanding of the use of the body as an expressive instrument through development of flexibility, strength and coordination. (F)
DRAM 2333 Advanced Stage Movement
3 Credit Hours
Prerequisite: 2323 and sophomore standing. Focuses on physicality as a fundamental element of the actor's craft through manipulation of movement to explore emotional truth, create a character or convey the reality of a particular theatrical world to an audience. (Sp)

DRAM 2343 History of Costume
3 Credit Hours
Prerequisite: permission. Acquaints the student with the costumes worn by people of dramatically significant periods and countries. (Sp)

DRAM 2413 Sound Techniques 3 Credit Hours
Prerequisite: Majors only. A course in the fundamentals of theatrical sound and sound technology. (F)

DRAM 2423 Drafting for the Theatre
3 Credit Hours Prerequisite: DRAM 1133; majors only. Increases the student's skill in the technical craft of drafting as a major communication device of scenery and lighting designers. Course will use international drafting conventions and U.S.I.T.T. standards. (Irreg.)

DRAM 2451 Lighting Seminar I
1 Credit Hour
Prerequisite: May be repeated; maximum 2 credit hours; Majors only, sophomore standing or permission. This course will provide opportunity for students to work on their design or production electrician duties in a mentoring environment. Class will also discuss contemporary trends and issues in the theatrical lighting design industry. ( $F, S p$ )

DRAM 2503 On-Camera Acting for Non-Majors 3 Credit Hours Instructs the student on requirements, discipline and basic techniques of performing on camera, with an appreciation of the full process of creating a film or television production. Non-majors course. (F)
DRAM 2513 Scene Study for the Actor 3 Credit Hours Prerequisite: DRAM 1523; Corequisite: DRAM 1643; majors only. Designed to develop the actor's skill through the intensive study and performance of scenes from modern realistic world theatre. Emphasis will be placed upon building a character, milieu study, and scene structure. (F)

## DRAM 2523 Performing Shakespeare

3 Credit Hours
Prerequisite: 2513 and permission. Designed to develop the actor's skill through the intensive study and performance of scenes and monologues from Shakespeare and other verse drama. Emphasis will be placed upon handling language with believable and appropriate characterization. (Sp)
DRAM 2643 Voice and Speech II 3 Credit Hours
Prerequisite: 1643; corequisite: 2523. Develops the actor's vocal instrument as an integrated and organic function of self and character. Focus on the expressive voice with verse texts. (Sp)

DRAM 2713 Introduction to Fine Arts
3 Credit Hours
Lectures, illustrated with slides, motion pictures, recordings and readings, surveying the development of the fine arts (architecture, drama, the visual arts and music) from prehistoric times to the present. Background material will include the religious, political and economic conditions and changes affecting the arts. (F) [IV-AF].
DRAM 2731 Dramaturgy Studio 2
1 Credit Hour
Prerequisite: DRAM 1731, Majors only or permission of instructor. A weekly forum to discuss and explore the role of the dramaturg in production in the Helmerich School of Drama as well as industry practices in the United States. (F, Sp)

## DRAM 2733 Introduction to Dramaturgy

3 Credit Hours
Prerequisite: DRAM 1513 and ENGL 1213/EXPO 1213; majors only; sophomore standing. Introduces students to basic techniques of dramaturgy: research, text analysis, and collaboration for theatrical production. (F, Sp)

## DRAM 2813 Stage Management

3 Credit Hours
Prerequisite: sophomore standing. Designed to give theatre students the background and skills to function as a stage manager for theatre, dance, or musical productions. An introductory course covering the basics of the stage manager's process from pre-production through closing as well as discussing professional topics such as theatrical unions, production management, and job opportunities. (F)

## DRAM 2821 Design Drafting for Stage Managers 1 Credit Hour

Prerequisite: Majors only. Acquaints the stage management student to principles related to theatrical drafting, including terminology, fundamentals, and graphic standards. (F)

DRAM 2970 Special Topics 1-3 Credit Hours
Special Topics. 1 to 3 hours. May be repeated; Maximum credit nine hours. Special topics course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research, and field projects. (Irreg.)

DRAM 3043 Computer Aided Design I for the Theatre 3 Credit Hours
Prerequisite: Majors only and DRAM 2062. The course will teach students to develop design and rendering skills using computer-aided design software currently used in the entertainment industry. (Sp)
DRAM 3052 Illustration I: Dry Media 2 Credit Hours
Prerequisite: 1133 and sophomore standing. Studio class intended to facilitate illustration depicting theatre scenery and costume design through the use of colored pencil and pastel media. Focus on the human form clothed for theatre performance and on scenic rendering and/or vignettes. Exercises will stress the effect of light on the objects and the creation of fullness/plasticity. (F)
DRAM 3053 Computer Aided Design II for the Theatre 3 Credit Hours Prerequisite: Majors only and DRAM 3043. Covers the creation and manipulation of 3D objects, and developing those objects as design tools for presentation and visualization of a theatre design. Students will develop skills utilizing 3D visualization software currently used in the entertainment industry. (F)
DRAM 3063 Projection Design
3 Credit Hours
Prerequisite: Course is not open to freshman; majors only; DRAM 2153, DRAM 2223, and DRAM 3043. This course explores the art and technique of projection design as it relates to theatrical performance and entertainment use. (Sp)

DRAM 3141 Stage Management Seminar III
1 Credit Hour
Prerequisite: 1141, 2141 or permission of instructor. A weekly forum for sharing insights and solving problems on current production assignments, as well as examining the bigger picture of stage management and theatre in America. (F,Sp)
DRAM 3223 Costume Construction Techniques 3 Credit Hours Prerequisite: DRAM 2243, junior standing, majors only. Advanced work in the mechanics and technology of costume builder's draft including practical work in the costume shop. (F)
DRAM 3323 Stage Movement: Theatrical Intimacy 3 Credit Hours Prerequisite: DRAM 2323, junior standing, and departmental permission. Introduces students to the basic principles of acting and staging moments of theatrical intimacy. Course focuses on safety, documentation, and storytelling through theatrical intimacy standards. (Irreg.)
DRAM 3353 Costume Design
3 Credit Hours
Prerequisite: 1114. Acquaints students with elementary costume design and construction, historical styles, character evaluation and design sources. (F)

DRAM 3413 Sound Design
3 Credit Hours
Prerequisite: junior standing and permission of instructor. Provides theatre students with the basic skills and concepts for designing sound as support for a theatrical production. This is a design course providing the necessary skills in script analysis, research, style, sound resources, and sound scoring. (Irreg.)
DRAM 3433 Advanced Materials for Stage Scenery and

## Properties

## 3 Credit Hours

Prerequisite: 2233 junior standing and permission of instructor.
Application of metals, plastics and non-traditional materials in scenic and properties construction. Emphasis on safety and efficacy. (Sp)

DRAM 3440 Mentored Research Experience
3 Credit Hours
0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)

DRAM 3443 Digital Audio Techniques
3 Credit Hours
Prerequisite: Majors only; DRAM 2413 and DRAM 3413. This course will provide sound design students with an extended understanding of digital audio. Emphasis is placed on editing and manipulating digital audio, understanding digital audio workstations, and adapting digital audio techniques to digital mixers and other digital audio equipment. (F)
DRAM 3451 Lighting Seminar II 1 Credit Hour
Prerequisite: May be repeated; Maximum 2 credit hours; DRAM 2223,
DRAM 2451, majors only, and junior standing or permission of instructor. This course builds on skills learned in DRAM 2223 and DRAM 2451 through practical application as a Lighting Designer or Production Electrician. Students will continue to develop skills used in the industry, and class will include focused discussions about contemporary trends and issues in theatrical lighting design and production. (F, Sp)
DRAM 3513 Performing Departures from Realism 3 Credit Hours Prerequisite: 2523 and juried audition. Acquaints students with performance theory and practice for non-realistic plays and forms, exploring the material through exercises, improvisations and performances of scripted scenes. (F)

DRAM 3523 Performing New Plays 3 Credit Hours
Prerequisite: 2523 and juried audition. Provides practical experiences for the actor in working with playwrights on new, unpublished plays through performances in scenes, staged readings and through text readings in American acting traditions. (Irreg.)
DRAM 3533 Advanced Shakespeare Performance 3 Credit Hours Prerequisites: majors only; junior status; DRAM 2523 and DRAM 2643. Students must have passed their sophomore jury prior to enrolling in this course. Designed to help the student further their skills in rehearsing and performing Shakespeare and other classical texts. Provides advanced training in verse scansion and form, and increases students' knowledge of lesser-known Shakespearean and other Elizabethan texts. (Sp)

## DRAM 3543 Audition Techniques

3 Credit Hours
Prerequisite: Majors only, junior standing, DRAM 2523, and juried audition. This course is designed to help advanced undergraduate actors learn, hone, and drill audition techniques for theatrical, film/TV, and commercial auditions at the professional level. (F)
DRAM 3613 Directing I 3 Credit Hours Prerequisite: DRAM 2733; majors only. Consists of lectures, demonstrations and exercises performed by members of the class. Includes, but is not limited to: stage management, dramatic and theatrical values of a play, play analysis and various techniques of directing. Laboratory (F)

DRAM 3623 Directing II
3 Credit Hours
Prerequisite: 3613. An intensive study for majors only of the craft and techniques involved in the directing of plays. Special emphasis is placed on script analysis; communication with actors; and practical laboratory work in employing these methods. Scenes from major dramatic works are rehearsed and prepared in class with extensive critique and "in-shop training." Laboratory (Irreg.)

DRAM 3643 Voice And Speech III
3 Credit Hours
Prerequisite: 2643, junior standing. Develops the actor's vocal instrument as an integrated function of self and character. Work on dialects. (F)
DRAM 3713 History of the Theatre I 3 Credit Hours
Prerequisite: junior standing and permission. Acquaints the student with the development of drama, theatre and production procedures through the ages from 500 B.C. to 1780. (F) [IV-WC].

## DRAM 3723 History of the Theatre II

3 Credit Hours
Prerequisite: junior standing and permission. Continuation of 3713. Acquaints the student with the development of drama, theatre and production procedures through the ages from 1700 to the present. (Sp) [IV-WC].
DRAM 3731 Dramaturgy Studio 3
1 Credit Hour
Prerequisite: DRAM 2731, DRAM 2733 or permission of instructor. A weekly forum to discuss and explore the role of the dramaturg in the Helmerich School of Drama as well as industry practices in the United States. (F, Sp)
DRAM 3753 Dramatic Structures: Story, Genre, Culture, Theory

3 Credit Hours
Prerequisite: Majors only and DRAM 2733. What shapes do stories take in theater? This course surveys select dramaturgical structures and theories of dramatic composition across performance histories and cultures. In particular, the course focuses on the relationship between dramatic shapes and how these forms continue to exert their influence today. (Irreg.)

DRAM 3781 Topics in Dramatic Literature
1 Credit Hour
Prerequisite: DRAM 2733 and ENGL 1213 or EXPO 1213; Majors only. May be repeated; maximum credit 4 hours. Specialized study in selected topics in dramatic literature. (Irreg.)
DRAM 3822 Stage Management Studio I
2 Credit Hours
Prerequisite: 2813 and junior standing. May be repeated; maximum credit four hours. Practical experience in stage management on university theatre productions. Laboratory ( $\mathrm{F}, \mathrm{Sp}$ )
DRAM 3833 Advanced Stage Management 3 Credit Hours
Prerequisite: 2813 and major in Drama. Advanced studies of stage management. Topics covered include leadership, team-building, organization, communication, interpersonal relations, problem solving and creating a positive work environment. (Sp)
DRAM 3910 Advanced Rehearsal and Production 1-2 Credit Hours 1 to 2 hours. Prerequisite: DRAM 1114, DRAM 1124, and DRAM 1134; majors only. May be repeated; maximum credit four hours. Study and practice in an administrative or supervisory capacity of every phase of dramatic production work and management; attendance and critical discussion of plays. Kinds of service are given unit evaluation in terms of relative difficulty and time consumption. Laboratory (Irreg.)
DRAM 3960 Honors Reading 1-3 Credit Hours
1 to 3 hours. Prerequisite: Admission to honors program. May be repeated with change of subject; maximum credit six hours. Consists of either reading topics or independent study designated by the instructor in keeping with the student's major program. Covers materials not usually presented in the regular courses. (F, Sp, Su)

DRAM 3970 Honors Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Subjects covered vary. Deals with concepts not usually treated in regular courses. (Irreg.)

DRAM 3980 Honors Research
1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated with change of subject; maximum credit six hours. Provides an opportunity for the gifted Honors candidate to work at a special project in the student's field. (F, Sp, Su)
DRAM 3990 Independent Study 1-3 Credit Hours
1 to 3 hours. Prerequisite: permission of instructor and junior standing. May be repeated once with change of content. Independent study may be arranged to study a subject not available through regular course offerings. (F, Sp, Su)
DRAM 4023 Model Building 3 Credit Hours
Prerequisite: DRAM 1133; majors only. Acquaints students with the process of building the scenographic model as it relates to the design process. Lecture and Laboratory (Sp)
DRAM 4073 Developing the Professional Perspective 3 Credit Hours Prerequisite: senior standing. Meant to give the artist the life tools to participate and thrive in an artistic lifestyle. (F)

## DRAM G4113 Scene Painting <br> 3 Credit Hours

Prerequisite: 1114, 1124, 1133. The study and practice of traditional and new scene painting materials and techniques. Individual scene painting problems in the uses of dry pigments, casein, aniline dyes and texture materials. Laboratory (Sp)
DRAM 4141 Stage Management Seminar IV 1 Credit Hour Prerequisite: 1141, 2141, 3141 or permission of instructor. A weekly forum for sharing problems on current production assignments, as well as examining the bigger picture of stage management and theatre in America today. (F, Sp)
DRAM 4153 Advanced Scene Design 3 Credit Hours
Prerequisite: DRAM 3053; majors only. An advanced study in scenic design for a variety of theatrical forms, including multiple scene, unit and single settings for dance, drama, musical theatre and opera. (Irreg.)
DRAM 4163 Lighting Design II 3 Credit Hours
Prerequisite: DRAM 2223, majors only, and sophomore standing or permission. This course explores specific design techniques and styles in lighting for drama and dance. Students will investigate the differences of each genre as well as become familiar with contemporary and traditional styles found in both. (Sp)

## DRAM 4173 Concert Lighting

3 Credit Hours
Prerequisite: Majors only; DRAM 2223 and DRAM 3053. This course explores the foundations of musical concert lighting, exploring the history of the art and the techniques used to create it. Students will develop skills in adapting techniques of modern lighting design to musical concert performance. (Sp)

## DRAM 4213 Lighting Design III

3 Credit Hours
Prerequisite: DRAM 4163, majors only, and junior standing or permission. This course explores specific design techniques and styles in lighting for opera and musical theatre. Students will investigate the differences of each genre as well as become familiar with contemporary and traditional styles found in both. (F)
DRAM 4233 Costume Crafts for Theatre
3 Credit Hours
Prerequisite: DRAM 2243, DRAM 2253; junior standing; majors only. Study of and work with special techniques that employ dying and painting of fabrics and other materials used in costume construction; millinery (construction of headgear). Wig-making and the construction of threedimensional costume elements such as padding to alter the actor's physical appearance. (Sp)

DRAM G4243 Costume Shop Management
3 Credit Hours
Prerequisite: 2233, senior standing and permission of instructor. Instruction and experience in shop management including budgeting of resources, time management, personnel, and organization. (Sp)
DRAM G4253 History of Decor
3 Credit Hours
Prerequisite: majors only, junior standing and permission of instructor. Survey of interior and exterior decoration with particular emphasis on theatrical application. (F)

## DRAM 4263 Properties and Set Dressing for Theatre, T.V. and Film <br> 3 Credit Hours

Prerequisite: DRAM 2233, junior standing. The course will provide a foundation of the skills associated with the role of the Properties Master for Theatre, T.V. and Film. Students will explore topics on materials, fabrication, period styles, project management, and shop supervision. (Sp)
DRAM 4272 Lighting Production
2 Credit Hours
Prerequisite: DRAM 1134, and DRAM 2223; majors only. The investigation of various lighting crafts including special effects, three-phase power, and lighting console programming. An in-depth study of the role of the master electrician's duties as they are understood in the industry including: power distribution, hang, load-in, and focus sessions. (Irreg.)
DRAM G4323 Stage Combat I: Unarmed Stage Combat 3 Credit Hours Prerequisite: 2323 and senior standing. Introduces students to the basic principles of unarmed stage combat. Course focuses on safety, emotional commitment and developing proficiency in techniques required for certification by society of American fight directors. (Sp)
DRAM G4333 Stage Combat: Edged Weaponry 3 Credit Hours
Prerequisite: 2323 and senior standing. Introduces students to the basic principles of armed stage combat using edged weaponry. Course focuses on safety, emotional commitment and developing proficiency in techniques required for certification by society of American fight directors. (Sp.)

DRAM G4353 Costume Design II
3 Credit Hours
Prerequisite: DRAM 2343, DRAM 3353; majors only. Promotes an understanding of style as a design consideration and encourages an awareness of the relationships between theatrical styles and historical styles. (Irreg.)
DRAM 4363 Costume Design III
3 Credit Hours
Prerequisite: DRAM 2343, DRAM 3353, DRAM 4353; majors only. To further develop costume design students presentation and illustration skills. Also, allows the student to explore every facet of the design process. (Irreg.)
DRAM 4413 Advanced Sound Design
3 Credit Hours
Prerequisite: DRAM 3413. The course builds upon the skills developed in DRAM 3413 to hone critical design practices in the art of Sound Design for the theatre. (F)
DRAM 4423 Sound Scoring
3 Credit Hours
Prerequisite: DRAM 1811 and DRAM 3413; majors only. Develops music research and compositional skills necessary to provide music sufficient to support the artistic goals of a theatrical production. (Sp)
DRAM 4451 Lighting Seminar III
1 Credit Hour
Prerequisite: May be repeated; maximum 2 credit hours; DRAM 3451, majors only, senior standing or permission. This course builds on skills learned in DRAM 3451 through practical application as a Lighting Designer or Production Electrician. Students will further develop skills used in the industry, and class will include focused discussions about contemporary trends and issues in theatrical lighting design and production ( $\mathrm{F}, \mathrm{Sp}$ )

DRAM 4513 Professional Preparation 3 Credit Hours
Prerequisite: Majors only, junior standing, and DRAM 3543. Teaches the skills necessary for the performer to enter the profession; preparation of photos and resumes, training for interviews, preparation for advanced training programs, and an introduction to issues unique to the business. (Sp)

## DRAM G4523 Acting for the Camera

3 Credit Hours
Prerequisite: 2523 and jury auditions. Designed to instruct the student in the requirements, discipline, and basic techniques of working on camera as a professional actor, with an appreciation of the full process of creating a film or television program. All work by the student will be videotaped then subsequently replayed with a critique by the instructor. (Sp)

DRAM 4533 Master Teachers of Acting 3 Credit Hours
Prerequisite: DRAM 2523 and permission of instructor; majors only. A juried audition is required for permission. This is a team-taught course intended for upper-division acting students. The course provides 2-3 weeks each of extensive study of the techniques and methods of six legendary American acting teachers of the Stanislavski method. (Irreg.)

## DRAM 4553 Acting for the Camera II

3 Credit Hours
Prerequisite: Majors only and DRAM 4523. Designed to continue instructing the student in the requirements, discipline, strategies, business tools, and techniques of working on camera as a professional actor, building on principles established in DRAM 4523. (Sp)
DRAM 4563 Showcase
3 Credit Hours
Prerequisite: Majors only, senior standing, and DRAM 4523. This course is designed to create a flexible structure within which seniors will accomplish Senior Showcase preparation and acquire professional skills, materials, and strategies necessary for the successful navigation of the Senior Showcase process and their careers in the professional industry. (F)

DRAM 4643 Advanced Voice Extended Usage 3 Credit Hours
Prerequisite: juried auditions. Develop the voice for extended usage in combat, laughing, crying, shouting, screaming, topping extraneous noise, and projecting in large or outdoor venues. The foundations of breath, resonance, and the free and open vocal track will be reviewed. Anatomy and care of the voice will be stressed. Theories of voice training will be explored. Practice skills with monologues and short scenes. (Sp)
DRAM 4731 Dramaturgy Studio 4
1 Credit Hour
Prerequisite: Majors only, DRAM 1731, DRAM 2731, and DRAM 3731; may be repeated; maximum credit two hours. A weekly forum to discuss and explore the role of the dramaturg in production in the Helmerich School of Drama as well as industry practices in the United States. ( $\mathrm{F}, \mathrm{Sp}$ )

## DRAM 4733 Dramaturgy Seminar

3 Credit Hours
Prerequisite: DRAM 2733 or departmental permission. Designed to train students to do dramaturgy and literary management as they are currently practiced in American theatre. Develops students' skills in theatre research, writing and script analysis which may be applied to the functions of a dramaturg or other artist in the field. (Irreg.)

DRAM 4743 US Latinx Theater \& Politics: 1950s to

## Today

3 Credit Hours
Prerequisite: Majors only and DRAM 2733 or permission of instructor. This class looks at US-based Latinx theater and performance from the mid-twentieth century to today. In its discussions of artists, productions, aesthetics, themes, and companies, the class notes important contributions from theorists in Latinx studies; students will also consider the sociopolitical contexts that surround and shape Latinx theater and performance. (Irreg.)

DRAM 4752 Season, Sequence, Script: The Art of Critical
Selection
2 Credit Hours
Prerequisite: Majors only and DRAM 2733. In this course, students will interact with the season selection process at the School of Drama and develop a roundtable appreciation for literary management, artistic leadership, project curation, and institutional outreach. Students will meet with artistic leaders, produce play reports, and pitch a final project of their own. (Irreg.)
DRAM G4773 Playwriting I
3 Credit Hours
Prerequisite: DRAM 2733 and permission of instructor. Study and practice in playwriting. Acquaints the student with dramatic structure and technical limitations placed upon material written for dramatic production and provides experience in writing for the stage. ( $\mathrm{F}, \mathrm{Sp}$ )

## DRAM G4783 Playwriting II

3 Credit Hours
Prerequisite: permission. Study and practice in playwriting. Acquaints the student with dramatic structure and technical limitations placed upon material written for dramatic production and provides experience in writing for the stage. (F, Sp)
DRAM 4803 Capstone Experience
3 Credit Hours
Prerequisite: permission of instructor. Advanced, individual project which demonstrates mastery of skills and knowledge in student's area of interest, selected under advisement and guided by appropriate faculty member(s). Take in the senior year, capstone requires written document, either explanatory or evaluative, of the entire capstone project in appropriate research paper format. (F, Sp, Su) [V] .

DRAM 4810 Performance Practicum
1-2 Credit Hours
1 to 2 hours. Prerequisite: Departmental permission. May be repeated; maximum credit 8 hours. Study and practice in process and performance as a cast member, dramaturg, or designer of OU theatre productions. (F, Sp )

DRAM 4822 Stage Management Studio II
2 Credit Hours
Prerequisite: 3822 and senior standing. May be repeated; maximum credit four hours. Practical experience in stage management on university theatre productions. Laboratory ( $\mathrm{F}, \mathrm{Sp}$ )
DRAM G4853 Theatre Management
3 Credit Hours
Prerequisite: Junior standing and departmental permission. A study of the fundamental operations of commercial, professional non-profit, stock, dinner, and university theatre in the United States. (F)

DRAM 4900 Professional Semester
3-12 Credit Hours
3 to 12 hours. Prerequisite: junior or senior standing. Internship with a non-academic theatre (or theatre-related) organization which will augment the students academic experiences. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

DRAM 4940 Special Topics in Theatre 2-6 Credit Hours 2 to 6 hours. Prerequisite: May be repeated with change of content; maximum credit 12 hours; Majors only; junior standing or permission of instructor. Varying topics in the study and practice of theatre and drama not covered in regularly scheduled courses or new developments within the area of expertise. (Irreg.)

DRAM 4960 Directed Readings
1-4 Credit Hours
1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean. May be repeated; maximum credit four hours. Designed for upper-division students who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)
$\begin{array}{lcr}\text { DRAM } 4970 & \text { Special Topics/Seminar } & \text { 1-3 Credit Hours }\end{array}$
1 to 3 hours. Prerequisite: Senior standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

DRAM 4990 Special Studies 2-6 Credit Hours
2 to 6 hours. Prerequisite: permission. May be repeated with change of subject matter; maximum credit 12 hours. A special creative or research project course on an advanced level in any phase of the theatre or drama adapted to the individual student. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
DRAM 5940 Special Topics in Theatre Drama 2-6 Credit Hours Prerequisite: graduate standing or permission of instructor. For majors only. May be repeated with change of content; maximum credit nine hours. Varying topics in the study and practice of theatre and drama not covered in regularly scheduled courses or new developments within the area of expertise. (Irreg.)

DRAM 5960 Directed Readings
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing and permission of department. May be repeated; maximum credit twelve hours. Directed readings and/or literature reviews under the direction of a faculty member. (F, Sp, Su)
DRAM 5970 Graduate Seminar 1-4 Credit Hours
1 to 4 hours. Prerequisite: 12 hours of drama and graduate standing or permission. May be repeated with change of subject matter; maximum credit 12 hours. (F, Sp, Su)

DRAM 5980 Research for Master's Thesis
2-9 Credit Hours
Variable enrollment, two to nine hours; maximum credit applicable toward degree, six hours. (F, Sp, Su)

DRAM $5990 \quad$ Special Studies for Graduate Students 2-6 Credit Hours 2 to 6 hours. Prerequisite: permission. May be repeated with change of subject matter; maximum credit each time six hours. (F, Sp, Su)

## Faculty

| Last Name | First/Middle <br> Name | Middle init. |  | Title(s), date(s) appointed | Degrees Earned, Schools, Dates Completed |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Alberti | Joe |  | 2017 | ASSOCIATE PROFESSOR OF DRAMA, 2023 | Ph.D., Univ of Texas, 2008; MA, Univ of Texas, 1994; BS, Univ of Massachusetts, 1983 |
| Branch | Alissa |  | 2013 | ASSOCIATE PROFESSOR OF DRAMA, 2017 | MA, Washington Univ, 1999; BFA, Univ of Oklahoma, 1994 |
| Brode | Renée |  | 2021 | ASSISTANT <br> PROFESSOR OF DRAMA, 2021; AREA COORDINATOR, DESIGN \& PRODUCTION, 2022 | MFA, York Univ, 2013; BFA, York Univ, 1994 |
| Busselle | Kate |  | 2021 | ASSISTANT PROFESSOR OF DRAMA, 2021 | PhD, Univ of Missouri, 2019; MA, Univ of Central Florida, 2015; BFA, Michigan State Univ, 2013 |
| Chavira | Thomas |  | 2023 | ASSISTANT PROFESSOR OF DRAMA, 2023 | MFA, Loyola Marymount Univ; MFA, Univ of Southern California; BFA, Abilene Christian University |


| Cracknell | Lloyd | E | 2011 | ASSOCIATE PROFESSOR OF DRAMA, 2017 | MFA, Univ of Oklahoma, 2010; MA, St Martins College, 1984; BA, Nottingham Trent Univ, 1982 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Gordon | Seth | D | 2019 | PROFESSOR OF DRAMA, 2019 | MFA, Carnegie Mellon University, 1987; BFA, Carnegie Mellon University, 1986 |
| Sadler | Christopher | B | 2005 | PROFESSOR OF DRAMA, 2023; THEATRE MINOR ADVISER, 2019 | MFA, Univ of California, San Diego, 1999; BFA, Ithaca College, 1990 |
| Sarmiento | Uldarico |  | 2016 | ASSOCIATE PROFESSOR OF DRAMA, 2021 | MFA, Univ of <br> Missouri, 2014; BFA, <br> Univ of Oklahoma, $2009$ |
| Sprecker | Richard | L | 2014 | ASSOCIATE PROFESSOR OF DRAMA, 2020 | MFA, Univ of Missouri, 2012; BA, Greensboro College, 2008 |
| Telleria | Nahuel |  | 2021 | ASSISTANT PROFESSOR OF DRAMA, 2021; INTERIM AREA COORDINATOR, PERFORMANCE | DFA, Yale Univ, 2021; MFA, Yale Univ 2016; MA, Univ of Chicago, 2012, BA Columbia Univ, 2011 |
| Young | Jon | D | 2009 | PROFESSOR OF DRAMA, 2020; JAMES GARNER CHAIR, 2023 | MFA, Univ of <br> Missouri, 2002; BFA, <br> Univ of Kansas, 1998 |
| Zhao | Yuanting |  | 2023 | PROFESSOR OF DRAMA, 2023; DIRECTOR, 2023 | MFA, Univ of Arizona, 1995; BFA, Shandong Univ of Arts |

## Theatre: Acting Emphasis, B.F.A.

Minimum Total Credit Hours: 120-130
Major Hours: 80
Minimum Upper-Division Hours: 40
Upper-Division Hours Within Major: 24
Overall GPA - Combined and OU: 2.50

## Program Code: B275 P011

## Admission

The Helmerich School of Drama follows the basic admission requirements of the University of Oklahoma and the Weitzenhoffer Family College of Fine Arts. Please refer to those sections in this catalog for specific details. In addition, admission to the OU School of Drama is by audition and/or interview only and requires an on-campus audition (for acting emphasis) or portfolio review (for design or technology emphasis), and/or interview (for dramaturgy or stage management emphasis). Students must be officially accepted into the School of Drama by audition and/or interview before being allowed to enroll for classes.

The Bachelor of Fine Arts in Drama degree is designed to provide the student with a solid foundation in each basic area of the theatre, with an opportunity to begin specialization in the sophomore year.

Students must choose one of the following emphasis areas.

- Acting Emphasis - Students will audition during the second semester of the freshman year.
- Costume Design Emphasis - Emphasis review is required for admission to the design/tech emphasis area at the end of the freshman year.
- Dramaturgy Emphasis - Students must apply during the second semester of the freshman year.
- Lighting Design Emphasis - Emphasis review is required for admission to the design/tech emphasis area at the end of the freshman year.
- Scenic Design Emphasis - Emphasis review is required for admission to the design/tech emphasis area at the end of the freshman year.
- Sound Design Emphasis - Emphasis review is required for admission to the design/tech emphasis area at the end of the freshman year.
- Stage Management Emphasis - Admission must occur no later than the spring semester of the sophomore year.


## Major Requirements

A grade of $C$ or better is required in all courses taken within the School of Drama. Audition/Interview is required for admission to degree program.

| Drama Core |  |  |
| :--- | :--- | ---: |
| Code | Title | Credit <br> Hours |
| DRAM 1114 | Costume Construction | 4 |
| DRAM 1124 | Stagecraft | 4 |
| DRAM 1134 | Stage Lighting and Sound | 4 |
| DRAM 1411 | Makeup | 1 |
| DRAM 1513 | Introduction to Acting | 3 |
| DRAM 2013 | Introduction to Theatrical Design and | 3 |
|  | Production | 3 |
| DRAM 2733 | Introduction to Dramaturgy | 3 |
| DRAM 3613 | Directing I | 1 |
| DRAM 3910 | Advanced Rehearsal and Production |  |
| The |  |  |

The following courses are satisfied in General Education
Requirements:

| DRAM 3713 | History of the Theatre I (Core IV) |
| :--- | :--- |
| DRAM 3723 | History of the Theatre II (Core IV) |

Total Credit Hours

## Drama Emphasis Areas

Acting Emphasis - Students will audition during the second semester of the freshman year.

## Acting Emphasis

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Required Courses |  |  |
| DRAM 1523 | Character Study for the Actor | 3 |
| DRAM 1643 | Voice and Speech I | 3 |
| DRAM 2323 | Stage Movement | 3 |
| DRAM 2333 | Advanced Stage Movement | 3 |
| DRAM 2513 | Scene Study for the Actor | 3 |
| DRAM 2523 | Performing Shakespeare | 3 |
| DRAM 2643 | Voice and Speech II | 3 |



## General Education and College Requirements

Courses designated as Core I, II, III, IV, or V are part of the General Education curriculum. Students must complete a minimum of 40 hours of General Education courses, chosen from the approved list, including at least one upper-division General Education course outside of the student's major. Courses graded P/NP will not apply.

UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS

| Code | Title | Credit |
| :---: | :---: | :---: |
|  |  | Hours |
| Core Area I: Symbolic and Oral Communication |  |  |
| English Composition |  |  |
| ENGL 1113 | Principles of English Composition | 3 |
| ENGL 1213 or EXPO 1213 | Principles of English Composition Expository Writing | 3 |
| Language |  |  |
| Two courses in the same language, (which can be met by successfully completing 2 years of the same language in high school) |  | 0-10 |
| Mathematics |  |  |
| MATH 1473 | Mathematics for Critical Thinking (Core I) (or advised math elective) | 3 |

[^45]| Choose two courses from different disciplines in the biological and/or physical sciences, one of which must include a laboratory | 7-8 |
| :---: | :---: |
| Core Area III: Social Science |  |
| P SC 1113 American Federal Government | 3 |
| Choose one course | 3 |
| Core Area IV: Arts and Humanities |  |
| Artistic Forms |  |
| Choose one course ${ }^{1}$ | 3 |
| Western Culture |  |
| HIST 1483 United States to 1865 <br> or HIST 1493 United States, 1865 to the Present | 3 |
| DRAM 3713 History of the Theatre I | 3 |
| DRAM 3723 History of the Theatre II | 3 |
| World Culture |  |
| Choose one course ${ }^{1}$ | 3 |
| Core Area V: First-Year Experience |  |
| Choose one course | 3 |

${ }^{1}$ The course taken to fulfill the upper-division General Education requirement outside the major may not be chosen from Drama courses.

## Suggested Semester Plan of Study

At least $\mathbf{2 4}$ hours of upper-division Drama credit must be earned in residence as a declared major.

This plan of study should not be used in lieu of academic advisement. Unless otherwise stated on the degree sheet, the College of Fine Arts does not permit coursework to fulfill more than one degree requirement.

| Freshman |  |  |
| :---: | :---: | :---: |
| First Semester |  | Credit |
|  |  | Hours |
| DRAM 1114 | Costume Construction | 4 |
| DRAM 1411 | Makeup | 1 |
| DRAM 1513 | Introduction to Acting | 3 |
| ENGL 1113 | Principles of English Composition (Core I) | 3 |
| First-Year Experience (Core V) |  | 3 |
|  | Credit Hours | 14 |
| Second Semester |  |  |
| DRAM 1124 | Stagecraft | 4 |
| DRAM 1523 | Character Study for the Actor | 3 |
| $\begin{aligned} & \text { ENGL } 1213 \\ & \text { or EXPO } 1213 \end{aligned}$ | Principles of English Composition (Core I) or Expository Writing | 3 |
| DRAM 2013 | Introduction to Theatrical Design and Production | 3 |
| Math (Core I) ${ }^{1}$ |  | 3 |
|  | Credit Hours | 16 |

## Sophomore

## First Semester

DRAM 1134 Stage Lighting and Sound 4
DRAM 1643 Voice and Speech I

Stage Movement

| DRAM 2513 | Scene Study for the Actor | 3 |
| :--- | :--- | ---: |
| DRAM 2733 | Introduction to Dramaturgy | 3 |
|  | Credit Hours | $\mathbf{1 6}$ |

Second Semester
$\begin{array}{lll}\text { DRAM 2333 } & \text { Advanced Stage Movement } & 3 \\ \text { DRAM 2523 } & \text { Performing Shakespeare } & 3\end{array}$
DRAM 2643 Voice and Speech II ..... 3
DRAM 3910 Advanced Rehearsal and Production ..... 1
DANC/MTHR Movement Elective ..... 2

| American Federal Government (Core III) | 3 |
| :--- | :--- | ---: |
| Credit Hours | $\mathbf{1 5}$ |

Junior

First Semester

DRAM 3543 Audition Techniques 3
DRAM 3643 Voice And Speech III 3
$\begin{array}{lll}\text { DRAM 3713 } & \text { History of the Theatre I (Core IV) } & 3 \\ \text { DRAM 4523 } & \text { Acting for the Camera } & 3\end{array}$
Credit Hours ..... 17
Second Semester$\begin{array}{lll}\text { DRAM 3723 } & \text { History of the Theatre II (Core IV) } & 3 \\ \text { DRAM 4513 } & \text { Professional Preparation } & 3\end{array}$
DRAM Advised Elective ..... 3
DRAM Advised Elective ..... 3
Artistic Forms (Core IV) ${ }^{2}$ ..... 3
Senior
First Semester
DRAM Advised Elective ..... 3
DRAM Advised Elective ..... 3
HIST $1483 \quad$ United States to 1865 ..... 3
Beginning Language (Core I) ..... 0-5
Natural Science with lab (Core II) ${ }^{2}$ ..... 4
Second SemesterDRAM Advised Elective3
DRAM Advised Elective ..... 2
Natural Science without lab (Core II) ${ }^{2}$ ..... 3-4
World Culture (Core IV) ${ }^{2}$ ..... 3
Social Science (Core III) ${ }^{2}$ ..... 3
Beginning Language continued (Core I) ..... 0-5
Credit Hours $\quad 14-19$Total Credit Hours120-130
1 MATH 1473 is recommended2 The course taken to fulfill the upper-division General Educationrequirement outside the major may not be chosen from Drama courses.
Theatre: Costume Design Emphasis, B.F.A

Major Hours: 80
Minimum Upper-Division Hours: 40
Upper-Division Hours Within Major: 24

Overall GPA - Combined and OU: 2.50

Program Code: B275 P153

## Admission

The Helmerich School of Drama follows the basic admission requirements of the University of Oklahoma and the Weitzenhoffer Family College of Fine Arts. Please refer to those sections in this catalog for specific details. In addition, admission to the OU School of Drama is by audition and/or interview only and requires an on-campus audition (for acting emphasis) or portfolio review (for design or technology emphasis), and/or interview (for dramaturgy or stage management emphasis). Students must be officially accepted into the School of Drama by audition and/or interview before being allowed to enroll for classes.

The Bachelor of Fine Arts in Drama degree is designed to provide the student with a solid foundation in each basic area of the theatre, with an opportunity to begin specialization in the sophomore year

Students must choose one of the following emphasis areas.

- Acting Emphasis - Students will audition during the second semester of the freshman year
- Costume Design Emphasis - Emphasis review is required for admission to the design/tech emphasis area at the end of the freshman year.
- Dramaturgy Emphasis - Students must apply during the second semester of the freshman year.
- Lighting Design Emphasis - Emphasis review is required for admission to the design/tech emphasis area at the end of the freshman year.
- Scenic Design Emphasis - Emphasis review is required for admission to the design/tech emphasis area at the end of the freshman year.
- Sound Design Emphasis - Emphasis review is required for admission to the design/tech emphasis area at the end of the freshman year.
- Stage Management Emphasis - Admission must occur no later than the spring semester of the sophomore year.


## Major Requirements

A grade of C or better is required in all courses taken within the School of Drama. Audition/Interview is required for admission to degree program.

## Drama Core

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| DRAM 1114 | Costume Construction | 4 |
| DRAM 1124 | Stagecraft | 4 |
| DRAM 1134 | Stage Lighting and Sound | 4 |
| DRAM 1411 | Makeup | 1 |
| DRAM 1513 | Introduction to Acting | 3 |
| DRAM 2013 | Introduction to Theatrical Design and | 3 |
|  | Production | 3 |
| DRAM 2733 | Introduction to Dramaturgy | 3 |

DRAM 3910
Advanced Rehearsal and Production
The following courses are satisfied in General Education
Requirements: DRAM 3713, DRAM 3723.
Total Credit Hours

## Drama Emphasis Areas

Costume Design Emphasis - Emphasis review is required for admission to the emphasis area at the end of the freshman year.

## Costume design Emphasis

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| DRAM 1133 | Drawing and Rendering | 3 |
| DRAM 1911 | Rehearsal and Production | 1 |
| DRAM 2052 | Traditional Media | 2 |
| DRAM 2062 | Digital Media | 2 |
| DRAM 2153 | Scene Design | 3 |
| DRAM 2223 | Lighting Design | 3 |
| DRAM 2243 | Draping And Pattern Drafting I | 3 |
| DRAM 2253 | Draping and Pattern Drafting II | 3 |
| DRAM 2343 | History of Costume | 3 |
| DRAM 3043 | Computer Aided Design I for the Theatre | 3 |
| DRAM 3223 | Costume Construction Techniques | 3 |
| DRAM 3353 | Costume Design | 3 |
| DRAM 3910 | Advanced Rehearsal and Production |  |
| DRAM 4073 | Developing the Professional Perspective | 1 |
| DRAM 4233 | Costume Crafts for Theatre | 3 |
| DRAM 4253 | History of Decor | 3 |
| DRAM 4353 | Costume Design II | 3 |
| DRAM 4363 | Costume Design III | 3 |
| Advis | 3 |  |

## Advised Electives

Choose 6 hours from the School of Drama or outside the 6 department ${ }^{2}$

## Total Credit Hours

1 A total of two hours of DRAM 3910 is required in this emphasis area; one hour for the core, and one hour for emphasis.
2 Courses used to fulfill General Education and/or major requirements may not fulfill electives.

## General Education and College Requirements

Courses designated as Core I, II, III, IV, or V are part of the General Education curriculum. Students must complete a minimum of 40 hours of General Education courses, chosen from the approved list, including at least one upper-division General Education course outside of the student's major. Courses graded P/NP will not apply.

## UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS

Code Title Credit

## Core Area I: Symbolic and Oral Communication

## English Composition

ENGL 1113 Principles of English Composition 3

ENGL 1213 Principles of English Composition 3

| or EXPO 1213 Expository Writing |  |  |
| :---: | :---: | :---: |
| Language |  |  |
| Two courses in the successfully com school) | e same language, (which can be met by pleting 2 years of the same language in high | 0-10 |
| Mathematics |  |  |
| MATH 1473 | Mathematics for Critical Thinking (Core I) (or advised math elective) | 3 |
| Core Area II: Natural Science |  |  |
| Choose two courses from different disciplines in the biological and/or physical sciences, one of which must include a laboratory |  |  |
| Core Area III: Social Science |  |  |
| P SC 1113 | American Federal Government | 3 |
| Choose one cour |  | 3 |
| Core Area IV: Arts and Humanities |  |  |
| Artistic Forms |  |  |
| Choose one course (MTHR 3143 recommended) ${ }^{1}$ |  | 3 |
| Western Culture |  |  |
| HIST 1483 or HIST 1493 | United States to 1865 <br> United States, 1865 to the Present | 3 |
| DRAM 3713 | History of the Theatre I | 3 |
| DRAM 3723 | History of the Theatre II | 3 |
| World Culture |  |  |
| Choose one course ${ }^{1}$ |  | 3 |
| Core Area V: First-Year Experience |  |  |
| Choose one course |  | 3 |
| Total Credit Hours |  | 40-51 |
| ${ }^{1}$ The course tak requirement ou | n to fulfill the upper-division General Educat side the major may not be chosen from Dram | urses. |

## Suggested Semester Plan of Study

## Freshman

| First Semester |  | Credit <br> Hours |
| :--- | :--- | ---: |
| DRAM 1114 | Costume Construction | 4 |
| DRAM 1133 | Drawing and Rendering | 3 |
| DRAM 1513 | Introduction to Acting | 3 |
| ENGL 1113 | Principles of English Composition (Core I) | 3 |
| First-Year Experience (Core V) | 3 |  |
|  | Credit Hours | $\mathbf{1 6}$ |

## Second Semester

| DRAM 1124 | Stagecraft | 4 |
| :--- | :--- | ---: |
| DRAM 1411 | Makeup | $\mathbf{1}$ |
| DRAM 2013 | Introduction to Theatrical Design and | 3 |
|  | Production | $\mathbf{2}$ |
| DRAM 2052 | Traditional Media | 3 |
| DRAM 2343 | History of Costume | $\mathbf{3}$ |
| ENGL 1213 | Principles of English Composition | $\mathbf{1 6}$ |

## Sophomore

| First Semester |  |  |
| :--- | :--- | ---: |
| DRAM 1134 | Stage Lighting and Sound | 4 |
| DRAM 2062 | Digital Media | 2 |
| DRAM 2243 | Draping And Pattern Drafting I | 3 |
| DRAM 3353 | Costume Design | 3 |
| Math (Core I) |  | 3 |
|  | Credit Hours | $\mathbf{1 5}$ |


| Second Semester |  |  |
| :--- | :--- | ---: |
| DRAM 1911 | Rehearsal and Production | $\mathbf{1}$ |
| DRAM 2253 | Draping and Pattern Drafting II | 3 |
| DRAM 2733 | Introduction to Dramaturgy | 3 |
| DRAM 3043 | Computer Aided Design I for the Theatre | 3 |
| DRAM 4353 | Costume Design II | $\mathbf{3}$ |
| P SC 1113 | American Federal Government | $\mathbf{3}$ |
|  | Credit Hours | $\mathbf{1 6}$ |

## Junior

## First Semester

| DRAM 2223 | Lighting Design | 3 |
| :--- | :--- | :---: |
| DRAM 3223 | Costume Construction Techniques | 3 |
| DRAM 3613 | Directing I | 3 |
| DRAM 3713 | History of the Theatre I (Core IV) | 3 |
| DRAM 3910 | Advanced Rehearsal and Production | $\mathbf{1}$ |
| DRAM 4363 | Costume Design III | 3 |
|  | Credit Hours | $\mathbf{1 6}$ |


| Second Semester |  |  |
| :--- | :--- | :--- |
| DRAM 3723 | History of the Theatre II (Core IV) | 3 |
| DRAM 4233 | Costume Crafts for Theatre | 3 |
| DRAM 4253 History of Decor | 3 |  |
| HIST 1483 <br> or HIST 1493 | United States to 1865 <br> or United States, 1865 to the Present | 3 |


| Natural Science without lab (Core II) ${ }^{2}$ | $3-4$ |
| :--- | :--- |

Credit Hours ..... 15

| Senior |  |  |
| :---: | :---: | :---: |
| First Semester |  |  |
| DRAM 2153 | Scene Design | 3 |
| DRAM 3910 | Advanced Rehearsal and Production | 1 |
| DRAM 4073 | Developing the Professional Perspective | 3 |
| Advised Elective |  | 3 |
| Natural Science with lab (Core II) |  | 4 |
| Beginning Language (Core I) |  | 0-5 |
|  | Credit Hours | 14-19 |


| Second Semester |  |
| :---: | :---: |
| Advised Elective | 3 |
| Artistic Forms (Core IV) ${ }^{2,3}$ | 3 |
| Social Science (Core III) ${ }^{2}$ | 3 |
| World Culture (Core IV) ${ }^{2}$ | 3 |
| Beginning Language continued (Core I) | 0-5 |
| Credit Hours | 12-17 |
| Total Credit Hours | 120-130 |

[^46]${ }^{2}$ The course taken to fulfill the upper-division General Education requirement outside the major may not be chosen from Drama courses.
${ }^{3}$ MTHR 3143 is recommended.

- At least $\mathbf{2 4}$ hours of upper-division Drama credit must be earned in residence as a declared major.
- Bachelor's degrees require a minimum of 40 hours of upper-division (3000-4000) coursework.
- This plan of study should not be used in lieu of academic advisement.
- Unless otherwise stated on the degree sheet, the College of Fine Arts does not permit coursework to fulfill more than one degree requirement.


## Theatre: Dramaturgy Emphasis, B.F.A.

Minimum Total Credit Hours: 120-130
Major Hours: 80
Minimum Upper-Division Hours: 40
Upper-Division Hours Within Major. 24
Overall GPA - Combined and OU: 2.50

Program Code: B275 P186

## Admission

The Helmerich School of Drama follows the basic admission requirements of the University of Oklahoma and the Weitzenhoffer Family College of Fine Arts. Please refer to those sections in this catalog for specific details. In addition, admission to the OU School of Drama is by audition and/or interview only and requires an on-campus audition (for acting emphasis) or portfolio review (for design or technology emphasis), and/or interview (for dramaturgy or stage management emphasis). Students must be officially accepted into the School of Drama by audition and/or interview before being allowed to enroll for classes.

The Bachelor of Fine Arts in Drama degree is designed to provide the student with a solid foundation in each basic area of the theatre, with an opportunity to begin specialization in the sophomore year.

Students must choose one of the following emphasis areas.

- Acting Emphasis - Students will audition during the second semester of the freshman year.
- Costume Design Emphasis - Emphasis review is required for admission to the design/tech emphasis area at the end of the freshman year.
- Dramaturgy Emphasis - Students must apply during the second semester of the freshman year.
- Lighting Design Emphasis - Emphasis review is required for admission to the design/tech emphasis area at the end of the freshman year.
- Scenic Design Emphasis - Emphasis review is required for admission to the design/tech emphasis area at the end of the freshman year.
- Sound Design Emphasis - Emphasis review is required for admission to the design/tech emphasis area at the end of the freshman year.
- Stage Management Emphasis - Admission must occur no later than the spring semester of the sophomore year.


## Major Requirements

A grade of C or better is required in all courses taken within the School of Drama. Audition/Interview is required for admission to degree program.

## Drama Core

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| DRAM 1114 | Costume Construction | 4 |
| DRAM 1124 | Stagecraft | 4 |
| DRAM 1134 | Stage Lighting and Sound | 4 |
| DRAM 1411 | Makeup | 1 |
| DRAM 1513 | Introduction to Acting | 3 |
| DRAM 2013 | Introduction to Theatrical Design and <br>  <br> DRAM 2733 | Introduction to Dramaturgy |
| DRAM 3613 | Directing I | 3 |
| DRAM 3910 | Advanced Rehearsal and Production | 3 |
| The following courses are satisfied in General Education | 3 |  |
| Requirements: |  | 1 |
| DRAM 3713 | History of the Theatre I (Core IV) |  |
| DRAM 3723 | History of the Theatre II (Core IV) |  |

Total Credit Hours
26

## Drama Emphasis Areas

Dramaturgy Emphasis - Students must apply during the second semester of the freshman year.

## Dramaturgy Emphasis

| Code | Title |  |
| :---: | :---: | :---: |
| Dramaturgy Core |  |  |
| DRAM 1731 | Dramaturgy Studio 1 | 1 |
| DRAM 2731 | Dramaturgy Studio 2 | 1 |
| DRAM 3731 | Dramaturgy Studio 3 | 1 |
| DRAM 3753 | Dramatic Structures: Story, Genre, Culture, Theory | 3 |
| DRAM 4731 | Dramaturgy Studio 4 | 1 |
| DRAM 4733 | Dramaturgy Seminar | 3 |
| DRAM 4752 | Season, Sequence, Script: The Art of Critical Selection | 2 |
| Choose one of the following design/production courses: |  | 3 |
| DRAM 2153 | Scene Design |  |
| DRAM 2223 | Lighting Design |  |
| DRAM 2813 | Stage Management |  |
| DRAM 3353 | Costume Design |  |
| DRAM 3413 | Sound Design |  |
| Performance Histories \& Structures |  |  |
| One additional c art/artistic discip | urse in the history/structure of a performing ine | 3 |

Students will choose from a department-maintained list of approved courses (p. 1470)

## Dramatic Literature

| Students will choose from a department-maintained list of approved courses (p. 1470) |  |
| :---: | :---: |
| Shakespeare |  |
| Choose one of the following pairs: | 6 |
| DRAM 2523 Performing Shakespeare \& DRAM 2643 and Voice and Speech II ${ }^{1}$ |  |
| $\begin{array}{ll}\text { ENGL } 4523 & \text { Shakespeare Comedies } \\ \text { \& ENGL } 4533 & \text { and Shakespeare Tragedies }\end{array}$ |  |
| Advised Drama Electives |  |
| Choose 12 hours of DRAM courses from a departmentmaintained list (p. 1470) | 12 |
| Advised General Electives |  |
| Choose fifteen hours of non-DRAM courses ${ }^{2}$ | 15 |
| Total Credit Hours | 54 |

${ }^{1}$ For this option, students must have taken DRAM 1523 to fulfill their Dramatic Literature course and DRAM 1643 and DRAM 2513 as part of their Advised Drama Electives; all three courses are prerequisites for DRAM 2523 and DRAM 2643
${ }^{2}$ Courses used to fulfill General Education and/or major requirements may not fulfill electives. Dramaturgy Emphasis students are encouraged to dedicate their General Advised Electives toward fulfilling the requirements of a minor in a specialty of their choosing

## General Education and College Requirements

Courses designated as Core I, II, III, IV, or V are part of the General Education curriculum. Students must complete a minimum of 40 hours of General Education courses, chosen from the approved list, including at least one upper-division General Education course outside of the student's major. Courses graded P/NP will not apply.

UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS


## Core Area IV: Arts and Humanities

Artistic Forms


## Suggested Semester Plan of Study

At least $\mathbf{2 4}$ hours of upper-division Drama credit must be earned in residence as a declared major.

This plan of study should not be used in lieu of academic advisement. Unless otherwise stated on the degree sheet, the College of Fine Arts does not permit coursework to fulfill more than one degree requirement.

## Freshman

| First Semester |  | Credit <br> Hours |
| :--- | :--- | ---: |
| DRAM 1114 | Costume Construction | 4 |
| DRAM 1411 | Makeup | 1 |
| DRAM 1513 | Introduction to Acting | 3 |
| ENGL 1113 | Principles of English Composition (Core I) | 3 |
| First Year Experience (Core V) | 3 |  |
|  | Credit Hours | $\mathbf{1 4}$ |

## Second Semester

DRAM 1124 Stagecraft 4
DRAM 1731 Dramaturgy Studio $1 \quad 1$
DRAM 2013 Introduction to Theatrical Design and 3 Production
ENGL 1213 Principles of English Composition (Core I) 3
or EXPO 1213 or Expository Writing

| Math (Core I) ${ }^{1}$ | 3 |
| :--- | ---: | ---: |
| Credit Hours | $\mathbf{1 4}$ |

## Sophomore

## First Semester

DRAM 1134 Stage Lighting and Sound 4
DRAM 2731 Dramaturgy Studio 2 1
DRAM 2733 Introduction to Dramaturgy 3
Performance History 3

| P SC 1113 | American Federal Government (Core III) | 3 |
| :--- | :--- | ---: |
|  | Credit Hours | $\mathbf{1 4}$ |

## Second Semester

DRAM 3753 Dramatic Structures: Story, Genre, Culture, 3
Theory
DRAM 3910 Advanced Rehearsal and Production 1
Dramatic Literature 3

| General Elective |  | 3 |
| :---: | :---: | :---: |
| ENGL 4533 | Shakespeare Tragedies ${ }^{3}$ | 3 |
| HIST 1483 or HIST 1493 | United States to 1865 (Core IV) or United States, 1865 to the Present | 3 |
|  | Credit Hours | 16 |
| Junior |  |  |
| First Semester |  |  |
| DRAM 2153 or DRAM 2223 or DRAM 2813 or DRAM 3353 | Scene Design <br> or Lighting Design <br> or Stage Management <br> or Costume Design <br> or Sound Design | 3 |
| or DRAM 3413 |  |  |
| DRAM 3613 | Directing I | 3 |
| DRAM 3713 | History of the Theatre I (Core IV) | 3 |
| DRAM 3731 | Dramaturgy Studio 3 | 1 |
| DRAM 4733 | Dramaturgy Seminar | 3 |
| ENGL 4523 | Shakespeare Comedies ${ }^{3}$ | 3 |
|  | Credit Hours | 16 |


| Second Semester |  |  |
| :---: | :---: | :---: |
| DRAM 3723 | History of the Theatre II (Core IV) | 3 |
| DRAM Advised Elective 3 |  |  |
| DRAM Advised Elective |  | 3 |
| Natural Science with lab (Core II) ${ }^{2}$ |  | 4 |
| Artistic Forms (Core IV) ${ }^{2}$ |  | 3 |
|  | Credit Hours | 16 |

## Senior

| First Semester |  |  |
| :--- | :--- | ---: |
| DRAM 4731 | Dramaturgy Studio 4 | 1 |
| DRAM 4752 | Season, Sequence, Script: The Art of |  |
|  | Critical Selection | 2 |
| DRAM Advised Elective | 3 |  |
| DRAM Advised Elective | 3 |  |
| General Elective | 3 |  |
| General Elective | 3 |  |
| Beginning Language (Core I) | $0-5$ |  |
| Credit Hours | $\mathbf{1 5 - \mathbf { 2 0 }}$ |  |


| Second Semester |  |
| :--- | ---: |
| General Elective | 3 |
| General Elective | 3 |
| Natural Science without lab (Core II) $^{2}$ | $3-4$ |
| Social Science (Core III) $^{2}$ | 3 |
| World Culture (Core IV) $^{2}$ | 3 |
| Beginning Language continued (Core I) | $0-5$ |
| Credit Hours | $\mathbf{1 5 - 2 0}$ |
| Total Credit Hours | $\mathbf{1 2 0 - 1 3 0}$ |

${ }^{1}$ MATH 1473 is recommended
${ }^{2}$ The course taken to fulfill the upper-division General Education requirement outside the major may not be chosen from Drama courses.
${ }^{3}$ Students must choose one of the following pairs of courses:
DRAM 2523 and DRAM 2643, or ENGL 4523 and ENGL 4533. If
choosing the former, please contact School of Drama office or Academic Advisor for separate Plan of Study.

## Dramaturgy Departmental Course Lists

Performance/Artistic Histories Courses

| Code | Title | Credit Hours |
| :---: | :---: | :---: |
| A HI 1314 | Introduction to Art History | 4 |
| A HI 2303 | Introduction to Art in Europe: 1300-1800 | 3 |
| A HI 2503 | Introduction to Modern Art | 3 |
| A HI 2803 | Introduction to Native American Art | 3 |
| A HI 3673 | History of Visual Communication | 3 |
| A HI 3803 | Pre-Columbian Art \& Architecture of Mesoand South America | 3 |
| A HI 4723 | Cinema of the American West: Then and Now | 3 |
| A HI 4823 | 20th Century American Indian Art History | 3 |
| AFAM 3143 | Gospel Music Past and Present | 3 |
| AFAM 3333 | The Black West | 3 |
| AFAM 4233 | Blacks and the Movies: Hollywood and Black Independent Film | 3 |
| AFAM 4243 | The Black Arts Movement | 3 |
| DANC 1813 | Introduction to Non-Western Dance Forms | 3 |
| DANC 3743 | Dance History: Early Roots | 3 |
| DANC 3753 | Dance History: Three Centuries of Development | 3 |
| DANC 3813 | History of World Dance | 3 |
| DRAM 2343 | History of Costume | 3 |
| DRAM 4253 | History of Decor | 3 |
| FMS 1123 | History of Video Games | 3 |
| FMS 2013 | Film and Media History to 1960 | 3 |
| FMS 2023 | Film and Media History: 1960 to Present | 3 |
| FMS 3323 | Editing: History, Theory, Practice | 3 |
| FMS 3453 | Global Indigenous Media | 3 |
| FMS 3663 | The History and Theory of Animation | 3 |
| FMS 3673 | Anime: the World of Japanese Animation | 3 |
| MTHR 3143 | History of American Musical Theatre | 3 |
| MUNM 2313 | History of Jazz | 3 |
| MUNM 3113 | World Music | 3 |
| MUNM 3213 | Native American Music | 3 |
| MUNM 3313 | African Repercussions | 3 |
| MUNM 3513 | Music of South Asia | 3 |
| MUNM 3613 | Middle Eastern Music | 3 |
| MUNM 3713 | Jazz: Development of an African-American Art Form | 3 |

Dramatic Literature Courses

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| CL C 3123 | Ancient Drama in English Translation | 3 |
| DRAM 1523 | Character Study for the Actor | 3 |
| DRAM 2513 | Scene Study for the Actor | 3 |
| DRAM 3513 | Performing Departures from Realism |  |
|  |  | 3 |


| DRAM 3523 | Performing New Plays ${ }^{2}$ | 3 |
| :--- | :--- | :--- |
| DRAM 3781 | Topics in Dramatic Literature | 1 |
| DRAM 4743 | US Latinx Theater \& Politics: 1950s to <br> Today | 3 |
| ENGL 2233 | Drama | 3 |
| GERM 4253 | Goethe's Faust and the Problem of Evil * | 3 |
| GRK 3213 | Ancient Greek Drama | 3 |
| ITAL 3663 | Italian Cinema, Theater and Media * | 3 |
| MLLL 3163 | Chekhov | 3 |
| MLLL 4993 | Epics of India: Ramayana and Mahabarata | 3 |

## Advised Drama Electives

| Code | Title | Credit Hours |
| :---: | :---: | :---: |
| DRAM 1523 | Character Study for the Actor | 3 |
| DRAM 1643 | Voice and Speech I | 3 |
| DRAM 2153 | Scene Design ${ }^{1}$ | 3 |
| DRAM 2223 | Lighting Design ${ }^{1}$ | 3 |
| DRAM 2323 | Stage Movement | 3 |
| DRAM 2343 | History of Costume | 3 |
| DRAM 2513 | Scene Study for the Actor | 3 |
| DRAM 2813 | Stage Management ${ }^{1}$ | 3 |
| DRAM 2970 | Special Topics | 1-3 |
| DRAM 3323 | Stage Movement: Theatrical Intimacy ${ }^{2}$ | 3 |
| DRAM 3353 | Costume Design ${ }^{1}$ | 3 |
| DRAM 3413 | Sound Design ${ }^{1}$ | 3 |
| DRAM 3513 | Performing Departures from Realism ${ }^{2}$ | 3 |
| DRAM 3523 | Performing New Plays ${ }^{2}$ | 3 |
| DRAM 3543 | Audition Techniques ${ }^{2}$ | 3 |
| DRAM 3623 | Directing II | 3 |
| DRAM 3781 | Topics in Dramatic Literature | 1 |
| DRAM 4253 | History of Decor | 3 |
| DRAM 4323 | Stage Combat I: Unarmed Stage Combat ${ }^{2}$ | 3 |
| DRAM 4333 | Stage Combat: Edged Weaponry ${ }^{2}$ | 3 |
| DRAM 4513 | Professional Preparation ${ }^{2}$ | 3 |
| DRAM 4523 | Acting for the Camera ${ }^{2}$ | 3 |
| DRAM 4743 | US Latinx Theater \& Politics: 1950s to Today | 3 |
| DRAM 4773 | Playwriting I | 3 |
| DRAM 4783 | Playwriting II | 3 |
| DRAM 4810 | Performance Practicum | 1-2 |
| DRAM 4853 | Theatre Management | 3 |
| DRAM 4900 | Professional Semester | 3-12 |
| DRAM 4940 | Special Topics in Theatre | 2-6 |
| DRAM 4970 | Special Topics/Seminar | 1-3 |
| DRAM 4990 | Special Studies | 2-6 |

[^47]Theatre: Lighting Design Emphasis, B.F.A.
Minimum Total Credit Hours: 120-130

Major Hours: 80
Minimum Upper-Division Hours: 40
Upper-Division Hours Within Major: 24

Overall GPA - Combined and OU: 2.50

Program Code: B275 P419

## Admission

The Helmerich School of Drama follows the basic admission requirements of the University of Oklahoma and the Weitzenhoffer Family College of Fine Arts. Please refer to those sections in this catalog for specific details. In addition, admission to the OU School of Drama is by audition and/or interview only and requires an on-campus audition (for acting emphasis) or portfolio review (for design or technology emphasis), and/or interview (for dramaturgy or stage management emphasis). Students must be officially accepted into the School of Drama by audition and/or interview before being allowed to enroll for classes.

The Bachelor of Fine Arts in Drama degree is designed to provide the student with a solid foundation in each basic area of the theatre, with an opportunity to begin specialization in the sophomore year.

Students must choose one of the following emphasis areas.

- Acting Emphasis - Students will audition during the second semester of the freshman year.
- Costume Design Emphasis - Emphasis review is required for admission to the design/tech emphasis area at the end of the freshman year.
- Dramaturgy Emphasis - Students must apply during the second semester of the freshman year.
- Lighting Design Emphasis - Emphasis review is required for admission to the design/tech emphasis area at the end of the freshman year.
- Scenic Design Emphasis - Emphasis review is required for admission to the design/tech emphasis area at the end of the freshman year.
- Sound Design Emphasis - Emphasis review is required for admission to the design/tech emphasis area at the end of the freshman year.
- Stage Management Emphasis - Admission must occur no later than the spring semester of the sophomore year.


## Major Requirements

A grade of C or better is required in all courses taken within the School of Drama. Audition/Interview is required for admission to degree program.

## Drama Core

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| DRAM 1114 | Costume Construction | 4 |
| DRAM 1124 | Stagecraft | 4 |
| DRAM 1134 | Stage Lighting and Sound | 4 |
| DRAM 1411 | Makeup | 1 |
| DRAM 1513 | Introduction to Acting | 3 |
| DRAM 2013 | Introduction to Theatrical Design and | 3 |
|  | Production | 3 |
| DRAM 2733 | Introduction to Dramaturgy | 3 |
| DRAM 3613 | Directing I | 3 |

DRAM 3910
Advanced Rehearsal and Production
The following courses are satisfied in General Education
Requirements: DRAM 3713, DRAM 3723.
Total Credit Hours

## Drama Emphasis Areas

Lighting Design Emphasis - Emphasis review is required for admission to the emphasis area at the end of the freshman year.

## lighting DESIGN Emphasis

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| DRAM 1133 | Drawing and Rendering | 3 |
| DRAM 1811 | Music Notation and Score Reading for <br> Stage Managers and Designers | 1 |
| DRAM 2062 | Digital Media | 2 |
| DRAM 2153 | Scene Design | 3 |
| DRAM 2223 | Lighting Design | 3 |
| DRAM 2423 | Drafting for the Theatre | 3 |
| Choose the following for one hour per semester in sophomore | 2 |  |
| year: |  | 3 |
| DRAM 2451 | Lighting Seminar I |  |
| DRAM 2813 | Stage Management | 3 |
| DRAM 3043 | Computer Aided Design I for the Theatre | 3 |
| DRAM 3053 | Computer Aided Design II for the Theatre | 3 |
| DRAM 3353 | Costume Design | 2 |
| Choose the following for one hour per semester in junior year: | 2 |  |


| DRAM 3451 | Lighting Seminar II |  |
| :--- | :--- | :--- |
| DRAM 4073 | Developing the Professional Perspective | 3 |
| DRAM 4163 | Lighting Design II | 3 |
| DRAM 4213 | Lighting Design III | 3 |
| DRAM 4272 | Lighting Production | 2 |
| DRAM 4253 | History of Decor | 3 |
| Choose the following for one hour per semester in senior year. | 2 |  |
| DRAM 4451 |  | Lighting Seminar III |
| Advised Electives |  |  |
| Choose 7 hours from the School of Drama or outside the <br> department |  | 7 |

Total Credit Hours
${ }^{1}$ Courses used to fulfill General Education and/or major requirements may not fulfill electives.

## General Education and College Requirements

Courses designated as Core I, II, III, IV, or V are part of the General Education curriculum. Students must complete a minimum of 40 hours of General Education courses, chosen from the approved list, including at least one upper-division General Education course outside of the student's major. Courses graded P/NP will not apply.

## COLLEGE REQUIREMENTS

| Code $\quad$ Title | Credit |
| :--- | :--- | :--- |
|  | Hours |

Core Area I: Symbolic and Oral Communication
English Composition
ENGL 1113 Principles of English Composition 3
ENGL 1213 Principles of English Composition 3
or EXPO 1213 Expository Writing
Language
Two courses in the same language, (which can be met by 0-10
successfully completing 2 years of the same language in high school)

Mathematics

| MATH 1473 | Mathematics for Critical Thinking (Core I) <br> (or advised math elective) | 3 |
| :--- | :--- | :--- |

Core Area II: Natural Science
Choose two courses from different disciplines in the 7-8
biological and/or physical sciences, one of which must
include a laboratory
Core Area III: Social Science
P SC 1113 American Federal Government 3
Choose one course 3

Core Area IV: Arts and Humanities
Artistic Forms

Western Culture

| HIST 1483 | United States to 1865 | 3 |
| :---: | :--- | :---: |
| or HIST 1493 | United States, 1865 to the Present |  |
| DRAM 3713 | History of the Theatre I | 3 |
| DRAM 3723 | History of the Theatre II | 3 |

World Culture
Choose one course ${ }^{1} 3$
Core Area V: First-Year Experience
Choose one course 3

Total Credit Hours 40-51
1 The course taken to fulfill the upper-division General Education requirement outside the major may not be chosen from Drama courses.

## Suggested Semester Plan of Study

## Freshman

| First Semester |  | Credit <br> Hours |
| :--- | :--- | ---: |
|  |  | 3 |
| DRAM 1133 | Drawing and Rendering | 4 |
| DRAM 1134 | Stage Lighting and Sound | 1 |
| DRAM 1411 | Makeup | 1 |
| DRAM 1811 | Music Notation and Score Reading for |  |
|  | Stage Managers and Designers | 3 |
| DRAM 1513 | Introduction to Acting | 3 |
| ENGL 1113 | Principles of English Composition (Core I) | $\mathbf{1}$ |
|  | Credit Hours | $\mathbf{1 5}$ |

## Second Semester

DRAM 1124 Stagecraft

| DRAM 2013 | Introduction to Theatrical Design and Production | 3 |
| :---: | :---: | :---: |
| DRAM 2423 | Drafting for the Theatre | 3 |
| ENGL 1213 | Principles of English Composition | 3 |
| First-Year Experience (Core V) |  | 3 |
|  | Credit Hours | 16 |
| Sophomore |  |  |
| First Semester |  |  |
| DRAM 1114 | Costume Construction | 4 |
| DRAM 2062 | Digital Media | 2 |
| DRAM 2223 | Lighting Design | 3 |
| DRAM 2451 | Lighting Seminar I | 1 |
| DRAM 2813 | Stage Management | 3 |
| Math (Core I) ${ }^{1}$ |  | 3 |
|  | Credit Hours | 16 |
| Second Semester |  |  |
| DRAM 2451 | Lighting Seminar I | 1 |
| DRAM 2733 | Introduction to Dramaturgy | 3 |
| DRAM 3043 | Computer Aided Design I for the Theatre | 3 |
| DRAM 4163 | Lighting Design II | 3 |
| DRAM 4272 | Lighting Production | 2 |
| Social Science (Core III) ${ }^{2}$ |  | 3 |
|  | Credit Hours | 15 |
| Junior |  |  |
| First Semester |  |  |
| DRAM 2153 | Scene Design | 3 |
| DRAM 3053 | Computer Aided Design II for the Theatre | 3 |
| DRAM 3451 | Lighting Seminar II | 1 |
| DRAM 3613 | Directing I | 3 |
| DRAM 3713 | History of the Theatre I (Core IV) | 3 |
| DRAM 4213 | Lighting Design III | 3 |
|  | Credit Hours | 16 |


| Second Semester |  |  |
| :--- | :--- | :--- |
| DRAM 3723 | History of the Theatre II (Core IV) | 3 |
| DRAM 3451 | Lighting Seminar II | 1 |
| DRAM 3910 | Advanced Rehearsal and Production | 1 |
| DRAM 4253 | History of Decor | 3 |
| HIST 1483 | United States to 1865 | 3 |
| or HIST 1493or United States, 1865 to the Present |  |  |


| Natural Science without lab (Core II) ${ }^{2}$ | $3-4$ |
| :---: | ---: |
| Credit Hours | 14 |

## Senior

| First Semester |  | 3 |
| :--- | :--- | ---: |
| DRAM 3353 | Costume Design | 3 |
| DRAM 4073 | Developing the Professional Perspective | 1 |
| DRAM 4451 | Lighting Seminar III $^{\text {Advised Elective }}$ | 4 |
| Natural Science with lab (Core II) |  |  |
| Beginning Language (Core I) | 4 |  |
| Credit Hours | $0-5$ |  |

## Second Semester

DRAM 4451
Lighting Seminar III


## Theatre: Scenic Design Emphasis, B.F.A.

Minimum Total Credit Hours: 120-130
Major Hours: 80
Minimum Upper-Division Hours: 40
Upper-Division Hours Within Major: 24

Overall GPA - Combined and OU: 2.50

Program Code: B275 P589

## Admission

The Helmerich School of Drama follows the basic admission requirements of the University of Oklahoma and the Weitzenhoffer Family College of Fine Arts. Please refer to those sections in this catalog for specific details. In addition, admission to the OU School of Drama is by audition and/or interview only and requires an on-campus audition (for acting emphasis) or portfolio review (for design or technology emphasis), and/or interview (for dramaturgy or stage management emphasis). Students must be officially accepted into the School of Drama by audition and/or interview before being allowed to enroll for classes.

The Bachelor of Fine Arts in Drama degree is designed to provide the student with a solid foundation in each basic area of the theatre, with an opportunity to begin specialization in the sophomore year.

Students must choose one of the following emphasis areas.

- Acting Emphasis - Students will audition during the second semester of the freshman year.
- Costume Design Emphasis - Emphasis review is required for admission to the design/tech emphasis area at the end of the freshman year.
- Dramaturgy Emphasis - Students must apply during the second semester of the freshman year.
- Lighting Design Emphasis - Emphasis review is required for admission to the design/tech emphasis area at the end of the freshman year.
- Scenic Design Emphasis - Emphasis review is required for admission to the design/tech emphasis area at the end of the freshman year.
- Sound Design Emphasis - Emphasis review is required for admission to the design/tech emphasis area at the end of the freshman year.
- Stage Management Emphasis - Admission must occur no later than the spring semester of the sophomore year.


## Major Requirements

A grade of C or better is required in all courses taken within the School of Drama. Audition/Interview is required for admission to degree program.

## Drama Core

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| DRAM 1114 | Costume Construction | 4 |
| DRAM 1124 | Stagecraft | 4 |
| DRAM 1134 | Stage Lighting and Sound | 4 |
| DRAM 1411 | Makeup | 1 |
| DRAM 1513 | Introduction to Acting | 3 |
| DRAM 2013 | Introduction to Theatrical Design and | 3 |
|  | Production | 3 |
| DRAM 2733 | Introduction to Dramaturgy | 3 |
| DRAM 3613 | Directing I | 1 |
| DRAM 3910 | Advanced Rehearsal and Production |  |
| The following courses are satisfied in General Education |  |  |
| Requirements: DRAM 3713, DRAM 3723. |  |  |

## Total Credit Hours

## Drama Emphasis Areas

Scenic Design Emphasis - Emphasis review is required for admission to the emphasis area at the end of the freshman year.

## SCENIC DESIGN Emphasis

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| DRAM 1133 | Drawing and Rendering | 3 |
| DRAM 1911 | Rehearsal and Production | 1 |
| DRAM 2052 | Traditional Media | 2 |
| DRAM 2062 | Digital Media | 2 |
| DRAM 2153 | Scene Design | 3 |
| DRAM 2223 | Lighting Design | 3 |
| DRAM 2343 | History of Costume | 3 |
| DRAM 2423 | Drafting for the Theatre | 3 |
| DRAM 3043 | Computer Aided Design I for the Theatre | 3 |
| DRAM 3053 | Computer Aided Design II for the Theatre | 3 |
| DRAM 3353 | Costume Design | 3 |
| DRAM 3910 | Advanced Rehearsal and Production | 1 |
| DRAM 4023 | Model Building | 3 |
| DRAM 4073 | Developing the Professional Perspective | 3 |
| DRAM 4113 | Scene Painting | 3 |
| DRAM 4153 | Advanced Scene Design | 3 |

DRAM 4253
History of Decor

## Advised Electives

Choose 9 hours from the School of Drama or outside the

## Total Credit Hours

${ }^{1}$ A total of two hours of DRAM 3910 is required in this emphasis area; one hour for the core, and one hour for emphasis.
${ }^{2}$ Courses used to fulfill General Education and/or major requirements may not fulfill electives.

## General Education and College Requirements

Courses designated as Core I, II, III, IV, or V are part of the General Education curriculum. Students must complete a minimum of 40 hours of General Education courses, chosen from the approved list, including at least one upper-division General Education course outside of the student's major. Courses graded S/U or P/NP will not apply.

## UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND

 COLLEGE REQUIREMENTS| Code Title | Credit |
| :--- | :--- |
|  | Hours |

Core Area I: Symbolic and Oral Communication
English Composition
ENGL 1113 Principles of English Composition 3
ENGL 1213 Principles of English Composition 3
or EXPO 1213 Expository Writing
Language
Two courses in the same language, (which can be met by 0-10
successfully completing 2 years of the same language in high school)
Mathematics
MATH 1473 Mathematics for Critical Thinking (Core I) 3
(or advised math elective)
Core Area II: Natural Science
Choose two courses from different disciplines in the 7-8
biological and/or physical sciences, one of which must
include a laboratory
Core Area III: Social Science
P SC 1113 American Federal Government 3
Choose one course 3
Core Area IV: Arts and Humanities
Artistic Forms

Western Culture
HIST 1483 United States to 1865
or HIST 1493 United States, 1865 to the Present
DRAM 3713 History of the Theatre I 3
DRAM 3723 History of the Theatre II 3
World Culture
Choose one course ${ }^{1} 3$
Core Area V: First-Year Experience
Choose one course
Total Credit Hours 40-51
${ }^{1}$ The course taken to fulfill the upper-division General Education requirement outside the major may not be chosen from Drama courses.

## Suggested Semester Plan of Study

| Freshman |  | Credit <br> First Semester |
| :--- | :--- | ---: |
|  |  | Hours |
| DRAM 1124 | Stagecraft | 4 |
| DRAM 1133 | Drawing and Rendering | 3 |
| DRAM 1513 | Introduction to Acting | 3 |
| ENGL 1113 | Principles of English Composition (Core I) | 3 |
| First-Year Experience (Core V) | 3 |  |
| Credit Hours |  |  |
| Second Semester |  | $\mathbf{1 6}$ |
| DRAM 1114 | Costume Construction |  |
| DRAM 1411 | Makeup | 4 |
| DRAM 2013 | Introduction to Theatrical Design and |  |
|  | Production | 1 |
| DRAM 2052 | Traditional Media | 3 |
| DRAM 2423 | Drafting for the Theatre | 2 |
| DRAM 4023 | Model Building | 3 |
|  | Credit Hours | 3 |

Sophomore

| First Semester |  |  |
| :--- | :--- | ---: |
| DRAM 1134 | Stage Lighting and Sound | 4 |
| DRAM 2062 | Digital Media | 2 |
| DRAM 2153 | Scene Design | 3 |
| DRAM 4113 | Scene Painting | 3 |
| ENGL 1213 | Principles of English Composition | 3 |
|  | Credit Hours | $\mathbf{1 5}$ |


| Second Semester |  |  |
| :--- | :--- | ---: |
| DRAM 1911 | Rehearsal and Production | 1 |
| DRAM 2733 | Introduction to Dramaturgy | 3 |
| DRAM 3043 | Computer Aided Design I for the Theatre | 3 |
| DRAM 4253 | History of Decor | 3 |
| P SC 1113 | American Federal Government | 3 |
| Math (Core I) |  | 3 |
|  | Credit Hours | $\mathbf{1 6}$ |

Junior

| First Semester |  | 3 |
| :--- | :--- | ---: |
| DRAM 2223 | Lighting Design | 3 |
| DRAM 3053 | Computer Aided Design II for the Theatre | 3 |
| DRAM 3613 | Directing I | 3 |
| DRAM 3713 | History of the Theatre I (Core IV) | 3 |
| DRAM 3910 | Advanced Rehearsal and Production | 1 |
| Artistic Forms (Core IV) ${ }^{2,3}$ | 3 |  |
|  | Credit Hours | $\mathbf{1 6}$ |

## Second Semester

| DRAM 3723 | History of the Theatre II (Core IV) | 3 |
| :--- | :--- | :--- |
| DRAM 3910 | Advanced Rehearsal and Production | 1 |
| DRAM 4153 | Advanced Scene Design | 3 |



Drama by audition and/or interview before being allowed to enroll for classes.

The Bachelor of Fine Arts in Drama degree is designed to provide the student with a solid foundation in each basic area of the theatre, with an opportunity to begin specialization in the sophomore year.

Students must choose one of the following emphasis areas.

- Acting Emphasis - Students will audition during the second semester of the freshman year.
- Costume Design Emphasis - Emphasis review is required for admission to the design/tech emphasis area at the end of the freshman year.
- Dramaturgy Emphasis - Students must apply during the second semester of the freshman year.
- Lighting Design Emphasis - Emphasis review is required for admission to the design/tech emphasis area at the end of the freshman year.
- Scenic Design Emphasis - Emphasis review is required for admission to the design/tech emphasis area at the end of the freshman year.
- Sound Design Emphasis - Emphasis review is required for admission to the design/tech emphasis area at the end of the freshman year.
- Stage Management Emphasis - Admission must occur no later than the spring semester of the sophomore year.


## Major Requirements

A grade of C or better is required in all courses taken within the School of Drama. Audition/Interview is required for admission to degree program.

## Drama Core

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| DRAM 1114 | Costume Construction | 4 |
| DRAM 1124 | Stagecraft | 4 |
| DRAM 1134 | Stage Lighting and Sound | 4 |
| DRAM 1411 | Makeup | 1 |
| DRAM 1513 | Introduction to Acting | 3 |
| DRAM 2013 | Introduction to Theatrical Design and | 3 |
|  | Production | 3 |
| DRAM 2733 | Introduction to Dramaturgy | 3 |
| DRAM 3613 | Directing I | 3 |
| DRAM 3910 | Advanced Rehearsal and Production | 1 |

The following courses are satisfied in General Education
Requirements: DRAM 3713, DRAM 3723.

## Total Credit Hours

## Drama Emphasis Areas

Sound Design Emphasis - Emphasis review is required for admission to the emphasis area at the end of the freshman year.

## SOUND DESIGN Emphasis

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| DRAM 1133 | Drawing and Rendering | 3 |
| DRAM 1811 | Music Notation and Score Reading for | 1 |
|  | Stage Managers and Designers |  |


| DRAM 1911 | Rehearsal and Production | 1 |
| :---: | :---: | :---: |
| DRAM 2062 | Digital Media | 2 |
| DRAM 2153 | Scene Design | 3 |
| or DRAM 3353 | Costume Design |  |
| DRAM 2223 | Lighting Design | 3 |
| DRAM 2413 | Sound Techniques | 3 |
| DRAM 2423 | Drafting for the Theatre | 3 |
| DRAM 3043 | Computer Aided Design I for the Theatre | 3 |
| DRAM 3053 | Computer Aided Design II for the Theatre | 3 |
| DRAM 3413 | Sound Design | 3 |
| DRAM 3443 | Digital Audio Techniques | 3 |
| DRAM 3910 | Advanced Rehearsal and Production ${ }^{1}$ | 1 |
| DRAM 4073 | Developing the Professional Perspective | 3 |
| DRAM 4413 | Advanced Sound Design | 3 |
| DRAM 4423 | Sound Scoring | 3 |
| MUTK 4173 | Recording Techniques | 3 |
| Advised Electives |  |  |
| Choose 10 hours from the School of Drama or outside the department ${ }^{2}$ |  | 10 |
| Total Credit Hours |  | 54 |
| ${ }^{1}$ A total of two hours of DRAM 3910 is required in this emphasis area; one hour for the core, and one hour for emphasis. <br> ${ }^{2}$ Courses used to fulfill General Education and/or major requirements may not fulfill electives. |  |  |

## General Education and College Requirements

Courses designated as Core I, II, III, IV, or V are part of the General Education curriculum. Students must complete a minimum of 40 hours of General Education courses, chosen from the approved list, including at least one upper-division General Education course outside of the student's major. Courses graded P/NP will not apply.

## UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND

 COLLEGE REQUIREMENTSCode Title Credit
Hours
Core Area I: Symbolic and Oral Communication
English Composition
ENGL 1113 Principles of English Composition 3
ENGL 1213 Principles of English Composition 3
or EXPO 1213 Expository Writing

## Language

Two courses in the same language, (which can be met by 0-10 successfully completing 2 years of the same language in high school)
Mathematics

| MATH 1473 | Mathematics for Critical Thinking (Core I) <br> (or advised math elective) | 3 |
| :--- | :--- | :--- |

## Core Area II: Natural Science

Choose two courses from different disciplines in the 7-8 biological and/or physical sciences, one of which must include a laboratory
Core Area III: Social Science
P SC 1113 American Federal Government


| P SC 1113 | American Federal Government | 3 |
| :---: | :---: | :---: |
| Natural Science without lab (Core II) ${ }^{2}$ |  | 3-4 |
|  | Credit Hours | 16 |
| Junior |  |  |
| First Semester |  |  |
| DRAM 3053 | Computer Aided Design II for the Theatre | 3 |
| DRAM 3443 | Digital Audio Techniques | 3 |
| DRAM 3613 | Directing I | 3 |
| DRAM 3713 | History of the Theatre I (Core IV) | 3 |
| DRAM 3910 | Advanced Rehearsal and Production | 1 |
| DRAM 4413 | Advanced Sound Design | 3 |
|  | Credit Hours | 16 |


| Second Semester |  |  |
| :---: | :---: | :---: |
| DRAM 3723 | History of the Theatre II (Core IV) | 3 |
| DRAM 4423 | Sound Scoring | 3 |
| MUTK 4173 | Recording Techniques | 3 |
| Advised Elective |  |  |
| HIST 1483 or HIST 1493 | United States to 1865 or United States, 1865 to the Present | 3 |
|  | Credit Hours | 13 |

## Senior

First Semester

| DRAM 2153 <br> or DRAM 3353Scene Design <br> or Costume Design | 3 |  |
| :--- | ---: | ---: |
| DRAM 4073 $\quad$ Developing the Professional Perspective | 3 |  |
| Advised Elective | 3 |  |
| Natural Science with lab (Core II) | 4 |  |
| Beginning Language (Core I) | $0-5$ |  |
| Credit Hours |  |  |

## Second Semester

Advised Elective 3
Advised Elective 3
Artistic Forms (Core IV) 2,3 3
Social Science (Core III) ${ }^{2} 3$
World Culture (Core IV) ${ }^{2} 3$

| Beginning Language continued (Core I) | $0-5$ |
| :--- | ---: |


| Credit Hours | $15-20$ |
| :--- | ---: |
| Total Credit Hours | $120-130$ |

1 MATH 1473 is recommended.
${ }^{2}$ The course taken to fulfill the upper-division General Education requirement outside the major may not be chosen from Drama courses.
${ }^{3}$ MTHR 3143 is recommended.

- At least 24 hours of upper-division Drama credit must be earned in residence as a declared major.
- Bachelor's degrees require a minimum of $\mathbf{4 0}$ hours of upper-division (3000-4000) coursework.
- This plan of study should not be used in lieu of academic advisement.
- Unless otherwise stated on the degree sheet, the College of Fine Arts does not permit coursework to fulfill more than one degree requirement.


## Theatre: Stage Management Emphasis,

## B.F.A.

Minimum Total Credit Hours: 120-130
Major Hours: 80
Minimum Upper-Division Hours: 40
Upper-Division Hours Within Major. 24
Overall GPA - Combined and OU: 2.50
Program Code: B275 P626

## Admission

The Helmerich School of Drama follows the basic admission requirements of the University of Oklahoma and the Weitzenhoffer Family College of Fine Arts. Please refer to those sections in this catalog for specific details. In addition, admission to the OU School of Drama is by audition and/or interview only and requires an on-campus audition (for acting emphasis) or portfolio review (for design or technology emphasis), and/or interview (for dramaturgy or stage management emphasis). Students must be officially accepted into the School of Drama by audition and/or interview before being allowed to enroll for classes.

The Bachelor of Fine Arts in Drama degree is designed to provide the student with a solid foundation in each basic area of the theatre, with an opportunity to begin specialization in the sophomore year.

Students must choose one of the following emphasis areas.

- Acting Emphasis - Students will audition during the second semester of the freshman year.
- Costume Design Emphasis - Emphasis review is required for admission to the design/tech emphasis area at the end of the freshman year.
- Dramaturgy Emphasis - Students must apply during the second semester of the freshman year.
- Lighting Design Emphasis - Emphasis review is required for admission to the design/tech emphasis area at the end of the freshman year.
- Scenic Design Emphasis - Emphasis review is required for admission to the design/tech emphasis area at the end of the freshman year.
- Sound Design Emphasis - Emphasis review is required for admission to the design/tech emphasis area at the end of the freshman year.
- Stage Management Emphasis - Admission must occur no later than the spring semester of the sophomore year.


## Major Requirements

A grade of C or better is required in all courses taken within the School of Drama. Audition/Interview is required for admission to degree program.

## Drama Core

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| DRAM 1114 | Costume Construction | 4 |
| DRAM 1124 | Stagecraft | 4 |
| DRAM 1134 | Stage Lighting and Sound | 4 |
| DRAM 1411 | Makeup | 1 |
| DRAM 1513 | Introduction to Acting | 3 |


| DRAM 2013 | Introduction to Theatrical Design and <br> Production | 3 |
| :--- | :--- | :--- |
| DRAM 2733 | Introduction to Dramaturgy | 3 |
| DRAM 3613 | Directing I | 3 |
| DRAM 3910 | Advanced Rehearsal and Production | 1 |
| The following courses are satisfied in General Education |  |  |
| Requirements: DRAM 3713, DRAM 3723. |  |  |

Total Credit Hours

## Drama Emphasis Areas

Stage Management Emphasis - Admission must occur no later than the fall semester of the sophomore year.

## Stage Management Emphasis

| Code | Title | Credit Hours |
| :---: | :---: | :---: |
| Choose the following for one hour per semester in freshmen year. |  | 2 |
| DRAM 1141 | Stage Management Seminar I |  |
| DRAM 1811 | Music Notation and Score Reading for Stage Managers and Designers | 1 |
| DRAM 1911 | Rehearsal and Production | 1 |
| Choose the following for one hour per semester in sophomore year. |  | 2 |
| DRAM 2141 | Stage Management Seminar II |  |
| DRAM 2223 | Lighting Design | 3 |
| DRAM 2413 | Sound Techniques | 3 |
| DRAM 2813 | Stage Management | 3 |
| DRAM 2821 | Design Drafting for Stage Managers | 1 |
| Choose the following for one hour per semester in junior year. |  | 2 |
| DRAM 3141 | Stage Management Seminar III |  |
| A total of two hours is required: |  | 2 |
| DRAM 3781 | Topics in Dramatic Literature |  |
| Choose the following for two hours per semester in junior year: |  | 4 |
| DRAM 3822 | Stage Management Studio I |  |
| DRAM 3833 | Advanced Stage Management | 3 |
| DRAM 3910 | Advanced Rehearsal and Production ${ }^{1}$ | 1 |
| Choose the following for one hour per semester in senior year: |  | 2 |
| DRAM 4141 Stage Management Seminar IV |  |  |
| Choose the following for two hours per semester in senior year. |  | 4 |
| DRAM 4822 | Stage Management Studio II |  |
| DRAM 4853 | Theatre Management | 3 |
| Upper-division Advised Drama Elective |  | 3 |
| B AD 1001 | Personal Computing Productivity Tools | 1 |
| Advised Electives |  |  |
| Choose 13 hours from the School of Drama or outside the department ${ }^{2}$ |  | 13 |
| Total Credit Hours |  | 54 |
| ${ }^{1}$ A total of two hours of DRAM 3910 is required in this emphasis area; one hour for the core, and one hour for emphasis. |  |  |

${ }^{2}$ Courses used to fulfill General Education and/or major requirements may not fulfill electives.

## General Education and College Requirements

Courses designated as Core I, II, III, IV, or V are part of the General Education curriculum. Students must complete a minimum of 40 hours of General Education courses, chosen from the approved list, including at least one upper-division General Education course outside of the student's major. Courses graded P/NP will not apply.
UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND
COLLEGE REQUIREMENTS
Code $\quad$ Title

## Core Area I: Symbolic and Oral Communication

| English Composition | 3 |  |
| :--- | :--- | ---: |
| ENGL 1113 | Principles of English Composition | 3 |
| ENGL 1213 Principles of English Composition <br> or EXPO 1213 Expository Writing |  |  |
| Language  <br> Two courses in the same language, (which can be met by <br> successfully completing 2 years of the same language in high <br> school) $0-10$ <br> Mathematics Mathematics for Critical Thinking (Core I) <br> MATH 1473 (or advised math elective) 3 |  |  |

Core Area II: Natural Science
Choose two courses from different disciplines in the
biological and/or physical sciences, one of which must
include a laboratory
Core Area III: Social Science
PSC 1113 American Federal Government 3
Choose one course 3
Core Area IV: Arts and Humanities

## Artistic Forms

| Choose one course (MTHR 3143 recommended) ${ }^{1}$ |  | 3 |
| :---: | :---: | :---: |
| Western Culture |  |  |
| HIST 1483 | United States to 1865 | 3 |
| or HIST 1493 | United States, 1865 to the Present |  |
| DRAM 3713 | History of the Theatre I | 3 |
| DRAM 3723 | History of the Theatre II | 3 |
| World Culture |  |  |
| Choose one course ${ }^{1}$ |  | 3 |
| Core Area V: First-Year Experience |  |  |
| Choose one cours |  | 3 |

Total Credit Hours 40-51
${ }^{1}$ The course taken to fulfill the upper-division General Education requirement outside the major may not be chosen from Drama courses.

## Suggested Semester Plan of Study

## Freshman

| First Semester |  | Credit <br> Hours |
| :--- | :--- | ---: |
| DRAM 1124 | Stagecraft | 4 |
| DRAM 1141 | Stage Management Seminar I | 1 |
| DRAM 1411 | Makeup | 1 |
| DRAM 1513 | Introduction to Acting | 3 |
| DRAM 1811 | Music Notation and Score Reading for | 1 |
|  | Stage Managers and Designers |  |
| DRAM 2013 | Introduction to Theatrical Design and |  |
|  | Production | 3 |
| ENGL 1113 | Principles of English Composition (Core I) | 3 |
|  | Credit Hours | $\mathbf{1 6}$ |

## Second Semester

DRAM 1134 Stage Lighting and Sound 4
DRAM 1141 Stage Management Seminar I 1
DRAM 1911 Rehearsal and Production 1
B AD 1001 Personal Computing Productivity Tools 1
ENGL 1213 Principles of English Composition (Core I) 3
or EXPO 1213 or Expository Writing
MATH (Core I) ${ }^{1} 3$

| First-Year Experience (Core V) | 3 |
| ---: | ---: |
| Credit Hours | $\mathbf{1 6}$ |


| Sophomore |  |  |
| :--- | :--- | ---: |
| First Semester |  | 4 |
| DRAM 1114 | Costume Construction | 1 |
| DRAM 2141 | Stage Management Seminar II | 3 |
| DRAM 2413 | Sound Techniques | 3 |
| DRAM 2813 | Stage Management | 1 |
| DRAM 2821 | Design Drafting for Stage Managers | $\mathbf{1}$ |
| DRAM 3910 | Advanced Rehearsal and Production | $\mathbf{1 3}$ |


| Second Semester |  |  |
| :--- | :--- | ---: |
| DRAM 2141 | Stage Management Seminar II | 1 |
| DRAM 2733 | Introduction to Dramaturgy | 3 |
| DRAM 3910 | Advanced Rehearsal and Production | 1 |
| P SC 1113 | American Federal Government | 3 |
| Natural Science with lab (Core II) | 4 |  |
| Social Science (Core III) | 3 |  |
|  | Credit Hours | $\mathbf{1 5}$ |
| Junior |  |  |
| First Semester |  | 3 |
| DRAM 2223 | Lighting Design | 1 |
| DRAM 3141 | Stage Management Seminar III | 3 |
| DRAM 3613 | Directing I | 3 |
| DRAM 3713 | History of the Theatre I (Core IV) | 2 |
| DRAM 3822 | Stage Management Studio I | 3 |
| HIST 1483 | United States to 1865 |  |
| HIST 1493 | United States, 1865 to the Present | $\mathbf{1 5}$ |


| Second Semester |  |  |
| :--- | :--- | :--- |
| DRAM 3141 | Stage Management Seminar III | 1 |
| DRAM 3723 | History of the Theatre II (Core IV) | 3 |
| DRAM 3781 | Topics in Dramatic Literature | 1 |
| DRAM 3822 | Stage Management Studio I | 2 |
| DRAM 3833 | Advanced Stage Management | 3 |
| Artistic Forms (Core IV) |  |  |
| Advised Elective |  | 3 |
|  | Credit Hours | 3 |


| Senior |  |  |  |
| :--- | ---: | :---: | :---: |
| First Semester |  |  |  |
| DRAM 4141 | Stage Management Seminar IV |  |  |
| DRAM 4822 | Stage Management Studio II |  |  |
| Upper-division Advised DRAM Elective | 1 |  |  |
| Advised Elective | 2 |  |  |
| Advised Elective | 3 |  |  |
| Natural Science without lab (Core II) | 3 |  |  |
| Beginning Language (Core I) | 3 |  |  |
| Credit Hours |  |  | $\mathbf{3 - 4}$ |
| $\mathbf{1 5 - 2 0}$ |  |  |  |


| Second Semester |  |  |
| :--- | :--- | ---: |
| DRAM 3781 | Topics in Dramatic Literature | 1 |
| DRAM 4141 | Stage Management Seminar IV | 1 |
| DRAM 4822 | Stage Management Studio II | 2 |
| DRAM 4853 | Theatre Management | 3 |
| Advised Elective(s) | 4 |  |
| World Culture (Core IV) | 3 |  |
| Beginning Language continued (Core I) | $\mathbf{3}$ |  |
| Credit Hours |  |  |
| Total Credit Hours |  |  |

1 MATH 1473 is recommended
2 The course taken to fulfill the upper-division General Education requirement outside the major may not be chosen from Drama courses.
${ }^{3}$ MTHR 3143 is recommended.

- At least $\mathbf{2 4}$ hours of upper-division Drama credit must be earned in residence as a declared major.
- Bachelor's degrees require a minimum of $\mathbf{4 0}$ hours of upper-division (3000-4000) coursework.
- This plan of study should not be used in lieu of academic advisement.
- Unless otherwise stated on the degree sheet, the College of Fine Arts does not permit coursework to fulfill more than one degree requirement.


## Theatre, Minor

Minimum Total Credit Hours: 18

## Program Code: N859

The requirements for a minor must be completed concurrently with the major degree requirements.

No minor may be added by completing courses after receiving the bachelor's degree.

No single course may be used by a student to satisfy a major requirement and a minor requirement.

Students must earn a minimum grade of $C$ in each course.
A minimum of 9 hours must be upper division courses.
The Minor in Theatre is available to all undergraduate students at OU.

## Required Courses

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| DRAM 1503 | Acting for Non-Majors | 3 |
| DRAM 1713 | Understanding Theatre | 3 |
| DRAM 3713 | History of the Theatre I | 3 |
| DRAM 3723 | History of the Theatre II | 3 |
| Choose six hours of electives from the following: ${ }^{1}$ | 6 |  |
| DRAM 1603 | Voice And Diction for Non-Majors |  |
| DRAM 2503 | On-Camera Acting for Non-Majors |  |
| DRAM 2813 | Stage Management |  |
| DRAM 3781 | Topics in Dramatic Literature |  |
| DRAM 4853 | Theatre Management |  |
| ENGL 4523 | Shakespeare Comedies |  |
| ENGL 4533 | Shakespeare Tragedies |  |
| MTHR 3143 | History of American Musical Theatre |  |
| Any major DRAM course with permission from instructor |  |  |
| and Minor Advisor |  |  |

Total Credit Hours

1 DRAM 2713 will not count as an elective towards completion of the minor.

If the minor is officially declared and approved, successfully completed, and noted on the graduation application, the student's transcript will so indicate at the time the bachelor's degree is posted.

## Drama, M.A.

Minimum Total Hours (Thesis): 30
Program Code: M270

## Thesis Option

| Code | Title | Credit |
| :--- | :--- | :--- |
|  | Hours |  |


| Required Courses | 3 |
| :--- | ---: |
| DRAM 5013 | 3 |
| DRAM 5733 |  |
| Core Courses | 3 |
| Choose one of the following seminars: |  |
| DRAM 5940 Special Topics in Theatre Drama |  |
| DRAM 5723 |  |
| DRAM 5743 |  |
| DRAM 5753 |  |
| DRAM 5763 |  |

[^48]| Choose 17 hours of electives | 17 |
| :--- | ---: |
| Thesis |  |
| DRAM 5980 | Research for Master's Thesis |
| Total Credit Hours | $\mathbf{3 0}$ |

## General Requirements for all Master's Degrees

The master's degree requires the equivalent of at least two semesters of satisfactory graduate work and additional work as may be prescribed for the degree.

All coursework applied to the master's degree must carry graduate credit.
Master's degree programs which require a thesis consist of at least 30 credit hours. All non-thesis master's degree programs require at least 30 credit hours.

Credit transferred from other institutions must meet specific criteria and is subject to certain limitations.

Courses completed through correspondence study may not be applied to the master's degree.

To qualify for a graduate degree, students must achieve an overall grade point average of 3.0 or higher in the degree program coursework and in all resident graduate coursework attempted. A student must also have at least a 3.0 in all coursework (including undergraduate coursework if any).

Additional information for master's degree students may be found in the Graduate College Bulletin.

## School of Music

Jonathan Nichol, Director
Chris Baumgartner, Associate Director; Coordinator for Graduate Studies Valerie Watts, Assistant Director for Undergraduate Studies \&
Scholarships
Suzanne Tirk, Assistant Director for Recruitment and Engagement
138 Catlett Music Center
500 W. Boyd
Norman, OK 73019-2071
Phone: (405) 325-2081
FAX: (405) 325-7574
oumusic@ou.edu
music.ou.edu

## General Information

The School of Music offers curricula for those who choose to pursue professional careers in music, as well as opportunities for all University of Oklahoma students who may wish to acquaint themselves with music as listeners or participants. The school emphasizes and encourages creativity and research and provides avenues for the students to develop their powers of personal expression through performance, composition, historical, analytical and pedagogical disciplines.

The faculty includes artists and scholars who are nationally known in the fields of performance, composition, education, history and theory. Recitals, concerts, lectures, guest artists, operas, and seminars provide the students with a wide range of opportunities for musical and intellectual growth.

The OU School of Music is housed in three buildings: Stanley B. Catlett, Sr. Music Center, Donald W. Reynolds Performing Arts Center and Carpenter Hall. The Catlett Music Center contains the School of Music administrative offices, faculty offices and studios, rehearsal suites, classrooms, MIDI lab, the Grant Fine Arts Library, a recording studio, and three performance halls, including the Paul F. Sharp Concert Hall, Morris R. Pitman Recital Hall, and Grayce B. Kerr Gothic Hall. The Donald W. Reynolds Performing Arts Center houses faculty offices and the restored Holmberg auditorium used by the OU Opera program. Directly adjacent to the Reynolds Performing Arts Center is the Crawford Music Practice Wing, consisting of 47 practice rooms and an all-Steinway inventory of pianos. Studios for the voice and piano faculty members are currently located in Carpenter Hall.

The OU School of Music is a fully accredited institutional member of the National Association of Schools of Music, and the requirements for admission and graduation are in accordance with the published regulations of the N.A.S.M.

## Programs for Academic Excellence

The School of Music offers numerous performing opportunities to all University students, regardless of their major. For students who demonstrate sufficient musical ability to qualify, the following ensembles are available: Campus Bands, Wind Symphony, Symphony Band, Basketball Band, University Orchestra, University Chorale, Men's Glee Club, Women's Chorus, Opera, Collegium Musicum, the Pride of Oklahoma Marching Band, Trombone Choir, Jazz Ensembles, Percussion Ensembles, Sooner Bassooners, New Century Ensemble, New Century Improv Ensemble, and numerous additional performing groups such as woodwind and brass quintets, string quartets, and trios. Students should consult music.ou.edu and each ensemble's director regarding membership and audition requirements.

All undergraduate students majoring in music are required to participate in a major ensemble for 4-8 semesters, depending on their degree plan. Major ensembles include the Pride of Oklahoma Marching Band, Symphony Band, Wind Symphony, Symphony Orchestra, University Chorale, Women's Chorus and Men's Glee Club. As each music degree program is unique, students should consult their degree requirements and consult with their advisor regarding their ensemble participation obligations.

## Scholarships, Awards and Financial Aid

Tuition waivers and cash scholarships are awarded on the merits of the audition for admission to the School of Music, and renewal is based on the student's musical and academic performance each year. Students are eligible for other scholarships and awards once they have matriculated to the University of Oklahoma. Information about these awards are available at OU Scholarships. Additional financial aid is available to qualified students through the University of Oklahoma Student Financial Center.

Graduate assistantships are available in voice, piano, choral conducting, wind conducting, orchestral conducting, music theory, composition, musicology, music education, and applied music. International students offered graduate assistantships may be required to pass a series of English exams administered by the English Assessment office prior to being appointed. Interested students should contact the office of the School of Music's Assistant Director for Graduate Studies and/or their intended major professor.

## Undergraduate Study

- Music: Instrumental Jazz, B.A. (p. 1514)
- Music, B.A. (p. 1517)
- Composition, B.Mus. (p. 1519)
- Organ, B.Mus. (p. 1522)
- Piano, B.Mus. (p. 1524)
- Piano Pedagogy, B.Mus. (p. 1526)
- Voice, B.Mus. (p. 1529)
- W/P/S:Brass \& Percussion, B.Mus. (p. 1531)
- W/P/S:Harp, B.Mus. (p. 1534)
- W/P/S:Strings \& Guitar, B.Mus. (p. 1536)
- W/P/S:Woodwinds, B.Mus. (p. 1539)
- Music, B.M.A. (p. 1541)
- Instrumental Music Education, B.M.Ed. (p. 1544)
- Vocal Music Education, B.M.Ed. (p. 1547)
- Commercial Music, Minor (p. 1551)
- Instrumental Jazz, Minor (p. 1551)
- Music, Minor (p. 1552)
- Wind, Percussion, String, D.M.A. (p. 1569)


## Admission

The School of Music accepts the admission requirements of the University of Oklahoma for incoming freshmen and transfer students. In addition to these general requirements for admission, all students must audition and be accepted into a studio in the major applied instrument/voice area before enrolling as a music major. Additional materials may be required from students interested in pursuing a Music Education degree - for more information, please consult with the School of Music's Assistant Director of Recruitment and Engagement or email undergradmusic@ou.edu.

## Degree Requirements

All students who are candidates for the Bachelor of Music, Bachelor of Musical Arts and Bachelor of Music Education degrees must satisfactorily pass sophomore proficiency and piano proficiency requirements. Students with prior experience on the piano may take a piano skills examination to determine placement in an appropriate piano class or private studio.

## Degree Recitals

All candidates for baccalaureate degrees in music, with the exception of the Bachelor of Arts, must present public degree recitals. All recitals presented in partial fulfillment of degree requirements must be previewed and approved by a faculty committee prior to scheduling the recital.

## Validation of Transfer Credit for Applied Study

Transfer students whose advancement is below the junior level and who expect to continue their studies must enroll in Applied Music 2020 and will be examined at the end of the semester for placement in a course sequence and validation of transfer credit. All other students wishing to validate transfer credit in applied music should consult with their studio professor and the academic advisor for the School of Music.

## Class Attendance

Students are expected to attend every class session and private lesson as scheduled. Instructors in applied music are required to make up lessons that they cancel for personal reasons. Instructors are not required to make up lessons missed by the failure of the student
to attend, nor those missed on occasions when the instructors are requested to leave the campus as official representatives of the University.

## Recital Attendance

All music students must earn a grade of Satisfactory in Music Orientation plus grades of Satisfactory in three additional semesters of Recital Attendance.

## Grade Requirements

A grade of C or better is required in all courses taken within the School of Music. Any courses in which a D is earned must be repeated until a grade of $C$ or better is achieved. Courses graded $P / N P$ (pass/fail) may not be used to fulfill requirements for a music degree; all coursework must be letter graded.

## Enrollment Limitation

If a student has enrolled in a required course three times and does not receive a C or better, the student will not be allowed to pursue any music degree program for which that course is a requirement.

This regulation concerning the limit to repetitions of a course does not apply to applied music study nor to ensemble study.

## Graduate Study

The School of Music at the University of Oklahoma offers the following graduate programs.

- Commercial Music, Minor (p. 1551)
- Choral Conducting, M.M. (p. 1552)
- Instrumental Conducting, M.M. (p. 1553)
- Music Composition, M.M. (p. 1553)
- Music Theory, M.M. (p. 1554)
- Musicology, M.M. (p. 1555)
- Organ: Standard, M.M. (p. 1555)
- Organ: Church Music, M.M. (p. 1556)
- Organ: Technology, M.M. (p. 1556)
- Piano: Performance, M.M. (p. 1557)
- Piano: Performance and Pedagogy, M.M. (p. 1558)
- Voice: Opera, M.M. (p. 1558)
- Voice: Performance, M.M. (p. 1559)
- Wind, Percussion, String, M.M. (p. 1560)
- Conducting, M.M.Ed. (p. 1560)
- General Music Education, M.M.Ed. (p. 1561)
- Instrumental, M.M.Ed. (p. 1563)
- Piano Pedagogy, M.M.Ed. (p. 1563)
- Conducting, D.M.A. (p. 1564)
- Music Composition, D.M.A. (p. 1565)
- Piano, D.M.A. (p. 1566)
- Organ, D.M.A. (p. 1567)
- Voice, D.M.A. (p. 1568)
- Wind, Percussion, String, D.M.A. (p. 1569)
- Music Education, Ph.D. (p. 1569)

The following D.M.A. programs are also offered, contact the School of Music for more information:

- Music Composition, D.M.A
- Piano, D.M.A
- Voice, D.M.A.
- Wind/Percussion/String, D.M.A.

For further information, please visit the School of Music website or call the Graduate Music Office at (405) 325-5393.

## Courses

BASN 2000 Freshman and/or Sophomore Secondary Bassoon 1-2 Credit
1 to 2 hours. Prerequisite: permission of adviser and instructor. May be repeated; maximum credit toward B.F.A., B.M.A., B.M.E., and B.M. degrees, eight hours. For freshman and sophomore music students studying in a secondary (or minor) performance area. (F, Sp, Su)
BASN 2020 Bassoon for Music Majors; Freshman/

## Sophomore

## 2-4 Credit Hours

2 to 4 hours. Prerequisite: Majors only. May be repeated; maximum credit 12 hours. Applied instrumental lessons for freshmen and sophomore music majors in a School of Music degree program. (F, Sp)
BASN 3440 Mentored Research Experience 3 Credit Hours
0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)
BASN 4000 Junior and/or Senior Secondary Bassoon 1-2 Credit Hours 1 to 2 hours. Prerequisite: permission of adviser and instructor. May be repeated; maximum credit toward B.F.A., B.M.A., B.M.E., and B.M. degrees, eight hours. For junior and senior music students studying in a secondary (or minor) performance area. (F, Sp, Su)
BASN 4020 Bassoon for Music Majors: Junior/Senior 1-4 Credit Hours 1 to 4 hours. Prerequisite: Majors only; junior standing. May be repeated; maximum credit 20 hours. Applied instrumental lessons for junior and senior music majors in a School of Music degree program. (F, Sp)
BASN 5000 Master's Level Secondary Bassoon 1-2 Credit Hours 1 to 2 hours. Prerequisite: graduate standing in music; permission of adviser and instructor. May be repeated; maximum credit eight hours on a given instrument (including voice). For master's degree music students studying in a secondary (or minor) performance area. (F, Sp, Su)
BASN 5010 Master's-Level Bassoon for Non-Performance Music Majors

1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing in music; permission of adviser and instructor. May be repeated; maximum credit eight hours on a given instrument (including voice). For master's degree students other than performance majors in their major field. (F, Sp, Su)
BASN 5020 Master's-Level Bassoon for Performance Majors 2-4 Credit Hours
2 to 4 hours. Prerequisite: graduate standing in music; permission of adviser and instructor; 4020 and 4021 or equivalent. May be repeated; maximum credit toward an M.M. degree 10 hours. (F, Sp, Su)
BASN 6000 Doctoral Secondary Bassoon 1-2 Credit Hours
1 to 2 hours. Prerequisite: graduate standing in music, permission of adviser or instructor. May be repeated; maximum credit eight hours on a given instrument (including voice). For doctoral degree music students studying in a secondary (or minor) performance area. (F, Sp, Su)

## BASN 6010 Doctoral Bassoon for Non-Performance Music

 Majors2-3 Credit Hours
2 to 3 hours. Prerequisite: graduate standing in music; permission of adviser and instructor. May be repeated. Doctoral-level study of applied music in the major performance area for students other than performance majors in their primary field. (F, Sp, Su)
BASN 6020 Doctoral Bassoon for Performance Majors 2-4 Credit Hours 2 to 4 hours. Prerequisite: graduate standing in music; 5042; permission of adviser and instructor. May be repeated; credit applicable toward applied music requirements for the Doctor of Musical Arts degree. Doctoral-level study of applied music for performance majors in their primary field. (F, Sp, Su)

BASS 2000 Freshman and/or Sophomore Secondary Bass 1-2 Credit Hours
1 to 2 hours. Prerequisite: permission of adviser and instructor. May be repeated; maximum credit toward B.F.A., B.M.A., B.M.E., and B.M. degrees, eight hours. For freshman and sophomore music students studying in a secondary (or minor) performance area. (F, Sp, Su)
BASS 2020 Bass for Music Majors: Freshman/Sophomore 2-4 Credit Hours
2 to 4 hours. Prerequisite: Majors only. May be repeated; maximum credit 12 hours. Applied instrumental lessons for freshmen and sophomore music majors in a School of Music degree program. (F, Sp)
BASS 3440 Mentored Research Experience 3 Credit Hours 0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)
BASS 4000 Junior and/or Senior Secondary Bass 1-2 Credit Hours 1 to 2 hours. Prerequisite: permission of adviser and instructor. May be repeated; maximum credit toward B.F.A., B.M.A., B.M.E., and B.M. degrees, eight hours. For junior and senior music students studying in a secondary (or minor) performance area. (F, Sp, Su)

BASS 4020 Bass for Music Majors: Junior/Senior 1-4 Credit Hours 1 to 4 hours. Prerequisite: Majors only; junior standing. May be repeated; maximum credit 20 hours. Applied instrumental lessons for junior and senior music majors in a School of Music degree program. (F, Sp)

BASS 5000 Master's Level Secondary Bass
1-2 Credit Hours
1 to 2 hours. Prerequisite: graduate standing in music; permission of adviser and instructor. May be repeated; maximum credit eight hours on a given instrument (including voice). For master's degree music students studying in a secondary (or minor) performance area. (F, Sp, Su)

BASS 5010 Master's-Level Bass for Non-Performance Music Majors 1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing in music; permission of adviser and instructor. May be repeated; maximum credit eight hours on a given instrument (including voice). For master's degree students other than performance majors in their major field. (F, Sp, Su)
BASS 5020 Master's-Level Bass for Performance Majors 2-4 Credit Hours
2 to 4 hours. Prerequisite: graduate standing in music; permission of adviser and instructor; 4020 and 4021 or equivalent. May be repeated; maximum credit toward an M.M. degree 10 hours. (F, Sp, Su)

BASS 6000 Doctoral Secondary Bass
1-2 Credit Hours
1 to 2 hours. Prerequisite: graduate standing in music, permission of adviser or instructor. May be repeated; maximum credit eight hours on a given instrument (including voice). For doctoral degree music students studying in a secondary (or minor) performance area. (F, Sp, Su)

BASS 6010 Doctoral Bass for Non-Performance Music
Majors
2-3 Credit Hours
2 to 3 hours. Prerequisite: graduate standing in music; permission of adviser and instructor. May be repeated. Doctoral-level study of applied music in the major performance area for students other than performance majors in their primary field. (F, Sp, Su)

BASS 6020 Doctoral Bass for Performance Majors 2-4 Credit Hours 2 to 4 hours. Prerequisite: graduate standing in music; 5042; permission of adviser and instructor. May be repeated; credit applicable toward applied music requirements for the Doctor of Musical Arts degree. Doctoral-level study of applied music for performance majors in their primary field. (F, Sp, Su)

CELO 2000 Freshman and/or Sophomore Secondary Cello 1-2 Credit Hours
1 to 2 hours. Prerequisite: permission of adviser and instructor. May be repeated; maximum credit toward B.F.A., B.M.A., B.M.E., and B.M. degrees, eight hours. For freshman and sophomore music students studying in a secondary (or minor) performance area. (F, Sp, Su)

CELO 2020 Cello for Music Majors: Freshman/Sophomore 2-4 Credit Hours
2 to 4 hours. Prerequisite: Majors only. May be repeated; maximum credit 12 hours. Applied instrumental lessons for freshmen and sophomore music majors in a School of Music degree program. (F, Sp)

CELO 3440 Mentored Research Experience 3 Credit Hours
0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)

CELO 4000 Junior and/or Senior Secondary Cello 1-2 Credit Hours 1 to 2 hours. Prerequisite: permission of adviser and instructor. May be repeated; maximum credit toward B.F.A., B.M.A., B.M.E., and B.M. degrees, eight hours. For junior and senior music students studying in a secondary (or minor) performance area. (F, Sp, Su)

CELO 4020 Cello for Music Majors: Junior/Senior 1-4 Credit Hours 1 to 4 hours. Prerequisite: Majors only; junior standing. May be repeated; maximum credit 20 hours. Applied instrumental lessons for junior and senior music majors in a School of Music degree program. (F, Sp)

CELO 5000 Master's-Level Secondary Cello
1-2 Credit Hours
1 to 2 hours. Prerequisite: graduate standing in music; permission of adviser and instructor. May be repeated; maximum credit eight hours on a given instrument (including voice). For master's degree music students studying in a secondary (or minor) performance area. (F, Sp, Su)

CELO 5010 Master's-Level Cello for Non-Performance Music Majors

1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing in music; permission of adviser and instructor. May be repeated; maximum credit eight hours on a given instrument (including voice). For master's degree students other than performance majors in their major field. (F, Sp, Su)

CELO 5020 Master's-Level Cello For Performance Majors 2-4 Credit Hours
2 to 4 hours. Prerequisite: graduate standing in music; permission of adviser and instructor; 4020 and 4021 or equivalent. May be repeated; maximum credit toward an M.M. degree 10 hours. (F, Sp, Su)

CELO 6000 Doctoral Secondary Cello 1-2 Credit Hours
1 to 2 hours. Prerequisite: graduate standing in music, permission of adviser or instructor. May be repeated; maximum credit eight hours on a given instrument (including voice). For doctoral degree music students studying in a secondary (or minor) performance area. (F, Sp, Su)

CELO 6010 Doctoral Cello for Non-Performance Music
Majors 2-3 Credit Hours
2 to 3 hours. Prerequisite: graduate standing in music; permission of adviser and instructor. May be repeated. Doctoral-level study of applied music in the major performance area for students other than performance majors in their primary field. (F, Sp, Su)

CELO 6020 Doctoral Cello for Performance Majors 2-4 Credit Hours 2 to 4 hours. Prerequisite: graduate standing in music; 5042; permission of adviser and instructor. May be repeated; credit applicable toward applied music requirements for the Doctor of Musical Arts degree. Doctoral-level study of applied music for performance majors in their primary field. (F, Sp, Su)

## CLAR 2000 Freshman and/or Sophomore Secondary Clarinet 1-2

 Credit Hours1 to 2 hours. Prerequisite: permission of adviser and instructor. May be repeated; maximum credit toward B.F.A., B.M.A., B.M.E., and B.M. degrees, eight hours. For freshman and sophomore music students studying in a secondary (or minor) performance area. (F, Sp, Su)

CLAR 2020 Clarinet for Music Majors: Freshman/Sophomore 2-4 Credit Hours

2 to 4 hours. Prerequisite: Majors only. May be repeated; maximum credit 12 hours. Applied instrumental lessons for freshmen and sophomore music majors in a School of Music degree program. (F, Sp)

CLAR 3440 Mentored Research Experience 3 Credit Hours 0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)

CLAR 4000 Junior and/or Senior Secondary Clarinet 1-2 Credit Hours 1 to 2 hours. Prerequisite: permission of adviser and instructor. May be repeated; maximum credit toward B.F.A., B.M.A., B.M.E., and B.M. degrees, eight hours. For junior and senior music students studying in a secondary (or minor) performance area. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

CLAR 4020 Clarinet for Music Majors: Junior/Senior 1-4 Credit Hours 1 to 4 hours. Prerequisite: Majors only; junior standing. May be repeated; maximum credit 20 hours. Applied instrumental lessons for junior and senior music majors in a School of Music degree program. (F, Sp)

CLAR 5000 Master's-Level Secondary Clarinet 1-2 Credit Hours 1 to 2 hours. Prerequisite: graduate standing in music; permission of adviser and instructor. May be repeated; maximum credit eight hours on a given instrument (including voice). For master's degree music students studying in a secondary (or minor) performance area. (F, Sp, Su)

## CLAR 5010 Master's-Level Clarinet for Non-Performance Music

 Majors 1-3 Credit Hours1 to 3 hours. Prerequisite: graduate standing in music; permission of adviser and instructor. May be repeated; maximum credit eight hours on a given instrument (including voice). For master's degree students other than performance majors in their major field. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
$\begin{array}{lll}\text { CLAR } 5020 & \text { Master's-Level Clarinet for Performance Majors } & \text { 2-4 } \\ \text { Credit } & \text { Hours }\end{array}$
2 to 4 hours. Prerequisite: graduate standing in music; permission of adviser and instructor; 4020 and 4021 or equivalent. May be repeated; maximum credit toward an M.M. degree 10 hours. (F, Sp, Su)
CLAR 6000 Doctoral Secondary Clarinet 1-2 Credit Hours
1 to 2 hours. Prerequisite: graduate standing in music, permission of adviser or instructor. May be repeated; maximum credit eight hours on a given instrument (including voice). For doctoral degree music students studying in a secondary (or minor) performance area. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

## CLAR 6010 Doctoral Clarinet for Non-Performance Music

 Majors 2-3 Credit Hours2 to 3 hours. Prerequisite: graduate standing in music; permission of adviser and instructor. May be repeated. Doctoral-level study of applied music in the major performance area for students other than performance majors in their primary field. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

CLAR 6020 Doctoral Clarinet for Performance Majors 2-4 Credit Hours 2 to 4 hours. Prerequisite: graduate standing in music; 5042; permission of adviser and instructor. May be repeated; credit applicable toward applied music requirements for the Doctor of Musical Arts degree. Doctoral-level study of applied music for performance majors in their primary field. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
COMP 2000 Freshman and/or Sophomore Secondary Composition 1-2 Credit
1 to 2 hours. Prerequisite: permission of adviser and instructor. May be repeated; maximum credit toward B.F.A., B.M.A., B.M.E., and B.M. degrees, eight hours. For freshman and sophomore music students studying in a secondary (or minor) performance area. (F, Sp, Su)

## COMP 2020 Freshman and/or Sophomore Composition for Performance Majors 2-4 Credit Hours

1 to 4 hours. Prerequisite: permission of adviser and instructor. May be repeated; maximum credit toward the B.M. degree, eight hours. For freshman and sophomore music students in the B.M. (Performance or Composition majors) degree program who are studying in the major performance area. (F, Sp, Su)
COMP 3440 Mentored Research Experience
3 Credit Hours
0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)
COMP 4000 Junior and/or Senior Secondary Composition 1-2 Credit Hours
1 to 2 hours. Prerequisite: permission of adviser and instructor. May be repeated; maximum credit toward B.F.A., B.M.A., B.M.E., and B.M. degrees, eight hours. For junior and senior music students studying in a secondary (or minor) performance area. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

COMP 4020 Junior and/or Senior Composition for Performance Majors

4 Credit Hours
1 to 4 hours. Prerequisite: permission of adviser and instructor. May be repeated; maximum credit toward the B.M. degree 14 hours. May be elected for two hours credit only during summer session. For junior and senior music students in the B.M. (Performance or Composition majors) degree program who are studying in the major performance area. (F, Sp, $\mathrm{Su})$
COMP 5000 Master's-Level Secondary Composition 1-2 Credit Hours 1 to 2 hours. Prerequisite: graduate standing in music; permission of adviser and instructor. May be repeated; maximum credit eight hours on a given instrument (including voice). For master's degree music students studying in a secondary (or minor) performance area. (F, Sp, Su)

## COMP 5010 Master's-Level Composition for Non-Performance Music

 Majors1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing in music; permission of adviser and instructor. May be repeated; maximum credit eight hours on a given instrument (including voice). For master's degree students other than performance majors in their major field. (F, Sp, Su)
COMP 5020 Master's-Level Composition for Performance Majors 2-4 Credit Hours
2 to 4 hours. Prerequisite: graduate standing in music; permission of adviser and instructor; 4020 and 4021 or equivalent. May be repeated; maximum credit toward an M.M. degree 10 hours. (F, Sp, Su)
COMP 6000 Doctoral Secondary Composition 1-2 Credit Hours
1 to 2 hours. Prerequisite: graduate standing in music, permission of adviser or instructor. May be repeated; maximum credit eight hours on a given instrument (including voice). For doctoral degree music students studying in a secondary (or minor) performance area. (F, Sp, Su)

## COMP 6010 Doctoral Composition for Non-Performance Music

 Majors 2-3 Credit Hours2 to 3 hours. Prerequisite: graduate standing in music; permission of adviser and instructor. May be repeated. Doctoral-level study of applied music in the major performance area for students other than performance majors in their primary field. (F, Sp, Su)
COMP 6020 Doctoral Composition for Performance Majors 2-4 Credit

## Hours

2 to 4 hours. Prerequisite: graduate standing in music; 5042; permission of adviser and instructor. May be repeated; credit applicable toward applied music requirements for the Doctor of Musical Arts degree. Doctoral-level study of applied music for performance majors in their primary field. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
EUPH 2000 Freshman and/or Sophomore Secondary Euphonium 1-2 Credit Hours 1 to 2 hours. Prerequisite: permission of adviser and instructor. May be repeated; maximum credit toward B.F.A., B.M.A., B.M.E., and B.M. degrees, eight hours. For freshman and sophomore music students studying in a secondary (or minor) performance area. (F, Sp, Su)

## EUPH 2020 Euphonium for Music Majors: Freshman/

Sophomore 2-4 Credit Hours
2 to 4 hours. Prerequisite: Majors only. May be repeated; maximum credit 12 hours. Applied instrumental lessons for freshmen and sophomore music majors in a School of Music degree program. ( $\mathrm{F}, \mathrm{Sp}$ )

EUPH 3440 Mentored Research Experience 3 Credit Hours
0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)
EUPH 4000 Junior and/or Senior Secondary Euphonium 1-2 Credit Hours
1 to 2 hours. Prerequisite: permission of adviser and instructor. May be repeated; maximum credit toward B.F.A., B.M.A., B.M.E., and B.M. degrees, eight hours. For junior and senior music students studying in a secondary (or minor) performance area. (F, Sp, Su)
EUPH 4020 Euphonium for Music Majors: Junior/
Senior 1-4 Credit Hours
1 to 4 hours. Prerequisite: Majors only; junior standing. May be repeated; maximum credit 20 hours. Applied instrumental lessons for junior and senior music majors in a School of Music degree program. (F, Sp)

EUPH 5000 Master's-Level Secondary Euphonium 1-2 Credit Hours 1 to 2 hours. Prerequisite: graduate standing in music; permission of adviser and instructor. May be repeated; maximum credit eight hours on a given instrument (including voice). For master's degree music students studying in a secondary (or minor) performance area. (F, Sp, Su)
EUPH 5010 Master's-Level Euphonium for Non-Performance Music Majors

1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing in music; permission of adviser and instructor. May be repeated; maximum credit eight hours on a given instrument (including voice). For master's degree students other than performance majors in their major field. (F, Sp, Su)
EUPH 5020 Master's-Level Euphonium for Performance Majors 2-4 Credit Hours
2 to 4 hours. Prerequisite: graduate standing in music; permission of adviser and instructor; 4020 and 4021 or equivalent. May be repeated; maximum credit toward an M.M. degree 10 hours. (F, Sp, Su)

EUPH 6000 Doctoral Secondary Euphonium 1-2 Credit Hours
1 to 2 hours. Prerequisite: graduate standing in music, permission of adviser or instructor. May be repeated; maximum credit eight hours on a given instrument (including voice). For doctoral degree music students studying in a secondary (or minor) performance area. (F, Sp, Su)
EUPH 6010 Doctoral Euphonium for Non-Performance Music Majors

2-3 Credit Hours
2 to 3 hours. Prerequisite: graduate standing in music; permission of adviser and instructor. May be repeated. Doctoral-level study of applied music in the major performance area for students other than performance majors in their primary field. (F, Sp, Su)

EUPH 6020 Doctoral Euphonium for Performance Majors 2-4 Credit Hours
2 to 4 hours. Prerequisite: graduate standing in music; 5042; permission of adviser and instructor. May be repeated; credit applicable toward applied music requirements for the Doctor of Musical Arts degree. Doctoral-level study of applied music for performance majors in their primary field. (F, Sp, Su)

FLUT 2000 Freshman and/or Sophomore Secondary Flute 1-2 Credit Hours
1 to 2 hours. Prerequisite: permission of adviser and instructor. May be repeated; maximum credit toward B.F.A., B.M.A., B.M.E., and B.M. degrees, eight hours. For freshman and sophomore music students studying in a secondary (or minor) performance area. (F, Sp, Su)

FLUT 2020 Flute for Music Majors: Freshman/Sophomore 2-4 Credit Hours
2 to 4 hours. Prerequisite: Majors only. May be repeated; maximum credit 12 hours. Applied instrumental lessons for freshmen and sophomore music majors in a School of Music degree program. (F, Sp)
FLUT 3440 Mentored Research Experience 3 Credit Hours 0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)

FLUT 4000 Junior and/or Senior Secondary Flute 1-2 Credit Hours 1 to 2 hours. Prerequisite: permission of adviser and instructor. May be repeated; maximum credit toward B.F.A., B.M.A., B.M.E., and B.M. degrees, eight hours. For junior and senior music students studying in a secondary (or minor) performance area. (F, Sp, Su)
FLUT 4020 Flute for Music Majors: Junior/Senior 1-4 Credit Hours 1 to 4 hours. Prerequisite: Majors only; junior standing. May be repeated; maximum credit 20 hours. Applied instrumental lessons for junior and senior music majors in a School of Music degree program. (F, Sp)
FLUT 5000 Master's-Level Secondary Flute 1-2 Credit Hours
1 to 2 hours. Prerequisite: graduate standing in music; permission of adviser and instructor. May be repeated; maximum credit eight hours on a given instrument (including voice). For master's degree music students studying in a secondary (or minor) performance area. (F, Sp, Su)
FLUT 5010 Master's-Level Flute for Non-Performance Music Majors

1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing in music; permission of adviser and instructor. May be repeated; maximum credit eight hours on a given instrument (including voice). For master's degree students other than performance majors in their major field. (F, Sp, Su)

## FLUT 5020 Master's-Level Flute for Performance Majors 2-4 Credit Hours

2 to 4 hours. Prerequisite: graduate standing in music; permission of adviser and instructor; 4020 and 4021 or equivalent. May be repeated; maximum credit toward an M.M. degree 10 hours. (F, Sp, Su)
FLUT 6000 Doctoral Secondary Flute 1-2 Credit Hours
1 to 2 hours. Prerequisite: graduate standing in music, permission of adviser or instructor. May be repeated; maximum credit eight hours on a given instrument (including voice). For doctoral degree music students studying in a secondary (or minor) performance area. (F, Sp, Su)

## FLUT 6010 Doctoral Flute for Non-Performance Music

Majors
2-3 Credit Hours
2 to 3 hours. Prerequisite: graduate standing in music; permission of adviser and instructor. May be repeated. Doctoral-level study of applied music in the major performance area for students other than performance majors in their primary field. (F, Sp, Su)

FLUT 6020 Doctoral Flute for Performance Majors 2-4 Credit Hours 2 to 4 hours. Prerequisite: graduate standing in music; 5042; permission of adviser and instructor. May be repeated; credit applicable toward applied music requirements for the Doctor of Musical Arts degree. Doctoral-level study of applied music for performance majors in their primary field. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

## FR H 2000 Freshman and/or Sophomore Secondary French

## Horn

1-2 Credit Hours
1 to 2 hours. Prerequisite: permission of adviser and instructor. May be repeated; maximum credit toward B.F.A., B.M.A., B.M.E., and B.M. degrees, eight hours. For freshman and sophomore music students studying in a secondary (or minor) performance area. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
FR H 2020 French Horn for Music Majors: Freshman/

## Sophomore

2-4 Credit Hours
2 to 4 hours. Prerequisite: Majors only. May be repeated; maximum credit 12 hours. Applied instrumental lessons for freshmen and sophomore music majors in a School of Music degree program. (F, Sp)
FR H 3440 Mentored Research Experience 3 Credit Hours 0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)

## FR H 4000 Junior and/or Senior Secondary French <br> Horn <br> 1-2 Credit Hours

1 to 2 hours. Prerequisite: permission of adviser and instructor. May be repeated; maximum credit toward B.F.A., B.M.A., B.M.E., and B.M. degrees, eight hours. For junior and senior music students studying in a secondary (or minor) performance area. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
FR H 4020 French Horn for Music Majors: Junior/
Senior 1-4 Credit Hours
1 to 4 hours. Prerequisite: Majors only; junior standing. May be repeated; maximum credit 20 hours. Applied instrumental lessons for junior and senior music majors in a School of Music degree program. ( $F, \mathrm{Sp}$ )

FR H 5000 Master's-Level Secondary French Horn 1-2 Credit Hours 1 to 2 hours. Prerequisite: graduate standing in music; permission of adviser and instructor. May be repeated; maximum credit eight hours on a given instrument (including voice). For master's degree music students studying in a secondary (or minor) performance area. (F, Sp, Su)

## FR H 5010 Master's-Level French Horn for Non-Performance Music

 Majors1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing in music; permission of adviser and instructor. May be repeated; maximum credit eight hours on a given instrument (including voice). For master's degree students other than performance majors in their major field. (F, Sp, Su)
FR H 5020 Master's-Level French Horn for Performance Majors 2-4 Credit Hours
2 to 4 hours. Prerequisite: graduate standing in music; permission of adviser and instructor; 4020 and 4021 or equivalent. May be repeated; maximum credit toward an M.M. degree 10 hours. (F, Sp, Su)
FR H 6000 Doctoral Secondary French Horn
1-2 Credit Hours
1 to 2 hours. Prerequisite: graduate standing in music, permission of adviser or instructor. May be repeated; maximum credit eight hours on a given instrument (including voice). For doctoral degree music students studying in a secondary (or minor) performance area. (F, Sp, Su)

FR H 6010 Doctoral French Horn for Non-Performance Music Majors

2-3 Credit Hours
2 to 3 hours. Prerequisite: graduate standing in music; permission of adviser and instructor. May be repeated. Doctoral-level study of applied music in the major performance area for students other than performance majors in their primary field. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

## FR H 6020 Doctoral French Horn for Performance

Majors
2-4 Credit Hours
2 to 4 hours. Prerequisite: graduate standing in music; 5042; permission of adviser and instructor. May be repeated; credit applicable toward applied music requirements for the Doctor of Musical Arts degree. Doctoral-level study of applied music for performance majors in their primary field. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
GCRE 5051 Graduate Composition Recital
1 Credit Hour
Prerequisite: Permission of instructor. A program of original compositions presented in partial fulfillment of the requirements of the Master of Music degree in Composition. (F, Sp, Su)

## GDMA 6042 Graduate Recital-Doctor Of Musical Arts

Degree 2 Credit Hours
Prerequisite: Concurrent enrollment in 6020; permission of adviser and instructor. May be repeated; maximum credit four hours. May not be elected during first enrollment. The preparation and presentation of a public recital. (F, Sp, Su)
GRRE 5042 Graduate Recital-Master of Music Degree 2 Credit Hours Prerequisite: Concurrent enrollment in 5020, permission of adviser and instructor. Preparation and performance of a public recital. May not be elected during first enrollment. (F, Sp, Su)
GTAR 2000 Freshman and/or Sophomore Secondary Guitar 1-2 Credit

Hours
1 to 2 hours. Prerequisite: permission of adviser and instructor. May be repeated; maximum credit toward B.F.A., B.M.A., B.M.E., and B.M. degrees, eight hours. For freshman and sophomore music students studying in a secondary (or minor) performance area. (F, Sp, Su)
GTAR 2020 Guitar for Music Majors: Freshman/Sophomore 2-4 Credit Hours
2 to 4 hours. Prerequisite: Majors only. May be repeated; maximum credit 12 hours. Applied instrumental lessons for freshmen and sophomore music majors in a School of Music degree program. ( $\mathrm{F}, \mathrm{Sp}$ )
GTAR 3440 Mentored Research Experience 3 Credit Hours 0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)
GTAR 4000 Junior and/or Senior Secondary Guitar 1-2 Credit Hours 1 to 2 hours. Prerequisite: permission of adviser and instructor. May be repeated; maximum credit toward B.F.A., B.M.A., B.M.E., and B.M. degrees, eight hours. For junior and senior music students studying in a secondary (or minor) performance area. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
GTAR 4020 Guitar for Music Majors: Junior/Senior 1-4 Credit Hours 1 to 4 hours. Prerequisite: Majors only; junior standing. May be repeated; maximum credit 20 hours. Applied instrumental lessons for junior and senior music majors in a School of Music degree program. ( $F, \mathrm{Sp}$ )

GTAR 5000 Master's-Level Secondary Guitar 1-2 Credit Hours
1 to 2 hours. Prerequisite: graduate standing in music; permission of adviser and instructor. May be repeated; maximum credit eight hours on a given instrument (including voice). For master's degree music students studying in a secondary (or minor) performance area. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

GTAR 5010 Master's-Level Guitar for Non-Performance Music Majors

1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing in music; permission of adviser and instructor. May be repeated; maximum credit eight hours on a given instrument (including voice). For master's degree students other than performance majors in their major field. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

GTAR 5020 Master's-Level Guitar for Performance Majors 2-4 Credit Hours
2 to 4 hours. Prerequisite: graduate standing in music; permission of adviser and instructor; 4020 and 4021 or equivalent. May be repeated; maximum credit toward an M.M. degree 10 hours. (F, Sp, Su)

GTAR 6000 Doctoral Secondary Guitar 1-2 Credit Hours
1 to 2 hours. Prerequisite: graduate standing in music, permission of adviser or instructor. May be repeated; maximum credit eight hours on a given instrument (including voice). For doctoral degree music students studying in a secondary (or minor) performance area. (F, Sp, Su)

## GTAR 6010 Doctoral Guitar for Non-Performance Music Majors <br> 2-3 Credit Hours

2 to 3 hours. Prerequisite: graduate standing in music; permission of adviser and instructor. May be repeated. Doctoral-level study of applied music in the major performance area for students other than performance majors in their primary field. (F, Sp, Su)
GTAR 6020 Doctoral Guitar for Performance Majors 2-4 Credit Hours 2 to 4 hours. Prerequisite: graduate standing in music; 5042; permission of adviser and instructor. May be repeated; credit applicable toward applied music requirements for the Doctor of Musical Arts degree. Doctoral-level study of applied music for performance majors in their primary field. (F, Sp, Su)
HARP 2000 Freshman and/or Sophomore Secondary Harp 1-2 Credit Hours
1 to 2 hours. Prerequisite: permission of adviser and instructor. May be repeated; maximum credit toward B.F.A., B.M.A., B.M.E., and B.M. degrees, eight hours. For freshman and sophomore music students studying in a secondary (or minor) performance area. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

HARP 2020 Harp for Music Majors: Freshman/Sophomore 2-4 Credit Hours
2 to 4 hours. Prerequisite: Majors only. May be repeated; maximum credit 12 hours. Applied instrumental lessons for freshmen and sophomore music majors in a School of Music degree program. (F, Sp)
HARP 3440 Mentored Research Experience
3 Credit Hours
0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)

HARP 4000 Junior and/or Senior Secondary Harp 1-2 Credit Hours 1 to 2 hours. Prerequisite: permission of adviser and instructor. May be repeated; maximum credit toward B.F.A., B.M.A., B.M.E., and B.M. degrees, eight hours. For junior and senior music students studying in a secondary (or minor) performance area. (F, Sp, Su)

HARP 4020 Harp for Music Majors: Junior/Senior 1-4 Credit Hours
1 to 4 hours. Prerequisite: Majors only; junior standing. May be repeated; maximum credit 20 hours. Applied instrumental lessons for junior and senior music majors in a School of Music degree program. (F, Sp)
HARP 5000 Master's-Level Secondary Harp
1-2 Credit Hours
1 to 2 hours. Prerequisite: graduate standing in music; permission of adviser and instructor. May be repeated; maximum credit eight hours on a given instrument (including voice). For master's degree music students studying in a secondary (or minor) performance area. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

## HARP 5020 Master's-Level Harp for Performance Majors 2-4 Credit Hours

2 to 4 hours. Prerequisite: graduate standing in music; permission of adviser and instructor; 4020 and 4021 or equivalent. May be repeated; maximum credit toward an M.M. degree 10 hours. (F, Sp, Su)

HARP 6000 Doctoral Secondary Harp 1-2 Credit Hours
1 to 2 hours. Prerequisite: graduate standing in music, permission of adviser or instructor. May be repeated; maximum credit eight hours on a given instrument (including voice). For doctoral degree music students studying in a secondary (or minor) performance area. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

HARP 6010 Doctoral Harp for Non-Performance Music
Majors 2-3 Credit Hours
2 to 3 hours. Prerequisite: graduate standing in music; permission of adviser and instructor. May be repeated. Doctoral-level study of applied music in the major performance area for students other than performance majors in their primary field. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

HARP 6020 Doctoral Harp for Performance Majors 2-4 Credit Hours 2 to 4 hours. Prerequisite: graduate standing in music; 5042; permission of adviser and instructor. May be repeated; credit applicable toward applied music requirements for the Doctor of Musical Arts degree. Doctoral-level study of applied music for performance majors in their primary field. (F, Sp, Su)

HPCD 2000 Freshman and/or Sophomore Secondary Harpsichord 1-2 Credit Hours
1 to 2 hours. Prerequisite: Majors only; departmental permission; may be repeated; maximum credit 8 hours. B.M.A., B.M.E., and B.M. degrees, eight hours. For freshman and sophomore music students studying in a secondary (or minor) performance area. ( $F, S p$ )

HPCD 3440 Mentored Research Experience 3 Credit Hours 0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)

HPCD 4000 Junior and/or Senior Secondary Harpsichord 1-2 Credit Hours
1 to 2 hours. Prerequisite: Junior standing, majors only, and HPCD 2000; may be repeated; maximum credit 8 hours. B.M.A., B.M.E., and B.M. degrees, eight hours. For junior and senior music students studying in a secondary (or minor) performance area. ( $F, \mathrm{Sp}$ )
JRRE 3020 Junior Recital
0 Credit Hours
Prerequisite: Majors only; concurrent enrollment in applied study at (4020) during the junior year, permission of adviser and instructor. Preparation and performance of a public recital by students in the B.M. degree program. (F,Sp)

JRRE 3021 Junior Recital 1 Credit Hour
Prerequisite: concurrent enrollment in 4020 , during the junior year, permission of adviser and instructor. Preparation and performance of a public recital by students in the B.M. degree program. (F, Sp, Su)
LDMA 6052 Graduate Lecture/Chamber Recital--Doctor Of Musical Arts Degree

2 Credit Hours
Prerequisite: concurrent enrollment in 6020; permission of adviser and instructor. May not be elected during first enrollment. The preparation and presentation of a public lecture or chamber music recital. Requires the submission of a related written document. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
MUED 1732 Introduction to Music Education 2 Credit Hours Prerequisite: Music Majors only. An overview of school music teaching. Designed to enable students to make early career choices. Students will observe music teaching in schools, develop a philosophy of music education, study psychological foundations as applied to music teaching, and become familiar with the total school music curriculum and its place in the school program. (F)

## MUED 1742 Introduction to Teaching Techniques in Music <br> 2 Credit Hours

Prerequisite: MUED majors only, MUED 1732. Second part of twosemester course sequence in music education. Sequential process of musical development, skills, content, methods, techniques and materials in the following areas: singing voice, classroom listening, sight reading, movement, and music series books. (Sp)
MUED 2112 Instrumental Music Education Methods I 2 Credit Hours Prerequisite: Majors only; MUTE 2242. This is the first in a series of three courses designed to prepare instrumental music education majors for public school teaching. This course focuses heavily on teaching/ rehearsing and conducting in a peer setting. Advanced conducting techniques, paired with an introduction to rehearsal techniques and sequencing, are a primary focus. (Sp)
MUED 3112 Instrumental Music Education Methods II 2 Credit Hours Prerequisite: Majors only; Junior Standing; MUED 2112. This is the second in a series of three courses designed to prepare instrumental music education majors for public school teaching. This course focuses heavily on teaching/rehearsing and conducting in a peer setting, performing on secondary string and wind/percussion instruments. A continued focus on advanced conducting and rehearsal techniques is a central component of the course. (Sp)

## MUED 3252 General Music Methods for Instrumental

## Majors

2 Credit Hours
Prerequisite: Majors only; Junior standing; MUED 1732. Sequential process of music development, skills, content, methods, techniques and materials suited to students in elementary and middle school grades. The course includes at least 10 hours of observation in elementary/secondary public school music programs. (F)
MUED 3440 Mentored Research Experience 3 Credit Hours 0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)

MUED 3760 Field Experience for 3762
0 Credit Hours
Corequisite: 3762 . Students will complete twelve to thirteen hours of independent teaching in a high school classroom. Fieldwork will take place in addition to course hours and must be scheduled through the instrumental music education office for field placement. (Sp)

MUED 3782 Internship in Piano Teaching
2 Credit Hours
Prerequisite: MUED 3783 or concurrent enrollment. Teaching of children from preschool through high school in groups and private lessons under faculty supervision. (F, Sp)
MUED 3783 Piano Pedagogy
3 Credit Hours
Prerequisite: Majors only, departmental permission, and eight hours of piano or organ. Required for piano majors and elective for other fields. Basic study of concepts necessary for successful private and class piano teaching at the elementary level. Student teaching required. (F)
MUED 3792 Internship in Piano Teaching 2 Credit Hours Prerequisite or corequisite: 3782 and 3783. Continuation of teaching skills begun in 3782. Teaching of children from preschool through high school in groups and private lessons under faculty supervision. (F, Sp)

MUED 3793 Piano Pedagogy
3 Credit Hours
Prerequisite: 3783. Required for piano majors and elective for other fields. Continuation of skills begun in 3783. Basic study of concepts necessary for successful private and class piano teaching at the intermediate level. Student teaching required. (Alt. Sp)
MUED 3823 Teaching General Music PreK-2 3 Credit Hours Prerequisite: MUED 1732; majors only. Psychological foundations, teaching techniques and materials for vocal music instruction in prekindergarten through grade 2. Teaching techniques used in the Kodaly, Orff and other contemporary approaches will be examined. (F)
MUED 3832 Teaching Vocal/General Music 3-5 2 Credit Hours Prerequisite: MUED 1732; majors only. Sequential process of music development, skills, content, methods, techniques and materials suited to students in grades 3-5. (F)
MUED 3842 Teaching Vocal/General Music 6-8 2 Credit Hours Prerequisite: Junior standing, majors only, and MUED 1732. Sequential process of music development, skills, content, methods, techniques and materials suited to students in grades 6-8. Special attention given to the boys' changing voices. (Sp)
MUED 3852 Teaching Choral Music Grades 9-12 2 Credit Hours Prerequisite: MUED 1732, Junior standing, and majors only. Organization and management of choirs, repertoire appropriate to JHS/SHS choirs, rehearsal techniques, programming considerations, use of audio equipment, field experiences. (F)
MUED 3960 Honors Reading 1-3 Credit Hours
1 to 3 hours. Prerequisite: Admission to Honors Program. May be repeated; maximum credit six hours. Consists of topics designated by the instructor in keeping with the student's major program. The topics will cover materials not usually presented in the regular courses. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

## MUED 3970 Honors Seminar <br> 1-3 Credit Hours

1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Subjects covered vary. Deals with concepts not usually treated in regular courses. (Irreg.)
MUED 3980 Honors Research
1-3 Credit Hours
1 to 3 hours. Prerequisite: Admission to Honors Program. May be repeated; maximum credit six hours. Will provide an opportunity for the gifted Honors candidate to work at a special project in the student's field. (F, Sp, Su)

MUED 3990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: permission of instructor and junior standing. May be repeated once with change of content. Independent study may be arranged to study a subject not available through regular course offerings. (F, Sp, Su)

MUED 4042 Capstone Seminar
2 Credit Hours
Prerequisite: concurrent enrollment in 4050 and 4060. The development of a teaching portfolio including a reflection log of teaching activities, written evaluations of video and audio episodes, and a summary of teaching successes and areas to be improved. (F, Sp) [V] .

MUED 4050 Teaching Experiences in the Elementary
School
4-5 Credit Hours
Prerequisite: formal admission to student teaching; corequisite: 4042. Laboratory activities in music classes in elementary schools under competent direction and supervision: orientation, observation, and classroom teaching experiences supported by seminars and conferences focusing on the problems of teaching. Prospective teachers receive instruction, aid, and constructive supervision in classroom management, evaluation of pupil behavior, methods of teaching, selection of teaching materials, and school-home-community relations. (F, Sp)

MUED 4060 Teaching Experiences in the Secondary
School 4-5 Credit Hours
Prerequisite: formal admission to student teaching; corequisite: 4042.
Correlation of theory and instructional practices in music classes in secondary schools; supervised observation, teaching, classroom management, and evaluation; acquaintance with the administration of a secondary school and the school program; selection and use of appropriate instructional materials; conferences with supervisors. (F, Sp)

MUED 4113 Instrumental Music Education Methods III 3 Credit Hours Prerequisite: Majors only; Junior standing; MUED 3113. This is the third in a series of three courses designed to prepare instrumental music education majors for public school teaching. This course focuses on the development of diagnostic and pedagogical skills while working with students. (F)

MUED G4752 Marching Band Techniques 2 Credit Hours
Prerequisite: junior standing in music education. Organization of the marching band and its instrumentation, selecting and adapting music marching fundamentals, marching styles and trends, planning and charting half-time shows, parade routines, auxiliary units and drum major signals. (Sp)

## MUED 4762 String Pedagogy <br> 2 Credit Hours

Prerequisite: majors only; MUTE 2252 or MUTE 3252; junior standing. String teaching techniques in large and small group settings. Emphasis is on familiarizing students with teaching strategies for string classes in public schools. (Sp)

## MUED G4892 Vocal Pedagogy \& Diction for the Classroom Teacher <br> 2 Credit Hours

Prerequisite: junior standing and majors only. Study of vocal teaching techniques including anatomy of vocal tract, physiological process and acoustical properties. Repertory for high school students. (F)

## MUED 4960 Directed Readings <br> 1-4 Credit Hours

1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean. May be repeated; maximum credit four hours. Designed for upper-division students who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)

MUED 4970 Special Topics/Semina
1-3 Credit Hours
1 to 3 hours. Prerequisite: Senior standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

MUED 4990 Independent Study 1-3 Credit Hours
1 to 3 hours. Prerequisite: Senior standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (lrreg.)

MUED 5212 Research in Music Education
2 Credit Hours
Prerequisite: graduate standing in music or music education or permission. Methods of analytical-historical research in music and historical, philosophical, descriptive and experimental research in music education. (F, Alt. Su)

## MUED 5312 Advanced Pedagogy and Practice in Instrumental

 Music 2 Credit HoursPrerequisite: Graduate standing, MUED 5212, and departmental permission. The course is designed to help practicing music educators gain advanced tools for teaching instrumental music. Topics include diverse wind/orchestral literature appropriate for a variety of levels and learning styles, strategies for comprehensive musicianship, effective rehearsal techniques, culturally responsive pedagogy, and issues pertaining to the overall development of an instrumental music program. (F)

## MUED 5322 Advanced Pedagogy and Practice in Choral

Music 2 Credit Hours
Prerequisite: Graduate standing, MUED 5212, and departmental permission. Course is designed to help practicing music educators gain advanced pedagogical tools for teaching choral music. Topics include diverse choral literature appropriate for a variety of levels and learning styles, pedagogical strategies for sight-reading and strengthening musicianship, effective rehearsal techniques, culturally responsive pedagogy, and issues pertaining to the overall development of a choral music program. (F)

MUED 5334 Capstone Project in Music Education 4 Credit Hours Prerequisite: Graduate standing, MUED 5212, and departmental permission. This course is designed to reflect an action-research project typical of the education field. The project will be directly related to the student's school classroom and his/her students. Over the course of a full semester, the student will identify a research-based issue in music education, collect and analyze data, and propose reformed teaching and learning practices informed by his/her findings. (F, Sp)

## MUED 5512 Contemporary and Commercial Music Vocal

 Pedagogy2 Credit Hours
Prerequisite: Graduate standing. The objective of graduate contemporary and commercial music (CCM) vocal pedagogy is to cover most of the necessary topics that concern the modern voice teacher when teaching non-classical and non-traditional vocal students. The course will survey the various technical adaptations needed to sing multiple CCM genres effectively and how to teach singers to perform this repertoire healthily. (Sp)

MUED 5522 Advanced Vocal Pedagogy
2 Credit Hours
Prerequisite: Graduate standing and MUTE 4312. This course will cover the topics that concern the modern voice teacher. Aspects of vocal and physical anatomy and physiology will be covered along with an introduction into the world of voice science, including interaction of formants and harmonics, resonance, registration, and spectral analysis. Teaching demonstrations will be required. (F)
MUED 5553 Kodaly Concept I 3 Credit Hours
Kodaly Concept I. Prerequisite: Graduate Standing. The Philosophy, Methodology And Techniques Of Teaching The Kodaly Concept In Music Education In Levels K-1. (F)
MUED 5562 Solfege I
2 Credit Hours
Solfege I. Kodaly Techniques Applied To The Practice And Skills Of Sight Singing, Ear Training And Dictation. Sight Singing Of Unison, Homophonic And Polyphonic Examples From The Classical Music Literature. Study Of Selected Books In The Kodaly Choral Method. (Sp)
MUED 5563 Kodaly Concept II 3 Credit Hours Prerequisite: 5553. The philosophy, methodology and techniques of teaching the Kodaly Concept of music education in levels 2-3. (Irreg.)
MUED 5572 Solfege II
2 Credit Hours
Prerequisite: 5562. Advanced Kodaly techniques applied to the practice and skills of sight singing, ear training and dictation. Sight singing examples will involve modulation, chromaticism and modes. (Su)

## MUED 5573 Kodaly Concept III

3 Credit Hours
Prerequisite: 5563. The philosophy, methodology and techniques of teaching the Kodaly concept of music education in levels 4-6.

## MUED 5582 Folk Song Research

2 Credit Hours
Prerequisite: 5553. Study of musical culture in America through analysis of melodic and rhythmic structures, forms and categories of American folk songs as source material for teaching the Kodaly Concept. (Irreg.)

## MUED 5612 Piano Pedagogy I

2 Credit Hours
Prerequisite: graduate standing or permission. Methods, materials, curriculum building and philosophical bases for teaching piano at the college and university levels with focus on group instruction. Student teaching required. (F)
MUED 5622 Piano Pedagogy II 2 Credit Hours
Prerequisite: graduate standing or permission. Methods, materials, curriculum building and philosophical bases for teaching piano at the elementary and intermediate levels. Student teaching required. (Sp)
MUED 5642 Internship in Piano Teaching
2 Credit Hours
Prerequisite: graduate standing. Teaching of children's classes, college classes, adult students or private lessons under faculty supervision. Designed to give the student experience in areas where none exists. ( $F$, Sp, Su)
MUED 5662 Teaching Intermediate and Advanced Piano 2 Credit Hours Prerequisite: graduate standing or permission. Methods, materials and curriculum building for teaching piano students at the intermediate through advanced levels. Focus will be on developing piano teaching techniques for high school and college-age students, studying repertoire that is appropriate for these students, and exploring performance practice suitable for pianists at the intermediate and advanced levels. (Alt. Sp)
MUED 5960 Directed Readings 1-3 Credit Hours
1 to 3 hours. Prerequisite: 18 hours of music, permission of the director of the school. May be repeated; maximum credit six hours. Individual topics in music education. (F, Sp, Su)

MUED 5970 Seminar in Music Education
1-6 Credit Hours
1 to 6 hours. Prerequisite: twelve hours of music education, graduate standing, or permission. May be repeated with change of subject matter; maximum graduate credit twelve hours. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
MUED 5980 Research for Master's Thesis 2-9 Credit Hours
Variable enrollment, two to nine hours; maximum credit applicable toward degree, four hours. (F, Sp, Su)
MUED 5990 Special Studies in Music Education 1-3 Credit Hours 1 to 3 hours. Prerequisite: permission of the director of the school. May be repeated with change of subject matter; maximum credit six hours. Individual study and research in the field of music education. (F, Sp, Su)
MUED 6012 Philosophical Foundations of Music Education 2 Credit Hours
Prerequisite: graduate standing in music or music education. Students will study the writings of Mursell, Leonhard, Reimer, Elliott, and others. Students will debate the theories these authors propose and prepare written papers applying aspects of these theories to music education practice in today's schools. (Irreg.)
MUED 6022 Psychological Foundations of Music Education 2 Credit

## Hours

Prerequisite: graduate standing in music or music education. Philosophies, theories, principles and concepts of learning and their implications to the teaching and learning processes in music education. The basic orientations of Associationist and Field theories will be investigated and the current status of learning theory applied to music education will be evaluated. Specific theories are those of Ausubel, Gagne, Guilford, Piaget, and Skinner and applications by Bruner, Gordon and Mursell. (Sp)
MUED 6032 Sociological Foundations of Music Education 2 Credit Hours
Prerequisite: graduate standing in Music or Music Education. Students will read works by Adorno, Becker, Blumer, Dewey, Mead, Vygotsky, and others. Students will debate the issues and theories these authors propose and will prepare written papers applying aspects of these theories to music education practice in today's schools. (Irreg.)
MUED 6042 Historical Foundations of Music Education 2 Credit Hours Prerequisite: graduate standing in Music or Music Education. Includes readings from works by Birge, Britton, Chase, Heller, Keene, Mark, and others that outline the development of music instruction in American schools. Students will debate the issues presented by these authors and prepare written papers on various historical movements and methodologies. (Irreg.)
MUED 6052 The History of Vocal Pedagogy
2 Credit Hours
Prerequisite: Graduate standing. The class will focus on a wide range of the most prominent literature connected with vocal pedagogy. Pedagogies from the 14th century through the current scholarship will be examined in the light of what the modern voice teacher should know and understand. The course will include the major names and treatises of both pedagogues and singers who became active teachers. (Sp)
MUED 6062 Vocal Performance and Teaching Psychology 2 Credit Hours
Prerequisite: Graduate standing. This course will cover material related to the teaching of singing and performance. Topics will include the psychology of singing and performance, and performance anxiety. Attitudes about practice and how and what to practice will be examined. Students will develop skills necessary to solve problems and learn how to practice effectively to remove obstacles that contribute to less ideal performance. (F)

## MUED 6212 Measurement and Evaluation in Music

 Education2 Credit Hours
Prerequisite: graduate standing in music or music education. Techniques and methods of measuring and evaluating musical behavior in cognitive, affective and psychomotor domains. (Sp)

MUED 6222 Qualitative Research in Music Education 2 Credit Hours Prerequisite: graduate standing in music or music education. Required for the Music Education Ph.D. curriculum. Course assignments review qualitative research techniques applied to problems in music education. Students will study questionnaire development, interview formats, case study reporting, triangulation methods, and oral history methodologies. (Irreg.)

MUED 6242 Quantitative Research in Music Education 2 Credit Hours Prerequisite: graduate standing in music or music education. Required for the Music Education Ph.D. curriculum. Course assignments review empirical research techniques applied to problems in music education. Students study research design, population sampling, statistical formulae for analyzing data, and advanced statistical techniques such as factor analysis and regression analyses. (Irreg.)

MUED 6442 Current Trends in Music Education 2 Credit Hours
Prerequisite: graduate standing in music or music education, permission. Identification and evaluation of current trends in music teaching. Individual projects expected. (Alt. F)

MUED 6642 Workshop in Vocal Pedagogy
2 Credit Hours
Prerequisite: Graduate standing and instructor permission. With faculty mentorship, the DMA candidate will prepare, promote, and conduct a public workshop for voice teachers. The workshop will have an emphasis on pedagogy techniques, vocal styles, repertoire for the various levels of singer or advances in voice science. The workshop should range between 4 and 5 hours and is a requirement for the DMA degree. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

MUED 6652 Doctoral Workshop in Piano Pedagogy 2 Credit Hours Prerequisite: doctoral standing and permission. A public workshop for piano teachers concentrating on teaching techniques and materials. The workshop must be a least five hours in length. Terminal degree requirement in lieu of recital. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

MUED 6960 Directed Readings 1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit six hours. Directed readings and/or literature review under the direction of a faculty member. (Irreg.)

MUED 6970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor May be repeated; maximum credit 12 hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or research and field projects. (Irreg.)
MUED 6980 Research for Doctoral Dissertation 2-16 Credit Hours 2 to 16 hours. Prerequisite: Graduate standing and permission of instructor; may be repeated. Directed research culminating in the completion of the doctoral dissertation. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

## MUED 6990 Independent Study

1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)

MULI 2970 Special Topics in Music Literature 1-3 Credit Hours
Majors only. 1 to 3 hours. May be repeated with change of subject matter; maximum credit nine hours. Content changes each semester. Study of newly developed, experimental or inter-disciplinary topics in music literature. (Irreg.)

MULI 3440 Mentored Research Experience 3 Credit Hours 0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)

MULI 4242 The History of the American Theatre Pipe Organ
(Slashlisted with MULI 5242) Prerequisite: Majors only. A historical survey of the development of the theatre pipe organ as a medium for entertainment, as well as its social impact on American culture and beyond. No student may earn credit for both 4242 and 5242. (Fall, alternating years)

MULI 4453 Organ Literature
3 Credit Hours
Prerequisites: Junior standing; majors only. A general survey of organ literature, composers, performers, builders and instruments from the Baroque period through modern times. The course goal is for students to be able to identify style characteristics of periods in general and composers in particular, as well as trends in organ building and how those trends influenced composers and performers. (Irreg.)

MULI G4523 Keyboard Literature 3 Credit Hours
Prerequisite: Music History 2313, 2323, 3333, or permission. (Alt. F)
MULI G4533 Keyboard Literature 3 Credit Hours
Prerequisite: Music History 2313, 2323, 3333, or permission. (Alt. Sp)
MULI G4543 Introduction to Vocal Literature 3 Credit Hours
Prerequisite: Junior standing and music majors only. This course provides an introduction to vocal literature through the intensive study of the German Lied, French melodie, and English, American and Italian art song. The main emphasis will be on songs for the solo voice; some examples from opera, oratorio, and vocal chamber music might also be discussed. (Irreg.)

MULI 4552 Choral Literature
2 Credit Hours
(Slashlisted with MULI 5552) Prerequisite: Majors only; Junior Standing; may be repeated with change of content; maximum credit 4 hours. A focused survey of choral literature from the early Renaissance through the present organized in the context of distinctive concert programming for a variety of choral ensembles including secondary school (MS and HS), collegiate, church, civic, male voice, and female voice choirs. Special attention will be given to pedagogical aims, concert programming, performance practice, and instruction in choral music sources. No student may earn credit for both 4552 and 5552. (Irreg.)
MULI 4612 Harp Orchestral Literature
2 Credit Hours
(Slashlisted with MULI 5612) Prerequisite: majors only, junior standing. This course is designed to prepare the harp student for orchestral auditions. Classes will consist of learning a book of standard orchestral audition excerpts, studying scores, and listening to audition excerpts. No student may earn credit for both 4612 and 5612. (Irreg.)

MULI 4960 Directed Readings
1-4 Credit Hours
1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean. May be repeated; maximum credit four hours. Designed for upper-division students who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)

MULI 4970 Undergraduate Seminar 1-3 Credit Hours
1 to 3 hours. Prerequisite: permission of department. In-depth study of topics of interest as appropriate to the field of study. May be repeated; maximum credit nine hours. Subjects such as The Art Song since 1950; The Symphonic Music of Charles Ives; Songs of the American Revolution; Music of the American Theatre; The String Quartets of Haydn; and the like, are illustrative of topics that may be offered. (F, Sp)

MULI 4990 Independent Study 1-3 Credit Hours
1 to 3 hours. Prerequisite: Senior standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)

## MULI 5242 The History of the American Theatre Pipe

## Organ

2 Credit Hours
(Slashlisted with MULI 4242) Prerequisites: Graduate Standing. Majors only. A historical survey of the development of the theatre pipe organ as a medium for entertainment as well as its social impact on American culture and beyond. No student may earn credit for both 4242 and 5242. (Fall, alternating years)

MULI 5412 Vocal Literature for the Teaching Studio 2 Credit Hours Prerequisite: Graduate standing or permission of instructor. This class surveys the standard repertoire from the areas of art song, operatic arias, and musical theater selections for use in the college studio. Repertoire examined will be in all major languages, Italian, German, French, English, Russian, Czech, Swedish, and Spanish from all time periods with the goal of learning when and how to introduce material to the college student. (Sp)
MULI 5422 20th and 21st-Century Vocal Literature 2 Credit Hours Prerequisite: Graduate standing in Music or permission of instructor. This interactive seminar will survey vocal music of the 20th and 21 st centuries and teach students how to discover newly emerging works appropriate for their voices. Literature will be introduced within a series of relevant topics. Significant time will be devoted to the discussion of diversity and representation considerations in repertoire decisions and recital/concert programming. (F)
MULI 5453 Organ Literature I: Renaissance and Baroque 3 Credit Hours Prerequisite: graduate standing, for majors only. A study of organ literature from its origins to 1750 through analysis, readings, listening, and lectures. Students will examine the relationships between the music and the organs of the time. Emphasis will also be placed on the role of organ music in the surrounding culture, both musical and social. (Irreg.)
MULI 5463 Organ Literature II: 1750-1900 3 Credit Hours
Prerequisites: graduate standing, for majors only. A study of organ literature from 1750 to 1900 through analysis, readings, listening, and lectures. Students will examine the relationships between the music and the organs of the time. Emphasis will also be placed on the role of organ music in the surrounding culture, both musical and social. (Irreg.)

MULI 5473 Organ Literature III: 1900-Present 3 Credit Hours
Prerequisite: graduate standing, for majors only. A study of organ literature from 1900 to the present through analysis, readings, listening, and lectures. Students will examine the relationships between the music and the organs of the time. Emphasis will also be placed on the role of organ music in the surrounding culture, both musical and social. (Irreg.)

## MULI 5483 Hymnody

3 Credit Hours
Prerequisite: graduate standing or permission. A historical survey of the development of Christian hymnody from the early/Byzantine period through current times. Includes lectures and analysis of texts, tunes and other primary source material. Hymns will be studied in their historical and social context. Students will also examine the role of hymns in western art music. (F, Sp)
MULI 5552 Choral Literature
2 Credit Hours
(Slashlisted with MULI 4552) Prerequisite: Graduate standing, music majors only, and may be repeated with change of content; maximum credit 4 hours. A focused survey of choral literature from the early Renaissance through the present organized in the context of distinctive concert programming for a variety of choral ensembles, including secondary school (MS and HS), collegiate, church, civic, male voice, and female voice choirs. Special attention will be given to pedagogical aims, concert programming, performance practice, and instruction in choral music sources. No student may earn credit for both 4552 and 5552. (Irreg.)
MULI 5612 Harp Orchestral Literature 2 Credit Hours (Slashlisted with MULI 4612) Prerequisite: majors only, graduate standing, and departmental permission. This course is designed to prepare the harp student for orchestral auditions. Classes will consist of learning a book of standard orchestral audition excerpts, studying scores, and listening to audition excerpts. No student may earn credit for both 4612 and 5612. (Irreg.)

MULI 5960 Directed Readings
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing and permission of department. May be repeated; maximum credit twelve hours. Directed readings and/or literature reviews under the direction of a faculty member. (F, Sp, Su)
MULI 5970 Seminar in Music Literature 1-4 Credit Hours
1 to 4 hours. Prerequisite: 30 hours of music, graduate standing or permission. May be repeated with change of subject matter; maximum graduate credit 12 hours. (F, Sp)

MULI 5990 Special Studies 1-3 Credit Hours Prerequisite: graduate standing; permission of the director of the school. May be repeated with change of subject matter; maximum credit six hours. Individual study and research in the field of music literature. (F, Sp, $\mathrm{Su})$
MUNM 1022 Beginning Instrument/Voice Class I 2 Credit Hours For non-music majors with no experience in the instrument/voice only. May be repeated for credit; maximum credit eight hours. Class instruction in basic performance/musicianship skills. This course does not count for major credit in the School of Music. (F, Sp)
MUNM 1032 Beginning Instrument/Voice Class II 2 Credit Hours Prerequisite: 1022 or permission. For non-music majors with limited instrumental/vocal experience only. May be repeated for credit; maximum credit eight hours. Class instruction in basic performance/musicianship skills. This course does not count for major credit in the School of Music. (F, Sp)

MUNM 1100 Freshman and/or Sophomore Piano, Violin, Etc., for
Nonmusic Majors $\quad 1-2$ Credit Hours
1 to 2 hours. Prerequisite: permission of instructor. Enrollment is subject to faculty availability and will not be accepted until the first day of classes. Private instruction in the development of instrumental or vocal performance skills and musicianship. This course does not count for major credit in the School of Music. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
MUNM 1113 The Understanding of Music
3 Credit Hours
Open to non-music majors. A course in music appreciation covering all of the important fields of music, with opportunity for the students to listen to recordings and to attend concerts. This course does not count for major credit in the School of Music. (F, Sp, Su) [IV-AF].

## MUNM 1143 American Popular Music 3 Credit Hours

A study of the evolution of popular music found in America from the early minstrel shows of the nineteenth century through the current trends of today. Students will be expected to listen to and identify music from a variety of musical styles. The social and historical contexts in which this music was performed and composed will also be examined as part of the course. (F, Sp) [IV-AF].
MUNM 1153 Songs that Shaped the Country
3 Credit Hours
This class looks at the societal elements of the United States that shaped popular music and how popular music shaped the societal elements of the United States. In addition, students will learn how to play these songs or similar ones on the guitar. No music experience necessary. Guitars will be provided for to students who don't have access to one. (Irreg.) [IV-AF].
MUNM 1163 History of Video Game Music
3 Credit Hours
A study of the evolution of video game music from simple sound effects and chip tunes to today's billion-dollar crossover industry influenced by other musics. An overview of the history of video game music with a focus on world music influences and encourage students to think critically about video games and the sounds that bring these virtual worlds to life. (F, Sp)

## MUNM 1743 Experiencing Music

3 Credit Hours
Designed as an introduction to the varied strands of folk music in America. Involves examination of the historical, cultural and social implications of American folk songs; performance and analysis of folk songs as musical art forms; and the link between folk songs and largescale contemporary musical compositions. This course does not count for major credit in the School of Music. (F, Sp) [IV-AF].

## MUNM 2313 History of Jazz

3 Credit Hours
Open to non-music majors. Detailed study of jazz as a major art form. Studies the development of jazz through the growth of distinct styles. Stylistic change and cultural ties are made through representative works. Critical listening and evaluation are a major element. No prior knowledge is necessary. This course does not count for major credit in the School of Music. (F, Sp, Su) [IV-AF].

## MUNM 2413 Music in Film

3 Credit Hours
A "grand tour" of the esthetics and dramatic techniques of film music since 1895. Excerpts from commercial "silent era" and "sound era" films will be viewed and studied as examples of film music development and the composer's art. (Irreg.) [IV-AF].

MUNM 2513 Music in the Rock Era: Heavy Metal 3 Credit Hours This course covers the globally popular yet often socially and critically maligned rock music genre of heavy metal from its inception in the late 1960s to the present day. We will cover musical characteristics associated with the style, investigate its fan culture, social impact, and meaning, and explore its interaction with the music industry. Related musical styles will be discussed to give additional points of reference. Previous knowledge of music and the heavy metal genre is not required. The development of critical thinking and listening skills is an important element of this class. (Sp, Su) [IV-AF].

## MUNM 2970 Special Topics in Music

1-3 Credit Hours
Open to non-music majors. 1 to 3 hours. May be repeated with change of subject matter; content changes each semester. Study of newly developed, experimental or inter-disciplinary topics in music. This course does not count for major credit in the School of Music.

## MUNM 3100 Junior and/or Senior Piano, Violin, etc., for Nonmusic Majors <br> 1-2 Credit Hours

1 to 2 hours. Prerequisite: permission of instructor. Enrollment is subject to faculty availability and will not be accepted until the first day of classes. Private instruction in the development of instrumental or vocal skills and musicianship. This course does not count for major credit in the School of Music. (F, Sp, Su)
MUNM 3113 World Music
3 Credit Hours
Prerequisite: junior standing. Study of music as human culture focusing on classical, popular and folk music beyond Western Art Music. Several representative cultures may include music of Native America, India, West Africa, South America, and Indonesia. Field study, music-making projects, and analysis of live performances of ethnic music are included. This course does not count for major credit in the School of Music. (F, Sp, Su) [IV-WDC].

MUNM 3213 Native American Music
3 Credit Hours
Prerequisite: junior standing. Study of Native American music of the North American continental United States (with special emphasis on music of the Plains tribes). Field study, instrument building, analytical essays of live performances and a high level of aural classroom experience will be included. This course does not count for major credit in the School of Music. [IV-WDC].

MUNM 3313 African Repercussions
3 Credit Hours
Prerequisite: junior standing; Open to non-music majors. Study of music culture focusing on the African impact. Several areas of influence explored in depth include African traditional music, Afro Pop, Reggae and Caribbean fusion, American black gospel, rhythm and blues, and jazz. Written analyses on recorded and live music are emphasized. This course does not count for major credit in the School of Music. (F, Sp) [IV-WDC].

MUNM 3440 Mentored Research Experience 3 Credit Hours 0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)

## MUNM 3513 Music of South Asia

3 Credit Hours
Prerequisite: junior standing. Focuses on music cultures of South Asia with particular emphasis on the Indian subcontinent. Examines the musical qualities and cultural meaning of Northern (Hindustani) and Southern (Karnatak) classical styles as well as regional folk, popular (film), temple music, and devotional music. (F, Sp) [IV-WDC].

MUNM 3613 Middle Eastern Music 3 Credit Hours
Prerequisite: junior standing. Study of musical systems observed in the Arab world and parts of the Mediterranean. Explores overarching concepts of melody and rhythm in Middle Eastern music, namely the maqam and iqa', and their manifestation in various musical cultures of the East Arab world, North Africa, Turkey, and the Balkans. Course does not count for major credit in the School of Music. (F, Sp) [IV-WDC].
MUNM 3713 Jazz: Development of an African-American Art Form

3 Credit Hours
Prerequisite: Junior standing. This class will examine the history of jazz, its major exponents, structural elements, and socio-cultural aspects, through lectures, discussions, listening sessions, films, and live performances and demonstrations. The readings and assignments will deepen the student's knowledge, understanding, and appreciation of this American art form. (F, Sp) [IV-WC].

## MUNM 3813 European Cultures of Crusade - 1096 to the Present <br> 3 Credit Hours

Prerequisite: Junior Standing. The Crusades, Christian expeditions in which Europeans travelled to distant battlegrounds to conquer Muslims, Jews, heretics, and pagans, shaped Western culture and identity for nearly a millennium. This course examines the Crusades through history, song, opera, film, games, and other media, exploring relationships between identity and difference, community and singularity, desire and distance, love (sacred and worldly) and violence. (Sp)

## MUNM 3960 Honors Reading

1-3 Credit Hours
1 to 3 hours. Prerequisite: Admission to Honors Program. May be repeated; maximum credit six hours. Consists of topics designated by the instructor in keeping with the student's major program. The topics will cover materials not usually presented in the regular courses. (F, Sp, Su)
MUNM 3970 Honors Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Subjects covered vary. Deals with concepts not usually treated in regular courses. (Irreg.)
MUNM 3980 Honors Research 1-3 Credit Hours
1 to 3 hours. Prerequisite: Admission to Honors Program. May be repeated; maximum credit six hours. Will provide an opportunity for the gifted Honors candidate to work at a special project in the student's field. (F, Sp, Su)
MUNM 3990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: permission of instructor and junior standing. May be repeated once with change of content. Independent study may be arranged to study a subject not available through regular course offerings. (F, Sp, Su)

## MUNM 4960 Directed Readings

1-4 Credit Hours
1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean. May be repeated; maximum credit four hours. Designed for upper-division students who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)
MUNM 4970 Undergraduate Seminar 1-3 Credit Hours
Open to non-music majors. 1 to 3 hours. Prerequisite: 1113 or permission of instructor. May be repeated with change of subject matter; content changes each semester. Study of newly developed, experimental or interdisciplinary topics in music. This course does not count for major credit in the School of Music. (Irreg.)

MUNM 4990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: Senior standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)

## MUNM 5100 Graduate Piano, Violin, etc for Nonmusic

## Majors

1-2 Credit Hours
1 to 2 hours. Prerequisite: graduate standing and permission; four semesters of previous study in the instrument or voice. Enrollment is subject to faculty availability and will not be accepted until the first day of classes. Private instruction in the development of instrumental or vocal skills and musicianship. This course does not count for major credit in the School of Music. (F, Sp, Su)
MUNM 5960 Directed Readings
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing and permission of department. May be repeated; maximum credit twelve hours. Directed readings and/or literature reviews under the direction of a faculty member. (F, Sp, Su)
MUNM 5970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)
MUNM 5990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)
MUS 2970 Special Topics in Music
1-3 Credit Hours
1 to 3 hours. Prerequisite: May be repeated with change of subject matter; content changes each semester. Study of newly developed, experimental, or inter-disciplinary topics in music. (Irreg.)
MUS 3440 Mentored Research Experience
3 Credit Hours
0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)
MUS 3960 Honors Reading 1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated with change of subject; maximum credit six hours. Consists of either reading topics or independent study designated by the instructor in keeping with the student's major program. Covers materials not usually presented in the regular courses. (F, Sp, Su)
MUS 3970 Honors Seminar 1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program; junior or senior standing. May be repeated with change of subject; maximum credit six hours. The projects covered will vary. Deals with concepts not usually presented in regular coursework. (Irreg.)

MUS 3980 Honors Research
1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated with change of subject; maximum credit six hours. Provides an opportunity for the gifted Honors candidate to work at a special project in the student's field. (F, Sp, Su)

MUS 3990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: permission of instructor and junior standing. May be repeated once with change of content. Independent study may be arranged to study a subject not available through regular course offerings. (F, Sp, Su)

MUS 4023 Senior Capstone - BA Degree
3 Credit Hours
Prerequisites: majors only; MUTH 2622; and permission. Research and reading leading to a senior capstone paper in consultation with individual faculty. (F, Sp) [V]

MUS 4960 Directed Readings 1-4 Credit Hours
1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean. May be repeated; maximum credit four hours. Designed for upper-division students who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)

## MUS 4970 Undergraduate Seminar <br> 1-3 Credit Hours

1 to 3 hours. Prerequisite: permission of department. May be repeated; maximum credit six hours. In-depth study of topics of interest. Subjects such as The Aesthetics of Music; Musical Criticism; Music in American Culture; Music of the American Indians; The Band as a Cultural Phenomenon; and the like, are illustrative of the topics that may be pursued. (Irreg.)

MUS 4990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: Senior standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)

MUS 5111 Bibliography and Research in Music 1 Credit Hour
Prerequisite: Graduate standing in the School of Music. The goals of this course are to provide a model of a coherent, systematic process to follow to conduct research on any music topic, and to learn the rules of academic writing style. The model of scholarly research and writing has many uses in the music profession. This is an eight-week, one credit hour course. (F)

MUS 5121 Document Proposal
1 Credit Hour
Prerequisite: Graduate standing in the School of Music. The objective of this course is to write a DMA document proposal. This includes finding an appropriate topic, exploring ways to present a thesis, working on the writing skills, and practicing extemporaneous speaking. Students do not have to be at the proposal writing stage or in the DMA program to enroll. This is an eight-week, one credit hour course. (Irreg.)

MUS 5960 Directed Readings 1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing and permission of department. May be repeated; maximum credit twelve hours. Directed readings and/or literature reviews under the direction of a faculty member. (F, Sp, Su)

MUS 5970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

MUS 5990 Independent Study
-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)

MUS 6880 Doctor of Musical arts Project
2-8 Credit Hours
2 to 8 hours. Prerequisite: admission to DMA degree program; permission of adviser and instructor. Research and/or creative endeavor leading to the completion of the final written project for the degree Doctor of Musical Arts. (F, Sp, Su)

MUS 6960 Directed Readings 1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit six hours. Directed readings and/or literature review under the direction of a faculty member. (Irreg.)

MUS 6970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit 12 hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or research and field projects. (Irreg.)

MUS 6990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)

MUSC 1312 Music in Culture
2 Credit Hours
Required of all music majors; nonmusic majors admitted by permission
A study of music in its cultural context, exploring the inter-relationship of music to such aspects as everyday life, worship and belief, migration, dance, memory, politics, and identity. Techniques of aural perception are stressed for the improvement of basic listening skills. (Sp) [IV-AF].

MUSC 2313 Ancient Times to 17003 Credit Hours
Prerequisite: 1312. A study of the development of music from its inception to the late Baroque era conducted through lectures, readings, listening and analysis. (F) [IV-WC]

MUSC 2323 Late Baroque Through Romantic Period 3 Credit Hours Prerequisite: 1312. A study of the development of music in the eighteenth and nineteenth centuries conducted through lectures, readings, listening and analysis. (Sp) [IV-WC] .

MUSC 3333 Post-Romantic Period to the Present 3 Credit Hours Prerequisite: 1312. A study of the development of music from the PostRomantic era to the present day conducted through lectures, readings, listening and analysis. (F) [IV-WC]

MUSC 3440 Mentored Research Experience
3 Credit Hours
0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)

MUSC 3960 Honors Reading
1-3 Credit Hours
1 to 3 hours. Prerequisite: Admission to Honors Program. May be repeated; maximum credit six hours. Consists of topics designated by the instructor in keeping with the student's major program. The topics will cover materials not usually presented in the regular courses. (F, Sp, Su)

MUSC 3970 Honors Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Subjects covered vary. Deals with concepts not usually treated in regular courses. (Irreg.)

MUSC 3980 Honors Research
1-3 Credit Hours
1 to 3 hours. Prerequisite: Admission to Honors Program. May be repeated; maximum credit six hours. Will provide an opportunity for the gifted Honors candidate to work at a special project in the student's field. (F, Sp, Su)

MUSC 3990 Independent Study 1-3 Credit Hours
1 to 3 hours. Prerequisite: permission of instructor and junior standing. May be repeated once with change of content. Independent study may be arranged to study a subject not available through regular course offerings. (F, Sp, Su)
MUSC 4960 Directed Readings
1-4 Credit Hours
1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean. May be repeated; maximum credit four hours. Designed for upper-division students who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)
MUSC 4970 Undergraduate Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: permission of department. May be repeated with change of content; maximum credit nine hours. In-depth study of topics of interest as appropriate to the field of study. Subjects such as the style, aesthetics, and influence of a particular composer, i.e., Beethoven, Berlioz, Brahms; the social/cultural foundations of a particular musical era or period; notational systems; and the like, are illustrative of the topics that may be pursued. (Sp)
MUSC 4990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: Senior standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)

MUSC 5100 Music History Graduate Review I 1 Credit Hour
0 to 1 hour. Prerequisite: majors only. Designed to provide remediation to graduate students who did not pass the preliminary exam in early music history. In order to register for graduate musicology seminars, students must either have passed the preliminary exam or have passed this review course. This class is held during the first eight weeks of the semester. The Medieval, Renaissance, and Baroque eras are studied. (F, Sp)
MUSC 5200 Music History Graduate Review II
1 Credit Hour
0 to 1 hour. Prerequisite: majors only. Designed to provide remediation to graduate students who did not pass the preliminary exam in early music history. In order to register for graduate musicology seminars, students must either have passed the preliminary exam or have passed the review course. This class is held during the last eight weeks of the semester. Classical, Romantic, and 20th century periods are studied. (F, Sp)
MUSC 5323 History of Opera 3 Credit Hours
Prerequisite: graduate standing or permission; 2313,2323,3333, or equivalent. Changes of content, style and form in dramatic music as related to social, economic and political change in the past 350 years of western civilization. (Irreg.)
MUSC 5373 History of American Music
3 Credit Hours
Prerequisite: graduate standing or permission; 2313, 2323,3333, or equivalent. Music in the United States from its beginnings to the present. (Irreg.)
MUSC 5433 Ethnomusicology 3 Credit Hours
Prerequisite: Graduate standing or permission of the department. A study of world music from an issue and concepts orientation, including illustrative musical expressions from a variety of world areas. (Irreg.)

MUSC 5513 Music in the Middle Ages
3 Credit Hours
Prerequisite: graduate standing. Majors only. A detailed survey of music from Hildegard of Bingen through Guillaume de Machaut. Explores a wide variety of medieval musical repertories, including major sacred and vernacular musical genres. Through detailed study of primary and secondary materials, we will examine musical structures as well as the historical contexts within which they were produced. (Irreg.)
MUSC 5523 Music in the Renaissance: Style, Theory and
Performance
3 Credit Hours
Prerequisite: graduate standing; 2313 or equivalent. An integrated course that correlates vocal and instrumental Renaissance music by the major composers with the major writers of the time on musical theory, acoustics, philosophy, esthetics, history and performance. (Irreg.)

MUSC 5543 The Baroque Era 3 Credit Hours
Prerequisite: graduate standing or permission; 2313,2323,3333, or equivalent. A detailed study of music from Monteverdi through J.S. Bach. (Irreg.)
MUSC 5583 Music from 1900-1945 3 Credit Hours
Prerequisite: Graduate standing or permission of the department. A study of European and American classical music during this period. (Irreg.)
MUSC 5960 Directed Readings
1-3 Credit Hours
1 to 3 hours. Prerequisite: 18 hours of music, permission of the director of the school. May be repeated; maximum credit six hours. Individual topics in music history and literature. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

MUSC $5970 \quad$ Seminar in Music History $\quad \mathbf{1 - 4}$ Credit Hours
1 to 4 hours. Prerequisite: 30 hours of music or permission. May be repeated with change of subject matter; maximum graduate credit 12 hours. (F, Sp, Su)
MUSC 5980 Research for Master's Thesis 2-9 Credit Hours
Variable enrollment, two to nine hours; maximum credit applicable toward degree, four hours. Music television emphasis also requires the production of a half-hour broadcast-quality television program as part of thesis research. (F, Sp, Su)
MUSC 5990 Special Studies in Music History 1-3 Credit Hours 1 to 3 hours. Prerequisite: 30 hours of music, permission of the director of the school. May be repeated with change of subject matter; maximum graduate credit six hours. Individual study, research and analysis. (F, Sp, Su)

MUTE 1000 Freshman/Transfer Music Orientation 0 Credit Hours Prerequisite: majors only. To help ensure that music students are aware of the varied and numerous performance opportunities, and to encourage educated listening skills and habits. (F, Sp)

## MUTE 1010 Recital Attendance

0 Credit Hours
0 hours credit. Performance laboratory for all undergraduate music majors. (F, Sp)
MUTE 1050 Wind Symphony
1 Credit Hour
0 to 1 hours. The University of Oklahoma Wind Symphony is the flagship wind and percussion ensemble at OU. It explores established repertoire, significant new works, and premieres. Membership is by audition. The Wind Symphony performs five concerts each academic year. Music students enroll in 1050 prior to their sophomore barrier. Non-majors seeking lower-level credit should enroll in this section. (F, Sp)

MUTE 1060 Symphony Band 1 Credit Hour
0 to 1 hours. The University of Oklahoma Symphony Band performs significant repertoire for wind and percussion instruments. The ensemble is comprised of talented undergraduate and graduate students who have demonstrated an outstanding level of musicianship through an audition procedure. The Symphony Band performs four concerts each academic year featuring new works as well as core repertoire for Winds and Percussion. (F, Sp)
MUTE 1070 University Marching Band 1 Credit Hour
0 to 1 hours. Pride of Oklahoma Marching Band. Membership is by audition. (F)

MUTE 1080 Campus Band
1 Credit Hour
0 to 1 hours. Performance band for non majors and a major ensemble credit for music majors upon the approval of applied professor and the conducting faculty. (Sp)

## MUTE 1090 Basketball Band

1 Credit Hour
0 to 1 hours. Sound of the Sooners Men's and Women's Basketball Bands. Continuation of the fall basketball band rehearsals for the Men's and Women's basketball bands. Students learn by performing throughout the spring Men's and Women's Basketball home schedule and during all Conference and NCAA Tournament Travel. Membership is by audition. (Sp)

## MUTE 1120 Jazz Ensemble

1 Credit Hour
0 to 1 hour. Prerequisite: permission by audition. May be repeated for credit; maximum credit eight hours. Preparation and performance of music written in a variety of jazz styles. (F, Sp)

MUTE 1140 University Orchestra 1 Credit Hour 0 to 1 hour. Prerequisite: permission by audition. May be repeated for credit; maximum credit eight hours. Performance in University orchestra. (F, Sp, Su)
MUTE 1160 University Chorale
1 Credit Hour
0 to 1 hour. Prerequisite: permission; membership determined by audition. May be repeated for credit; maximum credit eight hours. An ensemble of high caliber; approximately 24 singers. Rehearsal and performance of choral and choral-orchestral masterworks drawn mostly from the baroque through twentieth-century style periods. Several performances each semester. (F, Sp, Occas. Su)

## MUTE 1180 Singing Sooners

1 Credit Hour
0 to 1 hour. May be repeated for credit; maximum credit six hours. Nonaudition; hearing for vocal placement within ensemble. Wide variety of styles from popular to major choral works, combining with other choirs. (F, Sp)

MUTE 1280 Opera Chorus
1 Credit Hour
$0-1$ hours. May be repeated; maximum credit 8 hours. The OU Opera Chorus is a 24 -member performing ensemble. This select ensemble will perform one fully staged opera production. Membership is open through audition to all students in any degree program at OU. Music majors must participate in both Choral Union and Opera Chorus each semester to fulfill large ensemble credit for undergraduates and graduates. (F, Sp)

MUTE 1282 Italian and English Lyric Diction 2 Credit Hours Prerequisite: Majors only. Italian and English Lyric Diction provides an introduction to the principles of pronunciation of the Italian and English languages in speech and singing. In English, the American, Mid- Atlantic, British and General Southern dialects will be addressed. Frequent performance and coaching of poetic readings, songs, arias and recitative in class will provide opportunity to develop accurate and expressive communication. (F)

MUTE 1290 Women's Chorus
1 Credit Hour
0-1 hours. May be repeated; maximum credit 8 hours. This ensemble is dedicated to the study and performance of music for the female voice. Annual performances include the Fall and Spring concerts, Christmas at OU, and the President's Concert. Membership is open through audition to female students in any degree program at OU. Fulfills large ensemble credit for undergraduate and graduate music majors. (F, Sp)

MUTE 1310 Men's Glee Club
1 Credit Hour
0-1 hours. May be repeated; maximum credit 5 hours. This ensemble is dedicated to the study and performance of music for the male voice. Annual performances include the Fall and Spring concerts, Christmas at OU, and the President's Concert. Membership is open through audition to male students in any degree program at OU . ( $\mathrm{Fa}, \mathrm{Sp}$ )

MUTE 1311 Group Piano I
1 Credit Hour
Prerequisite: permission. Development of functional piano skills for the non-keyboard music major. Emphasis on keyboard theory and technique, sight reading, solo/ensemble repertoire and creative activities (harmonization, improvisation). Laboratory (F, Sp)

MUTE 1321 Group Piano II
1 Credit Hour
Prerequisite: 1311 and permission. Continued development of the skills begun in 1311. Laboratory (F, Sp)
MUTE 1332 Functional Piano Skills I
2 Credit Hours
Prerequisite: piano major, piano emphasis, permission. Experience in sight reading, playing by ear, modulation, open score reading, transposition and improvisation at the keyboard. (F)

MUTE 1342 Functional Piano Skills II
2 Credit Hours
Prerequisite: 1332 or permission. Experience in sight reading, playing by ear, modulation, open score reading, transposition and improvisation at the keyboard. (Sp)

MUTE 2000 Sophomore Barrier
0 Credit Hours
Prerequisite: Majors only; Sophomore standing; Students must be in their fourth semester of 2020-level lessons or have permission from their studio instructor. The Sophomore Barrier is a formal performance exam required of all students enrolled in the BM, BME, and BMA degree programs at the end of their sophomore year. In addition, all BA students who wish to continue applied study at the upper-division level must also pass this exam. (F, Sp)

## MUTE 2113 The Commercial Music and Recording

 Industry3 Credit Hours
Prerequisite: Majors only; MUNM 1143 or MUNM 1163 or MUNM 2413 or MUTK 4113. An introductory course that will focus on the history, procedures, standard practices, economics and technologies involved with the modern machinations of the business of music including recording, distribution, audience development, touring, promotion, publicity, placements, and royalties. Students in this course will explore what career paths are available and how to build a sustainable income in the modern music industry. (Sp)

## MUTE 2211 Brass Instrument Class

1 Credit Hour
Prerequisite: Permission; Majors only; course is not open to freshmen. May be repeated with change of instrument or subject matter; maximum credit four hours. Designed to provide opportunities for growth both as a teacher and as a player of brass instruments. Students will demonstrate performance ability at an intermediate level; teaching ability of pedagogical issues at all ability levels through peer teaching demonstrations; and an understanding of fundamental instrumentspecific knowledge and techniques. Several teaching episodes and ample experiences on multiple instruments throughout the semester. ( $F, S p$ )

MUTE 2221 Percussion Instrument Class
1 Credit Hour
Prerequisite: Permission of instructor; Majors only; course not open to freshmen. May be repeated with change of instrument or subject matter; maximum credit four hours. Serves as an introduction to the world of percussion performance. Students gain executive skills on a variety of percussion instruments, experience teaching multiple percussion instruments, and hands-on percussion ensemble conducting/coaching experience. ( $\mathrm{F}, \mathrm{Sp}$ )
MUTE 2231 Guitar Instrument Class
1 Credit Hour
Prerequisite: MUTH 1622 and MUTH 1522. Develop skills for playing guitar and reading chord charts. Also provides opportunity to explore the structure of various styles of folk and popular music. Assessments are performance-based with students demonstrating knowledge and skill acquired through individual playing tests. The skills and knowledge acquired in this course will be applicable to teaching in elementary and and secondary general music classrooms. (F, Sp)

MUTE 2241 Woodwind Instrument Class 1 Credit Hour
Prerequisite: Permission of instructor; Majors only; course is not open to freshmen. May be repeated with change of instrument or subject matter; maximum credit four hours. Provides opportunities for growth both as a teacher and as a player of all woodwind instruments. Students demonstrate performance ability at an intermediate level; teaching ability of pedagogical issues at all ability levels through peer teaching demonstrations; and an understanding of fundamental instrumentspecific knowledge and techniques. Several teaching episodes and ample experiences are afforded throughout the semester. (F, Sp)
MUTE 2242 Bme Instrumental Conducting I 2 Credit Hours
Prerequisite: sophomore standing in music. Development of skills and knowledge in instrumental conducting, rehearsal techniques and instrumental repertoire. (F)
MUTE 2251 Stringed Instrument Class
1 Credit Hour
Prerequisite: Permission. May be repeated with change of instrument or subject matter; maximum credit four hours. Designed to provide opportunities for growth both as a teacher and as a player of string instruments. Students develop correct posture and instrument placement, as well as correct left and right hand position in order to play string instruments well. Several teaching experiences provided for students to begin to break down performance technique into left and right hand strategies. (F, Sp)
MUTE 2271 Chamber Music
1 Credit Hour
Prerequisite: permission. May be repeated; maximum credit four hours. Study and performance of chamber music literature for various combinations of instruments. (F, Sp, Su)
MUTE 2280 Studio Ensemble
1 Credit Hour
0 to 1 hour. May be repeated for credit. Performance experience in an ensemble of similar instruments. (F, Sp)
MUTE 2311 Group Piano III
1 Credit Hour
Prerequisite: 1321 and permission. Continued development of the skills begun in 1321. Laboratory (F, Sp)

MUTE 2321 Group Piano IV 1 Credit Hour
Prerequisite: 2311 and permission. Continued development of the skills begun in 2311 . Special emphasis on sight reading, accompanying and instrumental and vocal-choral score reading. Laboratory (F, Sp)

MUTE 2411 Organ Technology Lab
1 Credit Hour
Prerequisite: Majors only. May be repeated; maximum credit 4 hours. This course must be completed four times (for a total of four credit hours) as a prerequisite to MUTE 4411. Provides a practical and hands-on component to Organ Technology majors. Covers basic and fundamental areas of knowledge and experience any organ technician is expected to master. For students who already have experience in certain areas, their course of study may be altered to address areas of relative weakness or provide advanced experience. Laboratory (F, Sp)
MUTE 2471 Internship in Organbuilding I
1 Credit Hour
Prerequisite: Permission of instructor; may be repeated, maximum credit 2 hours. The Internship in Organbuilding is designed to provide students first-hand training in the practice of organbuilding, both in the workshop and in the field. Site visits will allow for first-hand application of skills honed in the organbuilder's shop. Travel to local churches and academic institutions will provide additional opportunities for analysis and handson experience. (Irreg.)
MUTE 2970 Special Topics in Music Technique 1-3 Credit Hours Majors only. 1 to 3 hours. May be repeated with change of subject matter; content changes each semester. Study of newly developed, experimental or inter-disciplinary topics in music technique.
MUTE 3050 Wind Symphony 1 Credit Hour
0 to 1 hours. Prerequisite: Junior standing; may be repeated for credit; maximum credit eight hours. The University of Oklahoma Wind Symphony is the flagship wind and percussion ensemble at OU. It explores established repertoire, significant new works, and premieres. Membership is by audition. The Wind Symphony performs five concerts each academic year. Music students enrolled in 3050 should have successfully passed their sophomore barrier. Non-music majors seeking upper-level credit hours should enroll in this section. (F, Sp)
MUTE 3060 Symphony Band
1 Credit Hour
0 to 1 hours. Prerequisite: Junior standing; may be repeated for credit; maximum credit eight hours. The University of Oklahoma Symphony Band performs significant repertoire for wind and percussion instruments. Membership is by audition. The Symphony Band performs four concerts each academic year. Music students enrolled in 3060 should have successfully passed their sophomore barrier. Non-music majors seeking upper-level credit hours should enroll in this section. (F, Sp)
MUTE 3070 University Marching Band
1 Credit Hour
0 to 1 hours. Prerequisite: Junior standing; may be repeated for credit; maximum credit eight hours. Pride of Oklahoma Marching Band. Membership is by audition. (F)
MUTE 3080 Campus Band 1 Credit Hour
0 to 1 hours. Prerequisite: Junior standing; may be repeated for credit; maximum credit eight hours. Performance band for non majors and a major ensemble credit for music majors upon the approval of applied professor and the conducting faculty. (Sp)
MUTE 3090 Basketball Band
1 Credit Hour
0 to 1 hours. Prerequisite: Junior standing; may be repeated for credit; maximum credit eight hours. Sound of the Sooners Men's and Women's Basketball Bands. Continuation of the fall basketball band rehearsals for the Men's and Women's basketball bands. You will learn by performing throughout the spring Men's and Women's Basketball home schedule and during all Conference and NCAA Tournament Travel. Membership is by audition. (Sp)

MUTE 3110 Studio Accompanying for Piano Majors 1 Credit Hour 0 to 1 hour. Prerequisite: majors only; PIAN 2020 or PIAN 2010. May be repeated; max credit 4 hours. Required of piano majors during junior and senior years. Two hours per week of assigned accompanying in vocal and/or instrumental teaching studios. Laboratory (F, Sp)

## MUTE 3120 Jazz Ensemble 1 Credit Hour

0 to 1 hour. Admission by audition. May be repeated for credit.
Preparation and performance of music written in a variety of jazz styles.
MUTE 3140 University Orchestra
1 Credit Hour
0 to 1 hour. Prerequisite: permission by audition. May be repeated for credit; maximum credit eight hours. Performance in University orchestra. (F, Sp)

MUTE 3160 University Chorale
1 Credit Hour
0 to 1 hour. Prerequisite: audition. May be repeated for credit. An ensemble of high caliber; approximately forty singers. Rehearsal and performance of choral and choral-orchestral masterworks drawn mostly from the baroque through twentieth-century style periods. Several performances each semester. (F, Sp)

MUTE 3180 Singing Sooners
1 Credit Hour
0 to 1 hour. May be repeated for credit; maximum credit six hours. Nonaudition; hearing for vocal placement within ensemble. Wide variety of styles from popular to major choral works, combining with other choirs. (F, Sp)

## MUTE 3190 Opera/Music Theatre 2 Credit Hours

0 to 2 hours. Prerequisite: permission by audition. May be repeated for credit; maximum credit sixteen hours. Consists of rehearsals and performances of opera, musicals and other forms of music theatre. (F, Sp)

## MUTE 3202 French Lyric Diction <br> 2 Credit Hours

Prerequisite: VOIC 2020; majors only. French Lyric Diction provides an introduction to the principles of pronunciation of the French language in speech and singing. Student will use the International Phonetic Alphabet as a symbolic medium. Frequent performance and coaching of poetic readings, songs, arias, and recitative in class will provide students an opportunity to develop accurate and expressive communication. (Sp)

## MUTE 3212 German Lyric Diction <br> 2 Credit Hours

Prerequisite: VOIC 2020; majors only. German Lyric Diction provides an introduction to the principles of pronunciation of the German language in speech and singing. Student will use the International Phonetic Alphabet as a symbolic medium. Frequent performance and coaching of poetic readings, songs, arias, and recitative in class will provide students an opportunity to develop accurate and expressive communication. (F)

## MUTE 3242 Instrumental Conducting I <br> 2 Credit Hours

Prerequisite: junior standing in music. Development of skills and knowledge in instrumental conducting, rehearsal techniques and instrumental repertoire. (F)

MUTE 3252 Instrumental Conducting II
2 Credit Hours
Prerequisite: 3242. Continued development of skills and knowledge in instrumental conducting, rehearsal skills and instrumental repertoire. (Sp)

MUTE 3262 Choral Conducting I
2 Credit Hours
Prerequisite: junior standing in the School of Music. Development of skills and knowledge in choral conducting, rehearsal techniques and choral repertoire. (F)

MUTE 3272 Choral Conducting II
2 Credit Hours
Prerequisite: 3262. Continued development of skills and knowledge in choral conducting, rehearsal techniques and choral repertoire. (Sp)

MUTE 3280 Opera Chorus
1 Credit Hour
0-1 hours. May be repeated; maximum credit 6 hours. The OU Opera Chorus is a 24-member performing ensemble. Ensemble performs one fully staged opera production. Membership is open through audition to all students in any degree program at OU. Music majors must participate in both Choral Union and Opera Chorus each semester to fulfill large ensemble credit for undergraduates and graduates. ( $F, S p$ )

MUTE 3290 Women's Chorus 1 Credit Hour 0-1 hours. May be repeated; maximum credit 6 hours. Ensemble dedicated to the study and performance of music for the female voice. Annual performances include the Fall and Spring concerts, Christmas at OU, and the President's Concert. Membership is open through audition to female students in any degree program at OU. Fulfills large ensemble credit for undergraduate and graduate music majors. (F, Sp)

MUTE 3310 Men's Glee Club
1 Credit Hour
0-1 hours. Prerequisite: junior standing. May be repeated; maximum credit 5 hours. This ensemble is dedicated to the study and performance of music for the male voice. Annual performances include the Fall and Spring concerts, Christmas at OU, and the President's Concert. Membership is open through audition to male students in any degree program at OU. (F, Sp)

MUTE 3342 Jazz Improvisation
2 Credit Hours
Prerequisite: junior standing. May be repeated; maximum credit 8 hours Development of improvising skills in the jazz idiom. Designed as a handson laboratory course for students of various skill levels to improve personal abilities. (F, Sp, Su)

MUTE 3440 Mentored Research Experience
3 Credit Hours
0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)

MUTE 3980 Honors Research
1-3 Credit Hours
1 to 3 hours. Prerequisite: Admission to Honors Program; May be repeated, maximum credit six hours. Will provide an opportunity for the gifted Honors candidate to work at a special project in the student's field. (F, Sp, Su)

MUTE 4020 Composition Forum
0 Credit Hours
Prerequisite: junior standing and composition majors; corequisite:
Composition 4010 or 4020 . Required of all composition majors. Meets weekly throughout the semester as an official laboratory to discuss compositional techniques and review student compositions. (F, Sp, Su)

MUTE 4232 Organ Improvisation Seminar 2 Credit Hours
Prerequisites: majors only; MUTH 2522 and MUTH 2622. The goal of the course is to help students develop basic skills in improvisation, including the development of a greater sense of harmonic direction, the exploration of simple forms and counterpoint, and the improvisation of melodic phrases. ( $F$, Sp)

MUTE G4252 Music in Worship
2 Credit Hours
Prerequisite: junior standing. Presents both a brief history of hymnody within worship, as well as an overview of the role of music within various denominations, both within the United States and throughout the world. (F)

MUTE G4262 Church Music Practicum
2 Credit Hours
Prerequisite: junior standing. Provides students with practical skills and information pertinent to the church music profession. (Irreg.)

MUTE 4271 Chamber Music
1 Credit Hour
Prerequisite: permission. May be repeated; maximum credit four hours. Study and performance of chamber music literature for various combinations of instruments. ( $\mathrm{F}, \mathrm{Sp}$ )
MUTE 4280 Studio Ensemble
1 Credit Hour
0 to 1 hour. Prerequisite: 2280. May be repeated for credit. Performance experience in an ensemble of similar instruments. ( $F, \mathrm{Sp}$ )

## MUTE 4290 Opera Production

1-3 Credit Hours
(Slashlisted with 5290) 1 to 3 hours. Prerequisite: junior standing in music. May be repeated; maximum credit 12 hours. A musical, dramatic, and technical theater practicum for students cast in solo and chorus roles in major opera productions. The purpose of the course and productions is to provide appropriate training and performance opportunities for each participant. No student may earn credit for both 4290 and 5290. (Irreg.)

## MUTE 4310 Vocal Coaching

2 Credit Hours
0 to 2 hours credit. Prerequisite: junior or senior standing and instructors permission. May be repeated three times; maximum credit eight hours. Course is designed as a supplement to weekly voice lessons with sessions that focus primarily on diction, style and interpretation issues within a students repertoire. (F, Sp)
MUTE 4312 Voice Science and Vocal Pedagogy 2 Credit Hours
Prerequisite: Junior Standing, Majors only. In this course students will learn about how the voice functions when used as musical instrument. Students will study the anatomy and physiology of the voice, respiratory and articulation system, the conditions for correct posture and alignment, and vocal acoustics. Students will learn how to apply this information to develop skills as a vocal pedagogue. (Sp)
MUTE 4382 Acting for Opera I
2 Credit Hours
(Slashlisted with MUTE 5382) Prerequisite: majors only, junior standing. Acting for Opera develops basic acting and interpretive skills for opera performance, including characterization, interaction, movement and improvisation. Music and text will be explored from the perspective of dramatic structure. The creative integration of the physical, emotional, and mental tasks of acting are emphasized. No student may earn credit for both 4382 and 5382. (F)
MUTE 4392 Acting for Opera II
2 Credit Hours
(Slashlisted with MUTE 5392) Prerequisite: majors only, junior standing. An in-depth study of scenes selected from 18th - 20th century operatic repertoire, culminating in a performance at the end of the semester. Scenes will be assigned, coached, and rehearsed in class. The focus of the class is the development of the individual student's skills, with an emphasis on process and techniques. No student may earn credit for both 4392 and 5392. (Sp)
MUTE 4411 Organ Technology Lab 1 Credit Hour
Prerequisite: completion of MUTE 2411 for four semesters, and permission of instructor. May be repeated; maximum credit four hours. Combined with MUTE 2411, MUTE 4411 provides an eightsemester course of study of practical and hands-on experience for Organ Technology majors. Students may not enroll in MUTE 4411 without the completion of four semesters of MUTE 2411. Covers basic and fundamental areas of knowledge and experience any organ technician is expected to master. For students who already have experience in certain areas, their course of study may be altered to address areas of relative weakness or provide advanced experience. Laboratory ( $\mathrm{F}, \mathrm{Sp}$ )

MUTE 4423 History and Fundamentals of Pipe Organ Construction and Design

3 Credit Hours
Prerequisite: junior standing; majors only or permission of instructor. Historical and interactive study of the pipe organ, from the earliest historical examples to the latest developments in contemporary instruments. Covers a broad field of information that applies directly to the instrument itself, including topics such as: basic components of the pipe organ, various types of key action, physics of pipe speech, pipe-making, acoustics, console design and the development of tuning standards. Includes a lab-type component in which the class will explore various instruments in situ to experience the various principles in application, as well as learning the basics of tuning and maintenance. (F, Sp )
MUTE 4453 History and Technique of Organbuilding I 3 Credit Hours Prerequisite: Junior standing; majors only. The course is modeled after the syllabus published by the American Institute of Organbuilders pertaining to the fundament of knowledge required to pass the examination for admission as a Colleague of the organization. This twosemester sequence traverses the majority of the topics covered in the AIO examination, thus this course is a comprehensive study of both technical and artistic knowledge. (Irreg.)
MUTE 4463 History and Technique of Organbuilding II 3 Credit Hours Prerequisite: Majors only; Junior standing; MUTE 4453. A continuation of the content begun in MUTE 4453. Course content is modeled after the published syllabus of the American Institute of Organbuilders and the knowledge required to pass the examination for admission as a Colleague of the organization. Continues the progression of the technical and artistic knowledge of organ building. (Irreg.)

MUTE 4472 Internship in Organbuilding II
2 Credit Hours
Prerequisite: Permission of instructor; MUTE 2471; may be repeated; maximum credit 4 hours. The Internship in Organbuilding is designed to provide students first hand training in the practice of oragnbuilding, both in the workshop and in the field. Specifically, students will practice organ tuning and maintenance. Travel to local churches and academic institutions will provide additional opportunities for analysis and handson experience. (Irreg.)
MUTE 4512 Professional Preparation and Capstone Project 2 Credit Hours
Prerequisite: Majors only, junior standing. Designed to maximize student potential to think, work, and thrive in all facets of a professional musical career and complete a Capstone Project. The ultimate goal of the class is to provide students with strategies, concepts, and knowledge to help build the career-development skills necessary for 21 st-century musicians. (F) [V].

MUTE 4970 Undergraduate Seminar
1-3 Credit Hours
Majors only. 1 to 3 hours. May be repeated with change of subject matter; content changes each semester. In-depth look at areas dealing with technique, technology and applied instruction in a class or group setting. Study of newly developed, experimental or inter-disciplinary topics in music technique.
MUTE 4990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: Senior standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)

MUTE 5050 Wind Symphony
1 Credit Hour
0 to 1 hours. Prerequisite: Graduate standing and permission of instructor; may be repeated; maximum four credit hours. The University of Oklahoma Wind Symphony is the flagship wind and percussion ensemble at the University of Oklahoma. It explores, through rehearsal and performance, established repertoire, significant new works, and premieres. Membership is by audition. ( $\mathrm{F}, \mathrm{Sp}$ )

MUTE 5060 Symphony Band 1 Credit Hour
0 to 1 hours. Prerequisite: Graduate standing and permission of instructor; may be repeated; maximum four credit hours. The University of Oklahoma Symphony Band is a major ensemble that performs significant repertoire for wind and percussion instruments. Membership is by audition. The Symphony Band performs four concerts each academic year. Students enrolled in the 5000 level of the class are graduate students of the OU School of Music, or graduate students in another field. (F, Sp)

## MUTE 5070 University Marching Band <br> 1 Credit Hour

0 to 1 hours. Prerequisite: Graduate standing and permission of instructor; may be repeated; maximum credit four hours. Pride of Oklahoma Marching Band. Membership is by audition. (F)

MUTE 5080 Campus Band
1 Credit Hour
0 to 1 hours. Prerequisite: Graduate standing and permission of instructor; may be repeated; maximum four credit hours. Study and performance of concert literature for the wind band to include score analysis and study of the aspects of program planning and performance practices. Number of credits applicable to degree programs varies, but In no case may exceed four hours. Audition required. (Sp)

## MUTE 5090 Basketball Band

1 Credit Hour
0 to 1 hours. Prerequisite: Graduate standing and permission of instructor; may be repeated; maximum four credit hours. Sound of the Sooners Men's and Women's Basketball Bands. Membership is by audition. (Sp)

MUTE 5120 Jazz Ensemble
1 Credit Hour
0 to 1 hour. Prerequisite: graduate standing and permission. May be repeated for credit; maximum credit four hours. Admission by audition. Preparation and performance of music written in a variety of jazz styles. (F, Sp)

MUTE 5132 Organ Improvisation Seminar 2 Credit Hours
Prerequisites: majors only; graduate standing. The goal of the course is to help students develop basic skills in improvisation, including the development of a greater sense of harmonic direction, the exploration of simple forms and counterpoint, and the improvisation of melodic phrases. ( $\mathrm{F}, \mathrm{Sp}$ )

MUTE 5140 University Orchestra
1 Credit Hour
0 to 1 hour. Prerequisite: permission of instructor; determined by audition.
May be repeated for credit. Number of credits applicable to degree programs varies, but in no case may exceed four hours. Study and performance of orchestral literature for the string orchestra and full symphony orchestra to include score analysis and study of the aspects of program planning and performance practices. (F, Sp)

MUTE 5160 University Chorale 1 Credit Hour
Prerequisite: graduate standing, permission; membership determined by audition. May be repeated for credit. An ensemble of high caliber; approximately 40 singers. Rehearsal and performance of choral and choral-orchestral masterworks drawn mostly from the baroque through twentieth-century style periods. Several performances each semester. (F, Sp, Su)

MUTE 5190 Opera/Music Theatre
2 Credit Hours
0 to 2 hours. Prerequisite: permission of instructor by audition. May be repeated for credit; maximum credit eight hours. Consists of rehearsals and performances of opera, musicals and other forms of music theatre. (F, Sp, Su)

MUTE 5271 Chamber Music 1 Credit Hour
Prerequisite: Graduate standing, permission. May be repeated with change of subject matter. Survey of chamber music through participation in ensemble groups. Preparation and public performance of selected chamber music works. (F, Sp)

MUTE 5280 Studio Ensemble
Credit Hour
0 to 1 hour. Prerequisite: graduate standing. May be repeated for credit. Performance experience in an ensemble of similar instruments. (F, Sp)

MUTE 5290 Opera Production
1-3 Credit Hours
(Slashlisted with 4290) 1 to 3 hours. Prerequisite: junior standing in music. May be repeated; maximum credit 12 hours. A musical, dramatic, and technical theater practicum for students cast in solo and chorus roles in major opera productions. The purpose of the course and productions is to provide appropriate training and performance opportunities for each participant. No student may earn credit for both 4290 and 5290. (Irreg.)

MUTE 5310 Men's Glee Club 1 Credit Hour
Prerequisite: graduate standing. 0-1 hours. May be repeated; maximum credit 5 hours. This ensemble is dedicated to the study and performance of music for the male voice. Annual performances include the Fall and Spring concerts, Christmas at OU, and the President's Concert. Membership is open through audition to male voices in any degree program at OU. (F, Sp)

MUTE 5320 Women's Chorus 1 Credit Hour
Prerequisite: graduate standing. 0-1 hours. May be repeated; maximum credit 8 hours. This ensemble is dedicated to the study and performance of music for the female voice. Annual performances include the Fall and Spring concerts, Christmas at OU, and the President's Concert. Membership is open through audition to female voices in any degree program at OU. Fulfills large ensemble credit for undergraduate and graduate music majors. (F, Sp)

MUTE 5342 Jazz Improvisation
2 Credit Hours
Prerequisite: Graduate Standing. Development of improvising skills in the jazz idiom for graduate students. Designed as a hands-on laboratory course for students of various skill levels to improve personal abilities. (F, Sp)

MUTE 5382 Acting for Opera I
2 Credit Hours
(Slashlisted with MUTE 4382) Prerequisite: graduate standing. Acting for Opera develops basic acting and interpretive skills for opera performance, including characterization, interaction, movement and improvisation. Music and text will be explored from the perspective of dramatic structure. The creative integration of the physical, emotional, and mental tasks of acting are emphasized. No student may earn credit for both 4382 and 5382. (F)

## MUTE 5392 Acting for Opera II <br> 2 Credit Hours

(Slashlisted with MUTE 4392) Prerequisite: graduate standing. An in-depth study of scenes selected from 18th-20th century operatic repertoire, culminating in a performance at the end of the semester. Scenes will be assigned, coached, and rehearsed in class. The focus of the class is the development of the individual student's skills, with an emphasis on process and techniques. No student may earn credit for both 4392 and 5392. (Sp)

MUTE 5413 Church Music Practicum 3 Credit Hours
Prerequisite: graduate standing or permission. This course provides students with practical skills and information pertinent to the churchmusic profession. The scope of study will include, but is not limited to, service playing, accompanying choral works, console conducting, and interpersonal skills related to the workplace environment. The students will also develop a list of historical and current resources that will contribute to their knowledge of music's place within the church. (F, Sp )

## MUTE 5423 History and Fundamentals of Pipe Organ Construction and Design <br> 3 Credit Hours

Prerequisite: graduate standing or permission. Historical and interactive study of the pipe organ, from the earliest historical examples to the latest developments in contemporary instruments. Covers a broad field of information that applies directly to the instrument itself, including topics such as: basic components of the pipe organ, various types of key action, physics of pipe speech, pipemaking, acoustics, console design and the development of tuning standards. Includes a lab-type component in which the class will explore various instruments in situ to experience the various principles in application as well as learning the basics of tuning and maintenance. (F, Sp)

MUTE 5453 History and Technique of Organbuilding I 3 Credit Hours Prerequisite: Graduate Standing. The course is modeled after the syllabus published by the American Institute of Organbuilders pertaining to the fundament of knowledge required for admission as a Colleague of the organization. The two-semester sequence of MUTE 5453 and 5463 traverses the majority of the topics covered in the AIO examination and thus is a comprehensive study of both technical and artistic knowledge. (F)

MUTE 5463 History and Technique of Organbuilding II 3 Credit Hours Prerequisite: Graduate standing and MUTE 5453. A continuation of the content begun in MUTE 5453. Course content is modeled after the published syllabus of the American Institute of Organbuilders and the knowledge required to pass the examination for admission as a Colleague of the organization. Continues the progression of the technical and artistic knowledge of organ building. (Sp)
MUTE 5471 Internship in Organbuilding I 1 Credit Hour
Prerequisite: Graduate standing. The Internship in Organbuilding is designed to provide students first-hand training in the practice of organbuilding, both in the workshop and in the field. Site visits will allow for first-hand application of skills honed in the organbuilder's shop. Travel to local churches and academic institutions will provide additional opportunities for analysis and hands-on experience. (F, Sp)
MUTE 5472 Internship in Organbuilding II 2 Credit Hours Prerequisite: Graduate standing and MUTE 5471. The Internship in Organbuilding is designed to provide students firsthand training in the practice of organbuilding, both in the workshop and in the field. Students will coordinate three-hour meeting times each week directly with an organbuilder and in consultation with the instructor. Site visits will allow for first-hand application of skills honed in the organbuilder's shop. (F, Sp, $\mathrm{Su})$

## MUTE 5512 Choral Conducting

2 Credit Hours
Prerequisite: 3262; graduate standing; permission of instructor. May be repeated; maximum credit six hours. Development of conducting gestures, rehearsal procedures and stylistic interpretation in an ensemble setting. Content coordinated with 6152. Repertoire ranges from medieval chant to avant garde works with nonconventional notation. (F, Sp, Su)

MUTE 5522 Instrumental Conducting
2 Credit Hours
Instrumental Conducting: Prerequisite: 3252; Graduate Standing; Permission Of Instructor. May Be Repeated; Maximum Credit Six Hours. Development Of Baton Technique, Error Detection Skills, Rehearsal Procedures And Interpretive Skills. Conducting Of Band Or Orchestral Works From Various Style Periods. (F)
MUTE 5532 Instrumental Score Studies
2 Credit Hours
Instrumental Score Studies. Prerequisite: 3252; graduate standing or permission. May be repeated with change of content. Critical performance analysis of selected instrumental masterworks from various style periods. Development of an understanding of proper style and interpretation based on musical research.
MUTE 5970 Seminar in Music Technique 1-3 Credit Hours 1 to 3 hours. Prerequisite: graduate standing in music and permission. May be repeated with change of subject matter; maximum credit applicable toward degree, six hours. In-depth study of topics of interest in music performance. (Sp)
MUTE 5990 Special Studies in Conducting
1-3 Credit Hours
1 to 3 hours. Prerequisite: 5512 or 5522 , graduate standing, permission of director of the school. May be repeated with change of subject matter; maximum graduate credit six hours. Advanced individual study of conducting problems and score analysis. (Sp, Su)

MUTE 6132 Organ Improvisation Seminar
2 Credit Hours
Prerequisites: majors only; graduate standing. The goal of the course is to help students develop basic skills in improvisation, including the development of a greater sense of harmonic direction, the exploration of simple forms and counterpoint, and the improvisation of melodic phrases. (F, Sp)
MUTE 6152 Choral Score Studies
2 Credit Hours
Prerequisite: 3252; graduate standing; permission of instructor. May be repeated; eight hours credit applicable to DMA degree. Critical performance analysis of selected masterworks from medieval chant to avant garde works of the twentieth century. Development of an understanding of proper style and interpretation based on musical research. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
MUTE 6162 Instrumental Score Studies
2 Credit Hours
Prerequisite: 5532, graduate standing, and permission of instructor. May be repeated; maximum credit eight hours applicable to DMA degree. Development of knowledge of broad base of repertoire combined with indepth analysis of specific works. (F, Sp)
MUTE 6210 Collegium Musicum
1 Credit Hour
0 to 1 hour. Prerequisite: permission. Performance of instrumental and vocal music from all periods and repertoires, and problems related thereto. ( $\mathrm{F}, \mathrm{Sp}$ )
MUTE 6252 Choral Conducting
2 Credit Hours
Prerequisite: 5512; graduate standing; permission of instructor. May be repeated; eight hours credit applicable to DMA degree. Refinement of conducting, rehearsal and interpretive skills. Emphasis on musical nuance in choral style and interpretation. (F, Sp, Occas. Su)

MUTE 6262 Instrumental Conducting
2 Credit Hours
Prerequisite: 5522, graduate standing, and permission of instructor. May be repeated; maximum credit eight hours applicable to DMA degree. Development of advanced conducting techniques and rehearsal skills. Exploration of relationships between structural analysis and performance. Podium time in ensemble situations. ( $F, S p$ )

MUTH 1512 Musical Structures
2 Credit Hours
Prerequisite: Majors only; Corequisite: MUTH 1612. This is the first course in the structures sequence required of all music majors. Structures I focuses on the fundamentals, diatonic counterpoint, and introduces diatonic harmonic practices of the eighteenth and nineteenth centuries through composition, analysis, and aural perception. (F)

MUTH 1522 Musical Structures II 2 Credit Hours
Prerequisite: MUTH 1512 and MUTH 1612 with grade of C or better; Majors only; Corequisite: MUTH 1622. An overview of diatonic harmony and small-scale forms through writing, analysis, and aural perception. (Sp)

MUTH 1612 Aural Skills I
2 Credit Hours
Prerequisite: Majors only; Corequisite: MUTH 1512. This course draws connections between written and aural theory in order to enhance the students abilities of musical interpretation as well as improve upon aural training. In specific, students will learn dictation and singing of diatonic intervals, triads, and scales (major and minor), dictation and singing of diatonic melodies, dictation of basic rhythms in the standard meters. (F)

MUTH 1622 Aural Skills II
2 Credit Hours
Prerequisite: MUTH 1512 and MUTH 1612 with grade of C or better; Corequisite: MUTH 1522. Draws connections between written and aural theory to enhance the abilities of musical interpretation as well as improve aural training. A continuation of MUTH 1612, students learn dictation and sight singing of more advanced diatonic melodies and dictation of rhythmic patterns, including triplets and syncopations, in standard meters. In addition, students learn dictation and singing of standard diatonic harmonic patterns. (Sp)

MUTH 2512 Musical Structures III 2 Credit Hours Prerequisite: MUTH 1522 and MUTH 1622 with grade of $C$ or better; Corequisite MUTH 2612. A study of the chromatic harmonic practices and large-scale forms of the eighteenth and nineteenth centuries through writing, analysis, and aural perception. (F) [IV-AF].

MUTH 2522 20th- and 21st-Century Musical Structures 2 Credit Hours Prerequisite: MUTH 2512 with grade of C or better. A study of the late nineteenth- through twenty first-century compositional practices. Development of theoretical analysis skills in twentieth- and twenty firstcentury music. (Sp)

MUTH 2612 Aural Skills III
2 Credit Hours
Prerequisite: MUTH 1522 and MUTH 1622 with grade of $C$ or better Corequisite: MUTH 2512. Study of moderately difficult rhythms and melodies in the context of illustrative eighteenth- and nineteenth-century styles - aural perception, vocal reading and analysis. (F)

MUTH 2621 Aural Skills IV
1 Credit Hour
Prerequisite: Majors only; MUTH 2512 and MUTH 2612 with grade of C or better. Study of rhythms, chromatic harmonies, and modulations as used by nineteenth-century composers - aural perception, vocal reading and analysis. (Sp)

MUTH 2970 Special Topics in Music Theory 1-3 Credit Hours Majors only. 1 to 3 hours. May be repeated with change of subject matter; content changes each semester. Study of newly developed, experimental or inter-disciplinary topics in music theory.

MUTH 3440 Mentored Research Experience
3 Credit Hours
0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)

MUTH 3763 Counterpoint
3 Credit Hours
Prerequisite: 2522. A study of eighteenth-century counterpoint. First semester, two parts with analysis and original writing. (F)

MUTH 3783 Forms and Analysis 3 Credit Hours
Prerequisite: 2522. A study of the structure of homophonic forms, followed by the standard polyphonic and homophonic forms of eighteenth-, nineteenth-, and twentieth-century music. (Sp)

MUTH 3960 Honors Reading
1-3 Credit Hours
1 to 3 hours. Prerequisite: Admission to Honors Program. May be repeated; maximum credit six hours. Consists of topics designated by the instructor in keeping with the student's major program. The topics will cover materials not usually presented in the regular courses. (F, Sp, Su)

MUTH 3970 Honors Seminar 1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Subjects covered vary. Deals with concepts not usually treated in regular courses. (Irreg.)

MUTH 3980 Honors Research 1-3 Credit Hours
1 to 3 hours. Prerequisite: Admission to Honors Program. May be repeated; maximum credit six hours. Will provide an opportunity for the gifted Honors candidate to work at a special project in the student's field. (F, Sp, Su)

MUTH 3990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: permission of instructor and junior standing. May be repeated once with change of content. Independent study may be arranged to study a subject not available through regular course offerings. (F, Sp, Su)

MUTH G4853 Orchestration
3 Credit Hours
Prerequisite: Majors only; MUTH 3512 or concurrent enrollment in MUTH 3512. A study of the characteristics of the instruments of the orchestra and their uses in combination, including historical background of orchestral style. (F)

## MUTH 4863 Advanced Orchestration <br> 3 Credit Hours

Prerequisite: 4853 or permission of instructor. May be repeated; maximum credit six hours. Continuation of the study of the characteristics of the instruments of the orchestra and their uses in combination covering advanced techniques and practices, including historical background or orchestral style, including the twentieth century. (Sp)
MUTH 4960 Directed Readings 1-4 Credit Hours
1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean. May be repeated; maximum credit four hours. Designed for upper-division students who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)

MUTH 4970 Senior Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: 3763 and 3783. May be repeated once with change of topic; maximum credit six hours. Not open to graduate students. Intended to permit study in-depth of such areas as the style of a particular composer or the writing of a particular theorist such as Hindemith, Schenker, Persichetti and others. (F, Sp, Su)

MUTH 4990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: Senior standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (lrreg.)

## MUTH 5811 Tonal Harmony Review

1 Credit Hour
Prerequisite: Graduate standing in the School of Music and departmental permission. Assuming a knowledge of scales, key signatures, and clef reading, this course offers a comprehensive, fast-paced review of tonal harmony via an online format that mixes text- and video-based teaching methods. To participate and receive course credit, you must have performed unsatisfactorily on either 1) the graduate program's musictheory entrance exam or 2) previous iterations of this course. (F)
MUTH 5813 Introduction to Schenkerian Analysis 3 Credit Hours Prerequisite: graduate standing and permission of the graduate music office. Develop basic skills in Schenkerian analysis and an understanding of Schenkerian theory. (Irreg.)
MUTH 5821 Musical Form Review
1 Credit Hour
Prerequisite: Graduate standing in the School of Music and departmental permission. This course offers a comprehensive, fast-paced review of tonal form via an online format that mixes text- and video-based teaching methods. To participate and receive course credit, you must have performed unsatisfactorily on either 1) the graduate program's music-theory entrance exam or 2) previous iterations of this course. (Sp, Su )

## MUTH 5823 Pedagogy of Music Theory

3 Credit Hours
Prerequisite: graduate standing and permission of the graduate music office. An examination of the philosophy, logistics, methods, content, and materials of teaching music theory at the undergraduate level. (Irreg.)
MUTH 5833 Analysis of Twentieth-Century Music 3 Credit Hours Prerequisite: graduate standing and permission of the graduate music office. Traces the origins of twentieth-century music and surveys compositional techniques. (Irreg.)
MUTH 5863 Advanced Orchestration
3 Credit Hours
Prerequisite: graduate standing and permission of the graduate music office. Continuation of the study of the characteristics of the instruments of the orchestra and their uses in combination covering advanced techniques and practices, including historical background or orchestral style, including the twentieth century. No student may earn credit for both 4863 and 5863. (Sp)
MUTH 5883 Analysis of Tonal Music
3 Credit Hours
Prerequisite: graduate standing and permission of the graduate music office. Analysis of form and harmony in selected works from the common practice era (1670-1900). (Irreg.)

MUTH 5893 Teaching Music Theory in the 21st Century 3 Credit Hours Prerequisite: Graduate standing and departmental permission. A survey of current trends in the field of music theory. Subjects to include opportunity and access, form, galant schemata, meter, narrative, performance, popular music, Schenkerian theory, and world music. (Irreg.)

## MUTH 5960 Directed Readings

1-4 Credit Hours
1 to 4 hours. Prerequisite: 18 hours of music, permission of the director of the school. May be repeated; maximum undergraduate credit eight hours, graduate credit six hours. Individual topics in music theory. (F, Sp, Su)

## MUTH 5970 Seminar in Music Theory

1-4 Credit Hours
1 to 4 hours. Prerequisite: 30 hours of music or permission. May be repeated with change of subject matter; maximum graduate credit 12 hours. (F, Sp, Su)

MUTH 5980 Research for Master's Thesis
2-9 Credit Hours
Variable enrollment, two to nine hours; maximum credit applicable toward degree, four hours. (F, Sp, Su)
MUTH 5990 Special Studies in Music Theory
1-3 Credit Hours
1 to 3 hours. Prerequisite: 30 hours of music, permission of the director of the school. May be repeated with change of subject matter; maximum graduate credit six hours. Individual study, research and analysis in music theory. (F, Sp, Su)

MUTH 6960 Directed Readings
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit six hours. Directed readings and/or literature review under the direction of a faculty member. (Irreg.)
MUTH 6970 Special Topics/Seminar 1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor.
May be repeated; maximum credit 12 hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or research and field projects. (Irreg.)

MUTH 6990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)
MUTK 4113 Understanding Electroacoustic Music 3 Credit Hours (Slashlisted with MUTK 5113) Prerequisite: Sophomore standing. A course on Electroacoustic music techniques, history, aesthetics, and literature. Students will improve their role as active listeners by observing the ways we listen to music, speculate on the role of technology in creating new music, consider the aesthetic intentions of seminal experimental composers, and study their compositions using various analytical systems. No student may earn credit for both 4113 and 5113. (Irreg.) [IV-AF] .
MUTK 4133 Introduction to Digital Signal Processing 3 Credit Hours (Slashlisted with MUTK 5133) Prerequisite: Sophomore standing and permission of instructor. Students will be familiarized with the theory of Digital Audio and various Digital Signal Processing applications. Cycling 74's Max, an object-oriented programming environment for music applications, known for its real-time audio functions, will be the preferred software for the term. Students will complete weekly creative \& programming assignments. A final and original creative project will be required. No student may earn credit for both 4133 and 5133. (Irreg.)
MUTK 4143 Advanced Digital Signal Processing 3 Credit Hours
Prerequisite: 4133. Advanced methods and theories of digital audio and digital signal processing applications. (Irreg.)
MUTK 4163 Real Time MIDI Control 3 Credit Hours
Prerequisite: 4133 and sophomore, junior, or senior standing. An introduction to the real-time MIDI control and various MIDI processing applications through reading, listening, and composing. (Irreg.)
MUTK 4173 Recording Techniques 3 Credit Hours
Prerequisite: 4183 and junior or senior standing. Provides an understanding to the fundamentals of recording techniques and studio procedures. (Irreg.)
MUTK 4183 Sound Design
3 Credit Hours
Prerequisite: sophomore, junior, or senior standing. A course designed to expand ones knowledge of MIDI sequencing, software-hardware synthesizers, and digital audio editing. (Irreg.)

MUTK 4193 Producing, Mixing, \& Mastering 3 Credit Hours
Prerequisite: Junior standing; MUTK 4173 and MUTK 4183. This course gives students the opportunity to learn the practical skills involved in producing, mixing, and mastering a music recording. Students will also apply appropriate skills for mix-down and editing, and learn recording studio etiquette and final deliverable expectations for album distribution. (Sp)

MUTK 4960 Directed Readings
1-4 Credit Hours
1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean. May be repeated; maximum credit four hours. Designed for upper-division students who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)

MUTK 4970 Undergraduate Seminar
1-3 Credit Hours
Prerequisite: sophomore standing. 1 to 3 hours. May be repeated with change with change of content; maximum credit nine hours. In depth look at advanced topics of various fields of electroacoustic music. (Irreg.)

MUTK 4990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: Senior standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)

MUTK 5113 Understanding Electroacoustic Music 3 Credit Hours (Slashlisted with MUTK 4113) Prerequisite: Graduate standing and departmental permission. A course on Electroacoustic music techniques, history, aesthetics, and literature. Students will improve their role as active listeners by observing the ways we listen to music, speculate on the role of technology in creating new music, consider the aesthetic intentions of seminal experimental composers, and study their compositions using various analytical systems. No student may earn credit for both 4113 and 5113. (Irreg.)

MUTK 5133 Introduction to Digital Signal Processing 3 Credit Hours (Slashlisted with MUTK 4133) Prerequisite: Graduate standing and departmental permission. Students will be familiarized with the theory of Digital Audio and various Digital Signal Processing applications Cycling 74's Max, an object-oriented programming environment for music applications, known for its real-time audio functions, will be the preferred software for the term. Students will complete weekly creative \& programming assignments. A final and original creative project will be required. No student may earn credit for both 4133 and 5133. (Irreg.)

MUTK 5143 Advanced Digital Signal Processing 3 Credit Hours Prerequisite: Graduate standing and departmental permission. Students will expand their knowledge and understanding of the theory and music applications of Digital Signal Processing through reading and programming in Cycling74's Max. Students will demonstrate their understanding of the topics discussed in class through weekly creative assignments and presentations. An original music composition will be presented at the end of the semester. (Irreg.)

## MUTK 5153 Interactive Performance Techniques 3 Credit Hours

Prerequisite: Graduate standing and departmental permission. Students will expand their knowledge and practice of the techniques used in composition of live electronics and interactive performance, through weekly readings, listening and analyzing interactive music, and completing programming assignments in Cycling74 Max. An original creative project such as a composition for a solo performer and computer interaction will be required. (Irreg.)

MUTK 5163 Real Time MIDI Contro
3 Credit Hours
Prerequisite: Graduate standing and departmental permission. Students will study in depth advanced techniques of Real time MIDI control in Cycling74's Max programming environment, through readings, listening analysis of related compositions, completing weekly programming assignments, and composing an improvisation environment that they will demonstrate as a group. (Irreg.)

MUTK 5173 Recording Techniques
3 Credit Hours
Prerequisite: Graduate standing and departmental permission. This course aims to familiarize students with specialized recording techniques and studio procedures. This is a hands-on class with emphasis on acquiring skills via intensive practice. The students will be required to demonstrate their understanding of the materials through the successful completion of creative assignments using the recording music studio software-hardware. (Irreg.)

MUTK 5183 Sound Design
3 Credit Hours
Prerequisite: Graduate standing and departmental permission. Sound Design is a hands-on graduate class with emphasis on creative practice of sound manipulation. It aims to offer to the students an in-depth examination of specialized techniques divided in two major areas of interest: MIDI Sequencing and Digital Audio Editing. Students will demonstrate their understanding of the materials through the composition of creative assignments using the MIDI lab softwarehardware. (Irreg.)

MUTK 5193 Seminar in Electroacoustic Music 3 Credit Hours
Prerequisite: Graduate standing and departmental permission. The goal of the course is to extend and deepen the students' knowledge of electroacoustic music through its contemporary discourse, such as aesthetics, analytical systems, notation, terminology, genres \& categories, recent repertory, and technical fields, such as DSP, DVP, Sensors/ Actuators, etc. The students and instructor will decide the list of topics for study in according to their creative interests. (Irreg.)

| OBOE 2000 | Freshman and/or Sophomore Secondary Oboe | 1-2 |
| :--- | :--- | :--- |
| Credit | Hours |  |

1 to 2 hours. Prerequisite: permission of adviser and instructor. May be repeated; maximum credit toward B.F.A., B.M.A., B.M.E., and B.M. degrees, eight hours. For freshman and sophomore music students studying in a secondary (or minor) performance area. (F, Sp, Su)

OBOE 2020 Oboe for Music Majors: Freshman/Sophomore 2-4 Credit Hours
2 to 4 hours. Prerequisite: Majors only. May be repeated; maximum credit 12 hours. Applied instrumental lessons for freshmen and sophomore music majors in a School of Music degree program. (F, Sp)

OBOE 3440 Mentored Research Experience
3 Credit Hours
0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)

OBOE 4000 Junior and/or Senior Secondary Oboe 1-2 Credit Hours 1 to 2 hours. Prerequisite: permission of adviser and instructor. May be repeated; maximum credit toward B.F.A., B.M.A., B.M.E., and B.M. degrees, eight hours. For junior and senior music students studying in a secondary (or minor) performance area. (F, Sp, Su)

OBOE 4020 Oboe for Music Majors: Junior/Senior 1-4 Credit Hours 1 to 4 hours. Prerequisite: majors only; junior standing. May be repeated; maximum credit 20 hours. Applied instrumental lessons for junior and senior music majors in a School of Music degree program. ( $\mathrm{F}, \mathrm{Sp}$ )
OBOE 5000 Master's-Level Secondary Oboe 1-2 Credit Hours
1 to 2 hours. Prerequisite: graduate standing in music; permission of adviser and instructor. May be repeated; maximum credit eight hours on a given instrument (including voice). For master's degree music students studying in a secondary (or minor) performance area. (F, Sp, Su)
OBOE 5010 Master's-Level Oboe for Non-Performance Music Majors 1-3 Credit Hours 1 to 3 hours. Prerequisite: graduate standing in music; permission of adviser and instructor. May be repeated; maximum credit eight hours on a given instrument (including voice). For master's degree students other than performance majors in their major field. ( $F, \mathrm{Sp}, \mathrm{Su}$ )
OBOE 5020 Master's-Level Oboe for Performance Majors 2-4 Credit Hours
2 to 4 hours. Prerequisite: graduate standing in music; permission of adviser and instructor; 4020 and 4021 or equivalent. May be repeated; maximum credit toward an M.M. degree 10 hours. (F, Sp, Su)
OBOE 6000 Doctoral Secondary Oboe 1-2 Credit Hours
1 to 2 hours. Prerequisite: graduate standing in music, permission of adviser or instructor. May be repeated; maximum credit eight hours on a given instrument (including voice). For doctoral degree music students studying in a secondary (or minor) performance area. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
OBOE 6010 Doctoral Oboe for Non-Performance Music Majors

2-3 Credit Hours
2 to 3 hours. Prerequisite: graduate standing in music; permission of adviser and instructor. May be repeated. Doctoral-level study of applied music in the major performance area for students other than performance majors in their primary field. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
OBOE 6020 Doctoral Oboe for Performance Majors 2-4 Credit Hours 2 to 4 hours. Prerequisite: graduate standing in music; 5042; permission of adviser and instructor. May be repeated; credit applicable toward applied music requirements for the Doctor of Musical Arts degree. Doctoral-level study of applied music for performance majors in their primary field. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
ORGN 2000 Freshman and/or Sophomore Secondary Organ 1-2 Credit
1 to 2 hours. Prerequisite: permission of adviser and instructor. May be repeated; maximum credit toward B.F.A., B.M.A., B.M.E., and B.M. degrees, eight hours. For freshman and sophomore music students studying in a secondary (or minor) performance area. (F, Sp, Su)
ORGN 2020 Organ for Music Majors: Freshman/Sophomore 2-4 Credit Hours
2 to 4 hours. Prerequisite: Majors only. May be repeated; maximum credit 8 hours. Applied instrumental lessons for freshmen and sophomore music majors in a School of Music degree program. ( $\mathrm{F}, \mathrm{Sp}$ )

ORGN 3440 Mentored Research Experience 3 Credit Hours 0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)

ORGN 4000 Junior and/or Senior Secondary Organ 1-2 Credit Hours
1 to 2 hours. Prerequisite: permission of adviser and instructor. May be repeated; maximum credit toward B.F.A., B.M.A., B.M.E., and B.M. degrees, eight hours. For junior and senior music students studying in a secondary (or minor) performance area. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
ORGN 4020 Organ for Music Majors: Junior/Senior 1-4 Credit Hours 1 to 4 hours. Prerequisite: majors only; junior standing. May be repeated; maximum credit 14 hours. Applied instrumental lessons for junior and senior music majors in a School of Music degree program. (F, Sp)

ORGN 5000 Master's-Level Secondary Organ 1-2 Credit Hours
1 to 2 hours. Prerequisite: graduate standing in music; permission of adviser and instructor. May be repeated; maximum credit eight hours on a given instrument (including voice). For master's degree music students studying in a secondary (or minor) performance area. (F, Sp, Su)
ORGN 5010 Master's-Level Organ for Non-Performance Music Majors 1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing in music; permission of adviser and instructor. May be repeated; maximum credit eight hours on a given instrument (including voice). For master's degree students other than performance majors in their major field. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
ORGN 5020 Master's-Level Organ for Performance Majors 2-4 Credit Hours
2 to 4 hours. Prerequisite: graduate standing in music; permission of adviser and instructor; 4020 and 4021 or equivalent. May be repeated; maximum credit toward an M.M. degree 10 hours. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
ORGN 6000 Doctoral Secondary Organ 1-2 Credit Hours 1 to 2 hours. Prerequisite: graduate standing in music, permission of adviser or instructor. May be repeated; maximum credit eight hours on a given instrument (including voice). For doctoral degree music students studying in a secondary (or minor) performance area. (F, Sp, Su)
ORGN 6010 Doctoral Organ for Non-Performance Music

## Majors

2-3 Credit Hours
2 to 3 hours. Prerequisite: graduate standing in music; permission of adviser and instructor. May be repeated. Doctoral-level study of applied music in the major performance area for students other than performance majors in their primary field. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
ORGN 6020 Doctoral Organ for Performance Majors 2-4 Credit Hours
2 to 4 hours. Prerequisite: graduate standing in music; 5042; permission of adviser and instructor. May be repeated; credit applicable toward applied music requirements for the Doctor of Musical Arts degree. Doctoral-level study of applied music for performance majors in their primary field. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
PCUS 2000 Freshman and/or Sophomore Secondary Percussion 1-2 Credit

Hours
1 to 2 hours. Prerequisite: permission of adviser and instructor. May be repeated; maximum credit toward B.F.A., B.M.A., B.M.E., and B.M. degrees, eight hours. For freshman and sophomore music students studying in a secondary (or minor) performance area. (F, Sp, Su)
PCUS 2020 Percussion for Music Majors: Freshman/
Sophomore
2-4 Credit Hours
2 to 4 hours. Prerequisite: Majors only. May be repeated; maximum credit 12 hours. Applied instrumental lessons for freshmen and sophomore music majors in a School of Music degree program. (F, Sp)

PCUS 3440 Mentored Research Experience 3 Credit Hours
0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)
PCUS 4000 Junior and/or Senior Secondary Percussion 1-2 Credit Hours
1 to 2 hours. Prerequisite: permission of adviser and instructor. May be repeated; maximum credit toward B.F.A., B.M.A., B.M.E., and B.M. degrees, eight hours. For junior and senior music students studying in a secondary (or minor) performance area. (F, Sp, Su)

## PCUS 4020 Percussion for Music Majors: Junior/Senior 1-4 Credit

 Hours1 to 4 hours. Prerequisite: majors only; junior standing. May be repeated; maximum credit 20 hours. Applied instrumental lessons for junior and senior music majors in a School of Music degree program. (F, Sp)

PCUS 5000 Master's-Level Secondary Percussion 1-2 Credit Hours 1 to 2 hours. Prerequisite: graduate standing in music; permission of adviser and instructor. May be repeated; maximum credit eight hours on a given instrument (including voice). For master's degree music students studying in a secondary (or minor) performance area. (F, Sp, Su)
PCUS 5010 Master's-Level Percussion for Non-Performance Music Majors

1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing in music; permission of adviser and instructor. May be repeated; maximum credit eight hours on a given instrument (including voice). For master's degree students other than performance majors in their major field. (F, Sp, Su)

PCUS 5020 Master's-Level Percussion for Performance
Majors 2-4 Credit Hours
2 to 4 hours. Prerequisite: graduate standing in music; permission of adviser and instructor; 4020 and 4021 or equivalent. May be repeated; maximum credit toward an M.M. degree 10 hours. (F, Sp, Su)

PCUS 6000 Doctoral Secondary Percussion 1-2 Credit Hours
1 to 2 hours. Prerequisite: graduate standing in music, permission of adviser or instructor. May be repeated; maximum credit eight hours on a given instrument (including voice). For doctoral degree music students studying in a secondary (or minor) performance area. (F, Sp, Su)

PCUS 6010 Doctoral Percussion for Non-Performance Music Majors

2-3 Credit Hours
2 to 3 hours. Prerequisite: graduate standing in music; permission of adviser and instructor. May be repeated. Doctoral-level study of applied music in the major performance area for students other than performance majors in their primary field. (F, Sp, Su)

PCUS 6020 Doctoral Percussion for Performance Majors 2-4 Credit Hours
2 to 4 hours. Prerequisite: graduate standing in music; 5042; permission of adviser and instructor. May be repeated; credit applicable toward applied music requirements for the Doctor of Musical Arts degree. Doctoral-level study of applied music for performance majors in their primary field. (F, Sp, Su)

IAN 2000 Freshman and/or Sophomore Secondary Piano

1 to 2 hours. Prerequisite: permission of adviser and instructor. May be repeated; maximum credit toward B.F.A., B.M.A., B.M.E., and B.M. degrees, eight hours. For freshman and sophomore music students studying in a secondary (or minor) performance area. (F, Sp, Su)

PIAN 2020 Piano for Music Majors: Freshman/Sophomore 2-4 Credit

Hours
2 to 4 hours. Prerequisite: Majors only. May be repeated; maximum credit 8 hours. Applied instrumental lessons for freshmen and sophomore music majors in a School of Music degree program. (F, Sp)

PIAN 3440 Mentored Research Experience 3 Credit Hours
0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)

PIAN 4000 Junior and/or Senior Secondary Piano 1-2 Credit Hours 1 to 2 hours. Prerequisite: permission of adviser and instructor. May be repeated; maximum credit toward B.F.A., B.M.A., B.M.E., and B.M degrees, eight hours. For junior and senior music students studying in a secondary (or minor) performance area. (F, Sp, Su)

PIAN 4020 Piano for Music Majors: Junior/Senior 1-4 Credit Hours 1 to 4 hours. Prerequisite: majors only; junior standing. May be repeated; maximum credit 14 hours. Applied instrumental lessons for junior and senior music majors in a School of Music degree program. (F, Sp)

PIAN 5000 Master's-Level Secondary Piano 1-2 Credit Hours
1 to 2 hours. Prerequisite: graduate standing in music; permission of adviser and instructor. May be repeated; maximum credit eight hours on a given instrument (including voice). For master's degree music students studying in a secondary (or minor) performance area. (F, Sp, Su)

PIAN 5010 Master's-Level Piano for Non-Performance Music Majors

1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing in music; permission of adviser and instructor. May be repeated; maximum credit eight hours on a given instrument (including voice). For master's degree students other than performance majors in their major field. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

PIAN 5020 Master's-Level Piano for Performance Majors 2-4 Credit Hours
2 to 4 hours. Prerequisite: graduate standing in music; permission of adviser and instructor; 4020 and 4021 or equivalent. May be repeated; maximum credit toward an M.M. degree 10 hours. (F, Sp, Su)

PIAN 6000 Doctoral Secondary Piano 1-2 Credit Hours
1 to 2 hours. Prerequisite: graduate standing in music, permission of adviser or instructor. May be repeated; maximum credit eight hours on a given instrument (including voice). For doctoral degree music students studying in a secondary (or minor) performance area. (F, Sp, Su)

## PIAN 6010 Doctoral Piano for Non-Performance Music

 Majors 2-3 Credit Hours2 to 3 hours. Prerequisite: graduate standing in music; permission of adviser and instructor. May be repeated. Doctoral-level study of applied music in the major performance area for students other than performance majors in their primary field. (F, Sp, Su)

PIAN 6020 Doctoral Piano for Performance Majors 2-4 Credit Hours
2 to 4 hours. Prerequisite: graduate standing in music; 5042; permission of adviser and instructor. May be repeated; credit applicable toward applied music requirements for the Doctor of Musical Arts degree. Doctoral-level study of applied music for performance majors in their primary field. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
RPHD 6022 Graduate Recital-Doctor of Philosophy Degree 2 Credit Hours
Prerequisite: concurrent enrollment in 6010, permission of adviser and instructor. May be repeated for credit with the approval of the student's advisory committee. May not be elected during first enrollment. Preparation and performance of a public recital. (F, Sp, Su)
SAX 2000 Freshman and/or Sophomore Secondary Saxophone 1-2 Credit Hours
1 to 2 hours. Prerequisite: permission of adviser and instructor. May be repeated; maximum credit toward B.F.A., B.M.A., B.M.E., and B.M. degrees, eight hours. For freshman and sophomore music students studying in a secondary (or minor) performance area. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

## SAX 2020 Saxophone for Music Majors: Freshman/ Sophomore <br> 2-4 Credit Hours <br> 2 to 4 hours. Prerequisite: Majors only. May be repeated; maximum credit 12 hours. Applied instrumental lessons for freshmen and sophomore music majors in a School of Music degree program. (F, Sp)

SAX 3440 Mentored Research Experience 3 Credit Hours
0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)
SAX 4000 Junior and/or Senior Secondary Saxophone 1-2 Credit Hours 1 to 2 hours. Prerequisite: permission of adviser and instructor. May be repeated; maximum credit toward B.F.A., B.M.A., B.M.E., and B.M. degrees, eight hours. For junior and senior music students studying in a secondary (or minor) performance area. (F, Sp, Su)

SAX 4020 Saxophone for Music Majors: Junior/Senior 1-4 Credit Hours 1 to 4 hours. Prerequisite: majors only; junior standing. May be repeated; maximum credit 20 hours. Applied instrumental lessons for junior and senior music majors in a School of Music degree program. (F, Sp)
SAX 5000 Master's-Level Secondary Saxophone 1-2 Credit Hours 1 to 2 hours. Prerequisite: graduate standing in music; permission of adviser and instructor. May be repeated; maximum credit eight hours on a given instrument (including voice). For master's degree music students studying in a secondary (or minor) performance area. (F, Sp, Su)
$\begin{array}{lr}\text { SAX } 5010 & \text { Master's-Level Saxophone for Non-Performance Music } \\ \text { Majors } & \text { 1-3 Credit Hours }\end{array}$ 1 to 3 hours. Prerequisite: graduate standing in music; permission of adviser and instructor. May be repeated; maximum credit eight hours on a given instrument (including voice). For master's degree students other than performance majors in their major field. (F, Sp, Su)

[^49]SAX 6000 Doctoral Secondary Saxophone
1-2 Credit Hours
1 to 2 hours. Prerequisite: graduate standing in music, permission of adviser or instructor. May be repeated; maximum credit eight hours on a given instrument (including voice). For doctoral degree music students studying in a secondary (or minor) performance area. (F, Sp, Su)

SAX 6010 Doctoral Saxophone for Non-Performance Music Majors 2-3 Credit Hours
2 to 3 hours. Prerequisite: graduate standing in music; permission of adviser and instructor. May be repeated. Doctoral-level study of applied music in the major performance area for students other than performance majors in their primary field. (F, Sp, Su)
SAX 6020 Doctoral Saxophone for Performance Majors 2-4 Credit Hours
2 to 4 hours. Prerequisite: graduate standing in music; 5042; permission of adviser and instructor. May be repeated; credit applicable toward applied music requirements for the Doctor of Musical Arts degree. Doctoral-level study of applied music for performance majors in their primary field. (F, Sp, Su)

## SRRE 4020 Senior Recital

0 Credit Hours
Prerequisite: Senior standing; majors only and departmental permission; Co-requisite: enrollment in appropriate 4020. Preparation and performance of a public recital by students in the BMA degree program and all BM degrees. (F, Sp)
SRRE 4021 Senior Recital
1 Credit Hour
Prerequisite: Majors only and instructor permission; Co-requisite: enrollment in appropriate 4020. Preparation and performance of a public recital by students in the BMA degree program and all BM degrees. (F, Sp) [V].
$\begin{array}{lll}\text { TRMP } 2000 & \text { Freshman and/or Sophomore Secondary Trumpet } & \text { 1-2 } \\ \text { Credit } & & \text { Hours }\end{array}$

## Credit

1 to 2 hours. Prerequisite: permission of adviser and instructor. May be repeated; maximum credit toward B.F.A., B.M.A., B.M.E., and B.M. degrees, eight hours. For freshman and sophomore music students studying in a secondary (or minor) performance area. (F, Sp, Su)

## TRMP 2020 Trumpet for Music Majors: Freshman/

## Sophomore <br> 2-4 Credit Hours

2 to 4 hours. Prerequisite: Majors only. May be repeated; maximum credit 12 hours. Applied instrumental lessons for freshmen and sophomore music majors in a School of Music degree program. ( $F, S p$ )

TRMP 3440 Mentored Research Experience 3 Credit Hours 0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)
TRMP 4000 Junior and/or Senior Secondary Trumpet 1-2 Credit Hours 1 to 2 hours. Prerequisite: permission of adviser and instructor. May be repeated; maximum credit toward B.F.A., B.M.A., B.M.E., and B.M. degrees, eight hours. For junior and senior music students studying in a secondary (or minor) performance area. (F, Sp, Su)

TRMP 4020 Trumpet for Music Majors: Junior/Senior 1-4 Credit Hours 1 to 4 hours. Prerequisite: majors only; junior standing. May be repeated; maximum credit 20 hours. Applied instrumental lessons for junior and senior music majors in a School of Music degree program. (F, Sp)

TRMP 5000 Master's-Level Secondary Trumpet 1-2 Credit Hours
1 to 2 hours. Prerequisite: graduate standing in music; permission of adviser and instructor. May be repeated; maximum credit eight hours on a given instrument (including voice). For master's degree music students studying in a secondary (or minor) performance area. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

TRMP 5010 Master's-Level Trumpet for Non-Performance Music Majors

1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing in music; permission of adviser and instructor. May be repeated; maximum credit eight hours on a given instrument (including voice). For master's degree students other than performance majors in their major field. (F, Sp, Su)

## TRMP 5020 Master's-Level Trumpet for Performance Majors 2-4 Credit <br> Hours

2 to 4 hours. Prerequisite: graduate standing in music; permission of adviser and instructor; 4020 and 4021 or equivalent. May be repeated; maximum credit toward an M.M. degree 10 hours. (F, Sp, Su)

TRMP 6000 Doctoral Secondary Trumpet 1-2 Credit Hours
1 to 2 hours. Prerequisite: graduate standing in music, permission of adviser or instructor. May be repeated; maximum credit eight hours on a given instrument (including voice). For doctoral degree music students studying in a secondary (or minor) performance area. (F, Sp, Su)

TRMP 6010 Doctoral Trumpet for Non-Performance Music Majors

2-3 Credit Hours
2 to 3 hours. Prerequisite: graduate standing in music; permission of adviser and instructor. May be repeated. Doctoral-level study of applied music in the major performance area for students other than performance majors in their primary field. (F, Sp, Su)

TRMP 6020 Doctoral Trumpet for Performance Majors 2-4 Credit Hours 2 to 4 hours. Prerequisite: graduate standing in music; 5042; permission of adviser and instructor. May be repeated; credit applicable toward applied music requirements for the Doctor of Musical Arts degree. Doctoral-level study of applied music for performance majors in their primary field. (F, Sp, Su)

TROM 2000 Freshman and/or Sophomore Secondary Trombone 1-2 Credit Hours
1 to 2 hours. Prerequisite: permission of adviser and instructor. May be repeated; maximum credit toward B.F.A., B.M.A., B.M.E., and B.M. degrees, eight hours. For freshman and sophomore music students studying in a secondary (or minor) performance area. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

TROM 2020 Trombone for Music Majors: Freshman/ Sophomore

2-4 Credit Hours
2 to 4 hours. Prerequisite: Majors only. May be repeated; maximum credit 12 hours. Applied instrumental lessons for freshmen and sophomore music majors in a School of Music degree program. (F, Sp)

TROM 3440 Mentored Research Experience
3 Credit Hours
0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)

TROM 4000 Junior and/or Senior Secondary Trombone 1-2 Credit Hours

1 to 2 hours. Prerequisite: permission of adviser and instructor. May be repeated; maximum credit toward B.F.A., B.M.A., B.M.E., and B.M. degrees, eight hours. For junior and senior music students studying in a secondary (or minor) performance area. (F, Sp, Su)

TROM 4020 Trombone for Music Majors: Junior/Senior 1-4 Credit Hours
1 to 4 hours. Prerequisite: majors only; junior standing. May be repeated; maximum credit 20 hours. Applied instrumental lessons for junior and senior music majors in a School of Music degree program. (F, Sp)

TROM 5000 Master's-Level Secondary Trombone 1-2 Credit Hours 1 to 2 hours. Prerequisite: graduate standing in music; permission of adviser and instructor. May be repeated; maximum credit eight hours on a given instrument (including voice). For master's degree music students studying in a secondary (or minor) performance area. (F, Sp, Su)

TROM 5010 Master's-Level Trombone for Non-Performance Music Majors

1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing in music; permission of adviser and instructor. May be repeated; maximum credit eight hours on a given instrument (including voice). For master's degree students other than performance majors in their major field. (F, Sp, Su)

TROM 5020 Master's-Level Trombone for Performance Majors 2-4 Credit Hours
2 to 4 hours. Prerequisite: graduate standing in music; permission of adviser and instructor; 4020 and 4021 or equivalent. May be repeated; maximum credit toward an M.M. degree 10 hours. (F, Sp, Su)

TROM 6000 Doctoral Secondary Trombone 1-2 Credit Hours
1 to 2 hours. Prerequisite: graduate standing in music, permission of adviser or instructor. May be repeated; maximum credit eight hours on a given instrument (including voice). For doctoral degree music students studying in a secondary (or minor) performance area. (F, Sp, Su)

TROM 6010 Doctoral Trombone for Non-Performance Music Majors

2-3 Credit Hours
2 to 3 hours. Prerequisite: graduate standing in music; permission of adviser and instructor. May be repeated. Doctoral-level study of applied music in the major performance area for students other than performance majors in their primary field. (F, Sp, Su)

TROM 6020 Doctoral Trombone for Performance Majors 2-4 Credit Hours
2 to 4 hours. Prerequisite: graduate standing in music; 5042; permission of adviser and instructor. May be repeated; credit applicable toward applied music requirements for the Doctor of Musical Arts degree. Doctoral-level study of applied music for performance majors in their primary field. (F, Sp, Su)

TUBA 2000 Freshman and/or Sophomore Secondary Tuba 1-2 Credit Hours
1 to 2 hours. Prerequisite: permission of adviser and instructor. May be repeated; maximum credit toward B.F.A., B.M.A., B.M.E., and B.M. degrees, eight hours. For freshman and sophomore music students studying in a secondary (or minor) performance area. (F, Sp, Su)

TUBA 2020 Tuba for Music Majors: Freshman/Sophomore 2-4 Credit Hours

2 to 4 hours. Prerequisite: Majors only. May be repeated; maximum credit 12 hours. Applied instrumental lessons for freshmen and sophomore music majors in a School of Music degree program. (F, Sp)

TUBA 3440 Mentored Research Experience 3 Credit Hours 0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)

TUBA 4000 Junior and/or Senior Secondary Tuba 1-2 Credit Hours 1 to 2 hours. Prerequisite: permission of adviser and instructor. May be repeated; maximum credit toward B.F.A., B.M.A., B.M.E., and B.M. degrees, eight hours. For junior and senior music students studying in a secondary (or minor) performance area. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
TUBA 4020 Tuba for Music Majors: Junior/Senior 1-4 Credit Hours 1 to 4 hours. Prerequisite: majors only; junior standing. May be repeated; maximum credit 20 hours. Applied instrumental lessons for junior and senior music majors in a School of Music degree program. ( $\mathrm{F}, \mathrm{Sp}$ )

## TUBA 5000 Master's-Level Secondary Tuba <br> 1-2 Credit Hours

1 to 2 hours. Prerequisite: graduate standing in music; permission of adviser and instructor. May be repeated; maximum credit eight hours on a given instrument (including voice). For master's degree music students studying in a secondary (or minor) performance area. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

## TUBA 5010 Master's-Level Tuba for Non-Performance Music Majors 1-3 Credit Hours

1 to 3 hours. Prerequisite: graduate standing in music; permission of adviser and instructor. May be repeated; maximum credit eight hours on a given instrument (including voice). For master's degree students other than performance majors in their major field. (F, Sp, Su)

## TUBA 5020 Master's-Level Tuba for Performance Majors 2-4 Credit

 Hours2 to 4 hours. Prerequisite: graduate standing in music; permission of adviser and instructor; 4020 and 4021 or equivalent. May be repeated; maximum credit toward an M.M. degree 10 hours. (F, Sp, Su)
TUBA 6000 Doctoral Secondary Tuba 1-2 Credit Hours 1 to 2 hours. Prerequisite: graduate standing in music, permission of adviser or instructor. May be repeated; maximum credit eight hours on a given instrument (including voice). For doctoral degree music students studying in a secondary (or minor) performance area. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

## TUBA 6010 Doctoral Tuba for Non-Performance Music

## Majors

2-3 Credit Hours
2 to 3 hours. Prerequisite: graduate standing in music; permission of adviser and instructor. May be repeated. Doctoral-level study of applied music in the major performance area for students other than performance majors in their primary field. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
TUBA 6020 Doctoral Tuba for Performance Majors 2-4 Credit Hours 2 to 4 hours. Prerequisite: graduate standing in music; 5042; permission of adviser and instructor. May be repeated; credit applicable toward applied music requirements for the Doctor of Musical Arts degree. Doctoral-level study of applied music for performance majors in their primary field. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

## UGRE 4010 Undergraduate Recital

0 Credit Hours
Prerequisite: Majors only; concurrent enrollment in applied instruction (4020) on the primary instrument, permission of adviser and instructor. Preparation and performance of a public recital by students in the B.M.E. degree programs. (F, Sp, Su)

## UGRE 4011 Undergraduate Recital

1 Credit Hour
Prerequisite: concurrent enrollment in 4010, permission of adviser and instructor. Preparation and performance of a public recital by students in the B.M.A. and B.M.E. degree programs. (F, Sp, Su)
VIOA 2000 Freshman and/or Sophomore Secondary Viola 1-2 Credit Hours
1 to 2 hours. Prerequisite: permission of adviser and instructor. May be repeated; maximum credit toward B.F.A., B.M.A., B.M.E., and B.M. degrees, eight hours. For freshman and sophomore music students studying in a secondary (or minor) performance area. (F, Sp, Su)

VIOA 2020 Viola for Music Majors: Freshman/Sophomore 2-4 Credit Hours
2 to 4 hours. Prerequisite: Majors only. May be repeated; maximum credit 12 hours. Applied instrumental lessons for freshmen and sophomore music majors in a School of Music degree program. ( $\mathrm{F}, \mathrm{Sp}$ )
VIOA 3440 Mentored Research Experience 3 Credit Hours 0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)
VIOA 4000 Junior and/or Senior Secondary Viola 1-2 Credit Hours 1 to 2 hours. Prerequisite: permission of adviser and instructor. May be repeated; maximum credit toward B.F.A., B.M.A., B.M.E., and B.M. degrees, eight hours. For junior and senior music students studying in a secondary (or minor) performance area. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
VIOA 4020 Viola for Music Majors: Junior/Senior 1-4 Credit Hours 1 to 4 hours. Prerequisite: majors only; junior standing. May be repeated; maximum credit 20 hours. Applied instrumental lessons for junior and senior music majors in a School of Music degree program. (F, Sp)
VIOA 5000 Master's-Level Secondary Viola 1-2 Credit Hours 1 to 2 hours. Prerequisite: graduate standing in music; permission of adviser and instructor. May be repeated; maximum credit eight hours on a given instrument (including voice). For master's degree music students studying in a secondary (or minor) performance area. (F, Sp, Su)

## VIOA 5010 Master's-Level Viola for Non-Performance Music Majors <br> 1-3 Credit Hours

1 to 3 hours. Prerequisite: graduate standing in music; permission of adviser and instructor. May be repeated; maximum credit eight hours on a given instrument (including voice). For master's degree students other than performance majors in their major field. (F, Sp, Su)
VIOA 5020 Master's-Level Viola for Performance Majors 2-4 Credit Hours
2 to 4 hours. Prerequisite: graduate standing in music; permission of adviser and instructor; 4020 and 4021 or equivalent. May be repeated; maximum credit toward an M.M. degree 10 hours. (F, Sp, Su)
VIOA 6000 Doctoral Secondary Viola
1-2 Credit Hours
1 to 2 hours. Prerequisite: graduate standing in music, permission of adviser or instructor. May be repeated; maximum credit eight hours on a given instrument (including voice). For doctoral degree music students studying in a secondary (or minor) performance area. (F, Sp, Su)

## VIOA 6010 Doctoral Viola for Non-Performance Music

Majors
2-3 Credit Hours
2 to 3 hours. Prerequisite: graduate standing in music; permission of adviser and instructor. May be repeated. Doctoral-level study of applied music in the major performance area for students other than performance majors in their primary field. (F, Sp, Su)
VIOA 6020 Doctoral Viola for Performance Majors 2-4 Credit Hours 2 to 4 hours. Prerequisite: graduate standing in music; 5042; permission of adviser and instructor. May be repeated; credit applicable toward applied music requirements for the Doctor of Musical Arts degree. Doctoral-level study of applied music for performance majors in their primary field. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

VIOL 2000 Freshman and/or Sophomore Secondary Violin 1-2 Credit Hours
1 to 2 hours. Prerequisite: permission of adviser and instructor. May be repeated; maximum credit toward B.F.A., B.M.A., B.M.E., and B.M. degrees, eight hours. For freshman and sophomore music students studying in a secondary (or minor) performance area. (F, Sp, Su)

VIOL 2020 Violin for Music Majors: Freshman/Sophomore 2-4 Credit Hours
2 to 4 hours. Prerequisite: Majors only. May be repeated; maximum credit 12 hours. Applied instrumental lessons for freshmen and sophomore music majors in a School of Music degree program. (F, Sp)

VIOL 3440 Mentored Research Experience
3 Credit Hours
0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office Not for honors credit. (F, Sp, Su)

VIOL 4000 Junior and/or Senior Secondary Violin 1-2 Credit Hours 1 to 2 hours. Prerequisite: permission of adviser and instructor. May be repeated; maximum credit toward B.F.A., B.M.A., B.M.E., and B.M. degrees, eight hours. For junior and senior music students studying in a secondary (or minor) performance area. (F, Sp, Su)

VIOL 4020 Violin for Music Majors: Junior/Senior 1-4 Credit Hours 1 to 4 hours. Prerequisite: majors only; junior standing. May be repeated; maximum credit 20 hours. Applied instrumental lessons for junior and senior music majors in a School of Music degree program. (F, Sp)

VIOL 5000 Master's-Level Secondary Violin
1-2 Credit Hours
1 to 2 hours. Prerequisite: graduate standing in music; permission of adviser and instructor. May be repeated; maximum credit eight hours on a given instrument (including voice). For master's degree music students studying in a secondary (or minor) performance area. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
VIOL 5010 Master's-Level Violin for Non-Performance Music Majors

1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing in music; permission of adviser and instructor. May be repeated; maximum credit eight hours on a given instrument (including voice). For master's degree students other than performance majors in their major field. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

VIOL 5020 Master's-Level Violin for Performance Majors 2-4 Credit Hours
2 to 4 hours. Prerequisite: graduate standing in music; permission of adviser and instructor; 4020 and 4021 or equivalent. May be repeated; maximum credit toward an M.M. degree 10 hours. (F, Sp, Su)

VIOL 6000 Doctoral Secondary Violin
1-2 Credit Hours
1 to 2 hours. Prerequisite: graduate standing in music, permission of adviser or instructor. May be repeated; maximum credit eight hours on a given instrument (including voice). For doctoral degree music students studying in a secondary (or minor) performance area. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

VIOL 6010 Doctoral Violin for Non-Performance Music
Majors
2-3 Credit Hours
2 to 3 hours. Prerequisite: graduate standing in music; permission of adviser and instructor. May be repeated. Doctoral-level study of applied music in the major performance area for students other than performance majors in their primary field. (F, Sp, Su)

VIOL 6020 Doctoral Violin for Performance Majors 2-4 Credit Hours
2 to 4 hours. Prerequisite: graduate standing in music; 5042; permission of adviser and instructor. May be repeated; credit applicable toward applied music requirements for the Doctor of Musical Arts degree. Doctoral-level study of applied music for performance majors in their primary field. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

VOIC 2000 Freshman and/or Sophomore Secondary Voice 1-2 Credit Hours
1 to 2 hours. Prerequisite: permission of adviser and instructor. May be repeated; maximum credit toward B.F.A., B.M.A., B.M.E., and B.M. degrees, eight hours. For freshman and sophomore music students studying in a secondary (or minor) performance area. (F, Sp, Su)

VOIC 2020 Voice for Music Majors: Freshman/Sophomore 2-4 Credit Hours
2 to 4 hours. Prerequisite: Majors only. May be repeated; maximum credit 8 hours. Applied instrumental lessons for freshmen and sophomore music majors in a School of Music degree program. (F, Sp)

VOIC 3440 Mentored Research Experience 3 Credit Hours
0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)

VOIC 4000 Junior and/or Senior Secondary Voice 1-2 Credit Hours 1 to 2 hours. Prerequisite: permission of adviser and instructor. May be repeated; maximum credit toward B.F.A., B.M.A., B.M.E., and B.M. degrees, eight hours. For junior and senior music students studying in a secondary (or minor) performance area. (F, Sp, Su)

VOIC 4020 Voice for Music Majors: Junior/Senior 1-4 Credit Hours 1 to 4 hours. Prerequisite: majors only; junior standing. May be repeated; maximum credit 8 hours. Applied instrumental lessons for junior and senior music majors in a School of Music degree program. (F, Sp)
VOIC 5000 Master's-Level Secondary Voice
1-2 Credit Hours
1 to 2 hours. Prerequisite: graduate standing in music; permission of adviser and instructor. May be repeated; maximum credit eight hours on a given instrument (including voice). For master's degree music students studying in a secondary (or minor) performance area. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

## VOIC 5010 Master's-Level Voice for Non-Performance Music Majors 1-3 Credit Hours

1 to 3 hours. Prerequisite: graduate standing in music; permission of adviser and instructor. May be repeated; maximum credit eight hours on a given instrument (including voice). For master's degree students other than performance majors in their major field. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

VOIC 5020 Master's-Level Voice for Performance Majors 2-4 Credit Hours
2 to 4 hours. Prerequisite: graduate standing in music; permission of adviser and instructor; 4020 and 4021 or equivalent. May be repeated; maximum credit toward an M.M. degree 10 hours. (F, Sp, Su)
VOIC 6000 Doctoral Secondary Voice 1-2 Credit Hours
1 to 2 hours. Prerequisite: graduate standing in music, permission of adviser or instructor. May be repeated; maximum credit eight hours on a given instrument (including voice). For doctoral degree music students studying in a secondary (or minor) performance area. (F, Sp, Su)

VOIC 6010 Doctoral Voice for Non-Performance Music Majors

2-3 Credit Hours
2 to 3 hours. Prerequisite: graduate standing in music; permission of adviser and instructor. May be repeated. Doctoral-level study of applied music in the major performance area for students other than performance majors in their primary field. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
VOIC 6020 Doctoral Voice for Performance Majors 2-4 Credit Hours 2 to 4 hours. Prerequisite: graduate standing in music; 5042; permission of adviser and instructor. May be repeated; credit applicable toward applied music requirements for the Doctor of Musical Arts degree. Doctoral-level study of applied music for performance majors in their primary field. (F, Sp, Su)

## Faculty

| Last Name | First/Middle <br> Name | Middle init. | OU <br> Service start | Title(s), date(s) appointed | Degrees Earned, Schools, Dates Completed |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Ackmann | Rodney | F | 2012 | PROFESSOR OF MUSIC, 2019 | MA, Indiana Univ, 1981; MM, Indiana Univ, 1981; BME, 1977 |
| Baughman | Melissa |  | 2019 | ASSISTANT PROFESSOR OF MUSIC EDUCATION, 2019 | Ph.D., Univ of Missouri, 2014; M.M., Univ of Missouri, 2011; M.E. Bowling Green Univ, 2007; B.M., Bowling Green Univ, 2003 |
| Baumgartner | Christopher | M | 2014 | ASSOCIATE PROFESSOR OF MUSIC EDUCATION, 2014; ASSOCIATE DIRECTOR, COORDINATOR OF GRADUATE STUDIES, 2023 | PhD, Univ of Missouri, 2012; M Music, <br> Bowling Green State Univ, 2009; B Music, Bowling Green State Univ, 2003 |
| Britt | Brian | A | 2001 | ASSOCIATE <br> PROFESSOR OF <br> MUSIC, 2007; GENE <br> BRAUGHT CHAIR <br> IN MUSIC, 2008; <br> DIRECTOR OF <br> ATHLETIC BANDS | M Music, Univ of Oklahoma, 1992; B Music Ed, Univ of Oklahoma, 1987 |
| Burcham | Joel | T | 2013 | ASSOCIATE PROFESSOR OF MUSIC, 2016 | DMA, Univ of Wisconsin, 2009; M Music, Univ of Arkansas, 1999; B Music, Southern Illinois Univ of Edwardsville, 1997 |
| Dell | Charlene | E | 2002 | ASSOCIATE PROFESSOR OF MUSIC, 2009 | PhD, Univ of South Carolina, 2003; M Music, Western Connecticut State Univ, 1989; B Music, SUNY at Potsdam, 1989 |
| Dobbins | Brian | K | 2006 | ASSOCIATE PROFESSOR OF MUSIC, 2012 | M Music, Univ of <br> New Mexico, 2002; <br> B Music, Virginia <br> Commonwealth Univ, 1998 |
| Dougherty | Nathan |  | 2023 | Assistant Professor of Musicology | PhD, Case Western Reserve University, 2022 |


| Enrico | Eugene | J | 1976 | PROFESSOR OF MUSIC, EMERITUS | PhD, Univ of <br> Michigan, 1970; MA, Univ of Montana, 1966; B Music, Univ of Montana, 1966 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Ernest | Lorraine |  | 2022 | ASSISTANT PROFESSOR OF MUSIC, 2022 |  |
| Ernst | Sara |  | 2023 | ASSOCIATE <br> PROFESSOR OF <br> PIANO PEDAGOGY; <br> DIRECTOR OF PIANO <br> PEDAGOGY | PhD, Univ of Oklahoma; MM, Univ of Missouri-Columbia; BA, Luther College in Decorah |
| Fast | Barbara | R | 2001 | PROFESSOR OF MUSIC, 2009; (EMERITUS) | PhD, Univ of Oklahoma, 1997; M Music, Kansas State |

Music, Kansas State Univ, 1977; B Music, Bethel College, 1975
DMA, Univ of Oklahoma, 2011; M
Music, Royal Scottish Acad of Music, 1999; B Music, Griffith Univ, 1996
Gerber Casey L 2014 ASSOCIATE PhD, Univ of

Mississippi, 2008; M
Music, Southwestern
Oklahoma State
Univ, 2002; B Music
Ed, Southwestern
Oklahoma State Univ, 1997

|  |  |  |  |  | 1997 <br> DMA, Univ of Kansas, 2000; Masters, <br> Hochschule der <br> Kunste, 1991; <br> Baccalaureate, <br> Folkwang Hochchule <br> fur Musik, 1985 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Ham | Jeongwon |  | 2002 | PROFESSOR OF MUSIC, 2014 |  |
| Hammett | Larry |  | 2022 | ASSOCIATE <br> PROFESSOR, 2022 | MM, Texas Tech Univ; BM Texas Tech Univ |
| Hand | Caroline |  | 2022 | ASSISTANT <br> PROFESSOR OF <br> MUSIC; ASSOCIATE <br> DIRECTOR OF <br> BANDS, 2022 | DMA, Univ of <br> Minnesota; MM, <br> Baylor University; <br> BME, Oklahoma State <br> University |
| Howard | David | L | 2013 | ASSOCIATE | DMA, Michigan |


|  | PROFESSOR OF | State Univ, 2008; M |
| :--- | :--- | :--- |
|  | MUSIC, 2019; | Music, Univ of Central |
|  | ASSOCIATE | Oklahoma, 1999 |

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\begin{array}{lllll}\text { Karathanasis Konstantinos } & \text { 2006 } & \begin{array}{l}\text { PROFESSOR OF } \\
\text { MUSIC, 2018 }\end{array} & \begin{array}{l}\text { DMusicComp, SUNY } \\
\text { at Buffalo, 2006; B } \\
\text { Mus, Ionian Univ, } \\
\text { 1999 }\end{array} \\
\text { Lamb } & \text { Marvin } & \text { L } & \text { 1998 } & \text { PROFESSOR OF } \\
\text { MUSIC, 1998 } \\
\text { (EMERITUS) }\end{array}
$$ \quad \begin{array}{l}DMA, Univ of Illinois, <br>
1977; M Music, <br>
Univ of North Texas, <br>
1972; B Music, Sam <br>

Houston State Univ,\end{array}\right]\)| 1968 |
| :--- |


| Lindsey | Douglas |  | 2023 | ASSISTANT PROFESSOR OF MUSIC, 2023 | DMA, Univ of Wisconsin-Madison; MM, Yale Univ; BM, Univ of ArkansasFayetteville; BME, Univ of ArkansasFayetteville |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Lipinski | Igor |  | 2017 | ASSOCIATE PROFESSOR OF MUSIC, 2017 | DMA, Northwestern Univ, 2015; M Music, Univ of Rochester, 2011; B Music, Univ of Rochester, 2009 |
| McCrory | Mark | E | 2014 | ASSOCIATE PROFESSOR OF MUSIC, 2014 | M Music, Univ of North Texas, 2005; B Music, Univ of North Texas, 1993 |
| Murphy | John | Patrick | 2021 | ASSISTANT PROFESSOR OF MUSIC, 2021 | D.M.A, Univ of Oklahoma, 2020; M.M. Manhattan School of Music, 2012; B.M., SUNY Fredonia, 2010 |
| Neumann | Mark |  | 2009 | PROFESSOR OF <br> MUSIC, 2018; <br> PRESIDENT'S <br> ASSOCIATES <br> PRESIDENTIAL <br> PROFESSORSHIP, <br> 2018 | DMA, Juilliard, 1995; M Music, Univ of Victoria, 1987; B Music, Univ of Victoria, 1983 |
| Nichol | Jonathan | D | 2013 | PROFESSOR OF <br> MUSIC, 2016; <br> DIRECTOR, SCHOOL <br> OF MUSIC, 2023 | DMA, Michigan State Univ, 2010; MFA, Michigan State Univ, 2007; BFA, Central Michigan Univ, 2005 |
| Pederson | Sanna | F | 2001 | MAVIS C. PITMAN PROFESSOR OF MUSIC HISTORY OR THEORY, 2001; PROFESSOR OF MUSIC, 2014 | PhD, Univ of Pennsylvania, 1995; BA, Oberlin College, 1985 |
| Reynolds | Matthew |  | 2022 | ASSISTANT PROFESSOR OF MUSIC, 2022 | DMA, University of Southern California; MM, Wichita State University; BM, Baylor University |
| Ruck | Jonathan | C | 2006 | PROFESSOR OF MUSIC, 2019 | DMA, Indiana Univ, 2012; M Music, Indiana Univ, 2003; B Music, Indiana Univ, 2001 |
| Schullman | Matthew |  | 2022 | ASSISTANT PROFESSOR OF MUSIC, 2022 | PhD, Yale Univ |
| Shames | Jonathan |  | 2004 | ARTISTIC DIRECTOR, OU OPERA PROGRAM, 2005; DIRECTOR OF ORCHESTRAL ACTIVITIES; PROFESSOR OF MUSIC, 2018 | DMA, Univ of <br> Michigan, 1986; <br> M Music, Univ of <br> Michigan, 1982; BA, <br> Yale Univ, 1979 |
| Sherinian | Zoe | C | 2001 | PROFESSOR OF MUSIC, 2018; ADJUNCT ASSOCIATE PROFESSOR OF WOMEN'S AND GENDER STUDIES, 2008 | PhD, Wesleyan Univ, 1998; MA, Wesleyan Univ, 1991; BA, Oberlin College, 1984 |


| Sievers | Karl | H | 1999 | PROFESSOR OF MUSIC, 2005 | DMA, UMKC, 1997; M Music, Indiana Univ, 1981; B Music, Indiana Univ, 1977 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Simon | Shanti | C | 2018 | PROFESSOR OF <br> MUSIC, 2018; <br> DIRECTOR OF BANDS | DMA, Univ of <br> Minnesota; MM, Univ <br> of Minnesota; BME, <br> Stetson Univ; BM, <br> Stetson Univ |
| Spritzer | Damin | R | 2015 | ASSOCIATE PROFESSOR OF MUSIC, 2021 | DMA, Univ of North <br> Texas, 2012; M <br> Music, Eastman <br> School of Music, <br> 1999; B Music, <br> Oberlin College, 1997 |
| Stoops | Anthony | D | 2006 | PROFESSOR OF MUSIC, 2018 | DMA, Univ of <br> Michigan, 2002; <br> M Music, Univ of <br> Michigan, 1999; B <br> Music, Univ of Iowa, $1997$ |
| Swinkin | Jeffrey | A | 2014 | ASSOCIATE PROFESSOR OF MUSIC, 2014 | PhD, Univ of <br> Michigan, 2013; <br> M Music, Univ of <br> Michigan, 1993; B <br> Music, Eastman <br> School of Music, <br> 1992 |
| Tirk | Suzanne | M | 2011 | ASSOCIATE <br> PROFESSOR OF <br> MUSIC, 2014; <br> ASSISTANT <br> DIRECTOR FOR <br> RECRUITMENT AND <br> ENGAGEMENT, 2023 | DMA, Michigan State Univ, 2009; M Music, Michigan State Univ, 2000; B Music, Lawrence Univ, 1998 |
| Watts | Valerie | L | 1994 | PROFESSOR OF MUSIC, 2006; ASSISTANT DIRECTOR FOR UNDERGRADUATE STUDIES \& SCHOLARSHIPS, 2023 | DMA, Eastman School of Music, 1993; M Music, Eastman School of Music, 1988; B Music Northwestern Univ, 1986 |
| Welk | Shawn |  | 2022 | ASSISTANT PROFESSOR OF MUSIC, 2022 | MM, University of Oklahoma |
| Yamane | Maxwell |  | 2023 | ASSOCIATE <br> PROFESSOR OF <br> ETHNOMUSICOLOGY | MA, Univ of Maryland College Park; BA, James Madison Univ |
| Zielinski | Richard |  | 2009 | DIRECTOR, CHORAL <br> ACTIVITIES, 2009; <br> PROFESSOR OF <br> MUSIC, 2016 | DMA, Univ of Illinois, 1991; M Music, Eastman School of Music, 1985; B Music, Univ of Wisconsin, 1982 |

## Music: Instrumental Jazz, B.A.

Minimum Total Credit Hours: 120-131
Major Hours: 49
Minimum Upper-Division Hours: 40
Upper-Division Hours Within Major: 15
Overall GPA - Combined and OU: 2.50
Program Code: B703 P332

## Major Requirements

A grade of C or better is required in all courses taken within the School of Music. Audition is required for admission to the degree program. All coursework must be letter graded; P/NP may not count toward degree.

| Musicianship <br> Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Music Theory |  | 2 |
| MUTH 1512 | Musical Structures I | 2 |
| MUTH 1612 | Aural Skills I | 2 |
| MUTH 1522 | Musical Structures II | 2 |
| MUTH 1622 | Aural Skills II | 2 |
| MUTH 2512 | Musical Structures III (Core IV) | 2 |
| MUTH 2612 | Aural Skills III |  |
| Musicology and | Music Literature | 2 |
| MUSC 1312 | Music in Culture (Core IV) | 3 |
| MUNM 3313 | African Repercussions (Core IV) | 3 |
| MUNM 3713 | Jazz: Development of an African-American |  |
|  | Art Form (Core IV) | 3 |
| MUSC 3333 | Post-Romantic Period to the Present (Core |  |
|  | IV) |  |

## Total Credit Hours

## Performance and Music Electives

| Code | Title | Credit <br> Hours |
| :---: | :---: | :---: |
| MUTE 4512 | Professional Preparation and Capstone Project | 2 |
| XXXX 2020, Applied Lesson ${ }^{1}$ |  | 8 |
| Choose 4 hours from each of the following: |  | 8 |
| MUTE $1120 / 3120$ | Jazz Ensemble |  |
| $\begin{aligned} & \text { MUTE } \\ & 2271 / 4271 \end{aligned}$ | Chamber Music |  |
| Choose 2 hours for 2 semesters of the following: |  | 4 |
| MUTE 3342 | Jazz Improvisation |  |
| MUTE 4990 | Independent Study | 1 |
| MUTE 1000 | Freshman/Transfer Music Orientation (1 semester) | 0 |
| MUTE 1010 | Recital Attendance (3 semesters) | 0 |
| Advised Music Electives (3000-4000 level) |  | 3 |
| Total Credit Hours |  | 26 |

${ }^{1}$ A passing grade in MUTE 2000 Sophomore Barrier is required for admission to upper-division applied study should the student desire to continue beyond lower-division.

## Major Support Requirements

All 43 hours must be taken outside the School of Music.

| Code Title | Credit <br> Hours |
| :--- | :---: |
| Secondary Emphasis | $18-30$ |
| Choose one of the following: |  |
| Minor (approximately 18-24 hours) ${ }^{1}$ |  |
| Double major (approximately 30 hours) $^{1}$ | $13-25$ |
| Develop a specialized area of concentration (approximately $^{24-30 \text { hours) }}{ }^{2}$ |  |
| Free Electives |  |
| Hours not used for the secondary emphasis/concentration |  |
| may be free electives taken in any college or department |  |
| except the School of Music |  |

Total Credit Hours 43

1 If the emphasis is an official minor or major offered by the university, it must be formally declared in the appropriate college advising office.
2 The proposed area of concentration must be approved by the Assistant Director for Curriculum and Advising in the School of Music.

Note: A minimum of 40 upper-division hours is required for the degree.
Students should utilize Major Support Requirements to reach this total.

## General Education and College Requirements

Courses used to fulfill General Education and/or major requirements may not fulfill electives. Some courses that fulfill General Education requirements are listed in other areas on this sheet and are indicated by the appropriate Core numbers.

Courses designated as Core I, II, III, IV, or V are part of the General Education curriculum. Students must complete a minimum of 40 hours of General Education courses, chosen from the approved list, including at least one upper-division Gen. Ed. course outside of the student's major. Courses graded S/U or P/NP will not apply.

## UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS <br> Code Title Credit

| Core Area I: Symbolic and Oral Communication |  |
| :---: | :---: |
| English Composition |  |
| ENGL 1113 Principles of English Composition (Core I) | 3 |
|  | 3 |
| Language |  |
| This requirement is not mandatory if the student successfully completed 2 years of the same language in high school -2 courses (Core I) | 0-10 |
| Mathematics |  |
| Choose one course (Core I) ${ }^{1}$ | 3 |
| Core Area II: Natural Science |  |
| Choose two courses from different disciplines; one must include a laboratory | 7-8 |
| Core Area III: Social Science |  |
| P SC 1113 American Federal Government | 3 |
| Choose one course | 3 |

Core Area IV: Arts and Humanities
Artistic Forms

| MUSC 1312 | Music in Culture |  |
| :---: | :---: | :---: |
| MUTH 2512 | Musical Structures III |  |
| Western Culture |  |  |
| HIST 1483 or HIST 1493 | United States to 1865 (Core IV) United States, 1865 to the Present | 3 |
| The following are hours): | satisfied in Musicology requirements (6 | 0 |
| MUNM 3713 | Jazz: Development of an African-American Art Form |  |
| MUSC 3333 | Post-Romantic Period to the Present |  |
| World Culture |  |  |
| The following is satisfied in Musicology \& Music Theory requirements: |  |  |
| MUNM 3313 | African Repercussions |  |
| Core Area V: First-Year Experience |  |  |
| Choose one course |  | 3 |
| Total Credit Hours |  |  |
| ${ }^{1}$ MATH 1473 is r | ecommended. |  |

Note: The Bachelor of Arts degree requires at least 80 hours of liberal arts coursework.

According to the State Regents, liberal arts "are those traditional fields of study in the humanities; social and behavioral sciences; communication, natural and life sciences; mathematics; and the history, literature and theory of the fine arts (music, art, drama, dance)... courses in the arts which rely substantially on studio or performance work are not considered to be liberal arts and sciences for the purpose of this policy." (3.14.2, p.133, OSRHE Policy Manual, retrieved 4/21/15)

## Suggested Semester Plan of Study

At least 15 hours of upper-division Music credit must be earned in residence as a declared BA major

A grade of $C$ or better is required in all courses taken within the School of Music. Unless otherwise stated on the degree sheet, the College of Fine Arts does not permit coursework to fulfill more than one degree requirement.

Degree Completion Responsibility: Although the Dean's Office checks each student's records, the responsibility for meeting degree requirements lies with the student and not with the advisor or the Dean. Each student should obtain a copy of the requirements for graduation and check it regularly as they complete their degree program.

| Freshman |  |  |
| :--- | :--- | ---: |
| First Semester | Credit |  |
|  |  | Hours |
| XXXX 2020, Applied Lessons | 2 |  |
| MUTH 1512 | Musical Structures I | 2 |
| MUTH 1612 | Aural Skills I | 2 |
| MUTE Ensemble |  | 1 |
| MUTE 1000 | Freshman/Transfer Music Orientation | 0 |
| ENGL 1113 | Principles of English Composition (Core I) | 3 |
| MATH (Core I) |  | 3 |


| First-Year Experience (Core V) | 3 |
| :---: | ---: |
| Credit Hours | $\mathbf{1 6}$ |

Second Semester
XXXX 2020, Applied Lessons ..... 2
MUTH 1522 Musical Structures II ..... 2
MUTH 1622 Aural Skills II ..... 2
MUTE Ensemble ..... 1
MUTE 1010 Recital Attendance ..... 0
MUSC 1312 Music in Culture (Core IV) ..... 2
or EXPO 1213 or Expository Writing

| Secondary Emphasis Electives, and/or Free Electives | 3 |
| :---: | ---: |
| Credit Hours | 15 |

Sophomore
First Semester
XXXX 2020, Applied Lessons ..... 2
MUTH 2512 Musical Structures III (Core IV) ..... 2
MUTH 2612 Aural Skills III ..... 2
MUTE Ensemble ..... 1
MUTE 1010 Recital Attendance ..... 0
MUNM 3313 African Repercussions (Core IV) ..... 3
Natural Science (Core II) ..... 3-4
Credit Hours ..... 16-17
XXXX 2020, Applied Lessons ..... 2
MUTE 3342 Jazz Improvisation ..... 2
MUTE Ensemble ..... 1
MUTE 1010 Recital Attendance ..... 0
MUNM 3713 Jazz: Development of an African-American ..... 3
P SC 1113 American Federal Government (Core III) ..... 3
$\frac{\text { Natural Science (Core II) }}{\text { Credit Hours }}$ ..... 4
15
First Semester
MUSC 3333 Post-Romantic Period to the Present (Core ..... 3
IV)
MUTE 3342 Jazz Improvisation ..... 2
MUTE Ensemble ..... 1
HIST $1483 \quad$ United States to 1865 (Core IV) ..... 3
(Core I)
Language (Core I) ..... 0-5
Secondary Emphasis Electives, and/or Free Electives ..... 3
Second Semester
MUTE 4990 Independent Study ..... 1
MUTE Ensemble ..... 1
Language (Core I) ..... 0-5
Secondary Emphasis Electives, and/or Free Electives ..... 9
Advised Music Electives (3-4000 level) ..... 3

| Senior |  |
| :---: | :---: |
| First Semester |  |
| Social Science (Core III) | 3 |
| MUTE Ensemble | 1 |
| MUTE 4512 Professional Preparation and Capstone Project | 2 |
| Secondary Emphasis Electives, and/or Free Electives | 10 |
| Credit Hours | 16 |
| Second Semester |  |
| MUTE Ensemble | 1 |
| Secondary Emphasis Electives, and/or Free Electives | 15 |
| Credit Hours | 16 |
| Total Credit Hours | 120-131 |

${ }^{1}$ MATH 1473 is recommended.

## Music, B.A.

Minimum Total Credit Hours: 120-131
Major Hours: 51
Minimum Upper-Division Hours: 40
Upper-Division Hours Within Major: 15

Overall GPA - Combined and OU: 2.50
Program Code: B703 P462

## This program has changes pending Regents approval for 2024-25. These pending changes are not reflected here. <br> Major Requirements

A grade of C or better is required in all courses taken within the School of Music. Audition is required for admission to the degree program. All coursework must be letter graded; P/NP may not count toward degree.

## Musicianship

| Code | Title | Credit |
| :--- | :--- | :--- |
|  | Hours |  |


| Music Theory |  | 2 |
| :--- | :--- | :--- |
| MUTH 1512 | Musical Structures I | 2 |
| MUTH 1612 | Aural Skills I | 2 |
| MUTH 1522 | Musical Structures II | 2 |
| MUTH 1622 | Aural Skills II | 2 |
| MUTH 2512 | Musical Structures III (Core IV) | 2 |
| MUTH 2612 | Aural Skills III | 2 |
| MUTH 2522 | 20th- and 21st-Century Musical Structures | 2 |

## Musicology and Music Literature

| MUSC 1312 | Music in Culture (Core IV) |
| :--- | :--- |
| MUSC 2313 | Ancient Times to 1700 (Core IV) |
| MUSC 2323 | Late Baroque Through Romantic Period |
|  | (Core IV) |


| MUSC 3333 | Post-Romantic Period to the Present (Core IV) | 3 |
| :---: | :---: | :---: |
| Total Credit Hour |  | 27 |
| Performance and Music Electives |  |  |
| Code | Title | Credit |
|  |  | Hours |
| XXXX 2020, Applied Lesson ${ }^{1}$ |  | 8 |
| MUTE XXXX, Major Performance Ensembles ${ }^{2}$ |  | 4 |
| MUTE 4512 | Professional Preparation and Capstone Project | 2 |
| MUTE 1000 | Freshman/Transfer Music Orientation (1 semester) | 0 |
| MUTE 1010 | Recital Attendance (3 semesters) | 0 |
| Choose 10 hour | of Advised Music Electives (3000-4000 level) | 10 |
| Total Credit H |  | 24 |
| ${ }^{1}$ A passing grade in MUTE 2000 Sophomore Barrier is required for admission to upper-division applied study should the student desire to continue beyond lower-division. |  |  |
| ${ }^{2}$ Major performance ensembles on the primary instrument/voice are as follows: Campus Band, University Marching Band, Wind Symphony, Symphony Band, University Orchestra, University Chorale, Men's Glee Club, and Women's Chorus. |  |  |

## Major Support Requirements

All 38 hours must be taken outside the School of Music.


Note: A minimum of 40 upper-division hours is required for the degree.
Students should utilize Major Support Requirements to reach this goal.

## General Education and College Requirements

Courses used to fulfill General Education and/or major requirements may not fulfill electives. Some courses that fulfill General Education requirements are listed in other areas on this sheet and are indicated by the appropriate Core numbers.

Courses designated as Core I, II, III, IV, or V are part of the General Education curriculum. Students must complete a minimum of 40 hours of General Education courses, chosen from the approved list, including at least one upper-division Gen. Ed. course outside of the student's major. Courses graded S/U or P/NP will not apply.

## UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS

| Code Title | Credit |
| :--- | :--- |
|  | Hours |

## Core Area I: Symbolic and Oral Communication

English Composition

| ENGL 1113 | Principles of English Composition (Core I) | 3 |
| :--- | :--- | ---: |
| ENGL 1213 Principles of English Composition (Core I) <br> or EXPO 1213 Expository Writing | 3 |  |
| Language |  |  |
| This requirement is not mandatory if the student successfully <br> completed 2 years of the same language in high school -2 <br> courses (Core I) | $0-10$ |  |

## Mathematics

Choose one course (Core I) ${ }^{1} 3$

Core Area II: Natural Science
Choose two courses from different disciplines; one must 7-8
include a laboratory
Core Area III: Social Science

| P SC 1113 American Federal Government | 3 |
| :--- | :--- |
| Choose one course | 3 |

Core Area IV: Arts and Humanities

## Artistic Forms

The following are satisfied in Musicology and Music Theory 0 requirements (4 hours)

| MUSC 1312 | Music in Culture |
| :---: | :--- |
| MUTH 2512 | Musical Structures III |
| Western Culture |  |
| HIST 1483 United States to 1865 (Core IV) <br> or HIST 1493 United States, 1865 to the Present |  |
| The following are satisfied in Musicology requirements (9 <br> hours): | 3 |


| MUSC 2313 | Ancient Times to 1700 |
| :--- | :--- |
| MUSC 2323 | Late Baroque Through Romantic Period |
| MUSC 3333 | Post-Romantic Period to the Present |

World Culture
Choose one course (upper-division)

Core Area V: First-Year Experience
Choose one course 3

Total Credit Hours
31-42
${ }^{1}$ MATH 1473 is recommended.

Note: The Bachelor of Arts degree requires at least 80 hours of liberal arts coursework.

According to the State Regents, liberal arts "are those traditional fields of study in the humanities; social and behavioral sciences; communication, natural and life sciences; mathematics; and the history, literature and theory of the fine arts (music, art, drama, dance)... courses in
the arts which rely substantially on studio or performance work are not considered to be liberal arts and sciences for the purpose of this policy." (3.14.2, p.133, OSRHE Policy Manual, retrieved 4/21/15)

## Suggested Semester Plan of Study

At least $\mathbf{1 5}$ hours of upper-division Music credit must be earned in residence as a declared BA major.

A grade of $C$ or better is required in all courses taken within the School of Music. Unless otherwise stated on the degree sheet, the College of Fine Arts does not permit coursework to fulfill more than one degree requirement.

Degree Completion Responsibility: Although the Dean's Office checks each student's records, the responsibility for meeting degree requirements lies with the student and not with the advisor or the Dean. Each student should obtain a copy of the requirements for graduation and check it regularly as they complete their degree program.

## Freshman

| First Semester | Credit <br> Hours |  |
| :--- | :--- | ---: |
| XXXX 2020, Applied Lessons | 2 |  |
| MUTH 1512 | Musical Structures I | 2 |
| MUTH 1612 | Aural Skills I | 2 |
| MUTE Ensemble |  | 1 |
| MUTE 1000 | Freshman/Transfer Music Orientation | 0 |
| ENGL 1113 | Principles of English Composition (Core I) | 3 |
| MATH (Core I) |  | 3 |
| First-Year Experience (Core V) | 3 |  |
|  | Credit Hours | $\mathbf{1 6}$ |

## Second Semester

XXXX 2020, Applied Lessons 2
MUTH 1522 Musical Structures II 2
MUTH 1622 Aural Skills II 2
MUTE Ensemble 1
MUTE 1010 Recital Attendance 0
MUSC 1312 Music in Culture (Core IV) 2

ENGL 1213 Principles of English Composition (Core I) 3
or EXPO 1213 or Expository Writing

| Secondary Emphasis Electives, and/or Free Electives | 3 |
| :--- | ---: |

## Sophomore

First Semester
XXXX 2020, Applied Lessons 2
MUTH 2512 Musical Structures III (Core IV) 2
MUTH 2612 Aural Skills III 2
MUTE Ensemble 1
MUTE 1010 Recital Attendance 0
MUSC 2313 Ancient Times to 1700 (Core IV) 3
Natural Science (Core II) 3-4

| Secondary Emphasis Electives, and/or Free Electives | 3 |
| :---: | ---: |
| Credit Hours |  |

## Second Semester

XXXX 2020, Applied Lessons
2
MUTH 2522 20th- and 21st-Century Musical Structures 2

| MUTH 2622 |  | 2 |
| :---: | :---: | :---: |
| MUTE Ensemble |  | 1 |
| MUTE 1010 | Recital Attendance | 0 |
| MUSC 2323 | Late Baroque Through Romantic Period (Core IV) | 3 |
| P SC 1113 | American Federal Government (Core III) | 3 |
| Natural Science (Core II) |  | 4 |
|  | Credit Hours | 17 |
| Junior |  |  |
| First Semester |  |  |
| MUSC 3333 | Post-Romantic Period to the Present (Core IV) | 3 |
| HIST 1483 or HIST 1493 | United States to 1865 (Core IV) or United States, 1865 to the Present | 3 |
| Language (Core I) |  | 0-5 |
| Secondary Emph | asis Electives, and/or Free Electives | 6 |
|  | Credit Hours | 12-17 |
| Second Semester |  |  |
| Language (Core I) |  | 0-5 |
| Secondary Emph | asis Electives, and/or Free Electives | 8 |
| Advised Music El | ectives | 6 |
|  | Credit Hours | 14-19 |
| Senior |  |  |
| First Semester |  |  |
| Social Science (Core III) |  | 3 |
| Advised Music Electives |  | 1 |
| MUTE 4512 | Professional Preparation and Capstone Project | 2 |
| Secondary Emphasis Electives, and/or Free Electives |  | 9 |
|  | Credit Hours | 15 |
| Second Semester |  |  |
| World Culture- (Core IV, upper-division) |  | 3 |
| Advised Music Electives |  | 3 |
| Secondary Emphasis Electives, and/or Free Electives |  | 9 |
|  | Credit Hours | 15 |
|  | Total Credit Hours | 120-131 |
| ${ }^{1}$ MATH 1473 is recommended. |  |  |
| Compositi | On, B.MUS. |  |

Minimum Total Credit Hours: 124-135
Major Hours: 85
Minimum Upper-Division Hours: 40
Upper-Division Hours Within Major. 24
Overall GPA - Combined and OU: 2.50
Program Code: B705

## This program has changes pending Regents approval for 2024-25. These pending changes are not reflected here. Major Requirements

A grade of $C$ or better is required in all courses taken within the School of Music. Audition is required for admission to the degree program.

## Major Area

| Code | Title | Credit <br> Hours |
| :---: | :---: | :---: |
| Composition |  |  |
| Choose 6 hours in the following: |  | 6 |
| COMP 2020 | Freshman and/or Sophomore Composition for Performance Majors ${ }^{1}$ |  |
| MUTE 2000 | Sophomore Barrier ${ }^{2}$ | 0 |
| Choose 8 hours | the following: | 8 |


| COMP 4020 | Junior and/or Senior Composition for Performance Majors ${ }^{2}$ |  |
| :---: | :---: | :---: |
| Music Theory and Technology |  |  |
| MUTH 1512 | Musical Structures I | 2 |
| MUTH 1612 | Aural Skills I | 2 |
| MUTH 1522 | Musical Structures II | 2 |
| MUTH 1622 | Aural Skills II | 2 |
| MUTH 2512 | Musical Structures III (Core IV) | 2 |
| MUTH 2612 | Aural Skills III | 2 |
| MUTH 2522 | 20th- and 21 st-Century Musical Structures | 2 |
| MUTH 2622 |  | 2 |
| MUTH 3763 | Counterpoint | 3 |
| MUTH 3783 | Forms and Analysis | 3 |
| MUTH 4863 | Advanced Orchestration | 3 |
| MUTK 4113 | Understanding Electroacoustic Music | 3 |
| MUTK 4133 | Introduction to Digital Signal Processing | 3 |
| MUTK 4163 | Real Time MIDI Control | 3 |
| Additional Requirements |  |  |
| MUTE 1000 | Freshman/Transfer Music Orientation (1 semester) | 0 |
| MUTE 1010 | Recital Attendance (3 semesters) | 0 |
| SRRE 4021 | Senior Recital | 1 |
| Total Credit Hours |  | 49 |

${ }^{1}$ Prerequisite is completion of MUTH 1512 and MUTH 1612 with grades of $C$ or better
${ }^{2}$ A passing grade in MUTE 2000 Sophomore Barrier is required for admission to upper-division applied study.

## Music Support

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Musicology and Music Literature | 11 |  |
| MUSC 1312 | Music in Culture (Core IV) |  |
| MUSC 2313 | Ancient Times to 1700 (Core IV) |  |


| MUSC 2323 | Late Baroque Through Romantic Period (Core IV) |  |
| :---: | :---: | :---: |
| MUSC 3333 | Post-Romantic Period to the Present (Core IV) |  |
| MUSC/MUTK/MUTH Advised Elective |  | 3 |
| MUTE 4512 | Professional Preparation and Capstone Project | 2 |
| Additional Requirements |  |  |
| MUTE 1311 | Group Piano ${ }^{1}$ | 1 |
| MUTE 1321 | Group Piano II ${ }^{1}$ | 1 |
| MUTE 2311 | Group Piano III ${ }^{1}$ | 1 |
| MUTE 2321 | Group Piano IV ${ }^{1}$ | 1 |
| Choose 4 hours in the following: |  | 4 |
| PIAN 4000 or ORGN 40 | Junior and/or Senior Secondary Piano CJunior and/or Senior Secondary Organ |  |
| MUTE XXXX, Maj | r Performance \& Chamber Ensemble ${ }^{2}$ | 4 |
| $\begin{aligned} & \text { MUTE XXXX, Maj } \\ & (3000-4000)^{2,3} \end{aligned}$ | or Performance \& Chamber Ensemble | 4 |
| Choose one of the | following: | 4 |
| MUTE 3242 <br> \& MUTE 3252 | Instrumental Conducting I and Instrumental Conducting II |  |
| MUTE 3262 <br> \& MUTE 3272 | Choral Conducting I and Choral Conducting II |  |
| MUTE 3242 <br> \& MUTE 3262 | Instrumental Conducting I and Choral Conducting I |  |

Total Credit Hours
${ }^{1}$ Students who have prior piano background may be eligible for the proficiency exam for one or more of the group piano courses. These hours then become free electives. Or, the student may elect to receive advanced standing credit for the group piano course(s). See the Coordinator for Group Piano for information.
${ }^{2}$ Major performance organizations are as follows: Campus Band, University Marching Band, Wind Symphony, Symphony Band, University Orchestra, University Chorale, Men's Glee Club, and Women's Chorus. Enrollment required each semester for students enrolled in 12 or more hours; may be taken for 0 or 1 credit hour once degree requirements have been satisfied.
${ }^{3}$ At least 4 of the 8 hours must be taken from major performing ensembles.

## General Education and College Requirements

Courses used to fulfill General Education and/or major requirements may not fulfill electives. Unless otherwise stated on the degree sheet, the College of Fine Arts does not permit coursework to fulfill more than one degree requirement.

Courses designated as Core I, II, III, IV, or V are part of the General Education curriculum. Students must complete a minimum of 40 hours of General Education courses, chosen from the approved list, including at least one upper-division Gen. Ed. course outside of the student's major. Courses graded S/U or P/NP will not apply.

## UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS

| Code | Title | Credit |
| :--- | :--- | :--- |
|  | Hours |  |

Core Area I: Symbolic and Oral Communication
English Composition
ENGL 1113 Principles of English Composition 3
ENGL 1213 Principles of English Composition 3
or EXPO 1213 Expository Writing
Language
This requirement is not mandatory if the student successfully 0-10
completed 2 years of the same language in high school -2
courses (Core I)
Mathematics

```
Choose one course (Core I) }\mp@subsup{}{}{13
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Core Area II: Natural Science
Choose two courses from different disciplines; one must 7-8
include a laboratory
Core Area III: Social Science
PSC 1113 American Federal Government 3
Choose one course 3

Core Area IV: Art and Humanities
Artistic Forms
The following are satisfied in Musicology and Music Theory 0
requirements (4 hours)

| MUSC 1312 | Music in Culture |
| :---: | :--- |
| MUTH 2512 | Musical Structures III |
| Western Culture |  |
| HIST 1483 | United States to 1865 |
| or HIST 1493 | United States, 1865 to the Present |

The following are satisfied in Musicology requirements (9 0
hours):
MUSC 2313 Ancient Times to 1700 (Core IV)
MUSC 2323 Late Baroque Through Romantic Period (Core IV)
MUSC 3333 Post-Romantic Period to the Present (Core IV)

World Culture
Choose one course (upper-division) 3
Core Area V: First-Year Experience
Choose one course 3

Free Electives

| Choose 8 hours | 8 |
| :--- | ---: |

${ }^{1}$ MATH 1473 is recommended.

## Suggested Semester Plan of Study

At least $\mathbf{2 4}$ hours of upper-division Music credit must be earned in residence as a declared major.

A grade of $C$ or better is required in all courses taken within the School of Music.

Degree Completion Responsibility: Although the Dean's Office checks each student's records, the responsibility for meeting degree requirements lies with the student and not with the advisor or the Dean. Each student should obtain a copy of the requirements for graduation and check it regularly as they complete their degree program.

| Freshman |  |  |
| :---: | :---: | :---: |
| First Semester |  | Credit |
|  |  | Hours |
| MUTE 1311 | Group Piano I | 1 |
| MUTH 1512 | Musical Structures I | 2 |
| MUTH 1612 | Aural Skills I | 2 |
| MUTE Ensemble |  | 1 |
| MUTE 1000 | Freshman/Transfer Music Orientation | 0 |
| ENGL 1113 | Principles of English Composition (Core I) | 3 |
| MATH (Core I) ${ }^{1}$ |  | 3 |
| First-Year Experience (Core V) |  | 3 |
| Language (Core I) |  | 0-5 |
|  | Credit Hours | 15-20 |

## Second Semester

| COMP 2020 | Freshman and/or Sophomore Composition for Performance Majors | 2 |
| :---: | :---: | :---: |
| MUTE 1321 | Group Piano II | 1 |
| MUTH 1522 | Musical Structures II (Core IV) | 2 |
| MUTH 1622 | Aural Skills II | 2 |
| MUTE Ensemble |  | 1 |
| MUTE 1010 | Recital Attendance | 0 |
| MUSC 1312 | Music in Culture (Core IV) | 2 |
| $\begin{aligned} & \text { ENGL } 1213 \\ & \text { or EXPO } 1213 \end{aligned}$ | Principles of English Composition (Core I) or Expository Writing | 3 |
| Language (Core I) |  | 0-5 |
|  | Credit Hours | -18 |

## Sophomore

First Semester

| COMP 2020 | Freshman and/or Sophomore Composition <br> for Performance Majors | 2 |
| :--- | :--- | :---: |
| MUTE 2311 | Group Piano III | 1 |
| MUTH 2512 | Musical Structures III (Core IV) | 2 |
| MUTH 2612 | Aural Skills III | 2 |
| MUTE Ensemble |  | 1 |
| MUTE 1010 | Recital Attendance | 0 |
| MUSC 2313 | Ancient Times to 1700 (Core IV) | 3 |
| HIST 1483 | United States to 1865 (Core IV) |  |
| or HIST 1493 | or United States, 1865 to the Present | 3 |
| Free Elective |  | 2 |
|  | Credit Hours | $\mathbf{1 6}$ |


| Second Semester |  |  |
| :--- | :--- | :--- |
| COMP 2020 | Freshman and/or Sophomore Composition <br> for Performance Majors | 2 |
|  | Group Piano IV |  |
| MUTE 2321 | 20th- and 21 st-Century Musical Structures | 2 |
| MUTH 2522 |  | 2 |
| MUTH 2622 |  | 1 |
| MUTE Ensemble |  | 0 |


| MUTE 1010 | Recital Attendance | 0 |
| :--- | :--- | :--- |
| MUSC 2323 | Late Baroque Through Romantic Period <br> (Core IV) | 3 |


| Natural Science (Core II) | 4 |
| :--- | :--- |

## Junior

First Semester

| COMP 4020 | Junior and/or Senior Composition for <br> Performance Majors | 2 |
| :---: | :--- | :---: |
| PIAN 4000 | Junior and/or Senior Secondary Piano <br> or ORGN 4000 <br> or Junior and/or Senior Secondary <br> Organ | 1 |

MUTH 3763 Counterpoint 3
MUTE Ensemble or Chamber Music (3000-4000 level) 1
MUSC 3333 Post-Romantic Period to the Present (Core 3
IV)
MUTK 4113 Understanding Electroacoustic Music 3

| MUTK 4133 | Introduction to Digital Signal Processing | 3 |
| :--- | :--- | ---: |
|  | $\mathbf{1 6}$ |  |


| Second Semester |  |  |
| :--- | :--- | :--- |
| COMP 4020 | Junior and/or Senior Composition for <br> Performance Majors | 2 |
| PIAN 4000 | Junior and/or Senior Secondary Piano <br> or ORGN 4000 | or Junior and/or Senior Secondary <br> Organ |

MUTH 3783 Forms and Analysis 3
MUTE Ensemble or Chamber Music (3000-4000 level) 1
MUTK 4163 Real Time MIDI Control 3
P SC 1113 American Federal Government (Core III) 3
Social Science (Core III) 3

| Free Electives | 1 |  |
| :--- | ---: | ---: |
|  | Credit Hours | 17 |

## Senior

First Semester

| COMP 4020 | Junior and/or Senior Composition for <br> Performance Majors | 2 |
| :---: | :--- | :---: |
| PIAN 4000 | Junior and/or Senior Secondary Piano <br> or ORGN 4000 <br> or Junior and/or Senior Secondary <br> Organ | 1 |

MUTE Ensemble or Chamber Music (3000-4000 level) 1
MUTE 3242 Instrumental Conducting I 2
or MUTE 3262 or Choral Conducting I
Natural Science (Core II) 3-4
World Culture-Upper-Division (Core IV) 3
MUTE 4512 Professional Preparation and Capstone 2
Project
Free Electives $\quad 2-3$

| Second Semester | Sunior and/or Senior Composition for |  |
| :--- | :--- | :--- |
| COMP 4020 | Performance Majors | 2 |
| PIAN 4000 | Junior and/or Senior Secondary Piano <br> or ORGN 4000 <br> or Junior and/or Senior Secondary <br> Organ | 1 |


| MUTH 4863 | Advanced Orchestration | 3 |
| :--- | :--- | ---: |
| MUSC/MUTK/MUTH Advised Elective | 3 |  |
| MUTE Ensemble or Chamber Music (3000-4000 level) | 1 |  |
| Choose one of the following: | 2 |  |
| MUTE 3252 | Instrumental Conducting II |  |
| MUTE 3272 | Choral Conducting II |  |
| MUTE 3262 | Choral Conducting I |  |
| SRRE 4021 | Senior Recital | $\mathbf{1}$ |
| Free Electives |  | $\mathbf{1 6}$ |
|  | Credit Hours | $\mathbf{1 2 4 - 1 3 5}$ |
|  | Total Credit Hours |  |

${ }^{1}$ MATH 1473 is recommended.

## Organ, B.Mus.

Minimum Total Credit Hours: 124-135
Major Hours: 86
Minimum Upper-Division Hours: 40
Upper-Division Hours Within Major. 24
Overall GPA - Combined and OU: 2.50
Program Code: B724

## This program has changes pending Regents approval for 2024-25. These pending changes are not reflected here. <br> Major Requirements

A grade of C or better is required in all courses taken within the School of Music. Audition is required for admission to the degree program.

## Major Area

| Code | Title | Credit <br> Hours |
| :---: | :---: | :---: |
| Choose 8 hours in the following: |  | 8 |
| ORGN 2020 | Organ for Music Majors: Freshman/ Sophomore |  |
| MUTE 2000 | Sophomore Barrier ${ }^{1}$ | 0 |
| Choose 14 hours in the following: |  | 14 |
| ORGN 4020 | Organ for Music Majors: Junior/Senior ${ }^{1}$ |  |
| Choose 4 hours in one of the following (class piano proficiency required): |  | 4 |
| PIAN 2000 | Freshman and/or Sophomore Secondary Piano ${ }^{2}$ |  |
| or PIAN 4000Uunior and/or Senior Secondary Piano |  |  |
| MUTE XXXX, Major Performance Ensemble ${ }^{3}$ |  | 4 |
| MUTE XXXX, Major Performance Ensemble (3000-4000) ${ }^{3,4}$ |  | 4 |
| MUTE 1000 | Freshman/Transfer Music Orientation (1 semester) | 0 |
| MUTE 1010 | Recital Attendance (3 semesters) | 0 |
| MUTE 4423 | History and Fundamentals of Pipe Organ Construction and Design | 3 |
| MULI 4453 | Organ Literature | 3 |


| JRRE 3021 | Junior Recital |  |
| :---: | :---: | :---: |
| SRRE 4021 | Senior Recital |  |
| Total Credit |  | 42 |
| A passing grade in MUTE 2000 Sophomore Barrier is required for admission to upper-division applied study. |  |  |
| 2 Organ majors are required to enroll in piano unless excused by organ faculty; these hours then become advised music electives. |  |  |
| Major performance organizations are as follows: Campus Band, University Marching Band, Wind Symphony, Symphony Band, University |  |  |
|  |  |  |
| Orchestra, University Chorale, Men's Glee Club, and Women's Chorus. |  |  |
| Enrollment is required each semester for students enrolled in 12 or more hours; may be taken for 0 or 1 credit hour once degree requirements have been satisfied. |  |  |
| ${ }^{4}$ Choral ensemble accompanist may substitute for a maximum of two semesters of major performance ensemble. |  |  |

## Music Support

| Code | Title | Credit |
| :---: | :---: | :---: |
|  |  | Hours |
| Music Theory |  |  |
| MUTH 1512 | Musical Structures I | 2 |
| MUTH 1612 | Aural Skills I | 2 |
| MUTH 1522 | Musical Structures II | 2 |
| MUTH 1622 | Aural Skills II | 2 |
| MUTH 2512 | Musical Structures III (Core IV) | 2 |
| MUTH 2612 | Aural Skills III | 2 |
| MUTH 2522 | 20th- and 21 st-Century Musical Structures | 2 |
| MUTH 2622 |  | 2 |
| MUTH 3763 | Counterpoint | 3 |
| MUTH 3783 | Forms and Analysis | 3 |
| MUTH 4853 | Orchestration | 3 |
| Musicology a | usic Literature |  |
| MUSC 1312 | Music in Culture (Core IV) | 2 |
| MUSC 2313 | Ancient Times to 1700 (Core IV) | 3 |
| MUSC 2323 | Late Baroque Through Romantic Period (Core IV) | 3 |
| MUSC 3333 | Post-Romantic Period to the Present (Core IV) | 3 |
| Additional Re | ements |  |
| MUTE 3262 | Choral Conducting I | 2 |
| MUTE 4252 | Music in Worship | 2 |
| MUTE 4262 | Church Music Practicum | 2 |
| MUTE 4512 | Professional Preparation and Capstone Project | 2 |

Total Credit Hours

## General Education and College Requirements

Courses used to fulfill General Education and/or major requirements may not fulfill electives. Some courses which fulfill the General Education requirements are listed in other areas on this sheet and are indicated by the appropriate Core numbers.

Courses designated as Core I, II, III, IV, or V are part of the General Education curriculum. Students must complete a minimum of 40 hours of General Education courses, chosen from the approved list, including at
least one upper-division Gen. Ed. course outside of the student's major. Courses graded S/U or P/NP will not apply.

UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Core Area I: Symbolic and Oral Communication |  |  |
| English Composition | 3 |  |
| ENGL 1113 | Principles of English Composition | 3 |
| ENGL 1213 | Principles of English Composition |  |
| or EXPO 1213 | Expository Writing |  |

## Language

| This requirement is not mandatory if the student successfully |  |
| :--- | ---: |
| completed 2 years of the same language in high school -2 |  |
| courses (Core I) | $0-10$ |
| Mathematics |  |
| Choose one course (Core I) $^{1}$ | 3 |

## Core Area II: Natural Science

$\begin{array}{ll}\text { Choose two courses from different disciplines; one must } & 7-8\end{array}$

## include a laboratory

Core Area III: Social Science
PSC 1113 American Federal Government 3
Choose one course 3

## Core Area IV: Arts and Humanities

## Artistic Forms

The following are satisfied in Musicology and Music Theory 0
requirements (4 hours)

| MUSC 1312 | Music in Culture |  |
| :---: | :---: | :---: |
| MUTH 2512 | Musical Structures III |  |
| Western Culture |  |  |
| HIST 1483 or HIST 1493 | United States to 1865 <br> United States, 1865 to the Present | 3 |
| The following are hours): | satisfied in Musicology requirements (9 | 0 |
| MUSC 2313 | Ancient Times to 1700 (Core IV) |  |
| MUSC 2323 | Late Baroque Through Romantic Period (Core IV) |  |
| MUSC 3333 | Post-Romantic Period to the Present (Core IV) |  |
| World Culture |  |  |
| Choose one course (upper-division) |  | 3 |
| Core Area V: First-Year Experience |  |  |
| Choose one course |  | 3 |
| Free Electives |  |  |
| Choose 7 hours |  | 7 |
| Total Credit Hours |  |  |

${ }^{1}$ MATH 1473 is recommended.

## Suggested Semester Plan of Study

At least 24 hours of upper-division Music credit must be earned in residence as a declared major.

A grade of C or better is required in all courses taken within the School of Music. Unless otherwise stated on the degree sheet, the College of Fine Arts does not permit coursework to fulfill more than one degree requirement.

Degree Completion Responsibility: Although the Dean's Office checks each student's records, the responsibility for meeting degree requirements lies with the student and not with the advisor or the Dean. Each student should obtain a copy of the requirements for graduation and check it regularly as they complete their degree program.

## Freshman

| First Semester |  | Credit |
| :---: | :---: | :---: |
|  |  | Hours |
| ORGN 2020 | Organ for Music Majors: Freshman/ Sophomore | 2 |
| MUTH 1512 | Musical Structures I | 2 |
| MUTH 1612 | Aural Skills I | 2 |
| MUTE Ensemble |  | 1 |
| MUTE 1000 | Freshman/Transfer Music Orientation | 0 |
| ENGL 1113 | Principles of English Composition (Core I) | 3 |
| MATH (Core I) ${ }^{1}$ |  | 3 |
| First-Year Experience (Core V) |  | 3 |
| Language (Core I) |  | 0-5 |
|  | Credit Hours | 16-21 |

## Second Semester

| ORGN 2020 | Organ for Music Majors: Freshman/ Sophomore | 2 |
| :---: | :---: | :---: |
| MUTH 1522 | Musical Structures II (Core IV) | 2 |
| MUTH 1622 | Aural Skills II | 2 |
| MUTE Ensemble |  | 1 |
| MUTE 1010 | Recital Attendance | 0 |
| MUSC 1312 | Music in Culture (Core IV) | 2 |
| $\begin{aligned} & \text { ENGL } 1213 \\ & \text { or EXPO } 1213 \end{aligned}$ | Principles of English Composition (Core I) or Expository Writing | 3 |
| HIST 1483 or HIST 1493 | United States to 1865 (Core IV) or United States, 1865 to the Present | 3 |
| Language (Core I) |  | 0-5 |
|  | Credit Hours | 15-20 |

## Sophomore

| First Semester |  | 2 |
| :--- | :--- | ---: |
| ORGN 2020 | Organ for Music Majors: Freshman/ <br> Sophomore | 2 |
| PIAN 2000 | Freshman and/or Sophomore Secondary <br>  <br>  <br>  <br> Piano | 2 |
| MUTH 2512 | Musical Structures III (Core IV) | 2 |
| MUTH 2612 | Aural Skills III | 1 |
| MUTE Ensemble | Recital Attendance | 0 |
| MUTE 1010 | Ancient Times to 1700 (Core IV) | 3 |
| MUSC 2313 | (Core II) | $\mathbf{3 - 4}$ |
| Natural Science | $\mathbf{1 5 - 1 6}$ |  |

## Second Semester

ORGN 2020 Organ for Music Majors: Freshman/ 2 Sophomore

| PIAN 2000 | Freshman and/or Sophomore Secondary Piano | 2 |
| :---: | :---: | :---: |
| MUTH 2522 | 20th- and 21 st-Century Musical Structures | 2 |
| MUTH 2622 |  | 2 |
| MUTE Ensem |  | 1 |
| MUTE 1010 | Recital Attendance | 0 |
| MUTE 2000 | Sophomore Barrier | 0 |
| MUSC 2323 | Late Baroque Through Romantic Period (Core IV) | 3 |
| Natural Science (Core II) |  | 4 |
|  | Credit Hours | 16 |
| Junior |  |  |
| First Semester |  |  |
| ORGN 4020 | Organ for Music Majors: Junior/Senior | 3 |
| MUTH 3763 | Counterpoint | 3 |
| MUTE Ensemble (3000-4000 level) |  | 1 |
| MUSC 3333 | Post-Romantic Period to the Present (Core IV) | 3 |
| MUTE 3262 | Choral Conducting I | 2 |
| MUTE 4423 | History and Fundamentals of Pipe Organ Construction and Design | 3 |
|  | Credit Hours | 15 |
| Second Semester |  |  |
| ORGN 4020 | Organ for Music Majors: Junior/Senior | 3 |
| MUTH 3783 | Forms and Analysis | 3 |
| MUTE Ensemble (3000-4000 level) |  | 1 |
| JRRE 3021 | Junior Recital | 1 |
| P SC 1113 | American Federal Government (Core III) | 3 |
| World Culture-Upper-Division (Core IV) |  | 3 |
|  | Credit Hours | 14 |
| Senior |  |  |
| First Semester |  |  |
| ORGN 4020 | Organ for Music Majors: Junior/Senior | 4 |
| MUTH 4853 | Orchestration | 3 |
| MUTE Ensemble (3000-4000 level) |  | 1 |
| MUTE 4252 | Music in Worship | 2 |
| MULI 4453 | Organ Literature | 3 |
| MUTE 4512 | Professional Preparation and Capstone Project | 2 |
| Social Science (Core III) |  | 3 |
|  | Credit Hours | 18 |
| Second Semester |  |  |
| ORGN 4020 | Organ for Music Majors: Junior/Senior | 4 |
| MUTE Ensemble (3000-4000 level) |  | 1 |
| MUTE 4262 | Church Music Practicum | 2 |
| SRRE 4021 | Senior Recital | 1 |
| Free Electives |  | 7 |
|  | Credit Hours | 15 |
|  | Total Credit Hours | 135 |

## 2 Piano, B.Mus.

Minimum Total Credit Hours: 124-135
Major Hours: 86
Minimum Upper-Division Hours: 40
Upper-Division Hours Within Major: 24

Overall GPA - Combined and OU: 2.50
Program Code: B725

## This program has changes pending Regents approval for 2024-25. These pending changes are not reflected here. <br> Major Requirements

A grade of C or better is required in all courses taken within the School of Music. Audition is required for admission to the degree program.

## Major Area

| Code | Title | Credit Hours |
| :---: | :---: | :---: |
| Choose 4 semesters in the following: |  | 8 |
| PIAN 2020 | Piano for Music Majors: Freshman/ Sophomore |  |
| MUTE 2000 | Sophomore Barrier ${ }^{1}$ | 0 |
| Choose 4 semesters in the following: ${ }^{1}$ |  | 14 |
| PIAN 4020 | Piano for Music Majors: Junior/Senior |  |
| MUTE 1332 | Functional Piano Skills I | 2 |
| MUTE 1342 | Functional Piano Skills II | 2 |
| MUTE XXXX, Major Performance Ensemble ${ }^{2}$ |  | 2 |
| MUTE XXXX, Major Performance Ensemble (3000-4000) ${ }^{2}$ |  | 2 |
| Choose 4 semesters in the following: |  | 4 |
| MUTE 3110 | Studio Accompanying for Piano Majors |  |
| MUTE 1000 | Freshman/Transfer Music Orientation (1 semester) | 0 |
| MUTE 1010 | Recital Attendance (3 semesters) | 0 |
| MUED 3783 | Piano Pedagogy | 3 |
| MUED 3793 | Piano Pedagogy | 3 |
| MULI 4523 | Keyboard Literature | 3 |
| MULI 4533 | Keyboard Literature | 3 |
| JRRE 3021 | Junior Recital | 1 |
| SRRE 4021 | Senior Recital | 1 |
| Total Credit Hours |  | 48 |

${ }^{1}$ A passing grade in MUTE 2000 Sophomore Barrier is required for admission to upper-division applied study.
2 Major performance organizations are as follows: Campus Band, University Marching Band, Wind Symphony, Symphony Band, University Orchestra, University Chorale, Men's Glee Club, and Women's Chorus.

[^50]| Music Support |  |  |
| :---: | :---: | :---: |
| Code | Title | Credit |
|  |  | Hours |
| Music Theory |  |  |
| MUTH 1512 | Musical Structures I | 2 |
| MUTH 1612 | Aural Skills I | 2 |
| MUTH 1522 | Musical Structures II | 2 |
| MUTH 1622 | Aural Skills II | 2 |
| MUTH 2512 | Musical Structures III (Core IV) | 2 |
| MUTH 2612 | Aural Skills III | 2 |
| MUTH 2522 | 20th- and 21st-Century Musical Structures | 2 |
| MUTH 2622 |  | 2 |
| MUTH 3763 | Counterpoint | 3 |
| MUTH 3783 | Forms and Analysis | 3 |
| Musicology and Music Literature |  |  |
| MUSC 1312 | Music in Culture (Core IV) | 2 |
| MUSC 2313 | Ancient Times to 1700 (Core IV) | 3 |
| MUSC 2323 | Late Baroque Through Romantic Period (Core IV) | 3 |
| MUSC 3333 | Post-Romantic Period to the Present (Core IV) | 3 |
| Conducting |  |  |
| MUTE 3242 or MUTE 3262 | Instrumental Conducting I Choral Conducting I | 2 |
| Advised Music Electives |  | 1 |
| Choose 1 hour |  |  |
| MUTE 4512 | Professional Preparation and Capstone Project | 2 |

al Credit Hours

## General Education and College Requirements

Courses used to fulfill General Education and/or major requirements may not fulfill electives. Some courses which fulfill the General Education requirements are listed in other areas on this sheet and are indicated by the appropriate Core numbers.

Courses designated as Core I, II, III, IV, or V are part of the Genera Education curriculum. Students must complete a minimum of 40 hours of General Education courses, chosen from the approved list, including at least one upper-division Gen. Ed. course outside of the student's major.
Courses graded S/U or P/NP will not apply.

## UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS

| Code Title | Credit <br> Hours |
| :--- | :--- |

Core Area I: Symbolic and Oral Communication
English Composition $1113 \quad 3$
ENGL 1213 Principles of English Composition 3
or EXPO 1213 Expository Writing
Language
This requirement is not mandatory if the student successfully 0-10 completed 2 years of the same language in high school -2 courses (Core I)

Mathematics
Choose one course (Core I) $^{1} 3$
Core Area II: Natural Science
Choose two courses from different disciplines; one must 7-8
include a laboratory
Core Area III: Social Science
P SC 1113 American Federal Government 3

Choose one course 3
Core Area IV: Arts and Humanities
Artistic Forms
The following are satisfied in Musicology and Music Theory 0
requirements (4 hours)

| MUSC 1312 | Music in Culture |  |
| :--- | :--- | :--- |
| MUTH 2512 | Musical Structures III | 3 |
| Western Culture |  |  |
| HIST 1483 | United States to 1865 |  |
| or HIST 1493 | United States, 1865 to the Present |  |
| The following are satisfied in Musicology requirements (9 |  |  |
| hours): |  |  |
| MUSC 2313 | Ancient Times to 1700 (Core IV) |  |
| MUSC 2323 | Late Baroque Through Romantic Period <br> (Core IV) |  |
| MUSC 3333 | Post-Romantic Period to the Present (Core <br> IV) |  |

## World Culture

Choose one course (upper-division) 3

| Core Area V: First-Year Experience | 3 |
| :--- | :--- |
| Choose one course |  |

Free Electives

| Choose 7 hours | 7 |
| :--- | ---: |
| Total Credit Hours | $38-49$ |

${ }^{1}$ MATH 1473 is recommended.

## Suggested Semester Plan of Study

At least $\mathbf{2 4}$ hours of upper-division Music credit must be earned in residence as a declared major.

A grade of $C$ or better is required in all courses taken within the School of Music. Unless otherwise stated on the degree sheet, the College of Fine Arts does not permit coursework to fulfill more than one degree requirement.

Degree Completion Responsibility: Although the Dean's Office checks each student's records, the responsibility for meeting degree requirements lies with the student and not with the advisor or the Dean. Each student should obtain a copy of the requirements for graduation and check it regularly as they complete their degree program.

## Freshman

| First Semester | Credit <br> Hours |  |
| :--- | :--- | ---: |
| PIAN 2020 | Piano for Music Majors: Freshman/ | 2 |
|  | Sophomore | 2 |
| MUTH 1512 | Musical Structures I | 2 |


| MUTE Ensemble |  | 1 |
| :--- | :--- | ---: |
| MUTE 1000 | Freshman/Transfer Music Orientation | 0 |
| MUTE 1332 | Functional Piano Skills I | 2 |
| ENGL 1113 | Principles of English Composition (Core I) | 3 |
| MATH (Core I) ${ }^{1}$ |  | 3 |
| Language (Core I) | $0-5$ |  |
|  | Credit Hours | $\mathbf{1 5 - 2 0}$ |


| Second Semester |  |  |
| :---: | :---: | :---: |
| PIAN 2020 | Piano for Music Majors: Freshman/ Sophomore | 2 |
| MUTH 1522 | Musical Structures II (Core IV) | 2 |
| MUTH 1622 | Aural Skills II | 2 |
| MUTE Ensemble |  | 1 |
| MUTE 1010 | Recital Attendance | 0 |
| MUSC 1312 | Music in Culture (Core IV) | 2 |
| MUTE 1342 | Functional Piano Skills II | 2 |
| ENGL 1213 or EXPO 1213 | Principles of English Composition (Core I) or Expository Writing | 3 |
| Language (Core I) |  | 0-5 |
| First-Year Experience (Core V) |  | 3 |


| Sophomore <br> First Semester |  |  |
| :--- | :--- | ---: |
| PIAN 2020 | Piano for Music Majors: Freshman/ |  |
|  | Sophomore | 2 |
| MUTH 2512 | Musical Structures III (Core IV) | 2 |
| MUTH 2612 | Aural Skills III | 2 |
| MUTE Ensemble |  | 1 |
| MUTE 1010 | Recital Attendance | 0 |
| MUSC 2313 | Ancient Times to 1700 (Core IV) | 3 |
| P SC 1113 | American Federal Government (Core III) | 3 |
| Natural Science (Core II) | 3-4 |  |
|  | Credit Hours | $\mathbf{1 6 - 1 7}$ |

## Second Semester

| PIAN 2020 | Piano for Music Majors: Freshman/ Sophomore | 2 |
| :---: | :---: | :---: |
| MUTH 2522 | 20th- and 21 st-Century Musical Structures | 2 |
| MUTH 2622 |  | 2 |
| MUTE Ensemble |  | 1 |
| MUTE 1010 | Recital Attendance | 0 |
| MUTE 2000 | Sophomore Barrier | 0 |
| MUSC 2323 | Late Baroque Through Romantic Period (Core IV) | 3 |
| HIST 1483 or HIST 1493 | United States to 1865 (Core IV) or United States, 1865 to the Present | 3 |
| Natural Science (Core II) |  | 4 |
|  | Credit Hours | 17 |
| Junior |  |  |
| First Semester |  |  |
| PIAN 4020 | Piano for Music Majors: Junior/Senior | 3 |
| MUTH 3763 | Counterpoint | 3 |
| MUSC 3333 | Post-Romantic Period to the Present (Core IV) | 3 |


| MUTE 3110 | Studio Accompanying for Piano Majors | 1 |
| :---: | :---: | :---: |
| MUED 3783 | Piano Pedagogy | 3 |
| MUTE 3242 or MUTE 3262 | Instrumental Conducting I or Choral Conducting I | 2 |
|  | Credit Hours | 15 |

## Second Semester

PIAN 4020 Piano for Music Majors: Junior/Senior 3
MUTH 3783 Forms and Analysis 3
MUTE 3110 Studio Accompanying for Piano Majors 1
MUED 3793 Piano Pedagogy 3
JRRE 3021 Junior Recital 1
World Culture-Upper-Division (Core IV) 3

Credit Hours 14
Senior
First Semester
PIAN 4020 Piano for Music Majors: Junior/Senior 4
MULI 4523 Keyboard Literature 3
MUTE 3110 Studio Accompanying for Piano Majors 1
MUTE 4512 Professional Preparation and Capstone 2

Project
Social Science (Core III) 3
Free Electives ..... 3
16

| Second Semester |  |  |
| :--- | :--- | ---: |
| PIAN 4020 | Piano for Music Majors: Junior/Senior | 4 |
| MULI 4533 | Keyboard Literature | 3 |
| MUTE 3110 | Studio Accompanying for Piano Majors | 1 |
| SRRE 4021 | Senior Recital | 1 |
| Free Electives |  | 4 |
| Advised Music Electives | 1 |  |
|  | Credit Hours | $\mathbf{1 4}$ |
|  | Total Credit Hours | $\mathbf{1 2 4 - 1 3 5}$ |

${ }^{1}$ MATH 1473 is recommended.

## Piano Pedagogy, B.Mus.

Minimum Total Credit Hours: 124-135
Major Hours: 92
Minimum Upper-Division Hours: 40
Upper-Division Hours Within Major. 24
Overall GPA - Combined and OU: 2.50
Program Code: B726

## This program has changes pending Regents approval for 2024-25. These pending changes are not reflected here.

## Major Requirements

A grade of $C$ or better is required in all courses taken within the School of Music. Audition is required for admission to the degree program.

| Major Area |  |  | MUSC 1312 | Music in Culture (Core IV) | 2 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Code | Title | Credit | MUSC 2313 | Ancient Times to 1700 (Core IV) | 3 |
| Required Courses |  |  | MUSC 2323 | Late Baroque Through Romantic Period (Core IV) | 3 |
| Choose 4 semesters in the following: 8 |  |  | MUSC 3333 | Post-Romantic Period to the Present (Core | 3 |
| PIAN 2020 | Piano for Music Majors: Freshman/ |  |  | IV) |  |
|  | Sophomore |  | MULI 4523 | Keyboard Literature | 3 |
| MUTE 2000 | Sophomore Barrier ${ }^{1}$ | 0 | MULI 4533 | Keyboard Literature | 3 |
| Choose 4 semesters in the following: ${ }^{1} 14$ |  |  | Conducting |  |  |
| PIAN 4020 | Piano for Music Majors: Junior/Senior |  | MUTE 3242 or MUTE 3262 | Instrumental Conducting I | 2 |
| MUTE 1332 | Functional Piano Skills I | 2 |  | Choral Conducting I |  |
| MUTE 1342 | Functional Piano Skills II | 2 | Total Credit Hours |  | 43 |
| MUTE XXXX, Major Performance Ensemble ${ }^{2}$ 2 |  |  | General Education and College Requirements |  |  |
| MUTE XXXX, Major Performance Ensemble (3000-4000) ${ }^{2}$ ( ${ }^{2}$ |  |  |  |  |  |  |
| Choose 4 semesters in the following: 4 |  |  | Courses used to fulfill General Education and/or major requirements may not fulfill electives. Some courses which fulfill the General Education requirements are listed in other areas and are indicated by the appropriate Core numbers. |  |  |
| MUTE 3110 | Studio Accompanying for Piano Majors |  |  |  |  |  |
| MUTE 1000 | semester) |  |  |  |  |  |
| MUTE 1010 | Recital Attendance (3 semesters) | 0 | Courses designated as Core I, II, III, IV, or V are part of the General |  |  |
| Music Education |  |  | Education curriculum. Students must complete a minimum of 40 hours of General Education courses, chosen from the approved list, including at least one upper-division Gen. Ed. course outside of the student's major. Courses graded S/U or P/NP will not apply. |  |  |
| MUED 3783 | Piano Pedagogy | 3 |  |  |  |  |
| MUED 3793 | Piano Pedagogy | 3 |  |  |  |  |
| MUED 3782 | Internship in Piano Teaching | 2 |  |  |  |  |
| MUED 3792 | Internship in Piano Teaching | 2 | UNIVERSITY-WI | GENERAL EDUCATION (MINIMUM 40 HOURS) |  |
| MUED 5612 | Piano Pedagogy I | 2 | COLLEGE REQUIR | EMENTS |  |
| MUED 5622 | Piano Pedagogy II | 2 | Code | Title | Credit |
| Capstone |  |  |  | olic and Oral Communication |  |
| SRRE 4021 | Senior Recital | 1 | English Compositio |  |  |
| Total Credit Hour |  | 49 | ENGL 1113 | Principles of English Composition | 3 |
| ${ }^{1}$ A passing gra admission to | e in MUTE 2000 Sophomore Barrier is requir pper-division applied study. |  | $\begin{aligned} & \text { ENGL } 1213 \\ & \text { or EXPO } 1213 \end{aligned}$ | Principles of English Composition Expository Writing | 3 |
| ${ }^{2}$ Major perform | nce organizations are as follows: Campus |  | Language |  |  |
| University Ma Orchestra, U | ching Band, Wind Symphony, Symphony Band ersity Chorale, Men's Glee Club, and Women's | versity rus. | This requirement completed 2 yea courses (Core I) | is not mandatory if the student successfully s of the same language in high school -2 | 0-10 |
| Music Supp |  |  | Mathematics |  |  |
| Code | Title | Credit | Choose one cour | (Core I) ${ }^{1}$ | 3 |
|  |  | Hours | Core Area II: Natu | ral Science |  |
| MUTE 4512 | Professional Preparation and Capstone Project | 2 | Choose two cour include a laborat | ses from different disciplines; one must ry | 7-8 |
| Music Theory |  |  | Core Area III: Soc | ial Science |  |
| MUTH 1512 | Musical Structures I | 2 | P SC 1113 | American Federal Government | 3 |
| MUTH 1612 | Aural Skills I | 2 | Choose one cour |  | 3 |
| MUTH 1522 | Musical Structures II | 2 | Core Area IV: Arts | and Humanities |  |
| MUTH 1622 | Aural Skills II | 2 | Artistic Forms |  |  |
| MUTH 2512 | Musical Structures III (Core IV) | 2 | The following are | satisfied in Musicology and Music Theory | 0 |
| MUTH 2612 | Aural Skills III | 2 | requirements (4 | urs) |  |
| MUTH 2522 | 20th- and 21 st-Century Musical Structures | 2 | MUSC 1312 | Music in Culture |  |
| MUTH 2622 |  | 2 | MUTH 2512 | Musical Structures III |  |
| MUTH 3763 | Counterpoint | 3 | Western Culture |  |  |
| MUTH 3783 | Forms and Analysis | 3 | HIST 1483 | United States to 1865 | 3 |
| Musicology and | Music Literature |  | or HIST 1493 | United States, 1865 to the Present |  |

The following are satisfied in Musicology requirements (9 hours):

| MUSC 2313 | Ancient Times to 1700 (Core IV) |
| :--- | :--- |
| MUSC 2323 | Late Baroque Through Romantic Period <br> (Core IV) |
| MUSC 3333 | Post-Romantic Period to the Present (Core <br> IV) |
|  |  |

World Culture
Choose one course (upper-division) 3
Choose one course 3

Free Electives

| Choose 1 hour | 1 |
| :--- | ---: |
| Total Credit Hours | 32-43 |

${ }^{1}$ MATH 1473 is recommended.

## Suggested Semester Plan of Study

At least $\mathbf{2 4}$ hours of upper-division Music credit must be earned in residence as a declared major.

A grade of C or better is required in all courses taken within the School of Music. Unless otherwise stated on the degree sheet, the College of Fine Arts does not permit coursework to fulfill more than one degree requirement.

Degree Completion Responsibility: Although the Dean's Office checks each student's records, the responsibility for meeting degree requirements lies with the student and not with the advisor or the Dean. Each student should obtain a copy of the requirements for graduation and check it regularly as they complete their degree program.

Freshman

| First Semester |  | Credit <br> Hours |
| :--- | :--- | ---: |
| PIAN 2020 | Piano for Music Majors: Freshman/ |  |
|  | Sophomore | 2 |
| MUTH 1512 | Musical Structures I | 2 |
| MUTH 1612 | Aural Skills I | 2 |
| MUTE Ensemble |  | 1 |
| MUTE 1000 | Freshman/Transfer Music Orientation | 0 |
| MUTE 1332 | Functional Piano Skills I | 2 |
| ENGL 1113 | Principles of English Composition (Core I) | 3 |
| MATH (Core I) |  | 3 |
| Language (Core I) | $0-5$ |  |
|  | Credit Hours | $15-20$ |
| Second Semester |  | 2 |
| PIAN 2020 | Piano for Music Majors: Freshman/ | 2 |
| MUTH 1522 | Sophomore | 2 |
| MUTH 1622 | Aural Skills II | 2 |
| MUTE Ensemble |  | 1 |
| MUTE 1010 | Recital Attendance | 0 |
| MUSC 1312 | Music in Culture (Core IV) | 2 |
| MUTE 1342 | Functional Piano Skills II | 2 |


| ENGL 1213 or EXPO 1213 | Principles of English Composition (Core I) or Expository Writing | 3 |
| :---: | :---: | :---: |
| Language (Core I) |  | 0-5 |
| First-Year Experien | nce (Core V) | 3 |

## Sophomore

First Semester

| PIAN 2020 | Piano for Music Majors: Freshman/ | 2 |
| :--- | :--- | ---: |
| MUTH 2512 | Musical Structures III (Core IV) | 2 |
| MUTH 2612 | Aural Skills III | 2 |
| MUTE Ensemble |  | 1 |
| MUTE 1010 | Recital Attendance | 0 |
| MUSC 2313 | Ancient Times to 1700 (Core IV) | 3 |
| MUED 3783 | Piano Pedagogy | 3 |
| Natural Science (Core II) | $\mathbf{3 - 4}$ |  |
|  | Credit Hours | $\mathbf{1 6 - 1 7}$ |

## Second Semester

| PIAN 2020 | Piano for Music Majors: Freshman/ Sophomore | 2 |
| :---: | :---: | :---: |
| MUTH 2522 | 20th- and 21 st-Century Musical Structures | 2 |
| MUTH 2622 |  | 2 |
| MUTE Ensemble |  | 1 |
| MUTE 1010 | Recital Attendance | 0 |
| MUTE 2000 | Sophomore Barrier | 0 |
| MUSC 2323 | Late Baroque Through Romantic Period (Core IV) | 3 |
| MUED 3793 | Piano Pedagogy | 3 |
| Natural Science (Core II) |  | 4 |
|  | Credit Hours | 17 |
| Junior |  |  |
| First Semester |  |  |
| PIAN 4020 | Piano for Music Majors: Junior/Senior | 3 |
| MUSC 3333 | Post-Romantic Period to the Present (Core IV) | 3 |
| MUTE 3242 or MUTE 3262 | Instrumental Conducting I or Choral Conducting I | 2 |
| MUTE 3110 | Studio Accompanying for Piano Majors | 1 |
| MUED 3782 | Internship in Piano Teaching | 2 |
| Social Science (Core III) |  | 3 |
|  | Credit Hours | 14 |

## Second Semester

| PIAN 4020 | Piano for Music Majors: Junior/Senior | 3 |
| :--- | :--- | ---: |
| MUTH 3783 | Forms and Analysis | 3 |
| MUTE 3110 | Studio Accompanying for Piano Majors | 1 |
| MUED 3792 | Internship in Piano Teaching | 2 |
| HIST 1483 <br> or HIST 1493 | United States to 1865 (Core IV) <br> (or United States, 1865 to the Present | 3 |
| World Culture-Upper-Division (Core IV) | 3 |  |
|  | Credit Hours | $\mathbf{1 5}$ |

## Senior

First Semester
PIAN 4020

| MUTH 3763 | Counterpoint | 3 |
| :---: | :---: | :---: |
| MULI 4523 | Keyboard Literature | 3 |
| MUTE 3110 | Studio Accompanying for Piano Majors | 1 |
| MUED 5612 | Piano Pedagogy I | 2 |
| MUTE 4512 | Professional Preparation and Capstone Project | 2 |
|  | Credit Hours | 15 |
| Second Semester |  |  |
| PIAN 4020 | Piano for Music Majors: Junior/Senior | 4 |
| MULI 4533 | Keyboard Literature | 3 |
| MUTE 3110 | Studio Accompanying for Piano Majors | 1 |
| MUED 5622 | Piano Pedagogy II | 2 |
| SRRE 4021 | Senior Recital | 1 |
| Free Electives |  | 1 |
| P SC 1113 | American Federal Government (Core III) | 3 |
|  | Credit Hours | 15 |
|  | Total Credit Hours |  |

${ }^{1}$ MATH 1473 is recommended.

## Voice, B.Mus.

Minimum Total Credit Hours: 126-132
Major Hours: 79
Minimum Upper-Division Hours: 40
Upper-Division Hours Within Major: 24

Overall GPA - Combined and OU: 2.50
Program Code: B730

## This program has changes pending Regents approval for 2024-25. These pending changes are not reflected here.

## Major Requirements

A grade of $C$ or better is required in all courses taken within the School of Music. Audition is required for admission to the degree program.

## Major Area

| Code Title | Credit |
| :---: | :---: |
| Choose 8 hours in the following: | 8 |
| $\begin{array}{ll}\text { VOIC } 2020 & \begin{array}{l}\text { Voice for Music Majors: Freshman/ } \\ \text { Sophomore }\end{array}\end{array}$ |  |
| Choose 8 hours in the following: | 8 |
| VOIC 4020 Voice for Music Majors: Junior/Senior ${ }^{1}$ |  |
| MUTE XXXX, Major Performance Ensemble ${ }^{2}$ | 4 |
| MUTE XXXX, Major Performance Ensemble (3000-4000) ${ }^{2}$ | 4 |
| MUTE $1000 \quad \begin{array}{ll}\text { Freshman/Transfer Music Orientation (1 } \\ \text { semester) }\end{array}$ | 0 |
| MUTE 1010 Recital Attendance (3 semesters) | 0 |
| MUTE 2000 Sophomore Barrier ${ }^{1}$ | 0 |
| Choose one of the following: | 2 |



## Music Support

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Music Theory |  |  |
| MUTH 1512 | Musical Structures I | 2 |
| MUTH 1612 | Aural Skills I | 2 |
| MUTH 1522 | Musical Structures II | 2 |
| MUTH 1622 | Aural Skills II | 2 |
| MUTH 2512 | Musical Structures III (Core IV) | 2 |
| MUTH 2612 | Aural Skills III | 2 |
| MUTH 2522 | 20th- and 21st-Century Musical Structures | 2 |
| MUTH 2622 |  | 2 |

Musicology and Music Literature
MUSC $1312 \quad$ Music in Culture (Core IV)
MUSC 2313 Ancient Times to 1700 (Core IV) 3
MUSC 2323 Late Baroque Through Romantic Period 3 (Core IV)

| MUSC 3333 | Post-Romantic Period to the Present (Core <br> IV) | 3 |
| :--- | :--- | :--- |
| MULI 4543 | Introduction to Vocal Literature | 3 |

Additional Requirements

| MUTE 1311 | Group Piano ${ }^{1}$ | 1 |
| :---: | :---: | :---: |
| MUTE 1321 | Group Piano II ${ }^{1}$ | 1 |
| MUTE 2311 | Group Piano III ${ }^{1}$ | 1 |
| MUTE 2321 | Group Piano IV ${ }^{1}$ | 1 |
| Choose 4 hours of the following: |  | 4 |
| PIAN 4000 | Junior and/or Senior Secondary Piano |  |
| MUTE 3262 | Choral Conducting I | 2 |
| MUTE 4512 | Professional Preparation and Capstone Project | 2 |

Advised Music Elective, Upper-Division

| Choose 1 hour | 1 |
| :--- | ---: |
| Total Credit Hours | 43 |

1 Students who have prior piano background may be eligible for the proficiency exam for one or more of the group piano courses. These
hours then become free electives. Or, the student may elect to receive advanced standing credit for the group piano course(s). See the Coordinator for Group Piano for information.

## General Education and College Requirements

Courses used to fulfill General Education and/or major requirements may not fulfill electives. Some courses which fulfill the General Education requirements are listed in other areas on this sheet and are indicated by the appropriate Core numbers.

Courses designated as Core I, II, III, IV, or V are part of the General Education curriculum. Students must complete a minimum of 40 hours of General Education courses, chosen from the approved list, including at least one upper-division Gen. Ed. course outside of the student's major. Courses graded S/U or P/NP will not apply.

## UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS

| Code Title | Credit <br> Hours |
| :--- | :--- |
| Core Area I: Symbolic and Oral Communication |  |

English Composition
ENGL 1113 Principles of English Composition 3
ENGL 1213 Principles of English Composition 3
or EXPO 1213 Expository Writing
Language
Students who did not successfully complete 2 years of the 15-20 same language in high school must take a second semester of one of the languages listed below, or two semesters of another language (Core I):

| ITAL 1115 | Beginning Italian I |  |
| :--- | :--- | :--- |
| FR 1115 | Beginning French |  |
| GERM 1115 | Beginning German |  |
| Mathematics |  |  |
| Choose one course (Core I) |  |  |
| Core Area II: Natural Science | 3 |  |
| Choose two courses from different disciplines; one must <br> include a laboratory <br> Core Area III: Social Science <br> P SC 1113$\quad$ American Federal Government | $7-8$ |  |
| Choose one course | 3 |  |

Core Area IV: Arts and Humanities
Artistic Forms
The following are satisfied in Musicology and Music Theory 0 requirements (4 hours)

| MUSC 1312 | Music in Culture |  |
| :---: | :---: | :---: |
| MUTH 2512 | Musical Structures III |  |
| Western Culture |  |  |
| HIST 1483 | United States to 1865 | 3 |
| or HIST 1493 | United States, 1865 to the Present |  |
| The following are hours): | satisfied in Musicology requirements (9 | 0 |


| MUSC 2313 | Ancient Times to 1700 (Core IV) |
| :--- | :--- |
| MUSC 2323 | Late Baroque Through Romantic Period <br> (Core IV) |
|  |  |

MUSC 3333 Post-Romantic Period to the Present (Core IV)

## World Culture

Choose one course (upper-division) ..... 3
Core Area V: First-Year ExperienceChoose one course3
Free Electives
Choose 1 hour ${ }^{2}$ ..... 147-53
${ }^{1}$ MATH 1473 is recommended.
2 MUTH 3783 is recommended.

## Suggested Semester Plan of Study

At least 24 hours of upper-division Music credit must be earned in residence as a declared major.

A grade of C or better is required in all courses taken within the School of Music. Unless otherwise stated on the degree sheet, the College of Fine Arts does not permit coursework to fulfill more than one degree requirement.

Degree Completion Responsibility: Although the Dean's Office checks each student's records, the responsibility for meeting degree requirements lies with the student and not with the advisor or the Dean. Each student should obtain a copy of the requirements for graduation and check it regularly as they complete their degree program.

## Freshman

| First Semester |  | Credit <br> Hours |
| :--- | :--- | ---: |
| VOIC 2020 | Voice for Music Majors: Freshman/ | 2 |
|  | Sophomore | 1 |
| MUTE 1311 | Group Piano I | 1 |
| MUTE Choral Ensemble | 0 |  |
| MUTE 1000 | Freshman/Transfer Music Orientation | 2 |
| MUTE 1282 | Italian and English Lyric Diction | 2 |
| MUTH 1512 | Musical Structures I | 2 |
| MUTH 1612 | Aural Skills I | 3 |
| ENGL 1113 | Principles of English Composition (Core I) | 5 |
| ITAL 1115 | Beginning Italian I | $\mathbf{1 8}$ |
|  | Credit Hours |  |

## Second Semester

VOIC $2020 \quad$ Voice for Music Majors: Freshman/ 2
MUTE 1321 Group Piano II 1
MUTH 1522 Musical Structures II (Core IV) ..... 2
MUTH 1622 Aural Skills II ..... 2
MUTE Choral Ensemble ..... 1
MUTE 1010 Recital Attendance ..... 0
MUSC 1312 Music in Culture (Core IV) ..... 2
ENGL 1213 Principles of English Composition (Core I) ..... 3
or EXPO 1213 or Expository Writing
MATH (Core I)3

| First-Year Experience (Core V) |  | 3 |
| :---: | :---: | :---: |
|  | Credit Hours | 19 |
| Sophomore |  |  |
| First Semester |  |  |
| VOIC 2020 | Voice for Music Majors: Freshman/ Sophomore | 2 |
| MUTE 2311 | Group Piano III | 1 |
| MUTH 2512 | Musical Structures III (Core IV) | 2 |
| MUTH 2612 | Aural Skills III | 2 |
| MUTE Choral Ensemble |  | 1 |
| MUTE 1010 | Recital Attendance | 0 |
| MUTE 3212 | German Lyric Diction | 2 |
| MUSC 2313 | Ancient Times to 1700 (Core IV) | 3 |
| GERM 1115 | Beginning German | 5 |
|  | Credit Hours | 18 |
| Second Semester |  |  |
| VOIC 2020 | Voice for Music Majors: Freshman/ Sophomore | 2 |
| MUTE 2321 | Group Piano IV | 1 |
| MUTH 2522 | 20th- and 21 st-Century Musical Structures | 2 |
| MUTH 2622 |  | 2 |
| MUTE Choral Ensemble |  | 1 |
| MUTE 1010 | Recital Attendance | 0 |
| MUTE 2000 | Sophomore Barrier | 0 |
| MUTE 3202 | French Lyric Diction | 2 |
| MUSC 2323 | Late Baroque Through Romantic Period (Core IV) | 3 |
| FR 1115 | Beginning French | 5 |
|  | Credit Hours | 18 |
| Junior |  |  |
| First Semester |  |  |
| VOIC 4020 | Voice for Music Majors: Junior/Senior | 2 |
| PIAN 4000 | Junior and/or Senior Secondary Piano | 1 |
| MUTE Choral Ensemble (3000-4000 level) |  | 1 |
| MUTE 3262 | Choral Conducting I | 2 |
| MUSC 3333 | Post-Romantic Period to the Present (Core IV) | 3 |
| Social Science (Core III) |  | 3 |
| Choose one of the following: |  | 2 |
| MUTE 3190 | Opera/Music Theatre |  |
| MUTE 4290 | Opera Production |  |
| MUTE 4382 | Acting for Opera I |  |
| MUTE 4392 | Acting for Opera II |  |
|  | Credit Hours | 14 |
| Second Semester |  |  |
| VOIC 4020 | Voice for Music Majors: Junior/Senior | 2 |
| PIAN 4000 | Junior and/or Senior Secondary Piano | 1 |
| MUTE Choral Ensemble (3000-4000 level) |  | 1 |
| JRRE 3021 | Junior Recital | 1 |
| MUTE 4312 | Voice Science and Vocal Pedagogy | 2 |
| Natural Science (Core II) |  | 4 |
| World Culture-Upper-Division (Core IV) |  | 3 |
|  | Credit Hours | 14 |


| Senior |  |  |
| :---: | :---: | :---: |
| First Semester |  |  |
| VOIC 4020 | Voice for Music Majors: Junior/Senior | 2 |
| PIAN 4000 | Junior and/or Senior Secondary Piano | 1 |
| MUTE Choral Ensemble (3000-4000 level) |  | 1 |
| MUTE 4512 | Professional Preparation and Capstone Project | 2 |
| HIST 1483 or HIST 1493 | United States to 1865 (Core IV) or United States, 1865 to the Present | 3 |
| Natural Science (Core II) |  | 3-4 |
| Advised Music Electives |  | 1 |
| Credit Hours |  | 13-14 |
| Second Semester |  |  |
| VOIC 4020 | Voice for Music Majors: Junior/Senior | 2 |
| PIAN 4000 | Junior and/or Senior Secondary Piano | 1 |
| MUTE Choral Ensemble (3000-4000 level) |  | 1 |
| MULI 4543 | Introduction to Vocal Literature | 3 |
| SRRE 4021 | Senior Recital | 1 |
| P SC 1113 | American Federal Government (Core III) | 3 |
| Free Electives |  | 1 |
|  | Credit Hours | 12 |
| Total Credit Hours |  | 126-127 |
| 1 MATH 1473 is recommended. |  |  |
| Wind/Percussion/String: Brass \& |  |  |
| Percussio | n, B.MuS. |  |

## Minimum Total Credit Hours: 124-135

Major Hours: 86
Minimum Upper-Division Hours: 40
Upper-Division Hours Within Major: 24

Overall GPA - Combined and OU: 2.50
Program Code: B735 P072

## This program has changes pending Regents approval for 2024-25. These pending changes are not reflected here.

## Major Requirements

A grade of C or better is required in all courses taken within the School of Music. Audition is required for admission to the degree program.

## Major Area

| CodeTitle <br>  <br> XXXX 2020, Applied Lesson | Credit <br> Hours |
| :--- | ---: |
| MUTE 2000 $\quad$ Sophomore Barrier | 12 |
| XXXX 4020, Applied Lesson |  |



1 A passing grade in MUTE 2000 Sophomore Barrier is required for admission to upper- division applied study.
2 Major performance organizations are as follows: Campus Band, University Marching Band, Wind Symphony, Symphony Band, and University Orchestra. Enrollment required each semester for students enrolled in 12 or more hours; may be taken for 0 or 1 credit hour.

## Music Support

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Music Theory |  | 2 |
| MUTH 1512 | Musical Structures I | 2 |
| MUTH 1612 | Aural Skills I | 2 |
| MUTH 1522 | Musical Structures II | 2 |
| MUTH 1622 | Aural Skills II | 2 |
| MUTH 2512 | Musical Structures III (Core IV) | 2 |
| MUTH 2612 | Aural Skills III | 2 |
| MUTH 2522 | 20th- and 21st-Century Musical Structures | 2 |
| MUTH 2622 |  | 3 |

Musicology and Music Literature

| MUSC 1312 | Music in Culture (Core IV) | 2 |
| :--- | :--- | :--- |
| MUSC 2313 | Ancient Times to 1700 (Core IV) | 3 |
| MUSC 2323 | Late Baroque Through Romantic Period <br> (Core IV) | 3 |
| MUSC 3333 | Post-Romantic Period to the Present (Core <br>  <br>  <br> IV) | 3 |


| Additional Requirements |  |  |
| :--- | :--- | :--- |
| MUTH/MUSC/MUTK Elective | 3 |  |
| MUTE 1311 | Group Piano I $^{1}$ | 1 |
| MUTE 1321 | Group Piano II $^{1}$ | 1 |
| MUTE 2311 | Group Piano III $^{1}$ | 1 |
| MUTE 2321 | Group Piano IV $^{1}$ | 1 |
| MUTE 3242 | Instrumental Conducting I $^{\text {MUTE 4512 }}$ | Professional Preparation and Capstone $^{\text {MUroject }}$ |
| Advised Music Electives ${ }^{2}$ | 2 |  |
| Total Credit Hours | $\mathbf{2}$ |  |

1 Students who have prior piano background may be eligible for the proficiency exam for one or more of the group piano courses. These hours then become free electives. Or, the student may elect to receive
advanced standing credit for the group piano course(s). See the Coordinator for Group Piano for information.
2 No more than a total of four (4) hours of applied lessons and major performance ensembles may be applied to Advised Music Electives.

Note: A minimum of 40 upper-division hours is required for the degree. Students should utilize Free Electives and Advised Music Electives to reach this total.

## General Education and College Requirements

Courses used to fulfill General Education and/or major requirements may not fulfill electives. Some courses which fulfill the General Education requirements are listed in other areas on this sheet and are indicated by the appropriate Core numbers. Unless otherwise stated on the degree sheet, the College of Fine Arts does not permit coursework to fulfill more than one degree requirement.

Courses designated as Core I, II, III, IV, or V are part of the General Education curriculum. Students must complete a minimum of 40 hours of General Education courses, chosen from the approved list, including at least one upper-division Gen. Ed. course outside of the student's major. Courses graded S/U or P/NP will not apply.

\section*{UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS <br> | Code $\quad$ Title | Credit |
| :--- | :--- |
|  | Hours |}

Core Area I: Symbolic and Oral Communication
English Composition
ENGL 1113 Principles of English Composition 3
ENGL 1213 Principles of English Composition 3
or EXPO 1213 Expository Writing
Language
This requirement is not mandatory if the student successfully 0-10
completed 2 years of the same foreign language in high
school - 2 courses (Core I)
Mathematics
Choose one course (Core I) ${ }^{1} 3$
Core Area II: Natural Science
Choose two courses from different disciplines; one must 7-8
include a laboratory
Core Area III: Social Science
P SC 1113 American Federal Government 3
Choose one course 3
Core Area IV: Arts and Humanities
Artistic Forms
The following are satisfied in Musicology and Music Theory 0 requirements (4 hours)
MUSC 1312 Music in Culture
MUTH 2512 Musical Structures III
Western Culture
HIST $1483 \quad$ United States to 1865
or HIST 1493 United States, 1865 to the Present
The following are satisfied in Musicology requirements (9 0
hours):
MUSC 2313 Ancient Times to 1700 (Core IV)

| MUSC 2323 | Late Baroque Through Romantic Period <br> (Core IV) |
| :--- | :--- |
| MUSC 3333 | Post-Romantic Period to the Present (Core <br> IV) |
|  |  |

## World Culture

Choose one course (upper-division) 3
Core Area V: First-Year Experience
Choose one course

| Free Electives |  |
| :--- | :--- |
| Choose 7 hours | 7 |
| Totar |  |

Total Credit Hours
38-49
${ }^{1}$ MATH 1473 is recommended.

Note: A minimum of 40 upper-division hours is required for the degree. Students should utilize Free Electives and Advised Music Electives to reach this total.

## Suggested Semester Plan of Study

At least 24 hours of upper-division Music credit must be earned in residence as a declared major.

A grade of $C$ or better is required in all courses taken within the School of Music. This plan includes 8 hours of MUTE 2271/2280/4271/4280, Chamber Music/Studio Ensemble, of which only 4 hours are required. Additional 4 hours apply towards Advised Music Electives.

Degree Completion Responsibility: Although the Dean's Office checks each student's records, the responsibility for meeting degree requirements lies with the student and not with the advisor or the Dean. Each student should obtain a copy of the requirements for graduation and check it regularly as they complete their degree program.

| Freshman |  |  |
| :--- | :--- | ---: |
| First Semester | Credit |  |
|  |  | Hours |
| XXXX 2020, Applied Lessons | 3 |  |
| MUTE 1311 | Group Piano I | 1 |
| MUTH 1512 | Musical Structures I | 2 |
| MUTH 1612 | Aural Skills I | 2 |
| MUTE Ensemble |  | 1 |
| MUTE 2271 | Chamber Music | 1 |
| or MUTE 2280 | or Studio Ensemble | 0 |
| MUTE 1000 | Freshman/Transfer Music Orientation | 3 |
| ENGL 1113 | Principles of English Composition (Core I) | 3 |
| MATH (Core I) |  | $\mathbf{1 6}$ |

## Second Semester

XXXX 2020, Applied Lessons 3
MUTE $1321 \quad$ Group Piano II 1

| MUTH 1522 | Musical Structures II (Core IV) | 2 |
| :--- | :--- | :--- |
| MUTH 1622 | Aural Skills II |  |


| MUTE Ensemble | 2 |
| :--- | :--- |
| MUral Skilis il | 1 |

MUTE 2271 Chamber Music 1
or MUTE 2280 or Studio Ensemble
MUTE 1010 Recital Attendance 0

| MUSC 1312 | Music in Culture (Core IV) | 2 |
| :---: | :---: | :---: |
| ENGL 1213 or EXPO 1213 | Principles of English Composition (Core I) or Expository Writing | 3 |
| First-Year Experience (Core V) |  | 3 |
|  | Credit Hours | 18 |
| Sophomore |  |  |
| First Semester |  |  |
| XXXX 2020, Applied Lessons |  | 3 |
| MUTE 2311 | Group Piano III | 1 |
| MUTH 2512 | Musical Structures III (Core IV) | 2 |
| MUTH 2612 | Aural Skills III | 2 |
| MUTE Ensemble |  | 1 |
| MUTE 2271 or MUTE 2280 | Chamber Music or Studio Ensemble | 1 |
| MUTE 1010 | Recital Attendance | 0 |
| MUSC 2313 | Ancient Times to 1700 (Core IV) | 3 |
| Natural Science (Core II) |  | 3-4 |
|  | Credit Hours | -17 |

Second Semester
XXXX 2020, Applied Lessons ..... 3
MUTE 2321 Group Piano IV ..... 1
MUTH 2522 20th- and 21st-Century Musical Structures ..... 2
MUTH 2622 ..... 2
MUTE Ensemble ..... 1
MUTE 2271 Chamber Music ..... 1
MUTE 1010 Recital Attendance 0
MUTE 2000 Sophomore Barrier 0
MUSC 2323 Late Baroque Through Romantic Period 3

| Natural Science (Core II) | 4 |
| :---: | ---: |
| Credit Hours | 17 |

## Junior

## First Semester

XXXX 4020, Applied Lessons ..... 3
MUTE Ensemble (3000-4000 level) ..... 1
MUTE 4271 Chamber Music ..... 1
or MUTE 4280 or Studio Ensemble
MUSC 3333 Post-Romantic Period to the Present (Core 3IV)
MUTE 3242 Instrumental Conducting I ..... 2
HIST 1483 United States to 1865 (Core IV) ..... 3
or HIST 1493 or United States, 1865 to the Present
Free Elective ..... 2Second Semester
XXXX 4020, Applied Lessons ..... 3
MUTH $3783 \quad$ Forms and Analysis ..... 3
MUTE Ensemble (3000-4000 level) ..... 1
MUTE 4271 Chamber Music
or MUTE 4280 or Studio Ensemble
JRRE 3021 Junior Recital ..... 1

| Free Elective | 2 |
| :---: | :---: |
| Credit Hours | 14 |
| Senior |  |
| First Semester |  |
| XXXX 4020, Applied Lessons | 3 |
| MUTH/MUSC/MUTK Elective | 3 |
| MUTE Ensemble (3000-4000 level) | 1 |
| $\begin{array}{ll}\text { MUTE } 4271 & \text { Chamber Music } \\ \text { or MUTE } 4280 & \text { or Studio Ensemble }\end{array}$ | 1 |
| $\begin{array}{ll}\text { MUTE } 4512 & \begin{array}{l}\text { Professional Preparation and Capstone } \\ \text { Project }\end{array}\end{array}$ | 2 |
| World Culture-Upper-Division (Core IV) | 3 |
| Language (Core I) | 0-5 |
| Advised Music Electives | 1 |
| Credit Hours | 14-19 |

Second Semester
XXXX 4020, Applied Lessons
MUTE Ensemble (3000-4000 level) 1

| MUTE 4271 <br> or MUTE 4280 | Chamber Music <br> or Studio Ensemble | 1 |
| :--- | :--- | :--- |
| SRRE 4021 | Senior Recital | 1 |

Social Science (Core III) 3
Advised Music Elective 2
Language (Core I) 0-5

Free Electives 3

| Credit Hours | $14-19$ |
| :--- | ---: |
| Total Credit Hours | $124-135$ |

${ }^{1}$ MATH 1473 is recommended.

## Wind/Percussion/String: Harp, B.Mus.

Minimum Total Credit Hours: 124-135
Major Hours: 87
Minimum Upper-Division Hours: 40
Upper-Division Hours Within Major. 24
Overall GPA - Combined and OU: 2.50
Program Code: B735 P306

## This program has changes pending Regents approval for 2024-25. These pending changes are not reflected here.

Major Requirements
A grade of $C$ or better is required in all courses taken within the School of Music. Audition is required for admission to the degree program.

## Major Area

| Code Title | Credit |
| :--- | :--- |
|  | Hours |

Choose 12 hours in each of the following:
24
HARP 2020 Harp for Music Majors: Freshman/ Sophomore

HARP 4020 Harp for Music Majors: Junior/Senior ${ }^{1}$

MUTE $2311 \quad$ Group Piano III $^{1} 1$
MUTE $2321 \quad$ Group Piano IV $^{1} 1$
MUTE 3242 Instrumental Conducting I 2

MUTE XXXX, Major Performance Ensemble ${ }^{2} 4$
MUTE 2000 Sophomore Barrier ${ }^{1} 0$
MUTE XXXX, Major Performance Ensemble (3000-4000) ${ }^{2} 4$
Choose 4 hours in each of the following: ${ }^{3} 8$

| MUTE 2271 | Chamber Music (Harp) |  |
| :--- | :--- | ---: |
| MUTE 4271 | Chamber Music (Harp) |  |
| MUTE 1000 | Freshman/Transfer Music Orientation (1 <br> semester) | 0 |
| MUTE 1010 | Recital Attendance (3 semesters) | 0 |
| MUED 4762 | String Pedagogy | 2 |
| MULI 4612 | Harp Orchestral Literature | 2 |
| JRRE 3021 | Junior Recital | 1 |
| SRRE 4021 | Senior Recital | $\mathbf{1}$ |
| Total Credit Hours | $\mathbf{4 6}$ |  |

0

$$
4
$$

$$
8
$$

$$
0
$$

1 A passing grade in MUTE 2000 Sophomore Barrier is required for admission to upper-division applied study.
2 Major performance organizations are as follows: Campus Band, Wind Symphony, Symphony Band, University Orchestra. Enrollment required each semester for students enrolled in 12 or more hours; may be taken for 0 or 1 credit hour once degree requirements have been satisfied.
${ }^{3} 4$ semesters may be MUTE 2271 or MUTE 4271, Chamber MusicStrings.

## Music Support

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Music Theory |  |  |
| MUTH 1512 | Musical Structures I | 2 |
| MUTH 1612 | Aural Skills I | 2 |
| MUTH 1522 | Musical Structures II | 2 |
| MUTH 1622 | Aural Skills II | 2 |
| MUTH 2512 | Musical Structures III (Core IV) | 2 |
| MUTH 2612 | Aural Skills III | 2 |
| MUTH 2522 | 20th- and 21 st-Century Musical Structures | 2 |
| MUTH 2622 |  | 2 |
| MUTH 3783 | Forms and Analysis | 3 |

Musicology and Music Literature
MUSC 1312 Music in Culture (Core IV) 2
MUSC 2313 Ancient Times to 1700 (Core IV) 3
MUSC 2323 Late Baroque Through Romantic Period 3
(Core IV)
MUSC 3333 Post-Romantic Period to the Present (Core 3
IV)

## Additional Requirements

MUTH/MUSC/MUTK Elective 3

| MUTE 1311 | Group Piano I $^{1}$ | 3 |
| :--- | :--- | :--- |

MUTE $1321 \quad$ Group Piano II $^{1} \quad 1$022

Total Credit Hours 46
.


Music TheoryMUTH 1522 Musical Structures II 2

MUTH 2512 Musical Structures III (Core IV) 2
MUTH 2612 Aural Skills III 2
MUTH 2622 2
MUTH 3783 Forms and Analysis 3







| MUTE 4512 | Professional Preparation and Capstone <br> Project | 2 |
| :--- | :--- | :--- |

## Total Credit Hours

${ }^{1}$ Students who have prior piano background may be eligible for the proficiency exam for one or more of the group piano courses. These hours then become free electives. Or, the student may elect to receive advanced standing credit for the group piano course(s). See the Coordinator for Group Piano for information.

## General Education \& Other Requirements

Courses used to fulfill General Education and/or major requirements may not fulfill electives. Some courses which fulfill the General Education requirements are listed in other areas on this sheet and are indicated by the appropriate Core numbers. Unless otherwise stated on the degree sheet, the College of Fine Arts does not permit coursework to fulfill more than one degree requirement.

Courses designated as Core I, II, III, IV, or V are part of the General Education curriculum. Students must complete a minimum of 40 hours of General Education courses, chosen from the approved list, including at least one upper-division Gen. Ed. course outside of the student's major. Courses graded S/U or P/NP will not apply.

## UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS

| Code | Title | Credit |
| :--- | :--- | :--- |
|  | Hours |  |

## Core Area I: Symbolic and Oral Communication

| English Composition | 3 |  |
| :--- | :--- | :--- |
| ENGL 1113 | Principles of English Composition | 3 |

or EXPO 1213 Expository Writing

## Language

| This requirement is not mandatory if the student successfully | $0-10$ |
| :--- | :---: |
| completed 2 years of the same language in high school -2 |  |

## Mathematics

Choose one course (Core I) $^{1} 3$
Core Area II: Natural Science
Choose two courses from different disciplines; one must
include a laboratory
Core Area III: Social Science
P SC 1113 American Federal Government 3

Choose one course

## Core Area IV: Arts and Humanities

## Artistic Forms

The following are satisfied in Musicology and Music Theory 0
requirements (4 hours)

| MUSC 1312 | Music in Culture |  |
| :---: | :---: | :---: |
| MUTH 2512 | Musical Structures III |  |
| Western Culture |  |  |
| HIST 1483 or HIST 1493 | United States to 1865 <br> United States, 1865 to the Present | 3 |
| The following ar | atisfied in Musicology requirements (9 | 0 |

The following are satisfied in Musicology requirements (9


## Suggested Semester Plan of Study

At least 24 hours of upper-division Music credit must be earned in residence as a declared major.

A grade of $C$ or better is required in all courses taken within the School of Music.

Degree Completion Responsibility: Although the Dean's Office checks each student's records, the responsibility for meeting degree requirements lies with the student and not with the advisor or the Dean. Each student should obtain a copy of the requirements for graduation and check it regularly as they complete their degree program.

## Freshman

| First Semester |  | Credit <br> Hours |
| :--- | :--- | ---: |
| HARP 2020 | Harp for Music Majors: Freshman/ <br> Sophomore | 3 |
| MUTE 1311 | Group Piano I | 1 |
| MUTH 1512 | Musical Structures I | 2 |
| MUTH 1612 | Aural Skills I | 2 |
| MUTE Ensemble |  | 1 |
| MUTE 2271 | Chamber Music (Harp) | 1 |
| MUTE 1000 | Freshman/Transfer Music Orientation | 0 |
| ENGL 1113 | Principles of English Composition (Core I) | 3 |
| MATH (Core I) |  | 3 |
|  | Credit Hours | 16 |
| Second Semester |  | 2 |
| HARP 2020 | Harp for Music Majors: Freshman/ |  |
| MUTE 1321 | Gophomore | 3 |
| MUTH 1522 | Musical Structures II (Core IV) | 1 |
| MUTH 1622 | Aural Skills II | 2 |
| MUTE Ensemble |  | 2 |
| MUTE 2271 | Chamber Music (Harp) | 1 |
| MUTE 1010 | Recital Attendance | 1 |
| MUSC 1312 | Music in Culture (Core IV) | 0 |



| For Strings (p. 1537) |  |  |
| :--- | :--- | :--- |
| For Guitar (p. 1537) |  |  |
| Additional Requirements |  |  |
| MUTE 1000 | Freshman/Transfer Music Orientation (1 <br> semester) | 0 |
| MUTE 1010 | Recital Attendance (3 semesters) | 0 |
| JRRE 3021 | Junior Recital | 1 |
| SRRE 4021 | Senior Recital | 1 |
| Total Credit Hours | 38 |  |

1 A passing grade in MUTE 2000 Sophomore Barrier is required for admission to upper-division applied study.

## Music Support

| Code | Title | Credit <br> Hours |
| :--- | :--- | :--- |
| Music Theory |  |  |
| MUTH 1512 | Musical Structures I | 2 |
| MUTH 1612 | Aural Skills I | 2 |
| MUTH 1522 | Musical Structures II | 2 |
| MUTH 1622 | Aural Skills II | 2 |
| MUTH 2512 | Musical Structures III (Core IV) | 2 |
| MUTH 2612 | Aural Skills III | 2 |
| MUTH 2522 | 20th- and 21st-Century Musical Structures | 2 |
| MUTH 2622 |  | 2 |
| MUTH 3783 | Forms and Analysis | 3 |
| Musicology and Music Literature | 2 |  |
| MUSC 1312 | Music in Culture (Core IV) | 3 |
| MUSC 2313 | Ancient Times to 1700 (Core IV) | 3 |
| MUSC 2323 | Late Baroque Through Romantic Period | 3 |
| MUSC 3333 | (Core IV) | Post-Romantic Period to the Present (Core |

## Additional Requirements

| Choose 3 h | MUTH/MUSC/MUTK Electives | 3 |
| :---: | :---: | :---: |
| MUTE 1311 | Group Piano ${ }^{1}$ | 1 |
| MUTE 1321 | Group Piano II ${ }^{1}$ | 1 |
| MUTE 2311 | Group Piano III ${ }^{1}$ | 1 |
| MUTE 2321 | Group Piano IV ${ }^{1}$ | 1 |
| MUTE 3242 | Instrumental Conducting I | 2 |
| MUTE 4512 | Professional Preparation and Capstone Project | 2 |
| Choose 7 ho | Advised Music Electives ${ }^{2}$ | 7 |


| Total Credit Hours | 48 |
| :--- | :--- |

1 Students who have prior piano background may be eligible for the proficiency exam for one or more of the group piano courses. These hours then become free electives. Or, the student may elect to receive advanced standing credit for the group piano course(s). See the Coordinator for Group Piano for information.
2 No more than a total of four (4) hours of applied lessons and major performance ensembles may be applied to Advised Music Electives.

## Strings

| Code | Title | Credit |
| :---: | :---: | :---: |
|  |  | Hours |
| MUTE XXXX, Majo | r Performance Ensemble ${ }^{1}$ | 4 |
| MUTE XXXX, Majo | Performance Ensemble (3000-4000) ${ }^{1}$ | 4 |
| MUTE 2271 | Chamber Music | 4 |
| or MUTE 4271 | Chamber Music |  |


| Total Credit Hours | 12 |
| :--- | :--- |

1 Major performance organizations are as follows: Campus Band, University Marching Band, Wind Symphony, Symphony Band, University Orchestra, University Chorale, Men's Glee Club, and Women's Chorus. Enrollment required each semester for students enrolled in 12 or more hours; may be taken for 0 or 1 credit hour once degree requirements have been satisfied.

## Guitar

| Code | Title | Credit |
| :--- | ---: | ---: |
|  | Hours |  |

1 Major performance organizations are as follows: Campus Band, University Marching Band, Wind Symphony, Symphony Band, University Orchestra, University Chorale, Men's Glee Club, and Women's Chorus. Enrollment required each semester for students enrolled in 12 or more hours; may be taken for 0 or 1 credit hour once degree requirements have been satisfied.

## General Education \& Other Requirements

Courses used to fulfill General Education and/or major requirements may not fulfill electives. Some courses which fulfill the General Education requirements are listed in other areas on this sheet and are indicated by the appropriate Core numbers.

Courses designated as Core I, II, III, IV, or V are part of the General Education curriculum. Students must complete a minimum of 40 hours of General Education courses, chosen from the approved list, including at least one upper-division Gen. Ed. course outside of the student's major.
Courses graded S/U or P/NP will not apply.
UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS
Code Title Credit

Core Area I: Symbolic and Oral Communication
English Composition
ENGL 1113 Principles of English Composition 3
ENGL 1213 Principles of English Composition 3
or EXPO 1213 Expository Writing
Language


| Junior |  |  |
| :---: | :---: | :---: |
| First Semester |  |  |
| XXXX 4020, Applied Lessons |  | 3 |
| MUTE Ensemble (3000-4000 level, Strings and Guitar) |  | 1 |
| MUTE 4271 | Chamber Music (Guitar) or Advised Music Elective (Strings) | 1 |
| MUSC 3333 | Post-Romantic Period to the Present (Core IV) | 3 |
| MUTE 3242 | Instrumental Conducting I | 2 |
| HIST 1483 or HIST 1493 | United States to 1865 (Core IV) or United States, 1865 to the Present | 3 |
|  | Credit Hours | 13 |
| Second Semester |  |  |
| XXXX 4020, Applied Lessons |  | 3 |
| MUTH 3783 | Forms and Analysis | 3 |
| MUTE Ensemble (3000-4000 level, Strings and Guitar) |  | 1 |
| MUTE 4271 | Chamber Music (Guitar) or Advised Music Elective (Strings) | 1 |
| JRRE 3021 | Junior Recital | 1 |
| P SC 1113 | American Federal Government (Core III) | 3 |
| Free Electives |  | 3-4 |
|  | Credit Hours | 5-16 |


| Senior |  |  |
| :---: | :---: | :---: |
| First Semester |  |  |
| XXXX 4020, Applied Lessons |  | 3 |
| MUTH/MUSC/MUTK Elective |  | 3 |
| MUTE Ensemble (3000-4000 level, Strings) or Advised Music Elective (Guitar) |  | 1 |
| MUTE 4271 | Chamber Music (Guitar) or Advised Music Elective (Strings) | 1 |
| MUTE 4512 | Professional Preparation and Capstone Project | 2 |
| World Culture-Upper-Division (Core IV) |  | 3 |
| Language (Core I) |  | 0-5 |
| Free Electives |  | 3 |
|  | Credit Hours | 6-21 |

Second Semester
XXXX 4020, Applied Lessons
MUTE Ensemble (3000-4000 level, Strings) or Advised Music 1

| Elective (Guitar) |  |
| :--- | :--- | :--- |
| MUTE 4271 |  |


|  | Elective (Strings) | 1 |
| :--- | :--- | :--- |

Social Science (Core III) 3
Language (Core I) 0-5

Advised Music Electives 4

| Credit Hours | $13-18$ |
| :--- | ---: |
| Total Credit Hours | $124-135$ |

[^51]Wind/Percussion/String: Woodwinds,

## B.Mus.

Minimum Total Credit Hours: 124-135
Major Hours: 86
Minimum Upper-Division Hours: 40
Upper-Division Hours Within Major. 24

Overall GPA - Combined and OU: 2.50
Program Code: B735 P683

## This program has changes pending Regents approval for 2024-25. These pending changes are not reflected here. <br> Major Requirements

A grade of C or better is required in all courses taken within the School of Music. Audition is required for admission to the degree program.

## Major Area

Code Title Credit

XXXX 2020, Applied Lesson

Hours

MUTE 2000 Sophomore Barrier ${ }^{1} 0$
XXXX 4020, Applied Lesson ${ }^{1} 12$
MUTE XXXX, Major Performance Ensemble ${ }^{2} 4$
MUTE XXXX, Major Performance Ensemble (3000-4000) ${ }^{2} 4$
Choose 4 hours in one of the following: 4
MUTE 2271 Chamber Music
or MUTE 427Chamber Music

| MUTE 1000 | Freshman/Transfer Music Orientation (1 <br> semester) | 0 |
| :--- | :--- | ---: |
| MUTE 1010 | Recital Attendance (3 semesters) | 0 |
| MUTE 4512 | Professional Preparation and Capstone <br>  <br> Project | 2 |
| JRRE 3021 | Junior Recital | 1 |
| SRRE 4021 | Senior Recital | 1 |
| Total Credit Hours | $\mathbf{4 0}$ |  |

${ }^{1}$ A passing grade in MUTE 2000 Sophomore Barrier is required for admission to upper-division applied study.
2 Major performance organizations are as follows: Campus Band, University Marching Band, Wind Symphony, Symphony Band, and University Orchestra. Enrollment required each semester for students enrolled in 12 or more hours; may be taken for 0 or 1 credit hour once degree requirements have been satisfied.

## Music Support

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Music Theory |  |  |
| MUTH 1512 | Musical Structures I | 2 |
| MUTH 1612 | Aural Skills I | 2 |
| MUTH 1522 | Musical Structures II | 2 |


| MUTH 1622 | Aural Skills II | 2 |
| :--- | :--- | :--- |
| MUTH 2512 | Musical Structures III (Core IV) | 2 |
| MUTH 2612 | Aural Skills III | 2 |
| MUTH 2522 | 20th- and 21st-Century Musical Structures | 2 |
| MUTH 2622 |  | 2 |
| MUTH 3783 | Forms and Analysis | 3 |
| Musicology and Music Literature |  |  |
| MUSC 1312 | Music in Culture (Core IV) | 2 |
| MUSC 2313 | Ancient Times to 1700 (Core IV) | 3 |
| MUSC 2323 | Late Baroque Through Romantic Period <br> (Core IV) | 3 |
| MUSC 3333 | Post-Romantic Period to the Present (Core | 3 |

## Additional Requirements

| Choose 3 hours of MUTH/MUSC/MUTK Electives |  | 3 |
| :---: | :---: | :---: |
| MUTE 1311 | Group Piano ${ }^{1}$ | 1 |
| MUTE 1321 | Group Piano II ${ }^{1}$ | 1 |
| MUTE 2311 | Group Piano III ${ }^{1}$ | 1 |
| MUTE 2321 | Group Piano IV ${ }^{1}$ | 1 |
| MUTE 3242 | Instrumental Conducting I | 2 |
| Choose 7 hours of Advised Music Electives ${ }^{2}$ |  | 7 |

## Total Credit Hours

46${ }^{1}$ Students who have prior piano background may be eligible for the proficiency exam for one or more of the group piano courses. These hours then become free electives. Or, the student may elect to receive advanced standing credit for the group piano course(s). See the Coordinator for Group Piano for information.
${ }^{2}$ No more than a total of four (4) hours of applied lessons and major performance ensembles may be applied to Advised Music Electives.

## General Education and College Requirements

Courses used to fulfill General Education and/or major requirements may not fulfill electives. Some courses which fulfill the General Education requirements are listed in other areas on this sheet and are indicated by the appropriate Core numbers.

Courses designated as Core I, II, III, IV, or V are part of the General Education curriculum. Students must complete a minimum of 40 hours of General Education courses, chosen from the approved list, including at least one upper-division Gen. Ed. course outside of the student's major. Courses graded S/U or P/NP will not apply.

UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS

| Code $\quad$ Title | Credit <br> Hours |  |
| :--- | :--- | ---: |
| Core Area I: Symbolic and Oral Communication |  |  |
| English Composition |  |  |
| ENGL $1113 \quad$ Principles of English Composition | 3 |  |
| ENGL 1213 $\quad$ Principles of English Composition |  |  |
| or EXPO 1213 | Expository Writing |  |
| Language |  |  |
| This requirement is not mandatory if the student successfully <br> completed 2 years of the same language in high school <br> courses (Core I) | $0-10$ |  |


| Mathematics |  |  |
| :---: | :---: | :---: |
| Choose one course (Core I) ${ }^{1}$ |  |  |
| Core Area II: Natural Science |  |  |
| Choose two courses from different disciplines; one must include a laboratory |  |  |
| Core Area III: Social Science |  |  |
| P SC 1113 | American Federal Government | 3 |
| Choose one course |  |  |
| Core Area IV: Art and Humanities |  |  |
| Artistic Forms |  |  |
| The following are satisfied in Musicology and Music Theory requirements (4 hours) |  |  |
| MUSC 1312 Music in Culture |  |  |
| MUTH 2512 Musical Structures III |  |  |
| Western Culture |  |  |
| HIST 1483 or HIST 1493 | United States to 1865 <br> United States, 1865 to the Present | 3 |
| The following are satisfied in Musicology requirements (9 hours): |  |  |
| MUSC 2313 Ancient Times to 1700 (Core IV) |  |  |
| MUSC 2323 | Late Baroque Through Romantic Period (Core IV) |  |
| MUSC 3333 Post-Romantic Period to the Present (Core IV) |  |  |
| World Culture |  |  |
| Choose one course (upper-division) |  |  |
| Core Area V: First-Year Experience |  |  |
| Choose one course |  |  |
| Free Electives |  |  |
| Choose 7 hours 7 |  |  |
| Total Credit Hours 38-49 |  |  |
| ${ }^{1}$ MATH 1473 is recommended. |  |  |
| Suggested Semester Plan of Study |  |  |
| At least $\mathbf{2 4}$ hours of upper-division Music credit must be earned in residence as a declared major. |  |  |
| A grade of $C$ or better is required in all courses taken within the School of Music. Unless otherwise stated on the degree sheet, the College of Fine Arts does not permit coursework to fulfill more than one degree requirement. |  |  |
| Degree Completion Responsibility: Although the Dean's Office checks each student's records, the responsibility for meeting degree requirements lies with the student and not with the advisor or the Dean. Each student should obtain a copy of the requirements for graduation and check it regularly as they complete their degree program. |  |  |
| Freshman |  |  |
| First Semester |  | Credit Hours |
| XXXX 2020, Applied Lessons |  | 3 |
| MUTE 1311 | Group Piano I | 1 |
| MUTE Ensemble |  | 1 |
| MUTE 2271 | Chamber Music | 1 |

World Culture
Choose one course (upper-division) 3

Free Electives

MATH 1473 is recommended.

## Suggested Semester Plan of Study

At least 24 hours of upper-division Music credit must be earned in as a declared major.

A grade of C or better is required in all courses taken within the School of Music. Unless otherwise stated on the degree sheet, the College of Fine Arts does not permit coursework to fulfill more than one degree requirement.

Degree Completion Responsibility: Although the Dean's Office checks each nents records, the responsibility for meeting degree requirements lies with the student and not with the advisor or the Dean. Each student should obtain a copy of the requirements for graduation and check it regularly as they complete their degree program.

FirsMUTE 1311 Group Piano I1MUTE 2271 Chamber Music1

| MUTE 1000 | Freshman/Transfer Music Orientation | 0 |
| :---: | :---: | :---: |
| MUTH 1512 | Musical Structures I | 2 |
| MUTH 1612 | Aural Skills I | 2 |
| ENGL 1113 | Principles of English Composition (Core I) | 3 |
| MATH (Core I) ${ }^{1}$ |  | 3 |
|  | Credit Hours | 16 |
| Second Semester |  |  |
| XXXX 2020, Applied Lessons |  | 3 |
| MUTE 1321 | Group Piano II | 1 |
| MUTH 1522 | Musical Structures II (Core IV) | 2 |
| MUTH 1622 | Aural Skills II | 2 |
| MUTE Ensemble |  | 1 |
| MUTE 2271 | Chamber Music | 1 |
| MUTE 1010 | Recital Attendance | 0 |
| MUSC 1312 | Music in Culture (Core IV) | 2 |
| $\begin{aligned} & \text { ENGL } 1213 \\ & \text { or EXPO } 1213 \end{aligned}$ | Principles of English Composition (Core I) or Expository Writing | 3 |
| First-Year Experience (Core V) |  | 3 |
|  | Credit Hours | 18 |
| Sophomore |  |  |
| First Semester |  |  |
| XXXX 2020, Applied Lessons |  | 3 |
| MUTE 2311 | Group Piano III | 1 |
| MUTH 2512 | Musical Structures III (Core IV) | 2 |
| MUTH 2612 | Aural Skills III | 2 |
| MUTE Ensemble |  | 1 |
| MUTE 2271 | Chamber Music | 1 |
| MUTE 1010 | Recital Attendance | 0 |
| MUSC 2313 | Ancient Times to 1700 (Core IV) | 3 |
| Natural Science (Core II) |  | 3-4 |
|  | Credit Hours | 16-17 |
| Second Semester |  |  |
| XXXX 2020, Applied Lessons |  | 3 |
| MUTE 2321 | Group Piano IV | 1 |
| MUTH 2522 | 20th- and 21 st-Century Musical Structures | 2 |
| MUTH 2622 |  | 2 |
| MUTE Ensemble |  | 1 |
| MUTE 2271 | Chamber Music | 1 |
| MUTE 1010 | Recital Attendance | 0 |
| MUTE 2000 | Sophomore Barrier | 0 |
| MUSC 2323 | Late Baroque Through Romantic Period (Core IV) | 3 |
| Natural Science (Core II) |  | 4 |
|  | Credit Hours | 17 |
| Junior |  |  |
| First Semester |  |  |
| XXXX 4020, Applied Lessons |  | 3 |
| MUTE Ensemble (3000-4000 level) |  | 1 |
| MUTE 4271 | Chamber Music ${ }^{2}$ | 1 |
| MUSC 3333 | Post-Romantic Period to the Present (Core IV) | 3 |
| MUTE 3242 | Instrumental Conducting I | 2 |
| HIST 1483 | United States to 1865 (Core IV) | 3 |


| or HIST 1493 | or United States, 1865 to the Present |  |
| :---: | :---: | :---: |
|  | Credit Hours | 13 |
| Second Semester |  |  |
| XXXX 4020, App | d Lessons | 3 |
| MUTH 3783 | Forms and Analysis | 3 |
| MUTE Ensemb | 3000-4000 level) | 1 |
| MUTE 4271 | Chamber Music ${ }^{2}$ | 1 |
| JRRE 3021 | Junior Recital | 1 |
| P SC 1113 | American Federal Government (Core III) | 3 |
| Advised Music | ctives | 2 |
|  | Credit Hours | 14 |
| Senior |  |  |
| First Semester |  |  |
| XXXX 4020, App | d Lessons | 3 |
| MUTH/MUSC/M | TK Elective | 3 |
| MUTE Ensemble | 3000-4000 level) | 1 |
| MUTE 4271 | Chamber Music ${ }^{2}$ | 1 |
| MUTE 4512 | Professional Preparation and Capstone Project | 2 |
| World Culture-U | per-Division (Core IV) | 3 |
| Advised Music | ctives | 1 |
| Language (Core |  | 0-5 |
|  | Credit Hours | 14-19 |
| Second Semester |  |  |
| XXXX 4020, App | d Lessons | 3 |
| MUTE Ensemble | 3000-4000 level) | 1 |
| MUTE 4271 | Chamber Music ${ }^{2}$ | 1 |
| SRRE 4021 | Senior Recital | 1 |
| Social Science | ore III) | 3 |
| Language (Core |  | 0-5 |
| Free Electives |  | 7 |
|  | Credit Hours | 16-21 |
|  | Total Credit Hours | 124-135 |
| ${ }^{1}$ MATH 1473 is recommended. <br> 2 This plan includes 8 hours of Chamber Music, of which only four are required for the degree. Electives may be chosen in place of the additional 4 hours. |  |  |
|  |  |  |
| MUSIC, B. M.A. |  |  |
| Minimum Total Credit Hours: 124-135 |  |  |
| Major Hours: 60 |  |  |
| Minimum Upper-Division Hours: 40 |  |  |
| Upper-Division Hours Within Major. 24 |  |  |
| Overall GPA - Combined and OU: 2.50 |  |  |
| Program Code: B704 |  |  |

## This program has changes pending Regents approval for 2024-25. These pending changes are not reflected here.

## Major Requirements

A grade of $C$ or better is required in all courses taken within the School of Music. Audition is required for admission to the degree program. All coursework must be letter graded; P/NP may not count toward degree.

## Major Area

| Code | Title | Credit |
| :---: | :---: | :---: |
| XXXX 2020, Applied Lesson |  | 8 |
| MUTE 2000 | Sophomore Barrier ${ }^{1}$ | 0 |
| XXXX 4020, Primary Instrument ${ }^{1}$ |  | 4 |
| MUTE XXXX, Major Performance Ensembles ${ }^{2}$ |  | 4 |
| MUTE XXXX, Major Performance Ensembles (3000-4000) ${ }^{3,4}$ |  | 2 |
| MUTE 1000 | Freshman/Transfer Music Orientation (1 semester) | 0 |
| MUTE 1010 | Recital Attendance (3 semesters) | 0 |
| SRRE 4021 | Senior Recital (Core V) | 1 |
| Total Credit Hours |  | 19 |

${ }^{1}$ A passing grade in MUTE 2000 Sophomore Barrier is required for admission to upper-division applied study.
${ }^{2}$ Major performance ensembles on the primary instrument/voice are as follows: Campus Band, University Marching Band, Wind Symphony, Symphony Band, University Orchestra, University Chorale, Men's Glee Club, and Women's Chorus.
${ }^{3}$ At least 4 of the 6 hours must be taken from major performing ensembles.
${ }^{4}$ BMA piano majors must take MUTE 3110 as a small ensemble experience for two semesters in the third and fourth year of piano major study.

## Music Support

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Music Theory |  | 2 |
| MUTH 1512 | Musical Structures I | 2 |
| MUTH 1612 | Aural Skills I | 2 |
| MUTH 1522 | Musical Structures II | 2 |
| MUTH 1622 | Aural Skills II | 2 |
| MUTH 2512 | Musical Structures III (Core IV) | 2 |
| MUTH 2612 | Aural Skills III | 2 |
| MUTH 2522 | 20th- and 21st-Century Musical Structures | 2 |
| MUTH 2622 |  |  |
| Musicology and |  |  |
| MusC 1312 | Music Literature | 2 |
| MUSC 2313 Culture (Core IV) | Ancient Times to 1700 (Core IV) | 3 |
| MUSC 2323 | Late Baroque Through Romantic Period | 3 |
|  | (Core IV) |  |
| MUSC 3333 | Post-Romantic Period to the Present (Core | 3 |
|  | IV) |  |

[^52]| MUTE 3242 or MUTE 3262 | Instrumental Conducting I Choral Conducting I | 2 |
| :---: | :---: | :---: |
| MUTE 4512 | Professional Preparation and Capstone Project | 2 |
| Choose one of the following groups: ${ }^{1}$ |  | 4 |
| Group Piano: |  |  |
| MUTE 1311 | Group Piano I |  |
| MUTE 1321 | Group Piano II |  |
| MUTE 2311 | Group Piano III |  |
| MUTE 2321 | Group Piano IV |  |
| Functional Piano Skills: |  |  |
| MUTE 1332 | Functional Piano Skills I (piano majors only) |  |
| MUTE 1342 | Functional Piano Skills II (piano majors only) |  |
| Advised Music Electives 3-4000 level |  | 6 |
| Total Credit Hours |  | 41 |
| ${ }^{1}$ Students who have prior piano background may be eligible for the proficiency exam for one or more of the group piano courses. These hours then become free electives. Or, the student may elect to receive advanced standing credit for the group piano course(s). See the Coordinator for Group Piano for information. BMA piano majors must take MUTE 1332 and MUTE 1342, Functional Piano Skills I and II, rather than Group Piano I - IV. |  |  |

## Major Support Requirements

| Code Title | Credit <br> Hours |
| :--- | ---: |
| Secondary Area |  |
| Choose one of the following tracks: | 33 |
| Track 1 Secondary Emphasis in Music: |  |
| Choose 18 hours outside the School of Music |  |
| Choose 15 hours in a focused area of concentration in |  |
| music ${ }^{1}$ |  | | Track 2 Secondary Emphasis outside Music: |
| :--- |
| Choose 24 hours in a focused area of concentration |
| outside the School of Music ${ }^{1}$ |
| Choose 9 hours in any college or department including the |
| School of Music |

Total Credit Hours 33

1 The proposed area of concentration must be approved by the Undergraduate Studies Coordinator for Advising \& Student Academic Performance in the School of Music. If it is an official minor offered by the university, it must be formally declared in the appropriate college advising office.
Recommended to complete at least 2 hours of upper division music electives in order to complete minimum of 24 upper division hours required for the degree.

Note: A minimum of 40 upper-division hours is required for the degree Students should utilize "Secondary Area" to reach this total.

## General Education and College Requirements

Courses used to fulfill General Education and/or major requirements may not fulfill electives. Some courses that fulfill General Education requirements are listed in other areas on this sheet and are indicated by the appropriate Core numbers.

Courses designated as Core I, II, III, IV, or V are part of the General
Education curriculum. Students must complete a minimum of 40 hours
of General Education courses, chosen from the approved list, including at
least one upper-division Gen. Ed. course outside of the student's major.
Courses graded S/U or P/NP will not apply.
UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND
COLLEGE REQUIREMENTS $\quad$ Title Credit
Code Hours

| Core Area I: Symbolic and Oral Communication |  |
| :---: | :---: |
| English Composition |  |
| ENGL 1113 Principles of English Composition (Core I) | 3 |
| ENGL 1213 Principles of English Composition (Core I) or EXPO 1213 Expository Writing | 3 |
| Language |  |
| This requirement is not mandatory if the student successfully completed 2 years of the same language in high school -2 courses (Core I) | 0-10 |

## Mathematics

| Choose one course (Core I) $^{1}$ | 3 |
| :--- | :--- |
| Core Area II: Natural Science |  |


| Choose two courses from different disciplines; one must |  |
| :--- | :--- |
| include a laboratory | $7-8$ |


| Core Area III: Social Science |  |
| :--- | :--- |
| P SC $1113 \quad$ American Federal Government | 3 |
| Choose one course | 3 |

Core Area IV: Arts and Humanities
Artistic Forms
The following are satisfied in Musicology and Music Theory
requirements (4 hours) requirements (4 hours)

| MUSC 1312 | Music in Culture |  |
| :---: | :---: | :---: |
| MUTH 2512 | Musical Structures III |  |
| Western Culture |  |  |
| HIST 1483 or HIST 1493 | United States to 1865 (Core IV) United States, 1865 to the Present | 3 |
| The following are hours): | satisfied in Musicology requirements (9 | 0 |
| MUSC 2313 | Ancient Times to 1700 |  |
| MUSC 2323 | Late Baroque Through Romantic Period |  |
| MUSC 3333 | Post-Romantic Period to the Present |  |
| World Culture |  |  |
| Choose one cour | (upper-division) | 3 |
| Core Area V: First-Year Experience |  |  |
| Choose one cour |  | 3 |

[^53]
## Suggested Semester Plan of Study

At least 24 hours of upper-division Music credit must be earned in residence as a declared major.

A grade of $C$ or better is required in all courses taken within the School of Music. Unless otherwise stated on the degree sheet, the College of Fine Arts does not permit coursework to fulfill more than one degree requirement.

Degree Completion Responsibility: Although the Dean's Office checks each student's records, the responsibility for meeting degree requirements lies with the student and not with the advisor or the Dean. Each student should obtain a copy of the requirements for graduation and check it regularly as they complete their degree program.

## Freshman


Second Semester
XXXX 2020, Applied Lessons

MUTE 1321 Group Piano II 1
MUTH 1522 Musical Structures II (Core IV) 2
MUTH 1622 Aural Skills II 2
MUTE Ensemble 1
MUTE 1010 Recital Attendance 0
MUSC 1312 Music in Culture (Core IV) 2
ENGL 1213 Principles of English Composition (Core I) 3
or EXPO 1213 or Expository Writing
Language (Core I) 0-5

| First-Year Experience (Core V) | 3 |
| :---: | ---: |
| Credit Hours | $\mathbf{1 6 - 2 1}$ |

## Sophomore

First Semester
XXXX 2020, Applied Lessons 2
MUTE $2311 \quad$ Group Piano III 1
MUTH $2512 \quad$ Musical Structures III (Core IV) 2
MUTH 2612 Aural Skills III 2
MUTE Ensemble 1
MUTE 1010 Recital Attendance 0
MUSC 2313 Ancient Times to 1700 (Core IV) 3
Natural Science (Core II) 3-4

| Secondary Emphasis Elective | 3 |
| ---: | ---: |
| Credit Hours | 17-18 |

Second Semester
XXXX 2020, Applied Lessons

| MUTE 2321 | Group Piano IV | 1 |
| :---: | :---: | :---: |
| MUTH 2522 | 20th- and 21 st-Century Musical Structures | 2 |
| MUTH 2622 |  | 2 |
| MUTE Ensemble |  | 1 |
| MUTE 1010 | Recital Attendance | 0 |
| MUTE 2000 | Sophomore Barrier | 0 |
| MUSC 2323 | Late Baroque Through Romantic Period (Core IV) | 3 |
| Natural Science (Core II) |  | 4 |
| Secondary Emphasis Elective |  | 3 |
|  | Credit Hours | 18 |
| Junior |  |  |
| First Semester |  |  |
| XXXX 4020, Applied Lessons |  | 2 |
| MUTE Ensemble (3000-4000 level) |  | 1 |
| MUSC 3333 | Post-Romantic Period to the Present (Core IV) | 3 |
| HIST 1483 or HIST 1493 | United States to 1865 (Core IV) or United States, 1865 to the Present | 3 |
| Secondary Emphasis Elective |  | 6 |
|  | Credit Hours | 15 |
| Second Semester |  |  |
| XXXX 4020, Applied Lessons |  | 2 |
| MUTE Ensemble (3000-4000 level) |  | 1 |
| P SC 1113 | American Federal Government (Core III) | 3 |
| Secondary Emphasis Elective |  | 9 |
|  | Credit Hours | 15 |
| Senior |  |  |
| First Semester |  |  |
| MUTE 3242 or MUTE 3262 | Instrumental Conducting I or Choral Conducting I | 2 |
| MUTE 4512 | Professional Preparation and Capstone Project | 2 |
| Advised Music Electives ${ }^{2}$ |  | 2 |
| Social Science (Core III) |  | 3 |
| Secondary Emphasis Elective |  | 6 |
|  | Credit Hours | 15 |
| Second Semester |  |  |
| SRRE 4021 | Senior Recital | 1 |
| Advised Music Electives ${ }^{2}$ |  | 4 |
| World Culture- (Core IV) |  | 3 |
| Secondary Emphasis Elective |  | 6 |
|  | Credit Hours | 14 |
|  | Total Credit Hours | 135 |

1 MATH 1473 is recommended.
2 APPLIED MUSIC 4020 is suggested.

## Instrumental Music Education, B.M.Ed.

Minimum Total Credit Hours: 126-139
Major Hours: 95-97
Minimum Upper-Division Hours: 40
Upper-Division Hours Within Major. 24

## Overall GPA - Combined and OU: 2.75

## Program Code: B708

## This program has changes pending Regents approval for 2024-25. These pending changes are not reflected here. <br> Major Requirements

A grade of $C$ or better is required in all courses taken within the School of Music. Audition is required for admission to the degree program. All coursework must be letter graded; P/NP may not count toward degree.

Certification: To be fully certified, students must pass Certification Examinations for Oklahoma Educators and apply for a license.

Major Area

| Code | Title | Credit <br> Hours |
| :--- | ---: | ---: |
| XXXX 2020, Primary Instrument ${ }^{1}$ | 8 |  |
| MUTE 2000 | Sophomore Barrier $^{2}$ | 0 |
| XXXX 4020, Primary Instrument ${ }^{1,2}$ | 6 |  |
| MUTE XXXX, Major Performance Ensembles ${ }^{3}$ | 4 |  |
| MUTE XXXX, Major Performance Ensembles (3000-4000) |  |  |

${ }^{1}$ Seven semesters of private study in the primary performance area are required; 7 semesters of 2 hours each. Private study may not be taken during the semester of student teaching.
${ }^{2}$ A passing grade in MUTE 2000 Sophomore Barrier is required for admission to upper-division applied study as a major or principal.
${ }^{3}$ Major performance organization-Seven semesters required with grade of C or better. Campus Band, University Marching Band, Wind Symphony, Symphony Band, University Orchestra, University Chorale, Women's Chorus, or Men's Glee Club. Students whose primary applied area is a wind or percussion instrument must participate in University Marching Band at least 2 semesters and in Campus Band, Symphony Band, or Wind Symphony for 3 semesters. Students whose primary instrument is a string instrument must perform in the University Orchestra at least 5 semesters.
4 A 30-minute recital in the primary applied area, which may be given in the junior or senior year. The recital is not permitted during student teaching.

## Music Support

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Music Theory |  |  |
| MUTH 1512 | Musical Structures I | 2 |
| MUTH 1612 | Aural Skills I | 2 |
| MUTH 1522 | Musical Structures II | 2 |
| MUTH 1622 | Aural Skills II | 2 |


| MUTH 2512 | Musical Structures III (Core IV) | 2 |
| :---: | :---: | :---: |
| MUTH 2612 | Aural Skills III | 2 |
| MUTH 2522 | 20th- and 21 st-Century Musical Structures | 2 |
| MUTH 2622 |  | 2 |
| Musicology and Music Literature |  |  |
| MUSC 1312 | Music in Culture (Core IV) | 2 |
| MUSC 2313 | Ancient Times to 1700 (Core IV) | 3 |
| MUSC 2323 | Late Baroque Through Romantic Period (Core IV) | 3 |
| MUSC 3333 | Post-Romantic Period to the Present (Core IV) | 3 |
| Additional Requirements |  |  |
| MUTE 1311 | Group Piano I ${ }^{1}$ | 1 |
| MUTE 1321 | Group Piano II ${ }^{1}$ | 1 |
| MUTE 2311 | Group Piano III ${ }^{1}$ | 1 |
| MUTE 2321 | Group Piano IV ${ }^{1}$ | 1 |
| MUTE 2211 | Brass Instrument Class | 1 |
| MUTE 2221 | Percussion Instrument Class | 1 |
| MUTE 2241 | Woodwind Instrument Class | 1 |
| MUTE 2251 | Stringed Instrument Class | 1 |
| MUTE 2242 | Bme Instrumental Conducting I | 2 |
| Total Credit |  | 37 |
| Students who have prior piano background may be eligible for the proficiency exam for one or more of the group piano courses. These hours then become free electives. Or, the student may elect to receive advanced standing credit for the group piano course(s). See the Coordinator for Group Piano for information. |  |  |

## Education and Music Education

| Code | Title | Credit <br> Hours |
| :---: | :---: | :---: |
| MUED 1732 | Introduction to Music Education | 2 |
| MUED 1742 | Introduction to Teaching Techniques in Music | 2 |
| MUED 2112 | Instrumental Music Education Methods I | 2 |
| MUED 3113 |  | 3 |
| EIPT 3473 | Learning, Development, and Assessment for Teachers ${ }^{1}$ | 3 |
| EIPT 3483 | Motivation and Classroom Management for Teachers ${ }^{1}$ | 3 |
| EDSP 3053 | Understanding and Accommodating Exceptional Learners | 3 |
| MUED 3253 |  | 3 |
| MUED 4113 | Instrumental Music Education Methods III | 3 |
| MUED 4752 <br> or MUED 4762 | Marching Band Techniques ${ }^{2}$ String Pedagogy | 2 |
| MUED 4042 | Capstone Seminar ${ }^{3,4}$ | 2 |
| MUED 4050 | Teaching Experiences in the Elementary School ${ }^{1,3,4}$ | 4-5 |
| MUED 4060 | Teaching Experiences in the Secondary School ${ }^{1,3,4}$ | 4-5 |

## Total Credit Hours

36-38

[^54]
## General Education and College Requirements

Some courses that fulfill General Education requirements are listed in other areas on this sheet and are indicated by the appropriate Core numbers.

Courses designated as Core I, II, III, IV, or V are part of the General Education curriculum. Students must complete a minimum of 40 hours of General Education courses, chosen from the approved list, including at least one upper-division Gen. Ed. course outside of the student's major. Courses graded S/U or P/NP will not apply.

## UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS Code Title Credit

## Core Area I: Symbolic and Oral Communication

English Composition

| ENGL 1113 | Principles of English Composition (Core I) ${ }^{1}$ | 3 |
| :---: | :---: | :---: |
| ENGL 1213 | Principles of English Composition (Core I) ${ }^{1}$ | 3 |
| or EXPO 1213 | Expository Writing |  |

## Language

University-Wide General Education Requirement:
Choose two college-level courses in a single language are required; may be satisfied by successful completion of 2 years in a single language in high school (Core I)
Oklahoma State Regents for Higher Education Requirement:
Teacher candidates must demonstrate conversational skills at a novice-high level in a language other than English

## Mathematics

Choose one course (Core I) ${ }^{1,2} 3$

Core Area II: Natural Science
Choose two courses (minimum 7 hours) from different 7-8
disciplines; one must include a laboratory:

## Core Area III: Social Science

P SC 1113 American Federal Government 3
Choose one of the following: 3

ANTH 1113 What Makes Us Human? Exploring Cultural and Biological Diversity
PSY 1113 Elements of Psychology
SOC 1113 Introduction to Sociology

## Core Area IV: Arts and Humanities

## Artistic Forms

The following are satisfied in Musicology and Music Theory 0 requirements (4 hours)

| MUSC 1312 | Music in Culture |
| :--- | :--- |
| MUTH 2512 | Musical Structures III |

MUTH 2512 Musical Structures III

Western Culture

| HIST 1483 | United States to 1865 (Core IV) | 3 |
| :---: | :--- | :---: |
| or HIST 1493 | United States, 1865 to the Present |  | hours)


| MUSC 2313 | Ancient Times to 1700 |
| :--- | :--- |
| MUSC 2323 | Late Baroque Through Romantic Period |
| MUSC 3333 | Post-Romantic Period to the Present |
| World Culture |  |
| Choose one upper-division (3000-4000-level) elective course |  |
| from the University-Wide General Ed. World Culture List (Core |  |
| IV) |  |

Core Area V: First-Year Experience
Choose one course
Total Credit Hours
31-42
${ }^{1}$ Grade of C or better required.
${ }^{2}$ MATH 1473 or COMM 2513 is recommended.

## General Rules, Regulations and Requirements

More information on Grade Requirements and Enrollment Limitations can be found in the catalog under School of Music: Undergraduate Study (p. 1482).

Admission to Music Teacher Education: Students must apply to the teacher education program at the end of the sophomore year by the following process:

- Complete \& submit a "Request for Admission to Teacher Preparation Program Form" from the Fine Arts Dean's office.
- Students must pass the Oklahoma General Education Test. OGET results must be turned in with Admission to Teacher Preparation Program Form to the College of Education.
- Students must complete a minimum of 24 hours of general education coursework from the university approved list with C or better grades in the following areas: ENGL 1113 (required), ENGL 1213 or EXPO 1213 (required), math, natural science w/o lab, natural science w/lab, P SC 1113, social science, HIST 1483 or HIST 1493, humanities.
- Complete Submission 1 on electronic portfolio to faculty advisor. Submission 1 check list must be complete and portfolio must be cleared by faculty advisor.
- Meet with faculty advisor to complete: Memorandum of Understanding, Supplemental Disclaimer, and an Academic Completion Letter.
- Take the following to the College of Education Advising Office for entrance paperwork and permissions for courses: completed Admission to Teacher Preparation Program Form; Memorandum of Understanding; Supplemental Disclaimer; Academic Completion Letter; essay from MUED 1732; OGET scores; background check.

Students must have a minimum 2.75 OU retention and combined retention GPAs in order to be admitted to the College of Education Teacher Preparation coursework, to graduate, and to be certified. Students with a GPA between 2.5 and 2.74 may petition the MUED faculty for an exemption to begin their Teacher Preparation coursework, but will be placed on Academic Probation by the College until such time as their

GPA is raised to the required 2.75 for graduation. Exemptions cannot be granted for students with less than a 2.50 .

Scheduling of MUED Sequence Courses: Courses are to be taken the semester as indicated in the semester grid below: MUTE 2221 and MUTE 2251 should be taken during the sophomore year in any order. No substitutions or exceptions will be allowed under normal circumstances. Private lessons on secondary instruments may not be substituted for these courses.

Student Teaching: MUED 4042, MUED 4050, and MUED 4060 are taken during the student teaching semester. All coursework and recitals must be completed prior to student teaching.

## Suggested Semester Plan of Study

At least 24 hours of upper-division Music credit must be earned in residence as a declared major; must include the Senior Capstone. This plan of study should not be used in lieu of academic advisement. Unless otherwise stated on the degree sheet, the College of Fine Arts does not permit coursework to fulfill more than one degree requirement.

## Freshman

| First Semester |  | Credit |
| :---: | :---: | :---: |
|  |  | Hours |
| MUTE Ensemble |  | 1 |
| XXXX 2020, Primary Instrument |  | 2 |
| MUTE 1000 | Freshman/Transfer Music Orientation | 0 |
| MUTE 1311 | Group Piano I | 1 |
| MUTH 1512 | Musical Structures I | 2 |
| MUTH 1612 | Aural Skills I | 2 |
| MUED 1732 | Introduction to Music Education | 2 |
| ENGL 1113 | Principles of English Composition (Core I) | 3 |
| MATH 1473 or COMM 2513 | Mathematics for Critical Thinking or Introduction to Statistics | 3 |
| Choose one of the following (Core III): |  | 3 |
| ANTH 1113 | What Makes Us Human? Exploring Cultural and Biological Diversity |  |
| SOC 1113 | Introduction to Sociology |  |
| PSY 1113 | Elements of Psychology |  |
|  | Credit Hours | 19 |
| Second Semester |  |  |
| MUTE Ensemble |  | 1 |
| XXXX 2020, Primary Instrument |  | 2 |
| MUTE 1010 | Recital Attendance | 0 |
| MUTH 1522 | Musical Structures II | 2 |
| MUTH 1622 | Aural Skills II | 2 |
| MUTE 1321 | Group Piano II | 1 |
| MUSC 1312 | Music in Culture (Core IV) | 2 |
| MUED 1742 | Introduction to Teaching Techniques in Music | 2 |
| $\begin{aligned} & \text { ENGL } 1213 \\ & \text { or EXPO } 1213 \end{aligned}$ | Principles of English Composition (Core I) or Expository Writing | 3 |
| First-Year Experience (Core V) |  | 3 |
|  | Credit Hours | 18 |


| Sophomore |  |  |
| :---: | :---: | :---: |
| First Semester |  |  |
| MUTE Ensemble |  | 1 |
| XXXX 2020, Primary Instrument |  | 2 |
| MUTE 1010 | Recital Attendance | 0 |
| MUTH 2512 | Musical Structures III | 2 |
| MUTH 2612 | Aural Skills III | 2 |
| MUTE 2311 | Group Piano III | 1 |
| MUSC 2313 | Ancient Times to 1700 | 3 |
| MUTE 2242 | Bme Instrumental Conducting I | 2 |
| MUTE 2251 or MUTE 2221 | Stringed Instrument Class or Percussion Instrument Class | 1 |
| Natural Science | without Lab (Core II) | 3-4 |
| Register for OGET |  |  |
|  | Credit Hours | 17-18 |
| Second Semester |  |  |
| MUTE Ensemble |  | 1 |
| MUTE 2000 | Sophomore Barrier | 0 |
| XXXX 2020, Primary Instrument |  | 2 |
| MUTE 1010 | Recital Attendance | 0 |
| MUTH 2522 | 20th- and 21 st-Century Musical Structures | 2 |
| MUTH 2622 |  | 2 |
| MUTE 2321 | Group Piano IV | 1 |
| MUSC 2323 | Late Baroque Through Romantic Period (Core IV) | 3 |
| MUED 2112 | Instrumental Music Education Methods I | 2 |
| MUTE 2251 or MUTE 2221 | Stringed Instrument Class or Percussion Instrument Class | 1 |
| Natural Science with Lab (Core II) |  | 4 |


| Junior |  |
| :---: | :---: |
| First Semester |  |
| MUTE Ensemble 3-4000 level | 1 |
| XXXX 4020, Primary Instrument | 2 |
| MUSC 3333 Post-Romantic Period to the Present | 3 |
| $\begin{array}{ll}\text { MUTE 2211 } & \text { Brass Instrument Class } \\ \text { or MUTE } 2241 & \text { or Woodwind Instrument Class }\end{array}$ | 1 |
| EIPT 3473 Learning, Development, and Assessment for Teachers | 3 |
| MUED 3253 | 3 |
| Beginning Language (Core I) | 0-5 |
| Credit Hours | 13-18 |

## Second Semester

| MUTE Ensemble 3-4000 level | 1 |
| :--- | :---: |
| XXXX 4020, Primary Instrument | 2 |
| MUTE 2211 <br> or MUTE 2241 | Brass Instrument Class <br> or Woodwind Instrument Class |
| MUED 3113 |  |
| MUED 4752 <br> or MUED 4762 | Marching Band Techniques <br> or String Pedagogy |
| EIPT 3483 | Motivation and Classroom Management for <br> Teachers |
| Beginning Language continued (Core I) | 2 |


| HIST 1483 or HIST 1493 | United States to 1865 (Core IV) or United States, 1865 to the Present | 3 |
| :---: | :---: | :---: |
|  | Credit Hours | 15-20 |
| Senior |  |  |
| First Semester |  |  |
| MUTE Ensemble | 3-4000 level | 1 |
| XXXX 4020, Prim | ary Instrument | 2 |
| MUED 4113 | Instrumental Music Education Methods III | 3 |
| EDSP 3053 | Understanding and Accommodating Exceptional Learners | 3 |
| UGRE 4011 | Undergraduate Recital | 1 |
| P SC 1113 | American Federal Government (Core III) | 3 |
| World Culture, up | per-division (3000-4000-level) (Core IV) | 3 |
| Register for OPTE and OSAT |  |  |
|  | Credit Hours | 16 |
| Second Semester |  |  |
| MUED 4042 | Capstone Seminar | 2 |
| MUED 4050 | Teaching Experiences in the Elementary School | 4-5 |
| MUED 4060 | Teaching Experiences in the Secondary School | 4-5 |
|  | Credit Hours | 10-12 |
|  | Total Credit Hours | 126-139 |

Degree Completion Responsibility: Although the Dean's Office checks each student's records, the responsibility for meeting degree requirements lies with the student and not with the advisor or the Dean. Each student should obtain a copy of the requirements for graduation and check it regularly as they complete their degree program.

## Vocal Music Education, B.M.Ed.

Minimum Total Credit Hours: 124-139
Major Hours: 93-95
Minimum Upper-Division Hours: 40
Upper-Division Hours Within Major: 24
Overall GPA - Combined and OU: 2.75
Program Code: B709

## This program has changes pending Regents approval for 2024-25. These pending changes are not reflected here.

## Major Requirements

A grade of C or better is required in all courses taken within the School of Music. Audition is required for admission to the degree program. All coursework must be letter graded; P/NP may not count toward degree.

Certification: To be fully certified, students must pass Certification Examinations for Oklahoma Educators and apply for a license.

| Major Area |  |  |
| :---: | :---: | :---: |
| Code | Title | Credit Hours |
| Choose 8 hours in the following: |  | 8 |
| VOIC 2020 | Voice for Music Majors: Freshman/ Sophomore ${ }^{1}$ |  |
| MUTE 2000 | Sophomore Barrier ${ }^{2}$ | 0 |
| Choose 5 hours in the following: |  | 5 |
| VOIC 4020 | Voice for Music Majors: Junior/Senior |  |
| MUTE XXXX, Major Performance Ensembles ${ }^{3}$ |  | 4 |
| MUTE XXXX, Major Performance Ensembles (3000-4000) ${ }^{3}$ |  | 3 |
| MUTE 1000 | Freshman/Transfer Music Orientation (1 semester) | 0 |
| MUTE 1010 | Recital Attendance (Grade of $S$ required for 3 semesters) | 0 |
| UGRE 4011 | Undergraduate Recital ${ }^{4}$ | 1 |
| Total Credit Hours |  | 21 |
| ${ }^{1}$ Seven semesters of private study in the primary performance area are required; 6 semesters of 2 hours each and 1 semester of 1 hour. Piano, organ, voice, or guitar may be chosen as the primary area. Private study may not be taken during the semester of student teaching. |  |  |
| ${ }^{2}$ A passing grade in MUTE 2000 Sophomore Barrier is required for admission to upper-division applied study as a major or principal. |  |  |
| Major performance organization on the primary instrument-Seven semesters required with grade of C or better. University Chorale, Men's Glee Club, or Women's Chorus. |  |  |
| ${ }^{4}$ A 30-minute recital in the primary applied area, which may be given in the junior or senior year. The recital is not permitted during student teaching. |  |  |

## Music Support

| Code Title | Credit |
| :--- | :--- |
|  | Hours |


| Music Theory |  | 2 |
| :--- | :--- | :--- |
| MUTH 1512 | Musical Structures I | 2 |
| MUTH 1612 | Aural Skills I | 2 |
| MUTH 1522 | Musical Structures II | 2 |
| MUTH 1622 | Aural Skills II | 2 |
| MUTH 2512 | Musical Structures III (Core IV) | 2 |
| MUTH 2612 | Aural Skills III | 2 |
| MUTH 2522 | 20th- and 21st-Century Musical Structures | 2 |
| MUTH 2622 |  | 2 |


| Musicology and Music Literature | 2 |  |
| :--- | :--- | ---: |
| MUSC 1312 | Music in Culture (Core IV) | 3 |
| MUSC 2313 | Ancient Times to 1700 (Core IV) | 3 |
| MUSC 2323 | Late Baroque Through Romantic Period <br> (Core IV) |  |
| MUSC 3333 | Post-Romantic Period to the Present (Core | 3 |
|  | IV) |  |

## Additional Requirements

| MUTE 1311 | Group Piano I $^{1}$ | 1 |
| :--- | :--- | :--- |
| MUTE 1321 | Group Piano II $^{1}$ | 1 |
| MUTE 2311 | Group Piano III $^{1}$ | 1 |
| MUTE 2321 | Group Piano IV $^{1}$ | 1 |


| PIAN 2000 | Freshman and/or Sophomore Secondary <br> Piano $^{2}$ | 2 |
| :--- | :--- | ---: |
| or PIAN 4000 | Junior and/or Senior Secondary Piano |  |
| MUTE 2231 | Guitar Instrument Class | 1 |
| MUTE 3262 | Choral Conducting I | 2 |
| MUTE 3272 | Choral Conducting II | 38 |
| Total Credit Hours |  |  | | Students who have prior piano background may be eligible for the |
| :--- |

## Education and Music Education

| Code | Title | Credit <br> Hours |
| :---: | :---: | :---: |
| MUED 1732 | Introduction to Music Education | 2 |
| MUED 1742 | Introduction to Teaching Techniques in Music | 2 |
| EIPT 3473 | Learning, Development, and Assessment for Teachers ${ }^{1}$ | 3 |
| EIPT 3483 | Motivation and Classroom Management for Teachers ${ }^{1}$ | 3 |
| EDSP 3053 | Understanding and Accommodating Exceptional Learners | 3 |
| MUED 3823 | Teaching General Music PreK-2 | 3 |
| MUED 3833 or MUED 3843 |  | 3 |
| MUED 3853 |  | 3 |
| MUED 4892 | Vocal Pedagogy \& Diction for the Classroom Teacher | 2 |
| MUED 4042 | Capstone Seminar ${ }^{2,3}$ | 2 |
| MUED 4050 | Teaching Experiences in the Elementary School ${ }^{1,2,3}$ | 4-5 |
| MUED 4060 | Teaching Experiences in the Secondary School ${ }^{1,2,3}$ | 4-5 |
| Total Credit Hours |  | 34-36 |
| ${ }^{1}$ Course may only be taken once formally admitted to music education teacher education program. See admission requirements under degree requirements. Consult with your advisor. |  |  |
| ${ }^{2}$ No more than 12 hours may be taken during the semester of student teaching. No courses may conflict with the student teaching experience. <br> 3 Component Senior Capstone Experience. |  |  |

## General Education and College Requirements

Some courses that fulfill General Education requirements are listed in other areas on this sheet and are indicated by the appropriate Core numbers.

Courses designated as Core I, II, III, IV, or V are part of the General Education curriculum. Students must complete a minimum of 40 hours
of General Education courses, chosen from the approved list, including at least one upper-division Gen. Ed. course outside of the student's major.

## Courses graded S/U or P/NP will not apply.

## UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Core Area I: Symbolic and Oral Communication |  |  |
| English Composition |  |  |
| ENGL 1113 | Principles of English Composition (Core I) ${ }^{1}$ | 3 |
| ENGL 1213 | Principles of English Composition (Core I) ${ }^{1}$ | 3 |
| or EXPO 1213 | Expository Writing |  |


| Language |  |
| :---: | :---: |
| University-Wide General Education Requirement: | 0-10 |
| Choose two college-level courses in a single language are required; may be satisfied by successful completion of 2 years in a single language in high school (Core I) |  |
| Oklahoma State Regents for Higher Education Requirement: |  |
| Teacher candidates must demonstrate conversational skills at a novice-high level in a language other than English |  |
| Mathematics |  |
| Choose one course (Core I) ${ }^{1,2}$ | 3 |
| Core Area II: Natural Science |  |
| Choose two courses (minimum 7 hours) from different disciplines; one must include a laboratory. | 7-10 |
| Core Area III: Social Science |  |
| P SC 1113 American Federal Government | 3 |
| Choose one of the following: | 3 |


| ANTH 1113 | What Makes Us Human? Exploring Cultural <br> and Biological Diversity |
| :--- | :--- | :--- |
| PSY 1113 | Elements of Psychology |


| MUSC 1312 | Music in Culture |  |
| :--- | :--- | ---: |
| MUTH 2512 | Musical Structures III |  |
| Western Culture | 3 |  |
| HIST 1483 United States to 1865 (Core IV) <br> or HIST 1493 United States, 1865 to the Present |  |  |
| The following are satisfied in Musicology requirements (9 <br> hours): | 0 |  |


| MUSC 2313 | Ancient Times to 1700 |
| :--- | :--- |
| MUSC 2323 | Late Baroque Through Romantic Period |
| MUSC 3333 | Post-Romantic Period to the Present |
| World Culture |  |
| Choose one upper-division (3000-4000-level) elective course |  | from the University-Wide General Ed. World Culture List (Core IV)

## Core Area V: First-Year Experience

| Choose one course | 3 |
| :--- | ---: |
| Total Credit Hours |  |

${ }^{1}$ Grade of C or better required.
${ }^{2}$ MATH 1473 or COMM 2513 is recommended.

## General Rules, Regulations and Requirements

More information on Grade Requirements and Enrollment Limitations can be found in the catalog under School of Music: Undergraduate Study (p. 1482).

Admission to Music Teacher Education: Students must apply to the teacher education program at the end of the sophomore year by the following process:

- Complete \& submit a "Request for Admission to Teacher Preparation Program Form" from the Fine Arts Dean's office.
- Students must pass the Oklahoma General Education Test. OGET results must be turned in with Admission to Teacher Preparation Program Form to the Rainbolt College of Education.
- Students must complete a minimum of 24 hours of general education coursework from the university approved list with C or better grades in the following areas: ENGL 1113 (required), ENGL 1213 or EXPO 1213 (required), math, natural science w/o lab, natural science w/lab, P SC 1113, social science, HIST 1483 or HIST 1493, humanities.
- Complete Submission 1 on electronic portfolio to faculty advisor. Submission 1 check list must be complete and portfolio must be cleared by faculty advisor.
- Meet with faculty advisor to complete: Memorandum of Understanding, Supplemental Disclaimer, and an Academic Completion Letter.
- Take the following to the College of Education Advising Office for entrance paperwork and permissions for courses: completed Admission to Teacher Preparation Program Form; Memorandum of Understanding; Supplemental Disclaimer; Academic Completion Letter; essay from MUED 1732; OGET scores; background check.
- Students must have a minimum 2.75 OU retention and combined retention GPAs in order to be admitted to the College of Education Teacher Preparation coursework, to graduate, and to be certified. Students with a GPA between 2.5 and 2.74 may petition the MUED faculty for an exemption to begin their Teacher Preparation coursework, but will be placed on Academic Probation by the College until such time as their GPA is raised to the required 2.75 for graduation. Exemptions cannot be granted for students with less than a 2.50 .

Student Teaching: MUED 4042, MUED 4050, and MUED 4060 are taken during the student teaching semester. All coursework and recitals must be completed prior to student teaching.

## Suggested Semester Plan of Study

At least $\mathbf{2 4}$ hours of upper-division Music credit must be earned in residence as a declared major; must include the Senior Capstone. This plan of study should not be used in lieu of academic advisement. Unless otherwise stated on the degree sheet, the College of Fine Arts does not permit coursework to fulfill more than one degree requirement.

| Freshman |  |  |
| :---: | :---: | :---: |
| First Semester |  | Credit |
|  |  | Hours |
| MUTE Ensemble |  | 1 |
| VOIC 2020 | Voice for Music Majors: Freshman/ Sophomore | 2 |
| MUTE 1000 | Freshman/Transfer Music Orientation | 0 |
| MUTH 1512 | Musical Structures I | 2 |
| MUTH 1612 | Aural Skills I | 2 |
| MUTE 1311 | Group Piano I | 1 |
| MUED 1732 | Introduction to Music Education | 2 |
| ENGL 1113 | Principles of English Composition (Core I) | 3 |
| MATH 1473 or MATH 2513 | Mathematics for Critical Thinking or Discrete Mathematical Structures | 3 |
| First-Year Experience (Core V) |  | 3 |
|  | Credit Hours | 19 |
| Second Semester |  |  |
| MUTE Ensemble |  | 1 |
| VOIC 2020 | Voice for Music Majors: Freshman/ Sophomore | 2 |
| MUTE 1010 | Recital Attendance | 0 |
| MUTH 1522 | Musical Structures II | 2 |
| MUTH 1622 | Aural Skills II | 2 |
| MUTE 1321 | Group Piano II | 1 |
| MUSC 1312 | Music in Culture (Core IV) | 2 |
| MUED 1742 | Introduction to Teaching Techniques in Music | 2 |
| $\begin{aligned} & \text { ENGL } 1213 \\ & \text { or EXPO } 1213 \end{aligned}$ | Principles of English Composition (Core I) or Expository Writing | 3 |
| HIST 1483 or HIST 1493 | United States to 1865 (Core IV) or United States, 1865 to the Present | 3 |
|  | Credit Hours | 18 |
| Sophomore |  |  |
| First Semester |  |  |
| MUTE Ensemble |  | 1 |
| VOIC 2020 | Voice for Music Majors: Freshman/ Sophomore | 2 |
| MUTE 1010 | Recital Attendance | 0 |
| MUTH 2512 | Musical Structures III (Core IV-AF) | 2 |
| MUTH 2612 | Aural Skills III | 2 |
| MUSC 2313 | Ancient Times to 1700 (Core IV-WC) | 3 |
| MUTE 2311 | Group Piano III | 1 |
| MUTE 3262 | Choral Conducting I | 2 |
| Choose one of the following (Core III): |  | 3 |
| ANTH 1113 | What Makes Us Human? Exploring Cultural and Biological Diversity |  |
| SOC 1113 | Introduction to Sociology |  |
| PSY 1113 | Elements of Psychology |  |
| Register for OGET Exam |  |  |
|  | Credit Hours | 16 |
| Second Semester |  |  |
| MUTE Ensemble |  | 1 |
| MUTE 2000 | Sophomore Barrier | 0 |


| VOIC 2020 | Voice for Music Majors: Freshman/ Sophomore | 2 |
| :---: | :---: | :---: |
| MUTE 1010 | Recital Attendance | 0 |
| MUTH 2522 | 20th- and 21 st-Century Musical Structures | 2 |
| MUTH 2622 |  | 2 |
| MUTE 2321 | Group Piano IV | 1 |
| MUSC 2323 | Late Baroque Through Romantic Period (Coe IV) | 3 |
| MUTE 3272 | Choral Conducting II | 2 |
| Gen Ed Science (Core II) |  | 3-5 |
|  | Credit Hours | 16-18 |
| Junior |  |  |
| First Semester |  |  |
| MUTE Ensemble |  | 1 |
| VOIC 4020 | Voice for Music Majors: Junior/Senior | 2 |
| PIAN 4000 | Junior and/or Senior Secondary Piano | 1 |
| MUSC 3333 | Post-Romantic Period to the Present | 3 |
| MUED 3823 | Teaching General Music PreK-2 | 3 |
| EIPT 3473 | Learning, Development, and Assessment for Teachers | 3 |
| P SC 1113 | American Federal Government | 3 |
|  | Credit Hours | 16 |
| Second Semester |  |  |
| MUTE Ensemble 3 | 3-4000 level | 1 |
| VOIC 4020 | Voice for Music Majors: Junior/Senior | 2 |
| PIAN 4000 | Junior and/or Senior Secondary Piano | 1 |
| EIPT 3483 | Motivation and Classroom Management for Teachers | 3 |
| MUED 3833 or MUED 3843 | or | 3 |
| MUED 4892 | Vocal Pedagogy \& Diction for the Classroom Teacher | 2 |
| Beginning Langua | age (Core I) | 0-5 |
| Register for OSAT Exam |  |  |
|  | Credit Hours | 12-17 |
| Senior |  |  |
| First Semester |  |  |
| MUTE Ensemble 3 | 3-4000 level | 1 |
| VOIC 4020 | Voice for Music Majors: Junior/Senior | 1 |
| UGRE 4011 | Undergraduate Recital | 1 |
| EDSP 3053 | Understanding and Accommodating Exceptional Learners | 3 |
| MUTE 2231 | Guitar Instrument Class | 1 |
| MUED 3853 |  | 3 |
| Physical Science | (Core II) | 3-5 |
| World Culture (Cor | re IV) | 3 |
| Beginning Langua | age continued (Core I) | 0-5 |
| Register for OPTE Exam |  |  |
|  | Credit Hours | 16-23 |
| Second Semester |  |  |
| MUED 4042 | Capstone Seminar | 2 |
| MUED 4050 | Teaching Experiences in the Elementary School | 4-5 |


| MUED 4060 | Teaching Experiences in the Secondary | $4-5$ |
| :--- | :--- | ---: |
|  | School | $\mathbf{1 0 - 1 2}$ |
| Credit Hours | $\mathbf{1 2 4 - 1 3 9}$ |  |

Degree Completion Responsibility: Although the Dean's Office checks each student's records, the responsibility for meeting degree requirements lies with the student and not with the advisor or the Dean. Each student should obtain a copy of the requirements for graduation and check it regularly as they complete their degree program.

## Commercial Music, Minor

Minimum Total Credit Hours: 21-22
Program Code: N209

## Required Courses

- The minor in Commercial Music is open to all undergraduate students at OU except those majoring in music.
- No single course may be used by a student to satisfy a major requirement and a minor requirement.
- At least 15 hours must be completed at the University of Oklahoma.
- A minimum of 9 hours must be completed at the upper division level.
- No courses counted toward the minor may be taken Pass/No Pass.
- Students must earn a minimum grade of $C$ in each course.
- Students must achieve a minimum 2.50 GPA (OU and overall) in the minor coursework.

| Code | Title | Credit |
| :---: | :---: | :---: |
| MUTE 2113 | The Commercial Music and Recording Industry | 3 |
| MUTE 1120 or MUTE 3120 | Jazz Ensemble Jazz Ensemble | 1 |
| MUTE 2271 or MUTE 4271 | Chamber Music Chamber Music | 1 |
| MUNM 1100 <br> \& MUNM 3100 | Freshman and/or Sophomore Piano, Violin, Etc., for Nonmusic Majors and Junior and/or Senior Piano, Violin, etc., for Nonmusic Majors | 2 |
| Choose one of the following: |  | 3 |
| MUNM 1143 | American Popular Music |  |
| MUNM 1163 | History of Video Game Music |  |
| MUNM 2413 | Music in Film |  |
| MUTK 4113 | Understanding Electroacoustic Music |  |
| MUTK 4183 | Sound Design | 3 |
| MUTK 4173 | Recording Techniques | 3 |
| MUTK 4193 | Producing, Mixing, \& Mastering | 3 |
| Choose one of the following: |  | 2-3 |
| MUTE 4512 | Professional Preparation and Capstone Project |  |
| AMGT 3023 | Entrepreneurial Mindset in the Arts |  |
| AMGT 3440 | Mentored Research Experience |  |

Total Credit Hours
21-22

## Instrumental Jazz, Minor

Minimum Total Credit Hours: 21

Minimum Upper-Division Hours: 9
Program Code: N576
The requirements for a minor must be completed concurrently with the major degree requirements. No minor may be added by completing courses after receiving the bachelor's degree.

See form available in Fine Arts Dean's office:

- Students must audition and be accepted as an instrumental jazz minor before it may be declared. Students are encouraged to audition during the School's formal Audition Days held during the spring semester.
- Acceptance as an instrumental jazz minor in any given studio area is on a space available basis (GTAs will teach).
- The minor must be officially declared in the Fine Arts Dean's office/ Student Services. Complete the form and take it to the Office of the Dean, Weitzenhoffer Family College of Fine Arts, Fred Jones Fine Arts Center, Rm. 122 (FJC 122) on or before the student's senior graduation check.

Students beginning the program in the freshman or sophomore year will not have difficulty completing the instrumental jazz minor. Students beginning the program in the junior year will need to plan accordingly to meet the requirements before graduation. Applied study at the 4000 level does not require Sophomore Proficiency and may be taken for 1-2 hrs of credit.

- No single course may be used by a student to satisfy a major requirement and a minor requirement.
- At least 15 hours must be completed at the University of Oklahoma.
- A minimum of 9 hours must be at the upper division level.
- No courses counted toward the minor may be taken Pass/ No Pass.
- The minor in Instrumental Jazz is available to all undergraduate students at OU except those majoring in music.
- Students must earn a minimum grade of $C$ in each course.
- Students must achieve a minimum 2.50 GPA (OU and overall) in the minor coursework.


## Required Courses

Students must successfully complete at least 21 hours of coursework in music, including at least 9 hours at the upper division level. The following specific requirements must be met:

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| MUTE 1120 | Jazz Ensemble ${ }^{1}$ | 4 |
| or MUTE 3120 | Jazz Ensemble |  |
| MUTE 2271 | Chamber Music |  |
| or MUTE 4271 | Chamber Music | 3 |
| MUTH 1512 | Musical Structures I | 2 |
| MUTH 1612 | Aural Skills I | 2 |
| MUTE 3342 | Jazz Improvisation (two semesters) | 4 |
| MUNM 2313 | History of Jazz | 3 |


| MUNM 3713 | Jazz: Development of an African-American Art Form |
| :---: | :---: |
| Total Credit Hours | 21 |
| 1 Students must take 4 semesters of Jazz Ensemble and 3 semesters of Chamber Jazz. Of these 7 credit hours, at least 2 hours must be taken at the Upper Division (3000-4000) level. |  |
| If the minor is offic and noted on the indicate at the tim | cially declared and approved, successfully completed, graduation application, the student's transcript will so e the bachelor's degree is posted. |

## Music, Minor

Minimum Total Credit Hours: 26

## Program Code: N715

The requirements for a minor must be completed concurrently with the major degree requirements. No minor may be added by completing courses after receiving the bachelor's degree.

See form available in Fine Arts Dean's office:

- Students must audition and be accepted as a music minor before it may be declared. Students are encouraged to audition during the School's formal Audition Days held during the spring semester.
- Acceptance as a music minor in any given studio area is on a space available basis (GTAs will teach).
- The minor must be officially declared in the Fine Arts Dean's office/ Student Services. Complete the form and take it to the Office of the Dean, Weitzenhoffer Family College of Fine Arts, Fred Jones Fine Arts Center, Rm. 122 (FJC 122) on or before the student's senior graduation check.

Students beginning the program in the freshman or sophomore year will not have difficulty completing the music minor. Students beginning the program in the junior year will need to plan accordingly to meet the requirements before graduation. Applied study at the 4000 level does not require Sophomore Proficiency and may be taken for 1-2 hrs of credit.

- No single course may be used by a student to satisfy a major requirement and a minor requirement.
- At least 15 hours must be completed at the University of Oklahoma.
- A minimum of 9 hours must be at the upper division level.
- No courses counted toward the minor may be taken Pass/ No Pass.
- The minor in Music is available to all undergraduate students at OU except those majoring in music.
- Students must earn a minimum grade of $C$ in each course.
- Students must achieve a minimum 2.50 GPA (OU and overall) in the minor coursework.


## Required Courses

Students must successfully complete at least 24 hours of coursework in music, including at least 9 hours at the upper division level. The following specific requirements must be met:

| Code | Title | Credit |
| :---: | :---: | :---: |
|  |  | Hours |
| MUNM 1113 | The Understanding of Music | 2-3 |
| or MUSC 1312 | Music in Culture |  |
| MUTH 1512 | Musical Structures I | 2 |
| MUTH 1522 | Musical Structures II | 2 |
| MUTH 1612 | Aural Skills I | 2 |
| MUTH 1622 | Aural Skills II | 2 |
| Choose major performance ensembles (1 hr. each), three semesters at the 1000 level |  | 3 |
| Choose applied le | ssons (1 hr. each) at the 2000 level for three | 3 |

(3) semesters ${ }^{1}$

Choose 9-10 credit hours at the 3000 level or above from 9-10
applied lessons, ensembles, and/or classes ${ }^{2}$
Total Credit Hours
1 credit hour per semester will be a half-hour individual lesson per week.
2 May be from music major courses or from MUNM courses. Students who take MUSC 1312 to fulfill minor requirements must complete 10 hours.

If the minor is officially declared and approved, successfully completed, and noted on the graduation application, the student's transcript will so indicate at the time the bachelor's degree is posted.

## Choral Conducting, M.M.

Minimum Total Hours (Non-Thesis): 32
Program Code: M717
The requirements listed on this degree check sheet apply to the following concentrations in Choral Conducting.

- Standard - M717 Q113
- Church Music - M717 Q114


## Required Courses



| Choose one of the following options: |  | 8 |
| :---: | :---: | :---: |
| Standard: |  |  |
| Choose 8 elective hours as approved by the Graduate Liaison and Program Advisor ${ }^{3}$ |  |  |
| Church Music: |  |  |
| Choose 8 hours from the following: |  |  |
| MUTE 5423 | History and Fundamentals of Pipe Organ Construction and Design |  |
| MULI 5483 | Hymnody |  |
| MUTE 5413 | Church Music Practicum |  |
| COMP 5000 | Master's-Level Secondary Composition (2-4 hours) |  |
| VOIC 5000 | Master's-Level Secondary Voice (2-4 hours) |  |
| ORGN 5000 | Master's-Level Secondary Organ (2-4 hours) |  |
| Total Credit Hou |  | 32 |
| 1 No more than the required 4 hours may be applied to the degree. <br> ${ }^{2}$ Except for any Music Technology courses. <br> ${ }^{3}$ May be chosen from any area in music or, with the program advisor's approval, from related non-music fields. |  |  |

## General Requirements for all Master's Degrees

The master's degree requires the equivalent of at least two semesters of satisfactory graduate work and additional work as may be prescribed for the degree.

All coursework applied to the master's degree must carry graduate credit.
Master's degree programs which require a thesis consist of at least 30 credit hours. All non-thesis master's degree programs require at least 30 credit hours.

Credit transferred from other institutions must meet specific criteria and is subject to certain limitations.

Courses completed through correspondence study may not be applied to the master's degree.

To qualify for a graduate degree, students must achieve an overall grade point average of 3.0 or higher in the degree program coursework and in all resident graduate coursework attempted. A student must also have at least a 3.0 in all coursework (including undergraduate coursework if any).

Additional information for master's degree students may be found in the Graduate College Bulletin.

## Instrumental Conducting, M.M.

Minimum Total Hours (Non-Thesis): 32
Program Code: M718

## Required Courses

| Code $\quad$ Title | Credit <br> Hours |  |
| :--- | :--- | ---: |
| Required Courses | 8 |  |
| Choose 4 hours in each of the following: |  |  |
| MUTE 5522 |  | Instrumental Conducting |
| MUTE 5532 | Instrumental Score Studies |  |


| GRRE 5042 Graduate Recital-Master of Music Degree | 2 |
| :---: | :---: |
| Core Courses |  |
| Musicology/Music Literature |  |
| Choose any graduate level MUSC or MULI courses | 6 |
| Music Theory |  |
| Choose any graduate level MUTH course | 6 |
| Band/Orchestra |  |
| Choose one of the following (2 semesters; as advised): | 2 |
| MUTE 5130 |  |
| MUTE 5140 University Orchestra |  |
| Applied Music |  |
| Choose 4 hours in Applied Music in the primary instrument at the 5010 level ${ }^{1}$ | 4 |
| Electives |  |
| Choose 4 hours | 4 |
| Total Credit Hours | 32 |
| 1 Study in secondary instruments may be permitted if the stu demonstrates satisfactory competency in the primary instru |  |

## General Requirements for all Master's Degrees

The master's degree requires the equivalent of at least two semesters of satisfactory graduate work and additional work as may be prescribed for the degree.

All coursework applied to the master's degree must carry graduate credit.
Master's degree programs which require a thesis consist of at least 30 credit hours. All non-thesis master's degree programs require at least 30 credit hours.

Credit transferred from other institutions must meet specific criteria and is subject to certain limitations.

Courses completed through correspondence study may not be applied to the master's degree.

To qualify for a graduate degree, students must achieve an overall grade point average of 3.0 or higher in the degree program coursework and in all resident graduate coursework attempted. A student must also have at least a 3.0 in all coursework (including undergraduate coursework if any).

Additional information for master's degree students may be found in the Graduate College Bulletin.

## Music Composition, M.M.

Minimum Total Hours (Thesis): 32
Program Code: M705
Required Courses

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Required Courses |  |  |
| MUS 5111 | Bibliography and Research in Music | 1 |
| MUS 5121 | Document Proposal | 1 |
| Choose 8-9 hours in the following: ${ }^{1}$ | $8-9$ |  |


| COMP 5020 | Master's-Level Composition for Performance Majors |  |
| :---: | :---: | :---: |
| GCRE 5051 | Graduate Composition Recital | 1 |
| Core Courses |  |  |
| Musicology/Music Literature |  |  |
| Choose any graduate level MUSC or MULI courses |  | 6 |
| Music Theory |  |  |
| Choose graduate level MUTH courses ${ }^{2}$ |  | 6 |
| Ensembles |  |  |
| Choose 2 semesters of participation on principal instrument or voice in appropriate section of one of the following (as advised): |  |  |
| MUTE 5050 | Wind Symphony |  |
| MUTE 5060 | Symphony Band |  |
| MUTE 5120 | Jazz Ensemble |  |
| MUTE 5140 | University Orchestra |  |
| MUTE 5160 | University Chorale |  |
| MUTE 5310 | Men's Glee Club |  |
| MUTE 5320 | Women's Chorus |  |
| New Century Ensemble ${ }^{3}$ |  |  |
| Electives |  |  |
| Choose 2-3 hours from any graduate level coursework as approved by the Graduate Liaison. |  |  |
| Thesis |  |  |
| MUTH 5980 | Research for Master's Thesis | 4 |
| Total Credit Hours |  | 32 |
| 1 Of these hours, no less than 8 hours of COMP 5020 are required and no more than 9 hours may be applied to the degree. Students must enroll in COMP 5020 for at least two consecutive 16-week semesters. <br> ${ }^{2}$ Except for MUTH 5811, MUTH 5821, and any MUTK courses. <br> 3 Appropriate section of MUTE 5271. |  |  |

## General Requirements for all Master's Degrees

The master's degree requires the equivalent of at least two semesters of satisfactory graduate work and additional work as may be prescribed for the degree.

All coursework applied to the master's degree must carry graduate credit.
Master's degree programs which require a thesis consist of at least 30 credit hours. All non-thesis master's degree programs require at least 30 credit hours.

Credit transferred from other institutions must meet specific criteria and is subject to certain limitations.

Courses completed through correspondence study may not be applied to the master's degree.

To qualify for a graduate degree, students must achieve an overall grade point average of 3.0 or higher in the degree program coursework and in all resident graduate coursework attempted. A student must also have at least a 3.0 in all coursework (including undergraduate coursework if any).

Additional information for master's degree students may be found in the Graduate College Bulletin.

## Music Theory, M.M.

1 Minimum Total Hours (Thesis): 32
Program Code: M710

## Required Courses

## Neither MUTH 5811 nor MUTH 5821 count for credit toward this degree.

| Code Title | Credit |
| :--- | :--- |
|  | Hours |

## Required Courses

| MUS 5111 | Bibliography and Research in Music | 1 |
| :--- | :--- | :--- |
| MUS 5121 | Document Proposal | 1 |
| COMP 5000 | Master's-Level Secondary Composition (2 <br> hours; 1 semester) | 2 |
|  |  |  |

## Core Courses

Music Theory
MUTH 5813 Introduction to Schenkerian Analysis 3
MUTH 5823 Pedagogy of Music Theory 3

Choose two graduate level Music Theory courses: one in 6
common practice analysis and one in 20th century analysis from a list maintained by the academic unit and approved by the Graduate College. (p. 1555)

## Electives

Choose 6 hours from MUSC 5000 level courses as approved 6
by the Graduate Liaison
Choose 2-3 hour graduate level elective as approved by the 2-3
Graduate Liaison in MUSC, COMP, or MUTH (excluding Music Technology courses)
Choose 3-4 hours (any area) as approved by the Graduate 3-4 Liaison
Thesis
MUTH $5980 \quad$ Research for Master's Thesis 4

Total Credit Hours

## General Requirements for all Master's Degrees

The master's degree requires the equivalent of at least two semesters of satisfactory graduate work and additional work as may be prescribed for the degree.

All coursework applied to the master's degree must carry graduate credit.
Master's degree programs which require a thesis consist of at least 30 credit hours. All non-thesis master's degree programs require at least 30 credit hours.

Credit transferred from other institutions must meet specific criteria and is subject to certain limitations.

Courses completed through correspondence study may not be applied to the master's degree.

To qualify for a graduate degree, students must achieve an overall grade point average of 3.0 or higher in the degree program coursework and in all resident graduate coursework attempted. A student must also have at least a 3.0 in all coursework (including undergraduate coursework if any).

Additional information for master's degree students may be found in the Graduate College Bulletin.

## Music Theory Course List

List of possible courses for the MM Music Theory degree that satisfy the music theory requirement.

| Code | Title | Credit <br> Hours |
| :---: | :---: | :---: |
| MUTH 4863 | Advanced Orchestration ${ }^{1}$ | 3 |
| MUTH 5833 | Analysis of Twentieth-Century Music ${ }^{2}$ | 3 |
| MUTH 5863 | Advanced Orchestration ${ }^{1}$ | 3 |
| MUTH 5883 | Analysis of Tonal Music ${ }^{1}$ | 3 |
| MUTH 5960 | Directed Readings ${ }^{3}$ | 1-4 |
| MUTH 5970 | Seminar in Music Theory ${ }^{3}$ | 1-4 |
| MUTH 5990 | Special Studies in Music Theory ${ }^{3}$ | 1-3 |
| ${ }^{1}$ Fulfills common practice analysis requirement. <br> ${ }^{2}$ Fulfills 20th century analysis requirement. |  |  |
|  |  |  |
| ${ }^{3}$ May count for common practice analysis or for 20th century analysis depending on course title and description. |  |  |

## Musicology, M.M.

Minimum Total Hours (Thesis): 32
Program Code: M720

## Required Courses

Reading competence equivalent to four semesters study of German or another appropriate language approved by the Music History and Ethnomusicology faculty is required. Competence may be demonstrated through satisfactory completion of the equivalent at another college or university or satisfactory completion of an appropriate placement exam administered by the Department of Modern Languages.


## General Requirements for all Master's Degrees

The master's degree requires the equivalent of at least two semesters of satisfactory graduate work and additional work as may be prescribed for the degree.

All coursework applied to the master's degree must carry graduate credit.
Master's degree programs which require a thesis consist of at least 30 credit hours. All non-thesis master's degree programs require at least 30 credit hours.

Credit transferred from other institutions must meet specific criteria and is subject to certain limitations.

Courses completed through correspondence study may not be applied to the master's degree.

To qualify for a graduate degree, students must achieve an overall grade point average of 3.0 or higher in the degree program coursework and in all resident graduate coursework attempted. A student must also have at least a 3.0 in all coursework (including undergraduate coursework if any).

Additional information for master's degree students may be found in the Graduate College Bulletin.

## Organ: Standard, M.M.

Minimum Total Hours (Non-Thesis): 32
Program Code: M724 Q482
Required Courses

| Code | Title | Credit <br> Hours |
| :---: | :---: | :---: |
| Required Courses |  |  |
| Choose 8-12 hour | rs in the following: ${ }^{1}$ | 8-12 |
| ORGN 5020 | Master's-Level Organ for Performance Majors |  |
| GRRE 5042 | Graduate Recital-Master of Music Degree | 2 |
| Core Courses |  |  |
| Musicology |  |  |
| Choose 3 hours ${ }^{2}$ |  | 3 |
| Organ Literature |  |  |
| Choose two of the following: |  | 6 |
| MULI 5453 | Organ Literature I: Renaissance and Baroque |  |
| MULI 5463 | Organ Literature II: 1750-1900 |  |
| MULI 5473 | Organ Literature III: 1900-Present |  |
| Music Theory |  |  |
| Choose any graduate level MUTH courses ${ }^{3}$ |  | 6 |
| Electives |  |  |
| Choose 3-7 hours as approved by the Graduate Liaison and Program Advisor |  | 3-7 |
| Total Credit Hours |  | 32 |
| ${ }^{1}$ Students may not take less than 8 hours of ORGN 5020 and are not allowed to apply more than 12 hours of ORGN 5020 to the degree. Organ majors must enroll in ORGN 5020 for at least two consecutive 16 week semesters. |  |  |

${ }^{2}$ No coursework taken to remediate deficiencies determined by the student's score on the Prelim Exam may be used to fulfill this requirement. It may, however, be used as elective credit, providing it is at the 5000 - or 6000 -level.
${ }^{3}$ Except for any Music Technology courses.

## General Requirements for all Master's Degrees

The master's degree requires the equivalent of at least two semesters of satisfactory graduate work and additional work as may be prescribed for the degree

All coursework applied to the master's degree must carry graduate credit.
Master's degree programs which require a thesis consist of at least 30 credit hours. All non-thesis master's degree programs require at least 30 credit hours.

Credit transferred from other institutions must meet specific criteria and is subject to certain limitations.

Courses completed through correspondence study may not be applied to the master's degree.

To qualify for a graduate degree, students must achieve an overall grade point average of 3.0 or higher in the degree program coursework and in all resident graduate coursework attempted. A student must also have at least a 3.0 in all coursework (including undergraduate coursework if any).

Additional information for master's degree students may be found in the Graduate College Bulletin.

## Organ: Church Music, M.M.



| MUTE 5180 |  |
| :---: | :---: |
| Electives |  |
| Choose 6 hours from the following as approved by Graduate Liaison and Program Advisor. |  |
| MUTE 5423 | History and Fundamentals of Pipe Organ Construction and Design |
| MUTE 5512 | Choral Conducting |
| MUTE 6152 | Choral Score Studies |
| MULI 5483 | Hymnody |
| MUTE 5413 | Church Music Practicum |
| COMP 5000 | Master's-Level Secondary Composition (2-4 hours) |
| VOIC 5000 | Master's-Level Secondary Voice (2-4 hours) |
| Total Credit Hour | s 32 |
| Organ majors with a church music emphasis must enroll in ORGN 5020 for at least two consecutive 16 week semesters. |  |
| ${ }^{2}$ No coursework taken to remediate deficiencies determined by the student's score on the Prelim Exam may be used to fulfill the Musicology requirement. It may, however, be used as elective credit, providing it is at the 5000- or 6000-level. |  |
| Except for any Music Technology courses. |  |

## General Requirements for all Master's Degrees

The master's degree requires the equivalent of at least two semesters of satisfactory graduate work and additional work as may be prescribed for the degree

All coursework applied to the master's degree must carry graduate credit.
Master's degree programs which require a thesis consist of at least 30 credit hours. All non-thesis master's degree programs require at least 30 credit hours.

Credit transferred from other institutions must meet specific criteria and is subject to certain limitations.

Courses completed through correspondence study may not be applied to the master's degree.

To qualify for a graduate degree, students must achieve an overall grade point average of 3.0 or higher in the degree program coursework and in all resident graduate coursework attempted. A student must also have at least a 3.0 in all coursework (including undergraduate coursework if any).

Additional information for master's degree students may be found in the Graduate College Bulletin.

## Organ: Technology, M.M.

Minimum Total Hours (Non-Thesis): 32
Program Code: M724 Q483

This program has changes pending Regents approval for 2024-25. These pending changes are not reflected here.

## Required Courses

| Code | Title | Credit Hours |
| :---: | :---: | :---: |
| Required Courses |  |  |
| Choose 6 hours in the following: |  | 6 |
| ORGN 5020 | Master's-Level Organ for Performance Majors ${ }^{1}$ |  |
| GRRE 5042 | Graduate Recital-Master of Music Degree ${ }^{2}$ | 2 |
| Core Courses |  |  |
| History and Technique of Organbuilding |  |  |
| MUTE 5453 | History and Technique of Organbuilding I | 3 |
| MUTE 5463 | History and Technique of Organbuilding II | 3 |
| MUTE 5471 | Internship in Organbuilding I | 1 |
| MUTE 5472 | Internship in Organbuilding II | 2 |
| Organ Literature |  |  |
| Choose two of the following: |  | 6 |
| MULI 5453 | Organ Literature I: Renaissance and Baroque |  |
| MULI 5463 | Organ Literature II: 1750-1900 |  |
| MULI 5473 | Organ Literature III: 1900-Present |  |
| Musicology |  |  |
| Choose a graduate level MUSC or MULI course ${ }^{3}$ |  | 3 |
| Music Theory |  |  |
| Choose any graduate level MUTH course ${ }^{4}$ |  | 3 |
| Electives |  |  |
| Choose 3 hours as advised |  | 3 |
| Total Credit Hours |  | 32 |
| ${ }^{1}$ Organ majors must enroll in ORGN 5020 for at least three consecutive semesters. |  |  |
| ${ }^{2} 50$ minutes: 30 minutes total public performance (solo $1 / 2$ recital, area recitals, ensemble accompaniment, etc.) and 20 minutes total public presentation/lecture on a topic or project related to organ building. |  |  |
| ${ }^{3}$ No coursework taken to remediate deficiencies determined by the student's score on the Prelim Exam may be used to fulfill the Musicology requirement. It may, however, be used as elective credit, providing it is at the 5000 - or 6000 -level. |  |  |
| ${ }^{4}$ Except for any Music Technology courses and MUTH 5811 and MUTH 5821. |  |  |

## General Requirements for all Master's Degrees

The master's degree requires the equivalent of at least two semesters of satisfactory graduate work and additional work as may be prescribed for the degree.

All coursework applied to the master's degree must carry graduate credit.
Master's degree programs which require a thesis consist of at least 30 credit hours. All non-thesis master's degree programs require at least 30 credit hours.

Credit transferred from other institutions must meet specific criteria and is subject to certain limitations.

Courses completed through correspondence study may not be applied to the master's degree.

To qualify for a graduate degree, students must achieve an overall grade point average of 3.0 or higher in the degree program coursework and in all resident graduate coursework attempted. A student must also have at least a 3.0 in all coursework (including undergraduate coursework if any).

Additional information for master's degree students may be found in the Graduate College Bulletin.

## Piano: Performance, M.M.

Minimum Total Hours (Non-Thesis): 32

## Program Code: M725 Q506

## Required Courses

Students with a deficiency in piano sight-reading will be required to enroll in Studio Accompanying until the deficiency is removed through testing.


## General Requirements for all Master's Degrees

The master's degree requires the equivalent of at least two semesters of satisfactory graduate work and additional work as may be prescribed for the degree.

All coursework applied to the master's degree must carry graduate credit.
Master's degree programs which require a thesis consist of at least 30 credit hours. All non-thesis master's degree programs require at least 30 credit hours.

Credit transferred from other institutions must meet specific criteria and is subject to certain limitations.

Courses completed through correspondence study may not be applied to the master's degree.

To qualify for a graduate degree, students must achieve an overall grade point average of 3.0 or higher in the degree program coursework and in all resident graduate coursework attempted. A student must also have at least a 3.0 in all coursework (including undergraduate coursework if any).

Additional information for master's degree students may be found in the Graduate College Bulletin.

## Piano: Performance and Pedagogy, M.M.

Minimum Total Hours (Non-Thesis): 32
Program Code: M725 Q511

## Required Courses

Students with a deficiency in piano sight-reading will be required to enroll in Studio Accompanying until the deficiency is removed through testing

| Code Title | Credit Hours |
| :---: | :---: |
| Required Courses |  |
| Choose 8-12 hours in the following: | 8-12 |
| PIAN 5020 Master's-Level Piano for Performance Majors ${ }^{1}$ |  |
| GRRE 5042 Graduate Recital-Master of Music Degree or MUED 5652 | 2 |
| Core Courses |  |
| Musicology/Music Literature |  |
| Choose any graduate level MUSC or MULI courses | 6 |
| Music Theory |  |
| Choose any graduate level MUTH course ${ }^{2}$ | 6 |
| Electives | 6-10 |
| Choose 6-10 hours of Piano Pedagogy and Literature emphasis |  |

Total Credit Hours
${ }^{1}$ Students may not take less than 8 hours of PIAN 5020 and are not allowed to apply more than 12 hours of PIAN 5020 to the degree. Piano majors must enroll in PIAN 5020 for at least two consecutive 16 week semesters.
2 Except for any Music Technology courses.
${ }^{3}$ Two semesters of Instrumental Chamber Music may be applied to degree electives.

## Piano Pedagogy and Literature

Students interested in private and/or group piano teaching may develop an emphasis in the piano pedagogy degree program by devoting all of the music electives to study in that area (Choose from the courses listed below). If approved, a workshop for piano teachers may be presented in lieu of the recital performance.

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| MUED 5612 | Piano Pedagogy I | 2 |
| MUED 5622 | Piano Pedagogy II | 2 |
| MUED 5642 | Internship in Piano Teaching | 2 |
| MUED 5652 | 1 | 2 |
| MUED 5662 | Teaching Intermediate and Advanced Piano | 2 |
| 1 |  |  |
| MUED 5652 must include a three hour public presentation in teaching |  |  |
| techniques and materials for piano teachers. |  |  |

## General Requirements for all Master's Degrees

The master's degree requires the equivalent of at least two semesters of satisfactory graduate work and additional work as may be prescribed for the degree

All coursework applied to the master's degree must carry graduate credit.
Master's degree programs which require a thesis consist of at least 30 credit hours. All non-thesis master's degree programs require at least 30 credit hours.

Credit transferred from other institutions must meet specific criteria and is subject to certain limitations.

Courses completed through correspondence study may not be applied to the master's degree.

To qualify for a graduate degree, students must achieve an overall grade point average of 3.0 or higher in the degree program coursework and in all resident graduate coursework attempted. A student must also have at least a 3.0 in all coursework (including undergraduate coursework if any)

Additional information for master's degree students may be found in the Graduate College Bulletin.

## Voice: Opera, M.M.

Minimum Total Hours (Non-Thesis): 32
Program Code: M730 Q481

## Required Courses

Students will be advised early in the first semester of academic, linguistic or diction deficiencies that must be addressed before graduation

| Code Title | Credit |
| :---: | :---: |
| Required Course |  |
| Choose 8 hours in the following: | 8 |
| VOIC 5020 Master's-Level Voice for Performance <br>  Majors |  |
| Core Courses |  |
| Musicology |  |
| Choose 3 hours ${ }^{1}$ | 3 |
| Music Theory |  |
| Choose any graduate level MUTH course ${ }^{2}$ | 3 |
| Choose 4 semesters of the following: | 8 |

MUTE 5290 Opera Production


## General Requirements for all Master's Degrees

The master's degree requires the equivalent of at least two semesters of satisfactory graduate work and additional work as may be prescribed for the degree.

All coursework applied to the master's degree must carry graduate credit.
Master's degree programs which require a thesis consist of at least 30 credit hours. All non-thesis master's degree programs require at least 30 credit hours.

Credit transferred from other institutions must meet specific criteria and is subject to certain limitations.

Courses completed through correspondence study may not be applied to the master's degree.

To qualify for a graduate degree, students must achieve an overall grade point average of 3.0 or higher in the degree program coursework and in all resident graduate coursework attempted. A student must also have at least a 3.0 in all coursework (including undergraduate coursework if any).

Additional information for master's degree students may be found in the Graduate College Bulletin.

## Voice: Performance, M.M.

Minimum Total Hours (Non-Thesis): 32
Program Code: M730 Q506

## Required Courses

Required foreign language competence in Italian (equivalent to satisfactory completion of OU's courses ITAL 1115 and ITAL 1225), French (equivalent to satisfactory completion of OU's course FR 1115), and German (equivalent to satisfactory completion of OU's course GERM 1115). Courses taken to fulfill this requirement are not included in the 32 hour total.


## General Requirements for all Master's Degrees

The master's degree requires the equivalent of at least two semesters of satisfactory graduate work and additional work as may be prescribed for the degree.

All coursework applied to the master's degree must carry graduate credit.
Master's degree programs which require a thesis consist of at least 30 credit hours. All non-thesis master's degree programs require at least 30 credit hours.

Credit transferred from other institutions must meet specific criteria and is subject to certain limitations.

Courses completed through correspondence study may not be applied to the master's degree.

To qualify for a graduate degree, students must achieve an overall grade point average of 3.0 or higher in the degree program coursework and in all resident graduate coursework attempted. A student must also have at least a 3.0 in all coursework (including undergraduate coursework if any).

Additional information for master's degree students may be found in the Graduate College Bulletin.

## Wind, Percussion, String, M.M.

Minimum Total Hours (Non-Thesis): 32
Program Code: M735
Required Courses


## General Requirements for all Master's Degrees

The master's degree requires the equivalent of at least two semesters of satisfactory graduate work and additional work as may be prescribed for the degree

All coursework applied to the master's degree must carry graduate credit.
Master's degree programs which require a thesis consist of at least 30 credit hours. All non-thesis master's degree programs require at least 30 credit hours.

Credit transferred from other institutions must meet specific criteria and is subject to certain limitations

Courses completed through correspondence study may not be applied to the master's degree.

To qualify for a graduate degree, students must achieve an overall grade point average of 3.0 or higher in the degree program coursework and in all resident graduate coursework attempted. A student must also have at least a 3.0 in all coursework (including undergraduate coursework if any).

Additional information for master's degree students may be found in the Graduate College Bulletin.

## Conducting, M.M.Ed.

Minimum Total Hours (Thesis): 32
Minimum Total Hours (Non-Thesis): 32
Program Code: M707

## Required Courses

The requirements listed on this degree check sheet apply to the following concentrations in Conducting

- Choral - M707 Q111
- Instrumental - M707 Q37


## Thesis Option

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Required Courses |  |  |
| Music Education |  | 2 |
| MUED 5212 | Research in Music Education | 2 |
| MUED 6442 | Current Trends in Music Education | 2 |
| MUED 6212 | Measurement and Evaluation in Music <br>  Education |  |

## Degree Emphasis

Choose one of the following: 10

Choral Conducting (p. 1561)
Instrumental Conducting (p. 1561)
Core Courses
Ethnomusicology/Music History
Choose any graduate level MUHI, MUSC, or MULI courses

Music Theory
Choose any graduate level MUTH course 3

Electives
Choose one approved academic course outside the School of 3
Music or one additional course in Music Theory
Thesis

| MUED 5980 | Research for Master's Thesis | 4 |
| :--- | ---: | ---: |
| Total Credit Hours | 32 |  |

Non-Thesis Option

Code Title Credit

## Required Courses

Music Education
MUED 5212 Research in Music Education 2
MUED 6442 Current Trends in Music Education 2
MUED 6212 Measurement and Evaluation in Music 2

| Degree Emphasis |  |
| :---: | :---: |
| Choose one of the following: | 10 |
| Choral Conducting (p. 1561) |  |
| Instrumental Conducting (p. 1561) |  |
| Core Courses |  |
| Ethnomusicology/Music History |  |
| Choose any graduate level MUHI, MUSC, or MULI courses | 6 |
| Music Theory |  |
| Choose any graduate level MUTH course | 3 |
| Electives |  |
| General |  |
| Choose electives to expand competency in music education, music history/literature, music theory, applied music, composition, and conducting | 4 |
| Outside/Music Theory |  |
| Choose one approved academic course outside the School of Music or one additional course in Music Theory | 3 |
| Total Credit Hours | 32 |
| Degree Emphases |  |
| Choral Conducting |  |
| Code Title | Credit |
|  | Hours |
| Choose 4 hours in each of the following: | 8 |
| MUTE 5512 Choral Conducting |  |
| MUTE 6152 Choral Score Studies |  |
| Choose 2 hours in one or both of the following: | 2 |
| MUTE 5160 University Chorale |  |
| MUTE 5170 |  |
| Total Credit Hours | 10 |
| Instrumental Conducting |  |
| Code Title | Credit |
|  | Hours |
| Choose 4 hours in the following: | 4 |
| MUTE 5522 Instrumental Conducting |  |
| MUTE 5532 Instrumental Score Studies | 2 |
| Choose 4 hours of advised electives in Music Education | 4 |
| Total Credit Hours | 10 |

## General Requirements for all Master's Degrees

The master's degree requires the equivalent of at least two semesters of satisfactory graduate work and additional work as may be prescribed for the degree.

All coursework applied to the master's degree must carry graduate credit.
Master's degree programs which require a thesis consist of at least 30 credit hours. All non-thesis master's degree programs require at least 30 credit hours.

Credit transferred from other institutions must meet specific criteria and is subject to certain limitations.

Courses completed through correspondence study may not be applied to the master's degree.

To qualify for a graduate degree, students must achieve an overall grade point average of 3.0 or higher in the degree program coursework and in all resident graduate coursework attempted. A student must also have at least a 3.0 in all coursework (including undergraduate coursework if any).

Additional information for master's degree students may be found in the Graduate College Bulletin.

## General Music Education, M.M.Ed.

Minimum Total Hours (Thesis): 32
Minimum Total Hours (Non-Thesis): 32
Program Code: M706

## Required Courses

The requirements listed on this degree check sheet apply to the following concentrations in General Music Education.

- Kodaly Concepts ${ }^{1}$ - M706 Q401
- National Board Certification in Music ${ }^{2}$ - M706 Q461
- Vocal/Standard ${ }^{1}$ - M706 Q686
- Pedagogy and Practice - M706 Q502
${ }^{1}$ Approval by advisory committee must be given no later than second semester of study if student plans to do a thesis.
${ }^{2}$ A recent video recording, with good audio quality, of classroom instruction or ensemble rehearsal that demonstrates teaching effectiveness is required.


## Thesis Option

| Code | Title | Credit Hours |
| :---: | :---: | :---: |
| Required Courses |  |  |
| MUED 5212 | Research in Music Education | 2 |
| MUED 6212 | Measurement and Evaluation in Music Education | 2 |
| MUED 6442 | Current Trends in Music Education | 2 |
| Core Courses |  |  |
| Music History |  |  |
| Choose any graduate credit MUSC or MULI courses |  | 6 |
| Music Theory |  |  |
| Choose any graduate credit MUTH course |  | 3 |
| Electives |  |  |
| Outside/Music Theory |  |  |
| Choose one approved academic course outside the School of Music or one additional course in Music Theory as approved by the student's Music Education advisor |  | 3 |
| Degree Emphasis |  |  |
| Choose one of the following: |  | 10 |
| Kodaly Concepts (p. 1562) |  |  |
| National Board Certification in Music (p. 1562) |  |  |
| Vocal/Standard (p. 1562) |  |  |
| Pedagogy and Practice (p. 1562) |  |  |



Total Credit Hours

## Degree Emphases

## Kodaly Concepts

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| MUED 5553 | Kodaly Concept I | 3 |
| MUED 5562 | Solfege I | 2 |
| MUED 5563 | Kodaly Concept II | 3 |
| MUED 5572 | Solfege II | $\mathbf{2}$ |
| Total Credit Hours | $\mathbf{1 0}$ |  |

National Board Certification in Music

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| MUED 5970 | Seminar in Music Education (National <br> Board Certification Seminar) | 2 |
| MUED 5990 | Special Studies in Music Education <br> (Practicum in Music Teaching) | 2 |

American Council of Education Transfer Credit (National 3 Certification Portfolio)
Choose one of the following:
American Council of Education Transfer Credit (National
Certification Completion)
MUED elective approved by the student's Music Education
advisor

American Council of Education Transfer Credit (National Certification Completion) advisor

Total Credit Hours 10

## Vocal/Standard

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| MUED 5522 | Advanced Vocal Pedagogy | 2 |
| MUED 5562 | Solfege I | 2 |
| MUED 5970 | Seminar in Music Education (Multicultural | 1 |
|  | Music Seminar) |  |
| MUED 5970 | Seminar in Music Education (Choral | 1 |
|  | Conducting Seminar) |  |
| VOIC 5010 | Master's-Level Voice for Non-Performance | 4 |
|  | Music Majors |  |

Total Credit Hours ..... 10

Pedagogy and practice

| Code Title | Credit |
| :--- | :--- |
|  | Hours |

Choose one of the following: 2

| MUED 5312 | Advanced Pedagogy and Practice in <br> Instrumental Music |  |
| :---: | :--- | :--- |
| MUED 5322 | Advanced Pedagogy and Practice in Choral <br> Music | 4 |
| MUED 5334 | Capstone Project in Music Education | 4 |
| Graduate level MUED electives as approved by the student's |  |  |
| Music Education advisor |  |  |

Total Credit Hours

## General Requirements for all Master's Degrees

The master's degree requires the equivalent of at least two semesters of satisfactory graduate work and additional work as may be prescribed for the degree.

All coursework applied to the master's degree must carry graduate credit

Master's degree programs which require a thesis consist of at least 30 credit hours. All non-thesis master's degree programs require at least 30 credit hours.

Credit transferred from other institutions must meet specific criteria and is subject to certain limitations.

Courses completed through correspondence study may not be applied to the master's degree.

To qualify for a graduate degree, students must achieve an overall grade point average of 3.0 or higher in the degree program coursework and in all resident graduate coursework attempted. A student must also have at least a 3.0 in all coursework (including undergraduate coursework if any).

Additional information for master's degree students may be found in the Graduate College Bulletin.

## Instrumental, M.M.Ed.

Minimum Total Hours (Thesis): 32
Minimum Total Hours (Non-Thesis): 32
Program Code: M708

## Required Courses

The requirements listed on this degree check sheet apply to the following concentrations in Instrumental Music Education.

- Primary ${ }^{1}$ - M708 Q373
- Secondary ${ }^{1}$ - M708 Q372

1 Approval by advisory committee must be given no later than second semester of study if student plans to do a thesis.

## Thesis Option



Music Theory
Choose any graduate level MUTH course 3

Electives
Choose one approved academic course outside the School of 3
Music or one additional course in Music Theory
Thesis

| MUED 5980 | Research for Master's Thesis | 4 |
| :--- | ---: | ---: |
| Total Credit Hours | 32 |  |

## Non-Thesis Option

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Required Courses |  |  |
| Music Education |  | 2 |
| MUED 5212 | Research in Music Education | 2 |


| MUED 6212 | Measurement and Evaluation in Music Education | 2 |
| :---: | :---: | :---: |
| MUED 6442 | Current Trends in Music Education | 2 |
| Degree Emphasis |  |  |
| Choose one of the following emphases: |  | 10 |
| Primary: |  |  |
| MUED 5970 | Seminar in Music Education (4 hours) |  |
| XXXX 5010 Applied Study (in primary instrument) (6 hours) |  |  |
| Secondary: |  |  |
| MUED 5970 Seminar in Music Education (4 hours) |  |  |
| XXXX 5000 Applied Study (in secondary instrument) (6 hours) |  |  |
| Core Courses |  |  |
| Ethnomusicology/Music History |  |  |
| Choose any graduate level MUHI, MUSC or MULI courses |  | 6 |
| Music Theory |  |  |
| Choose any graduate level MUTH course |  | 3 |
| Electives |  |  |
| General |  |  |
| Choose electives to expand competency in music education, music history/literature, music theory, applied music, composition and conducting |  |  |
| Outside/Music Theory |  |  |
| Choose one approved academic course outside the School of Music or one additional course in Music Theory |  | 3 |
| Total Credit Hours |  | 32 |

## General Requirements for all Master's Degrees

The master's degree requires the equivalent of at least two semesters of satisfactory graduate work and additional work as may be prescribed for the degree.

All coursework applied to the master's degree must carry graduate credit.
Master's degree programs which require a thesis consist of at least 30 credit hours. All non-thesis master's degree programs require at least 30 credit hours.

Credit transferred from other institutions must meet specific criteria and is subject to certain limitations.

Courses completed through correspondence study may not be applied to the master's degree.

To qualify for a graduate degree, students must achieve an overall grade point average of 3.0 or higher in the degree program coursework and in all resident graduate coursework attempted. A student must also have at least a 3.0 in all coursework (including undergraduate coursework if any).

Additional information for master's degree students may be found in the Graduate College Bulletin.

## Piano Pedagogy, M.M.Ed.

Minimum Total Hours (Non-Thesis): 32

Program Code: M709

## Required Courses

| Code | Title | Credit Hours |
| :---: | :---: | :---: |
| Required Courses |  |  |
| MUED 5212 | Research in Music Education | 2 |
| MUED 6442 | Current Trends in Music Education | 2 |
| Choose 2 hours per semester for two semesters in the following: |  | 4 |
| PIAN 5010 | Master's-Level Piano for Non-Performance Music Majors |  |
| MUED 5612 | Piano Pedagogy I | 2 |
| MUED 5622 | Piano Pedagogy II | 2 |
| Core Courses |  |  |
| Music History/Ethnomusicology |  |  |
| Choose any graduate level MUHI, MUSC, or MULI courses |  | 6 |
| Music Theory |  |  |
| Choose any graduate level MUTH course |  | 3 |
| Music Education Foundation Course |  |  |
| Choose one of the following: |  | 2 |
| MUED 6212 | Measurement and Evaluation in Music Education |  |
| MUED 6022 | Psychological Foundations of Music Education |  |
| MUED 6032 | Sociological Foundations of Music Education |  |
| Electives |  |  |
| General |  |  |
| Choose one approved academic course outside the School of Music or one additional Music Theory course |  | 3 |
| Music Education |  |  |
| Choose 4 hours from Music History and Literature, Ethnomusicology, Theory, Conducting, Composition, Applied Music, Music Education, Piano Pedagogy, or Piano Literature courses |  | 4 |
| Piano Pedagogy |  |  |
| Choose 2 hours; the following are advised electives: |  | 2 |
| MUED 5662 | Teaching Intermediate and Advanced Piano |  |
| MUED 5642 | Internship in Piano Teaching |  |
| MUED 5970 | Seminar in Music Education (Applied Research in Piano Pedagogy) |  |
| MUED 5970 | Seminar in Music Education (Ensemble Music in Piano Teaching) |  |

Total Credit Hours

## General Requirements for all Master's Degrees

The master's degree requires the equivalent of at least two semesters of satisfactory graduate work and additional work as may be prescribed for the degree.

All coursework applied to the master's degree must carry graduate credit.
Master's degree programs which require a thesis consist of at least 30 credit hours. All non-thesis master's degree programs require at least 30 credit hours.

Credit transferred from other institutions must meet specific criteria and is subject to certain limitations.

Courses completed through correspondence study may not be applied to the master's degree.

To qualify for a graduate degree, students must achieve an overall grade point average of 3.0 or higher in the degree program coursework and in all resident graduate coursework attempted. A student must also have at least a 3.0 in all coursework (including undergraduate coursework if any),

Additional information for master's degree students may be found in the Graduate College Bulletin.

## Conducting, D.M.A.

Minimum Total Hours: 90
Program Code: D707

## Program Requirements

## Concentrations

- Choral Conducting (R113)
- Church Music (R114)
- Orchestral Conducting (R476)
- Wind Conducting (R676)

Code Title Credit Hours

## Coursework Requirements

Master's degree or equivalent 32
Core Coursework
Music Theory (excluding MUTH 5811, MUTH 5821, and Music 9
Technology courses)
Enrollment is three semesters, as advised, of the following 6 courses:

| GDMA 6042 | Graduate Recital-Doctor Of Musical Arts <br> Degree |
| :---: | :--- |
| LDMA 6052 | Graduate Lecture/Chamber Recital--Doctor <br> Of Musical Arts Degree |

Area of Concentration
Choose one of the following areas of concentration:
Choral Conducting Concentration (p. 1565)
Church Music Concentration (p. 1565)
Orchestral Conducting Concentration (p. 1565)
Wind Conducting Concentration (p. 1565)
Written Document
MUS 6880
Doctor of Musical arts Project (No more than the required 6 hours may be applied to the degree)

| CHORAL CONDUCTING (R113) |  |  |
| :---: | :---: | :---: |
| Code | Title | Credit |
|  |  | Hours |
| Choral Conducting Concentration |  |  |
| MUTE 6252 | Choral Conducting (No more than the required 8 hours may be applied to the degree) | 8 |
| MUTE 6152 | Choral Score Studies (No more than the required 8 hours may be applied to the degree) | 8 |
| Musicology/M | c Literature | 9 |
| Electives - as ap advisor | roved by the graduate liaison and program | 12 |
| CHURCH MUSIC (R114) |  |  |
| Code | Title | Credit |
|  |  | Hours |
| Church Music Concentration |  |  |
| MUTE 6252 | Choral Conducting (No more than the required 8 hours may be applied to the degree) | 8 |
| MUTE 6152 | Choral Score Studies (No more than the required 8 hours may be applied to the degree) | 8 |
| Musicology |  | 6 |
| MUTE 5423 | History and Fundamentals of Pipe Organ Construction and Design (Required if not taken during the master's degree) | 0-3 |
| MULI 5483 | Hymnody (Required if not taken during the master's degree) | 0-3 |
| MUTE 5413 | Church Music Practicum (Required if not taken during the master's degree) | 0-3 |
| One semester of choral ensemble, as approved by the graduate liaison and program advisor |  | 1 |
| MUTE 5160 | University Chorale |  |
| MUTE 5180 |  |  |
| Electives - to be chosen from the following, as approved by the graduate liaison and program advisor: |  | 5-14 |
| COMP 6000 | Doctoral Secondary Composition |  |
| VOIC 6000 | Doctoral Secondary Voice |  |
| ORGN 6000 | Doctoral Secondary Organ |  |
| RELS 6960 | Advanced Readings in Religious Studies |  |
| MUTE 5342 | Jazz Improvisation |  |
| ORCHESTRAL CONDUCTING (R476) |  |  |
| Code | Title | Credit |
|  |  | Hours |
| Orchestral Conducting Concentration |  |  |
| MUTE 6262 | Instrumental Conducting (Enroll in the section taught by the Director of Orchestral Activities or their designate. No more than the required 8 hours may be applied to the degree) | 8 |

MUTE 6162
Instrumental Score Studies (Enroll in the section taught by the Director of Orchestral Activities or their designate. No more than the required 8 hours may be applied to the degree)
Musicology/Music Literature ..... 9
Electives - as approved by the graduate liaison and program ..... 12

advisor

## WIND CONDUCTING (R676)

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: | :--- |
| Wind Conducting Concentration |  |  |
| MUTE 6262 | Instrumental Conducting (Enroll in the <br> section taught by the Director of Bands or <br> their designate. No more than the required <br> 8 | 8 |
| MUTE 6162 | Instrumental Score Studies (Enroll in the <br> section taught by the Director of Bands or <br> their designate. No more than the required | 8 |
| 8 hours may be applied to the degree.) |  |  | advisor

## General Requirements for Doctoral Degrees

A student should expect to spend at least the equivalent of three full academic years beyond the bachelor's degree to obtain the doctoral degree. During this period the student will take appropriate graduate coursework, successfully complete the general examination, and successfully defend and submit the final dissertation.

All coursework applied to the doctoral degree must carry graduate credit.
The doctoral degree requires at least 90 post-baccalaureate hours, including both formal coursework and hours of research.

The minimum hour requirement for a specific doctoral degree program cannot be waived.

No more than one-half of the credit hours, both OU and overall, excluding Research for Doctoral Dissertation (6980), may be $S / U$-graded coursework.

The student must be in residence at OU for at least two consecutive 16week semesters during the pursuit of the doctoral degree while enrolled and engaged in coursework or research activities as prescribed by the major academic unit.

For more detailed regulations and requirements for Doctoral degrees, please consult the Graduate College Bulletin: http://www.ou.edu/ gradcollege/forms/bulletin

## Music Composition, D.M.A.

Minimum Total Hours: 90
Program Code: D705

# Program Requirements 

| Code | Title | Credit Hours |
| :---: | :---: | :---: |
| Coursework Requirements |  |  |
| Master's degree | or equivalent ${ }^{1}$ | 32 |
| Core Coursework |  |  |
| COMP 6020 | Doctoral Composition for Performance Majors (No more than the required 10 hours may be applied to the degree) | 10 |
| Musicology/Mu MUSC, or MULI | ic Literature (Any three graduate level MUHI, ourses may be taken) | 9 |
| Music Theory (A courses with th | y two graduate level Music Theory (MUTH) se exceptions: MUTH 5811, MUTH 5821. ${ }^{2}$ | 6 |
| Ensembles |  | 2 |
| Two semeste voice in appr ensemble, an section of MU | s of participation on principal instrument or priate section of MUTE $50 \times 0$ ensemble, $51 \times 0$ /or New Century Ensemble (appropriate TE 5271 as advised.) |  |
| Recitals |  | 4 |
| Enrollment in two semesters, as advised, of the following courses: |  |  |
| GDMA 6042 | Graduate Recital-Doctor Of Musical Arts Degree |  |
| LDMA 6052 | Graduate Lecture/Chamber Recital--Doctor Of Musical Arts Degree |  |
| Music Technology |  |  |
| MUTK 5163 | Real Time MIDI Control |  |
| MUTK 5133 | Introduction to Digital Signal Processing |  |
| Electives as adv |  | 15 |
| Written Document |  |  |
| MUS 6880 | Doctor of Musical arts Project (No more than the required 8 hours may be applied to the degree) | 6 |
| Total Credit Hou |  | 90 |
| ${ }^{1}$ If your MM is not 32 hours, adjustments will need to be made. Contact the Graduate Music Office. <br> ${ }^{2}$ No coursework taken to remedy deficiencies in Music Theory determined by the student's score on the Preliminary Exam may be applied to this requirement and no Music Technology (MUTK) course may be applied to this requirement. |  |  |

## General Requirements for Doctoral Degrees

A student should expect to spend at least the equivalent of three full academic years beyond the bachelor's degree to obtain the doctoral degree. During this period the student will take appropriate graduate coursework, successfully complete the general examination, and successfully defend and submit the final dissertation.

All coursework applied to the doctoral degree must carry graduate credit.
The doctoral degree requires at least 90 post-baccalaureate hours, including both formal coursework and hours of research

The minimum hour requirement for a specific doctoral degree program cannot be waived.

No more than one-half of the credit hours, both OU and overall, excluding Research for Doctoral Dissertation (6980), may be S/U-graded coursework.

The student must be in residence at OU for at least two consecutive 16 week semesters during the pursuit of the doctoral degree while enrolled and engaged in coursework or research activities as prescribed by the major academic unit.

For more detailed regulations and requirements for Doctoral degrees, please consult the Graduate College Bulletin: http://www.ou.edu/ gradcollege/forms/bulletin

## Piano, D.M.A.

Minimum Total Hours: 90

Program Code: D725

## Program Requirements

## Concentrations:

- Piano Performance (R506)
- Piano Performance and Pedagogy (R511)

| Code Title | Credit |
| :---: | :---: |
| Coursework Requirements |  |
| Master's degree or equivalent | 32 |
| Core Coursework |  |
| PIAN $6020 \quad$Doctoral Piano for Performance Majors (No <br> more than the required 16 hours may be <br> applied to the degree) | 16 |
| Musicology/Music Literature (Any graduate level MUHI, MUSC, or MULI courses may be taken) | 9 |
| Music Theory (Any graduate level MUTH course except MUTH 5811, MUTH 5821, or any Music Technology courses may be taken) | 9 |
| Area of Concentration | 18 |
| Choose one of the following areas of concentration: |  |
| Piano Performance Concentration (p. 1566) |  |
| Piano Performance and Pedagogy Concentration (p. 1567) |  |
| Written Document |  |
| MUS 6880 Doctor of Musical arts Project (No more <br> than the required 6 hours may be applied to  <br> the degree)  | 6 |

Total Credit Hours

## PIANO PERFORMANCE CONCENTRATION (R506)

| Code Title | Credit |
| :--- | :--- |
|  | Hours |

## Piano Performance Area of Concentration

Recitals - Enroll in three semesters, as advised, of the
following courses:
GDMA 6042 Graduate Recital-Doctor Of Musical Arts Degree

| LDMA 6052 | Graduate Lecture/Chamber Recital--Doctor Of Musical Arts Degree |  |
| :---: | :---: | :---: |
| Electives - Grad | ate credit electives as advised. | 12 |
| PIANO PERFORMANCE AND PEDAGOGY CONCENTRATION (R511) |  |  |
| Code | Title | Credit Hours |
| Piano Performance and Pedagogy Concentration |  |  |
| GDMA 6042 | Graduate Recital-Doctor Of Musical Arts Degree (4 hours over two semesters) | 4 |
| MUED 6652 | Doctoral Workshop in Piano Pedagogy | 2 |
| Required Coursework |  |  |
| MUED 5612 | Piano Pedagogy I | 2 |
| MUED 5622 | Piano Pedagogy II | 2 |
| Electives - Grad | credit electives as advised. | 8 |

## General Requirements for Doctoral Degrees

A student should expect to spend at least the equivalent of three full academic years beyond the bachelor's degree to obtain the doctoral degree. During this period the student will take appropriate graduate coursework, successfully complete the general examination, and successfully defend and submit the final dissertation.

All coursework applied to the doctoral degree must carry graduate credit.
The doctoral degree requires at least 90 post-baccalaureate hours, including both formal coursework and hours of research.

The minimum hour requirement for a specific doctoral degree program cannot be waived.

No more than one-half of the credit hours, both OU and overall, excluding Research for Doctoral Dissertation (6980), may be $S / U$-graded coursework.

The student must be in residence at OU for at least two consecutive 16week semesters during the pursuit of the doctoral degree while enrolled and engaged in coursework or research activities as prescribed by the major academic unit.

For more detailed regulations and requirements for Doctoral degrees, please consult the Graduate College Bulletin: http://www.ou.edu/ gradcollege/forms/bulletin

## Organ, D.M.A.

Minimum Total Hours: 90
Program Code: D724

## Program Requirements

## Concentrations:

- Organ Standard (R479)
- Church Music (R114)

| Code $\quad$ Title | Credit <br> Hours |
| :--- | ---: |
| Coursework Requirements |  |
| Master's degree or equivalent $^{1}$ | 32 |


| Core Coursework |  |  |
| :---: | :---: | :---: |
| ORGN 6020 | Doctoral Organ for Performance Majors (No more than 16 hours may be applied to the degree) | 16 |
| Musicology/Music Literature |  | 6 |
| MUTE 5423 | History and Fundamentals of Pipe Organ Construction and Design (Required if not take during the master's degree) | 0-3 |
| Music Theory (excluding MUTH 5811, MUTH 5821, and Music Technology courses) |  | 9 |
| Enroll in three semesters, as advised, of the following courses: |  | 6 |
| GDMA 6042 | Graduate Recital-Doctor Of Musical Arts Degree |  |
| LDMA 6052 | Graduate Lecture/Chamber Recital--Doctor Of Musical Arts Degree |  |
| Area of Concentration |  | 12-15 |
| Choose an area of concentration from the following: |  |  |
| Standard/Performance Concentration (p. 1567) |  |  |
| Church Music Concentration (p. 1567) |  |  |
| Written Document |  |  |
| MUS 6880 | Doctor of Musical arts Project (No more than the required 6 hours may be applied to the degree) | 6 |

Total Credit Hours
${ }^{1}$ Up to 32 hours as needed to reach the 90 hours required for the degree.

## STANDARD CONCENTRATION (R479)

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Standard/Performance Area of Concentration |  |  |
| MULI 5453 | Organ Literature I: Renaissance and <br> Baroque (Required if not taken during the <br> master's degree) | $0-3$ |
| MULI 5463 | Organ Literature II: 1750-1900 (Required if <br> not taken during the master's degree) | $0-3$ |
| MULI 5473 | Organ Literature III: 1900-Present (Required <br> if not taken during the master's degree) | $0-3$ |
| Electives - may be chosen from any area as long as the <br> course is at the 5000 level or above, with approval of program <br> advisor and graduate liaison | $3-15$ |  |

## CHURCH MUSIC CONCENTRATION (R114)

| Code | Title | Credit |
| :---: | :---: | :---: |
| Church Music Concentration |  |  |
| Choose two co during the mas | ses from the following (required if not taken 's degree): | 0-6 |
| MULI 5453 | Organ Literature I: Renaissance and Baroque |  |
| MULI 5463 | Organ Literature II: 1750-1900 |  |
| MULI 5473 | Organ Literature III: 1900-Present |  |
| MULI 5483 | Hymnody (Required if not taken during the master's degree) | 0-3 |


| MUTE 5413 | Church Music Practicum (Required if not taken during the master's degree) | 0-3 |
| :---: | :---: | :---: |
| One semester of choral ensemble, as approved by the graduate liaison and program advisor: |  | 1 |
| MUTE 5160 | University Chorale |  |
| MUTE 5180 |  |  |
| Electives - to be chosen from the following as approved by the graduate liaison and program advisor: |  | 0-14 |
| MUTE 6252 | Choral Conducting ( $2-4$ hours) |  |
| MUTE 6152 | Choral Score Studies (2-4 hours) |  |
| COMP 6000 | Doctoral Secondary Composition (2-4 hours) |  |
| VOIC 6000 | Doctoral Secondary Voice (2-4 hours) |  |
| RELS 6960 | Advanced Readings in Religious Studies (3 hours) |  |
| MUTE 5342 | Jazz Improvisation |  |

## General Requirements for Doctoral Degrees

A student should expect to spend at least the equivalent of three full academic years beyond the bachelor's degree to obtain the doctoral degree. During this period the student will take appropriate graduate coursework, successfully complete the general examination, and successfully defend and submit the final dissertation.

All coursework applied to the doctoral degree must carry graduate credit.
The doctoral degree requires at least 90 post-baccalaureate hours, including both formal coursework and hours of research.

The minimum hour requirement for a specific doctoral degree program cannot be waived.

No more than one-half of the credit hours, both OU and overall, excluding Research for Doctoral Dissertation (6980), may be S/U-graded coursework.

The student must be in residence at OU for at least two consecutive 16week semesters during the pursuit of the doctoral degree while enrolled and engaged in coursework or research activities as prescribed by the major academic unit.

For more detailed regulations and requirements for Doctoral degrees, please consult the Graduate College Bulletin: http://www.ou.edu/ gradcollege/forms/bulletin

## Voice, D.M.A.

Minimum Total Hours: 90
Program Code: D730

## Program Requirements

## Concentrations

- Voice Performance (R506)
- Voice Performance and Pedagogy (R511)


## Code Title

Credit
Hours

## Coursework Requirements

Master's degree or equivalent

| VOIC 6020 | Doctoral Voice for Performance Majors (No more than the required 16 hours may be applied to the degree) | 16 |
| :---: | :---: | :---: |
| Musicology/Music Literature (Any graduate level MUHI, MUSC, or MULI courses may be taken) |  |  |
| Music Theory (Any graduate level MUTH course except MUTH 5811, MUTH 5821, or any Music Technology courses may be taken) |  |  |
| Area of Concentration |  | 18 |
| Choose one of the following areas of concentration: |  |  |
| Voice Performance Concentration (p. 1568) |  |  |
| Voice Performance and Pedagogy Concentration (p. 1568) |  |  |
| Written Document |  |  |
| MUS 6880 | Doctor of Musical arts Project (No more than the required 6 hours may be applied to the degree) |  |
| Total Credit Hours |  | 90 |
| VOICE PERFORMANCE CONCENTRATION (R506) |  |  |
| Code | Title | Credit |
| Voice Performance Area of Concentration |  |  |
| Recitals - Enroll in three semesters, as advised, of the following courses: |  |  |
| GDMA 6042 Graduate Recital-Doctor Of Musical Arts Degree |  |  |
| LDMA 6052 | Graduate Lecture/Chamber Recital--Doctor Of Musical Arts Degree |  |
| Electives - Grad | te credit electives as advised. | 12 |
| VOICE PERFORMANCE AND PEDAGOGY CONCENTRATION (R511) |  |  |
|  |  |  |
| Code | Title | Credit |
| Voice Performance and Pedagogy Concentration |  |  |
| Vocal Pedagogy Requirement |  |  |
| MUED 5522 | Advanced Vocal Pedagogy |  |
| Enroll in three semesters, as advised, of the following courses: |  |  |
| GDMA 6042 | Graduate Recital-Doctor Of Musical Arts Degree |  |
| LDMA 6052 | Graduate Lecture/Chamber Recital--Doctor Of Musical Arts Degree |  |
| MUED 6642 | Workshop in Vocal Pedagogy |  |
| Electives in Mus advised. | and Pedagogy- Graduate credit electives as | 10 | advised.

## General Requirements for Doctoral Degrees

A student should expect to spend at least the equivalent of three full academic years beyond the bachelor's degree to obtain the doctoral degree. During this period the student will take appropriate graduate coursework, successfully complete the general examination, and successfully defend and submit the final dissertation.

All coursework applied to the doctoral degree must carry graduate credit.

The doctoral degree requires at least 90 post-baccalaureate hours, including both formal coursework and hours of research.

The minimum hour requirement for a specific doctoral degree program cannot be waived.

No more than one-half of the credit hours, both OU and overall, excluding Research for Doctoral Dissertation (6980), may be S/U-graded coursework.

The student must be in residence at OU for at least two consecutive 16week semesters during the pursuit of the doctoral degree while enrolled and engaged in coursework or research activities as prescribed by the major academic unit.

For more detailed regulations and requirements for Doctoral degrees, please consult the Graduate College Bulletin: http://www.ou.edu/ gradcollege/forms/bulletin

## Wind, Percussion, String, D.M.A.

Minimum Total Hours: 90
Program Code: D735
Program Requirements

| Code | Title | Credit <br> Hours |
| :---: | :---: | :---: |
| Coursework Requirements |  |  |
| Master's degree or equivalent |  | 32 |
| Core Coursework |  |  |
| XXXX 6060 Applied Study, in major instrument (No more than the required 16 hours may be applied toward the degree) |  | 16 |
| Musicology/Music Literature (Any graduate level MUHI, MUSC, or MULI courses may be taken) |  | 9 |
| Music Theory (Any graduate level MUTH course except MUTH 5811, MUTH 5821, or any Music Technology courses may be taken) |  | 9 |
| Recitals |  | 6 |
| Enrollment in three semesters, as advised, of the following courses: |  |  |
| GDMA 6042 Graduate Recital-Doctor Of Musical Arts Degree |  |  |
| LDMA 6052 | Graduate Lecture/Chamber Recital--Doctor Of Musical Arts Degree |  |
| Electives |  | 12 |
| Written Document |  |  |
| MUS 6880 | Doctor of Musical arts Project (No more than the required 8 hours may be applied to the degree) | 6 |

## Total Credit Hours

## General Requirements for Doctoral Degrees

A student should expect to spend at least the equivalent of three full academic years beyond the bachelor's degree to obtain the doctoral degree. During this period the student will take appropriate graduate coursework, successfully complete the general examination, and successfully defend and submit the final dissertation.

All coursework applied to the doctoral degree must carry graduate credit.
The doctoral degree requires at least 90 post-baccalaureate hours, including both formal coursework and hours of research.

The minimum hour requirement for a specific doctoral degree program cannot be waived.

No more than one-half of the credit hours, both OU and overall, excluding Research for Doctoral Dissertation (6980), may be S/U-graded coursework.

The student must be in residence at OU for at least two consecutive 16week semesters during the pursuit of the doctoral degree while enrolled and engaged in coursework or research activities as prescribed by the major academic unit.

For more detailed regulations and requirements for Doctoral degrees, please consult the Graduate College Bulletin: http://www.ou.edu/ gradcollege/forms/bulletin

## Music Education, Ph.D.

Minimum Total Hours: 93
Program Code: D706

## Program Requirements

## Concentrations

- Choral/Instrument/Wind Conducting (R112)
- Kodaly Concepts (R401)
- Music Education Standard (R456)
.
Piano Pedagogy (521)

| Code | Title | Credit Hours |
| :---: | :---: | :---: |
| Coursework Requirements |  |  |
| Master's degr | or equivalent | 32 |
| Foundations of Music Education |  |  |
| MUED 6012 | Philosophical Foundations of Music Education | 2 |
| MUED 6022 | Psychological Foundations of Music Education | 2 |
| MUED 6032 | Sociological Foundations of Music Education | 2 |
| Electives in M | Education | 6 |
| Research in M | c Education | 4 |
| Degree Emph |  | 20 |
| Choose one of the following concentrations: |  |  |
| Music Education Standard (p. 1570) |  |  |
| Choral/Instrument/Wind Conducting (p. 1570) |  |  |
| Kodaly Concepts (p. 1570) |  |  |
| Piano Pedaogy (p. 1570) |  |  |
| Professional Support Areas |  |  |
| Music History 6 |  |  |
| Music Theory (excluding MUTH 5812 and 5822) 6 |  |  |
| Elective in MUHI or MUTH 3 |  |  |
| Dissertation Research |  |  |


| MUED $6980 \quad$ Research for Doctoral Dissertation | 10 |
| :--- | :--- | :--- |
| Total Credit Hours | 93 |

## Notes:

- The Ph.D. program requires satisfactory completion of ninety-three (93) credit hours of approved coursework beyond the Bachelor's degree. In most instances, the first thirty-two (32) of these hours come from the Master's degree.
- The Ph.D. in Music Education requires a dissertation.
- Each student is required to be "in residence" (i.e.: enrolled as a fulltime student) for at least two consecutive 16 -week semesters (i.e.: Fall and Spring or Spring and Fall).
- Each student is expected to complete all required coursework within four (4) years of taking any coursework beyond the thirty-two (32) hours of the Master's degree. At that time, the student must pass the General Examination.
- Assuming satisfactory completion of the General Examination within the allowed timeframe, the student will have five (5) years from that semester to complete the degree, including successfully proposing, completing, defending, and depositing two (2) copies of the written document in the library and submitting an electronic copy of the document to the Graduate College.


## Music Education (R456) <br> Code Titl

## Music Education Standard Concentration

Electives may be used to expand competency in music education, music history/literature, and/or music theory, or develop a related area of study in applied music, piano pedagogy, composition, conducting, music theater, education, psychology, or some other appropriate field which focuses on the career needs of the student.

## Choral/Instrument/Wind Conducting (R112)

| Code | Title |
| :---: | :---: |
| Choral or Wind Instrument Conducting Concentration |  |
| Students will select an emphasis in Choral Conducting or Instrumental Conducting |  |
| Choral Conducting |  |
| MUTE 6252 | Choral Conducting |
| MUTE 6152 | Choral Score Studies |
| MUTE 5160 | University Chorale |
| MUTE 5990 | Special Studies in Conducting (Special Studies in Choral Methods) |
| Instrumental Conducting |  |
| MUTE 5522 | Instrumental Conducting |
| MUTE 5532 | Instrumental Score Studies |
| MUTE 5130 or MUTE 5140 | University Orchestra |
| RPHD 6022 | Graduate Recital-Doctor of Philosophy Degree (OR approved elective in instrumental music) |

Additional Electives

## Credit

Hours

Electives may be used to expand competency in music education, music history/literature, and/or music theory, or develop a related area of study in applied music, piano pedagogy, composition, conducting, music theater, education, psychology, or some other appropriate field which focuses on the career needs of the student.

## Kodaly Concepts (R401)

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Kodaly Concepts Concentration | 3 |  |
| MUED 5553 | Kodaly Concept I | 3 |
| MUED 5563 | Kodaly Concept II | 3 |
| MUED 5573 | Kodaly Concept III | 2 |
| MUED 5582 | Folk Song Research | 3 |
| Kodaly-realted elective | 6 |  |
| Additional Electives |  |  |
| Electives may be used to expand competency in music <br> education, music history/literature, and/or music theory, <br> or develop a related area of study in applied music, piano <br> pedagogy, composition, conducting, music theater, education, <br> psychology, or some other appropriate field which focuses on <br> the career needs of the student. |  |  |

## Piano Pedagogy (R521)

Code Title Credit

| Piano Pedagogy Concentration |  |
| :--- | :--- | :--- |
| PIAN 6010 Doctoral Piano for Non-Performance Music <br> Majors  | 4 |

Additional electives selected from the following courses: 16

| MUED 5642 | Internship in Piano Teaching |
| :--- | :--- |
| MUED 6652 | Doctoral Workshop in Piano Pedagogy |
| MUED 5662 | Teaching Intermediate and Advanced Piano |
| MUED 5960 | Directed Readings |
| MUED 5990 | Special Studies in Music Education |
| RPHD 6022 | Graduate Recital-Doctor of Philosophy <br>  <br> Degree |
| MUED 6242 | Quantitative Research in Music Education |
| MUED 6222 | Qualitative Research in Music Education |
| Electives in music history, music literature, music theory, |  |
| music technique, or electives outside the School of Music |  |

## General Requirements for Doctoral Degrees

A student should expect to spend at least the equivalent of three full academic years beyond the bachelor's degree to obtain the doctoral degree. During this period the student will take appropriate graduate coursework, successfully complete the general examination, and successfully defend and submit the final dissertation.

All coursework applied to the doctoral degree must carry graduate credit.
The doctoral degree requires at least 90 post-baccalaureate hours, including both formal coursework and hours of research.

The minimum hour requirement for a specific doctoral degree program cannot be waived.

No more than one-half of the credit hours, both OU and overall, excluding Research for Doctoral Dissertation (6980), may be S/U-graded coursework.

The student must be in residence at OU for at least two consecutive 16week semesters during the pursuit of the doctoral degree while enrolled and engaged in coursework or research activities as prescribed by the major academic unit.

For more detailed regulations and requirements for Doctoral degrees, please consult the Graduate College Bulletin: http://www.ou.edu/ gradcollege/forms/bulletin

## A. Max Weitzenhoffer School of Musical Theatre

Ashton Byrum, Director
104 Carpenter Hall
840 Asp Avenue
Norman, OK 73019-4091
Phone: (405) 325-0538
Fax: (405) 325-7663
musicaltheatre@ou.edu
musicaltheatre.ou.edu

## General Information

The A. Max Weitzenhoffer School of Musical Theatre at the University of Oklahoma is the only independent school of musical theatre in the country. With an innovative and challenging curriculum, impressive faculty and a select student body, OU Musical Theatre provides its students with the best of two worlds - conservatory-style training within a dynamic liberal arts university environment. Offering a worldclass program of study in the arts, OU Musical Theatre gives students unique opportunities to broaden their knowledge with a wide array of possibilities outside of the school. Apart from offering a high caliber faculty, curriculum and performance opportunities, the goal of OU Musical Theatre is to provide its students with the necessary training and tools to make them highly marketable, employable and successful both on stage and off.

Born out of a generous gift from acclaimed Broadway producer and OU School of Drama graduate A. Max Weitzenhoffer, in 1998, the School of Musical Theatre stands along with the Weitzenhoffer Family College of Fine Arts as a testament to the University of Oklahoma's continued commitment to the fostering of artistic talent. OU Musical Theatre bridges the gap between past and present, uniting a University steeped in tradition and history with a fresh and contemporary outlook toward the future of Musical Theatre.

In its relatively short history, the Weitzenhoffer School of Musical Theatre has established itself as one of the premier musical theatre programs in the country, graduating students who perform on Broadway, in Europe, with national tours, at regional theaters, and in film and television.

## Special Facilities and Programs

The school's administrative and faculty offices are located in Carpenter Hall. The Musical Theatre dance studios and performance classrooms are also located here, along with all voice studios and student lounge.
The Fine Arts Center contains the 600-seat Elsie C. Brackett Theatre and the 250-seat Weitzenhoffer Theatre as well as classrooms and studios used by drama, dance, and musical theatre. The Catlett Music Center
houses the Paul F. Sharp Concert Hall, the Morris R. Pittman Recital Hall, the Grayce B. Kerr Gothic Hall, as well as the FACTS Box Office for all Weitzenhoffer Family College of Fine Arts productions and concerts. In addition, Catlett houses many of the School of Music classrooms and rehearsal halls which include state of the art technology. The exquisitely renovated and restored Donald W. Reynolds Performing Arts Center (formerly historic Holmberg Hall) is used for performances, faculty studios and the School of Dance offices.

The A. Max Weitzenhoffer School of Musical Theatre presents two main stage productions each year with OU University Theatre. Many of our students also participate in other University Theatre productions with the Helmerich School of Drama, OU School of Dance, and the OU School of Music. The School of Musical Theatre also self-produces a third musical each year as part of our OUMT Downtown Series. Recent productions have included Into the Woods in a found space in Norman, and I Love You, You're Perfect, Now Change at the Studio at Sooner Theatre, A New Brain (with guest director, Gerry McIntyre) at the OKC Civic Center's CitySpace Theatre, and most recently, a female-led, epic outdoor production of Jesus Christ Superstar at the Myriad Gardens Water Stage in OKC. Additional opportunities include cabaret, revue, and workshop performances.

## Programs for Excellence

The A. Max Weitzenhoffer School of Musical Theatre is one of the very few comprehensive and balanced musical theatre programs offered at a publicly supported university. Its conservatory type atmosphere is unique in a liberal arts university setting. The school is an interdisciplinary degree program working cooperatively with other units in the Weitzenhoffer Family College of Fine Arts. This performance-based degree is involved with and supported by a multitude of diverse theatrical and performance opportunities ranging from fully produced musicals, dramas, dance and cabarets. These opportunities provide the students with a wide variety of experiences in which they can put classroom skills into practice.

A special feature of the A. Max Weitzenhoffer School of Musical Theatre is its commitment to the development of new musical theatre works. This is accomplished through unique partnership arrangements with recognized producers, regional theaters, and creative artists who are leaders in the professional theatre world. The school has worked with up-and-coming writers, composers, and lyricist on shows such as Big Picture, Minnesota, The First Gentleman, 20,000 Leagues Under the Sea, and most recently, Little Miss Perfect by Joriah Kwamé. Each year, we bring in several guest artists from the industry to work with our students. Networking with Broadway casting directors and agents has led to numerous professional performance opportunities upon graduation.

During the summer, faculty members work professionally in a variety of musical theatre venues. In addition, a majority of students in the school secure summer employment with professional theatres and entertainment venues throughout the country. Students are also given the chance to explore international performing opportunities in Europe and South Africa.

## Scholarship Information

A number of scholarships and awards are available to qualified students each academic year. Initial scholarship considerations and offers are made following admission auditions in the spring. Returning students apply for scholarships and waivers through scholarships.ou.edu.
Additional non-departmental scholarships and financial aid are available
through the University of Oklahoma's office of Financial Aid Services. These applications must be made separately.

For specific information and deadlines, contact the A. Max Weitzenhoffer School of Musical Theatre's office at musicaltheatre@ou.edu or (405) 325-0538.

## Undergraduate Study

- Musical Theatre Performance, B.F.A. (p. 1575)


## Admission

Admission to the School of Musical Theatre is a two-part audition process. It involves a pre-screen audition on the GetAcceptd.com platform followed by a possible callback audition at one of several national auditions (like Unifieds) or other callbacks at events in Atlanta, Dallas or NYC. On-campus and virtual callbacks are also a possibility. This audition process is SEPARATE from the regular application to the University of Oklahoma. Prospective students must complete both processes. Only students that have also been accepted academically to the University of Oklahoma will be considered for admission to the School of Musical Theatre. For more specific audition information, please visit our website.

## Proficiency Evaluation

Review of a student's progress for continuation in the school will occur during the spring semesters of their freshman, sophomore, and junior years. Academic and artistic progress will be evaluated during this period accompanied by career counseling.

## Degree Requirements

Students are advised each semester by an academic advisor and school faculty concerning enrollments, advancement toward degree and career options.

Students considering a Bachelor of Fine Arts in Musical Theatre should call (405) 325-0538 or visit the website for curriculum requirements, admission guidelines, scheduled admission audition dates, scholarships and awards. The Musical Theatre office is located in Carpenter Hall, Rm 104.

## Courses

MTHR 1102 Tap Foundations
2 Credit Hours
Introduction to the basic concepts of tap dance. Students learn step development, basic rhythms, and the rudiments of placement, balance, and weight change. ( $F, S p$ )

## MTHR 1112 Tap I

2 Credit Hours
Prerequisite: DANC 1212 and permission of instructor. May be repeated; maximum credit four hours. A beginner class emphasizing tap
fundamentals and terminology that includes weight change, proper placement and simple step patterns. The course concentrates on basic rhythms, counting, ear training and clarity of sound. (F, Sp)
MTHR 1402 Jazz Foundations
2 Credit Hours
Introduction to the basic concepts of jazz movement. Students learn basic motor skills used in musical theatre and focus on the rudiments of placement, alignment, flexibility, and assimilation. (F, Sp)

MTHR 1442 Jazz I
2 Credit Hours
Prerequisite: DANC 1212 and permission of instructor. May be repeated; maximum credit four hours. A beginner class that provides the student with a comprehensive understanding of the technical fundamentals of jazz dance including basic rhythms, vocabulary and skills. Focus is aimed towards proper placement, strength and flexibility development. (F, Sp)

## MTHR 1501 Music Theory Notation <br> 1 Credit Hour

Prerequisite: admission to Musical Theatre program. Lecture/discussion class to enhance the ability to read music and attain a general understanding of the theory of music, including treble and bass clefs, major and minor scales, diatonic intervals and chords. A rhythmic component is added to attain mastery of simple and compound meters.

## (F)

MTHR 1502 Studio Voice I

## 2 Credit Hours

Prerequisite: majors only. May be repeated; maximum credit six hours.
Establishing basic vocal technique for musical theatre singing, including vocal exercises and breathing technique. Application of technique through the study of beginning level Broadway up-tempos and ballads as well as English art song and American folk song. (F, Sp)

MTHR 1551 Sight Reading and Theory
1 Credit Hour
Prerequisite: admission to Musical Theatre program. Lab practice of theory, rhythm and pitch recognition, including the ability to perform diatonic intervals, ascending/descending, as well as simple/compound rhythms in both division and subdivision. (Sp)
MTHR 1713 Understanding Musical Theatre 3 Credit Hours A course for non-majors in musical theatre appreciation covering basic aspects of the various components, and history of, the musical theatre genre(s). (F, Sp) [IV-AF].

## MTHR 2101 Performance Practicum

1 Credit Hour
Prerequisite: Majors only; Must be cast in a show; May be repeated; maximum credit four hours. Study and practice in rehearsal and performance as a cast member in musical theatre productions including cabaret work of the freshman/sophomore level. (F, Sp)

MTHR 2112 Tap II
2 Credit Hours
Prerequisite: MTHR 1112 and permission of instructor. May be repeated; maximum credit four hours. An advanced beginner class that maintains focus on proper placement and clarity of sound while introducing more complicated rhythms, step patterns and vocabulary. Counting and ear training continues as the student hones assimilation skills. Focus is placed on tap dynamics including accenting, shading and movement quality. A variety of styles will be introduced. (F, Sp)

## MTHR 2122 Auditions

2 Credit Hours
Prerequisite: Musical Theatre majors only. An introduction to musical theatre performance through the practice of auditioning. Study involves an overview of song form, style, and composers. Assignments include casting notices, resume format and research tools. Emphasis is placed on assembling a portfolio of song cuttings. (Sp)
MTHR 2162 Introduction to Urban Dance 2 Credit Hours
Prerequisite: Majors Only, may be repeated; maximum credit eight hours. Urban Dance is the combination of many dance styles. It holds various dances influenced by hip hop, house, jazz funk, modern and contemporary technique. Each class will have a learning progression starting with the warm up followed by across the floor combinations and center combinations. The ability to execute Urban Dance makes you a stronger, more well-rounded dancer. (F, Sp, Irreg.)

## MTHR 2181 Accents and Dialects for Musical Theatre

## Performance

1 Credit Hour
Prerequisite: DRAM 1643 and DRAM 2513. This course offers a foundational exploration of the most commonly used accents and dialects for Musical Theatre performance. This International Phonetic Alphabet (IPA) is employed as a tool for exploring speech and will supplement practical tools and fundamental skills for developing successful accents and dialects for the stage. (Sp)

## MTHR 2222 Core Practice

2 Credit Hours
Prerequisite: May be repeated; maximum credit 12 hours. Designed to provide physical conditioning for musical theater performers. Included in the training will be C.O.R.E. principles (Corrective Oppositional Resistance Exercise), injury prevention, circuit training, kinesiological awareness designed to improve students' level of dance and mind/body connection. (F, Sp)

MTHR 2442 Jazz II
2 Credit Hours
Prerequisite: MTHR 1442 or permission of instructor. May be repeated; maximum credit four hours. This advanced beginner class expands on the techniques learned in Jazz I with focus on cleanly executed technique, well connected movement quality, dynamics and increased strength and flexibility. A variety of jazz styles will be introduced. (F, Sp)

## MTHR 2502 Studio Voice II 2 Credit Hours

Prerequisite: Majors only; MTHR 1501, MTHR 1502, and MTHR 1551. May be repeated; maximum credit six hours. Continuing practice of vocal technique for musical theatre singing; includes developing range, flexibility and tone color. Application of technique through the study of intermediate level Broadway up-tempos and ballads, as well as Italian art song and European operetta. (F, Sp)
MTHR 2552 Singing for the Stage
2 Credit Hours
Prerequisite: Non-majors only; May be repeated; maximum credit eight hours. Class is designed for non-majors only. Vocal technique for musical theatre singing, including technical exercises and application through the study of songs. (F, Sp)

## MTHR 2970 Special Topics/Seminar

1-3 Credit Hours
1 to 3 hours. Prerequisite: May be repeated; maximum credit nine hours. Special topics course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research, and field projects. (Irreg.)

## MTHR 3112 Tap III

2 Credit Hours
Prerequisite: Majors only; MTHR 2112 and permission of instructor. May be repeated; maximum credit six hours. An intermediate class with focus placed on refinement of technical and assimilation skills while dramatically increasing tap vocabulary. Students focus on tap dynamics, performance quality, style variety and movement coordination while learning longer and more complicated step patterns. Tap improvisation is introduced. (Irreg.)

## MTHR 3142 Song Study I

2 Credit Hours
Prerequisite: 2122 or permission of instructor. Development of musical theatre performance technique through the study of solo song. Study includes exploring aspects of interpretation and expression to support the vocal, physical and mental aspects of performing. Emphasis is placed on integrating singing and acting skills. (F)
MTHR 3143 History of American Musical Theatre 3 Credit Hours Prerequisite: English 1213. Surveys history of the American musical theatre from its beginnings in the late 19th century to the present. (F, Sp) [IV-AF].

MTHR 3152 Song Study II
2 Credit Hours
Prerequisite: MTHR 3142. Expand analytical and performance skills through extended song forms. Study includes breath, body and visualization techniques to continue integrating vocal, physical and mental aspects of performing. Song Study II will focus on contemporary commercial music. (Sp)

MTHR 3162 Repertoire I
2 Credit Hours
Prerequisite: Musical Theatre majors only, MTHR 3152. Investigation of Broadway and Hollywood songwriting during the first half of the 20th Century. Performance material will consist of songs appropriate for the student's vocal range. Study includes critical listening to period recordings. (F)

MTHR 3172 Repertoire II
2 Credit Hours
Prerequisite: Musical Theatre majors only, MTHR 3162. Exploration of musical theatre repertoire from the second half of the 20th Century. Performance material will consist of songs appropriate for the student's vocal and physical range. Study includes viewing performances of artists from the Broadway stage. (Sp)
MTHR 3182 Musical Scenes I
2 Credit Hours
Prerequisite: 3152 or permission of instructor. Application of musical theatre performance technique utilizing scenes from the Broadway stage. Study includes using show research and script analysis to develop characterization. Emphasis is placed on creating unified performance both dramatically and musically. (F)

MTHR 3192 Musical Scenes II
2 Credit Hours
Prerequisite: 3182. Application of musical theatre performance skills using contemporary scenes from the Broadway stage. Study includes larger scene-song forms including one-acts or new-works from the musical theatre. (Sp)

MTHR 3440 Mentored Research Experience
3 Credit Hours
0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)
MTHR 3442 Jazz III
2 Credit Hours
Prerequisite: MTHR 2442 and permission of instructor. May be repeated; maximum credit four hours. An intermediate class that moves at a heightened pace, this level expands on the techniques learned in Jazz II. Additional focus is placed on style variety, assimilation skills, and more advanced movement coordination and rhythms. (Irreg.)

MTHR 3502 Studio Voice III
2 Credit Hours
Prerequisite: 2502. May be repeated; maximum credit four hours.
Broadening development of vocal technique for musical theatre singing;
includes learning to blend the vocal registers for healthy tone production. Application of technique through the study of advanced level Broadway up-tempos and ballads, as well as German art song and American operetta. (F, Sp)

MTHR 3960 Honors Reading
1-3 Credit Hours
Prerequisite: admission to Honors program and permission of instructor. Consists of either reading topics or independent study designated by the instructor in keeping with the student's major program. Covers materials not usually presented in the regular courses. (F, Sp)

MTHR 3970 Honors Seminar 1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Subjects covered vary. Deals with concepts not usually treated in regular courses. (Irreg.)

## MTHR 3980 Honors Research

1-3 Credit Hours
Prerequisite: admission to Honors program and permission of instructor. Provides an opportunity for the gifted Honors candidate to work at a special project in the student's field. (F, Sp)

## MTHR 3990 Independent Study 1-3 Credit Hours

1 to 3 hours. Prerequisite: permission of instructor and junior standing. May be repeated once with change of content. Independent study may be arranged to study a subject not available through regular course offerings. (F, Sp, Su)

## MTHR 4101 Advanced Performance Practicum <br> 1 Credit Hour

Prerequisite: Majors only, Junior standing, and must be cast in a show; May be repeated; maximum credit four hours. Study and practice in rehearsal and performance as a cast member in musical theatre productions, including mainstage or cabaret/revue participation during the junior and senior years. ( $\mathrm{F}, \mathrm{Sp}$ )

MTHR 4112 Tap IV 2 Credit Hours
Prerequisite: MTHR 3112 and permission of instructor; May be repeated; maximum credit four hours. This advanced class furthers the tap dancer's vocabulary, refines technical skills, greatly increases assimilation ability and furthers the study of tap improvisation. (Irreg.)

## MTHR 4162 Advanced Urban Dance

2 Credit Hours
Prerequisite: MTHR 2162 and Permission of Instructor; Majors only; May be repeated; maximum credit eight hours. Advance Urban Dance will build on the foundation of Intro to Urban Dance to provide students with the skills to learn and execute a a combination of many dance styles. Course content will include various dance styles influenced by hip hop, house, jazz funk, street jazz and modern technique. (F, Sp)

## MTHR 4171 Industry <br> 1 Credit Hour

Prerequisite: MTHR 4173; senior standing and majors only. This class focuses on preparation for musical theatre casting in New York City. Performance material will consist of songs appropriate for the students vocal and physical range. (Sp)

## MTHR 4172 Theatre Dance Styles I

2 Credit Hours
Prerequisite: 2112 and 2442, and senior standing, or permission of instructor. A practical and historical study of the Broadway dance styles. The main focus is in the jazz idiom; however, strong ballet, jazz, and tap skills are required. Emphasis is placed on technique, performance quality and auditioning skills. (F)

MTHR 4173 Coaching 3 Credit Hours
Prerequisite: Majors only and Senior standing. Advanced techniques of musical theatre performance through individual coaching. Study includes developing a song notebook appropriate to one's type for professional auditions and assignments related to working in the Broadway profession. Emphasis is placed on presenting a variety of musical and dramatic styles. (F)

MTHR 4182 Theatre Dance Styles II
2 Credit Hours
Prerequisite: 4172 . This course is a continuing study of Broadway dance styles. Strong skills in jazz, ballet, and tap are required. Emphasis placed on techniques, performance quality and auditioning skills. (Sp)
MTHR 4183 Capstone Experience 3 Credit Hours
Prerequisite: Majors only and Senior standing. Requires written documentation in appropriate format. Senior year project which demonstrates mastery of skills and knowledge in musical theatre, selected under advisement and guided by appropriate faculty. (F, Sp) [V].

MTHR 4190 Special Studies

## 1-4 Credit Hours

1 to 4 hours. Prerequisite: junior standing, major in musical theatre, and permission of instructor. May be repeated with change of content; maximum credit six hours. Varying individual or small group topics or projects in the study and practice of musical theatre not covered in regularly scheduled courses. (Irreg.)

MTHR 4252 Advanced Tap
2 Credit Hours
Prerequisite: MTHR 4112 and permission of instructor; May be repeated; maximum credit eight hours. Class conducted at a professional level. Step breakdown will be minimized and students will be asked to create their own choreography and work heavily in improvisation. (F, Sp)

## MTHR 4442 Jazz IV <br> 2 Credit Hours

Prerequisite: Permission of instructor. May be repeated; maximum credit four hours. An advanced class emphasizing strong technique and assimilation skills as well as the ability to adapt to any jazz style. Continued focus is placed on flexibility, strength, dynamics, and solid performance quality. (Irreg.)

MTHR 4502 Studio Voice IV
2 Credit Hours
Prerequisite: 3502. May be repeated; maximum credit four hours Furthering development of vocal technique for musical theatre singing; includes practical application of technical skills and knowledge. Application of technique through the study of classics and contemporary Broadway up-tempos and ballads as well as French art song and American art song. (F, Sp)

MTHR 4960 Directed Readings
1-4 Credit Hours
1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean. May be repeated; maximum credit four hours. Designed for upper-division students who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)

MTHR 4970 Special Topics/Seminar 1-3 Credit Hours
1 to 3 hours. Prerequisite: Senior standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

MTHR 4990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: Senior standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses.
Independent study may include library and/or laboratory research and field projects. (Irreg.)

## Faculty

| Last Name | First/Middle Name | Middle init. | OU <br> Service start | Title(s), date(s) appointed | Degrees Earned, <br> Schools, Dates <br> Completed |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Byrum | Ashton | W | 2018 | PROFESSOR OF MUSICAL THEATRE, 2018; GREGORY D. KUNESH CHAIR OF MUSICAL THEATRE, 2018 | MFA, Univ of Cincinnati College Conservatory of Music, 2010 |
| Christman | Paul | G | 1999 | PROFESSOR OF MUSICAL THEATRE, 2010 | M Music, Arizona State Univ, 1991; DBA, Wright State Univ, 1988 |


| Cramer | Lyn | M | 2001 | PROFESSOR <br> OF MUSICAL <br> THEATRE, 2006; <br> WEITZENHOFFER <br> PROFESSOR OF <br> MUSICAL THEATRE, <br> 2006; ADJUNCT <br> PROFESSOR OF <br> LIBERAL STUDIES, <br> 2011 | MA, Univ of Texas <br> Pan American, 1994; <br> BA, Univ of Texas Pan <br> American, 1980 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Jiran | Amanda |  | 2005 | ASSOCIATE PROFESSOR OF MUSICAL THEATRE, 2021 | MA, Univ of Oklahoma, 2009; B Music, Oklahoma City Univ, 1996 |
| Leseney | Vincent | J |  | ASSOCIATE PROFESSOR OF MUSICAL THEATRE, 2010 | M Music, Oklahoma City Univ, 1994; BS, William Jewell College, 1992 |
| Mortimer | Harold |  | 2011 | ASSOCIATE <br> PROFESSOR OF <br> MUSICAL THEATRE, $2011$ | DMA, Univ of <br> Washington, 1999; <br> M Music, Univ of <br> Washington, 1997; <br> BME, Mansfield Univ, <br> 1988 |

## Musical Theatre Performance, B.F.A.

Minimum Total Credit Hours: 120-130
Major Hours: 83
Minimum Upper-Division Hours: 40
Upper-Division Hours Within Major: 22
Overall GPA - Combined and OU: 2.50
Major GPA - Combined and OU: 2.50
Program Code: B737

## Major Requirements

A grade of $C$ or better is required in all courses taken within the College of Fine Arts. Audition is required for admission to the degree program. Review of student progress for continuation in the program occurs in the spring semester of the freshman, sophomore, and junior years.

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Musical Theatre Performance (18 hours) |  |  |
| MTHR 2122 | Auditions | 2 |
| MTHR 3142 | Song Study I | 2 |
| MTHR 3152 | Song Study II | 2 |
| MTHR 3162 | Repertoire I | 2 |
| MTHR 3172 | Repertoire II | 2 |
| MTHR 3182 | Musical Scenes I | 2 |
| MTHR 3192 | Musical Scenes II | 2 |
| MTHR 4171 | Industry | 1 |
| MTHR 4173 | Coaching | 3 |
| Musical Theatre Voice (12 hours) ${ }^{1}$ | 4 |  |
| MTHR 1502 | Studio Voice I (two enrollments) | 4 |
| MTHR 2502 | Studio Voice II (two enrollments) | 4 |
| MTHR 3502 | Studio Voice III (two enrollments) | 4 |

Musical Theatre Dance (12 hours)
Tap

| Choose four hours from the following: | 4 |
| :--- | :--- |
| MTHR 1102 | Tap Foundations |
| MTHR 1112 | Tap I |
| MTHR 2112 | Tap II |
| MTHR 3112 | Tap III |
| MTHR 4112 | Tap IV |
| MTHR 4252 | Advanced Tap |
| Jazz |  |
| Choose two hours from the following: |  |
| MTHR 1402 | Jazz Foundations |
| MTHR 1442 | Jazz I |
| MTHR 2442 | Jazz II |
| MTHR 3442 | Jazz III |
| MTHR 4442 | Jazz IV |
| Dance Styles |  |
| MTHR 2162 | Introduction to Urban Dance |
| MTHR 4172 | Theatre Dance Styles I |
| MTHR 4182 | Theatre Dance Styles II |
| Acting Technique (12 hours) | 2 |
| DRAM 1513 | Introduction to Acting |
| DRAM 1523 | Character Study for the Actor |
| DRAM 2513 | Scene Study for the Actor |
| DRAM 2523 | Performing Shakespeare |


| Musical Theatre Support (9 hours) |  |  |
| :--- | :--- | ---: |
| MTHR 2101 | Performance Practicum | 1 |
| MTHR 2181 | Accents and Dialects for Musical Theatre <br> Performance | 1 |
| MTHR 3143 | History of American Musical Theatre (Core <br> IV) | 3 |
| MTHR 4101 | Advanced Performance Practicum | 1 |
| MTHR 4183 | Capstone Experience | 3 |


| Music Support (4 hours) |  |  |
| :--- | :--- | :--- |
| MUTE 1311 | Group Piano I | 1 |
| MUTE 1321 | Group Piano II | 1 |
| MTHR 1501 | Music Theory Notation ${ }^{2}$ | 1 |
| MTHR 1551 | Sight Reading and Theory ${ }^{2}$ | 1 |

Dance Support (6 hours)
Ballet
Choose four hours from the following: 4

DANC 1212 Ballet Technique I
DANC 2212 Ballet Technique II
DANC 3213 Ballet Technique III
DANC 4213 Ballet Technique IV
Modern
Choose two hours from the following: 2
DANC 1312 Modern Technique I DANC 2312 Modern Technique II DANC 3313 Modern Technique III
Drama Support (8 hours)
DRAM 1411 Makeup 1
Choose four hours from the following: 4
DRAM 1114 Costume Construction

| DRAM 1124 | Stagecraft |  |
| :--- | :--- | :--- |
| DRAM 1134 | Stage Lighting and Sound |  |
| Choose three hours from drama electives | 3 |  |
| Fine Arts Electives (2 hours) | 2 |  |
| Choose 2 hours from any course within the Weitzenhoffer |  |  |
| College of Fine Arts, including the School of Musical Theatre. |  |  |
| Total Credit Hours | $\mathbf{8 3}$ |  |
| 1 May substitute MUNM 1100 or MUNM 3100. |  |  |
| 2 May substitute MUTH 1512 and MUTH 1612. |  |  |

## General Education and College Requirements

Courses used to fulfill General Education and/or major requirements may not fulfill electives.

Courses designated as Core I, II, III, IV, or V are part of the General Education curriculum. Students must complete a minimum of 40 hours of General Education courses, chosen from the approved list, including at least one upper-division Gen. Ed. course outside of the student's major.
Courses graded P/NP will not apply.

\section*{UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS <br> | Code Title | Credit |
| :--- | :--- |
|  | Hours |}


| Core Area I: Symbolic and Oral Communication |  |
| :---: | :---: |
| English Composition |  |
| ENGL 1113 Principles of English Composition | 3 |
| $\begin{array}{cl}\text { ENGL } 1213 & \text { Principles of English Composition } \\ \text { or EXPO } 1213 & \text { Expository Writing }\end{array}$ | 3 |
| Language |  |
| Choose 2 courses. This requirement is not mandatory if the student successfully completed 2 years of the same language in high school. (Core 1) | 0-10 |
| Mathematics |  |
| Choose any General Education approved MATH course; one of the following two is recommended: | 3 |



## World Culture

Choose one course from Art, Dance, Drama, or Music; ..... 3$3000-4000$-level is recommended ${ }^{1}$Core Area V: First-Year Experience
Choose one course ..... 3
Choose one General Education Elective: 3000-4000-level ..... 3
approved course is recommended37-471 These two courses must be from different fine arts disciplines.
Suggested Semester Advisement Plan

At least $\mathbf{2 4}$ hours of upper-division Musical Theatre credit must be earned in residence as a declared major. A grade of C or better is required in all courses taken within the College of Fine Arts.

Degree Completion Responsibility: Although the Dean's Office checks each student's records, the responsibility for meeting degree requirements lies with the student and not with the advisor or the Dean. Each student should obtain a copy of the requirements for graduation and check it regularly as they complete their degree program.

## Freshman

| First Semester |  | Credit |
| :---: | :---: | :---: |
|  |  | Hours |
| MTHR 1501 | Music Theory Notation | 1 |
| MTHR 1502 | Studio Voice I | 2 |
| DRAM 1513 | Introduction to Acting | 3 |
| Choose one course from the following: |  | 4 |
| DRAM 1114 | Costume Construction |  |
| DRAM 1124 | Stagecraft |  |
| DRAM 1134 | Stage Lighting and Sound |  |
| DANC | Ballet Technique | 2 |
| MATH | Core ${ }^{1}$ | 3 |
| ENGL 1113 | Principles of English Composition | 3 |
|  | Credit Hours | 18 |

## Second Semester

MTHR 1502 Studio Voice I 2
MTHR 1551 Sight Reading and Theory 1
DRAM 1411 Makeup 1
DRAM 1523 Character Study for the Actor 3
DANC Ballet Technique 2
MTHR 2122 Auditions ..... 2
ENGL 1213 Principles of English Composition ..... 3
or EXPO 1213 or Expository Writing
First-Year Experience (Core V) ..... 3

## Sophomore

First Semester
MTHR 2502 Studio Voice II 2
MUTE 1311 Group Piano I 1
DRAM 2513 Scene Study for the Actor 3
MTHR Tap 2
MTHR Jazz 2
MTHR 3142 Song Study I 2

| Fine Arts Elective |  | 2 |
| :---: | :---: | :---: |
|  | Credit Hours | 14 |
| Second Semester |  |  |
| MTHR 2101 | Performance Practicum | 1 |
| MTHR 2181 | Accents and Dialects for Musical Theatre Performance | 1 |
| MTHR 2502 | Studio Voice II | 2 |
| MUTE 1321 | Group Piano II | 1 |
| DRAM 2523 | Performing Shakespeare | 3 |
| MTHR | Tap | 2 |
| MTHR 3143 | History of American Musical Theatre | 3 |
| MTHR 3152 | Song Study II | 2 |
|  | Credit Hours | 15 |
| Junior |  |  |
| First Semester |  |  |
| MTHR 2162 | Introduction to Urban Dance | 2 |
| MTHR 3502 | Studio Voice III | 2 |
| MTHR 3162 | Repertoire I | 2 |
| MTHR 3182 | Musical Scenes I | 2 |
| HIST 1483 or HIST 1493 | United States to 1865 or United States, 1865 to the Present | 3 |
| Natural Science | non-lab (Core II) | 3 |
|  | Credit Hours | 14 |


| Second Semester |  |
| :--- | :--- |
| MTHR $3502 \quad$ Studio Voice III | 2 |

MTHR 3172 Repertoire II 2
MTHR 3192 Musical Scenes II 2
MTHR 4101 Advanced Performance Practicum 1
P SC 1113 American Federal Government 3
Drama Electives 3
Natural Science with lab (Core II) 4

Credit Hours

## Senior


${ }^{1}$ MATH 1473 or PHIL 1113 is recommended

## OU School of Visual Arts

Alison Fields, Ph.D, Acting Director
Robert Bailey, Ph.D., Acting Associate Director
Stuart Asprey, M.F.A., and Allison Palmer, Ph.D., Coordinators, Undergraduate Programs
Erin Duncan-O'Neill, Ph.D. and Curtis Jones, M.F.A., Coordinators, Graduate Programs
202 Fred Jones Art Center
520 Parrington Oval
Norman, OK 73019-3011
Phone: (405) 325-2691
FAX: (405) 325-1668
art@ou.edu
art.ou.edu

## General Information

The OU School of Visual Arts is a premier institution offering a comprehensive range of programs across four main divisions: Studio Art, Art History, Art, Technology and Culture, and Visual Communication (Design).

Divisions:

1. Studio Art: Focusing on painting, printmaking, sculpture, and ceramics, students can develop their skills in various art forms.
2. Art History: This humanities discipline explores the history, criticism, and theory of visual arts, visual culture, and material culture.
3. Art, Technology, and Culture: Embracing modern advancements, this division covers photography, video, film, technology-based art, and other emerging media.
4. Visual Communication (Design): Students specializing in this area concentrate on graphic design, illustration, production management, and design advertisement.

As Oklahoma's largest and most comprehensive art school, the OU School of Visual Arts is unique in offering a doctoral program in art history. Catering to undergraduate and graduate students, the school fosters creative and scholarly pursuits in the visual arts.

Students from diverse educational backgrounds and life experiences join the OU School of Visual Arts from Oklahoma and around the globe. The school cultivates a dynamic environment by hosting guest artists and scholars, sponsoring visits to nearby museums and galleries, and celebrating alumni's professional accomplishments. Students can actively engage with the school through exhibitions and various visual arts activities in collaboration with local arts organizations.

## Student Organizations

- Red Clay Faction
- Graphic Design Association
- Print Club
- Visual Art Student Association


## Special Facilities

Facilities at the OU School of Visual Arts include classrooms, large wellequipped instructional studios, a technology-based fabrication lab, installation spaces, video and film editing rooms, analog and digital photography labs, and the Lightwell Gallery exhibition space. Separate from the Fred Jones Jr. Art Center, a 5,000 sq. ft. ceramics facility is located on the university's south campus near the Lloyd Noble Arena and features state-of-the-art equipment and kilns to handle all types of ceramic production. A $12,000 \mathrm{sq}$. ft. graduate studio facility is located northwest of campus. Media and library resources include the University of Oklahoma Bizzell Library, the largest research library in the state of Oklahoma containing almost 4 million volumes, and the Fine Arts Library houses books and periodicals on art, art history and design as well as on music, dance, drama and musical theatre. The Charles M. Russell Center for the Study of Art of the American West provides an extensive library on western art and a unique opportunity to study with authorities in the field.

## Programs for Excellence

The Charles M. Russell Center for the Study of Art of the American West is dedicated to the pursuit of knowledge in the field of American art history as it relates to the western United States. Through its library, national symposia, Distinguished Lecture Series, campus course offerings, archives, and related outreach programs, the Russell Center actively engages students and the public in developing a better understanding of and appreciation for 19th and 20th century EuroAmerican art.

The OU School of Visual Arts is pleased to offer students the privilege of working with nationally and internationally known artists under the Artist-in-Residence programs. Visiting artists come to campus for varying periods offering students and faculty insights into numerous cultures and professional backgrounds.

The OU School of Visual Arts maintains and has created faculty and student exchange programs with international universities and participates in the University's Study Abroad Program.

## Scholarships and Financial Aid

Several forms of financial aid are available to qualified students. These include scholarships, graduate assistantships, tuition or fee waivers, and work-study support. Scholarships and graduate assistantships are available on a competitive basis.

The OU School of Visual Arts offers the following scholarships and fellowships:

- Frances Weitzenhoffer Memorial Fellowship (graduate students in art history);
- Mvhayv Scholarship (graduate students pursuing a degree in Native American Art History);
- Robert S. and Grayce B. Kerr Fellowship (graduate students pursuing a degree in Native American Art or Art of the American West);
- Ben Barnett Scholarships (for all OU School of Visual Arts students);
- Madeline Colbert Steed Scholarship (for all OU School of Visual Arts students);
- Dan Kiacz Memorial Scholarship (printmaking);
- Selma Naifeh Scholarship (painting);
- Glennis Horn Scholarship (sculpture);
- Robert Monroe Memorial Scholarship (for all School Visual Arts students);
- Paul and Kim Moore Scholarship (sculpture);
- Moore Family Scholarship (graduate students pursuing a degree in Native American Art or Art of the American West);
- Paul and Kim Moore Sooner Schooner Scholarships (graduate students pursuing a degree in Native American Art or Art of the American West);
- Roger Sprague Scholarship (painting);
- Amy West-Strain (awarded to one incoming freshman and follows that person through graduation);
- Victor Koshkin-Youritzin Scholarship (art history); and
- Resident and Non-Resident Tuition Waivers.

Visit scholarships.ou.edu for more information.

## Undergraduate Study

- Art, B.A. (p. 1597)
- Art History, B.A. (p. 1599)
- Art, Technology \& Culture, B.F.A. (p. 1601)
- Studio Arts, B.F.A. (p. 1603)
- Visual Communication, B.F.A. (p. 1604)
- Art, Minor (p. 1606)
- Art History, Minor (p. 1607)
- Museum Studies, Undergraduate Certificate (p. 1607)
- Art and Technology, M.A. (p. 1608)


## Admission

The OU School of Visual Arts accepts the admission requirements of the University of Oklahoma for incoming freshman and transfer students in the fall semester. Once admitted to the University of Oklahoma, all art majors are admitted under the Bachelor of Arts in Art or Bachelor of Arts in Art History degree programs.

Admission to the Bachelor of Fine Arts in Art degree program (Studio Arts; Art, Technology and Culture; or Visual Communication) is by portfolio review. Students who have taken studio coursework at another institution must meet with an advisor or the Coordinator for Undergraduate Studies to determine if courses can be substituted for program requirements. Information can be found at art.ou.edu.

## Laptop Requirement

To ensure that students have adequate access to the software and programs needed for creative and scholarly work, the OU School of Visual Arts requires newly admitted BA \& BFA majors in all programs to have a laptop computer.

It's highly recommended that your laptop has been acquired within the previous two years of starting our program. For specific requirements please see the School of Visual Arts website, http://art.ou.edu.

## Graduate Study

- Museum Studies, Undergraduate Certificate (p. 1607)
- Art History, M.A. (p. 1607)
- Art and Technology, M.A. (p. 1608)
- Art, M.F.A. in Art (p. 1608)
- Art History: Art of the American West, Ph.D. (p. 1609)
- Art History: European Art, Ph.D. (p. 1610)
- Art History: Native American Art, Ph.D. (p. 1610)
- Critical Issues in Art History, Ph.D. (p. 1611)


## Admission

## Master of Arts in Art History

The requirements for admission into the MA program in art history are a bachelor's degree in art history, or a related field, with a 3.00 cumulative grade point average. Students must submit a letter of intent, three letters of reference, and a copy of one or more art history papers to the school electronically along with the internal OU School of Visual Arts application.

The OU application and transcripts should be sent directly to the Office of Admissions \& Recruitment. International applicants are required to demonstrate an appropriate mastery of English and submit satisfactory TOEFL scores.

## Master of Fine Arts in Art

The requirements for admission to the MFA program normally include: a BFA degree with a 3.00 grade point average (or equivalent credentials), submission of an online portfolio and a letter of intent. Three letters of reference will also be submitted electronically.

The OU application and transcripts should be sent directly to the Office of Admissions \& Recruitment. International applicants are required to demonstrate an appropriate mastery of English and submit satisfactory TOEFL scores.

## Doctor of Philosophy

The requirements for admission into the Ph.D. program in art history are an appropriately related master's or equivalent graduate degree as well as meeting all of the minimum admission requirements for the University, the Weitzenhoffer Family College of Fine Arts and the OU School of Visual Arts, including English proficiency scores, as well as submitting writing samples and letters of recommendation. Writing samples and letters of recommendation should be submitted electronically to the school along with the internal OU School of Visual Arts Ph.D. application.

The OU application and transcripts should be sent directly to the Office of Admissions \& Recruitment. International applicants are required to demonstrate an appropriate mastery of English and submit satisfactory TOEFL scores.

## Courses

A HI 1113 The Understanding of Art
3 Credit Hours
Explanation and analysis of the principles underlying the visual arts. Consideration of formal, historical and other factors in the valuation and enjoyment of painting, sculpture, architecture and utilitarian objects. (F, $\mathrm{Sp}, \mathrm{Su}$ ) [IV-AF] .

A HI 1314 Introduction to Art History
4 Credit Hours
Students will be introduced to basic concepts in art and art history through a thematic study of global art. (F, Sp) [IV-AF].

A HI 2303 Introduction to Art in Europe: 1300-1800 3 Credit Hours This course is an introduction to art and architecture of the early modern period in Europe, from the beginning of the Renaissance in the 1300s until the end of the French Revolution, around 1800. (Irreg.)

A HI 2403 Introduction to American Art
3 Credit Hours
This course offers an introduction to American art, architecture, and visual culture from the colonial period to the present, with an emphasis on art of the United States. Foregrounding issues of encounter and exchange between peoples, nations, and cultures, we will ask what new visual forms were forged in the hybrid cultures of North America. (Irreg.)

A HI 2503 Introduction to Modern Art
3 Credit Hours
This course offers an Introduction to Modern Art, tracing its emergence, development, and some reactions to its practice. We will discuss the institutional, social, and political conditions that spurred artists to address and critique their contemporary moment, beginning with the gritty Realism of Gustave Courbet and stretching to the modular geometries of Minimalism. (Irreg.)

## A HI 2603 Introduction to Contemporary Art

3 Credit Hours
This course focuses on contemporary art of the world with a strong emphasis on art made since 1989. Departing from transformations in late modern art that marked the aftermath of World War II and the process of decolonization, we will survey major developments and investigate social, political, and economic aspects of contemporary art. (Irreg.) [IV-AF].

## A HI 2703 Introduction to Museum Studies

3 Credit Hours
This introductory course lays the foundation for understanding both the practical and theoretical concerns of the museum world. Topics will include museum management, the acquisition and conservation of art and artifacts, debates over display and interpretation, repatriation and the rights of Native peoples, and memorial museums. (Irreg.) [IV-AF].
A HI 2803 Introduction to Native American Art
3 Credit Hours
This course is designed as a broad survey of Native American art history. We will examine artworks from a vast range of locations, communities, and artistic practices throughout North America and focus on Native peoples' kinships with the natural world and trade partnerships. (Irreg.) [IV-WDC].

A HI 2970 Special Topics/Seminar 1-3 Credit Hours Special Topics. 1 to 3 hours. May be repeated; Maximum credit nine hours. Special topics course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research, and field projects. (Irreg.)

A HI 3133 Survey of Aegean Art and Architecture 3 Credit Hours Prerequisite: junior standing. Understanding of art and architecture of the Aegean civilization. The focus of the course will be on artistic production of the island of Crete and to a lesser extent Cycladic and Mycenaean achievements in the Bronze Age Greece. (alt. Sp) [IV-WC] .
A HI 3213 Classical Art and Archaeology: Greek Art to the Death of Alexander

3 Credit Hours
(Crosslisted with CL C 3213) Prerequisite: sophomore standing. Lectures, occasionally illustrated, and assigned readings. Survey of the architecture, sculpture, painting and minor arts in the Greek regions of the eastern Mediterranean in the successive stages of their development, with analyses of dominant styles and detailed study of select masterpieces and monuments. (F) [IV-AF] .

A HI 3223 Classical Art and Archaeology: Hellenistic Greek Art; Roman Art

## 3 Credit Hours

(Crosslisted with CL C 3223) Prerequisite: sophomore standing. Continuation of 3213. Survey of Hellenistic art, with particular attention to the individuality of style and diversity of matter. Early Etruscan and Roman art. The development of Roman art in native and assimilated forms; studies in domestic and national monuments. (Sp) [IV-AF].

A HI 3233 Medieval Art I
3 Credit Hours
Prerequisite: Junior standing. This course covers the art and architecture of Europe and the Mediterranean from Late Antiquity through the fall of Constantinople in 1453. Beginning with Constantine and the rise of Christianity, this course follows the development and spread of new cultures and art forms, stretching from Islamic material in the east to insular art of the British Isles. (Irreg.) [IV-WC].

A HI 3263 Survey of Byzantine Art and Architecture 3 Credit Hours Prerequisite: junior standing A survey of Byzantine monuments from the foundation of Constantinople in 330 CE to its fall in 1453. (Sp-Alt) [IV-AF].

A HI 3303 Renaissance Art in Italy 1200-1600
3 Credit Hours
Prerequisite: junior standing. Focuses on Renaissance art and architecture in Italy from a social and cultural framework, beginning in the 1200's and ending around 1580. (Irreg.) [IV-AF].

A HI 3313 Art and Culture in Italy
3 Credit Hours
Prerequisite: permission of department: acceptance to "Journey to Italy". Taught on-site in Italy as part of the "Journey to Italy" summer program in Arezzo. Students will study art from ancient Roman through the Baroque, with special focus on the Renaissance. (Irreg.) [IV-WC].

A HI 3343 Northern Renaissance Art 3 Credit Hours
Prerequisite: Junior standing. Painting, sculpture and architecture in Northern Europe from 1400-1600. The course will emphasize painting in Flanders, Germany and the Netherlands. (Irreg.) [IV-WC].

A HI 3403 Baroque Art and Architecture in Europe:1600-1700 3 Credit
Prerequisite: junior standing; Covers art and architecture in Europe in the seventeenth century, during the time period called the Baroque. (Irreg.) [IV-WC].

A HI 3440 Mentored Research Experience 3 Credit Hours
0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office Not for honors credit. (F, Sp, Su)

A HI 3503 Art of the 18th Century: The Age of Enlightenment

## 3 Credit Hours

Prerequisite: Junior standing. Emphasizes the interaction of art with scientific, literary, historic and philosophical innovations of the eighteenth century. Content includes painting, sculpture and architecture of Northern Europe. (Irreg.) [IV-WC].

A HI 3553 Nineteenth-Century Art
3 Credit Hours
Prerequisite: Junior standing. European art from the French Revolution to 1900, with particular emphasis on developments in French painting. Brief consideration of parallel trends in American art. (Irreg.) [IV-WC]

A HI 3603 American Art
3 Credit Hours
Prerequisite: junior standing. American art from the colonial period to 1950. (Irreg.) [IV-WC].

## A HI 3613 Studies in American Art

3 Credit Hours
Prerequisite: ENGL 1213 or EXPO 1213; junior standing; May be repeated with change of subject matter; maximum credit 9 hours. Specialized study in selected topics in American art. Topics vary by semester; potential topics include colonial portraiture, nineteenth-century genre painting, murals in American art, U.S. sculpture, U.S. art in international contexts, and U.S. memorials and monuments. (Irreg.)

A HI 3663 Contemporary Art
3 Credit Hours
Prerequisite: Junior standing. Focuses on contemporary art of the world with a strong emphasis on art made since 1989. (Irreg.) [IV-AF]

A HI 3673 History of Visual Communication 3 Credit Hours Prerequisite: junior standing. The history of visual communications and design from prehistoric times to the twentieth century. (Sp)
A HI 3693 New Media Art 3 Credit Hours Prerequisite: Junior standing. This course covers new media - video, installation, performance, and digital media - and technology in art since 1950. (Irreg.) [IV-AF].

A HI 3703 Exhibition Preparation and Presentation 3 Credit Hours Prerequisite: ENGL 1213 or EXPO 1213, Junior standing. This course will familiarize you with practical aspects of museum studies involving exhibitions. Taught by faculty with varied areas of expertise, the course is unique each time it is offered, as each instructor will bring differing expertise, interests, and projects into the classroom. Students gain working experience involving varied aspects of the preparation and presentation of exhibitions. (Irreg.)

A HI 3733 Art of the American West
3 Credit Hours
Prerequisite: ENGL 1213 and junior standing. An introduction to the art of the American West accompanied by close study of relevant primary and scholarly texts. Students will be responsible for active participation in class discussion and for a series of short papers and assessments designed to develop skills in writing and historical interpretation. (Irreg.)

A HI 3803 Pre-Columbian Art \& Architecture of Meso- and South America

3 Credit Hours
Prerequisite: junior standing. An overview of Pre-Columbian art and architecture in Meso-America from Prehistoric times until the Spanish intervention in the early 1500s. (F-alternate) [IV-WDC].

A HI 3813 Colonial Latin American Art 3 Credit Hours
Prerequisite: ENGL 1213 or EXPO 1213; junior standing. This upper-level course examines the history of artistic production in Latin America from the sixteenth through the mid eighteenth century. We will conduct case studies of artistic media by region, beginning with Peru and ending with the Californias. A geographical approach allows us to identify regional differences in artistic expression, which reflect local materials and Indigenous ideas. (Irreg.) [IV-AF].

## A HI 3833 Native American Art of the West

3 Credit Hours
Prerequisite: Junior standing. This course will focus on the artistic and architectural practices of Native American communities throughout the western United States and parts of Canada and Mexico. We will examine how Native artists responded to the impacts of colonization on their ancestral practices. (Irreg.) [IV-AF].

A HI 3903 Art History, Theory and Practice 3 Credit Hours Prerequisite: A HI 1314, A HI 2000-level elective, and junior standing; or permission of instructor. Introduction to the theory and practice of Art History required for the major involving consideration of the field's history, exposure to historical and contemporary approaches to its practice, and training in art historical writing and critical and visual analysis. (Irreg.)

## A HI 3913 American Visual Culture

3 Credit Hours
Prerequisites: junior standing. Explores approaches to American visual culture, an interdisciplinary area of inquiry that considers the role of visual experience in everyday life. These include photography, cinema, television, digital media. and public art. We examine the key theorists, methodologies, and cultural practices that have shaped the field of Visual Culture Studies.(Irreg.)

A HI 3960 Honors Reading 1-3 Credit Hours
1 to 3 hours. Prerequisite: Admission to Honors Program. May be repeated; maximum credit six hours. Consists of topics designated by the instructor in keeping with the student's major program. The topics will cover materials not usually presented in the regular courses. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

## A HI 3970 Honors Seminar

1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Subjects covered vary. Deals with concepts not usually treated in regular courses. (Irreg.)
A HI 3980 Honors Research 1-3 Credit Hours
1 to 3 hours. Prerequisite: Admission to Honors Program. May be repeated; maximum credit six hours. Will provide an opportunity for the gifted Honors candidate to work at a special project in the student's field. (F, Sp, Su)
A HI 3990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: permission of instructor and junior standing. May be repeated once with change of content. Independent study may be arranged to study a subject not available through regular course offerings. (F, Sp, Su)
A HI 4043 Native Americans, Museums and Exhibitions 3 Credit Hours (Slashlisted with AHI 5043) Prerequisite: Junior standing; A HI 1314 or permission of instructor. A discussion-based seminar on the history of museums and Native American art and culture. An examination of early collecting practices that removed materials and belongings from Native American communities, eventually becoming part of museum collections. We will also look at the interventions living artists are making and how they choose to present themselves and their culture to the public. No student may earn credit for both 4043 and 5043. (Irreg.)

## A HI 4163 Etruscan Art 3 Credit Hours

(Slashlisted with 5163) Prerequisite: junior standing or permission of instructor. Examine and interpret selected works of Etruscan art in reference to the possible influences from the social, political, economic, literary, and religious "climate" of the time. No student may earn credit for both 4163 and 5163. (F) [IV-WC].

## A HI 4273 Byzantine Icons

3 Credit Hours
(Slashlisted with 5273) Prerequisite: junior standing. Byzantine images occupy a principal position at the heart of the Eastern Church and they are an organic part of daily services. The icon represents a vision of the invisible, and therefore a vision founded on divine knowledge which transforms the created work into the miracle working image. This Class will examine the challenging process of producing holiness and divinity through painting panels. No student may earn credit for both 4273 and 5273. (Irreg.) [IV-AF].

## A HI 4373 The Italian City: Renaissance and Baroque

## Architecture

3 Credit Hours
(Slashlisted with 5373) Prerequisite: junior standing. Architecture and urban planning of Italy from about 1300-1700. Emphasis on the growth of the city and how new forms of social interaction affected the development of architecture and the urban setting. No student may earn credit for both 4373 and 5373. (Alt. F) [IV-WC] .

## A HI 4383 Italian Renaissance Art and Science

3 Credit Hours
Prerequisite: junior standing. Focuses on the confluence of science and art in Renaissance Italy through a study of materials, process, technique and structural issues addressed by artists in the creation of painting, sculpture, and architectures. (Su) [IV-WC].

A HI 4463 Issues in Northern Baroque Art
3 Credit Hours
(Slashlisted with A HI 5463) Prerequisite: junior standing. Focuses on Northern Baroque art as case-study for examination of a variety of art historical methodologies and problems such as attribution, function, and meaning. No student may earn credit for both 4463 and 5463. (Irreg.)
A HI 4523 Art and Power
3 Credit Hours
(Slashlisted with AHI 5523) Prerequisite: Junior standing. What is the relationship between art and power, and how has it changed over time? This course delves into how art and architecture have been used to assert, reinforce, and resist power from 1800 to the present. We will explore topics including propaganda, cultural diplomacy, monumentality, restitution and repatriation, thinking critically about how similar strategies are utilized today. No student may earn credit for both 4523 and 5523. (Irreg.)
A HI 4573 Impressionist Revolt
3 Credit Hours
(Slashlisted with A HI 5573) Prerequisite: A HI 1314, A HI 2000-level elective, and junior standing; or permission of instructor. This course will establish a context for the Impressionist movement by looking at works by theme. We will examine the physical and social transformation of Paris at midcentury, prostitution and the deceptions of capitalism, cafe culture and precarious public spaces, performers of (theater, opera, dance), and the escapist seduction of suburban leisure. No student may earn credit for both 4573 and 5573. (Irreg.)

## A HI 4583 Caricature and Satire

3 Credit Hours
(Slashlisted with A HI 5583) Prerequisite: A HI 1314, A HI 2000-level elective, and junior standing; or permission of instructor for nonmajors in related areas of study. This course will investigate topics and themes related to satire and caricature, first grounding our discussion in theoretical foundations. We will look at social caricature and social science, political critique and the rise of the illustrated press, criminality and 19th-century science, cults of celebrity, and the impact of censorship on form. No student may earn credit for both 4583 and 5583. (Irreg.)
A HI G4623 Contemporary Art and the Environment 3 Credit Hours Prerequisite: Junior standing. In this course, we will think together about how contemporary art relates to the environment. We will approach this topic at the intersection of the discipline of art history and the interdisciplinary area of environmental studies, which can draw on the arts, humanities, sciences, and professional disciplines like medicine, engineering, and law. (Irreg.) [IV-AF].
A HI 4633 Modern Art: Cezanne to 1950
3 Credit Hours
(Slashlisted with 5633) Prerequisite: junior standing. European art from Post-Impressionism to 1950, including some American developments. Emphasis on painting and sculpture, with some consideration of architecture. No student may earn credit for both 4633 and 5633. (Irreg.) [IV-WC].

## A HI 4643 Art After Modernism

3 Credit Hours
(Slashlisted with A HI 5643) Prerequisite: Junior standing. Examines the transition from modern to contemporary art in Europe and the United States between 1950 and 1989. No student may earn credit for both 4643 and 5643. (Irreg.)

## A HI 4683 American Material Culture

3 Credit Hours
Prerequisite: Junior standing. An interdisciplinary seminar addressing the significance of ordinary American objects (cell phones, storm shelters, ATM machines, lava lamps, food processors; the possibilities are nearly endless) taken as evidence of unconscious as well as conscious attitudes and beliefs, some specific to their original makers, users, owners and perceivers, others latent in the broader cultural milieu of their creation. (Sp)

A HI 4723 Cinema of the American West: Then and Now 3 Credit Hours (Slashlisted with A HI 5723) Prerequisite: junior standing. Provides a critical overview of cinema of the American West from the 1930s to present day. Through screenings and course readings, examines the underlying components of Western films, including issues of race, class, ethnicity, gender, sexuality and ideology. Also explores the influence of painting and photography on cinema, as filmmakers both reinforced and reshaped popular imaginings of the American West. No student may earn credit for both 4723 and 5723. (Irreg.)

A HI 4733 Contemporary Art in Exhibition 3 Credit Hours Prerequisite: ENGL 1213 or EXPO 1213; junior standing. Museums are usually places where things go when they have outlasted their original purposes but still retain value, require care, and stir interest. In this course, we will think in various ways about how contemporary art and the museum do and do not go together. (Irreg.)

## A HI 4743 The American West in Art, Photography and Popular Culture <br> 3 Credit Hours

(Slashlisted with A HI 5743) Prerequisite: junior standing or permission of instructor. Focuses on the Trans-Mississippi West, as seen through the eyes of artists and photographers from the early 19th century until today. A variety of media will be discussed, including paintings, prints, photography, and sculpture. The course will study Euro-American artistic conventions/tradition and how they have been employed in defining western history, culture, and native people as fact, fiction, and myth. No student may earn credit for both 4743 and 5743. (Irreg.) [IV-AF]

## A HI 4753 The American West in Photography 3 Credit Hours

 (Slashlisted with 5753) Prerequisite: Junior standing or permission of the instructor. This course focuses on the study of the trans-Mississippi west as seen through the eyes of photographers from the early 19th century up to the present. The purpose of this course will primarily be to study Euro-American photographic conventions, traditions, and styles and how they have been employed in defining American western history, culture and native peoples as fact, artistic motif and myth. No student may earn credit for both 4753 and 5753. (Irreg.) [IV-WC]
## A HI 4773 Modern Exhibition Histories <br> 3 Credit Hours

(Slashlisted with A HI 5773) Prerequisite: Junior standing and ENGL 1213 or EXPO 1213. This course offers a history of modern art exhibitions, with a focus on European, U.S., and transnational contexts. It explores how exhibitionary decisions, including object choice, design and installation, location, historical context, artistic goals, and visitor experience and reception shape the fluid and multiple meanings of art. No student may earn credit for both 4773 and 5773. (Irreg.)

A HI 4823 20th Century American Indian Art History 3 Credit Hours (Slashlisted with A HI 5823) Prerequisite: junior standing. Examination and study of the arts of North American Indians. Included in the survey will be the examination of new materials, styles, and the shifts of gender roles in the creative arts. No student may earn credit for both 4823 and 5823. (F) [IV-WDC] .

A HI 4853 American Indian Women Artists 3 Credit Hours
(Slashlisted with A HI 5853) Prerequisite: Junior standing or permission of the instructor. Investigates the arts of indigenous women throughout the Americas. Students will participate in research, discussion of selected readings, written assignments and individual presentations concerning the non-western aesthetics and ideals that are found in arts of Indian women from the 20th century forward. No student may earn credit for both 4853 and 5853. (Irreg.) [IV-WDC]

A HI 4913 Seminar 3 Credit Hours
(Slashlisted with 5913) Prerequisite: permission of instructor. May be repeated with change of content; maximum credit 12 hours. Advanced topics in art history. No student may earn credit for both 4913 and 5913 (Irreg.)

A HI 4930 Internship
1-6 Credit Hours
1 to 6 hours. Prerequisite: permission of instructor; majors only. May be repeated; maximum credit 6 hours. Students arrange and participate in a professional work experience with an approved internship site. (Irreg.)

A HI 4933 Process and Theory Workshop 3 Credit Hour (Slashlisted with A HI 5933; Crosslisted with ARTC 4933) Prerequisite: Junior standing or permission of instructor; majors only. May be repeated with change of subject; maximum credit 6 hours. The course will offer a deeper grounding in relevant theoretical issues, as students explore together the interdisciplinary landscapes of contemporary theory and assess their relevance for artistic practice and art historical research. No student may earn credit for both 4933 and 5933. (Irreg.)

A HI 4943 Fieldwork for Art History
3 Credit Hours
(Slashlisted with A HI 5943) Prerequisite: Junior standing and permission of instructor. Students will be introduced to the idea that strategies art historians have developed to interpret art can be applied to the full range of traces left by human beings in the natural world. This course stretches the disciple of art history in experimental ways, challenging the centrality of art, understood as the sort of object that belongs in a museum. No student may earn credit for both 4943 and 5943. (Irreg.)

A HI 4953 Museum Studies 3 Credit Hours
(Slashlisted with 5953) Prerequisite: junior standing. Analysis of problems in collecting, authenticating, exhibiting and conserving works of art. Attention is also given to museum architecture and administration, as well as to the cultural and educational role of the museum in the community. Field trips, projects and papers are required. No student may earn credit for both 4953 and 5953. (Irreg.)

A HI 4960 Directed Readings
2-6 Credit Hours
Prerequisite: six hours of upper-division art history and permission of instructor. May be repeated; maximum credit six hours. Research culminating in the preparation of papers using technical and critical literature in the history of art. (Irreg.)

A HI 4970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: Senior standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

A HI 4990 Independent Study 1-3 Credit Hours
1 to 3 hours. Prerequisite: senior standing and permission of instructor. May be repeated; maximum credit six hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. ndependent study may include library and/or laboratory research and field projects. (Irreg.)
A HI 4993 Senior Capstone Experience
3 Credit Hours
Prerequisite: senior classification. May not be repeated for credit. Primary objective is to provide a culminating experience for the senior-year student. Satisfies the University-wide General Education Requirement for a capstone course for art history majors. (F, Sp) [V]

A HI 5043 Native Americans, Museums and Exhibitions 3 Credit Hours (Slashlisted with AHI 4043) Prerequisite: Graduate standing. A discussion-based seminar on the history of museums and Native American art and culture. An examination of early collecting practices that removed materials and belongings from Native American communities, eventually becoming part of museum collections. We will also look at the interventions living artists are making and how they choose to present themselves and their culture to the public. No student may earn credit for both 4043 and 5043. (Irreg.)

## A HI 5163 Etruscan Art

3 Credit Hours
(Slashlisted with 4163) Prerequisite: graduate standing in the School of Art and Art History or permission of the instructor. Examine and interpret selected works of Etruscan art in reference to the possible influences from the social, political, economic, literary, and religious "climate" of the time. No student may earn credit for both 4163 and 5163. (Irreg.)

## A HI 5210 Graduate Readings

1-6 Credit Hours
1 to 6 hours. Prerequisite: graduate standing in the School of Art and Art History or permission of the instructor. May be repeated with change of subject; maximum credit nine hours. Selected readings in art history. (Irreg.)

## A HI 5220 Graduate Projects <br> 1-6 Credit Hours <br> 1 to 6 hours. Prerequisite: graduate standing in the School of Art and Art

 History or permission of the instructor. May be repeated with change of subject; maximum credit nine hours. Individual problems on selected topics. (Irreg.)
## A HI 5273 Byzantine Icons

3 Credit Hours
(Slashlisted with 4273) Prerequisite: graduate standing in the School of Art and Art History or permission of the instructor. Byzantine images occupy a principal position at the heart of the Eastern Church and they are an organic part of daily services. The icon represents a vision of the invisible, and therefore a vision founded on divine knowledge which transforms the created work into the miracle working image. This class will examine the challenging process of producing holiness and divinity through painting panels. No student may earn credit for both 4273 and 5273. (lrreg.)

A HI 5373 The Italian City: Renaissance and Baroque

## Architecture

3 Credit Hours
(Slashlisted with 4373) Prerequisite: graduate standing in the School of Art and Art History or permission of the instructor. Architecture and urban planning of Italy from about 1300-1700. Emphasis on the growth of the city and how new forms of social interaction affected the development of architecture and the urban setting. No student may earn credit for both 4373 and 5373. (Irreg.)

## A HI 5463 Issues in Northern Baroque Art

3 Credit Hours
(Slashlisted with A HI 4463) Prerequisite: Prerequisite: graduate standing in the School of Art and Art History or permission of the instructor. Looks at northern Baroque art as a case study for the examination of a variety of art historical problems such as attribution, function, interpretation, and symbolism. No student may earn credit for both 4463 and 5463. (Irreg.)

## A HI 5523 Art and Power

3 Credit Hours
(Slashlisted with AHI 4523) Prerequisite: Graduate standing or instructor permission. What is the relationship between art and power, and how has it changed over time? This course delves into how art and architecture have been used to assert, reinforce, and resist power from 1800 to the present. We will explore topics including propaganda, cultural diplomacy, monumentality, restitution and repatriation, thinking critically about how similar strategies are utilized today. No student may earn credit for both 4523 and 5523. (Irreg.)

A HI 5573 Impressionist Revolt
3 Credit Hours
(Slashlisted with A HI 4573) Prerequisite: Graduate standing and permission of instructor. This course will establish a context for the Impressionist movement by looking at works by theme. We will examine the physical and social transformation of Paris at midcentury, prostitution and the deceptions of capitalism, cafe culture and precarious public spaces, performers of theater, opera, and dance, and the escapist seduction of suburban leisure. No student may earn credit for both 4573 and 5573. (Irreg.)
A HI 5583 Caricature and Satire
3 Credit Hours
(Slashlisted with A HI 4583) Prerequisite: Graduate standing and permission of instructor. This course will investigate topics and themes related to satire and caricature, first grounding our discussion in theoretical foundations. We will look at social caricature and social science, political critique and the rise of the illustrated press, criminality and 19th-century science, cults of celebrity, and the impact of censorship on form. No student may earn credit for both 4583 and 5583. (Irreg.)

## A HI 5633 Modern Art: Cezanne to 1950

3 Credit Hours
(Slashlisted with 4633) Prerequisite: graduate standing in the School of Art and Art History or permission of the instructor. European art from Postimpressionism to 1950, including some American developments. Emphasis on painting and sculpture, with some consideration of architecture. No student may earn credit for both 4633 and 5633. (Irreg.)

## A HI 5643 Art After Modernism

3 Credit Hours
(Slashlisted with A HI 4643) Prerequisites: graduate standing; permission of instructor. Examines the transition from modern to contemporary art in Europe and the United States between 1950 and 1989. No student may earn credit for both 4643 and 5643. (Irreg.)
A HI 5723 Cinema of the American West: Then and Now 3 Credit Hours (Slashlisted with A HI 4723) Prerequisite: graduate standing; majors only or permission of instructor. Provides a critical overview of cinema of the American West from the 1930s to present day. Through screenings and course readings, examines the underlying components of Western films, including issues of race, class, ethnicity, gender, sexuality, and ideology. Also explores the influence of painting and photography on cinema, as filmmakers both reinforced and reshaped popular imaginings of the American West. No student may earn credit for both 4723 and 5723. (Irreg.)

## A HI 5743 The American West in Art, Photography, and Popular Culture <br> 3 Credit Hours

(Slashlisted with A HI 4743) Prerequisite: graduate standing in the School of Art and Art History or permission of the instructor. Focuses on the Trans-Mississippi West, as seen through the eyes of artists and photographers from the early 19th century until today. A variety of media will be discussed, including paintings, prints, photography, and sculpture. The course will study Euro-American artistic conventions/tradition and how they have been employed in defining western history, culture, and native people as fact, fiction, and myth. No student may earn credit for both 4743 and 5743. (Irreg.)

## A HI 5753 The American West in Photography 3 Credit Hours

 (Slashlisted with 4753) Prerequisite: graduate standing in the School of Art and Art History or permission of the instructor. This course focuses on the study of the trans-Mississippi west as seen through the eyes of photographers from the early 19th century up to the present. The purpose of this course will primarily be to study Euro-American photographic conventions, traditions, and styles and how they have been employed in defining American western history, culture and native peoples as fact, artistic motif and myth. No student may earn credit for both 4753 and 5753. (Irreg.)
## A HI 5773 Modern Exhibition Histories

(Slashlisted with A HI 4773) Prerequisite: Graduate standing and permission of instructor. This course offers a history of modern art exhibitions, with a focus on European, U.S., and transnational contexts. It explores how exhibitionary decisions, including object choice, design and installation, location, historical context, artistic goals, and visitor experience and reception shape the fluid and multiple meanings of art. No student may earn credit for both 4773 and 5773. (Irreg.)
A HI 5823 20th Century American Indian Art History 3 Credit Hours (Slashlisted with 4823) Prerequisite: graduate standing in the School of Art and Art History or permission of the instructor. Examination and study of the arts of North American Indians. Included in the survey will be the examination of new materials, styles, and the shifts of gender roles in the creative arts. No student may earn credit for both 4823 and 5823. (Irreg.)

A HI 5853 American Indian Women Artists
3 Credit Hours
(Slashlisted with 4853) Prerequisite: graduate standing in the School of Art and Art History or permission of the instructor. Investigates the arts of indigenous women throughout the Americas. Students will participate in research, discussion of selected readings, written assignments and individual presentations concerning the non-western aesthetics and ideals that are found in arts of Indian women from the 20th century forward. No student may earn credit for both 4853 and 5853. (Irreg.)

A HI 5903 Methodologies and Theories in Art History 3 Credit Hours Prerequisite: graduate standing in art history or senior standing with permission of instructor. A study of various scholarly approaches to the history of art, as well as the theories which inform these approaches. Preparation of bibliographies; short presentations and papers. (Irreg.)

A HI 5911 Teaching of Art History
1 Credit Hour
Prerequisites: graduate standing; permission of instructor. Introduction to pedagogy for art history graduate students. It is required for Graduate Teaching Assistants with teaching assignments, and they should normally take it in the first semester of their appointment. The course focuses on principles and practices of good teaching and uses handson methods to encourage students to gain confidence and share ideas. Through a series of practical assignments students will increase their competency in creating and evaluating assignments, developing syllabi, and leading discussion sections. (Irreg.)

## A HI 5912 Professional Writing for Art Historians 2 Credit Hours

Prerequisites: graduate standing; permission of instructor. This course is intended for graduate students pursuing an art history degree at the M.A. or Ph.D. level. It aims to teach professional writing skills necessary for a career in academia or the art world with a focus on proposals for conferences and grants. (Irreg.)

## A HI 5913 Seminar

3 Credit Hours
(Slashlisted with 4913) Prerequisite: permission of instructor. May be repeated with change of content; maximum credit twelve hours Advanced topics in art history. No student may earn credit for both 4913 and 5913. (Irreg.)

A HI 5930 Graduate Internship
1-6 Credit Hours
Prerequisite: graduate standing; permission of instructor. Variable credit: 1-6 hours. May be repeated; maximum credit 6 credit hours. An Internship is a planned work experience related to a student's personal career and academic goals. It can help a student learn about a career, apply knowledge gained in the classroom, develop skills, and enrich the student's understanding of a variety of art organizations. The primary purpose of an internship is to help relate academic experiences with those in the workplace. (Irreg.)
(Slashlisted with A HI 4933; Crosslisted with ARTC 5933) Prerequisite: Graduate standing and permission of instructor. May be repeated with change of subject; maximum credit 6 hours. The course will offer a deeper grounding in relevant theoretical issues, as students explore together the interdisciplinary landscapes of contemporary theory and assess their relevance for artistic practice and art historical research. No student may earn credit for both 4933 and 5933. (Irreg.)

A HI 5943 Fieldwork for Art History
3 Credit Hours
(Slashlisted with A HI 4943) Prerequisite: Graduate standing and permission of instructor. Students will be introduced to the idea that strategies art historians have developed to interpret art can be applied to the full range of traces left by human beings in the natural world. This course stretches the discipline of art history in experimental ways, challenging the centrality of art, understood as the sort of object that belongs in a museum. No student may earn credit for both 4943 and 5943. (Irreg.)

A HI 5953 Museum Studies
3 Credit Hours
(Slashlisted with A HI 4953) Prerequisite: graduate standing in the School of Art and Art History or permission of the instructor. Analysis of problems in collecting, authenticating, exhibiting and conserving works of art. Attention is also given to museum architecture and administration, as well as to the cultural and educational role of the museum in the community. Field trips, projects and papers are required. No student may earn credit for both 4953 and 5953. (Irreg.)

A HI 5960 Directed Readings
2-6 Credit Hours
Prerequisite: permission of instructor. May be repeated; maximum credit six hours. Research culminating in the preparation of papers using technical and critical literature in the history of art. (Irreg.)

A HI 5970 Special Topics/Seminar 1-3 Credit Hours 1 to 3 hours. Prerequisite: Graduate standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

A HI 5972 Thesis Proposal
2 Credit Hours
Prerequisite: graduate standing in the School of Art and Art History or permission of the instructor. Students will create a research topic, select a thesis committee and formulate a proposal and bibliography approved by their committee. (Irreg.)

## A HI 5980 Research for Master's Thesis 2-9 Credit Hours

 2 to 9 hours. Prerequisite: graduate standing in the School of Art and Art History or permission of the instructor. May be repeated for credit; maximum credit applicable toward degree, four hours. Directed research culminating in the completion of the master's thesis. (Irreg.)A HI 5990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)

A HI 5993 Special Studies
3 Credit Hours
Prerequisite: graduate standing in the School of Art and Art History or permission of the instructor. May be repeated; maximum credit twelve hours. Advanced studies in various periods of art history, given under stated titles determined semester by the instructor involved. (Irreg.)

## A HI 6203 Native American Art <br> 3 Credit Hours

Prerequisite: graduate standing in the School of Art and Art History or permission of the instructor. May be repeated with change in topic; maximum credit 12 hours. Advanced seminar that will examine in depth various concepts, individuals, schools, movements, or themes. Topics may include: Oklahoma Native American artist; Ledger art; art of Native American people; contemporary Native American painters; Native American sculptors; southwestern Native American weaving; jewelry; beadwork; potteries; coastal American art of the northwest; and native arts of Hawaii. (Irreg.)

A HI 6213 Graduate Seminar in Ancient Art 3 Credit Hours Prerequisite: Graduate standing and permission of instructor; May be repeated with change of content; maximum credit 6 hours. This is a rotating topic course on Ancient Art. Content initially will include examining selected works and archaeological sites of the Cycladic Islands. (Irreg.)
A HI 6313 Seminar in Early Modern Art
3 Credit Hours
Prerequisite: Graduate standing. May be repeated with change of content; maximum credit 6 hours. This course is a variable topic seminar on European Art from c. $1400 \mathrm{~s}-\mathrm{c}$. 1700 s that includes an advanced examination of a particular artist, theme, style, or era. (Irreg.)
A HI 6413 Seminar in Modern Art
3 Credit Hours
Prerequisite: Graduate standing and permission of instructor. May be repeated with change of content; maximum credit 6 hours. This course is a variable topic seminar on European Art from c. 1800s-1900s that includes an advanced examination of a particular artist, theme, style, or era. (Irreg.)
A HI 6423 Topics in American Art History 3 Credit Hours
Prerequisite: Graduate standing in the School of Art and Art History or permission of instructor. Interdisciplinary seminar addressing topics in the history of American art, its focus changing from year to year though always concerned with developments in the art of the American west, based on close, restrained analysis of particular images combined with readings in art history and related disciplines. (Irreg.)

## A HI 6433 Material Culture, Theory and Practice 3 Credit Hours

Prerequisite: Graduate standing in the OU School of Visual Arts or permission of the instructor. Interdisciplinary seminar addressing the significance of ordinary objects taken as evidence of unconscious as well as conscious attitudes and beliefs, some specific to their original makers, users, owners and receivers, others latent in the broader cultural milieu in which each object circulated or circulates still. (Irreg.)

## A HI 6513 Critical Issues in Recent American Art History 3 Credit Hours

 Prerequisite: Graduate standing in the School of Art and Art History or permission of the instructor. Interdisciplinary seminar addressing critical issues in recent American art history through close attention to a series of recent monograms by major figures in the field. (Irreg.)A HI 6523 Graduate Seminar in Contemporary Art 3 Credit Hours Prerequisite: Graduate standing and permission of instructor; May be repeated with change of content; maximum credit 6 hours. The course is a rotating topics seminar on contemporary art that includes an advanced examination of an artist, theme, style, or era. (Irreg.)
A HI 6950 Dissertation Proposal 1-6 Credit Hours
1 to 6 hours. Prerequisite: Completion of core coursework for the PhD in Art History. May be repeated; maximum credit six hours. Students will create a research topic and formulate a proposal and bibliography approved by their doctoral committee. (F, Sp)

A HI 6960 Directed Readings
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor.
May be repeated; maximum credit six hours. Directed readings and/or literature review under the direction of a faculty member. (Irreg.)
A HI 6970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit 12 hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or research and field projects. (Irreg.)

## A HI 6980 Research for Doctoral Dissertation 2-9 Credit Hours

2 to 9 hours. Prerequisite: Graduate standing and permission of instructor; may be repeated. Directed research culminating in the completion of the Doctoral dissertation. (F, Sp)
A HI 6990 Independent Study 1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)

## A T 5803 History and Theory of Art and Technology

## Seminar

3 Credit Hours
Prerequisite: Graduate standing and Master of Arts in Art and Technology majors only. This course surveys the history and theory of art and technology from prehistory to the present. Presenting the major historical developments alongside key works and texts in art and design practice, their critical and historical reception, and their theorization, the course provides students with a comprehensive foundation in the past of their field. (F, Sp, Su)
A T 5813 Creative Coding Techniques
3 Credit Hours
Prerequisite: Graduate standing and Master of Arts in Art and Technology majors only. This course provides an introduction to the computer as a usable art production tool. Students work to understand computer code as a malleable form within the context of New Media Art. Students learn the basic structure of OOP (Object Oriented Programming) as it pertains to the navigation of current technologies. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
A T 5823 Emerging Art and Technology Seminar
3 Credit Hours
Prerequisite: Graduate standing and Master of Arts in Art and Technology majors only. This course helps students position themselves within the field of art and technology by equipping them with knowledge necessary to anticipate the future shape of its fast-paced development. Specific topics covered tend to involve big-picture changes on the horizon, new technologies in development, and the shifting relationship of society to technology. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

A T 5833 Video and Sound Techniques
3 Credit Hours
Prerequisite: Graduate standing and Master of Arts in Art and Technology majors only. This course provides students with an overview of audio and video capture and post-production. This technique-intensive lab features weekly sequences of video tutorials covering introductory to advanced techniques for video capture, video lighting and exposure, audio capture, technical equipment, and industry standard software post-production methods. (F, Sp, Su)

A T 5843 3D Animation Techniques
3 Credit Hours
Prerequisite: Graduate standing and Master of Arts in Art and Technology majors only. This course teaches students how to produce 3D models and 3D animations with the latest industry-standard software. This technique-intensive lab features weekly sequences of in-depth video tutorials covering introductory to advanced techniques for creating highquality 3D objects, environments, characters, keyframe animations, procedural animations, and simulation FX. (Sp, Su)
A T 5853 Motion Graphics Techniques
3 Credit Hours
Prerequisite: Graduate standing and Master of Arts in Art and Technology majors only. This course provides students with a technical overview of using motion graphics, including but not limited to, effective communication in moving text, interactive media, and basic digital compositing. This technique-intensive lab features weekly sequences of in-depth video tutorials covering techniques for key components in the successful creation of imagery, sound, video, and animation for use in motion graphic projects. (F, Sp, Su)
A T 5863 Moving Image Production 3 Credit Hours Prerequisite: Graduate standing and Master of Arts in Art and Technology majors only. This studio course provides students with one-on-one and group feedback for self-directed projects of time-based media. Students will develop their work within a theoretical and conceptual framework, learning and applying the principles of interactivity in art and design. The course includes screenings, discussions, and critiques. (F, Sp, Su)

## A T 5873 Game Engine Techniques

3 Credit Hours
Prerequisite: Graduate standing and Master of Arts in Art and Technology majors only. This course provides students with an overview of 3D game engine software to produce narrative and experimental screen-based video games. This technique-intensive lab features weekly sequences of in-depth video tutorials covering introductory to advanced techniques for importing, animating, scripting, and exporting computer games. (F, Sp, Su )

## A T 5883 Interactive Media Production

3 Credit Hours
Prerequisite: Graduate standing and Master of Arts in Art and Technology majors only. This studio course provides students with one-on-one and group feedback for self-directed projects in interactive media. Students will develop their work within a theoretical and conceptual framework, learning and applying the principles of interactivity in art and design. The course includes screenings, discussions, and critiques. (F, Sp, Su)
A T 5893 Mixed Reality Techniques 3 Credit Hours
Prerequisite: Graduate standing and Master of Arts in Art and Technology majors only. This course teaches students to how to create virtual and augmented reality experiences. This technique-intensive lab features weekly sequences of in-depth video tutorials covering introductory to advanced techniques for creating art and design projects in advanced, emerging visual technologies. (F, Sp, Su)
A T 5913 Professional Project
3 Credit Hours
Prerequisite: Graduate standing, Master of Arts in Art and Technology majors only, and concurrent enrollment in AT 5923. The purpose of this culminating project is to synthesize the student's knowledge in the field of art and technology through the production of a work or body of works in art or design that demonstrates professional skills and will serve the student well as a key component of their portfolio moving forward in their career. (F, Sp, Su)

A T 5923 Professional Forum
3 Credit Hours
Prerequisite: Graduate standing, Master of Arts in Art and Technology majors only, and concurrent enrollment in AT 5913. This group seminar course is intended to provide a forum for peer feedback on the professional project as it evolves from conception to completion. Students will discuss their ideas and their practices, developing both greater clarity about their working process as well as a deepened capacity to talk about their work and present it coherently to the public. (Sp, Su)
ARNM 1003 Art For Non-Majors: Two-Dimensional 3 Credit Hours May be repeated; maximum credit six hours. Provides students who are not art majors with an introduction to the basic studio processes of painting and drawing. (Irreg.)
ARNM 2843 Photography for Non Art Majors 3 Credit Hours
This course will introduce the non art major to camera controls and traditional darkroom operations including film processing, contact printing, enlarging and processing of black and white material, matting and presentation. Students enrolling in this course do not need to have any previous photographic or art skills. This course will complete a portfolio of images to complete the course. Textbook required. (Irreg.)
ARNM 2970 Special Topics/Seminar 1-3 Credit Hours 1 to 3 hours. Prerequisite: sophomore standing or permission of instructor. May be repeated; maximum credit six hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

## ARNM 3440 Mentored Research Experience <br> 3 Credit Hours

0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)
ARNM 3960 Honors Reading
1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Consists of topics designated by the instructor in keeping with the student's major program. Covers topics not usually presented in the regular courses.

## ARNM 3970 Honors Seminar 1-3 Credit Hours

1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Subjects covered vary. Deals with concepts not usually treated in regular courses.

ARNM 3980 Honors Research
1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Provides an opportunity for the gifted Honors candidate to work at a special project in the student's field. (F, Sp, Su)
ARNM 3990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: permission of instructor and junior standing. May be repeated once with change of content. Independent study may be arranged to study a subject not available through regular course offerings. (F, Sp, Su)

ARNM 4970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: junior standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

ART 1033 Core Studio I: Surface 3 Credit Hours
Prerequisite: majors only; co-requisite: ART 1043. Core Studio I:
Surface is a foundation level course that introduces students to a variety of experiences using two-dimensional design and drawing practices. The course will focus on developing conceptual imagery as expressed through the organization of spatial relationships using design elements and principles, visual observation, color relationships, and the investigation of line, perspective, the figure, gesture, and space.(F)

## ART 1043 Core Studio II: Space and Time

3 Credit Hours
Prerequisite: majors only; co-requisite: ART 1033. A foundation level course that introduces students to a variety of experiences using interdisciplinary spatial relationships and three-dimensional design practices. The course will focus on developing a keen awareness of space, form, and time via the application of design principles to handmade forms. Students will create artworks through a variety of media investigations to enhance awareness of the interconnections within visual art and design disciplines. The course emphasizes ideation and process, and exploring and exploiting subject matter and media as a means of obtaining individual conceptual goals.(F)
ART 1133 Core III: Technology 3 Credit Hours Prerequisite: majors only; ART 1033 and ART 1043. Co-requisite: ART 1143. A foundation level course that introduces students to a variety of experience using electronic tools, processes and techniques. The course will focus on image, interactivity, and motion using core concepts \& principles. (Sp)

## ART 1143 Core IV: Integrated Studio

3 Credit Hours
Prerequisites: majors only; ART 1033 and ART 1043. Co-requisite:
ART 1133. Integrated Studio is a foundation level art practice course that introduces students to the broad dialogues driving activity in the world of contemporary art. Students learn to structure their work around core concepts and make practical decisions that propel critical discourse within the context of an art or design practice. (Sp)

## ART 2253 Beginning Ceramics

3 Credit Hours
Prerequisite: majors only; ART 1033 and ART 1043. Introduction to various hand-building, glazing and firing techniques. Emphasis placed on developing an understanding of working in three dimensions (with clay as the medium), and on interpreting shape by combining surface color and three-dimensional form. Conceptual and critical issues introduced. ( $\mathrm{F}, \mathrm{Sp}$ )

## ART 2313 Beginning Drawing

3 Credit Hours
Prerequisite: majors only; ART 1033 and ART 1043. Uses representational drawing to increase observational abilities. Perspective, value, form, texture, proportion and scale are studied using still life, the figure and outside drawing assignments. (Irreg.)

## ART 2413 Beginning Painting

3 Credit Hours
Prerequisite: majors only; ART 1033 and ART 1043. The aqueous media used in various approaches to painting problems (processes and concepts); lectures, group criticism and individual instruction assist the student in studying the fundamentals of painting. (Irreg.)
ART 2523 Beginning Sculpture: Figurative 3 Credit Hours Prerequisite: majors only; ART 1033 and ART 1043. Creating in oil base clay the human skull and a life-size portrait; creating a waste mold and making a plaster cast from it. (Irreg.)

ART 2533 Beginning Sculpture: Contemporary
Prerequisite: Majors only; ART 1033 and ART 1043. This course will introduce students to the methods of sculpture including material exploration, space investigation and conceptual development of sculptural experiences. Scale, material relationships, craft, context, and final presentation will be fundamental aspects covered in this course. Students will be encouraged to formulate elements of self-expression, research artists \& ideas, and develop a vocabulary for constructive criticism. (Irreg.)
ART 2743 Beginning Printmaking
3 Credit Hours
Prerequisites: majors only; ART 1033. This course is a formal introduction to the art of printmaking and the disciplines that comprise it. Students learn to create repeatable matrices in various media, including relief, screen,lithography, and intaglio printing. Technical demonstrations combine with lectures to provide students a sense of the materials, tools, and skills involved in printing as well as printmaking's history and the role it has played in our culture. (Irreg.)

ART 2873 Video for the Artist I
3 Credit Hours
Prerequisite: majors only; ART 1013, ART 1023, ART 1113, ARTC 1003, ARTC 1103. Emphasis on developing video production and postproduction skills. Training exercises in studio and field production, camera work, lighting and sound. Instruction and practice in analog and digital editing. Exploration of digital media. Students will produce a number of short projects. (Irreg.)

## ART 2970 Studio Special Topics

## 1-3 Credit Hours

Prerequisite: majors only; ART 1033 and ART 1043. May be repeated with change of content; maximum credit nine hours. Special topics course for content not currently offered in regular scheduled courses. (Irreg.)
ART 3143 Core III: Integrated Studio
3 Credit Hours
Prerequisite: ART 1033 and ART 1043; Junior standing or above, majors only. Integrated Studio is a junior-level art practice course that engages students in dialogue and collaboration centered around issues related to contemporary art. (F)
ART 3253 Intermediate Ceramic Design
3 Credit Hours
Prerequisite: 2253. Continued exploration of various hand-building,
glazing and firing techniques. Primarily low fire processes. Formal issues such as sculptural composition, form and surface development, and the interpretation of function addressed. Emphasis placed on developing a personal language of materials and ideas. Progression through the range of ceramic-making skill sets. Conceptual and critical issues expanded. ( F , Sp )
ART 3263 Intermediate Ceramic Processes 3 Credit Hours
Prerequisite: 2253. Continued exploration of various hand-building, glazing and firing techniques. Primarily high fire processes. Utilitarian and sculptural concerns, creative problem solving, art making strategies addressed. Emphasis placed on developing a personal language of materials and ideas. Progression through the range of ceramic-making skill sets. Conceptual and critical issues expanded. (F, Sp)
ART 3313 Intermediate Drawing Processes 3 Credit Hours Prerequisite: 2313 or permission of instructor. Intermediate life drawing in various media with use of the human figure as the primary subject. The development of drawing processes and proficiency is stressed. (Irreg.)

## ART 3323 Experimental Drawing Practices

3 Credit Hours
Prerequisites: majors only; junior standing; ART 2313. Drawing will be explored as a unique visual language. An emphasis will be placed on experimentation, exploration and the development of a personal drawing practice. (Irreg.)

ART 3343 Comics \& Sequential Art
Prerequisite: Majors only and ART 2313; may be repeated; maximum credit 6 hours. Comics and Sequential Art has been designed to gain insight into the depth, complexity, and cultural significance of comics through the making and analyzing of how this art form functions differently from other traditional two-dimensional art mediums. (Sp)

ART 3353 Collage \& Assemblage 3 Credit Hours
Prerequisite: Majors only, Junior standing, and ART 2313 or permission of instructor; may be repeated; maximum credit 6 hours. This course examines the history, theory, and practice of collage and its use in related mediums including assemblage, installation art, film and video, sound art, etc. Students will learn about major tendencies within the history of the medium, key figures from the past, leading ideas about collage, and techniques for making culture from culture. (Irreg.)

ART 3413 Intermediate Painting Studio I 3 Credit Hours
Prerequisite: majors only; junior standing; ART 2413. Personal painting issues are developed in a variety of media. An emphasis on experimentation, exploration, development of imagery and personal expression. (Irreg.)

ART 3423 Intermediate Painting Studio 2 Credit Hours Prerequisites: majors only; junior standing; ART 2413. Individual painting issues are pursued through an intense exploration of ideas and technical risk taking. Students will develop research methodologies that will influence their visual and conceptual problem solving. (Irreg.)

ART 3440 Mentored Research Experience
3 Credit Hour
0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office Not for honors credit. (F, Sp, Su)

ART 3513 Intermediate Sculpture: Contemporary Process 3 Credit Hours

Prerequisite: ART 2513 or ART 2523 or permission of instructor Examination of metal fabrication, welding, woodworking (construction and carving), and advanced assembly with nontraditional materials. Concerns in the development of formal visual issues, presentation concept and theory of contemporary sculpture will be emphasized. (Irreg.)

ART 3523 Intermediate Sculpture: Figurative Processes 3 Credit Hours Prerequisite: 2513,2523 or permission of instructor on a space available basis. Creating a bas-relief and sculpting the human hand and foot in oil based clay; creating a slip cast mold of the bas-relief for water base clay castings. (Irreg.)

## ART 3533 Sculpture: Digital Fabrication for Artists and Designers <br> 3 Credit Hours

Prerequisites: majors only; junior standing; ART 2533. Focuses on digital fabrication technologies associated with CAD modeling and vector based digital production. Students will be involved in developing projects that will be constructed using a variety of 3D printing and CNC technologies using plastic, acrylic, metal, wood, and fabrics. Students wil be expected to develop a vocabulary of digital production as it relates to contemporary art and design. (Irreg.)

ART 3543 Intermediate Sculpture: Figurative Small Projects 3 Credit Hours
Prerequisite: 2513 or 2523 or permission of the instructor. Creating a plaster sculpture(s) with a foam core; students will sculpt several small figurative sculptures from oil based clay. Armatures for smaller sculptures are designed and developed for more complex compositions. (Irreg.)

ART 3563 Sculpture: Functional Design Studio 3 Credit Hours
Prerequisites: majors only; junior standing; ART 2533. Investigate function as a means for creative experience and interaction. This includes furniture design, product development, utilitarian objects, and other associated objects that exist functionally within our environment. Design principles, construction techniques, and craft will be emphasized. Students will employ traditional construction techniques as well as digital fabrication to plan, design and build projects that approach utility from various practical and experimental approaches. (Irreg.)

## ART 3743 Intermediate Printmaking I: Lithography and Planar Processes 3 Credit Hours

Prerequisite: Majors only; ART 2743; May be repeated; maximum credit 6 hours. This section of printmaking is designed for investigating multiple surfaces and processes in intermediate printmaking with an emphasis on drawing. The different levels of each process will allow students to develop their understanding of the basic concepts of the intaglio, lithography and relief processes. (Irreg.)

## ART 3753 Intermediate Printmaking II-Screen Printing and Digital Processes <br> 3 Credit Hours

Prerequisite: Majors only; ART 2743; May be repeated; maximum credit 6 hours. This course serves as a practical investigation of photo-process screenprinting and an introduction to various other forms of photo and digital printmaking. Students learn to handle, utilize, and manipulate photosensitive materials and how these materials are commonly utilized in the creation of print media. ( $F, S p$ )

ART 3763 Intermediate Printmaking III-Book Arts 3 Credit Hours Prerequisite: Majors only; ART 2743; May be repeated; maximum credit 6 hours. Students focus on techniques related to book arts, case building, and letterpress printing as they learn to utilize the formal materials of printmaking (paper, board, and fabric) as expressive elements in their creative process. The concepts that guide bookmaking and book construction are covered in an open and nontraditional manner to allow for experimentation, self-expression, and evolution. (Irreg.)

## ART 3823 Concepts in Electronic Media

3 Credit Hours
Prerequisite: Majors only; ATC 2823. Consideration of conceptual and aesthetic issues within technological systems, which may include interactive media, immersive virtual environments, experimental games, visualization \& simulation, and 3-D object development. Exposure to a variety of possible technical processes as they consider visual strategies regarding the constraints of visual spaces. Topics may include, but are not limited to 3-D modeling, real-time processing, database/ interactive narrative, game play, and strategies for designing objects and environments. A personal laptop is required. (Irreg.)

ART 3853 Intermediate Traditional Photography 3 Credit Hours Prerequisite: Majors only; ART 2853 or ATC 2853. May be repeated with change of content; maximum credit 6 hours. This course will explore traditional photographic practices. It focuses on the development of concepts in the imagemaking process and explores various means for producing a cohesive body of work. Instructor will determine the content and methodology, but all courses will include refinement of ideas and informed discussion with referential context. Readings and writings will supplement class discussion. Laboratory. (Irreg.)

ART 3863 Intermediate Digital Photography 3 Credit Hours
Prerequisite: Majors only; ART 2853 or ATC 2853. Explores digital photographic practices. Focus on the development of concepts in the image making process, and explores various means for producing a cohesive body of work. The content and methodology will be determined by the instructor, but all courses will include refinement of ideas and informed discussion with referential context. Readings and writings will supplement class discussion. Laboratory. (Irreg.)
ART 3873 Video for the Artist II 3 Credit Hours
Prerequisite: Majors only; ATC 2873. Continuation of ATC 2873. Introduction to advanced imaging and editing techniques. (F)
ART 3960 Honors Reading 1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated with change of subject matter; maximum credit six hours. Consists of either reading topics or independent study designated by the instructor in keeping with the student's major program. The topics of study will cover materials not usually presented in the regular courses. (F, Sp)

## ART 3970 Honors Seminar 1-3 Credit Hours

1 to 3 hours. Prerequisite: admission to Honors Program, junior or senior standing. May be repeated with change of subject matter; maximum credit six hours. The projects covered will vary. The content will deal with concepts not usually presented in regular coursework. (Irreg.)
ART 3980 Honors Research
1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated with change of subject; maximum credit six hours. Provides an opportunity for the gifted honors candidate to work at a special project in the student's field. (F, Sp)
ART 3990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: permission of instructor and junior standing. May be repeated once with change of content. Independent study may be arranged to study a subject not available through regular course offerings. (F, Sp, Su)

## ART 4253 Advanced Ceramics

3 Credit Hours
Prerequisite: 3253, 3263. May be repeated, maximum credit twelve hours. Emphasis on articulating and developing individual projects in ceramics. Students are expected to research materials and techniques pertinent to development and exploration of personal direction of form and ideas. Each student is expected to create a body of work building on prior exploration of color and form in clay and glazes, traditional and/or non-traditional techniques. Emphasis is on students' individual area of interest. (F, Sp)
ART 4323 Advanced Drawing Concepts
3 Credit Hours
Prerequisite: $2313,2323,3313$, or 3323,4313 . Students are encouraged to refine their portfolio of work representing drawing proficiency and professional maturity. (Irreg.)

## ART 4333 Drawing the Natural World

3 Credit Hours
Prerequisite: Majors only, junior standing, and ART 3313 or ART 3323. This course explores methods for observing and drawing natural objects with an emphasis on scientific illustration as an application. Students will gain experience drawing specimens from life, while exploring mediums and conventions specific to the field of scientific illustration. ( $F, S p$ )

ART 4433 Alternative Painting Practices
3 Credit Hours
Prerequisites: majors only; junior standing; ART 2413, ART 3413,
ART 3423. May be repeated; maximum credit 6 hours. Advanced-level topics to be determined by department and which may include materials and techniques; landscape painting; figurative painting or related topics. Each option will permit concentration and encourage realization of conceptual goals. (Irreg.)
ART 4513 Advanced Sculpture: Contemporary 3 Credit Hours Prerequisite: ART 3513 or ART 3533 or permission of instructor. May be repeated twice; maximum credit nine hours. Self-directed research objectives in terms of sculpture technique, process and concept. Progress relating to personal artistic growth and professional discipline will be expected. Emphasis will be placed on producing a unique body of work for portfolio development and exhibition. (Irreg.)
ART 4533 Advanced Sculpture: Figurative I 3 Credit Hours Prerequisite: 2513, 3513,3523. Develop the student's awareness of form through the modeling of the human figure. The students will study the fundamentals of sculpture such as armature, design, materials, tools and techniques. (Irreg.)

ART 4543 Advanced Sculpture: Figurative II
3 Credit Hours
Prerequisite: 4533. Continuation of the techniques developed in 4533.
Students will explore more complex compositions and armature designs while modeling the human form. There will be more emphasis on human and animal anatomy. Will expand into the study and application of basreliefs. (Irreg.)
ART 4573 Monumental Sculpture
3 Credit Hours
Prerequisite: 4543 . Students will be introduced to various enlarging techniques, taking a sculpture from the maquette (small version) to lifesize or monumental scale. Focus on enlarging with the grid method. Use of a pantograph and the wafer method will also be discussed. Emphasis will be placed on the professional aspects of working with foundries, installations, and clientele. (F)

## ART 4743 Advanced Printmaking Studio

3 Credit Hours
Prerequisites: majors only, junior standing; Art 3743, ART 3753 or ART 3763. May be repeated; maximum credit 6 hours. Offers advanced instruction in all areas of printmaking. Through discussion, lecture, and demonstration, instructors work closely with students to improve their technical and conceptual acuity. Students expand their formal understanding of print processes as they deepen their focus on the concepts that drive their art practice. (Irreg.)

ART 4823 Advanced Art and Technology
3 Credit Hours
Prerequisite: Majors only; ART 3823. May be repeated with change of content; maximum credit 12 hours. Advanced-level topics are determined by department. Individual topics may include, but are not limited to: Interactive Objects and Environment, Experimental Electronics, Sound Synthesis, Virtual Space, and hardware/software/wetware. (Irreg.)

## ART 4833 Experimental Art and Technology 3 Credit Hours

Prerequisite: Majors only; ART 3823. May be repeated with change of content; maximum credit 12 hours. Experimental topics determined by department, and may include, but not limited to: Art \& Science, Expanded Narrative, Game Art, Critical Play, Tactical Media, Sensory Systems, Networks, Bio-media and Participatory Media. (Irreg.)

ART 4423 Advanced Painting Concepts 3 Credit Hours Prerequisite: 4413. A series of paintings are created representing a body of work of a professional nature. (Irreg.)

## ART 4843 Applied Photo Practice <br> 3 Credit Hours

Prerequisite: 2853 and 3853. May be repeated; maximum credit 15 hours. Explores various applied and practical topics of photography to be determined by department. Topics may include view camera technique, zone system, photo illustration, studio experience and extended research and presentation of related topics. Each option will permit concentration and encourage realization of conceptual goals. (Irreg.)

ART 4853 Advanced Photo Practices 3 Credit Hours Prerequisite: 2853 and 3853. May be repeated with change of content; maximum credit 15 hours. Advanced-level topics to be determined by department and which may include advanced B\&W; color; books and portfolios. Extended research and presentation of related topics. Each option will permit concentration and encourage realization of conceptual goals. (Irreg.)

## ART 4863 Alternative Photo Practices <br> 3 Credit Hours

 Prerequisite: majors only; ART 2853 or ATC 2853 and ART 3853. May be repeated; maximum credit 15 hours. Topics of historical processes, contemporary explorations, and alternatives to traditional photo methods to be determined by department (nonsilver I and II; process imagery, alternative color, digital imaging, extended research and presentation, etc.). Each method will permit concentration and encourage realization of conceptual goals. (Irreg.)
## ART 4883 BFA Senior Studio I

3 Credit Hours
Prerequisite: majors only; senior standing; BFA studio majors having completed a minimum of 12 hours of 3000 or 4000 level studio courses and permission of the instructor. The BFA Senior Studio is an immersive experience of art making, creativity, and thinking. This intensive studio experience is focused on studio practice and research related to the artist's discipline. The expectation is that BFA seniors are working towards a professional career and/or the MFA degree. (F)

## ART 4893 BFA Senior Studio II <br> 3 Credit Hours

Prerequisite: ART 4883, majors only, senior standing, and permission of the instructor; co-requisite: ART 4993 Senior Experience. The BFA Senior Studio II is a continuation of creative work established in BFA Studio I. Building on their ideas and personal expression, students will refine theoretical and conceptual ideas, expand their research interests, and further develop new work. (Sp)

## ART 4913 Ceramics Studio Topics

3 Credit Hours
Prerequisite: majors with junior standing or permission of instructor. May be repeated with change of subject matter; maximum credit nine hours. Special topics course in ceramics for content not currently offered in regularly scheduled courses. (Irreg.)

## ART 4923 Drawing Studio Topics

3 Credit Hours
Prerequisite: majors with junior standing or permission of instructor. May be repeated with change of subject matter; maximum credit nine hours. Special topics course in drawing for content not currently offered in regularly scheduled courses. (Irreg.)

## ART 4930 Internship <br> 1-6 Credit Hours

1 to 6 Hours. Prerequisite: permission of instructor; majors only. May be repeated; maximum credit six hours. Students arrange and participate in a professional work experience with an approved internship site. (Irreg.)

## ART 4933 Painting Studio Topics

3 Credit Hours
Prerequisite: majors with junior standing or permission of the instructor. May be repeated with change of subject matter; maximum credit nine hours. Special topics course in painting for content not currently offered in regularly scheduled courses. (Irreg.)

ART 4953 Sculpture Studio Topics 3 Credit Hours
Prerequisite: majors with junior standing or permission of instructor. May be repeated with change of subject matter; maximum credit nine hours. Special topics course in sculpture for content not currently offered in regularly scheduled courses. (Irreg.)

ART 4960 Directed Readings 1-4 Credit Hours
1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean. May be repeated; maximum credit four hours. Designed for upper-division students who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)

## ART 4963 Photography Studio Topics

3 Credit Hours
Prerequisite: majors with junior standing or permission of instructor. May be repeated with change of subject matter; maximum credit nine hours. Special topics course in photography for content not currently offered in regularly scheduled courses. (Irreg.)

ART 4970 Special Topics
1-3 Credit Hours
1 to 3 hours. Prerequisite: majors with junior standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics course for content not currently offered in regular scheduled courses. (Irreg.)

ART 4973 Film and Video Studio Topics
3 Credit Hours
Prerequisite: majors with junior standing or permission of instructor. May be repeated with change of subject matter; maximum credit nine hours. Special topics course in film and video for content not currently offered in regularly scheduled courses. (Irreg.)

ART 4983 Senior Capstone Experience
3 Credit Hours
Prerequisite: senior classification. May not be repeated for credit. Primary objective is to provide a culminating experience for the senior-year student. Satisfies the University-wide General Education Requirement for a capstone course for art majors. [V] .

ART 4990 Independent Study 1-3 Credit Hours
Prerequisite: junior standing or permission of instructor. May be repeated; maximum credit six hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. Title is variable only to reflect specific discipline area within the School of Art. (Irreg.)

ART 4993 Senior Experience
3 Credit Hours
Prerequisite: ART 3143, senior standing, majors only. The primary objective of this class is to provide a culminating experience for the senior-year studio student. There are two primary objectives that must be completed: 1) A written document presented in the form of a selfautobiographical monograph and 2) The artwork you display in the Senior Exhibition. (Sp)

ART 5013 Graduate Studio Ceramics I
3 Credit Hours
Prerequisite: graduate standing in Art. Individual problems in the ceramics studio area. (Irreg.)

ART 5033 Graduate Studio Painting I
3 Credit Hours
Prerequisite: graduate standing in Art. Individual problems in the painting studio area. (Irreg.)

ART 5043 Graduate Studio Printmaking I 3 Credit Hours
Graduate Studio Printmaking I. Prerequisite: Graduate Standing In Art Individual Problems In The Printmaking Studio Area (Irreg)

ART 5053 Graduate Studio Sculpture I 3 Credit Hours
Prerequisite: graduate standing in Art. Individual problems in the sculpture studio area. (Irreg.)

ART 5063 Graduate Studio Photography I 3 Credit Hours
Prerequisite: graduate standing in Art. Individual problems in the photography studio area. (Irreg.)
ART 5073 Graduate Studio Film/Video I 3 Credit Hours
Prerequisite: graduate standing in Art. Individual problems in the film/ video studio area. (Irreg.)
ART 5113 Graduate Studio Ceramics II 3 Credit Hours
Prerequisite: graduate standing in Art. Individual problems in the ceramics studio area. (Irreg.)
ART 5133 Graduate Studio Painting II 3 Credit Hours
Prerequisite: graduate standing in Art. Individual problems in the painting studio area. (Irreg.)
ART 5143 Graduate Studio Printmaking II
3 Credit Hours
Prerequisite: graduate standing in Art. Individual problems in the printmaking studio area. (Irreg.)
ART 5153 Graduate Studio Sculpture II 3 Credit Hours
Prerequisite: graduate standing in Art. Individual problems in the sculpture studio area. (Irreg.)
ART 5163 Graduate Studio Photography II 3 Credit Hours
Prerequisite: graduate standing in Art. Individual problems in the photography studio area. (Irreg.)

ART 5173 Graduate Studio Film/Video II
3 Credit Hours
Prerequisite: graduate standing in Art. Individual problems in the film/ video studio area. (Irreg.)

ART 5213 Graduate Studio Ceramics III 3 Credit Hours
Prerequisite: graduate standing in Art. Individual problems in the ceramics studio area. (Irreg.)

ART 5233 Graduate Student Painting III 3 Credit Hours
Prerequisite: graduate standing in Art. Individual problems in the painting studio area. (Irreg.)

ART 5243 Graduate Studio Printmaking III 3 Credit Hours
Prerequisite: graduate standing in Art. Individual problems in the printmaking studio area. (Irreg.)

ART 5253 Graduate Studio Sculpture III 3 Credit Hours
Prerequisite: graduate standing in Art. Individual problems in the sculpture studio area. (Irreg.)

ART 5263 Graduate Studio Photography III 3 Credit Hours
Prerequisite: graduate standing in Art. Individual problems in the photography studio area. (Irreg.)
ART 5273 Graduate Studio Film/Video III
3 Credit Hours
Prerequisite: graduate standing in Art. Individual problems in the film/ video studio area. (Irreg.)
ART 5313 Graduate Studio Ceramics IV 3 Credit Hours
Prerequisite: graduate standing in Art. Individual problems in the ceramics studio area. (lrreg.)
ART 5333 Graduate Studio Painting IV 3 Credit Hours Prerequisite: graduate standing in Art. Individual problems in the painting studio area. (Irreg.)
ART 5343 Graduate Studio Printmaking IV 3 Credit Hours Prerequisite: graduate standing in Art. Individual problems in the printmaking studio area. (Irreg.)
ART 5353 Graduate Studio Sculpture IV 3 Credit Hours
Prerequisite: graduate standing in Art. Individual problems in the sculpture studio area. (Irreg.)

ART 5363 Graduate Studio Photography IV
3 Credit Hours
Prerequisite: graduate standing in Art. Individual problems in the photography studio area. (Irreg.)
ART 5373 Graduate Studio Film/Video IV 3 Credit Hours Prerequisite: graduate standing in Art. Individual problems in the film/ video studio area. (Irreg.)
ART 5413 Graduate Studio Ceramics V 3 Credit Hours Prerequisite: graduate standing in Art. Individual problems in the ceramics studio area. (Irreg.)
ART 5433 Graduate Studio Painting V 3 Credit Hours
Prerequisite: graduate standing in Art. Individual problems in the painting studio area. (Irreg.)
ART 5443 Graduate Studio Printmaking V 3 Credit Hours
Prerequisite: graduate standing in Art. Individual problems in the printmaking studio area. (Irreg.)
ART 5453 Graduate Studio Sculpture V 3 Credit Hours
Prerequisite: graduate standing in Art. Individual problems in the sculpture studio area. (Irreg.)
ART 5473 Graduate Studio Film/Video V 3 Credit Hours
Prerequisite: graduate standing in Art. Individual problems in the film/ video studio area. (Irreg.)
ART 5513 Graduate Studio Ceramics VI
3 Credit Hours
Prerequisite: graduate standing in Art. Individual problems in the ceramics studio area. (Irreg.)

ART 5533 Graduate Studio Painting VI
3 Credit Hours
Prerequisite: graduate standing in Art. Individual problems in the painting studio area. (Irreg.)

ART 5543 Graduate Studio Printmaking VI 3 Credit Hours
Prerequisite: graduate standing in Art. Individual problems in the printmaking studio area. (Irreg.)

ART 5553 Graduate Studio Sculpture VI 3 Credit Hours Prerequisite: graduate standing in Art. Individual problems in the sculpture studio area. (Irreg.)

ART 5573 Graduate Studio Film/Video VI 3 Credit Hours Prerequisite: graduate standing in Art. Individual problems in the film/ video studio area. (Irreg.)

ART 5613 Graduate Studio Ceramics VII 3 Credit Hours Prerequisite: graduate standing in Art. Individual problems in the ceramics studio area. (Irreg.)
ART 5633 Graduate Studio Painting VII
3 Credit Hours
Prerequisite: graduate standing in Art. Individual problems in the painting studio area. (Irreg.)

ART 5643 Graduate Studio Printmaking VII 3 Credit Hours Prerequisite: graduate standing in Art. Individual problems in the printmaking studio area. (Irreg.)
ART 5653 Graduate Studio Sculpture VII 3 Credit Hours Prerequisite: graduate standing in Art. Individual problems in the sculpture studio area. (Irreg.)
ART 5673 Graduate Studio Film/Video VII 3 Credit Hours Prerequisite: graduate standing in Art. Individual problems in the film/ video studio area. (Irreg.)
ART 5713 Graduate Studio Ceramics VIII 3 Credit Hours Prerequisite: graduate standing in Art. Individual problems in the ceramics studio area. (Irreg.)

ART 5733 Graduate Studio Painting VIII
3 Credit Hours
Prerequisite: graduate standing in Art. Individual problems in the painting studio area. (Irreg.)

ART 5743 Graduate Studio Printmaking VIII 3 Credit Hours Prerequisite: graduate standing in Art. Individual problems in the printmaking studio area. (Irreg.)
ART 5753 Graduate Studio Sculpture VIII 3 Credit Hours Prerequisite: graduate standing in Art. Individual problems in the sculpture studio area. (Irreg.)

## ART 5773 Graduate Studio Film/Video VIII

3 Credit Hours
Prerequisite: graduate standing in Art. Individual problems in the film/ video studio area. (Irreg.)

ART 5813 Graduate Studio Ceramics IX 3 Credit Hours
Prerequisite: graduate standing in Art. Individual problems in the ceramics studio area. (Irreg.)

ART 5833 Graduate Studio Painting IX
3 Credit Hours
Prerequisite: graduate standing in Art. Individual problems in the painting studio area. (Irreg.)

ART 5843 Graduate Studio Printmaking IX 3 Credit Hours
Prerequisite: graduate standing in Art. Individual problems in the printmaking studio area. (Irreg.)

ART 5913 Graduate Studio Ceramics X 3 Credit Hours
Prerequisite: graduate standing in Art. Individual problems in the ceramics studio area. (Irreg.)

ART 5933 Graduate Studio Painting X 3 Credit Hours Prerequisite: graduate standing in Art. Individual problems in the painting studio area. (Irreg.)

## ART 5960 Directed Readings <br> -3 Credit Hours

1 to 3 hours. Prerequisite: graduate standing and permission of department. May be repeated; maximum credit twelve hours. Directed readings and/or literature reviews under the direction of a faculty member. (F, Sp, Su)

## ART 5970 Special Topics/Seminar

1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

## ART 5980 Research for Master's Thesis <br> 2-9 Credit Hours

Variable enrollment, two to nine hours; maximum credit applicable toward degree, four hours. (F, Sp, Su)

## ART 5990 Independent Study

1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)

ART 6010 Graduate Studio 1-6 Credit Hours
1 to 6 hours. Prerequisite: graduate standing - 30 hours. May be repeated with change of subject; maximum credit twelve hours. Individual problems in major studio area, with a choice of medium. ( $F, S p, S u$ )

## ART 6013 Graduate Studio Ceramics XI

3 Credit Hours
Prerequisite: graduate standing in Art. Individual problems in the ceramics studio area. (Irreg.)

ART 6033 Graduate Studio Painting XI
3 Credit Hours
Prerequisite: graduate standing in Art. Individual problems in the painting studio area. (Irreg.)

ART 6133 Graduate Studio Painting XII
3 Credit Hours
Prerequisite: graduate standing in Art. Individual problems in the painting studio area. (Irreg.)

ART 6880 Graduate Exhibition
1-4 Credit Hours
1 to 4 hours. Prerequisite: at least 30 hours of graduate credit successfully completed. May be repeated; maximum credit four hours. A special project course culminating in a graduate exhibition presented by the candidate for the Master of Fine Arts degree. Students enrolled will be following the "no thesis" plan. (F, Sp, Su)

ART 6960 Directed Readings
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit six hours. Directed readings and/or literature review under the direction of a faculty member. (Irreg.)

ART 6970 Special Topics/Semina
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit 12 hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or research and field projects. (Irreg.)

ART 6990 Independent Study 1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)

ARTC 2813 Introduction to Visual Culture and Media
Literacy
3 Credit Hours
Prerequisite: ENGL 1213. An introduction to the study of media in relationship to modern society and culture. Establish methodologies for describing and analyzing diverse forms of media, including print, television, cinema, and digital communication. Critically examines the historical scholarship, theory, and media practice that informs current conversations in the fields of media and cultural studies. (Irreg.)

ARTC 3440 Mentored Research Experience
3 Credit Hours
0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)

ARTC 3930 Special Topics In Theory \& Criticism 2-6 Credit Hours Prerequisite: junior Standing. May be repeated with change of content; maximum credit six hours. Covers various topics dealing with diverse issues relating to the visual arts. (Irreg.)

ARTC 3960 Honors Reading 1-3 Credit Hours 1 to 3 hours. Prerequisite: Admission to Honors Program. May be repeated; maximum credit six hours. Consists of topics designated by the instructor in keeping with the student's major program. The topics will cover materials not usually presented in the regular courses. (F, Sp, Su)

ARTC 3970 Honors Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Subjects covered vary. Deals with concepts not usually treated in regular courses. (Irreg.)

ARTC 3980 Honors Research 1-3 Credit Hours
1 to 3 hours. Prerequisite: Admission to Honors Program. May be repeated; maximum credit six hours. Will provide an opportunity for the gifted Honors candidate to work at a special project in the student's field. (F, Sp, Su)

ARTC 3990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: permission of instructor and junior standing. May be repeated once with change of content. Independent study may be arranged to study a subject not available through regular course offerings. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

ARTC 4513 Understanding Comics, Criticism \& Practice 3 Credit Hours Prerequisites: junior or senior standing; ENGL 1113; ENGL 1213/ EXPO 1213 or EXPO 1223. May be repeated with change of content: maximum credit 6 hours. An online course designed to give insight into the depth, complexity and intellectual significance of comics. The overall goal of this course is for students to understand the visual and conceptual inner-workings of comics. (Irreg.)
ARTC 4853 Photography: Theory and Criticism 3 Credit Hours Prerequisite: majors with junior standing or permission of instructor. May be repeated with change of content; maximum credit 9 hours. Covers various topics related to critical issues in photographic thought and cultural studies. Students will examine literary resources, view various media sources and participate in a variety of interactions with peers and available guests. (Irreg.)

## ARTC 4933 Process and Theory Workshop

3 Credit Hours
(Slashlisted with ARTC 5933; Crosslisted with A HI 4933) Prerequisite: Junior standing or permission of instructor; majors only. May be repeated with change of subject; maximum credit 6 hours. The course will offer a deeper grounding in relevant theoretical issues, as students explore together the interdisciplinary landscapes of contemporary theory and assess their relevance for artistic practice and art historical research. No student may earn credit for both 4933 and 5933. (Irreg.)

ARTC 4943 Business of Art: Professional Practice 3 Credit Hours (Slashlisted with ARTC 5943) Prerequisite: Junior standing and majors only. This course is designed for students who plan to enter a career in the visual arts. Students will learn professional tactics to improve their marketing and visibility as visual artists. Emphasis on publicity, selfpromotion, effective communication, and presentation skills that will assist with career opportunities, exhibition opportunities, management of finances, budgets, and strategies for career growth. No student may earn credit for both 4943 and 5943. (Irreg.)
ARTC 4960 Directed Readings 1-4 Credit Hours
1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean. May be repeated; maximum credit four hours. Designed for upper-division students who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)
ARTC 4970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: Senior standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

## ARTC 4990 Independent Study

1-3 Credit Hours
1 to 3 hours. Prerequisite: Senior standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)

ARTC 5013 Graduate Seminar
3 Credit Hours
Prerequisite: graduate standing. A required course during the first semester that focuses upon developing an informed approach to the art making process. It will utilize readings, writings, and visual references to form a basis for discussions. Each student will conduct a presentation on the aesthetic basis of their own work to the class. ( $F, S p$ )

ARTC 5933 Process and Theory Workshop 3 Credit Hours
(Slashlisted with ARTC 4933; Crosslisted with A HI 5933) Prerequisite: Graduate standing and permission of instructor. May be repeated with change of subject; maximum credit 6 hours. The course will offer a deeper grounding in relevant theoretical issues, as students explore together the interdisciplinary landscapes of contemporary theory and assess their relevance for artistic practice and art historical research. No student may earn credit for both 4933 and 5933. (Irreg.)
ARTC 5943 Business of Art: Professional Practice 3 Credit Hours (Slashlisted with ARTC 4943) Prerequisite: Graduate standing and permission of instructor. This course is designed for students who plan to enter a career in the visual arts. Students will learn professional tactics to improve their marketing and visibility as visual artists. Emphasis on publicity, self-promotion, effective communication, and presentation skills that will assist with career opportunities, exhibition opportunities, management of finances, budgets, and strategies for career growth. (Irreg.) No student may earn credit for both 4943 and 5943. (Irreg.)
ARTC 5960 Directed Readings 1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing and permission of department. May be repeated; maximum credit twelve hours. Directed readings and/or literature reviews under the direction of a faculty member. (F, Sp, Su)
ARTC 5970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)
ARTC 5990 Independent Study 1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)

## ARTC 6881 Thesis Proposal/Statement

1 Credit Hour
Prerequisite: 5013. Provides guidance for the development of the thesis exhibition proposal and the written statement required to accompany the exhibition of visual work. The student enrolls in this course the semester prior to the thesis exhibition and may enroll again for completion of the written component. (F, Sp)
ARTH 3403 Theory and Application of Art Therapy 3 Credit Hours Prerequisite; junior standing, not for Art or Art History majors. Class considers the underlying principles, prevailing theories, current practice and evolving uses of art therapy with a focus on the theory and interdisciplinary nature of art therapy. In addition, the social and interpersonal applications of art, which are on a continuum with art therapy, will be addressed liking the disciplines of art and therapy. The primary approaches of art psychotherapy and art as therapy will be contrasted and students will create and discuss art within both theoretical frameworks. (Irreg.)

ARTH 3440 Mentored Research Experience 3 Credit Hours
0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)
ARTH 3503 Theory and Application of Creative Therapies 3 Credit Hours Prerequisite: junior standing, not for Art or Art History majors. Class covers a broad range of therapeutic methods which all draw from a theoretical base in the arts, creativity, and expression. A strong focus will be on creativity theory and how it is applied through creative therapy disciplines such as art, music, dance and drama therapy. These creative therapies will be linked in terms of physical and mental outcomes expected and that are documented in the literature and research. Students will be required to take a critical look at both the theoretical basis and the practical applications of these creative modes. (Irreg.)

ARTH 3960 Honors Reading 1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Consists of topics designated by the instructor in keeping with the student's major program. Covers topics not usually presented in the regular courses.

## ARTH 3970 Honors Seminar

1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Subjects covered vary. Deals with concepts not usually treated in regular courses. (Irreg.)

ARTH 3980 Honors Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Provides an opportunity for the gifted Honors candidate to work at a special project in the student's field. (F, Sp, Su)
ARTH 3990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: permission of instructor and junior standing. May be repeated once with change of content. Independent study may be arranged to study a subject not available through regular course offerings. (F, Sp, Su)

ARTH 4950 Art Therapy Practicum
2-6 Credit Hours Prerequisite: junior standing, two courses in social sciences; not for Art or Art History majors. Class covers a broad range of therapeutic modalities which all draw from a theoretical base in creativity and expression. A strong focus will be on creativity theory and how it is applied through creative therapy modalities. Modalities taught will be linked in terms of physical and mental outcomes expected and that are documented in the creative therapies literature and research. Students will be required to take a critical look at both the theoretical basis and practical application of these creative modes. (Irreg.)

## ARTH 4960 Directed Readings

1-4 Credit Hours
1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean. May be repeated; maximum credit four hours. Designed for upper-division students who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)

## ARTH 4970 Special Topics/Seminar

1-3 Credit Hours
1 to 3 hours. Prerequisite: Senior standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

ARTH 4973 Special Topics in Art Therapy
3 Credit Hours
Prerequisite; 3403 or 3503 , not for Art or Art History majors. May be repeated with change of content; maximum credit six hours. Covers various topics dealing with diverse issues relating to the visual arts in therapeutic applications. Special topics allows a focus on one particular area or application of art therapy through readings, artwork (arts-based research protocols), and class discussion. Individualized readings and assignments may focus on a student's interdisciplinary interest. (Irreg.)
ARTH 4990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: Senior standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)
ATC 2823 Space - Introductory Studio Practice 3 Credit Hours
Prerequisite: Majors only; ART 1033 and ART 1043. Establishes a foundational perspective that considers embodiment and space in the digital age. Examines how networked information spaces might be understood, intervened with, repurposed, and inhabited as socially navigable spaces. This examination will be supported by an equal commitment to the physical via site specificity and emerging forms of public art practice. The goal is first of all, to engage the term 'space', and secondly, to examine possibilities as that engagement is extended into practice. (Irreg.)

ATC 2853 Image - Introductory Studio Practice 3 Credit Hours Prerequisites: Majors only; ART 1033 and ART 1043 or concurrent enrollment. An introduction to light and lens-based imaging with a specific emphasis on photography and the photographic image. Instructor determines content and methodology; all courses will include refinement of basic technical skills as well as critical engagement with photography and its ontology. Readings and writings will supplement class discussion.(Irreg.)

ATC 2873 Time - Introductory Studio Practice
3 Credit Hours Prerequisites: Majors only; ART 1033 and ART 1043. Introduces students to a variety of temporal experience given form in film, video, and uses of the Internet. Time is conceived in terms of: (1)a succession of passing frames, (2) the mediated presence of another consciousness, (3) the inscription of testimony for an archive,(4) the live performance in bodily or vocalized sound, and (5) the re-marking of community over the course of technological change. Basic instruction is provided in the various technologies necessary to explore these topics. (Irreg.)

ATC 3440 Mentored Research Experience
3 Credit Hours
0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)

ATC 3843 3D Modeling for Computer Animation 3 Credit Hours Prerequisite: Majors only. Online intensive digital studio course covers beginning to advanced 3D modeling techniques in industry-standard animation software. Course content includes video tutorials, online discussion forums, projects, and critical feedback. Topics may include using curves, polygon modeling, material shaders, 3D sculpting, texturing, lighting and rendering. (Irreg.)

ATC 3883 2D Computer Animation
3 Credit Hours
Prerequisite: Majors only; ATC 2823, or ATC 2873 or permission of instructor. Introduction to computer animation as an art form. Course content includes technical tutorials, screenings, projects, and critiques. Topics may include stop motion, 2D animation, 3D animation, abstract motion graphics, effects, character design, and narrative and/or experimental approaches. A personal laptop is required. (Irreg.)

## ATC 3893 Experimental Animation

3 Credit Hours
Prerequisite: Majors only; ATC 2823 or permission of instructor. Advanced studio course covers abstract and experimental approaches to animation as an art form. Course content includes technical tutorials, screenings, projects, and critiques. Topics may include advanced motion graphics, dynamics simulation, motion capture, and procedural animation. A personal laptop is required. (Irreg.)
ATC 3913 Interface - Code Is Not Neutral
3 Credit Hours
Prerequisite: Majors only; ART 1033 and ART 1043. This course teaches students to how to design and develop interactive User Interface and Extended Reality web products. Technical instruction covers the design and development process from wire framing, to mockups, to developing, to testing and debugging a usable web product. (Irreg.)
ATC 4863 BFA Studio 3 Credit Hours Prerequisites: Majors only; ATC 2823, ATC 2853, and ATC 2873; admission to ATC major. May be repeated with change of content; maximum credit 12 hours. In this course, students develop research techniques in support of their studio practice. Seemingly diverse concentrations(for example: photography, performance, and robotics) synthesize with a common intent to investigate and communicate ideas. Students are exposed to experiences involving professional practices,including critical critique, proposed solutions and examinations of problems, public speaking/discourse, writing about art, and the formal presentation of artworks. Students' effort are concentrated through the series of Studio/Seminar courses that culminate in the public presentation of their thesis.(Irreg.)

## ATC 4883 Narrative Animation

3 Credit Hours
Prerequisite: Majors only; ATC 3843 or ATC 3883 or ATC 3893 or permission of instructor. Advanced studio course covers narrative and cinematic approaches to animation as an art form. Course content includes technical tutorials, screenings, projects, and critiques. Topics may include storyboarding, character design, rigging, sound design, motion capture, dynamics, and advanced rendering techniques. A personal laptop is required. (Irreg.)

ATC 4893 Expanded Animation
3 Credit Hours
Prerequisite: Majors only; ATC 3843 or ATC 3893 or permission of instructor. Advanced studio course exploring special topics in animation which may include virtual reality, augmented reality, motion tracking, motion capture, projection mapping, and immersive media installation. A personal laptop is required. (Irreg.)
DES 2633 Visual Communication I
3 Credit Hours
Prerequisite: Majors only; ART 1033, ART 1043; corequisite: DES 2643. Introductory course in visual communication which focuses on nonverbal communication. Students are introduced to design research, theory and methods. This course explores the importance design plays in shaping meaning and interpretation through basic visual interaction. (F)
DES 2643 Design Technology
3 Credit Hours
Prerequisite: majors only, ART 1033 and ART 1043; corequisite: DES 2633. Introduction to electronic tools, processes and techniques as they relate to visual communications. (F)

DES 2653 Visual Communication II
3 Credit Hours
Prerequisite: Majors only; DES 2633, DES 2643; corequisite: DES 2663. Course is structured to help students apply various strategies, concepts, and form/content relationships to their work. Projects stress theory, application and an introduction to the computer as a design process tool. (Sp)

DES 2663 Typography I

## 3 Credit Hours

Prerequisite: Majors only; DES 2633, DES 2643; corequisite: DES 2653. Introduction to the basic concepts of typographic design through studio projects, critiques and lectures. ( $\mathrm{F}, \mathrm{Sp}$ )
DES 2970 Special Topics 1-3 Credit Hours
1 to 3 hours. Prerequisite: sophomore standing or permission of instructor. May be repeated; maximum credit six hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

## DES 3440 Mentored Research Experience

3 Credit Hours
0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)
DES 3633 Visual Communication III
3 Credit Hours
Prerequisite: Majors only; DES 2653, DES 2663; corequisite: DES 3663. Exploration and application of information systems as they apply to visual communications. (F)
DES 3643 Integrated Technology 3 Credit Hours
Prerequisite: Majors only; DES 3633, DES 3663; corequisite: DES 3653.
Emphasis will be in developing user interfaces, experiences and outcomes in design communication, moving from the printed page to electronic media. Development of strategies using new technologies into integrated systems. (Sp)
DES 3653 Visual Communication IV
3 Credit Hours
Prerequisite: Majors only; DES 3633 and DES 3663; corequisite: DES 3643. Concentration is on design problem solving in visual communication at an intermediate level. (Sp)

## DES 3663 Typography II

3 Credit Hours
Prerequisite: Majors only; DES 2653, DES 2663; corequisite: DES 3633.
Concentrated exploration of issues within typography using word and image. Projects explore visual and verbal context and meaning through expressive and utilitarian aspects of typography. (F)
DES 3960 Honors Reading 1-3 Credit Hours 1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated with change of subject matter; maximum credit six hours. Consists of either reading topics or independent study designated by the instructor in keeping with the student's major program. The topics of study will cover materials not usually presented in the regular courses. (F, Sp)
DES 3970 Honors Seminar 1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program, junior or senior standing. May be repeated with change of subject matter; maximum credit six hours. The projects covered will vary. The content will deal with concepts not usually presented in regular coursework. (Irreg.)

DES 3980 Honors Research
1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated with change of subject; maximum credit six hours. Provides an opportunity for the gifted honors candidate to work at a special project in the student's field. (F, Sp)

DES 4643 Visual Communication V
3 Credit Hours
Prerequisite: Majors only; DES 3653, DES 3643; corequisite:
DES 4653. Students explore contemporary and critical issues in visual communications. This course deals with the planning, design and implementation of multi-faceted design problems directed towards an understanding and integration of people and visual communication. (F)

## DES 4653 Typography III

3 Credit Hours
Prerequisite: Majors only; DES 3643, DES 3653; corequisite: DES 4643. Typographic problem solving, exploration, and experimentation Emphasis is on the development of syntactic typographic relations in visual communication. (F)

DES 4663 Visual Communication VI 3 Credit Hours
Prerequisite: Majors only; DES 4643 and DES 4653. An advanced course in visual communication exploring multi-component graphic design problems that convey complex information. (Sp)

## DES 4673 Professional Practice

3 Credit Hours
Prerequisite: DES 4643, DES 4653, majors only, and Senior standing;
Co-requisite: DES 4663. The course focuses on concept development, methodology and creation of a professional body of graphic design work. The concentration is on portfolio development and assessment, client relationships, interviewing, contracts and pricing, budgeting, best practices, presentations, and identifying and pursuing goals and career paths. (Sp)

DES 4930 Internship
1-6 Credit Hours
1 to 6 Hours. Prerequisite: permission of instructor; majors only. May be repeated; maximum credit six hours. Students arrange and participate in a professional work experience with an approved internship site. (Irreg.)

DES 4970 Special Topics/Seminar 1-3 Credit Hours
1 to 3 hours. Prerequisite: Senior standing or permission of instructor. May be repeated; maximum credit six hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

## DES 4983 Senior Capstone Experience

3 Credit Hours
Prerequisite: senior standing; majors only. May not be repeated for credit. Primary objective is to provide a culminating experience for the senior-year student. Satisfies the University-wide General Education Requirement for a capstone course for design majors. (F, Sp) [V].

DES 4990 Independent Study 1-3 Credit Hours
Prerequisite: majors only; junior standing or permission of instructor. May be repeated: Maximum credit six hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent Study may include library and/or laboratory research and field projects. Title is variable only to reflect specific discipline area within the School of Art \& Art History. (Irreg)

DES 4993 Visual Communication Topics
3 Credit Hours
Prerequisite: majors only; junior standing. May be repeated with change of subject matter; maximum credit nine hours. Special topics course in visual communication for content not currently offered in regularly scheduled courses. (Irreg.)

DES 5093 Graduate Studio Visual Communication I 3 Credit Hours Prerequisite: graduate standing in Art. Individual problems in visual communications area. (Irreg.)

DES 5970 Special Topics
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or research and field projects. (Irreg.)

DES 5990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (lrreg.)

## Faculty

| Last Name | First/Middle Middle <br> Name | OU <br> init. <br> Service <br> start | Title(s), date(s) <br> appointed | Degrees Earned, <br> Schools, Dates <br> Completed |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Anderson | Eric | H | 1990 | PROFESSOR OF <br> VISUAL ARTS, 2008 | MFA, Indiana Univ, <br> 1979; BFA, Colorado <br> State Univ, 1976 |
| Asprey | Stuart | J | 2012 | ASSOCIATE <br> PROFESSOR OF | MFA, Univ of <br> Oklahoma, 2002; BFA, |
|  |  |  |  |  |  |


|  |  |  |  | UNDERGRADUATE COORDINATOR, 2020 | 1999 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Bailey | Robert |  | 2013 | ASSOCIATE <br> PROFESSOR OF <br> VISUAL ARTS, <br> 2018; ADJUNCT <br> ASSOCIATE <br> PROFESSOR OF <br> INTERNATIONAL <br> AND AREA STUDIES, <br> 2018 | PhD, Univ of Pittsburgh, 2012; MA Univ of Pittsburgh, 2007, BA, Univ of Pittsburgh, 2005 |
| Bajuyo | Leticia |  | 2022 | ASSISTANT PROFESSOR, 2022 | MFA, Univ of Tennessee, Knoxville |
| Bates Slone | Jamie | M | 2018 | ASSISTANT PROFESSOR OF VISUAL ARTS, 2018 | MFA, Univ of Kansas 2012; BFA, Univ of Central Missouri, 2008 |
| Begaye | Marwin | M | 2009 | ASSOCIATE PROFESSOR OF VISUAL ARTS, 2015 | MFA, Univ of <br> Oklahoma, 2006; BFA <br> Univ of Oklahoma, |


| Burns | Emily |  | 2022 | ASSOCIATE PROFESSOR OF ART HISTORY, 2022; DIRECTOR OF THE CHARLES M. RUSSELL CENTER | PhD, Washington Univ in St. Louis; MA, George Washington Univ; BA, Union College |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Chavez | Yve |  | 2022 | ASSISTANT <br> PROFESSOR, 2022 | PhD, Univ of California; MA, Univ of Washington |
| Colombari | Lucia |  | 2022 | ASSISTANT <br> PROFESSOR, 2022 | PhD, Univ of Virginia; MA, Univ of Bologna; MA, Cattolica del Sacro Cuore Univ, Milan |
| Cytacki | Jason |  | 2011 | ASSOCIATE <br> PROFESSOR OF <br> VISUAL ARTS, 2017 | MFA, Univ of Notre Dame, 2011; BFA, Indiana Univ-South Bend, 2007 |
| Dohrmann | Robert | R | 1999 | PROFESSOR OF VISUAL ARTS, 2013 | MFA, Central Washington Univ, 1992; BA, Central Washington Univ, 1989 |


| Duffy | KT |  | 2021 | ASSISTANT PROFESSOR OF VISUAL ARTS, 2021 | MFA, Maryland Institute College of Art, 2014; BA, BA, Loras College, 2010 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| DuncanO'Neill | Erin |  | 2017 | ASSISTANT <br> PROFESSOR OF <br> VISUAL ARTS, 2017; <br> GRADUATE LIAISON <br> AND COORDINATOR <br> OF ART HISTORY <br> GRADUATE <br> PROGRAMS, 2023 | PhD, Princeton, 2007; <br> Med, Arizona State <br> Univ, 2009; BA, Univ of California, Berkeley, 2007 |
| Elliot | Tess |  | 2017 | ASSISTANT <br> PROFESSOR OF VISUAL ARTS, 2017; GRADUATE LIAISON AND COORDINATOR, MFA PROGRAMS, SCHOOL OF VISUAL ARTS, 2023 | MFA, Ohio State Univ, 2017; BFA, Cooper Union, 2008 |
| Faubert | Cathleen | A | 2013 | ASSOCIATE PROFESSOR OF VISUAL ARTS, 2019 | MFA, Tufts Univ, 2008; BA, Univ of Rhode Island, 1998 |
| Fields | Alison |  | 2009 | MARY LOU MILNER CARVER PROFESSOR OF ART AND ART HISTORY, 2009; ASSOCIATE PROFESSOR OF VISUAL ARTS, 2016; ADJUNCT ASSOCIATE PROFESSOR OF WOMEN'S AND GENDER STUDIES, 2016; ADJUNCT ASSOCIATE PROFESSOR OF LIBERAL STUDIES, 2016; ASSOCIATE DIRECTOR, 2019 | PhD, Univ of New <br> Mexico, 2009; MA, <br> Brown Univ, 2003; BA, <br> Colgate Univ, 2001 |
| Froslie | Peter | Z | 2010 | PROFESSOR OF VISUAL ARTS, 2020 | MFA, Massachusetts College of Art, 2008; BFA, Univ of Nevada Reno, 2005 |
| Haltman | Kenneth |  | 2006 | H. RUSSELL PITMAN PROFESSOR OF ART AND ART HISTORY, 2007; PROFESSOR OF VISUAL ARTS, 2014 | PhD, Yale Univ, 1992; MPhil, Yale Univ, 1986; BA, Wesleyan Univ, 1980 |
| Harris | Alicia |  | 2020 | ASSISTANT PROFESSOR OF VISUAL ARTS, 2020 | PhD, Univ of Oklahoma, 2020; MA, Univ of Nebraska, 2013; BA, Bringham Young Univ, 2010 |
| Hayes- <br> Thumann | Karen | M | 1991 | PROFESSOR OF VISUAL ARTS, 2009 | MFA, Indiana Univ, 1979; BS, Univ of Connecticut, 1973 |
| Hils | Jonathan | w | 2002 | PROFESSOR OF VISUAL ARTS, 2020 | MFA, Tulane Univ, 1999; BFA, Georgia State Univ, 1997 |
| Jones | Curtis | R | 2005 | ASSOCIATE PROFESSOR OF VISUAL ARTS, 2011 | MFA, California College of the Arts, 2003; BFA, Univ of Washington, 1994 |


| Maharjan | Raju |  | 2023 | ASSISTANT PROFESSOR OF VISUAL ARTS, 2023 | PhD, Technical University of Denmark; MA, Touro Univ; BS, City University of New York |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Palmer | Allison | L | 1993 | ADJUNCT <br> PROFESSOR OF LIBERAL STUDIES, <br> 2016; PROFESSOR OF VISUAL ARTS, 2016; ADJUNCT PROFESSOR OF INTERNATIONAL AND AREA STUDIES, 2018 | PhD, Rutgers Univ, 1993;MA, Rutgers Univ, 1987; BA, Mt. Holyoke Comm College, 1985 |
| Ryu | Sang |  | 2021 | ASSISTANT PROFESSOR OF VISUAL ARTS, 2021 | PhD, Univ of <br> Edinburgh, 2020; <br> MFA, Virginia <br> Commonwealth Univ, <br> 2015; BFA, ArtCenter <br> College of Design, <br> 2006 |
| Shehada | Sohail | H | 2003 | ADJUNCT <br> ASSISTANT <br> PROFESSOR <br> OF AFRICAN <br> AND AFRICAN- <br> AMERICAN STUDIES, <br> 2011; ASSOCIATE <br> PROFESSOR OF <br> VISUAL ARTS, 2019 | MFA, Univ of Oklahoma, 1999; B Arch, Univ of Oklahoma, 1994; BFA, Oklahoma State, 1988 |
| Stewart | Todd | A | 2004 | ASSOCIATE PROFESSOR OF VISUAL ARTS, 2010 | MFA, Indiana Univ, 2004; BFA, Ohio Univ, 1993 |
| Warner | Emily |  | 2022 | ASSISTANT <br> PROFESSOR, 2022 | PhD, Univ of Pennsylvania |

## Art, B.A.

Minimum Total Credit Hours: 120
Major Hours: 39
Minimum Upper-Division Hours: 40
Upper-Division Hours Within Major. 24
Overall GPA - Combined and OU: 2.50
Major GPA - Combined and OU: 2.50
Program Code: B050

## Major Requirements

A grade of C or better is required in all courses taken within the OU School of Visual Arts.

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Core Curriculum | Core Courses | 3 |
| ART 1033 | Core Studio I: Surface | 3 |
| ART 1043 | Core Studio II: Space and Time | 3 |
| ART 3143 | Core III: Integrated Studio | 3 |
| ART 4993 | Senior Experience | 3 |
| Area of Specialization - Core Studio Courses |  |  |

Choose 27 hours from courses in ART, ATC, ARTC, and DES (at least 12 hours must be upper-division)

## Total Credit Hours

## Major Support Requirements

A grade of $C$ or better is required in all courses taken within the OU School of Visual Arts.

| Code | Title | Credit <br> Hours |
| :--- | ---: | ---: |
| Art History Requirements |  |  |
| A HI 1314 $\quad$ Introduction to Art History | 4 |  |
| A HI Elective, 2000 -level course | 3 |  |
| Choose one Upper-Division A HI course | 3 |  |
| Choose one Upper-Division A HI course ${ }^{1}$ | 3 |  |
| Total Credit Hours | 13 |  |

${ }^{1}$ A HI must be General Education approved selected from Core IV.

## Secondary Emphasis and Electives

Additional coursework outside the OU School of Visual Arts.

| Code Title | Credit <br> Hours |
| :---: | :---: |
| Choose one of the following: | 15-30 |
| Minor (approx. 15-24 hours) ${ }^{1}$ |  |
| Double major (approx. 30 hours) ${ }^{1}$ |  |
| Develop a specialized area of concentration (approx. 24-30 hours) |  |
| Free Electives |  |
| Hours not used for the secondary emphasis may be taken in any college or department except the OU School of Visual Arts to arrive at the minimum total hours required for the degree. | 3-18 |
| Total Credit Hours | 33-34 |

1 If the emphasis is an official minor or major offered by the university, it must be formally declared in the appropriate college advising office

## General Education and College Requirements

Courses designated as Core I, II, III, IV, or V are part of the General Education curriculum. Students must complete a minimum of 40 hours of General Education courses, chosen from the approved list, including at least one upper-division Gen. Ed. course outside of the student's major. Courses graded S/U or P/NP will not apply.

UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS

| Code Title | Credit |
| :--- | :--- |
|  | Hours |


| Core Area I: Symbolic and Oral Communication |  |  |
| :--- | :--- | :--- |
| English Composition |  |  |
| ENGL 1113 | Principles of English Composition | 3 |
| ENGL 1213 | Principles of English Composition | 3 |
| or EXPO 1213 | Expository Writing |  |


| A student who has not completed the 2 year high school language requirement must complete Core I: Language (6-10 hours). | 0-10 |
| :---: | :---: |
| Mathematics |  |
| Choose one course (Core I) | 3 |
| Core Area II: Natural Science |  |
| Choose two courses from different disciplines; one must include a laboratory | 7-8 |
| Core Area III: Social Science |  |
| P SC 1113 American Federal Government | 3 |
| Choose one course | 3 |
| Core Area IV: Arts and Humanities |  |
| Artistic Forms |  |
| Will be satisfied in Art History Requirements | 0 |
| Western Culture |  |
| HIST 1483 United States to 1865 <br> or HIST 1493 United States, 1865 to the Present | 3 |
| Choose one course | 3 |
| World Culture |  |
| Choose one course | 3 |
| Core Area V: First-Year Experience |  |
| Choose one course | 3 |
| Other Gen Ed |  |
| Will be satisfied in Art History Requirements | 0 |

Total Credit Hours
34-45
Note: The Bachelor of Arts degree requires at least $\mathbf{8 0}$ hours of liberal arts coursework.

According to the Oklahoma State Regents, "Liberal Arts and Sciences Courses are those traditional fields of study in the humanities; social and behavioral sciences; communication, natural and life sciences; mathematics; and the history, literature and theory of the fine arts (music, art, drama, dance). Courses in these fields whose primary purpose is directed toward specific occupational or professional objectives, or courses in the arts which rely substantially on studio or performance work are not considered to be liberal arts and sciences for the purpose of this policy." 3.15.2 (p 145), OSRHE Policy \& Procedures Manual.

## Suggested Semester Plan of Study

At least $\mathbf{2 4}$ hours of upper-division Art and Art History credit must be earned in residence as a declared major. This plan of study should not be used in lieu of academic advisement. Unless otherwise stated on the degree sheet, the College of Fine Arts does not permit coursework to fulfill more than one degree requirement.

Two college-level courses in a single world language are required; this may be satisfied by successful completion of 2 years in a single world language in high school. Students who must take language at the University will have an additional 6-10 hours of coursework.

## Freshman

| First Semester |  | Credit <br> Hours |
| :--- | :--- | ---: |
| ART 1033 | Core Studio I: Surface | 3 |
| ART 1043 | Core Studio II: Space and Time | 3 |
| A HI 1314 | Introduction to Art History | 4 |


Core Studio, upper-division ..... 3
Secondary Emphasis ..... 3
Credit Hours ..... 14 ..... 120

The course taken to fulfill the upper-division General Education outside
crosslisted equivalent.

## Art History, B.A.

Minimum Total Credit Hours: 120
Major Hours: 40
Minimum Upper-Division Hours: 40

Overall GPA - Combined and OU: 2.50
Major GPA - Combined and OU: 2.50

Program Code: B070

## Major Requirements

## Code Title Credit

A HI 1314 Introduction to Art History ${ }^{1} 4$
A HI 3903 Art History, Theory and Practice 3
A HI Elective, 2000-level course 3
Art History-Advised Upper-Division Electives 21
No more than three hours of internships may be used for upper-division or art history elective credit. At least 6 hours

4000 level

Choose 9 hours 9

Major Support Requirements

## Code Title Credit

 Hoursfollowing areas:
History (excluding HIST 1483/1493/3393 or an individual
state)
Literature (classical, English or foreign literature in either the original or translation)

Philosophy

History of Science

Anthropology
Total Credit Hours
${ }^{1}$ A HI 1113 (The Understanding of Art) may be an advised substitution for A HI 1314.

## General Education and College Requirements

Courses designated as Core I, II, III, IV, or V are part of the General Education curriculum. Students must complete a minimum of 40 hours of General Education courses, chosen from the approved list, including at least one upper-division Gen. Ed. course outside of the student's major. Courses graded S/U or P/NP will not apply.

## UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS

Students must complete one General Education course at the 3000-4000 level outside the OU School of Visual Arts.

| Code Title | Credit Hours |
| :---: | :---: |
| Core Area I: Symbolic and Oral Communication |  |
| English Composition |  |
| ENGL 1113 Principles of English Composition | 3 |
| $\begin{array}{cl}\text { ENGL } 1213 & \text { Principles of English Composition } \\ \text { or EXPO } 1213 & \text { Expository Writing }\end{array}$ | 3 |
| Language |  |
| Choose a minimum of four courses, all in the same language (Core I) ${ }^{1}$ | 12-16 |
| Mathematics |  |
| Choose one course (Core I) | 3 |
| Core Area II: Natural Science |  |
| Choose two courses from different disciplines; one must include a laboratory | 7-8 |
| Core Area III: Social Science |  |
| P SC 1113 American Federal Government | 3 |
| Choose one course | 3 |
| Core Area IV: Arts and Humanities |  |
| Artistic Forms |  |
| Will be satisfied in Art History requirements | 0 |
| A HI 1314 Introduction to Art History ${ }^{2}$ |  |
| Western Culture |  |
| HIST 1483 United States to 1865 | 3 |
| or HIST 1493 United States, 1865 to the Present |  |
| Choose one course |  |

## World Culture

Choose one course 3

| Core Area V: First-Year Experience | 3 |
| :--- | :--- |
| Choose one course |  |

## Free Electives

Choose 11-16 hours $^{3} \quad$ 11-16
Total Credit Hours 62

1 To meet this requirement a student may continue a language begun in high school or begin a new language. (High school language does not fulfill this requirement for the BA in Art History.) French, German,
or Spanish are suggested because most graduate programs require proficiency in one or more of these languages.
${ }^{2}$ A HI 1113 (The Understanding of Art) may be an advised substitution for A HI 1314.
3 These electives may be chosen from any school or any college to fulfill the 120 hours required for the degree. May be graded P/NP. Courses used to fulfill General Education and/or major requirements may not fulfill electives.

## Note: The Bachelor of Arts degree requires at least 80 hours of liberal arts

 coursework.According to the Oklahoma State Regents, "Liberal Arts and Sciences Courses are those traditional fields of study in the humanities; social and behavioral sciences; communication, natural and life sciences; mathematics; and the history, literature and theory of the fine arts (music, art, drama, dance). Courses in these fields whose primary purpose is directed toward specific occupational or professional objectives, or courses in the arts which rely substantially on studio or performance work are not considered to be liberal arts and sciences for the purpose of this policy." 3.15.2 (p 145), OSRHE Policy \& Procedures Manual.

## Suggested Semester Plan of Study

At least $\mathbf{2 4}$ hours of upper-division Art History credit must be earned in residence as a declared major. This plan of study should not be used in lieu of academic advisement. Unless otherwise stated on the degree sheet, the College of Fine Arts does not permit coursework to fulfill more than one degree requirement.

## Freshman

First Semester Credit

A HI 1314 Introduction to Art History 4
Humanities outside School of Art 3
ENGL 1113 Principles of English Composition (Core I) 3
MATH (Core I) 3
First-Year Experience (Core V) 3
Credit Hours 16

## Second Semester

A HI Elective, 2000-level course 3
Humanities outside School of Art 3
ENGL $1213 \quad$ Principles of English Composition (Core I) 3
or EXPO 1213 or Expository Writing
P SC 1113 American Federal Government (Core III) 3
Free Elective, lower- or upper-division 3

## Sophomore

## First Semester

Humanities outside School of Art 3
Natural Science without lab (Core II) 3-4
Social Science (Core III) 3
Beginning Language (Core I) 3-5
Credit Hours 12-15

## Second Semester

A HI Elective, upper-division 3
ART Studio Elective 3
Humanities outside School of Art 3

| HIST 1483 United States to 1865 (Core IV) <br> or HIST 1493 or United States, 1865 to the Present | 3 |
| :---: | :---: |
| Beginning Language continued (Core I) | 3-5 |
| Credit Hours | 15-17 |
| Junior |  |
| First Semester |  |
| A HI Elective, upper-division | 3 |
| A HI Elective, upper division | 3 |
| Humanities outside School of Art | 3 |
| Natural Science with lab (Core II) | 4 |
| Language | 3 |
| Credit Hours | 16 |
| Second Semester |  |
| A HI 3903 Art History, Theory and Practice | 3 |
| ART Studio Elective | 3 |
| World Culture (Core IV) | 3 |
| Language | 3 |
| Free Elective, lower- or upper-division | 2-4 |
| Credit Hours | 14-16 |
| Senior |  |
| First Semester |  |
| A HI Elective, upper-division | 3 |
| A HI Elective, upper-division | 3 |
| ART Studio Elective | 3 |
| Humanities outside School of Art | 3 |
| Free Elective, lower- or upper-division | 3 |
| Credit Hours | 15 |
| Second Semester |  |
| A HI Elective, upper-division | 3 |
| A HI Elective, upper-division | 3 |
| Western Culture | 3 |
| Free Elective, lower- or upper-division | 3-6 |
| Credit Hours | 12-15 |
| Total Credit Hours | 120 |

## Art, Technology \& Culture, B.F.A.

Minimum Total Credit Hours: 120
Major Hours: 48
Minimum Upper-Division Hours: 40
Upper-Division Hours Within Major: 30

Overall GPA - Combined and OU: 2.50
Major GPA - Combined and OU: 2.50
Program Code: B063

## Major Requirements

A grade of C or better is required in all courses taken within the School of Visual Arts. Portfolio Review is required for admission to the program.

| Code | Title | Credit |
| :--- | :--- | :--- |
|  | Hours |  |

Core Curriculum - Core Courses (9 hours)
ART 1033 Core Studio I: Surface

| ART 1043 | Core Studio II: Space and Time | 3 |
| :--- | :--- | :--- |
| ART 3143 | Core III: Integrated Studio | 3 |


| Lower-Division Specialization (Art, Technology, and Culture) |  |  |
| :---: | :---: | :---: |
| ATC 2823 | Space - Introductory Studio Practice | 3 |
| ATC 2853 | Image - Introductory Studio Practice | 3 |
| ATC 2873 | Time - Introductory Studio Practice | 3 |
| ARTC 2813 | Introduction to Visual Culture and Media Literacy | 3 |
| Upper-Division Specialization |  | 21 |
| Choose 2 semesters with change of topic in the following: |  | 6 |

ATC $4863 \quad$ BFA Studio
Total Credit Hours ..... 48

## Major Support Requirements

A grade of C or better is required in all courses taken within the School of Visual Arts.

| Code Title | Credit <br> Hours |
| :---: | :---: |
| Art History (13 hours) |  |
| A HI Lower Division |  |
| A HI 1314 Introduction to Art History | 4 |
| A HI Elective, 2000-level | 3 |
| A HI Upper Division |  |
| Choose one A HI Upper Division course ${ }^{1}$ | 3 |
| Choose one A HI Upper Division course | 3 |
| Additional Requirement (21 hours) |  |
| Choose one of the following (including 6 hours in upperdivision courses): | 21 |
| Additional OU School of Visual Arts Electives ${ }^{2}$ |  |
| Approved Minor |  |
| Approved Emphasis in Area of Study outside OUSVA |  |

Total Credit Hours 34
${ }^{1}$ A HI must be General Educ. approved selected from Core IV.
${ }^{2}$ OU School of Visual Arts electives may include courses offered under any of the following in the OUSoVA: A HI, ART, ARTC, ATC, and DES. ART, ARTC, ATC, and DES courses count towards the major GPA.

## General Education and College Requirements

Courses designated as Core I, II, III, IV, or V are part of the General Education curriculum. Students must complete a minimum of 40 hours of General Education courses, chosen from the approved list, including at least one upper-division Gen. Ed. course outside of the student's major. Courses graded S/U or P/NP will not apply.

UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS
Courses taken to fulfill the upper-division General Education outside the major rule may not be chosen from A HI, ARTC, or the crosslisted equivalent course.


| Major Support Elective | 3 |
| :---: | :---: |
| Major Support Elective | 3 |
| Advised Elective, lower- or upper-division | 3-4 |
| Credit Hours | 16 |
| Second Semester |  |
| ATC 4863 BFA Studio | 3 |
| Major Support Elective | 3 |
| Major Support Elective, upper-division | 3 |
| Major Support Elective, upper-division | 3 |
| Credit Hours | 12 |
| Total Credit Hours | 120 |

1 The course taken to fulfill the upper-division General Education outside the major requirement may not be chosen from A HI, ARTC, or the crosslisted equivalent.
${ }^{2}$ A HI must be General Education approved selected from Core IV.

## Studio Arts, B.F.A.

Minimum Total Credit Hours: 120
Major Hours: 57
Minimum Upper-Division Hours: 40
Upper-Division Hours Within Major: 33
Overall GPA - Combined and OU: 2.50
Major GPA - Combined and OU: 2.50
Program Code: B060

## Major Requirements

- A grade of $C$ or better is required in all courses taken within the OU School of Visual Arts.
- Admission to degree program after completion of Core I, Core II and 12 credit hours ( 4 courses) of 2000 level ART courses. These courses must be completed prior to or during the semester that the student is applying to the BFA program.

| Code | Title | Credit <br> Hours |
| :---: | :---: | :---: |
| Core Curriculum - Core Courses (9 hours) |  |  |
| ART 1033 | Core Studio I: Surface | 3 |
| ART 1043 | Core Studio II: Space and Time | 3 |
| ART 3143 | Core III: Integrated Studio | 3 |
| Area of Specialization (48 hours) |  |  |
| Core Studio Courses, Lower-Division: 18 hours |  |  |
| ART 2313 | Beginning Drawing | 3 |
| ART 2743 | Beginning Printmaking | 3 |
| ART 2253 | Beginning Ceramics | 3 |
| ART 2523 | Beginning Sculpture: Figurative | 3 |
| ART 2533 | Beginning Sculpture: Contemporary | 3 |
| ART 2413 | Beginning Painting | 3 |
| Core Studio Courses, Upper-Division: 30 hours (Advised) ${ }^{1}$ |  |  |
| ART 4883 | BFA Senior Studio I | 3 |
| ART 4893 | BFA Senior Studio II | 3 |
| ARTC 4943 | Business of Art: Professional Practice | 3 |
| Choose 18 additional hours |  | 18 |


| ART 4993 Senior Experience | 3 |
| :--- | ---: |
| Total Credit Hours | 57 |

1 These hours must include a minimum of 12 hours in one area and six hours in another area. Studio courses will be selected from the traditional areas of ceramics, painting, printmaking, or sculpture. However with advisement, courses may also be selected from appropriate offerings in Visual Communication (DES) or Art, Technology \& Culture (ATC) as a secondary area.

## Major Support Requirements

A grade of C or better is required in all courses taken within the OU School of Visual Arts.

| Code $\quad$ Title | Credit <br> Hours |
| :--- | ---: | ---: |
| Art History Requirements |  |
| A HI 1314 Introduction to Art History | 4 |
| A HI Elective, 2000-level course | 3 |
| Choose one A HI Upper Division course | 3 |
| Choose one A HI Upper Division course | 3 |
| Electives | 9 |
| Choose 9 hours in ART, ARTC, ATC, and A HI Electives ${ }^{2}$ | $\mathbf{9}$ |
| Total Credit Hours | $\mathbf{2 2}$ |

${ }^{1}$ A HI must be General Education approved selected from Core IV.
${ }^{2}$ ART, ARTC, and DES courses count towards the major GPA.
B.A. students may apply to the B.F.A. Degree after completion of a minimum of 12 hours of lower division ART courses beyond the Core and a faculty portfolio review.

## General Education and College Requirements

Courses used to fulfill General Education and/or major requirements may not fulfill electives.

Courses designated as Core I, II, III, IV, or V are part of the General Education curriculum. Students must complete a minimum of 40 hours of General Education courses, chosen from the approved list, including at least one upper-division Gen. Ed. course outside of the student's major.
Courses graded S/U or P/NP will not apply.
UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS
Code Title Credit

Core Area I: Symbolic and Oral Communication
English Composition
ENGL 1113 Principles of English Composition 3
ENGL 1213 Principles of English Composition 3
or EXPO 1213 Expository Writing
Language
A student who has not completed the 2-year high school 0-10
language requirement must complete Core I: Language (6-10
hours).
Mathematics
Choose one course (Core I) 3

| Choose two courses from different disciplines; one must include a laboratory | 7-8 |
| :---: | :---: |
| Core Area III: Social Science |  |
| P SC 1113 American Federal Government | 3 |
| Choose one course | 3 |
| Core Area IV: Arts and Humanities |  |
| Artistic Forms |  |
| Will be satisfied in Art History Requirements | 0 |
| Western Culture |  |
| HIST 1483 United States to 1865 <br> or HIST 1493 United States, 1865 to the Present | 3 |
| Choose one course | 3 |
| World Culture |  |
| Choose one course | 3 |
| Core Area V: First-Year Experience |  |
| Choose one course | 3 |
| Free Electives |  |
| Choose 6-7 hours | 6-7 |
| Total Credit Hours | -51 |

## Suggested Semester Plan of Study

At least 30 hours of upper-division Art credit must be earned in residence as a declared major. This plan of study should not be used in lieu of academic advisement. Unless otherwise stated on the degree sheet, the College of Fine Arts does not permit coursework to fulfill more than one degree requirement.

Two college-level courses in a single world language are required; this may be satisfied by successful completion of 2 years in a single world language in high school. Students who must take language at the University will have an additional 6-10 hours of coursework.

| Freshman |  |  |
| :---: | :---: | :---: |
| First Semester |  | Credit |
|  |  | Hours |
| ART 1033 | Core Studio I: Surface | 3 |
| ART 1043 | Core Studio II: Space and Time | 3 |
| MATH (Core I) |  | 3 |
| ENGL 1113 | Principles of English Composition (Core I) | 3 |
| Social Science (Core III) |  | 3 |
|  | Credit Hours | 15 |
| Second Semester |  |  |
| Art Core Studio Course, lower-division |  | 3 |
| Art Core Studio Course, lower-division |  | 3 |
| ```ENGL }121 or EXPO 1213``` | Principles of English Composition (Core I) or Expository Writing | 3 |
| HIST 1483 or HIST 1493 | United States to 1865 (Core IV) or United States, 1865 to the Present | 3 |
| First-Year Experience (Core V) |  | 3 |
|  | Credit Hours | 15 |
| Sophomore |  |  |
| First Semester |  |  |
| Art Core Studio Cour | ourse, lower-division | 3 |
| Art Core Studio Cour | ourse, lower-division | 3 |


| Natural Science with lab (Core II) |  | 4 |
| :---: | :---: | :---: |
| P SC 1113 | American Federal Government (Core III) | 3 |
|  | Credit Hours | 13 |
| Second Semester |  |  |
| Art Core Studio Course, lower-division |  | 3 |
| Art Core Studio Course, lower-division |  | 3 |
| A HI 1314 | Introduction to Art History | 4 |
| Natural Science without lab (Core II) |  | 3-4 |
| Free Elective, lower- or upper-division |  | 2-3 |
| Credit Hours |  | 16 |
| Junior |  |  |
| First Semester |  |  |
| ART Core Studio, upper-division ${ }^{1}$ |  | 3 |
| ART Core Studio, upper-division ${ }^{1}$ |  | 3 |
| A HI Elective, 2000-level course |  | 3 |
| ART 3143 | Core III: Integrated Studio | 3 |
| Western Culture (Core IV) ${ }^{2}$ |  | 3 |
| Credit Hours |  | 15 |
| Second Semester |  |  |
| ART Core Studio, upper-division ${ }^{1}$ |  | 3 |
| ART Core Studio, upper-division ${ }^{1}$ |  | 3 |
| A HI Elective, upper-division |  | 3 |
| ART, A HI, ARTC, ATC, DES Elective |  | 3 |
| World Culture, upper-division (Core IV) ${ }^{2}$ |  | 3 |
| ART, A HI, ARTC Elective, upper-division |  | 3 |
| Credit Hours |  | 18 |
| Senior |  |  |
| First Semester |  |  |
| ART Core Studio, upper-division ${ }^{1}$ |  | 3 |
| A HI Elective, upper-division |  | 3 |
| ART 4883 | BFA Senior Studio I | 3 |
| ARTC 4943 | Business of Art: Professional Practice | 3 |
|  | Credit Hours | 12 |
| Second Semester |  |  |
| ART 4983 | Senior Capstone Experience | 3 |
| ART 4893 | BFA Senior Studio II | 3 |
| ART Core Studio, upper-division ${ }^{1}$ |  | 3 |
| ART, A HI, ARTC, ATC, DES Elective, upper-division |  | 3 |
| Free Elective, lower or upper division |  | 4 |
| Credit Hours |  | 16 |
| Total Credit Hours |  | 120 |
| ${ }^{1}$ Studio courses will be selected from the traditional areas of ceramics, drawing, painting, printmaking, or sculpture. These hours must include a minimum of 12 hours in one area and 6 hours in another area. <br> 2 The course taken to fulfill the upper-division General Education outside the major requirement may not be chosen from A HI, ARTC, or the crosslisted equivalent. |  |  |

## Visual Communication, B.F.A.

Minimum Total Credit Hours: 120
Major Hours: 45

Minimum Upper-Division Hours: 40
Upper-Division Hours Within Major. 30

Overall GPA - Combined and OU: 2.50

Program Code: B067

## Major Requirements

A grade of $C$ or better is required in all courses taken within the School of Visual Arts. Portfolio Review is required for admission to the program.

## A minimum of 30 Upper-Division Hours are required in the major.

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Core Curriculum | Core Courses (9 hours) |  |
| ART 1033 | Core Studio I: Surface | 3 |
| ART 1043 | Core Studio II: Space and Time | 3 |
| ART 3143 | Core III: Integrated Studio | 3 |
| Area of Specialization (36 hours) |  |  |
| DES 2633 | Visual Communication I | 3 |
| DES 2643 | Design Technology | 3 |
| DES 2653 | Visual Communication II | 3 |
| DES 2663 | Typography I | 3 |
| DES 3633 | Visual Communication III | 3 |
| DES 3663 | Typography II | 3 |
| DES 3653 | Visual Communication IV | 3 |
| DES 3643 | Integrated Technology | 3 |
| DES 4643 | Visual Communication V | 3 |
| DES 4653 | Typography III | 3 |
| DES 4663 | Visual Communication VI | 3 |
| DES 4673 | Professional Practice | 3 |
| Total Credit Hours | 45 |  |

## Major Support Requirements

A grade of C or better is required in all courses taken within the School of Visual Arts.

| Code Title | Credit |
| :---: | :---: |
| Art History (13 hours) |  |
| A HI Lower Divison |  |
| A HI 1314 Introduction to Art History | 4 |
| A HI Elective, 2000-level course | 3 |
| A HI Elective, Upper Division |  |
| A HI 3673 History of Visual Communication | 3 |
| Choose one A HI Upper Division Course ${ }^{1}$ | 3 |
| Additional Requirement (24 hours) |  |
| Choose one of the following (including 9 hours in upperdivision courses): | 24 |
| Additional OU School of Visual Arts Electives ${ }^{2}$ |  |
| Approved Concentration/Emphasis in Area of Study outside OUSoVA |  |
| Total Credit Hours | 37 |
| 1 A HI must be General Educ. approved selected from Cor |  |

2 OU School of Visual Arts electives may include courses offered under any of the following in the OUSoVA: A HI, ART, ARTC, ATC, and DES. At least 3 hours must be Upper-Division in ART, ARTC, ATC, or DES to meet the minimum upper division major requirements. A HI courses do not count towards the major GPA.

## General Education and College Requirements

Courses designated as Core I, II, III, IV, or V are part of the General Education curriculum. Students must complete a minimum of 40 hours of General Education courses, chosen from the approved list, including at least one upper-division Gen. Ed. course outside of the student's major. Courses graded S/U or P/NP will not apply.

UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS
Code Title Credit

English Composition
ENGL 1113 Principles of English Composition 3
ENGL 1213 Principles of English Composition 3
or EXPO 1213 Expository Writing
Language
A student who has not completed the 2-year high school 0-10
language requirement must complete Core I: Language (6-10
hours).
Mathematics
Choose one course (Core I) ${ }^{1} 3$
Core Area II: Natural Science
Choose two courses from different disciplines; one must 7-8
include a laboratory
Core Area III: Social Science
P SC 1113 American Federal Government 3
Choose one course 3
Core Area IV: Arts and Humanities
Artistic Forms
Will be satisfied in Art History Requirements 0
Western Culture
HIST $1483 \quad 3$
or HIST 1493 United States, 1865 to the Present
Choose one course 3
World Culture
Choose one course 3
Core Area V: First-Year Experience
Choose one course 3
Free Electives
Courses used to fulfill General Education and/or major 3-4
requirements may not fulfill electives.
Total Credit Hours 38-48
${ }^{1}$ MATH 1473 is recommended.

## Suggested Semester Plan of Study

At least $\mathbf{3 0}$ hours of upper-division Art credit must be earned in residence as a declared major. This plan of study should not be used in lieu of
academic advisement. Unless otherwise stated on the degree sheet, the College of Fine Arts does not permit coursework to fulfill more than one degree requirement.

Two college-level courses in a single world language are required; this may be satisfied by successful completion of 2 years in a single world language in high school. Students who must take language at the University will have an additional 6-10 hours of coursework.

| Freshman |  |  |
| :---: | :---: | :---: |
| First Semester |  | Credit |
|  |  | Hours |
| ART 1033 | Core Studio I: Surface | 3 |
| ART 1043 | Core Studio II: Space and Time | 3 |
| ENGL 1113 | Principles of English Composition | 3 |
| Choose one of the following: |  | 3 |
| Social Science (Core III) |  |  |
| First-Year Experience (Core V) |  |  |
| Math (Core I) ${ }^{1}$ |  | 3 |
|  | Credit Hours | 15 |
| Second Semester |  |  |
| Major Support Elective |  | 3 |
| $\begin{aligned} & \text { ENGL } 1213 \\ & \text { or EXPO } 1213 \end{aligned}$ | Principles of English Composition or Expository Writing | 3 |
| P SC 1113 | American Federal Government | 3 |
| Choose one of the | e following (not previously chosen): | 3 |
| Social Science (Core III) |  |  |
| First-Year Experience (Core V) |  |  |
| Western Culture (Core IV) ${ }^{2}$ |  | 3 |

## Sophomore

First Semester

| DES 2633 | Visual Communication I | 3 |
| :--- | :--- | ---: |
| DES 2643 | Design Technology | 3 |
| A HI 1314 | Introduction to Art History | 4 |
| Major Support Elective | 3 |  |
| Natural Science without lab (Core II) | $\mathbf{3 - 4}$ |  |
|  | Credit Hours | $\mathbf{1 6}$ |


| Second Semester |  |
| :--- | :--- |
| DES 2653 | Visual Communication II |

DES 2663 Typography I 3
A HI Elective, 2000-level course 3
Major Support Elective 3
HIST 1483 United States to 1865

| or HIST 1493 | or United States, 1865 to the Present |  |
| :--- | :--- | :--- |
|  | Credit Hours | $\mathbf{1 5}$ |


| Junior |  |  |
| :--- | :--- | ---: |
| First Semester |  |  |
| DES 3633 | Visual Communication III | 3 |
| DES 3663 | Typography II | 3 |
| A HI Elective, upper-division ${ }^{3}$ | 3 |  |
| ART 3143 | Core III: Integrated Studio | 3 |
| Natural Science with lab (Core II) | 4 |  |
| Credit Hours |  |  |

## Second Semester

| DES 3653 | Visual Communication IV | 3 |
| :--- | :--- | ---: |
| DES 3643 | Integrated Technology | 3 |
| A HI 3673 | History of Visual Communication | 3 |
| Major Support Elective | 3 |  |
| World Culture (Core IV) ${ }^{2}$ |  | 3 |
| Credit Hours |  | $\mathbf{1 5}$ |

## Senior

First Semester

| DES 4643 | Visual Communication $V$ | 3 |
| :--- | :--- | ---: |
| DES 4653 | Typography III | 3 |
| Major Support Elective | 3 |  |
| Major Support Elective, upper-division | 3 |  |
| Free Elective, lower- or upper-division | $\mathbf{3 - 4}$ |  |
| Credit Hours | $\mathbf{1 6}$ |  |


| Second Semester |  |  |
| :--- | :--- | ---: |
| DES 4663 | Visual Communication VI | 3 |
| DES 4673 | Professional Practice | 3 |
| Major Support Elective, upper-division | 3 |  |
| Major Support Elective, upper-division | 3 |  |
| Credit Hours |  |  |
| Total Credit Hours |  | $\mathbf{1 2}$ |

${ }^{1}$ MATH 1473 is recommended.
${ }^{2}$ The course taken to fulfill the upper-division General Education outside the major requirement may not be chosen from A HI, ARTC, or the crosslisted equivalent.
${ }^{3}$ A HI must be General Education approved selected from Core IV.

## Art, Minor

Minimum Total Credit Hours: 18

## Program Code: N065

The requirements for a minor must be completed concurrently with the major degree requirements.

No minor may be added by completing courses after receiving the bachelor's degree.

See form available in Fine Arts Dean's office:

- Complete 2 copies of this form, and have both copies approved by an Art Faculty advisor.
- Take one copy to the OU School of Visual Arts office, Fred Jones Center, Rm. 202.
- Take one copy to the Office of the Dean, Weitzenhoffer Family College of Fine Arts FJC122.
- An Art faculty member selected by the student should serve as an advisor regarding course selection for the Art Minor degree.

No single course may be used by a student to satisfy a major requirement and a minor requirement.

Students must earn a minimum grade of $C$ in each course.
A minimum of 9 hours must be upper division studio courses.

A maximum of 6 hours of transfer credit may be applied to the Art minor.

- Students must achieve a minimum 2.50 GPA (OU and overall) in the minor coursework.


## Required Courses

| Code $\quad$ Title | Credit <br> Hours |
| :--- | ---: |
| Students must successfully complete at least eighteen (18) 18 <br> hours of coursework. A minimum of 15 hours must be in ART  <br> and/or ATC and may take up to 3 hours in ARTC or AHI. A  <br> minimum of 9 hours must be upper-division studio courses. ${ }^{1}$  |  |

## Total Credit Hours

1 ART 1033 or ART 1043 are highly recommended but not required. A minimum of nine (9) hours must be upper division studio courses.

Minors are available to all undergraduate students at OU. If the minor is officially declared and approved, successfully completed, and noted on the graduation application, the student's transcript will so indicate at the time the bachelor's degree is posted.

## Art History, Minor

Minimum Total Credit Hours: 18

## Program Code: N070

The requirements for a minor must be completed concurrently with the major degree requirements.

No minor may be added by completing courses after receiving the bachelor's degree.

See form available in Fine Arts Dean's office:

- Complete 2 copies of this form, and have both copies approved by an Art History faculty advisor.
- Take one copy to the OU School of Visual Arts office, Fred Jones Center, Rm. 202.
- Take one copy to the Office of the Dean, Weitzenhoffer Family College of Fine Arts FJC122

No single course may be used by a student to satisfy a major requirement and a minor requirement.

Students must earn a minimum grade of $C$ in each course.
A minimum of 9 hours must be upper division Art History courses.

- Students must achieve a minimum 2.50 GPA (OU and overall) in the minor coursework.


## Required Courses

| Code Title | Credit <br> Hours |
| :--- | ---: | ---: |
| Students must successfully complete at least eighteen (18) <br> hours of coursework in art history. A minimum of nine (9) <br> hours must be upper-division art history courses. The Art <br> History electives should be advised by an Art History faculty <br> member selected by the student. |  |
| Total Credit Hours |  |
| 18 A HI 2213 and A HI 2223 are highly recommended, but not required. |  |
| Minors are available to all undergraduate students at OU. If the minor is |  |
| officially declared and approved, successfully completed, and noted on |  |
| the graduation application, the student's transcript will so indicate at the |  |
| time the bachelor's degree is posted. |  |

## Museum Studies, Undergraduate Certificate

Minimum Total Credit Hours: 15
Program Code: T432

## Certificate Requirements

The certificate requires 15 hours, including 12 upper-division hours.

- Must earn a minimum grade of $C$ in each course
- Students must achieve a minimum 2.50 GPA (OU and overall) in the certificate coursework.

| Code | Title | Credit Hours |
| :---: | :---: | :---: |
| Program Core |  |  |
| A HI 2703 | Introduction to Museum Studies | 3 |
| A HI 3703 | Exhibition Preparation and Presentation | 3 |
| A HI 4930 | Internship | 3 |
| General Electives |  |  |
| Choose 6 hours from the following: |  | 6 |
| A HI 4043 | Native Americans, Museums and Exhibitions |  |
| A HI 4733 | Contemporary Art in Exhibition |  |
| A HI 4773 | Modern Exhibition Histories |  |
| A HI 4953 | Museum Studies |  |
| Total Credit H |  | 15 |

## Art History, M.A.

Minimum Total Hours (Thesis): 36
Program Code: M070

## Required Courses

Candidates for the MA in Art History must pass a reading proficiency exam in either French or German before filing the Admission to Candidacy form with the Graduate College.

In certain specially advised cases, another language may be substituted for French or German, or grades of $A$ in the two semesters of German for Reading or French for Reading (FR 1013 and FR 1023), or equivalent reading course in the approved substituted language may be accepted as satisfying the language proficiency requirement with approval of each member of the student's thesis committee. The language proficiency exam may be administered by OU, or the student can pass the Princeton language proficiency exam or another exam approved by the Art History faculty.


## General Requirements for all Master's Degrees

The master's degree requires the equivalent of at least two semesters of satisfactory graduate work and additional work as may be prescribed for the degree.

All coursework applied to the master's degree must carry graduate credit.
Master's degree programs which require a thesis consist of at least 30 credit hours. All non-thesis master's degree programs require at least 30 credit hours.

Credit transferred from other institutions must meet specific criteria and is subject to certain limitations

Courses completed through correspondence study may not be applied to the master's degree.

To qualify for a graduate degree, students must achieve an overall grade point average of 3.0 or higher in the degree program coursework and in all resident graduate coursework attempted. A student must also have at least a 3.0 in all coursework (including undergraduate coursework if any).

Additional information for master's degree students may be found in the Graduate College Bulletin.

## Art and Technology (Online), M.A.

Minimum Total Hours (Non-Thesis): 33
Program Code: M075 Online
Required Courses

| Code | Title | Credit |
| :---: | :---: | :---: |
| Core Courses |  |  |
| A T 5803 | History and Theory of Art and Technology Seminar | 3 |
| A T 5813 | Creative Coding Techniques | 3 |
| A T 5913 | Professional Project | 3 |
| A T 5923 | Professional Forum | 3 |
| Electives |  | 21 |
| Any 7 courses which may include but are not limited to the following courses: |  |  |
| A T 5823 | Emerging Art and Technology Seminar |  |
| A T 5833 | Video and Sound Techniques |  |
| A T 5853 | Motion Graphics Techniques |  |
| A T 5843 | 3D Animation Techniques |  |
| A T 5863 | Moving Image Production |  |
| A T 5873 | Game Engine Techniques |  |
| A T 5883 | Interactive Media Production |  |
| A T 5893 | Mixed Reality Techniques |  |
| Total Credit Hours |  | 33 |

## General Requirements for all Master's Degrees

The master's degree requires the equivalent of at least two semesters of satisfactory graduate work and additional work as may be prescribed for the degree

All coursework applied to the master's degree must carry graduate credit.
Master's degree programs which require a thesis consist of at least 30 credit hours. All non-thesis master's degree programs require at least 30 credit hours.

Credit transferred from other institutions must meet specific criteria and is subject to certain limitations

Courses completed through correspondence study may not be applied to the master's degree.

To qualify for a graduate degree, students must achieve an overall grade point average of 3.0 or higher in the degree program coursework and in all resident graduate coursework attempted. A student must also have at least a 3.0 in all coursework (including undergraduate coursework if any).

Additional information for master's degree students may be found in the Graduate College Bulletin.

## Art, M.F.A. in Art

[^55]Minimum Total Hours (Non-Thesis): 60
Program Code: M060

## Required Courses

6000 level courses cannot be taken prior to passing the midway defense
The requirements listed on this degree check sheet apply to the following concentrations in Art:

- Art and Technology - M060 Q051
- Ceramics - M060 Q091
- Film - M060 Q251
- Painting - M060 Q496
- Photography - M060 Q516
- Printmaking - M060 Q531
- Sculpture - M060 Q596
- Video - M060 Q661
- Visual Communication - M060 Q681


## Thesis Option

| Code | Title | Credit |
| :--- | :--- | :--- |
|  | Hours |  |


\left.| Required Courses |  |
| :--- | :--- |
| ARTC 5013 | Graduate Seminar |
| ARTC 6881 | Thesis Proposal/Statement |$\right] 3$

Art History or Art Theory
Choose 9 hours in any AHI or ARTC designated course ${ }^{1} \quad 9$

| Electives | 18 |
| :--- | :--- |
| Choose 18 hours | 18 |

## Thesis

ART $5980 \quad$ Research for Master's Thesis 4

Total Credit Hours
${ }^{1}$ Except ARTC 6881.

## Non-Thesis Option

| Code Title | Credit |
| :--- | :--- |
|  | Hours |


| Required Courses |  |  |
| :--- | :--- | ---: |
| ARTC 5013 | Graduate Seminar | 3 |
| ARTC 6881 | Thesis Proposal/Statement | 1 |
| Core Courses |  |  |
| Exhibition |  | 4 |
| ART 6880 | Graduate Exhibition | 25 |
| Studio |  |  |
| Choose 25 hours | 9 |  |
| Art History or Art Theory |  |  |
| Choose 9 hours in any AHI or ARTC designated course |  |  |

## Electives

| Choose 18 hours | 18 |
| :--- | ---: |
| Total Credit Hours | 60 |
| ${ }^{1}$ Except ARTC 6881. |  |

## General Requirements for all Master's Degrees

The master's degree requires the equivalent of at least two semesters of satisfactory graduate work and additional work as may be prescribed for the degree.

All coursework applied to the master's degree must carry graduate credit.
Master's degree programs which require a thesis consist of at least 30 credit hours. All non-thesis master's degree programs require at least 30 credit hours.

Credit transferred from other institutions must meet specific criteria and is subject to certain limitations.

Courses completed through correspondence study may not be applied to the master's degree.

To qualify for a graduate degree, students must achieve an overall grade point average of 3.0 or higher in the degree program coursework and in all resident graduate coursework attempted. A student must also have at least a 3.0 in all coursework (including undergraduate coursework if any).

Additional information for master's degree students may be found in the Graduate College Bulletin.

## Art History: Art of the American West, Ph.D.

Minimum Total Hours: 90

## Program Code: D070

## Program Requirements

Reading proficiency in French, German or Spanish will be required as well as proficiency in native languages appropriate to specific dissertation topics. This proficiency may be met as part of the MA degree.

Students must take a minimum of 28 hours of Art History courses beyond the master's, 15 of which must be at the 6000 level. Students may supplement those courses with approved electives in History, Anthropology, Literature, Music, Native American Studies, or other areas appropriate to their studies and integrated dissertation topic.

| Code $\quad$ Title | Credit <br> Hours |  |
| :--- | ---: | ---: |
| Coursework Requirements |  |  |
| Hours Transferred from MA | $30-36$ |  |
| Required Art History Courses |  |  |
| A HI 5903 | Methodologies and Theories in Art History | 3 |
| A HI 6950 | Dissertation Proposal | 5 |
| 15 additional hours of A HI coursework at the 6000 level | 15 |  |
| A HI 6960 $\quad$ Directed Readings (for qualifying exam) | 5 |  |
| Electives | $6-12$ |  |
| Dissertation Research |  |  |

A HI 6980 Research for Doctoral Dissertation 20

## Total Credit Hours

## General Requirements for Doctoral Degrees

A student should expect to spend at least the equivalent of three full academic years beyond the bachelor's degree to obtain the doctoral degree. During this period the student will take appropriate graduate coursework, successfully complete the general examination, and successfully defend and submit the final dissertation.

All coursework applied to the doctoral degree must carry graduate credit.
The doctoral degree requires at least 90 post-baccalaureate hours, including both formal coursework and hours of research.

The minimum hour requirement for a specific doctoral degree program cannot be waived.

No more than one-half of the credit hours, both OU and overall, excluding Research for Doctoral Dissertation (6980), may be S/U-graded coursework.

The student must be in residence at OU for at least two consecutive 16week semesters during the pursuit of the doctoral degree while enrolled and engaged in coursework or research activities as prescribed by the major academic unit.

For more detailed regulations and requirements for Doctoral degrees, please consult the Graduate College Bulletin: http://www.ou.edu/ gradcollege/forms/bulletin

## Art History: European Art, Ph.D.

Minimum Total Hours: 90
Program Code: D072

## Program Requirements

Reading proficiency in French, German or Spanish will be required as well as proficiency in native languages appropriate to specific dissertation topics. This proficiency may be met as part of the MA degree.

Students must take a minimum of 28 hours of Art History courses beyond the master's, 15 of which must be at the 6000 level. Students may supplement those courses with approved electives in History, Anthropology, Literature, Music, Native American Studies, or other areas appropriate to their studies and integrated dissertation topic.

| Code | Title | Credit |
| :---: | :---: | :---: |
|  |  | Hours |
| Coursework Requirements |  |  |
| Hours Tran | from MA | 30-36 |
| Required Art History Courses |  |  |
| A HI 5903 | Methodologies and Theories in Art History | 3 |
| A HI 6950 | Dissertation Proposal | 5 |
| 15 addition | rs of A HI coursework at the 6000 level | 15 |
| A HI 6960 | Directed Readings (for qualifying exam) | 5 |
| Electives |  | 6-12 |

Dissertation Research

| A HI 6980 | Research for Doctoral Dissertation | 20 |
| :--- | :--- | :--- |
| Total Credit Hours | 90 |  |

## General Requirements for Doctoral Degrees

A student should expect to spend at least the equivalent of three full academic years beyond the bachelor's degree to obtain the doctoral degree. During this period the student will take appropriate graduate coursework, successfully complete the general examination, and successfully defend and submit the final dissertation.

All coursework applied to the doctoral degree must carry graduate credit.
The doctoral degree requires at least 90 post-baccalaureate hours, including both formal coursework and hours of research.

The minimum hour requirement for a specific doctoral degree program cannot be waived.

No more than one-half of the credit hours, both OU and overall, excluding Research for Doctoral Dissertation (6980), may be $S / U$-graded coursework.

The student must be in residence at OU for at least two consecutive 16week semesters during the pursuit of the doctoral degree while enrolled and engaged in coursework or research activities as prescribed by the major academic unit.

For more detailed regulations and requirements for Doctoral degrees, please consult the Graduate College Bulletin: http://www.ou.edu/ gradcollege/forms/bulletin

## Art History: Native American Art, Ph.D.

Minimum Total Hours: 90

Program Code: D071

## Program Requirements

Reading proficiency in French, German or Spanish will be required as well as proficiency in native languages appropriate to specific dissertation topics. This proficiency may be met as part of the MA degree.

Students must take a minimum of 28 hours of Art History courses beyond the master's, 15 of which must be at the 6000 level. Students may supplement those courses with approved electives in History, Anthropology, Literature, Music, Native American Studies, or other areas appropriate to their studies and integrated dissertation topic.

| Code $\quad$ Title | Credit <br> Hours |  |
| :--- | ---: | ---: |
| Coursework Requirements |  |  |
| Hours Transferred from MA | $30-36$ |  |
| Required Art History Courses |  |  |
| A HI 5903 | Methodologies and Theories in Art History | 3 |
| A HI 6950 | Dissertation Proposal | 5 |
| 15 additional hours of A HI coursework at the 6000 level | 15 |  |
| A HI 6960 $\quad$ Directed Readings (for qualifying exam) | 5 |  |
| Electives | $6-12$ |  |
| Dissertation Research |  |  |

A HI 6980 Research for Doctoral Dissertation 20

## Total Credit Hours

## General Requirements for Doctoral Degrees

A student should expect to spend at least the equivalent of three full academic years beyond the bachelor's degree to obtain the doctoral degree. During this period the student will take appropriate graduate coursework, successfully complete the general examination, and successfully defend and submit the final dissertation.

All coursework applied to the doctoral degree must carry graduate credit.
The doctoral degree requires at least 90 post-baccalaureate hours, including both formal coursework and hours of research.

The minimum hour requirement for a specific doctoral degree program cannot be waived.

No more than one-half of the credit hours, both OU and overall, excluding Research for Doctoral Dissertation (6980), may be S/U-graded coursework.

The student must be in residence at OU for at least two consecutive 16week semesters during the pursuit of the doctoral degree while enrolled and engaged in coursework or research activities as prescribed by the major academic unit.

For more detailed regulations and requirements for Doctoral degrees, please consult the Graduate College Bulletin: http://www.ou.edu/ gradcollege/forms/bulletin

## Critical Issues in Art History, Ph.D.

## Minimum Total Hours: 90

Program Code: D069

## Program Requirements

Reading proficiency in French, German or Spanish will be required as well as proficiency in native languages appropriate to specific dissertation topics. This proficiency may be met as part of the MA degree.

Students must take a minimum of 28 hours of Art History courses beyond the master's, 15 of which must be at the 6000 level. Students may supplement those courses with approved electives in History, Anthropology, Literature, Music, Native American Studies, or other areas appropriate to their studies and integrated dissertation topic.

| Code $\quad$ Title | Credit <br> Hours |  |
| :--- | :--- | ---: |
| Coursework Requirements |  |  |
| Hours Transferred from MA | $30-36$ |  |
| Required Art History Courses |  |  |
| A HI 5903 | Methodologies and Theories in Art History | 3 |
| A HI 6950 | Dissertation Proposal | 5 |
| 15 additional hours of A HI coursework at the 6000 level | 15 |  |
| A HI 6960 $\quad$ Directed Readings (for qualifying exam) | 5 |  |
| Electives | $6-12$ |  |
| Dissertation Research |  |  |


| A HI 6980 | Research for Doctoral Dissertation | 20 |
| :--- | :--- | :--- |
| Total Credit Hours | 90 |  |

## General Requirements for Doctoral Degrees

A student should expect to spend at least the equivalent of three full academic years beyond the bachelor's degree to obtain the doctoral degree. During this period the student will take appropriate graduate coursework, successfully complete the general examination, and successfully defend and submit the final dissertation.

All coursework applied to the doctoral degree must carry graduate credit.
The doctoral degree requires at least 90 post-baccalaureate hours, including both formal coursework and hours of research.

The minimum hour requirement for a specific doctoral degree program cannot be waived.

No more than one-half of the credit hours, both OU and overall, excluding Research for Doctoral Dissertation (6980), may be S/U-graded coursework.

The student must be in residence at OU for at least two consecutive 16week semesters during the pursuit of the doctoral degree while enrolled and engaged in coursework or research activities as prescribed by the major academic unit.

For more detailed regulations and requirements for Doctoral degrees, please consult the Graduate College Bulletin: http://www.ou.edu/ gradcollege/forms/bulletin

## GRADUATE COLLEGE



## CONTACT

Norman Campus
213 Robertson Hall
731 Elm Avenue
Norman, OK 73019-2115
Main Phone: (405) 325-3811
Website: ou.edu/gradcollege
Email: gradinfo@ou.edu

## Administrative Officers

Randall S. Hewes, Ph.D. - Dean and Professor of Biology
Sherri Irvin, Ph.D. - Senior Associate Dean and Professor of Philosophy Liz Karr, Ph.D. - Associate Dean and Associate Professor of Microbiology
Lindsey Johnston - Assistant Dean for Graduate Information Services Krista Pettersen --- Assistant VP for Academic Operations \& Registrar, Tulsa Campus
Jaime Hough, Ph. D. - Director of Graduate Student and Postdoc Retention and Support
Kristi Meyers - Director of Graduate Academic Services
Jessica Reynolds - Director of English Training and Certification Services
Amy Shaw - Director of Graduate Admissions
Gail Shelton - Director of Operations

## General Information

## Mission and History

The Graduate College supports and advocates for graduate students and postdoctoral researchers throughout their innovative educational journey. The college collaborates with a student's chosen graduate program to assist them in achieving their goals. As the center of advanced study at the University, the college provides a foundation of creative activity to enhance graduate student and postdoc success.

Graduate instruction has been offered at the University of Oklahoma since 1899, seven years after the University opened its doors. The first master's degree was conferred in 1900 to C. Ross Hume. The Graduate School was formally organized in 1909, and in 1929, the first doctoral
degree was awarded to Dr. Mary Jane Brown. In 1942, the name was changed from Graduate School to Graduate College.

## Authority and Responsibility of Faculty, Staff, \& Students

The Graduate College guides, supports, and enhances the educational experience of every OU graduate student. The Graduate Council and the Dean of the Graduate College supervise and evaluate the academic units of the University that offer master's and doctoral degrees to ensure quality, observance of policy, and academic excellence in all areas of advanced study. Faculty and staff carefully monitor the performance of all graduate students. Final determination of a student's graduate status, from admission through graduation, rests with the Dean of the Graduate College.

The Graduate College strives to develop in each student a firm grasp of a chosen field, the skills and methods of research, and the capacity for independent thought. Faculty and students share an obligation to master the knowledge of their chosen fields and to add to that knowledge or apply it through professional contributions that benefit society. The Graduate Faculty has responsibility for instruction, for the guidance of graduate students in the development of their programs, and for pursuing investigations associated with a particular field or discipline. Graduate students are expected to demonstrate initiative and assume responsibility for the progress of their studies. Students must master a body of knowledge, and class work merely provides the foundation for wider personal inquiry. A graduate degree is conferred for mastery of a field and thorough understanding of its related branches.

For complete information about the Graduate College, graduate degree and certificate programs, and policies governing graduate study at the University of Oklahoma, review theGraduate College Bulletin.

## Programs Offered

- Community Engagement (Tulsa), Graduate Certificate (p. 1613)
- Interdisciplinary Studies, Ph.D. (p. 1614)
- Organizational and Community Leadership (Tulsa), Ph.D. (p. 1614)


## Programs \& Facilities

Resources

## Fellowships and Scholarships

Private donations have enabled the Graduate College to provide fellowships and scholarships in many areas. Additional programs seek to reward and encourage scholars conducting and presenting original scholarship at the highest levels. Dissertation Awards and Graduate Teaching Assistant Awards are given to reward excellence in dissertation research and teaching, respectively. In addition, the annual Three Minute Thesis competition (3MT®) challenges students to communicate the significance of their research to a general audience in just three minutes. Cash prizes are awarded, and the finalists' presentations are featured on the Graduate College website. For more information on these programs and others that may be available, visit the Graduate College website.

## Funding and Awards

The Graduate College provides funding opportunities for students who present at a conference, conduct research, or attend a prestigious training or class not offered at OU . They also manage tuition waivers for graduate research and teaching assistants.

## Graduate Student Life (GSL) Center and Programs

The GSL Center is a comfortable place for graduate students to work, relax, and reset. All graduate students have the opportunity to attend GSL's social, academic, and professional development events and make valuable connections with colleagues from other disciplines across campus.

## English Training and Certification Services (ETCS)

ETCS offers standardized testing services to certify the appropriate English capacity for international graduate students to serve in instructional positions at OU. ETCS also provides support and training opportunities for first-time English certification, to obtain a higher level of certification, or to assist with English communication difficulties in a current appointment.

## Courses

GRAD 5000 Concurrent Students at OUHSC
0 Credit Hours
Prerequisite: graduate standing. OU students concurrently enrolled at OUHSC. (F, Sp, Su)
GRAD 5003 Oklahoma Scholar-Leadership Enrichment Program Graduate Seminar 3 Credit Hours Prerequisite: graduate standing. May be repeated with change of content; maximum credit 12 hours. An interdisciplinary seminar variable in content changing with each seminar. Seminars are led by prominent national and international scholars and leaders coordinated with a current faculty member in their area of expertise. Emphasis is on enrichment and exploration with scholars to investigate ideas and issues affecting the future of humanity. ( $F, S p$ )
GRAD 5103 Interdisciplinary EOS3
3 Credit Hours
Prerequisite: Graduate Standing. Earth Observation Science for Society and Sustainability (EOS3) is an interdisciplinary certificate program consisting of a four-course certificate (Interdisciplinary EOS3, EOS3 Data Analytics, EOS3 Interface, and EOS3 Practicum) designed to provide students with advanced training in interdisciplinary communication, leadership, and data science skills. This course serves as the introduction to Interdisciplinary EOS3 and the processes by which effective science team are formed and become productive. Students will gain experience in working with interdisciplinary teams to leverage their disciplinary expertise and work with those with other expertise to address societal concerns. (F)
GRAD 5203 EOS3 Data Analytics
3 Credit Hours
Prerequisite: graduate standing. Focuses on using large, open-source civil Earth observation and other geospatial data. Introduces students to various open-source data tools for acquiring, managing, and analyzing large public data sets. Students will work in interdisciplinary teams to fuse disparate data and conduct analyses that meld ideas from natural and social science disciplines. The student teams will be comprised of members with varied skill sets to establish a culture of collaborative teaching and learning. (F)
GRAD 5303 EOS3 Interface 3 Credit Hours Prerequisite: graduate standing. EOS3 Interface focuses on interdisciplinary communication, the application of group communication theories to team science, and the communication of science across societal and cultural gaps. Theory, scholarship, and applications of group and organizational communication will be discussed within this context. In addition, the course will cover how socio-cultural differences affect communication, with a focus on how those affect the communication of scientific and technical information across disciplines and to the lay public and policymakers. (Sp)

GRAD 5403 EOS3 Practicum
3 Credit Hours
Prerequisite: graduate standing. The EOS3 practicum is the culminate of the certificate program and will allow students to apply what they have learned in their previous coursework while working as part of a collaborative and interdisciplinary team tasked with addressing real world research topics relating to the EOS3 theme. (Sp)
GRAD 5940 Professional Master's Practicum/Internship 1-5 Credit Hours
1 to 5 hours. Prerequisite: graduate standing and permission of instructor. May be repeated once; maximum credit five hours. Provides a practicum or internship experience for students in the professional master's degree program. The students will apply the knowledge from their core academic discipline (e.g. science, engineering, education, fine arts) in an appropriate supervised professional setting (e.g. business, public administration, international programs) to provide a valid experience related to the core discipline and career context of their professional masters degree. The internship/practicum will serve as the culminating experience for the degree. (F,Sp, Su)
GRAD 5980 Research for Master's Thesis 2-9 Credit Hours Variable enrollment, two to nine hours; maximum credit applicable toward degree, four hours. (F, Sp, Su)
GRAD 5990 Graduate Special Topics
1-4 Credit Hours
1 to 4 hours. Prerequisite: graduate standing and permission of instructor. May be repeated with change of topic; maximum credit twelve hours. Selected topics in graduate areas not usually covered in traditional courses. For any particular section there may be additional prerequisites required. (F, Sp, Su.
GRAD 6980 Research for Doctoral Dissertation 2-12 Credit Hours 2 to 12 hours. Prerequisite: Graduate standing and permission of instructor or Graduate College; may be repeated. Directed research culminating in the completion of the doctoral dissertation. (F, Sp, Su)
GRAD 6990 Graduate Advanced Special Topics 1-4 Credit Hours 1 to 4 hours. Prerequisite: graduate standing and permission of instructor. May be repeated with change of content; maximum credit twelve hours. Selected advanced topics in graduate areas not usually covered in traditional courses. For any particular section there may be additional prerequisites required. (F, Sp, Su)

## Community Engagement (Tulsa), Graduate Certificate

Minimum Total Hours: 12
Program Code: G031

## Admission Requirements

The Graduate Certificate in Community Engagement is offered through Academic Affairs in Norman and through the Tulsa Graduate College in Tulsa.

In addition to meeting the general requirements for admission to the Graduate College, applicants must also meet the admissions requirements for the Certificate Program in Community Engagement. Applications will be evaluated based on previous course work, evidence of leadership potential, and commitment to community health and well-being. Applicants must meet the minimum 3.0 GPA requirement (based upon a 4.0 scale) in previous course work. Compliance with admission requirements is demonstrated by submission of the following documents:

- Application to the Certificate program
- Personal Goal Statement
- Community Engagement Interest Statement
- Professional resume or CV
- Three letters of recommendation from persons familiar with the applicant's scholastic or leadership potential

For admission into the certificate program, applicants must meet the requirements for full graduate admission standing. To do so, the candidate must have supplied all the items listed above and must be eligible for admission to graduate certificate degree program for the Graduate College.

## Certificate Requirements

The curriculum builds on the learner's existing knowledge and skills in their respective degree programs and provides additional knowledge, tools, and skills needed to be a highly effective agent of change to positively influence and promote a thriving community and help its members to optimize their potential.

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| OCL 5603 | The Science of Community Engagement | 3 |
| OCL 5613 | The Tools of Community Engagement | 3 |
| OCL 5623 | Community Engagement Apprenticeship | 3 |
| OCL 5633 | Community Engagement Capstone | $\mathbf{3}$ |
| Total Credit Hours | $\mathbf{1 2}$ |  |


#### Abstract

A graduate certificate is not a graduate degree. A graduate degree represents a program of independent inquiry beyond the depth of coursework alone, while a graduate certificate represents a set of courses only.


- All courses must be taken at OU. No transfer credit will apply.
- No course substitutions are permitted for graduate certificates.
- Coursework applied to a graduate certificate cannot be more than five years old as of the semester the graduate certificate is awarded.
- Students must earn a grade point average of 3.00 or higher on all coursework applied to the graduate certificate.


## Interdisciplinary Studies, Ph.D.

This program is designed to provide the opportunity for synergistic research beyond established doctoral programs and among the different disciplines currently represented at the University of Oklahoma. It is for admitted doctoral students with strong academic records who have demonstrated the ability to work independently and at a high scholarly level.
Prior to preparing an application, students will discuss the proposed research areas with relevant faculty members who hold the appropriate graduate faculty status. The student will prepare the application in close consultation with the prospective committee members.

For complete information, download the IPP Packet.

## Admission Requirements

- Cumulative GPA of $\underline{3.5}$ in graduate-level coursework at OU.
- Currently admitted to an existing OU Norman or Tulsa doctoral program, which will be referred to as the home unit.


## Admission

- Deadlines: October 15 for spring (decision anticipated by December $15)$ and March 15 (decision anticipated by May 15) for fall admission. These deadlines are designed to allow time for a meeting with the IPP subcommittee and revisions of application materials if requested.
- Students who hold a master's degree will be eligible to apply for the IPP during the second semester and before the end of the third semester in the home unit.
- Students who do not hold a master's degree will be eligible to apply during the fourth semester and no later than the end of the fifth semester.
- Deviations from the timeline above will be considered on a case-bycase basis.
- After submission of the application, the student will meet with the IPP subcommittee of the Graduate Council, which is the body that evaluates the application. This meeting will allow the IPP subcommittee to learn more about the student's research plans and provide the student with feedback. The chair and/or co-chair of the student's proposed doctoral committee should attend the meeting. The subcommittee will have read the submitted materials, but the student is welcome to give a 5-10 minute presentation about their project if they wish.


## Graduate Council IPP Subcommittee

- This subcommittee will be chaired by the Graduate College dean and consist of faculty members of the Graduate Council.
- Responsibilities will include reviewing admission proposals and progress evaluations.
- Any change to the Advisory Conference Report or request for exceptions to the policies of the Graduate College Bulletin must be approved by the IPP subcommittee, the student's doctoral committee, and the graduate liaison of the home unit.
- The IPP subcommittee is responsible for monitoring and revising IPP guidelines and structure, subject to normal approval processes of the Graduate Council and University as required.


## Organizational and Community Leadership (Tulsa), Ph.D.

Minimum Total Hours: 90
Program Code: D750

## Admission Requirements

The Doctor in Philosophy in Organizational and Community Engagement is offered through the Graduate College in Tulsa.

In addition to meeting the general requirements for admission to the Graduate College, applicants must also meet the admissions requirements for the Ph.D. in Organizational and Community Engagement. Applications will be evaluated based on undergraduate and graduate work, evidence of leadership potential, and commitment to
community health and well-being. Applicants must meet the minimum 3.0 GPA requirement (based upon a 4.0 scale) in previous course work. Compliance with admission requirements is demonstrated by submission of the following documents:

- Application to the Ph.D. program
- Personal Goal Statement
- Research Interest Statement
- Professional resume or CV
- Three letters of recommendation from persons familiar with the applicant's scholastic or leadership potential

For admission into the Ph.D. program, applicants must meet the requirements for full graduate admission standing. To do so, the candidate must have supplied all the items listed above and must be eligible for admission to degree status for the Graduate College.

Applicants who do not meet the criteria for full admission to the Ph.D. program will not be admitted into the program. All admission materials, not just GPA documents, will be used in determining the admissibility of applicants. The program faculty may elect to interview applicants who are selected as finalists for admission. Finalists may also be asked to submit additional information, such as an example of a significant research paper written during their prior graduate work or a chapter from their master's thesis.

## Program Requirements

- This program is currently offered only at the University of Oklahoma's Tulsa campus

${ }^{1}$ Courses must be selected in consultation with the student's doctoral advisory committee and approved by the Graduate Liaison.


## General Requirements for Doctoral Degrees

A student should expect to spend at least the equivalent of three full academic years beyond the bachelor's degree to obtain the doctoral degree. During this period the student will take appropriate graduate coursework, successfully complete the general examination, and successfully defend and submit the final dissertation.

All coursework applied to the doctoral degree must carry graduate credit.

The doctoral degree requires at least 90 post-baccalaureate hours, including both formal coursework and hours of research.

The minimum hour requirement for a specific doctoral degree program cannot be waived.

No more than one-half of the credit hours, both OU and overall, excluding Research for Doctoral Dissertation (6980), may be $S / U$-graded coursework.

The student must be in residence at OU for at least two consecutive 16week semesters during the pursuit of the doctoral degree while enrolled and engaged in coursework or research activities as prescribed by the major academic unit.

For more detailed regulations and requirements for Doctoral degrees, please consult the Graduate College Bulletin: http://www.ou.edu/ gradcollege/forms/bulletin

## UNIVERSITY OF OKLAHOMA HEALTH SCIENCES CENTER



Stanton L. Young Boulevard
Oklahoma City, OK 73104
Phone: (405) 271-2416
www.ouhsc.edu

- College of Allied Health
- College of Dentistry
- College of Medicine
- College of Nursing
- College of Pharmacy
- College of Public Health
- Graduate College


## General Information

An internationally prominent faculty, state-of-the-art facilities and new technology combine to make the University of Oklahoma Health Sciences Center a leader in education, research and patient care.

As one of only four comprehensive academic health centers in the nation with seven professional schools, the OU Health Sciences Center serves approximately 4,000 students on the Oklahoma City and Tulsa campuses as well as locations throughout the state. The OU Health Sciences Center serves as the state's training facility for physicians, biomedical scientists, nurses, dentists, pharmacists, and a wide range of allied health and public health professionals. The center is composed of the College of Allied Health, College of Dentistry, College of Medicine and School of Community Medicine, Fran and Earl Ziegler College of Nursing, College of Pharmacy, Hudson College of Public Health, and Graduate College.

Located one mile south of the State Capitol, the OU Health Sciences Center is the cornerstone of the 275-acre Oklahoma Health Center, a complex of 19 public and private health care institutions. Students and residents receive clinical training at on-site institutions, including University Hospital, Children's Hospital of Oklahoma, Presbyterian Hospital, Dean A. McGee Eye Institute, Veterans Affairs Medical Center, Oklahoma State Department of Health, Oklahoma Medical Research Foundation and other affiliated hospitals and clinics in Oklahoma City and throughout the state.

## JOE C. AND CAROLE KERR MCCLENDON HONORS COLLEGE



David L. Boren Hall
1300 Asp Avenue
Norman, OK 73019-0385
Phone: (405) 325-5291
FAX: (405) 325-7109
honors@ou.edu
www.ou.edu/honors

## Administrative Officers

Kelvin White, Ph.D., Interim Dean
Amanda Minks, Ph.D., Associate Dean
Wyndham Bailey, Assistant to the Dean
Sarah Tracy, Ph.D., Director, OU Medical Humanities Program
Brian Johnson, Ph.D., Nationally Competitive Scholarship Advisor Jeff Cooper, Honors Advisor
Candace Coker, Director of Finance and Administration
Imelda Aldava, Sr. Student Service Specialist

## General Information

The Honors College curriculum at the University of Oklahoma provides high achieving students with the opportunity to develop their intellectual and leadership potential to the fullest. The Honors College has longserving core faculty and also draws from the best research and teaching faculty from all undergraduate colleges of the University to offer an enhanced curriculum at both the lower and upper divisions. Students can enroll in the small sections (generally 19-22) of Honors-designated general education courses, Honors sections across campus, the Honors at Oxford summer program, and independent study and research with faculty in the student's major discipline. The Honors College also encourages active participation in OU's Education Abroad program and in the Oklahoma Scholar-Leadership Enrichment Program seminars taught by nationally recognized scholars. The Honors College offers academic advising to assist students in moving through the Honors curriculum.

The Honors College offers a 4-year Honors experience with structured programs to develop research, writing, oral communication, and leadership skills. Students in the Honors College can major in any of the academic disciplines offering undergraduate bachelor's degrees at the University of Oklahoma. The Honors College does not confer a degree, but completion of the Honors College requirements will be noted on students' final OU transcript. Students earning Latin Honors (cum laude, magna cum laude, or summa cum laude) will also have that distinction recognized on their diploma and transcript. Students who are only interested in Latin

Honors may receive that designation at the time of graduation, regardless of their involvement in the Honors College.

## Programs Offered

- Medical Humanities, Minor (p. 1620)


## Programs \& Facilities

## Medical Humanities Scholars Program

The Medical Humanities Scholars Program is a highly selective, sequential BA-MD program that prepares 5-8 incoming high school seniors per year for a career in medicine through an enhanced premedical curriculum (MH Minor) that includes extensive coursework in history, literature, fine arts, philosophy, ethics, sociology, anthropology, economics, spirituality, and politics as they relate to health, disease, and the practice of medicine. MH Scholars are expected to develop speaking proficiency in a world language. Students also engage in service learning and clinical experiences to develop an appreciation for the social dimensions of health and healing. Upon admission into the program, students receive provisional acceptance at the University of Oklahoma College of Medicine, contingent upon their GPA and MCAT scores.

## Pre-Law Scholars Program

The Pre-Law Scholars Program is a highly selective accelerated BA/BSJD program. Incoming freshmen admitted to the Honors College are eligible to apply for this program, which gives provisional acceptance to OU College of Law, contingent upon GPA and LSAT scores. Pre-Law Scholars sequentially complete a Bachelor's degree and Juris Doctor in only 6 years.

## Informal Reading Groups

Each semester, the Honors College sponsors a program of informal reading groups. The groups meet just one hour per week, with 10-15 students and a facilitator discussing about 50 pages of reading.
The books cover a very wide range of topics, and most have been recommended by Honors students. To participate, the only commitment is that each student makes a good-faith effort to do the reading and come to the group meeting as often as possible, with the understanding there may be one or two weeks when students need to do other things. This is a great opportunity to meet other Honors students with similar interests. The goals of the program can be summarized as "maximum information and enjoyment, with zero stress." Books are given free of charge to all participants.

## Presidential Teaching Fellows in Honors

Presidential Teaching Fellows in Honors are faculty members selected from across campus who excel in all their professional activities and who relate those activities to the students they teach and mentor. Presidential Teaching Fellows typically teach in the Honors College for one year.

## Honors at Oxford

Honors College students have the opportunity to study in our summer program at Oxford University in England. Each year, a group of Honors students spends 3 weeks in July at Brasenose College, Oxford University. Honors colloquia are offered on topics of British history and culture, and typically involve field trips to related sites of interest. Students are able to use weekends to travel and explore farther afield.

## Undergraduate Research Opportunities Program (UROP)

The Undergraduate Research Opportunities Program (UROP) offers financial assistance for scholarly and creative projects under the
mentorship of a faculty member. Dozens of research projects are funded each year in support of ambitious and exciting research endeavors. This competitive program is open to all University of Oklahoma main campus and Health Science Center undergraduates who apply for grants of up to $\$ 1,000$ each term. Students and faculty from across the University discover the benefits of hands-on research opportunities in laboratories, studios, libraries, and field sites. UROP recipients present the results of their research or accounts of their work in progress at the Honors College's Undergraduate Research Day, a professional conference held each spring. For more information contact Jeff Cooper at jdcooper@ou.edu.

## Undergraduate Research Day (URD)

Undergraduate Research Day (URD) is a special event held every spring. The Honors College hosts and celebrates students who were funded in their research or creative activities by the Undergraduate Research Opportunities Program, as well as other undergraduate students who want to show what they have discovered and produced in their academic endeavors. The Honors College invites all undergraduates to apply. Participants will be part of a panel of 4-6 students with whom they'll present their research to an audience of their peers, faculty, and parents. Topics can include fine arts, natural sciences, life sciences, business, engineering, social sciences, and the humanities. Prose and poetry submissions and other forms of creative activity are also encouraged. Monetary prizes are awarded to the strongest presentations. For more information contact Jeff Cooper at jdcooper@ou.edu.

## Honors Research Assistant Program (HRAP)

The Honors Research Assistant Program provides Honors students the opportunity to work with professors as research assistants on specific projects the professor is studying. Participants work ten hours a week for ten weeks, and earn $\$ 1000$. Honors College students with at least 15 hours of college credit and a 3.4+ GPA are eligible to apply. We accept applications for this program at the beginning of the Fall and Spring terms. Applicants are considered until all positions are filled. For more information contact Jeff Cooper at jdcooper@ou.edu.

## The Honors Undergraduate Research Journal (THURJ)

The Honors Undergraduate Research Journal (THURJ) is an annual publication that celebrates undergraduate research in all academic disciplines. Each spring, THURJ publishes the best Honors College student papers from the previous year. An Editorial Board of student peers evaluates submissions using a blind review process, choosing between 8-12 papers for publication. All published authors also receive a monetary prize.

- Students interested in serving on the THURJ editorial board should look for announcements in August and September about the application deadline.
- Students interested in submitting a paper to THURJ should look for publicized announcements in December and January for the submission deadline.

For more information contact: Imelda Aldava, imelda.aldava-1@ou.edu

## First Year Research Experience (FYRE)

Each spring the Honors College offers an opportunity for first-year Honors students to participate in laboratory research, usually lab-based. This course, the Honors First-Year Research Experience (FYRE), is open to Honors College students from all majors through a competitive application and interview process. Besides working alongside professors and graduate students, students earn three hours of credit of Honors for
successfully completing the course. Look for announcements in August and September for the application deadline. Contact the Honors College main office for more information.

## Nationally Competitive Scholarships and Fellowships

The Honors College maintains complete application information and works with outstanding undergraduates in their quest for Rhodes Scholarships, Marshall Scholarships, Goldwater Scholarships, Truman Scholarships, Gates Cambridge Scholarships, Rotary Scholarships, and other prestigious awards. For more information, contact Dr. Brian Johnson, bjohn@ou.edu.

## Integrated Living-Learning Environment

David L. Boren House is a housing option for Honors students. The academic offices for the Honors College are housed in this residence hall. Faculty offices, seminar rooms, study areas, and a courtyard are also a part of the facility. Non-Honors students can contract to live in this residence hall. Additional options for preferential student housing are offered to Honors students each year.

## Honors Student Association

All Honors students are members of the Honors Student Association (HSA). The HSA is an official student organization at OU. As such, it receives funds from the University of Oklahoma Student Government Association to sponsor events of interest to Honors College students and to the University community at large.

## Undergraduate Study

## Admission

Any student interested in applying for the Honors College must fulfill the following requirements:

- have already been accepted into the University of Oklahoma. We cannot process your application without an accepted common application on file, including officially-submitted test scores. Please visit Admissions \& Recruitment to apply for the University of Oklahoma.
- submit a 500 word essay based on one of the provided topics.

Freshmen entering the University of Oklahoma are eligible to apply to the Honors College if they have:

- an ACT Composite of 30 or higher or an SAT Critical Reading and Mathematics Total of 1360 or higher.
- and an unweighted high school GPA of 3.75 or rank in the top $10 \%$ of graduates of their high school class.

Students with lower scores may be considered by including a letter of academic recommendation from a teacher or guidance counselor.

Freshmen from countries outside the US entering the University of Oklahoma are eligible to apply to the Honors College if:

- You have an International Baccalaureate score of 40 or higher.

Transfer students entering the University of Oklahoma are eligible to apply to the Honors College if they have:

- earned 15 or more hours of total transfer credit with a transfer GPA of 3.40 or higher

Students currently enrolled at the University of Oklahoma are eligible to apply to the Honors College if they have:

- earned 15 or more hours of OU credit with a cumulative GPA of 3.40 or higher

Final admission into the Honors College is determined by evaluation of the Honors College application form, which includes a written essay of 350-500 words.

Continued good standing in the Honors College requires an OU retention/ combined retention grade point average of 3.40 and progress towards completion of the curricular requirements of the Honors College.

## Honors College Curriculum

Honors College courses are intended to be included in the hours earned toward completion of the student's undergraduate degree.

Honors College requirements include the following:

- HON 2973 OR HON 2963 (Perspectives)
- HON 3980 (Research - 3 credit hours)
- HON 3993
- Honors Electives (9 credit hours): may include HON 3960 Honors Reading Honors Reading and Honors designated courses.
- C or higher required in all HON classes
- filing an honors thesis (the end result of the Honors 3980 research project or other thesis-worthy work) with the Honors Office.
- both an OU Retention GPA and a Combined Retention GPA of 3.4


## Medical Humanities Minor

Any Honors College-eligible (3.4 GPA or higher) student at the University of Oklahoma may pursue a Minor in Medical Humanities (p. 1620) focused on a specific area within the medical humanities (history of medicine; bioethics; medical anthropology; literature and medicine; cross-cultural perspectives on health and disease; etc.), on world languages, or on world cultural traditions. The goal is for students to prepare for the health professions and the multi-cultural clinical context by gaining a broad vision of the social, cultural, historical, economic, political, ethical, and spiritual factors shaping health, disease, and the delivery of healthcare

## Courses

HON 2963 Perspectives on the Global Experience 3 Credit Hours Prerequisite: Admission to Honors College; May be repeated with change of content, maximum 6 hours. Perspectives courses explore a broad subject from multiple perspectives. 2963 is an interdisciplinary investigation of the social, economic, and political realities of life and culture in non-Western geographic areas, such as Asia, Africa, Oceania, and Latin America. Geographic focus and topic vary by course title and instructor; see Honors College website for current offerings. This course is writing intensive. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
HON 2970 Honors Seminar
3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors College Curriculum. May be repeated; maximum credit six hours. (F, Sp)

HON 2973 Perspectives on the American Experience 3 Credit Hours
Prerequisite: Permission of Honors College; May be repeated; maximum credit six hours. Perspectives courses explore a broad subject from multiple perspectives. 2973 is an interdisciplinary investigation of the social, economic, and political realities of North American life and culture from the late nineteenth century to the present. Specific topics vary by course title and instructor; see Honors College website for current offerings. This course is writing intensive. (Sp)
HON 3440 Mentored Research Experience
3 Credit Hours
0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)

HON 3960 Honors Reading
1-3 Credit Hours
1 to 3 hours. Prerequisite: Admission to Honors College; departmental permission; May be repeated; maximum credit six hours. Will consist of topics designated by the instructor. The content will emphasize work not presented in other courses. (F, Sp, Su)

## HON 3970 Honors Seminar

1-3 Credit Hours
1 to 3 hours. Prerequisite: member of Honors College Curriculum in good standing. May be repeated; maximum credit six hours. An upper-division Honors College course to be used by departments and by the Honors College. (F, Sp, Su)

## HON 3980 Honors Research

1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated with change of content; maximum credit six hours. Will provide an opportunity for the gifted Honors candidate to work at a special project under the guidance of a professor in the student's field. (F, Sp, Su)

## HON 3990 Independent Study

1-3 Credit Hours
1 to 3 hours. Prerequisite: permission of instructor and junior standing. May be repeated once with change of content. Independent study may be arranged to study a subject not available through regular course offerings. (F, Sp, Su)

HON 3993 Honors Colloquium
3 Credit Hours
Prerequisite: admission to and good standing in Honors College
Curriculum. May be repeated with change in course topic. An interdepartmental course involving two or more instructors from different departments. (Sp)

## Faculty

| Last Name | First/Middle <br> Name | Middle init. | OU <br> Service start | Title(s), date(s) appointed | Degrees Earned, Schools, Dates Completed |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Alpers | Benjamin | L | 1998 | REACH FOR | PhD, Princeton Univ, |
|  |  |  |  | EXCELLENCE | 1994; MA, Princeton |
|  |  |  |  | PROFESSOR | Univ; AB, Harvard |
|  |  |  |  | OF HONORS, | Univ |
|  |  |  |  | 2018; ASSOCIATE |  |
|  |  |  |  | PROFESSOR |  |
|  |  |  |  | OF HONORS, |  |
|  |  |  |  | 2003; ASSOCIATE |  |
|  |  |  |  | PROFESSOR OF |  |
|  |  |  |  | HISTORY, 2003 |  |


| Dallam | Marie | W | 2009 | REACH FOR <br> EXCELLENCE <br> PROFESSOR <br> OF HONORS, <br> 2018; ASSOCIATE <br> PROFESSOR OF <br> HONORS, 2015 | PhD, Temple Univ, 2006; MA, Harvard Univ, 1999; BA, CUNY Hunter College, 1996 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Hamerla | Ralph | R | 2000 | ASSOCIATE PROFESSOR OF HONORS, 2006; REACH FOR EXCELLENCE PROFESSOR OF HONORS, 2008 | PhD, Case Western Reserve Univ, 2000; MA, Univ of Akron, 1994; BA, Kent State Univ, 1991 |
| Johnson | Brian |  | 2005 | DIRECTOR, HONORS COLLEGE WRITING CENTER, 2006; ASSISTANT PROFESSOR OF HONORS, 2011 | PhD, Univ of Oklahoma, 2001 |
| Lifset | Robert | D | 2008 | DONALD KEITH JONES PROFESSOR OF HONORS, 2008; ASSOCIATE PROFESSOR OF HONORS 2014 | PhD, Columbia Univ, 2005; MA, Columbia Univ, 1998; BA, Univ of Chicago, 1996 |
| Mains | Daniel | C | 2011 | WICK CARY PROFESSOR IN HONORS, 2011; ASSOCIATE PROFESSOR OF HONORS, 2017 | PhD, Emory Univ 2007; MA, Emory Univ, 2003; BS, Lewis and Clark College, 1997 |
| Minks | Amanda | G | 2006 | REACH FOR <br> EXCELLENCE <br> PROFESSOR <br> OF HONORS, <br> 2006; ASSOCIATE <br> PROFESSOR <br> OF HONORS, <br> 2013; ADJUNCT <br> ASSOCIATE <br> PROFESSOR OF <br> NATIVE AMERICAN <br> STUDIES, 2013 | PhD, Columbia Univ, 2006; MA, Wesleyan Univ, 1998; BA, Goucher College, 1996 |
| Prichard | Andreana | C | 2011 | ASSOCIATE <br> PROFESSOR OF HONORS, 2018; WICK <br> CARY PROFESSOR <br> IN HONORS, 2011; <br> CT ASSISTANT <br> PROFESSOR OF <br> INTERNATIONAL <br> AND AREA STUDIES, $2013$ | PhD, Northwestern <br> Univ, 2011; MA, <br> Northwestern Univ, 2005; BA, Kenyon College, 2001 |
| Song | David | S | 2022 | REACH FOR EXCELLENCE PROFESSOR OF HONORS, 2022 | PhD, Stanford Univ, 2021; MA, Univ of Maryland, 2013; BA, Washington Univ, 2009 |


| Tracy Sarah W 1999 | REACH FOR | PhD, Univ of |  |
| :---: | :--- | :--- | :--- |
|  | EXCELLENCE | Pennsylvania, |  |
|  | PROFESSOR | 1992; MA, Univ of |  |
|  | OF HONORS, | Pennsylvania, 1987; |  |
|  | 1999; ASSOCIATE | BA, Harvard Univ, |  |
|  | PROFESSOR | 1985 |  |
|  | OF HONORS, |  |  |
|  | 2005; EDITH |  |  |
|  | KINNEY GAYLORD |  |  |
|  |  | PRESIDENTIAL |  |
|  |  | PROFESSOR, 2016 |  |

## Medical Humanities, Minor

## Minimum Total Credit Hours: 18

## Program Code: N678

- The requirements for a minor must be completed concurrently with the major degree requirements.
- No minor may be added by completing courses after receiving the bachelor's degree.

Requests to substitute a minor requirement must be approved in writing by the Honors College.

- The Medical Humanities Minor is available to all Honors-eligible (GPA 3.4 or higher) students at OU.


## Required Courses

Students minoring in Medical Humanities will complete 18 hours of coursework in anthropology, psychology, communication, history, history of science, medicine \& technology, philosophy, cultural studies, women's \& gender studies, ethnic studies, religious studies, ethics, music, art, classics, sociology, and foreign language. Courses are chosen in consultation with the Honors College to develop students' cultural competence through the study of cultural variation within any humanistic, social scientific, or scientific context.

Three of the 18 hours will be devoted to the study of a foreign language beyond the College of Arts \& Sciences minimum 13-hour requirement.

| Code Title | Credit |
| :---: | :---: |
|  | Hours |
| Interdisciplinary Course Distribution ${ }^{1}$ |  |
| Lower Division Humanities and Social Sciences |  |
| Choose 6 hours (p. 1621) | 6 |
| Upper Division Humanities and Social Sciences |  |
| Choose 6 hours (p. 1621) | 6 |
| World Culture Course |  |
| Choose 3 hours | 3 |
| Foreign Spoken Language |  |
| Choose any intermediate foreign language course, including ASL, beyond the College of Arts and Sciences first semester intermediate language requirement ${ }^{2}$ | 3 |

${ }^{1}$ Note: at least two courses (6 hours) must devote a significant portion of the semester to health-related issues.
${ }^{2}$ This requirement is waived for students completing a major or minor in a modern foreign language.

| INTERDISCIPLINARY COURSE DISTRIBUTION |  |  |
| :---: | :---: | :---: |
| Lower DIVISION HUMANITIES AND SOCIAL SCIENCES |  |  |
| Acceptable courses include (but are not limited to): |  |  |
| Code | Title | Credit <br> Hours |
| ANTH 2203 | Global Cultural Diversity | 3 |
| ANTH 2613 | Native Peoples of North America | 3 |
| Any 2000-level CL C course |  |  |
| COMM 2003 | Communication in Non-Western Culture | 3 |
| COMM 2213 | Interpersonal Communication | 3 |
| Any 2000-level ENGL course |  |  |
| Any 2000- level HIST course |  |  |
| Any 2000-level HSCI course |  |  |
| HON 2973 | Perspectives on the American Experience (some topics) | 3 |
| LING 2303 | General Linguistics | 3 |
| MUNM 2313 | History of Jazz | 3 |
| PSY 2403 | Introduction to Personality | 3 |
| S WK 2113 | Introduction to Social Work | 3 |
| WGS 1003 | Introduction to Women's and Gender Studies | 3 |

## UPPER DIVISION HUMANITIES AND SOCIAL SCIENCES

Acceptable courses include (but are not limited to):

| Code | Title | Credit <br> Hours |
| :---: | :---: | :---: |
| ANTH 3453 | Contemporary Native American Issues | 3 |
| ANTH 4623 | Approaches to Cross-Cultural Human Problems | 3 |
| ANTH 4823 | Medical Anthropology | 3 |
| A HI 3343 | Northern Renaissance Art | 3 |
| A HI 3503 | Art of the 18th Century: The Age of Enlightenment | 3 |
| Any 3000 or 4000 -level CL C course |  |  |
| COMM 4153 | Nonverbal Communication | 3 |
| ECON 4983 | Economics as Social Science | 3 |
| ENGL 3173 | Histories of Writing, Rhetoric and Technology | 3 |
| HES 4543 | Comprehensive Stress Management | 3 |
| Any 3000 or 4000-level HIST course |  |  |
| Any 3000 or 4000-level HSCI course |  |  |
| HON 3970 | Honors Seminar (some topics) | 1-3 |
| HON 3993 | Honors Colloquium (some topics) | 3 |
| LING 4313 | Techniques of Historical Linguistics | 3 |
| MLLL 3043 | Mythology and Folklore | 3 |
| MLLL 3123 | Russian Culture and Civilization | 3 |
| MUNM 3113 | World Music | 3 |
| MUNM 3213 | Native American Music | 3 |
| NAS 3113 | Native American Philosophy | 3 |
| PHIL 3293 | Environmental Ethics | 3 |


| PHIL 4623 | Philosophy of The Social Sciences | 3 |
| :--- | :--- | :--- |
| S WK 3313 | Social Welfare Policy: Analysis and Practice | 3 |
| S WK 3323 | Human Diversity and Social Justice | 3 |
| SOC 3543 | Sociology of Deviance | 3 |
| SOC 3623 | Sociology of Race and Ethnicity | 3 |
| SOC 3723 | Sociology of Family | 3 |
| SOC 3733 | Sociology of Gender | 3 |
| SOC 3813 | Individual and Society | 3 |
| WGS 4003 | Women's and Gender Studies Senior <br>  <br> WGS 4123 | Capstone |

## DAVID L. BOREN COLLEGE OF INTERNATIONAL STUDIES



Farzaneh Hall, Room 118
729 Elm Ave.
Norman, OK 73019-5144
Phone: (405) 325-1396
FAX: (405) 325-7454
cis@ou.edu
www.ou.edu/cis

## Administrative Officer

- Jonathan Stalling, Ph.D., Interim Dean, College of International and Area Studies; Harold J. and Ruth Newman Chair in US-China Issues and Professor of International Studies; Co-Director, Institute for USChina Issues


## General Information

The David L. Boren College of International Studies (CIS) was officially created in January 2011 as a reflection of former President David Boren's vision of advancing international educational opportunities for all OU students. Today, CIS houses the academic Department of International and Area Studies and a number of other international institutes and centers. Together, these various offices, departments and centers work to provide a range of opportunities for students to learn about the global community in which they live.

The David L. Boren College of International Studies aspires to be a national center of excellence and innovation in international education. Our goals are to broaden international exchange and research partnerships and to enhance the global fluency of our students so they can become compassionate, open-minded global citizens and leaders.

## Programs Offered

[^56]- International Security Studies Course Lists (p. 1658)
- International Studies, B.A. (p. 1658)
- International Studies Course Lists (p. 1661)
- Latin American Studies, B.A. (p. 1662)
- Latin American Studies Course Lists (p. 1664)
- Middle Eastern Studies, B.A. (p. 1665)
- Middle Eastern Studies Course Lists (p. 1667)
- African Studies, Minor (p. 1667)
- African Studies Minor Electives (p. 1668)
- Asian Studies, Minor (p. 1669)
- Cultural \& Area Studies Course List (p. 1670)
- European Studies, Minor (p. 1670)
- Global Energy, Environment, and Resources, Minor (p. 1671)
- International Development, Minor (p. 1671)
- International Security Studies, Minor (p. 1672)
- International Studies, Minor (p. 1673)
- Iranian Studies, Minor (p. 1673)
- Latin American Studies, Minor (p. 1674)
- Middle Eastern Studies, Minor (p. 1675)
- Russian and Eastern European Studies, Minor (p. 1675)
- Global Engagement, Undergraduate Certificate (p. 1676)
- International Studies, B.A./Global Studies, M.A. (p. 1676)
- International Studies Accelerated Course Lists (p. 1679)
- Global Affairs, M.A. (p. 1680)
- Global Affairs Course List (p. 1681)
- Global Studies, M.A. (p. 1682)
- Global Studies Course Lists (p. 1682)
- International Relations, M.A. (p. 1683)
- International Relations Course Lists (p. 1683)


## Programs \& Facilities

## Research Centers and Programs

The David L. Boren College of International Studies is home to 10 research centers and institutes that engage with scholars from all over the world and promote cross-cultural collaboration throughout the university. These centers provide learning opportunities for students, faculty and the community alike, hosting events and guest speakers as well as other initiatives.

## - African Studies Institute,

The African Studies Institute (ASI) at the University of Oklahoma is an emerging, interdisciplinary center dedicated to research and the study of Africa, as well as building a community of those interested in Africa in the state of Oklahoma.

## - Center for the Americas,

The Center for the Americas is dedicated to enhancing programming at the University of Oklahoma in several areas of the Western Hemisphere. Its major focus is in Latin America, but it also promotes activities on the Caribbean, Canada and global U.S. foreign policy.

## - Center for Brazil Studies,

The Center for Brazil Studies is a hub for teaching, research and outreach relating to Brazil at the University of Oklahoma. The Center works in cooperation with other OU programs/centers, departments, and colleges, as well as with Brazilian institutions, academics and professionals, to provide the OU faculty and students with opportunities to develop language skills (Portuguese), to develop
substantive knowledge on/professional experience in Brazil, to engage in contemporary Brazilian debates and to engage in research in, about and with Brazil.

## - Center for Middle East Studies,

The goal of the Center for Middle East Studies (CMES) is to enrich Middle East programming at the University of Oklahoma. CMES brings three distinguished speakers to the University each semester, sponsors informal "brown bag" lunches, and supports Middle East events on campus.

## - Center for Peace and Development,

The Center for Peace and Development (CPD) builds on OU's longtime work with communities in northern Uganda. CPD brings together faculty and students from across the University's varied disciplines to build collaborative partnerships with communities affected by conflict.

## - Center for the Study of Nationalism,

The Center for the Study of Nationalism (CSN) engages OU faculty and students in the empirical and theoretical aspects of studying nationalism and related cultural and political issues, including: cultural authenticity and reinvention; self-determination and secession; ethnic conflict and civil war; immigration and citizenship; globalization, development and inequality; minority rights, accommodation and nation-building.

## - Cyber Governance and Policy Center,

The Cyber Governance and Policy Center is dedicated to enhancing research-based understanding of policy and governance issues pertaining to modern information and communications technology, broadly understood to include cyber-physical systems. The center serves as a focal point for research on such issues at the University of Oklahoma, facilitating collaboration among faculty and graduate students across a range of disciplines including International Relations, Political Science, Law, Communications, Economics, Business, Engineering and Computer Science.

## - European Union Center,

The European Union Center at OU was founded in September 2001, when University of Oklahoma became one of 15 national universities to host a center for European Union studies. Activities during the Center's first three years were supported by a grant awarded through a national competition by the Commission of the European Communities. The Center seeks to advance knowledge of the European Union at OU as well as throughout the local community, the state of Oklahoma, and the southwestern United States. The European Union Center at the University of Oklahoma has established a network of affiliates at universities throughout the southwest providing the program opportunities for reaching a broad regional audience.

- Farzaneh Family Center for Iranian and Persian Gulf Studies, The Farzaneh Family Center for Iranian and Persian Gulf Studies aims to coordinate a variety of curricular, research and outreach activities at OU that explore the history and culture of Iran and the Persian-speaking world. These activities include lectures, conferences, film screenings, exhibits, concerts and other programs.


## - Institute for US-China Issues,

The Institute for U.S.-China Issues at the University of Oklahoma was established in August 2006 with the generous financial support of Harold J. \& Ruth Newman. The Institute seeks to enhance the understanding and management of U.S.-China relations by
simultaneously addressing two sets of interrelated issue clusters - the security, technology, economic, environmental, public health and political (STEEPP) issues, and the instrumental role culture plays in shaping how the two nations perceive and engage each other. To achieve this goal, the Institute works along parallel tracks through public programming, research, publications, symposiums and teaching to tackle both the STEEPP and cultural issues confronting the two nations.

## - MENA at OU,

The College of International Studies has launched a new "MENA at OU" webpage to serve as home to Middle East and North Africa studies, research, and programs at the University of Oklahoma. MENA covers peoples, cultures, and lands that relate to the Middle East, the Sahel and West Africa, East Africa, North Africa, Afghanistan, and Pakistan, and their diasporas.

## Undergraduate Study <br> Admission

Students must be admitted to the University of Oklahoma before being admitted to the College of International Studies. First-year students are admitted to University College. The freshman year at the University of Oklahoma is spent in University College, which provides an advisory system for freshmen and assists students in choosing a major. Transfer to the Department of International and Area Studies from University College is automatic upon completion of the IAS admission requirements below.

## Admission to the College of International Studies

The minimum requirements for admission are:

- A declared International and Area Studies major;
- At least a 2.00 combined retention grade point average on all collegelevel work attempted; and,
- At least 24 semester credit hours of earned college-level credit.

International and Area studies majors also have a minimum major grade point average requirement for graduation, as discussed in the graduation requirements section.

## Student Responsibilities

It is the student's responsibility to make decisions during undergraduate study that ensure academic success and timely graduation. To make such important decisions, it is crucial that students know and understand the following:

- All requirements for admission to and completion of the degree program.
- The rules and regulations that govern enrollment and graduation.
- University deadlines.
- University policies and procedures.
- Availability of required courses to complete the degree.
- Where and when to go for help.


## Student Advisement

The College of International Studies (CIS) requires all undergraduate majors to be advised prior to each enrollment. Current students will meet with the professional academic advisors in the Department of International and Area Studies. Advisors assist students in choosing courses appropriate for the IAS major, guide students in career and major-
specific information, and assist in the evaluation of study abroad work for major credit. Their telephone number is (405) 325-4547. After advisement, students enroll in classes through the online enrollment system.

The College of International Studies Academic Services Office certifies students for graduation. The academic counselors in this office answer questions regarding academic standing, transcript evaluation, degree requirements, or other University regulations. Students who have earned 80 hours or more must meet with this office for an official degree check. Appointments with the Academic Services Office can be scheduled by calling (405) 325-1429.

## Transfer Students

Students who wish to transfer from other colleges or universities should be aware of the following:

- Transfer students who have completed at least 24 semester credit hours will be admitted directly into the Department of International and Area Studies if they meet the University's admission requirements.
- Transfer students who have earned fewer than 24 semester credit hours will be admitted to University College.
- The Office of Admissions will determine acceptance of credits from the transferring institutions.
- The Department of International and Area Studies will determine how these credits apply toward the requirements for an IAS degree.
- All newly admitted transfer students must meet with an academic counselor in the Academic Services Office prior to their first enrollment at the University of Oklahoma.

Transfer students should be familiar with the requirements for their chosen International and Area Studies major (p. 1627).

## Scholastic Requirements

A student must maintain at least a 2.00 grade point average in order to be in good standing in the Department of International and Area Studies. Any student whose combined or OU retention grade point average falls below 2.00 is placed on academic contract status, and must meet specific conditions established by the Department of International and Area Studies. Failure to meet these conditions will result in denial of enrollment privileges as an International and Area Studies major. Additional grade point average requirements in the major are necessary for a student to be eligible for graduation, as detailed in the Graduation Requirements section of this chapter.

## Academic Course Load

Students may enroll in a maximum of 19 credit hours of work in one semester. The minimum requirement for full-time status is 12 hours. To enroll in more than 19 hours, permission must be obtained from the Director of Academic Advising. Students must have minimum OU and combined GPAs of 3.0 in order to receive overload permission.

## Change of Enrollment

Deadlines for enrollment, adding a course, and dropping a course are published in the Academic Calendar. It is the student's responsibility to meet deadlines set by the University for changing an enrollment.

## Graduation Requirements

The responsibility for meeting graduation requirements lies with the student.

The requirements for graduation from the Department of International and Area Studies programs normally have four components:

- University-Wide General Education requirements,
- Department of International and Area Studies requirements,
- Major requirements, and
- Free electives.

The specific requirements for majors and minors are listed on Degree Requirements Checksheets (p. 55).

## Grade Point Average Requirements

The Department of International and Area Studies requires certain minimum grade point averages in each of the following areas:

- Students must earn a minimum of a 2.00 combined retention grade point average (University of Oklahoma and transfer work combined).
- Students must earn a minimum of a 2.00 retention grade point average on all University of Oklahoma coursework.
- Students must earn a minimum of a 2.50 retention grade point average in all major credit courses (University of Oklahoma and transfer work combined), and a 2.50 retention grade point average in major credit courses taken at the University of Oklahoma.


## Ten-Year Limitation Rules

A student in the Department of International and Area Studies may elect to follow the degree requirements from any valid program year (beginning with those that were in place at the time of the student's first enrollment in the Oklahoma State System for Higher Education--excluding high school concurrent enrollment), in consultation with the academic counselor. Students must complete their requirements within a maximum of 10 calendar years from the date of their program year. If the work for a degree covers a period longer than 10 years, the student must update to more current degree program requirements.

Credit in a student's major that is more than 10 years old may not be applied toward a bachelor's degree unless it is validated by the Department of International and Area Studies and the respective course departments.

## Application for Graduation

Students must consult with their academic counselor prior to the beginning of their final semester or term to ensure that their final enrollment will complete all remaining graduation requirements. In order to graduate seniors must also complete a graduation application form and submit it during their final term of enrollment prior to published deadlines. Graduation applications are submitted online through one.ou.edu. Failure to file the graduation application will result in the student not being eligible for graduation during that semester or term. Those students who plan to graduate in the fall are strongly encouraged to apply for graduation before May 1; those finishing in the spring before December 1 ; and those finishing in the summer before March 1. In addition to completing all academic requirements for the undergraduate degree, students must also pay all tuition and fees before the degree can be conferred. Students who complete all academic requirements but fail to pay tuition and fees before the beginning of the following semester or session will have the original graduation date printed on their diploma, but only after all tuition and fees are paid.

## Dean's Honor Roll

The Department of International and Area Studies Honor Roll is compiled at the close of each fall and spring semester. It includes students who
have completed at least 12 grade point hours and have earned an average of 3.50 or higher for the semester.
Students enrolled part-time for both the fall and spring semesters of an academic year will be included on the spring semester honor roll, provided that a 3.50 or better is earned for each semester on a minimum of six semester grade point hours with no withdrawals for either semester. There is no honor roll during the summer session or during intersession, and grades earned during these sessions are not included in determining eligibility for inclusion on regular semester honor rolls.

## Double Majors

Students may earn two majors between the Department of International and Area Studies and another college at the University as part of a single degree, if they adhere to the following:

- Both majors may not be in the Department of International and Area Studies.
- One major must be in the Department of International and Area Studies, and the other major must be in a different college on OU Norman Campus.
- Both majors must be completed concurrently prior to graduation and must be awarded concurrently in the the same semester.
- The degree will be awarded when requirements for both majors are completed.
- Only one degree will be awarded, but the transcript will indicate both majors.
- Courses used to fulfill one of the majors or a minor may not be used toward either major.
- All general education, college, major, and major support requirements of both majors must be completed.
- The student will be awarded the degree (diploma) for the degree of their choice listed as their "primary" major.


## Concurrent Dual Degrees

Students may earn two degrees between the Department of International and Area Studies and another college on campus, if they adhere to the following:

- Both degrees may not be in the Department of International and Area Studies.
- One degree must be in the Department of International and Area Studies, and the other degree must be in a different college on OU Norman Campus.
- At least 30 additional credit hours, 15 of which must be upper-division level, must be completed, in addition to the minimum hours required for one degree. Example: most dual degrees will require a minimum of 150 hours with 63 upper-division hours.
- Both degrees must be completed concurrently prior to graduation and must be awarded concurrently in the same semester.
- The degrees will be awarded when requirements for both majors are completed.
- Two degrees will be awarded, and the transcript will indicate both majors.
- Courses used to fulfill one of the majors or a minor may not be used toward either major.
- All general education, college, major, and major support requirements of both degrees must be completed.
- The student will be awarded the diploma for each degree.

For more information, please contact the Advising offices of the Department of International and Area Studies.

## Additional Bachelor's Degrees

Additional bachelor's degrees may be earned from the Department of International and Area Studies by satisfying specific requirements beyond those required for a first degree from the department. Students may earn two degrees concurrently, or students holding a bachelor's degree from another college within the University or from another institution may qualify for an additional (consecutive) degree. To earn an additional bachelor's degree from the Department of International and Area Studies, a student must:

- Choose a major different from that of the prior degree(s). A student may not earn two degrees within the Department of International and Area Studies or a similar degree program.
- Be accepted to pursue an additional bachelor's degree by the College of International Studies through a petition process.
- Satisfy all current requirements of the additional degree program.
- Earn a minimum of 30 credit hours in International and Area Studies courses not applied toward a previous degree, 15 of which must be upper-division.
- Earn a minimum 2.00 average on all work attempted for the additional degree, along with any specific grade point average requirements for the chosen major (including a 2.5 major grade point average for the International and Area Studies degree).
- Meet the required residency regulations for the second degree.


## Graduate Study

Refer to the Graduate tab on the Department of International and Area Studies (p. 1628) of this catalog for information concerning graduate programs.

## Opportunities

## Scholarships and Financial Aid

In addition to general scholarships offered through the University of Oklahoma, the David L. Boren College of International Studies offers several scholarships sponsored by alumni and friends. IAS scholarships include:

- Admiral William J. Crowe, Jr. Award
- Ambassador Edward J. Perkins Scholarship
- Student Support Grants and Emergency Relief Fund
- St. Elijah's and Anthony Shadid Award
- Board of Visitors Scholarship
- Latin American Studies Best Paper Contest
- Parsa Scholarship for Iranian Studies
- Boren Scholars and Fellows Program (NSEP)
- Additional undergraduate and graduate level scholarships and awards

The Admiral William J. Crowe, Jr. Award is awarded annually to the most outstanding graduating senior in the Department of International and Area Studies. The Award recognizes an IAS student that has demonstrated high academic achievement, a commitment to public service and a desire to pursue a career in global affairs. The recipient receives a cash award and recognition at the IAS convocation.

Visit the International and Area Studies website for more information on the scholarships above and for application details.

## Student Life and Careers

The University of Oklahoma has a wide range of student organizations that may be of interest to College of International Studies students.

## Phi Beta Delta

Phi Beta Delta is an association that aims to recognize scholarly achievement in international education. Membership is open to all who qualify as an OU upper-classman or graduate student.

## Model United Nations

Model United Nations imitates the work of the UN and aims to gain a deeper understanding of the work they do in the world. One of MUN'S main tasks is to analyze the work that the UN does and try to simulate innovative ways such a large organization could become even more effective. MUN meets once a week on Mondays and hosts special events throughout the year. Each year, the group travles to their annual Midwest MUN Conference in St. Louis, Missouri, where they participate in debates and mock crisis-solving for three days with delegates from other universities. Model UN is open to all students, regardless of major or experience.

## Fulbright

Sponsored by the US Department of State's Bureau of Educational and Cultural Affairs, the Fulbright U.S. Student Program offers fellowships abroad for one academic year to graduating college seniors, graduate students, young professionals, scientists and artists. Program participants pursue graduate or professional study, advanced research, or English teaching in elementary and secondary schools or universities. Each year, approximately 1,600 Americans traveling to more than 140 countries receive support from the Fulbright U.S. Student Program.

## Peace Corps Prep Program

The Peace Corps Prep Program (PC Prep) at the University of Oklahoma prepares students for service as a Peace Corps volunteer. Qualified undergraduate students can apply to take part in the program, which equips students in four areas: intercultural competence, sector-specific skills, language development, and professionalism and leadership. After completing the program, students receive a certificate from the Peace Corps. While completion of the program does not guarantee that applicants are selected for service, it makes students much more competitive applicants for Peace Corps volunteer positions. The program is open to all undergraduate students at the University of Oklahoma.

## Internships

Internship experience can make a very valuable contribution to a student's educational development, and students in the College of International Studies are strongly encouraged to take advantage of these opportunities when they become available. Under certain conditions, it is possible to earn academic credit for an internship in the Department of International and Area Studies.

## Department of International and Area Studies

Jonathan Stalling, Interim Dean
Farzaneh Hall, Room 305
729 Elm Avenue
Norman, OK 73019-2105
Phone: (405) 325-1584

FAX: (405) 325-7738
cis@ou.edu
www.ou.edu/cis/ias

## General Information

The Department of International and Area Studies (IAS) works with colleges and departments across campus to promote internationalization of the curriculum of the University of Oklahoma and to train students to succeed in an increasingly interdependent world. At the center of the department's academic programs are the B.A. in International and Area Studies and the M.A. in International Studies. The goal of these degrees is to prepare students to take positions of leadership in fields such as international affairs, international business, and international nonprofit services. In addition to a core faculty appointed within IAS, some faculty are jointly appointed in IAS and another academic department. In addition, more than 100 faculty across campus are involved as affiliate faculty of IAS

Students take a wide range of courses drawing from the Department of International and Area Studies; the departments of Anthropology, Communication, Economics, History, History of Science, Film and Media Studies, Modern Languages, Literatures, and Linguistics, Philosophy, Political Science, Religious Studies, Sociology, Women's \& Gender Studies (Dodge College of Arts and Sciences); Art History, Music History (Weitzenhoffer Family College of Fine Arts); Geography (College of Atmospheric and Geographic Sciences); Architecture (Gibbs College of Architecture), among others.

## Careers

The Department of International and Area Studies provides the first stage for students interested in foreign service, international relations, business, law, research, teaching, public service, or any other career where international knowledge and experience is useful and desirable.

## Student Organizations

## Phi Beta Kappa

Phi Beta Kappa, the nation's oldest college honor society, was founded at the College of William and Mary in 1776. Alpha Chapter of the University of Oklahoma was chartered in 1920. Membership in Phi Beta Kappa is open by invitation only to seniors in the Department of International and Area Studies, the College of Arts and Sciences, Gaylord College of Journalism, and a limited number of other programs. Seniors with distinguished academic records are elected in March/April of each year. Students who graduate at the end of the summer session or fall semester are eligible for election the following spring. For additional information about the University's Phi Beta Kappa chapter, contact the Department of International and Area Studies academic counselor, or visit the Phi Beta Kappa website.

## Phi Beta Delta

Phi Beta Delta is an honor society which serves to recognize and encourage high achievements in the field of International Education. It encourages interdisciplinary contacts and promotes the exchange of ideas in the area of international affairs among students, faculty, and staff of the university community, and between it and other academic institutions. Membership is open to all students and faculty whose study includes an international focus. For more information, visit the department's website.

## Undergraduate Study

## Bachelors of Arts Degrees

International and Area Studies offers Bachelor of Arts degrees with majors in Asian Studies, European Studies, Global Energy, Environment and Resources, International Development, International Studies, International Security Studies, Latin American Studies, and Middle Eastern Studies.

## Asian Studies

Asian Studies (p. 1641) challenges students to integrate language and cultural skills to prepare for careers in the Pacific region. The objectives of the program are to provide an understanding of the fundamentals of the civilizations of Asia in both traditional and modern settings, and to provide a more in-depth comprehension of specific areas within the region. This major features courses from such departments as Anthropology, Art, Communication, Geography, History, Philosophy, Political Science, Sociology, Modern Languages, Literatures and Linguistics, and the Department of International and Area Studies. Students will obtain an educational foundation appropriate for teaching, business, research, foreign service, technological and economic development, as well as other careers related to Asia.

## European Studies

European Studies (p. 1644) immerses students in European history and culture. The course of study includes literature, art, and geography, as well as the politics and economics of the region. The scope of the program includes western, central and Mediterranean Europe since approximately 1500 . European Studies graduates will be capable of functioning in at least one European country in which a language other than English is spoken, and they will be able to read materials in the language of that country.

## European Studies: Russian \& East European Studies

Russian \& East European Studies (p. 1646) is a special concentration within the European Studies major. It allows students to specialize in the study of Russia and its neighboring countries in Eastern Europe and Eurasia in preparation for careers in teaching, research, business, government or foreign service. The program provides a broad and multidisciplinary introduction to the larger region, with course offerings in languages, literature, political science, history, economics, geography, music, and film.

## Global Energy, Environment, and Resources

Global Energy, Environment, and Resources (p. 1649) students receive training that emphasizes policy, management, and sustainability in an international context. This major provides students with the skills they need to succeed in an international field with growing employment opportunities.

## International Development

The International Development major equips students with a comprehensive set of skills enabling them to analyze and understand socioeconomic issues in developing countries. Students will take courses in development economics and political economy as well as courses that examine development from historical, cultural, and social perspectives. Students will be strongly encouraged to make an internship with a development agency part of their international experience.

## International Security Studies

International Security Studies (p. 1655) is designed for the student looking for a career in the fields of foreign policy or national security. The program allows students to develop proficiency in any language
recognized to be a critical security language, as well as the culture where that language is spoken. Specialized classes help students to understand international organizations and the global issues that affect security around the world. This degree prepares students for careers with US federal and state agencies, international organizations and companies in the private sector that operate in critical regions of the world.

## International Studies

The International Studies (p. 1658) major allows students to gain a global perspective on world affairs. Through an interdisciplinary curriculum that focuses on world history, international relations and international economics, students learn how the international system operates and prepare themselves for careers in foreign affairs or international business, for advanced training in international law or business. Like the area studies programs, the international studies program requires strong understanding of a foreign language and a period of study or work abroad. Students may also combine International Studies with a minor in one of the Area Studies programs.

## Latin American Studies

Latin American Studies (p. 1662) provides a concentration in the region's history and culture. The course of study features Latin America's economic, geographic, social and political patterns as well as its problems. With a population nearing half a billion people, Latin America has traditionally been, and is now more than ever, a critical area for the United States. Students will examine the historical ties between the two regions in relation to the commonality of cultures and objectives that are becoming increasingly stronger as interdependence grows. Students majoring in Latin American Area Studies will choose their language specialization and begin studying the Spanish and/or Portuguese language as early as their freshman year.

## Middle Eastern Studies

Middle Eastern Studies (p. 1665) allows students to combine their study of either Arabic or Hebrew with courses in the history, religions and cultures of the Middle East from Ancient to modern Times. This program will provide the student with a basic understanding of the peoples and history of this diverse and culturally-rich region of the world and a firm foundation for further study. The cultural and language proficiency achieved will also serve as excellent preparation for a variety of job opportunities in teaching, business, government or foreign service.

## International Studies Undergraduate Certificate

## Global Engagement

The Global Engagement undergraduate certificate (p. 1676) is designed to enhance students' knowledge of the global community, including international affairs and modern global issues, as well as encourage them to become active global citizens.

## BA/MA Accelerated Degree

The International Studies, Bachelor of Arts/ Global Studies, Master of Arts (p. 1676) is an accelerated program designed for exceptional students to earn both the BA and MA in International Studies in 5 years of study.

## Minors

International and Area Studies also offers Minors in most major fields, as well as a minor in African Studies and Iranian Studies. An attractive advantage of an International and Area Studies minor is that it can allow a student in any major to earn a minor while completing General Education requirements. Many of the courses required for an IAS Minor are approved for certain general education credits, thus, students can fulfill General Education requirements and earn credit for a minor
simultaneously. Students currently majoring in an area of International and Area Studies may also minor in a different area of International and Area Studies with approval of the department.

- African Studies Minor (p. 1667)
- Asian Studies Minor (p. 1669)
- European Studies Minor (p. 1670)
- Global Energy, Environment and Resources Minor (p. 1671)
- International Development Minor (p. 1671)
- International Security Studies Minor (p. 1672)
- International Studies Minor (p. 1673)
- Iranian Studies Minor (p. 1673)
- Latin American Studies Minor (p. 1674)
- Middle Eastern Studies Minor (p. 1675)
- Russian and East European Minor (p. 1675)


## Graduate Study

## Master of Arts Degrees

The Global Studies, Master of Arts (p. 1682) equips students with the tools to engage a globally integrated environment, whether in the realm of diplomacy and Foreign Service, non-profit and non-governmental organizations, think-tanks, research institutes, or academia. With a focus on international politics, foreign policy, and policy analysis, the program also provides a rigorous foundation in global economics, global security, law and institutions, and area studies, and allows students to concentration their coursework in one of these four sub-fields. The Global Studies program emphasizes a "cohort model", whereby students admitted the same year take many of the same classes together, participating in various group activities, projects, and assignments, most notably culminating in the Global Policy Workshop in the final semester.

The Global Affairs, Master of Arts (p. 1680) enables students to pursue studies with a focus on the political, economic and social interactions that have an impact on global turbulence. The program's coursework is designed to provide students with a global vision from a variety of disciplinary perspectives. Additionally, students will develop expertise in one or more geographic areas of the globe. The program will provide valuable and practical experience through a planned policy exercise and collective study abroad program. Students will increase their knowledge of global affairs, enhance their ability to operate in a dynamic global environment and expand their global connections, contributing to professional success.

## Courses

IAS 1223 Introduction to Asian Philosophy
3 Credit Hours
(Crosslisted with PHIL 1223) Survey of the major figures and schools of philosophy in Asia. Includes study of Hinduism, Buddhism, Confucianism, and Daoism. (Irreg.) [IV-WDC].
IAS 1533 Global Perspectives
3 Credit Hours
This course promotes an intercultural awareness that will allow students to interact more effectively with others. It will teach core cultural fluency competencies, including an understanding of different cultural norms and practices, cross-cultural communication, as well as critical thinking and problem-solving, drawing upon diverse experiences and perspectives. ( $F$ Sp, Su) [V-FYE].

## IAS 2003 Understanding the Global Community 3 Credit Hours

The world today is an interdependent global community that requires an awareness of international politics and economics. This course seeks to enhance our understanding of the global community because of the impact of international relations on our lives and the lives of others around the world. (F, Sp) [III-SS] .

IAS 2123 China Today
3 Credit Hours
China has the largest population and standing army in the world with a GDP of over \$7 trillion. Long-term economic development of every country depends on China, and China's rapid modernization is changing the face of global politics and culture. Students will be exposed to the diversity and complexity of modern China. (F, Sp) [IV-WDC].

IAS 2133 International Sports
3 Credit Hours
This course examines the social, political, economic, and cultural effects of sports on the global stage. In addition to surveying the history of international sport, it analyzes the relationship between sports and national identity, economic development, and global governance, among other topics, by drawing on cases from Asia, Africa, and Latin America. (Irreg.) [IV-WC].

## IAS 2970 Special Topics/Seminar

1-3 Credit Hours
Special Topics. 1 to 3 hours. May be repeated; Maximum credit nine hours. Special topics course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research, and field projects. (Irreg.)

## IAS 3000 Special Topics in International and Area

Studies
1-4 Credit Hours
Prerequisite: junior standing or permission of instructor. May be repeated with change of content; maximum credit 12 hours. Special topics are courses of variable credit that examine international or global issues. (Irreg.)

IAS 3003 Topics in International and Area Studies 3 Credit Hours Prerequisite: ENGL 1213 or EXPO 1213; May be repeated with change of content; maximum credit 15 hours. A maximum of 12 hours may be applied to the major. An examination of several selected topics in international and area studies. (Irreg.)

IAS 3013 International Law
3 Credit Hours
Prerequisite: ENGL 1213 or EXPO 1213. Examines international law. Broad issues include the different sources of international law, the relationship between international law and states, individuals and other international actors, the content of international law as it pertains to different issues areas, and how these bodies of law generally affect international relations. (Irreg.) [IV-WC] .

IAS 3033 International Human Rights
3 Credit Hours
Prerequisite: ENGL 1213 or EXPO 1213. Examines the increasingly complex body of substantive law and political practices related to the protection and promotion of human rights and fundamental freedoms in international law and politics. Explores major international and regional systems of enforcement, and the growing role of human rights in domestic politics and international relations. (Irreg.)

IAS 3043 Global Security
3 Credit Hours
Prerequisite: ENGL 1213 or EXPO 1213. Examines some of the major security challenges confronting the United States and the international community in the 21 st century, and how these challenges differ from our expectations of conflict -- major, minor, inter-state, and intra-state -- in recent decades. (Irreg.) [IV-WC].

## IAS 3053 Globalization: The Politics of Global Governance 3 Credit Hours

Prerequisite: ENGL 1213 or EXPO 1213. This course covers the actors, institutions and processes by which international cooperation and coordination are created and maintained. It emphasizes major themes including power and authority, change in institutions over time, and roles for public and private actors. Students apply theoretical and thematic knowledge to key issues like humanitarian intervention, cybersecurity, the global economy and the environment. (Irreg.) [IV-WC].
IAS 3073 Global Economic Relations 3 Credit Hours Prerequisite: ENGL 1213 or EXPO 1213; ECON 1113 or ECON 1123 recommended but not required. Examines relations among states from the perspective of economic competition and cooperation. Explores political conflicts that have risen over trade, capital flows, and other international economic exchanges. The primary focus is on the role of states and international organizations in shaping the global economy. (Irreg.) [III-SS] .

## IAS 3083 International Activism 3 Credit Hours

Prerequisite: ENGL 1213 or EXPO 1213. Examines the role that nongovernmental actors play in international relations as they work independently and in concert to advocate for various transnational causes. Specifically, explores the concept of transnational advocacy and the ways in which individual and group activists affect change around the world. (Irreg.) [IV-WC].
IAS 3093 Global Health Perspectives
3 Credit Hours
Prerequisite: Junior standing or permission of instructor. This course provides an anthropological approach to global health. It examines how health conditions change over time as economic and social culture changes. Students will meet with health professionals and researchers in the field of health and nutrition and explore how health care is intertwined with cultural and social elements, such as the environment, the economy, religion, politics and development. (Irreg.)
IAS 3103 Activism, Art \& Leadership 3 Credit Hours Prerequisite: Departmental permission. This course is taught on-site in Arezzo, Italy, and is for President's Leadership Class students only. This course examines the leadership role that governmental actors and individual activists play in international relations and various other sectors as they work independently and collectively to advocate for certain local, regional, national and transnational causes. Specifically, the class explores the concept of international advocacy and the ways in which individual and group activists frame and promote issues of concern in an effort to affect change around the world. The goal of this course is to raise our awareness about and enhance our understanding of the multitude of actors - from individual political leaders, to nongovernmental organizations, to artists - that work to address issues of concern. (Irreg).

## IAS 3123 Arab Visual Cultures <br> 3 Credit Hours

Prerequisite: ENGL 1213 or EXPO 1213. This course introduces students to the visual cultures that shape the Arab World, ranging from traditional Islamic calligraphy to contemporary forms of visual media, including film, political cartoons, comics, fashion, art, and social media. Students will examine how visual culture shapes and reflects Arab identities, values, and experiences, and how it challenges dominant narratives, amplifies under-represented voices, and drives change. (Irreg.) [IV-WDC] .

IAS 3143 Chinese Politics
3 Credit Hours
Prerequisite: ENGL 1213 or EXPO 1213. This course provides a systematic investigation into how the political system works in contemporary China. Specifically, it will examine how the Chinese state structures and adjusts the country's political system, governs the Chinese society, performs the fundamental functions of a modern state, coordinates interests, builds system resilience, and manages political developments at home and abroad in the 21 st century. (Irreg.) [IV-WDC] .
IAS 3153 Chinese Foreign Policy
3 Credit Hours
Prerequisite: junior standing or permission of instructor. Provides a comprehensive introduction to Chinese foreign policy. Examines several key issues and concepts, including China's external relations prior to "Liberation" in 1949, international relations theory, the history of the PRC's foreign relations, and vital foreign policy issues confronting China in the 21 st century. (Irreg.)
IAS 3173 Work, Family, and Religion in Rural China 3 Credit Hours Prerequisite: ENGL 1213 or EXPO 1213. Examines changes over the last century in work patterns, family life, and religion in rural China. It particularly focuses on issues causing instability and transformation both in China and the developing world, including sexuality, gender, and family dynamics; the rural-urban divide; internal migration; religious conflict and repression; and the agency of marginalized populations. (Irreg.) [IV-WDC].
IAS 3193 Environment and Disease Crises in China 3 Credit Hours
Prerequisite: ENGL 1213 or EXPO 1213. Explores the intertwined relationship of environment, agriculture, economic development, pollution, disease, patriotism, domestic security, and international conflict in China and how it deals with environmental issues and disease crises. Of particular concern are China's devastating water shortage that threatens to leave much of northern China without water in the next twenty years, major epidemics, and China's aging, rural population. (Irreg.) [IV-WDC].
IAS 3203 The Middle East Since World War I 3 Credit Hours Prerequisite: ENGL 1213 or EXPO 1213. Examines major religions and ethnic groups of the Middle East; also explores how the largest ethnic groups have decided to define their national identities: Arabs, Jews, Turks, Iranians and Kurds. Topics include the Arab-Israeli conflict and possibilities of peace, and the Gulf regions where Iran, Saudi Arabia and Iraq have fought for supremacy and control of oil and the Gulf. (Irreg.) [IVWDC].
IAS 3223 Modern Iran: Islam \& Revolution
3 Credit Hours
Prerequisite: ENGL 1213 or EXPO 1213. Surveys the history of Iran from the 16th century to the present. Topics include the rise of the Safavid dynasty in the sixteenth century, the establishment of Shi'ism, reform in the nineteenth century, great power politics, Western cultural and intellectual influence, nationalism, the Islamic revolution of 1979, and Iran since the revolution. (Irreg.) [IV-WDC].
IAS 3233 Nationalism and the Middle East
3 Credit Hours
Prerequisite: ENGL 1213 or EXPO 1213. Survey of the history of the Middle East from 1800 to the present. Analyzes the origins of politics of national identity in the region as a result of transformations rooted in the nineteenth century, its rise to dominance as a form of politics and ideology during the twentieth century, as well as countervailing trends that today challenge its continued dominance. (Irreg.) [IV-WDC].

IAS 3273 The European Union
Prerequisite: ENGL 1213 or EXPO 1213. Is EU an economic superpower? Can the EU reach the objective of rivaling the U.S. diplomatically shared by many political leaders in Europe? This course will help students understand contemporary debates about the nature of the European Union, its place in the world, and its current economic and political challenges. (Irreg.)

IAS 3283 Culture, Power, and Global Environment 3 Credit Hours Prerequisite: Junior standing or permission of instructor. This course surveys some of the diverse ways in which human populations adapt to, understand, and transform their environments. It explores how social and cultural differences within and among human populations complicate efforts to address the myriad environmental problems we face - from neighborhoods struggling with contaminated soil, to regional ecosystem restoration and wildlife management, to transnational climate-change mitigation efforts. (Irreg.) [IV-WDC]

IAS 3303 National Security Policy
3 Credit Hours
Prerequisite: ENGL 1213 or EXPO 1213. This course provides students with an interdisciplinary overview of issues in U.S. national security. It introduces students to the various national security agencies, bureaucracies, advisors, and organizations to understand their respective origins and evolutions. Students will analyze in-depth historical case studies of consequential geopolitical events to see the national security in action and its implications for contemporary U.S. policy. (Irreg.)

IAS 3313 Latin American International Relations 3 Credit Hours Prerequisite: ENGL 1213 or EXPO 1213. Examines international relations of Latin America in an interdisciplinary fashion. International relations is broadly defined in this course, and includes economic and cultural aspects as well. (Irreg.) [IV-WC] .

IAS 3323 The Political Economy of Development 3 Credit Hours Prerequisite: ENGL 1213 or EXPO 1213. Examines the relationship between politics and economics in less developed countries. Reviews the history of economic theories of development and also examines the economic effects of inward looking trade policies and political stability in Latin America and India, as well as the political economy of recent reforms in both areas. (Irreg.)

IAS 3343 Chinese Philosophy
3 Credit Hours
(Crosslisted with PHIL 3343) Prerequisite: six hours of philosophy or junior standing. Survey and analysis of the major texts and schools of philosophy in China, from the ancient world to the contemporary era. (Irreg.) [IV-WDC]

IAS 3353 Modern Brazil
3 Credit Hours
Prerequisite: ENGL 1213 or EXPO 1213. Introduction to contemporary Brazilian history and culture. Broad overview of Brazil's colonia history and emergence as a modern nation, and an exploration of the country's incredible cultural and regional diversity, as well as some of the challenges it currently faces. Course material includes exploration of indigenous realities, the rural landless movement, poverty and crime, gender, family, race, contemporary religion, etc. (Irreg.) [IV-WC].

## IAS 3383 The United Nations \& World Politics <br> 3 Credit Hours

Prerequisite: ENGL 1213 or EXPO 1213. The focus of this course will be on understanding the roles played by the UN and related intergovernmental organizations in world politics pertaining to four broad issue areas: international peace and security, human rights and humanitarian affairs, the global environment, and global trade and development. (Irreg.) [IV-WC].

3393 Iranian Society through Cinema
3 Credit Hours
Prerequisite: ENGL 1213 or EXPO 1213. This course attempts to understand Iranian society and culture through the lens of Iran's postrevolutionary cinema. In moving beyond stereotypical images presented by mass media, modern Iranian cinema provides a medium to study issues such as religion, gender, class, and politics of Iran today. (Irreg) (Irreg.) [IV-WDC]

IAS 3403 US-Iranian Relations: History, Politics, and the Road to Confrontation

3 Credit Hours
Prerequisite: ENGL 1213 or EXPO 1213. Since the revolution of 1979, Iran and the United States have been engaged in a political, diplomatic, and ideological "cold war". This course is designed to place the recent politics of US - Iranian relations within a larger historical narrative of US-Iranian contact, cooperation, and conflict. (Irreg.)

IAS 3413 Iran and Islam in Global History 3 Credit Hours
Prerequisite: ENGL 1213 or EXPO 1213. Surveys the role of Iran within Middle Eastern history, culture, and society from antiquity to eve of modern period. Topics include: Iranian empires in ancient period, history of Zoroastrianism, advent of Islam and Arab conquest of Iran; emergence of Persian literary tradition in Islamic culture; emergence of the TurkoPersian Safavid state in 16th century and formation of Shi'ite-Iranian culture. (lrreg.) [IV-WDC].
IAS 3423 Middle East Through Film
3 Credit Hours
Prerequisite: ENGL 1213 or EXPO 1213. This course provides a survey of Middle Eastern history and politics through film. Emphasis will be on how the history and politics of the Middle East has been portrayed through the medium of cinema, with special focus on cultural representation and the role of film in determining contested historical and political understandings of the region. (Irreg.) [IV-WDC].

IAS 3433 International Relations in the Middle East 3 Credit Hours Prerequisite: ENGL 1213 or EXPO 1213. Examines the major wars of the region from the First World War and ending with the US invasion of Iraq. Covers the Arab-Israeli conflict, the cold war, and the contest for control of the Persian gulf and oil markets. Investigates the role of the great powers and the major Middle Eastern states in shaping international relations in the region. (Irreg.) [IV-WDC] .

IAS 3440 Mentored Research Experience
3 Credit Hours
0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)

IAS 3443 Political Islam 3 Credit Hours Prerequisite: ENGL 1213 or EXPO 1213. Examines the Muslim brotherhood since its founding in 1928, its radicalization under Sayyid Qutb, and the many groups that look to it for inspiration. Covers Al-Qaida, Hizbullah, and Hamas, the tensions between Shiites and Sunnis, and how some Middle Eastern countries have dealt with the growth of radical Islamic groups. (Irreg.) [IV-WDC].

IAS 3473 The Arab-Israeli Conflict
3 Credit Hours
Prerequisite: ENGL 1213 or EXPO 1213. A survey of the history of the conflict around Eretz Israel/Palestine, with the aim of providing a better understanding of its roots and recent developments. The course looks at both sides of the conflict at various moments throughout its history and will present two very different historical narratives: the Israeli/Jewish and the Palestinian/Arab. (Irreg.)

## IAS 3503 The United States and the Middle East: 1945-

## Present

3 Credit Hours
Prerequisite: ENGL 1213 or EXPO 1213. This course is an introduction to the historical and contemporary relationship between the United States and the Middle East from the nineteenth century until the present, with a concentration on the period since 1945. The course will focus on the political and economic aspects of US-Middle East relations but will also consider the cultural and social dimensions of this interaction. (Irreg.)
IAS 3523 Women and Gender in South Asia
3 Credit Hours
Prerequisite: junior standing or permission of instructor. Considers how women/gender have been thought from 19th century articulation of "The Women's Question" and Women's Reform to present day rethinking of state based rights strategies and normative gender constructions in the Indian Subcontinent. Scholarly articles, primary sources, fiction, and film interrogate questions about women's place in society, women and the state, gendering work, and women's lives in South Asia. (Irreg.) [IV-WDC].

IAS 3533 Political Violence in Comparative Perspective 3 Credit Hours Prerequisite: ENGL 1213 or EXPO 1213. This course examines the major topics within the study of political violence, including civil war, terrorism, genocide, organized criminal violence, and electoral violence. It focuses on the diverse drivers of violence as well as its social, political, and economic consequences for individuals and communities within North and South America, Europe, Sub-Saharan Africa, the Middle East, and Southeast Asia. (Irreg.)

IAS 3543 International Peacebuilding 3 Credit Hours Prerequisite: ENGL 1213 or EXPO 1213. This course examines how countries put an end to war and the role of international actors in this process. It also analyzes the pursuit of justice and accountability following conflict and human rights violations and efforts to achieve sustainable peace and stability in the longer-term, with particular emphasis on social and economic development, statebuilding, political inclusion, and democratization. (Irreg.)

## IAS 3583 Managing US-China Relations

3 Credit Hours
Prerequisite: ENGL 1213 or EXPO 1213. Provides comprehensive and systematic assessment of the bilateral relationship between a rising power aiming to return to its historical prestige and a currently dominant power searching to augment its over-stretched power resources. Indepth examination of the historical context of how the two countries have engaged with each other at the global, regional, and bilateral levels primarily since 1949. (Irreg.) [IV-WDC].

## IAS 3603 Energy, Environment \& Climate Change in China <br> 3 Credit Hours

Prerequisite: ENGL 1213 or EXPO 1213. Examines how China confronts the challenges of energy security, environmental pollution, and climate change. It explores not only how the country addresses each of the three challenges individually, but also identifies areas where policy coordination can be enhanced so as to promote a holistic approach to three interconnected challenges simultaneously. (Irreg.) [IV-WDC].

## IAS 3643 Illicit Trafficking

3 Credit Hours
Prerequisite: ENGL 1213 or EXPO 1213. Focuses on some of today's most troubling security issues - the persistent and growing problems associated with the trafficking and smuggling of drugs, money, humans, guns, and commodities of all sorts. Closely examines the issue of trafficking in a global context, providing case studies of trafficking in women, illegal workers, drugs, weapons, and even butterflies. (Irreg.)

IAS 3653 Energy, Climate, and Security
3 Credit Hours
Prerequisite: ENGL 1213 or EXPO 1213. This course provides a systematic treatment of how energy and climate change intersect with growth, development, security, and the trajectory of human civilization. It examines the politics of energy from a variety of perspectives; explores the causes and efforts to address climate change, and looks at ways forward for the transition beyond fossil fuels. (Irreg.)
IAS 3663 Comparative Politics of the Middle East 3 Credit Hours Prerequisite: ENGL or EXPO 1213. This course examines major themes in Middle East and North African politics (MENA). Topics and themes to be discussed include: states and state formation in the Middle East; the persistence and dynamics of authoritarianism; political liberalization and democratization; civil society; nationalism and identity; oil wealth; Islam and politics; the 2011 Arab uprisings. (Irreg.)
IAS 3683 Poverty and Inequality in the Middle East 3 Credit Hours Prerequisite: ENGL 1213 or EXPO 1213. An introduction to poverty and inequality in the Middle East which will give students an overview of how poverty has been defined, represented and contested in international development discourse. The course will examine causes of economic underdevelopment, inequality and poverty, including regional politics, urbanization and the Middle East's legacy of colonialism. (Irreg.)
IAS 3693 Military, State \& Society
3 Credit Hours
Prerequisite: ENGL 1213 or EXPO 1213. This course is concerned with some of the key problems and puzzles of civil-military relations such as military intervention in politics and the role militaries play in social revolutions. This course will examine different political contexts across the world, including the U.S., Europe, Latin America, China/Asia, Africa and the Middle East. (Irreg.)
IAS 3703 South Asian Security
3 Credit Hours
Prerequisite: Junior standing or permission of instructor. This course introduces students to security and conflict in South Asia. South Asian security has significant ramifications for global order and security. Topics covered include Hindu nationalism in India, military domination in Pakistan, India's economic ascendance, the Kashmir conflict, nuclear deterrence, terrorism \& counterterrorism, the rise of the Taliban in Afghanistan, and the China-Pakistan axis. (Irreg.)
IAS 3723 Sexuality \& Identity in the Islamic World 3 Credit Hours Prerequisite: Junior standing or permission of instructor. This course explores expressions of sexuality and sexual identity across a broad range of time and throughout a variety of Muslim-majority regions in the Middle East, Africa, and South Asia. (Irreg.) [IV-WDC].

IAS 3742 Model UN

## 2 Credit Hours

Prerequisite: Junior standing or permission of instructor. Provides students with a fundamental understanding of the institutions and activities of the United Nations. Issues of current interest in the UN will also be discussed. Students will acquire skills to not only prepare them to participate in a Model United Nations conference, but also prepare them to develop, implement and manage such a conference. (Irreg.)

IAS 3743 The Politics of the International System 3 Credit Hours Prerequisite: ENGL 1213 or EXPO 1213. This course introduces students to the international system. This interconnected set of institutions establishes the rules of the game for world politics, and shapes world order. The course takes a hands-on approach, providing students the chance to study historical variants of international systems, as well as the opportunity to study the origins and evolution of the current international system. (Irreg.)

AS 3753 Youth Culture in Contemporary Iran 3 Credit Hours
Prerequisite: ENGL 1213 or EXPO 1213. This course seeks to better understand strategies that Iran's third generation is deploying in order to navigate Iran's maze of structural constraints and opportunities. This course will also serve as an introduction to Iran's post-Revolution history, and examine how Iran's youngest citizens have engaged in this history. (Irreg.) [IV-WDC].

AS 3763 Women and Gender in the Middle East 3 Credit Hours Prerequisite: ENGL 1213 or EXPO 1213. Introduction to study of women and gender in contemporary Middle East. Examines how depictions of Muslim, Middle Eastern women and debates surrounding gender have shaped and been shaped by wider local and global forces over time. Topics include debates on women and gender in the Middle East; the rise of women's movements; and ways Muslim women conceptualize themselves. (lrreg.) [IV-WDC].

## IAS 3773 State \& Society in Pakistan

3 Credit Hours
Prerequisite: Junior standing or permission of instructor. Examine the history, politics, and important social issues of Pakistan. Drawing on materials from a variety of social science disciplines, topics of discussion will include: nation-state building, ethnic conflict, political Islam, terrorism, civil-military relations, democratization, civil society, and gender politics. (Irreg) [IV-WDC]

## AS 3783 US-Arab Cultural Encounters

3 Credit Hours
Prerequisite: ENGL 1213 or EXPO 1213. In this course, students will gain insight into complex Arab thoughts and perspectives of the United States with respect to issues such as the American dream, globalization, identity politics, cultural imperialism, democracy, human rights, and power dynamics. (Irreg.) [IV-WDC]

## IAS 3793 African Politics \& Society

3 Credit Hours
Prerequisite: ENGL 1213 or EXPO 1213. This course introduces students to the politics, history and social processes of sub-Saharan Africa, as well as the precolonial, colonial and postcolonial history of the continent. Other topics of discussion include contemporary issues, such as identity, customary authority, economics, violence, civil war, elections, democracy and authoritarianism. (Irreg.) [IV-WDC].

IAS 3803 International Cooperation \& Development 3 Credit Hours Prerequisite: ENGL 1213 or EXPO 1213. This course examines the fundamental idea of mobilizing global resources with the purpose of changing the realities of those countries that have been considered impoverished or less developed. The course opens the debate on what development means and what it has meant historically and in theory. It also presents the myriad of actors that participate in the international aid industry. (Irreg.) [IV-WDC].

## IAS 3810 Journey to Africa <br> 1-6 Credit Hours

1 to 6 hours. Prerequisite: sophomore standing and completion of ENGL 1213, or permission of instructor. May be repeated; maximum credit 12 hours. Journey to Africa is a summer study abroad program designed for OU students. Students will travel with an OU faculty member and other OU students throughout an African country or region, and learn about various cultural, historical, political, social, economic or linguistic issues relevant for an understanding of one or more African countries Academic instruction for this program takes place in English. (Su)

IAS 3813 Development Practice
3 Credit Hours
Prerequisite: ENGL 1213 or EXPO 1213. This course examines the knowledge and skills required by individuals who work for international organizations, bilateral agencies, private foundations, or nongovernmental organizations in the field of international development. Participants will familiarize themselves with the mission of those development actors, as well as with their main documents, procedures and working methods. (Irreg.)

IAS 3823 Technology \& War
3 Credit Hours
Prerequisite: ENGL 1213 or EXPO 1213. This course discusses the relationship between technology and war, the context in which different weapons develop, and how different war strategies have changed international politics. The development and effects of weapons including gunpowder, tanks, submarines, nuclear weapons, and drones is also considered. (Irreg.)

IAS 3833 Democratic Decline in Global Perspective 3 Credit Hours Prerequisite: ENGL 1213 or EXPO 1213. This course examines the theory and practice of how liberal democracies develop, live, and die. (Irreg.) [IVWC] .

IAS 3843 Latin American Independence 1750-1880 3 Credit Hours (Crosslisted with HIST 3843) Prerequisite: HIST 2613 or HIST 2623; junior standing, or permission of instructor. Covers history of Latin America from the crisis and dissolution of the Iberian empires through the consolidation of independent republics, a period bridging the colonial and modern periods in the region's history. (Irreg.)

IAS 3853 Russian Foreign Policy 3 Credit Hours
Prerequisite: ENGL 1213 or EXPO 1213. This course provides a broad overview of fundamental issues and relationships in Russian foreign policy. It examines the driving forces of Russian foreign policy and the tools that Russia has to influence international politics. Examples of major contemporary issues and vectors of Russian foreign policy will also be discussed. (Irreg.)

IAS 3863 Global Environment
3 Credit Hours
Prerequisite: ENGL 1213 or EXPO 1213. This course examines the relationship between space, power, and the environment. It explores the spatialities and multi-scalar dimensions of environmental policy, governance and politics, with a focus on dimensions of social and environmental justice. (Irreg.) [III-SS].

IAS 3873 Global Cybersecurity Issues
3 Credit Hours
Prerequisite: Junior standing or permission of instructor. This course introduces students to contemporary global cybersecurity challenges and to the policy tools available to cope with them. (Irreg.)

IAS 3883 Italy Through Italian Film 3 Credit Hours
Prerequisite: Junior standing or permission of instructor. This course offers a basic survey of the social, political and cultural history of Italy over the last 40 years through the screening and discussion of Italian films which are illustrative of Italy's main cultural and historical aspects. (F, Sp)

IAS 3893 Law \& Globalization
3 Credit Hours
Prerequisite: ENGL 1213 or EXPO 1213. This course will explore the origins and characteristics of globalization, the relationship between globalization and "the law", and will also look at more recent developments in globalization and speculate about what they mean for law and regulation. (Irreg.)

IAS 3910 International Studies Internship 2-3 Credit Hours
Prerequisite: 45 completed hours and a minimum of a 2.75 overall GPA. May be repeated; Maximum credit six hours. This course allows students to receive academic credit for internship work with an internationally oriented public or private organization. The award of academic credit for the internship requires an element of reflection, research, and writing about the work undertaken. This academic component can strongly enhance what is gained from the internship opportunity and improve a student's ability to articulate knowledgeably the requirements, benefits and lessons of work in the public or non-profit sector. ( $F, \mathrm{Sp}, \mathrm{Su}$ )

IAS 3913 The Practice of Diplomacy 3 Credit Hours
Prerequisite: ENGL 1213 or EXPO 1213. This course is designed to provide an understanding of how day-to-day diplomacy is conducted by the U.S. Department of State and other entities. The class will review the structure of the U.S. Department of State as well as a U.S. Embassy, major recent diplomatic challenges, and provide the case for renewal of American Diplomacy. (Irreg.)

IAS 3920 Journey to Italy 1-6 Credit Hours
1 to 6 hours. Prerequisite: sophomore standing and completion of ENGL 1213, or permission of instructor. May be repeated; maximum credit 12 hours. Journey to Italy is a program designed for OU students in collaboration with the University of Siena, an OU partner university in Arezzo. Students will travel with an OU faculty member and other OU students throughout Italy, and learn about various cultural, historical, political, social, economic or linguistic issues relevant for an understanding of contemporary Italy. Academic instruction for this program takes place in English. (Su)

## IAS 3923 World Happiness

3 Credit Hours
(Crosslisted with P SC 3923) Prerequisite: Junior standing or permission of instructor. This course explores and compares, in detail, the breadth and expression of global happiness philosophical concepts in the east and west leading to modern global and societal well-being measures and well-being policies in nations around the world. (Irreg.)
IAS 3930 Journey to China
1-6 Credit Hours
1 to 6 hours. Prerequisite: sophomore standing and completion of ENGL 1213, or permission of instructor; May be repeated; maximum credit 12 hours. Journey to China is a summer study abroad program designed for OU students, who will be hosted by OU partner universities in cities across China. Students will travel with an OU faculty member and other OU students throughout China, and learn about various cultural, historical, political, social, economic or linguistic issues relevant for an understanding of contemporary China. (Su)

## IAS 3933 Intelligence \& National Security

3 Credit Hours
Prerequisite: ENGL 1213 or EXPO 1213. This course provides a survey of the historical origins and continued development of US intelligence capabilities. Students will learn about intelligence processes, and the roles, missions, and structure of the organizations which comprise the US Intelligence Community. Other topics of discussion include ethical and moral issues associated with intelligence operations, foreign intelligence services, their targets, and operational successes and failures. (Irreg.)

IAS 3940 Journey to Latin America
1-6 Credit Hours
1 to 6 hours. Prerequisite: sophomore standing and completion of ENGL 1213, or permission of instructor. May be repeated; maximum credit 12 hours. Journey to Latin America is a summer study abroad program designed for OU students. Students will travel with an OU faculty member and other OU students throughout a Latin American country or region, and learn about various cultural, historical, political, social, economic or linguistic issues relevant for an understanding of one or more Latin American countries. Academic instruction for this program takes place in English. (Su)[IV-NW].
IAS 3943 Global Intelligence Challenges

## 3 Credit Hours

Prerequisite: ENGL 1213 or EXPO 1213. This course provides an overview of current and future global security challenges. Students will explore key, contemporary security issues in Europe, Asia, and the Middle East. Topics of discussion include transnational security issues, collective security/ alliances, inter-state conflict, ethnic conflict, WMD proliferation, nuclear strategy, deterrence, arms control, cyber security, and terrorism. (Irreg.)

## IAS 3960 Honors Reading

1-6 Credit Hours
1 to 6 hours. Prerequisite: admission to Honors Program, permission of instructor and junior standing. May be repeated once with change of content. Independent study in international and area studies for students enrolled in the Honors Program. Will consist of topics not usually presented in regular courses. (F, Sp, Su)

IAS 3963 US-Russia Relations
3 Credit Hours
Prerequisite: ENGL 1213 or EXPO 1213. An overview of US-Russia relations over the past 200 years with an emphasis on Cold War tensions and the contentious relationship since the "re-emergence" of Russia from the post-Soviet morass in the Putin era. Students will examine various attempts to "reset" the relationship under different Administrations and will explore potential areas of cooperation including space, climate change, and humanitarian assistance. (Irreg.)

IAS 3970 Honors Seminar

## 3-6 Credit Hours

3 to 6 hours. Prerequisite: admission to Honors Program. May be repeated once with change of content. Small group seminar on topics not covered by normal coursework. Restricted to students in the Honors Program. (Irreg.)
IAS 3973 Cultural Diplomacy
3 Credit Hours
Prerequisite: ENGL 1213 or EXPO 1213. Examines the role of cultural diplomacy in the process of diplomatic interaction. Areas of study include the European Union, the Middle East and East Asia; the Cold War and the role of cultural diplomacy in foreign policy of the Soviet Union and the US; Juxtapositions of cultural diplomacies and institutional organizations of
France, Great Britain, Germany, Russia and Canada. (Irreg.)

## IAS 3980 Honors Research

1-6 Credit Hours
1 to 6 hours. Prerequisite: admission to Honors Program, permission of instructor and junior standing. May be repeated once with change of content. Provide international and area studies students an opportunity to work on an international research project. (F, Sp, Su)

## IAS 3983 Anti-Muslim Racism

3 Credit Hours
Prerequisite: ENGL 1213 or EXPO 1213. This course will examine antiMuslim racism in the United States while simultaneously understanding anti-Muslim racism as a global project. We will further investigate how anti-Muslim racism is implicated in imperialist projects in the Middle East. Examining anti-Muslim sentiment through the lens of racism will show how both race and religion come together to inform present day structural inequality and violence. (Irreg.) [IV-WC].

AS 3990 Independent Study
1 to 6 hours. Prerequisite: permission of instructor and junior standing. May be repeated once with change of content. Independent study may be arranged to study a subject not available through regular course offerings. (F, Sp, Su)

IAS 3993 Global Communism
3 Credit Hours
Prerequisite: ENGL 1213 or EXPO 1213. This course introduces both theoretical bases and actual applications of Marxism and other forms of communism from the late 19th century to the present. After engaging the principles of Marxism through foundational texts, students study later adaptations of Marxism, including Maoism, and the manifestations of communist party rule from the Soviet Union to Southeast Asia to the Horn of Africa. (Irreg.)

## IAS 4013 Senior Capstone Seminar in International and Area Studies 3 Credit Hours

Prerequisite: international and area studies major, senior standing, and permission of the department. May be repeated with change of content; maximum credit 6 hours. Devoted to analysis, research, writing, and synthesizing on one of several selected interdisciplinary topics in international and area studies. (F, Sp) [V]

IAS 4343 Early Chinese Philosophy 3 Credit Hours
(Crosslisted with PHIL 4343) Prerequisite: Permission of the instructor. Survey of pre-Qin Chinese philosophy, including the major texts and figures of Confucianism, Daoism, and other notable schools. No student may earn credit for both 4343 and 5343. (Irreg.)

IAS 4513 Intellectuals \& Artists in Modern Latin America 3 Credit Hours (Crosslisted with HIST 4513) Prerequisites: History 2613 or 2623 or junior standing or permission of instructor. Examines both the history of ideas in modern Latin America as well as the history of intellectuals as a social group. We will consider intellectuals in the process of independence and the consolidation of nation states, the role of "race" in Latin American thought, and the relationship between European and Latin American thought. (Irreg.) [IV-WC].

## IAS 4523 Latin American Lef

3 Credit Hours
(Crosslisted with HIST 4523) Prerequisite: History 2613 or 2623 or junior standing or permission of instructor. This course examines the shifting political tactics and theoretical positions of a variety of leftist movements in Latin America since the early 20th century. We will exam leftist thought on the nature of Latin American development, approaches to commercial culture, and labor organizing, among other topics. (Irreg.) [IV-WC].

IAS 4533 Populism in 20th-Century South America 3 Credit Hours (Crosslisted with HIST 4533) Prerequisites: History 2613 or 2623 or junior standing or permission of instructor. This course will examine the phenomenon of Latin American "populism," a set of political movements that held a central place in 20th century Latin American history. We will focus on three cases as they relate to the broader economic and social processes in the region as a whole: Brazil; Argentina; and Chile. (Irreg.) [IV-WC].

## IAS 4543 Latin America in the Age of the Cuban

## Revolution <br> 3 Credit Hours

(Crosslisted with HIST 4543) Prerequisites: History 2613 or 2623 or junior standing or permission of instructor. This course is an in-depth examination of Latin American history of the period 1955-1973. We cover changes in politics, economics, literature, film, music, and theology in what many Latin Americans called the "revolutionary process" of the period. (Irreg.) [IV-WC].

AS 4813 Africa in Context
3 Credit Hours
(Slashlisted with IAS 5813) Prerequisite: Sophomore standing and ENGL 1213, or permission of instructor. Explores topics related to the historical analysis of Africa including cultural, economic, and development issues. Through a primary focus on Uganda, students will examine the lasting effects of conflict, the emergence of civic, religious and international groups and their related work, and gain a deeper appreciation of Ugandan culture and communities. No student may earn credit for both 4813 and 5813. (Su) [IV-WDC].

IAS 4960 Directed Readings 1-4 Credit Hours
1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean. May be repeated; maximum credit four hours. Designed for upper-division students who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)
IAS 4970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: Senior standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

IAS 4990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: Senior standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)

IAS 5003 U.S. Foreign Relations
3 Credit Hours
Prerequisite: graduate standing or permission of instructor. Examines current events and the historical and economic aspects of American foreign policy. Gives students an understanding of the main theories, actors, and debates in the field. (Irreg.)
IAS 5013 International Law
3 Credit Hours
Prerequisite: graduate standing or permission of instructor. Examines different sources of international law; the relationship between international law and states, individuals and other international actors; the content of international law as it pertains to different issue areas (e.g. the use of force, human rights, the environment); and how these bodies of law affect international relations more generally. (Irreg.)
IAS 5023 The Practice of Diplomacy
3 Credit Hours
Prerequisite: Graduate standing or permission of instructor. This course is designed to provide an understanding of how day-to-day diplomacy is conducted by the U.S. Department of State and other entities. The class will review the structure of the U.S. Department of State as well as a U.S. Embassy, major recent diplomatic challenges, and provide the case for renewal of American Diplomacy. (Irreg.)
IAS 5043 Global Security
3 Credit Hours
Prerequisite: graduate standing or permission of instructor. Examines some of the major theoretical and practical approaches to the study of global security, and focuses on the causes of war, the impact of various actors, technologies, resources and other transnational problems on violent conflict, and the different approaches to and dimensions of security solutions. (Irreg.)

IAS 5053 Global History 3 Credit Hours
Prerequisite: graduate standing or permission of instructor. Defines global history not only as the history of globalization or the history of state-to-state relations, but also more broadly as the evolution of events, forces, ideas, and processes that were common to several areas of the globe and that led to the shaping of the modern world. Considers a wide range of ways of being global through the centuries. (Irreg.)
IAS 5063 Civil Military Relations 3 Credit Hours
Prerequisite: Graduate standing or permission of instructor. This course focuses on the key questions about civil-military relations: What is the proper relationship between the politician and the soldier? How does professionalism affect the military's political behavior? Should military organizational ethos reflect societal values? Why are some and not other societies prone to coups? How do new democracies exert control over militaries? (Irreg.)
IAS 5073 International Terrorism
3 Credit Hours
Prerequisite: Graduate standing or permission of instructor. This course will cover how terrorist organizations have spread and how their goals have been taken up by like-minded organizations. How has terrorism changed? What effect does the psychology of terrorism have on the free societies? The course will attempt to answer these questions and develop an understanding of the fundamental reasons that terrorism has been at times effective. (Irreg.)

## IAS 5083 International Activism <br> 3 Credit Hours

Prerequisite: Graduate standing or permission of instructor. This course examines the role that nongovernmental actors play as they work independently and in concert to raise awareness about various international issues and to advocate for change on behalf of others. The course will explore the history of the study of activism, the evolution of theory on social movements, and the marketing tools employed by activism organizations. (Irreg.)

## IAS 5093 U.S. Intelligence Community 3 Credit Hours

Prerequisite: Graduate standing or permission of instructor. This course will provide a survey of the origins of US intelligence capabilities, including collection disciplines and analytic techniques the US Intelligence Community (IC) uses, examine how the US IC supports national security decision making, review the ethical and moral issues associated with intelligence operations, and study contemporary issues facing the US IC. (Irreg.)
IAS 5123 African Peacekeeping and Peace Enforcement 3 Credit Hours Prerequisite: Graduate standing or permission of instructor. This course is designed for the MA in International Relations degree through OU's Advanced Programs. The course covers peacekeeping and peace enforcement operations in Africa. These missions combine the efforts of governmental, intergovernmental, and nongovernmental actors. The class will examine nation building, stabilization, reconstruction, and transition across the spectrum of peace operations with emphasis on peacekeeping and peace enforcement. (Irreg)

## IAS 5203 Post-Brexit Ireland

3 Credit Hours Prerequisite: Graduate standing or permission of instructor. This course will examine the impact of British exit from the EU on Ireland in a broad context. This includes the history of British repression in Ireland and the struggle for independence, the border with Northern Ireland, and Ireland's economic standing. (Irreg.)
IAS 5213 Politics of the European Union 3 Credit Hours Prerequisite: graduate standing or permission of instructor. Examines the historical process of European integration. Topics include the structure of the EU institution, the process of law making in the EU, the international role of the EU, the trans-Atlantic relationship. (F)

IAS 5243 Nations and Nation States in Europe 3 Credit Hours
Prerequisite: Graduate standing or permission of instructor. In this class, we will study and discuss nation and nation states in Europe since 1789 until 1939. Our key nations and nation states will be France, Germany, and Poland. Ultimately, nationalism resulted in the complete destruction of four Empires in Europe (and Asia) during World War I, a legacy that is still felt in Europe today. (Irreg.)
IAS 5253 US-Russia Relations
3 Credit Hours
Prerequisite: Graduate standing or permission of instructor. This course will provide an overview of United States (US)-Russia relations over the past 200+ years with an in-depth look at Cold War tensions and the contentious relationship since the "re-emergence" of Russia from the post-Soviet morass in the Putin era. (Irreg.)
IAS 5263 Russian Foreign Policy
3 Credit Hours
Prerequisite: Graduate standing or permission of instructor. Explores Russian foreign policy in the contemporary world, with an eye on the deep historical context that informs the relationships between Russia and the rest of the world. What drives Russian foreign policy? What tools does Russia have to influence international politics? What are the major contemporary issues in Russian foreign policy? What are the vectors of Russian foreign policy? (Irreg.)
IAS 5283 Europe Since 1989
3 Credit Hours
Prerequisite: Graduate standing or permission of instructor. Studies major events that have transformed Europe since 1989: the collapse of Communist rule in Eastern Europe and the fall of the Berlin Wall, the end of the Cold War, the role of an expanding EU, different forms of immigration to Europe and its perception, historical memory, and Russia's role in Europe. (Irreg.)
IAS 5323 The Political Economy of Development 3 Credit Hours Prerequisite: graduate standing or permission of instructor. Studies the relationship between politics and economics in less developed countries. Reviews the history of economic theories of development and examines the economic effects of different trade strategies in Latin America, India, and East Asia. (Irreg.)
IAS 5353 Latin American International Relations 3 Credit Hours Prerequisite: graduate standing or permission of instructor. Surveys the hemisphere's international relations with emphasis on U.S.-Latin American relations. Focuses on post-Cold War issues in hemispheric affairs, and gives students a skill set appropriate for internationally related careers. (Irreg.)

## IAS 5383 Political Economy of the Underworld: Organized Crime and Conflict 3 Credit Hours

Prerequisite: Graduate standing or permission of instructor. Organized crime is a global presence that fuels instability, corruption, and violent extremism. Many conflicts cannot be fully understood without assessing the presence of organized crime groups as agents of instability, arms trafficking, resource extraction, and informal governance. This class will cover the origins of organized crime, organized crime in post-Soviet conflict, organized crime and globalization, and interdisciplinary research methods. (Irreg.)
IAS 5403 Humanitarianism and Africa
3 Credit Hours
Prerequisite: Graduate standing or permission of instructor. The course explores the longstanding need of Westerners to "help" Africans, examines the historical basis of this particular mode of thought and how it has changed over time, and seeks to understand how Western humanitarian intervention shaped and, perhaps more important, was shaped by Africans. (Irreg.)

IAS 5413 Global Migration \& Media
3 Credit Hours
Prerequisite: Graduate standing and permission of instructor. This course will expose students to key topics related to immigration in various regions around the world. Students will seek out and interpret the ways that media portrayals impact immigration and how immigration patterns influence that very media framing. This course seeks to break down stereotypes and create new perspectives on the global movement of people. (Irreg.)

IAS 5423 Media and the Global World
3 Credit Hours
Prerequisite: Graduate standing or permission of instructor. This course will investigate the media to see connections between the media and the democratization process, media and change, and media and conflict. We will see how traditional, online, and social media can influence politics, economics, and society. We will also examine the connection between media, trust and transparency, and its implications in the global world. (Irreg.)

## IAS 5433 International Relations in the Middle East 3 Credit Hours

 Prerequisite: graduate standing or permission of instructor. Surveys how the modern states of the region were constructed by the European powers and local authorities following the destruction of the Ottoman and Persian empires in WWI. Concentrates on two regional conflicts, the Arab-Israeli conflict and the Gulf conflict, and discusses how policy could have been improved and what the U.S. should be doing in the Middle East today. (Irreg.)
## IAS 5453 Politics and Policy of the Middle East 3 Credit Hours

 Prerequisite: graduate standing or permission of instructor. Focuses on the historical issues of state formation and emergence of the modern Middle East; the contemporary question or persistent authoritarianism from social, economic, and political perspectives; and aspects of the U.S. involvement in the Middle East. (Irreg.)
## IAS 5463 Comparative Politics of the Middle East 3 Credit Hours

Prerequisite: Graduate standing or permission of instructor. This course examines themes in Arab and Middle East politics. This includes states and state formation; identity, nationalism, and politics; political economy; the persistence and dynamics of authoritarianism; oil wealth, Gulf politics, and its impact on domestic politics; Islam and politics; the 2011 Arab uprisings; sectarianism; regional politics, and the current state of the Middle East. (Irreg.)

## IAS 5473 Arab-Israeli Conflict <br> 3 Credit Hours

Prerequisite: Graduate standing or permission of instructor. The ArabIsraeli conflict attracts a disproportionate amount of attention in the news media, international politics and law, and the socio-cultural sphere. This course examines the origins of the Arab-Israeli conflict in an attempt to place it in its historical context, while tracing its developments from multiple angles, in order to provide understanding of the dynamic that constitutes 'the conflict'. (Irreg.)

## IAS 5483 Minorities in the Middle East 3 Credit Hours

 Prerequisite: Graduate standing or permission of instructor. This course will discover the Middle East's heterogeneity by examining the experiences and changing positions of minorities since the rise of Islam. Specific topics will include the non-Muslims in classical Islamic and Ottoman societies, the rise of nationalism, Kurds and other Muslim ethnic minorities, Jews, Druzis and other heterodox Muslim minorities, Middle Eastern Christians, and the Baha'is. (Irreg.)AS 5493 Global Islamophobia
3 Credit Hours
Prerequisite: Graduate standing or permission of instructor. What is Islamophobia and what are the strengths and limitations of the term in capturing the global complexity of Muslim experiences? This course will study the theoretical and practical iterations of Islamophobia on a global scale and examine the concept through specific sites of contemporary anti-Muslim sentiments in the United States, Europe, Asia, and the Middle East. (Irreg.)

IAS 5503 Theory and Practice of International Politics 3 Credit Hours Prerequisite; graduate standing or permission of instructor. Focuses on political relations among states, the role and function of non-state actors, the nature of the international system, factors that affect state behavior, analytical and practical tools relevant for foreign policy decision-making, and various policy relevant issues in the international arena. (Irreg.)
IAS 5513 US Diplomatic History
3 Credit Hours
Prerequisite: Graduate standing or permission of instructor. This course focuses on the establishment and evolution of U.S. foreign policy from 1776 to the present. It introduces key events and the roles of key players, including the President, National Security Council, State Department, and Congress, in the development of U.S. foreign policy. (Irreg.)

IAS 5523 Global Political Economy
3 Credit Hours
Prerequisite: graduate standing or permission of instructor. Examines economic relations, cooperation, and competition among states and non-state actors. Students in this course can gain a familiarity with the principles of international trade and finance, understand the functions and power of international economic institutions and how these have evolved and changed, and understand different theories that have been offered to explain international political economy. (Irreg.)
IAS 5533 Modern Statecraft
3 Credit Hours
Prerequisite: Graduate standing or permission of instructor. Geopolitics has its basis in statecraft, the application of the power of the state toward other states, organizations, and peoples. The key to managing international relationships to further one's prosperity and security is embodied by statecraft and the multi-faceted aspects of state power. (Irreg.)
IAS 5543 International Organizations
3 Credit Hours
Prerequisite: Graduate standing or permission of instructor. This course will give participants the opportunity to critically reflect on the reasons why sovereign states have collectively decided to create International Organizations (IOs). The course will also provide a survey of some of the main IOs in existence as well as their current political and institutional challenges. Finally, this course will discuss challenges to global governance. (Irreg.)
IAS 5553 Global Cybersecurity Issues
3 Credit Hours
Prerequisite: Graduate standing or permission of instructor. Virtually every area of political, economic, and social life is increasingly dependent on networked computing and related information and communications technologies (ICTs). As a result, states and societies now face an array of pressing cybersecurity challenges. This course will introduce students to contemporary global cybersecurity challenges and to the policy tools available to cope with them. (Irreg.)

## AS 5563 Illicit Trafficking

## 3 Credit Hours

Prerequisite: Graduate standing or permission of instructor. This course focuses on some of today's most troubling security issues - the persistent and growing problems associated with the trafficking and smuggling of drugs, money, humans, guns, and commodities of all sorts. The course will demonstrate the very broad and encompassing nature of illicit trafficking and how this activity has an impact on global security and underdevelopment. (Irreg.)

IAS 5573 Nationalism and the Modern Middle East 3 Credit Hours Prerequisite: Graduate standing or permission of instructor. A survey of Middle East history from 1800-present with an emphasis on the emergence of "nationalism" as a new form of political identity in the region. Focused on ethnic, linguistic, racial, sectarian, secessionist, and confessional identities that have become one of the main sources of political contestation in the region. (Irreg.)

## IAS 5583 African Politics and Society

3 Credit Hours
Prerequisite: Graduate standing or permission of instructor. This course is designed to introduce students to the history, politics and social processes of sub-Saharan Africa. In addition to learning about the histories and trajectories of individual countries, the course will also focus on sub-regional and cross-national similarities and differences, as well as contextualize African politics in a larger global history. (Irreg.)
IAS 5623 Inequality Around the World 3 Credit Hours Prerequisite: Graduate standing or permission of instructor. This course will derive coherence from a focus on economic inequality, specifically on the social and political consequences of economic inequality. Material will address such questions as: what is the scope of economic inequality in modern societies? Why does inequality matter? Do societies necessarily become more unequal as they grow more prosperous? Might inequality at some level harm economic growth? (Irreg.)

## IAS 5633 Political Development

3 Credit Hours
Prerequisite: Graduate standing or permission of instructor. This course will discuss different approaches to international development. At the end of the course, participants will have a comprehensive view of how development has evolved historically, how it has been disputed by different scholars, and how various stakeholders have worked for the promotion of development at the international level. (Irreg.)

## IAS 5643 Global Perspectives on Gender 3 Credit Hours

Prerequisite: Graduate standing or permission of instructor. From this course, students will be able to understand critiques of Western feminism, analyze the lived experiences of non-western women and communities of color, be conversant with critical epistemologies and anti-oppressive research methodologies, and discuss and apply intersectionality in a way that is historically and contextually accurate. (Irreg.)

## IAS 5653 Global Environmental Politics <br> 3 Credit Hours

Prerequisite: Graduate standing or permission of instructor. A comprehensive introduction to key themes relating to global environmental politics. The course is divided into three core sections: (1) global environmental governance; (2) global political economy as it relates to the environment and natural resources; and (3) contemporary, global challenges in global environmental politics. Students will also evaluate documents prepared by government agencies, think tanks, nonprofits, and global institutions. (Irreg.)
IAS 5683 US-China Relations 3 Credit Hours
Prerequisite: Graduate standing or permission of instructor. Provides a systematic examination of contemporary U.S.-China relations, one of the most important bilateral relationships in the world, from the U.S. perspective through relevant theoretical debates, historical analysis and case studies. Also includes an exploration of the future trajectories of U.S.-China relations. (Irreg.)

IAS 5693 Political Economy of China
3 Credit Hours
Prerequisite: graduate standing or permission of instructor. Explores debates over the political economy of China. Examines theories of institutional change and economic performance, state capacity and political development, rent-seeking and corruption, and class formation and collective action. How do China's reforms over the past three decades confirm or challenge the assumptions and propositions central to these established social science theories? How have recent studies of political economy in China advanced our understanding of these theories or suggested new approaches to the study of comparative political economy? These and other core questions will be covered including topics such as popular protest, global capitalism, corruption, and the nature of one-party rule in China. (Irreg.)

## IAS 5703 International Studies Colloquium

3 Credit Hours
Prerequisite: Graduate standing or permission of instructor. This class will introduce the broad, multi-disciplinary field of International Studies. Students will practice analytical writing, reading, and public speaking, and become familiar with IAS faculty members and their areas of expertise. The culminating assignment will require each student to present the work they completed to members of the IAS faculty and graduate program. (F)
IAS 5713 Policy Analysis and Writing
3 Credit Hours
Prerequisite: Graduate standing or permission of instructor. This course will prepare students for policy-oriented careers. Students will develop an understanding of the policy value chain, from policy making to policy implementation and from diffusion to evaluation, and how associated feedback loops shape the policy trajectories. Building on an understanding of the policy cycle, it will give students an opportunity to engage in policy analysis. (Irreg.)
IAS 5723 Global Policy Workshop
3 Credit Hours
Prerequisite: Graduate standing or permission of instructor. This course serves as a culminating experience for the MAIS program. It is intended for students to integrate the knowledge and skills they have gained in their program and to apply them in a practical and/or experiential manner to contemporary global policy issues. The applied component will typically involve an extended simulation exercise or a project for a realworld organization. (Sp)
IAS 5793 Graduate Studies in International Relations 3 Credit Hours Prerequisite: Graduate standing or permission of instructor. Designed to provide students with a foundation for success in coursework for the MA degree in International Relations. The course begins with a focus on effective analytical writing in the field of international relations. The remaining sections of the course concentrate on essential building blocks in the field of international relations, with a particular emphasis on the relationship between domestic and international levels of explanation of international phenomena, from treaties/international agreements to economic sanctions to war. (Irreg)

## IAS 5803 Global Affairs Practicum

3 Credit Hours
Prerequisite: Graduate standing or permission of instructor. All students are expected to engage in a research project resulting in a written document that examines a specific government or international policy. The paper should ultimately propose specific policy recommendations that are intended to be an improvement upon the current policy. The project may be conducted under the auspices of the Diplomacy Lab. (Irreg.)

AS 5810 Field Studies in Africa
-6 Credit Hours
1 to 6 hours. Prerequisite: graduate standing. May be repeated; maximum credit 12 hours. The Field Studies in Africa course is a summer program designed exclusively for OU students. Participants travel with an OU faculty member for up to one month throughout one or more countries in Africa. Academic instruction for this program takes place in English, but some foreign language training may be included in the program. Experiential activities, cultural events and lectures from host nationals add to expert OU faculty lectures to give Field Studies in Africa participants a comprehensive understanding of the historical context and contemporary issues facing the countries of study and the African continent today. All accepted applicants receive a travel fellowship to offset the cost of international airfare. (Su)

IAS 5813 Africa in Context
3 Credit Hours
(Slashlisted with IAS 4813) Prerequisite: Graduate standing or permission of instructor. Explores topics related to the historical analysis of Africa including cultural, economic, and development issues. Through a primary focus on Uganda, students will examine the lasting effects of conflict, the emergence of civic, religious and international groups and their related work, and gain a deeper appreciation of Ugandan culture and communities. No student may earn credit for both 4813 and 5813. (Su)

## IAS 5820 Field Studies in Italy

1-6 Credit Hours
1 to 6 hours. Prerequisite: graduate standing. May be repeated; maximum credit 12 hours. The Field Studies in Italy course is a summer program designed exclusively for OU students. Participants travel with an OU faculty member for up to one month throughout the country of Italy. Academic instruction for this program takes place in English, but some foreign language training may be included in the program. Experiential activities, cultural events and lectures from host nationals add to expert OU faculty lectures to give Field Studies in Italy participants a comprehensive understanding of the historical context and contemporary issues facing Italy and the continent of Europe today. All accepted applicants receive a travel fellowship to offset the cost of international airfare. (Su)

## IAS 5830 Field Studies in China

-6 Credit Hours
1 to 6 hours. Prerequisite: graduate standing. May be repeated; maximum credit 12 hours. The Field Studies in China course is a summer program designed exclusively for OU students. Participants travel with an OU faculty member for up to one month throughout the country of China. Academic instruction for this program takes place in English, but some foreign language training may be included in the program. Experiential activities, cultural events and lectures from host nationals add to expert OU faculty lectures to give Field Studies in China participants a comprehensive understanding of the historical context and contemporary issues facing China and the Asian region today. All accepted applicants receive a travel fellowship to offset the cost of international airfare. (Su)

## AS 5840 Field Studies in Latin America

1-6 Credit Hours
1 to 6 hours. Prerequisite: graduate standing. May be repeated; maximum credit 12 hours. The Field Studies in Latin America course is a summer program designed exclusively for OU students. Participants travel with an OU faculty member for up to one month throughout the one or more Latin American countries. Academic instruction for this program takes place in English, but some foreign language training may be included in the program. Experiential activities, cultural events and lectures from host nationals add to expert OU faculty lectures to give Field Studies in Latin America participants a comprehensive understanding of the historical context and contemporary issues facing Latin American countries and the entire region today. All accepted applicants receive a travel fellowship to offset the cost of international airfare. (Su)

AS 5850 Field Studies in Turkey 1-6 Credit Hours 1 to 6 hours. Prerequisite: graduate standing. May be repeated; maximum credit 12 hours. The Field Studies in Turkey course is a summer program designed exclusively for OU students. Participants travel with an OU faculty member for up to one month throughout the country of Turkey. Academic instruction for this program takes place in English, but some foreign language training may be included in the program. Experiential activities, cultural events and lectures from host nationals add to expert OU faculty lectures to give Field Studies in Turkey participants a comprehensive understanding of the historical context and contemporary issues facing Turkey and the Middle Eastern region today. All accepted applicants receive a travel fellowship to offset the cost of international airfare. (Su)

IAS 5902 Global Political Turbulence 2 Credit Hours
Prerequisite: Graduate standing or permission of instructor. This is one of three core courses in the MAGA program focused on aspects of global turbulence. The Global Political Turbulence course explores the sources, consequences and implications of turbulence in the international political system. It will examine political turbulence in a global context, as well as turbulent affairs in each region of the world. We will concentrate on the political turbulence that characterizes global affairs today and will highlight turbulent relations in each region of the world. (Irreg)

IAS 5912 Global Economic Turbulence
2 Credit Hours
Prerequisite: Graduate standing or permission of instructor. This is one of three core courses in the MAGA program focused on aspects of global turbulence. This course explores sources of turbulence in the global economy and their consequences -- from the increasing global diffusion of economic power, to the volatility produced by free movement of large amounts of capital around the world. We will begin by examining shifts in the global distribution of economic power. We also will consider the 2008-9 global financial crisis, the aftermath of which continues to have dramatic consequences across governments and international organizations worldwide. (Irreg)

IAS 5913 International Studies Internship
3 Credit Hours
Prerequisite: graduate standing or permission of instructor. Students receive academic credit for internship work with an internationally oriented public or private organization. Internship credit requires an element of reflection, research, and writing about the work undertaken, and can strongly enhance the internship opportunity and improve a student's ability to articulate knowledgeably the requirements, benefits and lessons of work in the public or non-profit sector. (Irreg.)

IAS 5922 Global Social Turbulence
2 Credit Hours
Prerequisite: Graduate standing or permission of instructor. This is one of three core courses in the MAGA program focused on aspects of global turbulence. This course examines the layered causes and consequences of social turbulence around the world. It explores how peoples interact with each other and the world around them. Additionally, students will address how people react to societal and environmental changes. At the end of this course, students should have a firmer grasp on societal interaction and reaction along a number of important areas. (Irreg)

IAS 5923 International Studies Policy Exercise 3 Credit Hours
Prerequisite: graduate standing or permission of instructor. Policy exercise offers students the option of a Capstone project that demands the integration of skills developed in the MAIS program core. Each semester the faculty will develop a policy exercise based on a contemporary global problem. Students will be responsible for gathering extensive evidence and analyses bearing on the problem at hand from a variety of perspectives. (Irreg.)

IAS 5940 Topics in International Studies 1-4 Credit Hours
1 to 4 hours. Prerequisite: graduate standing or permission of instructor. May be repeated with change of content; maximum credit nine hours. Analysis of one or several selected topics in international studies, international development, and/or international management. (Irreg.)

## IAS 5950 Research Problems

2-5 Credit Hours
2 to 5 hours. Prerequisite: graduate standing. May be repeated with change of content; maximum credit six hours. Directed research and writing on selected topics in international relations, international development, and international management. (F, Sp, Su)
IAS 5960 Directed Readings
1-3 Credit Hours
1 to 3 hours. Prerequisite: permission of instructor and graduate standing. May be repeated; maximum credit six hours. Directed individual readings on selected topics in international relations; international development, and international management. (F, Sp, Su)

IAS 5970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

## IAS 5980 Research for Master's Thesis

2-6 Credit Hours
2 to 6 hours. Prerequisite: permission of instructor and admission to M.A. in International Relations. May be repeated; maximum credit four hours. Directed individual research and writing on master's thesis. Student must be admitted to the M.A. in International Relations program. (F, Sp, Su)

## IAS 5990 Independent Study <br> 1-3 Credit Hours

1 to 3 hours. Prerequisite: permission of instructor and graduate standing. May be repeated; maximum credit six hours. Directed individual work on topics in international relations, international development, and/ or international management. (F, Sp, Su)

## Faculty

| Last Name | First/Middle <br> Name | Middle init. | OU <br> Service start | Title(s), date(s) appointed | Degrees Earned, Schools, Dates Completed |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Al-Masri | Mohammad | S.H. | 2011 | CONOCOPHILLIPS <br> PETROLEUM <br> CO. ASSOCIATE <br> PROFESSOR OF <br> ARABIC LANGUAGE, <br>  <br> CULTURE, 2013; <br> ASSOCIATE <br> PROFESSOR OF <br> INTERNATIONAL <br> AND AREA STUDIES, <br> 2017; ASSOCIATE <br> PROFESSOR <br> OF MODERN <br> LANGUAGES, <br> LITERATURES, AND <br> LINGUISTICS, 2017 | PhD, Univ of Kansas, 2009; MA, Yarmouk Univ, 1998; BA, Yarmouk Univ, 1994 |
| Chapman | Hannah | S | 2022 | ASSISTANT <br> PROFESSOR OF <br> INTERNATIONAL <br> AND AREA STUDIES, <br> 2022; THEODORE <br> ROMANOFF <br> ASSISTANT OF <br> RUSSIAN STUDIES, <br> 2022 | PhD, Univ of Wisconsin-Madison, 2018; MA, Univ of Wisconsin-Madison, 2012; BA, Stetson Univ, 2010 |


| Costa | Fabio |  | 2017 | ASSOCIATE | PhD, Northeastern |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Morais de |  |  |  | PROFESSOR OF | Univ, 2013; LLM, Univ |
| Sa E Silva |  |  |  | INTERNATIONAL | of Brasilia, 2007; BA, |
|  |  |  |  | AND AREA STUDIES, | Univ of Sao Paulo, 2002 |
|  |  |  |  | PROFESSOR OF |  |
|  |  |  |  | INTERNATIONAL |  |
|  |  |  |  | AND AREA STUDIES, |  |
|  |  |  |  | 2017; WICK CARY |  |
|  |  |  |  | PROFESSOR OF |  |
|  |  |  |  | INTERNATIONAL |  |
|  |  |  |  | STUDIES, 2017 |  |
| Cruise | Rebecca | J | 2013 | INTERIM ASSOCIATE | PhD, Univ of <br> Oklahoma, 2011; MA, <br> Univ of Oklahoma, 2007; BA, Univ of Portland, 2000 |
|  |  |  |  | PROVOST |  |
|  |  |  |  | FOR GLOBAL |  |
|  |  |  |  | ENGAGEMENT, |  |
|  |  |  |  | 2023; ASSOCIATE |  |
|  |  |  |  | DEAN OF STUDENT |  |
|  |  |  |  | SERVICES, COLLEGE |  |
|  |  |  |  | OF INTERNATIONAL |  |
|  |  |  |  | STUDIES, 2020; |  |
|  |  |  |  | ASSOCIATE |  |
|  |  |  |  | PROFESSOR OF |  |
|  |  |  |  | SECURITY STUDIES |  |
|  |  |  |  | AND COMPARATIVE |  |
|  |  |  |  | POLITICS, 2021; |  |
|  |  |  |  | ASSISTANT |  |
|  |  |  |  | PROFESSOR OF |  |
|  |  |  |  | INTERNATIONAL |  |
|  |  |  |  | AND AREA STUDIES, |  |
|  |  |  |  | 2013 |  |
| Emery | John | R | 2021 | ASSISTANT | PhD, Univ of California, Irvine, 2019; MA, Univ of California, Irvine, 2016; BA, Gonzaga Univ, 2012 |
|  |  |  |  | PROFESSOR |  |
|  |  |  |  | INTERNATIONAL |  |
|  |  |  |  | SECURITY STUDIES, |  |
|  |  |  |  | 2021 |  |
|  |  |  |  |  |  |
| Grillot | Suzette | R | 1999 | PROFESSOR OF | PhD, Univ of Georgia, 1997; MA, Oklahoma State Univ, 1992; BS, Oklahoma State Univ, 1990 |
|  |  |  |  | INTERNATIONAL |  |
|  |  |  |  | AND AREA STUDIES, |  |
|  |  |  |  |  |  |
| Gross | Miriam | D | 2010 | SSOCIATE | PhD, Univ of California-Santa Cruz, 2010; MA, Columbia Univ, 2002; BA, Reed College, 1991 |
|  |  |  |  | PROFESSOR OF |  |
|  |  |  |  | INTERNATIONAL |  |
|  |  |  |  | AND AREA STUDIES, |  |
|  |  |  |  | 2016; ASSOCIATE |  |
|  |  |  |  | PROFESSOR OF |  |
|  |  |  |  | HISTORY, 2016 |  |
| Hashemi | Manata |  | 2015 | FARZANEH FAMILY | PhD, Univ of California Berkeley, 2012; MA, Harvard Univ, 2007; BA, Cornell Univ, 2005 |
|  |  |  |  | ASSOCIATE |  |
|  |  |  |  | PROFESSOR OF |  |
|  |  |  |  | IRANIAN STUDIES, |  |
|  |  |  |  | 2021; ASSISTANT |  |
|  |  |  |  | PROFESSOR OF |  |
|  |  |  |  | INTERNATIONAL |  |
|  |  |  |  | AND AREA STUDIES, |  |
|  |  |  |  | 2015; FARZANEH |  |
|  |  |  |  | FAMILY PROFESSOR |  |
|  |  |  |  | IN IRANIAN STUDIES, |  |
|  |  |  |  | 2015 |  |
| Heinze | Eric | A | 2005 | INTERIM ASSOCIATE | PhD, Univ of |
|  |  |  |  | DEAN, COLLEGE OF | Nebraska, 2005; MA, |
|  |  |  |  | INTERNATIONAL | Virginia Polytechnic |
|  |  |  |  | STUDIES, 2024; | Inst, 2001; BA, Fort |
|  |  |  |  | PROFESSOR OF | Hays State Univ, 1999 |
|  |  |  |  | INTERNATIONAL |  |
|  |  |  |  | AND AREA STUDIES, |  |
|  |  |  |  |  |  |


| Irvine | Jill | A | 1992 | PROFESSOR <br> EMERITUS, 2021; <br> INTERIM PROVOST, <br> 2020; SENIOR <br> VICE PROVOST, <br> 2019; PRESIDENT'S <br> ASSOCIATES <br> PRESIDENTIAL <br> PROFESSOR, 2010; <br> PROFESSOR OF <br> INTERNATIONAL <br> AND AREA STUDIES, 2018 | PhD, Harvard Univ, 1989; BA, Univ of Michigan, 1978 | Mahdi | Waleed | F | 2016 | ASSOCIATE PROFESSOR OF USARAB CULTURAL POLITICS, 2023; ASSISTANT PROFESSOR OF MODERN LANGUAGES, LITERATURES, AND LINGUISTICS, 2016; ASSISTANT PROFESSOR OF INTERNATIONAL | PhD, Univ of <br> Minnesota, 2015; MA, <br> Univ of New Mexico, 2008; BA, Taiz Univ, $2003$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Khalfaoui | Amel | K | 2015 | ASSOCIATE PROFESSOR OF | PhD, Univ of Minnesota, 2009; MA, Univ of Minnesota, 2004 |  |  |  |  | AND AREA STUDIES, 2016 |  |
|  |  |  |  | ARABIC LANGUAGE AND LITERATURE, 2021; ASSISTANT PROFESSOR OF INTERNATIONAL AND AREA STUDIES, 2015; ASSISTANT PROFESSOR |  | Marashi | Afshin |  | 2011 | FARZANEH FAMILY CHAIR PROFESSOR OF IRANIAN STUDIES, 2011; PROFESSOR OF INTERNATIONAL AND AREA STUDIES, 2019 | PhD, Univ of <br> California Los <br> Angeles, 2003; MA, <br> Univ of California <br> Los Angeles, 1995; <br> BA, Univ of California <br> Berkeley, 1992 |
|  |  |  |  | OF MODERN LANGUAGES, LITERATURES, AND LINGUISTICS, 2015 |  | Morais de Sa e Silva | Michelle | G | 2018 | ASSOCIATE <br> PROFESSOR OF <br> INTERNATIONAL <br> AND AREA STUDIES, | PhD, Columbia Univ, 2010; MA, Intl Institute of Social Studies, 2004; BA, |
| Kong | Bo |  | 2013 | CONOCOPHILLIPS ASSOCIATE PROFESSOR OF CHINESE AND ASIAN STUDIES, 2013; ASSOCIATE PROFESSOR OF INTERNATIONAL | PhD, Johns Hopkins Univ, 2008; MA, Hopkins Nanjing CtrCh/Am Stu, 2003 |  |  |  |  | 2023; ASSISTANT <br> PROFESSOR OF INTERNATIONAL AND AREA STUDIES, 2018; WICK CARY PROFESSOR OF INTERNATIONAL STUDIES, 2018 | Univ of Brasilia, 2002 |
|  |  |  |  | AND AREA <br> STUDIES, 2018; <br> ADMINISTER US CHINA INSTITUTE, 2017 |  | Nejad | Kayhan | A. | 2023 | FARZANEH FAMILY ASSISTANT PROFESSOR OF IRANIAN STUDIES, 2023 | Phd, Yale; Phil, Yale; MA, Yale; BA, University of Washington |
| Landis | Joshua | M | 1999 | PROFESSOR OF INTERNATIONAL AND AREA STUDIES, 2016; SANDRA MACKEY CHAIR OF MIDDLE EAST STUDIES, 2017; DIRECTOR, | PhD, Princeton Univ, 1997; MA, Harvard Univ, 1984; BA, Swarthmore College, 1979 | Raymond | Mark | A | 2014 | ASSOCIATE <br> PROFESSOR OF <br> INTERNATIONAL <br> AND AREA STUDIES, <br> 2019; WICK CARY <br> PROFESSOR OF <br> INTERNATIONAL <br> STUDIES, 2014 | PhD, Univ of Toronto, 2011; BA, Univ of Western Ontario, 2001 |
|  |  |  |  | FARZANEH FAMILY CENTER FOR <br> IRANIAN AND <br> PERSIAN GULF <br> STUDIES, 2020 |  | Schwartz | Rachel | A | 2022 | ASSISTANT <br> PROFESSOR OF <br> INTERNATIONAL <br> AND AREA STUDIES, <br> 2022 | PhD, Univ of Wisconsin-Madison, 2019; MA, Univ of Wisconsin-Madison, 2015; BA, Hartford |
| Letsa | Natalie | W | 2017 | ASSISTANT | PhD, Cornell Univ, |  |  |  |  |  | College, 2011 |
|  |  |  |  | PROFESSOR OF INTERNATIONAL AND AREA STUDIES, 2017; WICK CARY PROFESSOR OF INTERNATIONAL STUDIES, 2017 | 2017; BA, Reed College, 2009 | Shehata | Samer | S | 2013 | ASSOCIATE <br> PROFESSOR OF <br> INTERNATIONAL <br> AND AREA STUDIES, <br> 2013; COLIN MACKEY <br> AND PATRICIA <br> MOLINA DE MACKEY <br> PROFESSOR OF <br> MIDDLE EAST <br> STUDIES, 2017 | PhD, Princeton Univ, 2000; MA, Cambridge <br> College, 1991; BA, Univ of California Berkeley, 1990 |

INTERIM DEAN, PhD, The State Univ COLLEGE OF of New York, 2006; INTERNATIONAL MA, The State Univ of STUDIES, 2023; CHAIR, INTERNATIONAL California Berkley 2023; PROFESSOR 1998 INTERNATIONAL AND AREA STUDIES, 2018; HAROLD J. AND RUTH NEWMAN CHAIR IN US-CHINA ISSUES, 2018

## Asian Studies, B.A.

Minimum Total Credit Hours: 120
Major Hours: 30
Minimum Upper-Division Hours: 48
Upper-Division Hours Within Major. 18

Overall GPA - Combined and OU: 2.00
Major GPA - Combined and OU: 2.50

## Program Code: B075

Some courses required for the major may also fulfill University General Education and/or College of International Studies Requirements

The major requires 30 hours, 18 of which must be upper-division, and a 2.50 GPA. 12 of the required 30 must be taken in the Department of International and Area Studies.

## Major Requirements

| Code Title | Credit Hours |
| :---: | :---: |
| I. Asian Studies Language |  |
| Choose 2 courses at the 3000-level or above beyond the 16 -hour requirement, in any of the languages in the area of concentration | 6 |
| II. History |  |
| Choose 6 hours from a list of courses maintained by the department (a minimum of 3 must be IAS designated) (p. 1643) | 6 |
| III. Politics and Society |  |
| Choose 6 hours from a list of courses maintained by the department (a minimum of 3 must be IAS designated) (p. 1643) | 6 |
| IV. Arts and Humanities |  |
| Choose 3 hours from a list of courses maintained by the department (p. 1643) | 3 |
| V. Additional Requirements |  |
| Choose one of the following: | 6 |
| Choose two additional courses from History, Politics and Society, or Arts and Humanities (above) (3000-level or above) |  |
| Choose two additional Asian language courses beyond the requirement of Asian Studies Languages (above) (any level) |  |

VI. Senior Capstone Course

| IAS 4013 | Senior Capstone Seminar in International <br> and Area Studies | 3 |
| :--- | :--- | :--- |

Total Credit Hours

Note: Students may take other appropriate courses as approved by the IAS Academic Advisor.

## Major Support Requirements

| Code Title | Credit <br> Hours |
| :--- | ---: |
| Choose 16 hours of one foreign language relevant to the | 16 |
| geographical area of concentration |  |
| IAS $2003 \quad$ Understanding the Global Community | 3 |
| International Experience |  |
| Majors are strongly encouraged to pursue study abroad <br> opportunities. | $\mathbf{1 9}$ |

## General Education and College Requirements

Courses for fulfillment of General Education and College of International Studies requirements must be from the approved General Education course list published in the Class Schedule or at: http://www.ou.edu/ content/gened/courses.html. Courses graded P/NP will not apply.

## UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS <br> Code Title Credit

Core Area I: Symbolic and Oral Communication
English Composition
ENGL 1113 Principles of English Composition 3
ENGL 1213 Principles of English Composition 3
or EXPO 1213 Expository Writing
Language
(0-13 hours in the same language) The College of
International Studies requirement cannot be met by high school coursework
Beginning Course 0-5

Beginning Course, continued 0-5
Intermediate Course (2000 level) ${ }^{1,2} \quad 0-3$
Mathematics
Choose one course 3
Core Area II: Natural Science
Choose two courses from different disciplines in the
biological and/or physical sciences, one of which must
include a laboratory component ${ }^{1}$
Core Area III: Social Science
P SC 1113 American Federal Government 3
Choose one course 3

Core Area IV: Arts and Humanities
Artistic Forms
Choose one course ${ }^{4}$
Western Culture
HIST $1483 \quad$ United States to 1865

| Choose one course ${ }^{3,4}$ |
| :--- |
| World Culture |
| Choose one course ${ }^{4}$ |
| Core Area V: First-Year Experience |
| Choose one course |
| Total Credit Hours |
|  |
|  |
| College of International Studies Requirements: College requirements |
| are not automatically fulfilled by a previous degree. |
| 2 One course at the intermediate level or demonstrated competency |
| at that level. If this requirement is waived, a few hours of General |
| Education electives may be needed to achieve the required 40 hour |
| minimum (may also be satisfied by a major requirement or free |
| elective). |
| ${ }^{3}$ Excluding HIST 1483 and HIST 1493. |
| 4 It is recommended students take either Artistic Forms, Western |
| Culture, or World Culture at the 3000-/4000-level to fulfill the university |
| requirement of one upper-division course from the approved University |
| Wide General Education list. The course must be outside the major. |
| This may also be satisfied in the upper-division or free elective |
| categories. |

## Free Electives

Electives to bring total applicable hours to the minimum total required for the degree including 48 upper-division hours.

## Information Concerning General Rules, Regulations and Minimum Requirements

Total Hours: A minimum of 120 semester hours acceptable toward graduation must be completed.
Upper-Division Hours: A minimum of 48 upper-division semester hours acceptable toward graduation must be completed. OU courses numbered 3000 or above are upper-division. Transfer work is counted as lowerdivision or upper-division credit depending on the level at which it was offered at the institution where it was earned. Two-year college work is accepted only as lower-division credit.
Liberal Arts and Sciences Hours: At least 80 semester hours of liberal arts and sciences courses are required for a BA degree. At least 55 semester hours of liberal arts and sciences courses are required for a BS degree.
Major Work: A minimum of 30 semester hours must be earned in the major, including a minimum of 15 credit hours at the upper-division level. Pass/No Pass Enrollment: A maximum of 16 semester hours of free elective credit may be attempted under this option.
Individual Studies (e.g., courses titled "Independent Study"): A maximum of 12 total semester hours may be counted toward graduation, excluding Honors Reading and Honors Research.
Military, Military In-Service, Skills, Applied Technology, and P.E.
Courses: A maximum of 16 semester credit hours of basic skills and/ or applied technology courses. No physical education activity courses will be counted toward the 120 semester hours of acceptable credit for graduation.
Senior Institution Hours: A minimum of 60 semester hours applied toward graduation must be earned at senior (4-year) institutions. Residency:

- At least 15 of the final 30 hours applied toward the degree or at least 50 percent of the hours required by the institution in the major field must be satisfactorily completed at the awarding institution.
- At least 15 semester hours of upper-division major work must be completed in residence at OU.
- OU correspondence courses are not considered resident credit.
- Credits earned via examination are neither resident nor nonresident credit.

Information regarding Grade Point Averages, Special Degrees, and Application for Graduation can be found in the catalog under David L. Boren College of International Studies: Undergraduate Study. (p. 1623)

## Suggested Semester Plan of Study

This plan of study should not be used in lieu of academic advisement. Students who transfer from other institutions (particularly community colleges) must verify credit hour and course requirements with their academic counselor, (405) 325-1429, http://www.ou.edu/international. Please make an appointment for a degree check with your college academic counselor once you have earned 90 hours.

This plan shows one possible grouping of courses that would allow students to graduate in four years. Please refer to the degree checksheet for official requirements. Students must consult with College of International Studies academic advisors to verify that courses selected each semester fulfill the recommended plan and satisfy university, College of International Studies, and Asian Studies major requirements.

## Freshman

| First Semester | Credit |
| :---: | :---: |
|  | Hours |
| ENGL 1113 Principles of English Composition (Core I) | 3 |
| MATH (Core I) | 3 |
| Beginning Language (Core I) | 5 |
| Natural Science with lab (Core II) | 4 |
| Credit Hours | 15 |
| Second Semester |  |
| ENGL 1213 Principles of English Composition (Core I) <br> or EXPO 1213 or Expository Writing | 3 |
| P SC 1113 American Federal Government (Core III) | 3 |
| Beginning Language continued (Core I) | 5 |
| Natural Science without lab (Core II) | 3 |
| First-Year Experience (Core V) | 3 |
| Credit Hours | 17 |

## Sophomore

First Semester

| IAS 2003 | Understanding the Global Community | 3 |
| :--- | :--- | :--- |
| HIST 1483 | United States to 1865 (Core IV) | 3 |

or HIST 1493 or United States, 1865 to the Present
Intermediate Language 3
Free Elective, lower-division 3
Artistic Forms (Core IV) ${ }^{1} 3$
Free Elective, lower-division 1

Credit Hours 16
Second Semester
Free Elective, upper-division (3000-4000-level) 3
Intermediate Language continued 3
World Culture (Core IV) $^{1} 3$
Western Culture (Core IV) ${ }^{1} 3$

| History Major Elective, upper-division (3000-4000 level) | 3 |
| :--- | ---: |
| Credit Hours | $\mathbf{1 5}$ |
| Junior |  |
| First Semester | 3 |
| Arts and Humanities Major Elective, upper-division | 3 |
| Asian Studies Language Major Elective | 3 |
| Free Elective, lower-division | 3 |
| Free Elective, upper-division (3000-4000-level) | $\mathbf{1 2}$ |


| Second Semester |  |
| :--- | ---: |
| Asian Studies Language Major Elective, upper-division | 3 |
| Politics \& Society Major Elective, upper-division | 3 |
| Free Elective, lower-division | 3 |
| Free Elective, lower-division | 3 |
| Credit Hours | $\mathbf{1 2}$ |

## Senior

| First Semester |  |
| :---: | :---: |
| History Major Elective, upper-division (3000-4000-level) | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Politics \& Society Major Elective, upper-division (3000-4000level) | 3 |
| Free Elective, lower- or upper-division | 3 |
| Additional Major Elective, upper-division (3000-4000-level) | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Credit Hours | 18 |

## Second Semester

| IAS 4013 | Senior Capstone Seminar in International <br> and Area Studies |
| :--- | ---: |
| Additional Major Elective, upper-division (3000-4000-level) | 3 |
| Free Elective, lower- or upper-division | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Credit Hours | $\mathbf{1 5}$ |
| Total Credit Hours | $\mathbf{1 2 0}$ |

${ }^{1}$ University-Wide General Education course, refer to online listing. One course (Artistic Forms, World Culture, or Western Culture) must be 3000-4000-level.

## Asian Studies Course Lists

## III. History

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| HIST 1723 | East Asia to 1600 | 3 |
| HIST 1733 | East Asia Since 1600 | 3 |
| HIST 3853 | Japan to 1850 | 3 |
| HIST 3863 | Japan Since 1850 | 3 |
| HIST 3873 | Early Imperial China | 3 |
| HIST 3883 | Late Imperial China | 3 |
| HIST 3923 | China Since 1911 | 3 |
| HIST 4203 | Classical China | 3 |
| HIST 4213 | China's Art of War | 3 |


| HIST 4563 | History of India | 3 |
| :--- | :--- | :--- |
| HSTM 3313 | Science and Technology in Asian History | 3 |
| IAS 3173 | Work, Family, and Religion in Rural China | 3 |
| IAS 3193 | Environment and Disease Crises in China | 3 |

## IV. Politics and Society

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| COMM 4513 | International Communication | 3 |
| IAS 2123 | China Today | 3 |
| IAS 3143 | Chinese Politics | 3 |
| IAS 3153 | Chinese Foreign Policy | 3 |
| IAS 3523 | Women and Gender in South Asia | 3 |
| IAS 3533 | Political Violence in Comparative | 3 |
|  | Perspective | 3 |
| IAS 3543 | International Peacebuilding | 3 |
| IAS 3583 | Managing US-China Relations | 3 |
| IAS 3603 | Energy, Environment \& Climate Change in | 3 |
| IAS 3693 | China | 3 |
| IAS 3703 | South Asian Security | 3 |
| IAS 3773 | State \& Society in Pakistan | 3 |
| IAS 3910 | International Studies Internship | $2-3$ |
| IAS 3913 | The Practice of Diplomacy | 3 |
| IAS 3943 | Global Intelligence Challenges | 3 |
| IAS 3993 | Global Communism | 3 |
| P SC 3953 | Bhutan Democracy and Happiness | 3 |

## V. Arts and Humanities

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| FMS 3443 | East Asian Cinema | 3 |
| IAS/PHIL 1223 | Introduction to Asian Philosophy | 3 |
| IAS/PHIL 3343 | Chinese Philosophy | 3 |
| IAS/PHIL 4343 | Early Chinese Philosophy | 3 |
| MLLL 3223 | Japan Through Film and Literature | 3 |
| MLLL 3623 | Pre-Modern Japanese Literature and | 3 |
| MLLL 3633 | Culture | 3 |
| MLLL 3663 | Japanese Cinema | 3 |
| MLLL/FMS 3673 | Anime: the World of Japanese Animation | 3 |
| MLLL 3683 | Traditional Japanese Poetry and Poetics in | 3 |
| MLLL 3753 | Translation | 3 |
| MLLL 3763 | Chinese Cinema | 3 |
| MLLL 4993 | Epics of India: Ramayana and Mahabarata | 3 |
| MUNM 3113 | World Music | 3 |
| MUNM 3513 | Music of South Asia | 3 |
| RELS 2703 | History of Buddhist Traditions | 3 |
| RELS 2713 | History of Hindu Traditions | 3 |
| RELS 3223 | Religion and Nationalism in India | 3 |
| RELS 3733 | Tibetan Buddhism | 3 |


| RELS 3743 | History of Daoist Traditions | 3 |
| :--- | :--- | :--- |
| RELS 3763 | Chinese Religions | 3 |

## European Studies, B.A.

Minimum Total Credit Hours: 120
Major Hours: 30
Minimum Upper-Division Hours: 48
Upper-Division Hours Within Major: 18

Overall GPA - Combined and OU: 2.00
Major GPA - Combined and OU: 2.50

Program Code: B420 P241

Some courses required for the major may also fulfill University General Education and/or College of International Studies Requirements

The major requires 30 hours, 18 of which must be upper-division. 9 of the required 30 must be taken in the Department of International and Area Studies.

| Major Requirements |  |
| :---: | :---: |
| Code Title | Credit |
|  | Hours |
| I. Language \& Literature |  |
| Choose two courses at the 3000-level or above beyond the 16-hour requirement, in any of the languages in the area of concentration | 6 |
| II. Foundations in European Studies |  |
| IAS 3273 The European Union | 3 |
| III. History |  |
| Choose 6 hours from a list of courses maintained by the department (p. 1646) | 6 |
| IV. Politics and Society |  |
| Choose 6 hours from a list of courses maintained by the department (3 hours must be IAS designated) (p. 1646) | 6 |
| V. Arts and Culture |  |
| Choose 6 hours from a list of courses maintained by the department (p. 1646) | 6 |
| VI. Senior Capstone Course |  |
| IAS 4013 <br> Senior Capstone Seminar in International and Area Studies | 3 |

Total Credit Hours

Note: Students may take other appropriate courses as approved by the IAS Academic Advisor.

# Major Support Requirements 

| CodeTitle | Credit <br> Hours |
| :--- | ---: |
| Choose 16 hours of one foreign language relevant to the | 16 |
| geographical area of concentration | 3 |
| IAS 2003 Understanding the Global Community | 3 |

## Majors are strongly encouraged to pursue study abroad opportunities.

Total Credit Hours

## General Education and College Requirements

Courses for fulfillment of General Education and College of International Studies requirements must be from the approved General Education course list published in the Class Schedule or at: http://www.ou.edu/ content/gened/courses.html. Courses graded P/NP will not apply.

## UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS

Code Title Credit Hours

## Core Area I: Symbolic and Oral Communication

English Composition
ENGL 1113 Principles of English Composition 3
ENGL 1213 Principles of English Composition 3
or EXPO 1213 Expository Writing
Language
(0-13 hours in the same language) The College of
International Studies requirement cannot be met by high school coursework

Beginning Course 0-5
6 Beginning Course, continued 0-5
$\begin{array}{ll}\text { Intermediate Course (2000 level) }^{1,2} & 0-3\end{array}$
Mathematics
Choose one course 3

Core Area II: Natural Science
Choose two courses from different disciplines in the
biological and/or physical sciences, one of which must
include a laboratory component ${ }^{1}$

Core Area III: Social Science
P SC 1113 American Federal Government 3
Choose one course 3
Core Area IV: Arts and Humanities
Artistic Forms
Choose one course 4 3

Western Culture
HIST 1483 United States to 1865
or HIST 1493 United States, 1865 to the Present
Choose one course ${ }^{3,4} 3$

World Culture
Choose one course ${ }^{4} 3$

Core Area V: First-Year Experience
Choose one course 3
Total Credit Hours 37-50
${ }^{1}$ College of International Studies Requirements: College requirements are not automatically fulfilled by a previous degree.
2 One course at the intermediate level or demonstrated competency at that level. If this requirement is waived, a few hours of General Education electives may be needed to achieve the required 40 hour minimum (may also be satisfied by a major requirement or free elective).
${ }^{3}$ Excluding HIST 1483 and HIST 1493

4 It is recommended students take either Artistic Forms, Western Culture, or World Culture at the 3000-/4000-level to fulfill the university requirement of one upper-division course from the approved University Wide General Education list. The course must be outside the major. This may also be satisfied in the upper-division or free elective categories.

## Free Electives

Electives to bring total applicable hours to the minimum total required for the degree including 48 upper-division hours.

## Information Concerning General Rules, Regulations and Minimum Requirements

Total Hours: A minimum of 120 semester hours acceptable toward graduation must be completed.
Upper-Division Hours: A minimum of 48 upper-division semester hours acceptable toward graduation must be completed. OU courses numbered 3000 or above are upper-division. Transfer work is counted as lowerdivision or upper-division credit depending on the level at which it was offered at the institution where it was earned. Two-year college work is accepted only as lower-division credit.
Liberal Arts and Sciences Hours: At least 80 semester hours of liberal arts and sciences courses are required for a BA degree. At least 55 semester hours of liberal arts and sciences courses are required for a BS degree.
Major Work: A minimum of 30 semester hours must be earned in the major, including a minimum of 15 credit hours at the upper-division level. Pass/No Pass Enrollment: A maximum of 16 semester hours of free elective credit may be attempted under this option.
Individual Studies (e.g., courses titled "Independent Study"): A maximum of 12 total semester hours may be counted toward graduation, excluding Honors Reading and Honors Research.
Military, Military In-Service, Skills, Applied Technology, and P.E.
Courses: A maximum of 16 semester credit hours of basic skills and/ or applied technology courses. No physical education activity courses will be counted toward the 120 semester hours of acceptable credit for graduation.
Senior Institution Hours: A minimum of 60 semester hours applied toward graduation must be earned at senior (4-year) institutions.
Residency:

- At least 15 of the final 30 hours applied toward the degree or at least 50 percent of the hours required by the institution in the major field must be satisfactorily completed at the awarding institution.
- At least 15 semester hours of upper-division major work must be completed in residence at OU.
- OU correspondence courses are not considered resident credit.
- Credits earned via examination are neither resident nor nonresident credit.

Information regarding Grade Point Averages, Special Degrees, and Application for Graduation can be found in the catalog under David L. Boren College of International Studies: Undergraduate Study. (p. 1623)

## Suggested Semester Plan of Study

This plan of study should not be used in lieu of academic advisement. Students who transfer from other institutions (particularly community colleges) must verify credit hour and course requirements with their academic counselor, (405) 325-1429, http://www.ou.edu/international.

Please make an appointment for a degree check with your college academic counselor once you have earned 90 hours.

This plan shows one possible grouping of courses that would allow students to graduate in four years. Please refer to the front of the degree checksheet for official requirements. Students must consult with College of International Studies academic advisors to verify that courses selected each semester fulfill the recommended plan and satisfy university, College of International Studies, and European Studies major requirements.

## Freshman

| First Semester | Credit <br> Hours |
| :--- | ---: | ---: |
| ENGL 1113 $\quad$ Principles of English Composition (Core I) | 3 |
| MATH (Core I) | 3 |
| Beginning Language (Core I) | 5 |
| Natural Science with lab (Core II) | $\mathbf{4}$ |
| Credit Hours | $\mathbf{1 5}$ |

## Second Semester

| ENGL 1213 <br> or EXPO 1213 | Principles of English Composition (Core I) <br> or Expository Writing | 3 |
| :--- | ---: | ---: |
| P SC 1113 $\quad$ American Federal Government (Core III) | 3 |  |
| Beginning Language continued (Core I) | 5 |  |
| Natural Science without lab (Core II) | 3 |  |
| First-Year Experience (Core V) | 3 |  |
| Credit Hours | $\mathbf{1 7}$ |  |

## Sophomore

First Semester


## Second Semester

Free Elective, upper-division (3000-4000-level) ${ }^{1} 3$
Intermediate Language continued 3
World Culture (Core IV) 3
Western Culture (Core IV) ${ }^{1} 3$
Foundations in European Studies, upper-division (3000-4000- 3
level)
Credit Hours 15

## Junior

First Semester
Arts and Culture Major Elective, upper-division 3
Language and Literature Major Elective, upper-division 3
History Major Elective, upper-division 3
Free Elective, lower-division 3
Credit Hours 12
Second Semester
Arts and Culture Major Elective, upper-division 3
Language and Literature Major Elective, upper-division 3
Free Elective, lower-division 3

| Free Elective, lower-division | 3 |
| :---: | :---: |
| Credit Hours | 12 |
| Senior |  |
| First Semester |  |
| History Major Elective, upper-division (3000-4000-level) | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Politics \& Society Major Elective, upper-division (3000-4000level) | 3 |
| Free Elective, lower- or upper-division | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Credit Hours | 18 |
| Second Semester |  |
| $\text { IAS } 4013$ <br> Senior Capstone Seminar in International and Area Studies | 3 |
| Politics \& Society Major Elective, upper-division (3000-4000level) | 3 |
| Free Elective, lower- or upper-division | 3 |
| Free Elective, lower- or upper-division | 1 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Credit Hours | 16 |
| Total Credit Hours | 120 |

${ }^{1}$ University-Wide General Education course, refer to online listing. One course (Artistic Forms, World Culture, or Western Culture) must be 3000-4000-level.

## European Studies Course Lists

## III. History

| Code | Title | Credit |
| :---: | :---: | :---: |
|  |  | Hours |
| HIST 3073 | The Renaissance | 3 |
| HIST 3120 | Topics in Modern European History | 1-5 |
| HIST 3123 | War in European History | 3 |
| HIST 3143 | The Era of the Reformation | 3 |
| HIST 3153 | The Great War, 1914-18 | 3 |
| HIST 3163 | Europe from the French Revolution to Napoleon | 3 |
| HIST 3183 | Italy: Making a Nation? | 3 |
| HIST 3193 | Modern France: Gender, Religion and Nation | 3 |
| HIST 3213 | Intellectual History of Nineteenth-Century Europe | 3 |
| HIST 3223 | Intellectual History of Twentieth-Century Europe | 3 |
| HIST 3233 | Modern Spain | 3 |
| HIST 3243 | European Women \& Gender Relations | 3 |
| HIST 3253 | Germany: From Bismarck to Hitler | 3 |
| HIST 3343 | Eighteenth-Century England | 3 |
| HIST 3353 | England Since 1832 | 3 |
| HIST 3503 | The World War II Era, 1918-1945 | 3 |
| HIST 3683 | Capitalism and Socialism | 3 |


| HIST 4003 | Jews and Other Germans | 3 |
| :--- | :--- | ---: |
| HSTM 3013 | History of Science to the Age of Newton | 3 |
| HSTM 3023 | History of Science Since the Seventeenth <br> Century | 3 |
| IAS 3910 | International Studies Internship | $2-3$ |
| PHIL 3333 | History of Modern Philosophy | 3 |
| PHIL 3713 | History of Social and Political Philosophy | 3 |

## IV. Politics and Society

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| COMM 4513 | International Communication | 3 |
| IAS 3043 | Global Security | 3 |
| IAS 3273 | The European Union | 3 |
| IAS 3533 | Political Violence in Comparative | 3 |
|  | Perspective | 3 |
| IAS 3543 | International Peacebuilding | 3 |
| IAS 3693 | Military, State \& Society | 3 |
| IAS 3993 | Global Communism | 3 |

## V. Arts and culture

| Code | Title | Credit |
| :---: | :---: | :---: |
|  |  | Hours |
| A HI 3303 | Renaissance Art in Italy 1200-1600 | 3 |
| A HI 3343 | Northern Renaissance Art | 3 |
| A HI 3403 | Baroque Art and Architecture in Europe:1600-1700 | 3 |
| A HI 3503 | Art of the 18th Century: The Age of Enlightenment | 3 |
| A HI 3553 | Nineteenth-Century Art | 3 |
| A HI 4373 | The Italian City: Renaissance and Baroque Architecture | 3 |
| A HI 4633 | Modern Art: Cezanne to 1950 | 3 |
| FMS 3833 | Masterpieces of World Cinema | 3 |
| FMS 3843 | Topics in National Cinema | 3 |
| IAS 3883 | Italy Through Italian Film | 3 |
| MLLL 3303 | The World of Dante | 3 |
| MLLL 3313 | Introduction to Italian Literature and Culture | 3 |
| MLLL 3343 | Italian Pop Culture | 3 |
| MLLL 3373 | Italian Cinema | 3 |
| MLLL 3573 | Arthurian Legend and Literature | 3 |
| MLLL 3823 | German Culture and Thought | 3 |

## European Studies: Russian \& East European, B.A.

Minimum Total Credit Hours: 120
Major Hours: 30
Minimum Upper-Division Hours: 48
Upper-Division Hours Within Major. 18

Overall GPA - Combined and OU: 2.00

## Major GPA - Combined and OU: 2.50 <br> Program Code: B420 P576 <br> Some courses required for the major may also fulfill University General Education and/or College of International Studies Requirements. <br> The major requires 30 hours, 18 of which must be upper-division. 12 of the required 30 must be taken in the Department of International and Area Studies.

## Major Requirements

| Code Title | Credit <br> Hours |
| :--- | ---: |
| I. Language \& Literature <br> Choose two courses at the 3000-level or above beyond the <br> 16-hour requirement, in any of the languages in the area of <br> concentration | 6 |
| II. Foundations in European Studies <br> IAS 3273 The European Union <br> III. International Studies <br> Choose 6 hours from a list of courses maintained by the <br> department (p. 1649) <br> IV. History, Politics, and Ideas <br> Choose 6 hours from a list of courses maintained by the <br> department (p. 1649) <br> V. Arts and Culture <br> Choose 6 hours from a list of courses maintained by the <br> department (p. 1649) <br> VI. Senior Capstone Course <br> IAS 4013 | 3 |

Total Credit Hours
Note: Students may take other appropriate courses as approved by the IAS Academic Advisor.

Major Support Requirements

| Code Title | Credit <br> Hours |
| :--- | ---: |
| Choose 16 hours of one foreign language relevant to the | 16 |
| geographical area of concentration | 3 |
| IAS 2003 Understanding the Global Community |  |
| International Experience |  |
| Majors are strongly encouraged to pursue study abroad <br> opportunities. | $\mathbf{1 9}$ |
| Total Credit Hours |  |

## General Education and College Requirements

Courses for fulfillment of General Education and College of International Studies requirements must be from the approved General Education course list published in the Class Schedule or at: http://www.ou.edu/ content/gened/courses.html. Courses graded P/NP will not apply.

## UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS

Code Title Credit
Core Area I: Symbolic and Oral Communication
English Composition
ENGL 1113 Principles of English Composition ..... 3
ENGL 1213 Principles of English Composition ..... 3
or EXPO 1213 Expository Writing
Language
(0-13 hours in the same language) The College ofInternational Studies requirement cannot be met by highschool coursework
Beginning Course ..... 0-5
Beginning Course, continued ..... 0-5
Intermediate Course (2000 level) ${ }^{1,2}$ ..... 0-3
Mathematics
Choose one course ..... 3
Core Area II: Natural Science
Choose two courses from different disciplines in the ..... 7
biological and/or physical sciences, one of which must
include a laboratory component ${ }^{1}$
Core Area III: Social Science
PSC 1113 American Federal Government ..... 3
Choose one course ..... 3
Core Area IV: Arts and Humanities
Artistic Forms
Choose one course ${ }^{4}$ ..... 3
Western Culture
HIST $1483 \quad$ United States to 1865 ..... 3
Choose one course ${ }^{3,4}$ ..... 3
World Culture
Choose one course ${ }^{4}$ ..... 3
Core Area V: First-Year Experience
Choose one course ..... 3
Total Credit Hours ..... 37-50${ }^{1}$ College of International Studies Requirements: College requirementsare not automatically fulfilled by a previous degree.
${ }^{2}$ One course at the intermediate level or demonstrated competency at that level. If this requirement is waived, a few hours of General Education electives may be needed to achieve the required 40 hour minimum (may also be satisfied by a major requirement or free elective).
${ }^{3}$ Excluding HIST 1483 and HIST 1493.
${ }^{4}$ It is recommended students take either Artistic Forms, Western Culture, or World Culture at the 3000-/4000-level to fulfill the university requirement of one upper-division course from the approved University Wide General Education list. The course must be outside the major. This may also be satisfied in the upper-division or free elective categories.

## Free Electives

Electives to bring total applicable hours to the minimum total required for the degree including 48 upper-division hours.

## Information Concerning General Rules, Regulations and Minimum Requirements

Total Hours: A minimum of 120 semester hours acceptable toward graduation must be completed.
Upper-Division Hours: A minimum of 48 upper-division semester hours acceptable toward graduation must be completed. OU courses numbered 3000 or above are upper-division. Transfer work is counted as lowerdivision or upper-division credit depending on the level at which it was offered at the institution where it was earned. Two-year college work is accepted only as lower-division credit.
Liberal Arts and Sciences Hours: At least 80 semester hours of liberal arts and sciences courses are required for a BA degree. At least 55 semester hours of liberal arts and sciences courses are required for a BS degree.
Major Work: A minimum of 30 semester hours must be earned in the major, including a minimum of 15 credit hours at the upper-division level. Pass/No Pass Enrollment: A maximum of 16 semester hours of free elective credit may be attempted under this option.
Individual Studies (e.g., courses titled "Independent Study"): A maximum of 12 total semester hours may be counted toward graduation, excluding Honors Reading and Honors Research.
Military, Military In-Service, Skills, Applied Technology, and P.E.
Courses: A maximum of 16 semester credit hours of basic skills and/ or applied technology courses. No physical education activity courses will be counted toward the 120 semester hours of acceptable credit for graduation.
Senior Institution Hours: A minimum of 60 semester hours applied toward graduation must be earned at senior (4-year) institutions.
Residency:

- At least 15 of the final 30 hours applied toward the degree or at least 50 percent of the hours required by the institution in the major field must be satisfactorily completed at the awarding institution.
- At least 15 semester hours of upper-division major work must be completed in residence at OU.
- OU correspondence courses are not considered resident credit.
- Credits earned via examination are neither resident nor nonresident credit.

Information regarding Grade Point Averages, Special Degrees, and Application for Graduation can be found in the catalog under David L. Boren College of International Studies: Undergraduate Study. (p. 1623)

## Suggested Semester Plan of Study

This plan of study should not be used in lieu of academic advisement. Students who transfer from other institutions (particularly community colleges) must verify credit hour and course requirements with their academic counselor, (405) 325-1429, http://www.ou.edu/international. Please make an appointment for a degree check with your college academic counselor once you have earned 90 hours.

This plan shows one possible grouping of courses that would allow students to graduate in four years. Please refer to the front of the degree checksheet for official requirements. Students must consult with College of International Studies academic advisors to verify that courses selected each semester fulfill the recommended plan and satisfy university,

College of International Studies, and Russian and East European Studies major requirements.

## Freshman



| Senior |  |
| :---: | :---: |
| First Semester |  |
| International Studies Major Elective, upper-division (3000-4000-level) | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Arts \& Culture Major Elective, upper-division (3000-4000-level) | 3 |
| Free Elective, lower- or upper-division | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Credit Hours | 18 |
| Second Semester |  |
| IAS $4013 \begin{aligned} & \text { Senior Capstone Seminar in International } \\ & \text { and Area Studies }\end{aligned}$ | 3 |
| Arts \& Culture Major Elective, upper-division (3000-4000-level) | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Credit Hours | 15 |
| Total Credit Hours | 120 |

[^57]
## European Studies: Russian \& East European Course Lists

| III. International Studies |  |  |
| :--- | :--- | ---: |
| Code | Title | Credit <br> Hours |
|  |  | 3 |
| IAS 3043 | Global Security | 3 |
| IAS 3073 | Global Economic Relations | 3 |



| IAS 3963 | US-Russia Relations | 3 |
| :--- | :--- | ---: |
| IAS 3973 | Cultural Diplomacy | 3 |
| IAS 3993 | Global Communism | 3 |
| PHIL 3333 | History of Modern Philosophy | 3 |
| PHIL 3713 | History of Social and Political Philosophy | 3 |
| V. Arts and Culture | Credit |  |
| Code | Title | Hours |
| MLLL 3123 | Russian Culture and Civilization | 3 |
| MLLL 3133 | Soviet and Post-Soviet Cinema | 3 |
| MLLL 3143 | Dostoevsky and His Age | 3 |
| MLLL 3163 | Chekhov | 3 |
| MLLL 3173 | Nabokov | 3 |
| MLLL 3183 | Tolstoy: Writer, Thinker, Social Critic | 3 |
| MLLL 3523 | Survey of Russian Literature to 1917 in | 3 |
| MLLL 3533 | Translation | Survey of Russian Literature from 1917 in |
| MLLL 3543 | Translation | 3 |
| MLLL Petersburg Myth and Text/The City in | 3553 | Russian Culture |

## Global Energy, Environment, and Resources, B.A.

Minimum Total Credit Hours: 120
Major Hours: 33
Minimum Upper-Division Hours: 48
Upper-Division Hours Within Major. 18

Overall GPA - Combined and OU: 2.00
Major GPA - Combined and OU: 2.50
Program Code: B495
Some courses required for the major may also fulfill University General Education and/or College of International Studies Requirements

The major requires 33 hours, 18 of which must be upper-division. 18 of the required 33 must be taken in the Department of International and Area Studies.

## Major Requirements

| Code | Title | Credit |
| :---: | :---: | :---: |
| I. Foundations of GEER |  |  |
| IAS 3283 or IAS 3653 | Culture, Power, and Global Environment Energy, Climate, and Security | 3 |
| II. Areas of Concentration |  |  |
| Choose five courses from the following groups. Courses are chosen from a list maintained by the department. A minimum of one course from each group must be taken. A minimum of 6 hours must be IAS designated. (p. 1652) |  | 15 |
| Energy, Climate, and the Environment |  |  |
| Environment \& Global Ethics |  |  |
| Internationa | ociety and Environment |  |


| III. Area Studies Focus |  |  |
| :---: | :---: | :---: |
| Choose three courses from one region of the world ${ }^{1}$ |  |  |
| IV. Internship or Service Learning |  |  |
| Choose one of the following (preferably with an international focus): ${ }^{2}$ |  |  |
| IAS 3910 | International Studies Internship (Energy Company) |  |
| IAS 3910 | International Studies Internship (Environmental Organization) |  |
| Service Learning appropriate to the major |  |  |
| V. Senior Capstone Course |  |  |
| IAS 4013 | Senior Capstone Seminar in International and Area Studies | 3 |
| Total Credit |  | 33 |
| Courses outside of the department must be approved by the IAS Academic Advisor. A minimum of 3 hours must be IAS designated. |  |  |
| ${ }^{2}$ Students must have an internship in an energy company or environmental organization, preferably with an international focus. Students may also engage in service learning appropriate to the major. All internships and service learning must be approved by the IAS Academic Advisor. |  |  |

Note: Students may take other appropriate courses as approved by the IAS Academic Advisor.

## Major Support Requirements

| Code $\quad$ Title | Credit <br> Hours |
| :--- | ---: | ---: |
| Choose 13 hours of one foreign language relevant to the | 13 |
| major |  |
| IAS 2003 Understanding the Global Community | 3 |
| International Experience |  |
| Majors are strongly encouraged to pursue study abroad <br> opportunities. |  |
| Total Credit Hours | $\mathbf{1 6}$ |

## General Education and College Requirements

Courses for fulfillment of General Education and College of International Studies requirements must be from the approved General Education course list published in the Class Schedule or at: http://www.ou.edu/ content/gened/courses.html. Courses graded P/NP will not apply.

## UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS

Code Title

Credit Hours

Core Area I: Symbolic and Oral Communication
English Composition
ENGL 1113 Principles of English Composition 3
ENGL 1213 Principles of English Composition

## Language

(0-13 hours in the same language) The College of International Studies requirement cannot be met by high school coursework
Beginning Course ..... 0-5
Beginning Course, continued ..... 0-5
Intermediate Course (2000 level) 1,2 ..... 0-3
Mathematics
Choose one course ..... 3
Core Area II: Natural Science
Choose two courses from different disciplines in the ..... 7
biological and/or physical sciences, one of which must include a laboratory component ${ }^{1}$
Core Area III: Social Science
P SC 1113 American Federal Government ..... 3
Choose one course ..... 3
Core Area IV: Arts and Humanities
Artistic Forms
Choose one course ${ }^{4}$ ..... 3
Western Culture
HIST 1483 United States to 1865 ..... 3
or HIST 1493 United States, 1865 to the Present
Choose one course ${ }^{3,4}$ ..... 3
World Culture
Choose one course ${ }^{4}$ ..... 3
Core Area V: First-Year Experience
Choose one course3
Total Credit Hours ..... 37-50
${ }^{1}$ College of International Studies Requirements: College requirements are not automatically fulfilled by a previous degree.
2 One course at the intermediate level or demonstrated competency at that level. If this requirement is waived, a few hours of General Education electives may be needed to achieve the required 40 hour minimum (may also be satisfied by a major requirement or free elective).
${ }^{3}$ Excluding HIST 1483 and HIST 1493
4 It is recommended students take either Artistic Forms, Western Culture, or World Culture at the 3000-/4000-level to fulfill the university requirement of one upper-division course from the approved University Wide General Education list. The course must be outside the major. This may also be satisfied in the upper-division or free elective categories.

## Free Electives

Electives to bring total applicable hours to the minimum total required for the degree including 48 upper-division hours.

## Information Concerning General Rules, Regulations and Minimum Requirements

Total Hours: A minimum of 120 semester hours acceptable toward graduation must be completed.
Upper-Division Hours: A minimum of 48 upper-division semester hours acceptable toward graduation must be completed. OU courses numbered 3000 or above are upper-division. Transfer work is counted as lowerdivision or upper-division credit depending on the level at which it was offered at the institution where it was earned. Two-year college work is accepted only as lower-division credit.
Liberal Arts and Sciences Hours: At least 80 semester hours of liberal arts and sciences courses are required for a BA degree. At least 55
semester hours of liberal arts and sciences courses are required for a BS degree.
Major Work: A minimum of 30 semester hours must be earned in the major, including a minimum of 15 credit hours at the upper-division level.
Pass/No Pass Enrollment: A maximum of 16 semester hours of free elective credit may be attempted under this option.
Individual Studies (e.g., courses titled "Independent Study"): A maximum of 12 total semester hours may be counted toward graduation, excluding Honors Reading and Honors Research.
Military, Military In-Service, Skills, Applied Technology, and P.E.
Courses: A maximum of 16 semester credit hours of basic skills and/ or applied technology courses. No physical education activity courses will be counted toward the 120 semester hours of acceptable credit for graduation.
Senior Institution Hours: A minimum of 60 semester hours applied toward graduation must be earned at senior (4-year) institutions.

## Residency:

- At least 15 of the final 30 hours applied toward the degree or at least 50 percent of the hours required by the institution in the major field must be satisfactorily completed at the awarding institution.
- At least 15 semester hours of upper-division major work must be completed in residence at OU.
- OU correspondence courses are not considered resident credit.
- Credits earned via examination are neither resident nor nonresident credit.


## Information regarding Grade Point Averages, Special Degrees,

 and Application for Graduation can be found in the catalog under David L. Boren College of International Studies: Undergraduate Study. (p. 1623)
## Suggested Semester Plan of Study

This plan of study should not be used in lieu of academic advisement. Students who transfer from other institutions (particularly community colleges) must verify credit hour and course requirements with their academic counselor, (405) 325-1429, http://www.ou.edu/international. Please make an appointment for a degree check with your college academic counselor once you have earned 90 hours.

This plan shows one possible grouping of courses that would allow students to graduate in four years. Please refer to the front of the degree checksheet for official requirements. Students must consult with College of International Studies academic advisors to verify that courses selected each semester fulfill the recommended plan and satisfy university, College of International Studies, and Asian Studies major requirements.

## Freshman

| First Semester |  | Credit |
| :---: | :---: | :---: |
|  |  | Hours |
| ENGL 1113 | Principles of English Composition (Core I) | 3 |
| IAS 2003 | Understanding the Global Community (Core III) | 3 |
| Beginning Language (Core I) |  | 5 |
| MATH (Core I) |  | 3 |
| First-Year Experience (Core V) |  | 3 |
|  | Credit Hours | 17 |
| Second Semester |  |  |
| ENGL 1213 or EXPO 1213 | Principles of English Composition (Core I) or Expository Writing | 3 |
| P SC 1113 | American Federal Government (Core III) | 3 |


| Beginning Language continued (Core I) | 5 |
| :---: | :---: |
| Natural Science with lab (Core II) | 4 |
| Credit Hours | 15 |
| Sophomore |  |
| First Semester |  |
| $\begin{array}{ll}\text { HIST } 1483 & \text { United States to } 1865 \text { (Core IV) } \\ \text { or HIST } 1493 & \text { or United States, } 1865 \text { to the Present }\end{array}$ | 3 |
| Intermediate Language (Core I) | 3 |
| World Culture (Core IV) ${ }^{1}$ | 3 |
| Natural Science without lab (Core II) | 3 |
| Free Elective, lower-division | 2 |
| Free Elective, lower-division | 2 |
| Credit Hours | 16 |
| Second Semester |  |
| $\begin{array}{cc}\text { IAS } 3283 & \text { Culture, Power, and Global Environment } \\ \text { or IAS } 3653 & \text { or Energy, Climate, and Security }\end{array}$ | 3 |
| Areas of Concentration Major Elective, upper-division (3000-4000-level) | 3 |
| Free Elective, lower-division | 3 |
| Western Culture (Core IV) ${ }^{1}$ | 3 |
| Artistic Forms (Core IV) ${ }^{1}$ | 3 |
| Credit Hours | 15 |
| Junior |  |
| First Semester |  |
| Area Studies Focus Major Elective, upper-division (3000-4000level) | 3 |
| Free Elective, lower-division | 3 |
| Free Elective, lower-division | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Credit Hours | 12 |
| Second Semester |  |
| Area Studies Focus Major Elective, upper-division (3000-4000level) | 3 |
| Free Elective, lower-division | 3 |
| Free Elective, upper-division (3000-4000 level) | 3 |
| Free Elective, upper-division (3000-4000 level) | 3 |
| Credit Hours | 12 |
| Senior |  |
| First Semester |  |
| IAS 3910 International Studies Internship (or Service Learning) | 3 |
| Areas of Concentration Major Elective, upper-division (3000-4000-level) | 3 |
| Areas of Concentration Major Elective, upper-division (3000-4000-level) | 3 |
| Area Studies Focus Major Elective, upper-division (3000-4000level) | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Free Elective, lower-division | 3 |
| Credit Hours | 18 |
| Second Semester |  |
| $\text { IAS } 4013$ <br> Senior Capstone Seminar in International and Area Studies | 3 |

First SemesterWorld Culture (Core IV) $^{1} 3$Free Elective, Iower-division2Credit Hours16
AS 3283
or Energy, Climate, and Security ..... 3
3Free Elective, Iower-division3
Western Culure (Core IV)3First Semesterlevel)Free Elective, lower-division3
Free Elective, upper-division (3000-4000-level) ..... 3Area Studies Focus Major Elective, upper-division (3000-4000-3level)Free Elective, upper-division (3000-4000 level)3
ree Elective, upper-division (3000-4000 level)12
SeniorFirst Semester
(or Service ..... 3
Major Elective, upper-division ..... 3Areas of Concentration Major Elective, upper-division3Area Studies Focus Major Elective, upper-division (3000-4000-
level)
Free Elective, upper-division (3000-4000-level) 3

## Second Semester

 and Area Studies| Areas of Concentration Major Elective, upper-division (3000-4000-level) | 3 |
| :---: | :---: |
| Areas of Concentration Major Elective, upper-division (3000-4000-level) | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Free Elective, lower- or upper-division | 3 |
| Credit Hours | 15 |
| Total Credit Hours | 120 |

${ }^{1}$ University-Wide General Education course, refer to online listing. One course (Artistic Forms, World Culture, or Western Culture) must be 3000-4000-level.

## Global Energy, Environment, and Resources Course Lists

II. Areas of Concentration
Code

Title $\quad$| Credit |
| ---: |
| Hours |

| Environment \& Global Ethics |  |  |
| :--- | :--- | :--- |
| ENST 3213 | Law and the Environment | 3 |
| ENST 3223 | Environmental Justice | 3 |
| ENST 3243 | Introduction to Water Law | 3 |
| ENST 3603 | Global Perspectives of Wildlife | 3 |


|  | Global Perspectives of Wildilife |  |
| :--- | :--- | :--- |
| GEOG 3233 | Principles of Sustainability | 3 |

GEOG 3253 Environmental Conservation 3

| GEOG/RCPL 4003 | The Global City and Planning Issues | 3 |
| :--- | :--- | :--- |
| GEOG 4423 | Environmental Justice | 3 |
| HSTM 3473 | History of Ecology and Environmentalism | 3 |
| IAS 3013 | International Law | 3 |
| IAS 3863 | Global Environment | 3 |
| PHIL 3293 | Environmental Ethics | 3 |

International Society and Environment

| ANTH 2253 | Human and Animal Interaction Across <br> Cultures | 3 |
| :--- | :--- | ---: |
| ENST 2203 | Ecosystem Impacts of Climate Change | 3 |
| ENST 2623 | Human-Wildlife Interactions | 3 |


| ENST 3313 | Gardening, Community, and the Environment | 3 |
| :---: | :---: | :---: |
| GEOG 1203 | Global Environmental Issues | 3 |
| GEOG 3443 | Environment and Society | 3 |
| GEOG 3843 | Gender and Environment | 3 |
| GEOG 4343 | Climate, History, and Society | 3 |
| GEOG 4563 | American Indian Geographies | 3 |
| GEOL 3023 | The Geology of Natural Resources in SubSaharan Africa | 3 |
| GEOL 3033 | Earth Resources and the Environment | 3 |
| HIST 3493 | American Environmental History | 3 |
| HIST 4553 | Environmental History of Latin America | 3 |
| HON 2973 | Perspectives on the American Experience (Water \& Development) | 3 |
| HSTM 1113 | Science, Nature and Society: Historical Perspectives | 3 |
| IAS 3083 | International Activism | 3 |
| IAS 3173 | Work, Family, and Religion in Rural China | 3 |
| IAS 3193 | Environment and Disease Crises in China | 3 |
| IAS 3283 | Culture, Power, and Global Environment | 3 |
| IAS 3383 | The United Nations \& World Politics | 3 |

## International Development, B.A.

Minimum Total Credit Hours: 120
Major Hours: 30
Minimum Upper-Division Hours: 48
Upper-Division Hours Within Major. 18

Overall GPA - Combined and OU: 2.00
Major GPA - Combined and OU: 2.50
Program Code: B597
Some courses required for the major may also fulfill University General Education and/or College of International Studies Requirements.

The major requires 30 hours, 18 of which must be upper-division. 12 of the required $\mathbf{3 0}$ must be taken in the Department of International and Area Studies.

## Major Requirements

| Code Title | Credit <br> Hours |
| :--- | ---: |
| I. Foundations in International Development <br> IAS $3323 \quad$ The Political Economy of Development | 3 |
| II. Areas of Concentration <br> Group A - Political Economy |  |
| Choose 6 hours (3 must be IAS designated) from a list of <br> courses maintained by the department (p. 1655) | 6 |
| Group B. Social, Cultural, and Historical Perspectives |  |
| Choose 6 hours (3 must be IAS designated) from a list of <br> courses maintained by the department (p. 1655) | 6 |
| III. Skills for Research, Quantitative Analysis, Technical <br> Applications, or Management <br> Choose 6 hours from a list of courses maintained by the <br> department (p. 1655) | 6 |


| IV. Specialization |  |
| :--- | :---: |
| Choose one of the following: |  |
| Choose two additional courses from sections II and III <br> (p. 1655) |  |
| Choose two additional courses in one of the area studies |  |
| Choose two courses in a custom area of specialization |  |
| approved by the department |  |

## Major Support Requirements

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Choose 13 hours of one foreign language | 13 |  |
| IAS 2003 | Understanding the Global Community | 3 |
| ECON 1113 | Principles of Economics-Macro | 3 |

International Experience
Majors are strongly encouraged to pursue study abroad opportunities.

## Total Credit Hours

## General Education and College Requirements

Courses for fulfillment of General Education and College of International Studies requirements must be from the approved General Education course list published in the Class Schedule or at: http://www.ou.edu/ content/gened/courses.html. Courses graded P/NP will not apply.

UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS

| Code Title | Credit Hours |
| :---: | :---: |
| Core Area I: Symbolic and Oral Communication |  |
| English Composition |  |
| ENGL 1113 Principles of English Composition | 3 |
| ENGL 1213 Principles of English Composition or EXPO 1213 Expository Writing | 3 |
| Language |  |
| (0-13 hours in the same language) The College of International Studies requirement cannot be met by high school coursework |  |
| Beginning Course | 0-5 |
| Beginning Course, continued | 0-5 |
| Intermediate Course (2000 level) ${ }^{1,2}$ | 0-3 |
| Mathematics |  |
| Choose one course | 3 |

Core Area II: Natural Science
Choose two courses from different disciplines in the7
biological and/or physical sciences, one of which mustinclude a laboratory component ${ }^{1}$
Core Area III: Social Science
P SC 1113 American Federal Government ..... 3
Choose one course ..... 3
Core Area IV: Arts and Humanities
Artistic Forms
Choose one course ${ }^{4}$ ..... 3
Western Culture3
or HIST 1493 United States, 1865 to the Present
Choose one course ${ }^{3,4}$ ..... 3
World CultureChoose one course ${ }^{4}$3
Core Area V: First-Year Experience

| Choose one course | 3 |
| :--- | ---: |
| Total Credit Hours | $37-50$ |

37-50
${ }^{1}$ College of International Studies Requirements: College requirements are not automatically fulfilled by a previous degree.
2 One course at the intermediate level or demonstrated competency at that level. If this requirement is waived, a few hours of General Education electives may be needed to achieve the required 40 hour minimum (may also be satisfied by a major requirement or free elective).
${ }^{3}$ Excluding HIST 1483 and HIST 1493.
4 It is recommended students take either Artistic Forms, Western Culture, or World Culture at the 3000-/4000-level to fulfill the university requirement of one upper-division course from the approved University Wide General Education list. The course must be outside the major. This may also be satisfied in the upper-division or free elective categories.

## Free Electives

Electives to bring total applicable hours to the minimum total required for the degree including 48 upper-division hours.

## Information Concerning General Rules, Regulations and Minimum Requirements

Total Hours: A minimum of 120 semester hours acceptable toward graduation must be completed.
Upper-Division Hours: A minimum of 48 upper-division semester hours acceptable toward graduation must be completed. OU courses numbered 3000 or above are upper-division. Transfer work is counted as lowerdivision or upper-division credit depending on the level at which it was offered at the institution where it was earned. Two-year college work is accepted only as lower-division credit.
Liberal Arts and Sciences Hours: At least 80 semester hours of liberal arts and sciences courses are required for a BA degree. At least 55 semester hours of liberal arts and sciences courses are required for a BS degree.
Major Work: A minimum of 30 semester hours must be earned in the major, including a minimum of 15 credit hours at the upper-division level. Pass/No Pass Enrollment: A maximum of 16 semester hours of free elective credit may be attempted under this option.

Individual Studies (e.g., courses titled "Independent Study"): A maximum of 12 total semester hours may be counted toward graduation, excluding Honors Reading and Honors Research.
Military, Military In-Service, Skills, Applied Technology, and P.E.
Courses: A maximum of 16 semester credit hours of basic skills and/ or applied technology courses. No physical education activity courses will be counted toward the 120 semester hours of acceptable credit for graduation.
Senior Institution Hours: A minimum of 60 semester hours applied toward graduation must be earned at senior (4-year) institutions.
Residency:

- At least 15 of the final 30 hours applied toward the degree or at least 50 percent of the hours required by the institution in the major field must be satisfactorily completed at the awarding institution.
- At least 15 semester hours of upper-division major work must be completed in residence at OU.
- OU correspondence courses are not considered resident credit.
- Credits earned via examination are neither resident nor nonresident credit.

Information regarding Grade Point Averages, Special Degrees, and Application for Graduation can be found in the catalog under David L. Boren College of International Studies: Undergraduate Study. (p. 1623)

## Suggested Semester Plan of Study

This plan of study should not be used in lieu of academic advisement. Students who transfer from other institutions (particularly community colleges) must verify credit hour and course requirements with their academic counselor, (405) 325-1429, http://www.ou.edu/international. Please make an appointment for a degree check with your college academic counselor once you have earned 90 hours.

This plan shows one possible grouping of courses that would allow students to graduate in four years. Please refer to the front of the degree checksheet for official requirements. Students must consult with College of International Studies academic advisors to verify that courses selected each semester fulfill the recommended plan and satisfy university, College of International Studies, and International Studies major requirements.

## Freshman

| First Semester |  | Credit |
| :---: | :---: | :---: |
|  |  | Hours |
| ENGL 1113 | Principles of English Composition (Core I) | 3 |
| MATH (Core I) |  | 3 |
| Beginning Langu | age (Core I) | 5 |
| Natural Science | with lab (Core II) | 4 |
|  | Credit Hours | 15 |
| Second Semester |  |  |
| $\begin{aligned} & \text { ENGL } 1213 \\ & \text { or EXPO } 1213 \end{aligned}$ | Principles of English Composition (Core I) or Expository Writing | 3 |
| P SC 1113 | American Federal Government (Core III) | 3 |
| Beginning Language continued (Core I) |  | 5 |
| Natural Science without lab (Core II) |  | 3 |
| First-Year Experience (Core V) |  | 3 |
|  | Credit Hours | 17 |

## Sophomore

| First Semester |  |  |
| :---: | :---: | :---: |
| ECON 1113 | Principles of Economics-Macro (Coe III) | 3 |
| HIST 1483 or HIST 1493 | United States to 1865 (Core IV) or United States, 1865 to the Present | 3 |
| IAS 2003 | Understanding the Global Community (Core III) | 3 |
| Intermediate Language (Core I) |  | 3 |
| Artistic Forms (Core IV) ${ }^{1}$ |  | 3 |
|  | Credit Hours | 15 |
| Second Semester |  |  |
| IAS 3323 | The Political Economy of Development | 3 |
| Free Elective, upper-division (3000-4000-level) |  | 3 |
| Free Elective, Iower-division |  | 3 |
| World Culture (Core IV) ${ }^{1}$ |  | 3 |
| Western Culture (Core IV) ${ }^{1}$ |  | 3 |

## Junior

## First Semester

II. Group A. Political Economy, upper-division (3000-4000- 3
level)
II. Group B. Social, Cultural, \& Hist. Persp., upper-division 3
(3000-40000-level)

| Free Elective, upper-division (3000-4000-level) | 3 |
| :---: | ---: |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Credit Hours | $\mathbf{1 2}$ |

## Second Semester

II. Group B. Social, Cultural, \& Hist. Persp., upper-division 3
(3000-40000-level)
IV. Specialization, upper-division (3000-4000-level) 3

Free Elective, lower-division 3

| Free Elective, lower-division | 3 |
| :---: | ---: |
| Credit Hours | $\mathbf{1 2}$ |

## Senior

First Semester
II. Group A. Political Economy, upper-division (3000-4000- 3
level)
III. Skills, lower- or upper-division 3
IV. Specialization, upper-division (3000-4000-level) 3

Free Elective, upper-division (3000-4000-level) 3
Free Elective, lower- or upper-division 3
Free Elective, lower- or upper-division 3
Credit Hours 18

## Second Semester

III. Skills, upper-division (3000-4000-level) 3

IAS 4013 Senior Capstone Seminar in International 3
Free Elective, lower- or upper-division 1

Free Elective, upper-division (3000-4000-level) 3
Free Elective, upper-division (3000-4000-level) 3

| Free Elective, upper-division (3000-4000-level) |
| :--- |
| Credit Hours |
| Total Credit Hours |
| ${ }^{1}$ University-Wide General Education course, refer to online listing. One |
| course (Artistic Forms, World Culture, or Western Culture) must be |
| $3000-4000-$ level. |
| International Development Course Lists |

## II. Areas of Concentration

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Group A - Political | Economy |  |
| ECON 4733 | Economic Development in the Middle East | 3 |
| ECON 4853 | World Economic Development | 3 |
| GEOG 3243 | Principles of Economic Geography | 3 |
| GEOG 3513 | Political Geography | 3 |
| HON 2963 | Perspectives on the Global Experience <br> (Globalizing Africa) | 3 |
| IAS 3313 | Latin American International Relations | 3 |
| IAS 3543 | International Peacebuilding | 3 |
| IAS 3603 | Energy, Environment \& Climate Change in | 3 |
|  | China | 3 |
| IAS 3743 | The Politics of the International System | 3 |
| IAS 3803 | International Cooperation \& Development | 3 |
| IAS 3833 | Democratic Decline in Global Perspective | 3 |
| IAS 3893 | Law \& Globalization | 3 |
| IAS 3993 | Global Communism | 3 |

Group B. Social, Cultural, and Historical Perspectives
$\begin{array}{ll}\text { AFAM } 2113 \quad \text { Africa and the Diaspora }\end{array}$

| ANTH 2203 | Global Cultural Diversity | 3 |
| :--- | :--- | :--- |
| ANTH 4303 | Women and Development in Africa | 3 |
| ANTH 4623 | Approaches to Cross-Cultural Human | 3 |

GEOG 1103 Human Geography 3
GEOG 2603 World Regional Geography 3
GEOG 4003 The Global City and Planning Issues 3
HIST 2713 Survey of African Civilization 3
HIST 3723 Africa Since 1945

| HSTM 3483 | Technology, Politics, and International <br> Development | 3 |
| :--- | :--- | :--- |
| HON 2963 | Perspectives on the Global Experience | 3 |


|  | (Culture, Power \& Intl Development) |
| :--- | :--- | :--- |


| HON 3993 | Honors Colloquium (Topic: Africa \& the <br> Urge to Help) | 3 |
| :--- | :--- | :--- |
|  | International Human Rights | 3 |
| IAS 3033 | Work, Family, and Religion in Rural China | 3 |
| IAS 3173 | Environment and Disease Crises in China | 3 |
| IAS 3193 | The Middle East Since World War I | 3 |
| IAS 3203 | Culture, Power, and Global Environment | 3 |
| IAS 3283 | Modern Brazil | 3 |


| IAS 3383 | The United Nations \& World Politics | 3 |
| :--- | :--- | :--- |
| IAS 3683 | Poverty and Inequality in the Middle East | 3 |
| IAS 3793 | African Politics \& Society | 3 |
| IAS 3863 | Global Environment | 3 |
| IAS 4523 | Latin American Left | 3 |
| IAS 4533 | Populism in 20th-Century South America | 3 |
| IAS 4543 | Latin America in the Age of the Cuban | 3 |
| SOC 3803 | Revolution |  |
| WGS 3123 | Inequality in A Global Perspective | 3 |
| WGS 3513 | Social Justice and Social Change | 3 |
| WGS 3563 | Gender, Law and Human Rights | 3 |


| III. Skills for Research, Quantitative Analysis, Technical |  |  |
| :--- | :--- | ---: |
| Applications, or Management |  |  |
| Code | Title | Credit <br> Hours |
|  |  | 3 |
| ANTH 4713 | Statistical Concepts in Anthropology | 3 |
| NPNG 2033 | Introduction to Nonprofits | 3 |
| NPNG 3033 | Nonprofit Management | 3 |
| ECON 1123 | Principles of Economics-Micro | 3 |
| ECON 2843 | Elements of Statistics | 3 |
| GEOG 3923 | Quantitative Methods | 3 |
| IAS 3813 | Development Practice | 3 |
| PSY 2003 | Understanding Statistics | 3 |
| P SC 2013 | Introduction to Political Analysis | 3 |
| P SC/S0C 3123 | Social Statistics | 3 |

## International Security Studies, B.A.

Minimum Total Credit Hours: 120<br>Major Hours: 30<br>Minimum Upper-Division Hours: 48<br>Upper-Division Hours Within Major. 18<br>Overall GPA - Combined and OU: 2.00<br>Major GPA - Combined and OU: 2.50<br>Program Code: B604

Some courses required for the major may also fulfill University General Education and/or College of International Studies Requirements

The major requires 30 hours, 18 of which must be upper-division. 18 of the required 30 must be taken in the Department of International and Area Studies.

## Major Requirements

| Code Title | Credit <br> Hours |
| :--- | ---: |
| I. Foundations in International Security <br> IAS 3043 <br> Global Security | 3 |
| II. International Security Issues <br> Choose 12 hours from a list of courses maintained by the <br> department (6 hours must be IAS designated) (p. 1658) | 12 |
| III. Strategic Areas |  |

Choose 12 hours from a list of courses maintained by the department ( 6 hours must be IAS designated) (p. 1658)

| IAS 4013 | Senior Capstone Seminar and Area Studies |
| :---: | :---: |
| Total Credit Hours |  |
| Note: Students may take other appropriate c IAS Academic Advisor. |  |
| Major | t Requirements |



## General Education and College Requirements

Courses for fulfillment of General Education and College of International Studies requirements must be from the approved General Education course list published in the Class Schedule or at: http://www.ou.edu/ content/gened/courses.html. Courses graded P/NP will not apply.

UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS
Code Title Credit

Core Area I: Symbolic and Oral Communication

## English Composition

ENGL 1113 Principles of English Composition 3
ENGL 1213 Principles of English Composition 3
or EXPO 1213 Expository Writing
Language
(0-13 hours in the same language) The College of International Studies requirement cannot be met by high school coursework
Beginning Course 0-5
Beginning Course, continued 0-5
Intermediate Course (2000 level) ${ }^{1,2} \quad 0-3$
Mathematics
Choose one course
,

## Core Area IV: Arts and Humanities

Artistic Forms
Choose one course ${ }^{4} 3$

Western Culture
HIST 1483 United States to 1865
or HIST 1493 United States, 1865 to the Present
Choose one course ${ }^{3,4} 3$
World Culture
Choose one course ${ }^{4} 3$
Core Area V: First-Year Experience
Choose one course 3
Total Credit Hours 37-50
${ }^{1}$ College of International Studies Requirements: College requirements are not automatically fulfilled by a previous degree.
${ }^{2}$ One course at the intermediate level or demonstrated competency at that level. If this requirement is waived, a few hours of General Education electives may be needed to achieve the required 40 hour minimum (may also be satisfied by a major requirement or free elective).
${ }^{3}$ Excluding HIST 1483 and HIST 1493.
${ }^{4}$ It is recommended students take either Artistic Forms, Western Culture, or World Culture at the 3000-/4000-level to fulfill the university requirement of one upper-division course from the approved University Wide General Education list. The course must be outside the major. This may also be satisfied in the upper-division or free elective categories.

## Free Electives

Electives to bring total applicable hours to the minimum total required for the degree including 48 upper-division hours.

## Information Concerning General Rules, Regulations and Minimum Requirements

Total Hours: A minimum of 120 semester hours acceptable toward graduation must be completed.
Upper-Division Hours: A minimum of 48 upper-division semester hours acceptable toward graduation must be completed. OU courses numbered 3000 or above are upper-division. Transfer work is counted as lowerdivision or upper-division credit depending on the level at which it was offered at the institution where it was earned. Two-year college work is accepted only as lower-division credit.
Liberal Arts and Sciences Hours: At least 80 semester hours of liberal arts and sciences courses are required for a BA degree. At least 55 semester hours of liberal arts and sciences courses are required for a BS degree.
Major Work: A minimum of 30 semester hours must be earned in the major, including a minimum of 15 credit hours at the upper-division level. Pass/No Pass Enrollment: A maximum of 16 semester hours of free elective credit may be attempted under this option.

Individual Studies (e.g., courses titled "Independent Study"): A maximum of 12 total semester hours may be counted toward graduation, excluding Honors Reading and Honors Research.
Military, Military In-Service, Skills, Applied Technology, and P.E.
Courses: A maximum of 16 semester credit hours of basic skills and/ or applied technology courses. No physical education activity courses will be counted toward the 120 semester hours of acceptable credit for graduation.
Senior Institution Hours: A minimum of 60 semester hours applied toward graduation must be earned at senior (4-year) institutions.

## Residency:

- At least 15 of the final 30 hours applied toward the degree or at least 50 percent of the hours required by the institution in the major field must be satisfactorily completed at the awarding institution.
- At least 15 semester hours of upper-division major work must be completed in residence at OU.
- OU correspondence courses are not considered resident credit.
- Credits earned via examination are neither resident nor nonresident credit.

Information regarding Grade Point Averages, Special Degrees, and Application for Graduation can be found in the catalog under David L. Boren College of International Studies: Undergraduate Study. (p. 1623)

## Suggested Semester Plan of Study

This plan of study should not be used in lieu of academic advisement. Students who transfer from other institutions (particularly community colleges) must verify credit hour and course requirements with their academic counselor, (405) 325-1429, http://www.ou.edu/international. Please make an appointment for a degree check with your college academic counselor once you have earned 90 hours.

This plan shows one possible grouping of courses that would allow students to graduate in four years. Please refer to the front of the degree checksheet for official requirements. Students must consult with College of International Studies academic advisors to verify that courses selected each semester fulfill the recommended plan and satisfy university, College of International Studies, and International Security Studies major requirements.

## Freshman

| First Semester |  | Credit |
| :---: | :---: | :---: |
|  |  | Hours |
| ENGL 1113 | Principles of English Composition (Core I) | 3 |
| MATH (Core I) |  | 3 |
| P SC 1113 | American Federal Government (Core III) | 3 |
| Beginning Language (Core I) |  | 5 |
| Natural Science without Lab (Core II) |  | 3 |
|  | Credit Hours | 17 |
| Second Semester |  |  |
| $\begin{aligned} & \text { ENGL } 1213 \\ & \quad \text { or EXPO } 1213 \end{aligned}$ | Principles of English Composition (Core I) or Expository Writing | 3 |
| HIST 1483 or HIST 1493 | United States to 1865 (Core IV) or United States, 1865 to the Present | 3 |
| IAS 2003 | Understanding the Global Community | 3 |
| First-Year Experience (Core V) |  | 3 |
| Beginning Language continued (Core I) |  | 5 |
|  | Credit Hours | 17 |

## Sophomore

## First Semester

Intermediate Language 3
Natural Science with lab (Core II) 4
Artistic Forms (Core IV) ${ }^{1} 3$
Free Elective, lower-division 3
Free Elective, lower-division 3

Second Semester
IAS $3043 \quad$ Global Security 3
Free Elective, lower-division 3
World Culture (Core IV) ${ }^{1} 3$
Western Culture (Core IV) ${ }^{1} 3$
Free Elective, lower-division 3
Credit Hours 15

## Junior

## First Semester

International Security Issues Major Elective, upper-division 3
Strategic Areas Major Elective, upper-division 3
Free Elective, upper-division (3000-4000-level) 3

| Free Elective, upper-division (3000-4000-level) | 3 |
| :--- | ---: |
| Credit Hours |  |

## Second Semester

International Security Issues Major Elective, upper-division 3
Strategic Areas Major Elective, upper-division 3
Free Elective, lower-division 3
Free Elective, lower-division 3

## Senior

First Semester
International Security Issues Major Elective, upper-division 3
(3000-4000-level)
Strategic Area Major Elective, upper-division (3000-4000-level)
Free Elective, upper-division (3000-4000-level) 3
Free Elective, lower- or upper-division 3

| Free Elective, upper-division (3000-4000-level) | 3 |
| :--- | ---: |
| 15 |  |

## Second Semester

International Security Issues Major Elective, upper-division 3
(3000-4000-level)
Strategic Area Major Elective, upper-division (3000-4000-level) 3
Free Elective, upper-division (3000-4000-level) 3
Choose one of the following: 3

| IAS 3083 | International Activism |  |
| :--- | :--- | ---: |
| IAS 3910 | International Studies Internship |  |
| IAS 3742 | Model UN |  |
| \& IAS 3990 | and Independent Study |  |
| IAS 4013 | Senior Capstone Seminar in International <br> and Area Studies | 3 |
| Free Elective, lower- or upper-division | $\mathbf{1}$ |  |
|  | Credit Hours | $\mathbf{1 6}$ |
|  | Total Credit Hours | $\mathbf{1 2 0}$ |

1 University-Wide General Education course, refer to online listing. One course (Artistic Forms, World Culture, or Western Culture) must be 3000-4000-level.

International Security Studies Course Lists


## III. Strategic Areas

| Code | Title | Credit <br> Hours |
| :---: | :---: | :---: |
| HIST 3303 | Mexico and the United States | 3 |
| HIST 3403 | Modern Israel | 3 |
| HIST 3563 | Jerusalem | 3 |
| HIST 3723 | Africa Since 1945 | 3 |
| HIST 3923 | China Since 1911 | 3 |
| HON 3993 | Honors Colloquium (Topic: Africa \& the Urge to Help) | 3 |
| IAS 3143 | Chinese Politics | 3 |
| IAS 3153 | Chinese Foreign Policy | 3 |
| IAS 3173 | Work, Family, and Religion in Rural China | 3 |
| IAS 3193 | Environment and Disease Crises in China | 3 |
| IAS 3203 | The Middle East Since World War I | 3 |
| IAS 3223 | Modern Iran: Islam \& Revolution | 3 |
| IAS 3233 | Nationalism and the Middle East | 3 |
| IAS 3273 | The European Union | 3 |
| IAS 3313 | Latin American International Relations | 3 |
| IAS 3403 | US-Iranian Relations: History, Politics, and the Road to Confrontation | 3 |
| IAS 3423 | Middle East Through Film | 3 |
| IAS 3433 | International Relations in the Middle East | 3 |
| IAS 3443 | Political Islam | 3 |
| IAS 3473 | The Arab-Israeli Conflict | 3 |
| IAS 3503 | The United States and the Middle East: 1945-Present | 3 |
| IAS 3583 | Managing US-China Relations | 3 |
| IAS 3663 | Comparative Politics of the Middle East | 3 |
| IAS 3683 | Poverty and Inequality in the Middle East | 3 |
| IAS 3703 | South Asian Security | 3 |
| IAS 3773 | State \& Society in Pakistan | 3 |
| IAS 3793 | African Politics \& Society | 3 |
| IAS 3853 | Russian Foreign Policy | 3 |
| IAS 3963 | US-Russia Relations | 3 |
| IAS/HIST 4523 | Latin American Left | 3 |
| IAS/HIST 4533 | Populism in 20th-Century South America | 3 |
| IAS/HIST 4543 | Latin America in the Age of the Cuban Revolution | 3 |
| P SC 3543 | United States-Latin American Relations | 3 |
| P SC 3653 | Government and Politics of Latin America | 3 |
| RELS 3223 | Religion and Nationalism in India | 3 |
| RELS 3543 | Islamic Law | 3 |

## International Studies, B.A.

Minimum Total Credit Hours: 120
Major Hours: 33
Minimum Upper-Division Hours: 48
Upper-Division Hours Within Major. 18

## Program Code: B605

Some courses required for the major may also fulfill University General Education and/or College of International Studies Requirements

The major requires 33 hours, 18 of which must be upper-division. 18 of the required 33 must be taken in the Department of International and Area Studies.

Major Requirements

| Code Title | Credit <br> Hours |
| :--- | ---: |
| I. International Relations <br> Choose 6 hours from a list of courses maintained by the <br> department (3 hours must be IAS designated) (p. 1661) | 6 |
| II. Development \& Economics <br> Choose 6 hours from a list of courses maintained by the <br> department (3 hours must be IAS designated) (p. 1661) | 6 |
| III. History \& Culture <br> Choose 6 hours from a list of courses maintained by the <br> department (3 hours must be IAS designated) (p. 1661) | 6 |
| IV. Politics \& Society <br> Choose 6 hours from a list of courses maintained by the <br> department (3 hours must be IAS designated) (p. 1661) | 6 |
| V. Specialization <br> Choose 6 hours in an area of specialization that fits career <br> goals (3 hours must be IAS designated) <br> VI. Senior Capstone Course <br> IAS 4013 | 6 |

## Total Credit Hours

${ }^{1}$ Will include additional hours from sections I-IV, an area studies, or custom specialization as approved.

Note: Students may take other appropriate courses as approved by the IAS Academic Advisor.

## Major Support Requirements

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Choose 13 hours of one foreign language | 13 |  |
| ECON 1113 | Principles of Economics-Macro | 3 |
| ECON 1123 | Principles of Economics-Micro | 3 |
| IAS 2003 | Understanding the Global Community <br> (International Experience) | 3 |
| International Experience |  |  |
| Majors are strongly encouraged to pursue study abroad |  |  |
| opportunities. | $\mathbf{2 2}$ |  |
| Total Credit Hours |  |  |

## General Education and College Requirements

Courses for fulfillment of General Education and College of International Studies requirements must be from the approved General Education course list published in the Class Schedule or at: http://www.ou.edu/ content/gened/courses.html. Courses graded P/NP will not apply.

## UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS

Code Title Credit Hours
Core Area I: Symbolic and Oral Communication
English Composition
ENGL 1113 Principles of English Composition ..... 3
ENGL 1213 Principles of English Composition ..... 3
or EXPO 1213 Expository Writing
Language
(0-13 hours in the same language) The College ofInternational Studies requirement cannot be met by highschool coursework
Beginning Course ..... 0-5
Beginning Course, continued ..... 0-5
Intermediate Course (2000 level) ${ }^{1,2}$ ..... 0-3
Mathematics
Choose one course ..... 3
Core Area II: Natural Science
Choose two courses from different disciplines in the ..... 7
biological and/or physical sciences, one of which mustinclude a laboratory component ${ }^{1}$
Core Area III: Social Science
P SC 1113 American Federal Government ..... 3
Choose one course ..... 3
Core Area IV: Arts and Humanities
Artistic Forms
Choose one course ${ }^{4}$ ..... 3
Western Culture
HIST $1483 \quad$ United States to 1865 ..... 3
Choose one course ${ }^{3,4}$3
World Culture
Choose one course ${ }^{4}$ ..... 3
Core Area V: First-Year Experience
Choose one course 3
Total Credit Hours ..... 37-50
${ }^{1}$ College of International Studies Requirements: College requirementsare not automatically fulfilled by a previous degree.

2 One course at the intermediate level or demonstrated competency at that level. If this requirement is waived, a few hours of General Education electives may be needed to achieve the required 40 hour minimum (may also be satisfied by a major requirement or free elective).
${ }^{3}$ Excluding HIST 1483 and HIST 1493.
${ }^{4}$ It is recommended students take either Artistic Forms, Western Culture, or World Culture at the 3000-/4000-level to fulfill the university requirement of one upper-division course from the approved University Wide General Education list. The course must be outside the major. This may also be satisfied in the upper-division or free elective categories.

## Free Electives

Electives to bring total applicable hours to the minimum total required for the degree including 48 upper-division hours.

## Information Concerning General Rules, Regulations and Minimum Requirements

Total Hours: A minimum of 120 semester hours acceptable toward graduation must be completed.
Upper-Division Hours: A minimum of 48 upper-division semester hours acceptable toward graduation must be completed. OU courses numbered 3000 or above are upper-division. Transfer work is counted as lowerdivision or upper-division credit depending on the level at which it was offered at the institution where it was earned. Two-year college work is accepted only as lower-division credit.
Liberal Arts and Sciences Hours: At least 80 semester hours of liberal arts and sciences courses are required for a BA degree. At least 55 semester hours of liberal arts and sciences courses are required for a BS degree.
Major Work: A minimum of 30 semester hours must be earned in the major, including a minimum of 15 credit hours at the upper-division level. Pass/No Pass Enrollment: A maximum of 16 semester hours of free elective credit may be attempted under this option.
Individual Studies (e.g., courses titled "Independent Study"): A maximum of 12 total semester hours may be counted toward graduation, excluding Honors Reading and Honors Research.
Military, Military In-Service, Skills, Applied Technology, and P.E.
Courses: A maximum of 16 semester credit hours of basic skills and/ or applied technology courses. No physical education activity courses will be counted toward the 120 semester hours of acceptable credit for graduation.
Senior Institution Hours: A minimum of 60 semester hours applied toward graduation must be earned at senior (4-year) institutions.
Residency:

- At least 15 of the final 30 hours applied toward the degree or at least 50 percent of the hours required by the institution in the major field must be satisfactorily completed at the awarding institution.
- At least 15 semester hours of upper-division major work must be completed in residence at OU.
- OU correspondence courses are not considered resident credit.
- Credits earned via examination are neither resident nor nonresident credit.


## Information regarding Grade Point Averages, Special Degrees,

 and Application for Graduation can be found in the catalog under David L. Boren College of International Studies: Undergraduate Study. (p. 1623)
## Suggested Semester Plan of Study

This plan of study should not be used in lieu of academic advisement. Students who transfer from other institutions (particularly community colleges) must verify credit hour and course requirements with their academic counselor, (405) 325-1429, http://www.ou.edu/international. Please make an appointment for a degree check with your college academic counselor once you have earned 90 hours.

This plan shows one possible grouping of courses that would allow students to graduate in four years. Please refer to the front of the degree checksheet for official requirements. Students must consult with College of International Studies academic advisors to verify that courses selected each semester fulfill the recommended plan and satisfy
university, College of International Studies, and International Studies major requirements.

## Freshman

| First Semester | Credit |
| :---: | :---: |
|  | Hours |
| ENGL 1113 Principles of English Composition (Core I) | 3 |
| MATH (Core I) | 3 |
| Beginning Language (Core I) | 5 |
| Natural Science with Lab (Core II) | 4 |
| Credit Hours | 15 |
| Second Semester |  |
| ENGL $1213 \quad$Principles of English Composition (Core I) <br> or EXPO 1213 <br> or Expository Writing | 3 |
| P SC 1113 American Federal Government (Core III) | 3 |
| Beginning Language continued (Core I) | 5 |
| Natural Science without lab (Core II) | 3 |
| First-Year Experience (Core V) | 3 |
| Credit Hours | 17 |

## Sophomore

First Semester

| ECON 1113 | Principles of Economics-Macro (Core III) | 3 |
| :--- | :--- | ---: |
| HIST 1483 | United States to 1865 (Core IV) | 3 |
| or HIST 1493 | or United States, 1865 to the Present |  |
| IAS 2003 | Understanding the Global Community | 3 |
| Intermediate Language $_{\text {Artistic Forms (Core IV) }^{1}}$Credit Hours | 3 |  |


| Second Semester |  |
| :---: | :---: |
| ECON 1123 Principles of Economics-Micro | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Free Elective, lower-division | 3 |
| World Culture (Core IV) ${ }^{1}$ | 3 |
| Western Culture (Core IV) ${ }^{1}$ | 3 |
| Credit Hours | 15 |

## Junior

## First Semester

History \& Culture Major Elective, upper-division 3
International Relations Major Elective , upper-division 3
Free Elective, upper-division (3000-4000-level) 3
Free Elective, upper-division (3000-4000-level) 3
Credit Hours 12

## Second Semester

History and Culture Major Elective, upper-division 3
Politics \& Society Major Elective, upper-division 3
Free Elective, lower-division 3
Free Elective, lower-division 3

Credit Hours 12
Senior
First Semester
Free Elective, upper-division (3000-4000-level) 3
International Relations Major Elective, upper-division 3
(3000-4000-level)

| Development \& Economics Major Elective, upper-division | 3 |
| :---: | :---: |
| Politics \& Society Major Elective, lower- or upper-division | 3 |
| Specialization Major Elective, upper-division | 3 |
| Free Elective, lower- or upper-division | 3 |
| Credit Hours | 18 |
| Second Semester |  |
| IAS 4013 Senior Capstone Seminar in International and Area Studies | 3 |
| Specialization Major Elective, upper-division | 3 |
| Development \& Economics Major Elective, upper-division | 3 |
| Free Elective, lower- or upper-division | 1 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Credit Hours | 16 |
| Total Credit Hours | 120 |

${ }^{1}$ University-Wide General Education course, refer to online listing. One course (Artistic Forms, World Culture, or Western Culture) must be 3000-4000-level.

## International Studies Course Lists

## I. International Relations

| Code | Title | Credit Hours |
| :---: | :---: | :---: |
| IAS 3013 | International Law | 3 |
| IAS 3033 | International Human Rights | 3 |
| IAS 3043 | Global Security | 3 |
| IAS 3053 | Globalization: The Politics of Global Governance | 3 |
| IAS 3083 | International Activism | 3 |
| IAS 3153 | Chinese Foreign Policy | 3 |
| IAS 3303 | National Security Policy | 3 |
| IAS 3313 | Latin American International Relations | 3 |
| IAS 3383 | The United Nations \& World Politics | 3 |
| IAS 3403 | US-Iranian Relations: History, Politics, and the Road to Confrontation | 3 |
| IAS 3433 | International Relations in the Middle East | 3 |
| IAS 3443 | Political Islam | 3 |
| IAS 3503 | The United States and the Middle East: 1945-Present | 3 |
| IAS 3543 | International Peacebuilding | 3 |
| IAS 3583 | Managing US-China Relations | 3 |
| IAS 3653 | Energy, Climate, and Security | 3 |
| IAS 3703 | South Asian Security | 3 |
| IAS 3743 | The Politics of the International System | 3 |
| IAS 3823 | Technology \& War | 3 |
| IAS 3853 | Russian Foreign Policy | 3 |
| IAS 3873 | Global Cybersecurity Issues | 3 |
| IAS 3913 | The Practice of Diplomacy | 3 |
| IAS 3933 | Intelligence \& National Security | 3 |
| IAS 3943 | Global Intelligence Challenges | 3 |
| IAS 3963 | US-Russia Relations | 3 |


| IAS 3973 | Cultural Diplomacy | 3 |
| :--- | :--- | :--- |
| P SC 3543 | United States-Latin American Relations | 3 |
| P SC 3573 | Great Power Politics | 3 |

## II. Development \& Economics

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| ECON 4733 | Economic Development in the Middle East | 3 |
| ECON 4853 | World Economic Development | 3 |
| GEOG 3243 | Principles of Economic Geography | 3 |
| HON 3993 | Honors Colloquium (Topic: Africa \& the | 3 |
|  | Urge to Help) |  |
| IAS 3073 | Global Economic Relations | 3 |
| IAS 3273 | The European Union | 3 |
| IAS 3283 | Culture, Power, and Global Environment | 3 |
| IAS 3323 | The Political Economy of Development | 3 |
| IAS 3643 | Illicit Trafficking | 3 |
| IAS 3683 | Poverty and Inequality in the Middle East | 3 |
| IAS 3803 | International Cooperation \& Development | 3 |
| IAS 3813 | Development Practice | 3 |
| IAS 3893 | Law \& Globalization | 3 |
| IAS 3923 | World Happiness | 3 |
| P SC 3553 | International Political Economy | 3 |
| SOC 3803 | Inequality in A Global Perspective | 3 |

## III. History \& Culture

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| HIST 3313 | Israeli Culture Through Film | 3 |
| IAS 3123 | Arab Visual Cultures | 3 |
| IAS 3203 | The Middle East Since World War I | 3 |
| IAS 3223 | Modern Iran: Islam \& Revolution | 3 |
| IAS 3353 | Modern Brazil | 3 |
| IAS 3413 | Iran and Islam in Global History | 3 |
| IAS 3423 | Middle East Through Film | 3 |
| IAS 3783 | US-Arab Cultural Encounters | 3 |
| IAS/HIST 3843 | Latin American Independence 1750-1880 | 3 |
| IAS/HIST 4513 | Intellectuals \& Artists in Modern Latin | 3 |
|  | America |  |
| IAS/HIST 4523 | Latin American Left | 3 |
| IAS/HIST 4533 | Populism in 20th-Century South America | 3 |
| IAS/HIST 4543 | Latin America in the Age of the Cuban | 3 |
|  | Revolution |  |
| P SC 3563 | United States Diplomatic History | 3 |

## IV. Politics \& Society

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| GEOG 3513 | Political Geography | 3 |
| IAS 3143 | Chinese Politics | 3 |
| IAS 3173 | Work, Family, and Religion in Rural China | 3 |
| IAS 3193 | Environment and Disease Crises in China | 3 |
| IAS 3233 | Nationalism and the Middle East | 3 |
| IAS 3393 | Iranian Society through Cinema | 3 |


| IAS 3473 | The Arab-Israeli Conflict | 3 |
| :--- | :--- | :--- |
| IAS 3523 | Women and Gender in South Asia | 3 |
| IAS 3533 | Political Violence in Comparative <br> Perspective | 3 |
| IAS 3603 | Energy, Environment \& Climate Change in <br> China | 3 |
| IAS 3663 | Comparative Politics of the Middle East | 3 |
| IAS 3693 | Military, State \& Society | 3 |
| IAS 3753 | Youth Culture in Contemporary Iran | 3 |
| IAS 3763 | Women and Gender in the Middle East | 3 |
| IAS 3793 | African Politics \& Society | 3 |
| IAS 3833 | Democratic Decline in Global Perspective | 3 |
| IAS 3863 | Global Environment | 3 |
| IAS 3983 | Anti-Muslim Racism | 3 |
| IAS 3993 | Global Communism | 3 |
| P SC 3643 | Democracies and Democratization: A | 3 |
| P SC 3653 | Comparative Inquiry | 3 |

## Latin American Studies, B.A.

Minimum Total Credit Hours: 120
Major Hours: 30
Minimum Upper-Division Hours: 48
Upper-Division Hours Within Major. 18

Overall GPA - Combined and OU: 2.00
Major GPA - Combined and OU: 2.50

## Program Code: B630

Some courses required for the major may also fulfill University General Education and/or College of International Studies Requirements.

The major requires 30 hours, 18 of which must be upper-division, and a 2.50 GPA. 12 of the required 30 must be taken in the Department of International and Area Studies.

## Major Requirements

| Code Title | Credit Hours |
| :---: | :---: |
| I. Language \& Literature |  |
| Choose two courses at the 3000-level or above beyond the 16-hour requirement, in any of the languages in the area of concentration | 6 |
| II. Latin American Studies |  |
| Choose 9 hours from a list of courses maintained by the department (p. 1664) | 9 |
| III. History and Geography |  |
| Choose 3 hours from a list of courses maintained by the department (p. 1664) | 3 |
| IV. Politics and Economics |  |
| Choose 3 hours from a list of courses maintained by the department (p. 1664) | 3 |
| V. Arts, Culture \& Society |  |
| Choose 3 hours from a list of courses maintained by the | 3 |

## I. Language \& Literature

Choose two courses at the 3000-level or above beyond the
16-hour requirement, in any of the languages in the area of concentration

## I. Latin American Studies

Choose 9 hours from a list of courses maintained by the

\section*{VI. Additional Course <br> Choose an additional 3 hours from Latin American Studies, 3 <br> History and Geography, Politics and Economics, or Arts, Culture \& Society (p. 1664) <br> VII. Senior Capstone Course <br> | IAS 4013 | Senior Capstone Seminar in International <br> and Area Studies | 3 |
| :--- | :--- | :--- | <br> Total Credit Hours <br> 30 <br> Note: Students may take other appropriate courses as approved by the IAS Academic Advisor. <br> Major Support Requirements}


| Code Title | Credit <br> Hours |
| :--- | ---: |
| Choose 16 hours of one foreign language relevant to the | 16 |
| geographical area of concentration | 3 |
| IAS 2003 Understanding the Global Community |  |
| International Experience |  |
| Majors are strongly encouraged to pursue study abroad <br> opportunities. |  |

Total Credit Hours

## General Education and College Requirements

Courses for fulfillment of General Education and College of International Studies requirements must be from the approved General Education course list published in the Class Schedule or at: http://www.ou.edu/ content/gened/courses.html. Courses graded P/NP will not apply.

## UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND

 COLLEGE REQUIREMENTSCode Title Credit Hours
Core Area I: Symbolic and Oral Communication
English Composition

| ENGL 1113 | Principles of English Composition | 3 |
| :---: | :--- | :--- |
| ENGL 1213 | Principles of English Composition | 3 |
| or EXPO 1213 | Expository Writing |  |

Language
(0-13 hours in the same language) The College of International Studies requirement cannot be met by high
6 school coursework
Beginning Course 0-5
$\begin{array}{ll}\text { Beginning Course, continued } & 0-5\end{array}$
$\begin{array}{ll}\text { Intermediate Course (2000 level) }{ }^{1,2} & 0-3\end{array}$
Mathematics
Choose one course 3

Core Area II: Natural Science
Choose two courses from different disciplines in the
biological and/or physical sciences, one of which must include a laboratory component ${ }^{1}$

Core Area III: Social Science
P SC 1113 American Federal Government 3
Choose one course 3
Core Area IV: Arts and Humanities
Artistic Forms


## Free Electives

Electives to bring total applicable hours to the minimum total required for the degree including 48 upper-division hours.

## Information Concerning General Rules, Regulations and Minimum Requirements

Total Hours: A minimum of 120 semester hours acceptable toward graduation must be completed.
Upper-Division Hours: A minimum of 48 upper-division semester hours acceptable toward graduation must be completed. OU courses numbered 3000 or above are upper-division. Transfer work is counted as lowerdivision or upper-division credit depending on the level at which it was offered at the institution where it was earned. Two-year college work is accepted only as lower-division credit.
Liberal Arts and Sciences Hours: At least 80 semester hours of liberal arts and sciences courses are required for a BA degree. At least 55 semester hours of liberal arts and sciences courses are required for a BS degree.
Major Work: A minimum of 30 semester hours must be earned in the major, including a minimum of 15 credit hours at the upper-division level.
Pass/No Pass Enrollment: A maximum of 16 semester hours of free elective credit may be attempted under this option.
Individual Studies (e.g., courses titled "Independent Study"): A maximum of 12 total semester hours may be counted toward graduation, excluding Honors Reading and Honors Research.

## Military, Military In-Service, Skills, Applied Technology, and P.E.

Courses: A maximum of 16 semester credit hours of basic skills and/ or applied technology courses. No physical education activity courses will be counted toward the 120 semester hours of acceptable credit for graduation.
Senior Institution Hours: A minimum of 60 semester hours applied toward graduation must be earned at senior (4-year) institutions.

## Residency:

- At least 15 of the final 30 hours applied toward the degree or at least 50 percent of the hours required by the institution in the major field must be satisfactorily completed at the awarding institution.
- At least 15 semester hours of upper-division major work must be completed in residence at OU.
- OU correspondence courses are not considered resident credit.
- Credits earned via examination are neither resident nor nonresident credit.

Information regarding Grade Point Averages, Special Degrees, and Application for Graduation can be found in the catalog under David L. Boren College of International Studies: Undergraduate Study. (p. 1623)

## Suggested Semester Plan of Study

This plan of study should not be used in lieu of academic advisement. Students who transfer from other institutions (particularly community colleges) must verify credit hour and course requirements with their academic counselor, (405) 325-1429, http://www.ou.edu/international. Please make an appointment for a degree check with your college academic counselor once you have earned 90 hours.

This plan shows one possible grouping of courses that would allow students to graduate in four years. Please refer to the front of the degree checksheet for official requirements. Students must consult with College of International Studies academic advisors to verify that courses selected each semester fulfill the recommended plan and satisfy university, College of International Studies, and Latin American Studies major requirements.

## Freshman

| First Semester | Credit <br> Hours |
| :---: | :---: |
| ENGL 1113 Principles of English Composition (Core I) | 3 |
| MATH (Core I) | 3 |
| Beginning Language (Core I) | 5 |
| Natural Science with lab (Core II) | 4 |
| Credit Hours | 15 |
| Second Semester |  |
| ENGL 1213 Principles of English Composition (Core I) <br> or EXPO 1213 or Expository Writing | 3 |
| P SC 1113 American Federal Government (Core III) | 3 |
| Beginning Language continued (Core I) | 5 |
| Natural Science without lab (Core II) | 3 |
| First-Year Experience (Core V) | 3 |
| Credit Hours | 17 |
| Sophomore |  |
| First Semester |  |
| $\begin{array}{ll}\text { HIST } 1483 & \text { United States to } 1865 \text { (Core IV) } \\ \text { or HIST } 1493 & \text { or United States, } 1865 \text { to the Present }\end{array}$ | 3 |
| IAS 2003 Understanding the Global Community | 3 |
| Latin American Studies Major Elective, upper-division (3000-4000 level) | 3 |
| Intermediate Language | 3 |
| Artistic Forms (Core IV) ${ }^{2}$ | 3 |
| Credit Hours | 15 |


| Second Semester |  |
| :---: | :---: |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Intermediate Language continued | 3 |
| World Culture (Core IV) ${ }^{2}$ | 3 |
| Western Culture (Core IV) ${ }^{2}$ | 3 |
| Free Elective, lower-division | 3 |
| Credit Hours | 15 |
| Junior |  |
| First Semester |  |
| History \& Geography Major Elective | 3 |
| Language and Literature Major Elective | 3 |
| Free Elective, lower-division | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Credit Hours | 12 |
| Second Semester |  |
| Arts, Culture \& Society Major Elective, upper-division | 3 |
| Language and Literature Major Elective, upper-division | 3 |
| Free Elective, lower-division | 3 |
| Free Elective, lower-division | 3 |
| Credit Hours | 12 |
| Senior |  |
| First Semester |  |
| Choose an additional course, upper-division (3000-4000-level) 1 | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Latin American Studies Major Elective, upper-division (3000-4000-level) | 3 |
| Free Elective, lower- or upper-division | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Credit Hours | 18 |
| Second Semester |  |
| IAS 4013 <br> Senior Capstone Seminar in International and Area Studies | 3 |
| Latin American Studies Major Elective, upper-division (3000-4000-level) | 3 |
| Politics \& Economics Major Elective, upper-division (3000-4000-level) | 3 |
| Free Elective, lower- or upper-division | 1 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Credit Hours | 16 |
| Total Credit Hours | 120 |

${ }^{1}$ Chosen from Latin American Studies, History and Geography, Politics and Economics, or Arts, Culture \& Society.
2 University-Wide General Education course, refer to online listing. One course (Artistic Forms, World Culture, or Western Culture) must be 3000-4000-level.

## Latin American Studies Course Lists

## II. Latin American Studies

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| IAS 3003 | Topics in International and Area Studies <br> (Lat Am Content) | 3 |
| IAS 3313 | Latin American International Relations | 3 |
| IAS 3353 | Modern Brazil | 3 |
| IAS 3833 | Democratic Decline in Global Perspective | 3 |
| IAS 3910 | International Studies Internship | $2-3$ |
| IAS/HIST 3843 | Latin American Independence 1750-1880 | 3 |
| IAS/HIST 4513 | Intellectuals \& Artists in Modern Latin | 3 |
|  | America | 3 |
| IAS/HIST 4523 | Latin American Left | 3 |
| IAS/HIST 4533 | Populism in 20th-Century South America | 3 |
| IAS/HIST 4543 | Latin America in the Age of the Cuban | 3 |

## III. History and Geography

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| HIST 2613 | Colonial Hispanic American History, | 3 |
| HIST 2623 | Modern Latin America 1810-Present | 3 |
| HIST 3013 | Indigenous Politics in Modern Latin | 3 |
|  | American History | 3 |
| HIST 3303 | Mexico and the United States | $1-5$ |
| HIST 3690 | Topics in Latin American History | 3 |
| HIST 3703 | Native Peoples of Latin America | 3 |
| HIST 3713 | History of Mexico, 1800-Present | 3 |
| HIST 4553 | Environmental History of Latin America | 3 |


| IV. Politics and Economics |  |  |
| :--- | :--- | ---: |
| Code | Title | Credit <br> Hours |
| IAS 3533 | Political Violence in Comparative <br>  <br>  <br> Perspective | 3 |
| IAS 3543 | International Peacebuilding | 3 |
| IAS 3693 | Military, State \& Society | 3 |
| IAS 3913 | The Practice of Diplomacy | 3 |
| IAS 3993 | Global Communism | 3 |
| P SC 3543 | United States-Latin American Relations | 3 |
| P SC 3653 | Government and Politics of Latin America | 3 |


| V. Arts, Culture \& Society |  |  |
| :--- | :--- | ---: |
| Code | Title | Credit <br> Hours |
| A HI 3803 | Pre-Columbian Art \& Architecture of Meso- <br> and South America | 3 |
| ANTH 3893 | Maya, Aztec and Inca: High Civilizations of <br> Ancient America | 3 |
| ANTH 3953 | Proseminar in Anthropology (Topic: Pol of <br> Indigeneity in S America) <br> FMS 3243 |   <br>  Hispanic Cinema |


| HON 2973 | Perspectives on the American Experience <br> (Topics: Latin American Music \& Politics or <br> Indigenous Identity Culture and Politics) | 3 |
| :--- | :--- | :---: |
| MLLL 3993 | Contemporary Brazilian Film | 3 |
| MLLL 4113 | Cultures in Portuguese: Brazil, Portugal, <br> and Beyond | 3 |
| MLLL 4553 | Lat America in its Lit: The Search for a <br> Latin-American Identity | 3 |
| SPAN 3853 | Introduction to Hispanic Literature and <br> Culture | 3 |
| SPAN 4113 | Literature and Culture of Latin America | 3 |
| SPAN 4503 | Hispanic Cinema Studies | 3 |

## Middle Eastern Studies, B.A.

Minimum Total Credit Hours: 120
Major Hours: 30
Minimum Upper-Division Hours: 48
Upper-Division Hours Within Major. 18

Overall GPA - Combined and OU: 2.00
Major GPA - Combined and OU: 2.50
Program Code: B694
Some courses required for the major may also fulfill University General Education and/or College of International Studies Requirements

The major requires 30 hours, 18 of which must be upper-division, and a 2.50 GPA. 12 of the required 30 must be taken in the Department of International and Area Studies.

## Major Requirements

| Code Title | Credit |
| :---: | :---: |
| I. Language \& Literature |  |
| Choose two courses at the 3000-level or above beyond the 16hour requirement in Arabic or Hebrew | 6 |
| II. Middle Eastern Studies |  |
| Choose 9 hours from a list of courses maintained by the department (p. 1667) | 9 |
| III. History and Religion |  |
| Choose 3 hours from a list of courses maintained by the department (p. 1667) | 3 |
| IV. Arts and Culture |  |
| Choose 3 hours from a list of courses maintained by the department (p. 1667) | 3 |
| V. Additional Courses |  |
| Choose two additional courses from Middle Eastern Studies, History and Religion, or Arts and Culture (p. 1667) | 6 |
| VI. Senior Capstone Course |  |
| IAS 4013Senior Capstone Seminar in International <br> and Area Studies | 3 |

Total Credit Hours
Note: Students may take other appropriate courses as approved by the IAS Academic Advisor.

3 Major Support Requirements

| Code $\quad$ Title | Credit <br> Hours |
| :--- | ---: | ---: |
| Choose 16 hours of either Arabic or Hebrew | 16 |
| IAS 2003 Understanding the Global Community | 3 |
| International Experience |  |
| Majors are strongly encouraged to pursue study abroad <br> opportunities. | $\mathbf{1 9}$ |
| Total Credit Hours |  |

## General Education and College Requirements

Courses for fulfillment of General Education and College of International Studies requirements must be from the approved General Education course list published in the Class Schedule or at: http://www.ou.edu/ content/gened/courses.html. Courses graded P/NP will not apply.

## UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS

Code Title Credit Hours
Core Area I: Symbolic and Oral Communication
English Composition
ENGL 1113 Principles of English Composition 3
ENGL 1213 Principles of English Composition 3
or EXPO 1213 Expository Writing

## Language

(0-13 hours in the same language) The College of
International Studies requirement cannot be met by high school coursework
Beginning Course 0-5
$\begin{array}{ll}\text { Beginning Course, continued } & 0-5\end{array}$
$\begin{array}{ll}\text { Intermediate Course (2000 level) }{ }^{1,2} & 0-3\end{array}$
Mathematics
6 Choose one course 3
Core Area II: Natural Science
Choose two courses from different disciplines in the 7
biological and/or physical sciences, one of which must
include a laboratory component ${ }^{1}$
Core Area III: Social Science
P SC 1113 American Federal Government 3
Choose one course 3
Core Area IV: Arts and Humanities
Artistic Forms
Choose one course ${ }^{4} 3$
Western Culture
HIST 1483 United States to 18653
or HIST 1493 United States, 1865 to the Present
Choose one course ${ }^{3,4} 3$
World Culture
Choose one course ${ }^{4} \quad 3$
Core Area V: First-Year Experience
Choose one course 3

Total Credit Hours 37-50
${ }^{1}$ College of International Studies Requirements: College requirements are not automatically fulfilled by a previous degree.
2 One course at the intermediate level or demonstrated competency at that level. If this requirement is waived, a few hours of General Education electives may be needed to achieve the required 40 hour minimum (may also be satisfied by a major requirement or free elective).
${ }^{3}$ Excluding HIST 1483 and HIST 1493
4 It is recommended students take either Artistic Forms, Western Culture, or World Culture at the 3000-/4000-level to fulfill the university requirement of one upper-division course from the approved University Wide General Education list. The course must be outside the major. This may also be satisfied in the upper-division or free elective categories.

## Free Electives

Electives to bring total applicable hours to the minimum total required for the degree including 48 upper-division hours.

## Information Concerning General Rules, Regulations and Minimum Requirements

Total Hours: A minimum of 120 semester hours acceptable toward graduation must be completed.
Upper-Division Hours: A minimum of 48 upper-division semester hours acceptable toward graduation must be completed. OU courses numbered 3000 or above are upper-division. Transfer work is counted as lowerdivision or upper-division credit depending on the level at which it was offered at the institution where it was earned. Two-year college work is accepted only as lower-division credit.
Liberal Arts and Sciences Hours: At least 80 semester hours of liberal arts and sciences courses are required for a BA degree. At least 55 semester hours of liberal arts and sciences courses are required for a BS degree.
Major Work: A minimum of 30 semester hours must be earned in the major, including a minimum of 15 credit hours at the upper-division level. Pass/No Pass Enrollment: A maximum of 16 semester hours of free elective credit may be attempted under this option.
Individual Studies (e.g., courses titled "Independent Study"): A maximum of 12 total semester hours may be counted toward graduation, excluding Honors Reading and Honors Research.

## Military, Military In-Service, Skills, Applied Technology, and P.E.

Courses: A maximum of 16 semester credit hours of basic skills and/ or applied technology courses. No physical education activity courses will be counted toward the 120 semester hours of acceptable credit for graduation.
Senior Institution Hours: A minimum of 60 semester hours applied toward graduation must be earned at senior (4-year) institutions.

## Residency:

- At least 15 of the final 30 hours applied toward the degree or at least 50 percent of the hours required by the institution in the major field must be satisfactorily completed at the awarding institution.
- At least 15 semester hours of upper-division major work must be completed in residence at OU.
- OU correspondence courses are not considered resident credit.
- Credits earned via examination are neither resident nor nonresident credit.

Information regarding Grade Point Averages, Special Degrees, and Application for Graduation can be found in the catalog under David L. Boren College of International Studies: Undergraduate Study. (p. 1623)

## Suggested Semester Plan of Study

This plan of study should not be used in lieu of academic advisement. Students who transfer from other institutions (particularly community colleges) must verify credit hour and course requirements with their academic counselor, (405) 325-1429, http://www.ou.edu/international. Please make an appointment for a degree check with your college academic counselor once you have earned 90 hours.

This plan shows one possible grouping of courses that would allow students to graduate in four years. Please refer to the front of the degree checksheet for official requirements. Students must consult with College of International Studies academic advisors to verify that courses selected each semester fulfill the recommended plan and satisfy university, College of International Studies, and major requirements.

## Freshman

| First Semester | Credit <br> Hours |  |
| :--- | ---: | ---: |
| ENGL 1113 | Principles of English Composition (Core I) | 3 |
| MATH (Core I) | 3 |  |
| Beginning Language (Core I) | 5 |  |
| Natural Science with lab (Core II) | 4 |  |
| Credit Hours | $\mathbf{1 5}$ |  |

Second Semester

| $\begin{aligned} & \text { ENGL } 1213 \\ & \text { or EXPO } 1213 \end{aligned}$ | Principles of English Composition (Core I) or Expository Writing | 3 |
| :---: | :---: | :---: |
| P SC 1113 | American Federal Government (Core III) | 3 |
| Beginning Language continued (Core I) |  | 5 |
| Natural Science without lab (Core II) |  | 3 |
| First-Year Experience (Core V) |  | 3 |

## Sophomore

First Semester

| HIST 1483 or HIST 1493 | United States to 1865 (Core IV) or United States, 1865 to the Present | 3 |
| :---: | :---: | :---: |
| IAS 2003 | Understanding the Global Community | 3 |
| Middle Eastern Studies Major Elective, upper-division |  | 3 |
| Intermediate Language |  | 3 |
| Artistic Forms (Core IV) ${ }^{2}$ |  | 3 |
|  | Credit Hours | 15 |


| Second Semester |  |
| :--- | ---: |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Intermediate Language continued | 3 |
| World Culture (Core IV) $^{2}$ | 3 |
| Western Culture (Core IV) $^{2}$ | 3 |
| Free Elective, lower-division | 3 |
| Credit Hours | $\mathbf{1 5}$ |

## Junior

## First Semester

Arts and Culture Major Elective, upper-division3

| Free Elective, lower-division | 3 |
| :---: | :---: |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Credit Hours | 12 |
| Second Semester |  |
| History \& Religion Major Elective, upper-division | 3 |
| Language and Literature Major Elective, upper-division | 3 |
| Free Elective, lower-division | 3 |
| Free Elective, lower-division | 3 |
| Credit Hours | 12 |
| Senior |  |
| First Semester |  |
| Middle Eastern Studies Major Elective, upper-division (3000-4000-level) | 3 |
| Middle Eastern Studies Major Elective, upper-division (3000-4000-level) | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Free Elective, lower- or upper-division | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Credit Hours | 18 |
| Second Semester |  |
| $\text { IAS } 4013$ <br> Senior Capstone Seminar in International and Area Studies | 3 |
| Choose an additional course, lower or upper-division $\left(3000-4000\right.$-level) ${ }^{1}$ | 3 |
| Choose an additional course, upper-division (3000-4000-level) 1 | 3 |
| Free Elective, lower- or upper-division | 1 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Credit Hours | 16 |
| Total Credit Hours | 120 |

${ }^{1}$ Chosen from Middle Eastern Studies, History and Religion, or Arts and Culture.
${ }^{2}$ University-Wide General Education course, refer to online listing. One course (Artistic Forms, World Culture, or Western Culture) must be 3000-4000-level.

## Middle Eastern Studies Course Lists

| Code | Title | Credit Hours |
| :---: | :---: | :---: |
| ECON 4733 | Economic Development in the Middle East | 3 |
| IAS 3003 | Topics in International and Area Studies (Middle Eastern content) | 3 |
| IAS 3203 | The Middle East Since World War I | 3 |
| IAS 3223 | Modern Iran: Islam \& Revolution | 3 |
| IAS 3233 | Nationalism and the Middle East | 3 |
| IAS 3403 | US-Iranian Relations: History, Politics, and the Road to Confrontation | 3 |
| IAS 3413 | Iran and Islam in Global History | 3 |
| IAS 3423 | Middle East Through Film | 3 |


| IAS 3433 | International Relations in the Middle East | 3 |
| :--- | :--- | :--- |
| IAS 3443 | Political Islam | 3 |
| IAS 3473 | The Arab-Israeli Conflict | 3 |
| IAS 3503 | The United States and the Middle East: | 3 |
|  | 1945-Present | 3 |
| IAS 3663 | Comparative Politics of the Middle East | 3 |
| IAS 3683 | Poverty and Inequality in the Middle East | 3 |
| IAS 3693 | Military, State \& Society | 3 |
| IAS 3753 | Youth Culture in Contemporary Iran | 3 |
| IAS 3763 | Women and Gender in the Middle East | 3 |
| IAS 3913 | The Practice of Diplomacy | 3 |
| IAS 3943 | Global Intelligence Challenges | 3 |
| IAS 3983 | Anti-Muslim Racism | 3 |

## III. History and Religion

Code Title Credit
HIST 2013 Ancient Near Eastern Civilizations 3

HIST 3403 Modern Israel 3
HIST 3563 Jerusalem 3

HIST 3953 The Modern Middle East 3
HIST 3963 From Zionism to Modern Israel 3
HIST 3973 Judaism - A Religious History 3
HIST 3993 The Evolution of Martyrdom in the Judeo- 3 Christian Civilization
HSTM 3453 Science and Civilization in Islam 3
PHIL 3403 Jewish and Islamic Philosophy 3
RELS 2303 Introduction to Islam 3
RELS 3533 The Qur'an 3
RELS 3543 Islamic Law 3
RELS 3563 Islamic Theology 3

## IV. Arts and Culture

| Code | Title | Credit |
| :---: | :---: | :---: |
| ARCH 4183 | Survey of Middle Eastern Architecture | 3 |
| ARCH 4283 | Persian Architecture | 3 |
| HIST 3313 | Israeli Culture Through Film | 3 |
| IAS 3123 | Arab Visual Cultures | 3 |
| IAS 3393 | Iranian Society through Cinema | 3 |
| IAS 3783 | US-Arab Cultural Encounters | 3 |
| MLLL 3063 | Survey of Jewish Literature from Antiquity to the Present | 3 |
| MLLL 3323 | Language, Culture, and Identity in the Middle East and North Africa | 3 |
| MLLL 3413 | Arabic Literature and Culture | 3 |
| MUNM 3613 | Middle Eastern Music | 3 |

## African Studies, Minor

Minimum Total Credit Hours: 15
Minimum Upper-Division Hours: 9

## Program Code: N016

The requirements for a minor must be completed concurrently with the major degree requirements.

No minor may be added by completing courses after receiving the bachelor's degree.

Students must successfully complete at least 15 hours of coursework in international studies, including at least 9 hours at the upper-division level

At least 6 credit hours must be earned in courses acceptable for residence credit by standards set forth by the Department of International and Area Studies, excluding transfer, correspondence, and examination (AP, CLEP, Advanced Standing) credit.

A minimum of 6 of the required 15 hours must be taken in the Department of International and Area Studies.

Students are encouraged to study abroad. Courses taken while studying abroad may also be substituted to meet minor requirements, though they might not satisfy General Education requirements.

A list of approved courses for the minor may be obtained in the IAS Academic Advising Office or on the departmental website.

No single course may be used by a student to satisfy a major requirement and a minor requirement. A course may be used, however, to satisfy both a major support requirement and a minor requirement. Requests to substitute a minor requirement must be approved in writing by the African Studies coordinator.

- Minors are available to all undergraduate students at OU. If the minor is officially declared, successfully completed, and noted on the graduation application, the student's transcript will so indicate at the time the bachelor's degree is posted.


## Required Courses

| Code | Title | Credit |
| :---: | :---: | :---: |
| Required Course |  |  |
| IAS 2003 | Understanding the Global Community | 3 |
| Language or Culture |  |  |
| Choose one course from third semester language or upperdivision cultural \& area studies list: |  | 3 |
| Third semester language course: |  |  |
| ARAB 2113 | Intermediate Arabic |  |
| FR 2113 | Intermediate French |  |
| PORT 2113 | Intermediate Portuguese |  |
| SPAN 2113 | Intermediate Spanish |  |
| Upper-division IAS class approved for Cultural \& Area Studies credit (list of approved courses can be obtained in the IAS Academic Advising Office or on the departmental website) (p. 1668) |  |  |
| Electives ${ }^{1}$ |  |  |
| Choose 3 hours of upper-division courses in the Department of International and Area Studies (p. 1668) |  | 3 |
| Choose 6 additional upper-division courses (p. 1668) |  | 6 |
| Total Credit Hours |  | 15 |

${ }^{1}$ The most current elective list can be obtained in the IAS Academic Advising Office or on the departmental website (Advising section: https://www.ou.edu/cis/ias/undergrad-academics/majors/ course_selections)

## African Studies Minor Electives

## Cultural \& Area Studies Course List

| Code | Title |  |
| :---: | :---: | :---: |
| IAS 3123 | Arab Visual Cultures | 3 |
| IAS 3143 | Chinese Politics | 3 |
| IAS 3153 | Chinese Foreign Policy | 3 |
| IAS 3173 | Work, Family, and Religion in Rural China | 3 |
| IAS 3193 | Environment and Disease Crises in China | 3 |
| IAS 3203 | The Middle East Since World War I | 3 |
| IAS 3223 | Modern Iran: Islam \& Revolution | 3 |
| IAS 3233 | Nationalism and the Middle East | 3 |
| IAS 3273 | The European Union | 3 |
| IAS 3283 | Culture, Power, and Global Environment | 3 |
| IAS 3313 | Latin American International Relations | 3 |
| IAS 3343 | Chinese Philosophy | 3 |
| IAS 3353 | Modern Brazil | 3 |
| IAS 3393 | Iranian Society through Cinema | 3 |
| IAS 3403 | US-Iranian Relations: History, Politics, and the Road to Confrontation | 3 |
| IAS 3413 | Iran and Islam in Global History | 3 |
| IAS 3423 | Middle East Through Film | 3 |
| IAS 3433 | International Relations in the Middle East | 3 |
| IAS 3443 | Political Islam | 3 |
| IAS 3473 | The Arab-Israeli Conflict | 3 |
| IAS 3503 | The United States and the Middle East: 1945-Present | 3 |
| IAS 3523 | Women and Gender in South Asia | 3 |
| IAS 3533 | Political Violence in Comparative Perspective | 3 |
| IAS 3543 | International Peacebuilding | 3 |
| IAS 3603 | Energy, Environment \& Climate Change in China | 3 |
| IAS 3663 | Comparative Politics of the Middle East | 3 |
| IAS 3683 | Poverty and Inequality in the Middle East | 3 |
| IAS 3753 | Youth Culture in Contemporary Iran | 3 |
| IAS 3763 | Women and Gender in the Middle East | 3 |
| IAS 3783 | US-Arab Cultural Encounters | 3 |
| IAS 3793 | African Politics \& Society | 3 |
| IAS 3843 | Latin American Independence 1750-1880 | 3 |
| IAS 3853 | Russian Foreign Policy | 3 |
| IAS 3883 | Italy Through Italian Film | 3 |
| IAS 3963 | US-Russia Relations | 3 |
| IAS 3973 | Cultural Diplomacy | 3 |
| IAS 3983 | Anti-Muslim Racism | 3 |
| IAS 3993 | Global Communism | 3 |
| IAS 4343 | Early Chinese Philosophy | 3 |


| IAS 4513 | Intellectuals \& Artists in Modern Latin <br> America | 3 |
| :--- | :--- | :--- |
| IAS 4523 | Latin American Left | 3 |
| IAS 4533 | Populism in 20th-Century South America | 3 |
| IAS 4543 | Latin America in the Age of the Cuban <br> Revolution | 3 |
|  |  |  |

## Additional minor electives

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| International \& Area Studies | 3 |  |
| IAS 3003 | Topics in International and Area Studies <br> (Approved topic) | 3 |
| IAS 3533 | Political Violence in Comparative | 3 |
|  | Perspective | 3 |
| IAS 3543 | International Peacebuilding | 3 |
| IAS 3693 | Military, State \& Society | 3 |
| IAS 3793 | African Politics \& Society | 3 |
| IAS 3803 3810 | International Cooperation \& Development | $1-6$ |


| African and African-American Studies |  |  |
| :--- | :--- | :--- |
| AFAM 3123 | West African and African-American <br> Experiences | 3 |
| AFAM 4133 | Contemporary Visual Art of Africa | 3 |
| AFAM 4213 | African Dance | 3 |


| Anthropology |  | 3 |
| :--- | :--- | :---: |
| ANTH 4303 | Women and Development in Africa |  |
| Communications |  | 3 |
| COMM 3513 | Intercultural Communication | 3 |
| COMM 4513 | International Communication | 3 |
| Economics |  |  |
| ECON 4853 | World Economic Development | 3 |
| Geography |  | 3 |
| GEOG 3890 | Selected Studies in Geography (Approved |  |


| Geology | topic) |  |
| :--- | :--- | :--- |
| GEOL 3023 | The Geology of Natural Resources in Sub- <br> Saharan Africa | 3 |
| History | Africa Since 1945 | 3 |
| HIST 3723 | Africa and the Atlantic Slave Trade | 3 |
| HIST 4493 | Honors College  <br> HON 3993 Urge to Help) <br> HON 3993 Honors Colloquium (Topic: African <br> Migrations) <br> HON 3993  <br> Sub-Saharan Africa) <br> HON 3993 Honors Colloquium (Topic: Modern African <br> Lives) <br> HON 3993  <br> Africa) <br> Music for Non-Majors 3 <br> MUNM 3313 African Repercussions | 3 |

# Asian Studies, Minor 

Minimum Total Credit Hours: 15
Minimum Upper-Division Hours: 9
Program Code: N075
The requirements for a minor must be completed concurrently with the major degree requirements.

## No minor may be added by completing courses after receiving the bachelor's degree.

Students must successfully complete at least 15 hours of coursework in international studies, including at least 9 hours at the upper-division level.

At least 6 credit hours must be earned in courses acceptable for residence credit by standards set forth by the Department of International and Area Studies, excluding transfer, correspondence, and examination (AP, CLEP, Advanced Standing) credit.

A minimum of 6 of the required 15 hours must be taken in the Department of International and Area Studies.

Students are encouraged to study abroad. Courses taken while studying abroad may also be substituted to meet minor requirements, though they might not satisfy General Education requirements.

A list of approved courses for the minor may be obtained in the IAS Academic Advising Office or on the departmental website.

No single course may be used by a student to satisfy a major requirement and a minor requirement. A course may be used, however, to satisfy both a major support requirement and a minor requirement. Requests to substitute a minor requirement must be approved in writing by the Asian Studies coordinator.

- Minors are available to all undergraduate students at OU. If the minor is officially declared, successfully completed, and noted on the graduation application, the student's transcript will so indicate at the time the bachelor's degree is posted.


## Required Courses

| Code | Title | Credit |
| :---: | :---: | :---: |
|  |  | Hours |
| Required Course |  |  |
| IAS 2003 | Understanding the Global Community | 3 |
| Language or Culture |  |  |
| Choose one co division cultura | se from third semester language or upper$\&$ area studies list | 3 |
| Third semester language course: |  |  |
| CHIN 2113 | Intermediate Chinese |  |
| JAPN 2113 | Intermediate Japanese |  |
| Upper-division IAS class approved for Cultural \& Area Studies credit (list of approved courses can be obtained in the IAS Academic Advising Office or on the departmental website) (p. 1670) |  |  |
| Electives ${ }^{1}$ |  |  |
| Choose 3 uppe International a | division level hours in the Department of Area Studies | 3 |


| Choose 6 additional upper-division level hours of courses <br> acceptable for Minor credit | 6 |
| :--- | ---: |
| Total Credit Hours | 15 |
| 1 |  |
| The most current elective list can be obtained in the IAS Academic <br> Advising Office or on the departmental website (Advising section: https:// <br> www.ou.edu/cis/ias/undergrad-academics/majors/course_selections) |  |

## Cultural \& Area Studies Course List

| Code | Title | Credit Hours |
| :---: | :---: | :---: |
| IAS 3123 | Arab Visual Cultures | 3 |
| IAS 3143 | Chinese Politics | 3 |
| IAS 3153 | Chinese Foreign Policy | 3 |
| IAS 3173 | Work, Family, and Religion in Rural China | 3 |
| IAS 3193 | Environment and Disease Crises in China | 3 |
| IAS 3203 | The Middle East Since World War I | 3 |
| IAS 3223 | Modern Iran: Islam \& Revolution | 3 |
| IAS 3233 | Nationalism and the Middle East | 3 |
| IAS 3273 | The European Union | 3 |
| IAS 3313 | Latin American International Relations | 3 |
| IAS 3343 | Chinese Philosophy | 3 |
| IAS 3353 | Modern Brazil | 3 |
| IAS 3393 | Iranian Society through Cinema | 3 |
| IAS 3403 | US-Iranian Relations: History, Politics, and the Road to Confrontation | 3 |
| IAS 3413 | Iran and Islam in Global History | 3 |
| IAS 3423 | Middle East Through Film | 3 |
| IAS 3433 | International Relations in the Middle East | 3 |
| IAS 3443 | Political Islam | 3 |
| IAS 3473 | The Arab-Israeli Conflict | 3 |
| IAS 3503 | The United States and the Middle East: 1945-Present | 3 |
| IAS 3523 | Women and Gender in South Asia | 3 |
| IAS 3533 | Political Violence in Comparative Perspective | 3 |
| IAS 3543 | International Peacebuilding | 3 |
| IAS 3603 | Energy, Environment \& Climate Change in China | 3 |
| IAS 3663 | Comparative Politics of the Middle East | 3 |
| IAS 3683 | Poverty and Inequality in the Middle East | 3 |
| IAS 3753 | Youth Culture in Contemporary Iran | 3 |
| IAS 3763 | Women and Gender in the Middle East | 3 |
| IAS 3783 | US-Arab Cultural Encounters | 3 |
| IAS 3793 | African Politics \& Society | 3 |
| IAS 3843 | Latin American Independence 1750-1880 | 3 |
| IAS 3883 | Italy Through Italian Film | 3 |
| IAS 3963 | US-Russia Relations | 3 |
| IAS 3973 | Cultural Diplomacy | 3 |
| IAS 3983 | Anti-Muslim Racism | 3 |
| IAS 3993 | Global Communism | 3 |
| IAS 4343 | Early Chinese Philosophy | 3 |


| IAS 4513 | Intellectuals \& Artists in Modern Latin <br> America | 3 |
| :--- | :--- | :---: |
| IAS 4523 | Latin American Left | 3 |
| IAS 4533 | Populism in 20th-Century South America | 3 |
| IAS 4543 | Latin America in the Age of the Cuban <br> Revolution | 3 |

## European Studies, Minor

Minimum Total Credit Hours: 15
Minimum Upper-Division Hours: 9
Program Code: N420
The requirements for a minor must be completed concurrently with the major degree requirements.

No minor may be added by completing courses after receiving the bachelor's degree.

Students must successfully complete at least 15 hours of coursework in international studies, including at least 9 hours at the upper-division level.

At least 6 credit hours must be earned in courses acceptable for residence credit by standards set forth by the Department of International and Area Studies, excluding transfer, correspondence, and examination (AP, CLEP, Advanced Standing) credit.

A minimum of 6 of the required 15 hours must be taken in the Department of International and Area Studies.

Students are encouraged to study abroad. Courses taken while studying abroad may also be substituted to meet minor requirements, though they might not satisfy General Education requirements.

A list of approved courses for the minor may be obtained in the IAS Academic Advising Office or on the departmental website.

No single course may be used by a student to satisfy a major requirement and a minor requirement. A course may be used, however, to satisfy both a major support requirement and a minor requirement. Requests to substitute a minor requirement must be approved in writing by the European Studies coordinator.

- Minors are available to all undergraduate students at OU. If the minor is officially declared, successfully completed, and noted on the graduation application, the student's transcript will so indicate at the time the bachelor's degree is posted.


## Required Courses

| Code | Title | Credit |
| :---: | :---: | :---: |
|  |  | Hours |
| Required Cours |  |  |
| IAS 2003 | Understanding the Global Community | 3 |
| IAS 3243 |  | 3 |
| or IAS 3273 | The European Union |  |
| Language or Cu |  |  |
| Choose one co language or up | se from the following third semester r-division cultural \& area studies list | 3 |
| Third semester | nguage course: |  |
| FR 2113 | Intermediate French |  |


| GERM 2113 | Intermediate German |
| :--- | :--- |
| ITAL 2113 | Intermediate Italian |
| PORT 2113 | Intermediate Portuguese |
| SPAN 2113 | Intermediate Spanish |
| Upper-division IAS class approved for Cultural \& Area Studies |  |
| credit (list of approved courses can be obtained in the IAS |  |
| Academic Advising Office or on the departmental website) |  |
| (p. 1670) |  |
| Electives ${ }^{1}$ <br> Choose 6 additional upper-division level hours of courses <br> acceptable for Minor credit |  |

Total Credit Hours

1 The most current elective list can be obtained in the IAS Academic Advising Office or on the departmental website (Advising section: https://www.ou.edu/cis/ias/undergrad-academics/majors/ course_selections).

## Global Energy, Environment, and Resources, Minor

Minimum Total Credit Hours: 15
Minimum Upper-Division Hours: 9
Program Code: N495
The requirements for a minor must be completed concurrently with the major degree requirements.

No minor may be added by completing courses after receiving the bachelor's degree.

Students must successfully complete at least 15 hours of coursework in international studies, including at least 9 hours at the upper-division level.

At least 6 credit hours must be earned in courses acceptable for residence credit by standards set forth by the Department of International and Area Studies, excluding transfer, correspondence, and examination (AP, CLEP, Advanced Standing) credit.

A minimum of 6 of the required 15 hours must be taken in the Department of International and Area Studies.

Students are encouraged to study abroad. Courses taken while studying abroad may also be substituted to meet minor requirements, though they might not satisfy General Education requirements.

A list of approved courses for the minor may be obtained in the IAS Academic Advising Office or on the departmental website.

No single course may be used by a student to satisfy a major requirement and a minor requirement. A course may be used, however, to satisfy both a major support requirement and a minor requirement. Requests to substitute a minor requirement must be approved in writing by the Global Energy, Environment, and Resources coordinator.

- Minors are available to all undergraduate students at OU. If the minor is officially declared, successfully completed, and noted on the graduation application, the student's transcript will so indicate at the time the bachelor's degree is posted.


## REQUIRED COURSES

| Code | Title | Credit Hours |
| :---: | :---: | :---: |
| Required Courses |  |  |
| IAS 2003 | Understanding the Global Community | 3 |
| $\text { IAS } 3283$ <br> or IAS 3653 | Culture, Power, and Global Environment Energy, Climate, and Security | 3 |
| Language or Culture |  |  |
| Choose one cou division cultural | se from third semester language or upperarea studies list: | 3 |
| Third semester language course (p. 1671) |  |  |
| Upper-division IAS class approved for Cultural \& Area Studies credit (list of approved courses can be obtained in the IAS Academic Advising Office or on the departmental website) (p. 1670) |  |  |
| Electives ${ }^{1}$ |  |  |
| Select 6 addition acceptable for | al hours of upper-division level courses nor credit | 6 |

## Total Credit Hours

1 The most current elective list can be obtained in the IAS Academic Advising Office or on the departmental website (Advising section: https://www.ou.edu/cis/ias/undergrad-academics/majors/ course_selections)

## Third Semester Language

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| ARAB 2113 | Intermediate Arabic | 3 |
| CHIN 2113 | Intermediate Chinese | 3 |
| FR 2113 | Intermediate French | 3 |
| GERM 2113 | Intermediate German | 3 |
| HEBR 2113 | Intermediate Hebrew | 3 |
| ITAL 2113 | Intermediate Italian | 3 |
| JAPN 2113 | Intermediate Japanese | 3 |
| PERS 2113 | Intermediate Persian | 3 |
| PORT 2113 | Intermediate Portuguese | 3 |
| RUSS 2113 | Intermediate Russian | 3 |
| SPAN 2113 | Intermediate Spanish | 3 |

## International Development, Minor

Minimum Total Credit Hours: 15

Minimum Upper-Division Hours: 9

## Program Code: N595

The requirements for a minor must be completed concurrently with the major degree requirements.

No minor may be added by completing courses after receiving the bachelor's degree.

Students must successfully complete at least 15 hours of coursework in international studies, including at least 9 hours at the upper-division level.

At least 6 credit hours must be earned in courses acceptable for residence credit by standards set forth by the Department of International and Area Studies, excluding transfer, correspondence, and examination (AP, CLEP, Advanced Standing) credit.

A minimum of 6 of the required 15 hours must be taken in the Department of International and Area Studies.

Students are encouraged to study abroad. Courses taken while studying abroad may also be substituted to meet minor requirements, though they might not satisfy General Education requirements.

A list of approved courses for the minor may be obtained in the IAS Academic Advising Office or on the departmental website.

No single course may be used by a student to satisfy a major requirement and a minor requirement. A course may be used, however, to satisfy both a major support requirement and a minor requirement. Requests to substitute a minor requirement must be approved in writing by the International Development coordinator.

- Minors are available to all undergraduate students at OU. If the minor is officially declared, successfully completed, and noted on the graduation application, the student's transcript will so indicate at the time the bachelor's degree is posted.


## Required Courses

| Code | Title | Credit |
| :---: | :---: | :---: |
|  |  | Hours |
| Required Courses |  |  |
| IAS 2003 | Understanding the Global Community | 3 |
| IAS 3323 | The Political Economy of Development | 3 |
| Language or Culture |  |  |
| Choose one course from third semester language or upperdivision cultural \& area studies list: |  | 3 |
| Third semester language course list (p. 1672) |  |  |
| Upper-division IAS class approved for Cultural \& Area Studies credit (list of approved courses can be obtained in the IAS Academic Advising Office or on the departmental website) (p. 1670) |  |  |
| Electives ${ }^{1}$ |  |  |
| Select 6 acceptab | apper-division level hours of courses nor credit | 6 |

## Total Credit Hours

${ }^{1}$ The most current elective list can be obtained in the IAS Academic Advising Office or on the departmental website (Advising section: https://www.ou.edu/cis/ias/undergrad-academics/majors/ course_selections)

## Third Semester Language

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| ARAB 2113 | Intermediate Arabic | 3 |
| CHIN 2113 | Intermediate Chinese | 3 |
| FR 2113 | Intermediate French | 3 |
| GERM 2113 | Intermediate German | 3 |
| HEBR 2113 | Intermediate Hebrew | 3 |
| ITAL 2113 | Intermediate Italian | 3 |


| JAPN 2113 | Intermediate Japanese | 3 |
| :--- | :--- | :--- |
| PERS 2113 | Intermediate Persian | 3 |
| PORT 2113 | Intermediate Portuguese | 3 |
| RUSS 2113 | Intermediate Russian | 3 |
| SPAN 2113 | Intermediate Spanish | 3 |

## International Security Studies, Minor

Minimum Total Credit Hours: 15
Minimum Upper-Division Hours: 9
Program Code: N603
The requirements for a minor must be completed concurrently with the major degree requirements.

## No minor may be added by completing courses after receiving the bachelor's degree.

Students must successfully complete at least 15 hours of coursework in international studies, including at least 9 hours at the upper-division level.

At least 6 credit hours must be earned in courses acceptable for residence credit by standards set forth by the Department of International and Area Studies, excluding transfer, correspondence, and examination (AP, CLEP, Advanced Standing) credit.

A minimum of 6 of the required 15 hours must be taken in the Department of International and Area Studies.

Students are encouraged to study abroad. Courses taken while studying abroad may also be substituted to meet minor requirements, though they might not satisfy General Education requirements.

A list of approved courses for the minor may be obtained in the IAS Academic Advising Office or on the departmental website.

No single course may be used by a student to satisfy a major requirement and a minor requirement. A course may be used, however, to satisfy both a major support requirement and a minor requirement. Requests to substitute a minor requirement must be approved in writing by the International Security Studies coordinator.

- Minors are available to all undergraduate students at OU. If the minor is officially declared, successfully completed, and noted on the graduation application, the student's transcript will so indicate at the time the bachelor's degree is posted.


## REQUIRED COURSES

| Code Title | Credit <br> Hours |  |
| :--- | ---: | ---: |
| Required Courses |  |  |
| IAS 2003 | Understanding the Global Community | 3 |
| IAS 3043 | 3 |  |
| Language or Culture | 3 |  |
| Choose one course from third semester language or upper- <br> division cultural \& area studies list: |  |  |
| Third semester language course list (p. 1673) |  |  |
| Upper-division IAS class approved for Cultural \& Area Studies <br> credit (list of approved courses can be obtained in the IAS |  |  |
| Academic Advising Office or on the departmental website) <br> (p. 1670) |  |  |


| Electives ${ }^{1}$ |  |  |
| :---: | :---: | :---: |
| Select 6 ad acceptable | al upper-division level hours nor credit | 6 |
| Total Credit |  | 15 |
| 1 The most current elective list can be obtained in the IAS Academic Advising Office or on the departmental website (Advising section: https://www.ou.edu/cis/ias/undergrad-academics/majors/ course_selections) |  |  |
| Third Semester Language |  |  |
| Code | Title | Credit <br> Hours |
| ARAB 2113 | Intermediate Arabic | 3 |
| CHIN 2113 | Intermediate Chinese | 3 |
| HEBR 2113 | Intermediate Hebrew | 3 |
| JAPN 2113 | Intermediate Japanese | 3 |
| PERS 2113 | Intermediate Persian | 3 |
| PORT 2113 | Intermediate Portuguese | 3 |
| RUSS 2113 | Intermediate Russian | 3 |
| SPAN 2113 | Intermediate Spanish | 3 |

## International Studies, Minor

## Minimum Total Credit Hours: 15

Minimum Upper-Division Hours: 9

## Program Code: N605

The requirements for a minor must be completed concurrently with the major degree requirements.

No minor may be added by completing courses after receiving the bachelor's degree.

Students must successfully complete at least 15 hours of coursework in international studies, including at least 9 hours at the upper-division level.

At least 6 credit hours must be earned in courses acceptable for residence credit by standards set forth by the Department of International and Area Studies, excluding transfer, correspondence, and examination (AP, CLEP, Advanced Standing) credit.

A minimum of 6 of the required 15 hours must be taken in the Department of International and Area Studies.

Students are encouraged to study abroad. Courses taken while studying abroad may also be substituted to meet minor requirements, though they might not satisfy General Education requirements.

A list of approved courses for the minor may be obtained in the IAS Academic Advising Office or on the departmental website.

No single course may be used by a student to satisfy a major requirement and a minor requirement. A course may be used, however, to satisfy both a major support requirement and a minor requirement. Requests to substitute a minor requirement must be approved in writing by the International Studies coordinator.

- Minors are available to all undergraduate students at OU. If the minor is officially declared, successfully completed, and noted on the
graduation application, the student's transcript will so indicate at the time the bachelor's degree is posted.


## REQUIRED COURSES

| Code | Title | Credit Hours |
| :---: | :---: | :---: |
| Required Course |  |  |
| IAS 2003 | Understanding the Global Community | 3 |
| Language \& Culture |  |  |
| Choose o division | e from third semester language or upperarea studies list: | 3 |
| Third semester language course (p. 1673) |  |  |
| Upper-division IAS class approved for Cultural \& Area Studies credit (list of approved courses can be obtained in the IAS Academic Advising Office or on the departmental website) (p. 1670) |  |  |
| Electives ${ }^{1}$ |  |  |
| Select 9 acceptab Departme | upper-division level hours of courses nor credit (3 hours must be taken in the ernational and Area Studies) | 9 |
| Total Cred |  | 15 |
| 1 The most current elective list can be obtained in the IAS Academic Advising Office or on the departmental website (Advising section: https://www.ou.edu/cis/ias/undergrad-academics/majors/ course_selections) |  |  |

## Third Semester Language

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| ARAB 2113 | Intermediate Arabic | 3 |
| CHIN 2113 | Intermediate Chinese | 3 |
| FR 2113 | Intermediate French | 3 |
| GERM 2113 | Intermediate German | 3 |
| HEBR 2113 | Intermediate Hebrew | 3 |
| ITAL 2113 | Intermediate Italian | 3 |
| JAPN 2113 | Intermediate Japanese | 3 |
| PERS 2113 | Intermediate Persian | 3 |
| PORT 2113 | Intermediate Portuguese | 3 |
| RUSS 2113 | Intermediate Russian | 3 |
| SPAN 2113 | Intermediate Spanish | 3 |

## Iranian Studies, Minor

Minimum Total Credit Hours: 15
Minimum Upper-Division Hours: 9
Program Code: N609
The requirements for a minor must be completed concurrently with the major degree requirements.

No minor may be added by completing courses after receiving the bachelor's degree.

Students must successfully complete at least 15 hours of coursework in international studies, including at least 9 hours at the upper-division level.

At least 6 credit hours must be earned in courses acceptable for residence credit by standards set forth by the Department of International and Area Studies, excluding transfer, correspondence, and examination (AP, CLEP, Advanced Standing) credit.

A minimum of 6 of the required 15 hours must be taken in the Department of International and Area Studies.

Students are encouraged to study abroad. Courses taken while studying abroad may also be substituted to meet minor requirements, though they might not satisfy General Education requirements.

A list of approved courses for the minor may be obtained in the IAS Academic Advising Office or on the departmental website.

No single course may be used by a student to satisfy a major requirement and a minor requirement. A course may be used, however, to satisfy both a major support requirement and a minor requirement. Requests to substitute a minor requirement must be approved in writing by the Iranian Studies coordinator.

- Minors are available to all undergraduate students at OU. If the minor is officially declared, successfully completed, and noted on the graduation application, the student's transcript will so indicate at the time the bachelor's degree is posted.


## Required Courses

| Code | Title | Credit <br> Hours |
| :---: | :---: | :---: |
| Required Course |  |  |
| IAS 2003 | Understanding the Global Community | 3 |
| Language or Culture |  |  |
| Choose one cou language or upp | se from the following third semester r-division cultural \& area studies list | 3 |
| Third semester language course: |  |  |
| PERS 2113 | Intermediate Persian |  |
| Upper-division IAS class approved for Cultural \& Area Studies credit (list of approved courses can be obtained in the IAS Academic Advising Office or on the departmental website) (p. 1670) |  |  |
| Electives ${ }^{1}$ |  |  |
| Choose 9 hours from the following ( 3 of the hours must be taken in the Department of International and Area Studies): |  |  |
| IAS 3223 | Modern Iran: Islam \& Revolution |  |
| IAS 3233 | Nationalism and the Middle East |  |
| IAS 3393 | Iranian Society through Cinema |  |
| IAS 3403 | US-Iranian Relations: History, Politics, and the Road to Confrontation |  |
| IAS 3413 | Iran and Islam in Global History |  |
| IAS 3423 | Middle East Through Film |  |
| IAS 3683 | Poverty and Inequality in the Middle East |  |
| IAS 3753 | Youth Culture in Contemporary Iran |  |
| IAS 3763 | Women and Gender in the Middle East |  |
| ARCH 4283 | Persian Architecture |  |
| Or other courses as approved by an IAS Academic Advisor |  |  |

## Total Credit Hours

${ }^{1}$ The most current elective list can be obtained in the IAS Academic Advising Office or on the departmental website (Advising section:
https://www.ou.edu/cis/ias/undergrad-academics/majors/ course_selections).

# Latin American Studies, Minor 

Minimum Total Credit Hours: 15
Minimum Upper-Division Hours: 9
Program Code: N630
The requirements for a minor must be completed concurrently with the major degree requirements.

## No minor may be added by completing courses after receiving the bachelor's degree.

Students must successfully complete at least 15 hours of coursework in international studies, including at least 9 hours at the upper-division level.

At least 6 credit hours must be earned in courses acceptable for residence credit by standards set forth by the Department of International and Area Studies, excluding transfer, correspondence, and examination (AP, CLEP, Advanced Standing) credit.

A minimum of 6 of the required 15 hours must be taken in the Department of International and Area Studies.

Students are encouraged to study abroad. Courses taken while studying abroad may also be substituted to meet minor requirements, though they might not satisfy General Education requirements.

A list of approved courses for the minor may be obtained in the IAS Academic Advising Office or on the departmental website.

No single course may be used by a student to satisfy a major requirement and a minor requirement. A course may be used, however, to satisfy both a major support requirement and a minor requirement. Requests to substitute a minor requirement must be approved in writing by the Latin American Studies coordinator.

- Minors are available to all undergraduate students at OU. If the minor is officially declared, successfully completed, and noted on the graduation application, the student's transcript will so indicate at the time the bachelor's degree is posted.


## Required Courses

| Code | Title | Credit |
| :---: | :---: | :---: |
| Required Course |  |  |
| IAS 2003 | Understanding the Global Community | 3 |
| Language or Culture |  |  |
| Choose one cour language or up | e from the following third semester -division cultural \& area studies list | 3 |
| Third semester language course: |  |  |
| PORT 2113 | Intermediate Portuguese |  |
| SPAN 2113 | Intermediate Spanish |  |
| Upper-division IAS class approved for Cultural \& Area Studies credit (list of approved courses can be obtained in the IAS Academic Advising Office or on the departmental website) (p. 1670) |  |  |
| Electives ${ }^{1}$ |  |  |

Choose 9 additional upper-division level hours of courses acceptable for Minor Credit (3 of the hours must be taken in the Department of International and Area Studies)

Total Credit Hours

1 The most current elective list can be obtained in the IAS Academic Advising Office or on the departmental website (Advising section: https://www.ou.edu/cis/ias/undergrad-academics/majors/ course_selections).

## Middle Eastern Studies, Minor

Minimum Total Credit Hours: 15
Minimum Upper-Division Hours: 9
Program Code: N694
The requirements for a minor must be completed concurrently with the major degree requirements.

No minor may be added by completing courses after receiving the bachelor's degree.

Students must successfully complete at least 15 hours of coursework in international studies, including at least 9 hours at the upper-division level.

At least 6 credit hours must be earned in courses acceptable for residence credit by standards set forth by the Department of International and Area Studies, excluding transfer, correspondence, and examination (AP, CLEP, Advanced Standing) credit.

A minimum of 6 of the required 15 hours must be taken in the Department of International and Area Studies.

Students are encouraged to study abroad. Courses taken while studying abroad may also be substituted to meet minor requirements, though they might not satisfy General Education requirements.

A list of approved courses for the minor may be obtained in the IAS Academic Advising Office or on the departmental website.

No single course may be used by a student to satisfy a major requirement and a minor requirement. A course may be used, however, to satisfy both a major support requirement and a minor requirement. Requests to substitute a minor requirement must be approved in writing by the Middle Eastern Studies coordinator.

- Minors are available to all undergraduate students at OU. If the minor is officially declared, successfully completed, and noted on the graduation application, the student's transcript will so indicate at the time the bachelor's degree is posted.


## Required Courses

| Code $\quad$ Title | Credit <br> Hours |  |
| :--- | ---: | ---: |
| Required Course | Understanding the Global Community | 3 |
| IAS 2003 | 3 |  |
| Language or Culture | 3 |  |
| Choose one course from the following third semester |  |  |
| language or upper-division cultural \& area studies list |  |  |
| Third semester language course: |  |  |
| ARAB 2113 Intermediate Arabic |  |  |

## HEBR 2113 Intermediate Hebrew

PERS 2113 Intermediate Persian
Upper-division IAS class approved for Cultural \& Area Studies credit (list of approved courses can be obtained in the IAS Academic Advising Office or on the departmental website) (p. 1670)

## Electives ${ }^{1}$

Choose 9 additional upper-division level hours of courses
acceptable for Minor Credit (3 of the hours must be taken in the Department of International and Area Studies)
Total Credit Hours
1 The most current elective list can be obtained in the IAS Academic Advising Office or on the departmental website (Advising section: https://www.ou.edu/cis/ias/undergrad-academics/majors/ course_selections).

## Russian and Eastern European Studies, Minor

## Minimum Total Credit Hours: 15

Minimum Upper-Division Hours: 9

## Program Code: N826

The requirements for a minor must be completed concurrently with the major degree requirements.

## No minor may be added by completing courses after receiving the

 bachelor's degree.Students must successfully complete at least 15 hours of coursework in international studies, including at least 9 hours at the upper-division level.

At least 6 credit hours must be earned in courses acceptable for residence credit by standards set forth by the Department of International and Area Studies, excluding transfer, correspondence, and examination (AP, CLEP, Advanced Standing) credit.

A minimum of 6 of the required 15 hours must be taken in the Department of International and Area Studies.

Students are encouraged to study abroad. Courses taken while studying abroad may also be substituted to meet minor requirements, though they might not satisfy General Education requirements.

A list of approved courses for the minor may be obtained in the IAS Academic Advising Office or on the departmental website.

No single course may be used by a student to satisfy a major requirement and a minor requirement. A course may be used, however, to satisfy both a major support requirement and a minor requirement. Requests to substitute a minor requirement must be approved in writing by the Russian and Eastern European Studies coordinator.

- Minors are available to all undergraduate students at OU. If the minor is officially declared, successfully completed, and noted on the graduation application, the student's transcript will so indicate at the time the bachelor's degree is posted.
Required Courses

| Code $\quad$ Title | Credit |
| :--- | ---: |
| Hours |  |

Total Credit Hours
1 The most current elective list can be obtained in the IAS Academic Advising Office or on the departmental website (Advising section: https://www.ou.edu/cis/ias/undergrad-academics/majors/ course_selections).

## Global Engagement, Undergraduate Certificate

Minimum Total Credit Hours: 18
Program Code: T215
The Global Engagement undergraduate certificate is designed to enhance students' knowledge of the global community, including international affairs and modern global issues, as well as encourage them to become active global citizens. Certificate requirements are similar to those in the currently-existing OU program, the Global Engagement Fellowship (GEF) Program. These requirements include successfully completing required coursework; gaining or demonstrating proficiency in a modern language; studying or working abroad twice (at least one summer or winter term); becoming actively involved in international groups and events on campus; and maintaining an e-portfolio documenting their experiences and reflections. The certificate adds a formal designation to fellows' OU academic record showing that they completed a global education curriculum and provides them a tangible way to make their experiences more marketable to potential future employers. All GEFs who successfully complete the program requirements are eligible for the certificate, but it is also available to any degree-seeking OU student.

## Certificate Requirements

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| IAS 2003 | Understanding the Global Community | 3 |
| IAS 3910 | International Studies Internship | $3-6$ |
| Approved Study | Abroad or international internship program | $6-9$ |

Complete 3 credits in a modern language at the 2223
(intermediate continued) level ${ }^{1}$
Total Credit Hours 18

1 If a student has already obtained this level of proficiency in a relevant language, they may substitute additional approved IAS or study abroad coursework.

## International Studies, B.A./Global Studies, M.A.

Minimum Total Credit Hours: 144
Major Hours: 33
Minimum Upper-Division Hours: 48
Upper-Division Hours Within Major. 18

Some courses required for the major may also fulfill University General Education and/or College of International Studies Requirements

The major requires 33 hours, 18 of which must be upper-division. 18 of the required 33 must be taken in the Department of International and Area Studies.

## Major Requirements

| Code Title |  |
| :---: | :---: |
| I. International Relations (3 hours must be IAS designated) |  |
| Choose 3 hours from a list of courses maintained by the department (p. 1679) | 3 |
| $\begin{array}{ll} \text { IAS } 5503 & \text { Theory and Practice of International } \\ \text { Politics } \end{array}$ | 3 |
| II. Development \& Economics (3 hours must be IAS designated) |  |
| Choose 3 hours from a list of courses maintained by the department (p. 1679) | 3 |
| IAS 5713 Policy Analysis and Writing | 3 |
| III. History \& Culture (3 hours must be IAS designated) |  |
| Choose 3 hours from a list of courses maintained by the department (p. 1679) | 3 |
| IAS 5003 U.S. Foreign Relations | 3 |
| IV. Politics \& Society (3 hours must be IAS designated) |  |
| Choose 3 hours from a list of courses maintained by the department (p. 1679) | 3 |
| IAS 5703 International Studies Colloquium | 3 |
| V. Specialization (3 hours must be IAS designated) |  |
| Choose 6 hours in an area of specialization that fits career goals ${ }^{1}$ | 6 |
| VI. Senior Capstone Course |  |
| IAS 4013 <br> Senior Capstone Seminar in International and Area Studies | 3 |

Total Credit Hours
${ }^{1}$ Will include additional hours from sections I-IV, an area studies, or custom specialization as approved.

Note: Students may take other appropriate courses as approved by the IAS Academic Advisor.

Major Support Requirements

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Choose 13 hours of one foreign language | 13 |  |
| ECON 1113 | Principles of Economics-Macro | 3 |
| ECON 1123 | Principles of Economics-Micro | 3 |
| IAS 2003 | Understanding the Global Community | 3 |
| International Experience |  |  |
| Majors are strongly encouraged to pursue study abroad <br> opportunities. |  |  |
| Total Credit Hours | $\mathbf{2 2}$ |  |

## M.A. Component

| Code | Title | Credit |
| :---: | :---: | :---: |
| Global Economics |  |  |
| Choose 3 hours from a list of Global Economics courses provided by the department (p. 1679) |  | 3 |
| Area Studies |  |  |
| Choose 6 hour by the departm | from a list of Area Studies courses provided nt (p. 1679) | 6 |
| Law and Institution |  |  |
| Choose 3 hour provided by the | from a list of Law and Institutions courses department (p. 1679) | 3 |
| Global Security |  |  |
| Choose 3 hour provided by the | from a list of Global Security courses department (p. 1679) | 3 |
| Electives |  |  |
| Choose 6 hours as approved by the graduate liaison ${ }^{1}$ ( 6 |  |  |
| Cumulating Exercise/Thesis |  |  |
| $\begin{aligned} & \text { IAS } 5980 \\ & \text { or IAS } 5723 \end{aligned}$ | Research for Master's Thesis Global Policy Workshop | 3 |

Total Credit Hours
${ }^{1}$ No more than 3 hours may be IAS 5990. Electives may be chosen from the following topics and disciplines, subject to approval by the Graduate Liaison: Economics (Global/Regional), World/Regional History, Political Science, International Relations, Comparative Politics, Policy Studies, World and Human Geography, Sociology, Anthropology, Cultural Studies, Law (International and Comparative), and languages.

## General Education and College Requirements

Courses for fulfillment of General Education and College of International Studies requirements must be from the approved General Education course list published in the Class Schedule or at: http://www.ou.edu/ content/gened/courses.html. Courses graded P/NP will not apply.

\section*{UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS <br> | Code | Title | Credit |
| :--- | :--- | :--- |
|  | Hours |  |}

## Core Area I: Symbolic and Oral Communication

English Composition
ENGL 1113 Principles of English Composition 3
ENGL 1213 Principles of English Composition 3
or EXPO 1213 Expository Writing
Language
(0-13 hours in the same language) The College of
International Studies requirement cannot be met by high
school coursework
Beginning Course 0-5
Beginning Course, continued 0-5
Intermediate Course (2000 level) ${ }^{1,2}$ 0-3
Mathematics
Choose one course 3
Core Area II: Natural Science
Choose two courses from different disciplines in the 7
biological and/or physical sciences, one of which must
include a laboratory component ${ }^{1}$
Core Area III: Social Science
P SC 1113 American Federal Government 3
Choose one course 3
Core Area IV: Arts and Humanities
Artistic Forms
Choose one course ${ }^{4} 3$
Western Culture
HIST 1483 United States to 1865
or HIST 1493 United States, 1865 to the Present
Choose one course ${ }^{3,4} 3$
World Culture
Choose one course ${ }^{4} 3$

Core Area V: First-Year Experience
Choose one course 3

Total Credit Hours 37-50
${ }^{1}$ College of International Studies Requirements: College requirements are not automatically fulfilled by a previous degree.
${ }^{2}$ One course at the intermediate level or demonstrated competency at that level.
${ }^{3}$ Excluding HIST 1483 and HIST 1493.
${ }^{4}$ It is recommended students take either Artistic Forms, Western Culture, or World Culture at the 3000-/4000-level to fulfill the university requirement of one upper-division course from the approved University Wide General Education list. The course must be outside the major. This may also be satisfied in the upper-division or free elective categories.

## Free Electives

Electives to bring total applicable hours to the minimum total required for the degree including 48 upper-division hours.

## Information Concerning General Rules, Regulations and Minimum Requirements

Total Hours: A minimum of 144 semester hours acceptable toward graduation must be completed of both the B.A. and the M.A.
Upper-Division Hours: A minimum of 48 upper-division semester hours acceptable toward graduation must be completed. OU courses numbered 3000 or above are upper-division. Transfer work is counted as lowerdivision or upper-division credit depending on the level at which it was offered at the institution where it was earned. Two-year college work is accepted only as lower-division credit.
Liberal Arts and Sciences Hours: At least 80 semester hours of liberal arts and sciences courses are required for a BA degree. At least 55 semester hours of liberal arts and sciences courses are required for a BS degree.
Major Work: A minimum of 33 semester hours must be earned in the major, including a minimum of 18 credit hours at the upper-division level. Pass/No Pass Enrollment: A maximum of 16 semester hours of free elective credit may be attempted under this option.
Individual Studies (e.g., courses titled "Independent Study"): A maximum of 12 total semester hours may be counted toward graduation, excluding Honors Reading and Honors Research.
Military, Military In-Service, Skills, Applied Technology, and P.E.
Courses: A maximum of 16 semester credit hours of basic skills and/ or applied technology courses. No physical education activity courses will be counted toward the 120 semester hours of acceptable credit for graduation.
Senior Institution Hours: A minimum of 60 semester hours applied toward graduation must be earned at senior (4-year) institutions.
Residency:

- At least 15 of the final 30 hours applied toward the degree or at least 50 percent of the hours required by the institution in the major field must be satisfactorily completed at the awarding institution.
- At least 15 semester hours of upper-division major work must be completed in residence at OU.
- OU correspondence courses are not considered resident credit.
- Credits earned via examination are neither resident nor nonresident credit.

Information regarding Grade Point Averages, Special Degrees, and Application for Graduation can be found in the catalog under David L. Boren College of International Studies: Undergraduate Study. (p. 1623)

## Suggested Semester Plan of Study

This plan is a sample of one possible grouping of courses that would allow students to graduate in five years. Please refer to the front of the degree checksheet for official requirements. Students must consult with College of International Studies academic advisors to verify that courses selected each semester fulfill the recommended plan and satisfy university, College of International Studies, International Studies, and Global Studies major requirements.

## Freshman

| First Semester | Credit <br> Hours |  |
| :--- | ---: | ---: |
| ENGL 1113 | Principles of English Composition (Core I) | 3 |
| MATH (Core I) | 3 |  |
| Beginning Language (Core I) | 5 |  |



## Sophomore

First Semester

First Semester
Development and Economics Major Elective, upper-division 3
(3000-4000-level)
History and Culture Major Elective, upper-division (3000-4000- 3
level)
Free Elective, upper-division (3000-4000-level) 3
Free Elective, upper-division (3000-4000-level) 3

## Second Semester

Specialization Major Elective, upper-division (3000-4000 level) 3
Free Elective, upper-division (3000-4000 level)
Free Elective, upper-division (3000-4000 level) 3
Free Elective, upper-division (3000-4000 level) 3
Free Elective, upper-division (3000-4000 level) (recommend 3
take in summer)

## Senior

First Semester Politics
(3000-4000 level)

| Free Elective, upper-division (3000-4000 level) | 3 |
| :---: | :---: |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Credit Hours | 15 |
| Second Semester |  |
| IAS $4013 \quad \begin{aligned} & \text { Senior Capstone Seminar in International } \\ & \text { and Area Studies }\end{aligned}$ | 3 |
| IAS 5003 U.S. Foreign Relations | 3 |
| IAS 5713 Policy Analysis and Writing | 3 |
| Specialization Major Elective, upper-division (3000-4000 level) | 3 |
| Credit Hours | 12 |
| Fifth Year |  |
| First Semester |  |
| Graduate level Area Studies Course | 3 |
| Graduate level Global Economics Course | 3 |
| Graduate level Global Security Course | 3 |
| Graduate-level Elective | 3 |
| Credit Hours | 12 |
| Second Semester |  |
| Graduate level Area Studies Course | 3 |
| Graduate level Law and Institutions Course | 3 |
| $\begin{array}{ll}\text { IAS } 5723 & \text { Global Policy Workshop } \\ \text { or IAS } 5980 & \text { or Research for Master's Thesis }\end{array}$ | 3 |
| Graduate level Elective | 3 |
| Credit Hours | 12 |
| Total Credit Hours | 144 |

Bachelor's degrees require a minimum of 48 hours of upper-division (3000-4000) coursework.

This plan of study should not be used in lieu of academic advisement.
Students who transfer from other institutions (particularly community colleges) must verify credit hour and course requirements with their academic counselor, (405) 325-1429, http://www.ou.edu/international.

Please make an appointment for a degree check with your college academic counselor once you have earned 90 hours.

## International Studies Accelerated Course Lists

## Undergraduate Courses

## I. International Relations

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| IAS 3013 | International Law | 3 |
| IAS 3033 | International Human Rights | 3 |
| IAS 3043 | Global Security | 3 |
| IAS 3053 | Globalization: The Politics of Global | 3 |
|  | Governance | 3 |
| IAS 3083 | International Activism | 3 |
| IAS 3153 | Chinese Foreign Policy | 3 |
| IAS 3303 | National Security Policy | 3 |
| IAS 3313 | Latin American International Relations | 3 |


| IAS 3403 | US-Iranian Relations: History, Politics, and <br> the Road to Confrontation | 3 |
| :--- | :--- | :--- |
| IAS 3433 | International Relations in the Middle East | 3 |
| IAS 3443 | Political Islam | 3 |
| IAS 3503 | The United States and the Middle East: <br> 1945-Present | 3 |
| IAS 3543 | International Peacebuilding | 3 |
| IAS 3583 | Managing US-China Relations | 3 |
| IAS 3653 | Energy, Climate, and Security | 3 |
| IAS 3703 | South Asian Security | 3 |
| IAS 3743 | The Politics of the International System | 3 |
| IAS 3823 | Technology \& War | 3 |
| IAS 3853 | Russian Foreign Policy | 3 |
| IAS 3873 | Global Cybersecurity Issues | 3 |
| IAS 3913 | The Practice of Diplomacy | 3 |
| IAS 3933 | Intelligence \& National Security | 3 |
| IAS 3943 | Global Intelligence Challenges | 3 |
| IAS 3963 | US-Russia Relations | 3 |
| IAS 3973 | Cultural Diplomacy | 3 |
| P SC 3543 | United States-Latin American Relations | 3 |
| P SC 3573 | Great Power Politics | 3 |

## II. Development \& Economics

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| ECON 4733 | Economic Development in the Middle East | 3 |
| ECON 4853 | World Economic Development | 3 |
| GEOG 3243 | Principles of Economic Geography | 3 |
| HON 3993 | Honors Colloquium (Topic: Africa \& the | 3 |
|  | Urge to Help) | 3 |
| IAS 3073 | Global Economic Relations | 3 |
| IAS 3273 | The European Union | 3 |
| IAS 3283 | Culture, Power, and Global Environment | 3 |
| IAS 3323 | The Political Economy of Development | 3 |
| IAS 3643 | Illicit Trafficking | 3 |
| IAS 3683 | Poverty and Inequality in the Middle East | 3 |
| IAS 3803 | International Cooperation \& Development | 3 |
| IAS 3813 | Development Practice | 3 |
| IAS 3893 | Law \& Globalization | 3 |
| IAS 3923 | World Happiness | 3 |
| P SC 3553 | International Political Economy | 3 |
| SOC 3803 | Inequality in A Global Perspective | 3 |

## III. History \& Culture

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| HIST 3313 | Israeli Culture Through Film | 3 |
| IAS 3203 | The Middle East Since World War I | 3 |
| IAS 3123 | Arab Visual Cultures | 3 |
| IAS 3223 | Modern Iran: Islam \& Revolution | 3 |
| IAS 3353 | Modern Brazil | 3 |
| IAS 3413 | Iran and Islam in Global History | 3 |
| IAS 3423 | Middle East Through Film | 3 |


| IAS 3783 | US-Arab Cultural Encounters | 3 |
| :---: | :---: | :---: |
| IAS/HIST 3843 | Latin American Independence 1750-1880 | 3 |
| IAS/HIST 4513 | Intellectuals \& Artists in Modern Latin America | 3 |
| IAS/HIST 4523 | Latin American Left | 3 |
| IAS/HIST 4533 | Populism in 20th-Century South America | 3 |
| IAS/HIST 4543 | Latin America in the Age of the Cuban Revolution | 3 |
| P SC 3563 | United States Diplomatic History | 3 |
| IV. Politics \& Society |  |  |
| Code | Title | Credit Hours |
| GEOG 3513 | Political Geography | 3 |
| IAS 3143 | Chinese Politics | 3 |
| IAS 3173 | Work, Family, and Religion in Rural China | 3 |
| IAS 3193 | Environment and Disease Crises in China | 3 |
| IAS 3233 | Nationalism and the Middle East | 3 |
| IAS 3393 | Iranian Society through Cinema | 3 |
| IAS 3473 | The Arab-Israeli Conflict | 3 |
| IAS 3523 | Women and Gender in South Asia | 3 |
| IAS 3533 | Political Violence in Comparative Perspective | 3 |
| IAS 3603 | Energy, Environment \& Climate Change in China | 3 |
| IAS 3663 | Comparative Politics of the Middle East | 3 |
| IAS 3693 | Military, State \& Society | 3 |
| IAS 3723 | Sexuality \& Identity in the Islamic World | 3 |
| IAS 3753 | Youth Culture in Contemporary Iran | 3 |
| IAS 3763 | Women and Gender in the Middle East | 3 |
| IAS 3773 | State \& Society in Pakistan | 3 |
| IAS 3793 | African Politics \& Society | 3 |
| IAS 3833 | Democratic Decline in Global Perspective | 3 |
| IAS 3863 | Global Environment | 3 |
| P SC 3643 | Democracies and Democratization: A Comparative Inquiry | 3 |
| P SC 3653 | Government and Politics of Latin America | 3 |

## Graduate Courses

Area Studies

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| IAS 5213 | Politics of the European Union | 3 |
| IAS 5353 | Latin American International Relations | 3 |
| IAS 5433 | International Relations in the Middle East | 3 |
| IAS 5453 | Politics and Policy of the Middle East | 3 |
| IAS 5693 | Political Economy of China | 3 |
| IAS 5940 | Topics in International Studies (Topic: | $1-4$ |
|  | Global Environment) | $1-4$ |
| IAS 5940 | Topics in International Studies (Topic: | $2-4$ |
| HIST 6200 | Politics of Language) | $1-4$ |
| HIST 6300 | Seminar in European History | Seminar in Latin American History |



## Global Security

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| IAS 5043 | Global Security | 3 |
| IAS 5473 | Arab-Israeli Conflict | 3 |
| P SC 5653 | Democracies and Democratization | 3 |

## Global Economics

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| ECON 5613 | International Economics-Trade | 3 |
| ECON 5633 | International Economics--Finance | 3 |
| ECON 5853 | World Economic Development | 3 |
| IAS 5323 | The Political Economy of Development | 3 |
| IAS 5523 | Global Political Economy | 3 |
| SOC 5943 | Inequality in a Global Perspective | 3 |

## Global Affairs, M.A.

Minimum Total Hours (Non-Thesis): 33
Program Code: M494
The requirements listed on this degree check sheet apply to the following concentrations in Global Affairs:

- Global Economics \& Development - M494/Q276
- International Security Studies - M494/Q384
- Middle Eastern Studies - M494/Q454


## Required Courses

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Core Courses |  |  |
| IAS 5902 | Global Political Turbulence | 2 |
| IAS 5912 | Global Economic Turbulence | 2 |
| IAS 5922 | Global Social Turbulence | 2 |
| Concentration |  |  |
| Choose one of the following concentrations: ${ }^{1}$ | 12 |  |
| International Security Studies (p. 1681) |  |  |
| Global Economics \& Development (p. 1681) |  |  |

Middle Eastern Studies (p. 1681)
Area Studies
Choose 9 hours from a list maintained by the program
(p. 1681)
Practicum
IAS 5803
Education Abroad Experience
Choose a faculty-led overseas experience offered such as the
following:

| IAS 5810 | Field Studies in Africa | 3 |
| :--- | :--- | :--- |
| IAS 5820 | Field Studies in Italy |  |
| IAS 5830 | Field Studies in China |  |
| IAS 5840 | Field Studies in Latin America |  |
| IAS 5850 | Field Studies in Turkey |  |

Total Credit Hours
33
${ }^{1}$ Each specialization requires 9 hours from the chosen track and 3 hours from another track.

## General Requirements for all Master's Degrees

The master's degree requires the equivalent of at least two semesters of satisfactory graduate work and additional work as may be prescribed for the degree.

All coursework applied to the master's degree must carry graduate credit.
Master's degree programs which require a thesis consist of at least 30 credit hours. All non-thesis master's degree programs require at least 30 credit hours.

Credit transferred from other institutions must meet specific criteria and is subject to certain limitations.

Courses completed through correspondence study may not be applied to the master's degree.

To qualify for a graduate degree, students must achieve an overall grade point average of 3.0 or higher in the degree program coursework and in all resident graduate coursework attempted. A student must also have at least a 3.0 in all coursework (including undergraduate coursework if any).

Additional information for master's degree students may be found in the Graduate College Bulletin.
Global Affairs Course List
CONCENTRATIONS

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Choose one of the following concentrations: | 12 |  |
| International Security Studies |  |  |
| IAS 5013 | International Law |  |
| IAS 5043 | Global Security |  |
| IAS 5063 | Civil Military Relations |  |
| IAS 5083 | International Activism |  |
| IAS 5453 | Politics and Policy of the Middle East |  |
| IAS 5473 | Arab-Israeli Conflict |  |


| IAS 5940 | Topics in International Studies (Topic: Media and the Global World) |  |
| :---: | :---: | :---: |
| IAS 5940 | Topics in International Studies (Topic: International Trafficking) |  |
| IAS 5940 | Topics in International Studies (Topic: Energy Security) |  |
| IAS 5940 | Topics in International Studies (Topic: US Intelligence Community) |  |
| IAS 5940 | Topics in International Studies (Topic: Global Cybersecurity Issues) |  |
| Global Economics \& Development |  |  |
| IAS 5013 | International Law |  |
| IAS 5083 | International Activism |  |
| IAS 5213 | Politics of the European Union |  |
| IAS 5633 | Political Development |  |
| IAS 5693 | Political Economy of China |  |
| IAS 5940 | Topics in International Studies (Topic: Culture, Power, Global Environment) |  |
| IAS 5940 | Topics in International Studies (Topic: Media and the Global World) |  |
| IAS 5940 | Topics in International Studies (Topic: Humanitarianism and Africa) |  |
| IAS 5940 | Topics in International Studies (Topic: International Trafficking) |  |
| Middle Eastern Studies |  |  |
| IAS 5433 | International Relations in the Middle East | 3 |
| IAS 5453 | Politics and Policy of the Middle East | 3 |
| IAS 5463 | Comparative Politics of the Middle East | 3 |
| IAS 5473 | Arab-Israeli Conflict | 3 |
| IAS 5483 | Minorities in the Middle East | 3 |
| IAS 5493 | Global Islamophobia | 3 |

## AREA STUDIES

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Choose 9 hours: ${ }^{1}$ | 9 |  |
| IAS 5123 | African Peacekeeping and Peace <br> Enforcement |  |
| IAS 5213 | Politics of the European Union |  |
| IAS 5243 | Nations and Nation States in Europe |  |
| IAS 5353 | Latin American International Relations |  |
| IAS 5403 | Humanitarianism and Africa |  |
| IAS 5433 | International Relations in the Middle East |  |
| IAS 5453 | Politics and Policy of the Middle East |  |
| IAS 5463 | Comparative Politics of the Middle East |  |
| IAS 5473 | Arab-Israeli Conflict |  |
| IAS 5483 | Minorities in the Middle East |  |
| IAS 5493 | Global Islamophobia |  |

${ }^{1}$ International Security Studies and Global Economics \& Development concentration students may take courses from a list maintained by the department. Middle Eastern Studies students will choose three hours in Middle Eastern Studies and six hours in another global region as approved by the department.

## Global Studies, M.A.

Minimum Total Hours (Thesis): 36
Minimum Total Hours (Non-Thesis): 36
Program Code: M497
Required Courses

| Code | Title | Credit |
| :--- | :--- | :--- |
|  | Hours |  |

Required Courses

| IAS 5003 | U.S. Foreign Relations | 3 |
| :--- | :--- | :--- |
| IAS 5503 | Theory and Practice of International <br> Politics | 3 |
|  | International Studies Colloquium | 3 |
| IAS 5703 5713 | Policy Analysis and Writing | 3 |

Global Economics
Choose 3 hours from a list of Global Economics courses
provided by the department (p. 1682)

## Area Studies

Choose 6 hours from a list of Area Studies courses provided 6 by the department (p. 1682)

| Law and Institution |
| :--- |
| Choose 3 hours from a list of Law and Institutions courses <br> provided by the department (p. 1682) |
| Global Security |
| Choose 3 hours from a list of Global Security courses <br> provided by the department (p. 1682) |
| Electives <br> Choose 6 hours as approved by the graduate liaison |
| Cumulating Exercise/Thesis |
| IAS 5980 <br> or IAS 5723$\quad$Research for Master's Thesis <br> Global Policy Workshop |

Total Credit Hours

1 No more than 3 hours may be IAS 5990. Electives may be chosen from the following topics and disciplines, subject to approval by the Graduate Liaison: Economics (Global/Regional), World/Regional History, Political Science, International Relations, Comparative Politics, Policy Studies, World and Human Geography, Sociology, Anthropology, Cultural Studies, Law (International and Comparative), Foreign languages.

## General Requirements for all Master's Degrees

The master's degree requires the equivalent of at least two semesters of satisfactory graduate work and additional work as may be prescribed for the degree.

All coursework applied to the master's degree must carry graduate credit.
Master's degree programs which require a thesis consist of at least 30 credit hours. All non-thesis master's degree programs require at least 30 credit hours.

Credit transferred from other institutions must meet specific criteria and is subject to certain limitations.

Courses completed through correspondence study may not be applied to the master's degree.

To qualify for a graduate degree, students must achieve an overall grade point average of 3.0 or higher in the degree program coursework and in all resident graduate coursework attempted. A student must also have at least a 3.0 in all coursework (including undergraduate coursework if any).

Additional information for master's degree students may be found in the Graduate College Bulletin.

## Global Studies Course Lists

| Global Economics |  |  |
| :--- | :--- | ---: |
| Code | Title | Credit <br> Hours |
| ECON 5613 | International Economics-Trade | 3 |
| ECON 5633 | International Economics-Finance | 3 |
| ECON 5853 | World Economic Development | 3 |
| IAS 5323 | The Political Economy of Development | 3 |
| IAS 5523 | Global Political Economy | 3 |
| SOC 5943 | Inequality in a Global Perspective | 3 |

## Area Studies

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| IAS 5213 | Politics of the European Union | 3 |
| IAS 5353 | Latin American International Relations | 3 |
| IAS 5433 | International Relations in the Middle East | 3 |
| IAS 5453 | Politics and Policy of the Middle East | 3 |
| IAS 5693 | Political Economy of China | 3 |
| IAS 5940 | Topics in International Studies (Topic: | $1-4$ |
|  | Global Environment) |  |
| IAS 5940 | Topics in International Studies (Topic: | $1-4$ |
|  | Politics of Language) |  |
| HIST 6200 | Seminar in European History | $2-4$ |
| HIST 6300 | Seminar in Latin American History | $1-4$ |
| HIST 6600 | Seminar in Middle Eastern History | $1-4$ |
| HIST 6800 | Seminar in Modern Japanese History | $1-4$ |
| P SC 5600 | Problems in Comparative Government | $2-3$ |
| P SC 5683 | Politics in Latin America | 3 |

Law \& Institutions

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| IAS 5013 | International Law | 3 |
| IAS 5213 | Politics of the European Union | 3 |
| IAS 5940 | Topics in International Studies (Topic: Law | $1-4$ |
|  | and Globalization) |  |
| TAS 5940 | Topics in International Studies (Topic: | $1-4$ |

Global security

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| IAS 5043 | Global Security | 3 |
| IAS 5473 | Arab-Israeli Conflict | 3 |
| P SC 5653 | Democracies and Democratization | 3 |

## International Relations, M.A.

Minimum Total Hours (Non-Thesis): 33
Program Code: M590 (Traditional)/M591 (Online)
Required CourSeS

| Code $\quad$ Title | Credit |
| :--- | :--- |
|  | Hours |

## Required Courses

| IAS 5793 Graduate Studies in International Relations | 3 |
| :---: | :---: |
| Choose one course from a list of approved courses on Tools of Analysis, Methods, and Statistics (p. 1683) | 3 |
| Core Courses |  |
| Politics, Government, \& Security |  |
| Choose three courses from a list of approved courses (p. 1683) | 9 |
| Substantive Areas |  |
| Choose a minimum of two courses from two of the following areas (chosen from an approved list): | 12 |
| Identity, Culture, \& Communication (p. 1683) |  |
| Economics, Environment, \& Geography (p. 1683) |  |
| Regions, Nations, \& History (p. 1683) |  |
| Electives |  |
| Choose 6 hours (p. 1683) | 6 |
| Total Credit Hours | 33 |

## General Requirements for all Master's Degrees

The master's degree requires the equivalent of at least two semesters of satisfactory graduate work and additional work as may be prescribed for the degree.

All coursework applied to the master's degree must carry graduate credit.
Master's degree programs which require a thesis consist of at least 30 credit hours. All non-thesis master's degree programs require at least 30 credit hours.

Credit transferred from other institutions must meet specific criteria and is subject to certain limitations.

Courses completed through correspondence study may not be applied to the master's degree.

To qualify for a graduate degree, students must achieve an overall grade point average of 3.0 or higher in the degree program coursework and in all resident graduate coursework attempted. A student must also have at least a 3.0 in all coursework (including undergraduate coursework if any).

Additional information for master's degree students may be found in the Graduate College Bulletin.

International Relations Course Lists

| Tools of Analysis, Methods and Statistics |  |  |
| :---: | :---: | :---: |
| Code | Title | Credit |
|  |  | Hours |
| COMM 5003 | Quantitative Research Methods | 3 |
| COMM 5053 | Introduction to Qualitative Research Methods | 3 |
| ECON 5023 | Statistics for Decision Making | 3 |
| ECON 5073 | Contemporary Economic Methods and Analysis | 3 |
| GEOG 5113 | Quantitative Methods in Geographic and Environmental Research | 3 |
| H R 5023 | Research in Human Relations | 3 |
| P SC 5913 | Introduction to Analysis of Political and Administrative Data | 3 |

## POLITICS, GOVERNMENT \& SECURITY Code $\quad$ Title Credit

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| CAS 5970 | Special Topics/Seminar (Biosecurity and <br> Emerging Pathogens) | $1-3$ |
| GEOG 6220 | Seminar in Human Geography | $1-3$ |
| HIST 6400 | Seminar in American History (American <br> HIST 6400 | Sereign Policy Between the Wars) |
|  | Experience in Vietnam) | $1-4$ |
|  |  | $1-4$ |

IAS 5013 International Law 3
IAS 5023 The Practice of Diplomacy 3
IAS 5043 Global Security 3
IAS 5073 International Terrorism 3
IAS 5093 U.S. Intelligence Community 3
IAS 5123 African Peacekeeping and Peace 3

| IAS 5213 | Politics of the European Union | 3 |
| :--- | :--- | :--- |


| IAS 5383 | Political Economy of the Underworld: <br> Organized Crime and Conflict | 3 |
| :--- | :--- | :--- |


| IAS 5453 | Politics and Policy of the Middle East | 3 |
| :--- | :--- | :--- |
| IAS 5513 | US Diplomatic History | 3 |

IAS 5533 Modern Statecraft 3

|  | Terrorism |  |
| :--- | :--- | :--- |
| IAS 5940 | Topics in International Studies | $1-4$ |

(International Activism)

| IAS 5940 | Topics in International Studies (Global <br> Climate Change Policy) | $1-4$ |
| :--- | :--- | :---: |
| IAS 5940 | Topics in International Studies | $1-4$ |

(International Systems and the United Nations)

| IAS 5940 | Topics in International Studies (Eastern <br> European Politics) | $1-4$ |
| :--- | :--- | :---: |
| IAS 5940 | Topics in International Studies (Terrorism <br> in Africa) | $1-4$ |
| IAS 5940 | Topics in International Studies (Gender and <br> War) | $1-4$ |


| IAS 5940 | Topics in International Studies (Civil and Military Relations) | 1-4 |
| :---: | :---: | :---: |
| IAS 5940 | Topics in International Studies (U.S.-Russia Relations) | 1-4 |
| P SC 5123 | The Making of American Foreign Policy | 3 |
| P SC 5513 | International Relations Theory | 3 |
| P SC 5523 | Morality and Foreign Policy | 3 |
| P SC 5550 | Problems in International Relations (InterAmerican Politics) | 2-3 |
| P SC 5653 | Democracies and Democratization | 3 |
| P SC 5683 | Politics in Latin America | 3 |
| SOC 5970 | Special Topics/Seminar (Overview of Environ. Issues from a Global and Strategic Perspective) | 1-3 |

IDENTITY, CULTURE \& COMMUNICATION

| Code | Title |  |
| :---: | :---: | :---: |
| CAS 5970 | Special Topics/Seminar (Chinese Culture and Communication) | 1-3 |
| COMM 5253 | Cross-Cultural Communication: Theory and Research | 3 |
| COMM 6323 | International Communication | 3 |
| COMM 6970 | Seminar in Communication (War, Peace \& Media) | 1-4 |
| HIST 6300 | Seminar in Latin American History (Culture and Identity in Latin America) | 1-4 |
| HIST 6600 | Seminar in Middle Eastern History (Religion and Society) | 1-4 |
| HR 5100 | Advanced Theories in Human Relations (International/Intercultural Awareness) | 1-3 |
| HR 5110 | Advanced Seminar in Current Problems (International Conflict Resolution) | 1-3 |
| HR 5703 | International Human Relations | 3 |
| HR 5113 | Seminar in Local Issues in Human Relations | 3 |
| IAS 5023 | The Practice of Diplomacy | 3 |
| IAS 5093 | U.S. Intelligence Community | 3 |
| IAS 5483 | Minorities in the Middle East | 3 |
| IAS 5643 | Global Perspectives on Gender | 3 |
| IAS 5940 | Topics in International Studies (International Activism) | 1-4 |
| IAS 5940 | Topics in International Studies (Global Immigration and Media) | 1-4 |
| IAS 5940 | Topics in International Studies (African Postcolonial Cinema) | 1-4 |
| IAS 5940 | Topics in International Studies (Gender and War) | 1-4 |
| IAS 5940 | Topics in International Studies (US Diplomatic History) | 1-4 |
| IAS 5940 | Topics in International Studies (Women and Terrorism) | 1-4 |
| RELS 5970 | Special Topics/Seminar (Comparative Religions) | 1-3 |
| RELS 5970 | Special Topics/Seminar (Islamic Culture) | 1-3 |


| SOC 5970 | Special Topics/Seminar (Religion and <br> Society) | 1-3 |
| :--- | :--- | :--- |

ECONOMICS, ENVIRONMENT \& GEOGRAPHY

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| ECON 5613 | International Economics-Trade | 3 |
| ECON 5633 | International Economics-Finance | 3 |
| ECON 5853 | World Economic Development | 3 |
| ECON 5990 | Special Studies (Chinese Economic <br> Development) | $1-3$ |
| ECON 5990 | Special Studies (Comparative Economic <br> Systems) | $1-3$ |
| ECON 5990 | Special Studies (International Energy <br> Markets) | $1-3$ |
| ECON 5990 | Special Studies (Middle Eastern <br> Economics) | $1-3$ |
| GEOG 6220 | Seminar in Human Geography (Critical <br> Geopolitics) | $1-3$ |
| GEOG 6220 | Seminar in Human Geography (Indigenous <br> Development in Latin America) | $1-3$ |


| GEOG 6230 | Seminar in Economic Geography (Energy <br> Systems and Sustainability) | $1-3$ |
| :--- | :--- | :--- |

GEOG 6230 Seminar in Economic Geography 1-3 (Geography and the World Economy)
GEOG 6230 Seminar in Economic Geography 1-3 (Globalization of Plant Foods and Fiber)
Seminar in Geography and Environmental 1-3 Sustainability (Climate Change and Society)
GEOG 6240 Seminar in Geography and Environmental 1-3 Sustainability (Large Scale Ecosystem Restoration)
GEOG $6240 \quad$ Seminar in Geography and Environmental 1-3
Sustainability (Natural Resource
Management in a Globalizing World)
GEOG 6240 Seminar in Geography and Environmental 1-3
Sustainability (Resource and Environmental Geography)
GEOG 6240 Seminar in Geography and Environmental 1-3
Sustainability (Resource Conflict in the Developing World)
IAS 5383 Political Economy of the Underworld: 3
Organized Crime and Conflict
IAS $5940 \quad$ Topics in International Studies (Global 1-4
Climate Change Policy)
$\begin{array}{llr}\text { SOC 5943 } & \text { Inequality in a Global Perspective } & 3 \\ \text { SOC 5970 } & \text { Special Topics/Seminar (Overview of } & 1-3\end{array}$
$\begin{array}{ll}\text { SOC } 5970 & \text { Special Topics/Seminar (Overview of } \\ & \text { Environ. Issues from a Global and Strategic }\end{array}$ Perspective)

## REGIONS, NATIONS \& HISTORY

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| CAS 5970 | Special Topics/Seminar (Chinese Culture | $1-3$ |
|  | and Communication) |  |


| CAS 5970 | Special Topics/Seminar (Contemporary China) | 1-3 |
| :---: | :---: | :---: |
| ECON 5990 | Special Studies (Chinese Economic Development) | 1-3 |
| ECON 5990 | Special Studies (Middle Eastern Economics) | 1-3 |
| HIST 5970 | Special Topics (Building Modern Nations: Bismarck and Ben Gurion) | 1-3 |
| HIST 6200 | Seminar in European History (Roots of the Balkan Crisis) | 2-4 |
| HIST 6200 | Seminar in European History (Aspects of the British Empire) | 2-4 |
| HIST 6200 | Seminar in European History (The Great War) | 2-4 |
| HIST 6200 | Seminar in European History (Seminar in History: Russia's World War II) | 2-4 |
| GEOG 6220 | Seminar in Human Geography (Indigenous Development in Latin America) | 1-3 |
| HIST 6300 | Seminar in Latin American History (Culture and Identity in Latin America) | 1-4 |
| HIST 6400 | Seminar in American History (American Experience in Vietnam) | 1-4 |
| HIST 6400 | Seminar in American History (American Foreign Policy Between the World Wars) | 1-4 |
| HIST 6600 | Seminar in Middle Eastern History (Seminar in Middle Eastern History: Stateless People) | 1-4 |
| HIST 6600 | Seminar in Middle Eastern History (Religion and Society) | 1-4 |
| HIST 6600 | Seminar in Middle Eastern History (Modern Middle East) | 1-4 |
| IAS 5023 | The Practice of Diplomacy | 3 |
| IAS 5123 | African Peacekeeping and Peace Enforcement | 3 |
| IAS 5213 | Politics of the European Union | 3 |
| IAS 5453 | Politics and Policy of the Middle East | 3 |
| IAS 5483 | Minorities in the Middle East | 3 |
| IAS 5513 | US Diplomatic History | 3 |
| IAS 5940 | Topics in International Studies (Afghanistan in Conflict) | 1-4 |
| IAS 5940 | Topics in International Studies (Eastern European Politics) | 1-4 |
| IAS 5940 | Topics in International Studies (African Postcolonial Cinema) | 1-4 |
| IAS 5940 | Topics in International Studies (Women and Gender in South Asia) | 1-4 |
| IAS 5940 | Topics in International Studies (Terrorism in Africa) | 1-4 |
| P SC 5550 | Problems in International Relations (InterAmerican Politics) | 2-3 |
| P SC 5683 | Politics in Latin America | 3 |
| RELS 5970 | Special Topics/Seminar (Islamic Culture) | 1-3 |

## ELECTIVES

The courses listed above that have not been used as core courses may be used as electives. Elective courses may also be selected from an approved list or approved by the program director.

# GAYLORD COLLEGE OF JOURNALISM AND MASS COMMUNICATION 



Gaylord Hall
395 W. Lindsey, Rm 3000
Phone: (405) 325-2721
FAX: (405) 325-7565
Undergraduate advising: (405) 325-5684
Graduate advising: (405) 325-2722
www.ou.edu/gaylord

## Administrative Officers

David Craig, Interim Dean
Elanie Steyn, Associate Dean of Academic Affairs
Desiree Hill, Assistant Dean of Student Affairs

## Student Services/Advising Staff

Kailee Kreger, Advisor for Professional Writing \& Public Relations Jodie Bellomy, Advisor for Advertising
Joshua Kahoe, Advisor for Journalism and Creative Media Production Leslie Cermak, Graduate Programs Advisor
Kathy Sawyer, Director of Student Services, Advisor for Public Relations

## Administrative Staff

Michael Acker, Software Specialist
Reed Wilson, Broadcast Engineer
Kennedy Patrick, Assistant to Interim Dean Craig \& Dean Steyn
Kelsey Martyn-Farewell, Financial Director
Barbara Merckx, News Director
Deyna Aragon, Director of Community and Alumni Relations
Kennedy Sepulvado, Production Manager
Buddy Wiedemann, IT Director
Kevin Hahn, Building Technology Resource Coordinator
Nate Feken, Sports Director

## General Information

## History and Purpose

A School of Journalism was first established at the University of Oklahoma in 1913. During the early years, the thrust of the program was to prepare young people for reporting and editing careers in newspapers and magazines. By 1921, the curriculum had expanded to include courses in advertising and newspaper management that were at the forefront of journalism education in the country. The course offerings of the school continued to grow to include radio news in the 1930s. By the late 1950s, courses in professional writing, public relations, and television news had been added.

The School of Journalism was renamed the H.H. Herbert School of Journalism and Mass Communication in 1961. Herbert, the school's second director, led the school from 1917 to 1945. Under his leadership, the standards of the school were raised, and by 1921 the school became one of only 11 institutions in the United States to meet the requirements for admission to the Association of American Schools and Departments of Journalism. High standards continue with the college's accreditation by the Accrediting Council on Education in Journalism and Mass Communication. Only about a quarter of the journalism programs in the U.S. meet the ACEJMC's accreditation standards. In May 2000, the H.H. Herbert School of Journalism and Mass Communication became the Gaylord College of Journalism and Mass Communication.

The Gaylord College of Journalism and Mass Communication is housed in Gaylord Hall located on the South Oval. The 62,000-square-foot building opened in fall 2004 (Phase I) and includes a fully digital television production studio; a news ticker facing the South Oval; a completely wireless network; an open multimedia lab; a spacious library; three computer classrooms; a video conferencing classroom and a dozen video editing suites. Gaylord Hall (Phase II) opened 2009 and adds an additional 46,000 square feet.

The college's goal is to provide students with the most effective training and preparation possible for careers in every facet of the mass communication industry. This education includes conceptual courses in journalism history, ethics, public opinion, communication law, public relations and advertising; various delivery systems, including print, broadcast, and online; and craft courses in gathering writing, editing, and processing information.

The college holds memberships in The Association of Schools of Journalism and Mass Communication (ASJMC), and the Broadcast Education Association. The college is also the headquarters for the Oklahoma Scholastic Media, which is the oldest continuing secondary school press organization in the world.

## Programs Offered

- Journalism Advertising, B.A. (p. 1707)
- Creative Media Production, B.A. (p. 1709)
- Journalism, B.A. (p. 1712)
- Professional Writing, B.A. (p. 1714)
- Public Relations, B.A. (p. 1717)
- Public Relations Course List (p. 1719)
- Broadcast Meteorology, Minor (p. 1719)
- Creative Media Production, Minor (p. 1719)
- Professional Writing, Minor (p. 1720)
- Journalism: Advertising, B.A./Journalism and Mass Communication, M.A. (p. 1720)
- Creative Media Production, B.A./Journalism and Mass Communication, M.A. (p. 1724)
- Journalism, B.A./Journalism and Mass Communication, M.A. (p. 1727)
- Public Relations, B.A./Journalism and Mass Communication, M.A. (p. 1731)
- Journalism and Mass Communication, M.A. (p. 1734)
- Strategic Communication and Digital Strategy, M.A. (p. 1735)
- Professional Writing, M.P.W. (p. 1735)
- Media Management, Graduate Certificate (p. 1736)
- Price College of Business approved course list (p. 1736)
- Strategic Planning, Graduate Certificate (p. 1736)
- Mass Communication, Ph.D. (p. 1737)


## Programs \& Facilities

## Production Facilities

The Gaylord College has developed a facility that offers students the opportunity to produce high quality video and television programs. This includes studio cameras and controls; digital audio; single camera video production; field audio production; studio and field lighting nonfiction and documentary production; and fictional and experimental video production. Several post-production platforms are available, suited to different levels of production.

## Student Services Center

The Student Services Center is located in 2533 Gaylord Hall. The office staff is knowledgeable about undergraduate degree programs offered by the college. Academic counselors also assist students with transcript evaluation, enrollment and graduation requirements, as well as any problems of an academic nature. Students may seek internship/career assistance in the Student Services Center.

## OU Nightly

OU Nightly is a live, student-run newscast produced by the college. The newscast is the collective effort of students in the television news and news practicum courses offered through the college, with additional input from other journalism students and the OU School of Meteorology. An industry standard style newscast, OU Nightly airs live on Cox Cable channel 4 in Norman in a pre-prime time slot Monday through Friday during both the fall and spring semesters. Prime-time news cut-ins are also produced by Gaylord College students.

## Gaylord News

Gaylord News is a statewide reporting project operated by Gaylord College. Gaylord News serves 3.4 million viewers and readers via a network of 54 newspapers, 8 television stations and 6 radio station partners. It operates news operations in Washington, D.C., Norman and Lawton. Nearly 60 students have produced story packages or series since the news service launched in August 2018. It serves professional media outlets, and content is judged in the professional category of journalism contests, because it serves processional media outlets.

## Creative Lab

The Gaylord College of Journalism and Mass Communication creative lab is open to all students enrolled in JMC courses approximately 85 hours each week. The latest Macintosh computers feature a wide array of software applications including Microsoft Office, Adobe Creative Suite, Apple Final Cut Studio, AVID Media Composer, SPSS, and more. Broadcast students also have access to powerful video editing stations.

## Work Experiences

Students are encouraged to supplement traditional classroom experience with on-the-job training, which will often increase the chances of gaining a professional position after graduation. Students may enroll in a practicum to receive credit while working at one of several oncampus media operations. In addition, several journalism and mass communication courses provide experience through coordination with $O U$ Daily campus newspaper.

## Television and Radio

Creative Media Production students have the opportunity to work for the student-produced television station, such as the award-winning $O U$ Nightly newscast; sports magazine show, OUr Sports Pad; or the music magazine, The Set. In addition, students work on major independent projects such as films, documentaries, and commercial productions.

Students wishing to work in radio can get hands-on experience at two on-campus stations KGOU, the local NPR station. Students may also work with the athletic department's high-definition production unit, SoonerVision or with guest programs such as ESPN-U.

## Advertising and Public Relations

In the summer of 2009, 18 intrepid Strategic Communications students devoted their entire vacation to learn the workings of an advertising / public relations agency. They bonded over the necessary details of operating an agency that was to be both entrepreneurial and pedagogical. They created such a firm foundation that today Lindsey + Asp is an operational stratcomm laboratory, working with real clients in a real world atmosphere that rivals any professional agency. Lindsey + Asp is a true experiential learning opportunity for not only strategic communications students, but for those in professional writing and creative media production as well. The application process for prospective agency staff is rigorous in order to ensure that the quality of Lindsey + Asp work and the agency's reputation with clients is maintained.

Online opportunities can be found throughout many of the work experiences listed above. Students may produce online content for The Oklahoma Daily, SoonerVision, TV4OU, or the advertising/public relations agency.

## Internships

The college's close location to the professional job market in Oklahoma City provides students with outstanding opportunities for part-time employment with professional communication organizations and departments. Internships outside of the state are encouraged as well.

Juniors and seniors may also participate in the college's internship for credit program, in which students may gain experience and degree credit in paid or unpaid positions. Students must have at least 75 hours earned and a 3.00 retention grade point average to apply for an internship for credit. Internship application forms are available in the Student Services Center as well as on the college's website. Students who wish to receive credit for internship experience must obtain permission from the college no later than the end of the first week of the internship. Internship opportunities are posted on the college's Web site and in the Student Services Center. Students may also arrange their own internships. Students also have the option of gaining general elective credit for internship through OU Career Center once JMC credits have been maxed out.

## Gaylord Extra

The Gaylord Extra is the college's primary method of communicating information and important deadlines to journalism and mass communication majors. The Gaylord Extra includes information on drop and add deadlines, withdrawal deadlines, advising schedules, graduation, degree checks, scholarship application deadlines, internships, workshops, college-sponsored job fairs, and other college-related announcements. Students enrolled in the Gaylord College of Journalism and Mass Communication will receive the Gaylord Extra in their OU e-mail account every week. The Gaylord Extra is also posted on the college's website.

Event-related announcements are also posted throughout the building, on the College's Web site, Facebook page and sent via special event e-mails.

## Student Organizations

Several organizations are invaluable in developing ties that carry into professional life. These student organizations include:

- AdClub, the advertising society for students interested in advertising media, agencies and strat comm;
- Society of Professional Journalists (SPJ), for students aspiring to news careers;
- Public Relations Student Society of America (PRSSA), for students interested in public relations as a career;
- Oklahoma University College Broadcasters (OUCB), for students in broadcasting and electronic media;
- National Association of Black Journalists (NABJ), an organization for African-American students who aspire to careers in mass communication;
- Kappa Tau Alpha (KTA), an honorary scholastic organization for journalism and mass communication students;
- Native American Journalists Association (NAJA);
- National Association of Hispanic Journalists (NAHJ);
- OU Daily;
- Professional Writing Students Association;
- Graduate Student Interest Group.


## Scholarships

Each year, the Gaylord College awards approximately $\$ 400,000$ in scholarships, with nearly $\$ 40,000$ reserved for incoming freshmen who demonstrate academic and journalistic promise. Recipients of freshman level scholarships have special curricular opportunities to enhance their academic experiences. Transfer students are eligible for all upper-class level scholarships. Freshmen students use the OU common scholarship application, so no additional application is necessary. Upperclassmen scholarship applications are applied through the University's Centralized Academic Scholarship Hub (ASH) which opens December 1st and closes February 1st.

## Undergraduate Study

The Gaylord College of Journalism and Mass Communication offers professionally-oriented undergraduate degree programs in the following fields: Strategic Communication (advertising and public relations); News Media (journalism); and Media Arts (Creative Media Production, and Professional Writing).

## Admission to the Gaylord College of Journalism and Mass Communication

The OU Gaylord College of Journalism and Mass Communication uses the same admissions policies for accepting new students into its programs as that of the institution.

## FRESHMAN ADMISSION

For more information regarding freshman admission, visit the OU Admissions webpage.

## TRANSFER ADMISSIONS

For more information regarding transfer engineering admission, visit the OU Admissions webpage.

## Scholastic Requirements \& Equivalencies Academic Standards

Students in the Gaylord College of Journalism and Mass Communication must meet the following academic standards:

- A successful score on both College entrance exams; the Language Skills Test (LST), which includes portions on grammar, punctuation and spelling; the Academic Integrity Test (AIT), which covers information from the Academic Misconduct Code as printed in the University of Oklahoma Student Code booklet.
- Completion of JMC 1013 (Introduction to Media) with a grade of C or better.
- Maintain a minimum combined retention grade point average of 2.50 on all work attempted, as well as 2.50 on all major work.
- Transfer students must have a 2.50 combined retention grade point average to gain admission into the college.
- Students must maintain a 2.50 OU retention GPA and a 2.50 combined retention GPA. Students who fail to maintain the minimum GPA requirements will be placed on academic contract. Students have one semester to raise their GPA to the required minimum. Students who fail to raise their GPA will be stopped out of the Gaylord College and asked to change majors. Students stopped out of the Gaylord College must reapply to the program under the same procedures outlined under Admission. Students may apply for readmission only once.

The college's degree programs are accredited by the Accrediting Council on Education in Journalism and Mass Communications (ACEJMC). The college endorses the philosophy of the council that a broad foundation of knowledge and experience will enhance the professional lives of its graduates. In support of that liberal arts philosophy, the curriculum directs students to divide their studies among the arts, sciences, business and related fields. This a ratio gives students the opportunity to develop specialties in mass communication skills while acquiring the recommended broad liberal arts base.

## Language Skills Test (LST)/Academic Integrity Test (AIT)

The Language Skills Test is the entrance examination to the Gaylord College. The LST must be completed prior to enrollment in JMC 2033 Media Writing \& Storytelling, a course that is required of all journalism and mass communication majors.

The LST is administered on canvas.ou.edu. Please contact the Student Services Center (405-325-5684) to gain permission to take the exams. Test results are available immediately.

The LST includes 80 questions on grammar, punctuation and spelling.
The college encourages students to thoroughly review these areas prior to taking the LST. An online study guide is available on the college's website. Students are also encouraged to review a grammar and composition textbook (several are recommended on the college's Web site) as well as the Student Academic Integrity Code.

The LST may be attempted three times. If a student fails the third time, the student will be required to enroll in JMC 0123 Fundamentals of Writing for the Media, a course that will not apply toward the degree.

The AIT consists of 20 questions that are taken directly from information in the Academic Misconduct Code.

## Advising

With the exception of Intersession, advising is mandatory prior to each academic term for all students in the Gaylord College. Advising for the summer session and the fall semester begins in February; advising for the spring semester begins in September. Students are advised by professional academic counselors in the Student Services Center. Students may also meet with faculty members to discuss careers, internships, and professional issues. Notices about advising will be posted in the Gaylord Extra.

Students are strongly encouraged to maintain current local addresses and e-mail addresses with the University, as important advising and graduation information is distributed each academic term in the Gaylord Extra.

## Transfer Students

The Gaylord College of Journalism and Mass Communication welcomes transfer students from other colleges or universities. The Office of Admissions determines which credits will be accepted from a transferring institution. The application of those credits toward a BA in Journalism and Mass Communication will be determined by an academic counselor in the Student Services Center. Transfer students must meet with an academic counselor prior to their first enrollment at the University. Transfer work is counted as lower-division or upper-division depending on the level at which it was offered at the institution where it was earned. Two-year college work is acceptable only as lower-division credit.

Students may transfer in a maximum of 12 hours of journalism and mass communication coursework prior to full admission to the Gaylord College. Once fully admitted to the college, students may petition the faculty to have an additional three (3) hours from an outside ACEJMC institution applied to their University of Oklahoma degree. A maximum of 15 credit hours of JMC transfer coursework may be applied to a degree.

## Undergraduate Degree Requirements

Students who plan to earn a BA in Journalism in four years should plan to complete at least 33 credit hours per academic year. Students should also be aware of important academic deadlines, which are listed on the University's Academic Calendars website.

The Student Services Center assists students in determining the number of hours remaining to complete the degree; however, the responsibility for meeting graduation requirements lies with the student.

A BA in Journalism is made up of the following components:

- University-Wide General Education requirements;
- Additional General Education requirements specific to the College of Journalism and Mass Communication;
- Requirements in the major;
- Requirements in the major support area (advertising majors only); and
- Electives.


## Major Requirements

## Advertising

A major in Advertising (p. 1707) is ideal for the student interested in artistic expression, persuasive messaging, and strategic planning and research. Our graduates pursue careers as brand managers, media
planners, account executives in advertising agencies, in marketing firms, and in-house corporate communications. The critical thinking, analysis and research skills also prepares students for postgraduate studies.

## Creative Media Production

A major in Creative Media Production (p. 1709) is ideal for the student interested in using sight, sound, motion, and words to tell informative, persuasive or entertaining stories and who wants to pursue careers in media industries such as film, corporate production, radio or television. The critical thinking, analysis, and research skills also prepares students for postgraduate studies.

## Journalism

A major in Journalism (p. 1712) is ideal for the student interested in writing, public affairs or current events, or digital storytelling and multimedia production. Journalism majors pursue careers as reporters, news anchors, broadcast journalists or copy writers and editors. The critical thinking, analysis and research skills also prepares students for postgraduate studies.

## Professional Writing

The Professional Writing (p. 1714) option has a 70-year history of helping its majors develop the skills needed to succeed in the publishing industry. Those skills, which include the ability to communicate clearly, think logically, manage large-scale projects, and craft a compelling narrative, are critical to virtually all careers. They also prepare students for graduate work in writing-intensive fields that include creative writing, English, journalism, and the law.

## Public Relations

A major in Public Relations (p. 1717) is ideal for the student interested in problem solving, event planning, and strategic planning and research. Our graduates pursue careers as public information officers, account executives in public relations agencies, community relations, and inhouse corporate communications. The critical thinking, analysis and research skills gained with a public relations education also prepares students for postgraduate studies.

## Graduation Rules and Regulations

- A minimum 2.50 combined retention grade point average in the major, overall, and on the last 60 hours is required to earn a Bachelor of Arts in Journalism degree.
- A grade of C or better is required in each major course, resident or transfer.
- Students fully admitted to the college may petition the faculty to have an additional three (3) credit hours from an outside ACEJMC institution applied to their University of Oklahoma degree. A maximum of 15 credit hours of JMC transfer coursework may be applied to a degree.
- The Senior Capstone course must be taken in residence at OU.
- Students must file an official application for graduation during their first two weeks of the final term of enrollment.


## Credit Hour Regulations

- At least 120 semester credit hours applicable towards a Bachelor of Arts in Journalism degree must be earned. Not all hours acceptable by the University are acceptable towards a BA in Journalism.
- At least 60 semester credit hours must be earned at accredited senior (four-year) institutions.
- At least 48 semester credit hours must be earned at the upperdivision level (courses numbered 3000 or above).
- At least 30 semester credit hours must be earned in the major, including at least 21 at the upper-division level.
- A minimum of $\mathbf{1 5}$ of the last $\mathbf{3 0}$ hours must be earned in residence at the University of Oklahoma. OU correspondence courses and transfer courses are non-resident credit.
- No more than 50 hours of JMC coursework may be applied to a Bachelor of Arts in Journalism degree. If a student pursues a minor in Film and Video Studies, any JMC courses which are applied toward this minor are also included in the maximum number of JMC credit hours allowed.
- No more than 16 semester credit hours earned under the Pass/No Pass option will apply toward the degree. P/NP credit may not be used to satisfy general education, college, major, major support, or minor requirements. Transfer credit graded P/NP is counted as part of the 16 semester credit hours earned.
- No more than 16 semester credit hours earned in all basic skills courses, including PE activity courses; military courses including Aerospace, Naval Science and Military Science courses; and military in-service experience will apply toward a BA in Journalism and Mass Communication. No more than four of the 16 hours may be in PE activity courses. Two credit hours of basic military training may be counted toward the degree when the posting of the credits by the Office of Admissions is in the form of four one-hour courses as follows: Personal Physical Conditioning, First Aid, Outdoor Skills Practicum and Marksmanship.
- No more than 12 semester credit hours earned in all individual study courses, e.g., Independent Study, but excluding Honors Reading and Research, will be counted as part of the minimum 130 semester credit hours required for graduation.
- No more than 31 semester credit hours earned by a combination of credit by exam (e.g., CLEP or Advanced Standing Exam) and correspondence courses will apply toward the degree. JMC majors may take general education and elective courses by correspondence, but are not permitted to take journalism and mass communication work by correspondence.


## Ten-Year Limitation Rules

JMC credit which is more than 10 years old may not be applied toward a Bachelor of Arts in Journalism degree unless approval is obtained from the college's Appeals Board. A student in the Gaylord College may elect to follow the degree program requirements that were in place at the time of the student's first enrollment in the Oklahoma State System for Higher Education (excluding high school concurrent enrollment), or exercise the option to update to the most current degree program requirements. Those who elect to follow requirements in place at the time of their first enrollment must complete all degree requirements within a maximum of 10 calendar years from the date of that enrollment. If the work for the degree covers a period longer than 10 years, the student must update to the most current degree program requirements.

## Independent Projects

Students who qualify may earn elective journalism and mass communication credit for special projects. Enrollment requires the permission of a supervising faculty member. Generally, permission is given only when the proposed study program does not duplicate material or experiences available in regular offerings of the school.

## Interdisciplinary Program in Film and Video Studies

In keeping with the school's participation in and commitment to the interdisciplinary program in Film and Video Studies the Gaylord College allows FVS students to enroll in a number of JMC courses. In order to
receive permission to enroll in a JMC course, the FVS student must present an advisement form signed by an FVS advisor. Film and Video Studies students may complete a maximum of 15 JMC credit hours. Journalism and Mass Communication majors, completing a minor in Film and Video Studies, will be allowed a combined maximum of 45 hours in JMC to count toward the Bachelor of Arts in Journalism degree.

## Minors

## Broadcast Meteorology Minor

Minor in Broadcast Meteorology (p. 1719)

## Minor in Creative Media Production

The Minor in Creative Media Production (p. 1719) allows majors outside of Journalism and Mass Communication to pursue creative media production courses skill set and knowledge.

## Professional Writing Minor

The Professional Writing Minor (p. 1720) allows majors outside of Journalism and Mass Communication to pursue professional writing course skill set and knowledge.

## Accelerated Bachelor of Arts in Journalism/Master of Arts

The accelerated Bachelor of Arts/Master of Arts provides high-achieving Gaylord undergraduate students an accelerated MA option. The program is a sequential accelerated program which awards the BA when it is completed. Students are then moved to graduate status.

- Advertising, Bachelor of Arts/Master of Arts (p. 1720)
- Creative Media Production, Bachelor of Arts/Master of Arts (p. 1724)
- Journalism, Bachelor of Arts/Master of Arts (p. 1727)
- Public Relations, Bachelor of Arts/Master of Arts (p. 1731)


## Graduate Study

## Master of Arts

Journalism and Mass Communication Master of Arts (p. 1734) areas of interest include Broadcast and Electronic Media, Mass Communication Management, Journalism and Strategic Communication (public relations and advertising).

## Master of Arts in Strategic Communication and Digital Strategy (Online)

The Strategic Communication and Digital Strategy (Online) option (p. 1735) provides early-to-mid-career strategic communication professionals the digital knowledge and data skills to advance their careers.

## Master of Professional Writing

Master of Professional Writing (p. 1735)program is designed to develop and refine commercial writing skills for students interested in producing nonfiction books, novels and screenplays.

## Graduate Certificates

Journalism and Mass Communication Graduate Certificates are not degree programs; rather, they are separate graduate education credentials. Certificates are the sets of courses that provide specific knowledge in the particular area. Students can now receive graduate certificates in Media Management (p. 1736) or Strategic Planning (p. 1736).

## Doctoral Programs

The Mass Communication Ph.D. (p. 1737) program is designed for students who wish to explore deeply the practices and values of journalism, mass communication and the media professions. Graduates will be prepared to become both accomplished researchers and outstanding teachers in colleges and universities around the world.

## Admission

Students seeking admission to the college's master's programs, which lead to the Master of Arts and Master of Professional Writing degrees, must meet all requirements for admission to the University's Graduate College. Please see the Graduate College for specific information.

To be admitted in full standing, a student must have a minimum undergraduate grade point average of 3.20 on the 4.0 scale on the last 60 hours of coursework completed. Students may be admitted conditionally with a 3.0 grade point average in the last 60 hours of undergraduate coursework.

For full admission to the M.A., a student must also have successfully completed courses in media writing, mass communication history or law, an upper-division journalism and mass communication elective, and a course in statistics. Admission to the graduate program is conditional until the aforementioned requirements are complete.

Professional writing applicants without sufficient background may be required to take courses on short story writing, writing for the entertainment media, or both as part of conditional admission.

Students with a grade point average below 3.0 in the last 60 hours, while not eligible for admission into the journalism and mass communication master's programs, may seek admission to the University as Special Students. By permission, upon completion of a minimum of 12 hours of $3000-4000$-level coursework with a grade point average of 3.25 or better, they could be considered for admission into the Gaylord College of Journalism and Mass Communication.

## G4000-Level Courses

A maximum of 12 credit hours of G4000-level courses will count toward the master's degree. No more than nine of these hours may be in journalism and mass communication.

## Transfer Credit

A maximum of eight credit hours of graduate work may be transferred from other universities if such work meets the college's requirements. No transfer credit will be accepted toward meeting core requirements.

## Courses

JMC 0123 Fundamentals of Writing for the Media 3 Credit Hours Students review the fundamentals of writing and English grammar to strengthen their understanding of proper structure. Examples of language conventions for the media field are introduced. This course primarily consists of lectures and hands-on practice during class. Course offers preparatory materials for the Language Skills Test. Students will complete assignments \& quizzes to test understanding of the grammar rules. (F, Sp)

## JMC 1013 Introduction to Media

3 Credit Hours Development, scope, functions and information resources of mass media, emphasizing the role of professionals in solving contemporary problems in the mass media. (F, Sp) [V-FYE].

JMC 1021 Introduction to Creative Media Prod
1 Credit Hour
Prerequisite: JMC 1013; Majors only. An overview of the Creative Media Production for new majors. Students will be introduced to the various opportunities and sequences in the Creative Media Production major. (F, Sp )
JMC 1031 Principles of American Journalism 1 Credit Hour Prerequisite: Majors only, departmental permission, and JMC 1013. A survey of the normative roles and functions of journalism in the U.S. It explores the meaning of a free press, journalism's democratic functions, and how those functions are achieved (or not). Journalistic values of freedom, inclusivity, independence, public service, truth and social responsibility are studied in relation to journalism history and changes in the digital age. (F, Sp, Su)
JMC 1041 Visual Literacy
1 Credit Hour
Prerequisite: Majors only, departmental permission, and JMC 1013. Visual theories underpin all visual communication and production. Students will understand how these theories work both at the conceptual and the practical level. Understanding of how visuals communicate \& are powerful conveyers of "proof", how images can be manipulated for strategic purposes as proof $\&$ reinforcement of stereotypes. Students will learn \& apply photography \& design principles through class projects. (F, $\mathrm{Sp}, \mathrm{Su})$

## JMC 1051 Digital Literacy 1 Credit Hour

Prerequisite: Majors only, departmental permission, and JMC 1013. Students will be introduced to the social psychology theories that underpin collective behavior online, understand how media organizations either restrict or afford that behavior via the code(algorithms) they develop and learn how to engage in networked communities. (F, Sp, Su)
JMC 1061 Journalism Writing \& Editing 1 Credit Hour Prerequisite: Majors only, departmental permission, and JMC 1013. Introduction to journalistic writing and professional standards of news writing across all distribution platforms (broadcast, newspaper, online). Students will practice crafting and editing stories that provide accurate, objective, unbiased news and information across legacy and emerging media platforms. (F, Sp, Su)
JMC 1071 News Judgment \& Interviewing 1 Credit Hour Prerequisite: Majors only, departmental permission, and JMC 1013. Building students' abilities to recognize a news story, identify the elements needed to tell that story, and prepare for and conduct interviews with sources. Course will introduce interviewing strategies, the difference between quotes and soundbites, how to cultivate sources and persist in asking questions under difficult circumstances. (F, Sp, Su)
JMC 1081 Reporting with Numbers 1 Credit Hour Prerequisite: Majors only, departmental permission, and JMC 1013. This course will introduce students to the basic concepts and skills necessary to use numerical, statistical, geographical and survey data as a way of telling compelling fact-based stories. Content covered includes reporting statistical findings, finding trends in data, basic understanding of financial reporting, and reporting with public data sources. Ethics and issues of diversity included and graphical representation of data. (F, Sp, $\mathrm{Su})$
JMC 2033 Media Writing \& Storytelling
3 Credit Hours
Prerequisite: 1013 or concurrent enrollment; passage of the school's writing skills test, and permission of instructor. Introduction to journalistic writing: the expository and persuasive formats; supervised practice in writing for the print, broadcast and photographic media; study of professional demands of organizing and presenting information in the various media. Laboratory (F, Sp)

## JMC 2643 Sound, Light, and Motion

3 Credit Hours
Prerequisite: JMC 1013; Majors only. Understand and demonstrate the basic skills of preproduction, sound recording/mixing, single-camera digital video production, and non-linear editing. (F, Sp)

## JMC 2683 Survey of Electronic Media

3 Credit Hours
Prerequisite: 1013. Conceptual overview of electronic media in both the national and international contexts. Course will cover technology, history, ethics, regulation, programming, diversity, advertising, management and production. (F, Sp)

JMC 2970 Special Topics
1-3 Credit Hours
1 to 3 hours. Prerequisite: sophomore standing. May be repeated with change of content; maximum credit nine hours. Deals with content and concepts not usually offered in regular coursework and/or special creative situations or projects. (Irreg.)

JMC 3003 Multimedia Journalism
3 Credit Hours
Prerequisite: 2033. Introduces concepts and practices necessary for working in a multi-platform media environment. Provides instruction in the use of photographs, graphics, audio, video and the written word to create stories and content for print, broadcast and online media. (F, Sp, Su )

## JMC 3011 Practicum

1 Credit Hour
Prerequisite: permission of instructor. May be repeated; maximum credit three hours, two hours may be in the same area. Sections include The Wire, tv programming and operations, Oklahoma Daily, radio station KGOU, OUNightly News, the Sooner Yearbook student staff members, and other JMC major co-curricular opportunities. Discussion and analysis of current problems. (F, Sp, Su)
JMC 3013 Intermediate Cross-Platform Reporting 3 Credit Hours Prerequisite: Majors only, departmental permission, JMC 1013, JMC 1031, JMC 1041, JMC 1051, JMC 1061, JMC 1071, JMC 1081, and JMC 2033. A rigorous exploration of storytelling using social media and other digital tools to promote information but also gather information and sources in order to develop story ideas, judge news value, conduct research and interviews, develop sources and produce news content for print, broadcast and online media. (F, Sp, Su)

JMC 3023 Long Form Storytelling 3 Credit Hours Prerequisite: Majors only, departmental permission, JMC 1013, JMC 1031, JMC 1041, JMC 1051, JMC 1061, JMC 1071, JMC 1081, JMC 2033, and JMC 3013. This course will teach students the craft of writing in-depth works of narrative nonfiction, which includes conceptualizing story ideas, in-depth research, interviewing, navigating various long-form structures, editing and revisions, pitching and publication. ( $\mathrm{F}, \mathrm{Sp}$ )

JMC 3043 Community Journalism 3 Credit Hours
Prerequisite: 2033. The meaning of community is evolving with the importance of new media in the cultural mix. While geographical communities continue to define media consumers, so do online communities, ethnic and racial communities, gender communities and other ways of grouping together to find and exchange relevant information through the media. Explores a variety of forms of community journalism from its roots in the small town newspapers that have provided a verbal/visual town square for centuries to current redefinitions of the concept of community and the media manifestations of those redefinitions. (F, Sp)

JMC 3063 Introduction to Broadcast Journalism 3 Credit Hours Prerequisite: 2033 and 3003, or concurrent enrollment or permission. Introduction to the professional standards, vocabulary, processes, and newsroom organization of broadcast news. Focus is on learning how a broadcast newsroom functions and the collaboration needed to create a productive and efficient newsroom environment. (F, Sp, Su)

JMC 3083 Business of Media
3 Credit Hours
Prerequisite: 2033 and completion of OU Math requirement. Explores the dual purpose of news and information media - the public service ethic rooted in journalism values and the financial interest rooted in business and how the values of journalism co-exist and conflict with the values of business. (F, Sp)

JMC 3103 News Editing
3 Credit Hours
Prerequisite: 2033, 3003. Work on newspapers, including correction of errors of fact and expression. The factors considered in selection of news. Good taste in editing copy; avoidance of libel; headline writing; techniques of copy control; newspaper makeup and arrangement. Laboratory (F, Sp)

JMC 3143 Photojournalism
3 Credit Hours
Prerequisite: JMC 1013 and JMC 2033, or permission from instructor. Course will sharpen your skills as a professional creator of photographic content. Learn to operate DSLR cameras. Learn how to deliver visual content on mobile \& social media platforms along with basic video storytelling. (F)

JMC 3163 Intro to Sports Journalism
3 Credit Hours
Prerequisite: JMC 1013, JMC 2033, or permission of instructor. Focus will be on the art of sports interviewing and sports writing. Course will contain all phases of the media -- print, radio, TV, \& online. Emphases on asking pertinent questions \& then building a story line. Students will be expected to create editorials \& features as they pertain to different media groups. (F)

## JMC 3173 Play by Play

3 Credit Hours
Prerequisite: JMC 1013, JMC 2033, JMC 3003 or permission of instructor. Learn what is like to be behind the mic in addition to the complete structure of a television production. Will focus on live sports television production including an in-depth look at all crew positions, production techniques, game formats and emerging technology. Also will examine radio and television play-by-play techniques. (F, Sp)
JMC 3303 Introduction to Advertising 3 Credit Hours Prerequisite: 1013, 2033 or permission. Survey of the field of advertising and career areas within the field with emphasis on the relationship between marketing and advertising and the media which serve as channels of advertising communication. (F)

JMC 3333 Advertising Research
3 Credit Hours
Prerequisite: 1013, 2033, 3303. Introduction to concepts of research. Survey and use of secondary and primary data sources as basis for formulating basic advertising plans, including advertising and communications goals and objectives. (Sp)
JMC 3343 Advertising Design \& Visual Storytelling 3 Credit Hours Prerequisite: JMC 1013, JMC 2033, JMC 3303 or permission; majors only. Designed to give the advertising student an overall understanding of the development of the visual elements of advertising messages, strategies and executions. Emphasis on the technical aspects of creating advertising layouts using Adobe InDesign, PhotoShop, \& Illustrator, \& other selected programs along with effective communication using layout, typography \& imagery. (F, Sp)

JMC 3353 Advertising Storytelling 3 Credit Hours
Prerequisite: JMC 1013, JMC 2033, JMC 3303; majors only; or permission. Overall understanding of the development of message strategy and written executions. Emphasis on creativity, concept development, idea generation \& principles of effective communication using words, pictures in a variety of print, social, digital and broadcast media. (Sp)
JMC 3363 Advertising Media
3 Credit Hours
Prerequisite: 1013, 2033, 3303. Characteristics of the major advertising media. Problems of rates, coverage and costs of using various media mixes. Emphasis on the planning of the media schedule and its relationship to the creative strategy. (F)
JMC 3383 Digital Design I
3 Credit Hours
Prerequisite: JMC 3433, and JMC 3423 or JMC 3353, or permission from instructor. This will be a foundational course for the primary Adobe design programs: InDesign, Illustrator and Photoshop with specific focus on Illustrator and the creation and manipulation of vector graphics. Through learning and application, you will also be exposed to basic principles of good design. (F, Sp)
JMC 3393 Advanced Copywriting
3 Credit Hours
Prerequisite: JMC 1013, 2033, 3303, 3333, 3353. Extended practice in application of creative copy principles for major advertising media including newspapers, magazines, radio and television. (Irreg.)
JMC 3413 Public Relations Principles, Origins \& Practice 3 Credit Hours Prerequisite: JMC 1013 and JMC 2033; Majors only. Will examine the nature and role of the field of public relations, history and developments of the profession over the years, activities of public relations professionals, their responsibilities, functions and practices in a variety of organizations, and significant issues, trends and ethical concerns that shape and will continue to influence the practice of public relations in the future. ( $F, S p$ )

## JMC 3423 Public Relations Writing

## 3 Credit Hours

Prerequisite: 1013, 2033, 3413. Fundamentals and practice in preparation of public relations copy for various media and channels, including news and feature stories, photo captions, public service broadcasts and telecasts, viewbooks, annual reports, plans-programs memos, speeches, letters and direct mail materials. Techniques in dealing with management and various publics, including the news media. Laboratory (Sp)

## JMC 3433 Public Relations Design

3 Credit Hours
Prerequisite: JMC 1013, 2033, 3413, and 3423; Majors only. This course strives to train students to recognize and apply good publication design techniques in a public relations setting. In addition, we will learn the importance of structuring visual communications. The major goal of this course, however, is to give students the ability to translate a concept of visual communication into an actual publication. (F)

## JMC 3440 Mentored Research Experience 3 Credit Hours

0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)

JMC 3443 Event Planning

## 3 Credit Hours

Prerequisite: JMC 1013, JMC 2033, JMC 3413 or permission from instructor. This course explains how the event planning business works and what event planners do - from small parties to big corporate events. Elements covered include design, project management, site selection and development, safety and security, food and beverage service, and entertainment. ( F )
JMC 3453 Public Relations \& Society
3 Credit Hours
Prerequisite: JMC 1013, 2033, and 3413; Majors only. This course is designed to introduce students to ethical principles relevant to public relations and to discuss core concepts surrounding ethical and professional public relations practice in organizations. Using case study, case scenarios, and class discussion, the course will cover and discuss ethics among a variety of topics such as corporate social responsibility, social media influencer, international/cross-cultural ethics. (F,Sp)
JMC 3463 Cross Cultural Issues in Media \& Society 3 Credit Hours Prerequisite: JMC 1013 and JMC 2033 or permission of instructor; Majors only. Cross-Cultural Issues in Media and Society highlights key areas of diverse ethnic, gender, ability and ideological groups inside and outside the United States in order to help PR/communications professionals begin to consider how culture may affect future projects. The critical role of diverse voices in a democracy will be discussed. ( $\mathrm{F}, \mathrm{Sp}$ )
JMC 3473 Art Direction \& Design
3 Credit Hours
Prerequisite: JMC 1013, JMC 2033, and JMC 3303 or permission of instructor. This course includes advanced development of art direction and design skills, and the execution of new work created in Adobe Photoshop, Illustrator, InDesign, and XD. Demonstrating mastery of design, craft, organization and presentation is the goal of this advanced course. (F, Sp)
JMC 3483 Preparing for Life After Gaylord
3 Credit Hours
Prerequisite: JMC 1013, 2033 \& 3303 or permission from instructor. Successfully navigating the communications field can be tricky, as there are no textbooks or step-by-step guides explaining how to land the right job, negotiate salaries, manage a team, and many other aspects of the working world. Understanding of how to combine your individual academic and emotional intelligence to artfully navigate the practitioner world, to achieve your potential and goals. ( $F, S p$ )
JMC 3493 National Student Advertising Competition 3 Credit Hours Prerequisite: Junior Standing or special permission from instructor. The National Student Advertising Competition is the premier college advertising competition that provides more than 2,000 college students with the real-world experience of creating a strategic advertising/ marketing/media campaign for a corporate client. (Sp)
JMC 3504 Introduction to Professional Writing 4 Credit Hours Prerequisite: JMC 1013, JMC 2033, JMC 3011 or concurrent enrollment in JMC 3011, and instructor permission. Basic theory, orientation and fundamental techniques of fiction writing. ( $F, S p$ )

JMC 3613 Single Camera Production 3 Credit Hours Prerequisite: 1013, 2033 or concurrent enrollment; Majors only. Understand and demonstrate the intermediate skills of preproduction, sound recording/mixing, single-camera digital video production, and nonlinear editing in the storytelling process. ( $\mathrm{F}, \mathrm{Sp}$ )
JMC 3623 Electronic Media Writing 3 Credit Hours Prerequisite: JMC 1013, 2033; Majors only. Understand and demonstrate the basic skills of appropriate script formats, treatments, and writing for a wide variety of media genres. ( $\mathrm{F}, \mathrm{Sp}$ )

## JMC 3633 Audio Production

3 Credit Hours
Prerequisite: 1013, 2033. Studies in audio technology, recording techniques and technology, audio for television, film, radio and other distribution technologies. The study of processes including foley, synchronization, live mixing, talent microphone techniques, and audio engineering. Production of multiple audio elements for a variety of applications including news, advertising, promotion and others. (F, Sp)

## JMC 3643 Media Relations

3 Credit Hours
Prerequisite: JMC 1013, JMC 2033, JMC 3413, and JMC 3423. Media Relations is most important skills a PR Practitioner can posse. The course is designed to take an in-depth look at the tactics \& techniques PR students and other who might engage the media can use to achieve excellent relations with the media. ( $F, S p$ )

JMC 3653 Radio News
3 Credit Hours
Prerequisite: JMC 2033 and JMC 3003 or JMC 3623; Majors only. Study and practice of writing, editing and preparation of radio newscasts. (F)

## JMC 3663 Visual Reporting

3 Credit Hours
Prerequisite: Majors only, departmental permission, JMC 1013, JMC 1031, JMC 1041, JMC 1051, JMC 1061, JMC 1071, JMC 1081, JMC 2033, and JMC 3013. Basic visual news gathering skills, including production of strong visual story ideas, shooting and editing with digital equipment and application of news ethics. (F,Sp)

## JMC 3683 Digital Reporting

3 Credit Hours
Prerequisite: Majors only, departmental, JMC 1013, JMC 1031, JMC 1041, JMC 1051, JMC 1061, JMC 1071, JMC 1081, and JMC 2033. An overview of the Creative Media Production for new majors. Students will be introduced to the various opportunities and sequences in the Creative Media Production major. (F, Sp)
JMC 3703 Backpack Reporting
3 Credit Hours
Prerequisite: Majors only; JMC 1013, JMC 2033, JMC 3003 or permission of instructor. Learn to produce video stories with compelling sound, images and to do so by themselves and with efficiency, thus "backpack journalism". Content produced may be for a legacy media organization, for commercial or non-profit groups or for documentary work. (Irreg.)

## JMC 3713 History of Motion Media 3 Credit Hours

Prerequisite: JMC 2683 and JMC 3623, majors only; or permission of instructor. History and development of film, television and emerging media as a communication medium. Varied critical perspectives are offered; exemplary media presented, preceded by lectures on history and technique, followed by discussion periods. (Irreg.)
JMC 3723 Introduction to Documentary
3 Credit Hours
Prerequisite: JMC 1013 and JMC 3623; majors only; or permission of instructor. History and development of the documentary medium. Varied perspectives are offered; exemplary films and videos are presented, preceded by lectures on history and technique. Includes discussion periods and practice. (Irreg.)

JMC 3753 Electronic Media Criticism
3 Credit Hours
Prerequisite: 1013, 2033. Offers basic skills to interpret the role that internet, video, film and audio play as a cultural force in society. Students will learn to become critical analysts of media texts. (Sp)

## JMC 3763 Narrative Screenwriting

3 Credit Hours
Prerequisite: JMC 2033, JMC 2643 \& JMC 3623 or concurrent enrollment; Majors only. Understand and demonstrate the intermediate skill of narrative script writing. (F, Sp)
JMC 3773 Television News
3 Credit Hours
Prerequisite: 3003, 3013, 3063 and 3663 . Television news principles and practice in use of ENG (electronic news gathering), editing of video tape stories and preparation of television news programs. Laboratory ( $\mathrm{F}, \mathrm{Sp}$ )

JMC 3800 Internship
1-3 Credit Hours
1 to 3 hours. Prerequisite: 3.00 grade point average required with a total of 75 semester hours completed of which 15 semester hours are required in JMC; Permission of instructor; May be repeated; maximum 6 credit hours. Participation in supervised intern experience; grade of S or U based on work performance, regular reports, on-site supervisor evaluation. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

JMC 3960 Honors Reading 1-3 Credit Hours 1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated with change of content; maximum credit six hours. Consists of topics designated by the instructor in keeping with the student's major program; covers materials not usually presented in regular courses. (F, $\mathrm{Sp}, \mathrm{Su}$ )

JMC 3970 Honors Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated with change of content; maximum credit six hours. Projects vary; deal with concepts no usually presented in regular coursework. (F, Sp, Su)
JMC 3980 Honors Research 1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated with change of content; maximum credit six hours. Provides an opportunity for the gifted Honors candidate to work at a special project in the student's field. (F, Sp, Su)
JMC 3990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: permission of instructor and junior standing. May be repeated once with change of content; maximum credit six hours. Independent study may be arranged to study a subject not available through regular course offerings. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
JMC 4013 Essential Reporting
3 Credit Hours
Prerequisite: Majors only, departmental permission, JMC 1013, JMC 1031, JMC 1041, JMC 1051, JMC 1061, JMC 1071, JMC 1081, and JMC 2033. Students will learn to navigate county, city and school government from the basics of court procedure to following a paper trail through the court system and government. (F, Sp)

## JMC 4033 Advancing Cultural Proficiency in Media

Leadership
3 Credit Hours
Prerequisite: Majors only, departmental permission, JMC 1013, JMC 1031, JMC 1041, JMC 1051, JMC 1061, JMC 1071, JMC 1081, JMC 2033, and JMC 3013. The study of diversity and leadership from both a theoretical and a practical perspective. (F,Sp)

JMC 4043 TV News Producing
3 Credit Hours
(Slashlisted with JMC 5043) Prerequisite: JMC 3063, 3663, and
JMC 3003; or with permission of instructor. This course will focus on television news producing in its various forms, such as line producing, field producing, content producing, and preditor (producer/editor). Students will experience hands-on how to produce a full-length newscast, field produce an individual story, and learn the responsibilities of content producing and preditor positions in a digital newsroom. No student may earn credit for both 4043 and 5043. (F, Sp)
JMC 4143 Reporting in Washington
3 Credit Hours
Prerequisite: JMC 1013, JMC 2033, JMC 3003, and JMC 3013; or permission of instructor. Students will be generating stories about activities of the Oklahoma's congressional delegation and federal issues impacting Oklahomans for Oklahoma media. Course will take place in Washington DC. The course will explore how reporters gain access to events that only a handful of reporters are allowed to attend as well as generating stories on deadline. ( $\mathrm{F}, \mathrm{Sp}$ )

JMC 4153 Public Relations for Causes and Issues 3 Credit Hours (Slashlisted with JMC 5153) Prerequisite: JMC 1013, JMC 2033, JMC 3413, and JMC 3423. Course takes a hands-on approach to causes and issues in public relations. Examines research and theory-based approaches for communication strategies that target key stakeholders. Provides students with essential information on how to develop, implement, and evaluate a comprehensive communications campaign for different types of organizations such as nonprofits, advocacy groups, and philanthropic organizations. No student may earn credit for both 4153 and 5153. ( $\mathrm{F}, \mathrm{Sp}$ )
JMC 4163 Public Relations for Consumer Culture 3 Credit Hours (Slashlisted with JMC 5163) Prerequisite: JMC 1013, JMC 2033, JMC 341, and JMC 3423. Comprehensive introduction to the major theories and empirical studies of consumer culture with emphasis upon the motivations and cultural aspects of consumption in America; substantive focus upon diverse topics such as fashion, celebrity influences, food, tourism, physical attractiveness, children, and race/ethnicity. No student may earn credit for both 4163 and 5163. (F, Sp)
JMC 4173 Public Relations for Public vs. Private Organizations

3 Credit Hours
(Slashlisted with JMC 5173) Prerequisite: JMC 1013, JMC 2033, and JMC 3413. Students will examine how identity influences the ways in which organizations represent themselves to the various constituencies, and how identity is influenced by interactions with the groups. The course also examines the distinct challenges, considerations, and communication strategies in shaping and safeguarding the reputation of entities operating in the public and private sectors. No student may earn credit for both 4173 and 5173. (F, Sp)

## JMC 4183 Advanced Cross-Platform Reporting 3 Credit Hours

Prerequisite: Majors only, departmental permission, JMC 1013, JMC 1031, JMC 1041, JMC 1051, JMC 1061, JMC 1071, JMC 1081, JMC 2033, and JMC 3013. Develop tools to become proficient at creating professional news stories, develop advanced content for media outlets in Oklahoma, and increase understanding of importance of diversity in our reporting and inside our own newsroom. (F, Sp)

## JMC 4193 Principles of Media Entrepreneurship 3 Credit Hours

 (Slashlisted with JMC 5193) Prerequisite: JMC 1013 and JMC 2033. An in-depth examination of media entrepreneurship and distribution in the digital age. Students will learn how to create their own company, design a business plan, create budgets, and find financial backers and sponsors. Current approaches to marketing and distributing media products of various forms to the media industry will also be explored. No student may receive credit for both 4193 and 5193. (F, Sp, Su)JMC 4213 Innovators in Journalism 3 Credit Hours Prerequisite: JMC 1013, JMC 2033, JMC 3003, and JMC 3013; or permission of instructor. The nation's capital has long been the nexus for journalists aspiring to be leaders in the profession. As a result, many of the innovative changes being utilized to cover the federal government have been developed here. This course will explore some of those developments and result in meetings with many of the journalists behind those advances. (F, Sp)

JMC 4223 Digital Advertising
3 Credit Hours
(Slashlisted with JMC 5223) Prerequisite: JMC 1013, JMC 2033 and JMC 3303. Recognizing the growing importance of newly emerging forms of advertising/promotions using non-traditional or alternative media, this course is designed to explore a new view of advertising in the current marketing/media environments. Along with learning the traditional advertising theories, students will understand how to effectively measure the use of interactive advertising media. No student may earn credit for both 4223 and 5223. (Irreg.)

## JMC 4233 Advertising Portfolio

3 Credit Hours
(Slashlisted with JMC 5233) Prerequisite: JMC 1013, JMC 2033, JMC 3303, and JMC 3343. This course includes revision of existing pieces to professional standards, and the execution of new work to complete the professional portfolio. Demonstrating mastery of design, craft, organization and presentation is the goal of this Portfolio course. Topics covered related to the business of art direction, graphic design, copy writing, business correspondence, interviewing \& self promotional skills, \& job promotional skills. No student may earn credit for both 4233 and 5233. (F, Sp)
JMC 4243 Strategic Fashion Communication
3 Credit Hours
(Slashlisted with JMC 5243) Prerequisite: 1013, 2033, 3303, 3413. Offers both a critical and practical exploration of the fashion communication business covering the complete cycle of the fashion industry from the concept and production stages to marketing campaigns, product sales, and events planning. Focusing on the lifecycle of the fashion brand. No student may earn credit for both 4243 and 5243. (Irreg.)
JMC 4253 British Media Studies
3 Credit Hours
Prerequisite: JMC 1013, JMC 2033, and permission of instructor. Critical analysis of the products of the media and the impact that the British media have upon their and our culture. Students will gain the ability to understand similarities and differences in British and American media cultures. (Irreg.)
JMC 4263 British News Media Systems 3 Credit Hours
Prerequisite: junior standing and permission of instructor. Examines the structure, role, history and future of the news media in the U.K. and Europe. Covers print, broadcast, and web-based news media, with particular emphasis on broadcast/journalism and the current challenges it faces. There will be site visits to advertising and public relations agencies. Students will learn about the role of public service media in the U.K. (Irreg.)

| JMC 4273 Communicating Culture Tourism Media: Concepts and |  |
| :--- | :--- |
| Theory | 3 Credit Hours |

(Slashlisted with JMC 5273) Prerequisite: JMC 1013, JMC 2033 \&
JMC 3413 \& permission from instructor; corequisite JMC 4283. Through an immersion experience in an international location, students will analyze the cultural traditions and history of modern travel media. Studies include the major contexts and motives of tourism, as well as the foundations of contemporary forms of travel media. No student may earn credit for both 4273 and 5273. (Irreg.)

## JMC 4283 Communicating Culture Tourism Media: Travel

Genres 3 Credit Hours
(Slashlisted with JMC 5283) Prerequisite: JMC 1013, JMC 2033, JMC 3413 \& permission of instructor; corequisite JMC 4273. Through an immersion experience in an international location, this course will teach students the elements of narrative storytelling for media, and give them opportunities to hone and develop their individual writing styles through applied assignments. Students will gain the strategic and applied skills for feature-style writing that will allow them to produce media that meet professional standards. No student may earn credit for both 4283 and 5283. (Irreg.)

JMC 4293 Advanced Copywriting 3 Credit Hours Prerequisite: JMC 1013, JMC 2033, JMC 3303, and JMC 3353; or permission of instructor. Primary emphasis will be on the creation of multiple strategic, compelling, and effective advertising campaigns. Students will leverage the tools of concept development (the Big Idea), idea generation and the execution of digital, social, experiential, and traditional (print and broadcast) advertising as well as peer workshop criticism to refine work to include in a professional portfolio. (F, Sp)
JMC 4303 International Advertising
3 Credit Hours
(Slashlisted with JMC 5303; Crosslisted with MKT 4303) Prerequisite: JMC 3303 or special permission from instructor. May be repeated with change of subject matter; maximum credit six hours. Designed to provide basic understanding of advertising and culture that applies to advertising in non-American locations. No student may earn credit for both 4303 and 5303. (Irreg.)

JMC 4323 Advertising Account Planning
3 Credit Hours
(Slashlisted with 5323) Prerequisite: 3303. Discussion and practice of the advertising agency function of representing the target audience. Emphasis on learning to think like a consumer. Incorporates creativity, market research, consumer behavior and critical thinking to help in understanding target audiences. No student may earn credit for both 4323 and 5323. (F)
JMC G4333 Contemporary Problems in Advertising 3 Credit Hours (Slashlisted with 5333) Prerequisite: 1013, 2033, 3303, 3333. Survey of contemporary problems in advertising, including current social and economic criticisms, legal and self-regulation problems, and agency and media-related problems. No student may earn credit for both 4333 and 5333. (F)

JMC 4343 Advertising Campaigns
3 Credit Hours
Prerequisite: 1013, 2033, 3303, 3333, 3353, 3363 and senior standing. This is the senior capstone course for the advertising sequence. Working as members of competitive advertising agency teams, students research, plan, develop marketing, creative and media strategy and make formal presentations to a major client for a complete advertising campaign. Laboratory (F, Sp) [V].

## JMC 4353 Cinematography

3 Credit Hours
(Slashlisted with JMC 5353) Prerequisite: JMC 1013, JMC 2033 and JMC 2643; Majors only. Understand and demonstrate the advanced skills of scriptwriting, preproduction, sound recording/mixing, single-camera digital video production and non-linear editing in the narrative storytelling process. No student may earn credit for both 4353 and 5353. (Sp)

JMC 4363 Data Journalism
(Slashlisted with JMC 5363) Prerequisite: JMC 1013 and JMC 2033 or permission from instructor. Introduction to the basic concepts and skills necessary to use numerical, statistical, geographical and survey data as a way of telling compelling fact-based stories. Stories may be used as news, strategic or narrative products. Data can be used in all of Gaylord fields from journalism to professional writing. Class builds skills in finding, cleaning, analyzing, interpreting and then using data. No student may earn credit for both 4363 and 5363. (F, Sp)

## JMC 4373 Media Psychology

3 Credit Hours
(Slashlisted with JMC 5373) Prerequisite: JMC 1013 and JMC 2033 or Instructor permission. Focus on cognitive and emotional processing of media. Topics cover: how do media impact our thoughts, feelings and behaviors, how and when we change our attitudes, what the media teach us about the world, how we pay attention to television, print media, and the Internet, how we respond emotionally, and how we decide what is real. Psychological theories reviewed. No student may earn credit for both 4373 and 5373. (F, Sp)

JMC 4383 Digital Design II
3 Credit Hours
Prerequisite: JMC 3383 or permission from instructor. Utilizing the adobe creative suite, students will advance design capabilities. Students will be provided opportunities to explore new and innovative concepts relevant to graphic design in order to further develop their creativity and personal design aesthetic. Class collaboration along with instructor feedback will learn to complete work in a timely \& professional manner. (F, Sp)
JMC 4393 Advanced PR Writing
3 Credit Hours
Prerequisite: JMC 1013, JMC 2033, JMC 3413, and JMC 3423; permission of instructor. Hiring managers need PR practitioners who can write strategically and persuasively, who can take complex ideas and communicate them effectively to various targeted audiences. Advanced PR Writing is designed to take your communications skills to a higher level, focusing on writing for audio/visual and social media platforms, writing for business and writing for executives. Reinforce AP style writing. ( $\mathrm{F}, \mathrm{Sp}$ )

JMC 4403 Public Relations Campaigns
3 Credit Hours
Prerequisite: JMC 1013, 2033, 3413, 3423, and 4453; Majors only. This course covers the application of theory, research data, and problemsolving techniques in the development of a comprehensive public relations campaign. (F, Sp)
JMC 4413 Crisis Communication
3 Credit Hours
Prerequisite: 3413 or instructor permission. Examine strategic communication practices throughout the three stages of a crisis event. Special emphasis is placed on crisis planning, media relationships, image restoration, ethical responses, and organizational learning. No student may earn credit for both 4413 and 5413. (F, Sp)

## JMC 4423 Contemporary Problems in Public Relations

## Capstone

3 Credit Hours
Prerequisite: JMC 1013, 2033, 3413, 3423, 3443, 4453 and 4403; Majors only. Through the analysis of real-life cases, students will discuss, critique, and apply public relations models and theories, standards, ethics, and values. Students will also apply and master research skills, sharpen critical thinking skills, and understand concepts from multiple points of view. (F, Sp)

JMC 4433 Sports Public Relations 3 Credit Hours
(Slashlisted with 5433) Prerequisite: 1013, 2033,3413. A study of public relations as it is practiced in the sports industry featuring guest and video presenters representing various sports publicity, promotion and public relations positions. Includes representatives of newspaper, television, and radio sports departments. No student may earn credit for both 4433 and 5433. (Irreg.)

JMC 4443 Public Relations Management 3 Credit Hours (Slashlisted with JMC 5443) Prerequisite: Majors only; JMC 2033, JMC 3413, JMC 3423 or permission of instructor. This course will introduce you to the field of public relations and give you an overview of the historical development and current status of public relations. You will understand the study of public relations as the strategic behavioral management function that applies communication and organizational theory to the research, planning, implementation, and evaluation of the communication programs of organizations. No student may earn credit for both 4443 and 5443. (Irreg.)

## JMC 4453 Public Relations Research <br> 3 Credit Hours

(Slashlisted with 5453) Prerequisite: 3413. To build skills in the use of various public relations research methodologies available for exploratory, evaluation, and management assessment of programs. No student may earn credit for both 4453 and 5453. (Sp)
JMC 4473 Social Media Marketing
3 Credit Hours
(Slashlisted with JMC 5473) Prerequisite: junior standing; majors only; JMC 1013, JMC 2033 and JMC 3413. Social Media Marketing explores the most effective marketing strategies and tactics used by brands to engage with consumers on each social media platform. You'll study best practices in social media marketing and apply them to the eight-step social media-planning model to construct an extensive real world social media marketing plan for a client. No student may receive credit for both 4473 and 5473. (F, Sp, Su)

JMC 4483 Global and International Public Relations 3 Credit Hours (Slashlisted with JMC 5483). Prerequisite: JMC 1013, JMC 2033 and JMC 3413. Investigate current issues in global public relations practice. Students will examine how political, socio-economic, cultural, and historical particularities, together with pop culture, influence modern public relations practice. Students will also learn what role the social media plays in shaping global public relations strategies, as well as what role globalization plays in shaping strategic communication messages on international markets. No student may receive credit for both 4483 and 5483. (F, Sp, Su)

JMC 4493 Social Media Strategies
3 Credit Hours
(Slashlisted with JMC 5493) Prerequisite: Permission of Instructor; JMC 1013, JMC 2033, and JMC 3413. Student will understand the mass communication industry by discussion and using assignments to focus on social media post writing, publishing, management, and measurement. Students will complete a social media audit, social media calendar, social media monitoring and evaluation plan, target public personas, as well as several social media platform certifications. No student may earn credit for both 4493 and 5493. (F, Sp)

## JMC 4503 Tutorial in Writing

3 Credit Hours
Prerequisite: 1013, 2033, 3504, 3514 and permission. May be repeated once for credit; maximum credit six hours. May accompany 3514 with permission. Individual conferences devoted entirely to preparation, criticism, editing and preparation for marketing of the student's original manuscript, both fiction and nonfiction. (F, Sp)

JMC 4514 Writing the Novel
4 Credit Hours
Prerequisite: 1013, 2033, 3504 and 3514; or permission. May be repeated; maximum credit eight hours. Analysis of the practical creative problems involved in writing novels. Instruction in specific approaches and techniques useful in plotting, characterization, setting, scene, etc. Supervised writing of a novel by each student. (F, Sp)

JMC 4523 Theories of Public Relations 3 Credit Hours (Slashlisted with JMC 5523) Prerequisite: JMC 1013, JMC 2033, JMC 3413, JMC 3423, JMC 3453. Students will have a unique opportunity to meet and network with some of the leading public relations academic and practitioner experts and to learn more about the public relations and strategic communications field. No student may earn credit for both 4523 and 5523. (F, Sp)

## JMC 4524 Writing the Short Story

4 Credit Hours
(Slashlisted with JMC 5524) Prerequisite: majors only; JMC 1013,
JMC 2033, JMC 3504 and permission of instructor or department.
Techniques and theory of fiction writing and plots, with emphasis on current American short stories. No student may earn credit for both 4524 and 5524. (F, Sp)
JMC 4533 Mystery Writing
3 Credit Hours
(Slashlisted with JMC 5533) Prerequisite: JMC 3504. A survey and discussion of the various popular forms that are used in the creation of commercial crime stories in fiction and film. This look at the most popular forms of crime writing and their rationales has the intention of allowing students to develop their own crime writing projects to better fit the prevailing markets. No student may earn credit for both 4533 and 5533. (F, Sp)

## JMC 4543 Sci-Fi \& Fantasy Writing

3 Credit Hours
(Slashlisted with JMC 5543) Prerequisite: JMC 3504. Although most people lump science fiction and fantasy stories together, these two genres are worlds apart. This course will help you expand your understanding of the two areas by focusing on world building, tech, and magic as well as potential societal differences. Sci-Fi \& Fantasy Writing allows participants to dig more deeply into genres they wish to explore. No student may earn credit for both 4543 and 5543. (F, Sp)
JMC 4553 Advanced Novel Writing
3 Credit Hours
Prerequisite: JMC 1013, JMC 2033, JMC 3504, and JMC 4514 or permission of instructor; May be repeated; maximum credit six hours. Designed to follow WRITING THE NOVEL (JMC 4514), this course will guide students through completion of the second half of a novel as well as a supervised revision, breaking down the process into a series of milestones and weekly deadlines, with personalized feedback, guidance, encouragement, and one-on-one conferences with the instructor. (F, Sp)

## JMC G4563 Category Fiction <br> 3 Credit Hours

(Slashlisted with 5563) Prerequisite: 3504 and 3514, or permission of instructor. May be repeated once with change of content; maximum credit six hours. In-depth study of current popular fiction genres and techniques used by category authors. Discussion of books in terms of fiction devices and application of such techniques to student's own work. No student may earn credit for both 4563 and 5563. (F)
JMC 4573 Theories of Professional Writing 3 Credit Hours (Slashlisted with JMC 5573) Prerequisite: majors only; JMC 3504. Study of significant theories of the writing process, the motivation to write, and intended effects of writing. Students will address aesthetics, philosophy and values relating to careers in writing. No student may earn credit for both 4573 and 5573. (F, Sp)

JMC 4593 Young Adult Fiction Writing
3 Credit Hours
(Slashlisted with JMC 5593) Prerequisite: JMC 3504. Young adult fiction is a thriving sector of the book industry. This class deconstructs the state of the young adult market and uses current award winners and bestsellers as models of aspects of story such as characterization, worldbuilding, plotting and voice. Students learn how to position their work in a booming market and discover how writing young adult fiction is similar to and different from writing for adults. No student may earn credit for both 4593 and 5593. (F, Sp)
JMC 4603 Business of Professional Writing
3 Credit Hours
Prerequisite: JMC 4573 \& Senior Standing. The capstone course should reflect the culmination of the student's training in writing technique and craftsmanship and demonstrate the student's ability to apply such knowledge in his or her own writing. Furthermore, the student should show awareness of the marketplace and what constitutes work that is commercial, professional, and saleable. ( $\mathrm{F}, \mathrm{Sp}$ ) [V].

## JMC 4623 Multi-Camera Production

3 Credit Hours
(Slashlisted with JMC 5623) Prerequisite: JMC 2643; Majors only. Understand and demonstrate the skills of scriptwriting, preproduction, sound recording/mixing, multi-camera video production and non-linear editing in the storytelling process. No student may earn credit for both 4623 and 5623. (F)
JMC 4633 Advanced Single Camera Production
3 Credit Hours
(Slashlisted with JMC 5633) Prerequisite: JMC 2033, JMC 3613; Majors only. Understand and demonstrate the advanced skills of scriptwriting, sound recording/mixing, single-camera digital video production and nonlinear editing in the storytelling process. No student may earn credit for both 4633 and 5633. (F, Sp)
JMC 4643 Advanced Audio Production 3 Credit Hours (Slashlisted with JMC 5643) Prerequisite: 2623, 3633. Advanced study of the technology, capabilities and utilization of audio media. Units on advanced audio techniques for radio, television and film. Intensive practice and skill development in audio production techniques. No student may earn credit for both 4643 and 5643. (Irreg.)

## JMC 4651 Portfolio -CMP <br> 1 Credit Hour

Prerequisite: JMC 4653 or concurrent enrollment; senior standing; Majors only. Career development course where students develop a demo reel, website, resume and other materials to assess students work and begin their professional careers. ( $\mathrm{F}, \mathrm{Sp}$ )
JMC 4653 Issues And Ethics In Electronic Media 3 Credit Hours Prerequisite: 90 hours including twelve hours of Journalism and Mass Communications courses. Capstone course for Broadcasting and Electronic Media. Identification, examination, and analysis of current and ethical issues affecting media and media industries. Course content varies. (Sp) [V].
JMC 4673 Advanced Broadcast News
3 Credit Hours
(Slashlisted with 5673) Prerequisite: 3013 and 3773 . Study of current requirements for and practice of public affairs programming, including news. Evolution of broadcast documentary form; writing, filming, editing techniques; budgeting and scheduling; actual preparation of public affairs programs of various types with emphasis on the extended-length news documentary. No student may earn credit for both 4673 and 5673. Laboratory (Sp)

JMC 4683 Multimedia Content Management
3 Credit Hours
(Slashlisted with 5683) Prerequisite: 3013 and 3683 . Examines working with media content in a variety of formats such as text, audio, video, photography and graphics, for online media. Instruction and practice in editing designing, presenting, and managing news and information content for online media. No student may earn credit for both 4683 and 5683. (F, Sp) [V] .

JMC 4693 Podcasting
3 Credit Hours
(Slashlisted with JMC 5693) Prerequisite: Junior standing; JMC 1013 and JMC 2033 or permission of instructor. Podcasting is a newer media form built on older media forms, made possible by digital technologies. It is transforming our media experience of who gets to tell stories, what stories are being told, and how we interact at large and small scales. Understanding media in the current era requires understanding podcasting. No student may earn credit for both 4693 and 5693. (F, Sp)
JMC 4723 Horror Writing
3 Credit Hours
(Slashlisted with JMC 5723) Prerequisite: Junior standing; JMC 1013 and JMC 2033 or permission of instructor. Students are expected to gain proficiency with writing and understanding horror in prose, script, and voice acting/acting through analysis of published articles, reviews, and blogs, in-class technique drills, individualized coaching from the professor, and writing original pieces of their own. Learn how to submit their work in the horror field and get published pieces to put into their resumes. No student may earn credit for both 4723 and 5723. (F, Sp)

## JMC 4733 Advanced Narrative Screenwriting 3 Credit Hours

Prerequisite: JMC 2033, JMC 3763; Majors only. Understand and demonstrate the advanced skills of narrative scriptwriting. (Sp)
JMC 4753 Documentary Research and Writing 3 Credit Hours (Slashlisted with JMC 5753) Prerequisite: JMC 3623, and JMC 3723 or concurrent enrollment; majors only; or permission of instructor. Covers the preparation of a documentary from both practical and critical/ theoretical directions. Focuses on research, writing and submission of documentary proposals, and practical writing exercises. No student may earn credit for both 4753 and 5753. (F)

## JMC 4763 Documentary Production

3 Credit Hours (Slashlisted with JMC 5763) Prerequisite: JMC 3613, JMC 3723; Majors only. Understand and demonstrate the advanced skills of research, preproduction, scriptwriting, sound recording/mixing, single-camera digital video production and non-linear editing in the documentary storytelling. No student may earn credit for both 4763 and 5763. (Sp)

JMC 4773 After Effects
3 Credit Hours
(Slashlisted with JMC 5773) Prerequisite: Majors only; JMC 3613. Practice and understanding of graphic design, motion graphics, compositing, color correction, VFX and puppet animations using After Effects. No student may earn credit for both 4773 and 5773. (F)
JMC 4793 Broadcast Advertising Production
3 Credit Hours
(Slashlisted with 5793) Prerequisite: 2623 and 3613 , or permission of instructor. Addresses all the major stages of creating broadcast advertising messages from research and development of scripts through production, post production and final presentation. Emphasis will be placed on working in teams to create commercial messages. No student may earn credit for both 4793 and 5793. (Irreg.)

JMC 4803 History of Media 3 Credit Hours
Prerequisite: Junior standing and twelve hours of Journalism credit; Majors only. Historical contributions and influences related to broad, relevant elements of media. Historical relationship of media and culture, development of freedom of expression. Relationship between interpretive nature of historiography and diversity of groups in a global society. Role of individuals, institutions, professional influences, and events historically shaping communications through media. ( $\mathrm{F}, \mathrm{Sp}$ )

## JMC 4813 Media Law

3 Credit Hours
Prerequisite: ninety hours, including thirteen hours of journalism and mass communication. Capstone course for the Journalism sequence. Examines the principles by which the media exercise their public functions and fulfill the mission of the First Amendment. Areas studied include: the right to know, truth and fairness, responsibility, libel, privilege, fair comment, privacy, contempt, copyright, regulation of advertising and the rules, regulations and industry codes which affect the broadcast media. ( $F, S p$ ) [V].

## JMC 4833 Journalism Ethics

3 Credit Hours
(Slashlisted with 5833) Prerequisite: junior standing and twelve hours of journalism and mass communication courses. Press criticism; organizational performance; reportorial performance; print/broadcast distinctions. No student may earn credit for both 4833 and 5833. (F, Sp)

## JMC 4843 Sports Promotion <br> 3 Credit Hours

(Slashlisted with JMC 5843) Prerequisite: JMC 1013, JMC 2033, and JMC 3413 or permission of instructor. This course overviews the various types of sports industry positions that utilize strategic communication skills under the overarching umbrella of "sports promotion." The goal of this course is to help students fully understand the myriad of different ways public relations, advertising, sales and marketing techniques can be used in sports promotion. No student may earn credit for both 4843 and 5843. (F, Sp)

JMC 4853 Race, Gender, Class and the Media 3 Credit Hours (Slashlisted with JMC 5853) Prerequisite: Majors only; junior standing and twelve Journalism and Mass Communication credit hours. Survey of past and present relationships between women and racial and ethnic minorities in the U.S. and the media. Media portrayal, employment, ownership and access will be studied. No student may earn credit for both 4853 and 5853. (F, Sp)

## JMC 4863 Journalism, Ethics and Democracy 3 Credit Hours

Prerequisite: 90 hours, including 24 hours in Journalism. Journalism Capstone course that immerses majors in a conceptual examination of the crucial role of news professionals in a participatory democracy. Emphasizes freedom of speech and press, ethical principles, the watchdog function of journalism, and social and professional responsibilities of journalists in an age of rapidly changing media forms. ( $\mathrm{F}, \mathrm{Sp}$ ) [V].
JMC 4903 Production for Clients
3 Credit Hours
(Slashlisted with JMC 5903) Prerequisite: JMC 4633 or permission of instructor. Students work on actual client projects. The class simulates a production house operation. Working in teams, students are responsible for budgeting, working with clients, scripting, shooting, editing, and follow-through on the project. No student may earn credit for both 4903 and 5903. (F, Sp)

JMC 4913 Narrative Production
3 Credit Hours
(Slashlisted with JMC 5913) Prerequisite: JMC 3613, JMC 3763; Majors only. Understand and demonstrate the advanced skills of scriptwriting, preproduction, sound recording/mixing, single-camera digital video production and non-linear editing in the narrative storytelling process. No student may earn credit for both JMC 4913 and 5913. No student may earn credit for both 4913 and 5913. (F, Sp)
JMC 4933 Gaylord 360: Storytelling Without Walls 3 Credit Hours Prerequisite: Departmental permission; JMC 1013, JMC 2033, and JMC 3303. Gaylord 360: Storytelling Without Walls is a unique learning experience that gives advertising, creative media production, journalism, professional writing, and public relations majors the opportunity to work together to create and implement storytelling in a holistic, real-world 360degree environment from beyond the OU campus community. Gaylord 360 will work in Arezzo, Italy with client to gain hands-on experience. (Su)
JMC 4943 Food Writing and Social Media 3 Credit Hours
Prerequisite: Departmental permission; JMC 1013, JMC 2033, and
JMC 3303. Designed for Gaylord College students in Arezzo and combines the history and customs of food, olive oil, and wine in Arezzo and the surrounding region with food writing and blogging. The class will explore a small portion of the history of Italian food \& wine. Students will become educated, informed, and discerning food writers and publishers.
(Su)
JMC 4960 Directed Readings
1-4 Credit Hours
1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean. May be repeated; maximum credit four hours. Designed for upper-division students who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)

## JMC 4970 Special Topics

1-3 Credit Hours
1 to 3 hours. Prerequisite: permission of instructor. May be repeated with change of subject matter; maximum credit nine hours. Varied projects with experimental, innovative and creative approaches, to communicating through the mass media. (Irreg.)
JMC 4990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: three courses in general area to be studied; permission of instructor and department; 3.00 grade point average on all college work. May be repeated; maximum credit six hours. Contracted independent study for topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
JMC 5001 Professional Practices
1 Credit Hour
Prerequisite: graduate standing and permission. May be repeated with change of content; maximum credit six hours. Discussion and practice in specialized skills related to news and information, strategic communication, or media arts. (F, Sp)

## JMC 5043 TV News Producing

3 Credit Hours
(Slashlisted with JMC 4043) Prerequisite: Graduate standing and permission of instructor. This course will focus on television news producing in its various forms, such as line producing, field producing, content producing, and preditor (producer/editor). Students will experience hands-on how to produce a full-length newscast, field produce an individual story, and learn the responsibilities of content producing and preditor positions in a digital newsroom. No student may earn credit for both 4043 and 5043. (F, Sp)

## JMC 5063 Readings in Mass Communication

3 Credit Hours Prerequisite: graduate standing and permission. Exploration of key works defining the field of mediated communication. Students will examine an area of inquiry of interest to them in depth through readings, discussion, and writing. Includes an examination of online resources, bibliographies, histories, theoretical concepts and issues, and critical biographies of key figures. (Sp)

## JMC 5073 Conceptual Issues in Graduate Study in Journalism and Mass Comm <br> 3 Credit Hours

Prerequisite: graduate standing. Introduction to key study areas in journalism and mass communication. Historical foundations, theoretical development and research trends will be outlined. Students will meet graduate faculty members and discuss major ideas and issues in the field. (F)

## JMC 5083 Mass Communication Theory

3 Credit Hours
Prerequisite: graduate standing or permission. Theoretical perspectives and issues in mass communication. Emphasis on processes and effects that affect mass communication practices and media. Exploration of contemporary research and its contribution to the growing body of knowledge about mass communication. (F)

JMC 5091 Thesis/Project Seminar
1 Credit Hour
Prerequisite: graduate standing. Choice and development of appropriate research topics and proposals for thesis and professional projects Discussion of the rigor and expectations for this research. (Sp)

## JMC 5093 Introduction to Research Methods in Mass

## Communication

3 Credit Hours
Prerequisite: graduate standing. Introduction to research methods used in the study and practice of mass communication. Addresses how to formulate research problems and choose appropriate methods to study them, including both quantitative and qualitative approaches. ( $F$ )

JMC 5113 Qualitative Research Methods 3 Credit Hours
Prerequisite: graduate standing. Surveys a range of conceptual and methodological approaches appropriate for qualitative research in mass communication. Topics include conceptualization of research problems, framing research questions, the nature and sources of evidence, modes of interpretation, and conceptual framework from which evidence is analyzed in qualitative studies. (Sp)

## JMC 5133 Quantitative Research Methods 3 Credit Hours

Prerequisite: graduate standing. Quantitative research methods commonly used in the study of the process and effects of mass communication and the application of the scientific method to such inquiry. (Sp)

JMC 5153 Public Relations for Causes and Issues 3 Credit Hours
(Slashlisted with JMC 4153) Prerequisite: Graduate standing and departmental permission. Course takes a hands-on approach to causes and issues in public relations. Examines research and theory-based approaches for communication strategies that target key stakeholders. Provides students with essential information on how to develop, implement, and evaluate a comprehensive communications campaign for different types of organizations such as nonprofits, advocacy groups, and philanthropic organizations. No student may earn credit for both 4153 and 5153. (F, Sp)

JMC 5163 Public Relations for Consumer Culture 3 Credit Hours (Slashlisted with JMC 4163) Prerequisite: Graduate standing and departmental permission. Comprehensive introduction to the major theories and empirical studies of consumer culture with emphasis upon the motivations and cultural aspects of consumption in America; substantive focus upon diverse topics such as fashion, celebrity influences, food, tourism, physical attractiveness, children, and race/ ethnicity. No student may earn credit for both 4163 and 5163. (F, Sp)

JMC 5173 Public Relations for Public vs Private Organizations

3 Credit Hours
(Slashlisted with JMC 4173) Prerequisite: Graduate standing and departmental permission. Students will examine how identity influences the ways in which organizations represent themselves to the various constituencies, and how identity is influenced by interactions with the groups. The course also examines the distinct challenges, considerations, and communication strategies in shaping and safeguarding the reputation of entities operating in the public and private sectors. No student may earn credit for both 4173 and 5173. (F, Sp)

JMC 5183 Advanced Multimedia Journalism 3 Credit Hours Prerequisite: graduate standing and permission of instructor. Advanced instruction in multimedia journalism, with a focus on producing news and information content using text, photography, audio and video for a webbased product. No student may earn credit for 4183 and 5183. (F, Sp)

JMC 5193 Principles of Media Entrepreneurship 3 Credit Hours (Slashlisted with JMC 4193) Prerequisite: JMC 1013 \& 2033 and graduate standing. An in-depth examination of media entrepreneurship and distribution in the digital age. Students will learn how to create their own company, design a business plan, create budgets, and find financial backers and sponsors. Current approaches to marketing and distributing media products of various forms to the media industry will also be explored. No student may receive credit for both 4193 and 5193. (F, Sp, Su )

## JMC 5223 Digital Advertising

3 Credit Hours
(Slashlisted with JMC 4223) Prerequisite: graduate standing in Journalism. Recognizing the growing importance of newly emerging forms of advertising/promotions using non-traditional or alternative media, this course is designed to explore a new view of advertising in the current marketing/media environments. Along with learning the traditional advertising theories, students will understand how to effectively measure the use of interactive advertising media. No student may earn credit for both 4223 and 5223. (Irreg.)

JMC 5233 Advertising Portfolio
3 Credit Hours
(Slashlisted with JMC 4233) Prerequisite: Graduate standing in Journalism. This course includes revision of existing pieces to professional standards, and the execution of new work to complete the professional portfolio. Demonstrating mastery of design, craft, organization, and presentation is the goal of this portfolio course. Topics covered relate to the business of art direction, graphic design, copy writing, business correspondence, interviewing and self-promotional skills, and job-promotional skills. No student may earn credit for both 4233 and 5233. (F, Sp)

JMC 5243 Strategic Fashion Communication 3 Credit Hours
(Slashlisted with JMC 4243) Prerequisite: graduate standing in Journalism. Offers both a critical and practical exploration of the fashion communication business covering the complete cycle of the fashion industry from the concept and production stages to marketing campaigns, product sales, and events planning. Focusing on the lifecycle of the fashion brand. No student may earn credit for both 4243 and 5243. (Irreg.)

## JMC 5273 Communicating Culture Tourism: Concepts and

## Theory

3 Credit Hours
(Slashlisted with JMC 4273) Prerequisite: graduate standing and permission of instructor; corequisite JMC 5283. Through an immersion experience in an international location, students will analyze the cultural traditions and history of modern travel media. Studies include the major contexts and motives of tourism, as well as the foundations of contemporary forms of travel media. No student may earn credit for both 4273 and 5273. (Irreg.)

## JMC 5283 Communicating Culture Tourism Media: Travel

## Genres

3 Credit Hours
(Slashlisted with JMC 4283) Prerequisite: graduate standing and permission from instructor; corequisite JMC 5273. Through an immersion experience in an international location, this course will teach students the elements of narrative storytelling for media, and give them opportunities to hone and develop their individual writing styles through applied assignments. Students will gain the strategic and applied skills for feature-style writing that will allow them to produce media that meet professional standards. No student may earn credit for both 4283 and 5283. (Irreg.)

| JMC 5293 | Professional Seminar in Strategic Communication | 3 |
| :--- | :--- | :--- |
| Credit |  | Hours |

Prerequisite: Graduate standing; MA in Journalism \& Mass Communication/Strategic Communication and Digital Strategy majors only. Digital media bring new opportunities and challenges for strategic communicators that require new ways of thinking and responding. This course explores current, fast-changing industry topics and issues, including social and cultural issues, legal and regulatory issues, economic issues, and new technology issues, to help students understand and craft solutions to advance their organization's strategic needs. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
JMC 5303 International Advertising
3 Credit Hours
(Slashlisted with 4303) Prerequisite: graduate standing. May be repeated with change of subject matter; maximum credit six hours. Designed to provide basic understanding of advertising and culture that applies to advertising in non-American locations. No student may earn credit for both 4303 and 5303. (Irreg.)
JMC 5323 Advertising Account Planning
3 Credit Hours
(Slashlisted with 4323) Prerequisite: 3303. Discussion and practice of the advertising agency function of representing the target audience. Emphasis on learning to think like a consumer. Incorporates creativity, market research, consumer behavior and critical thinking to help in understanding target audiences. No student may earn credit for both 4323 and 5323. (F)
JMC 5333 Contemporary Problems in Advertising 3 Credit Hours
(Slashlisted with 4333) Prerequisite: graduate standing and permission. Survey of contemporary problems in advertising; including current social and economic criticisms, legal and self-regulation problems, and agency and media-related problems. No student may earn credit for both 4333 and 5333. (F)
JMC 5343 Digital Strategic Communication 3 Credit Hours
Prerequisite: Graduate standing; MA in Journalism \& Mass
Communication/Strategic Communication and Digital Strategy majors only. These days, the shift of media environments occurs more rapidly than ever, which influences our daily lives and requires practitioners in advertising and public relations (PR) to follow the media dynamics. This course is designed to provide a basic understanding of digital media environments and to explore how the digital media is integrated into strategic communication. (F, Sp, Su)

JMC 5353 Cinematography
3 Credit Hours
(Slashlisted with JMC 4353) Prerequisite: Graduate standing, majors only, and permission of instructor. Understand and demonstrate the advanced skills of scriptwriting, preproduction, sound recording/mixing, singlecamera digital video production and non-linear editing in the narrative storytelling process. No student may earn credit for both 4353 and 5353. (Sp)
JMC 5363 Data Journalism
3 Credit Hours
(Slashlisted with JMC 4363) Prerequisite: Graduate standing.
Introduction to the basic concepts and skills necessary to use numerical, statistical, geographical, and survey data as a way of telling compelling fact-based stories. Stories may be used as news and strategic or narrative products. Data can be used in all Gaylord fields from journalism to professional writing. Class builds skills in finding, cleaning, analyzing, interpreting, and then using data. No student may earn credit for both 4363 and 5363. (F, Sp)

JMC 5373 Media Psychology
3 Credit Hours
(Slashlisted with JMC 4373) Prerequisite: Graduate standing. Focus on cognitive and emotional processing of media. Topics cover. how do media impact our thoughts, feelings and behaviors, how and when we change our attitudes, what the media teach us about the world, how we pay attention to television, print media, and the Internet, how we respond emotionally, and how we decide what is real. Psychological theories reviewed. No student may earn credit for both 4373 and 5373. (F, Sp)

## JMC 5383 Media Management

3 Credit Hours
Prerequisite: Graduate standing. The aim of this course is to provide you with an overview of the principles underlying management and how those fit into the media management environment of the 21 st century. This will be done by developing your knowledge of relevant literature, research, and theory, as well as methods of inquiry in the field of media management and economics. (F, Sp)
JMC 5391 Grant Writing

## 1 Credit Hour

 Prerequisite: Graduate Standing. Learn to develop grant writing and project development skills, which are highly applicable in academic and non-academic environments. Be able to identify funding opportunities, to conceptualize a grant proposal in response to RFA, and develop standard proposal components, including project synopsis, project description, logic model, approach and budget. (F, Sp)JMC 5413 Crisis Communication
3 Credit Hours
Prerequisite: graduate standing and instructor permission. Examine strategic communication practices throughout the three stages of a crisis event. Special emphasis is placed on crisis planning, media relationships, image restoration, ethical responses, and organizational learning. No student may earn credit for both 4413 and 5413. (F, Sp)

## JMC 5433 Sports Public Relations

3 Credit Hours
(Slashlisted with 4433) Prerequisite: graduate standing. A study of public relations as it is practiced in the sports industry featuring guest and video presenters representing various sports publicity, promotion and public relations positions. Includes representatives of newspaper, television, and radio sports departments. No student may earn credit for both 4433 and 5433. (Irreg.)

JMC 5443 Public Relations Management
(Slashlisted with JMC 4443) Prerequisite: Graduate standing and departmental permission. This course will introduce you to the field of public relations and give you an overview of the historical development and current status of public relations. You will understand the study of public relations as the strategic behavioral management function that applies communication and organizational theory to the research, planning, implementation, and evaluation of the communication programs of organizations. No student may earn credit for both 4443 and 5443. (Irreg.)

JMC 5453 Public Relations Research 3 Credit Hours (Slashlisted with 4453) Prerequisite: graduate standing and permission. To build skills in the use of various public relations research methodologies available for exploratory, evaluation and management assessment of programs. No student may earn credit for both 4453 and 5453. (Sp)

## JMC 5463 Conceptualization

3 Credit Hours
Prerequisite: Graduate Standing. Discuss the meaning, value, and logic of social inquiry from a range of perspectives. Scholarly research is built from careful and comprehensive thinking, theorizing, conceptualizing, and operationalizing. While there is no universally best way to do research, you should leave the course with a clear understanding of how to design research that makes a contribution to theoretical knowledge. (F, Sp)

JMC 5473 Social Media Marketing
3 Credit Hours
(Slashlisted with JMC 4473) Prerequisite: graduate standing. Social Media Marketing explores the most effective marketing strategies and tactics used by brands to engage with consumers on each social media platform. You'll study best practices in social media marketing and apply them to the eight-step social media-planning model to construct an extensive real world social media marketing plan for a client. No student may receive credit for both 4473 and 5473 . (F, Sp, Su)

JMC 5483 Global and International Public Relations 3 Credit Hours (Slashlisted with JMC 4483) Prerequisite: graduate standing. Investigate current issues in global public relations practice. Students will examine how political, socio-economic, cultural, and historical particularities, together with pop culture, influence modern public relations practice. Students will also learn what role the social media plays in shaping global public relations strategies, as well as what role globalization plays in shaping strategic communication messages on international markets. No student may receive credit for both 4483 and 5483. (F, Sp, Su).

JMC 5493 Social Media Strategies
3 Credit Hours
(Slashlisted with JMC 4493) Prerequisite: Graduate standing or JMC 1013, JMC 2033 \& JMC 3413. Student will understand the mass communication industry by discussion and using assignment to focus on social media post writing, publishing, management and measurement. Students will complete a social media audit, social media calendar social media monitoring and evaluation plan, target public personas, as well as social media platform certifications. No student may earn credit for both 4493 and 5493. (F, Sp)

JMC 5503 Graduate Tutorial in Writing 3 Credit Hours Prerequisite: graduate standing and permission. May be repeated once; maximum credit six hours. Individual conferences devoted entirely to preparation, criticism, editing and preparation for marketing of the student's original manuscript, both fiction and non-fiction. (F, Sp)

JMC 5513 Media Management \& Transformation 3 Credit Hours
Prerequisite: Graduate standing. The aim of this course is to provide you with an overview of the principles underlying management and how those fit into the media management environment of the 21 st century. This will be done by developing your knowledge of relevant literature, research and theory, as well as methods of inquiry in the field of media management and economics. (F, Sp)

## JMC 5514 Writing the Novel-Graduate

4 Credit Hours
Prerequisite: graduate standing and permission. May be repeated; maximum credit eight hours. Analysis of the concepts, principles and practical creative problems involved in writing novels. Instruction in specific approaches and techniques useful in plotting, characterization, setting, scene, etc. Supervised writing of a novel by each student. (F, Sp)

JMC 5523 Theories of Public Relations 3 Credit Hours
(Slashlisted with JMC 4523) Prerequisite: Graduate standing or permission of instructor. Students will have a unique opportunity to meet and network with some of the leading public relations academic and practitioner experts and to learn more about the public relations and strategic communications field. No student may earn credit for both 4523 and 5523. (F, Sp)

JMC 5524 Writing the Short Story
4 Credit Hours
(Slashlisted with JMC 4524) Prerequisite: JMC 1013, JMC 2033, JMC 3504 and permission of instructor or department. Techniques and theory of fiction writing and plots, with emphasis on current American short stories. No student may earn credit for both 4524 and 5524. (F, Sp)

JMC 5533 Mystery Writing
3 Credit Hours
(Slashlisted with JMC 4533) Prerequisite: JMC 3504 or graduate standing and permission. A survey and discussion of the various popular forms that are used in the creation of commercial crime stories in fiction and film. This look at the most popular forms of crime writing and their rationales has the intention of allowing students to develop their own crime writing projects to better fit the prevailing markets. No student may earn credit for both 4533 and 5533. (F, Sp)

JMC 5543 Sci-Fi \& Fantasy Writing
3 Credit Hours
(Slashlisted with JMC 4543) Prerequisite: JMC 3504 and graduate standing. Although most people lump science fiction and fantasy stories together, these two genres are worlds apart. This course will help you expand your understanding of the two areas by focusing on world building, tech, and magic as well as potential societal differences. Sci-Fi \& Fantasy Writing allows participants to dig more deeply into genres they wish to explore. No student may earn credit for both 4543 and 5543. (F, Sp)

JMC 5563 Category Fiction
3 Credit Hours
(Slashlisted with 4563) Prerequisite: graduate standing and permission. May be repeated once with change of content; maximum credit six hours. In-depth study of current popular fiction genres and techniques used by category authors. Discussion of books in terms of fiction devices and application of such techniques to student's own work. No student may earn credit for both 4563 and 5563. (F)

JMC 5573 Theories of Professional Writing 3 Credit Hours (Slashlisted with JMC 4573) Prerequisite: JMC 3504 and graduate standing. Study of significant theories of the writing process, the motivation to write, and intended effects of writing. Students will address aesthetics, philosophy and values relating to careers in writing. No student may earn credit for both 4573 and 5573. (F, Sp)

JMC 5593 Young Adult Fiction Writing
3 Credit Hours
(Slashlisted with JMC 4593) Prerequisite: JMC 3504 or graduate standing and permission. Young adult fiction is a thriving sector of the book industry. This class deconstructs the state of the young adult market and uses current award winners and bestsellers as models of aspects of story such as characterization, world-building, plotting and voice. Students learn how to position their work in a booming market and discover how writing young adult fiction is similar to and different from writing for adults. No student may earn credit for both 4593 and 5593. (F, Sp)
JMC 5594 Writing the Commercial Nonfiction Book 4 Credit Hours Prerequisite: graduate standing and permission. May be repeated; maximum credit eight hours. Techniques, structure and elements of writing commercial nonfiction. Each student will work on an original book project and create a submittable book proposal with a list of suitable markets. No student may earn credit for both 4594 and 5594. (F)
JMC 5623 Multi-Camera Production
3 Credit Hours
(Slashlisted with JMC 4623) Prerequisite: Graduate standing, majors only, and permission of instructor. Understand and demonstrate the skills of scriptwriting, preproduction, sound recording/mixing, multi-camera video production and non-linear editing in the storytelling process. No student may earn credit for both 4623 and 5623. (F)
JMC 5633 Advanced Single-Camera Production 3 Credit Hours (Slashlisted with JMC 4633) Prerequisite: Graduate standing, majors only, and permission of instructor. Understand and demonstrate the advanced skills of scriptwriting, sound recording/mixing, single-camera digital video production and non-linear editing in the storytelling process. No student may earn credit for both 4633 and 5633. (F, Sp)
JMC 5643 Advanced Audio Production
3 Credit Hours
(Slashlisted with JMC 4643) Prerequisite: graduate standing and permission of instructor. Advanced study of the technology, capabilities and utilization of audio media. Units on advanced audio techniques for radio, television and film. Intensive practice and skill development in audio production techniques. No student may earn credit for both 4643 and 5643. (Irreg.)

## JMC 5653 Prac: Research Proposal \& Design <br> 3 Credit Hours

Prerequisite: Graduate Standing. Focusing on research design should help you learn how to transform everyday questions about media and communication processes into testable research questions and substantiative research designs. (F, Sp)
JMC 5673 Advanced Broadcast News
3 Credit Hours
(Slashlisted with 4673) Prerequisite: graduate standing and permission. Study of current requirements for and practice of public affairs programming, including news. Evolution of broadcast documentary form; writing, filming, editing techniques; budgeting and scheduling; actual preparation of public affairs programs of various types with emphasis on the extended-length news documentary. No student may earn credit for both 4673 and 5673. Laboratory (Sp)

## JMC 5683 Multimedia Content Management

3 Credit Hours (Slashlisted with 4683) Prerequisite: graduate standing and permission of instructor. Examines working with media content in a variety of formats such as text, audio, video, photography and graphics, for online media. Instruction and practice in editing designing, presenting, and managing news and information content for online media. No student may earn credit for both 4683 and 5683. (F, Sp)

JMC 5693 Podcasting
3 Credit Hours
(Slashlisted with JMC 4693) Prerequisite: Graduate standing and departmental permission. Podcasting is a newer media form built on older media forms, made possible by digital technologies. It is transforming our media experience of who gets to tell stories, what stories are being told, and how we interact at large and small scales. Understanding media in the current era requires understanding podcasting. No student may earn credit for both 4693 and 5693. (F, Sp)

## JMC 5723 Horror Writing

3 Credit Hours
(Slashlisted with JMC 4723) Prerequisite: Graduate standing and departmental permission. Students are expected to gain proficiency with writing and understanding horror in prose, script, and voice acting/ acting through analysis of published articles, reviews, and blogs, in-class technique drills, individualized coaching from the professor, and writing original pieces of their own. Will learn how to submit their work in the horror field and get published pieces to put into their resumes. No student may earn credit for both 4723 and 5723. (F, Sp)
JMC 5734 Writing the Screenplay
4 Credit Hours
Prerequisite: graduate standing and permission. May be repeated; maximum credit eight hours. Analysis of the form and structure of the narrative screenplay. Specific approaches and techniques useful in developing plotting, characterization, setting, scene, etc. Supervised writing of feature-length screenplay by each student. (Sp)
JMC 5753 Documentary Research and Writing
3 Credit Hours (Slashlisted with 4753) Prerequisite: graduate standing and permission of instructor. Covers the preparation of a documentary from both practical and critical/theoretical directions. Focuses on research, writing and submission of documentary proposals, and practical writing exercises. No student may earn credit for both 4753 and 5753. (F)
JMC 5763 Documentary Production 3 Credit Hours (Slashlisted with JMC 4763) Prerequisite: Graduate standing, majors only, and permission of instructor. Understand and demonstrate the advanced skills of research, preproduction, scriptwriting, sound recording/mixing, single-camera digital video production and non-linear editing in the documentary storytelling process. No student may earn credit for both 4763 and 5763. (Sp)
JMC 5773 After Effects
3 Credit Hours
(Slashlisted with JMC 4773) Prerequisite: Graduate standing and permission of instructor. Practice and understanding of graphic design, motion graphics, compositing, color correction, VFX and puppet animations using After Effects. No student may earn credit for both 4773 and 5773. (F)
JMC 5793 Broadcast Advertising Production 3 Credit Hours (Slashlisted with 4793) Prerequisite: graduate standing and permission of instructor. Addresses all the major stages of creating broadcast advertising messages from research and development of scripts through production, post production and final presentation. Emphasis will be placed on working in teams to create commercial messages. No student may earn credit for both 4793 and 5793. (Irreg.)
JMC 5800 Graduate Internship
1-3 Credit Hours
Prerequisite: graduate standing and permission. May be repeated with change of content; maximum credit six hours. Professional work experience in mass communication with associated readings, analysis, and critical research. (F, Sp, Su)

JMC 5813 Ethics of Strategic Communication 3 Credit Hours
Prerequisite: Graduate standing; MA in Journalism \& Mass Communication/Strategic Communication and Digital Strategy majors only. The course will cover ethics among a variety of topics through cases such as corporate social responsibility, digital ethics, and global ethics. Students will explore the real-world and industry application of the ethical frameworks and conducts. Students will be able to apply different philosophical approaches and critical thinking skills to analyze and navigate contemporary strategic communication challenges. ( $\mathrm{F}, \mathrm{Sp}$, Su )

JMC 5823 Cross-Cultural Communication 3 Credit Hours
Prerequisite: Graduate standing; MA in Journalism \& Mass Communication/Strategic Communication and Digital Strategy majors only. This course strives to advance understanding and appreciation of the roles of culture in shaping society, our senses of reality, and media. The course uses research, analyses, and critical observations of media performances to focus on understanding media and culture, analyzing the power of mediated symbols to create public perceptions that misrepresent social/cultural groups, and developing cross-cultural awareness and sensitivity. (F, Sp, Su)

JMC 5833 Journalism Ethics
3 Credit Hours
(Slashlisted with 4833) Prerequisite: graduate standing and permission. Press criticism; organizational performance; reportorial performance; print/broadcast distinctions. No student may earn credit for both 4833 and 5833.(F)

## JMC 5843 Sports Promotion

3 Credit Hours
(Slashlisted with JMC 4843) Prerequisite: Graduate standing. This course overviews the various types of sports industry positions that utilize strategic communication skills under the overarching umbrella of "sports promotion." The goal of this course is to help students fully understand the myriad of different ways public relations, advertising, sales and marketing techniques can be used in sports promotion. No student may earn credit for both 4843 and 5843. (F, Sp)
JMC 5853 Race, Gender, Class and the Media 3 Credit Hours (Slashlisted with JMC 4853) Prerequisite: Graduate standing and departmental permission. Survey of past and present relationships between women and racial and ethnic minorities in the U.S. and the media. Media portrayal, employment, ownership, and access will be studied. No student may earn credit for both 4853 and 5853. (F, Sp)

## JMC 5863 Marketing \& Media Analytics <br> 3 Credit Hours

Prerequisite: Graduate standing; MA in Journalism \& Mass
Communication/Strategic Communication and Digital Strategy majors only. This course will explore the many ways that data analysis informs strategic communication by using real-world examples of customer and media metrics, common analytic techniques, and key foundational concepts. Marketers need to know what data they should expect to see, what data they should ask for, and how to understand data to translate it into strategy and action. (F, Sp, Su)

## JMC 5873 Strategic Planning \& Brand Strategy 3 Credit Hours

Prerequisite: Graduate standing; MA in Journalism \& Mass
Communication/Strategic Communication and Digital Strategy majors only. This course will prepare students to identify and manage how change impacts their organization and how to strategically adapt to change. In addition, this course will explore the role of brand management and the brand planning process as an integral part of an organization's strategic planning process and how it can impact corporate brand value. (F, Sp, Su)

JMC 5880 Graduate Project
2-4 Credit Hours
2 to 4 hours. Prerequisite: graduate standing in journalism and mass communication. For students electing the project track (nonthesis track). Students will develop, under their project committee's direction, a creative or professional project, such as a novel, a film, an advertising or public relations campaign, or a management plan for a media-related organization. (F, Sp, Su)

## JMC 5883 Digital Behavior

3 Credit Hours
Prerequisite: Graduate standing; MA in Journalism \& Mass
Communication/Strategic Communication and Digital Strategy majors only. This course covers the methods to understand the audience through data analytics. Several psychology theories will be introduced to understand the digital audience's pattern. Students will develop more effective communication strategies to engage digital audiences. (F, Sp, $\mathrm{Su})$
JMC 5893 Management \& Leadership
3 Credit Hours
Prerequisite: Graduate standing; MA in Journalism \& Mass
Communication/Strategic Communication and Digital Strategy majors only. This course focuses on the management of organizations - how to build effective systems, motivate employees, and create innovative organizational cultures. Through scholarly and professional writings, students explore management roles and functions, leadership of people toward common goals, and processes of organizational development and change. (F, Sp, Su)

JMC 5903 Production for Clients
3 Credit Hours
(Slashlisted with JMC 4903) Prerequisite: graduate standing and permission of instructor. Students work on actual client projects. The class simulates a production house operation. Working in teams, students are responsible for budgeting, working with clients, scripting, shooting, editing, and follow-through on the project. No student may earn credit for both 4903 and 5903. (F, Sp)

JMC 5913 Narrative Production
3 Credit Hours
(Slashlisted with JMC 4913) Prerequisite: Graduate standing, majors only, and permission of instructor. Understand and demonstrate the advanced skills of scriptwriting, preproduction, sound recording/mixing, singlecamera digital video production and non-linear editing in the narrative storytelling process. No student may earn credit for both 4913 and 5913. (F, Sp)

JMC 5960 Directed Readings
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing and permission of department. May be repeated; maximum credit twelve hours. Directed readings and/or literature reviews under the direction of a faculty member. (F, Sp, Su)

JMC 5970 Seminar
1-3 Credit Hours
1 to 3 hours. May be repeated with change of subject matter; maximum credit 12 hours. Methods of research. Selection, evaluation and development of research problems. (Irreg.)

JMC 5980 Research for Master's Thesis
2-9 Credit Hours
Variable enrollment, two to nine hours; maximum credit applicable toward degree, four hours. (F, Sp, Su)

JMC 5990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing; permission of instructor. May be repeated with change of subject matter; maximum credit six hours. (F, Sp, Su)

JMC 6091 Ph.D. Seminar
1 Credit Hour
Prerequisite: graduate standing and permission. May be repeated with change of content; maximum credit six hours. Discussion and presentation of research by doctoral students, faculty and visiting scholars. Designed to enhance faculty-student interaction and collaboration on research, and to provide preliminary feedback toward development of dissertation proposals. (F, Sp)

JMC 6153 Advanced Topics in Media Arts 3 Credit Hours
Prerequisite: graduate standing and permission. May be repeated with change of content; maximum credit twelve hours. Advanced investigation and analysis of a problem relating to such subjects as a significant trend, practice, medium, idea, critical principle, or significant person in television, film, book, and other artistic or entertainment media. (Irreg.)

## JMC 6163 Advanced Topics in Journalism \& Media Studies

3 Credit Hours
Prerequisite: Graduate standing and departmental permission; May be repeated with change of content; maximum credit twelve hours. Advanced investigation and analysis of problems relating to such subjects as a significant trend, practice, medium, idea, critical principle, or significant person in journalism, news, and information fields. (Irreg.)

JMC 6173 Advanced Topics in Strategic Communication 3 Credit Hours Prerequisite: graduate standing and permission. May be repeated with change of content; maximum credit twelve hours. Advanced investigation and analysis of a problem relating to such subjects as a significant trend, practice, medium, idea, critical principle, or significant person in advertising, public relations and strategic communication fields. (Irreg.)

JMC 6183 Approaches to Teaching in Mass Communication 3 Credit Hours
Prerequisite: graduate standing and permission. An overview of pedagogy related to teaching college classes, specifically in journalism and mass communication programs. Immediately helpful to graduate students with teaching assistantships, and ultimately helpful for all students interested in teaching careers. (F)

## JMC 6393 Advanced Grant Writing

3 Credit Hours
Prerequisite: Graduate Standing. Learn to develop grant writing and project development skills, which are highly applicable in academic and non-academic environments. Be able to identify funding opportunities, to conceptualize a grant proposal in response to RFA, and develop standard proposal components, including project synopsis, project description, logic model, approach and budget. (F, Sp)

## JMC 6463 Advanced Conceptualization

3 Credit Hours
Prerequisite: Graduate Standing. Discuss the meaning, value, and logic of social inquiry from a range of perspectives. Scholarly research is built from careful and comprehensive thinking, theorizing, conceptualizing, and operationalizing. While there is no universally best way to do research, you should leave the course with a clear understanding of how to design research that makes a contribution to theoretical knowledge. (F, Sp)

## JMC 6653 Prac: Advanced Research Proposal and Design <br> 3 Credit Hours

Prerequisite: Graduate Standing. Focusing on research design should help you learn how to transform everyday questions about media and communication processes into testable research questions and substantiative research designs. (F, Sp)

JMC 6960 Directed Readings
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit six hours. Directed readings and/or literature review under the direction of a faculty member. (Irreg.)

JMC 6970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit 12 hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or research and field projects. (Irreg.)

JMC 6980 Research for Doctoral Dissertation
2-12 Credit Hours
2 to 12 hours. Prerequisite: Graduate standing and permission of instructor; may be repeated. Directed research culminating in the completion of the doctoral dissertation. (F, Sp, Su)

JMC 6990 Independent Study
1-4 Credit Hours
Prerequisite: Graduate standing and permission. May be repeated with change of content; maximum credit eight hours. An individual course of intensive study with the area and problem to be determined by the student and the instructor responsible for supervising the study. (F, Sp, Su )

## Faculty

| Last Name | First/Middle Name | Middle init. | OU <br> Service start | Title(s), date(s) appointed | Degrees Earned, Schools, Dates Completed |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Beliveau | Ralph | J | $2004$ | PROFESSOR OF JOURNALISM AND MASS COMMUNICATION, 2023; ADJUNCT ASSOCIATE PROFESSOR OF FILM AND MEDIA STUDIES, 2018; BROADCAST AND ELECTRONIC MEDIA AREA HEAD, 2014; GAYLORD FAMILY PROFESSORSHIP, 2018 | PhD, Univ of lowa, 2000; BS, Northwestern Univ, 1983 |
| Bergersen | Kyle | W | 2010 | ASSOCIATE <br> PROFESSOR OF <br> JOURNALISM <br> AND MASS <br> COMMUNICATION, <br> 2016; ADJUNCT <br> ASSOCIATE <br> PROFESSOR OF FILM <br> AND MEDIA STUDIES, <br> 2016 | M Comm, Univ of Iowa, 1989; BS, Univ of Nebraska, 1986 |
| Boettcher | Michael | J | 2009 | PROFESSOR OF JOURNALISM AND MASS COMMUNICATION, 2012; NICOLE AND EVAN H. KATZ ENDOWED PROFESSORSHIP OF JOURNALISM; 2023 |  |
| Carstarphen | Meta | G | 2002 | GAYLORD <br> PROFESSOR OF JOURNALISM AND MASS COMMUNICATION, 2016; PROFESSOR OF JOURNALISM AND MASS COMMUNICATION, 2014 | PhD, Texas Woman's Univ, 1993; MA, Texas Woman's Univ, 1988; BS, Temple Univ, 1974 |


| Claxton | Ray | A | 2018 | ASSISTANT PROFESSOR OF JOURNALISM | MFA, Vermont College of Fine Arts, 2016; BFA, Oklahoma |  |  |  |  | COMMUNICATION, 2016; GAYLORD FAMILY CHAIR, 2016 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | AND MASS COMMUNICATION, 2018 | State University, 1999 | Kokdil | Erin | S | 2023 | Assistant Professor of Journalism and Mass | MFA, Stanford Univ, 2018; BA, Smith College, 2012. |
| Craig | David | A | 1996 | PRESIDENT'S | PhD, Univ of Missouri, |  |  |  |  | Communication, 2023 |  |
|  |  |  |  | ASSOCIATES PRESIDENTIAL PROFESSOR, 2010; PROFESSOR OF JOURNALISM AND MASS COMMUNICATION, 2010; GAYLORD | 1997; MA, Wheaton College, 1993; BS, Northwestern Univ, 1982 | Leshner | Glenn | M | 2015 | PROFESSOR OF JOURNALISM AND MASS COMMUNICATION, 2015; EDWARD <br> L. AND THELMA GAYLORD CHAIR, 2015 | PhD, Stanford Univ, 1995; MA, Stanford Univ, 1993; MA, Univ of South Carolina, 1982; BA, Rutgers Univ, 1977 |
|  |  |  |  | FAMILY CHAIR, 2018 |  | McCoy | Armand |  | 2022 | Instructor of | MA, Univ |
| Croom | William | A | 2017 | ASSISTANT PROFESSOR OF JOURNALISM | MA, Pepperdine Univ, 2015; BA, Univ of Oklahoma, 2009 |  |  |  |  | Journalism and Mass Communication, 2022 | Oklahoma, 2022; <br> BA, Oklahoma City <br> University, 2010 |
|  |  |  |  | AND MASS COMMUNICATION, 2017 |  | Moore | Jensen |  | 2016 | ASSOCIATE PROFESSOR OF JOURNALISM | PhD, Univ of Missouri, 2007; MA, Univ of Minnesota, 2003; BS, |
| Evans | Mary Anna | S | 2015 | ASSOCIATE PROFESSOR OF JOURNALISM | MFA, Rutgers Univ, 2015; MS, Univ of Missippi, 1984; BS, |  |  |  |  | AND MASS COMMUNICATION, 2023 | Black Hills State Univ, 1998 |
|  |  |  |  | AND MASS COMMUNICATION, 2015 | Murray State Univ, 1983 | Odom | Mel |  | 2007 | Instructor of Professional Writing | MPW, Univ of Oklahoma, 2019; BA East Central |
| Fisher | Nate |  | 2022 | ASSISTANT | MA, Univ of |  |  |  |  |  | University, 1980 |
|  |  |  |  |  | Oklahoma, 2015; <br> BBA, Univ of <br> Oklahoma, 2003; BA, <br> Univ of Oklahoma, $2001$ | Patten | Thomas | H | 2018 | ASSISTANT PROFESSOR OF JOURNALISM AND MASS COMMUNICATION, |  |
| Hodgson | Scott | R | 2006 | PROFESSOR OF | MS, Southern Illinois |  |  |  |  | 2018 |  |
|  |  |  |  | JOURNALISM AND MASS | Univ, 1992; BS, Ithaca College, 1983 | Patterson | Rachel |  | 2023 | Instructor of Professional Writing | BA, Univ of Central Oklahoma, 2000 |
|  |  |  |  | COMMUNICATION, <br> 2008; GAYLORD <br> FAMILY PROFESSOR, <br> 2016 |  | Schmeltzer | John | C | 2009 | PROFESSOR OF JOURNALISM AND MASS COMMUNICATION, | MA, Northern Illinois <br> Univ, 1974; BA, <br> Wartburg College, 1967 |
| Holmes | Carla |  | 2021 | Professor of Practice and Associate Director of Online Graduate Programs | MA, Washington Univ in St. Louis, 1991, BJ Univ of Missouri, 1983 |  |  |  |  | 2009; ENGLEMAN/ <br> LIVERMORE <br> PROFESSOR OF COMMUNITY |  |
| Johnson | Kathleen | L | 2009 | PROFESSOR OF | MBA, Full Sail Univ, |  |  |  |  | JOURNALISM, 2009 |  |
|  |  |  |  | JOURNALISM <br> AND MASS <br> COMMUNICATION, <br> 2009; MCMAHON <br> CENTENNIAL <br> PROFESSOR <br> OF NEWS <br> COMMUNICATION, 2009 | 2009; BS, Oral <br> Roberts Univ, 1987 | Steyn | Elizabeth | F | 2007 | ASSOCIATE DEAN. <br> 2021; ASSOCIATE <br> PROFESSOR OF <br> JOURNALISM <br> AND MASS <br> COMMUNICATION, <br> 2013; GAYLORD <br> FAMILY PROFESSOR, JOURNALISM AREA | PhD, North-West Univ, 2006; MA, City Univ London, 1997; MA, North-West Univ, 1995; BA, North-West University, 1991 |
| Kerr | Robert | L | 2002 | EDITH KINNEY | PhD, Univ of North |  |  |  |  | HEAD, 2015 |  |
|  |  |  |  | GAYLORD <br> PRESIDENTIAL <br> PROFESSOR, 2008; <br> PROFESSOR OF <br> JOURNALISM <br> AND MASS <br> COMMUNICATION, <br> 2012; GAYLORD <br> FAMILY PROFESSOR, <br> 2013, JOURNALISM <br> AREA HEAD, 2021 | Carolina, 2002; MA, Univ of Oklahoma, 1999; BA, Univ of Southern Arkansas, 1975 | Thompson | Carl | W | 2024 | Instructor, 2024 | MSA, Integrated <br> Marketing <br> Communication <br> Northwestern <br> University, 1990; <br> BA University of <br> Oklahoma, 1989 |
| Kim | Jeong-Nam |  | 2016 | PROFESSOR OF JOURNALISM AND MASS |  |  |  |  |  |  |  |


| Thurston | Colleen | Elizabet | +2022 | Assistant Professor, 2021 |  <br> Anthropology, Univ of <br> Arizona, 2008; MFA <br> Science \& Natural <br> History Filmmaking, <br> Montana State Univ, <br> 2015 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Tsetsura | Ekaterina | Y | 2004 | ASSOCIATE <br> PROFESSOR OF JOURNALISM AND MASS COMMUNICATION, 2010; GAYLORD FAMILY PROFESSOR, 2016 | PhD, Purdue Univ, 2004; MS, Fort Hays State, 2000; MA, Voronezh State, 1997 |
| Wilderman | Melanie | G | 2013 | ASSOCIATE <br> PROFESSOR OF JOURNALISM AND MASS COMMUNICATION, 2013 | EdD, Oklahoma State <br> Univ, 2017; MA, <br> Univ of Oklahoma, 2003; BA, Univ of Oklahoma, 2001 |
| Williams | Traci |  | 2022 | Instructor of Creative Media Production |  |
| Yoon | Doyle |  | 2003 | ASSOCIATE PROFESSOR OF JOURNALISM AND MASS COMMUNICATION, 2009; ASSOCIATE PROFESSOR DATA SCIENCE AND ANALYTICS, 2017; GRADUATE DIRECTOR, 2023 | PhD, Univ of Missouri, 2003; MA, Univ of Missouri, 1999; BA, Sogang Univ, 1989 |
| Yount | Deborah | R | 2013 | ASSOCIATE PROFESSOR OF JOURNALISM AND MASS COMMUNICATION, 2017; PAUL D. MASSAD CHAIR IN STRATEGIC COMMUNICATION, 2017; AREA HEAD, STRATEGIC COMMUNICATION, 2014; CO-AREA HEAD STRATEGIC COMMUNICATION, 2021 | BA, Univ of Oklahoma, 1974 |
| Zhang | Xiaochen | Angela | 2019 | ASSISTANT PROFESSOR OF JOURNALISM AND MASS COMMUNICATION | Ph.D., Univ of Florida, 2015; M.A., Mass Communication, 2012; B.A., Beijing Foreign Studies Univ, 2010 |

## Journalism Advertising, B.A.

Minimum Total Credit Hours: 120
Major Hours: 39
Minimum Upper-Division Hours: 48
Upper-Division Hours Within Major. 21-30

Overall GPA - Combined and OU: 2.50
Major GPA - Combined and OU: 2.50
Last 60 Hours GPA: 2.50

Program Code: B006

## Requirements to Remain in Gaylord College of Journalism and Mass Communication

After direct admission, all incoming Freshman or transfer students must meet the following requirements to remain in Gaylord College:

- Pass the Gaylord College Entrance Exams - Language Skills Test and Academic Integrity Test
- Complete JMC 1013 (Introduction to Media) with a grade of C or better;
- Maintain a minimum combined retention grade point average of 2.50 on all work attempted, as well as a 2.50 on all major work.
- Transfer Students must have a 2.50 combined retention grade point average to gain admission into the college.


## Major Requirements

A maximum of 50 hours of Journalism and Mass Communication may be counted in the 120 hours required for graduation. No student will be awarded a BA in Journalism degree without completing at least 70 semester credit hours outside the College.

A grade of C or better is required in all Journalism and Mass Communication courses.

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Required Courses |  |  |
| JMC 1013 | Introduction to Media | 3 |
| JMC 2033 | Media Writing \& Storytelling | 3 |
| JMC 3303 | Introduction to Advertising | 3 |
| JMC 3333 | Advertising Research | 3 |
| JMC 3343 | Advertising Design \& Visual Storytelling | 3 |
| JMC 3353 | Advertising Storytelling | 3 |
| JMC 3363 | Advertising Media | 3 |
| JMC 4333 | Contemporary Problems in Advertising | 3 |
| JMC 4343 | Advertising Campaigns | 3 |
| JMC 4813 | Media Law | 3 |
| Electives |  | 9 |
| Choose 9 hours (p. 1708) | 39 |  |

## Required Minor

All Gaylord College students pursuing a baccalaureate major are also required to complete an academic minor of their choice in accordance to JMC policies

| CodeTitle <br>  <br> Choose a minor ${ }^{1}$ | Credit <br> Hours |
| :--- | ---: |
| Total Credit Hours | $15-21$ |

## Major Support Requirements

The courses listed below must be completed in addition to those courses taken to fulfill the General Education and College Requirements.

| Code | Title | Credit |
| :---: | :---: | :---: |
| ECON 1113 or ECON 1123 | Principles of Economics-Macro <br> Principles of Economics-Micro | 3 |
| MKT 3013 | Principles of Marketing and Supply Chain Management | 3 |
| Choose one additional Marketing course ${ }^{1}$ |  | 3 |
| Total Credit Hours |  | 9 |
| 1 May not include MKT 2013. |  |  |
| Recommended JMC Electives |  |  |
| Code | Title | Credit |
| JMC 3393 | Advanced Copywriting | 3 |
| JMC 3413 | Public Relations Principles, Origins \& Practice | 3 |
| JMC 3800 | Internship | 2-3 |
| JMC 4223 | Digital Advertising | 3 |
| JMC 4243 | Strategic Fashion Communication | 3 |
| JMC 4303 | International Advertising | 3 |
| JMC 4323 | Advertising Account Planning | 3 |
| JMC 4970 | Special Topics | 1-3 |

## General Education and College Requirements

Courses for fulfillment of General Education and College of Journalism requirements must be from the approved General Education course list. Courses graded S/U or P/NP will not apply.

## UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS

## Code Title

Core Area I: Symbolic and Oral Communication
English Composition
ENGL 1113 Principles of English Composition 3
ENGL 1213 Principles of English Composition 3
or EXPO 1213 Expository Writing

## Language

( $0-10$ hours, 2 courses in the same language) May be met by successful completion of 2 years of the same language in high school (additional language requirement - see below)
Beginning Course ..... 0-5
Beginning Course, continued ..... 0-5
Mathematics
Choose one course3
Core Area II: Natural Science
Choose two courses from different disciplines; one must ..... 7
include a laboratory
Core Area III: Social Science
PSC 1113 American Federal Government ..... 3


| Total Credit Hours | 3-6 |
| :--- | :--- |

## Free Electives

Electives to bring total applicable hours to the minimum total required for the degree including 48 upper-division hours.

## Information Concerning General Rules, Regulations and Minimum Requirements

Information regarding Total Hours; Hours by Examination, Correspondence Study and/or Extension; Repeat of Failed Coursework; and Requirements for Full Admission to the Gaylord College of Journalism and Mass Communication can be found in the catalog under Gaylord College of Journalism and Mass Communication: Undergraduate Study (p. 1688).

Attendance: Students who do not attend a JMC class or lab on the first day of classes may be dropped from the class or lab.
Transfer Work: Students may transfer in a maximum of 12 credit hours of journalism and mass communication coursework prior to full admission to the Gaylord College. Once fully admitted to the college, students may petition the faculty to have an additional three (3) credit hours from an outside ACEJMC institution applied to their University of Oklahoma degree. A maximum of fifteen (15) credit hours of JMC transfer coursework may be applied to a degree.
Individual Studies (e.g., courses titled "Independent Study"): A maximum of 12 total semester hours may be counted toward graduation.
Senior Institution Hours: A minimum of 60 semester hours applied toward graduation must be earned at senior (4-year) institutions. Residency:

- A minimum of 30 semester hours acceptable toward graduation must be earned in residence at OU, including at least 15 of the last 30 hours applied toward the degree.
- At least 15 semester hours of upper-division major work must be completed in residence at OU.
- OU correspondence courses are not considered resident credit.
- Credits earned via examination are neither resident nor nonresident credit.

Application for Graduation: Students must apply for graduation during the term in which they complete their degree requirements in order to graduate in that term. Application forms are available in the Student Services Center, 2533 Gaylord Hall. The deadline for completion of all coursework to graduate in a particular term is the last day of classes in that term.

## Suggested Semester Plan of Study

This plan of study should not be used in lieu of academic advisement.

## Freshman

| First Semester |  | Credit <br> Hours |
| :--- | ---: | ---: |
| ENGL 1113 | Principles of English Composition (Core I) | 3 |
| HIST 1483 | United States to 1865 (Core IV) | 3 |
| or HIST 1493 | or United States, 1865 to the Present |  |
| JMC 1013 | Introduction to Media | 3 |
| Beginning Language (Core I) | 5 |  |
| First-Year Experience (Core V) | 3 |  |
| Credit Hours | $\mathbf{1 7}$ |  |


| Second Semester |  |  |
| :--- | :---: | :---: |
| ENGL 1213 <br> or EXPO 1213 | Principles of English Composition (Core I) <br> or Expository Writing | 3 |
| JMC 2033 | Media Writing \& Storytelling | 3 |
| P SC 1113 | American Federal Government (Core III) | 3 |
| MATH (Core I) |  | 3 |
| Beginning Language continued (Core I) | 5 |  |

Credit Hours

## Sophomore

First Semester

| ECON 1113 <br> or ECON 1123 | Principles of Economics-Macro <br> or Principles of Economics-Micro | 3 |
| :---: | :---: | :---: |
| JMC 3303 | Introduction to Advertising | 3 |

Choose one of the following: 3

| Intermediate Language |  |
| :--- | ---: |
| Upper-Division Western Culture (Core IV) outside the major |  |
| Free Elective, lower- or upper-division |  |
| Natural Science with lab (Core II) | 4 |
| Social Science (Core III) | 3 |
| Credit Hours | $\mathbf{1 6}$ |


| Second Semester |  |  |
| :--- | :--- | :--- |
| JMC 3343 | Advertising Design \& Visual Storytelling | 3 |
| JMC 3333 | Advertising Research | 3 |
| Free elective, upper-division (3000-4000-level) | 3 |  |
| Natural Science without Lab (Core II) | 3 |  |


| Artistic Forms (Core IV) | 3 |
| :---: | :---: |
| Credit Hours | 15 |
| Junior |  |
| First Semester |  |
| JMC 3353 Advertising Storytelling | 3 |
| $\begin{array}{ll}\text { MKT } 3013 & \begin{array}{l}\text { Principles of Marketing and Supply Chain } \\ \text { Management }\end{array}\end{array}$ | 3 |
| Western Culture (Core IV) | 3 |
| World Culture (Core IV) | 3 |
| Free elective, upper-division (3000-4000-level) | 3 |
| Credit Hours | 15 |
| Second Semester |  |
| JMC 3363 Advertising Media | 3 |
| JMC Major Elective, upper-division (3000-4000-level) | 3 |
| MKT Major Support Elective, upper-division (3000-4000-level) | 3 |
| Upper-division Western Culture outside major (Gen. Ed.) | 3 |
| Free Elective, lower- or upper-division | 3 |
| Credit Hours | 15 |
| Senior |  |
| First Semester |  |
| JMC 4333 Contemporary Problems in Advertising | 3 |
| JMC Major Elective, upper-division (3000-4000-level) | 3 |
| Free Elective, upper-division (3000-4000 level) | 3 |
| Free Elective, lower- or upper-division | 4 |
| Credit Hours | 13 |
| Second Semester |  |
| JMC 4343 Advertising Campaigns | 3 |
| JMC 4813 Media Law | 3 |
| JMC Major Elective, upper-division (3000-4000-level) | 3 |
| Free Elective, lower- or upper-division | 3 |
| Credit Hours | 12 |
| Total Credit Hours | 120 |

## Creative Media Production, B.A.

Minimum Total Credit Hours: 120
Major Hours: 43
Minimum Upper-Division Hours: 48
Upper-Division Hours Within Major: 30
Overall GPA - Combined and OU: 2.50
Major GPA - Combined and OU: 2.50
Last 60 Hours GPA: 2.50
Program Code: B256

## Requirements to Remain in Gaylord College of Journalism and Mass Communication

After direct admission, all incoming Freshman or transfer students must meet the following requirements to remain in Gaylord College:

[^58]- Maintain a minimum combined retention grade point average of 2.50 on all work attempted, as well as a 2.50 on all major work.
- Transfer Students must have a 2.50 combined retention grade point average to gain admission into the college.


## Major Requirements

A maximum of 50 hours of Journalism and Mass Communication may be counted in the 120 hours required for graduation. No student will be awarded a BA in Journalism degree without completing at least 70 semester credit hours outside the College

A grade of C or better is required in all Journalism and Mass Communication courses.

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| JMC Core |  | 3 |
| JMC 1013 | Introduction to Media | 3 |
| JMC 2033 | Media Writing \& Storytelling ${ }^{1}$ | 3 |
| JMC 4813 | Media Law |  |

Creative Media Production Core

| JMC 1021 | Introduction to Creative Media Prod | 1 |
| :--- | :--- | :--- |
| JMC 2643 | Sound, Light, and Motion | 3 |
| JMC 2683 | Survey of Electronic Media | 3 |
| JMC 3011 | Practicum (2 semesters) | 2 |
| JMC 3613 | Single Camera Production | 3 |
| JMC 3623 | Electronic Media Writing | 3 |
| JMC 4651 | Portfolio -CMP | 1 |
| JMC 4653 | Issues And Ethics In Electronic Media | 3 |


| 3000-4000 Level JMC Electives |  |
| :--- | :--- |
| Choose nine hours in consultation with an academic advisor | 9 |
| and area faculty (p. 1710) |  |


| JMC Electives |
| :--- |
| Choose 6 hours of 3000-4000-level JMC Electives |
| lon |

Total Credit Hours
${ }^{1}$ Satisfies Computer Literacy Requirement.

## Required Minor

All Gaylord College students pursuing a baccalaureate major are also required to complete an academic minor of their choice in accordance to JMC policies.

| Code Title | Credit |
| :---: | :---: |
|  | Hours |
| Choose a minor ${ }^{1}$ | 15-21 |
| Total Credit Hours | 15-21 |
| ${ }^{1}$ Required Completion chosen). | minor |

## 3000-4000-level JMC Electives

Students should complete nine hours chosen in consultation with their academic advisor and area faculty.

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| JMC 3633 | Audio Production | 3 |
| JMC 3723 | Introduction to Documentary | 3 |
| JMC 3763 | Narrative Screenwriting | 3 |
| JMC 4193 | Principles of Media Entrepreneurship | 3 |
| JMC 4353 | Cinematography | 3 |
| JMC 4623 | Multi-Camera Production | 3 |
| JMC 4633 | Advanced Single Camera Production | 3 |
| JMC 4643 | Advanced Audio Production | 3 |
| JMC 4733 | Advanced Narrative Screenwriting | 3 |
| JMC 4753 | Documentary Research and Writing | 3 |
| JMC 4763 | Documentary Production | 3 |
| JMC 4773 | After Effects | 3 |
| JMC 4793 | Broadcast Advertising Production | 3 |
| JMC 4853 | Race, Gender, Class and the Media | 3 |
| JMC 4903 | Production for Clients | 3 |
| JMC 4913 | Narrative Production | 3 |

## General Education and College Requirements

Courses for fulfillment of General Education and College of Journalism requirements must be from the approved General Education course list. Courses graded S/U or P/NP will not apply.

## UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS

Code Title Credit Hours

## Core Area I: Symbolic and Oral Communication

English Composition
ENGL 1113 Principles of English Composition 3
ENGL 1213 Principles of English Composition 3
or EXPO 1213 Expository Writing
Language
( $0-10$ hours, 2 courses in the same language) May be met by
successful completion of 2 years of the same language in
high school (additional language requirement - see below)
Beginning Course 0-5
Beginning Course, continued 0-5
Mathematics
Choose one course 3
Core Area II: Natural Science
Choose two courses from different disciplines; one must 7
include a laboratory
Core Area III: Social Science
P SC 1113 American Federal Government 3
Choose one course 3

Core Area IV: Arts and Humanities
Artistic Forms
Choose one course 3
Western Culture
HIST 1483 United States to 1865
or HIST 1493 United States, 1865 to the Present
Choose one course (excluding HIST 1483 and HIST 1493)

| World Culture |  |
| :--- | ---: |
| Choose one course | 3 |
| Core Area V: First-Year Experience | 3 |
| Choose one course | $\mathbf{3 7 - 4 7}$ |
| Total Credit Hours |  |

## ADDITIONAL GAYLORD COLLEGE OF JOURNALISM AND MASS COMMUNICATION REQUIREMENTS

| Code | Title | Credit |
| :--- | :--- | :--- |
|  | Hours |  |


| Western Culture |
| :--- |
| Choose one upper-division course outside the major and in <br> addition to University General Education Core IV <br> Language or Western Culture <br> Choose one from: <br> a language course at the intermediate level or <br> demonstrated competency at that level <br> an additional upper-division Western Culture general <br> education course outside the major <br> Total Credit Hours |

## Free Electives

Electives to bring total applicable hours to the minimum total required for the degree including 48 upper-division hours.

## Information Concerning General Rules, Regulations and Minimum Requirements

Information regarding Total Hours; Hours by Examination, Correspondence Study and/or Extension; Repeat of Failed Coursework; and Requirements for Full Admission to the Gaylord College of Journalism and Mass Communication can be found in the catalog under Gaylord College of Journalism and Mass Communication: Undergraduate Study (p. 1688).

Attendance: Students who do not attend a JMC class or lab on the first day of classes may be dropped from the class or lab.
Transfer Work: Students may transfer in a maximum of 12 credit hours of journalism and mass communication coursework prior to full admission to the Gaylord College. Once fully admitted to the college, students may petition the faculty to have an additional three (3) credit hours from an outside ACEJMC institution applied to their University of Oklahoma degree. A maximum of fifteen (15) credit hours of JMC transfer coursework may be applied to a degree.
Individual Studies (e.g., courses titled "Independent Study"): A maximum of 12 total semester hours may be counted toward graduation.
Senior Institution Hours: A minimum of 60 semester hours applied toward graduation must be earned at senior (4-year) institutions.

## Residency:

- A minimum of 30 semester hours acceptable toward graduation must be earned in residence at OU, including at least 15 of the last 30 hours applied toward the degree.
- At least 15 semester hours of upper-division major work must be completed in residence at OU.
- OU correspondence courses are not considered resident credit.
- Credits earned via examination are neither resident nor nonresident credit.

Application for Graduation: Students must apply for graduation during the term in which they complete their degree requirements in order to graduate in that term. Application forms are available in the Student Services Center, 2533 Gaylord Hall. The deadline for completion of all coursework to graduate in a particular term is the last day of classes in that term.

## Suggested Semester Plan of Study

This plan of study should not be used in lieu of academic advisement.

## Freshman

| First Semester |  | Credit |
| :---: | :---: | :---: |
|  |  | Hours |
| ENGL 1113 | Principles of English Composition (Core I) | 3 |
| HIST 1483 or HIST 1493 | United States to 1865 (Core IV) or United States, 1865 to the Present | 3 |
| JMC 1013 | Introduction to Media | 3 |
| Beginning Language (Core I) |  | 5 |
| First-Year Experience (Core V) |  | 3 |
|  | Credit Hours | 17 |

## Second Semester

| ENGL 1213 <br> or EXPO 1213 | Principles of English Composition (Core I) <br> or Expository Writing | 3 |
| :--- | :--- | ---: |
| JMC 2033 | Media Writing \& Storytelling | 3 |
| MATH (Core I) |  | 3 |
| P SC 1113 | American Federal Government (Core III) | 3 |
| Beginning Language continued (Core I) | 5 |  |
| Credit Hours |  |  |

## Sophomore

## First Semester

JMC 1021 Introduction to Creative Media Prod 1
JMC 2643 Sound, Light, and Motion 3
Artistic Forms (Core IV) 3
Natural Science with lab (Core II) 4
Choose one of the following: 3

Intermediate Language
Upper-Division Western Culture (Core IV) outside major
Free Elective. lower- or upper-division

## Credit Hours

14

| Second Semester |  |  |
| :---: | :---: | :---: |
| JMC 2683 | Survey of Electronic Media | 3 |
| JMC 3011 | Practicum | 1 |
| Natural Science without lab (Core II) |  | 4 |
| World Culture (Core IV) |  | 3 |
| Social Science (Core III) |  | 3 |
|  | Credit Hours | 14 |

Junior
First Semester
JMC 3011 Practicum 1

JMC 3623 Electronic Media Writing 3
Western Culture (Core IV) 3
JMC Elective, upper-division (3000-4000-level) 3
Free Elective, lower- or upper-division 3

Free Elective, lower- or upper-division

## Credit Hours

16| Second Semester |  |
| :--- | ---: |
| JMC $3613 \quad$ Single Camera Production | 3 |
| JMC Elective, upper-division (3000-4000-level) | 3 |
| JMC Elective, upper-division (3000-4000-level) | 3 |
| Upper-division Western Culture outside major (Gen. Ed.) | 3 |
| Free Elective, lower- or upper-division | 3 |
| Credit Hours | $\mathbf{1 5}$ |


| Senior |  |
| :--- | ---: |
| First Semester |  |
| JMC $4813 \quad$ Media Law | 3 |
| JMC Elective, upper-division (3000-4000-level) | 3 |
| Free Elective, lower- or upper-division | 2 |
| Free Elective, lower- or upper-division | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| $\quad$ Credit Hours | $\mathbf{1 4}$ |

Second Semester

| JMC 4651 | Portfolio -CMP | 1 |
| :--- | ---: | ---: |
| JMC 4653 | Issues And Ethics In Electronic Media | 3 |
| JMC Elective, upper-division (3000-4000-level) | 3 |  |
| Free Elective, upper-division (3000-4000-level) | 3 |  |
| Free Elective, upper-division (3000-4000-level) | 3 |  |
| Credit Hours | $\mathbf{1 3}$ |  |
| Total Credit Hours | $\mathbf{1 2 0}$ |  |

## ${ }^{1}$ Satisfies Computer Literacy Requirement

## Journalism, B.A.

Minimum Total Credit Hours: 120
Major Hours: 48
Minimum Upper-Division Hours: 48
Upper-Division Hours Within Major: 30

Overall GPA - Combined and OU: 2.50
Major GPA - Combined and OU: 2.50
Last 60 Hours GPA: 2.50
Program Code: B610

## Requirements to Remain in Gaylord College of Journalism and Mass Communication

After direct admission, all incoming Freshman or transfer students must meet the following requirements to remain in Gaylord College:

- Pass the Gaylord College Entrance Exams - Language Skills Test and Academic Integrity Test
- Complete JMC 1013 (Introduction to Media) with a grade of C or better;
- Maintain a minimum combined retention grade point average of 2.50 on all work attempted, as well as a 2.50 on all major work
- Transfer Students must have a 2.50 combined retention grade point average to gain admission into the college.


## Major Requirements

A maximum of 50 hours of Journalism and Mass Communication may be counted in the 120 hours required for graduation. No student will
be awarded a BA in Journalism degree without completing at least 70 semester credit hours outside the College.

A grade of C or better is required in all Journalism and Mass Communication courses.

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| JMC Core |  |  |
| JMC 1013 | Introduction to Media | 3 |
| JMC 2033 | Media Writing \& Storytelling | 3 |
| JMC 4813 | Media Law | 3 |
| Foundational Courses |  |  |
| Choose 5 of the following 6 courses: | 5 |  |
| JMC 1031 | Principles of American Journalism |  |
| JMC 1041 | Visual Literacy |  |
| JMC 1051 | Digital Literacy |  |
| JMC 1061 | Journalism Writing \& Editing |  |
| JMC 1071 | News Judgment \& Interviewing |  |
| JMC 1081 | Reporting with Numbers | 3 |
| Intermediate Courses | 3 |  |
| JMC 3013 | Intermediate Cross-Platform Reporting | 3 |
| JMC 3663 | Visual Reporting | 3 |
| JMC 3683 | Digital Reporting | 3 |
| JMC 4013 | Essential Reporting | 3 |
| JMC 4833 | Journalism Ethics |  |

Advanced Courses
$\left.\begin{array}{lll}\text { JMC 4033 } & \text { Advancing Cultural Proficiency in Media } \\ & \text { Leadership }\end{array}\right] 3$

Journalism Electives
Choose two courses (6 hours) from a list maintained by the 6 department. Suggested courses include:

| JMC 3023 | Long Form Storytelling |
| :--- | :--- |
| JMC 3043 | Community Journalism |
| JMC 3083 | Business of Media |
| JMC 3103 | News Editing |
| JMC 3143 | Photojournalism |
| JMC 3703 | Backpack Reporting |
| JMC 3773 | Television News |
| JMC 4363 | Data Journalism |
| JMC 4683 | Multimedia Content Management |
| JMC 4970 | Special Topics (approved topics: Social |
|  | Media Strategies, The Listening Project, |
|  | Innovators in Journalism, Reporting in D.C.) |

## Required Minor

All Gaylord College students pursuing a baccalaureate major are also required to complete an academic minor of their choice in accordance to JMC policies.

| Code | Title |
| :--- | ---: |
|  | Credit |
| Choose a minor ${ }^{1}$ | Hours |
| Total Credit Hours | $15-21$ | | Required Completion of a Minor - 15-21 hours (hours vary due to minor |
| :--- |
| chosen). |

## General Education and College Requirements

Courses for fulfillment of General Education and College of Journalism requirements must be from the approved General Education course list. Courses graded S/U or P/NP will not apply.
UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND
COLLEGE REQUIREMENTS
Code $\quad$ Title

Core Area I: Symbolic and Oral Communication

| English Composition |  |
| :---: | :---: |
| ENGL 1113 Principles of English Composition | 3 |
| ENGL 1213 Principles of English Composition <br> or EXPO 1213 Expository Writing | 3 |
| Language |  |
| ( $0-10$ hours, 2 courses in the same language) May be met by successful completion of 2 years of the same language in high school (additional language requirement - see below) |  |
| Beginning Course | 0-5 |
| Beginning Course, continued | 0-5 |
| Mathematics |  |
| Choose one course | 3 |
| Core Area II: Natural Science |  |
| Choose two courses from different disciplines; one must include a laboratory | 7 |
| Core Area III: Social Science |  |
| P SC 1113 American Federal Government | 3 |
| Choose one course | 3 |

## Core Area IV: Arts and Humanities

## Artistic Forms

| Choose one course | 3 |
| :--- | ---: |
| Western Culture  <br> HIST 1483 United States to 1865 <br> or HIST 1493 United States, 1865 to the Present | 3 |
| Choose one course (excluding HIST 1483 and HIST 1493) |  |
| World Culture | 3 |
| Choose one course | 3 |
| Core Area V: First-Year Experience | 3 |
| Choose one course | $\mathbf{3 7 - 4 7}$ |

## ADDITIONAL GAYLORD COLLEGE OF JOURNALISM AND MASS COMMUNICATION REQUIREMENTS

| Code Title | Credit <br> Hours |
| :--- | ---: |
| Western Culture | 3 |
| Choose one upper-division course outside the major and in <br> addition to University General Education Core IV |  |
| Language or Western Culture <br> Choose one from: <br> $\quad$a language course at the intermediate level or <br> demonstrated competency at that level <br> an additional upper-division Western Culture general <br> education course outside the major | $0-3$ |

Total Credit Hours

## Free Electives

Electives to bring total applicable hours to the minimum total required for the degree including 48 upper-division hours.

## Information Concerning General Rules, Regulations and Minimum Requirements

Information regarding Total Hours; Hours by Examination, Correspondence Study and/or Extension; Repeat of Failed Coursework; and Requirements for Full Admission to the Gaylord College of Journalism and Mass Communication can be found in the catalog under Gaylord College of Journalism and Mass Communication: Undergraduate Study (p. 1688).

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Individual Studies (e.g., courses titled "Independent Study"): A maximum of 12 total semester hours may be counted toward graduation.
Senior Institution Hours: A minimum of 60 semester hours applied toward graduation must be earned at senior (4-year) institutions.

## Residency:

- A minimum of 30 semester hours acceptable toward graduation must be earned in residence at OU , including at least 15 of the last 30 hours applied toward the degree.
- At least 15 semester hours of upper-division major work must be completed in residence at OU.
- OU correspondence courses are not considered resident credit.
- Credits earned via examination are neither resident nor nonresident credit.

Application for Graduation: Students must apply for graduation during the term in which they complete their degree requirements in order to graduate in that term. Application forms are available in the Student Services Center, 2533 Gaylord Hall. The deadline for completion of all coursework to graduate in a particular term is the last day of classes in that term.

| Suggested Semester Plan of Study |  |  |
| :---: | :---: | :---: |
| This plan of study should not be used in lieu of academic advisement. |  |  |
| Freshman |  |  |
| First Semester |  |  |
|  |  | Hours |
| ENGL 1113 | Principles of English Composition (Core I) | 3 |
| HIST 1483 or HIST 1493 | United States to 1865 (Core IV) or United States, 1865 to the Present | 3 |
| JMC 1013 | Introduction to Media | 3 |
| Beginning Language (Core I) |  | 5 |
| First-Year Experience (Core V) |  | 3 |
| Credit Hours |  | 17 |
| Second Semester |  |  |
| ENGL 1213 or EXPO 1213 | Principles of English Composition (Core I) or Expository Writing | 3 |
| JMC 2033 | Media Writing \& Storytelling | 3 |
| MATH (Core I) |  | 3 |
| P SC 1113 | American Federal Government (Core III) | 3 |
| Beginning Language continued (Core I) |  | 5 |
|  | Credit Hours | 17 |
| Sophomore |  |  |
|  |  |  |
| JMC 3011 | Practicum | 1 |
| Journalism Foundational Course |  | 1 |
| Journalism Foundational Course |  | 1 |
| Journalism Foundational Course |  | 1 |
| Natural Science with lab (Core II) |  | 4 |
| Artistic Forms (Core IV) |  | 3 |
| Choose one of the following: |  | 3 |
| Intermediate Language |  |  |
| Upper-Division Western Culture (Core IV) outside major |  |  |
| Credit Hours |  | 14 |
| Second Semester |  |  |
| JMC 3663 | Visual Reporting | 3 |
| Journalism Foundational Course |  | 1 |
| Journalism Foundational Course |  | 1 |
| Natural Science without lab (Core II) |  | 3 |
| World Culture (Core IV) |  | 3 |
| Social Science (Core III) |  | 3 |
| Credit Hours |  | 14 |
| Junior |  |  |
| First Semester |  |  |
| JMC 3013 | Intermediate Cross-Platform Reporting | 3 |
| JMC 3663 | Visual Reporting | 3 |
| Western Culture ( | Core IV) | 3 |
| Free Elective, low | er- or upper-division | 3 |
| Free Elective, low | er- or upper-division | 3 |
|  | Credit Hours | 15 |
| Second Semester |  |  |
| JMC 3683 | Digital Reporting | 3 |
| JMC 4013 | Essential Reporting | 3 |


| JMC 4833 | Journalism Ethics | 3 |
| :---: | :---: | :---: |
| JMC Major Elective, upper-division (3000-4000 level) |  | 3 |
| Upper-division Western Culture outside major (Gen. Ed.) |  | 3 |
|  | Credit Hours | 15 |
| Senior |  |  |
| First Semester |  |  |
| JMC 4033 | Advancing Cultural Proficiency in Media Leadership | 3 |
| JMC 4803 | History of Media | 3 |
| JMC 4183 | Advanced Cross-Platform Reporting | 3 |
| Free Elective, lower- or upper-division |  | 2 |
| Free Elective, upper-division (3000-4000-level) |  | 3 |
|  | Credit Hours | 14 |
| Second Semester |  |  |
| JMC 4813 | Media Law | 3 |
| JMC 4863 | Journalism, Ethics and Democracy | 3 |
| JMC Major Elective, upper-division (3000-4000-level) |  | 3 |
| Free Elective, lower- or upper-division |  | 2 |
| Free Elective, upper-division (3000-4000) |  | 3 |
|  | Credit Hours | 14 |
|  | Total Credit Hours | 120 |

## Professional Writing, B.A.

Minimum Total Credit Hours: 120
Major Hours: 42
Minimum Upper-Division Hours: 48
Upper-Division Hours Within Major: 36

Overall GPA - Combined and OU: 2.50
Major GPA - Combined and OU: 2.50
Last 60 Hours GPA: 2.50

Program Code: B795

## Requirements to Remain in Gaylord College of Journalism and Mass Communication

After direct admission, all incoming Freshman or transfer students must meet the following requirements to remain in Gaylord College:

- Pass the Gaylord College Entrance Exams - Language Skills Test and Academic Integrity Test
- Complete JMC 1013 (Introduction to Media) with a grade of C or better;
- Maintain a minimum combined retention grade point average of 2.50 on all work attempted, as well as a 2.50 on all major work.
- Transfer Students must have a 2.50 combined retention grade point average to gain admission into the college.


## Major Requirements

A maximum of 50 hours of Journalism and Mass Communication may be counted in the 120 hours required for graduation. No student will be awarded a BA in Journalism degree without completing at least 70 semester credit hours outside the College.

| A grade of C or better is required in all Journalism and Mass Communication courses. |  |  |
| :---: | :---: | :---: |
| Code | Title | Credit |
|  |  | Hours |
| Required Courses |  |  |
| JMC 1013 | Introduction to Media | 3 |
| JMC 2033 | Media Writing \& Storytelling | 3 |
| JMC 3011 | Practicum | 1 |
| JMC 3011 | Practicum | 1 |
| JMC 3011 | Practicum | 1 |
| JMC 3504 | Introduction to Professional Writing | 4 |
| JMC 4514 | Writing the Novel | 4 |
| JMC 4524 | Writing the Short Story | 4 |
| JMC 4563 | Category Fiction | 3 |
| JMC 4573 | Theories of Professional Writing | 3 |
| JMC 4603 | Business of Professional Writing | 3 |
| JMC 4813 | Media Law | 3 |
| Electives |  |  |
| Choose 9 hours upper division JMC elective (p. 1715) |  | 9 |
| Total Credit Hours |  | 42 |

## Required Minor

All Gaylord College students pursuing a baccalaureate major are also required to complete an academic minor of their choice in accordance to JMC policies.


## General Education and College Requirements

Courses for fulfillment of General Education and College of Journalism requirements must be from the approved General Education course list. Courses graded S/U or P/NP will not apply.
UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND
COLLEGE REQUIREMENTS
Code $\quad$ Title

Core Area I: Symbolic and Oral Communication
English Composition
ENGL 1113 Principles of English Composition 3
ENGL 1213 Principles of English Composition 3
or EXPO 1213 Expository Writing
Language
( $0-10$ hours, 2 courses in the same language) May be met by
successful completion of 2 years of the same language in high school (additional language requirement - see below)
Beginning Course 0-5
Beginning Course, continued $\quad 0-5$
Mathematics
Choose one course 3
Core Area II: Natural Science
Choose two courses from different disciplines; one must 7
include a laboratory
Core Area III: Social Science
P SC 1113 American Federal Government 3
Choose one course 3
Core Area IV: Arts and Humanities
Artistic Forms
Choose one course 3

| Western Culture |  |
| :--- | :--- |
| HIST $1483 \quad$ United States to 1865 |  |

or HIST 1493 United States, 1865 to the Present

Choose one course (excluding HIST 1483 and HIST 1493) 3
World Culture
Choose one course 3

Core Area V: First-Year Experience

| Choose one course | 3 |
| :--- | ---: |
| Total Credit Hours | $37-47$ |

## ADDITIONAL GAYLORD COLLEGE OF JOURNALISM AND MASS COMMUNICATION REQUIREMENTS

| Code Title | Credit <br> Hours |
| :--- | ---: |
| Western Culture <br> Choose one upper-division course outside the major and in <br> addition to University General Education Core IV <br> Language or Western Culture | 3 |
| Choose one from: <br> a language course at the intermediate level or <br> demonstrated competency at that level | $0-3$ |
| an additional upper-division Western Culture general <br> education course outside the major |  |

Total Credit Hours
3-6

## Free Electives

Electives to bring total applicable hours to the minimum total required for the degree including 48 upper-division hours.

## Information Concerning General Rules, Regulations and Minimum Requirements

Information regarding Total Hours; Hours by Examination, Correspondence Study and/or Extension; Repeat of Failed Coursework; and Requirements for Full Admission to the Gaylord College of Journalism and Mass Communication can be found in the catalog under Gaylord College of Journalism and Mass Communication: Undergraduate Study (p. 1688).

Attendance: Students who do not attend a JMC class or lab on the first day of classes may be dropped from the class or lab.
Transfer Work: Students may transfer in a maximum of 12 credit hours of journalism and mass communication coursework prior to full admission to the Gaylord College. Once fully admitted to the college, students may petition the faculty to have an additional three (3) credit hours from an outside ACEJMC institution applied to their University of Oklahoma degree. A maximum of fifteen (15) credit hours of JMC transfer coursework may be applied to a degree.
Individual Studies (e.g., courses titled "Independent Study"): A maximum of 12 total semester hours may be counted toward graduation.

Senior Institution Hours: A minimum of 60 semester hours applied toward graduation must be earned at senior (4-year) institutions.
Residency:

- A minimum of 30 semester hours acceptable toward graduation must be earned in residence at OU, including at least 15 of the last 30 hours applied toward the degree.
- At least 15 semester hours of upper-division major work must be completed in residence at OU.
- OU correspondence courses are not considered resident credit.
- Credits earned via examination are neither resident nor nonresident credit.

Application for Graduation: Students must apply for graduation during the term in which they complete their degree requirements in order to graduate in that term. Application forms are available in the Student Services Center, 2533 Gaylord Hall. The deadline for completion of all coursework to graduate in a particular term is the last day of classes in that term.

## Suggested Semester Plan of Study

This plan of study should not be used in lieu of academic advisement.

| Freshman |  |  |
| :---: | :---: | :---: |
| First Semester |  | Credit |
|  |  | Hours |
| ENGL 1113 | Principles of English Composition (Core I) | 3 |
| HIST 1483 or HIST 1493 | United States to 1865 (Core IV) or United States, 1865 to the Present | 3 |
| JMC 1013 | Introduction to Media | 3 |
| Beginning Language (Core I) |  | 5 |
| First-Year Experience (Core V) |  | 3 |
|  | Credit Hours | 17 |
| Second Semester |  |  |
| $\begin{aligned} & \text { ENGL } 1213 \\ & \text { or EXPO } 1213 \end{aligned}$ | Principles of English Composition (Core I) or Expository Writing | 3 |
| JMC 2033 | Media Writing \& Storytelling | 3 |
| MATH (Core I) |  | 3 |


| P SC 1113 | American Federal Government (Core III) | 3 |
| :---: | :---: | :---: |
| Beginning Language continued (Core I) |  | 5 |
|  | Credit Hours | 17 |
| Sophomore |  |  |
| First Semester |  |  |
| JMC 3504 | Introduction to Professional Writing | 4 |
| Artistic Forms (Core IV) |  | 3 |
| Natural Science with lab (Core II) |  | 4 |
| Choose one of the following: |  | 3 |
| Intermediate Language |  |  |
| Upper-Division Western Culture (Core IV) outside major |  |  |
| Free Elective, lower- or upper-division |  |  |
| Free Elective, lower-division |  | 2 |
|  | Credit Hours | 16 |
| Second Semester |  |  |
| JMC 4524 | Writing the Short Story | 4 |
| JMC 3011 | Practicum (PW Readings) | 1 |
| Natural Science without lab (Core II) |  | 3 |
| World Culture (Core IV) |  | 3 |
| Social Science Core III |  | 3 |
|  | Credit Hours | 14 |
| Junior |  |  |
| First Semester |  |  |
| JMC 4514 | Writing the Novel | 4 |
| JMC 3011 | Practicum (PW Readings) | 1 |
| Western Culture (Core IV) |  | 3 |
| Free Elective, upper-division (3000-4000-level) |  | 3 |
| Free Elective, upper-division (3000-4000-level) |  | 3 |
|  | Credit Hours | 14 |
| Second Semester |  |  |
| JMC 4573 | Theories of Professional Writing | 3 |
| JMC 3011 | Practicum (PW Readings) | 1 |
| JMC Major | ve, upper-division (3000-4000-level) | 3 |
| Upper-divis | estern Culture outside major (Gen. Ed.) | 3 |
| Free Electiv | er-division (3000-4000-level) | 3 |
|  | Credit Hours | 13 |
| Senior |  |  |
| First Semester |  |  |
| JMC 4563 | Category Fiction | 3 |
| JMC 4813 | Media Law | 3 |
| JMC Major Elective, upper-division (3000-4000-level) |  | 3 |
| Free Elective, lower- or upper-division |  | 3 |
| Free Elective, lower- or upper-division |  | 3 |
|  | Credit Hours | 15 |
| Second Semester |  |  |
| JMC 4603 | Business of Professional Writing | 3 |
| JMC Major | ve, upper-division (3000-4000-level) | 3 |
| Free Elective | er- or upper-division | 3 |
| Free Electiv | er- or upper-division | 3 |

## Sophomore

JMC 3504 Introduction to Professional Writing 4Natural Science with lab (Core II)4Intermediate LanguageUpper-Division Western Culture (Core IV) outside major
Credit Hours16
JMC $4524 \quad$ Writing the Short Story ..... 4Natural Science without lab (Core II)3Word Culure (Core IV)3

First Semester
3JMC Major Elective, upper-division (3000-4000-level)
3Fee Elective, lower or upper divion
Free Elective, lower- or upper-division15
JMC 4603 Business of Professional Writing ..... 3Free Elective, lower- or upper-division3
Free Elective, lower- or upper-division ..... 3

Free Elective, lower- or upper-division

| Credit Hours | 14 |
| :--- | ---: |
| Total Credit Hours | 120 |

## Public Relations, B.A.

Minimum Total Credit Hours: 120
Major Hours: 39
Minimum Upper-Division Hours: 48
Upper-Division Hours Within Major. 24
Overall GPA - Combined and OU: 2.50
Major GPA - Combined and OU: 2.50
Last 60 Hours GPA: 2.50
Program Code: B815

## Requirements to Remain in Gaylord College of Journalism and Mass Communication

After direct admission, all incoming Freshman or transfer students must meet the following requirements to remain in Gaylord College:

- Pass the Gaylord College Entrance Exams - Language Skills Test and Academic Integrity Test
- Complete JMC 1013 (Introduction to Media) with a grade of C or better;
- Maintain a minimum combined retention grade point average of 2.50 on all work attempted, as well as a 2.50 on all major work.
- Transfer Students must have a 2.50 combined retention grade point average to gain admission into the college.


## Major Requirements

A maximum of 50 hours of Journalism and Mass Communication may be counted in the 120 hours required for graduation. No student will be awarded a BA in Journalism degree without completing at least 70 semester credit hours outside the College.

A grade of $C$ or better is required in all Journalism and Mass Communication courses.

| Code | Title | Credit |
| :--- | :--- | :--- |
|  | Hours |  |

## Required Courses

| JMC 1013 | Introduction to Media | 3 |
| :---: | :---: | :---: |
| JMC 2033 | Media Writing \& Storytelling | 3 |
| JMC 3413 | Public Relations Principles, Origins \& Practice | 3 |
| JMC 3423 | Public Relations Writing | 3 |
| JMC 3453 | Public Relations \& Society | 3 |
| JMC 4403 | Public Relations Campaigns | 3 |
| JMC 4423 | Contemporary Problems in Public Relations Capstone | 3 |
| JMC 4453 | Public Relations Research | 3 |
| JMC 4813 | Media Law | 3 |
| Choose on | following: | 3 |


| JMC 3433 | Public Relations Design |
| :--- | :--- |
| JMC 3800 | Internship |


| JMC 4433 Sports Public Relations |  |
| :--- | :--- |
| Electives |  |
| Choose 9 hours (minimum) to 10 hours (maximum) of | $9-10$ |
| electives from approved list maintained by Gaylord College of |  |
| JMC (p. 1719) |  |


| Total Credit Hours | $39-40$ |
| :--- | :--- |

## Required Minor

All Gaylord College students pursuing a baccalaureate major are also required to complete an academic minor of their choice in accordance to JMC policies.

| Code | Title |
| :--- | ---: |
|  | Credit |
|  | Hours |
| Choose a minor ${ }^{1}$ | $15-21$ |
| Total Credit Hours | $\mathbf{1 5 - 2 1}$ |

${ }^{1}$ Required Completion of a Minor - 15-21 hours (hours vary due to minor chosen).

## General Education and College Requirements

Courses for fulfillment of General Education and College of Journalism requirements must be from the approved General Education course list. Courses graded S/U or P/NP will not apply.

## UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS

| Code | Title | Credit |
| :--- | :--- | :--- |
|  | Hours |  |

## Core Area I: Symbolic and Oral Communication

## English Composition

ENGL 1113 Principles of English Composition 3
ENGL 1213 Principles of English Composition 3
or EXPO 1213 Expository Writing

## Language

( $0-10$ hours, 2 courses in the same language) May be met by successful completion of 2 years of the same language in high school (additional language requirement - see below)
Beginning Course 0-5
$\begin{array}{ll}\text { Beginning Course, continued } & 0-5\end{array}$
Mathematics
Choose one course 3
Core Area II: Natural Science
Choose two courses from different disciplines; one must 7
include a laboratory
Core Area III: Social Science
PSC 1113 American Federal Government 3
Choose one course 3

Core Area IV: Arts and Humanities
Artistic Forms
Choose one course 3

Western Culture
HIST 1483 United States to 1865
or HIST 1493 United States, 1865 to the Present
Choose one course (excluding HIST 1483 and HIST 1493)

| World Culture | 3 |
| :--- | ---: |
| Choose one course |  |
| Core Area V: First-Year Experience | 3 |
| Choose one course | $\mathbf{3 7 - 4 7}$ |

## ADDITIONAL GAYLORD COLLEGE OF JOURNALISM AND MASS COMMUNICATION REQUIREMENTS

| Code Title | Credit <br> Hours |
| :--- | ---: |
| Western Culture <br> Choose one upper-division course outside the major and in <br> addition to University General Education Core IV <br> Language or Western Culture <br> Choose one from: <br> a language course at the intermediate level or <br> demonstrated competency at that level <br> an additional upper-division Western Culture general <br> education course outside the major <br> Total Credit Hours | $0-3$ |

## Free Electives

Electives to bring total applicable hours to the minimum total required for the degree including 48 upper-division hours.

## Information Concerning General Rules, Regulations and Minimum Requirements

## Information regarding Total Hours; Hours by Examination,

 Correspondence Study and/or Extension; Repeat of Failed Coursework; and Requirements for Full Admission to the Gaylord College of Journalism and Mass Communication can be found in the catalog under Gaylord College of Journalism and Mass Communication: Undergraduate Study (p. 1688).Attendance: Students who do not attend a JMC class or lab on the first day of classes may be dropped from the class or lab.
Transfer Work: Students may transfer in a maximum of 12 credit hours of journalism and mass communication coursework prior to full admission to the Gaylord College. Once fully admitted to the college, students may petition the faculty to have an additional three (3) credit hours from an outside ACEJMC institution applied to their University of Oklahoma degree. A maximum of fifteen (15) credit hours of JMC transfer coursework may be applied to a degree.
Individual Studies (e.g., courses titled "Independent Study"): A maximum of 12 total semester hours may be counted toward graduation.
Senior Institution Hours: A minimum of 60 semester hours applied toward graduation must be earned at senior (4-year) institutions.

## Residency:

- A minimum of 30 semester hours acceptable toward graduation must be earned in residence at OU, including at least 15 of the last 30 hours applied toward the degree.
- At least 15 semester hours of upper-division major work must be completed in residence at OU.
- OU correspondence courses are not considered resident credit.
- Credits earned via examination are neither resident nor nonresident credit.

Application for Graduation: Students must apply for graduation during the term in which they complete their degree requirements in order to graduate in that term. Application forms are available in the Student Services Center, 2533 Gaylord Hall. The deadline for completion of all coursework to graduate in a particular term is the last day of classes in that term.

## Suggested Semester Plan of Study

This plan of study should not be used in lieu of academic advisement.

## Freshman

| First Semester |  | Credit <br> Hours |
| :--- | ---: | ---: |
| ENGL 1113 | Principles of English Composition (Core I) | 3 |
| HIST 1483 | United States to 1865 (Core IV) | 3 |
| or HIST 1493 | or United States, 1865 to the Present |  |
| JMC 1013 | Introduction to Media | 3 |
| Beginning Language (Core I) | 5 |  |
| First-Year Experience (Core V) | 3 |  |
| Credit Hours | $\mathbf{1 7}$ |  |

## Second Semester

| ENGL 1213 <br> or EXPO 1213 | Principles of English Composition (Core I) <br> or Expository Writing | 3 |
| :--- | :--- | ---: |
| JMC 2033 | Media Writing \& Storytelling | 3 |
| MATH (Core I) |  | 3 |
| P SC 1113 | American Federal Government (Core III) | 3 |
| Beginning Language continued (Core I) | 5 |  |
| Credit Hours | $\mathbf{1 7}$ |  |

## Sophomore

First Semester

| JMC 3413 | Public Relations Principles, Origins \& Practice | 3 |
| :---: | :---: | :---: |
| JMC Public level) | ons Elective - Upper Division (3000-4000 | 3 |
| Artistic Fo | re IV) | 3 |
| Natural Sci | th lab (Core II) | 4 |
| Choose one | following: | 3 |
| Intermediate Language |  |  |
| Upper Division Western Culture outside major (Gen. Ed.) |  |  |
| Free Elective, lower- or upper-division |  |  |
|  | Credit Hours | 16 |

## Second Semester

JMC 3423 Public Relations Writing 3
JMC 3453 Public Relations \& Society 3

JMC Major Elective, upper-division (3000-4000-level) 3
World Culture (Core IV) 3
Social Science (Core III) 3
Credit Hours ..... 15

## Junior

First Semester
JMC 4453 Public Relations Research 3
JMC Public Relations Elective, upper-division (3000-4000- 3
level)
Natural Science without lab (Core II)

| Western Culture (Core IV) | 3 |
| :---: | :---: |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Credit Hours | 15 |
| Second Semester |  |
| JMC 4403 Public Relations Campaigns | 3 |
| JMC Major Elective, upper-division (3000-4000-level) | 3 |
| Upper-division Western Culture outside major (Gen. Ed.) | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Credit Hours | 15 |
| Senior |  |
| First Semester |  |
| JMC 4813 Media Law | 3 |
| Free Elective, lower- or upper-division | 3 |
| Free Elective, lower- or upper-division | 3 |
| Free Elective, upper-division (3000-4000-level) | 3 |
| Credit Hours | 12 |
| Second Semester |  |
| JMC $4423 \quad \begin{aligned} & \text { Contemporary Problems in Public Relations } \\ & \text { Capstone }\end{aligned}$ | 3 |
| Free Elective, lower- or upper-division | 3 |
| Free Elective, lower- or upper-division | 3 |
| Free Elective, lower- or upper-division | 3 |
| Free Elective, lower- or upper-division | 1 |
| Credit Hours | 13 |
| Total Credit Hours | 120 |

## Public Relations Course List

| Approved Electives |  |  |
| :--- | :--- | ---: |
| Code | Title | Credit <br> Hours |
|  |  | 3 |
| JMC 3303 | Introduction to Advertising | 3 |
| JMC 3343 | Advertising Design \& Visual Storytelling | 3 |
| JMC 3463 | Cross Cultural Issues in Media \& Society | $1-3$ |
| JMC 3800 | Internship | 3 |
| JMC 4413 | Crisis Communication | 3 |
| JMC 4473 | Social Media Marketing | 3 |
| JMC 4483 | Global and International Public Relations | 3 |
| JMC 4853 | Race, Gender, Class and the Media | $1-3$ |
| JMC 4970 | Special Topics |  |

## Broadcast Meteorology, Minor

Minimum Total Credit Hours: 17
Minimum Upper-Division Hours: 11

## Program Code: N126

The requirements for a minor must be completed concurrently with the major degree requirements. No minor may be added by completing courses after receiving the bachelor's degree.

The Broadcasting minor is only available to Meteorology majors.

- Students must successfully complete the LST/AIT exams prior to enrolling in JMC 2033.
- Request to substitute a minor requirement must be approved in writing by the Gaylord College of Journalism \& Mass Communication.
- Students must complete prerequisites for all courses.


## Required Courses

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| COMM 2613 | Public Speaking ${ }^{1}$ | 3 |
| or DRAM | 1603 | Voice And Diction for Non-Majors |
| JMC 2033 | Media Writing \& Storytelling |  |
| JMC 3011 | Practicum (TV News Editorial) |  |

${ }^{1}$ COMM 2613 or DRAM 1603 will satisfy both major and minor requirements for Meteorology and Journalism. Choose either COMM 2613 or DRAM 1603.
2 JMC 3011 may be taken at anytime during the minor.

- If the minor is officially declared, successfully completed, and noted on the graduation application, the student's transcript will so indicate at the time the bachelor's degree is posted.


## Creative Media Production, Minor

Minimum Total Credit Hours: 19
Minimum Upper-Division Hours: 13
Program Code: N256
The requirements for a minor must be completed concurrently with the major degree requirements. No minor may be added by completing courses after receiving the bachelor's degree.

Request to substitute a minor requirement must be approved in writing by the Gaylord College of Journalism \& Mass Communication.

The Creative Media Production minor is only available to majors outside of Gaylord College of Journalism and Mass Communication.

| Code Title | Credit |
| :--- | :--- |
|  | Hours |

## Required Courses

| JMC 1013 | Introduction to Media | 3 |
| :---: | :---: | :---: |
| JMC 2643 | Sound, Light, and Motion ${ }^{1}$ | 3 |
| JMC 3613 | Single Camera Production ${ }^{1}$ | 3 |
| JMC 3623 | Electronic Media Writing ${ }^{2}$ | 3 |
| Electives |  |  |
| Choose 6 h | om the following: | 6 |


| JMC 3633 | Audio Production |
| :--- | :--- |
| JMC 3723 | Introduction to Documentary |
| JMC 3763 | Narrative Screenwriting |
| JMC 4623 | Multi-Camera Production |


| JMC 4763 | Documentary Production |
| :--- | :--- |
| JMC 4773 | After Effects |
| JMC 4793 | Broadcast Advertising Production |
| JMC 4903 | Production for Clients |
| JMC 4970 | Special Topics |
| Practicum |  |
| JMC 3011 | Practicum (must be preapproved) ${ }^{3}$ |

Total Credit Hours
${ }^{1}$ JMC 2643 must be completed prior to JMC 3613.
2 JMC 3623 may be taken concurrently with JMC 3613.
${ }^{3}$ JMC 3011 may be taken at anytime during the minor.

- If the minor is officially declared, successfully completed, and noted on the graduation application, the student's transcript will so indicate at the time the bachelor's degree is posted.


## Professional Writing, Minor

Minimum Total Credit Hours: 15
Minimum Upper-Division Hours: 15

## Program Code: N796

The requirements for a minor must be completed concurrently with the major degree requirements. No minor may be added by completing courses after receiving the bachelor's degree.

Request to substitute a minor requirement must be approved in writing by the Gaylord College of Journalism \& Mass Communication.

- ENGL 1113 \& ENGL 1213 must be completed prior to starting the minor.

| Code | Title | Credit Hours |
| :---: | :---: | :---: |
| Required Courses |  |  |
| JMC 3011 | Practicum ${ }^{1}$ | 1 |
| JMC 3504 | Introduction to Professional Writing | 4 |
| JMC 4524 | Writing the Short Story | 4 |
| Electives |  |  |
| Choose 6 hour | om the following: | 6 |
| JMC 4533 | Mystery Writing |  |
| JMC 4543 | Sci-Fi \& Fantasy Writing |  |
| JMC 4593 | Young Adult Fiction Writing |  |
| JMC 4583 |  |  |
| JMC 4970 | Special Topics |  |

Total Credit Hours
${ }^{1}$ JMC 3011 may be taken at anytime during the minor.

- Minors are available to all undergraduate students at OU. If the minor is officially declared, successfully completed, and noted on the graduation application, the student's transcript will so indicate at the time the bachelor's degree is posted.


# Journalism: Advertising, B.A./Journalism and Mass Communication, M.A. 

Minimum Total Credit Hours: 143-144<br>Major Hours: 39<br>Minimum Upper-Division Hours: 48<br>Upper-Division Hours Within Major. 21-30<br>Overall GPA - Combined and OU: 3.00<br>Major GPA - Combined and OU: 3.00<br>Last 60 Hours GPA: 3.00<br>Program Code: A006/F610 Q020

## Requirements to Remain in Gaylord College of Journalism and Mass Communication

After direct admission, all incoming Freshman or transfer students must meet the following requirements to remain in Gaylord College:

- Pass the Gaylord College Entrance Exams - Language Skills Test and Academic Integrity Test
- Complete JMC 1013 (Introduction to Media) with a grade of C or better;
- Maintain a minimum combined retention grade point average of 2.50 on all work attempted, as well as a 2.50 on all major work.
- Transfer Students must have a 2.50 combined retention grade point average to gain admission into the college.


## Major Requirements

A maximum of 50 hours of Journalism and Mass Communication may be counted in the 120 hours required for graduation. No student will be awarded a BA in Journalism degree without completing at least 80 semester credit hours outside the College.

A grade of C or better is required in all Journalism and Mass
Communication courses.

| Code | Title | Credit |
| :---: | :---: | :---: |
| Required Courses |  |  |
| JMC 1013 | Introduction to Media | 3 |
| JMC 2033 | Media Writing \& Storytelling | 3 |
| JMC 3303 | Introduction to Advertising | 3 |
| JMC 3333 | Advertising Research | 3 |
| JMC 3343 | Advertising Design \& Visual Storytelling | 3 |
| JMC 3353 | Advertising Storytelling | 3 |
| JMC 3363 | Advertising Media | 3 |
| JMC 4333 | Contemporary Problems in Advertising | 3 |
| JMC 4343 | Advertising Campaigns | 3 |
| JMC 4813 | Media Law | 3 |
| Electives |  |  |
| Choose 9 elective hours of JMC (p. 1721) |  | 9 |
| Total Credit Hours |  | 39 |

## Required Minor

All Gaylord College students pursuing a baccalaureate major are also required to complete an academic minor of their choice in accordance to JMC policies.

| Code | Title |
| :--- | ---: |
|  | Credit |
| Choose a minor ${ }^{1}$ | Hours |
| Total Credit Hours | $15-21$ | | Required Completion of a Minor - 15-21 hours (hours vary due to minor |
| :--- |
| chosen). |

## Major Support Requirements

The courses listed below must be completed in addition to those courses taken to fulfill the General Education and College Requirements.

| Code | Title | Credit Hours |
| :---: | :---: | :---: |
| ECON 1113 or ECON 1123 | Principles of Economics-Macro <br> Principles of Economics-Micro | 3 |
| MKT 3013 | Principles of Marketing and Supply Chain Management | 3 |
| Choose one additional marketing course ${ }^{1}$ |  | 3 |
| Total Credit Hours |  | 9 |
| 1 May not include MKT 2013. |  |  |
| Recommended JMC Electives |  |  |
| Code | Title | Credit Hours |
| JMC 3393 | Advanced Copywriting | 3 |
| JMC 3413 | Public Relations Principles, Origins \& Practice | 3 |
| JMC 3800 | Internship | 2-3 |
| JMC 4223 | Digital Advertising | 3 |
| JMC 4243 | Strategic Fashion Communication | 3 |
| JMC 4303 | International Advertising | 3 |
| JMC 4323 | Advertising Account Planning | 3 |
| JMC 4970 | Special Topics | 1-3 |

## Graduate Requirements ${ }^{1}$

## Thesis Option

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Required Core |  | 3 |
| JMC 5073 | Conceptual Issues in Graduate Study in <br> Journalism and Mass Comm | 3 |
| JMC 5093 | Introduction to Research Methods in Mass <br> Communication | 3 |
| JMC 5083 | Mass Communication Theory | 3 |
| JMC 5113 | Qualitative Research Methods |  |
| or JMC 5133 | Quantitative Research Methods |  |
| JMC 5091 | Thesis/Project Seminar | 1 |

## Electives

Choose 9 hours of JMC Electives $\left(6\right.$ hours shared) ${ }^{1} 9$
Choose 6 hours of Non-JMC Electives (3 hours shared) ${ }^{1} 6$
Thesis

| JMC 5980 | Research for Master's Thesis | 4 |
| :--- | ---: | ---: |
| Total Credit Hours | 32 |  |

${ }^{1} 9$ hours shared credit.

## Project Option

| Code | Title | Credit |
| :---: | :---: | :---: |
| Required Core |  |  |
| JMC 5073 | Conceptual Issues in Graduate Study in Journalism and Mass Comm | 3 |
| JMC 5093 | Introduction to Research Methods in Mass Communication | 3 |
| JMC 5063 | Readings in Mass Communication | 3 |
| Choose 3 credits in the following: |  | 3 |
| JMC 5001 | Professional Practices |  |
| JMC 5091 | Thesis/Project Seminar | 1 |
| Electives |  |  |
| Choose 10 hours of JMC Electives (6 hours shared) ${ }^{1}$ |  | 10 |
| Choose 6 hours of Non-JMC Electives (3 hours shared) ${ }^{1}$ |  | 6 |
| Project |  |  |
| JMC 5880 | Graduate Project | 4 |
| Total Credit Hours |  | 33 |

19 hours shared credit.

## General Education and College Requirements

Courses for fulfillment of General Education and College of Journalism requirements must be from the approved General Education course list. Courses graded S/U or P/NP will not apply.

## UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS <br> Code Title Credit

Core Area I: Symbolic and Oral Communication
English Composition
ENGL 1113 Principles of English Composition 3
ENGL 1213 Principles of English Composition 3
or EXPO 1213 Expository Writing
Language
( $0-10$ hours, 2 courses in the same language) May be met by
successful completion of 2 years of the same language in
high school (additional language requirement - see below)
Beginning Course 0-5
$\begin{array}{ll}\text { Beginning Course, continued } & 0-5\end{array}$
Mathematics
Choose one course 3
Core Area II: Natural Science

| Choose two courses from different disciplines; one must include a laboratory | 7 |
| :---: | :---: |
| Core Area III: Social Science |  |
| P SC 1113 American Federal Government | 3 |
| Choose one course | 3 |
| Core Area IV: Arts and Humanities |  |
| Artistic Forms |  |
| Choose one course | 3 |
| Western Culture |  |
| HIST 1483 United States to 1865 <br> or HIST 1493 United States, 1865 to the Present | 3 |
| Choose one course (excluding HIST 1483 and HIST 1493) | 3 |
| World Culture |  |
| Choose one course | 3 |
| Core Area V: First-Year Experience |  |
| Choose one course | 3 |
| Total Credit Hours | 37-47 |
| ADDITIONAL GAYLORD COLLEGE OF JOURNALISM AND MASS COMMUNICATION REQUIREMENTS |  |
| Code Title | Credit <br> Hours |
| Western Culture |  |
| Choose one upper-division course outside the major and in addition to University General Education Core IV | 3 |
| Language or Western Culture |  |
| Choose one from: | 0-3 |
| a language course at the intermediate level or demonstrated competency at that level |  |
| an additional upper-division Western Culture general education course outside the major |  |

Total Credit Hours

## Free Electives

Electives to bring total applicable hours to the minimum total required for the degree including 48 upper-division hours.

## Information Concerning General Rules, Regulations and Minimum Requirements

## Information regarding Total Hours; Hours by Examination,

 Correspondence Study and/or Extension; Repeat of Failed Coursework; and Requirements for Full Admission to the Gaylord College of Journalism and Mass Communication can be found in the catalog under Gaylord College of Journalism and Mass Communication: Undergraduate Study (p. 1688).Attendance: Students who do not attend a JMC class or lab on the first day of classes may be dropped from the class or lab.
Transfer Work: Students may transfer in a maximum of 12 credit hours of journalism and mass communication coursework prior to full admission to the Gaylord College. Once fully admitted to the college, students may petition the faculty to have an additional three (3) credit hours from an outside ACEJMC institution applied to their University of Oklahoma degree. A maximum of fifteen (15) credit hours of JMC transfer coursework may be applied to a degree.

Individual Studies (e.g., courses titled "Independent Study"): A maximum of 12 total semester hours may be counted toward graduation.
Senior Institution Hours: A minimum of 60 semester hours applied toward graduation must be earned at senior (4-year) institutions.
Residency:

- A minimum of 30 semester hours acceptable toward graduation must be earned in residence at OU, including at least 15 of the last 30 hours applied toward the degree.
- At least 15 semester hours of upper-division major work must be completed in residence at OU.
- OU correspondence courses are not considered resident credit.
- Credits earned via examination are neither resident nor nonresident credit.

Application for Graduation: Students must apply for graduation during the term in which they complete their degree requirements in order to graduate in that term. Application forms are available in the Student Services Center, 2533 Gaylord Hall. The deadline for completion of all coursework to graduate in a particular term is the last day of classes in that term.

## Suggested Semester Plan of Study

- Apply for Admission to the Accelerated BA/MA program. Student must be a current undergraduate student at Gaylord College, have a minimum GPA of 3.5 overall, and must have completed 60 credits to be eligible to apply. Student may only apply for the area of the program in which they currently major. For more information, please visit www.ou.edu/gaylord.
- Student must have completed 97 credit hours to be admitted to the program.
- Students are eligible for graduate status upon graduation with the BA in Journalism.
- This plan of study should not be used in lieu of academic advisement.


## Freshman

First Semester Credit Hours
ENGL 1113 Principles of English Composition (Core I) 3
HIST 1483 United States to 1865 (Core IV) 3
or HIST 1493 or United States, 1865 to the Present
JMC 1013 Introduction to Media 3
Beginning Language (Core I) 5
First-Year Experience (Core V) 3
Credit Hours
17

## Second Semester

| ENGL 1213 or EXPO 1213 | Principles of English Composition (Core I) or Expository Writing | 3 |
| :---: | :---: | :---: |
| JMC 2033 | Media Writing \& Storytelling | 3 |
| MATH (Core I) |  | 3 |
| P SC 1113 | American Federal Government (Core III) | 3 |
| Beginning Language continued (Core I) |  | 5 |
|  | Credit Hours | 17 |


| Sophomore |  |  | Free elective, lower or upper-division | 4 |
| :---: | :---: | :---: | :---: | :---: |
| First Semester |  |  | Credit Hours | 17 |
| ECON 1113 or ECON 1123 | Principles of Economics-Macro or Principles of Economics-Micro | 3 | Fifth Year <br> First Semester |  |
| JMC 3303 | Introduction to Advertising | 3 | Choose one of the following: | 8-9 |
| Natural Science with lab (Core II) |  | 4 | Thesis (p. 1723) |  |
| Artistic Forms (Core IV) |  | 3 | Project (p. 1723) |  |
| Choose one of the following: |  | 3 | Credit Hours | 9-8 |
| Intermediate Language |  |  | Second Semester |  |
| Upper-Division Western Culture (Core IV) outside major |  |  | Choose one of the following: | 7-9 |
| Free Elective, lower- or upper-division |  |  | Thesis (p. 1723) |  |
| Second Semester Credit Hours |  | 16 | Project (p. 1723) |  |
|  |  |  | Credit Hours | 7-9 |
| JMC 3333 | Advertising Research | 3 | Total Credit Hours | 143-144 |
| JMC 3343 | Advertising Design \& Visual Storytelling | 3 |  |  |
| Natural Science without lab (Core II) |  | 3 | Thesis Option |  |
| Social Science (Core III) |  | 3 | Fifth Year |  |
| Free Elective, upper-division (3000-4000-level) |  | 3 | First Semester | Credit |
|  | Credit Hours | 15 |  | Hours |
| Junior |  |  | Thesis Option |  |
| First Semester |  |  | JMC 5093 Introduction to Research Methods in Mass | 3 |
| JMC 3353 | Advertising Storytelling | 3 | Communication |  |
| MKT 3013 | Principles of Marketing and Supply Chain | 3 | JMC 5000 Elective (JMC) | 3 |
|  | Management |  | 5000 level elective (Non JMC) | 3 |
| Western Culture (Core IV) |  | 3 | Credit Hours | 9 |
| JMC Major Elective, upper-division (3000-4000-level) |  | 3 | Second Semester |  |
| World Culture (Core IV) |  | 3 | Thesis Option |  |
| Second Semester Credit Hours |  | 15 | JMC 5113 Qualitative Research Methods <br> or JMC 5133 or Quantitative Research Methods | 3 |
| JMC 3363 | Advertising Media | 3 | JMC 5980 Research for Master's Thesis | 4 |
| JMC Major Electiv | ve, upper-division (3000-4000-level) | 6 | Credit Hours | 7 |
| MKT Major Suppo | rt Elective, upper-division (3000-4000-level) | 3 | Total Credit Hours | 16 |
| Upper-division We | estern Culture outside major (Gen. Ed.) | 3 | Project Option |  |
|  | Credit Hours | 15 |  |  |
| Senior |  |  | Fifth Year |  |
| First Semester |  |  | First Semester | Credit <br> Hours |
| JMC 4333 | Contemporary Problems in Advertising | 3 |  |  |
| Shared Graduate Credit +5000 (BA+MA degree credit) |  | 3 | Project Option |  |
| Shared Graduate Credit +5000 (BA+MA degree credit) |  | 3 | JMC 5093 Introduction to Research Methods in Mass Communication | 3 |
| JMC 5073 | Conceptual Issues in Graduate Study in Journalism and Mass Comm (MA degree credit) | 3 | Choose one of the following: | 3 |
|  |  |  | JMC 5000 Elective (JMC) |  |
| JMC 4813 | Media Law | 3 | 5000 level elective (Non JMC) |  |
|  | Credit Hours | 15 | JMC 5001 Professional Practices | 1 |
| Second Semester Credit Hours |  |  | JMC 5001 Professional Practices | 1 |
| JMC 4343 | Advertising Campaigns | 3 | Credit Hours | 8 |
| JMC Major Elective, upper-division (3000-4000-level) |  | 3 | Second Semester |  |
| Shared Graduate Credit +5000 (Non JMC Course) (BA+MA degree credit) |  | 3 | Project Option |  |
|  |  | JMC 5880 Graduate Project | 4 |
| JMC 5063 or JMC 5083 | Readings in Mass Communication (MA degree credit) <br> or Mass Communication Theory |  | 3 | Choose one of the following: | 3 |
|  |  | JMC 5000 Elective (JMC) |  |  |
|  |  | 5000 level elective (Non JMC) |  |  |
| JMC 5091 | Thesis/Project Seminar (MA degree credit) | 1 | JMC 5001 Professional Practices | 1 |


| JMC 5000 Elective (JMC) | 1 |
| :---: | ---: |
| Credit Hours | 9 |
| Total Credit Hours | 17 |

# Creative Media Production, B.A./ Journalism and Mass Communication, M.A. 

Minimum Total Credit Hours: 143-144
Major Hours: 43
Minimum Upper-Division Hours: 48
Upper-Division Hours Within Major: 30

Overall GPA - Combined and OU: 3.00
Major GPA - Combined and OU: 3.00
Last 60 Hours GPA: 3.00

Program Code: A256/F610 Q159

## Requirements to Remain in Gaylord College of Journalism and Mass Communication

After direct admission, all incoming Freshman or transfer students must meet the following requirements to remain in Gaylord College:

- Pass the Gaylord College Entrance Exams - Language Skills Test and Academic Integrity Test
- Complete JMC 1013 (Introduction to Media) with a grade of C or better;
- Maintain a minimum combined retention grade point average of 2.50 on all work attempted, as well as a 2.50 on all major work.
- Transfer Students must have a 2.50 combined retention grade point average to gain admission into the college.


## Major Requirements

A maximum of 50 hours of Journalism and Mass Communication may be counted in the 124 hours required for graduation. No student will be awarded a BA in Journalism degree without completing at least 80 semester credit hours outside the College. At least 65 of these hours must be in liberal arts and sciences courses.

A grade of C or better is required in all Journalism and Mass Communication courses.

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| JMC Core |  |  |
| JMC 1013 | Introduction to Media | 3 |
| JMC 2033 | Media Writing \& Storytelling |  |
| JMC 4813 | Media Law | 3 |
| Creative Media Production Core | 3 |  |
| JMC 1021 | Introduction to Creative Media Prod |  |
| JMC 2643 | Sound, Light, and Motion | 1 |
| JMC 2683 | Survey of Electronic Media | 3 |
| JMC 3011 | Practicum (2 semesters) | 3 |
| JMC 3613 | Single Camera Production | 2 |
| JMC 3623 | Electronic Media Writing | 3 |



| Code | Title |
| :--- | :---: |
|  | Credit |
| Choose a minor | Hours |
| Total Credit Hours | $15-21$ |
| $\mathbf{1 5 - 2 1}$ |  |

## Graduate Requirements ${ }^{1}$ THESIS OPTION

| Code | Title | Credit |
| :---: | :---: | :---: |
|  |  | Hours |
| Required Core |  |  |
| JMC 5073 | Conceptual Issues in Graduate Study in Journalism and Mass Comm | 3 |
| JMC 5093 | Introduction to Research Methods in Mass Communication | 3 |
| JMC 5083 | Mass Communication Theory | 3 |
| JMC 5113 | Qualitative Research Methods | 3 |
| or JMC 5133 | Quantitative Research Methods |  |
| JMC 5091 | Thesis/Project Seminar | 1 |
| Electives |  |  |
| Choose 9 hours | f JMC Electives (6 hours shared) ${ }^{1}$ | 9 |
| Choose 6 hours of | f Non-JMC Electives (3 hours shared) ${ }^{1}$ | 6 |
| Thesis |  |  |
| JMC 5980 | Research for Master's Thesis | 4 |
| Total Credit Hour |  | 32 |

19 hours shared credit.

## PROJECT OPTION <br> Code Title Credit

## Required Courses

| JMC 5073 | Conceptual Issues in Graduate Study in <br> Journalism and Mass Comm | 3 |
| :--- | :--- | :---: |
| JMC 5093 | Introduction to Research Methods in Mass <br> Communication | 3 |
| JMC 5063 | Readings in Mass Communication | 3 |
| Choose 3 credits in the following: | 3 |  |


| JMC 5001 | Professional Practices |  |
| :---: | :---: | :---: |
| JMC 5091 | Thesis/Project Seminar | 1 |
| Electives |  |  |
| Choose 10 hours of JMC Electives (6 hours shared) ${ }^{1}$ |  | 10 |
| Choose 6 |  | 6 |
| Project |  |  |
| JMC 5880 | Graduate Project | 4 |
| Total Credit Hours |  | 33 |
| 19 hours shared credit. |  |  |
| 3000-4000-level JMC Electives |  |  |
| Students should complete nine hours chosen in consultation with their academic advisor and area faculty. |  |  |
| Code | Title | Credit |
|  |  | Hours |
| JMC 3633 | Audio Production | 3 |
| JMC 3723 | Introduction to Documentary | 3 |
| JMC 3763 | Narrative Screenwriting | 3 |
| JMC 4193 | Principles of Media Entrepreneurship | 3 |
| JMC 4353 | Cinematography | 3 |
| JMC 4623 | Multi-Camera Production | 3 |
| JMC 4633 | Advanced Single Camera Production | 3 |
| JMC 4643 | Advanced Audio Production | 3 |
| JMC 4733 | Advanced Narrative Screenwriting | 3 |
| JMC 4753 | Documentary Research and Writing | 3 |
| JMC 4763 | Documentary Production | 3 |
| JMC 4773 | After Effects | 3 |
| JMC 4793 | Broadcast Advertising Production | 3 |
| JMC 4853 | Race, Gender, Class and the Media | 3 |
| JMC 4903 | Production for Clients | 3 |
| JMC 4913 | Narrative Production | 3 |

## General Education and College Requirements

Courses for fulfillment of General Education and College of Journalism requirements must be from the approved General Education course list. Courses graded S/U or P/NP will not apply.

## UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS

Code Title Credit

Core Area I: Symbolic and Oral Communication
English Composition
ENGL 1113 Principles of English Composition 3
ENGL 1213 Principles of English Composition 3
or EXPO 1213 Expository Writing
Language
(0-10 hours, 2 courses in the same language) May be met by successful completion of 2 years of the same language in high school (additional language requirement - see below)
Beginning Course
Beginning Course, continued ..... 0-5

| Mathematics |  |
| :---: | :---: |
| Choose one course | 3 |
| Core Area II: Natural Science |  |
| Choose two courses from different disciplines; one must include a laboratory | 7 |
| Core Area III: Social Science |  |
| P SC 1113 American Federal Government | 3 |
| Choose one course | 3 |
| Core Area IV: Arts and Humanities |  |
| Artistic Forms |  |
| Choose one course | 3 |
| Western Culture |  |
| HIST 1483 United States to 1865 <br> or HIST 1493 United States, 1865 to the Present | 3 |
| Choose one course (excluding HIST 1483 and HIST 1493) | 3 |
| World Culture |  |
| Choose one course | 3 |
| Core Area V: First-Year Experience |  |
| Choose one course | 3 |
| Total Credit Hours | 37-47 |
| ADDITIONAL GAYLORD COLLEGE OF JOURNALISM AND MASS COMMUNICATION REQUIREMENTS |  |
| Code Title | Credit <br> Hours |
| Western Culture |  |
| Choose one upper-division course outside the major and in addition to University General Education Core IV | 3 |
| Language or Western Culture |  |
| Choose one from: | 0-3 |
| a language course at the intermediate level or demonstrated competency at that level |  |
| an additional upper-division Western Culture general education course outside the major |  |

Total Credit Hours
3-6

## Free Electives

Electives to bring total applicable hours to the minimum total required for the degree including 48 upper-division hours.

## Information Concerning General Rules, Regulations and Minimum Requirements

Information regarding Total Hours; Hours by Examination, Correspondence Study and/or Extension; Repeat of Failed Coursework; and Requirements for Full Admission to the Gaylord College of Journalism and Mass Communication can be found in the catalog under Gaylord College of Journalism and Mass Communication: Undergraduate Study (p. 1688).

Attendance: Students who do not attend a JMC class or lab on the first day of classes may be dropped from the class or lab.
Transfer Work: Students may transfer in a maximum of 12 credit hours of journalism and mass communication coursework prior to full admission to the Gaylord College. Once fully admitted to the college, students may petition the faculty to have an additional three (3) credit hours from an outside ACEJMC institution applied to their University of

Oklahoma degree. A maximum of fifteen (15) credit hours of JMC transfer coursework may be applied to a degree.
Individual Studies (e.g., courses titled "Independent Study"): A maximum of 12 total semester hours may be counted toward graduation.
Senior Institution Hours: A minimum of 60 semester hours applied toward graduation must be earned at senior (4-year) institutions.

## Residency:

- A minimum of 30 semester hours acceptable toward graduation must be earned in residence at OU, including at least 15 of the last 30 hours applied toward the degree
- At least 15 semester hours of upper-division major work must be completed in residence at OU.
- OU correspondence courses are not considered resident credit.
- Credits earned via examination are neither resident nor nonresident credit.

Application for Graduation: Students must apply for graduation during the term in which they complete their degree requirements in order to graduate in that term. Application forms are available in the Student Services Center, 2533 Gaylord Hall. The deadline for completion of all coursework to graduate in a particular term is the last day of classes in that term.

## Suggested Semester Plan of Study

- Apply for Admission to the Accelerated BA/MA program. Student must be a current undergraduate student at Gaylord College, have a minimum GPA of 3.5 overall, and must have completed 60 credits to be eligible to apply. Student may only apply for the area of the program in which they currently major. For more information, please visit www.ou.edu/gaylord.
- Student must have completed 97 credit hours to be admitted to the program.
Students are eligible for graduate status upon graduation with the BA in Journalism.
- This plan of study should not be used in lieu of academic advisement.

| Freshman |  |  |
| :---: | :---: | :---: |
| First Semester |  | Credit |
|  |  | Hours |
| ENGL 1113 | Principles of English Composition (Core I) | 3 |
| HIST 1483 or HIST 1493 | United States to 1865 (Core IV) or United States, 1865 to the Present | 3 |
| Beginning Language (Core I) |  | 5 |
| JMC 1013 | Introduction to Media | 3 |
| First-Year Experience (Core V) |  | 3 |
|  | Credit Hours | 17 |
| Second Semester |  |  |
| ENGL 1213 or EXPO 1213 | Principles of English Composition (Core I) or Expository Writing | 3 |
| JMC 2033 | Media Writing \& Storytelling | 3 |
| P SC 1113 | American Federal Government ((Core III)) | 3 |
| MATH (Core I) |  | 3 |
| Beginning Language continued (Core I) |  | 5 |
|  | Credit Hours | 17 |

## Sophomore

| First Semester |  |
| :---: | :---: |
| JMC 1021 Introduction to Creative Media Prod | 1 |
| JMC 2643 Sound, Light, and Motion | 3 |
| Artistic Forms (Core IV) | 3 |
| Natural Science with lab (Core II) | 4 |
| Choose one of the following: | 3 |
| Intermediate Language |  |
| Upper-Division Western Culture (Core IV) outside major |  |
| Free Elective, lower- or upper-division |  |
| Credit Hours | 14 |
| Second Semester |  |
| JMC 3011 Practicum | 1 |
| JMC 2683 Survey of Electronic Media | 3 |
| Natural Science without lab (Core II) | 3 |
| World Culture (Core IV) | 3 |
| Social Science (Core III) | 3 |
| Free elective, lower or upper division | 1 |
| Credit Hours | 14 |

## Junior

First Semester

| JMC 3011 | Practicum | 1 |
| :--- | ---: | ---: |
| JMC 3623 | Electronic Media Writing | 3 |
| JMC Elective, upper-division (3000-4000) | 3 |  |
| Western Culture (Core IV) | 3 |  |
| Free Elective, upper-division (3000-4000-level) | 3 |  |
| Free Elective, lower- or upper-division | 3 |  |
| Credit Hours | $\mathbf{1 6}$ |  |

Second Semester

JMC 3613 Single Camera Production 3
JMC Elective, upper-division (3000-4000 level) 3
JMC Elective, upper-division (3000-4000 level) 3
Free Elective, upper-division (3000-4000-level) 3
Upper-division Western Culture outside major (Gen. Ed.) 3
Credit Hours 15

Senior
First Semester
JMC 4813 Media Law 3
JMC 5073 Conceptual Issues in Graduate Study in 3
Journalism and Mass Comm (MA degree
credit)
Shared Graduate Credit +5000 (BA+MA degree credit) 3
Shared Graduate Credit +5000 (Non JMC Course) (BA+MA 3
degree credit)
Free elective, lower or upper-division 3
Free Elective, lower or upper-division 2
Credit Hours 17
Second Semester
JMC 4651 Portfolio -CMP 1
JMC 4653 Issues And Ethics In Electronic Media 3
(Capstone)
JMC Elective, upper-division (3000-4000 level) 3
Shared Graduate Credit +5000 (BA+MA degree credit) 3

| JMC 5063 or JMC 5083 | Readings in Mass Communication (MA degree credit) <br> or Mass Communication Theory | 3 |
| :---: | :---: | :---: |
| JMC 5091 | Thesis/Project Seminar (MA degree credit) | 1 |
| Free Elective, lower or upper-division |  | 3 |
|  | Credit Hours | 17 |
| Fifth Year |  |  |
| First Semester |  |  |
| Choose one of the following: |  | 8-9 |
| Thesis (p. 1727) |  |  |
| Project (p. 1727) |  |  |
|  | Credit Hours | 9-8 |
| Second Semester |  |  |
| Choose one of the following: |  | 7-9 |
| Thesis (p. 1727) |  |  |
| Project (p. 1727) |  |  |
|  | Credit Hours | 7-9 |
|  | Total Credit Hours | 144 |

$\left.\begin{array}{lrr}\text { Thesis Option } \\ \text { Fifth Year } \\ \text { First Semester }\end{array} \quad \begin{array}{rr}\text { Credit } \\ \text { Hours }\end{array}\right\}$

## Project Option


Second Semester
Project Option
JMC 5880 Graduate Project

| Choose one of the following: | 3 |
| :--- | ---: |
| JMC 5000 Elective (JMC) |  |
| 5000 level elective (Non JMC) | 1 |
| JMC $5001 \quad$ Professional Practices | 1 |
| JMC 5000 Elective (JMC) | $\mathbf{9}$ |
| Credit Hours | $\mathbf{1 7}$ |

## Journalism, B.A./Journalism and Mass Communication, M.A.

Minimum Total Credit Hours: 143-144
Major Hours: 48
Minimum Upper-Division Hours: 48
Upper-Division Hours Within Major. 21-30
Overall GPA - Combined and OU: 3.00
Major GPA - Combined and OU: 3.00
Last 60 Hours GPA: 3.00
Program Code: A610/F610 Q394

## Requirements to Remain in Gaylord College of Journalism and Mass Communication

After direct admission, all incoming Freshman or transfer students must meet the following requirements to remain in Gaylord College:

- Pass the Gaylord College Entrance Exams - Language Skills Test and Academic Integrity Test
- Complete JMC 1013 (Introduction to Media) with a grade of C or better;
- Maintain a minimum combined retention grade point average of 2.50 on all work attempted, as well as a 2.50 on all major work.
- Transfer Students must have a 2.50 combined retention grade point average to gain admission into the college.


## Major Requirements

A maximum of 50 hours of Journalism and Mass Communication may be counted in the 120 hours required for graduation. No student will be awarded a BA in Journalism degree without completing at least 70 semester credit hours outside the College.

A grade of C or better is required in all Journalism and Mass
Communication courses.

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| JMC Core |  | 3 |
| JMC 1013 | Introduction to Media | 3 |
| JMC 2033 | Media Writing \& Storytelling | 3 |
| JMC 4813 | Media Law |  |
| Foundational Courses | 5 |  |
| Choose 5 of the following 6 courses: |  |  |
| JMC 1031 | Principles of American Journalism |  |
| JMC 1041 | Visual Literacy |  |
| JMC 1051 | Digital Literacy |  |
| JMC 1061 | Journalism Writing \& Editing |  |


| JMC 1071 | News Judgment \& Interviewing |  |
| :---: | :---: | :---: |
| JMC 1081 | Reporting with Numbers |  |
| Intermediate Courses |  |  |
| JMC 3013 | Intermediate Cross-Platform Reporting | 3 |
| JMC 3663 | Visual Reporting | 3 |
| JMC 3683 | Digital Reporting | 3 |
| JMC 4013 | Essential Reporting | 3 |
| JMC 4833 | Journalism Ethics | 3 |
| Advanced Courses |  |  |
| JMC 4033 | Advancing Cultural Proficiency in Media Leadership | 3 |
| JMC 4183 | Advanced Cross-Platform Reporting | 3 |
| JMC 4803 | History of Media | 3 |
| JMC 4863 | Journalism, Ethics and Democracy | 3 |
| Journalism Electives |  |  |
| Choose two c department. | ses (6 hours) from a list maintained by the gested courses include: | 6 |
| JMC 3023 | Long Form Storytelling |  |
| JMC 3043 | Community Journalism |  |
| JMC 3083 | Business of Media |  |
| JMC 3103 | News Editing |  |
| JMC 3143 | Photojournalism |  |
| JMC 3703 | Backpack Reporting |  |
| JMC 3773 | Television News |  |
| JMC 4363 | Data Journalism |  |
| JMC 4683 | Multimedia Content Management |  |
| JMC 4970 | Special Topics (Approved topics: Social Media Strategies, The Listening Project, Innovators in Journalism, Reporting in D.C. ) |  |
| Practicum |  |  |
| JMC 3011 | Practicum | 1 |
| Total Credit H |  | 48 |

## Required Minor

All Gaylord College students pursuing a baccalaureate major are also required to complete an academic minor of their choice in accordance to JMC policies.



## Required Courses

| JMC 5073 | Conceptual Issues in Graduate Study in <br> Journalism and Mass Comm | 3 |
| :--- | :--- | ---: |
| JMC 5093 | Introduction to Research Methods in Mass <br> Communication | 3 |
| JMC 5063 | Readings in Mass Communication | 3 |

Choose 3 credits in the following: ..... 3

JMC 5091 Thesis/Project Seminar 1

Electives
Choose 10 hours of JMC Electives (6 hours shared) ${ }^{1} 10$

Choose 6 hours of Non-JMC Electives (3 hours shared) ${ }^{1} 6$
Project

| JMC 5880 | Graduate Project | 4 |
| :--- | ---: | ---: |
| Total Credit Hours | 33 |  |

19 hours shared credit.

## General Education and College Requirements

Courses for fulfillment of General Education and College of Journalism requirements must be from the approved General Education course list. Courses graded S/U or P/NP will not apply.

UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND
COLLEGE REQUIREMENTS

Code Title

Credit
Hours

Core Area I: Symbolic and Oral Communication
English Composition
ENGL 1113 Principles of English Composition 3
ENGL 1213 Principles of English Composition 3
or EXPO 1213 Expository Writing
Language
(0-10 hours, 2 courses in the same language) May be met by
successful completion of 2 years of the same language in
high school (additional language requirement - see below)
Beginning Course
0-5
$\begin{array}{ll}\text { Beginning Course, continued } & 0-5\end{array}$
Mathematics

| Choose one course | 3 |
| :---: | :---: |
| Core Area II: Natural Science |  |
| Choose two courses from different disciplines; one must include a laboratory | 7 |
| Core Area III: Social Science |  |
| P SC 1113 American Federal Government | 3 |
| Choose one course | 3 |
| Core Area IV: Arts and Humanities |  |
| Artistic Forms |  |
| Choose one course | 3 |
| Western Culture |  |
| HIST 1483 United States to 1865 <br> or HIST 1493 United States, 1865 to the Present | 3 |
| Choose one course (excluding HIST 1483 and HIST 1493) | 3 |
| World Culture |  |
| Choose one course | 3 |
| Core Area V: First-Year Experience |  |
| Choose one course | 3 |
| Total Credit Hours | 37-47 |
| ADDITIONAL GAYLORD COLLEGE OF JOURNALISM AND MASS COMMUNICATION REQUIREMENTS |  |
| Code Title | Credit <br> Hours |
| Western Culture |  |
| Choose one upper-division course outside the major and in addition to University General Education Core IV | 3 |
| Language or Western Culture |  |
| Choose one from: | 0-3 |
| a language course at the intermediate level or demonstrated competency at that level |  |
| an additional upper-division Western Culture general education course outside the major |  |

Total Credit Hours

## Free Electives

Electives to bring total applicable hours to the minimum total required for the degree including 48 upper-division hours.

## Information Concerning General Rules, Regulations and Minimum Requirements

Information regarding Total Hours; Hours by Examination, Correspondence Study and/or Extension; Repeat of Failed Coursework; and Requirements for Full Admission to the Gaylord College of Journalism and Mass Communication can be found in the catalog under Gaylord College of Journalism and Mass Communication: Undergraduate Study (p. 1688).

Attendance: Students who do not attend a JMC class or lab on the first day of classes may be dropped from the class or lab.
Transfer Work: Students may transfer in a maximum of 12 credit hours of journalism and mass communication coursework prior to full admission to the Gaylord College. Once fully admitted to the college, students may petition the faculty to have an additional three (3) credit hours from an outside ACEJMC institution applied to their University of

Oklahoma degree. A maximum of fifteen (15) credit hours of JMC transfer coursework may be applied to a degree.
Individual Studies (e.g., courses titled "Independent Study"): A maximum of 12 total semester hours may be counted toward graduation.
Senior Institution Hours: A minimum of 60 semester hours applied toward graduation must be earned at senior (4-year) institutions.

## Residency:

- A minimum of 30 semester hours acceptable toward graduation must be earned in residence at OU, including at least 15 of the last 30 hours applied toward the degree.
- At least 15 semester hours of upper-division major work must be completed in residence at OU.
- OU correspondence courses are not considered resident credit.
- Credits earned via examination are neither resident nor nonresident credit.

Application for Graduation: Students must apply for graduation during the term in which they complete their degree requirements in order to graduate in that term. Application forms are available in the Student Services Center, 2533 Gaylord Hall. The deadline for completion of all coursework to graduate in a particular term is the last day of classes in that term.

## Suggested Semester Plan of Study

- Apply for Admission to the Accelerated BA/MA program. Student must be a current undergraduate student at Gaylord College, have a minimum GPA of 3.5 overall, and must have completed 60 credits to be eligible to apply. Student may only apply for the area of the program in which they currently major. For more information, please visit www.ou.edu/gaylord.
- Student must have completed 97 credit hours to be admitted to the program.
- Students are eligible for graduate status upon graduation with the BA in Journalism.
- This plan of study should not be used in lieu of academic advisement.


## Freshman

| First Semester |  | Credit <br> Hours |
| :--- | :---: | ---: |
| ENGL 1113 | Principles of English Composition (Core I) | 3 |
| HIST 1483 | United States to 1865 (Core IV) | 3 |
| or HIST 1493 | or United States, 1865 to the Present |  |
| JMC 1013 | Introduction to Media | 3 |
| Beginning Language (Core I) | 5 |  |
| First-Year Experience (Core V) | 3 |  |
| Credit Hours | $\mathbf{1 7}$ |  |

## Second Semester

ENGL 1213 Principles of English Composition (Core I) 3
$\begin{array}{ccc}\text { or EXPO } 1213 \text { or Expository Writing } & \\ \text { JMC } 2033 & \text { Media Writing \& Storytelling } & 3\end{array}$
MATH (Core I) 3
P SC 1113 American Federal Government (Core III) 3
Beginning Language continued (Core I) 5
Credit Hours
17

| Sophomore |  |  |  |
| :--- | ---: | :---: | :---: |
| First Semester |  |  |  |
| JMC Foundational Courses (choose three) | 3 |  |  |
| Natural Science with lab (Core II) | 4 |  |  |
| Artistic Forms (Core IV) | 3 |  |  |
| Choose one of the following: | 3 |  |  |
| Intermediate Language |  |  |  |
| Upper-Division Western Culture (Core IV) outside major |  |  |  |
| Free Elective, lower- or upper-division |  |  |  |
| Credit Hours |  |  |  |


| Second Semester |  |
| :--- | ---: |
| JMC $3011 \quad$ Practicum | 1 |
| JMC Foundational Courses (choose 2) | 2 |
| JMC $3663 \quad$ Visual Reporting | 3 |
| Natural Science without lab (Core II) | 3 |
| World Culture (Core IV) | 3 |
| Social Science (Core III) | 3 |
| Credit Hours |  |


| Junior |  |  |
| :---: | :---: | :---: |
| First Semester |  |  |
| JMC 3013 | Intermediate Cross-Platform Reporting | 3 |
| JMC 3663 | Visual Reporting | 3 |
| Western Culture (Core IV) |  | 3 |
| Free Elective, lower- or upper-division |  | 3 |
| Free Elective, lower- or upper-division |  | 3 |
| Free Elective, lower- or upper-division |  | 1 |
| Credit Hours |  | 16 |
| Second Semester |  |  |
| JMC 3683 | Digital Reporting | 3 |
| JMC 4013 | Essential Reporting | 3 |
| JMC 4833 | Journalism Ethics | 3 |
| JMC Major Elective, upper-division (3000-4000-level) |  | 3 |
| JMC Major Elective, upper-division (3000-4000-level) |  | 3 |
| Upper-division Western Culture outside major (Gen. Ed.) |  | 3 |
|  | Credit Hours | 18 |

## Senior

| First Semester |  |  |
| :--- | :--- | :--- |
| JMC 4033 | Advancing Cultural Proficiency in Media <br> Leadership | 3 |
| JMC 4803 | History of Media | 3 |
| JMC 4183 | Advanced Cross-Platform Reporting | 3 |
| Shared Graduate Credit +5000 (BA+MA degree credit) | 3 |  |
| Shared Graduate Credit +5000 (BA+MA degree credit) | 3 |  |
| JMC 5073 | Conceptual Issues in Graduate Study in <br>  <br>  <br>  <br>  <br>  <br> Journalism and Mass Comm (MA degree <br> credit) | 3 |
|  | Credit Hours | $\mathbf{1 8}$ |

## Second Semester

| JMC 4813 | Media Law | 3 |
| :--- | :--- | :--- |
| JMC 4863 | Journalism, Ethics and Democracy | 3 |
| Shared Graduate <br> degree credit) |  | 3 |


| JMC 5063 or JMC 5083 | Readings in Mass Communication (MA degree credit) <br> or Mass Communication Theory | 3 |
| :---: | :---: | :---: |
| JMC 5091 | Thesis/Project Seminar (MA degree credit) | 1 |
|  | Credit Hours | 13 |
| Fifth Year |  |  |
| First Semester |  |  |
| Choose one of the following: |  | 8-9 |
| Thesis (p. 1730) |  |  |
| Project (p. 1730) |  |  |
| Credit Hours |  | 9-8 |
| Second Semester |  |  |
| Choose one of the following: |  | 7-9 |
| Thesis (p. 1730) |  |  |
| Project (p. 1730) |  |  |
|  | Credit Hours | 7-9 |
|  | Total Credit Hours | -144 |

## Thesis Option

Fifth Year
First Semester Credit

| Thesis Option |  |  |
| :---: | :---: | :---: |
| JMC 5093 | Introduction to Research Methods in Mass Communication | 3 |
| JMC 5000 Elective (JMC) |  | 3 |
| 5000 level elective (Non JMC) |  | 3 |

## Second Semester

| Thesis Option   <br> JMC 5113 <br> or JMC 5133 Qualitative Research Methods <br> or Quantitative Research Methods 3 <br> JMC 5980 Research for Master's Thesis  |  |  |
| :--- | :--- | ---: |
|  | Credit Hours | 4 |
|  | Total Credit Hours | $\mathbf{7}$ |

## Project Option

Fifth Year

| First Semester |  | Credit <br> Hours |
| :--- | :--- | ---: |
| Project Option |  | 3 |
| JMC 5093 | Introduction to Research Methods in Mass <br> Communication | 3 |
| Choose one of the following: |  |  |
| JMC 5000 Elective (JMC) |  |  |
| 5000 level elective (Non JMC) | 1 |  |
| JMC 5001 | Professional Practices | 1 |
| JMC 5001 | Professional Practices | $\mathbf{8}$ |
|  | Credit Hours |  |


| Second Semester |  |
| :--- | ---: | ---: |
| Project Option |  |
| JMC $5880 \quad$ Graduate Project | 4 |
| Choose one of the following: | 3 |


| JMC 5000 Elective (JMC) |  |
| :---: | ---: |
| 5000 level elective (Non JMC) |  |
| JMC $5001 \quad$ Professional Practices | 1 |
| JMC 5000 Elective (JMC) | $\mathbf{1}$ |
| Credit Hours | $\mathbf{9}$ |
| Total Credit Hours | $\mathbf{1 7}$ |

## Public Relations, B.A./Journalism and Mass Communication, M.A.

Minimum Total Credit Hours: 143-144
Major Hours: 39
Minimum Upper-Division Hours: 48
Upper-Division Hours Within Major: 21-30
Overall GPA - Combined and OU: 3.00
Major GPA - Combined and OU: 3.00
Last 60 Hours GPA: 3.00

## Program Code: A815/F610 Q563

## Requirements to Remain in Gaylord College of Journalism and Mass Communication

After direct admission, all incoming Freshman or transfer students must meet the following requirements to remain in Gaylord College:

- Pass the Gaylord College Entrance Exams - Language Skills Test and Academic Integrity Test
- Complete JMC 1013 (Introduction to Media) with a grade of C or better;
- Maintain a minimum combined retention grade point average of 2.50 on all work attempted, as well as a 2.50 on all major work.
- Transfer Students must have a 2.50 combined retention grade point average to gain admission into the college.


## Major Requirements

A maximum of 50 hours of Journalism and Mass Communication may be counted in the 120 hours required for graduation. No student will be awarded a BA in Journalism degree without completing at least 70 semester credit hours outside the College.

A grade of $C$ or better is required in all Journalism and Mass Communication courses.

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Required Courses |  | 3 |
| JMC 1013 | Introduction to Media | 3 |
| JMC 2033 | Media Writing \& Storytelling | 3 |
| JMC 3413 | Public Relations Principles, Origins \& |  |
|  | Practice | 3 |
| JMC 3423 | Public Relations Writing | 3 |
| JMC 3453 | Public Relations \& Society | 3 |
| JMC 4403 | Public Relations Campaigns | 3 |
| JMC 4423 | Contemporary Problems in Public Relations |  |
| JMC 4453 | Capstone | 3 |


| JMC 4813 | Media Law | 3 |
| :--- | :--- | ---: |
| Choose one of the following: | 3 |  |
| JMC 3433 | Public Relations Design |  |
| JMC 3800 | Internship |  |
| JMC 4433 | Sports Public Relations |  |
| Electives |  |  |
| Choose 9 hours (minimum) to 10 hours (maximum) of |  |  |
| electives from approved list maintained by Gaylord College of |  |  |
| JMC (p. 1719) | $\mathbf{9 - 1 0}$ |  |
| Total Credit Hours | $\mathbf{3 9 - 4 0}$ |  |

## Required Minor

All Gaylord College students pursuing a baccalaureate major are also required to complete an academic minor of their choice in accordance to JMC policies.

| Code | Title |
| :--- | :---: |
|  | Credit |
| Choose a minor | Hours |
| Total Credit Hours | $15-21$ |
| $15-21$ |  |

## Graduate Requirements ${ }^{\prime}$ <br> Thesis Option

| Code | Title | Credit |
| :---: | :---: | :---: |
| Required Core |  |  |
| JMC 5073 | Conceptual Issues in Graduate Study in Journalism and Mass Comm | 3 |
| JMC 5093 | Introduction to Research Methods in Mass Communication | 3 |
| JMC 5083 | Mass Communication Theory | 3 |
| JMC 5113 or JMC 5133 | Qualitative Research Methods Quantitative Research Methods | 3 |
| JMC 5091 | Thesis/Project Seminar | 1 |
| Electives |  |  |
| Choose 9 hours of JMC Electives (6 hours shared) ${ }^{1}$ |  | 9 |
| Choose 6 hours of Non-JMC Electives (3 hours shared) ${ }^{1}$ |  | 6 |
| Thesis |  |  |
| JMC 5980 | Research for Master's Thesis | 4 |
| Total Credit Hours |  | 32 |
| 19 hours shared credit. |  |  |
| PROJECT OPTION |  |  |
| Code | Title | Credit |
| Required Courses |  |  |
| JMC 5073 | Conceptual Issues in Graduate Study in Journalism and Mass Comm | 3 |
| JMC 5093 | Introduction to Research Methods in Mass Communication | 3 |
| JMC 5063 | Readings in Mass Communication | 3 |
| Choose 3 credits in the following: |  | 3 |


| JMC 5001 |  | Professional Practices |
| :--- | :--- | ---: |
| JMC 5091 | Thesis/Project Seminar | 1 |
| Electives |  | 10 |
| Choose 10 hours of JMC Electives $\left(6\right.$ hours shared) ${ }^{1}$ | 6 |  |
| Choose 6 hours of Non-JMC Electives $\left(3\right.$ hours shared) ${ }^{1}$ |  |  |
| Project |  | 4 |
| JMC 5880 | Graduate Project | 33 |

19 hours shared credit.

## General Education and College Requirements

Courses for fulfillment of General Education and College of Journalism requirements must be from the approved General Education course list. Courses graded S/U or P/NP will not apply.

## UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS


Core Area II: Natural Science
Choose two courses from different disciplines; one must
include a laboratory

| Core Area III: Social Science |  |
| :--- | :--- |
| P SC $1113 \quad$ American Federal Government | 3 |
| Choose one course | 3 |

Core Area IV: Arts and Humanities


\section*{ADDITIONAL GAYLORD COLLEGE OF JOURNALISM AND MASS COMMUNICATION REQUIREMENTS <br> | Code Title | Credit |
| :--- | :--- |
|  | Hours |}

## Western Culture

Choose one upper-division course outside the major and in 3
addition to University General Education Core IV
Language or Western Culture
Choose one from:
a language course at the intermediate level or
demonstrated competency at that level
an additional upper-division Western Culture general
education course outside the major
Total Credit Hours

## Free Electives

Electives to bring total applicable hours to the minimum total required for the degree including 48 upper-division hours.

## Information Concerning General Rules, Regulations and Minimum Requirements

Information regarding Total Hours; Hours by Examination, Correspondence Study and/or Extension; Repeat of Failed Coursework; and Requirements for Full Admission to the Gaylord College of Journalism and Mass Communication can be found in the catalog under Gaylord College of Journalism and Mass Communication: Undergraduate Study (p. 1688).

Attendance: Students who do not attend a JMC class or lab on the first day of classes may be dropped from the class or lab.
Transfer Work: Students may transfer in a maximum of 12 credit hours of journalism and mass communication coursework prior to full admission to the Gaylord College. Once fully admitted to the college, students may petition the faculty to have an additional three (3) credit hours from an outside ACEJMC institution applied to their University of Oklahoma degree. A maximum of fifteen (15) credit hours of JMC transfer coursework may be applied to a degree.
Individual Studies (e.g., courses titled "Independent Study"): A maximum of 12 total semester hours may be counted toward graduation.
Senior Institution Hours: A minimum of 60 semester hours applied toward graduation must be earned at senior (4-year) institutions. Residency:

- A minimum of 30 semester hours acceptable toward graduation must be earned in residence at OU, including at least 15 of the last 30 hours applied toward the degree.
- At least 15 semester hours of upper-division major work must be completed in residence at OU.
- OU correspondence courses are not considered resident credit.
- Credits earned via examination are neither resident nor nonresident credit.

Application for Graduation: Students must apply for graduation during the term in which they complete their degree requirements in order to graduate in that term. Application forms are available in the Student Services Center, 2533 Gaylord Hall. The deadline for completion of all coursework to graduate in a particular term is the last day of classes in that term.

## Suggested Semester Plan of Study

- Apply for Admission to the Accelerated BA/MA program. Student must be a current undergraduate student at Gaylord College, have a minimum GPA of 3.5 overall, and must have completed 60 credits to be eligible to apply. Student may only apply for the area of the program in which they currently major. For more information, please visit www.ou.edu/gaylord.
- Student must have completed 97 credit hours to be admitted to the program.
- Students are eligible for graduate status upon graduation with the BA in Journalism.
- This plan of study should not be used in lieu of academic advisement.


## Freshman

| First Semester |  | Credit <br> Hours |  |  |
| :--- | :---: | ---: | :---: | :---: |
| ENGL 1113 | Principles of English Composition (Core I) | 3 |  |  |
| HIST 1483 | United States to 1865 (Core IV) | 3 |  |  |
| or HIST 1493 | or United States, 1865 to the Present |  |  |  |
| JMC 1013 | Introduction to Media | 3 |  |  |
| Beginning Language (Core I) | 5 |  |  |  |
| First-Year Experience (Core V) | $\mathbf{3}$ |  |  |  |
| Credit Hours |  |  |  | $\mathbf{1 7}$ |

## Second Semester

| ENGL 1213 <br> or EXPO 1213 | Principles of English Composition (Core I) <br> or Expository Writing | 3 |
| :--- | :--- | ---: |
| JMC 2033 | Media Writing \& Storytelling | 3 |
| MATH (Core I) |  | 3 |
| P SC 1113 | American Federal Government (Core III) | 3 |
| Beginning Language continued (Core I) | 5 |  |
| Credit Hours |  |  |

## Sophomore

First Semester

| JMC $3413 \quad$ <br> Practice | 3 |
| :--- | :---: |
| JMC Major Elective, upper division ( $3000-4000$ level) | 3 |
| Artistic Forms (Core IV) | 3 |
| Natural Science with lab (Core II) | 4 |
| Choose one of the following: | 3 |
| Intermediate Language |  |
| Upper-Division Western Culture (Core IV) outside major |  |
| Free Elective, lower- or upper-division | 16 |

Credit Hours 16

| Second Semester |  |
| :--- | ---: |
| JMC 3423 | Public Relations Writing |
| JMC 3453 | Public Relations \& Society |
| JMC Major Elective, upper-division (3000-4000-level) | 3 |
| World Culture (Core IV) | 3 |
| Social Science (Core III) | 3 |
| Credit Hours | 3 |

## Junior

## First Semester

JMC 4453
Public Relations Research3

JMC Public Relations Elective, upper-division (3000-4000- 3

## level)

Free Elective, lower- or upper-division 3
Natural Science without lab (Core II) 3

| Western Culture (Core IV) | 3 |
| :--- | ---: |

Credit Hours ..... 15

## Second Semester

JMC Major Elective, upper-division (3000-4000-level) 3Upper-division Western Culture outside major (Gen. Ed.) ..... 3
Free Elective, upper-division (3000-4000-level) ..... 3
Free Elective, upper-division (3000-4000-level) ..... 3
Senior
First Semester
JMC 4813 Media Law ..... 3
Shared Graduate Credit +5000 (BA+MA degree credit) ..... 3
Shared Graduate Credit +5000 (BA+MA degree credit) ..... 3
Free Elective, lower- or upper-division ..... 3
JMC $5073 \quad$ Conceptual Issues in Graduate Study in ..... 3Journalism and Mass Comm (MA degreecredit)
Free Elective, lower- or upper-division ..... 1
Second Semester
JMC 4423 Contemporary Problems in Public Relations ..... 3
Shared Graduate Credit +5000 (Non JMC Course) (BA+MA 3
degree credit)
Free Elective, lower- or upper-division ..... 3
Free Elective, lower- or upper-division ..... 3
JMC 5063 Readings in Mass Communication (MA ..... 3
degree credit)
or Mass Communication Theory

| JMC 5091 | Thesis/Project Seminar (MA degree credit) | $\mathbf{1}$ |
| :--- | :--- | ---: |
| Credit Hours | $\mathbf{1 6}$ |  |

## Fifth Year

First Semester
Choose one of the following: 8-9

Thesis (p. 1734)
Project (p. 1734)
Credit Hours ..... 9-8
Second Semester
Choose one of the following: ..... 7-9
Thesis (p. 1734)
Project (p. 1734)

| Credit Hours | $7-9$ |
| :--- | ---: |
| Total Credit Hours | $143-144$ |

## Thesis Option

| Fifth Year |  |  |
| :---: | :---: | :---: |
| First Semester |  | Credit |
|  |  | Hours |
| Thesis Option |  |  |
| JMC 5093 | Introduction to Research Methods in Mass Communication | 3 |
| JMC 5000 Elective (JMC) |  | 3 |
| 5000 level elective (Non JMC) |  | 3 |
|  | Credit Hours | 9 |
| Second Semester |  |  |
| Thesis Option |  |  |
| $\begin{aligned} & \text { JMC } 5113 \\ & \text { or JMC } 5133 \end{aligned}$ | Qualitative Research Methods or Quantitative Research Methods | 3 |
| JMC 5980 | Research for Master's Thesis | 4 |
|  | Credit Hours | 7 |
|  | Total Credit Hours | 16 |
| Project Option |  |  |
| Fifth Year |  |  |
| First Semester |  | Credit |
|  |  | Hours |
| Project Option |  |  |
| JMC 5093 | Introduction to Research Methods in Mass Communication | 3 |
| Choose one of the following: |  | 3 |
| JMC 5000 Elective (JMC) |  |  |
| 5000 level elective (Non JMC) |  |  |
| JMC 5001 | Professional Practices | 1 |
| JMC 5001 | Professional Practices | 1 |
|  | Credit Hours | 8 |
| Second Semester |  |  |
| Project Option |  |  |
| JMC 5880 | Graduate Project | 4 |
| Choose one of th | e following: | 3 |
| JMC 5000 Elective (JMC) |  |  |
| 5000 level elective (Non JMC) |  |  |
| JMC 5001 | Professional Practices | 1 |
| JMC 5000 Elective (JMC) |  | 1 |
|  | Credit Hours | 9 |
|  | Total Credit Hours | 17 |

## Journalism and Mass Communication, <br> M.A.

Minimum Total Hours: Professional Project: 33
Minimum Total Hours (Thesis): 32
Minimum Total Hours (Non-Thesis): 33

Program Code: M610-Q393

## Required Courses

A maximum of eight credit hours of graduate work may be transferred from other universities if such work meets the college's requirements. No transfer credit will be accepted toward meeting core requirements.

A maximum of 12 credit hours of G4000-level courses will count toward the master's degree. No more than nine of these hours may be in journalism and mass communication.

## Thesis Option

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| JMC 5073 | Conceptual Issues in Graduate Study in <br> Journalism and Mass Comm | 3 |
| JMC 5083 | Mass Communication Theory | 3 |
| JMC 5093 | Introduction to Research Methods in Mass <br> Communication | 3 |
| JMC 5091 | Thesis/Project Seminar | 1 |
| JMC 5113 | Qualitative Research Methods |  |
| or JMC 5133 | Quantitative Research Methods | 3 |
| JMC 5980 Research for Master's Thesis <br> Choose 9 hours of graduate electives in journalism and mass  <br> communication  | 4 |  |
| Choose 6 hours of graduate work in areas other than <br> journalism and mass communication | 9 |  |
| Total Credit Hours | 6 |  |


| Code | Title | Credit |
| :---: | :---: | :---: |
| JMC 5063 | Readings in Mass Communication | 3 |
| JMC 5073 | Conceptual Issues in Graduate Study in Journalism and Mass Comm | 3 |
| JMC 5093 | Introduction to Research Methods in Mass Communication | 3 |
| Choose one of the following: |  | 3 |
| JMC 5001 | Professional Practices (three 1-hour courses) |  |
| Choose 3 other hours approved by the graduate liaison and advisor |  |  |
| Choose 12 hours of graduate electives in journalism and mass communication |  | 12 |
| Choose 9 credit hours of graduate work in an area other than journalism and mass communication |  | 9 |

Total Credit Hours ..... 33

## Professional Project Option

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| JMC 5063 | Readings in Mass Communication | 3 |
| JMC 5073 | Conceptual Issues in Graduate Study in <br> Journalism and Mass Comm | 3 |
| JMC 5093 | Introduction to Research Methods in Mass <br> Communication | 3 |
| Choose one of the following: | 3 |  |


| JMC 5001 | Professional Practices (three 1-hour courses) |  |
| :---: | :---: | :---: |
| Choose 3 other hours approved by the graduate liaison and advisor |  |  |
| JMC 5091 | Thesis/Project Seminar | 1 |
| JMC 5880 | Graduate Project | 4 |
| Choose 10 credit hours of graduate electives in journalism and mass communication |  | 10 |
| Choose 6 credit hours of graduate work in an area other than journalism and mass communication |  | 6 |

## Total Credit Hours

## General Requirements for all Master's Degrees

The master's degree requires the equivalent of at least two semesters of satisfactory graduate work and additional work as may be prescribed for the degree.

All coursework applied to the master's degree must carry graduate credit.
Master's degree programs which require a thesis consist of at least 30 credit hours. All non-thesis master's degree programs require at least 30 credit hours.

Credit transferred from other institutions must meet specific criteria and is subject to certain limitations.

Courses completed through correspondence study may not be applied to the master's degree.

To qualify for a graduate degree, students must achieve an overall grade point average of 3.0 or higher in the degree program coursework and in all resident graduate coursework attempted. A student must also have at least a 3.0 in all coursework (including undergraduate coursework if any).

Additional information for master's degree students may be found in the Graduate College Bulletin.

## Strategic Communication and Digital Strategy, M.A.

Minimum Total Hours (Non-Thesis): 33
Program Code: M859

## Required Courses

A maximum of eight credit hours of graduate work may be transferred from other universities if such work meets the college's requirements. No transfer credit will be accepted toward meeting core requirements.

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Core Courses |  | 3 |
| JMC 5093 | Introduction to Research Methods in Mass <br> Communication | 3 |
| JMC 5293 | Professional Seminar in Strategic <br> Communication | 3 |
| JMC 5343 | Digital Strategic Communication | 3 |


| JMC 5823 | Cross-Cultural Communication | 3 |
| :--- | :--- | ---: |
| JMC 5863 | Marketing \& Media Analytics | 3 |
| JMC 5873 | Strategic Planning \& Brand Strategy | 3 |
| JMC 5883 | Digital Behavior | 3 |
| JMC 5893 | Management \& Leadership | 3 |
| JMC 5413 | Crisis Communication | 3 |
| JMC 5473 | Social Media Marketing | 3 |
| Total Credit Hours | $\mathbf{3 3}$ |  |

This is a coursework only program.

## General Requirements for all Master's Degrees

The master's degree requires the equivalent of at least two semesters of satisfactory graduate work and additional work as may be prescribed for the degree.

All coursework applied to the master's degree must carry graduate credit.
Master's degree programs which require a thesis consist of at least 30 credit hours. All non-thesis master's degree programs require at least 30 credit hours.

Credit transferred from other institutions must meet specific criteria and is subject to certain limitations.

Courses completed through correspondence study may not be applied to the master's degree.

To qualify for a graduate degree, students must achieve an overall grade point average of 3.0 or higher in the degree program coursework and in all resident graduate coursework attempted. A student must also have at least a 3.0 in all coursework (including undergraduate coursework if any).

Additional information for master's degree students may be found in the Graduate College Bulletin.

## Professional Writing, M.P.W.

Minimum Total Hours: Graduate Project - 32
Program Code: M795

## Required Courses

| Code | Title | Credit <br> Hours |
| :---: | :---: | :---: |
| Required Courses |  |  |
| JMC 5514 | Writing the Novel-Graduate | 4 |
| JMC 5734 | Writing the Screenplay | 4 |
| JMC 5594 | Writing the Commercial Nonfiction Book | 4 |
| Core Courses |  |  |
| Choose one of | following: | 3 |
| JMC 5063 | Readings in Mass Communication |  |
| JMC 5073 | Conceptual Issues in Graduate Study in Journalism and Mass Comm |  |
| JMC 5083 | Mass Communication Theory |  |
| JMC 5093 | Introduction to Research Methods in Mass Communication |  |


| Electives |  |
| :--- | ---: |
| Choose 9-12 hours of graduate electives in Professional |  |
| Writing | $9-12$ |
| Choose 3-6 hours of graduate electives in outside supporting <br> areas <br> Graduate Project <br> JMC 5880 Graduate Project | $3-6$ |
| Total Credit Hours | $2-4$ |

## General Requirements for all Master's Degrees

The master's degree requires the equivalent of at least two semesters of satisfactory graduate work and additional work as may be prescribed for the degree.

All coursework applied to the master's degree must carry graduate credit.
Master's degree programs which require a thesis consist of at least 30 credit hours. All non-thesis master's degree programs require at least 30 credit hours.

Credit transferred from other institutions must meet specific criteria and is subject to certain limitations.

Courses completed through correspondence study may not be applied to the master's degree.

To qualify for a graduate degree, students must achieve an overall grade point average of 3.0 or higher in the degree program coursework and in all resident graduate coursework attempted. A student must also have at least a 3.0 in all coursework (including undergraduate coursework if any).

Additional information for master's degree students may be found in the Graduate College Bulletin.

## Media Management, Graduate Certificate

Minimum Total Hours: 13

## Program Code: G083

It's called the media business for a reason. Whether it's a newsroom, a public relations firm, an advertising agency, or a film company, all are in need of solid management skills and sound business sense. The Gaylord College Media Management Graduate Certificate provides media professionals with the business basics they will need to be successful overseeing either an existing media business or starting a new entrepreneurial venture. The Media Management Graduate Certificate combines the media industry knowledge from Gaylord College with the business skills expertise offered by Price College of Business. A total of 13 hours is required for the certificate.

## Certificate Requirements

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| JMC 5193 | Principles of Media Entrepreneurship | 3 |
| JMC 5970 | Seminar (Topic: Media Management) | 3 |
| JMC 5473 | Social Media Marketing | 3 |
| or JMC 5833 | Journalism Ethics | 4 |

Price College of Business approved course list (p. 1736)
Total Credit Hours

A graduate certificate is not a graduate degree. A graduate degree represents a program of independent inquiry beyond the depth of coursework alone, while a graduate certificate represents a set of courses only.

- All courses must be taken at OU. No transfer credit will apply.
- No course substitutions are permitted for graduate certificates.
- Coursework applied to a graduate certificate cannot be more than five years old as of the semester the graduate certificate is awarded
- Students must earn a grade point average of 3.00 or higher on all coursework applied to the graduate certificate.


## Price College of Business approved course list

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| B AD 5172 | Business, Government and Society | 2 |
| ENT 5912 | Capitalizing the New Venture | 2 |
| ENT 5942 | Launching the New Venture | 2 |
| ENT 5992 | Entrepreneurial Growth Strategies | 2 |
| LS 5612 | Employment Law | 2 |
| L S 5802 | Business Ethics/Legal | 2 |
| MGT 5702 | Organizational Behavior | 2 |
| MIT 5602 | Management Information Systems | 2 |
| MKT 5402 | Marketing Management | 2 |
| SCM 5522 | Planning and Operations Management | 2 |

## Strategic Planning, Graduate Certificate

Minimum Total Hours: 12
Program Code: G106
The Strategic Planning Graduate Certificate is an intensive educational opportunity for certificate participants to acquire a mastery of the discipline. A total of 12 hours is required for the certificate.

## Certificate Requirements

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| JMC 5323 | Advertising Account Planning | 3 |
| JMC 5093 | Introduction to Research Methods in Mass <br> Communication | 3 |
| Choose 3 hours from: | 3 |  |
| JMC 5063 | Readings in Mass Communication |  |
| JMC 5073 | Conceptual Issues in Graduate Study in |  |
|  | Journalism and Mass Comm |  |
| JMC 5970 | Seminar (Topic: Strategic Communication) |  |
| Choose 3 hours from: | 3 |  |

Choose 3 hours from:
ANTH 5163 The Study of Material Culture

ANTH 5213 Ethnographic Methods
ANTH 5223 Foundations of Social Thought

Total Credit Hours
A graduate certificate is not a graduate degree. A graduate degree represents a program of independent inquiry beyond the depth of coursework alone, while a graduate certificate represents a set of courses only.

- All courses must be taken at OU. No transfer credit will apply.
- No course substitutions are permitted for graduate certificates.
- Coursework applied to a graduate certificate cannot be more than five years old as of the semester the graduate certificate is awarded.
- Students must earn a grade point average of 3.00 or higher on all coursework applied to the graduate certificate.


## Mass Communication, Ph.D.

Minimum Total Hours: 90
Program Code: D660

## Doctor of Philosophy

The Ph.D. program in the Gaylord College allows students to examine more deeply the theories that underlie mass communication and to critique mass communication practices. The program also allows students to pursue advanced study in the Gaylord College and to prepare for university-level research and teaching across a variety of areas.

## ADMISSION REQUIREMENTS

The following requirements must be met before a student will be admitted to the doctoral program in the Gaylord College of Journalism and Mass Communication:

- 3.50 in previous graduate work
- Strong Graduate Record Exam (GRE) scores
- Three letters of recommendation
- A one to two-page resume
- A minimum 1,000-word essay detailing reasons for pursuing the Ph.D., to include the intended future application
- A minimum TOEFL score of 550 (213 computer-based)

A minimum of three years of professional experience in a mass communication field is preferred.

Excellent candidates who do not meet admission requirements will be given careful consideration.

Retention and graduation standards reflect OU Graduate College policies.
In addition to taking coursework aimed at fostering research, students must prepare an original research paper for presentation in an annual mini-conference each year until admitted to candidacy.

## AREAS OF CONCENTRATION

The program offers three areas of concentration:

## News and Information

Emphasizes performance, critical analysis, effects, representations and the community-building potential of news and information media. Faculty expertise: organizational management; media ethics and normative
theory, media law, race and gender, media credibility, and international/ intercultural/ethnic media.

## Strategic Communication

Emphasizes a broad spectrum of theoretical and practice-oriented research topics and problems in public relations and advertising. Faculty expertise: rhetorical analysis; race and gender, international public relations, law, new media advertising, crisis communication, organizational behavior, and message strategy and tactics.

## Media Arts

Emphasizes performance, critical analysis, effects, representations and the community-building potential of entertainment and experimental media including visual digital and video; audio; multimedia, and longform print media. Faculty expertise: creative, writing, script writing, documentary film, multimedia, video, and digital production.

## Areas of Emphasis within Concentrations

Doctoral students will be encouraged to design a flexible, interdisciplinary program targeting an area of emphasis within these concentrations. Some examples are: history; media management and economics; media ethics; visual communication, international communication, and communication theory and methodology. Students will be guided in making these choices through consultation with their committees and by examining topic areas as defined in leading professional organizations such as the Association for Education in Journalism and Mass Communication, and the International Communication Association. These choices will allow students to tailor courses to their interests and plan dissertation topics accordingly.

## Program Requirements

| Code | Title | Credit Hours |
| :---: | :---: | :---: |
| Core Classes (27 hours) |  |  |
| JMC 5083 | Mass Communication Theory (or 3 hours 5000 -or 6000 -level elective approved by advisory committee if JMC 5083 was taken at M.A. level) | 3 |
| JMC 5093 | Introduction to Research Methods in Mass Communication (or another OU or transfer graduate-level methods course as approved by advisory committee) | 3 |
| JMC 5113 | Qualitative Research Methods (or 3 hours 5000 -or 6000 -level elective approved by advisory committee if JMC 5113 was taken at the M.A. level) | 3 |
| JMC 5133 | Quantitative Research Methods (or 3 hours of 5000-6000-level elective approved by advisory committee if JMC 5133 was taken at the M.A. level) | 3 |
| JMC 5391 | Grant Writing | 1 |
| JMC 5463 | Conceptualization | 3 |
| JMC 5653 | Prac: Research Proposal \& Design | 3 |
| JMC 6091 | Ph.D. Seminar (1 credit hour per semester, minimum 2 hours) | 2 |
| JMC 6183 | Approaches to Teaching in Mass Communication | 3 |

Additional 3-hour research methods course and/or graduate level statistics at the 5000 or 6000 level in an OU department outside or JMC (for example: Anthropology, Psychology, Sociology, History)
Concentration \& Emphasis (27 hours)
Choose a minimum of 12-15 hours of JMC Advanced Topics
courses from:

| JMC 6163 | Advanced Topics in Journalism \& Media Studies |  |
| :---: | :---: | :---: |
| JMC 6173 | Advanced Topics in Strategic Communication |  |
| Choose 12-15 advisory comm | s of Non-JMC coursework with approval of e | 12-15 |
| Dissertation Research (12 hours minimum) |  |  |
| JMC 6980 | Research for Doctoral Dissertation | 12 |
| Additional Coursework (up to 24 hours) |  |  |
| Remaining hours to bring degree total to 90 will come from a combination of additional electives taken during the student's doctoral study at OU, transfer credit, or both |  | 0-24 |

## General Requirements for Doctoral Degrees

A student should expect to spend at least the equivalent of three full academic years beyond the bachelor's degree to obtain the doctoral degree. During this period the student will take appropriate graduate coursework, successfully complete the general examination, and successfully defend and submit the final dissertation.

All coursework applied to the doctoral degree must carry graduate credit.
The doctoral degree requires at least 90 post-baccalaureate hours, including both formal coursework and hours of research.

The minimum hour requirement for a specific doctoral degree program cannot be waived

No more than one-half of the credit hours, both OU and overall, excluding Research for Doctoral Dissertation (6980), may be S/U-graded coursework.

The student must be in residence at OU for at least two consecutive 16week semesters during the pursuit of the doctoral degree while enrolled and engaged in coursework or research activities as prescribed by the major academic unit.

For more detailed regulations and requirements for Doctoral degrees, please consult the Graduate College Bulletin: http://www.ou.edu/ gradcollege/forms/bulletin

## COLLEGE OF LAW



Andrew M. Coats Hall
300 Timberdell Road
Norman, OK 73019-5081
Phone: (405) 325-4699
FAX: (405) 325-0502
lawcommunications@ou.edu
www.law.ou.edu

## Administrative Officers of the College <br> Katheleen Guzman, Dean

Melissa D. Mortazavi, Associate Dean of Academics
Gail E. Mullins, Associate Dean of Graduate Programs \& Experiential Learning
Mark R. Gillett, Associate Dean for Research and Scholarship
Jennifer Needham, Assistant Dean of Students
Kenton Brice, Director of the Law Library

## General Information

The College of Law was established in 1909. In 1911 the College of Law joined the Association of American Law Schools. Since 1923 the College of Law has been accredited by the American Bar Association's Section on Legal Education. The College of Law is the only public law school in Oklahoma.

In 1971, the University of Oklahoma Law Center was formed. The Law Center comprises the College of Law, Law Library and the Legal Assistant Education program. The center was established to encourage and facilitate development of programs beyond the normal law school scope. The role of the Law Center is more than training lawyers. It provides a number of professional activities to serve the Bar and the citizens of the state of Oklahoma. These include continuing legal education for lawyers, training of legal assistants, publishing books on Oklahoma law, organized legal research, public service projects, and legal aid services for the needy. It is home to the Donald E. Pray Library.

The Law Center building, now named Andrew M. Coats Hall, was completely renovated in 2002, adding 80,000 square feet to the facilities. The expansion included a new law library with large reading room, highspeed modernized computer labs, private study rooms, and a 250-seat high-tech courtroom. OU Law students now are able to watch live trials and appeals hearings as state and federal courts bring the real world into the Law Center.

## Programs Offered

- Master of Laws (p. 1756)
- Master of Laws in Energy and Natural Resources Law (p. 1756)
- Master of Laws in Healthcare Law (p. 1757)
- Master of Laws in Indigenous Peoples Law (p. 1757)
- Master of Laws in International Business Law (p. 1758)
- Master of Legal Studies in Energy and Natural Resources Law (p. 1758)
- Master of Legal Studies in Healthcare Law (p. 1758)
- Master of Legal Studies in Indigenous Peoples Law (p. 1759)
- Master of Legal Studies in International Business Law (p. 1759)
- American Indian Law Graduate Certificate (p. 1760)
- Business and Transactional Law Graduate Certificate (p. 1761)
- Energy and Natural Resources Law Graduate Certificate (p. 1762)
- Indigenous Peoples Law Graduate Certificate (p. 1762)
- International Law Graduate Certificate (p. 1763)
- Litigation Graduate Certificate (p. 1764)
- Oil \& Gas, Natural Resources, and Energy Law Graduate Certificate (p. 1764)
- Juris Doctor (p. 1765)
- Dual Degrees


## Programs \& Facilities

Donald E. Pray Law Library
The Law Library's mission is to support the scholarly and instructional activities of the Law Center's faculty and students and to serve the research and informational needs of the University, the legal community, and the public. The Law Library strives to provide our patrons with access to a rich collection of research materials in both print and electronic formats.

## OU Legal Clinic

Through the OU College of Law Civil Clinic and Criminal Defense Clinic, students represent clients from Cleveland and McClain counties who would not otherwise be able to afford counsel. Operating under the close supervision of faculty attorneys, student interns face the same situations and practice demands they will encounter as attorneys while being directly responsible for representation of clients as licensed legal interns

## Paralegal Studies Program

OU Law's ABA-approved legal assistant/paralegal education certificate prepares students to work with lawyers in public and private law practice, in the judiciary, corporations, and government.

## Oklahoma Law Review

The Oklahoma Law Review is published quarterly by University of Oklahoma College of Law to serve the profession and the public with timely discussions of state and federal legal issues.

## American Indian Law Review

The American Indian Law Review was launched by a group of OU Law students in 1973 to provide a scholarly forum for the study of legal issues relevant to Native Americans and indigenous peoples around the world.

## Oil and Gas, Natural Resources, and Energy Journal (ONE J)

ONE J: Oil and Gas, Natural Resources, and Energy Journal is a peerreviewed publication, the first of its kind in the nation. Its student editors publish domestic and international legal scholarship on oil, gas, energy, and natural resources law, for the benefit of a worldwide readership that accesses ONE J content via various online platforms.

## Center for International Business and Human Rights

The International Business and Human Rights Center has a twofold mission: (1) to provide OU Law students with academic training, networking, and practical experience in this emerging field that will equip them to be leaders in this space as well as train the greater legal community and others in IBHR issues, and (2) to provide academic think tank support on international business and human rights issues, with a particular focus on the energy/extractive sector and Information and Communications Technology (ICT) companies.

## Center for Technology and Innovation in Practice

The Center for Technology and Innovation in Practice engages with academics, policymakers and industry experts to research and implement the use of technology in legal education and law practice. The OU Law Center for Technology \& Innovation in Practice exists to prepare law students for practice through technology training and innovative initiatives to move the practice of law forward.

## Center for the Study of American Indian Law and Policy

The Center for the Study of American Indian Law and Policy provides counsel to tribal, state and national policymakers and a forum for the interdisciplinary discussion and resolution of problems facing native communities.

## Oil \& Gas, Natural Resources and Energy Center

OU Law is a national and international leader in oil and gas, natural resources, and energy law - what we call ONE. Our expansive offerings are synthesized within our ONE Center, covering our academic degrees and certificates - J.D. certificates and an LL.M. in energy and natural resources, and an online M.L.S. in oil, gas, and energy law - and programming. Our ONE Center and OU Law host the annual Eugene Kuntz Conference on Natural Resources Law and Policy, the largest conference of its kind in the country, and are home to the Oil and Gas, Natural Resources, and Energy Journal (ONE J), the first journal of its kind. Students can also participate in the student association, ONE S - Oil and Gas, Natural Resources, and Energy Society. Thanks to our strategic partnerships throughout the industry, we are able to build upon our academic strength to provide unparalleled opportunities to our students.

## Financial Aid and Scholarships

In addition to incoming student scholarships, OU Law administers a scholarship and awards program based on a scholarship application. This application is given to all students after classes begin in the fall and again in the spring. By completing the application, students are considered for all merit, field of interest, and need-based scholarships for which they qualify. Scholarships range from several hundred to several thousand dollars. The Scholarship Committee makes decisions in October and April of each year.

In addition to internal scholarships, OU Law receives notifications about outside scholarships and awards available to law students. To learn more about external scholarships, visit the College of Law website.

The College of Law also participates in the FAFSA program. Students applying for financial aid should file a Free Application for Federal Student Aid (FAFSA). Contact the Student Financial Center, 1000 Asp Avenue, 105 Buchanan Hall, Norman, OK 73019, (405) 325-9000, for more information.

## Career Services

The College of Law provides career planning for students through its Career Development Office. The office is involved in a variety of activities to assist students seeking internships as well as those seeking permanent employment. These activities include career goal setting, networking and job search session, mock interviews, and hosting oncampus interviews.

## Student Organizations

There are many student organizations at the College of Law.

- Student Bar Association and its Board of Governors
- Law Student Division of the American Bar Association
- Board of Advocates
- Organization for Advancement of Women in Law
- Oklahoma International Law Society
- Environmental Law Student Association
- Lawyers Against Human Trafficking
- The Federalist Society
- Health Law Student Association
- Federal Bar Association
- Business Law Society
- OUtLaw
- Oil \& Gas, Natural Resources, and Energy Law Society
- Intellectual Property Society
- 

Agricultural Law Society

- Christian Legal Society
- Criminal Law Society
- Military Law Society
- Technology Law Society
- Victim Advocacy Program
- Public Interest Law Student Association
- Sports \& Entertainment Law Society
- American Constitutional Society
- Native American Law Student Association
- Black Law Student Association
- Latinex Law Student Association
- 

Asian Pacific American Law Student Association

- Immigration Law Society
- First Generation Law Student Association
- Animal Legal Defense Fund
- Two legal fraternities are active - Phi Delta Phi and Phi Alpha Delta.


## Programs Offered

## Doctoral Degree

The College of Law offers the Juris Doctor degree (p. 1765), the first professional degree in law. Areas of concentration include American Indian and Indigenous Peoples Law; Business, Commercial, and Real Estate; Litigation; Oil and Gas, Natural Resources and Energy Law; Constitutional and Public Interest Law; Criminal Law and Procedure; Estate Planning; Family Law; General Practitioner; Health Care; Intellectual Property Law; International and Comparative Law; and Tax Law.

## Dual Degrees

The OU College of Law offers flexible dual degree options for J.D. students wishing to concentrate their studies in a specific area of practice. Our dual degree program, offered in partnership with other schools and colleges across The University of Oklahoma, allows students to complete two advanced degrees in less time than if earned independently, typically in three to four years.

## Dual Degrees Offered:

- Juris Doctor and Master of Business administration (J.D./M.B.A)
- Juris Doctor and Master of Public Health (J.D./M.P.H.)
- Juris Doctor and Master of Arts in International Studies (J.D./MAIS)
- Juris Doctor and Master of Arts in Native American Studies (J.D./ N.A.S.)
- Juris Doctor and Masters of Health Administration (J.D./MHA)
- Build Your Own Dual Degree: Juris Doctor and Master's Degree


## Masters

## Post Doctorate Degree: Master of Laws

The John. B. Turner LL.M. Program offers five Master of Laws degrees:

- Energy and Natural Resources Law - online (p. 1756)
- Indigenous People's Law - online (p. 1757)
- International Business Law - online (p. 1758)
- Healthcare Law - online (p. 1757)
- US Legal Studies (p. 1756) (for foreign-educated lawyers) - on campus
- U.S. Legal Studies students have the option to earn a certificate in:
- Energy and Natural Resources or
- Indigenous Peoples Law.


## Master's Degrees: Master of Legal Studies

The Master of Legal Studies in Healthcare Law (p. 1758) is designed for non-lawyers whose careers demand an understanding of healthcarerelated legal issues. It provides graduate level education for professionals who work in the administration of healthcare facilities or systems. Students receive a grounding in laws and regulations that frame, guide, and direct the provision of healthcare services. The program offers a competitive advantage to anyone in the healthcare industry who handles compliance, advocacy, negotiates contracts, deals with the Affordable Healthcare act, manages real estate transactions, or works closely with healthcare attorneys. The curriculum requires the study of laws regulating the delivery and quality of medical services, access to public and private means of payment for such services, and transactions and liability within the healthcare industry.

The Master of Legal Studies in Indigenous Peoples Law (p. 1759) is designed for non-lawyers whose careers demand an understanding of
the complex rules of Federal Indian Law. It offers a strong foundation in Native American Law for anyone who deals with contracts, negotiations or any other issues that demand knowledge of Native American selfgovernance issues, policy, regulation or business practice. This program can be taken entirely online.

The Master of Legal Studies in International Business Law (p. 1759) provides graduate level education for business professionals relating to the legal and regulatory environment of international business law. Students will receive a grounding in laws and regulations that frame, guide, and direct international finance, sales, and disputes.

The Master of Legal Studies in Energy and Natural Resources Law (p. 1758) recognizes a need for an online graduate program to serve the professionals in the energy industry who do not wish to seek a Juris Doctor degree at this point in their career. It is specifically designed for non-lawyers whose careers demand an understanding of energy-related legal issues. The degree program offers a competitive advantage to anyone in the energy industry who negotiates oil and gas contracts, deals with mineral rights or real estate transactions, or works closely with energy attorneys. This program offers an accelerated program that can be taken primarily online.

The Master of Legal Studies in Legal Studies (p. 1760) is an online program that provides graduate-level education with a solid grounding in the study of law while allowing additional flexibility in areas of relevant specialization.

## Graduate Certificates

The OU College of Law also offers the following graduate certificates:

- The American Indian Law Graduate Certificate (p. 1760) allows J.D. students to enrich their knowledge of American Indian Law through coursework including indigenous peoples' culture, tribal courts, federal water law, and more. This certificate also includes experiential learning opportunities including an externship and work with OU Law's journal American Indian Law Review.
- The Business and Transactional Law Graduate Certificate (p. 1761) is suited for J.D. students who wish to enter a transactional and business counseling practice. Required and elective business law classes are the backbone of this program, which also includes training in business drafting and writing. Interdisciplinary options include business coursework from the OU Price College of Business
- The Energy and Natural Resources Law Graduate Certificate will allow on campus LL.M. students to concentrate their studies in Energy and Natural Resources Law, choosing from the broad curriculum offered by the College of Law in this area.
- The Graduate Certificate in Indigenous Peoples Law (p. 1762) furthers on campus LL.M. students' study of Native American and other Indigenous Peoples Law, choosing from the broad curriculum offered by the College of Law in this area.
- The International Law Certificate (p. 1763) furthers J.D. students' knowledge of key international law issues. This certificate includes international interdisciplinary as well as externship opportunities.
- The Graduate Certificate in Oil \& Gas, Natural Resources, and Energy Law (p. 1764) furthers J.D. students' knowledge of legal issues unique to the energy industry. Students learn more about oil and gas production-from well drilling to delivery systems-and also about wind and water law, conservation, mineral titles, international petroleum transactions, real estate, and more. Interdisciplinary options include energy management coursework from the OU Price

College of Business or a geology class from the Mewbourne College of Earth and Energy.

## Admission

## Admission Process

## Regular Admission

- First year students are admitted only in the fall. Applicants must have a baccalaureate degree prior to matriculation in the College of Law. Application forms may be obtained online.
- All applicants must take the Law School Admission Test (LSAT), or other graduate school admission test of suitable rigor. The LSAT is administered by the Educational Testing Service and available by writing for an application and information from: LSAT, Box 2000, Newtown, PA 18940, or via their website. Applicants must take the test no later than June of the year in which admission to the College of Law is sought and should indicate on the LSAT application form that their scores be reported to the University of Oklahoma College of Law.
- All applicants must also register with the Law School Data Assembly Service (LSDAS).
- Each applicant must pay a non-refundable application fee.
- Applicants are considered individually by the Admissions Committee, composed of three members of the law faculty. Selections are made from the most qualified, with approximately equal weight given to the LSAT score and the undergraduate grade point average. Admission is competitive as applications far outnumber available seats in the firstyear class.
- The Oklahoma State Regents for Higher Education limit the number of nonresidents to 15 percent of the student body and precludes the admission of a nonresident whose qualifications are lower than those of a resident denied admission.
- LSAT scores more than five years old will not be considered. When an applicant takes the LSAT more than once, we accept the highest score. Other factors, such as undergraduate major, improvement in the undergraduate GPA during the last years of study, grade inflation, working while in undergraduate school, and/or graduate work may be considered in reviewing an applicant's academic record.
- Two letters of recommendation are required. Additionally, the Admissions Committee likes to conduct personal interviews with each applicant.
- Applicants to whom admission is offered will be required to pay a \$425 (\$350 for MLS) non-refundable deposit, which will be applied toward the first semester's tuition. If the applicant does not enroll in the College of Law, the deposit is forfeited. The offered admission is good only for the semester for which it was granted. A deferment may be granted under special circumstances for one year. The fact that an applicant was admitted in a previous year but did not attend is given no weight in evaluating a subsequent application.
- Applicants will be notified when their files are complete. If any information is missing, the applicant will be notified in time to submit the information before the deadline.
- The application deadline is March 15. All applicants should be notified of their admission status by May 15 .


## 1LS Program

The 1LS program, which runs from mid-June to early August, was designed to give a select group of admitted students a first-look at law school-and the chance to work ahead. Completing a few credits early allows you to lighten your course and final exam loads for the first year.

1LS students typically take the Legal Foundations course and one other first-year class over the summer (for a total of five credit hours), and then join the rest of their first-year cohort in the fall semester.

There is no separate application form for the 1LS program. Interested applicants must apply for both 1LS and fall admission on the OU Law application.

## Early Entry Program

Begin work on your Juris Doctor during your final undergraduate year at the University of Oklahoma or Oklahoma State University.

OU Law's Early Entry Program allows select OU and OSU undergraduate students to begin law school, even before graduating with their undergraduate degree.

Upon the successful completion of the first year at OU Law, the student will also qualify for the Bachelor of Arts or Bachelor of Science degree at their respective university.

To be considered for first-year or early admission to the OU Law Juris Doctor program, applicants must meet the following educational criteria:

- Have completed 98 hours of undergraduate credit before the first day of law school including:
- At least 30 semester credit hours at the student's undergraduate institution.
- At least 15 semester credit hours of upper-division major credit courses at the student's undergraduate institution.
- At least 15 of the last 30 semester credit hours before entering the College of Law at the student's undergraduate institution.
- All other degree requirements for the undergraduate degree except elective hours.
.
- Have taken the Law School Admission Test (LSAT), or other graduate school admission test of suitable rigor, before the fall semester in which they begin law school.
- Have an LSAT score, or a score from another graduate school admission test of suitable rigor, as well as an undergraduate cumulative GPA that is comparable to the median LSAT and GPA score of the most recent class admitted to the College of Law.
- Have confirmation that the baccalaureate awarding institution agrees to participate with the stipulations of this policy, if applicable, while meeting all other State Regents' policies for baccalaureate degree requirements.


## Transfer with Advanced Standing

To be considered for transfer with advanced standing, an applicant must have attended an ABA accredited law school. Students must complete one full year of study before being admitted and then successfully complete 60 hours at OU Law.. OU Law will accept up to 30 hours of law credit taken at an ABA approved law school, in which the student earned a grade of $C$ of better. Admission for transfer is based upon law school GPA, class standing, and various other factors.

## Admissions Checklist:

To apply for transfer admission with advanced standing, the applicant must submit an application form through the LSAC website. Application materials include:

- \$50 nonrefundable application and processing fee
- Personal statement indicating your reasons for wanting to transfer to OU Law
- Resume
- Two letters of recommendation (optional)
- LSAC Credential Assembly Service Report
- Transcript and class rank from current law school (You may submit your application with fall grades and rank only, but a final decision will not be rendered until spring grades and rank are reported)
- A letter from the Associate Dean Of Academics or Registrar indicating you are in good academic standing and eligible to transfer

Transfer applicants are encouraged to apply online.
Students applying to transfer for the fall semester may submit their transfer application from March 15 to July 31 st. Spring transfer applicants may process their application from Sept. 1 to Dec. 1 and are notified in December. Applicants will be notified as soon as a decision has been made.

A student cannot receive credit for work taken in another law school when enrolled at the same time in classes in the OU College of Law. When a student transfers to the College of Law from another school, grades at the other school will not be counted in determining the student's cumulative grade point average or class standing at the OU College of Law. Applicants who have been dismissed from another law school for scholarly deficiency or serious academic misconduct will not be considered for admission.

## Visiting Student Admission Requirements

The law school grants a limited number of requests for admission to visiting students during the fall, spring, and summer terms. To be considered for admission as a visiting student, an applicant must:

- have completed the first-year curriculum at an ABA-accredited law school;
- be a student in good academic standing at current law school

Students who meet these requirements will be admitted as long as space is available at the law school. Visiting student applicants must submit the following:

- Completed visitor application (Contact the Registrar (rlucas@ou.edu or 405-325-4729) for the application.
- Dean's letter of good standing and permission to visit; along with any parameters under which the home school will accept the credits earned at OU Law towards their degree requirements (i.e., need to earn a $C$ or better in each course, etc.).


## Grades

The grades given in the College of Law and the numerical grade point value are as follows: $A+=12, A=11, A-=10, B+=9, B=8, B-=7, C+=$ $6, C=5, C-=4, D+=3, D=2, D-=1, F=0$. The grades of Incomplete (I), Withdrawal Passing (W), Administrative Withdrawal (AW), Satisfactory
$(S)$ and Unsatisfactory (U) have no numerical value and are not included in the calculation of a student's grade point average. Certain courses are graded on a Satisfactory (S)/Unsatisfactory (U) basis. Students do not have the option of choosing to be graded S/U.

## Attendance

Regular attendance in courses is considered indispensable. Each professor must adopt and announce an attendance policy that meets the requirements of the American Bar Association and the Association of American Law Schools. When a student is absent an excessive number
of times, the professor may withdraw the student from the course, or the professor may lower the student's grade (even to failing) in the course.

The college is a full-time law school, and students are expected to devote substantially all their time to the study of law. Excessive outside work is discouraged. White the American Bar Association doesn't monitor this anymore, OU College of Law policy states that a student may not work in excess of 20 hours per week while enrolled full-time during the fall and spring semesters or at least five (5) hours during the summer semester. First year students are urged to forego any substantial outside activities until they have had ample opportunity to measure the demands of legal study upon their time and energy.

## Course Load

The College of Law limits the number of hours in which a student may enroll during a semester, thus assuring each student the opportunity for sufficient concentration on each subject. First-year students may enroll only in prescribed first-year courses. Second- and third-year students should enroll in a minimum of 10 credit hours and a maximum of 18 credit hours in a regular semester and a minimum of 5 and a maximum of 10 credit hours in a summer session, to be considered full-time students. Course loads less than (i.e., not considered full-time) must be approved by the Associate Dean for Academics and Curriculum Committee. In no instance is a student allowed to enroll in more than 18 hours per the parameters set by the American Bar Association..

## Class Rank

A student's class ranking is available when grades are processed each semester. Grades are available on the student's ONE account. Class rank is usually available within three days following the distribution of grades.

## Code of Academic Responsibility

Conduct of law students in the law school is governed by a Code of Academic Responsibility. Each student is to abide by the Code, which represents the ethical standards of the legal profession. The complete text of the Code of Academic Responsibility is included in the first-year orientation materials, and is also available in the Student Services office.

## Academic Appeals Board

The University of Oklahoma's "Joint Statement: Rights and Freedoms of Students" provides that students shall have "protection through orderly procedures against prejudiced or capricious academic evaluation." The rules of procedure governing proceedings before the Academic Appeals Board are provided in the Law Student Handbook, which can be found on the law student Courtyard.

## Courses

ILAW 5000 Law Study Abroad
1-15 Credit Hours
Prerequisite: permission of the College of Law. Course is designed to facilitate student participation in law study abroad and reciprocal exchange programs. (Irreg.)

ILAW 6000 Law Study Abroad
1-15 Credit Hours
Prerequisite: permission of the College of Law. Course is designed to facilitate student participation in law study abroad and reciprocal exchange programs. (Irreg.)

## LAW 5000 Professional Writing for Litigators 2-3 Credit Hours

Prerequisite: Legal Research \& Writing I and II (LAW 5123 and LAW 5202). Provides students with the tools necessary to evaluate, modify, and design litigation documents (excluding substantive motions and briefs). The focus is on learning the processes necessary for effective written communication with clients and other professionals and for production of litigation-related documents. Completion of this course is required for the Litigation Certificate and does not satisfy any credit hour requirements for the J.D. (F, Sp)

## LAW 5003 Argumentation and Public Speaking for Lawyers

## 3 Credit Hours

Prerequisite: admission to the College of Law. Explores the art of public speaking and argumentation to audiences typically encountered by lawyers. The course will focus on strategies and theories of communication that outline how to construct and deliver effective arguments, enabling students to hone their skills through practical applications. Completion of this course is required for the Litigation Certificate and does not satisfy any credit hour requirements for the J.D. (F, Sp)

## LAW 5010 International Student Private Law Firm Internship

0 Credit Hours
Prerequisite: Admission to College of Law; Acceptance into a summer Internship; Must be an International student here on an F-1 Visa. This course allows international juris doctor students with F-1 Visas to work in a private law firm internship. During the internship, students gain substantive legal experience while learning about a variety of legal concepts. The students will gain real-world experience so that they graduate from law school with practical legal experiences and a wellrounded skill set. (Su)

LAW 5103 Civil Procedure I
3 Credit Hours
Civil procedure in state and federal courts; introductory survey of procedures by which questions of substantive law commonly are raised and determined; procedural and remedial background; law governing controversies in federal courts; details of procedure in a lawsuit, including forum selection, pleading, joinder of claims and parties, discovery, the pretrial conference, disposition without trial, trial before a judge or jury, post-trial motions and appeals; issue and claim preclusion. (F)

## LAW 5114 Contracts

4 Credit Hours
Prerequisite: admission to College of Law. Basic first-year survey course which explores the nature and enforceability of promises. Subjects include contract formation, performance, termination of contracts, material breach, remedies for breach of contract, mistake and excuse for nonperformance, statute of frauds, interpretation of contract language, conditions, assignment and delegation, and third party beneficiaries. (F)

LAW 5123 Legal Research, Writing \& Analysis I 3 Credit Hours Prerequisite: admission to the College of Law. Focuses on the legal research, writing, and communication skills necessary for a lawyer to identify a client's legal issue; research and understand the relevant law; and precisely and objectively analyze how the law applies to the client's situation, so the lawyer can advise the client or decide how to best meet the client's goals. (F)

## LAW 5130 Lincoln, the Constitution and the Crisis of the

Union
2-3 Credit Hours
2 to 3 hours. Prerequisite: LAW 5134. Study of: 1) the constitutional debate about the character of a 'more perfect union' and federalism prior to 1861 ; 2) the limited commitment to human rights in the pre-1868 Constitution, and the antebellum inspirations for the Reconstruction constitutional amendments; 3) the national government's powers to preserve the Union, and the South's claim of a constitutional right to secede. (F, Sp)

## LAW 5134 Constitutional Law

4 Credit Hours
Selected issues, including: judicial review; the judicial process in construing and applying the United States Constitution; federal and state powers, federalism and separation of powers; an introduction to the concepts of equal protection and due process. (Sp)

LAW 5144 Torts
4 Credit Hours
Prerequisite: admission to the College of Law. Introduction to basic principles of civil liability, with study of selected issues, which may include intentional wrongs, negligence, strict liability, vicarious liability, defenses and immunities, comparative fault, assessment of damages, nuisance, products liability, misrepresentation, injuries to reputation, and alternative compensation systems. (F, Sp)

LAW 5153 Supreme Court Theory and Practice
3 Credit Hours
Prerequisite: LAW 5134. In this course on the decision-making processes and practices before and behind-the-scenes at the Supreme Court, students act as law clerks assisting in the review of pending certiorar petitions; lawyers arguing pending cases; justices voting on those cases and drafting judicial opinions deciding them; and scholars studying the Court's role as a key and controversial institution in our constitutional democracy. (F, Sp)

LAW 5201 Introduction to Brief Writing
1 Credit Hour
Prerequisite: Admission to the College of Law and LAW 5123. Introduction to the principles and practice of written advocacy. Students complete a trial-level motion brief and appellate brief. While building on the analytical, writing, and research skills learned in LRWA I, this course focuses on the lawyer's need to become self-directed and reflective while engaging in increasingly complex research, legal analysis, writing, and editing for persuasion. (Sp)

LAW 5202 Legal Research, Writing \& Advocacy II
2 Credit Hours Introduction to oral advocacy and brief writing. (Sp)

LAW 5203 Civil Procedure II 3 Credit Hours
Civil procedure in state and federal courts; introductory survey of procedures by which questions of substantive law commonly are raised and determined; procedural and remedial background; law governing controversies in federal courts; details of procedure in a lawsuit, including forum selection, pleading, joinder or claims and parties, discovery, the pretrial conference, disposition without trial, trial before a judge or jury, post-trial motions and appeals; issue and claim preclusion. (F)

LAW 5223 Criminal Law
3 Credit Hours
General principles of criminal responsibility and the elements of common law, statutory crimes, and defenses. Emphasis is placed on the subject of criminal intent. (Sp)

LAW 5234 Property
4 Credit Hours
Introduction to basic property concepts, including: adverse possession; estates in land; landlord and tenant; concurrent estates; nonpossessory interests (including easements, licenses, covenants and equitable servitudes); and real estate transactions. (Sp)

LAW 5301 Oral Advocacy 1 Credit Hour
Prerequisite: Admission to the College of Law and LAW 5201. Using appellate briefs written in Introduction to Brief Writing, students will study principles of oral advocacy and learn to effectively organize and make affirmative oral arguments and respond to questions and concerns in a simulated courtroom setting. The course culminates in three mock appellate-level oral arguments before panels of student judges, professors, practitioners, and judges. (Sp)
LAW 5303 Criminal Procedure: Investigation 3 Credit Hours
Prerequisite: LAW 5223. Examines the constitutional criminal procedure of police investigations, including the Fourth Amendment's protection against unreasonable search and seizure, the Fifth Amendment's guarantee of due process and privilege against compulsory selfincrimination, and the Sixth Amendment's right to counsel. (F, Sp)
LAW 5314 Evidence 4 Credit Hours
Presentation of evidence; judicial control and legal reasoning in the determination of issues of fact; topics relating to the admissibility of evidence, including relevancy, testimonial and real evidence; the original writing rule; and topics relating to the exclusion of evidence, including hearsay, the right of confrontation and privileged communications. (F, Sp)

## LAW 5323 Professional Responsibility

3 Credit Hours
The nature of law as a profession; problems facing the profession and the individual lawyer. Fundamentals of legal ethics and responsibilities, with emphasis on the Model Rules of Professional Conduct of the American Bar Association. (F, Sp, Su)

## LAW 5403 Administrative Law

3 Credit Hours
Basic considerations relating to administrative agencies, including nondelegation doctrine, fact versus law distinction, agency rule making, adjudication, due process requirements, information gathering, and judicial review. (F, Sp, Su)

## LAW 5410 Bankruptcy

3-4 Credit Hours
3 to 4 hours. Rights and remedies of debtors and creditors; bankruptcy including liquidation, reorganization, and wage earner plans; attachment, judgment execution; garnishment, fraudulent conveyances, bulk sales and collection remedies including compositions and assignments. (F, Sp)

## LAW 5433 Corporations

3 Credit Hours
Formation of corporations; duties and powers of corporate management; corporate control; shareholder rights, shares, dividends; derivative suits, fundamental changes and dissolution. ( $\mathrm{F}, \mathrm{Sp}$ )

## LAW 5434 Business Associations

4 Credit Hours
Prerequisite: admission to the College of Law. Introduction to the law of business associations with a focus on the modern corporation. Particular attention is directed to organizational structuring and the allocation of control among stockholders, directors, and officers. Federal securities law is introduced, but not covered in a substantial manner. Limited attention will also be given to the basic principles of agency, partnerships, LPs, and LLCs. (F, Sp)
LAW 5443 Family Law
3 Credit Hours
The rights, obligations, and liabilities arising from marital and nonmarital relations; divorce; marital property alimony, child support. (F, Sp, Su)
LAW 5450 The First Amendment 2-3 Credit Hours 2 to 3 hours. Prerequisite: 5214. The First Amendment: Individual rights of expression, assembly, association and religion. Permissible government restrictions and regulations in relation to activities protected by the First Amendment. (Irreg.)

LAW 5463 Income Taxation of Individuals
3 Credit Hours
Structure of the federal income tax with emphasis on operation of the system through use of concepts such as income, basis, gains and losses, realization and recognition, exclusions and deductions. (F, Sp)
LAW 5470 Wills and Trusts
3-4 Credit Hours
3 to 4 hours. Intestate succession, execution, interpretation, amendment, revocation and contest of wills, rights of decedent's family, will substitutes and the avoidance of probate; creation, validity, funding, amendment and termination of trusts and the fiduciary obligation. (F, Sp)

## LAW 5520 Alternative Dispute Resolution

2-3 Credit Hours
2 to 3 hours. Negotiation, mediation and arbitration; includes courtordered arbitration, mini-trials, summary jury trials and other formal and informal means of resolving disputes short of formal court adjudication. (Irreg.)
LAW 5530 Civil Pretrial Litigation 2-3 Credit Hours
2 to 3 hours. The study of litigation tactics and techniques prior to trial. Included are discovery, motion practice, witness preparation, settlement, alternate dispute resolution, pretrial conferences, mini-trials, summary jury trials, and other related areas. (F, Sp)
LAW 5533 Conflict of Law
3 Credit Hours
The law relating to transactions with elements in more than one state or nation, jurisdiction of courts and enforcement of foreign judgments, choice of law problems, constitutional issues, and the theoretical basis of choice of law, including an introduction to the problems of renvoi and characterization. (Irreg.)

LAW 5543 Federal Courts
3 Credit Hours
Examines concepts of case or controversy, federal subject matter jurisdiction; supplemental jurisdiction; venue; removal; substantive law applied in federal courts; and the relationship of the state and federal courts. (Irreg.)
LAW 5553 Remedies
3 Credit Hours
A study of remedies available in court actions, including specific performance, injunctions, and other equitable remedies. (F, Sp)
LAW 5602 Comparative Indigenous Peoples' Law Seminar 2-2 Credit Hours
Prerequisite: admission to College of Law. Seminar will examine the differences and similarities between Canadian, United States, Australian and New Zealand laws affecting native peoples. Participants in the seminar will include students from law schools at University of Ottawa, University of Saskatchewan, Auckland University, and Monash University attending via television. Federal Indian law is not a prerequisite, but strongly recommended. (Sp)
LAW 5603 Native American Natural Resources-MLS 3 Credit Hours Prerequisite: admission to Masters of Legal Studies Program. Provides an overview of the history of U.S. native policy and the basic doctrines of Indian law, then covers a variety of issues relating to tribal interests in and jurisdiction over environmental resources. Topics includes tribal rights to land; land use and environmental protection in Indian country; economic and natural resource development issues (including grazing, minerals, timber, and taxation); hunting and fishing rights; as well as international perspectives on indigenous resources. Throughout the course, students will consider the roles of the tribal, federal, and state governments in resource regulation and use. (F, Sp)

LAW 5610 Federal Indian Law
2 or 3 hours. The history of federal Indian policy and its impact on modern Indian problems; the Bureau of Indian Affairs; the federal government-Indian relationship and policy; tribal sovereignty; states' rights; criminal, civil, and taxing jurisdiction in Indian country; rights of individual Indians; tribal self-government; property rights; water rights andhunting and fishing rights. (F).

LAW 5623 Religion, Culture \& Indian Law-MLS 3 Credit Hours Prerequisite: admission to online Masters of Legal Studies Program. Examines the roles of law and policy on Native American religious and cultural practice. Explores issues relating to tribal interests and jurisdiction over Native religion and culture including information concerning preservation, restoration, and destruction of sacred sites and indigenous remains, the laws and practices pertaining to species protection and sacred species, institutionalized persons, as well as entheogens, protection of cultural and intellectual resources. International law as related to indigenous religions and culture is also explored.(F, Sp)

LAW 5633 Native American Natural Resources 3-3 Credit Hours Prerequisite: admission to College of Law. Covers a variety of issues relating to tribal interests in and jurisdiction over environmenta resources. Course coverage includes tribal rights to land; land use and environmental protection in Indian country; economic and natural resource development issues (including grazing, minerals, timber and taxation), water rights, and hunting and fishing rights. (F, Sp)

LAW 5642 Indigenous Peacemaking 2 Credit Hours
Prerequisite: admission to the College of Law. Students will compare and contrast Tribal Justice and the American Justice system, and the history of dispute resolution of Tribal Nations. Students will examine peacemaking through case studies demonstrating healing through justice. Peacemaking designs to restore harmony while developing the wisdom of consensus outcomes. Students will learn through study and participation the structure of the peacemaking circle and community development. (F, Sp)

LAW 5663 Federal Indian Water Law-MLS
3 Credit Hours
Prerequisite: admission to Masters of Legal Studies Program. Explores the context, decisional and statutory law, and overarching polices that shape water law. Examines foundations in both federal Indian law and basic principles of water law, including relevant substantive and procedural law, and mechanics and social issues relating to water resource management. Also, explores state and federal powers and roles in relation to American Indian tribes and water resources; intergovernmental/ intercommunity conflict, as well as methods of management and resolution. (F, Sp)

LAW 5673 Indian Gaming Laws \& Regulations-MLS 3 Credit Hours Prerequisite: admission to Masters of Legal Studies Program. Examines litigation and history of tribal gaming, along with critical decisions rulings on tribal/state compacting and scope of gaming conflicts. Explores tribal compacting experiences around the country with focus on Oklahoma tribes and the Oklahoma Model Gaming Compact of 2004. Distinguishes the regulatory roles of tribes, states and the feds and explores differences in Class II and Class III gaming, regulations and disputes. Explains creative approaches to financing and development of tribal gaming facilities. (F, Sp)

LAW 5703 Antitrust Law
3 Credit Hours
Federal and state antitrust laws approached on the basis of type of conduct, i.e., monopolies, mergers, price control by private business, exclusive dealing contracts, fair trade pricing, agreements not to compete; discrimination in distribution and refusals to deal; and unfair trade practices. (F)

LAW 5712 Corporate Drafting
2 Credit Hours
Prerequisite: LAW 5433 or LAW 5434. Will cover transactional drafting skills as well as business planning and counseling in the corporate setting. Students will draft a variety of corporate and transactiona provisions and documents such as certificates of incorporation, bylaws, board resolutions, and proxy statements. (F, Sp)

LAW 5713 Transactional Law Practicum I: Business Combinations

## 3 Credit Hours

Prerequisite: LAW 5433 or LAW 5434. This course offers the opportunity to learn about transactional law practice by completing a simulated public company corporate transaction. (F)

LAW 5733 Unincorporated Business Entities 3 Credit Hours Prerequisite: admission to the College of Law.Deals with the legal principles concerning association in business by agency, partnership, and other unincorporated forms. The agency relationship and its consequences are covered in detail. Unincorporated business organizations such as the general partnership, LP, and LLC are covered, focusing on topics such as formation, liability, fiduciary obligations, and dissolution. If time permits LLP and closely-held corporations will be included. (F, Sp)

LAW 5740 Payment Systems
2-3 Credit Hours
2 to 3 hours. Course will cover the checking system, the credit and debit card system, electronic funds transfer, letters of credit, interest payments, negotiable instruments and the securities trading and settlement system Substantive law would be Articles 3, 4, 4A, 5 and 8 of the UCC as well as the Expedited Funds Availability Act, parts of the Truth in Lending Act and the Electronic Funds Transfer Act (and implementing regulations.) (F, Sp)

## LAW 5743 Transactional Law Practicum II: Law of Innovation <br> 3 Credit Hours

Prerequisite: LAW 5433 or LAW 5434. This course offers the opportunity to learn and experience the law of innovation by advising in a start-up context in a simulation. (Sp)

LAW 5750 Secured Transactions
3-4 Credit Hours
3 to 4 hours. Prerequisite: admission to the College of Law. This course covers Article 9 of the Uniform Commercial Code. Topics include the establishment and perfection of security interests pursuant to credit sales contracts, problems of focusing on the interface between Article 9 and federal bankruptcy law, priority disputes among collateral claimants, default, and rights after default. Emphasis is placed on developing an understanding of the code's statutory scheme. (F, Sp)

LAW 5753 Federal Securities Regulation
3 Credit Hours
Federal securities laws and the activities and industry they govern the meaning of "security"; regulation of the issuance, sale, resale, and purchase of securities; disclosure requirements, generated by registration; anti-fraud provisions; and civil liability. (F, Sp)

LAW 5763 Mergers and Acquisitions
3 Credit Hours
Prerequisite: prior or concurrent enrollment in 5433. Provides an understanding of the issues arising in business acquisition (and divestiture) transactions. Coverage is given to theories underlying acquisitions, alternative acquisition techniques and planning considerations that bear on the choice among those techniques. (Sp)

## LAW 5773 Consumer Finance Law <br> 3 Credit Hours

Prerequisite: Admission to College of Law. This course covers the law and finance of household lending. The course will go over basic financial principles and household lending laws to give students a background in these topics that will help them represent clients as well navigate their own personal financial lives. (F, Sp)

## LAW 5830 Criminal Procedure: Adjudication

2-3 Credit Hours
2 to 3 hours. Prerequisite: LAW 5223. Examines the adjudicatory phase of our criminal procedure, beginning after arrest and continuing through to post-conviction matters. We consider federal constitutional provisions and rules of procedure, the policies underlying those requirements, and their impact on the roles of prosecution and defense counsel. ( $F, S p$ )

## LAW 5913 American Legal History

3 Credit Hours
Prerequisite: admission to College of Law. The development and characteristics of American legal institutions and basic themes in American law and legal philosophy. (Sp)
LAW 5920 Complex Litigation 2-3 Credit Hours
2 to 3 hours. Examines the procedure for preparation and trial of mass tort and other complex cases in federal court including: jurisdiction, joinder, intervention, consolidation, transfer, discovery, preclusion, class action, and trial procedures. (Irreg.)

## LAW 5980 Research for Master's Thesis

## 2-9 Credit Hours

## LAW 6020 Comparative Law

2-3 Credit Hours
2 or 3 hours. A comparison of the corresponding features of the American system of law and the systems of law of other nations. (F)
LAW 6040 International Business Transactions 2-3 Credit Hours
2 or 3 hours. Legal issues in international trade, licensing, and investment; limitations affecting movement of goods and flow of capital; organization, financing, and protection of international business; contract negotiation and dispute resolution and foreign investment. (F)

## LAW 6050 International Human Rights

2-3 Credit Hours
2 to 3 hours. The sources, norms, institutions, and process of international human rights law; the incorporation of human rights law into domestic legal systems, particularly the United States. (Irreg.)
LAW 6060 International Law Foundations 2-3 Credit Hours
2 to 3 hours. An introduction to the international legal system: its structure, rules, and process; the incorporation of international law into domestic legal system, particularly in the United States; in current issues including dispute resolution, jurisdiction, environmental protection, human rights, and use of force. The course is not international business transactions or comparative law. (Sp)
LAW 6100 Selected Legal Problems
1-4 Credit Hours
1 to 4 hours. Involved current legal problems. Subject matter and course credit will be included with the enrollment instructions. (F, Sp)

## LAW 6110 Bioethics and the Law

2-3 Credit Hours
2 to 3 hours. Legal, ethical, and economic analysis of problems posed by advances in biomedical technologies. Includes problems raised by behavior control through direct organic intervention, genetic engineering; extension of human powers and faculties by artificial means, human reproduction and death control; and regulation of experimentation involving human subjects. (Irreg.)

## LAW 6190 Health Law

2-3 Credit Hours
2 or 3 hours. The legal aspects of medicine; civil liability of medical professionals and health care providers; organization and regulation of the medical profession; uses of medical science in litigation; selected health sciences and public policy issues such as human reproduction, the right to treatment, and mental health problems. ( $F, S p$ )

LAW 6210 Immigration Law
2-3 Credit Hours
2 to 3 hours. Constitutional, statutory, and regulatory framework for the admission, exclusion, and deportation of non-citizens who seek immigrant and non-immigrant status in the United States; refugee and asylum law and policy, and citizenship acquisition. ( $\mathrm{F}, \mathrm{Sp}$ )

LAW 6213 Intellectual Property Survey
3 Credit Hours
Prerequisite: admission to the College of Law. Provides a high-level introduction to U.S. IP law. Specific areas of coverage include patents, trade secrets, trademarks, and copyright. This course is designed for students who plan to specialize in IP and would like a high-level overview, students who are not sure if they'd like to specialize IP, and students who plan to work in any commercial setting. ( $F, \mathrm{Sp}$ )

## LAW 6223 Trademarks \& Unfair Competition

3 Credit Hours
Prerequisite: admission to the College of Law. This course provides an in-depth survey of U.S. law related to the law, theory, and institutions governing trademarks and unfair competition. Specific areas of coverage will include trademark registration, the scope and nature of trademark rights, rights of publicity, domain name disputes and the law of false advertising. ( $F, S p$ )

## LAW 6311 American Indian Law Review

1 Credit Hour
Production of a written note or comment for the Review or other approved activities associated with production of the Review. (F, Sp, Su)

LAW 6313 Child Abuse Clinic
3 Credit Hours
Prerequisite: 5443, 6113. Each student enrolls for an entire academic year for three hours each semester. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

## LAW 6320 Directed Legal Research <br> 1-2 Credit Hours

1 to 2 hours. Legal research and writing under the supervision of a faculty member. The student must write a paper of sufficient quality to be considered for publication in a law review or other publication. A student may enroll in one or two credit hours with supervising faculty member's permission. (F, Sp, Su)

LAW 6321 Competitions
1 Credit Hour
Students who participate on a trial or appellate advocacy competition team sponsored by the College of Law and directly supervised by a faculty member may enroll in this course. ( $\mathrm{F}, \mathrm{Sp}$ )

LAW 6323 Criminal Defense Clinic 3 Credit Hours
Prerequisites: $5104,5314,5323$, and legal intern license. Clinical experience providing students the opportunity to represent indigent defendants charged with municipal, misdemeanor and felony offenses in Cleveland and McClain Counties. Students handle every aspect of the defense of a criminal case, including interviewing, investigating, negotiating, litigating motions and conducting the trial. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

LAW 6331 Oil \& Gas, Natural Resources, and Energy Journal

1 Credit Hour
Prerequisite: admission to College of Law and ONE J membership.
Production of case summaries of recently released court decisions on matters relating to oil and gas, natural resources, and/or energy. ( $\mathrm{F}, \mathrm{Sp}$ )
LAW 6341 Appellate Advocacy Competitions
1 Credit Hour
Prerequisite: Must be chosen for a competition team. Students will receive instruction on research, writing, and oral advocacy skills. Students participate in groups (teams) to research and write an appellate advocacy brief, and practice oral arguments. Students will compete in regional and national competitions. (F, Sp)

LAW 6342 Advanced Persuasive Writing 2 Credit Hours
Prerequisite: LAW 5123 and LAW 5202. We will approach persuasive writing from different practical and theoretical perspectives as we investigate why some writing is more persuasive than others and the specific steps we can take to make our legal writing more effective. Students continually critique contemporary examples, write, edit, and receive critique, having repeated opportunities to gain new insights and put them to use. ( $F, S p$ )
LAW 6360 Interviewing, Counseling and Negotiation 2-3 Credit Hours 3 to 4 hours. Theoretical and practical aspects of interviewing, counseling and negotiation, including simulation of situations calling for these skills, taught in a lecture-workshop format with a lecture and demonstration on a particular topic each week, followed by small workshops in which students simulate the lawyer's role. (F, Sp)
LAW 6363 Civil Clinic
3 Credit Hours
Prerequisites: 5104, 5314, 5323 and intern license. Student interns, working from an office operated by the Law Center, participate in actual representation of low-income clients in civil trials and transactions. Experience is acquired through court appearances, jury and non-jury trials, interviewing, discovery, drafting of pleadings, negotiation and counseling under the supervision of the clinical legal education staff. Students maintain an active caseload and office hours. (F, Sp, Su)

## LAW 6382 Intermediate Legal Writing: Introduction to Non-litigation Drafting <br> 2 Credit Hours

Prerequisite: LAW 5123 and LAW 5202. Course will provide you with the tools necessary to design, evaluate, and modify non-litigation documents, including contracts, wills, client letters, and legislation. Students will identify document users, determine competing objectives and interests, choose among drafting alternatives consistent with the relevant law, and test the content and organization of documents for intended and unintended consequences. (Sp)

## LAW 6391 Oklahoma Law Review

1 Credit Hour
Prerequisite: Oklahoma Law Review membership. Production of a written note or comment for the Review or other approved activities associated with production of the Review. (F, Sp, Su)
LAW 6392 Advanced Legal Research 2 Credit Hours
Prerequisite: LAW 5123 and LAW 5202. The ability to "find the law" is an important practical skill for attorneys. The goal of the course is to further develop a student's ability to find solutions to legal problems by formulating efficient and effective legal research strategies. This course emphasizes advanced online search techniques and explores how technology is impacting the delivery of legal information. (Sp)
LAW 6400 Selected Legal Problems of Applied Nature 1-4 Credit Hours 1 to 4 hours. Subject matter and course credit will be announced. (F, Sp)
LAW 6410 Trial Techniques
2-3 Credit Hours
2 to 3 hours. Prerequisite: 5314. An introduction to basic trial techniques under simulated trial situations. Students will conduct opening statements, direct and cross examination of witnesses, introduce and use exhibits, impeachment, expert examination, jury selection, closing arguments and a final trial. (F, Sp, Su)
LAW 6412 Representing the Criminally Accused 2 Credit Hours Prerequisite: admission to the College of Law; LAW 5314 recommended. Focuses on the practical aspects of criminal defense, from the business end of private practice to practical considerations such as whether to litigate and how to negotiate better deals. Students select a fact pattern then draft and argue bond hearings, conduct a preliminary hearing and argue a pre-trial motion. Relevant handouts are provided and students will conduct legal research. (F)

LAW 6422 Bar Exam Preparation I: Strategies and Tactics for Success

2 Credit Hours
Prerequisite: admission to the College of Law. Designed to help get a jump on preparations to pass the bar, but IS NOT a substitute for commercial bar exam preparation courses. Students will review substantive law in at least three areas heavily tested on the bar exam as they learn and practice skills necessary to maximize scores on both the multiple choice and essay portions of the exam. (F,Sp)

## LAW 6501 Introduction to Petroleum Engineering and Geo-SciencesMLS <br> 1 Credit Hour

Prerequisite: admission to Masters of Legal Studies Program. Presents an overview of the production life cycle from discovery to development and production of oil and gas. The course examines the different roles of the key players in each stage of this process. (F, Sp)
LAW 6510 Energy and Natural Resources 2-3 Credit Hours 2 to 3 hours. Regulation of natural resources capable of energy fuels production; environmental technological and economic impacts of coal, water, oil, gas, uranium, and solar energy sources through exploration, development, production, transportation, and end use; legal context of natural resource conservation, allocation, and distribution. (Irreg.)

LAW 6523 Environmental Law
3 Credit Hours
Common law and statutory approaches to environmental, economic, and technological impacts on society; jurisprudential underpinnings of environmental law; environmental administrative process and scope of judicial review; quality standards for land, air, and water, including minimal standards for preventing degradation or exhaustion of human and natural environments. (F, Sp)

LAW 6540 Oil and Gas
3-4 Credit Hours
3 to 4 hours. Nature of property interests in oil and gas; conveyancing of interests in oil and gas; legal interests created by oil and gas leases; the validity of leases; the habendum, drilling, and rental clauses;
assignment of interests of lessor and lessee; rents and royalties; and the conservation of oil and gas. ( $F, S p$ )

## LAW 6543 Copyright

3 Credit Hours
Prerequisite: admission to the College of Law. Provides an in-depth survey of U.S. copyright law, theory, and policy. Topics will include the basic requirements for copyright protection, the nature and scope of the rights granted by the Copyright Act, and the normative foundations of copyright law. No technical background is required. (F)

## LAW 6550 Oil and Gas Contracts 2-3 Credit Hours

2 to 3 hours. Examination of contracts used in the oil and gas industry for exploration, production and development of oil and gas properties and for investment; the nature of the relationships created by such contracts, the rights and duties of the parties, income tax consequences and governmental regulation of such contracts. (Sp)
LAW 6552 International Petroleum Transactions 2 Credit Hours
This course will study the international oil and gas business, a business that must be uniquely concerned with both public and private international law, as well as domestic law of the business entity's home state, the host government, and oftentimes, a third country. Students will study the sovereign rights to minerals, including disputes that arise between neighboring countries regarding boundary disputes. Students will look at how crude oil is bought and sold on the world market. Students will study the various types of host government contracts used by various countries to assign development rights to private companies, including how such rights are acquired, and study how disputes between a private company and host government are resolved. Students will also look at contracts between private companies engaged in exploration and production operations. (Sp)

LAW 6560 Title Examination and Assurance
2-3 Credit Hours
2 to 3 hours. A study of conveyancing, with emphasis on the examination of abstracts of title to real property. (F, Sp)
LAW 6570 Real Estate Transactions
2-3 Credit Hours
2 to 3 hours. The first two-thirds of the course covers the terms and legal issues involved in drafting, executing, and enforcing residential real estate contracts, including obtaining and evaluating title evidence prior to closing and recovery for breach of title guarantees. The last third of the course will introduce certain basic commercial real estate transactions, including processes and issues involved in housing subdivisions, condominiums, shopping centers, and commercial leases. (Irreg.)

## LAW 6580 Water Law <br> 2-3 Credit Hours

2 to 3 hours. The system of water rights; riparian, appropriation, and prescriptive rights; stream, surface, and ground water; transfer and termination of rights; injuries caused by water; development of water supplies; federal-state, interstate, and intrastate conflicts; water pollution control; federal and Indian rights and federal water resource problems. (F, Sp )

## LAW 6662 Employment Law Seminar

2 Credit Hours
The law of employment, including personnel practices, employment contracts, employee rights and federal-state regulation of employeremployee relationships. (Irreg.)

## LAW 6680 Family and Law of Torts Seminar 1-2 Credit Hours

 1 to 2 hours. Tort liability within the family, family tort liability to third parties, injuries to family members, interference with family relationships, wrongful birth, and related topics. (Sp)LAW 6682 Law and Literature Seminar
2 Credit Hours
Prerequisite: Admission to the College of Law. The format of the seminar will involve reading and discussion of selected classical and contemporary works which have a legal theme or influence. The grade will be based on a composite of class participation, short papers, and a group presentation on one of the assigned readings. (F,Sp)

## LAW 6692 Environmental Law Seminar

2 Credit Hours
Prerequisite: Admission to the College of Law. The format of the seminar will involve reading and discussion of selected classical and contemporary scientific and legal works which have an environmental theme or influence. The grade will be based on a composite of class participation, short papers, and a group presentation on one of the assigned readings. ( $\mathrm{F}, \mathrm{Sp}$ )
LAW 6700 Selected Legal Problems Seminar 1-4 Credit Hours 1 to 4 hours. May be repeated twice with change of content. Involves current legal problems. Subject matter and course credit will be included with the enrollment instructions. (F, Sp)
LAW 6732 War Crimes Tribunals Seminar
2 Credit Hours
Prerequisite: admission to the College of Law. Examines various judicial institutions established outside the control of national legal systems for the prosecution of certain international atrocity crimes, including the International Criminal Tribunals for Yugoslavia and Rwanda, the Extraordinary Chambers of the Cambodian Courts and the Special Court of Sierra Leone. Attention will be paid to the background, jurisdiction, procedures, substantive law and daily operations of such institutions. ( $F$, Sp )

LAW 6742 The International Criminal Court Seminar 2 Credit Hours Prerequisite: admission to the College of Law. Examines the International Criminal Court, the first permanent institution to prosecute atrocity crimes. Beginning with the creation of the ICC, the course will address the ICC's jurisdiction, substantive crimes, trial, appeal and punishment, while exploring situations and cases before the ICC. Discussions will include the future of the court, its emerging jurisprudence and the United States' evolving perspective and involvement. ( $F, S p$ )

## LAW 6752 Comparative Responses to Terrorism and Political Violence Seminar <br> 2 Credit Hours

Prerequisite: admission to the College of Law. Examination of a wide range of legal issues related to terrorism and governmental responses. Topics include the framework of separate branches of government with shared national security power; fighting terrorists and international criminals; and protecting national security information in a democratic society. ( $F, S p$ )
LAW 6762 Comparative Criminal Law Seminar
2 Credit Hours
Prerequisite: admission to the College of Law. Review and comparison of select criminal law issues in various national legal systems. Issues include the purpose and benefits of studying comparative law generally while covering specific topics including, among others, police powers and investigations, the role of the judiciary, role of the jury, due process concerns and the objectives of punishment. (F, Sp)
LAW 6772 Federal Sentencing Seminar
2 Credit Hours
Prerequisite: admission to College of Law. Examines aspects of sentencing unique to the federal court system, including application of complex sentencing guidelines. Federal sentencing provides one of the last frontiers for pure legal advocacy, as litigants seek departures or variances to fit the circumstances of the case while providing insight into the victims and/or defendants. Both critical guideline analysis and creative argument are reviewed and applied. (F, Sp)
LAW 6782 Perspectives on Governmental Law 2 Credit Hours Prerequisite: admission to the College of Law. Seminar designed around three vantage points or "perspectives" of Governmental legal practice -- Federal, State, and Tribal. Each perspective highlights the unique legal issues of governmental practice. Perspectives will be taught in a mentoring style. Topics will include: the duty to serve the public interest, open government, policy making, and the role of the lawyer advisor. (F)

## LAW 6820 Business Tax

3-4 Credit Hours
3 to 4 hours. Prerequisite: LAW 5463. This course surveys the federal income tax laws on organizing and running businesses as corporations, partnerships, S corporations, and LLCs. Also, the course looks at the taxation of oil and gas operations including exploration, development, production, and abandonment. No technical background is required. (F, Sp )
LAW 6830 Pensions and Employee Benefit Plans 2-3 Credit Hours 2 to 3 hours. Planning, establishment, and administration of pension, health care and other employee benefit plans under the tax and labor laws. (Irreg.)
LAW 6832 Partnership Tax
2 Credit Hours
Prerequisite: 5463. Subchapter K of the Internal Revenue Code, involving taxation of partnerships and partners. (F)

## LAW 6840 Tax Procedure

2-3 Credit Hours
2 to 3 hours. Prerequisite: 5463. Federal tax procedure and conflict resolution, including administrative practice, trial and appellate review. (Irreg.)

LSG 5001 Legal Research \& Sources of Law 1 Credit Hour
Prerequisite: Admission to the Master of Legal Studies and/or Master of Laws Programs. Designed to provide you with the tools necessary to perform thorough and efficient legal research using resources from commercial databases, print publications, and relevant websites; understand the importance of using citators, key numbers, annotations, and other techniques in the research process; and use proper legal citation to show support for your legal analysis. (F, Sp, Su)

## LSG 5013 Business Organizational Structures \& Governance 3 Credit

 HoursPrerequisite: Admission to the Master of Legal Studies and/or Master of Laws Programs. Designed to provide the tools necessary to understand the purposes, risks, and benefits of various business organizational structures and the laws governing their formation, operation, and dissolution. Students will apply information to evaluate risks, benefits, and ethical considerations relevant to organizational structure and governance. (F, Sp, Su)

LSG 5023 Regulatory and Administrative Law 3 Credit Hours
Prerequisite: Admission to the Master of Legal Studies and/or Master of Laws Programs. Administrative agency law dominates the modern legal system. This course focuses on understanding the intersection between legislative and administrative regulations, administrative rulemaking, the roles of state and federal agencies in interpreting statutes and regulations, and judicial review of agency decision making. (F, Sp, Su)

LSG 5033 Contract Law
3 Credit Hours
Prerequisite: Admission to the Master of Legal Studies and/or Master of Laws Programs. Introduces students to contract formation and the legal significance of contracts. Specific topics include the requirements for formation of a contract (such as offer and acceptance), justifications for enforcing promises (such as consideration or detrimental reliance), justifications for denying or limiting enforcement (such as unconscionability or mistake), interpretation of contract terms, and remedies for breach of contract. (F, Sp, Su)
LSG 5043 Processes in Dispute Resolution
3 Credit Hours
Prerequisite: Admission to the Master of Legal Studies and/or Master of Laws Programs. Formal dispute resolution of legal disputes in the civil context includes the following: (1) Arbitration; (2) Mediation; or (3) Litigation. Students will learn the costs, benefits, and risks of each; finality of decisions; the legal requirements and ethical standards governing the various processes; and considerations of time and intangible personal costs. (F, Sp, Su)

LSG 5222 Foundations of the U.S. Legal System 2 Credit Hours Prerequisite: Admission to the Master of Legal Studies and/or Master of Laws Programs. An introduction to the study of law. Students will learn the vocabulary of the law; understand the intersections and hierarchy of federal and state constitutions, statutes, cases, and administrative rules; and enhance critical thinking skills through the analysis of a broad array of legal materials. (F, Sp, Su)

## LSG 5233 Written \& Oral Communication

3 Credit Hours
Prerequisite: Admission to the Master of Legal Studies and/or Master of Laws Programs. Focuses on effective, clear, and concise writing and communication for a legal audience. Students will learn best practices in predictive and persuasive communication and document drafting while applying legal authorities in a factual context. (F, Sp, Su)

SH 5902 Introduction to the American Legal System 2 Credit Hours Prerequisite: Admission to the Master of Legal Studies and/or Master of Laws Program. Examines the United States court system, the role of the Constitution, and other foundations in US law and their relation to the healthcare system. Introduces students to fundamental principles in US law. Explains how law functions with our society and how it plays a role in conflict resolution, civil liberties, equality, in contracts, and interacts with the U.S. healthcare system. (F, Sp)

## LSH 6102 Structure of Health Care Enterprises: Legal Forms, Governance, and Relationships 2 Credit Hours

Prerequisite: Admission to the Master of Legal Studies and/or Master of Laws Programs. The course will cover the different legal forms a healthcare enterprise can take, including; Non-profits, physician owned, government owned, and Hospital systems. This course will also familiarize students with the contents and role of organizational documents, Governance issues, fiduciary duties, issues for tax exempt organizations, and relationships between Physicians and tax-exempt entities. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

LSH 6112 Sources and Types of Liability of Healthcare Institutions and Professionals

2 Credit Hours
Prerequisite: Admission to the Master of Legal Studies and/or Master of Laws Programs. Will discuss how the healthcare providers and institutions can be held liable as well as the consequences of agency and contractor status. In addition, this course will cover the elements of negligence in cases involving healthcare professionals. (F, Sp, Su)

LSH 6123 Regulation of Private Health Insurance, Managed Care 3 Credit Hours
Prerequisite: Admission to the Master of Legal Studies and/or Master of Laws Programs. This course will cover the regulation of health insurance companies with a focus on changes brought about by the Affordable Care Act (ACA). Students will become familiar with managed care concepts and analyze key components of health care plans. (F, Sp, Su)

LSH 6132 Quality Control: Licensing, Accreditation, and Quality Regulation

2 Credit Hours
Prerequisite: Admission to the Master of Legal Studies and/or Master of Laws Programs. Designed to introduce students to the laws, agencies, and other bodies that license, regulate and discipline physicians. Topics covered will include licensing proceedings and hearings and health care entity policies addressing these issues. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
LSH 6142 Professional Relationships in Health Care Enterprises

## 2 Credit Hours

Prerequisite: Admission to the Master of Legal Studies and/or Master of Laws Programs. Covers professional relationships between and among healthcare enterprises and the differences and between direct employment and independent practitioners with privileges when looking at; credentialing, disciplinary issues, and the Healthcare Quality Improvement Act. (F, Sp, Su)

LSH 6152 HIPAA/Patient Privacy
2 Credit Hours
Prerequisite: Admission to the Master of Legal Studies and/or Master of Laws Programs. Explores the federal regulatory scheme designed to protect the privacy and security of health information. Topics covered include; Entities and information to which the Health Insurance Portability and Accountability Act of 1996 HIPAA) applies, HIPAA compliance and enforcement, American Recovery and Reinvestment Act (ARRA), and the Health Information Technology for Economic and Clinical Health (HITECH) Act. (F, Sp, Su)

LSH 6153 Overview of Public Health Care Programs 3 Credit Hours Prerequisite: Admission to the Master of Legal Studies and/or Master of Laws Programs. Will cover public health insurance (including Medicare, Medicaid, government hospitals, and other government-financed health programs). In addition, this course will cover what treatment is required of anyone coming into an Emergency department by the Emergency Medical Treatment and Labor Act (EMTALA). (F, Sp, Su)
LSH 6162 Health Information Management 2 Credit Hours
Prerequisite: Admission to the Master of Legal Studies and/or Master of Laws Programs. Will cover health information law and policy as it pertains to data security and privacy of electronic health records in the United States. Students will examine how individual health information is collected, maintained, and transferred in this electronic information age, and the ramifications when such information is improperly protected, stolen, and misused. (F, Sp, Su)
LSH 6172 Health Care Transactions and Contracts 2 Credit Hours Prerequisite: Admission to the Master of Legal Studies and/or Master of Laws Programs. This course covers the business, regulatory, and legal issues that arise in healthcare business transactions: asset sales, mergers, joint ventures, procurement contracts, and the application of tax laws to transactions. In addition, this course will cover the fundamental principles of contract law and the role of valuations in healthcare transactions. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

## LSH 6173 Fraud and Abuse Claims

3 Credit Hours
Prerequisite: Admission to the Master of Legal Studies and/or Master of Laws Programs. Will cover federal physician self-referral law, fraud and abuse law. Students will learn the statutes, regulations, and advisory opinions that define the parameters of physician referrals and antikickback laws, analyzing case studies for those issues. Students will familiarize themselves with the False Claims Act and other laws, regulations, and government regulatory actions designed to combat false claims and fraudulent activities. (F, Sp, Su)
LSH 6182 Coding and Billing 2 Credit Hours
Prerequisite: Admission to the Master of Legal Studies and/or Master of Laws Programs. Provides students with working knowledge of the business side of medicine: medical record documentation, coding and billing. This course will provide students with an in-depth knowledge of the legal role of the medical record, specifically in the context of obligations for the organization of the medical record and its support for reimbursement of services. (F, Sp, Su)
LSH 6183 Experiencing a Simulated Investigation 3 Credit Hours Prerequisite: Admission to the Master of Legal Studies and/or Master of Laws Programs. Prepares students for experiencing an investigation including how to prepare for potential investigation and how to respond to and cooperate with an investigation. A portion of the course will involve live simulation exercises. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
LSH 6192 Anti-Trust Issues in Healthcare Delivery 2 Credit Hours Prerequisite: Admission to the Master of Legal Studies and/or Master of Laws Program. Focuses on antitrust issues relevant to health care providers: hospital and physician mergers, virtual mergers and joint ventures; exclusive contracts and other medical staff exclusion issues; covenants not to compete; managed care plans; antitrust defenses such as state action, nonprofit, learned profession, efficiencies, failing business, etc.; and federal and state healthcare antitrust regulatory efforts, including healthcare collaborative guidelines. (F, Sp, Su)

LSI 5101 Introduction to Legal Research
1 Credit Hour
Prerequisite: Admission to the Master of Legal Studies and/or Master of Laws Programs. Provides students with an understanding of the most efficient and cost-effective tools and methods for researching U.S. and tribal law. It includes lecture sessions, hands-on research training, and practical exercises across a range of subject areas for both print and electronic sources. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
LSI 5603 Native American Natural Resources 3 Credit Hours
Prerequisite: Admission to the Master of Legal Studies and/or
Master of Laws Programs. Covers basic doctrines of Indian law and a variety of issues relating to tribal interests in and jurisdiction over environmental resources. Topics includes tribal rights to land; land use and environmental protection in Indian country; economic and natural resource development issues; hunting and fishing rights; and international perspectives on indigenous resources. Consider the roles of tribal, federal, and state governments. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
LSI 5613 Criminal Jurisdiction in Indian Country 3 Credit Hours Prerequisite: Admission to the Master of Legal Studies and/or Master of Laws Programs. Traces the development the rules governing the exercise of criminal jurisdiction in Indian Country by three sovereigns: federal government, state government, and tribal government. Materials examined include historical treaties, major federal statutes, and U.S. Supreme Court decisions. Students should finish the course with the ability to understand, analyze and contribute meaningfully to discussions regarding criminal jurisdiction problems in Indian Country. (F, Sp, Su)
LSI 5622 History of Federal Indian Law and Policy I 2 Credit Hours Prerequisite: Admission to the Master of Legal Studies and/or Master of Laws Programs. Traces the development of British colonial and United States policy towards indigenous peoples in North America from the Seventeenth Century through the major policy initiatives of the Nineteenth Century. (F, Sp, Su)
LSI 5623 Religion, Culture \& Indian Law
3 Credit Hours
Prerequisite: Admission to the Master of Legal Studies and/or Master of Laws Programs. Examines the roles of law and policy on Native American religious and cultural practice. Explores issues relating to tribal interests and jurisdiction over Native religion and culture including information concerning preservation, restoration, and destruction of sacred sites and indigenous remains, laws and practices pertaining to species protection and sacred species, institutionalized persons, entheogens, protection of cultural and intellectual resources. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
LSI 5632 History of Federal Indian Law and Policy II 2 Credit Hours Prerequisite: Admission to the Master of Legal Studies and/or Master of Laws Programs. Traces the development of British colonial and United States policy towards indigenous peoples in North America from the major policy initiatives of the Nineteenth Century to the present day. ( $F$, $\mathrm{Sp}, \mathrm{Su}$ )
LSI 5643 International Indigenous Peoples Law 3 Credit Hours (Crosslisted with LSIB 5643) Prerequisite: Admission to the Master of Legal Studies and/or Master of Laws Programs. Explores the development of international law rules relating to the rights of indigenous peoples from the early 20th Century through the present, focusing on modern international institutions and instruments including the UN Declaration on the Rights of Indigenous Peoples. (F, Sp, Su)

## LSI 5653 Civil Jurisdiction in Indian Country <br> 3 Credit Hours

Prerequisite: Admission to the Master of Legal Studies and/or Master of Laws Programs. Addresses regulatory and adjudicatory authority, including the history of Federal-Tribal relations, tribal recognition, the scope of Indian Country, and tribal sovereignty as it relates to civil jurisdiction. State-Tribal struggles over jurisdiction, recent Supreme Court diminishment of tribal authority, environmental regulations and the tribal role within the system of cooperative federalism are also examined. (F, Sp, Su)

## LSI 5663 Federal Indian Water Law

3 Credit Hours
Prerequisite: Admission to the Master of Legal Studies and/or Master of Laws Programs. Explores the context, decisional and statutory law, and overarching polices that shape water law. Examines foundations in both federal Indian law and basic principles of water law, including relevant substantive and procedural law, and mechanics and social issues relating to water resource management. Also, explores state and federal powers and roles in relation to American Indian tribes and water resources. ( $F, \mathrm{Sp}$, Su)

LSI 5673 Indian Gaming Laws \& Regulations 3 Credit Hours Prerequisite: Admission to the Master of Legal Studies and/or Master of Laws Programs. Examines litigation, history of tribal gaming, critical rulings on tribal/state compacting, and scope of gaming conflicts. Explores tribal compacting experiences around country focusing on Oklahoma tribes and Oklahoma Model Gaming Compact of 2004. Distinguishes regulatory roles of tribes, states, and feds. Explores differences in Class II and III gaming, regulations and disputes. Explains financing and development of tribal gaming facilities. (F, Sp, Su)

## LSI 5693 The Indian Child Welfare Act \& Family Law in Indian

 Country3 Credit Hours
Prerequisite: Admission to the Master of Legal Studies and/or Master of Laws Programs. Indian Child Welfare Act, passed by Congress (1978), grants tribes and parents of Indian children special rights within state court systems. ICWA raises significant issues for courts, and often serve as the flashpoint of tribal/state disputes. Student will understand the clash of sovereigns and the state laws involving children. Covers requirements of ICWA and varying ways states have interpreted them. (F, Sp, Su)
LSI 5723 Tribal Courts in Indian Country
3 Credit Hours
Prerequisite: Admission to the Master of Legal Studies and/or Master of Laws Programs. This course examines the relationship between Tribal Nations and the three main sovereigns: Federal government, state governments, and tribal governments. Students will understand, analyze and discuss the importance of tribal court to tribal sovereignty, the tribal people, and to specific tribal cultures. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
LSI 5911 Introduction to the American Legal System 1 Credit Hour Prerequisite: Admission to the Master of Legal Studies and/or Master of Laws Programs. Examines U.S. courts, role of Constitution in U.S., and foundations of United States law. The goal is to introduce students to distinctive aspects and/or fundamental principles in U.S. law. This course explains how law functions with various aspects of our society and how it plays an increasingly significant role in conflict resolution, civil liberties and equality, contracts, and property agreements. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

LSIB 5002 Sources of International Law-MLS
2 Credit Hours
Prerequisite: admission to Masters of Legal Studies in International Business Law Program. Teaches students the core skills of finding and using various sources of international and transnational business law including bilateral and multinational treaties, uniform international rules and principles, decisions of international and transnational adjudicatory organizations, and European Union directives and decisions. ( $F$, Sp, Su)

LSIB 5012 Introduction to Legal Studies
2 Credit Hours
Prerequisite: Admission to the Master of Legal Studies and/or Master of Laws Programs. A general introduction to the nature and structure of national, international, and transnational legal systems. It introduces the students to the common law and civil law legal systems as well as the international and transnational organizations and structures of international and transnational business law such as the European Union, NAFTA, the WTO, UNCITRAL. (F, Sp, Su)
LSIB 5013 Business Organizational Structures \& Governance 3 Credit Hours
Prerequisite: Admission to the Master of Legal Studies and/or Master of Laws Programs. Designed to provide the tools necessary to understand the purposes, risks, and benefits of various business organizational structures and the laws governing their formation, operation, and dissolution. Students will apply information to evaluate risks, benefits, and ethical considerations relevant to organizational structure and governance. (F, Sp, Su)

LSIB 5023 Regulatory and Administrative Law
3 Credit Hours
Prerequisite: Admission to the Master of Legal Studies and/or Master of Laws Programs. Administrative agency law dominates the modern legal system. This course focuses on understanding the intersection between legislative and administrative regulations, administrative rulemaking, the roles of state and federal agencies in interpreting statutes and regulations, and judicial review of agency decision making. (F, Sp, Su)

## LSIB 5033 Contract Law

3 Credit Hours
Prerequisite: Admission to the Master of Legal Studies and/or Master of Laws Programs. Introduces students to contract formation and the legal significance of contracts. Specific topics include the requirements for formation of a contract (such as offer and acceptance), justifications for enforcing promises (such as consideration or detrimental reliance), justifications for denying or limiting enforcement (such as unconscionability or mistake), interpretation of contract terms, and remedies for breach of contract. (F, Sp, Su)
LSIB 5043 Processes in Dispute Resolution
3 Credit Hours
Prerequisite: Admission to the Master of Legal Studies and/or Master of Laws Programs. Formal dispute resolution of legal disputes in the civil context includes the following: (1) Arbitration; (2) Mediation; or (3) Litigation. Students will learn the costs, benefits, and risks of each; finality of decisions; the legal requirements and ethical standards governing the various processes; and considerations of time and intangible personal costs. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

LSIB 5112 International Payment Systems
2 Credit Hours
Prerequisite: Admission to the Master of Legal Studies and/or Master of Laws Programs. Students will examine some of the key international payment systems: Letters of Credit, wire transfers, international netting, and the SWIFT system. The main themes will include risks associated with fraudulent transactions and the allocation of credit risk throughout the payment systems. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

LSIB 5113 Comparative Corporate Law
3 Credit Hours
Prerequisite: Admission to the Master of Legal Studies and/or Master of Laws Programs. Examines the differences between corporate law in civil law countries and corporate law in the Anglo-American world. Aspects of corporate law to be compared include: the formation process, capital requirements and distributions, duties and liabilities of management, the powers of the general meeting vis-a-vis the powers of the management bodies, minority shareholders' protection, and creditor protection. (F, Sp, Su)

LSIB 5122 Combating International Corruption 2 Credit Hours
Prerequisite: Admission to the Master of Legal Studies and/or Master of Laws Programs. Introduction to the principles of US Foreign Corrupt Practices Act (FCPA) and the OECD Convention on Combatting Bribery of Foreign Public Officials in International Business Transactions other transparency initiatives, which is important for any business with an overseas presence. It is practically focused on the need for compliance planning and transaction screening and reporting to prevent violating the FCPA provisions. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

## LSIB 5123 European Union Business and Competition

Law
3 Credit Hours
Prerequisite: Admission to the Master of Legal Studies and/or Master of Laws Programs. Provides an introduction to the subject of European Law. Students will learn the unique structure of the EU and the Common Market including how directives are made and implemented. It will then focus on a few specific areas of law including: free movement of goods, employment, taxation, and competition law. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
LSIB 5132 International Sanctions Regimes 2 Credit Hours Prerequisite: Admission to the Master of Legal Studies and/or Master of Laws Programs. Provides an overview of the international sanctions regimes. It explores the processes by which UN, other multilateral, and unilateral sanctions are imposed and how sanctions impact the way business is conducted. A few country specific sanctions provisions will be explored. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

## LSIB 5133 International Sales and other Business

## Transactions <br> 3 Credit Hours

Prerequisite: Admission to the Master of Legal Studies and/or Master of Laws Programs. Focuses on the legal aspects of commercial activity that takes place in two or more countries. It will examine the sale of goods and services across national boundaries, licensing of intellectual property, foreign investment, and the core principles of international taxation and antitrust law. (F, Sp, Su)

## LSIB 5143 International Commercial and Investment Arbitration 3 Credit <br> Hours

Prerequisite: Admission to the Master of Legal Studies and/or Master of Laws Programs. Examines international arbitration as a system of private justice, focusing on the five building blocks of international arbitration - the agreement to arbitrate, arbitral rules of procedure, international conventions on the enforcement of arbitration agreements, national arbitration laws, and relevant decisions of national courts - and comparing arbitration with other forms of dispute resolution. (F, Sp, Su)

## LSIB 5153 International Business, Human Rights, and Corporate Responsibility <br> 3 Credit Hours

Prerequisite: Admission to the Master of Legal Studies and/or Master of Laws Programs. Looks at the appropriate role and responsibilities of multinational corporations with respect to human rights. Will examine the United Nations (UN) and Organization for Economic Cooperation and Development (OECD) guidelines for business and human rights as well as the UN's decision to draft a treaty on this topic as well as national regulations and potential litigation risks. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
LSIB 5233 Written \& Oral Communication 3 Credit Hours Prerequisite: Admission to the Master of Legal Studies and/or Master of Laws Programs. Focuses on effective, clear, and concise writing and communication for a legal audience. Students will learn best practices in predictive and persuasive communication and document drafting while applying legal authorities in a factual context. (F, Sp, Su)

LSIB 5643 International Indigenous Peoples Law 3 Credit Hours
(Crosslisted with LSI 5643) Prerequisite: Admission to the Master of Legal Studies and/or Master of Laws Programs. Explores the development of international law rules relating to the rights of indigenous peoples from the early 20th Century through the present, focusing on modern international institutions and instruments including the UN Declaration on the Rights of Indigenous Peoples. (F, Sp, Su)
LSIB 6100 Selected Legal Problems
1-4 Credit Hours
1 to 4 hours. Involved current legal problems. Subject matter and course credit will be included with the enrollment instructions. (F,Sp)
LSIB 6112 International Finance: Capital Markets 2 Credit Hours Prerequisite: Admission to the Master of Legal Studies and/or Master of Laws Programs. Examines laws and institutions governing global capital markets, as well as the applicability of US Securities regulation abroad. The major markets and exchanges covered include London, Europe, and Hong Kong. It will examine attempts at and challenges to international harmonization. In addition to primary capital market transactions, it will also consider cross boarder public merger and takeover regulations and practices. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

## LSIB 6113 International Trade and Investment

3 Credit Hours Prerequisite: Admission to the Master of Legal Studies and/or Master of Laws Programs. Examines regulation of trans-border trade on a global level. Explores laws and institutions which regulate the flow of international trade and foreign investment. Major institutions covered include World Trade Organization, International Monetary Fund, International Bank for Reconstruction and Development (World Bank), European Union, North American Free Trade Agreement, and Asian regional institutions. (F, Sp, Su)

## LSIB 6122 International Finance: Banking and Structured

2 Credit Hours
Prerequisite: Admission to the Master of Legal Studies and/or Master of Laws Programs. Covers the international regulation of the market for bank financing. Principles of capital adequacy, safety and soundness, and systemic risk will be introduced. The process of syndication and global structured finance will also be explored. Finally, the course will introduce the topic of anti-money laundering regulation. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

## LSIB 6132 International Energy

2 Credit Hours
Prerequisite: Admission to the Master of Legal Studies and/or Master of Laws Programs. Provides a broad review of international energy resources and production. It covers energy sources and distribution, including hydrocarbons and renewables; administrative organization and applicable legislative/regulatory framework; in addition to an overview of climate change and related international goals, and the effect of energy on indigenous populations, human rights, and environment. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

## LSO 5112 Foundations of Contract Law for the Energy

 Industry
## 2 Credit Hours

Prerequisite: Admission to Masters of Legal Studies and/or Master of Laws Programs. Explores the formation, drafting, interpretation and enforceability of contractual promises. Subjects include contract formation, performance, termination of contracts, material breach, remedies for breach of contract, mistake and excuse for nonperformance, statute of frauds, interpretation of contract language, conditions, assignment and delegation, and third party beneficiaries. (F, Sp)

LSO 5232 Introduction to Property Law and Natural

## Resources

## 2 Credit Hours

Prerequisite: Admission to Masters of Legal Studies and/or Master of Laws Programs. Provides an introduction to basic property concepts relevant for the oil and gas and energy industries, including: adverse possession; estates in land; mineral title, surface title, co-ownership, nonpossessory interests (including easements, real covenants and equitable servitudes). (F, Sp)
LSO 5970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

LSO 6352 Negotiations, Communication, and Ethics 2 Credit Hours Prerequisite: Admission to Masters of Legal Studies and/or Master of Laws Programs. Teaches effective negotiation and communication skills through a series of mock negotiation exercises. In addition, this course will discuss ethical dilemmas raised in the oil and gas industry. (F, Sp)

## LSO 6501 Introduction to Petroleum Engineering and Geo-

 Sciences1 Credit Hour
Prerequisite: Admission to Masters of Legal Studies and/or Master of Laws Programs. Presents an overview of the production life cycle from discovery to development and production of oil and gas. The course examines the different roles of the key players in each stage of this process. (F, Sp)

LSO 6502 Project Economics and Finance 2 Credit Hours
Prerequisite: Admission to Masters of Legal Studies and/or Master of Laws Programs. Introduces the economics and finance of capitalintensive projects, especially those involving power generation, public infrastructure, and extractive industries. Students will receive a broad overview of the project finance market, showing a typical project finance deal and the main players involved. The costs, benefits, and risks associated with project finance are also described. ( $F, S p$ )

LSO 6511 Midstream Oil and Gas Law
1 Credit Hour
Prerequisite: Admission to Masters of Legal Studies and/or Master of Laws Programs. Provides an overview and an examination of the legal issues facing the midstream oil and gas industry. The midstream industry provides the infrastructure necessary to gather, process, transport, store and market crude oil, natural gas, natural gas liquids, and refined products. (F, Sp)

## LSO 6512 Oil and Gas Law

2 Credit Hours
Prerequisite: Admission to Masters of Legal Studies and/or Master of Laws Programs. Nature of property interests in oil and gas; conveyancing of interests in oil and gas; legal interests created by oil and gas leases; validity of leases; habendum, drilling, and rental clauses; assignment of interests of lessor and lessee; rents and royalties; and conservation of oil and gas. ( $\mathrm{F}, \mathrm{Sp}$ )

LSO 6513 Oil and Gas Regulatory Practice 3 Credit Hours
Prerequisite: Admission to Masters of Legal Studies and/or Master of Laws Programs. Offers a practical skills approach to oil and gas practice. This course will examine the regulation of oil and gas exploration, development, and production, including conservation law designed to prevent waste and protect correlative rights. The class will address securing a drilling permit, settling surface damages, well spacing and density. (F, Sp)

LSO 6522 Legal Drafting
2 Credit Hours
Prerequisite: Admission to Masters of Legal Studies and/or Master of Laws Programs. How does one discover a client's objectives and then translate them into legal text (contracts, etc.) that has the best chance of accomplishing what the client wants? This skills course considers many different forms of legal drafting, focusing primarily on legal work intended for oil and gas contracts and surface-related agreement drafting. (F, Sp)

LSO 6531 Legal Research for the Energy Industry 1 Credit Hour Prerequisite: Admission to Masters of Legal Studies and/or Master of Laws Programs. Students will be instructed on how to conduct energyrelated research using a variety of sources, but especially using online resources. (F, Sp)

LSO 6553 Oil and Gas Contracts
3 Credit Hours
Prerequisite: Admission to Masters of Legal Studies and/or Master of Laws Programs. Examination of specific provisions in contracts prevalent in the oil and gas industry for exploration, production, and development of oil and gas properties and for investment; the nature of the relationships created by such contracts; the rights and duties of the parties; income tax consequences of particular contracts. (F, Sp)

LSO 6563 Mineral Title Examination
3 Credit Hours
Prerequisite: Admission to Masters of Legal Studies and/or Master of Laws Programs. Examines the study of the relevant law relating to and the preparation of a drilling title opinion and a division order title opinion in Oklahoma, Texas, and other states. (F, Sp)

LSO 6572 Real Estate Transactions
2 Credit Hours
Prerequisite: Admission to Masters of Legal Studies and/or Master of Laws Programs. A study of the terms and legal issues involved in drafting, executing, enforcing, and recording real estate contracts, including obtaining and evaluating title evidence, different types of deeds, and basic financing. (F, Sp)

LSO 6573 Oil \& Gas Development of Public Lands 3 Credit Hours Prerequisite: Admission to the Master of Legal Studies and/or Master of Laws Programs. Examines the oil and gas leasing and development of onshore federal, state, and Indian lands. Explores the leasing of railroad rights of way and lands belonging to local governments. (F, Sp)

LSO 6581 Water Law for the Energy Industry 1 Credit Hour Prerequisite: Admission to Masters of Legal Studies and/or Master of Laws Programs. The system of water rights as related for energy extraction and development, including riparian, appropriation, and prescriptive rights; stream, surface, and ground water; transfer and termination of rights; injuries caused by water; development of water supplies; federal-state, interstate, and intrastate conflicts; water pollution control; federal and Indian rights; and federal water resource problems. (F, Sp)

LSO 6592 Oil and Gas Environmental Law 2 Credit Hours Prerequisite: Admission to Masters of Legal Studies and/or Master of Laws Programs. Examines federal and state environmental laws that affect oil and gas lease transactions, drilling and completion operations, and production activities. (F, Sp)

## Faculty

| Last Name | First/Middle <br> Name | Middle <br> init. | OU <br> Service <br> start | Title(s), date(s) <br> appointed | Degrees Earned, <br> Schools, Dates |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Aswad | Evelyn | M | 2013 | PROFESSOR OF LAW, JD, Georgetown |  |
| Completed |  |  |  |  |  |


| Brice | Kenton |  | 2015 | Director of Law Library | BBA Northwestern, 2003; JD, OU Law, 2009; MLS-LS, UNT, 2016. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Bruce | Kara |  | 2021 | PROFESSOR OF LAW | JD, Tulane Univ School of Law; BA, Univ of North Carolina |
| Cleveland | Steven | J | 2008 | PROFESSOR OF LAW, 2008; ALFRED P. MURRAH PROFESSORSHIP OF LAW, 2018; CO-CHAIR, LAW DEPARTMENT, 2018; THOMAS P. HESTER PRESIDENTIAL PROFESSOR, 2018 | JD, Georgetown Univ, 1998; BA, Univ of California-Los Angeles, 1990 |
| Coats | Andrew | M | 1996 | PROFESSOR OF LAW, 1996; SAMUEL ROBERTS NOBLE FOUNDATION PRESIDENTIAL PROFESSOR, 1996; ARCH B. AND JOANNE GILBERT PROFESSOR OF LAW, 2010; DEAN EMERITUS, COLLEGE OF LAW, 2010 | JD, Univ of Oklahoma, 1963; BA, Univ of Oklahoma, 1957 |
| Dewalt | Erin | L | 2012 | ASSOCIATE <br> PROFESSOR OF LAW, <br> 2023; Director of <br> LRW, 2023 | JD, Univ of Oklahoma, 2009; BS, St. <br> Gregory's Univ, 2005 |
| Gensler | Steven | S | 2005 | ASSOCIATE DEAN OF ACADEMICS, 2021; PROFESSOR OF LAW, 2005; PRESIDENT'S ASSOCIATES PRESIDENTIAL PROFESSOR, 2006; GENE AND ELAINE EDWARDS FAMILY CHAIR IN LAW, 2018 | JD, Univ of Illinois, 1992; BS, Univ of Illinois, 1988 |
| Guzman | Katheleen | G | 1993 | DEAN, 2021-2024; <br> PROFESSOR <br> OF LAW, 2000; <br> MAPCO/WILLIAMS <br> PRESIDENTIAL <br> PROFESSOR, <br> 2000; EARL SNEED <br> CENTENNIAL <br> PROFESSOR OF LAW, $2013$ | LLM, Yale Univ, 1992; JD, Univ of Arkansas, 1991; BA, Univ of Arkansas, 1987 |
| Helton | Taiawagi |  | 2001 | ADJUNCT PROFESSOR OF NATIVE AMERICAN STUDIES, 2006; PROFESSOR OF LAW; Welcome D. \& W. DeVier Pierson Professor in Law, 2008 | LLM, Yale Univ, 2001; JD, Univ of Tulsa, 1999; BA, Ohio State Univ, 1995 |
| Henderson | Stephen | E | 2011 | PROFESSOR <br> OF LAW, 2011; <br> JUDGE HASKELL <br> A. HOLLOMAN <br> PROFESSOR OF LAW, <br> 2015 | JD, Yale Univ, 1999; BS, Univ of California Davis, 1995 |


| Johnson | Kit | F | 2012 | PROFESSOR OF LAW; HUgh Roff Prof of Law; Thomas Hester Pres Prof | JD, Univ of California Berkeley, 2000; BA, Wesleyan Univ, 1997 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Johnson | Eric | E | 2017 | PROFESSOR OF LAW; EARL SNEED PROFESSOR OF LAW, 2021 | JD, Harvard, 2000; BA Univ of Texas, 1994 |
| McCall | Brian | M | 2006 | PROFESSOR OF LAW, 2012; ORPHA AND MAURICE MERRILL PROFESSOR OF LAW, 2013; ASSOCIATE DIRECTOR, LAW CENTER, 2014; ADJUNCT PROFESSOR OF LEGAL ASSISTANT EDUCATION, 2015 | JD, Univ of Pennsylvania, 1997; MA, King's College Univ of London, 1992 BA, Yale Univ, 1991 |
| Michalski | Roger | M | 2015 | PROFESSOR OF <br> LAW, 2015; Arch B. <br> \& JoAnne Gilbert <br> Professor of Law | JD, Univ of California Berkeley, 2011; PhD, Univ of Michigan, 2009; BA, Univ of Rochester, 2002 |
| Mortazavi | Melissa | D | 2015 | PROFESSOR OF LAW, 2015; Assoc. Dean | JD, Univ of California Berkeley, 2005; BA, | of Academic Affairs; Cornell Univ, 2001; Second Century Presidential Prof.


| Mullins | Gail | E | 2002 | ASSOCIATE DEAN OF GRADUATE PROGRAMS, 2021; ASSOCIATE PROFESSOR OF LAW, 2006; DIRECTOR, EXPERIENTIAL LEARNING, 2015 | JD, Univ of Oklahoma, 1993; BS, Oklahoma State Univ, 1976 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Ngov | Eang |  | 2023 | Professor of Law | BA, Florida; JD, UC Berkeley Law |
| Nicholson | Daniel | R | 2006 | ASSOCIATE PROFESSOR OF LAW, 2006 | JD, Univ of Oklahoma, 2000; BA, Phillips Univ, 1992 |
| Pearl | M |  | 2020 | PROFESSOR OF LAW <br> Chickasaw Nation <br> Endowed Chair in <br> Native American Law | JD, Univ of California, Berkeley School of Law; BA, Univ of Oklahoma |
| Pearl | Tracy | H | 2020 | PROFESSOR OF LAW; William J. Alley Professor of Law | JD, Boston College; MSc, Oxford Univ; BA, Duke Univ |
| Pepper | Amelia | S | 2006 | Staff Attorney, <br> Associate Professor | JD, Univ of Oklahoma, 1987 |

Associate Professor 1987
\& Dir. of Clinical Legal
Education

| Peshehonoff Taylor | Freeman2023 | Assistant Professor <br> of Law and Director <br> of Competitions and <br> Externships | BBA, OU, 2017; JD, <br> OU Law, 2020. |  |
| :--- | :--- | :--- | :--- | :--- |
| Powell $\quad$ Robyn | M | 2021 | ASSOCIATE | PhD, Brandeis Univ, | PROFESSOR OF LAW, 2020; MA, Brandeis

2021 Univ, 2016; JD, Suffolk Univ Law School, 2007; BS, Bridgewater State Univ, 2003

| Pratt | Carla | D | 2021 | ADA LOIS SIPUEL FISHER CHAIR IN CIVIL RIGHTS, RACE, AND JUSTICE, 2021; PROFESSOR OF LAW, 2021 | JD, Howard Univ of Law; BA, Texas A\&M Commernce |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Richter | Liesa | L | 2009 | PROFESSOR OF LAW, 2009; FLOYD \& MARTHA NORRIS PROFESSOR OF LAW, 2021; THOMAS P. HESTER PRESIDENTIAL PROFESSOR, 2010 | JD, Univ of Florida, 1995; BS, Univ of Florida, 1992 |
| Schmook | Zachary | M | 2017 | ASSOCIATE PROFESSOR OF LAW, 2023 | JD, Washington Univ, 2007; BS, Univ of Maryland, 2004 |
| Schremmer | Joseph | A. | 2023 | Associate Professor of Law, 2023 | BA, Univ of Kansas, 2009; BS, Univ of Kansas, 2009; MBA, Univ of Kansas, 2013; JD, Univ of Kansas, 2013 |
| Shaner | Megan | W | 2011 | PROFESSOR OF LAW, 2017; Kenneth E. McAfee Centennial Chair in Law | JD, Univ of Iowa, 2005; BS, Drake Univ, 2002 |
| Tabb | William | M | 1990 | JUDGE FRED DAUGHERTY CHAIR IN LAW, 2009; DAVID ROSS BOYD PROFESSOR OF LAW, 2009 | LLM, Illinois Univ, 1987; JD, Univ of Arkansas, 1982; MA, Univ of Arkansas, 1976; BA, Univ of Arkansas, 1974 |
| Taite | Phyllis |  | 2023 | Professor of Law | BS, Florida; JD, <br> Florida State Law; <br> LLM, Florida Law |
| Taylor | Rebekah | C | 2017 | Associate Professor of Clinical Legal Education, 2023 | PhD, Southern Illinois, 1987; MS, North Florida, 1979; BS, Florida Tech, 1975 |
| Thai | Joseph | T | 2007 | PROFESSOR OF LAW, 2009; Glenn R. Watson Centennial Chair \& Presidential Chair in Law, 2013 | JD, Harvard Univ, 1998; AB, Harvard Univ, 1995 |
| Tovino | Stacey |  | 2020 | PROFESSOR OF LAW, 2022; John B. Turner Chair in Law |  |
| Wedman | Emilie |  | r2023 | Assistant Professor of Law | BA, OU, 2009; JD, <br> Tulsa Law, 2012. |

## Law, LL.M.

Overall GPA - Combined and OU: 5.00

## Minimum Total Hours: 24

## Program Code: M360/M361 (Online)

The John. B Turner LL.M. Program allows students to earn a Master of Laws degree with specializations in energy and natural resources, indigenous people's law, or US Legal Studies (for internationally educated lawyers). OU Law provides Master of Law students outstanding opportunities such as studying in the classroom with world class faculty and juris doctor students and attending guest lectures, field trips, social
events, and networking opportunities. Master of Laws students may also receive credit for related courses offered by other OU departments

## Admission Requirements

To qualify for admission to the John B. Turner LL.M. program, applicants must have earned their first law degree - LL.B., J.D., or equivalent. Admission is highly selective, and those admitted must have excellent law school records, strong letters of recommendation, proficiency in English and leadership potential. Although not required, some work or research experience following completion of the first law degree is preferred.

The College of Law John B. Turner LL.M. program admissions page provides more information on admission requirements, the application process, and how to apply online.

## Program Requirements <br> US Legal Studies

- The degree requires successful completion of 24 credit hours over two semesters of study (subject to possible extension for cause).
- Students may attend classes full-time at the University of Oklahoma College of Law
- Students may also specialize in Energy and Natural Resources Law and Indigenous Peoples Law.

| Code $\quad$ Title | Credit <br> Hours |
| :--- | ---: | ---: |
| Choose a 2 credit hour class in American Legal Systems ${ }^{1}$ | $0-2$ |
| Choose a 2 credit hour class on Legal Research, Writing and | $0-2$ |
| Analysis ${ }^{1}$ |  |
| Choose 20-24 credit hours of courses in US legal studies and <br> approved electives | $20-24$ |
| File an official application for graduation | $\mathbf{2 4}$ |
| Total Credit Hours |  |
| 1 Required for any student who has not already earned a graduate level |  |
| Law degree from an American University. |  |

## Energy and Natural Resources Law, LL.M.

Overall GPA - Combined and OU: 5.00

## Minimum Total Hours: 24

## Program Code: M355

## Admission Requirements

To qualify for admission to the LL.M. program, applicants must have earned their first law degree - LL.B., J.D., or equivalent. Admission is highly selective, and those admitted must have excellent law school records, strong letters of recommendation, proficiency in English and leadership potential. Although not required, some work or research experience following completion of the first law degree is preferred.

The College of Law LL.M. program admissions page provides more information on admission requirements, the application process, and how to apply online.

## Program Requirements

- This is an online-only degree program.

| Code | Title | Credit <br> Hours |
| :---: | :---: | :---: |
| Subject to Gr 24 hours from | ate Programs Committee approval, choose courses listed below: | 24 |
| LSO 5112 | Foundations of Contract Law for the Energy Industry |  |
| LSO 5232 | Introduction to Property Law and Natural Resources |  |
| LSO 6501 | Introduction to Petroleum Engineering and Geo-Sciences |  |
| LSO 6522 | Legal Drafting |  |
| LSO 6512 | Oil and Gas Law |  |
| LSO 6572 | Real Estate Transactions |  |
| LSO 6563 | Mineral Title Examination |  |
| LSO 6592 | Oil and Gas Environmental Law |  |
| LSO 6553 | Oil and Gas Contracts |  |
| LSO 6531 | Legal Research for the Energy Industry |  |
| LSO 6581 | Water Law for the Energy Industry |  |
| LSO 6513 | Oil and Gas Regulatory Practice |  |
| LSO 6573 | Oil \& Gas Development of Public Lands |  |
| LSO 6511 | Midstream Oil and Gas Law |  |
| LSO 6352 | Negotiations, Communication, and Ethics (on campus) |  |
| LSO 6502 | Project Economics and Finance (on campus) |  |

A College of Law LSO or LAW course may be substituted for one of the above courses with the advanced approval of the Energy \& Natural Resources Law Lead Faculty.
Total Credit Hours

## Healthcare Law, LL.M.

Overall GPA - Combined and OU: 5.00

Minimum Total Hours: 24
Program Code: M504

## Admission Requirements

To qualify for admission to the LL.M. program, applicants must have earned their first law degree - LL.B., J.D., or equivalent. Admission is highly selective, and those admitted must have excellent law school records, strong letters of recommendation, proficiency in English and leadership potential. Although not required, some work or research experience following completion of the first law degree is preferred.

The College of Law LL.M. program admissions page provides more information on admission requirements, the application process, and how to apply online.

## Program Requirements

- This is an online-only degree program.

| Code | Title | Credit Hours |
| :---: | :---: | :---: |
| Subject to Graduate Programs Committee approval, choose 24 hours from the courses listed below: |  | 24 |
| LSH 5902 | Introduction to the American Legal System |  |
| LSH 6132 | Quality Control: Licensing, Accreditation, and Quality Regulation |  |
| LSH 6102 | Structure of Health Care Enterprises: Legal Forms, Governance, and Relationships |  |
| LSH 6153 | Overview of Public Health Care Programs |  |
| LSH 6123 | Regulation of Private Health Insurance, Managed Care |  |
| LSH 6182 | Coding and Billing |  |
| LSH 6173 | Fraud and Abuse Claims |  |
| LSH 6162 | Health Information Management |  |
| LSH 6152 | HIPAA/Patient Privacy |  |
| LSH 6192 | Anti-Trust Issues in Healthcare Delivery |  |
| LSH 6172 | Health Care Transactions and Contracts |  |
| LSH 6142 | Professional Relationships in Health Care Enterprises |  |
| LSH 6112 | Sources and Types of Liability of Healthcare Institutions and Professionals |  |
| LSH 6183 | Experiencing a Simulated Investigation |  |
| A College of Law LSH or LAW course may be substituted for one of the above courses with the advanced approval of the Healthcare Law Lead Faculty. |  |  |

Total Credit Hours

## Indigenous Peoples Law, LL.M.

Overall GPA - Combined and OU: 5.00

## Minimum Total Hours: 25

## Program Code: M526

## Admission Requirements

To qualify for admission to the LL.M. program, applicants must have earned their first law degree - LL.B., J.D., or equivalent. Admission is highly selective, and those admitted must have excellent law school records, strong letters of recommendation, proficiency in English and leadership potential. Although not required, some work or research experience following completion of the first law degree is preferred.

The College of Law LL.M. program admissions page provides more information on admission requirements, the application process, and how to apply online.

## Program Requirements

- This is an online-only degree program.

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Required Courses (19 hours) |  |  |
| LSI 5622 | History of Federal Indian Law and Policy I | 2 |
| LSI 5632 | History of Federal Indian Law and Policy II | 2 |
| LSI 5603 | Native American Natural Resources | 3 |
| LSI 5623 | Religion, Culture \& Indian Law | 3 |


| LSI 5613 | Criminal Jurisdiction in Indian Country | 3 |
| :---: | :---: | :---: |
| LSI 5653 | Civil Jurisdiction in Indian Country | 3 |
| LSI 5643 | International Indigenous Peoples Law | 3 |
| Elective Courses (6 hours) |  |  |
| Subject to Graduate Programs Committee approval, choose 6 hours from the following: |  | 6 |
| LSI 5663 | Federal Indian Water Law |  |
| LSI 5673 | Indian Gaming Laws \& Regulations |  |
| LSI 5693 | The Indian Child Welfare Act \& Family Law in Indian Country |  |
| A College one of the the Indige | w LSI or LAW course may be substituted for ve courses with the advanced approval of Peoples lead faculty |  |

Total Credit Hours

## International Business Law, LL.M.

Overall GPA - Combined and OU: 5.00

Minimum Total Hours: 24

## Program Code: M592

## Admission Requirements

To qualify for admission to the LL.M. program, applicants must have earned their first law degree - LL.B., J.D., or equivalent. Admission is highly selective, and those admitted must have excellent law school records, strong letters of recommendation, proficiency in English and leadership potential. Although not required, some work or research experience following completion of the first law degree is preferred.

The College of Law LL.M. program admissions page provides more information on admission requirements, the application process, and how to apply online.

## Program Requirements

- This is an online-only degree program.

| Code | Title | Credit <br> Hours |
| :---: | :---: | :---: |
| Subject to Grad 24 hours from | ate Programs Committee approval, choose courses listed below: | 24 |
| LSIB 5002 | Sources of International Law-MLS |  |
| LSIB 5012 | Introduction to Legal Studies |  |
| LSIB 5112 | International Payment Systems |  |
| LSIB 5113 | Comparative Corporate Law |  |
| LSIB 5122 | Combating International Corruption |  |
| LSIB 5123 | European Union Business and Competition Law |  |
| LSIB 5132 | International Sanctions Regimes |  |
| LSIB 5133 | International Sales and other Business Transactions |  |
| LSIB 5143 | International Commercial and Investment Arbitration |  |
| LSIB 5153 | International Business, Human Rights, and Corporate Responsibility |  |
| LSIB 6112 | International Finance: Capital Markets |  |
| LSIB 6113 | International Trade and Investment |  |

LSIB 6122 | International Finance: Banking and |
| :--- |
| Structured Finance |

A College of Law LSIB or LAW course may be substituted for
one of the above courses with the advanced approval of the
International Business Law lead faculty

Total Credit Hours

## Energy and Natural Resources Law, M.L.S.

Overall GPA - Combined and OU: 7.00

Minimum Total Hours: 32
Program Code: M368
The Master of Legal Studies in Energy and Natural Resources Law recognizes a need for an online graduate program to serve the professionals in the energy industry who do not wish to seek a Juris Doctor degree at this point in their career. It is specifically designed for non-lawyers whose careers demand an understanding of energy-related legal issues. The degree program offers a competitive advantage to anyone in the energy industry who negotiates oil and gas contracts, deals with mineral rights or real estate transactions, or works closely with energy attorneys. This program offers an accelerated program that can be taken primarily online.

This graduate degree can be completed in 15 months.

## Required Courses

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| LSO 5232 | Introduction to Property Law and Natural | 2 |
|  | Resources | 2 |
| LSO 6522 | Legal Drafting | 1 |
| LSO 6531 | Legal Research for the Energy Industry | 27 |
| Choose 27 hours of LSO electives | $\mathbf{3 2}$ |  |

## Healthcare Law, M.L.S.

Overall GPA - Combined and OU: 7.00

Minimum Total Hours: 32

Program Code: M503
The Master of Legal Studies in Healthcare Law is designed for nonlawyers whose careers demand an understanding of healthcare-related legal issues. It provides graduate level education for professionals who work in the administration of healthcare facilities or systems. Students receive a grounding in laws and regulations that frame, guide, and direct the provision of healthcare services. The program offers a competitive advantage to anyone in the healthcare industry who handles compliance, advocacy, negotiates contracts, deals with the Affordable Healthcare act, manages real estate transactions, or works closely with healthcare attorneys. The curriculum requires the study of laws regulating the delivery and quality of medical services, access to public and private means of payment for such services, and transactions and liability within the healthcare industry.

This program is an online graduate degree that can be completed in 15 months.

## Required Courses

| Code | Title | Credit Hours |
| :---: | :---: | :---: |
| Module 1 (online) |  |  |
| LSH 5902 | Introduction to the American Legal System | 2 |
| Module 2 (online) |  |  |
| LSH 6132 | Quality Control: Licensing, Accreditation, and Quality Regulation | 2 |
| LSH 6102 | Structure of Health Care Enterprises: Legal Forms, Governance, and Relationships | 2 |
| Module 3 (online) |  |  |
| LSH 6153 | Overview of Public Health Care Programs | 3 |
| LSH 6123 | Regulation of Private Health Insurance, Managed Care | 3 |
| Module 4 (online) |  |  |
| LSH 6182 | Coding and Billing | 2 |
| LSH 6173 | Fraud and Abuse Claims | 3 |
| Module 5 (online) |  |  |
| LSH 6162 | Health Information Management | 2 |
| LSH 6192 | Anti-Trust Issues in Healthcare Delivery | 2 |
| Module 6 (online) |  |  |
| LSH 6152 | HIPAA/Patient Privacy | 2 |
| LSH 6172 | Health Care Transactions and Contracts | 2 |
| Module 7 (online) |  |  |
| LSH 6142 | Professional Relationships in Health Care Enterprises | 2 |
| LSH 6112 | Sources and Types of Liability of Healthcare Institutions and Professionals | 2 |
| Module 8 (online) |  |  |
| LSH 6183 | Experiencing a Simulated Investigation | 3 |
| Total Credit Hours |  | 32 |

## Indigenous Peoples Law, M.L.S.

Overall GPA - Combined and OU: 7.00

Minimum Total Hours: 33

## Program Code: M522

The Master of Legal Studies in Indigenous Peoples Law is designed for non-lawyers whose careers demand an understanding of the complex rules of Federal Indian Law. It offers a strong foundation in Native American Law for anyone who deals with contracts, negotiations or any other issues that demand knowledge of Native American self-governance issues, policy, regulation or business practice. This program can be taken entirely online.

This program is an online graduate degree which can be completed in 15 months.

## Required Courses

| Code | Title | Credit Hours |
| :---: | :---: | :---: |
| Module 1 (online) |  |  |
| LSI 5911 | Introduction to the American Legal System | 1 |
| LSI 5622 | History of Federal Indian Law and Policy I | 2 |
| Module 2 (online) |  |  |
| LSI 5632 | History of Federal Indian Law and Policy II | 2 |
| LSI 5603 | Native American Natural Resources | 3 |
| Module 3 (online) |  |  |
| LSI 5613 | Criminal Jurisdiction in Indian Country | 3 |
| LSI 5101 | Introduction to Legal Research | 1 |
| Module 4 (online) |  |  |
| LSI 5623 | Religion, Culture \& Indian Law | 3 |
| Module 5 (online) |  |  |
| LSI 5693 | The Indian Child Welfare Act \& Family Law in Indian Country | 3 |
| LSI 5723 | Tribal Courts in Indian Country | 3 |
| Module 6 (online) |  |  |
| LSI 5643 | International Indigenous Peoples Law | 3 |
| Module 7 (online) |  |  |
| LSI 5663 | Federal Indian Water Law | 3 |
| LSI 5673 | Indian Gaming Laws \& Regulations | 3 |
| Module 8 (online) |  |  |
| LSI 5653 | Civil Jurisdiction in Indian Country | 3 |
| Total Credit |  | 33 |
| International Business Law, M.L.S. |  |  |
| Overall GPA - Combined and OU: 7.00 |  |  |
| Minimum Total Hours: 32 |  |  |
| Program Code: M589 |  |  |
| The Master of Legal Studies in International Business Law provides graduate level education for business professionals relating to the legal and regulatory environment of international business law. Students will receive a grounding in laws and regulations that frame, guide, and direct international finance, sales, and disputes. |  |  |
| Required Courses |  |  |
| Code | Title | Credit Hours |
| LSIB 5002 | Sources of International Law-MLS | 2 |
| LSIB 5012 | Introduction to Legal Studies | 2 |
| LSIB 5112 | International Payment Systems | 2 |
| LSIB 5113 | Comparative Corporate Law | 3 |
| LSIB 5122 | Combating International Corruption | 2 |
| LSIB 5123 | European Union Business and Competition Law | 3 |
| LSIB 5132 | International Sanctions Regimes | 2 |
| LSIB 5133 | International Sales and other Business Transactions | 3 |


| LSIB 5143 | International Commercial and Investment Arbitration | 3 |
| :---: | :---: | :---: |
| LSIB 5153 | International Business, Human Rights, and Corporate Responsibility | 3 |
| Choose 7 hours from the following: |  | 7 |
| LSIB 5643 | International Indigenous Peoples Law |  |
| LSIB 6112 | International Finance: Capital Markets |  |
| LSIB 6113 | International Trade and Investment |  |
| LSIB 6122 | International Finance: Banking and Structured Finance |  |
| LSIB 6132 | International Energy |  |

## Master of Legal Studies, M.L.S.

Overall GPA - Combined and OU: 7.00

## Minimum Total Hours: 32

Program Code: M636
The Legal Studies, M.L.S. curriculum provides students with an introduction to the study of law. Students will learn the vocabulary of the law; understand the
intersections and hierarchy of federal and state constitutions, statutes, cases, and administrative rules; and enhance critical thinking skills through the analysis of a broad array of legal materials. This curriculum provides the knowledge and skills for graduates to address regulatory, compliance, contractual, and legal issues.

This is an online program.

## Required Courses

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Core Courses |  | 2 |
| LSG 5222 | Foundations of the U.S. Legal System | 1 |
| LSG 5001 | Legal Research \& Sources of Law | 3 |
| LSG 5013 |  <br> Governance | 3 |
| LSG 5043 | Processes in Dispute Resolution | 3 |
| LSG 5023 | Regulatory and Administrative Law | 3 |
| LSG 5233 | Written \& Oral Communication | 3 |
| LSG 5033 | Contract Law | 14 |
| Choostives 14 hours of LSG, LSO, LSH, LSIB, or LSI Electives | 32 |  |

## American Indian Law, Graduate Certificate

Overall GPA - Combined and OU: 8.00

## Minimum Total Hours: 15

Program Code: G017
The American Indian Law Graduate Certificate allows students to enrich their knowledge of American Indian Law through coursework including

3 indigenous peoples' culture, tribal courts, federal water law, and more. This certificate also includes experiential learning opportunities including an externship and work with OU Law's journal American Indian Law Review.

## Certificate Requirements

Full-time JD degree-candidate OU Law students are eligible to receive the certificate at graduation conditioned upon the successful completion of the requirements outlined below.

| Code Title | Credit |
| :---: | :---: |
| Core |  |
| LAW 5610 Federal Indian Law | 3 |
| Choose at least 9 credit hours from the following list of American Indian Law courses: $(\mathrm{p} .1760)^{1}$ | 9 |
| Electives |  |
| Choose an Experiential course from one of these options (hours vary): (p. 1761) ${ }^{2}$ |  |
| Choose at least one course from the following Guided Electives for a total of at least 3 credit hours: (p. 1761) | 3 |
| Writing Project |  |
| Complete one major writing project in a topic related to Indian Law. This paper may also satisfy the graduation writing requirement. ${ }^{3}$ |  |

Total Credit Hours
${ }^{1}$ Choose at least 5 credit hours if the student as earned at least 3 hours in an Indian Law externship.
2 The American Bar Association prohibits a student from receiving course credit for a paid internship. In other words, students have a choice of obtaining an unpaid but credited externship or a paid but uncredited job. To earn the Certificate, the student could select either option. Quality for the paid field work will be assured through supervision of the Center Director in collaboration with the Director of Extern Programs.
${ }^{3}$ Under the direction of a professor, either in a designated course or through independent directed study.

| American Indian Law Courses |  |  |
| :---: | :---: | :---: |
| Code | Title | Credit |
|  |  | Hours |
| LAW 6311 | American Indian Law Review | 1 |
| LAW 5600 | (American Indian Law Seminar) | 2-3 |
| LAW 6100 | Selected Legal Problems (Art and Cultural Heritage Law) | 2 |
| LAW 5602 | Comparative Indigenous Peoples' Law Seminar | 2 |
| LAW 6792 |  | 2 |
| LAW 6722 |  | 2 |
| LAW 5633 | Native American Natural Resources | 3 |
| LAW 6100 | Selected Legal Problems (Peacemaking) | 2 |
| LAW 6700 | Selected Legal Problems Seminar (Religion, Culture \& Indian Law Seminar) | 2 |
| LAW 6700 | Selected Legal Problems Seminar (Tribal Courts/Tribal Law) | 2 |

Other courses added by the College's Advanced Degree and Certificate Programs Committee

| Experiential Courses ${ }^{1}$ <br> Code <br> Title | Credit <br> Hours |  |
| :--- | :--- | ---: |
| LAW 6400 | Selected Legal Problems of Applied Nature <br> (Federal Indian Law Externship - max of 12 <br> credit hours) | $1-4$ |

## Guided Electives

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| LAW 5403 | Administrative Law | 3 |
| LAW 6523 | Environmental Law | 3 |
| LAW 5543 | Federal Courts | 3 |
| LAW 6060 | International Law Foundations | $2-3$ |
| LAW 6540 | Oil and Gas | 4 |
| LAW 6580 | Water Law | $2-3$ |

Other courses may be added by the College's Advanced
Degree and Certificate Programs Committee

## Business and Transactional Law, Graduate Certificate

Overall GPA - Combined and OU: 8.00<br>Minimum Total Hours: 22<br>Program Code: G024<br>The Business and Transactional Law Graduate Certificate is suited for students who wish to enter a transactional and business counseling practice. Required and elective business law classes are the backbone of this program, which also includes training in business drafting and writing.

## Certificate Requirements

Full-time JD degree-candidate OU Law students are eligible to receive the certificate at graduation conditioned upon the successful completion of the requirements outlined below.

## Section A

- At least 17 credit hours must be chosen from Section A.

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Core |  | $3-4$ |
| LAW 5434 | Business Associations |  |
| or LAW 5433 | Corporations |  |

Guided Electives
Choose at least one of the following regulation of business 3
courses:

| LAW 5703 | Antitrust Law |  |
| :--- | :--- | :--- |
| LAW 6820 | Business Tax |  |
| LAW 5753 | Federal Securities Regulation | $2-4$ |
| Choose at least two of the following business courses |  |  |
| (excluding any course chosen to satisfy another requirement): |  |  |
| (p. 1761) |  |  |
| Choose at least one of the following experiential courses: | $2-3$ |  |

(p. 1762)

Choose at least one of the following related courses from the 2-4
J.D. menu classes: (p. 1762)

Total Credit Hours
17-18

## Section B ${ }^{1}$

Students must earn a grade of $B$ or higher in each of the following business courses. The credit earned in these courses cannot be counted toward the 90 hours required for the J.D.

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| B AD 5001 | Quantitative Methods and Modeling I | 1 |
| ACCT 5202 | Financial Accounting | 2 |
| MGT 5702 | Organizational Behavior | 2 |
| Total Credit Hours | 5 |  |

${ }^{1}$ One or more of these three courses may be satisfied by having received a grade of $B$ or higher in an undergraduate course covering substantially the same material or in a graduate course completed prior to or contemporaneously with the Juris Doctor Degree, in each case with the approval of the Associate dean for Academic Affairs.

## Business Courses ${ }^{1}$

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| LAW 5703 | Antitrust Law | 3 |
| LAW 5410 | Bankruptcy | 4 |
| LAW 6820 | Business Tax | 3 |
| LAW 5712 | Corporate Drafting | 2 |
| LAW 5720 |  | $2-3$ |
| LAW 5753 | Federal Securities Regulation | 3 |
| LAW 6213 | Intellectual Property Survey | 3 |
| LAW 6040 | International Business Transactions | $2-3$ |
| LAW 5763 | Mergers and Acquisitions | 3 |
| LAW 5740 | Payment Systems | $2-3$ |
| LAW 6570 | Real Estate Transactions | $2-3$ |
| LAW 5750 | Secured Transactions | 3 |



## J.D. Menu Classes

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| LAW 5410 | Bankruptcy | 4 |
| LAW 5463 | Income Taxation of Individuals | 3 |
| LAW 6570 | Real Estate Transactions | 3 |
| LAW 5750 | Secured Transactions | 3 |

## Energy and Natural Resources Law, Graduate Certificate

Overall GPA - Combined and OU: 5.00

Minimum Total Hours: 12
Program Code: G036
The Energy and Natural Resources Law Graduate Certificate will allow LLM students to concentrate their studies in Energy and Natural Resources Law, choosing from the broad curriculum offered by the College of Law in this area.

## Certificate Requirements

Full-time JD degree-candidate OU Law students are eligible to receive the certificate at graduation conditioned upon the successful completion of the requirements outlined below.

## Electives

| Code | Title |
| :--- | ---: | | Credit |
| ---: |
| Hours |


| LAW 6510 | Energy and Natural Resources |
| :---: | :---: |
| LAW 6523 | Environmental Law |
| LAW 6100 | Selected Legal Problems (How to Drill a Well) |
| LAW 6700 | Selected Legal Problems Seminar (International Environmental Climate Change Law) |
| LAW 6552 | International Petroleum Transactions |
| LAW 6100 | Selected Legal Problems (Midstream Oil \& Gas) |
| LAW 6100 | Selected Legal Problems (Mineral Title Examination) |
| LAW 5603 | Native American Natural Resources-MLS |
| LAW 6540 | Oil and Gas |
| LAW 6550 | Oil and Gas Contracts |
| LAW 6100 | Selected Legal Problems (Oil and Gas Environmental Law) |
| LAW 6100 | Selected Legal Problems (Oil and Gas Practice) |
| LAW 6570 | Real Estate Transactions |
| LAW 6100 | Selected Legal Problems (Taxation of Business Entities and Oil \& Gas Interests) |
| LAW 6580 | Water Law |
| LAW 6100 | Selected Legal Problems (Wind Law) |
| Any other guided electives designated as fulfilling the requirements for this Certificate |  |

Total Credit Hours

## Indigenous Peoples Law, Graduate Certificate

Overall GPA - Combined and OU: 5.00

Minimum Total Hours: 12

Program Code: G068 (Online: G069)
The Graduate Certificate in Indigenous Peoples Law furthers students' study of Native American and other Indigenous Peoples Law, choosing from the broad curriculum offered by the College of Law in this area.

## Certificate Requirements

Full-time JD degree-candidate OU Law students are eligible to receive the certificate at graduation conditioned upon the successful completion of the requirements outlined below.

## Electives

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Choose 12 credit hours from the following list of courses: | 12 |  |
| LAW 5602 | Comparative Indigenous Peoples' Law <br> Seminar |  |
| LAW 5610 | Federal Indian Law |  |
| LAW 5663 | Federal Indian Water Law-MLS |  |
| LAW 5673 | Indian Gaming Laws \& Regulations-MLS |  |
| LAW 6050 | International Human Rights |  |


| LAW 5603 | Native American Natural Resources-MLS |
| :--- | :--- |
| LAW 6100 | Selected Legal Problems (Peacemaking: <br> Native American Traditional Justice |
| LAW 56actices) |  |
| LAW 6700 | Religion, Culture \& Indian Law-MLS <br> Selected Legal Problems Seminar (Tribal <br> Courts Seminar) |

Any other guided electives designated as fulfilling the requirements of the Certificate
Total Credit Hours

# International Law, Graduate Certificate 

Overall GPA - Combined and OU: 8.00

Minimum Total Hours: 19
Program Code: G074
The International Law Certificate furthers students' knowledge of key international law issues. This certificate includes international interdisciplinary as well as externship opportunities.

## Certificate Requirements

Full-time JD degree-candidate OU Law students are eligible to receive the certificate at graduation conditioned upon the successful completion of the requirements outlined below.

## SECTION A

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Core Courses |  | 4 |
| LAW 5134 | Constitutional Law | 3 |
| LAW 6100 | Selected Legal Problems (International Law <br>  Foundations) |  |

## Guided Electives

Choose any nine credits from the following list of courses:
9
(p. 1763)

## Experiential Electives

Choose at least 3 credits in at least one of the following
3
experiential courses: (p. 1763)
Total Credit Hours

## SECTION B INTERNATIONAL INTERDISCIPLINARY EXPERIENCE

| Code | Title |
| :--- | :--- |
|  | Credit |
|  | Hours |

Students must choose from: ${ }^{1}$

1. Take one course with an international focus in the College of International Studies or other OU College, such as the College of Business, etc.
2. Attend ten of the talks of OU guest speakers at the College of International Studies on international topics and write a short reflection paper (non-credit hour bearing)
3. Take a foreign language class at the University of Oklahoma (e.g., Legal Spanish)

1 Up to three credit hours in either option (1) or (3) may be counted toward the nine hours of Guided Electives for this certificate but such credit hours will not be counted toward the credit hours required for award of the J.D. If option (2), then please submit the reflection paper to the Kaiser Chair in International Law. Alternately, this requirement may also be satisfied by prior completion of an undergraduate or master's degree in an international affairs field or foreign language.

## Electives

| Code | Title | Credit <br> Hours |
| :---: | :---: | :---: |
| LAW 6100 | Selected Legal Problems (Chinese Law) | 2-4 |
| LAW 6762 | Comparative Criminal Law Seminar | 2 |
| LAW 5602 | Comparative Indigenous Peoples' Law Seminar | 2 |
| LAW 6020 | Comparative Law | 2-3 |
| LAW 6752 | Comparative Responses to Terrorism and Political Violence Seminar | 2 |
| LAW 6030 |  | 2 |
| LAW 6040 | International Business Transactions | 2-3 |
| LAW 6100 | Selected Legal Problems (International Business \& Human Rights) | 3 |
| LAW 6100 | Selected Legal Problems (International Commercial \& Investment Arbitration) | 2-3 |
| LAW 6742 | The International Criminal Court Seminar | 2 |
| LAW 6100 | Selected Legal Problems (International Human Rights Law) | 3 |
| LAW 6100 | Selected Legal Problems (Human Rights Practicum) | 3 |
| LAW 6552 | International Petroleum Transactions | 2 |
| LAW 6100 | Selected Legal Problems (International Trade Law) | 3 |
| LAW 6732 | War Crimes Tribunals Seminar | 2 |

## Experiential Courses

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| LAW 6400 | Selected Legal Problems of Applied Nature <br> (Externship 3-12 hours that focuses on <br> international matters which has been pre- <br> approved by the Director of Externships <br> and the Professor holding the Kaiser Chair <br> in International Law for the Certificate ) | $1-4$ |


| LAW 6100 | Selected Legal Problems (Human Rights <br> Practicum) | 3 |
| :--- | :--- | :---: |
| LAW 6400 | Selected Legal Problems of Applied Nature <br> (International Human Rights Clinic) | 3 |
| LAW 6341 | Appellate Advocacy Competitions (Jessup <br> Moot Court) | 1 |
|  | Selected Legal Problems of Applied Nature <br> (State Department Externship 3-12 hours) | $1-4$ |

Participation in a class working on Diplomacy Lab questions 2-4 for the State Department, as approved by the holder of the kaiser Chair in International Law

# Litigation, Graduate Certificate 

Overall GPA - Combined and OU: 8.00

## Minimum Total Hours: 21

Program Code: G081
The Litigation Graduate Certificate provides a firm foundation in the law that governs litigation and alternative dispute resolution. In addition to law coursework, students will take part in experiential learning, gain professional skills, and hone their public speaking and writing skills.

## Certificate Requirements

Full-time JD degree-candidate OU Law students are eligible to receive the certificate at graduation conditioned upon the successful completion of the requirements outlined below.

## Section A

- Students must maintain a B average ( 8.0 on a 12.0 scale) in courses taken in satisfaction of the requirements of Section A.
- Classes chosen to satisfy requirements in Sections $A$ and $B$ must total at least 16 hours.

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Required Courses |  |  |
| LAW 5520 | Alternative Dispute Resolution | $2-3$ |
| LAW 5530 | Civil Pretrial Litigation | $2-3$ |
| LAW 6410 | Trial Techniques | $2-3$ |
| Choose at least two of the following menu courses: | 6 |  |
| Guided Electives |  |  |
| LAW 5403 | Administrative Law |  |
| LAW 5533 | Conflict of Law |  |
| LAW 5543 | Federal Courts | $\mathbf{1 2 - 1 5}$ |
| LAW 5553 | Remedies |  |


| Code | Title | Credit |
| :---: | :---: | :---: |
|  |  | Hours |
| Students must participate in one of the following activities either for credit or as an extra-curricular activity: |  | 1-4 |
| Approved external advocacy competition |  |  |
| One semester of Civil or Criminal Clinic |  |  |
| Approved externship or internship |  |  |
| Total Credit Hours |  | 1-4 |
| Section C Professional Skills ${ }^{1}$ |  |  |
| Code | Title | Credit |
|  |  | Hours |
| LAW 5003 | Argumentation and Public Speaking for Lawyers | 3 |
| LAW 5000 | Professional Writing for Litigators | 2 |
| Total Credit Hours |  | 5 |

1 The credit earned in these courses cannot be counted toward the 90 hours required for the J.D.

## Section D Professional Development

- Students must attend at least two Judicial Insight Roundtables or CDO Lunch and Learns relating to Litigation practice offered at lunch time in the law school during the 3L year. These lunch time roundtables will involve magistrates, judges, and justices discussing their professional experiences.


## Oil \& Gas, Natural Resources, and Energy Law, Graduate Certificate

Overall GPA - Combined and OU: 8.00

Minimum Total Hours: 20
Program Code: G094
The Graduate Certificate in Oil \& Gas, Natural Resources, and Energy Law furthers students' knowledge of legal issues unique to the energy industry. Students learn more about oil and gas production-from well drilling to delivery systems-and also about wind and water law, conservation, mineral titles, international petroleum transactions, real estate, and more. Interdisciplinary options include energy management coursework from the OU Price College of Business or a geology class from the Mewbourne College of Earth and Energy.

## Certificate Requirements

Full-time JD degree-candidate OU Law students are eligible to receive the certificate at graduation conditioned upon the successful completion of the requirements outlined below.

## Section A

Students must maintain a B average in courses taken in satisfaction of the requirements in Section A. Classes chosen to satisfy the requirements of Section A must total at least 16 hours.

| Code | Title | Credit |
| :---: | :---: | :---: |
|  |  | Hours |
| Program Core |  |  |
| Choose at least one of the following courses: |  | 3 |
| LAW 6540 | Oil and Gas |  |
| LAW 6510 | Energy and Natural Resources |  |
| Guided Electives |  |  |
| Choose at least one of the following J.D. Menu Classes: |  | 3 |
| LAW 5403 | Administrative Law |  |
| LAW 6100 | Selected Legal Problems (Business Associations) |  |
| LAW 5433 | Corporations |  |
| LAW 6570 | Real Estate Transactions |  |
| General Electives |  |  |
| Choose at least three of the following related courses from the Oil and Gas, Natural Resources that has not already been taken to satisfy the requirements of this certificate: (p. 1765) |  | 6-9 |
| Experiential Ed | tion |  |


| Choose at least one of the following courses: $(p .1765)$ | $2-3$ |
| :--- | :--- |


| Total Credit Hours | 16 |
| :--- | :--- |

## Section B Professional Skills ${ }^{1}$

Students must receive a grade B or higher in each course taken to satisfy the requirements in Section B. The credit earned in these courses cannot be counted toward the 90 hours required for the J.D.

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| LAW 6501 | Introduction to Petroleum Engineering and <br> Geo-Sciences-MLS | 1 |
| B AD 5001 | Quantitative Methods and Modeling I | 1 |
| ACCT 5202 | Financial Accounting | 2 |
| Tol |  |  |

${ }^{1}$ One or more of these three courses may be satisfied by having received a grade of $B$ or higher in an undergraduate course covering substantially the same material or in a graduate course completed prior to or contemporaneously with the Juris Doctor Degree, in each case with the approval of the Associate dean for Academic Affairs.

## General Electives

| Code | Title | Credit <br> Hours |
| :---: | :---: | :---: |
| LAW 6500 | (Agricultural Law) | 3 |
| LAW 6500 | (Agricultural Environmental Law) | 2-3 |
| LAW 6510 | Energy and Natural Resources (Engergy Law) | 2-3 |
| LAW 6700 | Selected Legal Problems Seminar (Federal Indian Water Law) | 2 |
| LAW 6100 | Selected Legal Problems (International Business and Human Rights) | 3 |
| LAW 6100 | Selected Legal Problems (International Petroleum Transactions) | 2-3 |
| LAW 6100 | Selected Legal Problems (Midstream Oil and Gas) | 2 |
| LAW 6100 | Selected Legal Problems (Mineral Title Examination) | 3 |
| LAW 5633 | Native American Natural Resources | 3-3 |
| LAW 6100 | Selected Legal Problems (Offshore Energy Production) | 1-4 |
| LAW 6540 | Oil and Gas | 3 |
| LAW 6550 | Oil and Gas Contracts | 3 |
| LAW 6100 | Selected Legal Problems (Oil and Gas Environmental Law) | 3 |
| LAW 6100 | Selected Legal Problems (Oil and Gas Practice) | 2 |
| LAW 6580 | Water Law | 2-3 |
| LAW 6100 | Selected Legal Problems (Wind Law) | 2 |

Any new elective course designated by the Associate Dean for Academic Affairs as appropriate for this Certificate

## Experiential Education

Code Title Credit

| LAW 6100 | Selected Legal Problems (How to Drill a <br> Well) | 2 |
| :--- | :--- | ---: |
| LAW 6100 | Selected Legal Problems (Transactional <br> Law Practicum I) | 3 |
| LAW 6400 | Selected Legal Problems of Applied <br> Nature (An externship which has been <br> approved by the Director of Externships <br> and the Associate Dean for Academics as <br> appropriate for this Certificate) | 1 1-4 |

## Law, J.D.

Graduate GPA - Combined and OU: 5.00

## Minimum Total Hours: 90

## Program Code: D633

Areas of concentration for the Juris Doctor degree include American Indian and Indigenous Peoples Law; Business, Commercial, and Real Estate; Litigation; Oil and Gas, Natural Resources and Energy Law; Constitutional and Public Interest Law; Criminal Law and Procedure; Estate Planning; Family Law; General Practitioner; Intellectual Property Law; International and Comparative Law; and Tax Law.

## JURIS DOCTOR CURRICULUM

| Code | Title | Credit <br> Hours |
| :---: | :---: | :---: |
| First Year |  |  |
| LAW 5103 | Civil Procedure I | 3 |
| LAW 5203 | Civil Procedure II | 3 |
| LAW 5114 | Contracts | 4 |
| LAW 5144 | Torts | 4 |
| LAW 5123 | Legal Research, Writing \& Analysis I | 3 |
| LAW 5202 | Legal Research, Writing \& Advocacy II | 2 |
| LAW 5134 | Constitutional Law | 4 |
| LAW 5223 | Criminal Law | 3 |
| LAW 5234 | Property | 4 |
| Second and Third Year |  |  |
| LAW 5323 | Professional Responsibility | 3 |
| LAW 5314 | Evidence | 4 |
| Graduation Writing Requirement ${ }^{1}$ |  |  |
| Choose fiv substantiv | es from an upper-division elective menu of courses. ${ }^{2}$ | 10-15 |
| Students are required to complete one or more experiential course(s) totaling at least six credit hours which must satisfy the requirements of American Bar Association Standard 303(a)(3) as a simulation course, a law clinic, or a field placement. ${ }^{2}$ |  | 6 |
| Complete courses e | courses which together with all required tal of 90 credit hours. ${ }^{2}$ | 32-37 |

## Total Credit Hours

${ }^{1}$ Details on the graduation writing requirement may be found on the College of Law website: https://law.ou.edu/jd/academics/curriculum

2 The lists of upper-division elective menu courses, experiential learning courses, and elective courses are listed on the College of Law website: https://law.ou.edu/jd/academics/curriculum

## Degree Requirements

To qualify for the juris doctor degree, a student must:

- Successfully complete all required courses
- Successfully complete one rigorous writing course during the second or third year of law study under the direct supervision of a faculty member
- Successfully complete at least 60 hours at the College of Law
- Successfully complete additional work sufficient to total 90 semester hours
- Attain a cumulative grade point average of at least a 5.00 (C) in all work taken in the College of Law and a grade of $C$ on all work taken at other approved law schools
- Complete all degree requirements within five years of initial enrollment
- File an official Application for Graduation

For additional information regarding the requirements for the juris doctor, consult the College of Law website.

## POLYTECHNIC INSTITUTE



OU-Tulsa Schusterman Center
4502 East 41 st Street
Tulsa, OK 74135
Phone: (918) 660-3456

## Administrative Officer

- Teri K. Reed, PH.D., MBA, F.ASEE

Director of the OU Polytechnic Institute, Professor and George Kaiser Family Foundation Chair

## Administrative Staff

- Tarah Hayes, Executive Assistant


## Student Services and Advising Staff

- Lauren Deerdoff, Recruiting and Admissions Counselor
- Tally Begaye, Admissions Communications Coordinator


## General Information

First announced in 2022, the OU Polytechnic Institute (OUPI) represents a significant advancement for the Tulsa community and region, aiming to address the growing demand in northeast Oklahoma for highly skilled workers in essential STEM fields. This initiative underscores the region's commitment to becoming a leading center for technological growth and employment opportunities.

Developed in collaboration with industry leaders, the school's curriculum is specifically designed to rapidly establish northeast Oklahoma as a technological hub, fostering economic growth and job creation. By offering cutting-edge programs, OUPI equips graduates with the skills to revolutionize Oklahoma's industries.

This degree completion program requires 60 credit hours of 3000-4000 level classes and is structured to be completed within two years, culminating in a Bachelor of Science degree from the University of Oklahoma. Graduates will be positioned to excel in diverse career opportunities available both locally and globally. Through a combination of hands-on learning, interdisciplinary projects, internships, and industrysponsored senior design projects, students will gain invaluable realworld experience, preparing them to lead Oklahoma into a new era of technological advancement and economic growth.

The Polytechnic Institute embodies learning by doing, providing a practical education in today's digital landscape. The program incorporates a strategic breadth of study coupled with integrated content designed to provide mastery in essential work ready skills including terminal proficiency, collaboration (comprehensive project portfolio), and demonstrable project management and delivery. Additionally, the curriculum is designed to build a student's professional network with other students, faculty as well as local and national employers. It's about fueling innovation through technology and preparing students in Tulsa to propel Oklahoma forward. This approach not only enriches the educational experience but also prepares students to meet the challenges of the future, driving innovation and leadership in the tech sector.

OUPI focuses on high-demand, advanced and applied technology-based education and prepares graduates to transform industries in Oklahoma. From curriculum to on-site training, programs at OUPI will help meet the changing academic and workforce needs of the Tulsa region largely thanks to our close working relationship with industry partners. All classes are in person, hands-on, and in Tulsa.

## Programs Offered

- Cybersecurity, B.S. (p. 1772)


## Programs and Facilities Computing

The OU Network consists of a high-speed backbone with connections to faculty, staff, laboratory, and classroom computers. Wireless technology extends the network to cover the Polytechnic building, outside areas, laboratories, and classrooms. For more detailed information, visit the https://www.ou.edu/tulsa/it

## Support Infrastructure:

The Information Technology department and OUPI have partnered to provide a comprehensive computer support infrastructure. This includes wireless coverage, repair services, network file storage, and classrooms equipped with additional power and network capabilities.

## Wireless:

All OUPI buildings have wireless coverage throughout. To connect, choose the network called "WIFI@OU". Registration of your device with your $4+4$ is required to access this network. Campus guests can receive temporary, limited access by connecting to the "OUGuest" network.

## Repair Services:

IT provides student support for all computing needs. To locate the nearest IT Service Center, visit needhelp.ou.edu. The IT Service Centers are Dell and Apple certified warranty repair centers and provide support for these and other brands of computers. This service is free of charge, excluding any parts.

The OU IT Service Team is unable to provide hardware or software support for machines purchased outside of the U.S.

## Network Storage:

200 MB of network storage space is provided for students to store homework, projects, or other files. This space is automatically mapped as $\mathrm{H}: \backslash$ in the cybersecurity computer labs. For assistance connecting to the $\mathrm{H}: \backslash$ drive from home or wirelessly, contact the IT Service Desk at

325-HELP or visit the OU-Tulsa Computer Lab at 1C65 or log on to http:// support.ou.edu.

## Undergraduate Study Admissions

Admission to the University of Oklahoma (Norman Campus) and subsequently a degree granting college is based upon the admission requirements that are in effect for the semester that a student initiates enrollment at OU. For information on current admission requirements, contact the Office of Admissions \& Recruitment, University of Oklahoma, Jacobson Hall, 550 Parrington Oval, Room L-1, Norman, OK 73019-4076 or visit their homepage.

Admission to an undergraduate program within the OU Polytechnic Institute is based upon the program requirements in effect at the time of a student's initial enrollment in any institution (including OU) in the Oklahoma State System of Higher Education. As a completion program, the degrees offered at the OUPI are considered completion degrees in that only the junior (3000) and senior (4000) level courses are offered at the OUPI located at OU-Tulsa. The first two years can be completed either at OU Norman or can be obtained at another institution (see Transfer Students below).

All students seeking admission to a program within the OU Polytechnic Institute must fulfill the following minimum requirements:

1. Completed admission to the University of Oklahoma;
2. At least 24 semester hours of earned college credit;
3. Completion of any curricular deficiencies that may exist in English, Math and/or Science;
4. A declared major in the OUPI; and
5. Obtain at least the minimum combined and OU retention grade point average required for graduation from the program the student has declared. All undergraduate programs in the OUPI may require additional admission requirements beyond those listed above. Refer to the respective area for information regarding additional program admission requirements

## Transfer Students

An undergraduate students transferring from an institution within the Oklahoma State System of Higher Education must fulfill the transfer admission requirements of the University of Oklahoma Office of Admissions \& Recruitment. For more information, visit their website.

A student requesting transfer into a program of the OU Polytechnic Institute from another institution will be considered for admission once they have completed at least 24 semester hours of earned college credit with an overall GPA of 2.5 . Such an applicant, in addition to satisfying all admission requirements of the University and the college, must be approved by the division director for that particular major.

A student requesting to transfer into a program of the OU Polytechnic Institute from another institution outside of the Oklahoma State System of Higher Education will follow the most recent curriculum requirements for the major the student declares.

## Transfer Credit

The following credit hour regulations are specific to transfer students:

- All professional courses not taken at the University of Oklahoma are subject to evaluation for equivalency by the appropriate division of the college prior for the approval of these courses as transfer credit.

Work accepted from other institutions is subject to validation by the satisfactory completion of at least 30 hours of credit in residence.

- College credit for work experience is permitted only under the supervised conditions of the Preceptor Program of the college or approved internship/field experience courses.


## Change of Major Requests

Students interested in pursuing a change of major within OUPI, or who are pursuing a major in another college on either the OU-Norman or OUTulsa campus but wish to switch to an OUPI program must meet with an academic advisor in OUPI to change majors. The advisor will assess the student's GPA and completed courses. If the student lacks necessary preparation to begin coursework in the major, the student might be advised to remain in their current major until they are adequately prepared for the course curriculum. In accordance with State Regents' requirements, students are assigned to the degree program year that was current at the time they entered the Oklahoma State System of Higher Education.

## College Regulations

## Laptop Requirement

Students with a major in the OU Polytechnic Institute will be required to have a laptop computer. Laptop technologies are used to enhance the learning experience, and using a computer will become second nature to all of our students. See Laptop Policy page (PDF) for recommendations for the specifications needed, as well as other pertinent information.

## Probation and Advancement

In accordance with the approved retention policy of the Oklahoma State Regents for Higher Education a student must maintain a combined retention minimum grade point average of at least 2.00 (C) in order to be in good academic standing at the University of Oklahoma. A student who fails to maintain the required grade point averages for their program will be notified and required to sign an "Enrollment Contract" each semester their retention grade point average is below the minimum required for graduation. A student on enrollment contract may be denied further enrollment in the college if they fail to fulfill the terms of the enrollment contract during any semester they are on academic notice.

## Graduation Policies

The following requirements must be met in order to graduate with a bachelor's degree from the OU Polytechnic Institute:

- Student must have an OU retention and combined retention grade point average of 2.00 or higher.
- Student must have successfully completed a minimum of 120 semester hours inclusive of general education, major course work, and electives. Hours vary depending on degree.
- Student must earn a "C" or better in each course in her/his major.
- Student must complete a minimum of 40 hours of general education approved coursework as outlined by the college and the university.
- Student must complete at least one general education approved course at the upper-division level (3000-4000), outside the student's major. Students should take advantage of the "Attribute Type" tool at one.ou.edu or utilize search options at classnav.ou.edu when enrolling in general education course requirements.
- Students must complete a minimum of 40 hours of upper division (3000-4000 level) course work.
- Oklahoma State Regents' policy requires each student to complete a minimum of 60 hours at a senior (4-year) institution.
- Student must complete a senior graduation check with an academic counselor in the OU Polytechnic Dean's Office.
- Student must complete an Application for Graduation at one.ou.edu. This application must be on file with the University Records Office in order for the student to officially graduate from the university.


## Senior Graduation Check

All OU Polytechnic Institute Seniors should complete a Graduation Check at least\#one semester before they plan to graduate. To schedule a Graduation Check, make an appointment with one of the OUPI Academic Counselors.

## Courses

CYBS 3113 Operating Systems Fundamentals 3 Credit Hours Prerequisite: CYBS 3123. This course introduces major concepts and techniques for designing and implementing operating systems, including memory management, process management, information management, and computer security. Principles of performance evaluation. Class projects require the design and implementation of software systems. A UNIX family operating system will be used. (Sp)
CYBS 3123 Introduction to Unix Systems 3 Credit Hours Prerequisite: C S 2413 and MATH 1914; and C S 2813 or MATH 2513. This course provides an introduction to the UNIX operating system. Topics include files and directories, electronic mail, security, advanced file systems, network utilities, network file sharing, text utilities, shell programming, regular expressions, UNIX internals, UNIX system administration, UNIX variations, and systems programming. Programming assignments involve the UNIX shell script language. (F)
CYBS 3213 Foundations of Cybersecurity 3 Credit Hours
Prerequisite: C S 2413, MATH 1914 and either C S 2813 or MATH 2513. This course introduces cybersecurity, principles, and technologies. It deals with security issues related to systems and software. Topics include cyber threats and vulnerabilities, information security frameworks and policies, cryptography, penetration testing, and in-depth defense. The goal is to develop a foundation for further study in cybersecurity. (F)
CYBS 3223 Applied Statistics for Computing 3 Credit Hours
Prerequisite: MATH 2423, course is not open to freshmen. This course is an introduction to basic statistical concepts and techniques with an emphasis on application to applied computing. Topics include basic properties of probability, a review of descriptive statistics, common discrete and continuous distributions of data, visualization of real data, hypothesis testing, parametric versus nonparametric tests, supervised and unsupervised learning methods, the bias-variance tradeoff, use of statistical packages. (F)
CYBS 3313 Introduction to Cyber Ethics and Law 3 Credit Hours Prerequisite: Junior Standing. Legal and ethical issues with networked IT, including privacy, surveillance, digital piracy, and military use. First unit introduces ethical frameworks applicable to cybersecurity, sources of applicable law and regulation. Second unit introduces issues relating to cybercrime: intellectual property, user privacy, information assurance, and harmful online content. Third unit introduces issues with IT in government operations. (Sp)

CYBS 3323 Hardware Security
3 Credit Hours
Prerequisite: CYBS 3123 or concurrent enrollment in CYBS 3123. This course focuses on hardware (HW) security and covers security and trust from the HW perspective. It introduces students to HW components, including SoC and PCB, and examines security and trust issues in such HW components. Topics include digital lock, circuit theory, ASICs and FPGAs, HW security threats, malware, and attacks, along with specific countermeasures against HW attacks. (F)
CYBS 3440 Mentored Research Experience
3 Credit Hours
0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it the with the URCP office. Not for honors credit. (F, Sp, Su)

CYBS 3743 Cyberforensics Fundamentals
3 Credit Hours
Prerequisite: CYBS 3213. This course introduces students to cyber forensics and cyber-crime scene analysis fundamentals. The various laws and regulations dealing with computer forensic analysis are discussed. Students are introduced to the emerging international standards for cyber forensic analysis and a formal methodology for conducting computer forensic investigations. (Sp)

CYBS 3813 Network Fundamentals
3 Credit Hours
Prerequisite: C S 2413, MATH 1914, and either C S 2813 or MATH 2513. Introduces the fundamentals of computer networks, including network architectures, network topologies, network protocols, layering concepts (for example, ISO/OSI, TCP/IP reference models), wired and wireless network protocols, communication paradigms (point-to-point vs. multicast/broadcast, connectionless vs. connection-oriented), and networking APIs (sockets). Protocols in all layers will be introduced. In this course, socket programming is also introduced. (Sp)
CYBS 3913 Database Fundamentals
3 Credit Hours
Prerequisite: C S 2413, MATH 1914, and either C S 2813 or MATH 2513. Introduction to the concepts behind relational database systems, modeling with Entity-Relationship diagrams and how these are used for data design. SQL to define, manipulate, and test the database, programmatic access, and practical issues. Strong foundation in database security, auditing principles, practices and methodologies. Topics: application security models, security architecture, access controls, auditing, trust management, privacy, threat vectors, and attack methods. (Sp)
CYBS 3990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: permission of instructor and junior standing. May be repeated once with change of content. Independent study may be arranged to study a subject not available through regular course offerings. (F, Sp, Su)
CYBS 4103 Engineering Secure Software
3 Credit Hours
Prerequisite: CYBS 3813 and CYBS 3913. This course covers topics at the intersection of security and software engineering. This course introduces software engineering processes and standards for building secure software applications. It discusses secure software life cycle development principles to include security in every phase. It also explores security issues and vulnerabilities in software applications due to a lack of secure software engineering processes. (F)

## CYBS 4123 System Administration

(Slashlisted with CYBS 5123) Prerequisite: CYBS 3123. This course provides a comprehensive introduction to system administration. Topics include virtualization, authentication and authorization, directory services, system management, and system security and set up of modern compute and storage clouds, networking systems, file systems, logging and analysis, and networking. Includes topics related to scripting for all administrative functions. Emphasis is placed on enterprise-level systems. No student may earn credit for both 4123 and 5123. (F, Sp)
CYBS 4133 Ethical Hacking and Penetration Testing 3 Credit Hours (Slashlisted with CYBS 5133) Prerequisite: CYBS 3113. This course covers concepts related to ethical hacking and penetration testing methods to assess, exploit, and report security vulnerabilities on systems and their resources. The course will emphasize the ethical application of penetration testing methods and hacking tools. No student may earn credit for both 4133 and 5133. ( $\mathrm{F}, \mathrm{Sp}$ )

## CYBS 4203 Cybersecurity Risk Management and Assessment Credit <br> 3

(Slashlisted with CYBS 5203) Prerequisite: CYBS 3213. This course develops competency in information security policies and plans, including controls for physical hardware, software, and networks. The course introduces security risk detection strategies, countermeasures, damage assessment, and control. The course introduces the students to performing information system risk analysis and management audits. Tools for analyzing log files of various kinds will also be introduced. No student may earn credit for both 4203 and 5203. (F)
CYBS 4293 Introduction to Cloud Computing and Security 3 Credit Hours
(Slashlisted with CYBS 5293) Prerequisite: CYBS 3113. Course covers the concepts behind cloud computing, including storage and computing. We will also learn about virtualization, software as a service, and deployment models. We will learn about cybersecurity risks on cloud infrastructure and countermeasures using access policies, distributed access control, key management, and others. Covers topics in the cloud computing security guidelines set forth in international standards organizations. No student may earn credit for both 4293 and 5293. (Sp)
CYBS 4323 IoT Security and Privacy 3 Credit Hours (Slashlisted with CYBS 5323) Prerequisite: CYBS 3323. This course prepares students to securely develop and operate Internet of Things (IOT) devices considering security and privacy. The course covers concepts of IoT architectures with a focus on security and privacy issues. No student may earn credit for both 4323 and 5323. ( $\mathrm{F}, \mathrm{Sp}$ )
CYBS 4333 Incidence Response Management 3 Credit Hours
(Slashlisted with CYBS 5333) Prerequisite: CYBS 3123. This course provides a comprehensive treatment of cyber incidents and how to manage them, including understanding attacker motivation, attack methods, and the anatomy of the attacks. Additionally, topics related to incidence readiness, remote triage tools, memory analysis, malware analysis, disk forensics, network intrusion detection tools, and others will be discussed. No student may earn credit for both 4333 and 5333. (F, Sp)

## CYBS 4473 Network Security

3 Credit Hours
(Slashlisted with CYBS 5473) Prerequisite: CYBS 3113. The course deals with understanding all aspects of cybersecurity that involve the network. Topics will include network transport-level security, wireless network security, electronic mail security, IP security, firewalls, VPNs, Secure HTTP, person-in-the-middle attack scenarios, and SSL/TLS and SSH (SP). Learn about various tools for analyzing network data at various levels of the TCP/IP stack and operating security operations centers. No student may earn credit for both 4473 and 5473. (F)

CYBS 4583 Machine Learning for Cybersecurity 3 Credit Hours
Prerequisite: CYBS 3213 and CYBS 3223. Various machine learning concepts, deep learning, time-series analysis, data mining, and other machine-learning concepts. Tools and libraries to analyze data sets, build predictive models, and evaluate the fit of the models. Common learning algorithms, including dimensionality reduction, classification, principal-component analysis, k-NN, k-means clustering, gradient descent, regression, logistic regression, regularization, multiclass data, algorithms, boosting and decision trees. Applies concepts to problems. ( $\mathrm{F}, \mathrm{Sp}$ )
CYBS 4883 Cryptography Fundamentals 3 Credit Hours Prerequisite: CYBS 3213. This course introduces cryptography and its related tools. Specifically, in this course, cryptographic algorithms, protocols, and techniques will be introduced. The course will also introduce students to public key encryption, key exchange protocols, digital signatures, hashing-based encryption, and Data Encryption Standards. This course will also introduce cryptographic implementation in software and web application programming. (F)
CYBS 4953 Operating and Maintaining Cyber Ranges 3 Credit Hours Prerequisite: CYBS 4473 . Students will learn to use and build a cyber range for various assessments of threats and exploits. They will learn to build configurations for different business operations and the formation of red and blue team exercises. Students will have real-world experiences in handling situations without the real-world risk associated with practicing on live production equipment and systems. (Sp)
CYBS 4963 Cybersecurity Capstone 3 Credit Hours
Prerequisite: CYBS 4103 and Senior Standing. Provides the students with an experience to exhibit their knowledge and skills in all areas of cybersecurity. Students will work in small groups to identify and scope a cybersecurity problem and/or challenges. Required to write a proposal about their project and asked to create a work plan to develop solution to solve the problem/challenge. Create a final report and presentation. (Sp)
CYBS 4990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: permission of instructor and senior standing. May be repeated once with change of content. Contracted independent study for topic not currently offered in regularly scheduled courses. ( $F, \mathrm{Sp}$, $\mathrm{Su})$
CYBS 5113 Introduction to Cybersecurity Leadership 3 Credit Hours Prerequisite: Graduate standing. This course provides an in-depth exploration of insider threats within organizations and the strategies for managing and mitigating these risks. Students will learn about the motivations behind insider threats, detection methods, prevention techniques, and deterrence mechanisms. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
CYBS 5123 System Administration
3 Credit Hours
(Slashlisted with CYBS 4123) Prerequisite: Graduate Standing. This course provides a comprehensive introduction to system administration. Topics include virtualization, authentication and authorization, directory services, system management, and system security and set up of modern compute and storage clouds, networking systems, file systems, logging and analysis, and networking. Includes topics related to scripting for all administrative functions. Emphasis is placed on enterprise-level systems. No student may earn credit for both 4123 and 5123. (F, Sp)

CYBS 5133 Ethical Hacking and Penetration Testing 3 Credit Hours (Slashlisted with CYBS 4133) Prerequisite: Graduate Standing. This course covers concepts related to ethical hacking and penetration testing methods to assess, exploit, and report security vulnerabilities on systems and their resources. The course will emphasize the ethical application of penetration testing methods and hacking tools. No student may earn credit for both 4133 and 5133. ( $F, \mathrm{Sp}$ )

CYBS 5203 Cybersecurity Risk Management and Assessment 3 Credit

Hours
(Slashlisted with CYBS 4203) Prerequisite: Graduate Standing. This course develops competency in information security policies and plans, including controls for physical hardware, software, and networks. The course introduces security risk detection strategies, countermeasures, damage assessment, and control. The course introduces the students to performing information system risk analysis and management audits. Tools for analyzing log files of various kinds will also be introduced. No student may earn credit for both 4203 and 5203. (F)
CYBS 5213 Behavioral Cybersecurity 3 Credit Hours
Prerequisite: Graduate standing. This course explores the interdisciplinary field of behavioral cybersecurity, emphasizing the role of human personality in cybersecurity practices. It aims to address the growing challenges posed by the digital age. Course will examine the application of psychological methods, profiling techniques, and the use of game theory in understanding human behavior. (F, Sp, Su)

CYBS 5233 Cybersecurity Ethics, Policy, and Law 3 Credit Hours Prerequisite: Graduate standing. This course explores the intersection of ethics, policy, and law within the realm of cybersecurity. Students will engage with case studies, legal frameworks, and ethical dilemmas to critically analyze and navigate the complex landscape of digital security. The goal is to develop a foundation for applying ethical considerations in any organizational structure. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
CYBS 5243 Threat Hunting and Incident Response 3 Credit Hours Prerequisite: Graduate standing. This course provides an in-depth exploration of threat hunting and incident response in cybersecurity. It moves beyond traditional defensive measures to actively seek out and mitigate novel cyber threats. Students will learn how to plan, execute, and recover from hunts, customize frameworks for specific use cases, and respond to incidents, including ransomware attacks. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

## CYBS 5253 Cybercrime and Cybersecurity

3 Credit Hours
Prerequisite: Graduate standing. This course delves into the intricacies of cybersecurity and cybercrime, offering a comprehensive overview of the challenges and strategies associated with protecting digital assets. Students will explore various threats, risk management approaches, and the critical roles of people, processes, and technology in cybersecurity. (F)

## CYBS 5293 Introduction to Cloud Computing and Security 3 Credit Hours

(Slashlisted with CYBS 4293) Prerequisite: Graduate Standing. Course covers the concepts behind cloud computing, including storage and computing. We will also learn about virtualization, software as a service, and deployment models. We will learn about cybersecurity risks on cloud infrastructure and countermeasures using access policies, distributed access control, key management, and others. Covers topics in the cloud computing security guidelines set forth in international standards organizations. No student may earn credit for both 4293 and 5293. (Sp)
CYBS 5303 Insider Threat and Risk Management 3 Credit Hours Prerequisite: Graduate standing. This course provides an in-depth exploration of insider threats within organizations and the strategies for managing and mitigating these risks. Students will learn about the motivations behind insider threats, detection methods, prevention techniques, and deterrence mechanisms. (F, Sp, Su)

CYBS 5323 IoT Security and Privacy
3 Credit Hours
(Slashlisted with CYBS 4323) Prerequisite: Graduate Standing. This course prepares students to securely develop and operate Internet of Things (IoT) devices considering security and privacy. The course covers concepts of IoT architectures with a focus on security and privacy issues. No student may earn credit for both 4323 and 5323. (F, Sp)
CYBS 5333 Incidence Response Management 3 Credit Hours (Slashlisted with CYBS 4333) Prerequisite: Graduate Standing. This course provides a comprehensive treatment of cyber incidents and how to manage them, including understanding attacker motivation, attack methods, and the anatomy of the attacks. Additionally, topics related to incidence readiness, remote triage tools, memory analysis, malware analysis, disk forensics, network intrusion detection tools, and others will be discussed. No student may earn credit for both 4333 and 5333. (F, Sp)
CYBS 5383 Trust in Artificial Intelligence
3 Credit Hours
Prerequisite: Graduate standing. This course explores the intersection of artificial intelligence (AI), management, and trust, delving into how these elements influence each other in modern organizations. It covers various aspects of trust in Al , including organizational, psychological, technological, and ethical dimensions. The course also examines the role of trust in human-machine interaction, Al's impact on innovation, and reducing costs. (F, Sp, Su)
CYBS 5443 Cyber Threat and Intelligence
3 Credit Hours
Prerequisite: Graduate standing. This course explores the dynamic and complex nature of cyber threats and the role of intelligence in addressing them. It covers the spectrum of threat intelligence, from tactical to strategic levels, and delves into the methodologies and technologies used to gather, analyze, and apply intelligence to enhance cybersecurity. (F, Sp, Su)
CYBS 5453 Cybersecurity in a Cloud Environment 3 Credit Hours
Prerequisite: Graduate standing. This course provides an in-depth look into the multifaceted aspects of cybersecurity within cloud computing environments. Covering fundamental concepts, architecture, software security, risk issues, and life cycle concerns, students will learn how to secure cloud services and infrastructure effectively. (F, Sp, Su)
CYBS 5473 Network Security
3 Credit Hours
(Slashlisted with CYBS 4473) Prerequisite: Graduate Standing. The course deals with understanding all aspects of cybersecurity that involve the network. Topics will include network transport-level security, wireless network security, electronic mail security, IP security, firewalls, VPNs, Secure HTTP, person-in-the-middle attack scenarios, and SSL/TLS and SSH (SP). Learn about various tools for analyzing network data at various levels of the TCP/IP stack and operating security operations centers. No student may earn credit for both 4473 and 5473. (F)

## CYBS 5903 Master's Practicum

3 Credit Hours
Prerequisite: Graduate Standing. The course provides the students with a culminating experience to exhibit their knowledge and skills in all areas of cybersecurity. Students will collaboratively work in small groups to identify and scope a current cybersecurity problem and/or challenge. Students will be required to write a proposal, create a work plan, draft a final report and make a presentation. (Sp)

## CYBS 5963 Strategic Planning in Cybersecurity Practicum 3 Credit

 HoursPrerequisite: Graduate standing. This capstone course delves into the strategic planning and leadership aspects of cybersecurity. Students will explore the relationship between the business environment and organizational goals, risk management, and protecting information assets. The course will provide tools to build a cybersecurity strategic plan, develop IT security policies, and lead teams in the execution of these plans. (Irreg.)

CYBS 5980 Research for Master's Thesis
2-9 Credit Hours
2 to 9 hours. Prerequisite: Graduate Standing and Instructor Permission. Directed research culminating in the completion of the master's thesis. Variable enrollment, permission of instructor required, two to nine hours; maximum credit required for degree, six hours. (F, Sp)

## Faculty

The faculty at OUPI bring a rich blend of industry and academic research experience in communications, automotive, heavy equipment control systems, biotech, law enforcement, first-responder and defense electronics, fintech, and high-end computing. Research interests of the faculty stretch across many applications and industries in cybersecurity, software development and integration, artificial intelligence, and digital manufacturing.

| Last Name | First/Middle Middle <br> Name <br> init. | OU <br> Service <br> start | Title(s), date(s) <br> appointed | Degrees Earned, <br> Schools, Dates |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Beattie | Matthew | J | 2023 | Adjunct of Artificial <br> Intelligence | PhD, University of <br> Oklahoma, 2022 |
| Butt | Ahmed | Ashraf | 2024 | Assistant Professor <br> of Artificial | PhD, Purdue <br> Intelligence |
| Freeze | Christopher |  | 2023 | Assistant Professor <br> of Cybersecurity | PhD, University of |
| Hassellahoma 2023 |  |  |  |  |  |

## Cybersecurity, B.S.

Minimum Total Credit Hours: 120
Minimum Upper-Division Hours: 40

Overall GPA - Combined and OU: 2.00
Major GPA - Combined and OU: 2.00
Program Code: B264

A grade of C or better is required in each course in the curriculum, including all prerequisite courses.

## Major Requirements

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Required Courses |  |  |
| CYBS 3113 | Operating Systems Fundamentals | 3 |
| CYBS 3123 | Introduction to Unix Systems | 3 |
| CYBS 3213 | Foundations of Cybersecurity | 3 |
| CYBS 3223 | Applied Statistics for Computing | 3 |
| CYBS 3313 | Introduction to Cyber Ethics and Law | 3 |
| CYBS 3323 | Hardware Security | 3 |
| CYBS 3743 | Cyberforensics Fundamentals | 3 |
| CYBS 3813 | Network Fundamentals | 3 |
| CYBS 3913 | Database Fundamentals | 3 |
| CYBS 4103 | Engineering Secure Software | 3 |
| CYBS 4203 | Cybersecurity Risk Management and | 3 |
| CYBS 4293 | Introduction to Cloud Computing and | 3 |
| CYBS 4473 | Security | 3 |
| CYBS 4883 | Cryptography Fundamentals | 3 |
| CYBS 4963 | Cybersecurity Capstone | 3 |
| Major Electives |  | 3 |
| Choose 4 approved CYBS electives from a list maintained by | 12 |  |
| the department |  | 3 |
| Total Credit Hours | 3 |  |

## Major Support Requirements

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Math and Science |  |  |
| MATH 2423 | Calculus and Analytic Geometry II ${ }^{1}$ | 3 |
| C S 1324 | Introduction to Computer Programming for | 4 |
|  | Non-Programmers |  |
| C S 2334 | Programming Structures and Abstractions | 4 |
| C S 2413 | Data Structures | 3 |
| C S 2813 | Discrete Structures | 3 |
| or MATH 2513 | Discrete Mathematical Structures |  |

Total Credit Hours
${ }^{1}$ Students may take MATH 1743 and MATH 2123 or MATH 1914 and MATH 2924 in place of MATH 1823 and 2423.

## General Education and College Requirements

Courses designated as Core I, II, III, IV, or V are part of the General Education curriculum. Students must complete a minimum of 40 hours of General Education courses, chosen from the approved list, including at least one upper-division Gen. Ed. course outside of the student's major. Courses graded P/NP will not apply.

A grade of $C$ or better is required in each course in the curriculum, including all prerequisite courses.

of General Education courses, chosen from the approved list. Two college-level courses in a single world language are required; this may be satisfied by successful completion of 2 years in a single world language in high school. Students who must take language at the University will have an additional 6-10 hours of coursework.

## Freshman

| First Semester |  | Credit |
| :---: | :---: | :---: |
|  |  | Hours |
| ENGL 1113 | Principles of English Composition (Core I) | 3 |
| MATH 1823 | Calculus and Analytic Geometry I (Core I) | 3 |
| C S 1324 | Introduction to Computer Programming for Non-Programmers | 4 |
| HIST 1483 or HIST 1493 | United States to 1865 (Core IV) or United States, 1865 to the Present | 3 |
| First-Year Experience (Core V) ${ }^{1}$ |  | 3 |
|  | Credit Hours | 16 |
| Second Semester |  |  |
| $\begin{aligned} & \text { ENGL } 1213 \\ & \text { or EXPO } 1213 \end{aligned}$ | Principles of English Composition (Core I) or Expository Writing | 3 |
| MATH 2423 | Calculus and Analytic Geometry II | 3 |
| C S 2334 | Programming Structures and Abstractions | 4 |
| P SC 1113 | American Federal Government (Core III) | 3 |
| Open Elective, lower-division ${ }^{2}$ |  | 3 |
|  | Credit Hours | 16 |

## Sophomore

First Semester

| C S 2813 <br> or MATH 2513Discrete Structures <br> or Discrete Mathematical Structures | 3 |
| :--- | ---: | ---: |
| C S 2413 $\quad$ Data Structures | 3 |
| Social Science (Core III) $^{1}$ | 3 |
| Natural Science (Core II) $^{3}$ | 3 |
| World Culture (Core IV) $^{1}$ | 3 |
| Credit Hours | $\mathbf{1 5}$ |

## Second Semester

Western Culture (Core IV) ${ }^{1} 3$
Natural Science with Lab (Core II-Lab) ${ }^{3}$ 4
Open Elective, lower-division ${ }^{2} 3$

| Open Elective, lower-division $^{2}$ | 3 |
| :---: | ---: |
| Credit Hours | 13 |

Junior
First Semester
CYBS 3213 Foundations of Cybersecurity 3
CYBS 3123 Introduction to Unix Systems 3
CYBS 3223 Applied Statistics for Computing 3
CYBS 3323 Hardware Security 3
Upper-Division Elective (3000-4000), Artistic Forms (Core IV) ${ }^{1} \quad 3$

## Second Semester

CYBS 3113 Operating Systems Fundamentals 3
CYBS 3313 Introduction to Cyber Ethics and Law 3
CYBS 3743 Cyberforensics Fundamentals 3
CYBS 3813 Network Fundamentals 3

| CYBS 3913 | Database Fundamentals | 3 |
| :---: | :---: | :---: |
|  | Credit Hours | 15 |
| Senior |  |  |
| First Semester |  |  |
| CYBS 4103 | Engineering Secure Software | 3 |
| CYBS 4203 | Cybersecurity Risk Management and Assessment | 3 |
| CYBS 4473 | Network Security | 3 |
| CYBS Major Elective |  | 3 |
| CYBS Major Elective |  | 3 |
|  | Credit Hours | 15 |
| Second Semester |  |  |
| CYBS 4293 | Introduction to Cloud Computing and Security | 3 |
| CYBS 4883 | Cryptography Fundamentals | 3 |
| CYBS 4963 | Cybersecurity Capstone | 3 |
| CYBS Major Elective |  | 3 |
| CYBS Major Elective |  | 3 |
|  | Credit Hours | 15 |
|  | Total Credit Hours | 120 |
| ${ }^{1}$ To be cho <br> Course Lis <br> See list in <br> ${ }^{2}$ Open electiv <br> ${ }^{3}$ Courses ta chosen fro List (Core laboratory | rom the University-Wide General Education ree of these hours must be upper-divisi lass Schedule. <br> are not required to be General Educatio to fulfill the Natural Science requiremen e University-Wide General Education Ap least one of the natural science cours ponent. |  |

## Approved Cybersecurity Electives

- For the most current list of approved electives, please contact the department.

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| CYBS 4123 | System Administration | 3 |
| CYBS 4133 | Ethical Hacking and Penetration Testing | 3 |
| CYBS 4323 | IoT Security and Privacy | 3 |
| CYBS 4333 | Incidence Response Management | 3 |
| CYBS 4583 | Machine Learning for Cybersecurity | 3 |
| CYBS 4953 | Operating and Maintaining Cyber Ranges | 3 |
| CYBS 3440 | Mentored Research Experience | 3 |
| CYBS 3990 | Independent Study | $1-3$ |
| MATH 2443 | Calculus and Analytic Geometry IV | $3-4$ |
| or MATH 2934 | Differential and Integral Calculus III |  |

Any 3000- or 4000-level MATH course

## COLLEGE OF PROFESSIONAL AND CONTINUING STUDIES



1700 Asp Avenue
Norman, OK 73072-6405
Phone: (405) 325-4414
Toll free: (800) 522-0772 ext. 4414
College Website:
http://pacs.ou.edu

## Administrative Officers

Gregg Garn, Ph.D., Interim Dean and Vice President of Online Learning David Babb, Ph.D., Associate Dean

## General Information

## Mission and Description of the College

The College of Professional and Continuing Studies (PACS) was established in 1960 to serve the higher education needs of adult and non-traditional students. The college's mission is to provide access to transformational, world-class University of Oklahoma degrees, certifications, and programs for a diverse group of learners. The college is best characterized by the populations it serves, as well as the specialized programming it offers. Primarily focusing on the higher education needs of place-bound working adults, military-connected personnel, and those seeking specialized study in selected professional areas, the college offers a variety of undergraduate degrees, professional development courses, and lifelong learning programs. To facilitate understanding of the complex world in which we live and building on its historical roots, the college emphasizes a holistic approach to learning, focuses on the immediate application of learning to one's life and work, promotes lifelong learning opportunities, and encourages the work of active citizenship. While its programs were originally developed for adult and non-traditional students, many of the seminars, colloquia, and conferences offered by the college also serve students enrolled in conventional academic programs, as well as the general public.

## Faculty and Leadership

The College of Professional and Continuing Studies utilizes a combination of its own departmental faculty, faculty from other University of Oklahoma colleges, and qualified practice professionals who serve
as adjunct instructors to teach, advise, and mentor students. Faculty and instructors are invited to participate in the college's programs on the basis of their professionalism and commitment to the mission, values, and goals of the organization. Leadership for the College of Professional and Continuing Studies is vested in the Dean, Associate Dean, college faculty, and senior staff.

## General University Policies

Students enrolled through the College of Professional and Continuing Studies are subject to the University of Oklahoma's general policies, scholastic regulations, and standards as outlined in the University's General Catalog. Questions concerning OU policies or procedures should be directed to the college.

## Programs Offered

## Programs Governed by PACS

- College of PACS Administrated Programs (p. 1792)
- Integrative Studies, B.A. (p. 1794)
- Integrative Studies Bachelor of Arts Elective Course List (p. 1795)
- Interdisciplinary Studies: Aerospace \& Defense Management, B.A. (p. 1795)
- Interdisciplinary Studies: Business Administration, B.A. (p. 1797)
- Interdisciplinary Studies: Construction Management, B.A. (p. 1798)
- Interdisciplinary Studies: Criminal Justice Leadership, B.A. (p. 1800)
- Interdisciplinary Studies: Healthcare Management, B.A. (p. 1801)
- Interdisciplinary Studies: Learning and Education Studies, B.A. (p. 1803)
- Interdisciplinary Studies: Organizational Leadership, B.A. (p. 1804)
- Lifespan Care Administration (Online), B.A. (p. 1806)
- Organizational Leadership, B.A. (p. 1808)
- Criminal Justice (Online), B.S. (p. 1809)
- Criminal Investigation and Intelligence Analysis, Minor (p. 1810)
- Criminal Justice, Minor (p. 1811)
- Organizational Leadership, Minor (p. 1811)
- Restorative Justice, Minor (p. 1812)


## Programs and Facilities <br> Campus-Affiliated Programs <br> OU Testing Center

Competency-based credit is available to students through the OU Testing Center, which offers College Level Examination Program (CLEP), Defense Activity for Non-Traditional Education (DANTES) Standardized Subject Tests (DSST), and institutionally developed Prior Learning Assessment exams. The Testing Center also offers the American College Testing (ACT) residual exam, Test of English as a Foreign Language (TOEFL), Graduate Record Exam (GRE), and the FAA Airman's Knowledge Test. For more information about the OU Testing Center, email testing@ou.edu or call (405) 325-1921.

## Developmental Studies

The Developmental Studies program is a partnership between the OU College of Professional and Continuing Studies and Rose State College. The program offers OU students a convenient way to strengthen
their academic foundations prior to beginning University-level courses required in OU academic degrees. DMAT 0113, DMAT 0123, DENG 0113 , and DRDG 0122 are offered as courses to assist students in assuring their readiness to succeed in regular University-level coursework. For more information on these programs, call (405) 325-5101.

## Lifelong Learning Programs

## Economic Development Institute

The OU Economic Development Institute (EDI) is the premier economic development program in the nation, with 60 years of experience providing professional economic developers with up-to-date knowledge and tools necessary to succeed in today's constantly-changing environment. More than 6,000 professionals have completed the full certification course, widely recognized throughout the profession. The OU EDI experience is designed to immediately impact a participant's professional career through the usage of best practices. It also provides all coursework needed to sit for the International Economic Development Council (IEDC) CEcD certification exam. Please email edi@ou.edu or call (405) 325-3136 for additional information.

## Lean Institute

The OU Lean Institute (OULI) offers a wide variety of classes, certifications and coaching in Lean/Six Sigma, Lean Leadership, and Business Culture Transformation. Since 2004, The Institute has served a broad spectrum of private sector businesses, governmental agencies, and non-profits, saving money and other resources by improving efficiency and reducing waste. The Lean Institute teaches through project-based training, with students learning by making real world improvements in their companies and organizations. Our instructors, who are also expert field practitioners, work with students and clients on-site, in person and remotely. Participants in our training programs receive professional certificates from the University of Oklahoma and have the opportunity to complete white, green, and black belts in Lean Six Sigma. Our participants also acquire continuing education units (CEUs) necessary for many professional licenses. Successfully educating thousands in its nearly 20 years, the Lean Institute trains and works with clients in virtually all fields including transactional, service, manufacturing, health care, military, government, banking, energy, and education. Please email lean@ou.edu or call (405) 325-3136 for more information.

## Laurance Reid Gas Conditioning Conference (LRGCC)

The Laurance Reid Gas Conditioning Conference (LRGCC) has been presented by the University of Oklahoma since 1951. The LRGCC has a worldwide reputation as the principal forum for preparing and purifying natural gases and other fuels. It is a crucial conference for professionals in the gas processing, conditioning, and sweetening industries. The program provides technological advances, theoretical breakthroughs, and current research in the field. For more information about this conference, email Imartinez@ou.edu.

## Other Energy \& Engineering Programs

The College of Professional and Continuing Studies offers additional niche training seminars and courses that include the annually held Corrosion Control Course and Gas Compressor Short Course, as well as the monthly\#Blowout Prevention School. For more information on these programs, call (405) 325-3136.

## Osher Lifelong Learning Institute (OLLI)

The Osher Lifelong Learning Institute (OLLI) at the University of Oklahoma is dedicated to promoting lifelong learning and personal growth of older adults, age 50+, through a variety of noncredit courses. Initially, these programs took the form of travel study opportunities and Elderhostel courses. In the 1980s, OU developed a dedicated learning
unit to serve the learning needs of mature adults, which was known as Senior Adult Services (SAS). In 2006, SAS received a grant from The Bernard Osher Foundation in California to become one of 125 Osher Lifelong Learning Institutes in America. The grant allows the program to do more of what it does best - serve Oklahoma's mature learners. In 2010, the program was endowed with a \$1 million gift from The Bernard Osher Foundation to sustain OLLI operations. Today, OLLI at OU provides educational and enrichment opportunities for adult learners through both the aforementioned avenues, including Mornings with the Professor Senior Seminars, and invitations to special events. For more information about OLLI, email olli@ou.edu or call (405) 325-3488.

## Precollegiate Programs

OU Precollegiate Programs provides academic and leadership programs for K-12 students, through a variety of academic enrichment activities. The program reaches 3,000 youth each year through academic programs, including summer academies funded by the Oklahoma State Regents for Higher Education in STEAM fields, NSF-funded summer research opportunities for high school students, Mini College summer camp for elementary school students, and Model United Nations of the Southwest Precollegiate Programs has a long tradition of service to the broader community and serves as a way to engage K-12 youth in educational opportunities on a university campus and encourage them to engage on a path to higher education. For more information about OU Precollegiate Programs, email precollegiateprograms@ou.edu or call (405) 325-6897.

## Thurman J. White Forum Building and Conference Services

As an integral part of the College of Professional and Continuing Studies, the Thurman J. White Forum hosts over 3200 events annually for more than 108,000 attendees. Participants come from across the United States and beyond to attend conferences, meetings, courses, and training offered in a variety of in-person and virtual formats.

The Forum Conference Services team provides turn-key professional meeting support to University and non-University groups. Available services include event planning, marketing, coordinating contracts with outside services, and online and on-site registration. OU Forum Conference Services also provides comprehensive on-site event management at the Forum Building, as well as other venues on the OU campus, hotels in Norman, and nearby cities.

The Forum Building is equipped with a full complement of $A / V$ and meeting equipment in all meeting spaces, including ceiling mounted projectors and screens, sound-systems, laptops, wi-fi, whiteboards, and lecterns. Staff are available on-site during all event hours to provide technical and logistical support. Forum Conference Services also offers beverage service and can arrange for event catering needs.

For more information about Forum Conference Services, please email conferenceservices@ou.edu or call (405) 325-7378.

## Undergraduate Study Goals of Undergraduate Programs

The undergraduate curriculum offered by the College of Professional and Continuing Studies (PACS) is designed to help students gain greater self-awareness and realization of their potential in both work and life contexts, with a focus on helping them become ready to excel in some of the most in-demand fields in the region.

While pursuing their degrees, students will not only become well versed in their chosen areas of study, they will master the skills necessary to excel
in the workforce, setting them up for career advancement and higher salaries.

## Online Coursework

The college offers its undergraduate degree programs in a $100 \%$ online format. All courses are considered asynchronous, meaning that students are not required to be online at the same time as their professors and classmates. Online courses are typically offered in five, eight-week academic sessions throughout the year - two sessions during the fall, two during the spring, and one during the summer. Students may choose to enroll in two courses (six hours) during each of the available academic sessions, allowing them to make full-time progress toward completion of their degree.

Online courses are provided through the University of Oklahoma's learning management system, Canvas, which can be accessed anywhere with an internet connection utilizing a smart phone, tablet, laptop, or desktop computer. The Canvas classroom environment facilitates student learning by providing a single location to access online lectures, learning materials, reading assignments, and discussion topics. Canvas also allows students to upload their assignments for instructor assessment, grading and feedback.

## Admission to the College

Individuals wishing to pursue an undergraduate degree from the College must be fully admitted to the University of Oklahoma before beginning their coursework.

Individuals applying for admission to the PACS Adult Degree Completion (ADC) Program must be 25 years of age or older at the start of their first semester. They should also have completed at least 60 hours of lettergraded college credit with a 2.0 GPA or higher.

Applications to the ADC program can be completed at https:// attend.ou.edu/. No application fee is required.

Students must submit official college transcripts from all previously attended academic institutions. International students must also demonstrate English proficiency.

Official transcripts must be enclosed in a sealed envelope and mailed directly from the institutions you attended to the following address:

OU College of Professional and Continuing Studies
Office of Admissions, Registration, and Records
1610 Asp Avenue, Suite 108
Norman, OK 73072-6405
Transcripts can also be submitted electronically to pacsugadmissions@ou.edu directly by the institutions you attended.

Application deadlines and additional information about the ADC application process can be found at the following location: https:// www.ou.edu/online/admissions/undergraduate. Applications for admission can be submitted at any time of year, and students are encouraged to apply as early as possible to complete the admission process in advance of anticipated attendance.

Questions concerning admissions should be directed to:
Phone: (405) 325-1062
Toll-free: (800) 522-4389
Email: pacsinfo@ou.edu

## Student Status and Enrollment

Current student status is effective for one year from the time of admission. If an admitted student does not enroll within one year, an application for readmission must be filed.

PACS reserves the right to cancel any course prior to its starting date if the course does not have sufficient enrollments.

## Fee Structure and Payment

For the 2023-2024 academic year, all students registered in the PACS Adult Degree Completion Program will be charged a flat programmatic rate of $\$ 500$ per credit hour.

All university-related charges are billed through OU Bursar Services. Payment options are available and will be described in the electronic bill students receive from the Bursar. For additional billing information, please contact the Student Financial Center at (405) 325-9000 or sfc@ou.edu.

## Other Educational Expenses

In addition to the programmatic fee charged per credit hour, students will be financially responsible for obtaining textbooks and any other required study materials. Students will also assume responsibility for travel and living expenses associated with attending any optional on-site seminars, as well as any material or field trip fees associated with these optional learning activities.

## Refund Policy

A student withdrawing completely from a PACS program may be entitled to a refund. Students should contact their academic advisor for the refund policies associated with their program of study.

## Financial Aid / Tuition Assistance

Most PACS undergraduate degree-seeking students are eligible to receive financial aid by completing the Free Application for Federal Student Aid (FAFSA). It takes a minimum of eight weeks to process financial aid materials, so students are encouraged to begin the financial aid process at least two months before the start of an academic session. For information concerning any financial aid matters, please contact PACS Financial Aid Services:

Phone: (405) 325-2929
Email: onlineaid@ou.edu
Website: https://pacs.ou.edu/tuition-financial-aid/
Some governmental agencies provide tuition assistance and other support programs for their employees. Likewise, many business and industrial corporations have available educational assistance programs. PACS students are urged to explore these types of assistance. Students who receive financial support from their employer are responsible for ensuring that any necessary authorization forms are forwarded to PACS in a timely fashion. Students are also responsible for knowing and meeting any criteria in respect to their enrollment status and their financial support.

## Military Education Assistance

## Tuition Assistance

Military-connected students using Tuition Assistance should begin by contacting their Education Officer for assistance. For any questions or concerns about current or future PACS enrollments, contact: vamilitarybilling@ou.edu.

## Veteran Benefits

Veterans and their dependents may be eligible to use US Department of Veteran Affairs (VA) education benefits for PACS programs. For more information, visit the VA's website, or contact OU Veteran Student Services.

## Scholarships

The College of Professional and Continuing Studies provides a number of scholarship opportunities for undergraduate through alumni contributions to the University of Oklahoma. The college offers Start-Up Scholarships each semester for newly matriculated students entering the Adult Degree Completion Program. Additionally, a variety of alumni and named (endowed) scholarships are awarded to undergraduate students who are eligible based on the guidelines provided for each scholarship.

For many years, the College of Professional and Continuing Studies has also administered the Osher Scholarship program, which provides funding for undergraduate students returning to college who have at least a five-year gap in their college enrollment history and are working to complete their first bachelor's degree. In 2013, the college applied for and received a \$1 million endowment gift to permanently endow the Osher scholarship that is administered through the college. Criteria and procedures related to PACS scholarships are available on the PACS website.

PACS students may also qualify for some University scholarships in addition to those offered by the college. Students should visit the OU Centralized Academic Scholarship Hub (CASH) to review available scholarship opportunities.

## University Services and Opportunities

PACS students have the same rights and responsibilities as other University students with respect to participation in most University programs and services, such as the Scholar-Leadership Enrichment Program, athletic events, museum access, cultural events, and other campus activities.

Some services for which traditional students pay additional semesterbased fees, such as Goddard Health Center and Sarkey's Fitness Center, may be available to PACS students for a usage or service charge.

## Grading System

Most courses offered by PACS are letter-graded (A-F) and utilize the grade point system ( $A=4, B=3, C=2, D=1, F=0$ ).

Some independent study courses and specially offered seminars may be S/U graded (satisfactory/ unsatisfactory). In these cases, a grade of ' $S$ ' at the undergraduate level signifies that work was completed at the ' D ' level or better and is necessary for receiving credit for a non-letter-graded course.

## Graduation

Students will become graduation candidates upon completion of all requirements for the degree they are pursuing. All OU students must apply for graduation. Please visit the OU Graduation Office website for deadlines, procedures, and details about convocations and graduation receptions.

Degrees are conferred by the University each year in December, May, and August. PACS commencement ceremonies are held in-person on the OU campus every May.

## Minimum Requirements for Graduation

- A minimum cumulative GPA of 2.0
- At least 30 hours earned from the University of Oklahoma
- At least 40 upper-division hours earned
- At least 60 hours earned from a four-year, baccalaureate-granting institution
- Completion of all general education requirements specified for the degree
- Completion of all major course requirements with a ' C ' or higher (or an ' S ', if enrolled in an $\mathrm{S} / \mathrm{U}$ graded course). Major course requirements cannot be taken as Pass/Fail
- Completion of additional free electives with a passing grade, so the total number of credit hours earned meets the minimum required for the degree being pursued


## Preparation for Graduate Study

All PACS undergraduate degree programs satisfy the baccalaureate degree requirement for admission to the OU Graduate College and most other graduate institutions. Some graduate programs, however, may require the completion of specific courses for full graduate standing in their major and/or minor fields of study. It is the important to inquire and learn of specific curricular and admission requirements before making application to a graduate program at OU or elsewhere, and it is the student's responsibility to do so for any graduate program to which the student wishes to apply.

## Awards and Recognition

PACS students and faculty are eligible to participate in recognition and award programs offered by the university and college. These awards are supported through gifts to the University of Oklahoma Foundation.

Each fall semester, one PACS bachelor's student is recognized as the college's outstanding senior in the OU Parent's Association award program. During the spring semester, an outstanding bachelor's graduate receives the Jesse E. Burkett Award, named for an early college administrator. The George Henderson Leadership Award is also awarded each spring, recognizing a bachelor's student who has displayed outstanding leadership ability in the college's undergraduate Organizational Leadership program. Each may, the college also selects a Banner Carrier to represent the college in convocation and commencement activities.

Faculty awards include the Kenneth E. Crook Award and the Rufus G. Hall Faculty Achievement Award, both named in honor of faculty founders of the college's original degree programs. The Superior Teaching Award is presented to the faculty member who best demonstrates superior teaching. Faculty awardees are selected for their teaching excellence and meritorious service to the college.

## Courses

LSAL 2700 Topics in Administrative Leadership 1-9 Credit Hours May be repeated with change of content; maximum credit nine credit hours. Specific course content will be defined each time the course is offered. A problem-oriented approach to Administrative Leadership. Reading and research, arranged and directed in consultation with the instructor, in specified areas of Administrative Leadership. (F, Sp, Su)

LSAL 3243 Lean Leadership
3 Credit Hours
Prerequisite: None. This course experience will give students an opportunity to examine their current perceptions of what makes for an effective leader in business/life situations and compare these perceptions with the primary mission of a Lean Leader. (Sp)

LSAL 3440 Mentored Research Experience
3 Credit Hours
0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)

LSAL 3533 Adapting To Changing Marketing Environments 3 Credit Hours
Prerequisite: junior standing or permission from CLS adviser. Focuses on innovative strategy planning that helps businesses survive in increasingly competitive markets. An analysis of the individual consumer as a problem solver who is influenced by psychological variables, social influences, and the purchase situation. Also studies the number, size, location, and buying behavior of various types of organizational customers, and logistics activities and how they provide time and place utility to improve value to the customer. ( $F, S p, S u$ )
LSAL 4700 Advanced Topics in Administrative Leadership 1-9 Credit Hours
Prerequisite: junior standing or permission from CLS adviser. May be repeated with change of content; maximum credit nine hours. Investigation into problems of leadership not covered in existing courses, and utilizing an interdisciplinary approach. Will culminate in a written report of investigation. Specific course content will be defined each time the course is offered. Reading and research, arranged and directed in consultation with the instructor, in specified areas of liberal studies. (F, Sp, Su)
LSAL 4920 Internship in Administrative Leadership 1-3 Credit Hours 1 to 3 hours. Prerequisite: junior standing and permission from CLS adviser. May be repeated with change of content; maximum credit nine hours. Field experience in issues related to a student's area of study. Students will gain knowledge through experiential and on-the-job practice. (F, Sp, Su)
LSAL 4960 Directed Readings 1-4 Credit Hours
1 to 4 hours. Prerequisite: junior standing and permission from PACS adviser and instructor. May be repeated; maximum credit four hours. Designed for upper-division students who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)

## LSAL 4970 Special Topics/Seminar <br> 1-3 Credit Hours

1 to 3 hours. Prerequisite: junior standing or permission from PACS adviser. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

## LSAL 4990 Independent Study

1-3 Credit Hours
1 to 3 hours. Prerequisite: Junior standing and permission of PACS adviser and instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)

LSCJ 2700 Topics in Criminal Justice
1-9 Credit Hours
May be repeated with change of content; maximum credit nine credit hours. Specific course content will be defined each time the course is offered. A problem-oriented approach to Criminal Justice. Reading and research, arranged and directed in consultation with the instructor, in specified areas of Criminal Justice. (F, Sp, Su)

LSCJ 3233 Restorative Justice and Problem-Solving Courts 3 Credit Hours
Prerequisite: Junior standing or permission from advisor. Exploration of the philosophies, principals and strategies of non-incarceration justice models that seek to rehabilitate offenders as well as reduce harm to society and victims. (F, Sp, Su)

LSCJ 3243 Capital Punishment
3 Credit Hours
Prerequisite: Sophomore standing, or permission from academic advisor. An exploration of historical, legal, ethical, and sociological aspects of capital punishment in the American experience. Topics include an examination of capital punishment as practiced from colonial times to present, the moral, legal, and political conflicts surrounding the American death penalty, the players and personalities in our capital punishment system, and representations of capital punishment in American culture. (F, Sp, Su)
LSCJ 3333 Special Populations in Corrections 3 Credit Hours Prerequisite: Junior standing or permission from academic advisor. Introduction to the management challenges presented by special populations in the criminal justice system, including individuals with mental illness, addictions, the disabled and the elderly. (F, Sp, Su)

LSCJ 3423 Computer Crime and Digital Investigation 3 Credit Hours Prerequisite: Junior standing or departmental permission. The course will examine the ways in which the digital world has changed legal concepts developed in the brick-and-mortar world. It will focus on cutting-edge legal issues related to cybercrime, obtaining digital evidence, privacy issues, and the intersection of these issues with civil liberties. (F, Sp, Su)
LSCJ 3440 Mentored Research Experience 3 Credit Hours
0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)

LSCJ 3953 Prospectus-Writing for Criminal Justice 3 Credit Hours Prerequisite: Junior standing and LSTD 3003, or permission from advisor. Preparatory course for LSCJ 4953 focusing on research methods, critical evaluation of academic literature, identifying and developing research topics, and improving academic writing. (F, Sp, Su)
LSCJ 4143 Drugs and Society
3 Credit Hours
Prerequisite: junior standing or permission from CLS adviser. Examines the impact of drug abuse on contemporary American society. Students learn about drug regulation and legal issues, how drugs affect the brain and shape behavior, and the various categories of drugs and their characteristics. Also focuses on drug abuse prevention, treating drug dependence, and law enforcement programs to address drugs in society. (F, Sp, Su)

LSCJ 4233 Community Policing and Problem Solving 3 Credit Hours
Prerequisite: Junior standing or permission from academic advisor. An introduction to the concept of community policing. Topics include an historic overview of policing in the US, the definition of and strategies used in community policing, and an exploration of challenges related to modern policing. Specific emphasis is placed on developing a tool set for law enforcement professionals to effectively lead police agencies into the future. (F, Sp, Su)

## LSCJ 4253 Corporate Security: Private Policing in the 21st

 Century3 Credit Hours
Prerequisite: Junior standing or permission from academic advisor. An examination of the operational aspects of private security and private forms of policing with particular emphasis towards how these functions relate to the broader public safety and homeland security landscape. (F, Sp, Su)
LSCJ 4700 Advanced Topics in Criminal Justice 1-9 Credit Hours Prerequisite: junior standing or permission from CLS adviser. May be repeated with change of content; maximum credit nine hours. Specific course content will be defined each time the course is offered. A problemoriented approach to criminal justice. Reading and research, arranged and directed in consultation with the instructor in specified areas of criminal justice. (F, Sp, Su)
LSCJ 4920 Internship in Criminal Justice 1-3 Credit Hours
1 to 3 hours. Prerequisite: junior standing and permission from CLS adviser. May be repeated with change of content; maximum credit nine hours. Field experience in issues related to a student's area of study. Students will gain knowledge through experiential and on-the-job practice. (F, Sp, Su)
LSCJ 4943 Practicum in Criminal Justice Leadership - SelfStudy 3 Credit Hours
Prerequisite: Criminal Justice major with senior standing, retention GPA of 2.8 or higher, consent of the Criminal Justice Department Lead Faculty, and any additional criteria as specified by the internship manual. A comprehensive work experience that promotes essential knowledge, skills, and abilities needed to succeed in the field of criminal justice. Options include cooperative education, apprenticeships, extended job shadowing, internships, and other systematic, planned work experiences. Approval of work experience and number of credits to be earned is required. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

## LSCJ 4953 Capstone in Criminal Justice <br> 3 Credit Hours

Prerequisite: Junior standing, LSTD 3003, and LSCJ 3953, or permission from advisor. Senior capstone course for criminal justice culminating in a scholarly paper focusing on a specialized topic or case study. Students will demonstrate mastery of research skills, critical and analytical thinking, academic writing, and programmatic knowledge. (F, Sp)

## LSCJ 4960 Directed Readings

1-4 Credit Hours
1 to 4 hours. Prerequisite: junior standing and permission from PACS adviser and instructor. May be repeated; maximum credit four hours. Designed for upper-division students who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)

## LSCJ 4970 Special Topics/Seminar

1-3 Credit Hours
1 to 3 hours. Prerequisite: junior standing or permission from PACS adviser. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

LSCJ 4990 Independent Study -3 Credit Hours
1 to 3 hours. Prerequisite: Junior standing and permission of PACS adviser and instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)

LSIS 3433 Positives and False Positives: Identifying Archaeoastronomy Pseudoscience 3 Credit Hours
Prerequisite: Junior Standing or departmental permission.
An introduction to the critical assessment of well-founded archaeoastronomy research in comparison with examples of popularized, but unsupported pseudoscience. (F, Sp)

LSIS 3473 Concepts and Methods for Astronomy in Culture

## 3 Credit Hours

Prerequisite: Junior Standing or departmental permission. This course focuses on the mechanics and methods of Cultural Astronomy and teaches proper data collection and publication. The underlying concepts of astronomy are introduced, and students are familiarized with research instruments such as sighting compasses, inclinometers, and theodolites. (F, Sp)

LSIS 4273 Understanding Educational Inequality in the
U.S. 3 Credit Hours

Prerequisite: Junior standing or permission from CLS adviser. An examination of inequality within the American educational system from K -12 to higher education utilizing demographic data and analyzing current research on inequality based upon race, class, and gender. ( $\mathrm{F}, \mathrm{Sp}$, Su )

LSIS 4283 Class and Economic Inequality in America 3 Credit Hours Prerequisite: Junior standing or permission from CLS adviser. An examination of how social class and socio-economic status (SES) operate in American society, including how media and research findings depict economic and social inequality in the United States. (F, Sp, Su)

LSIS 4303 Leadership and Governance for Social Entrepreneurs 3 Credit Hours

Prerequisite: Junior standing and LSAL 4163, or permission from PACS adviser. Explores leadership and governance through the perspective of organizational directors and corporate officers. Examines the processes of vision and mission casting, the setting of organizational direction, strategic planning through executive leadership, and the creation of founding documents and policies, all with the "design culture" in mind. (F, Sp, Su)

LSIS 4323 Budgeting for Social Entrepreneurs 3 Credit Hours Prerequisite: Junior standing and LSAL 4163, or permission from PACS adviser. An exploration of economics, finance, and accounting from the perspective of commercial, nonprofit, community service and government service entities. Topics include basic accounting principles and the organization of financial statements, the fundamentals of financial investing, and the impact of interest on an organization's planning. (F, Sp, $\mathrm{Su})$
LSIS 4343 Case Studies in Social Entrepreneurship 3 Credit Hours Prerequisite: Junior standing and LSAL 4163, or permission from PACS adviser. An exploration of social innovation and entrepreneurship presented through the historical examination of organizations that have utilized innovative methods and strategies to address social issues. ( $F$, Sp, Su)

LSIS 4493 Contemporary Cultural Astronomy
3 Credit Hours
Prerequisite: Junior standing or departmental permission. This course explores the many ways that astronomy plays a role in contemporary popular culture. It focuses on cultural examples and ways that people are inspired to react to astronomical events. It will instill an understanding of the effects of astronomy in culture and examines 21 st Century ceremonies at sites such as Chaco Canyon, Machu Picchu, and Stonehenge. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
LSIS 4700 Advanced Topics in Integrated Studies 1-9 Credit Hours 1 to 9 hours. Prerequisite: junior standing or permission from CLS adviser. May be repeated with change of content; maximum credit nine hours. Specific course content will be defined each time the course is offered. A problem-oriented approach to interdisciplinary studies. Reading and research, arranged and directed in consultation with the instructor in specified areas of integrated studies. ( $F, \mathrm{Sp}, \mathrm{Su}$ )

## LSIS 4960 Directed Readings

1-4 Credit Hours
1 to 4 hours. Prerequisite: junior standing and permission from PACS adviser and instructor. May be repeated; maximum credit four hours. Designed for upper-division students who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)
LSIS 4970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: junior standing or permission from PACS adviser. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

## LSIS 4990 Independent Study

1-3 Credit Hours
1 to 3 hours. Prerequisite: Junior standing and permission of PACS adviser and instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)
LSIS 5033 Ethnographic Field Research and Writing 3 Credit Hours Prerequisite: Graduate standing and LSTD 5003, or permission from graduate advisor. This course is an applied exploration of ethnographic research methodology through the development of a research question, immersion with a person or group of people, and completion of a final paper. Research skills addressed include participant-observation, listening, and critical thinking to develop both insider (emic) and outsider (etic) perspectives about sociological and cultural issues. (F, Sp, Su)
LSIS 5093 Literature Review Development 3 Credit Hours Prerequisite: Graduate standing and LSTD 5003, or permission from graduate advisor. An applied exploration of the literature review process. Research skills practiced include: conducting academic literature searches, selecting sources, and documenting salient research related to a specified problem statement, background to the problem, research questions, and methodology. (F, Sp, Su)
LSIS 5113 Critical Readings in Interdisciplinary Studies 3 Credit Hours Prerequisite: Graduate standing and LSTD 5003 or permission from graduate advisor. The course is an analysis of critical texts in interdisciplinary research selected to expand creative thought and insight about the world in which we live and to provide a basis for future application of interdisciplinary study and reasoning. (F, Sp, Su)

LSIS 5133 Advanced Interdisciplinary Foundations 3 Credit Hours Prerequisite: Graduate standing, LSTD 5003 and LSTD 5013 or permission from graduate advisor. The course is an introduction of Thomas Kuhn's paradigm concept and its utility to both describe and guide knowledge acquisition in academic disciplines. Topics include the origins of the paradigm concept, the history and nature of scientific discovery, and the application of the paradigm concept to non-physical science academic disciplines. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
LSIS 5203 Diversity and Leadership in the United States 3 Credit Hours Prerequisite: Graduate standing and LSTD 5003, or permission from graduate advisor. Study of theories of leadership, identity, race, gender, disability, and oppression, issues of diversity and inclusion, challenges of underrepresented populations in the United States, and our responsibilities as leading diverse populations. Explores concepts, principles and case studies in ethics in the social science, particularly business ethics. Students examine core values of social conditioning, short-term profiteering, and the need for affiliation. (F, Sp, Su)

## LSIS 5233 Global Challenges in Leadership <br> 3 Credit Hours

Prerequisite: Graduate standing and LSTD 5003, or permission from graduate advisor. This course is an exploration of global leadership challenges based on individual, organizational, and multi-cultural scenarios. Issues examined include cultural diversity, the role of women in global context, social and economic disparities, development of a global mindset and global leaders, leading multinational and culturally diverse teams, and challenges of expatriate leadership. (F, Sp, Su)

## LSIS 5243 LGBTQ Leadership

3 Credit Hours
Prerequisite: Graduate standing. An exploration of LGBTQ leadership and associated issues in social, corporate, and political organizations. Topics include current and historical LGBTQ leaders, challenges associated with anti-LGBTQ bias, and implementation of diversity policies in organizations. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
LSIS 5253 Cultural Communication in Leadership 3 Credit Hours
Prerequisite: Graduate standing and LSTD 5003, or permission from graduate advisor. A critical look at the value and necessity of crosscultural communication in human development and interdisciplinary learning for quality interpersonal relations in communities and the workplace. The course will survey major theories of cultural communication and their intersections with race, gender, sexuality, and economics and will apply these concepts to real-world scenarios. (F, Sp, $\mathrm{Su})$

## LSIS 5263 Significance of Race in Society in the United

## States

3 Credit Hours
Prerequisite: Graduate standing. An exploration of the major theoretical perspectives used to explain racial issues in the United States. Identifies common racial/ethnic assumptions through an examination of how race or ethnicity is portrayed in the media with a comparison of current research findings relating to inequality. (F, Sp, Su)

## LSIS 5273 Overcoming Educational Inequality in the United States <br> 3 Credit Hours

Prerequisite: Graduate standing. An examination of inequality within the American educational system from K -12 to higher education utilizing demographic data and analyzing current research on inequality based upon race, class, and gender. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
LSIS 5293 Exploring Race and Gender in Film 3 Credit Hours
Prerequisite: Graduate standing. An examination of race and gender in film during the post-civil rights period. Explores the effects of inequality and inclusiveness through the cinematic lens and analyzes the evolution of film relating to the depiction of race and gender issues. (F, Sp, Su)

LSIS 5333 Volunteer Program Development 3 Credit Hours
Prerequisite: Graduate standing, LSTD 5003 and LSTD 5013 or permission from the instructor. Introduction to volunteer program planning and development. Topics include assessing an organization's volunteer needs; planning and implementing recruiting, screening, placement, and training strategies; and mobilizing volunteers to meet organizational goals. (F, Sp, Su)

LSIS 5373 Volunteer Management
3 Credit Hours
Prerequisite: Graduate standing, LSTD 5003 and LSTD 5013 or permission from graduate advisor. Examination of the affective use of volunteers in a variety of organizations. Topics include motivating, monitoring, and supervising volunteers, and the retention of volunteers through appreciation and recognition strategies. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

## LSIS 5403 Introduction and Research Methods for Archaeoastronomy

## 3 Credit Hours

Prerequisite: Graduate standing. An introduction to the interdisciplinary research field of archaeoastronomy, the study of prehistoric astronomical knowledge. Topics include research methods, examples of astronomical associations with prehistoric architecture, and cultural insights of prehistoric peoples acquired through the field. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

## LSIS 5423 Archaeoastronomy of Chaco Canyon and

 Cahokia3 Credit Hours
Prerequisite: Graduate standing. A review of archaeoastronomy research at two prehistoric cities in North America. Topics include the evidence for cosmological references in architecture and monumental architecture at Chaco Canyon and Cahokia and the foundational interpretive context provided by published historic period ethnographic information ("ethnoastronomy") for selected culture groups. (F, Sp, Su)
LSIS 5433 Astronomy Traditions of the First Nations in the United States and Canada

3 Credit Hours
Prerequisite: Graduate standing. An exploration of indigenous astronomy and how it has been used by First Nations in the United States and Canada. Historical examples of how astral phenomena were interpreted and employed will be discussed. (F, Sp, Su)

LSIS 5443 Latin American Archaeoastronomy 3 Credit Hours Prerequisite: Graduate standing. An exploration of Mesoamerican and Latin American calendrical systems and the importance of astronomy to the design of cities and monumental structures. Surveyed sites include Chichen Itza, Teotihuacan, Tenochtitlan, and Cuzco. Emphasis is placed on the methods used to conduct archaeoastronomy research based on evidence provided by contributing academic disciplines. (F, Sp, Su)

LSIS 5463 Archaeoastronomy Beyond the Americas 3 Credit Hours Prerequisite: Graduate standing. A survey of astronomy as documented through traditional world cultures during the historic period and the astronomical associations with monumental prehistoric structure design. Site locations discussed include the British Isles, Egypt, China, Polynesia, and Australia. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

## LSIS 5483 Ethnoastronomy

3 Credit Hours
Prerequisite: Graduate standing. This course is an examination of how astronomy has been utilized by various cultures throughout history. Topics include ethnoastronomy, cultural interpretations of astral phenomena, and astronomical beliefs relating to creation and religion. ( F , Sp )

LSIS 5493 Fieldwork in Archaeoastronomy
3 Credit Hours
Prerequisite: Graduate standing, LSIS 5403, LSIS 5423, and departmental permission. A practical application of archaeoastronomy survey fundamentals. Includes a contextual and site literature review and oneweek onsite field survey led by departmental faculty. Students will engage in preliminary collaborative data interpretation and have the option to pursue a post field-school publication of their research findings. Survey site will change annually with focus on Chaco Canyon, NM outlier Great Houses. (Su)

LSIS 5700 Advanced Topics in Integrated Studies 2-9 Credit Hours 2 to 9 hours. Prerequisite: graduate standing. May be repeated; maximum credit 12 hours. Intensive research on a topic related to the student's program of study; variable topics. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

LSIS 5920 Internship in Integrated Studies
2-6 Credit Hours
2 to 6 hours. Prerequisite: graduate standing, LSTD 5003, and permission of dean. May be repeated; maximum credit six hours. 450 hours of field experience directly related to study focus in the MALS program. Requirements include journal, reports, written summary, and comprehensive examination over these materials. (F, Sp, Su)

LSIS 5960 Directed Readings 2-9 Credit Hours
2 to 9 hours. Prerequisite: graduate standing, LSTD 5003, and completion of first concentration core course; or permission of the dean. May be repeated with change of content; maximum credit 9 hours. In-depth study of literature on a topic related to the student's program of study; variable content. (F, Sp, Su)

## LSIS 5970 Special Topics/Seminar

1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing, LSTD 5003, and completion of first concentration core course; or permission of dean. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)
LSIS 5980 Research for Master's Thesis
2-9 Credit Hours
Prerequisite: graduate standing, LSTD 5003, LSTD 5013, and completion of first concentration core course; or permission of dean. May be repeated; maximum credit six hours. Research and writing of a thesis for completion of CLS graduate degrees. ( $F, \mathrm{Sp}, \mathrm{Su}$ )

LSIS 5990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing, LSTD 5003, and completion of first concentration core course; or permission of dean. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)

LSLC 2970 Topics in Lifespan Care and Administration 1-6 Credit Hours 1 to 6 hours. May be repeated with change of content; maximum credit six credit hours. Specific course content will be defined each time the course is offered. A problem-oriented approach in lifespan care and administration. May include reading and research, as well as lecture in a specified area of cultural studies. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

LSLC 3133 Lifespan Health
3 Credit Hours
Prerequisite: junior standing or permission from CLS advisor. Lifespan Health will provide students with an introductory survey of the importance and principles of good health over the lifespan. Students will learn how to identify signs of incipient health problems and basic health promotion strategies. Assignments are designed to provide students with practical knowledge and application of health promotion across the lifespan.(F, Sp, Su)

LSLC 3173 Human Service Administration I
3 Credit Hours
Prerequisite: junior standing or permission from CLS adviser. Introduction to current theory and best practices in the administration of human services in both non-profit and for-profit settings. Topics include legal issues, effective administrative models, leadership in human services organizations, and management of human resources. (F, Sp, Su)

## LSLC 3203 Care of Infant and Child

3 Credit Hours
Prerequisite: junior standing or permission from CLS adviser. Introduction to basic principles of child behavior and development and apply those principles to child care settings. Topics include normative physical, social, emotional, cognitive, and sexual development, as well as risk factors for early intervention and referral to professional services. ( $\mathrm{F}, \mathrm{Sp}$, $\mathrm{Su})$
LSLC 3223 Problems of the American Family 3 Credit Hours Prerequisite: junior standing or permission from CLS adviser. Study of the societal influences that may have adverse effects on family life. Factors covered include poverty, divorce, employment, violence, substance abuse and other stressors. Additional topics include historical perspectives on the changing nature of the American family and evidence-supported strategies for coping with and preventing family stressors. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

## LSLC 3273 Management of Infant and Child Care Facilities

## 3 Credit Hours

Prerequisite: junior standing or permission from CLS adviser. In-depth study of the theory and practice of managing infant and child care facilities. (F, Sp, Su)
LSLC 3313 Issues in Adolescence I
3 Credit Hours
Prerequisite: junior standing or permission from CLS adviser.
Investigation of the physical, behavioral, mental, emotional and social changes that accompany growth and development during the adolescent years. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
LSLC 3333 Career and Life Development for Adolescents 3 Credit Hours Prerequisite: junior standing or permission from CLS adviser. Discussion of current research on career options for adolescents. Specific emphasis is placed on providing practitioners with tools needed to develop plans of action to engage youth and help them choose a career and life course. ( $F$, $\mathrm{Sp}, \mathrm{Su}$ )

## LSLC 3373 Management of Adolescent Residential Care <br> Facilities <br> 3 Credit Hours

Prerequisite: junior standing or permission from CLS adviser. In-depth study of the theory and practice of managing adolescent residential care. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
LSLC 3403 Issues in Geriatrics I
3 Credit Hours
Prerequisite: junior standing or permission from CLS adviser. Introduction to key concepts and current research in geriatrics. Topics include operational definitions and terms used in studying geriatrics, facts and misconceptions associated with aging, and a review of US and international gerontological services and social policies. (F, Sp, Su)
LSLC 3440 Mentored Research Experience 3 Credit Hours
0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)

LSLC 3473 Management of Geriatric Care Facilities 3 Credit Hours Prerequisite: junior standing or permission from CLS adviser. Introduction to the basic concepts and approaches to management of older patients and their informal care givers designed for staff and directors of service agencies that care for older individuals. Topics include understanding the motivations for care delivery in old age and the array of services available for geriatric care management. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
LSLC 3953 Lifespan Capstone Prospectus 3 Credit Hours Prerequisite: junior standing and LSTD 3003; or permission from CLS adviser. Preparatory course for capstone experience in Lifespan Care and Administration. Course objectives include a critical evaluation of research issues in Lifespan Development, investigation of practicum opportunities, and development of a practicum case study with a preliminary annotated bibliography. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
LSLC 4063 Issues in Lifespan Research
3 Credit Hours
Prerequisite: junior standing or permission from CLS adviser. Discussion of philosophy of science and scientific method as it relates to research in health and human services. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
LSLC 4173 Human Service Administration II 3 Credit Hours
Prerequisite: LSLC 3173, Human Service Administration I. Examination of current theory and best practices in the administration of human services in both non-profit and for-profit settings. Topics include legal issues, effective administrative models, leadership in human and health services organizations, and management of human resources. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
LSLC 4193 Human Service Budgeting and Finance 3 Credit Hours Prerequisite: junior standing or permission from CLS adviser. Introduction to the leadership competencies necessary to formulate, execute, monitor, and evaluate fiscal operations of human services organizations. ( $F, S p$, $\mathrm{Su})$

LSLC 4203 Parenting: Different Models
3 Credit Hours
Prerequisite: Junior standing or permission from CLS adviser. Review of theory and research on styles and techniques of effective parenting for children and adolescents, including discussion of how contextual, cultural and individual difference factors impact parenting. Applications to real world contexts including counseling and case management services for children and families are also addressed. (F, Sp, Su)
LSLC 4313 Issues in Adolescence II 3 Credit Hours Prerequisite: junior standing and LSLC 3313, or permission from CLS adviser. Continuing study of important issues in adolescence, particularly those that can enhance or interfere with healthy physical, emotional, or social development. Topics include substance abuse, aggression, delinquency, gangs, sex, romantic relationships, peer relationships, and peer pressure. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
LSLC 4403 Issues in Geriatrics II
3 Credit Hours
Prerequisite: junior standing and LSLC 3403, or permission from CLS adviser. Continuing study of geriatrics from a biological perspective. Topics include why and how organisms age, what it means to age successfully, and debates over whether and how aging might be slowed, stopped or reversed. (F, Sp, Su)
LSLC 4513 Registered Behavior Technician Preparatory

## Course

3 Credit Hours
Prerequisites: Sophomore standing. An exploration of the basic principles of Applied Behavior Analysis (ABA) designed to provide the knowledge base needed to work as a line therapist in ABA programs under the direction of licensed or certified personnel and to become a nationally certified Registered Behavior Technician. (F, Sp, Su)

## LSLC 4700 Advanced Topics in Lifespan Care and

## Administration <br> 1-9 Credit Hours

Prerequisite: junior standing or permission from CLS adviser. May be repeated with change of content; maximum credit nine hours. Specific course content will be defined each time the course is offered. A problemoriented approach to lifespan care and administration. Reading and research, arranged and directed in consultation with the instructor in specified areas of lifespan care and administration. (F, Sp, Su)
LSLC 4920 Internship in Lifespan Care and Administration 1-3 Credit Hours
1 to 3 hours. Prerequisite: junior standing and permission from CLS adviser. May be repeated with change of content; maximum credit nine hours. Field experience in issues related to a student's area of study. Students will gain knowledge through experiential and on-the-job practice. (F, Sp, Su)
LSLC 4953 Lifespan Practicum and Study-in-Depth 3 Credit Hours Prerequisite: junior standing, and LSTD 3003 and LSLC 3953; or permission from CLS adviser. The senior capstone course in Lifespan Care and Administration consisting of a field practicum followed by a scholarly paper on a specialized topic/case study within the area of lifespan studies. The required paper shall be of the quality and extent comparable to a senior thesis. The study should reflect the student's competence and achievement in sustained research on a topic within lifespan studies. (F, Sp)

## LSLC 4960 Directed Readings

1-4 Credit Hours
1 to 4 hours. Prerequisite: junior standing and permission from PACS adviser and instructor. May be repeated; maximum credit four hours. Designed for upper-division students who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)

## LSLC 4970 Special Topics/Seminar <br> 1-3 Credit Hours

1 to 3 hours. Prerequisite: junior standing or permission from PACS adviser. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)
LSLC 4990 Independent Study 1-3 Credit Hours
1 to 3 hours. Prerequisite: Junior standing and permission of PACS adviser and instructor. May be repeated; maximum credit nine hours Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)

LSPS 5113 Foundations in Prevention Science 3 Credit Hours Prerequisite: graduate standing. Provides a theoretical and practical basis for exploring the role of primary prevention, examining prevention practice as social action, analyzing prevention systems and development, and evaluating the role of media advocacy and social marketing in effective prevention practice as they relate to substance abuse. (F, Sp, Su)

LSPS 5133 Prevention Across the Lifespan 3 Credit Hours
Prerequisite: graduate standing. Study of lifespan issues related to substance abuse to include theories of human growth and development, brain development, impact of substances on the brain at various stages of development, transition periods, and strategies to address service provision issues. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

LSPS 5173 Program Development Implementation and Evaluation 3
Credit Hours
Prerequisite: graduate standing. Facilitates the development of knowledge and skills essential to understanding and applying concepts, principles, processes and models to plan, design, implement and evaluate substance abuse prevention programs. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

LSPS 5203 Drugs and the Brain
3 Credit Hours
Prerequisite: graduate standing. Examination of the effects of drug use on the brain. Topics include physical and functional aspects of the brain, damage to the brain caused by drugs, and how brain damage appears as behavioral patterns that cause problems for individuals, their families, and society in general. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

LSPS 5700 Advanced Topics in Prevention Science 2-9 Credit Hours 2 to 9 hours. Prerequisite: graduate standing. May be repeated; maximum credit 12 hours. Advanced studies in various prevention science topics, offered under stated titles determined each semester by the instructor involved. (F, Sp, Su)

LSPS 5920 Internship in Prevention Science
2-6 Credit Hours
2-6 hours. Prerequisite: graduate standing, LSTD 5003, and permission of dean. May be repeated; maximum credit six hours. Field experience directly related to study focus in the Prevention Science program. Requirements include some combination of journal, progress reports, written summary of experiences, or academic paper, and a possible comprehensive examination over these materials. (F, Sp, Su)

LSPS 5960 Directed Readings in Prevention Science 2-9 Credit Hours 2 to 9 hours. Prerequisite: graduate standing, LSTD 5003, and completion of first concentration course; or permission of dean. May be repeated with change of content; maximum credit 9 hours. In-depth study of literature on a topic related to the student's program of study; variable content. (F, Sp, Su)

LSPS 5970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing, LSTD 5003, and completion of first concentration course; or permission of dean. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

LSPS 5980 Research for Master's Thesis
2-9 Credit Hours
2 to 9 hours. Prerequisite: graduate standing, LSTD 5003, LSTD 5013, and completion of first concentration core course; or permission of dean. May be repeated; maximum credit six hours. Research and writing of a thesis for completion of PACS graduate degrees. (F, Sp, Su)

## LSPS 5990 Independent Study <br> 1-3 Credit Hours

1 to 3 hours. Prerequisite: graduate standing, LSTD 5003, and completion of first concentration course; or permission of dean. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)

LSTD 1603 Operation and Application of Small Unmanned Aerial Systems

3 Credit Hours
Preparatory course in small unmanned aerial systems (sUAS) for students planning to take the FAA's 14 CFR Part 107 initial aeronautical knowledge test. Topics include regulatory requirements associated with certification, registration, and waivers for sUAS flight scenarios and the practical application of sUAS in public and private sectors. (F, Sp, Su)

LSTD 2203 Evil Acts, Religious Reasons
3 Credit Hours
Examines the ways in which religious faith has been used to rationalize war, terrorism, ethnic cleansing and other evil acts. Using comparative religious study as a basis for inquiry, students will learn the five warning signs of imminent evil in the name of religion. This is an interdisciplinary course, drawing upon perspectives from religious history, sociology, education and religious philosophy. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
LSTD 2700 Special Topics in Liberal Studies 1-9 Credit Hours May be repeated with change of content; maximum credit nine credit hours. Specific course content will be defined each time the course is offered. A problem-oriented approach to interdisciplinary studies. Reading and research, arranged and directed in consultation with the instructor, in specified areas of liberal studies. ( $F, S p, S u$ )
LSTD 3021 Fundamentals of Online Research 1 Credit Hour Equips students to successfully complete academic research in an online environment. Topics will include fundamentals of online research, search tools and applications, OU online resources, research strategies, evaluation of sources, and basics of referencing and citation. Students will have the opportunity to practice online research strategies and apply research methods to topics in their current courses. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

## LSTD 3043 Goal Setting and Attainment <br> 3 Credit Hours

Prerequisite: junior standing or permission from academic advisor. Introduction to the importance of establishing goals and the goal attainment process in career, civic, and personal settings. (F, Sp, Su)

## LSTD 3283 Film Noir <br> 3 Credit Hours

Prerequisites: Sophomore standing or permission from CLS academic adviser. An exploration of film noir as an art form through the perspectives of history, sociology, psychology, philosophy, and technology. Topics include the intellectual and literary origins of film noir and the genre's impact on film making and culture. (F, Sp, Su)

## LSTD 3440 Mentored Research Experience

3 Credit Hours
0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)

## LSTD 3953 Study-in-Depth Prospectus

3 Credit Hours
Prerequisite: junior standing and LSTD 3003; or permission from CLS adviser. This course helps prepare the student for the senior capstone study in depth paper. Content will focus on upper-division level writing, research and argumentation. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

## LSTD 3960 Honors Reading <br> 1-3 Credit Hours

1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Consists of topics designated by the instructor in keeping with the student's major. The topics will cover materials not usually presented in the regular courses. (Irreg.)

## LSTD 3970 Honors Seminar

1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Subjects covered vary. Deals with concepts not usually treated in regular courses. (Irreg.)

## LSTD 3980 Honors Research 1-3 Credit Hours

1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Provides an opportunity for the gifted Honors candidate to work on a special project under the guidance of a professor in the student's field. (Irreg.)

LSTD 4153 Exploring Justice
3 Credit Hours
Prerequisite: Junior standing or permission from academic advisor. A comparative exploration of the concept of justice as it is defined and applied around the world. Topics include historical and modern theories on justice, the potential contradictions between various understandings of justice, and the real-life implications of these different viewpoints. (Irreg.)
LSTD 4273 Jazz and the Global Community

## 3 Credit Hours

Prerequisite: junior standing or permission from CLS adviser. A course about jazz, its social history, and its relationship to world cultures and the international community. Although jazz is no longer the most popular music in the United States, its history and the issues surrounding its nature stand at the heart of a diverse America that has borrowed cultures and traditions all over the world. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
LSTD 4920 Internship in Liberal Studies
1-3 Credit Hours
1 to 3 hours. Prerequisite: junior standing and permission from CLS adviser. May be repeated with change of content; maximum credit nine hours. Field experience in issues related to a student's area of study. Students will gain knowledge through experiential and on-the-job practice. (F, Sp, Su)
LSTD 4953 Study-in-Depth: CLS Capstone Course 3 Credit Hours Prerequisite: junior standing, LSTD 3003, and LSTD 3953; or permission from CLS adviser. A scholarly paper on a specialized topic, or an artistic or literary creation of the quality and extent comparable to a senior thesis. The study should reflect the student's originality, competence and achievement in sustained research or creative endeavor involving a specific or limited field in some depth. (F, Sp, Su) [V].

## LSTD 4960 Directed Readings

## 1-4 Credit Hours

1 to 4 hours. Prerequisite: junior standing and permission from CLS adviser and instructor. May be repeated; maximum credit four hours. Designed for upper-division students who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)
LSTD 4970 Special Topics/Seminar 1-3 Credit Hours 1 to 3 hours. Prerequisite: junior standing or permission from CLS adviser. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)
LSTD 4990 Independent Study 1-3 Credit Hours 1 to 3 hours. Prerequisite: Junior standing and permission of CLS adviser and instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)
PSAD 3603 Introduction to Aerospace and Defense 3 Credit Hours Prerequisite: Junior standing or departmental permission. This course provides an overview of topics needed by decision makers in the aerospace and defense field. Topics related to the development and history of the field, technology, intelligence, weapons, procurement, strategy, and future trends will be examined. Students will be exposed to a range of ideas and competencies needed by policymakers in a variety of aerospace and defense organizations. (F, Sp)

## PSAD 4613 Considerations for Future Aerospace and

## Defense

Prerequisite: Junior standing or departmental permission. This course provides an overview of the aerospace and defense industry, with a focus on the development of national strategy and doctrine, international political environment, contemporary and future procurement, and future developments in technology and planning. Students will learn about the key players in the industry, the challenges and opportunities, and the role of aerospace and defense in national security. ( $\mathrm{F}, \mathrm{Sp}$ )

PSBA 2283 Understanding Management
3 Credit Hours
Examines organizational planning, the process of organizational decision making, the early research on leadership that focuses on personal traits, motivation in organizations, communicating in organizations, teamwork in organizations, the principles of organization and organizational control. (F, Sp, Su)
PSBA 3123 Applied Budget \& Finance
3 Credit Hours
Prerequisite: Junior standing or departmental permission. This course serves as an introduction to fundamental financial principles utilized in business today. It is increasingly important for nonfinancial managers to be able to understand financial terms at a nontechnical level. This course provides students with an understanding of financial terminology and accounting methods so that they can effectively explain the financial implications of decisions made within the business. ( $F, \mathrm{Sp}, \mathrm{Su}$ )

## PSBA 3143 Marketing and Brand Management

3 Credit Hours
Prerequisite: Junior standing or departmental permission. Focuses on marketing and marketing strategy planning, examining the "Four Ps" (Product, Place, Promotion, and Price). The course integrates topics such as international marketing, social media, and ethics throughout the units. The course will also cover brand management concepts, discussing how branding should result in increased sales, as well as how branding integrates into the other areas of marketing. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

## PSBA 3223 Finance for Non-Finance Managers 3 Credit Hours

Prerequisite: Junior standing or departmental permission. An introduction to financial information for leaders who are not directly responsible for accounting or finance functions in their organizations. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
PSBA 4123 Quality Initiatives in Organizations 3 Credit Hours Prerequisite: junior standing or permission from advisor. Total quality management enables leaders of for-profit, nonprofit, public sector, and multinational organizations to produce high-quality products and services that customers want. The TQM process adds value to customers' lives and positions the organization to respond quickly to changing consumer preferences. Lean, Six Sigma, Kaizen, and benchmarking methods help leaders systematically optimize and modernize their organizational practices to improve effectiveness. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

## PSBA 4133 Human Resources Administration

3 Credit Hours
Prerequisite: Junior standing or departmental permission. This course is designed to implement the administration of Human Resources within all types of organizations. The theoretical review covers the aspects related to the analysis of work and job design while discussing behavioral aspects that affect Human Resources performance. The practical approach will review recruitment, selection, training, career development, performance management, compensation, labor relations, rules, and regulations. (F, Sp, Su)

## PSBA 4163 Non-Profit Management

3 Credit Hours
Prerequisite: junior standing or permission from CLS adviser. Provides an overview of nonprofit management, operations, and leadership as well as the problems and environment unique to the various nonprofit entities functioning in society. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

PSBA 4173 Business Ethics and Legal Environment 3 Credit Hours Prerequisite: Junior standing or departmental permission. This course will help students develop an understanding of the law and its application to the business environment. Emphasis will be on recognition of legal problems, critical thinking, and ethical analysis. Few can conduct business without having to consider and deal with legal, ethical, and social responsibility issues. This course prepares students for reasoned decision-making in the workplace. (F, Sp, Su)
PSBA G4623 Principles of Lean Thinking
3 Credit Hours
Prerequisite: Junior standing. Explores the interdependencies of Lean process improvement tools and the business culture elements required for companies to evolve from mediocrity to excellence. Students will be challenged to capture current state conditions of processes and suggest improvements based on the mentalities of Lean (Continuous Improvement + Respect for People). Lean Six Sigma Yellow Belt certification is included. ( $\mathrm{F}, \mathrm{Sp}$ )

PSCJ 2283 Introduction to Criminal Justice
3 Credit Hours
Investigation and analysis of the three major components of the criminal justice system: police, courts, and corrections. Topics include the criminal justice system's ability to balance crime control and individual civil liberties, the use of formal and informal decision-making processes, and the effectiveness of criminal justice policies, practices, and programs. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

PSCJ 3063 Statistics in Criminal Justice
3 Credit Hours
Prerequisite: junior standing or permission from PACS adviser. An introduction to the basics of social statistics, the methods and techniques which sociologists, policy analysts, and other social scientists use to summarize numeric data obtained from censuses, surveys, and experiments. (F, Sp, Su)
PSCJ 3113 Comparative Justice Systems 3 Credit Hours
Prerequisite: junior standing or permission from PACS adviser. Examines and compares the legal and criminal justice systems of different nations. Focuses on historical, political and social factors, and explains their influence on legal institutions and systems of justice. Discusses points of divergence between other societies and the United States in perceived causes of crime and differing approaches to rehabilitation and crime prevention. Countries representing Europe, Africa, Asia and ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

## PSCJ 3133 Theories of Criminal Behavior

3 Credit Hours
Prerequisite: junior standing or permission from PACS adviser. An overview of theories of criminal behavior as well as current issues in criminology. Students will be exposed to biological, sociological and psychological theories of crime, as well as opposing viewpoints on important topics in criminology. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

PSCJ 3173 Deviance and Social Control
3 Credit Hours
Prerequisite: junior standing or permission from PACS adviser. Students will be introduced to the sociological study of deviance and social control, with a focus on the social construction of deviant behavior and the relative nature of such definitions through time and across cultures. Current research on selected types of deviance will be reviewed to understand the individual and structural dimension of behavior as well as implications for policy ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

PSCJ 3203 Criminal Justice Administration
3 Credit Hours
Prerequisite: junior standing or permission from PACS adviser. Covers the development, proliferation, institutionalization, and goals of the components of the criminal justice system and their administration. The course will also cover the ethics of managing justice and punishment. (F, $\mathrm{Sp}, \mathrm{Su}$ )

PSCJ 3223 American Judicial Processes 3 Credit Hours
Prerequisite: junior standing or permission from PACS adviser. Acquaints students of criminal justice with the overall structure of state and federal courts, including jurisdiction, sources of law, civil and criminal legal procedures from initial pleadings through appeal, substantive civil and criminal law, and policy issues about the role of the judiciary in representative government. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
PSCJ 3413 Crime Scene Processing
3 Credit Hours
Prerequisite: Sophomore standing or permission from academic advisor. Introductory training in the process of crime scene management and how to become proficient in recognizing evidence and determining the proper packaging and preservation methods. Topics include basic methods in crime scene photography, sketching, collection, and documentation. ( F , $\mathrm{Sp}, \mathrm{Su}$ )
PSCJ 3463 Homeland Security and Emerging Threats 3 Credit Hours Prerequisite: Junior standing or permission from PACS advisor. An introduction to the organizational and process aspects of Homeland Security at federal, state, and local levels and the emerging threats to the U.S. homeland. (F, Sp, Su)

PSCJ 4123 Introduction to Forensic Science/Criminalistics 3 Credit Hours
Prerequisite: junior standing or permission from PACS adviser. Using the study and application of science to examine the relationship between science disciplines, and the criminal investigative process, students will be presented with theories and principles related to methods in the recognition, collection, preservation and analysis of physical evidence. Actual forensic cases will be presented and discussed throughout the course. (F, Sp, Su)
PSCJ 4143 Drugs and Society
3 Credit Hours
Prerequisite: junior standing or permission from PACS adviser. Examines the impact of drug abuse on contemporary American society. Students learn about drug regulation and legal issues, how drugs affect the brain and shape behavior, and the various categories of drugs and their characteristics. Also focuses on drug abuse prevention, treating drug dependence, and law enforcement programs to address drugs in society. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

## PSCJ 4243 Police and Policing

3 Credit Hours
Prerequisite: junior standing or permission from PACS adviser. Provides a historical perspective of policing as well as up-to-date information on policing and the issues that police deal with in a post-9/11 society. The course will provide students with a basic understanding of the CSI effect, the creation of the Department of Homeland Security and developments in community policing. The course also highlights the role of officers in society ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

## PSCJ 4263 The American Correctional System 3 Credit Hours

Prerequisite: junior standing or permission from PACS adviser. A survey course covering the development of the field of corrections from its early American roots to the present. Included are discussions of the role and function of jails, traditional and modern correctional facilities, private/ contract corrections, and probation and parole. (F, Sp, Su)

## PSCJ 4273 Community Corrections

3 Credit Hours
Prerequisite: Junior standing or permission from academic advisor. Introduction to the topics of probation, parole, and other alternatives to incarceration, collectively referred to as Community Corrections. Emphasis will be placed on the role of research and program evaluation in determining policy/program effectiveness. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

PSCJ 4403 Criminal Investigation
3 Credit Hours
Prerequisite: junior standing or permission from PACS adviser.
Provides students with the theoretical and practical aspects of criminal investigation. Students develop an analytical and practical understanding of investigative methodology, the collection and preservation of physical evidence and explore current crime solving technology. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
PSCJ 4413 Intelligence Analysis for Law Enforcement 3 Credit Hours
Prerequisite: Junior standing or permission from academic advisor. A survey of intelligence analysis and the use of data, cyber, and human sources of information to predict, interdict, and investigate crime. Topics include understanding the role of intelligence analysis and dissemination in modern law enforcement and homeland security, crime analysis techniques, geographic information systems, cyber data gathering, and human sources of intelligence. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
PSCJ 4423 Cyberspace Security
3 Credit Hours
Prerequisite: junior standing or permission from PACS adviser. Provides an in-depth exploration of cyberspace crime and security. An intensive study of the types of crimes committed in cyberspace, a profile of offenders, and current legal issues in cyberspace. Students will explore emerging issues in information assurance and prevention of cyberspace crimes and will examine the proper collection, preservation and examination of digital evidence. (F, Sp, Su)
PSCJ 4443 Juvenile Delinquency
3 Credit Hours
Prerequisite: junior standing or permission from PACS adviser. An overview of juvenile delinquency in the United States, including current issues. Students will read both classic studies on the emergence of the juvenile system and current research on trends in juvenile delinquency. ( $F$, Sp, Su)
PSCJ 4453 Human Trafficking
3 Credit Hours
Prerequisite: Junior standing or permission from academic advisor.
An examination of human trafficking and slavery, including bonded labor, forced migration, and sex trafficking. Topics include historical and modern examples from both the United States and global contexts, as well as current policies and laws intended to combat human trafficking. (F, Sp, Su)
PSCJ 4463 Homeland/Global Security and Justice 3 Credit Hours Prerequisite: junior standing or permission from PACS adviser. Designed to help the student understand how governments deal with the problem of securing the homeland. Examines what terrorism is, and how America has traditionally dealt with homeland security, and how that perspective is evolving. Once we understand what terrorism is, the focus of the course will be on how law enforcement and the courts have taken on the challenge ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

## PSCJ 4493 Organized Crime and International Drug

## Trafficking

## 3 Credit Hours

Prerequisite: Junior standing or permission from PACS advisor. An examination of trends relating to international drug trafficking and organized crime. Topics include the history of the drug trade, criminal organizations and governments involved in drug trafficking, and emerging issues relating to the digital world and cyberspace. (F, Sp, Su)

PSCS 3613 Software and Information Technology Systems 3 Credit Hours
Prerequisite: Junior standing or departmental permission. This course provides students with an overview of core computer technology concepts common to complex modern organizations. Students will be exposed to a range of software and information technology topics needed by managers and decision-makers in a variety of organizations, including core ideas of software, data storage, collaborative work systems, web-based applications, data security, hardware, networks, and programming. ( $F, S p$ )

PSCS 4603 Applied Statistics for Data Analytics 3 Credit Hours Prerequisite: Junior standing or departmental permission. This course provides students with an overview of core concepts and techniques in statistical data analysis. Students will be exposed to a range of statistical and data analytic techniques needed by managers and decisionmakers in a variety of organizations. Students will gain understanding of the core ideas of validity, the empirical method, statistical testing, and insight into quantitative data analysis. ( $\mathrm{F}, \mathrm{Sp}$ )

PSHA 3153 Ethical and Legal Issues in Health Care 3 Credit Hours Prerequisite: junior standing or permission from adviser. Introduction to the ethical and legal issues caregivers and administrators face in providing health services throughout the lifespan. (F, Sp, Su)
PSHA 3523 Healthcare Finance
3 Credit Hours
Prerequisite: Junior standing or departmental permission. This course serves as an introduction to the concepts of healthcare finance. Course content includes fundamentals of finance, principles of accounting, planning, budgeting, financial statement preparation, and capital analysis. This course will provide students with an understanding of financial management and accounting methods to make effective and efficient decisions applicable to the healthcare industry. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

PSHA 4513 Healthcare Operations Management 3 Credit Hours Prerequisite: Junior standing or departmental permission. Healthcare operations management integrates scientific principles of management to determine the most efficient methods to support patient care delivery. Healthcare in the United States is continuously innovating, reducing costs, and improving quality. Topics include managed care, health plans, value-based payments, quality improvement, information technology, statistical analysis, supply chain management, and healthcare finance, among other important aspects of management. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

PSHA 4533 Healthcare Program Evaluation 3 Credit Hours
Prerequisite: Junior standing or departmental permission. This course facilitates the development of knowledge and skills essential to understand and apply the concepts, principles, processes, models, and assessment strategies imperative to plan, design, implement, and evaluate a healthcare system, education program, or prevention program. (F, Sp, Su)
PSHU 1213 Creativity in the Arts 3 Credit Hours Students will learn about the literary, visual and performance arts by viewing, reading and listening to some of the most famous examples of the arts. Students will also learn about the creative process through the production of their own art. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

## PSHU 3113 Special Topics in the Humanities of the Ancient World 3 Credit Hours

Prerequisite: junior standing or permission from adviser. Students will explore a broad variety of cultural themes found concurrently in both western and non-western cultures from Antiquity through the Middle Ages. (F, Sp, Su) [IV-WC].

## PSHU 3133 Special Topics in the Humanities of the Modern World <br> 3 Credit Hours

Prerequisite: junior standing or permission from adviser. Students will explore a broad variety of cultural themes found concurrently in both western and non-western cultures from the Renaissance through the Enlightenment and into the Modern World. (F, Sp, Su) [IV-WC].

PSHU 3173 Renaissance Art
3 Credit Hours
Prerequisite: junior standing or permission from adviser. A critical discussion of the art of the Italian Renaissance. The focus of this course will be on explicating religious textual narratives and exploring how artists translated these ideas into visual form to create an effective message. The course will deal with painting, sculpture and architecture and will highlight well-known artists. ( $F, \mathrm{Sp}, \mathrm{Su}$ ) [IV-AF].

PSHU 3193 Art of the Non-Western World
3 Credit Hours
Prerequisite: junior standing or permission from adviser. Explores variety of cultural themes found in non-western art from the ancient to the modern world. Introduction to art of non-western cultures and the role that art history plays in the study of these objects. Consists of four parts: African art; Asian art of India, China and Japan; native American art of North, Meso-America; and South America and the Pacific. (F, Sp, Su) [IVWDC]

PSHU 3283 Film Noir
3 Credit Hours
Prerequisite: Sophomore standing or permission from academic adviser. An exploration of film noir as an art form through the perspectives of history, sociology, psychology, philosophy, and technology. Topics include the intellectual and literary origins of film noir and the genre's impact on film making and culture. (F, Sp, Su)

PSHU 4163 World Religions and Ecology
3 Credit Hours Prerequisite: Junior standing or permission from academic advisor. A multi-religious perspective on the environment investigating how various religious traditions treat the relationship between human agency and the environment. Topics include the connections between religion, politics, economics, social policies and the environment, as well as sustainability, eco-justice, and globalization. (Irreg.) [IV-WDC].
PSHU 4173 Women in the Bible and Qur'an 3 Credit Hours Prerequisite: Junior standing or permission from academic advisor. An examination of women in the Bible and Qur'an and the insight this exploration provides about religious traditions. Topics include the roles of women within these Scriptures, their role relative to men in general, their place in the foundational myths such as the creation accounts, and the ways in which women negotiate power and authority. (Irreg.) [IV-WC].

PSHU 4183 Crafting the Cinematic Jesus 3 Credit Hours
Prerequisite: Junior standing or permission from academic advisor. Surveys common understandings of the person and goals of Jesus, and the roles of other biblical figures, through film and literature. Examines the role that film plays in religious understanding, the role of culture in religion, the variety of conceptions of Jesus, and key issues of the Christian tradition. (Irreg.) [IV-AF].

PSHU 4193 Women of the Middle East and North Africa 3 Credit Hours Prerequisite: Junior standing or permission from academic advisor. An examination of women in the Middle East and North Africa. Topics include the social, political, and economical status of women in the region, the effects of globalization, and a discussion of recent political and cultural changes. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ ) [IV-WDC].

PSHU 4213 A Critical Review of the Bible as a Literary Work 3 Credit Hours
Prerequisite: junior standing or permission from adviser. Examines the Bible as a work of literature, approaching it without concern for the doctrines of any particular religion. The aim of the course is to make students biblically familiar with both the Old and New Testaments. (F, Sp, $\mathrm{Su})$ [IV-WC].
PSHU 4293 Exploring Race and Gender in Film 3 Credit Hours
Prerequisite: Junior standing or permission from academic adviser. An exploration of race and gender in film during the post-civil rights period. Examines the effects of inequality and inclusiveness through the cinematic lens and analyzes the evolution of film relating to the depiction of race and gender issues. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
PSIS 1003 Introduction to Interdisciplinary Study 3 Credit Hours An introductory study of the concepts and practices of interdisciplinary inquiry, writing, critical thinking and problem solving across disciplines, and techniques for solving problems and writing papers from an interdisciplinary perspective. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
PSIS 1113 Interdisciplinary Composition I 3 Credit Hours
First in a series of two courses that help prepare students for interdisciplinary work by emphasizing writing and the conventions of academic discourse through natural sciences, social sciences, and humanities. Students will employ a variety of writing strategies, study expository prose models and interpret, critique, summarize and paraphrase test. (F, Sp, Su) [l-ENGL].
PSIS 1133 Interdisciplinary Composition II
3 Credit Hours
Prerequisite: ENGL 1113 or PSIS 1113, or equivalent. This course completes the series of composition courses by emphasizing argument, library research, and style. Through its emphasis on thinking rhetorically, providing evidence for assertions, creative thinking, and writing as a process, this course will prepare students for argument and researchbased writing in academic interdisciplinary settings. (F, Sp, Su) [l-ENGL].
PSIS 2023 Strategies for Success
3 Credit Hours
An exploration of useful skills and strategies for academic, professional, and personal success. Topics discussed include individual learning styles, emotional intelligence, time management, goal setting, effective listening and communication, organization, creative and critical thinking, interdependence and collaboration skills, and combating self-defeating patterns of thoughts and behaviors. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

## PSIS 2033 Writing for Success

3 Credit Hours
Prerequisite: Sophomore standing or departmental permission. An exploration of writing skills and strategies for academic essays, personal narratives and research. Topics include the selection of a research topic, development of a writing plan, the correct way to summarize and paraphrase, and the use of the APA citation style. (F, Sp, Su)
PSIS 3003 Interdisciplinary Inquiry
3 Credit Hours
Prerequisite: junior standing or permission from adviser. Will focus on adult learning theory and development, assessment of prior learning, development of self-directed learning skills, educational and career planning and writing of portfolios and learning contracts. Designed for the returning, adult learner. Will also focus on preparation for academic writing and argumentation. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

PSIS 3013 Effective Communication
3 Credit Hours
Prerequisite: Junior standing or departmental permission. Students will enhance their interpersonal and professional communication skills in this course. Special attention is paid to recognizing the role of listening in communication, in addition to enhancing verbal, nonverbal, written, and presentation skills. Throughout the course, students will apply these concepts to real world situations and reflect on the impact of communication in their personal and professional lives. (F, Sp, Su)
PSIS 3053 Digital Literacy \& Data Analysis
3 Credit Hours
Prerequisite: Junior standing or departmental permission. This course is designed to increase students' knowledge and application of digital and quantitative data literacy. Students will also be introduced to principles of ethical decision-making. Using applied activities and analyses, students will learn how to utilize these skills in the real world and the workplace. ( $F$, $\mathrm{Sp}, \mathrm{Su}$ )
PSIS 3071 Life Design $101 \quad 1$ Credit Hour
Prerequisite: Junior standing or departmental permission. A holistic examination of a student's life, skill set, and career aspirations. Includes assessment inventories, personal reflections, and the development of action plans. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
PSIS 3083 Life Design: A Better You 3 Credit Hours
Prerequisite: Junior standing or departmental permission. The
Transformation Triad is designed to help students find ways to introduce more balance into their lives, uncover their purpose, and use that knowledge to produce meaningful change within themselves in order to lead their best life. Students will evaluate their life on a fundamental level and create balance along with a concrete plan for what will come after graduation. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
PSIS 3153 Foundations of Ethics in Liberal Studies 3 Credit Hours Prerequisite: junior standing or permission from adviser. A foundation for the scholarly research and discussion of ethics. Topics will include historical and philosophical grounding in the consideration of ethics. The course will utilize an interdisciplinary approach to the inquiry of ethics. ( $F$, $\mathrm{Sp}, \mathrm{Su}$ )
PSIS 3243 Leadership in LGBTQ Studies 3 Credit Hours
Prerequisite: Sophomore Standing or permission from an academic advisor. An introduction to lesbian, gay, bisexual, transgender, queer/ questioning, (LGBTQ+) and marginalized individuals based on their sexual/romantic orientation. Empirical data is utilized to holistically explore the experiences of this community as a means of understanding factors and limitations in leadership. (F, Sp, Su) [III-SS].
PSIS 3343 Challenges in a Changing World 3 Credit Hours Prerequisite: junior standing or permission from adviser; PSSC 1313. Conformity and deviance in societies. Topics addressed include sexual behavior, drug use and crime and violence. It also looks at social problems expressed on a broader scale, including those associated with increased problems and associated urbanization and the outbreaks of war, terrorism and international conflict arising from inequalities occurring on an international scale. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
PSIS 3953 Critical Inquiry in Interdisciplinary Studies 3 Credit Hours Prerequisite: Departmental permission and approximately $70 \%$ of program core complete. This course requires students to locate, critique, and integrate literature/concepts to demonstrate their understanding of the foundational principles of interdisciplinary studies and their primary area of concentration. During the course, students will complete a series of assignments that will be used in the development of a comprehensive ePortfolio, which will be constructed and finalized in LSIS 4953. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

PSIS 4033 Innovative Problem-Solving
3 Credit Hours
Prerequisite: Junior standing or departmental permission. This course is intended to empower students to think clearly and analytically about information and beliefs. Students will be prepared to recognize bias and common fallacies in reasoning and evaluate informational resources. An introduction to innovative thinking and creative decision-making will help position students to tackle problem-solving at the personal, academic, and career levels. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
PSIS 4353 Mediation: History, Theory, and Practice 3 Credit Hours Prerequisite: junior standing or permission from adviser. The course provides an overview of the history of mediation as well as an introduction to substantive mediation theories and models. The practice of mediation will be introduced by examining its origins in both the court and community-focused movements. Contemporary applications and trends in mediation also will be examined. (F, Sp, Su)
PSIS 4483 Calendars, Culture, and Cosmos 3 Credit Hours
Prerequisite: Junior standing or departmental permission. This course details the many ways in which contemporary timekeeping is founded upon astronomy. It explores early derivations by cultures learning to keep time by observing movements of the Moon and Sun and traces this development to contemporary timekeeping systems. The calendars of many present cultures are examined in depth. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
PSIS 4700 Advanced Topics in Liberal Studies 1-9 Credit Hours 1 to 9 hours. Prerequisite: junior standing or permission from adviser; PSSC 2213; may be repeated with change of content; maximum credit nine hours. Specific course content will be defined each time the course is offered. A problem-oriented approach to interdisciplinary studies. Reading and research, arranged and directed in consultation with the instructor in specified areas of liberal studies. (F, Sp, Su)
PSIS 4953 Portfolio in Interdisciplinary Studies 3 Credit Hours
Prerequisite: PSIS 3953 and departmental permission. The practicum course for the Interdisciplinary Studies program requires students to create a comprehensive ePortfolio, which showcases their key learnings about effective communication, digital literacy, data analysis, innovative problem-solving, and their primary area of concentration. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
PSMS 1053 Mathematics in Liberal Studies 3 Credit Hours Prerequisite: Norman Campus students only - DMAT 0123 at OU, satisfactory score on the placement test, or satisfactory score on the ACT/SAT. Designed to enhance the student's ability to understand and utilize mathematical tools in their daily lives. Covers such topics as use of statistics, evaluating others' use of statistics, mathematics in finance, and growth models. (F, Sp, Su) [I-M].
PSNS 1513 Introduction to Interdisciplinary Physical Sciences 3 Credit Hours
Emphasis on physics and chemistry, including topics such as the laws of motion, elements of thermodynamics, wave forms and properties, structure of atoms, and the formation of chemical bonds. (F, Sp, Su)

## PSNS 2413 Celestial Insights

3 Credit Hours
This course explores questions about the natural world and how astronomy is/has been used in culture. Students learn about Moon phases, seasons, blue skies, eclipses, and tides and their relation to astronomy. The course investigates how cultures kept time by the Sun and Moon, astronomical derivations for the names of days, and reasons behind changing times for moveable feasts. ( $F, \mathrm{Sp}, \mathrm{Su}$ )

PSNS 2514 The Human Environment
4 Credit Hours
Explores the interaction between the environment and multiple disciplines, such as society, the economy, and politics. Students will be immersed in an interactive experience in which they learn about the basic chemical properties and processes of the physical environment and how other parts of their world affect it. (F, Sp, Su) [II-NS].

PSNS 2533 Science as a Process
3 Credit Hours
Analysis and criticism of the scientific method, design of experiments and collection and interpretation of data in scientific investigations. ( $F$, $\mathrm{Sp}, \mathrm{Su})$ [II-NS].
PSNS 2553 Interdisciplinary Life Sciences
3 Credit Hours
A study of the integration of biological systems at the cellular level. It includes discussions of metabolism, chromosome structure and function and the structure and function of the DNA molecule. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
PSNS 2700 Special Topics in Liberal Studies 1-9 Credit Hours
1 to 9 hours. Prerequisite: May be repeated with change of content; maximum credit nine credit hours. Specific course content will be defined each time the course is offered. A problem-oriented approach to interdisciplinary studies. Reading and research, arranged and directed in consultation with the instructor, in specified areas of liberal studies. (F, $\mathrm{Sp}, \mathrm{Su}$ )
PSNS 3113 Lifespan Development
3 Credit Hours
Prerequisite: junior standing or permission from adviser. Survey of human development from birth to death, drawing from multiple disciplines including biology, psychology, sociology, and medicine. The emphasis is on empirically-derived information about human development that may be of practical use to individuals working directly with others in a service capacity. Particular attention is devoted to issues of physical, cognitive, social, and emotional development at all stages of ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

PSNS 3413 History of Astronomy in Culture
3 Credit Hours
Prerequisite: Junior Standing or departmental permission. An exploration of the historical methods and uses of astronomy in cultures throughout the world, with examples from six continents and islands in the Pacific. (F, Sp )
PSNS 3423 Biology of Human Aging
3 Credit Hours
Prerequisite: junior standing or permission from adviser. Introduction of both natural science and social science methods used to study aging in humans and other creatures. Topics will include a synopsis of the demographics of aging in human populations, terms and theories of aging, mechanisms of aging at the cellular level, and a review of how the body ages, system-by-system. (F, Sp, Su)

## PSNS 3513 The Dynamic Universe

3 Credit Hours
Prerequisite: junior standing or permission from adviser. Select topics including the Big Bang, formation of matter and its association into stars and planets, plate tectonics and the physics and chemistry of the atmosphere. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
PSNS 3533 Ecology and Evolution
3 Credit Hours
Prerequisite: junior standing or permission from adviser. A study of the interactions of genetic change in organisms with environmental stress, and contributions of these interactions to evolution. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
PSNS 3573 Chemistry for Changing Times 3 Credit Hours
Prerequisite: junior standing or permission from adviser. An overview of chemistry, with fundamentals and organic processes explained. The course investigates chemicals found in everyday life and on the earth with the aim of understanding how chemical processes are at work, both in the environment around us and in energy, air, water, biochemistry, drugs, poisons and chemicals. It is ideal for the generalist and the interdisciplinary student, although ( $F$, Sp, Su)

PSNS 4563 Weather and Climate 3 Credit Hours
Prerequisite: junior standing or permission from adviser. An introduction to energy balance, temperature, atmospheric moisture, cloud formation, static stability, precipitation mechanisms, winds, mid-latitude and severe storms, weather forecasting and climate. The course is designed for students who are not scientists. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

PSNS 4593 The Role of Genetic Engineering: Past, Present and Future 3 Credit Hours
Prerequisite: junior standing or permission from adviser. Examines the role of gene manipulation in the past, present, and future. It will begin with descriptions of genes, evolution and fitness, and will conclude by exploring the scientific and political future of genetic engineering. ( $F, S p$, Su )

PSOL 3113 Leadership in Organizations
3 Credit Hours
Prerequisite: junior standing or permission from adviser. The general purpose of this course is to learn about contemporary thinking regarding leadership in organizations and the applications of these insights for growth as a leader. (F, Sp, Su)
PSOL 3133 Conflict Resolution
3 Credit Hours
Prerequisite: junior standing or permission from adviser. A review of several contemporary theories of the nature of conflict and how best to manage it. Students examine the communication process and practice effective communication skills through exercise. (F, Sp, Su)
PSOL 3153 Ethics in Leadership 3 Credit Hours
Prerequisite: Junior standing or departmental permission. Explores the principles and standards of conduct used by organizational leaders to build trust and integrity in business through systemic ethical practices. Students grow their leadership capacity by developing the behaviors and virtues of the workforce that contribute to sustainable ethical business conduct. (F, Sp, Su)
PSOL 3333 Motivation in Learning and Leadership 3 Credit Hours Prerequisite: junior standing or permission from adviser. Introduces learners to several theories on human motivation which can be applied across several contexts, including both learning and leadership. (F, Sp, Su )

## PSOL 3373 Measuring Human Performance <br> 3 Credit Hours

Prerequisite: Sophomore Standing or permission from an academic advisor. An exploration of how leaders use assessments to measure human performance in organizations. Topics include common research terminology, best practices in employee selection, performance appraisals, and organizational performance management. (F, Sp, Su)
PSOL 3393 Goal Setting in Organizations
3 Credit Hours
Prerequisite: Junior standing or permission from advisor. An examination of the importance of establishing goals, goal alignment, and goal attainment processes in organizational settings. Key concepts include perspectives of goal attainment strategies that apply to organizational effectiveness and methods to overcome inevitable challenges to goal success. (F, Sp, Su)
PSOL 3513 Integrated Marketing Strategies 3 Credit Hours
Prerequisite: junior standing or permission from adviser. Focuses on marketing communications by examining many types of retailers, the basic concepts that apply to all areas of promotion, basic selling techniques, and advertising and sales promotion as important parts of a promotion blend. (F, Sp, Su)

PSOL 3953 Research Analysis and Application in Organizational Leadership

3 Credit Hours
Prerequisite: Junior standing and LSTD 3003, or permission from advisor. Preparatory course for the organizational leadership capstone. Students examine, critique, integrate, and apply organizational behavior literature and concepts to demonstrate mastery of the foundational principles of leadership. (F, Sp, Su)
PSOL 4113 Group \& Organizational Communication 3 Credit Hours Prerequisite: Junior standing or departmental permission. Designed to support students in the development of interpersonal and employmentrelated business communication skills as an integral component in the field of business administration. Topics covered include foundational communication principles; communication planning; oral, written, and electronic communication; formal report-writing and presentation; and employment communication. Students will apply their knowledge on these topics by completing written, spoken (recorded), and team-discussion-based coursework. (F, Sp, Su)
PSOL 4143 Cultural Diversity in the Workplace 3 Credit Hours
Prerequisite: Junior standing or departmental permission. Students will explore their personal perceptions about diversity in organizational settings, learn how implicit bias can undermine organizational performance, and develop best practices to promote cultural diversity in the workplace. (F, Sp, Su)

## PSOL 4203 Decision-Making, Problem Solving, and Strategic Thinking 3 Credit Hours

Prerequisite: junior standing or permission from adviser. Exploration of decision-making, problem solving and strategic thinking in a variety of organizational settings. Discussion of applied intelligence and the methods/tools utilized to make effective decisions. (F, Sp, Su)
PSOL 4283 Social Processes in Organizations 3 Credit Hours
Prerequisite: Junior Standing or permission from an academic advisor. An overview of how leaders use social processes to improve organizational performance. Topics include the individual factors that affect social processes, i.e. personality, emotion, attitudes, perceptions, etc., and strategies to motivate employees, lead teams, communicate ideas, and develop an organizational culture. (F, Sp, Su)
PSOL 4953 Capstone in Organizational Leadership 3 Credit Hours Prerequisite: Junior standing, PSIS 3003, and PSOL 3953, or permission from advisor; students may enroll in PSOL 3953 and PSOL 4953 during the same semester provided that PSOL 3953 is successfully completed (grade of $C$ or higher) prior to the start of PSOL 4953. Capstone course in organizational leadership resulting in the creation of a comprehensive ePortfolio that demonstrates student mastery of leadership theories and best practices. (F, Sp, Su) [V].
PSSC 1153 A History of the United States
3 Credit Hours
A general historical overview of the United States with a particular focus on the role that the humanities played in shaping this country. (F, Sp, Su) [IV-US].
PSSC 1313 What in the World are the Social Sciences? 3 Credit Hours Discusses what comprises the social sciences and how we perform research in the different areas, including addressing ethical questions. (F, $\mathrm{Sp}, \mathrm{Su}$ ) [III-SS].
PSSC 1333 Government in the United States 3 Credit Hours
An analysis of the differing ideologies governing autocratic vs. democratic systems of government, the structure of the United States government, and the role of extra-governmental elements such as lobbyists and the PACs on the process of governing. (F, Sp, Su) [III-PSC].

PSSC 2313 The Human Experience: The Role of Culture 3 Credit Hours A critical discussion of prejudice, discrimination, gender identity and crime and deviance from the perspective of the social sciences. (F, Sp Su)
PSSC 2323 Human Groups and Distribution of Resources 3 Credit Hours
A study of culture from a social sciences perspective, including investigating topics such as ethnocentrism, cultural relativism and personal identity within the context of being American. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

PSSC 2333 Contemporary Social Issues
3 Credit Hours
An introduction to social issues in modern day society. Beginning with an introduction to differing sociological perspectives, and addresses issues such as the changing demographics in the U.S., gender inequality, the environment, and both utopian and dystopian societies. Students will be expected to review, consider, and write how each of the topics impacts their lives, either directly or indirectly. ( $F, S p, S u$ )

PSSC 3203 Diversity in the United States 3 Credit Hours Prerequisite: Sophomore Standing or permission from an academic advisor. An examination of current issues of race, gender, class, and culture utilizing a combination of empirical data, historic records and conceptual reflection. (F, Sp, Su) [III-SS].

PSSC 3223 Social Justice Leadership
3 Credit Hours
Prerequisite: Sophomore standing or permission from academic advisor. An interdisciplinary examination of issues related to social justice and leadership. The concepts of race, class, gender, and ability are addressed from a variety of historical, conceptual, and theoretical perspectives relating to the study of social difference. Also includes an analysis of social movements and strategies for community engagement. (F, Sp, Su)

PSSC 3263 Multiculturalism in the Workplace: Global
Challenges
3 Credit Hours
Prerequisite: Junior Standing or departmental permission. An examination of psychological and organizational challenges that leaders experience in a multicultural or multinational workplace. Includes case studies and discussions to illustrate theories and research findings for developing positive employee engagement strategies. (F, Sp, Su)

PSSC 3333 Human Arrangements: Troubled Institutions, Probs. Inequality 3 Credit Hours
Prerequisite: junior standing or permission from adviser; LSTD 1313 and LSTD 1323. Issues affecting institutions from family through those affecting the national population, including health care, education, the economy, and the interaction of government with all such questions Problems arising from inequality among groups in the society, including poverty, elderly and young, minority and majority, and gender concerns. ( $F$, Sp, Su)

PSSC 3363 Ethics in Social Sciences
3 Credit Hours
Prerequisite: junior standing or permission from adviser; LSTD 1313 and LSTD 1323. Concepts, principles and case studies involved in ethics in the social sciences, with a particular emphasis on business ethics. Students will examine core values in light of social conditioning, shortterm profiteering and the need for affiliation. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

PSSC 3373 American Public Intellectuals
3 Credit Hours
Prerequisite: Junior standing or permission from adviser. Examines the unique and diverse styles of six important Americans from different eras in order to determine the impact these individuals had on society and posterity. (F, Sp, Su)

PSSC 3383 Harry Potter and the Culture of the Wizarding
World
3 Credit Hours
Prerequisite: ENGL 1113 or equivalent, ENGL 1213 or equivalent; junior standing or permission from Academic Advisor. This course takes a social sciences approach to analyze social and cultural themes within the films from the Harry Potter series by J.K. Rowling. Students will practice social science methodologies and apply key social sciences concepts to evaluate character actions, relationships, and social structures within the wizarding world, drawing parallels to current and historical events and personal experiences as well. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ ) [III-SS].

PSSC 4133 US History of World War II - Pacific Theater 3 Credit Hours A review of several contemporary theories of the United States involvement in World War II: Pacific Theater. Students examine the historical process and practice effective communication skills through exercise. (F, Sp, Su)
PSSC 4263 Understanding Race in American Society 3 Credit Hours Prerequisite: Junior standing or permission from academic adviser. An exploration of the major theoretical perspectives used to explain racial issues in the United States. Identifies common racial/ethnic assumptions through an examination of how race or ethnicity is portrayed in the media with a comparison of current research findings relating to inequality. (F, Sp, Su)

## Faculty

| Last Name | First/Middle Name | Middle init. | OU <br> Service start | Title(s), date(s) appointed | Degrees Earned, Schools, Dates Completed |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Alavi | Roksana |  | 2011 | ASSOCIATE <br> PROFESSOR OF <br> PROFESSIONAL <br> \& CONTINUING <br> STUDIES, 2018; <br> ASSISTANT <br> ADJUNCT <br> ASSISTANT <br> PROFESSOR OF <br> WOMEN'S AND <br> GENDER STUDIES, <br> 2012 | PhD, Univ of Kansas, 2008; MA, Oklahoma State Univ, 2001; BA, Univ of Oklahoma, 1996 |
| Duncan | John | L | 2007 | ASSISTANT <br> PROFESSOR OF <br> LIBERAL STUDIES, <br> 2007; ADJUNCT <br> ASSISTANT <br> PROFESSOR OF FILM <br> AND MEDIA STUDIES, $2010$ | PhD, Univ of Oklahoma, 1998; MA, Univ of Oklahoma, 1980; BA, North Texas State Univ, 1978 |
| Gullberg | Steven | R | 2016 | ASSOCIATE PROFESSOR OF LIBERAL STUDIES, 2019 | PhD, James Cook Univ, 2010; MLS, Univ of Oklahoma, 2002; BS, SUNY, 1985 |
| Ketchum | Paul | R | 2005 | ASSISTANT <br> PROFESSOR OF <br> LIBERAL STUDIES, $2009$ | PhD, Texas A\&M Univ, 2007; MA, California State Univ, 2001; BA, California Polytechnic, 1992 |

## College of PACS Administrated Programs

## Adult Degree Completion Programs

 Integrative Studies, Bachelor of Arts (p. 1794)The online Bachelor of Arts in Integrative Studies is designed to make finishing a bachelor's degree a flexible and obtainable goal. With the help
of an advisor, students will design a degree program based on their career goals and interests, choosing from a broad selection of courses that will help them build a strong foundation and set of skills applicable in a wide variety of in-demand career fields, such as health care, business, and human resources.

## Interdisciplinary Studies: Aerospace \& Defense Management, Bachelor of Arts (p. 1795)

The online Bachelor of Arts in Interdisciplinary Studies with a major in Aerospace \& Defense Management will connect to the aerospace \& defense industry where there is a strong demand specifically to Oklahoma's top 100 critical occupations. The core requirements within the degree provides courses relevant to the workforce, indemand knowledge, and skills including communication, data literacy and analysis, problem solving methods, and practical application of knowledge learned in the program. The major requirements are topicspecific, providing depth of knowledge in the field of aerospace \& defense, but specifically the management and leadership side of the industry.

## Interdisciplinary Studies: Business Administration, Bachelor of Arts

The online Bachelor of Arts in Interdisciplinary Studies with a major in Business Administration will help students master the set of skills necessary for leadership positions in a variety of high-demand career fields. Students will master their communication prowess while strengthening other important business and leadership skills like problem-solving, ethics and brand management. Topics also include applied budget and finance, human resources administration, and more.

## Interdisciplinary Studies: Construction Management, Bachelor of Arts (p. 1798)

The online Bachelor of Arts in Interdisciplinary Studies with a major in Construction Management will connect to the construction industry where there is a strong demand specifically to Oklahoma's top 100 critical occupations. The core requirements provide courses relevant to the workforce in-demand knowledge and skills including communication, data literacy and analysis, problem solving methods, and practical application of knowledge learned in the program. The other major requirements are topic-specific, providing depth of knowledge in the field of construction management.

## Interdisciplinary Studies: Criminal Justice Leadership, Bachelor of Arts

The online Bachelor of Arts in Interdisciplinary Studies with a major in Criminal Justice Leadership offers students a deeper understanding of law enforcement and the criminal justice system, paired with curriculum that details the insight and skills necessary to grow as an effective leader. Topics include judicial processes, data analysis, conflict resolution, ethics, innovative problem solving, leadership in organizations, and more.

## Interdisciplinary Studies: Healthcare Management, Bachelor of Arts

The online Bachelor of Arts in Interdisciplinary Studies with a major in Healthcare Management teaches students the industry-specific management and business principles needed to succeed as a management professional in the healthcare industry. Students will learn financial, ethical, operational, and program management skills that will allow them to establish and evaluate the strategic direction of a medical facility, business, or system.

## Interdisciplinary Studies: Learning and Education, Bachelor of Arts (p. 1803)

The online Bachelor of Arts in Interdisciplinary Studies with a major in Learning and Education will connect to the education career field where there is a strong demand specifically to Oklahoma's top 100 critical occupations. The core requirements provide courses relevant to the workforce in-demand knowledge and skills including communication, data literacy and analysis, problem solving methods, and practical application of knowledge learned in the program. The other major requirements are topic-specific, providing depth of knowledge in the field of study.

## Interdisciplinary Studies: Organizational Leadership, Bachelor of Arts

The online Bachelor of Arts in Interdisciplinary Studies with a major in Organizational Leadership demonstrates how ethics, conflict resolution, diversity, social processes, and more interact to affect a leader's decisionmaking at the individual, team, and organizational levels. Students explore different leadership styles, developing the strategies necessary to inspire growth and change within an organization and cultivate vital leadership skills in others.

## Additional Online Degree Programs

## Criminal Justice, Bachelor of Science (p. 1809)

The online Bachelor of Science in Criminal Justice is designed for those who want to protect and serve the community. By providing a broadbased foundational understanding of the justice system, this program helps build leadership and conflict resolution abilities while integrating current, real-world issues. Whether students currently work or hope to work in law enforcement, corrections, homeland security, or juvenile justice, or victim services and restorative justice, this bachelor's program will help them develop skills to confront any challenge. Topics include theories of criminal behavior, basic scientific process, deviance/social controls, investigations, criminal justice administration, and restorative justice processes.

## Lifespan Care Administration, Bachelor of Arts (p. 1806)

The online Bachelor of Arts in Lifespan Care Administration emphasizes caregiving best practices across the lifespan, preparing graduates to provide quality care no matter the healthcare environment. It is an accredited, flexible, and affordable degree program designed to improve the essential knowledge and skills of care facility staff and administrators. The degree can be customized based on individual interest-whether that interest is in care for children, adolescents, or the elderly. Students gain knowledge that can be applied to responsibilities and goals across the range of human development and will become familiar with the theoretical, ethical, and legal issues related to caregiving.

## Organizational Leadership, Bachelor of Arts (p. 1808)

The online Bachelor of Arts in Organizational Leadership follows an applied approach to the study and practice of leadership. This bachelordegree program provides students with specific, work-related principles resting on a foundation of a well-rounded liberal education. Students will learn to approach new ideas, projects, and challenges by drawing upon multiple perspectives, and thereby will increase their ability to lead others and enhance the overall leadership capacity of the organizations where they work, consult, or serve.

## Undergraduate Minor Programs

## Criminal Investigation Minor

The Minor in Criminal Investigation and Intelligence Analysis introduces students to a core function of law enforcement and security operations. For approximately two decades, information technology and computer analytics have steadily improved the capabilities of crime analysis, crime forecasting, and homeland security operations. These functions frequently support and augment criminal and security investigations of every kind.

## Criminal Justice Minor

The Minor in Criminal Justice allows students in other undergraduate programs at OU to explore the issues of crime, law and the criminal justice system, emphasizing courts, criminal procedure, corrections and emerging issues and trends in law enforcement. Students get a solid understanding of the criminal justice system by studying theories in policing, criminal behavior, American judicial processes, and the American correctional system.

## Organizational Leadership Minor

The Minor in Organizational Leadership provides non-majors with a basic understanding of organizational behavior/leadership theories and equips students with a set of leadership skills to make positive, well-informed contributions to an organization's mission.

## Restorative Justice Minor

The Minor in Restorative Justice emphasizes services to crime victims, offenders, and communities, aiming to repair the damage done by crime. Persons working in restorative justice professions serve as victim advocates, counselors, mediators, court officers, probation and parole officers, crime prevention and restoration experts.

## Integrative Studies, B.A.

Minimum Total Credit Hours: 120
Major Hours: 30
Overall GPA - Combined and OU: 2.00
Major GPA - Combined and OU: 2.00
Program Code: B575 (traditional) and B576 (online)
This program has changes pending State Regents approval for 2024/25. These pending changes are not reflected here.
A grade of " $C$ " or higher must be earned in each course presented for major credit.

## Major Requirements

Some courses required for the major may also fulfill University General Education Requirements.

Every candidate for this degree must select their plan of study, which is a set of courses that meets the student's professional and personal goals.

These courses must total a minimum of 30 credit hours completed at the upper-division level (3000-4000-level).

Courses should be selected in consultation with an advisor to submit a Proposed Plan of Study to the Associate Dean.

## Information Concerning General Rules, Regulations And Minimum Requirements

Upper-Division Hours: A minimum of 40 upper-division semester hours acceptable toward graduation must be completed. OU courses numbered 3000 or above are upper-division. Transfer work is counted as lowerdivision or upper-division credit depending on the level at which it was offered at the institution where it was earned. Two-year college work is accepted only as lower-division credit.

Bachelor of Arts Hours: At least 80 semester hours of liberal arts and science courses are required for a BA degree.
P.E. Courses: No physical education activity courses will be counted toward the 120 semester hours of acceptable credit for graduation. Senior Institution Hours: A minimum of 60 semester hours applied toward graduation must be earned at senior (4-year) institutions.

Residency: 30 hours of credit applied toward the degree must be satisfactorily completed at OU.

Grade Point Averages: Students must earn a minimum overall 2.00 for each of the following: Combined Retention GPA (all college grades), OU Retention GPA, GPA for all major courses, and GPA for all major courses taken at OU.

Special Degrees: The degree with Distinction will be conferred on students who achieve at least a 3.65 retention grade point in their OU and combined grade point average. The degree with Special Distinction requires at least a 3.75 retention grade point average in the OU and combined grade point average.

## General Education and College Requirements

Courses taken to fulfill the University General Education Requirements must be chosen from the approved General Education course list published in the Class Schedule or at http://www.ou.edu/gened/courses.

| UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS |  |
| :---: | :---: |
| Code Title | Credit |
|  | Hours |
| Core Area I: Symbolic \& Oral Communication (9-19 hours) |  |
| English Composition |  |
| ENGL 1113 Principles of English Composition or LSTD 1113 | 3 |
| ENGL 1213 Principles of English Composition or LSTD 1133 | 3 |
| Mathematics: Choose one course | 3 |
| Language ${ }^{1}$ | 0-10 |
| Core Area II: Natural Science (minimum 7 hours) |  |
| Choose two courses from different disciplines, including 1 laboratory component | 7 |
| Core Area III: Social Science (6 hours) |  |
| P SC 1113 American Federal Government or LSTD 1333 | 3 |


| Additional Social Science course | 3 |
| :---: | :---: |
| Core Area IV: Arts and Humanities (12 hours) |  |
| Artistic Forms: Choose one course | 3 |
| Western Culture: Choose one course | 3 |
| U.S. History |  |
| HIST 1483 United States to 1865 <br> or HIST 1493 United States, 1865 to the Present <br> or LSTD 1153  | 3 |
| World Culture: Choose one course | 3 |
| Core Area V: First Year Experience (3 hours) |  |
| Choose one course | 3 |
| Total Credit Hours | 37-47 |
| Students who have completed two years of high school language are exempt from the general education language requirement. If this requirement is waived, a few hours of General Education electives may be needed to achieve the required 40 hour minimum. |  |

## Free Electives

Electives to bring total applicable hours to the minimum total required for the degree including 40 upper-division hours.

## Integrative Studies Bachelor of Arts Elective Course Lists



Or other related courses as approved by academic advisor

| Natural Science Track Courses |  |  |
| :--- | :--- | ---: |
| Code | Title | Credit <br> Hours |
| PSCJ 4123 | Introduction to Forensic Science/ | 3 |
|  | Criminalistics | 3 |
| PSCJ 4143 | Drugs and Society | 3 |
| PSNS 3413 | History of Astronomy in Culture | $1-9$ |
| PSIS 4700 | Advanced Topics in Liberal Studies | 3 |


| PSNS 2553 | Interdisciplinary Life Sciences | 3 |
| :---: | :---: | :---: |
| PSNS 3573 | Chemistry for Changing Times | 3 |
| PSNS 4563 | Weather and Climate | 3 |
| PSNS 4593 | The Role of Genetic Engineering: Past, Present and Future | 3 |
| Other courses as approved by academic advisor |  |  |
| Social Sciences Track Courses |  |  |
| Code | Title | Credit <br> Hours |
| PSCJ 2283 | Introduction to Criminal Justice | 3 |
| PSCJ 3133 | Theories of Criminal Behavior | 3 |
| PSCJ 3173 | Deviance and Social Control | 3 |
| PSCJ 4143 | Drugs and Society | 3 |
| PSCJ 4423 | Cyberspace Security | 3 |
| PSCJ 4443 | Juvenile Delinquency | 3 |
| PSCJ 4463 | Homeland/Global Security and Justice | 3 |
| PSSC 1153 | A History of the United States | 3 |
| PSSC 1313 | What in the World are the Social Sciences? | 3 |
| PSSC 1333 | Government in the United States | 3 |
| PSSC 2313 | The Human Experience: The Role of Culture | 3 |
| PSSC 2323 | Human Groups and Distribution of Resources | 3 |
| PSSC 2333 | Contemporary Social Issues | 3 |
| PSIS 3343 | Challenges in a Changing World | 3 |
| PSSC 3363 | Ethics in Social Sciences | 3 |
| PSSC 3373 | American Public Intellectuals | 3 |
| PSHU 4163 | World Religions and Ecology | 3 |
| PSHU 4173 | Women in the Bible and Qur'an | 3 |
| PSHU 4193 | Women of the Middle East and North Africa | 3 |
| PSIS 4700 | Advanced Topics in Liberal Studies | 1-9 |
| Other courses as approved by PACS academic advisor |  |  |
| Interdisciplinary Studies: Aerospace \& |  |  |

Minimum Total Credit Hours: 120
Major Hours: 30
Minimum Upper-Division Hours: 40

Overall GPA - Combined and OU: 2.00
Major GPA - Combined and OU: 2.00
Program Code: B572

## This program has changes pending State Regents approval for 2024/25. These pending changes are not reflected here. <br> This program is offered by online delivery. <br> Major Requirements

A grade of " $C$ " or higher must be earned in each course presented for major credit.

| Code | Title | Credit <br> Hours |
| :--- | ---: | ---: |
| Program Core | 3 |  |
| LSIS 3013 | 3 |  |
| LSIS 3053 | 3 |  |
| LSIS 3953 | 3 |  |
| LSIS 4033 | 3 |  |
| LSIS 4953 | 3 |  |
| Major Core | 3 |  |
| LSIS 3603 | 3 |  |
| LSIS 3613 | 3 |  |
| LSIS 4603 | 3 |  |
| LSIS 4613 | 3 |  |
| LSAL 3113 | 3 |  |

## COMPUTER LITERACY REQUIREMENT

Students must demonstrate computer proficiency which includes the competent use of a variety of software and networking applications. Please consult your academic advisor for courses to fulfill this requirement.

## General Education and College Requirements

Courses taken to fulfill the University General Education Requirements must be chosen from the approved General Education course list published in the Class Schedule or at http://www.ou.edu/gened/courses.

## UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS

| Code Title | Credit Hours |
| :---: | :---: |
| Core Area I: Symbolic \& Oral Communication (9-19 hours) |  |
| English Composition |  |
| ENGL 1113 Principles of English Composition or LSTD 1113 | 3 |
| ENGL 1213 Principles of English Composition $\quad$ or LSTD 1133 | 3 |
| Mathematics: Choose one course | 3 |
| Language ${ }^{1}$ | 0-10 |
| Core Area II: Natural Science (minimum 7 hours) |  |
| Choose two courses from different disciplines, including 1 laboratory component | 7 |
| Core Area III: Social Science (6 hours) |  |
| P SC 1113 American Federal Government or LSTD 1333 | 3 |
| Additional Social Science course | 3 |
| Core Area IV: Arts and Humanities (12 hours) |  |
| Artistic Forms: Choose one course | 3 |
| Western Culture: Choose one course | 3 |
| U.S. History |  |
| HIST 1483 United States to 1865 <br> or HIST 1493 United States, 1865 to the Present <br> or LSTD 1153  | 3 |
| World Culture: Choose one course | 3 |


| Core Area V: First Year Experience (3 hours) |
| :--- |
| Choose one course |
| Total Credit Hours |
| 1 Students who have completed two years of high school language |
| are exempt from the general education language requirement. If this |
| requirement is waived, a few hours of General Education electives may |
| be needed to achieve the required 40 hour minimum. |

## Free Electives

Electives to bring total applicable hours to the minimum total required for the degree including 40 upper-division hours.

## SUGGESTED SEMESTER PLAN OF STUDY

This plan shows one possible grouping of courses that would allow students to graduate in four years. Please refer to the front of the degree checksheet for official requirements. Students must consult with College of Professional \& Continuing Studies academic advisers to verify that courses selected each semester fulfill the recommended plan and satisfy university, College of Professional \& Continuing Studies, and major requirements.

## Freshman

First Semester Credit
LSTD 1113
LSTD 1153 3
LSTD 2023 3
First Year Experience (Core V) 3
Free Elective 3
Credit Hours15
Second Semester
LSTD 1133 ..... 3
LSTD 1333 ..... 3
LSTD 1053 ..... 3
LSTD 1003 ..... 3
Free Elective ..... 3Credit Hours15
Sophomore
First Semester
LSTD 1313 ..... 3
LSTD 2533 ..... 3
LSTD 2033 ..... 3
Language I (Core I) ..... 5
Free Elective ..... 1Second SemesterLanguage II (Core I)5
Science with Lab Component (Core II) ..... 4
Free Elective ..... 3
Free Elective ..... 3

| Junior |  |
| :---: | :---: |
| First Semester |  |
| LSIS 3013 | 3 |
| LSIS 3603 | 3 |
| LSAL 3113 | 3 |
| Western Culture (Core IV) | 3 |
| Free Elective | 3 |
| Credit Hours | 15 |
| Second Semester |  |
| LSIS 3053 | 3 |
| LSIS 3613 | 3 |
| LSIS 4033 | 3 |
| Artistic Forms (Core IV) | 3 |
| Free Elective | 3 |
| Credit Hours | 15 |
| Senior |  |
| First Semester |  |
| LSIS 3953 | 3 |
| LSIS 4603 | 3 |
| LSIS 4613 | 3 |
| World Culture (Core IV) | 3 |
| Free Elective | 3 |
| Credit Hours | 15 |
| Second Semester |  |
| LSIS 4953 | 3 |
| Free Elective | 3 |
| Free Elective | 3 |
| Free Elective | 3 |
| Free Elective | 3 |
| Credit Hours | 15 |
| Total Credit Hours | 120 |

## Interdisciplinary Studies: Business <br> Administration, B.A.

Minimum Total Credit Hours: 120
Major Hours: 30
Minimum Upper-Division Hours: 40
Overall GPA - Combined and OU: 2.00
Major GPA - Combined and OU: 2.00
Program Code: B577
This program has changes pending State
Regents approval for 2024/25. These pending changes are not reflected here.
This program is offered by online delivery.

## Major Requirements

A grade of " $C$ " or higher must be earned in each course presented for major credit.

| Code | Title | Credit <br> Hours |
| :---: | :---: | :---: |
| Program Core |  |  |
| LSIS 3013 |  | 3 |
| LSIS 3053 |  | 3 |
| LSIS 3953 |  | 3 |
| LSIS 4033 |  | 3 |
| LSIS 4953 |  | 3 |
| Major Core |  |  |
| LSIS 3123 |  | 3 |
| LSIS 3143 |  | 3 |
| LSIS 4113 |  | 3 |
| LSIS 4133 |  | 3 |
| LSIS 4173 |  | 3 |
| Total Credit Hours |  | 30 |
| COMPUTER LITERACY REQUIREMENT |  |  |
| Students must demonstrate computer proficiency which includes the competent use of a variety of software and networking applications. Please consult your academic advisor for courses to fulfill this requirement. |  |  |
| General Education and College Requirements |  |  |
| Courses taken to fulfill the University General Education Requirements must be chosen from the approved General Education course list published in the Class Schedule or at http://www.ou.edu/gened/courses. |  |  |
| UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS |  |  |
| Code | Title | Credit |
|  |  | Hours |
| Core Area I: Symbolic \& Oral Communication (9-19 hours) |  |  |
| English Composition |  |  |
| ENGL 1113 or LSTD 1113 | Principles of English Composition | 3 |
| $\begin{aligned} & \text { ENGL } 1213 \\ & \text { or LSTD } 1133 \end{aligned}$ | Principles of English Composition | 3 |
| Mathematics: Choo | oose one course | 3 |
| Language ${ }^{1}$ |  | 0-10 |
| Core Area II: Natural Science (minimum 7 hours) |  |  |
| Choose two cours laboratory compo | ses from different disciplines, including 1 onent | 7 |
| Core Area III: Social Science (6 hours) |  |  |
| $\begin{aligned} & \text { P SC } 1113 \\ & \text { or LSTD } 1333 \end{aligned}$ | American Federal Government | 3 |
| Additional Social | Science course | 3 |
| Core Area IV: Arts and Humanities (12 hours) |  |  |
| Artistic Forms: Choos | hoose one course | 3 |
| Western Culture: C | Choose one course | 3 |
| U.S. History |  |  |
| HIST 1483 <br> or HIST 1493 <br> or LSTD 1153 | United States to 1865 <br> United States, 1865 to the Present | 3 |
| World Culture: Cho | oose one course | 3 |

Core Area V: First Year Experience (3 hours)

| Choose one course |
| :--- |
| Total Credit Hours |
| 1 |
| Students who have completed two years of high school language |
| are exempt from the general education language requirement. If this |
| requirement is waived, a few hours of General Education electives may |
| be needed to achieve the required 40 hour minimum. |

## Free Electives

Electives to bring total applicable hours to the minimum total required for the degree including 40 upper-division hours.

## SUGGESTED SEMESTER PLAN OF STUDY

This plan shows one possible grouping of courses that would allow students to graduate in four years. Please refer to the front of the degree checksheet for official requirements. Students must consult with College of Professional \& Continuing Studies academic advisers to verify that courses selected each semester fulfill the recommended plan and satisfy university, College of Professional \& Continuing Studies, and major requirements.

| Freshman | Credit |
| :--- | ---: |
| First Semester | Hours |
| LSTD 1113 | 3 |
| LSTD 1153 | 3 |
| LSTD 2023 | 3 |
| First Year Experience (Core V) | 3 |
| Free Elective | 3 |
|  | $\mathbf{3}$ |

LSTD 1133 3
LSTD 1333 3
LSTD 1053 3
LSTD 1003 3
Free Elective 3

|  | Credit Hours |
| :--- | :--- |
| Sophomore | 15 |


| First Semester |  |
| :--- | :--- |
| LSTD 1313 | 3 |

LSTD 2533 3
LSTD 2033 3
Language I (Core I) 5

| Free Elective | 1 |  |
| :--- | ---: | ---: |
|  | Credit Hours | 15 |


| Second Semester |  |
| :--- | ---: |
| Language II (Core I) | 5 |
| Science with Lab Component (Core II) | 4 |
| Free Elective | 3 |
| Free Elective | 3 |
|  | $\mathbf{1 5}$ |


| Junior |  |
| :---: | :---: |
| First Semester |  |
| LSIS 3013 | 3 |
| LSIS 3123 | 3 |
| LSIS 3143 | 3 |
| Western Culture (Core IV) | 3 |
| Free Elective | 3 |
| Credit Hours | 15 |
| Second Semester |  |
| LSIS 4113 | 3 |
| LSIS 3053 | 3 |
| LSIS 4033 | 3 |
| Artistic Forms (Core IV) | 3 |
| Free Elective | 3 |
| Credit Hours | 15 |
| Senior |  |
| First Semester |  |
| LSIS 3953 | 3 |
| LSIS 4133 | 3 |
| LSIS 4173 | 3 |
| World Culture (Core IV) | 3 |
| Free Elective | 3 |
| Credit Hours | 15 |
| Second Semester |  |
| LSIS 4953 | 3 |
| Free Elective | 3 |
| Free Elective | 3 |
| Free Elective | 3 |
| Free Elective | 3 |
| Credit Hours | 15 |
| Total Credit Hours | 120 |
| Interdisciplinary Studies: Construction |  |
| Management, B.A. |  |
| Minimum Total Credit Hours: 120 |  |
| Major Hours: 30 |  |
| Minimum Upper-Division Hours: 40 |  |
| Overall GPA - Combined and OU: 2.00 |  |
| Major GPA - Combined and OU: 2.00 |  |
| Program Code: B573 |  |
| This program has changes pending State |  |
| Regents approval for 2024/25. These pending |  |
| This program is offered by online delivery. |  |
| Major Requirements |  |
| A grade of " C " or higher must be earne major credit. |  |

LSIS 3013 3
3LSIS 3123Western Culture (Core IV)3
Free Elective ..... 3
Second SemesterSIS 41133
SIS 30533
Artistic Forms (Core IV) ..... 3

## Senior

LSIS 39533SIS 41733ure (Core IV) ..... 3Second Semester
3Fre ElectFree Elective3
Free Elective3
Total Credit Hours ..... 120
teruisciplinary Studies. ConstructionMinimum Total Credit Hours: 120Major Hours: 30Minimum Upper-Division Hours: 40Major GPA - Combined and OU: 2.00This program has changes pending StateRegents approval for 2024/25. These pendingchanges are not reflected here.Major Requirements major credit.

| Code | Title | Credit Hours |
| :---: | :---: | :---: |
| Program Core |  |  |
| LSIS 3013 |  | 3 |
| LSIS 3053 |  | 3 |
| LSIS 3953 |  | 3 |
| LSIS 4033 |  | 3 |
| LSIS 4953 |  | 3 |
| Major Core |  |  |
| CNS 3303 | Preconstruction Management | 3 |
| CNS 3313 | Applied Construction Project Management | 3 |
| CNS 3323 | Applied Construction Estimating \& Scheduling | 3 |
| CNS 3333 | Construction Efficiency | 3 |
| CNS 3343 | Communication and Personnel Management in Construction | 3 |
| Total Credit Hour |  | 30 |
| COMPUTER LITERACY REQUIREMENT |  |  |
| Students must demonstrate computer proficiency which includes the competent use of a variety of software and networking applications. Please consult your academic advisor for courses to fulfill this requirement. |  |  |
| General Education and College Requirements |  |  |
| Courses taken to fulfill the University General Education Requirements must be chosen from the approved General Education course list published in the Class Schedule or at http://www.ou.edu/gened/courses. |  |  |
| UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS |  |  |
| Code | Title | Credit Hours |
| Core Area I: Symbolic \& Oral Communication (9-19 hours) |  |  |
| English Composition |  |  |
| $\begin{aligned} & \text { ENGL } 1113 \\ & \text { or LSTD } 1113 \end{aligned}$ | Principles of English Composition | 3 |
| $\begin{aligned} & \text { ENGL } 1213 \\ & \text { or LSTD } 1133 \end{aligned}$ | Principles of English Composition | 3 |
| Mathematics: Cho | ose one course | 3 |
| Language ${ }^{1}$ |  | 0-10 |
| Core Area II: Natural Science (minimum 7 hours) |  |  |
| Choose two cour laboratory comp | ses from different disciplines, including 1 nent | 7 |
| Core Area III: Social Science (6 hours) |  |  |
| $\begin{aligned} & \text { P SC } 1113 \\ & \text { or LSTD } 1333 \end{aligned}$ | American Federal Government | 3 |
| Additional Social | Science course | 3 |
| Core Area IV: Arts and Humanities (12 hours) |  |  |
| Artistic Forms: Choose one course 3 |  |  |
| Western Culture: Choose one course 3 |  |  |
| U.S. History |  |  |
| HIST 1483 | United States to 1865 | 3 |
| or HIST 1493 | United States, 1865 to the Present |  |
| or LSTD 1153 |  |  |


| World Culture: Choose one course |
| :--- | ---: |
| Core Area V: First Year Experience (3 hours) |
| Choose one course |
| Total Credit Hours |
|  |
| ${ }^{1}$ Students who have completed two years of high school language |
| are exempt from the general education language requirement. If this |
| requirement is waived, a few hours of General Education electives may |
| be needed to achieve the required 40 hour minimum. |

## Free Electives

Electives to bring total applicable hours to the minimum total required for the degree including 40 upper-division hours.

## SUGGESTED SEMESTER PLAN OF STUDY

This plan shows one possible grouping of courses that would allow students to graduate in four years. Please refer to the front of the degree checksheet for official requirements. Students must consult with College of Professional \& Continuing Studies academic advisers to verify that courses selected each semester fulfill the recommended plan and satisfy university, College of Professional \& Continuing Studies, and major requirements.

## Freshman

$\begin{array}{ll}\text { First Semester } & \text { Credit } \\ \text { Hours }\end{array}$
LSTD 11133
LSTD 1153
LSTD 2023 3
First Year Experience (Core V) 3
Free Elective 3
Credit Hours 15
Second Semester

## LSTD 1133 3

LSTD 1333 3
LSTD 1053 3
LSTD 1003 3
Free Elective 3
Credit Hours
15

## Sophomore

First Semester
LSTD 1313 3
LSTD 2533 3
LSTD 2033 3
Language I (Core I) ..... 5
Free Elective ..... 1Second Semester
Language II (Core I) ..... 5
Science with Lab Component (Core II) ..... 4
Free Elective ..... 3
Free Elective ..... 3

| Junior <br> First Semester |  |  |
| :---: | :---: | :---: |
|  |  |  |
| LSIS 3013 |  | 3 |
| CNS 3303 | Preconstruction Management | 3 |
| CNS 3313 | Applied Construction Project Management | 3 |
| Western Culture (Core IV) |  | 3 |
| Free Elective |  | 3 |
|  | Credit Hours | 15 |
| Second Semester |  |  |
| CNS 3323 | Applied Construction Estimating \& Scheduling | 3 |
| LSIS 3053 |  | 3 |
| LSIS 4033 |  | 3 |
| Artistic Forms (Core IV) |  | 3 |
| Free Elective |  | 3 |
|  | Credit Hours | 15 |
| Senior |  |  |
| First Semester |  |  |
| LSIS 3953 |  | 3 |
| CNS 3333 | Construction Efficiency | 3 |
| CNS 3343 | Communication and Personnel Management in Construction | 3 |
| World Culture (Core IV) |  | 3 |
| Free Elective |  | 3 |
|  | Credit Hours | 15 |
| Second Semester |  |  |
| LSIS 4953 |  | 3 |
| Free Elective |  | 3 |
| Free Elective |  | 3 |
| Free Elective |  | 3 |
| Free Elective |  | 3 |
|  | Credit Hours | 15 |
|  | Total Credit Hours | 120 |

## Interdisciplinary Studies: Criminal Justice <br> Leadership, B.A.

Minimum Total Credit Hours: 120
Major Hours: 30
Minimum Upper-Division Hours: 40
Overall GPA - Combined and OU: 2.00
Major GPA - Combined and OU: 2.00
Program Code: B578
This program has changes pending State Regents approval for 2024/25. These pending changes are not reflected here.
This program is offered by online delivery.

## Major Requirements

A grade of " $C$ " or higher must be earned in each course presented for major credit.

```
Code Title Credit
Hours
```

Program Core
LSIS 3013 ..... 3
LSIS 3053 ..... 3
LSIS 3953 ..... 3
LSIS 4033 ..... 3
LSIS 4953 ..... 3
Major Core
LSCJ 3203 ..... 3
LSCJ 3223 ..... 3
LSCJ 4243 ..... 3
LSAL 3113 ..... 3
LSAL 3133 ..... 3
Total Credit Hours ..... 30
COMPUTER LITERACY REQUIREMENT

Students must demonstrate computer proficiency which includes the competent use of a variety of software and networking applications. Please consult your academic advisor for courses to fulfill this requirement.

## General Education and College Requirements

Courses taken to fulfill the University General Education Requirements must be chosen from the approved General Education course list published in the Class Schedule or at http://www.ou.edu/gened/courses.

UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS
Code Title CreditHours

Core Area I: Symbolic \& Oral Communication (9-19 hours)
English Composition
ENGL 1113 Principles of English Composition ..... 3
or LSTD 1113
ENGL 1213 Principles of English Composition ..... 3
or LSTD 1133
Mathematics: Choose one course ..... 3
Language ${ }^{1}$ ..... 0-10Core Area II: Natural Science (minimum 7 hours)Choose two courses from different disciplines, including 17laboratory componentCore Area III: Social Science (6 hours)
P SC 1113 American Federal Government ..... 3
or LSTD 1333
Additional Social Science course ..... 3
Core Area IV: Arts and Humanities (12 hours)
Artistic Forms: Choose one course ..... 3
Western Culture: Choose one course ..... 3


| Free Elective | 3 |  |
| :--- | ---: | ---: |
|  | Credit Hours | $\mathbf{1 5}$ |
| Junior |  |  |
| First Semester | 3 |  |
| LSIS 3013 | 3 |  |
| LSAL 3113 | 3 |  |
| LSCJ 3203 | 3 |  |
| Western Culture (Core IV) | 3 |  |
| Free Elective | 3 |  |
|  | $\mathbf{1 5}$ |  |

## Second Semester

LSAL 3133 3
LSIS 3053 ..... 3
LSIS 4033 ..... 3
Artistic Forms (Core IV) ..... 3
Free Elective ..... 3
Credit Hours ..... 15
Senior
First Semester
LSIS 3953 ..... 3
LSCJ 3223 ..... 3
LSCJ 4243 ..... 3
World Culture (Core IV) ..... 3
Free Elective ..... 3
Credit Hours ..... 15
Second Semester
LSIS 4953 ..... 3
Free Elective ..... 3
Free Elective ..... 3
Free Elective ..... 3
Free Elective ..... 3

| Credit Hours | 15 |
| :--- | :--- |

## Interdisciplinary Studies: Healthcare Management, B.A.

Minimum Total Credit Hours: 120
Major Hours: 30
Minimum Upper-Division Hours: 40

Overall GPA - Combined and OU: 2.00
Major GPA - Combined and OU: 2.00
Program Code: B579

## This program has changes pending State Regents approval for 2024/25. These pending changes are not reflected here.

This program is offered by online delivery.

## Major Requirements

A grade of " $C$ " or higher must be earned in each course presented for major credit.


## General Education and College Requirements

Courses taken to fulfill the University General Education Requirements must be chosen from the approved General Education course list published in the Class Schedule or at http://www.ou.edu/gened/courses.

UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS

| Code Title | Credit Hours |
| :---: | :---: |
| Core Area I: Symbolic \& Oral Communication (9-19 hours) |  |
| English Composition |  |
| ENGL 1113 Principles of English Composition or LSTD 1113 | 3 |
| ENGL 1213 Principles of English Composition or LSTD 1133 | 3 |
| Mathematics: Choose one course | 3 |
| Language ${ }^{1}$ | 0-10 |
| Core Area II: Natural Science (minimum 7 hours) |  |
| Choose two courses from different disciplines, including 1 laboratory component | 7 |
| Core Area III: Social Science (6 hours) |  |
|  | 3 |
| Additional Social Science course | 3 |
| Core Area IV: Arts and Humanities (12 hours) |  |
| Artistic Forms: Choose one course | 3 |
| Western Culture: Choose one course | 3 |
| U.S. History |  |


| HIST 1483 | United States to 1865 |
| :--- | :--- | ---: |
| or HIST 1493 | United States, 1865 to the Present |
| or LSTD 1153 |  |$\quad 3$

## Free Electives

Electives to bring total applicable hours to the minimum total required for the degree including 40 upper-division hours.

## SUGGESTED SEMESTER PLAN OF STUDY

This plan shows one possible grouping of courses that would allow students to graduate in four years. Please refer to the front of the degree checksheet for official requirements. Students must consult with College of Professional \& Continuing Studies academic advisers to verify that courses selected each semester fulfill the recommended plan and satisfy university, College of Professional \& Continuing Studies, and major requirements.

## Freshman

First Semester Credit Hours
LSTD 1113 ..... 3
LSTD 1153 ..... 3
LSTD 2023 ..... 3
First Year Experience (Core V) ..... 3
Free Elective ..... 3
Credit Hours ..... 15
Second Semester
LSTD 1133 ..... 3
LSTD 1333 ..... 3
LSTD 1053 ..... 3
LSTD 1003 ..... 3
Free Elective ..... 3
Sophomore
First Semester
LSTD 1313 ..... 3
LSTD 2533 ..... 3
LSTD 2033 ..... 3
Language I (Core I) ..... 5
Free Elective ..... 1
Second Semester
Language II (Core I) ..... 5
Science with Lab Component (Core II) ..... 4
Free Elective ..... 3


## Interdisciplinary Studies: Learning and Education Studies, B.A.

Minimum Total Credit Hours: 120
Major Hours: 30
Minimum Upper-Division Hours: 40
Overall GPA - Combined and OU: 2.00
Major GPA - Combined and OU: 2.00
Program Code: B574
This program has changes pending State Regents approval for 2024/25. These pending changes are not reflected here.
This program is offered by online delivery.

## Major Requirements

A grade of " $C$ " or higher must be earned in each course presented for major credit.

| Code | Title | Credit <br> Hours |
| :---: | :---: | :---: |
| Program Core |  |  |
| LSIS 3013 |  | 3 |
| LSIS 3053 |  | 3 |
| LSIS 3953 |  | 3 |
| LSIS 4033 |  | 3 |
| LSIS 4953 |  | 3 |
| Major Core |  |  |
| EDUC 3223 | Introduction to Education | 3 |
| EDUC 3233 | Development, Motivation, and Learning | 3 |
| EDUC 4123 | Introduction to Instruction | 3 |
| EDUC 4223 | Learning Environments for Diverse Learners | 3 |
| EDUC 4323 | Scaffolded Instruction for All Learners | 3 |
| Total Credit Hours |  | 30 |
| COMPUTER LITERACY REQUIREMENT |  |  |
| Students must dem competent use of Please consult you requirement. | monstrate computer proficiency which in a variety of software and networking ap ur academic advisor for courses to fulfill |  |

## General Education and College Requirements

Courses taken to fulfill the University General Education Requirements must be chosen from the approved General Education course list published in the Class Schedule or at http://www.ou.edu/gened/courses.

UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS
Code Title Credit Hours
Core Area I: Symbolic \& Oral Communication (9-19 hours)
English Composition
ENGL 1113 Principles of English Composition 3
or LSTD 1113
ENGL 1213 Principles of English Composition 3
or LSTD 1133
Mathematics: Choose one course 3
$\begin{array}{ll}\text { Language }^{1} & 0-10\end{array}$
Core Area II: Natural Science (minimum 7 hours)
Choose two courses from different disciplines, including 1
laboratory component
Core Area III: Social Science (6 hours)
P SC 1113 American Federal Government 3
or LSTD 1333
Additional Social Science course 3
Core Area IV: Arts and Humanities ( 12 hours)
Artistic Forms: Choose one course 3
Western Culture: Choose one course 3
U.S. History

| HIST 1483 | United States to 1865 |
| :--- | :--- | ---: |
| or HIST 1493 | United States, 1865 to the Present |
| or LSTD 1153 |  |

## Free Electives

Electives to bring total applicable hours to the minimum total required for the degree including 40 upper-division hours.

## SUGGESTED SEMESTER PLAN OF STUDY

This plan shows one possible grouping of courses that would allow students to graduate in four years. Please refer to the front of the degree checksheet for official requirements. Students must consult with College of Professional \& Continuing Studies academic advisers to verify that courses selected each semester fulfill the recommended plan and satisfy university, College of Professional \& Continuing Studies, and major requirements.

| Freshman |  |  |
| :--- | ---: | ---: |
| First Semester | Credit <br> Hours |  |
| LSTD 1113 | 3 |  |
| LSTD 1153 | 3 |  |
| LSTD 2023 | Credit Hours | 3 |
| First Year Experience (Core V) | 3 |  |
| Free Elective | 3 |  |
|  | $\mathbf{1 5}$ |  |
| Second Semester | 3 |  |
| LSTD 1133 | 3 |  |
| LSTD 1333 | 3 |  |
| LSTD 1053 | 3 |  |
| LSTD 1003 | Credit Hours | 3 |
| Free Elective | 3 |  |
|  | $\mathbf{3}$ |  |

## Sophomore

| First Semester |  |
| :--- | :--- |
| LSTD 1313 | 3 |

LSTD 2533 3
LSTD 2033 3

Language I (Core I) 5

| Free Elective | 1 |  |
| :--- | :--- | ---: |
|  | Credit Hours | 15 |

## Second Semester

Language II (Core I)
Science with Lab Component (Core II) ..... 4
Free Elective ..... 3

| Free Elective |  | 3 |
| :--- | :--- | ---: |
|  | Credit Hours | $\mathbf{1 5}$ |
| Junior |  |  |
| First Semester |  | 3 |
| LSIS 3013 | Introduction to Education | 3 |
| EDUC 3223 | Development, Motivation, and Learning | 3 |
| EDUC 3233 | $\mathbf{3}$ |  |
| Western Culture (Core IV) | 3 |  |
| Free Elective |  | 3 |
|  | Credit Hours | $\mathbf{1 5}$ |


| EDUC 4123 Introduction to Instruction | 3 |
| :---: | :---: |
| LSIS 3053 | 3 |
| LSIS 4033 | 3 |
| Artistic Forms (Core IV) | 3 |
| Free Elective | 3 |
| Credit Hours | 15 |
| Senior |  |
| First Semester |  |
| LSIS 3953 | 3 |
| EDUC 4223 Learning Environments for Diverse | 3 |
| EDUC 4323 Scaffolded Instruction for All Learners | 3 |
| World Culture (Core IV) | 3 |
| Free Elective | 3 |
| Credit Hours | 15 |
| Second Semester |  |
| LSIS 4953 | 3 |
| Free Elective | 3 |
| Free Elective | 3 |
| Free Elective | 3 |
| Free Elective | 3 |
| Credit Hours | 15 |
| Total Credit Hours | 120 |

## Interdisciplinary Studies: Organizational Leadership, B.A.

Minimum Total Credit Hours: 120
Major Hours: 30
Minimum Upper-Division Hours: 40

Overall GPA - Combined and OU: 2.00
Major GPA - Combined and OU: 2.00

Program Code: B580

## This program has changes pending State Regents approval for 2024/25. These pending changes are not reflected here.

This program is offered by online delivery.

## Major Requirements

A grade of " $C$ " or higher must be earned in each course presented for major credit.

| Code | Title | Credit <br> Hours |
| :--- | ---: | ---: |
| Program Core | 3 |  |
| LSIS 3013 | 3 |  |
| LSIS 3053 | 3 |  |
| LSIS 3953 | 3 |  |
| LSIS 4033 | 3 |  |
| LSIS 4953 | 3 |  |
| Major Core | 3 |  |
| LSAL 3113 | 3 |  |
| LSAL 3153 | 3133 | 3 |
| LSAL 3373 | 3 |  |
| Total Credit Hours | 3 |  |
| COMPUTER LITERACY REQUIREMENT | 3 |  |
| Ctudents must demonstrate computer proficiency which includes the |  |  |
| Please consult your academic advisor for courses to fulfill this |  |  |
| requirement. |  |  |

## General Education and College Requirements

Courses taken to fulfill the University General Education Requirements must be chosen from the approved General Education course list published in the Class Schedule or at http://www.ou.edu/gened/courses.

UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS

| Code Title | Credit Hours |
| :---: | :---: |
| Core Area I: Symbolic \& Oral Communication (9-19 hours) |  |
| English Composition |  |
| ENGL 1113 or LSTD 1113 | 3 |
| ENGL 1213 Principles of English Composition or LSTD 1133 | 3 |
| Mathematics: Choose one course | 3 |
| Language ${ }^{1}$ | 0-10 |
| Core Area II: Natural Science (minimum 7 hours) |  |
| Choose two courses from different disciplines, including 1 laboratory component | 7 |
| Core Area III: Social Science (6 hours) |  |
| P SC 1113 American Federal Government or LSTD 1333 | 3 |
| Additional Social Science course | 3 |
| Core Area IV: Arts and Humanities (12 hours) |  |
| Artistic Forms: Choose one course | 3 |
| Western Culture: Choose one course | 3 |

U.S. History

| HIST 1483 United States to 1865 |  |  |
| :---: | :---: | :---: |
| or HIST 1493 | United States, 1865 to the Present |  |
| or LSTD 1153 |  |  |
| World Culture: Choose | ose one course | 3 |
| Core Area V: First Year Experience (3 hours) |  |  |
| Choose one cours |  | 3 |
| Total Credit Hours |  |  |
| ${ }^{1}$ Students who have completed two years of high school language are exempt from the general education language requirement. If this requirement is waived, a few hours of General Education electives may be needed to achieve the required 40 hour minimum. |  |  |

## Free Electives

Electives to bring total applicable hours to the minimum total required for the degree including 40 upper-division hours.

## SUGGESTED SEMESTER PLAN OF STUDY

This plan shows one possible grouping of courses that would allow students to graduate in four years. Please refer to the front of the degree checksheet for official requirements. Students must consult with College of Professional \& Continuing Studies academic advisers to verify that courses selected each semester fulfill the recommended plan and satisfy university, College of Professional \& Continuing Studies, and major requirements.

## Freshman

First Semester Credit Hours
LSTD 1113
LSTD 1153 3
LSTD 20233
First Year Experience (Core V) 3
Free Elective 3
Credit Hours 15

## Second Semester

LSTD 1133 3
LSTD 1333 3
LSTD 1053 3
LSTD 1003 3
Free Elective 3

## Sophomore

First Semester
LSTD 1313 3
LSTD 2533 3
LSTD 2033 3
Language I (Core I) 5

| Free Elective | 1 |
| :--- | ---: |

Credit Hours
15

| Second Semester | 5 |
| :--- | :--- |
| Language II (Core I) | 4 |
| Science with Lab Component (Core II) | 3 |
| Free Elective |  |


| Free Elective | 3 |
| :---: | :---: |
| Credit Hours | 15 |
| Junior |  |
| First Semester |  |
| LSIS 3013 | 3 |
| LSAL 3113 | 3 |
| LSAL 3153 | 3 |
| Western Culture (Core IV) | 3 |
| Free Elective | 3 |
| Credit Hours | 15 |
| Second Semester |  |
| LSAL 3133 | 3 |
| LSIS 3053 | 3 |
| LSIS 4033 | 3 |
| Artistic Forms (Core IV) | 3 |
| Free Elective | 3 |
| Credit Hours | 15 |
| Senior |  |
| First Semester |  |
| LSIS 3953 | 3 |
| LSAL 3373 | 3 |
| LSAL 4283 | 3 |
| World Culture (Core IV) | 3 |
| Free Elective | 3 |
| Credit Hours | 15 |
| Second Semester |  |
| LSIS 4953 | 3 |
| Free Elective | 3 |
| Free Elective | 3 |
| Free Elective | 3 |
| Free Elective | 3 |
| Credit Hours | 15 |
| Total Credit Hours | 120 |

## Lifespan Care Administration (Online),

## B.A.

Minimum Total Credit Hours: 120
Major Hours: 48
Overall GPA - Combined and OU: 2.00
Major GPA - Combined and OU: 2.00
Program Code: B650
This program has changes pending State Regents approval for 2024/25. These pending changes are not reflected here.
A grade of " $C$ " or higher must be earned in each course presented for major credit.


Total Credit Hours48

## Computer Literacy Requirement

Students must demonstrate computer proficiency which includes the competent use of a variety of software and networking applications. Please consult your academic advisor for courses to fulfill this requirement.

## General Education and College Requirements

Courses taken to fulfill the University General Education Requirements must be chosen from the approved General Education course list published in the Class Schedule or at http://www.ou.edu/gened/courses.


## Free Electives

Electives to bring total applicable hours to the minimum total required for the degree including 40 upper-division hours.

## Suggested Semester Plan of Study

This plan shows one possible grouping of courses that would allow students to graduate in four years. Please refer to the front of the degree checksheet for official requirements. Students must consult with College of Professional \& Continuing Studies academic advisers to verify that courses selected each semester fulfill the recommended plan and satisfy university, College of Professional \& Continuing Studies, and major requirements.

## Freshman

| First Semester |  | Credit <br> Hours |
| :--- | :--- | ---: |
| LSTD 1113 | Core I | 3 |
| LSTD 1153 | Core IV | 3 |
| LSTD 2023 |  | 3 |


| First Year Experience (Core V) | 3 |
| :---: | :---: |
| Free Elective | 3 |
| Credit Hours | 15 |
| Second Semester |  |
| LSTD 1133 Core I | 3 |
| LSTD 1333 Core III | 3 |
| LSTD 1053 Core I | 3 |
| LSTD 1003 | 3 |
| Free Elective | 3 |
| Credit Hours | 15 |
| Sophomore |  |
| First Semester |  |
| Language I (Core I) | 5 |
| LSTD 1313 Core III | 3 |
| LSTD 2533 Core II | 3 |
| LSTD 2033 | 3 |
| Free Elective | 1 |
| Credit Hours | 15 |

## Second Semester

Language II (Core I) 5
Science with Lab Component (Core II) 4
Western Culture (Core IV) 3
Artistic Forms (Core IV) 3

|  | Credit Hours | 15 |
| :--- | :--- | ---: |
| Junior |  |  |
| First Semester |  | 3 |
| LSTD 3003 |  | 3 |
| LSLC 3113 |  | 3 |
| LSLC 3133 | Lifespan Health | 3 |
| LSLC 3203 $\quad$ Care of Infant and Child | 3 |  |
| World Culture (Core IV) | $\mathbf{1 5}$ |  |
|  | Credit Hours |  |

Second Semester

| LSLC 3153 |  | 3 |
| :--- | :--- | ---: |
| LSLC 3173 | Human Service Administration I | 3 |
| LSLC 3313 | Issues in Adolescence I | 3 |
| LSLC 3403 | Issues in Geriatrics I | 3 |
| Lifespan Track | Requirement | 3 |
|  | Credit Hours | $\mathbf{1 5}$ |

Senior

## First Semester

| LSLC 3953 | Lifespan Capstone Prospectus | 3 |
| :--- | :--- | ---: |
| LSLC 4063 | Issues in Lifespan Research | 3 |
| LSLC 4173 | Human Service Administration II | 3 |
| Lifespan Track | Requirement -Issues Course II | 3 |
| Free Elective |  | 3 |
|  | Credit Hours | $\mathbf{1 5}$ |


| Second Semester |  | 3 |
| :--- | :--- | :--- |
| LSLC 4953 | Lifespan Practicum and Study-in-Depth | 3 |
| LSLC 4193 | Human Service Budgeting and Finance | 3 |
| Lifespan Track | Requirement | 3 |
| Free Elective |  | 3 |


| Free Elective |  | 3 |
| :--- | :--- | ---: |
|  | Credit Hours | 15 |
|  | Total Credit Hours | 120 |

## Organizational Leadership, B.A.

Minimum Total Credit Hours: 120
Major Hours: 30

Overall GPA - Combined and OU: 2.00
Major GPA - Combined and OU: 2.00
Program Code: B755

## This program has changes pending State Regents approval for 2024/25. These pending changes are not reflected here.

- This program is offered by electronic and hybrid delivery.


## Major Requirements

A grade of " C " or higher must be earned in each course presented for major credit.

| Code | Title |
| :--- | :--- |
|  | Credit |
|  | Hours |


| Major Core | 3 |
| :--- | :--- |
| LSTD 3003 | 3 |
| LSAL 3113 | 3 |
| LSAL 3133 | 3 |
| LSAL 3153 | 3 |
| LSAL 3223 | 3 |
| LSAL 3373 | 3 |
| LSAL 3953 | 3 |
| LSAL 4143 | 3 |
| LSAL 4283 | 3 |
| LSAL 4953 | 3 |

Total Credit Hours

## Computer Literacy Requirement

Students must demonstrate computer proficiency which includes the competent use of a variety of software and networking applications. Please consult your academic advisor for courses to fulfill this requirement.

## General Education and College Requirements

Courses taken to fulfill the University General Education Requirements must be chosen from the approved General Education course list published in the Class Schedule or at http://www.ou.edu/gened/courses.

## UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND

 COLLEGE REQUIREMENTS| Code | Title | Credit |
| :--- | :--- | :--- |
|  | Hours |  |

Core Area I: Symbolic \& Oral Communication (9-19 hours)
LSTD 1133 3

| LSTD 1053 | 3 |
| :---: | :---: |
| Language (Core I) ${ }^{1}$ | 0-10 |
| Core Area II: Natural Science (minimum 7 hours) |  |
| LSTD 2533 | 3 |
| Choose one natural science course with lab | 4-6 |
| Core Area III: Social Science (6 hours) |  |
| LSTD 1333 2 <br> or P SC 1113 American Federal Government | 3 |
| Choose one Social Science course ${ }^{3}$ | 3 |
| Core Area IV: Arts and Humanities (12 hours) |  |
| Choose one of the following: | 3 |
| LSTD 1153 |  |
| HIST 1483 United States to 1865 |  |
| HIST 1493 United States, 1865 to the Present |  |
| Choose one course from each of the following three fields. One course must be upper-division (3000-4000 level) | 9 |
| Artistic Forms |  |
| Western Culture |  |
| World Culture |  |
| Core Area V: First Year Experience (3 hours) |  |
| Choose one course | 3 |
| Total Credit Hours | 37-47 |
| ${ }^{1}$ Students who have completed two years of high school language are exempt from the general education language requirement. If this requirement is waived, a few hours of General Education electives may be needed to achieve the required 40 hour minimum. |  |

## Free Electives

Electives to bring total applicable hours to the minimum total required for the degree including 40 upper-division hours.

## Suggested Semester Plan of Study

This plan shows one possible grouping of courses that would allow students to graduate in four years. Please refer to the front of the degree checksheet for official requirements. Students must consult with College of Professional \& Continuing Studies academic advisers to verify that courses selected each semester fulfill the recommended plan and satisfy university, College of Professional \& Continuing Studies, and major requirements.

## Freshman

| First Semester |  | Credit <br> Hours |
| :--- | :--- | ---: |
| LSTD 1113 | Core I | 3 |
| LSTD 1153 | Core IV | 3 |
| LSTD 2023 |  | 3 |
| First Year Experience (Core V) | 3 |  |
| Free Elective |  | 3 |
|  | Credit Hours | $\mathbf{1 5}$ |

## Second Semester <br> LSTD 1133 Core I

| LSTD 1333 | Core III | 3 |
| :---: | :---: | :---: |
| LSTD 1053 | Core I | 3 |
| LSTD 1003 |  | 3 |
| Free Elective |  | 3 |
|  | Credit Hours | 15 |
| Sophomore |  |  |
| First Semester |  |  |
| Language I (Core I) |  | 5 |
| LSTD 1313 | Core III | 3 |
| LSTD 2533 | Core II | 3 |
| LSTD 2033 |  | 3 |
| Free Elective |  | 1 |
|  | Credit Hours | 15 |
| Second Semester |  |  |
| Language II (Core I) |  | 5 |
| Science with Lab Component (Core II) |  | 4 |
| Free Elective |  | 3 |
| Free Elective |  | 3 |
|  | Credit Hours | 15 |
| Junior |  |  |
| First Semester |  |  |
| LSTD 3003 |  | 3 |
| LSAL 3113 |  | 3 |
| LSAL 3153 |  | 3 |
| Western Culture (Core IV) |  | 3 |
| Free Elective |  | 3 |
|  | Credit Hours | 15 |
| Second Semester |  |  |
| LSAL 3133 |  | 3 |
| LSAL 3223 |  | 3 |
| LSAL 4143 |  | 3 |
| Artistic Forms (Core IV) |  | 3 |
| Free Elective |  | 3 |
|  | Credit Hours | 15 |
| Senior |  |  |
| First Semester |  |  |
| LSAL 3953 |  | 3 |
| LSAL 3373 |  | 3 |
| LSAL 4283 |  | 3 |
| World Culture (Core IV) |  | 3 |
| Free Elective |  | 3 |
|  | Credit Hours | 15 |
| Second Semester |  |  |
| LSAL 4953 |  | 3 |
| Free Elective |  | 3 |
| Free Elective |  | 3 |
| Free Elective |  | 3 |
| Free Elective |  | 3 |
|  | Credit Hours | 15 |
|  | Total Credit Hours | 120 |

## Criminal Justice (Online), B.S.

Minimum Total Credit Hours: 120
Major Hours: 30
Overall GPA - Combined and OU: 2.00
Major GPA - Combined and OU: 2.00
Program Code: B647

## This program has changes pending State Regents approval for 2024/25. These pending changes are not reflected here.

A grade of " C " or higher must be earned in each course presented for major credit.

## Major Requirements

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Major Core |  | 3 |
| LSCJ 3113 | 3 |  |
| LSCJ 3133 | 3 |  |
| LSCJ 3223 | 3 |  |
| LSCJ 4243 | 3 |  |
| LSCJ 4263 | 3 |  |
| LSCJ 4443 | 3 |  |
| LSTD 3003 | Prospectus-Writing for Criminal Justice | 3 |
| LSTD 3153 | Capstone in Criminal Justice | 3 |
| LSCJ 3953 | 3 |  |
| LSCJ 4953 | 3 |  |
| Total Credit Hours | 3 |  |

## Computer Literacy Requirement

Students must demonstrate computer proficiency which includes the competent use of a variety of software and networking applications. Please consult your academic advisor for courses to fulfill this requirement.

## General Education and College Requirements

Courses taken to fulfill the University General Education Requirements must be chosen from the approved General Education course list published in the Class Schedule or at http://www.ou.edu/gened/courses.

UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS
Code Title Credit

Core Area I: Symbolic \& Oral Communication (9-19 hours)

LSTD 1113 3

LSTD 1133 ..... 3
LSTD 1053 ..... 3Core Area II: Natural Science (minimum 7 hours)
LSTD 2533 (no laboratory) 3

| Core Area III: Social Science (6 hours) |  |  |
| :---: | :---: | :---: |
| LSTD 1333 or P SC 1113 | (recommended) <br> American Federal Government | 3 |
| Select one Socia | Science course ${ }^{2}$ | 3 |
| Core Area IV: Arts and Humanities (12 hours) |  |  |
| Choose one of the following: |  | 3 |
| LSTD 1153 |  |  |
| HIST 1483 | United States to 1865 |  |
| HIST 1493 | United States, 1865 to the Present |  |
| Choose one course from each of the following three fields. One course must be upper-division (3000-4000 level) |  |  |
| Choose one Artistic Forms course |  |  |
| Choose one Western Culture course |  |  |
| Choose one World Culture course |  |  |
| Core Area V: First Year Experience (3 hours) |  |  |
| Choose one course |  | 3 |
| Total Credit Hours |  | 37-49 |
| 1 Students who have completed two years of high school language are exempt from the general education language requirement. If this requirement is waived, a few hours of General Education electives may be needed to achieve the required 40 hour minimum. <br> ${ }^{2}$ LSTD 1313 recommended. |  |  |

## Free Electives

Electives to bring total applicable hours to the minimum total required for the degree including 40 upper-division hours.

## Suggested Semester Plan of Study

This plan shows one possible grouping of courses that would allow students to graduate in four years. Please refer to the front of the degree checksheet for official requirements. Students must consult with College of Professional \& Continuing Studies academic advisers to verify that courses selected each semester fulfill the recommended plan and satisfy university, College of Professional \& Continuing Studies, and major requirements.

| Freshman |  |  |
| :--- | :--- | ---: |
| First Semester |  | Credit <br> Hours |
|  |  | 3 |
| LSTD 1113 | Core I | 3 |
| LSTD 1153 | Core IV | 3 |
| LSTD 2023 |  | 3 |
| First Year Experience (Core V) | 3 |  |
| Free Elective |  | $\mathbf{1 5}$ |
|  | Credit Hours | 3 |
| Second Semester | Core I | 3 |
| LSTD 1133 | Core III | 3 |
| LSTD 1333 | Core I | 3 |
| LSTD 1053 |  | 3 |
| LSTD 1003 |  | $\mathbf{3}$ |
| Free Elective | Credit Hours | $\mathbf{1 5}$ |

## Sophomore

First Semester
Language I (Core I) 5
LSTD 1313 Core III 3
LSTD 2533 Core II 3
LSTD 2033 3

| Free Elective | 1 |  |
| :--- | ---: | ---: |
|  | Credit Hours | 15 |


| Second Semester | 5 |
| :--- | :--- |
| Language II (Core I) |  |

Science with Lab Component (Core II) 4
Free Elective 3
Free Elective 3

|  | Credit Hours | 15 |
| :--- | ---: | :--- |
| Junior |  |  |
| First Semester |  |  |
| LSTD 3003 | 3 |  |

LSCJ 3113 ..... 3
LSCJ 3133 ..... 3
Western Culture (Core IV) ..... 3
Free Elective ..... 15
Second Semester
LSTD 3153 ..... 3
LSCJ 3223 ..... 3
LSCJ 4243 ..... 3
Artistic Forms (Core IV) ..... 3
Free Elective ..... 3
Credit Hours ..... 15
Senior
First Semester
LSCJ 3953 Prospectus-Writing for Criminal Justice ..... 3
LSCJ 4443 ..... 3
LSCJ 4263 ..... 3
World Culture (Core IV) ..... 3
Free Elective ..... 3
15
Second Semester
LSCJ $4953 \quad$ Capstone in Criminal Justice ..... 3
Free Elective ..... 3
Free Elective ..... 3
Free Elective ..... 3
Free Elective ..... 3
Credit Hours ..... 15
Total Credit Hours ..... 120
Criminal Investigation and Intelligence Analysis, Minor
Minimum Total Credit Hours: 15Minimum Upper-Division Hours: 15

## Program Code: N260

The requirements for a minor must be completed concurrently with the major degree requirements.

No minor may be added by completing courses after receiving the bachelor's degree.

At least nine (9) hours for the minor must be earned from the College of Professional \& Continuing Studies.

Courses for the minor may not be taken Pass/No Pass.
No single course may be used by a student to satisfy a major requirement and a minor requirement.

## Required Courses

- A minimum 2.00 GPA (OU and Combined) is required in the minor coursework.

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Required Courses |  |  |
| PSCJ 3133 | Theories of Criminal Behavior | 3 |
| PSCJ 4403 | Criminal Investigation | 3 |
| PSCJ 4413 | Intelligence Analysis for Law Enforcement | 3 |
| PSCJ 4423 | Cyberspace Security | 3 |
| Elective Course |  | 3 |
| Choose one course from the following list: |  |  |
| PSCJ 3063 | Statistics in Criminal Justice |  |
| PSCJ 4123 | Introduction to Forensic Science/ <br>  <br> PSCJ 4143 | Criminalistics |
| PSCJ 4463 | Homeland/Global Security and Justice |  |
| PSCJ 4493 | Organized Crime and International Drug |  |

Total Credit Hours

- The Criminal Investigation \& Intelligence Analysis minor is available to all undergraduate students at OU. If the minor is officially declared, successfully completed, and noted on the graduation application, the student's transcript will so indicate at the time the Bachelor's degree is posted.


## Criminal Justice, Minor

Minimum Total Credit Hours: 15
Minimum Upper-Division Hours: 12
Program Code: N262
The requirements for a minor must be completed concurrently with the major degree requirements.

No minor may be added by completing courses after receiving the bachelor's degree.

At least nine (9) hours for the minor must be earned from the College of Professional \& Continuing Studies.

Courses for the minor may not be taken Pass/No Pass.

No single course may be used by a student to satisfy a major requirement and a minor requirement.

## Required Courses

- A minimum 2.00 GPA (OU and Combined) is required in the minor coursework.

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| PSCJ 3133 | Theories of Criminal Behavior | 3 |
| PSCJ 3223 | American Judicial Processes | 3 |
| PSCJ 4243 | Police and Policing | 3 |
| PSCJ 4263 | The American Correctional System | 3 |
| Choose one criminal justice elective course as approved by | 3 |  |
| academic advisor ${ }^{1}$ |  |  |

Total Credit Hours 15

1 A list of criminal justice elective courses may be obtained from the PACS academic advising office or on the College's website.

- The Criminal Justice Minor is available to all undergraduate students at OU. If the minor is officially declared, successfully completed, and noted on the graduation application, the student's transcript will so indicate at the time the Bachelor's degree is posted.


## Organizational Leadership, Minor

Minimum Total Credit Hours: 15
Minimum Upper-Division Hours: 9
Program Code: N755
The requirements for a minor must be completed concurrently with the major degree requirements.

No minor may be added by completing courses after receiving the bachelor's degree.

At least nine (9) hours for the minor must be earned from the College of Professional \& Continuing Studies.

Courses for the minor may not be taken Pass/No Pass.
No single course may be used by a student to satisfy a major requirement and a minor requirement.

## Required Courses

- a minimum 2.00 GPA (OU and Combined) is required in the minor coursework.

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Required Courses |  |  |
| PSOL 3113 | Leadership in Organizations | 3 |
| PSOL 3373 | Measuring Human Performance | 3 |
| PSOL 4283 | Social Processes in Organizations | 3 |
| Elective Courses |  | 6 |
| Choose two additional courses from the list below, or from |  |  |
| other OU departments as approved by an academic advisor. |  |  |
| PSBA 2283 | Understanding Management | 3 |


| PSOL 3133 | Conflict Resolution | 3 |
| :--- | :--- | :--- |
| PSOL 3153 | Ethics in Leadership | 3 |
| PSBA 3223 | Finance for Non-Finance Managers | 3 |
| PSOL 3333 | Motivation in Learning and Leadership | 3 |
| PSOL 3513 | Integrated Marketing Strategies | 3 |
| PSBA 4123 | Quality Initiatives in Organizations | 3 |
| PSBA 4163 | Non-Profit Management | 3 |
| PSOL 4203 | Decision-Making, Problem Solving, and | 3 |
|  | Strategic Thinking |  |

## Total Credit Hours

- The Organizational Studies Minor is available to all undergraduate students at OU. If the minor is officially declared, successfully completed, and noted on the graduation application, the student's transcript will so indicate at the time the Bachelor's degree is posted.


## Restorative Justice, Minor

Minimum Total Credit Hours: 15
Minimum Upper-Division Hours: 15

## Program Code: N823

The requirements for a minor must be completed concurrently with the major degree requirements.

No minor may be added by completing courses after receiving the bachelor's degree.

At least nine (9) hours for the minor must be earned from the College of Professional \& Continuing Studies.

Courses for the minor may not be taken Pass/No Pass.
No single course may be used by a student to satisfy a major requirement and a minor requirement

## Required Courses

- A minimum 2.00 GPA (OU and Combined) is required in the minor coursework.

| Code | Title | Credit <br> Hours |
| :--- | :--- | ---: |
| Required Courses |  |  |
| PSCJ 3133 | Theories of Criminal Behavior | 3 |
| PSCJ 4443 | Juvenile Delinquency | 3 |
| Elective Course |  | 9 |
| Choose three courses from the following list: |  |  |
| PSCJ 3173 | Deviance and Social Control |  |
| PSCJ 3223 | American Judicial Processes |  |
| PSCJ 4143 | Drugs and Society |  |
| PSCJ 4273 | Community Corrections |  |

Total Credit Hours

- The Restorative Justice minor is available to all undergraduate students at OU. If the minor is officially declared, successfully completed, and noted on the graduation application, the student's transcript will so indicate at the time the Bachelor's degree is posted.


## POLICIES

## Equal Opportunity Policy

The University of Oklahoma, in compliance with all applicable federal and state laws and regulations does not discriminate on the basis of race, color, national origin, sex, sexual orientation, genetic information, gender identity, gender expression, age, religion, disability, political beliefs, or status as a veteran in any of its policies, practices, or procedures. This includes, but is not limited to: admissions, employment, financial aid, housing, services in educational programs or activities, or health care services that the University operates or provides.

Inquiries regarding non-discrimination policies may be directed to: Marci Gracey, Interim Institutional Equity Officer, 405-325-3546, mgracey@ou.edu or visit the Institutional Equity Office website.

## Student Code

The University of Oklahoma Student Rights and Responsibilities Code includes rules that address the responsibilities and conduct required of all University of Oklahoma students, student groups, organizations, and University-approved or operated living units. The Student Rights and Responsibilities Code, Procedures, and Alcohol Policy area all available on the Student Conduct website.

## Academic Integrity Policy

Integrity in all aspects of scholarship is essential to the University's mission. The Academic Integrity Code establishes a student Integrity Council, sets forth the rights and responsibilities of all students on the Norman Campus regarding academic integrity, and provides the procedures to be followed in cases of suspected misconduct. Academic misconduct is defined as any act which improperly affects the evaluation of a student's academic performance or achievement. It is the responsibility of each student to be familiar with the definitions, policies and procedures concerning academic misconduct. Unfamiliarity with the code alters none of a student's rights or responsibilities thereunder. Academic work submitted in any course is subject to review by plagiarism detection services such as Turnitin.com. The Code, the "Student's Guide to Academic Integrity," and other helpful documents are available on the Integrity Council website.

## Reasonable Accommodation Policy

The University of Oklahoma will reasonably accommodate otherwise qualified individuals with a disability unless such accommodation would pose an undue hardship, would result in a fundamental alteration in the nature of the service, program, or activity or in undue financial or administrative burdens. The term "reasonable accommodation" is used in its general sense in this policy to apply to employees, students, and visitors.

Reasonable accommodation may include, but is not limited to:

- Making existing facilities readily accessible and usable by individuals with disabilities
- Job restructuring
- Part-time or modified work schedules
- Reassignment to a vacant position if qualified
- Acquisition or modification of equipment or devices
- Adjustment or modification of examinations, training materials or policies
- Providing qualified readers or interpreters
- Modifying policies, practices and procedures

The Accessibility and Disability Resource Center, unless otherwise provided, is the central point-of-contact to receive all requests for reasonable accommodation and to receive all documentation required to determine disability status under law. This center will then make a recommendation on accommodation to the appropriate administrative unit. Reasonable accommodation with respect to employment matters should be coordinated with the Office of Human Resources. Reasonable accommodation with respect to academic matters, including but not limited to faculty employment, should be coordinated with the Office of the Provost while all other issues of reasonable accommodation should be coordinated with the Office of the Vice President for Administrative Affairs.

Individuals who have complaints alleging discrimination based upon a disability may file them with the University Equal Opportunity Office in accordance with prevailing University discrimination grievance procedures.

Student requests for reasonable accommodation should be addressed to the Accessibility and Disability Resource Center, 730 College Avenue University Community Center, Norman, OK 73019, (405) 325-3852 (Voice) - (405) 217-3494 (VP) - (405) 325-4491 (Fax), or adrc@ou.edu.

## Sexual Misconduct, Discrimination, and Harassment Policy

The University is committed to creating and maintaining a community where all persons who participate in University programs and activities can work and learn together in an atmosphere free from all forms of harassment, exploitation, or intimidation. The University condemns discrimination based on sex or gender, sexual harassment, sexual assault, sexual orientation discrimination, discrimination based on gender identity or expression, and sexual misconduct, including but not limited to dating violence, domestic violence, and stalking. Any such activity committed by a member of the University community may subject the individual to University sanctions as well as civil and criminal penalties. For more information, contact the University's Sexual Misconduct Office, Walker Center 2nd Floor at (405) 325-2215, smo@ou.edu, or the Institutional Equity Office, 102 Evans Hall, (405) 325-3546.

## Student Grievance Policy

The University has a policy of internal adjudication of student grievances. There are specific procedures for many grievances (e.g., academic appeals, alleged discrimination, etc.) that are set forth on the Student Conduct website. In cases where University policy designates no specific procedure, grievances regarding academic matters, financial aid, educational records, or payment of tuition and fees should be addressed to the Senior Vice President and Provost; grievances regarding other aspects of student life should be addressed to the Vice President for Student Affairs.

## University Email Notifications

In order to assure timely and efficient communication, the University establishes email as an acceptable means of official communication. All University students, faculty, and staff are assigned an official University email account. Official University communications may be sent to this account. Email sent to this account is expected to be read in a timely fashion, except in circumstances where access to email is impracticable.

Faculty and staff may assume that a student's official University email is a valid mechanism for communicating with that student. Faculty who rely upon electronic communication with or between students in their classes will specify their requirements in the course syllabus. Account holders who choose to have email forwarded to another email address do so at their own risk. An account holder's failure to receive or read, in a timely manner, official University communications sent to an official email account does not absolve the account holder from knowing and complying with the content of the official communication.

## Glossary of Terms and Abbreviations

The following glossary is provided to explain the academic terms and abbreviations used throughout this catalog.

Academic Forgiveness Policy - policy set forth by the Oklahoma State Regents for Higher Education that allows for the exclusion from the retention grade point average of hours that meet the provisions of either the repeat policy, reprieve policy, or renewal policy (p. 46).

Academic Overload - more than 19 hours in a semester or 9 hours in a summer term.

Accreditation - approval by a regional or professional accrediting association (e.g., The Higher Learning Commission of the North Central Association of Colleges and Schools).

Add/Drop - the process by which a student changes his or her class schedule by adding a course, dropping a course, or both

Advanced Placement - a test taken to determine a student's level of competency in sequential courses such as mathematics, language and chemistry. This type of test is designed only to place a student in an appropriate level of classroom instruction and does not award college credit.

Advanced Standing Examination - an examination taken to establish course credit without enrolling in the course.

Advisement - the process of planning a program and selecting courses with assistance from an advisor.

## Advisement/Degree Audit (A/DA) - see Degree Navigator (DN)

Application for Graduation - the official form used in applying for graduation. Students apply online through one.ou.edu

Area of Concentration - a concentration of coursework within the major.

Attempted Hours - total number of credit hours in which a student enrolls and receives a grade of A, B, C, D, F, P, NP, S, U, I, or N.

Audit - to attend a class regularly without receiving credit. Does not count toward full-time enrollment.
B.A. - Bachelor of Arts, the baccalaureate degree typically awarded in the arts and humanities.
B.S. - Bachelor of Science, the baccalaureate degree typically awarded in the sciences, engineering, and health professions.

Baccalaureate Degree - a degree awarded for the successful completion of an approved undergraduate program.

Bachelor's Degree - see Baccalaureate Degree.

Blended Course/Hybrid Course - A course in which instruction is partly delivered face-to-face and partly over the Internet.

Cancellation - an official act to terminate an enrollment before classes start for the term of enrollment

Catalog - an official publication listing degree programs.
Certification Programs for Teachers - programs to qualify prospective public school teachers to meet Oklahoma state standards.

Checksheet - a concise, one-page description of graduation requirements for a specific undergraduate major.

College - an academic unit of the University, headed by a dean, offering instruction and granting degrees (or degree designations) in several areas of study.

College Office - the office of the college dean.
Combined Cumulative GPA - grade point average based on all courses attempted, both OU and transfer.

Combined Retention GPA - grade point average based on all courses attempted, both OU and transfer courses, minus any courses repeated in accordance with the policy on repeated courses, remedial courses, and PE activity courses.

Commencement - the ceremony at which degrees are conferred

Complete Withdrawal - official withdrawal from all courses during a specific term or semester.

Comprehensive Examination - a required examination for a non-thesis master's program that covers all fields of work offered for the degree.

Concurrent Enrollment - simultaneous enrollment in two or more courses, programs, colleges, or campuses of the University.

Conditional Admission - an admission category at the graduate level for students whose grade point average is below that required for full admission, who have coursework deficiencies in the relevant field of study, and/or who have incomplete application materials or lack the additional departmental information required for full admission. At the undergraduate level, students are admitted conditionally if they have incomplete academic credentials.

Confer (a degree) - award, upon successful completion of requirements.

Corequisite - a requirement that one course must be taken in the same term as another course.

Correspondence Study - courses taken for credit by correspondence through the Center for Independent and Distance Learning.

Course - a unit of study for a semester or term
Credit by Examination - credit earned by advanced standing examination

Credit Hour - the unit of credit for one hour of lecture per week for a semester or the equivalent.

Curriculum - a program of study
Dean - chief administrative officer of a college.

Degree - a title conferred upon one who has successfully completed an approved program of study.

Degree Navigator (DN) - system that monitors a student's progress toward completion of degree requirements. It provides information on coursework completed (both OU and transfer), coursework in progress, degree course requirements remaining, and grade point average. This package replaces the previous Advisement/Degree Audit (A/DA) system.

Diploma - an official document certifying a degree earned.
Dissertation - a written report of research completed in fulfillment of the requirements for a doctoral degree.

Doctoral Degree - a graduate degree awarded for the completion of an advanced course of study emphasizing research, typically requiring 90 hours of course and research work beyond the bachelor's degree, the completion of an independent research project, and the completion and successful defense of a dissertation.

## Drop/Add - see Add/Drop.

Earned Hours - total number of credit hours awarded for completed courses in which the student has earned a passing grade.

Electives - courses taken for credit and grade but not to meet specific major course requirements for graduation.

Enrollment - the process of choosing and officially registering in a set of courses for a semester or term.

Enrollment Fee - the charge paid to enroll in courses.
Enrollment Verification - written confirmation of current or past enrollment for student loan institutions or other companies. Obtained through the Office of Academic Records.

Faculty Advisor - the faculty person assigned to assist the student in program planning and course selection.

Fee - a charge paid by students for services, e.g., course fee, student activity fee, health fee, etc.

Fee Waiver - a reduction in the fees a student must pay to enroll in courses at the University.

Freshman - undergraduate student with fewer than 30 credit hours.
Full Standing - an admission category at the graduate level for those students who meet the requirements for admission to a specific program.

Full-Time Student - an undergraduate student enrolled in 12 or more hours in a semester or six or more hours in a summer term. Graduate students should see the Graduate College section of this catalog.

General Education Requirements - common set of courses or categories of courses that are required of all undergraduate students to complete a degree.

GMAT - Graduate Management Admissions Test administered by the Educational Testing Service and used by some business colleges and schools as one item in the application packet for predicting success in graduate school.

Good Standing - status accorded students who meet certain grade point average requirements.

GPA - grade point average.
Grade Point Average - total grade points divided by total grade point hours.

Grade Point Hours - credit hours attempted for letter graded courses (A, B, C, D, F).

Grade Points - four points for each credit hour of A, three for each hour of B, two for each hour of C, one for each hour of D, zero for each hour of F.

Graduate Coursework - 5000- and 6000-level courses.
Graduate Student - a student who has already earned a baccalaureate degree and who is admitted to the Graduate College and enrolled in Graduate College advanced courses (usually 4000-, 5000- and 6000-level) that could lead to a master's or doctoral degree.

## Graduation GPA - see Retention/Graduation GPA.

GRE - Graduate Record Examination administered by the Educational Testing Service and used by some departments as one item in the application packet for predicting success in graduate school.

Incomplete (I) - a grade that may be given to a student who has not completed all of the requirements for a course prior to the end of the semester or term.

Independent Studies Courses - one-semester, individualized programs of study approved by a faculty instructor and departmental chair.

Junior - undergraduate student with between 60 and 89 credit hours.
Letter Grade - a grade of A, B, C, D or F.
Lower-Division Coursework - 1000- and 2000-level courses.
Major - the subject matter declared for in-depth study.

## Major Field - see Major.

Master's Degree - a graduate degree awarded for the completion of an advanced course of study, typically requiring 30 hours of coursework beyond the bachelor's degree.

Matriculate - to initially enroll at a university.
Minimum Degree Requirements - minimum fulfillment of each specific requirement.

Minor - a secondary field of study in addition to the major.
Neutral Grade - a grade which is not used in calculating grade point averages (AU, AW, P, NP, S, U, W, I, N, X).

Oklahoma State System of Higher Education - colleges and universities receiving state funds and governed by the Oklahoma State Regents for Higher Education (OSRHE).

Online Course - A course in which instruction is delivered entirely over the Internet.

Online Enrollment - a Web-based process of choosing and officially registering in a set of courses for a semester or term.

OU Cumulative GPA - grade point average based on all courses attempted at OU.

OU Retention GPA - grade point average based on all courses attempted at OU minus any OU courses repeated in accordance with the policy on repeated courses, remedial courses, and PE activity courses.

## Overload - see Academic Overload

Pass/No Pass Grade Option (P/NP) - a neutral grade option selected by students for individual courses. Individual colleges may or may not accept the P/NP option.

Petition - a formal, written request, which, if approved, will allow modification or waiver of a specific requirement.

Placement Examination - a non-credit examination taken to determine the level in which a student should enroll in a sequential series of courses. This examination does not award college credit.

Planned Program - an individualized degree program designed by a student in consultation with faculty and/or degree college advisors in lieu of a regular major.

Post-Master's Coursework - coursework completed after a master's degree is conferred.

Prerequisite - a requirement, usually credit in another course, which must be met before a particular course can be taken.

Probation - an academic warning that a student is in academic difficulty, which could lead to suspension from the University. Undergraduate students may be placed on academic probation for an indefinite period of time by the University if they do not meet the requirements outlined in this catalog under the section called Scholastic Regulations and Standards.

Probationary Enrollment - enrollment on probation.
Proficiency Examination - see Placement Examination.
Provisional Admission - a temporary admission category which should not exceed 120 days. Note: This policy applies only to the College of Professional and continuing Studies.

Registration - consists of advisement through the college office, enrollment in courses, and payment of tuition and fees.

Repeat Policy - policy for undergraduate students set forth by the Oklahoma State Regents for Higher Education that allows for the exclusion from the retention GPA of hours of repeated courses in which the original grade was a D or F up to a maximum of four courses, not to exceed 18 hours.

Reprieve - policy for undergraduate students set forth by the Oklahoma State Regents for Higher Education that allows for the exclusion from the retention GPA of hours in one semester, or two consecutive semesters, that have been petitioned and approved in accordance with the guidelines of the policy.

Resident Credit - courses completed in residence at OU, excluding correspondence courses. Credits earned by examination are neither resident nor non-resident credit.

Resident Status - the classification of students as either in-state or out-of-state for admission and tuition purposes.

Retention - eligibility for continued enrollment.

Retention/Graduation GPA - grade point average computed excluding those courses repeated or reprieved, in accordance with the academic forgiveness policy, as well as remedial and PE activity courses and used to determine a student's eligibility to enroll in classes and to graduate.

Satisfactory (S) - passing neutral grade in courses graded on an S/U basis.

Satisfactory-Unsatisfactory Graded Courses (S/U) - courses selected by departments to be graded without letter grades.

Scholarship - a cash award or tuition waiver awarded to a student.

Semester - a 16-week academic session.

Semester Credit Hour - see Credit Hour.

Semester GPA - grade point average based on all courses attempted during a single semester at OU.

Senior - undergraduate student with 90 or more credit hours.

Senior Institution - a college or university offering baccalaureate degree programs.

Senior Vice President and Provost - the chief academic administrative officer of the Norman or Health Sciences Center campus, reporting directly to the University president.

Sophomore - undergraduate student with between 30-59 credit hours.
Special Student - an admission category available to students who are admissible to the University and wish to take courses without pursuing a degree. Undergraduate students are limited to nine hours; graduate students are limited to 24 hours.

Stop-Out - a University policy that allows students who have not graduated or been suspended to break their enrollment at the University for no more than one major semester and a summer term and return to the University without applying for readmission. Students may also attend consecutive summer terms without going through the readmission process.

Summer Term -A session of courses beginning after the end of the spring semester and ending prior to the beginning of the fall semester.

Suspension for Poor Scholarship - occurs when a student fails to meet minimum requirements of probation. The student is not eligible to attend classes at the University for one semester and must apply and be approved for readmission in order to re-enter the University.

Thesis - a written report of research or creative activity completed in partial fulfillment of the requirements of a course or degree.

TOEFL - Test of English as a Foreign Language administered by the Educational Testing Service and used to determine the level of English proficiency for students for whom English is a second language.

Transcript - a written report of a student's academic record. An "official transcript" must bear the seal of the university and the signature of an authorized university official.

Transfer Course Equivalent - an OU course that substantially matches the content and credit hours of a transfer course.

Transfer Course Substitution - a transfer course that, while not equivalent to a specific course at OU , is similar enough in content that it may be used to fulfill the requirement that the OU course fulfills.
Substitutions are student specific and must be approved by the dean's office of the student's degree-recommending college.

Transfer Credit Evaluation - an assessment of a student's transfer credit, generally performed at the time of admission, in which OU course equivalencies are established (if possible) for individual transfer courses. This evaluation is used by academic advisors in degree checks and student advisement.

Transfer Cumulative GPA - grade point average based on all transfer courses attempted.

Transfer Retention GPA - grade point average based on all transfer courses attempted, minus any courses repeated in accordance with the policy on repeated courses.

Transfer Work - credit earned at another institution.
Tuition - the charge in addition to enrollment fees paid by all students to enroll in courses at the University.

Tuition Waiver - a reduction in the tuition a student must pay to enroll in courses at the University.

Unclassified Student - a graduate student in unclassified status is not a candidate for a degree, nor does unclassified status offer assurance of future admission to a degree program.

Undergraduate - a student enrolled in courses leading to a baccalaureate degree.

Unsatisfactory - non-passing neutral grade in courses graded on the SU basis.

Upper-Division Coursework - courses numbered 3000 and 4000.
Visitor - an admission category for graduate students in good academic standing in a graduate program at other accredited institutions who wish to take courses at the University of Oklahoma to transfer back to their home campus.

Withdrawal (W) - an official act to terminate a student's total enrollment for a semester. Also a neutral grade that may be given to a student who withdraws from a course with a passing grade.

## COURSE DESCRIPTIONS

## A

- A HI-Art History (p. 1820)
- A T-Art and Technology (p. 1826)
- ACCT-Accounting (p. 1827)
- AERO-Aerospace Studies (p. 1831)
- AFAM-African \& African American Studies (p. 1832)
- AGSC-Atmospheric and Geographic Sciences (p. 1835)
- AHS-Allied Health Sciences (p. 1836)
- AME-Aerospace \& Mechanical Engineering (p. 1836)
- AMGT-Arts Management (p. 1842)
- ANTH-Anthropology (p. 1844)
- ARAB-Arabic (p. 1853)
- ARCH-Architecture (p. 1854)
- ARNM-Art for Non-Majors (p. 1861)
- ART-Art (p. 1862)
- ARTC-Art Theory \& Criticism (p. 1868)
- ARTH-Art Therapy (p. 1869)
- ASTR-Astronomy (p. 1869)
- ATC-Art, Technology, and Culture (p. 1871)
- AVIA-Aviation (p. 1872)


## B

- B AD-Business Administration (p. 1875)
- B C-Business Communication (p. 1878)
- BASN-Bassoon (p. 1878)
- BASS-Bass (p. 1879)
- BIA-Business Intelligence \& Analysis (p. 1880)
- BIOL-Biology (p. 1880)
- BME-Biomedical Engineering (p. 1890)


## C

- C S-Computer Science (p. 1894)
- CAS-College of Arts \& Sciences (p. 1900)
- CEE-College of Earth \& Energy (p. 1902)
- CEES-Civil Engineering \& Environmental Science (p. 1902)
- CELO-Cello (p. 1910)
- CH E-Chemical Engineering (p. 1911)
- CHEM-Chemistry (p. 1915)
- CHER-Cherokee (p. 1921)
- CHIN-Chinese (p. 1921)
- CHOC-Choctaw (p. 1922)
- CL C-Classical Culture (p. 1922)
- CLAR-Clarinet (p. 1925)
- CNS-Construction Science (p. 1925)
- COMM-Communication (p. 1929)
- COMP-Composition (p. 1935)
- CREK-Creek (p. 1935)
- CRJU-Criminal Justice (p. 1936)
- CYBS-Cybersecurity (p. 1937)


## D

- DANC-Dance (p. 1940)
- DENG-Developmental English (p. 1944)
- DES-Design (p. 1944)
- DMAT-Developmental Mathematics (p. 1945)
- DRAM-Drama (p. 1945)
- DRDG-Developmental Reading (p. 1951)
- DSA-Data Science and Analytics (p. 1951)

E

- EACS-Educational Administration Curriculum \& Supervision (p. 1953)
- ECE-Electrical \& Computer Engineering (p. 1956)
- ECON-Economics (p. 1962)
- EDAH-Adult and Higher Education (p. 1966)
- EDEC-Early Childhood Education (p. 1971)
- EDEL-Elementary Education (p. 1974)
- EDEN-English Education (p. 1976)
- EDLT-Literacy Education (p. 1978)
- EDMA-Mathematics Education (p. 1980)
- EDPC-Professional Counseling (p. 1982)
- EDPY-Education \& Counseling Psychology (p. 1984)
- EDRG-Reading Education (p. 1985)
- EDS-Educational Studies (p. 1987)
- EDSC-Science Education (p. 1990)
- EDSE-Secondary Education (p. 1992)
- EDSP-Special Education (p. 1993)
- EDSS-Social Studies Education (p. 1998)
- EDSW-Education Sooner Works (p. 1999)
- EDUC-College of Education (p. 2000)
- EDWL-World Language Education (p. 2003)
- EIPT-Instructional Psychology \& Technology (p. 2004)
- ELM-Engineering Leadership and Management (p. 2008)
- EMAD-Executive MBA Aerospace \& Defense (p. 2009)
- EMBA-Executive Energy MBA (p. 2011)
- EMGT-Energy Management (p. 2014)
- EN D-Environmental Design (p. 2015)
- ENGB-Energy for Business (p. 2015)
- ENGL-English (p. 2016)
- ENGR-College of Engineering (p. 2024)
- ENST- Environmental Studies (p. 2027)
- ENT-Entrepreneurship (p. 2030)
- EPHY-Engineering Physics (p. 2034)
- EUPH-Euphonium (p. 2034)
- EXPO-Expository Writing (p. 2035)


## F

- F A-College of Fine Arts (p. 2035)
- FIN-Finance (p. 2036)
- FLUT-Flute (p. 2041)
- FMS-Film and Media Studies (p. 2042)
- FR H-French Horn (p. 2045)
- FR-French (p. 2045)


## G

- G E-Geological Engineering (p. 2047)
- GCRE-Grad Comp Recital (p. 2049)
- GDMA-Graduate Recital DMA (p. 2049)
- GEOG-Geography (p. 2049)
- GEOL-Geology (p. 2056)
- GERM-German (p. 2061)
- GIS-Geographic Information Science (p. 2063)
- GPHY-Geophysics (p. 2066)
- GRAD-Graduate College (p. 2068)
- GRK-Greek (p. 2069)
- GRRE-Graduate Recital - MM (p. 2071)
- GTAR-Guitar (p. 2071)


## H

- H R-Human Relations (p. 2071)
- HARP-Harp (p. 2081)
- HCB-Health Care Business (p. 2081)
- HEBR-Hebrew (p. 2082)
- HES-Health and Exercise Science (p. 2083)
- HIST-History (p. 2089)
- HMS-Health, Medicine, and Society (p. 2099)
- HON-Honors College (p. 2099)
- HPCD-Harpsichord (p. 2100)
- HSTM-History of Science, Technology, and Medicine (p. 2100)


## I

- I D-Interior Design (p. 2104)
- IAS-International \& Area Studies (p. 2109)
- ILAC-Instructional Leadership \& Academic Curriculum (p. 2120)
- ILAW-International Law (p. 2122)
- INTL-International Courses (p. 2122)
- ISE-Industrial and Systems Engineering (p. 2122)
- ITAL-Italian (p. 2127)


## J

- JAPN-Japanese (p. 2128)
- JMC-Journalism \& Mass Communication (p. 2129)
- JRRE-Music Recitals (p. 2143)


## K

- KIOW-Kiowa (p. 2143)


## L

- L A-Landscape Architecture (p. 2144)
- L S-Legal Studies (p. 2145)
- LAT-Latin (p. 2147)
- LAW-Law (p. 2148)
- LDMA-Music Recitals (p. 2154)
- LGBT-LGBTQ Studies (p. 2154)
- LING-Linguistics (p. 2155)
- LIS-Library and Information Studies (p. 2157)
- LSG-Legal Studies (General) (p. 2163)
- LSH-Legal Studies Healthcare Law (p. 2163)
- LSHA-Human \& Health Services Administration (p. 2164)
- LSI-Legal Studies Indigenous Peoples Law (p. 2165)
- LSIB-Legal Studies International Business Law (p. 2166)
- LSO-Legal Studies Oil, Gas, \& Energy Law (p. 2167)
- LTRS-Letters (p. 2168)


## M

- M S-Military Science - Army (p. 2171)
- MATH-Mathematics (p. 2172)
- MBIO-Microbiology (p. 2178)
- METR-Meteorology (p. 2181)
- MGT-Management (p. 2188)
- MIS-Management Information Systems (p. 2192)
- MIT-Management Information Technology (p. 2194)
- MKT-Marketing (p. 2196)
- MLLL-Modern Languages, Literatures, \& Linguistics (p. 2198)
- MRS-Medieval and Renaissance (p. 2202)
- MST-Museum Studies (p. 2203)
- MTHR-Musical Theatre (p. 2204)
- MUED-Music Education (p. 2207)
- MULI-Music Literature (p. 2210)
- MUNM-Music for Non-Majors (p. 2211)
- MUS-Music (p. 2213)
- MUSC-Musicology (p. 2214)
- MUTE-Music Technique (p. 2215)
- MUTH-Music Theory (p. 2222)
- MUTK-Music Technology (p. 2223)


## N

- N S-Naval Science (p. 2224)
- NAS-Native American Studies (p. 2225)
- NPNG-Nonprofit \& Nongovernmental Organizations (p. 2230)


## 0

- OBOE-Oboe (p. 2231)
- OCL-Organizational and Community Leadership (p. 2232)
- ODYN-Organizational Dynamics (p. 2232)
- OL-Organizational Leadership (p. 2234)
- ORGN-Organ (p. 2236)


## P

- P E-Petroleum Engineering (p. 2236)
- P SC-Political Science (p. 2242)
- PBIO-Plant Biology (p. 2251)
- PCUS-Percussion (p. 2254)
- PDC-Planning, Design \& Construction (p. 2255)
- PERS-Persian (p. 2255)
- PHCH-Public Health and Community Health (p. 2255)
- PHIL-Philosophy (p. 2256)
- PHYS-Physics (p. 2261)
- PIAN-Piano (p. 2265)
- PORT-Portuguese (p. 2265)
- POTA-Potawatomi (p. 2266)
- PSAD-PACS Aerospace \& Defense (p. 2266)
- PSBA-PACS Business Administration (p. 2266)
- PSCJ-PACS Criminal Justice (p. 2267)
- PSCS-PACS Computer \& Data Science (p. 2268)
- PSHA-PACS Health Administration (p. 2269)
- PSHU-PACS Humanities (p. 2269)
- PSIS-PACS Integrative Studies (p. 2270)
- PSMS-PACS Math (p. 2271)
- PSNS-PACS Natural Sciences (p. 2271)
- PSOL-PACS Organizational Leadership (p. 2272)
- PSSC-PACS Social Sciences (p. 2272)
- PSY-Psychology (p. 2273)


## R

- RCPL-Regional \& City Planning (p. 2279)
- RELS-Religious Studies (p. 2283)
- RPHD-Music Recitals (p. 2286)
- RUSS-Russian (p. 2286)


## S

- S WK-Social Work (p. 2287)
- SAX-Saxophone (p. 2293)
- SCM-Supply Chain Management (p. 2293)
- SES-Sustainable Energy Systems (p. 2295)
- SOC-Sociology (p. 2295)
- SPAN-Spanish (p. 2301)
- SRRE-Music Recitals (p. 2304)


## T

- TESL-TESOL (p. 2304)
- TRMP-Trumpet (p. 2305)
- TROM-Trombone (p. 2306)
- TUBA-Tuba (p. 2306)


## U

- UGRE-Music Recitals (p. 2307)
- UNIV-University Course (p. 2307)


## V

- VIOA-Viola (p. 2308)
- VIOL-Violin (p. 2308)
- VOIC-Voice (p. 2309)


## W

- WGS-Women's \& Gender Studies (p. 2310)


## A HI-Art History

A HI 1113 The Understanding of Art
3 Credit Hours
Explanation and analysis of the principles underlying the visual arts. Consideration of formal, historical and other factors in the valuation and enjoyment of painting, sculpture, architecture and utilitarian objects. (F, $\mathrm{Sp}, \mathrm{Su})$ [IV-AF] .

## A HI 1314 Introduction to Art History <br> 4 Credit Hours

Students will be introduced to basic concepts in art and art history through a thematic study of global art. (F, Sp) [IV-AF].

A HI 2303 Introduction to Art in Europe: 1300-1800 3 Credit Hours
This course is an introduction to art and architecture of the early modern period in Europe, from the beginning of the Renaissance in the 1300s until the end of the French Revolution, around 1800. (Irreg.)

A HI 2403 Introduction to American Art
3 Credit Hours
This course offers an introduction to American art, architecture, and visual culture from the colonial period to the present, with an emphasis on art of the United States. Foregrounding issues of encounter and exchange between peoples, nations, and cultures, we will ask what new visual forms were forged in the hybrid cultures of North America. (Irreg.)

## A HI 2503 Introduction to Modern Art

3 Credit Hours
This course offers an Introduction to Modern Art, tracing its emergence, development, and some reactions to its practice. We will discuss the institutional, social, and political conditions that spurred artists to address and critique their contemporary moment, beginning with the gritty Realism of Gustave Courbet and stretching to the modular geometries of Minimalism. (Irreg.)

## A HI 2603 Introduction to Contemporary Art <br> 3 Credit Hours

This course focuses on contemporary art of the world with a strong emphasis on art made since 1989. Departing from transformations in late modern art that marked the aftermath of World War II and the process of decolonization, we will survey major developments and investigate social, political, and economic aspects of contemporary art. (Irreg.) [IV-AF].

A HI 2703 Introduction to Museum Studies 3 Credit Hours
This introductory course lays the foundation for understanding both the practical and theoretical concerns of the museum world. Topics will include museum management, the acquisition and conservation of art and artifacts, debates over display and interpretation, repatriation and the rights of Native peoples, and memorial museums. (Irreg.) [IV-AF].

A HI 2803 Introduction to Native American Art 3 Credit Hours
This course is designed as a broad survey of Native American art history. We will examine artworks from a vast range of locations, communities, and artistic practices throughout North America and focus on Native peoples' kinships with the natural world and trade partnerships. (Irreg.) [IV-WDC].

## A HI 2970 Special Topics/Seminar <br> 1-3 Credit Hours

Special Topics. 1 to 3 hours. May be repeated; Maximum credit nine hours. Special topics course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research, and field projects. (Irreg.)

A HI 3133 Survey of Aegean Art and Architecture 3 Credit Hours Prerequisite: junior standing. Understanding of art and architecture of the Aegean civilization. The focus of the course will be on artistic production of the island of Crete and to a lesser extent Cycladic and Mycenaean achievements in the Bronze Age Greece. (alt. Sp) [IV-WC] .
$\begin{array}{lr}\text { A HI } 3213 & \text { Classical Art and Archaeology: Greek Art to the Death of } \\ \text { Alexander } & 3 \text { Credit Hours }\end{array}$
(Crosslisted with CL C 3213) Prerequisite: sophomore standing. Lectures, occasionally illustrated, and assigned readings. Survey of the architecture, sculpture, painting and minor arts in the Greek regions of the eastern Mediterranean in the successive stages of their development, with analyses of dominant styles and detailed study of select masterpieces and monuments. (F) [IV-AF] .
A HI 3223 Classical Art and Archaeology: Hellenistic Greek Art; Roman Art

3 Credit Hours
(Crosslisted with CL C 3223) Prerequisite: sophomore standing. Continuation of 3213. Survey of Hellenistic art, with particular attention to the individuality of style and diversity of matter. Early Etruscan and Roman art. The development of Roman art in native and assimilated forms; studies in domestic and national monuments. (Sp) [IV-AF].
A HI 3233 Medieval Art I
3 Credit Hours
Prerequisite: Junior standing. This course covers the art and architecture of Europe and the Mediterranean from Late Antiquity through the fall of Constantinople in 1453. Beginning with Constantine and the rise of Christianity, this course follows the development and spread of new cultures and art forms, stretching from Islamic material in the east to insular art of the British Isles. (Irreg.) [IV-WC].
A HI 3263 Survey of Byzantine Art and Architecture 3 Credit Hours Prerequisite: junior standing A survey of Byzantine monuments from the foundation of Constantinople in 330 CE to its fall in 1453. (Sp-Alt) [IV-AF].
A HI 3303 Renaissance Art in Italy 1200-1600
3 Credit Hours
Prerequisite: junior standing. Focuses on Renaissance art and architecture in Italy from a social and cultural framework, beginning in the 1200's and ending around 1580. (Irreg.) [IV-AF].

A HI 3313 Art and Culture in Italy
3 Credit Hours
Prerequisite: permission of department: acceptance to "Journey to Italy".
Taught on-site in Italy as part of the "Journey to Italy" summer program in Arezzo. Students will study art from ancient Roman through the Baroque, with special focus on the Renaissance. (Irreg.) [IV-WC].
A HI 3343 Northern Renaissance Art 3 Credit Hours
Prerequisite: Junior standing. Painting, sculpture and architecture in Northern Europe from 1400-1600. The course will emphasize painting in Flanders, Germany and the Netherlands. (Irreg.) [IV-WC].
$\begin{array}{lll}\text { A HI } 3403 & \text { Baroque Art and Architecture in Europe:1600-1700 } & 3 \\ \text { Credit } & & \text { Hours }\end{array}$
Prerequisite: junior standing; Covers art and architecture in Europe in the seventeenth century, during the time period called the Baroque. (Irreg.) [IV-WC].
A HI 3440 Mentored Research Experience
3 Credit Hours
0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)

## A HI 3503 Art of the 18th Century: The Age of Enlightenment <br> 3 Credit Hours

Prerequisite: Junior standing. Emphasizes the interaction of art with scientific, literary, historic and philosophical innovations of the eighteenth century. Content includes painting, sculpture and architecture of Northern Europe. (Irreg.) [IV-WC].

A HI 3553 Nineteenth-Century Art
3 Credit Hours
Prerequisite: Junior standing. European art from the French Revolution to 1900, with particular emphasis on developments in French painting. Brief consideration of parallel trends in American art. (Irreg.) [IV-WC].

## A HI 3603 American Art

3 Credit Hours
Prerequisite: junior standing. American art from the colonial period to 1950. (Irreg.) [IV-WC].

A HI 3613 Studies in American Art
3 Credit Hours
Prerequisite: ENGL 1213 or EXPO 1213; junior standing; May be repeated with change of subject matter; maximum credit 9 hours. Specialized study in selected topics in American art. Topics vary by semester; potential topics include colonial portraiture, nineteenth-century genre painting, murals in American art, U.S. sculpture, U.S. art in international contexts, and U.S. memorials and monuments. (Irreg.)

## A HI 3663 Contemporary Art

3 Credit Hours
Prerequisite: Junior standing. Focuses on contemporary art of the world with a strong emphasis on art made since 1989. (Irreg.) [IV-AF].
A HI 3673 History of Visual Communication 3 Credit Hours Prerequisite: junior standing. The history of visual communications and design from prehistoric times to the twentieth century. (Sp)

## A HI 3693 New Media Art

3 Credit Hours
Prerequisite: Junior standing. This course covers new media - video, installation, performance, and digital media - and technology in art since 1950. (Irreg.) [IV-AF].

A HI 3703 Exhibition Preparation and Presentation 3 Credit Hours Prerequisite: ENGL 1213 or EXPO 1213, Junior standing. This course will familiarize you with practical aspects of museum studies involving exhibitions. Taught by faculty with varied areas of expertise, the course is unique each time it is offered, as each instructor will bring differing expertise, interests, and projects into the classroom. Students gain working experience involving varied aspects of the preparation and presentation of exhibitions. (Irreg.)
A HI 3733 Art of the American West
3 Credit Hours
Prerequisite: ENGL 1213 and junior standing. An introduction to the art of the American West accompanied by close study of relevant primary and scholarly texts. Students will be responsible for active participation in class discussion and for a series of short papers and assessments designed to develop skills in writing and historical interpretation. (Irreg.)

## A HI 3803 Pre-Columbian Art \& Architecture of Meso- and South America <br> 3 Credit Hours

Prerequisite: junior standing. An overview of Pre-Columbian art and architecture in Meso-America from Prehistoric times until the Spanish intervention in the early 1500s. (F-alternate) [IV-WDC].
A HI 3813 Colonial Latin American Art
3 Credit Hours
Prerequisite: ENGL 1213 or EXPO 1213; junior standing. This upper-level course examines the history of artistic production in Latin America from the sixteenth through the mid eighteenth century. We will conduct case studies of artistic media by region, beginning with Peru and ending with the Californias. A geographical approach allows us to identify regional differences in artistic expression, which reflect local materials and Indigenous ideas. (Irreg.) [IV-AF].

## A HI 3833 Native American Art of the West

3 Credit Hours Prerequisite: Junior standing. This course will focus on the artistic and architectural practices of Native American communities throughout the western United States and parts of Canada and Mexico. We will examine how Native artists responded to the impacts of colonization on their ancestral practices. (Irreg.) [IV-AF].

A HI 3903 Art History, Theory and Practice 3 Credit Hours
Prerequisite: A HI 1314, A HI 2000-level elective, and junior standing; or permission of instructor. Introduction to the theory and practice of Art History required for the major involving consideration of the field's history, exposure to historical and contemporary approaches to its practice, and training in art historical writing and critical and visual analysis. (Irreg.)

A HI 3913 American Visual Culture
3 Credit Hours
Prerequisites: junior standing. Explores approaches to American visual culture, an interdisciplinary area of inquiry that considers the role of visual experience in everyday life. These include photography, cinema, television, digital media. and public art. We examine the key theorists, methodologies, and cultural practices that have shaped the field of Visual Culture Studies.(Irreg.)

## A HI 3960 Honors Reading <br> 1-3 Credit Hours

1 to 3 hours. Prerequisite: Admission to Honors Program. May be repeated; maximum credit six hours. Consists of topics designated by the instructor in keeping with the student's major program. The topics will cover materials not usually presented in the regular courses. (F, Sp, Su)

## A HI 3970 Honors Seminar

1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Subjects covered vary. Deals with concepts not usually treated in regular courses. (Irreg.)

## A HI 3980 Honors Research <br> 1-3 Credit Hours

1 to 3 hours. Prerequisite: Admission to Honors Program. May be repeated; maximum credit six hours. Will provide an opportunity for the gifted Honors candidate to work at a special project in the student's field. (F, Sp, Su)
A HI 3990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: permission of instructor and junior standing. May be repeated once with change of content. Independent study may be arranged to study a subject not available through regular course offerings. (F, Sp, Su)

A HI 4043 Native Americans, Museums and Exhibitions 3 Credit Hours (Slashlisted with AHI 5043) Prerequisite: Junior standing; A HI 1314 or permission of instructor. A discussion-based seminar on the history of museums and Native American art and culture. An examination of early collecting practices that removed materials and belongings from Native American communities, eventually becoming part of museum collections. We will also look at the interventions living artists are making and how they choose to present themselves and their culture to the public. No student may earn credit for both 4043 and 5043. (Irreg.)

## A HI 4163 Etruscan Art

3 Credit Hours
(Slashlisted with 5163) Prerequisite: junior standing or permission of instructor. Examine and interpret selected works of Etruscan art in reference to the possible influences from the social, political, economic, literary, and religious "climate" of the time. No student may earn credit for both 4163 and 5163. (F) [IV-WC] .

## A HI 4273 Byzantine Icons

3 Credit Hours
(Slashlisted with 5273) Prerequisite: junior standing. Byzantine images occupy a principal position at the heart of the Eastern Church and they are an organic part of daily services. The icon represents a vision of the invisible, and therefore a vision founded on divine knowledge which transforms the created work into the miracle working image. This Class will examine the challenging process of producing holiness and divinity through painting panels. No student may earn credit for both 4273 and 5273. (Irreg.) [IV-AF].

A HI 4373 The Italian City: Renaissance and Baroque
Architecture
3 Credit Hours
(Slashlisted with 5373) Prerequisite: junior standing. Architecture and urban planning of Italy from about 1300-1700. Emphasis on the growth of the city and how new forms of social interaction affected the development of architecture and the urban setting. No student may earn credit for both 4373 and 5373. (Alt. F) [IV-WC] .
A HI 4383 Italian Renaissance Art and Science 3 Credit Hours Prerequisite: junior standing. Focuses on the confluence of science and art in Renaissance Italy through a study of materials, process, technique and structural issues addressed by artists in the creation of painting, sculpture, and architectures. (Su) [IV-WC].

A HI 4463 Issues in Northern Baroque Art
3 Credit Hours
(Slashlisted with A HI 5463) Prerequisite: junior standing. Focuses on Northern Baroque art as case-study for examination of a variety of art historical methodologies and problems such as attribution, function, and meaning. No student may earn credit for both 4463 and 5463. (Irreg.)
A HI 4523 Art and Power
3 Credit Hours
(Slashlisted with AHI 5523) Prerequisite: Junior standing. What is the relationship between art and power, and how has it changed over time? This course delves into how art and architecture have been used to assert, reinforce, and resist power from 1800 to the present. We will explore topics including propaganda, cultural diplomacy, monumentality, restitution and repatriation, thinking critically about how similar strategies are utilized today. No student may earn credit for both 4523 and 5523. (Irreg.)

A HI 4573 Impressionist Revolt
3 Credit Hours
(Slashlisted with A HI 5573) Prerequisite: A HI 1314, A HI 2000-level elective, and junior standing; or permission of instructor. This course will establish a context for the Impressionist movement by looking at works by theme. We will examine the physical and social transformation of Paris at midcentury, prostitution and the deceptions of capitalism, cafe culture and precarious public spaces, performers of (theater, opera, dance), and the escapist seduction of suburban leisure. No student may earn credit for both 4573 and 5573. (lrreg.)
A HI 4583 Caricature and Satire
3 Credit Hours
(Slashlisted with A HI 5583) Prerequisite: A HI 1314, A HI 2000-level elective, and junior standing; or permission of instructor for nonmajors in related areas of study. This course will investigate topics and themes related to satire and caricature, first grounding our discussion in theoretical foundations. We will look at social caricature and social science, political critique and the rise of the illustrated press, criminality and 19th-century science, cults of celebrity, and the impact of censorship on form. No student may earn credit for both 4583 and 5583. (Irreg.)

A HI G4623 Contemporary Art and the Environment 3 Credit Hours Prerequisite: Junior standing. In this course, we will think together about how contemporary art relates to the environment. We will approach this topic at the intersection of the discipline of art history and the interdisciplinary area of environmental studies, which can draw on the arts, humanities, sciences, and professional disciplines like medicine, engineering, and law. (Irreg.) [IV-AF].

## A HI 4633 Modern Art: Cezanne to 1950

3 Credit Hours
(Slashlisted with 5633) Prerequisite: junior standing. European art from Post-Impressionism to 1950, including some American developments. Emphasis on painting and sculpture, with some consideration of architecture. No student may earn credit for both 4633 and 5633. (Irreg.) [IV-WC].

## A HI 4643 Art After Modernism

3 Credit Hours
(Slashlisted with A HI 5643) Prerequisite: Junior standing. Examines the transition from modern to contemporary art in Europe and the United States between 1950 and 1989. No student may earn credit for both 4643 and 5643. (Irreg.)

A HI 4683 American Material Culture
3 Credit Hours
Prerequisite: Junior standing. An interdisciplinary seminar addressing the significance of ordinary American objects (cell phones, storm shelters, ATM machines, lava lamps, food processors; the possibilities are nearly endless) taken as evidence of unconscious as well as conscious attitudes and beliefs, some specific to their original makers, users, owners and perceivers, others latent in the broader cultural milieu of their creation. (Sp)
A HI 4723 Cinema of the American West: Then and Now 3 Credit Hours (Slashlisted with A HI 5723) Prerequisite: junior standing. Provides a critical overview of cinema of the American West from the 1930s to present day. Through screenings and course readings, examines the underlying components of Western films, including issues of race, class, ethnicity, gender, sexuality and ideology. Also explores the influence of painting and photography on cinema, as filmmakers both reinforced and reshaped popular imaginings of the American West. No student may earn credit for both 4723 and 5723. (Irreg.)

## A HI 4733 Contemporary Art in Exhibition

3 Credit Hours
Prerequisite: ENGL 1213 or EXPO 1213; junior standing. Museums are usually places where things go when they have outlasted their original purposes but still retain value, require care, and stir interest. In this course, we will think in various ways about how contemporary art and the museum do and do not go together. (Irreg.)

## A HI 4743 The American West in Art, Photography and Popular Culture 3 Credit Hours

(Slashlisted with A HI 5743) Prerequisite: junior standing or permission of instructor. Focuses on the Trans-Mississippi West, as seen through the eyes of artists and photographers from the early 19th century until today. A variety of media will be discussed, including paintings, prints, photography, and sculpture. The course will study Euro-American artistic conventions/tradition and how they have been employed in defining western history, culture, and native people as fact, fiction, and myth. No student may earn credit for both 4743 and 5743. (Irreg.) [IV-AF].

## A HI 4753 The American West in Photography <br> 3 Credit Hours

(Slashlisted with 5753) Prerequisite: Junior standing or permission of the instructor. This course focuses on the study of the trans-Mississippi west as seen through the eyes of photographers from the early 19th century up to the present. The purpose of this course will primarily be to study Euro-American photographic conventions, traditions, and styles and how they have been employed in defining American western history, culture and native peoples as fact, artistic motif and myth. No student may earn credit for both 4753 and 5753. (Irreg.) [IV-WC] .

## A HI 4773 Modern Exhibition Histories

3 Credit Hours
(Slashlisted with A HI 5773) Prerequisite: Junior standing and ENGL 1213 or EXPO 1213. This course offers a history of modern art exhibitions, with a focus on European, U.S., and transnational contexts. It explores how exhibitionary decisions, including object choice, design and installation, location, historical context, artistic goals, and visitor experience and reception shape the fluid and multiple meanings of art. No student may earn credit for both 4773 and 5773. (Irreg.)

A HI 4823 20th Century American Indian Art History 3 Credit Hours (Slashlisted with A HI 5823) Prerequisite: junior standing. Examination and study of the arts of North American Indians. Included in the survey will be the examination of new materials, styles, and the shifts of gender roles in the creative arts. No student may earn credit for both 4823 and 5823. (F) [IV-WDC] .

A HI 4853 American Indian Women Artists 3 Credit Hours (Slashlisted with A HI 5853) Prerequisite: Junior standing or permission of the instructor. Investigates the arts of indigenous women throughout the Americas. Students will participate in research, discussion of selected readings, written assignments and individual presentations concerning the non-western aesthetics and ideals that are found in arts of Indian women from the 20th century forward. No student may earn credit for both 4853 and 5853. (Irreg.) [IV-WDC].
A HI 4913 Seminar
3 Credit Hours
(Slashlisted with 5913) Prerequisite: permission of instructor. May be repeated with change of content; maximum credit 12 hours. Advanced topics in art history. No student may earn credit for both 4913 and 5913. (Irreg.)
A HI 4930 Internship
1-6 Credit Hours
1 to 6 hours. Prerequisite: permission of instructor; majors only. May be repeated; maximum credit 6 hours. Students arrange and participate in a professional work experience with an approved internship site. (Irreg.)

## A HI 4933 Process and Theory Workshop

3 Credit Hours
(Slashlisted with A HI 5933; Crosslisted with ARTC 4933) Prerequisite: Junior standing or permission of instructor; majors only. May be repeated with change of subject; maximum credit 6 hours. The course will offer a deeper grounding in relevant theoretical issues, as students explore together the interdisciplinary landscapes of contemporary theory and assess their relevance for artistic practice and art historical research. No student may earn credit for both 4933 and 5933. (Irreg.)
A HI 4943 Fieldwork for Art History
3 Credit Hours
(Slashlisted with A HI 5943) Prerequisite: Junior standing and permission of instructor. Students will be introduced to the idea that strategies art historians have developed to interpret art can be applied to the full range of traces left by human beings in the natural world. This course stretches the disciple of art history in experimental ways, challenging the centrality of art, understood as the sort of object that belongs in a museum. No student may earn credit for both 4943 and 5943. (Irreg.)

## A HI 4953 Museum Studies

3 Credit Hours
(Slashlisted with 5953) Prerequisite: junior standing. Analysis of problems in collecting, authenticating, exhibiting and conserving works of art. Attention is also given to museum architecture and administration, as well as to the cultural and educational role of the museum in the community. Field trips, projects and papers are required. No student may earn credit for both 4953 and 5953. (Irreg.)

## A HI 4960 Directed Readings

2-6 Credit Hours
Prerequisite: six hours of upper-division art history and permission of instructor. May be repeated; maximum credit six hours. Research culminating in the preparation of papers using technical and critical literature in the history of art. (Irreg.)
A HI 4970 Special Topics/Seminar 1-3 Credit Hours 1 to 3 hours. Prerequisite: Senior standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

A HI 4990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: senior standing and permission of instructor. May be repeated; maximum credit six hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)

A HI 4993 Senior Capstone Experience 3 Credit Hours
Prerequisite: senior classification. May not be repeated for credit. Primary objective is to provide a culminating experience for the senior-year student. Satisfies the University-wide General Education Requirement for a capstone course for art history majors. (F, Sp) [V].

A HI 5043 Native Americans, Museums and Exhibitions 3 Credit Hours (Slashlisted with AHI 4043) Prerequisite: Graduate standing. A discussion-based seminar on the history of museums and Native American art and culture. An examination of early collecting practices that removed materials and belongings from Native American communities, eventually becoming part of museum collections. We will also look at the interventions living artists are making and how they choose to present themselves and their culture to the public. No student may earn credit for both 4043 and 5043. (Irreg.)

A HI 5163 Etruscan Art
3 Credit Hours
(Slashlisted with 4163) Prerequisite: graduate standing in the School of Art and Art History or permission of the instructor. Examine and interpret selected works of Etruscan art in reference to the possible influences from the social, political, economic, literary, and religious "climate" of the time. No student may earn credit for both 4163 and 5163. (Irreg.)

## A HI 5210 Graduate Readings <br> 1-6 Credit Hours

1 to 6 hours. Prerequisite: graduate standing in the School of Art and Art History or permission of the instructor. May be repeated with change of subject; maximum credit nine hours. Selected readings in art history. (Irreg.)
A HI 5220 Graduate Projects
1-6 Credit Hours
1 to 6 hours. Prerequisite: graduate standing in the School of Art and Art History or permission of the instructor. May be repeated with change of subject; maximum credit nine hours. Individual problems on selected topics. (Irreg.)

## A HI 5273 Byzantine Icons

3 Credit Hours
(Slashlisted with 4273) Prerequisite: graduate standing in the School of Art and Art History or permission of the instructor. Byzantine images occupy a principal position at the heart of the Eastern Church and they are an organic part of daily services. The icon represents a vision of the invisible, and therefore a vision founded on divine knowledge which transforms the created work into the miracle working image. This class will examine the challenging process of producing holiness and divinity through painting panels. No student may earn credit for both 4273 and 5273. (Irreg.)

## A HI 5373 The Italian City: Renaissance and Baroque

## Architecture

3 Credit Hours
(Slashlisted with 4373) Prerequisite: graduate standing in the School of Art and Art History or permission of the instructor. Architecture and urban planning of Italy from about 1300-1700. Emphasis on the growth of the city and how new forms of social interaction affected the development of architecture and the urban setting. No student may earn credit for both 4373 and 5373. (Irreg.)

Ans 5463 Issues in Northern Baroque Art
(Slashlisted with A HI 4463) Prerequisite: Prerequisite: graduate standing in the School of Art and Art History or permission of the instructor. Looks at northern Baroque art as a case study for the examination of a variety of art historical problems such as attribution, function, interpretation, and symbolism. No student may earn credit for both 4463 and 5463. (Irreg.)

A HI 5523 Art and Power
3 Credit Hours
(Slashlisted with AHI 4523) Prerequisite: Graduate standing or instructor permission. What is the relationship between art and power, and how has it changed over time? This course delves into how art and architecture have been used to assert, reinforce, and resist power from 1800 to the present. We will explore topics including propaganda, cultural diplomacy, monumentality, restitution and repatriation, thinking critically about how similar strategies are utilized today. No student may earn credit for both 4523 and 5523. (Irreg.)

A HI 5573 Impressionist Revolt
3 Credit Hours
(Slashlisted with A HI 4573) Prerequisite: Graduate standing and permission of instructor. This course will establish a context for the Impressionist movement by looking at works by theme. We will examine the physical and social transformation of Paris at midcentury, prostitution and the deceptions of capitalism, cafe culture and precarious public spaces, performers of theater, opera, and dance, and the escapist seduction of suburban leisure. No student may earn credit for both 4573 and 5573. (Irreg.)

A HI 5583 Caricature and Satire
3 Credit Hours
(Slashlisted with A HI 4583) Prerequisite: Graduate standing and permission of instructor. This course will investigate topics and themes related to satire and caricature, first grounding our discussion in theoretical foundations. We will look at social caricature and social science, political critique and the rise of the illustrated press, criminality and 19th-century science, cults of celebrity, and the impact of censorship on form. No student may earn credit for both 4583 and 5583. (Irreg.)

A HI 5633 Modern Art: Cezanne to 1950 3 Credit Hours
(Slashlisted with 4633) Prerequisite: graduate standing in the School of Art and Art History or permission of the instructor. European art from Postimpressionism to 1950, including some American developments.
Emphasis on painting and sculpture, with some consideration of architecture. No student may earn credit for both 4633 and 5633. (Irreg.)

## A HI 5643 Art After Modernism

3 Credit Hours
(Slashlisted with A HI 4643) Prerequisites: graduate standing; permission of instructor. Examines the transition from modern to contemporary art in Europe and the United States between 1950 and 1989. No student may earn credit for both 4643 and 5643. (Irreg.)

A HI 5723 Cinema of the American West: Then and Now 3 Credit Hours (Slashlisted with A HI 4723) Prerequisite: graduate standing; majors only or permission of instructor. Provides a critical overview of cinema of the American West from the 1930s to present day. Through screenings and course readings, examines the underlying components of Western films, including issues of race, class, ethnicity, gender, sexuality, and ideology. Also explores the influence of painting and photography on cinema, as filmmakers both reinforced and reshaped popular imaginings of the American West. No student may earn credit for both 4723 and 5723. (Irreg.)

## A HI 5743 The American West in Art, Photography, and Popular Culture <br> 3 Credit Hours

(Slashlisted with A HI 4743) Prerequisite: graduate standing in the School of Art and Art History or permission of the instructor. Focuses on the Trans-Mississippi West, as seen through the eyes of artists and photographers from the early 19th century until today. A variety of media will be discussed, including paintings, prints, photography, and sculpture. The course will study Euro-American artistic conventions/tradition and how they have been employed in defining western history, culture, and native people as fact, fiction, and myth. No student may earn credit for both 4743 and 5743. (Irreg.)
A HI 5753 The American West in Photography 3 Credit Hours (Slashlisted with 4753) Prerequisite: graduate standing in the School of Art and Art History or permission of the instructor. This course focuses on the study of the trans-Mississippi west as seen through the eyes of photographers from the early 19th century up to the present. The purpose of this course will primarily be to study Euro-American photographic conventions, traditions, and styles and how they have been employed in defining American western history, culture and native peoples as fact, artistic motif and myth. No student may earn credit for both 4753 and 5753. (Irreg.)

## A HI 5773 Modern Exhibition Histories

3 Credit Hours
(Slashlisted with A HI 4773) Prerequisite: Graduate standing and permission of instructor. This course offers a history of modern art exhibitions, with a focus on European, U.S., and transnational contexts. It explores how exhibitionary decisions, including object choice, design and installation, location, historical context, artistic goals, and visitor experience and reception shape the fluid and multiple meanings of art. No student may earn credit for both 4773 and 5773. (Irreg.)
A HI 5823 20th Century American Indian Art History 3 Credit Hours (Slashlisted with 4823) Prerequisite: graduate standing in the School of Art and Art History or permission of the instructor. Examination and study of the arts of North American Indians. Included in the survey will be the examination of new materials, styles, and the shifts of gender roles in the creative arts. No student may earn credit for both 4823 and 5823. (Irreg.)

## A HI 5853 American Indian Women Artists 3 Credit Hours

(Slashlisted with 4853) Prerequisite: graduate standing in the School of Art and Art History or permission of the instructor. Investigates the arts of indigenous women throughout the Americas. Students will participate in research, discussion of selected readings, written assignments and individual presentations concerning the non-western aesthetics and ideals that are found in arts of Indian women from the 20th century forward. No student may earn credit for both 4853 and 5853. (Irreg.)
A HI 5903 Methodologies and Theories in Art History 3 Credit Hours Prerequisite: graduate standing in art history or senior standing with permission of instructor. A study of various scholarly approaches to the history of art, as well as the theories which inform these approaches. Preparation of bibliographies; short presentations and papers. (Irreg.)

## A HI 5911 Teaching of Art History

1 Credit Hour
Prerequisites: graduate standing; permission of instructor. Introduction to pedagogy for art history graduate students. It is required for Graduate Teaching Assistants with teaching assignments, and they should normally take it in the first semester of their appointment. The course focuses on principles and practices of good teaching and uses handson methods to encourage students to gain confidence and share ideas. Through a series of practical assignments students will increase their competency in creating and evaluating assignments, developing syllabi, and leading discussion sections. (Irreg.)

## A HI 5912 Professional Writing for Art Historians 2 Credit Hours

Prerequisites: graduate standing; permission of instructor. This course is intended for graduate students pursuing an art history degree at the M.A. or Ph.D. level. It aims to teach professional writing skills necessary for a career in academia or the art world with a focus on proposals for conferences and grants. (Irreg.)

A HI 5913 Seminar
3 Credit Hours
(Slashlisted with 4913) Prerequisite: permission of instructor. May be repeated with change of content; maximum credit twelve hours. Advanced topics in art history. No student may earn credit for both 4913 and 5913. (Irreg.)
A HI 5930 Graduate Internship
1-6 Credit Hours
Prerequisite: graduate standing; permission of instructor. Variable credit: 1-6 hours. May be repeated; maximum credit 6 credit hours. An Internship is a planned work experience related to a student's personal career and academic goals. It can help a student learn about a career, apply knowledge gained in the classroom, develop skills, and enrich the student's understanding of a variety of art organizations. The primary purpose of an internship is to help relate academic experiences with those in the workplace. (Irreg.)

## A HI 5933 Process and Theory Workshop

## 3 Credit Hours

(Slashlisted with A HI 4933; Crosslisted with ARTC 5933) Prerequisite: Graduate standing and permission of instructor. May be repeated with change of subject; maximum credit 6 hours. The course will offer a deeper grounding in relevant theoretical issues, as students explore together the interdisciplinary landscapes of contemporary theory and assess their relevance for artistic practice and art historical research. No student may earn credit for both 4933 and 5933. (Irreg.)

## A HI 5943 Fieldwork for Art History

3 Credit Hours
(Slashlisted with A HI 4943) Prerequisite: Graduate standing and permission of instructor. Students will be introduced to the idea that strategies art historians have developed to interpret art can be applied to the full range of traces left by human beings in the natural world. This course stretches the discipline of art history in experimental ways, challenging the centrality of art, understood as the sort of object that belongs in a museum. No student may earn credit for both 4943 and 5943. (Irreg.)

A HI 5953 Museum Studies
3 Credit Hours
(Slashlisted with A HI 4953) Prerequisite: graduate standing in the School of Art and Art History or permission of the instructor. Analysis of problems in collecting, authenticating, exhibiting and conserving works of art. Attention is also given to museum architecture and administration, as well as to the cultural and educational role of the museum in the community. Field trips, projects and papers are required. No student may earn credit for both 4953 and 5953. (Irreg.)

## A HI 5960 Directed Readings

## 2-6 Credit Hours

Prerequisite: permission of instructor. May be repeated; maximum credit six hours. Research culminating in the preparation of papers using technical and critical literature in the history of art. (Irreg.)
A HI 5970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

A HI 5972 Thesis Proposal
Prerequisite: graduate standing in the School of Art and Art History or permission of the instructor. Students will create a research topic, select a thesis committee and formulate a proposal and bibliography approved by their committee. (Irreg.)

## A HI 5980 Research for Master's Thesis 2-9 Credit Hours

2 to 9 hours. Prerequisite: graduate standing in the School of Art and Art History or permission of the instructor. May be repeated for credit; maximum credit applicable toward degree, four hours. Directed research culminating in the completion of the master's thesis. (Irreg.)
A HI 5990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)

## A HI 5993 Special Studies

3 Credit Hours
Prerequisite: graduate standing in the School of Art and Art History or permission of the instructor. May be repeated; maximum credit twelve hours. Advanced studies in various periods of art history, given under stated titles determined semester by the instructor involved. (Irreg.)

## A HI 6203 Native American Art

3 Credit Hours
Prerequisite: graduate standing in the School of Art and Art History or permission of the instructor. May be repeated with change in topic; maximum credit 12 hours. Advanced seminar that will examine in depth various concepts, individuals, schools, movements, or themes. Topics may include: Oklahoma Native American artist; Ledger art; art of Native American people; contemporary Native American painters; Native American sculptors; southwestern Native American weaving; jewelry; beadwork; potteries; coastal American art of the northwest; and native arts of Hawaii. (Irreg.)
A HI 6213 Graduate Seminar in Ancient Art 3 Credit Hours
Prerequisite: Graduate standing and permission of instructor; May be repeated with change of content; maximum credit 6 hours. This is a rotating topic course on Ancient Art. Content initially will include examining selected works and archaeological sites of the Cycladic Islands. (Irreg.)

## A HI 6313 Seminar in Early Modern Art

3 Credit Hours
Prerequisite: Graduate standing. May be repeated with change of content; maximum credit 6 hours. This course is a variable topic seminar on European Art from c. 1400s-c. 1700s that includes an advanced examination of a particular artist, theme, style, or era. (Irreg.)
A HI 6413 Seminar in Modern Art
3 Credit Hours
Prerequisite: Graduate standing and permission of instructor. May be repeated with change of content; maximum credit 6 hours. This course is a variable topic seminar on European Art from c. 1800s-1900s that includes an advanced examination of a particular artist, theme, style, or era. (Irreg.)
A HI 6423 Topics in American Art History
3 Credit Hours
Prerequisite: Graduate standing in the School of Art and Art History or permission of instructor. Interdisciplinary seminar addressing topics in the history of American art, its focus changing from year to year though always concerned with developments in the art of the American west, based on close, restrained analysis of particular images combined with readings in art history and related disciplines. (Irreg.)

A HI 6433 Material Culture, Theory and Practice 3 Credit Hours Prerequisite: Graduate standing in the OU School of Visual Arts or permission of the instructor. Interdisciplinary seminar addressing the significance of ordinary objects taken as evidence of unconscious as well as conscious attitudes and beliefs, some specific to their original makers, users, owners and receivers, others latent in the broader cultural milieu in which each object circulated or circulates still. (Irreg.)
A HI 6513 Critical Issues in Recent American Art History 3 Credit Hours Prerequisite: Graduate standing in the School of Art and Art History or permission of the instructor. Interdisciplinary seminar addressing critical issues in recent American art history through close attention to a series of recent monograms by major figures in the field. (Irreg.)

A HI 6523 Graduate Seminar in Contemporary Art 3 Credit Hours Prerequisite: Graduate standing and permission of instructor; May be repeated with change of content; maximum credit 6 hours. The course is a rotating topics seminar on contemporary art that includes an advanced examination of an artist, theme, style, or era. (Irreg.)
A HI 6950 Dissertation Proposal
1-6 Credit Hours
1 to 6 hours. Prerequisite: Completion of core coursework for the PhD in Art History. May be repeated; maximum credit six hours. Students will create a research topic and formulate a proposal and bibliography approved by their doctoral committee. (F, Sp)

A HI 6960 Directed Readings 1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit six hours. Directed readings and/or literature review under the direction of a faculty member. (Irreg.)
A HI 6970 Special Topics/Seminar 1-3 Credit Hours 1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit 12 hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or research and field projects. (Irreg.)

A HI 6980 Research for Doctoral Dissertation
2-9 Credit Hours
2 to 9 hours. Prerequisite: Graduate standing and permission of instructor; may be repeated. Directed research culminating in the completion of the Doctoral dissertation. (F, Sp)
A HI 6990 Independent Study 1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)

## A T-Art and Technology

A T 5803 History and Theory of Art and Technology Seminar

3 Credit Hours
Prerequisite: Graduate standing and Master of Arts in Art and Technology majors only. This course surveys the history and theory of art and technology from prehistory to the present. Presenting the major historical developments alongside key works and texts in art and design practice, their critical and historical reception, and their theorization, the course provides students with a comprehensive foundation in the past of their field. (F, Sp, Su)

A T 5813 Creative Coding Techniques 3 Credit Hours
Prerequisite: Graduate standing and Master of Arts in Art and Technology majors only. This course provides an introduction to the computer as a usable art production tool. Students work to understand computer code as a malleable form within the context of New Media Art. Students learn the basic structure of OOP (Object Oriented Programming) as it pertains to the navigation of current technologies. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
A T 5823 Emerging Art and Technology Seminar 3 Credit Hours Prerequisite: Graduate standing and Master of Arts in Art and Technology majors only. This course helps students position themselves within the field of art and technology by equipping them with knowledge necessary to anticipate the future shape of its fast-paced development. Specific topics covered tend to involve big-picture changes on the horizon, new technologies in development, and the shifting relationship of society to technology. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

## A T 5833 Video and Sound Techniques

3 Credit Hours
Prerequisite: Graduate standing and Master of Arts in Art and Technology majors only. This course provides students with an overview of audio and video capture and post-production. This technique-intensive lab features weekly sequences of video tutorials covering introductory to advanced techniques for video capture, video lighting and exposure, audio capture, technical equipment, and industry standard software post-production methods. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

## A T 5843 3D Animation Techniques

3 Credit Hours
Prerequisite: Graduate standing and Master of Arts in Art and Technology majors only. This course teaches students how to produce 3D models and 3D animations with the latest industry-standard software. This technique-intensive lab features weekly sequences of in-depth video tutorials covering introductory to advanced techniques for creating highquality 3D objects, environments, characters, keyframe animations, procedural animations, and simulation FX. (Sp, Su)

## A T 5853 Motion Graphics Techniques 3 Credit Hours

Prerequisite: Graduate standing and Master of Arts in Art and Technology majors only. This course provides students with a technical overview of using motion graphics, including but not limited to, effective communication in moving text, interactive media, and basic digital compositing. This technique-intensive lab features weekly sequences of in-depth video tutorials covering techniques for key components in the successful creation of imagery, sound, video, and animation for use in motion graphic projects. (F, Sp, Su)
A T 5863 Moving Image Production
3 Credit Hours
Prerequisite: Graduate standing and Master of Arts in Art and Technology majors only. This studio course provides students with one-on-one and group feedback for self-directed projects of time-based media. Students will develop their work within a theoretical and conceptual framework, learning and applying the principles of interactivity in art and design. The course includes screenings, discussions, and critiques. (F, Sp, Su)

## A T 5873 Game Engine Techniques 3 Credit Hours

Prerequisite: Graduate standing and Master of Arts in Art and Technology majors only. This course provides students with an overview of 3D game engine software to produce narrative and experimental screen-based video games. This technique-intensive lab features weekly sequences of in-depth video tutorials covering introductory to advanced techniques for importing, animating, scripting, and exporting computer games. (F, Sp, Su )

A T 5883 Interactive Media Production
3 Credit Hours
Prerequisite: Graduate standing and Master of Arts in Art and Technology majors only. This studio course provides students with one-on-one and group feedback for self-directed projects in interactive media. Students will develop their work within a theoretical and conceptual framework, learning and applying the principles of interactivity in art and design. The course includes screenings, discussions, and critiques. (F, Sp, Su)
A T 5893 Mixed Reality Techniques
3 Credit Hours
Prerequisite: Graduate standing and Master of Arts in Art and Technology majors only. This course teaches students to how to create virtual and augmented reality experiences. This technique-intensive lab features weekly sequences of in-depth video tutorials covering introductory to advanced techniques for creating art and design projects in advanced, emerging visual technologies. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
A T 5913 Professional Project
3 Credit Hours
Prerequisite: Graduate standing, Master of Arts in Art and Technology majors only, and concurrent enrollment in AT 5923. The purpose of this culminating project is to synthesize the student's knowledge in the field of art and technology through the production of a work or body of works in art or design that demonstrates professional skills and will serve the student well as a key component of their portfolio moving forward in their career. (F, Sp, Su)
A T 5923 Professional Forum
3 Credit Hours
Prerequisite: Graduate standing, Master of Arts in Art and Technology majors only, and concurrent enrollment in AT 5913. This group seminar course is intended to provide a forum for peer feedback on the professional project as it evolves from conception to completion. Students will discuss their ideas and their practices, developing both greater clarity about their working process as well as a deepened capacity to talk about their work and present it coherently to the public. (Sp, Su)

## ACCT-Accounting

ACCT 2113 Fundamental Financial Accounting 3 Credit Hours
Prerequisite: Business majors and students enrolled in approved degree programs or by permission of Price College advising; B AD 1001 or concurrent enrollment. Basic principles of financial accounting. Emphasis on the preparation and use of the income statement, balance sheet and statement of funds flow for corporations. Coverage includes the analysis and recording of transactions involving cash, inventories, fixed assets, bonds and capital stock as well as closing, adjusting and reversing entries for revenue and expense items. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
ACCT 2123 Fundamental Managerial Accounting 3 Credit Hours Prerequisite: Business majors and students enrolled in approved degree programs or by permission of Price College advising; ACCT 2113. Introduction to managerial accounting. Analysis of cost behavior and the use of this knowledge for both short- and long-term decision. An introduction to budgeting and the accumulation of product costs for planning and performance evaluation. Specific coverage includes cost-volume-profit analysis, capital budgeting, allocations, variances from standard costs and the measurement of divisional performance. ( $F, S p$, Su )
ACCT 2970 Special Topics/Seminar
1-3 Credit Hours
Special Topics. 1 to 3 hours. May be repeated; Maximum credit nine hours. Special topics course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research, and field projects. (lrreg.)

ACCT 3023 International Financial Statement Analysis 3 Credit Hours Prerequisite: Must be approved for degree candidacy by Price College, ACCT 2113 and ACCT 2123; Majors only. A review of international financial reporting development, procedures and standards with an emphasis on financial statement interpretation and analysis. Not open to accounting majors. (Irreg.)

## ACCT 3033 Financial Reporting Issues in Energy 3 Credit Hours

Prerequisite: ACCT 2123, MATH 1743 or MATH 1823 or MATH 1914, only declared Energy Management majors, and student must be approved for degree candidacy by Price College. Study of financial reporting issues directed toward energy companies. Review of the accounting cycle with an emphasis on the accounting treatment for acquisition of mineral interests, geological and geophysical costs, intangible drilling costs, delay, rental, dry hole costs, lease and well equipment, joint interest billing and royalties payable. (Sp)

ACCT 3043 International Financial Reporting 3 Credit Hours
Prerequisite: ACCT 2113 and departmental permission. A review of international financial reporting procedures and standards with an emphasis on financial statement interpretation and analysis. (Irreg.)

ACCT 3113 Intermediate Accounting I
3 Credit Hours
Prerequisite: Student must be approved for degree candidacy by Price College; ACCT 2113 and ACCT 2123 with a grade of C or better in each course; MATH 1743 or MATH 1823 or MATH 1914. Measurement and reporting of assets including receivables, inventory, investments, fixed assets, and intangible assets; special issues related to revenue recognition. (F, Sp)

## ACCT 3123 Intermediate Accounting II

3 Credit Hours Prerequisite: ACCT 2113 , ACCT 2123 and ACCT 3113 with a minimum grade of $C$ or better in each course; student must be approved for degree candidacy by Price College; MATH 1743 or MATH 1823 or MATH 1914. Measurement and reporting of bonds, leases, pensions, derivatives, stockholders' equity, earnings per share, and share-based compensation; special issues related to accounting for income taxes and the statement of cash flows. ( $\mathrm{F}, \mathrm{Sp}$ )

## ACCT 3313 Cost Accounting

3 Credit Hours
Prerequisite: ACCT 2123 with a minimum grade of C , student must be approved for degree candidacy by Price College, and MATH 1743 or MATH 1823 or MATH 1914. Basic cost principles. Job order costing, process and joint costing, and estimated costs. (F, Sp)

ACCT 3353 Accounting Information Systems/Databases 3 Credit Hours Prerequisite: Student must be approved for degree candidacy by Price College, ACCT 2113 and ACCT 2123 with a minimum grade of $C$ or better in each course, and MATH 1743 or MATH 1823 or MATH 1914; or permission. A study of the role of technology in accounting, focusing on the documentation, flow, and processing of accounting information in business. Gives an introduction to the various components of an information system and the necessary internal controls in complex business computing environments. Course includes data analytics and enterprise systems projects. (F, Sp)

## ACCT 3440 Mentored Research Experience

3 Credit Hours
0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office Not for honors credit. (F, Sp, Su)

ACCT 3603 Income Tax Accounting I 3 Credit Hours
Prerequisite: ACCT 2113, ACCT 2123 and ACCT 3113 with a minimum grade of $C$ or better in each course, or permission; student must be approved for degree candidacy by Price College; MATH 1743 or MATH 1823 or MATH 1914. Introduction to the taxation of income including issues related to the measurement and recognition of income, deductions and losses; the taxation of property transactions; basis and cost recovery concepts; and alternative forms of business organization (F, Sp)

ACCT 3960 Honors Reading
1-3 Credit Hours
1 to 3 hours. Prerequisite: junior or senior standing, admission to the Honors Program. May be repeated; maximum credit six hours. Independent study in field of accounting and related disciplines to broaden student's perspective in general field of business. (F, Sp)

ACCT 3970 Honors Seminar 1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Subjects covered vary. Deals with concepts not usually treated in regular courses. (Irreg.)

ACCT 3980 Honors Research
1-3 Credit Hours
1 to 3 hours. Prerequisite: junior or senior standing, admission to the Honors Program. May be repeated; maximum credit six hours. Independent research in field of accounting and related disciplines to apply research techniques learned in research tool courses to actual business situations. (F, Sp)

ACCT 3990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: permission of instructor and junior standing. May be repeated once with change of content. Independent study may be arranged to study a subject not available through regular course offerings. (Irreg.)

ACCT 4543 Auditing
3 Credit Hours
(Slashlisted with ACCT 5543) Prerequisite: ACCT 3113 and ACCT 3123 with a minimum grade of $C$ or better in each course; ACCT 3603; ACCT 3353 or concurrent enrollment; MATH 1743, or MATH 1823, or MATH 1914; Students must be approved for degree candidacy by Price College. This course will cover auditing concepts, standards, principles, and procedures; coverage includes professional ethics, auditors' legal responsibilities, electronic data processing (EDP) control systems, audit sampling, and audit reports. No student may earn credit for both 4543 and 5543. (F, Sp)

ACCT 4563 Oil and Gas Accounting I
3 Credit Hours
(Slashlisted with ACCT 5563) Prerequisite: ACCT 3123; MATH 1743 or MATH 1823 or MATH 1914; Students must be approved for degree candidacy by Price College. May be taken concurrent with ACCT 3123. A study of financial accounting issues specifically directed toward oil and gas companies. Includes basic oil and gas transactions: leases, subleases, free wells, farmouts, carried interests. This course covers accounting for acquisition costs, exploration and development costs, operating costs, joint interest costs, and revenue accounting for oil and gas companies. Field trip required. No student may earn credit for both 4563 and 5563. (F)

ACCT 4583 Internal Auditing
3 Credit Hours
(Slashlisted with ACCT 5583) Prerequisite: ACCT 3353; ACCT 4543; senior standing; Majors only. Internal audit from a broad perspective including evaluating business processes, information technology, accounting systems, internal auditing standards, risk assessment, governance, ethics, audit techniques, and emerging issues. The course covers the design of business processes, implementation of key control concepts and will use a case study approach addressing tactical, strategic, systems and operational areas. No student may earn credit for both 4583 and 5583. (F)

## ACCT 4703 Income Tax Accounting II

3 Credit Hours (Slashlisted with ACCT 5703) Prerequisite: ACCT 3603 or permission; junior standing. Advanced issues related to the taxation of multijurisdictional operations and transactions involving corporations, partnerships, estates, and trusts, and their owners throughout the life of the entity. No student may earn credit for both 4703 and 5703. (F, Sp)
ACCT 4960 Directed Readings 1-4 Credit Hours
1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean. May be repeated; maximum credit four hours. Designed for upper-division students who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)
ACCT 4970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: Senior standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)
ACCT G4990 Special Problems in Accounting 1-2 Credit Hours 1 to 2 hours. Prerequisite: Junior standing; ACCT 3123, ACCT 3313, ACCT 3353, and ACCT 3603; and ACCT 4113 or ACCT 4323 or ACCT 4543 or ACCT 4703; or departmental permission. May be repeated with change of content; maximum credit 2 hours. This directed readings and problems course for advanced students will be supervised by faculty and staff. A comprehensive report and/or examination is required. (F, Sp, Su)
ACCT 5023 International Financial Reporting and Analysis 3 Credit Hours
Prerequisite: Graduate standing and departmental permission. Overview of the international financial reporting environment and exploration of international financial standards and procedures, with emphasis on financial statement interpretation and analysis. (Irreg.)
ACCT 5100 Accounting Professional Development 0 Credit Hours Prerequisite: admission into the BBA/MAcc or MAcc program. Introduces students to a wide range of business and professional issues, including developing current events not covered elsewhere in the curriculum, as well as to build and expand on topics that are covered. The course will also help students develop and polish some of the skills necessary for professional and personal success. (Irreg.)

## ACCT 5113 Advanced Accounting

3 Credit Hours
Prerequisite: ACCT 3113, ACCT 3123, and graduate standing. Topics in this course include consolidated reporting for firms that have merged with or acquired other companies and the accounting and reporting for governmental and nonprofit organizations. (F, Sp)

ACCT 5123 Special Topics in Advanced Financial Accounting 3 Credit Hours
Prerequisite: Graduate Standing, Departmental Permission, and ACCT 5113. This course expands upon topics from Advanced Accounting. Topics include the cost method of consolidation, the process of translation, remeasurement and consolidation of financial statements presented in a foreign currency, and introduction of topics such as partnership accounting, bankruptcy accounting, and SEC Reporting issues. (Irreg.)
ACCT 5202 Financial Accounting
2 Credit Hours
Prerequisites: graduate standing; departmental permission. Students will learn to construct and analyze financial statements of for-profit corporate enterprises. The basic accounting model including financial statement recording and preparation will be covered. A major emphasis will be placed on using financial statements for decision making by investors, creditors, and other users. Basic ratio analysis and valuation concepts will be introduced. (Irreg.)

## ACCT 5212 Managerial Accounting

2 Credit Hours
Prerequisites: 5202 and graduate standing; departmental permission. This course emphasizes the use of accounting information for internal planning and control. Introduces students to types of managerial information used to effectively and efficiently run businesses. Covers basic issues in costing (activity based and product); generation and interpretation of information for planning and strategic decision-making (pricing, make-or-buy analysis, cost-volume-profit analysis); production and use of information related to performance measurement. (Irreg.)
ACCT 5222 Fundamentals of Cost Accounting 2 Credit Hours
Prerequisite: Graduate standing, departmental permission, and ACCT 2123 or ACCT 5212. This course covers an overview of technical management accounting concepts. Topics will include process costing; rework and scrap costs; support costs, joint costs and byproducts; relevant costs; transfer pricing; inventory management; and performance measures. (F)
ACCT 5232 Financial Reporting Foundations 2 Credit Hours
Prerequisite: Graduate standing and departmental permission. This course introduces the process of preparing, reporting, and using financial data reported on the income statement and balance sheet. Emphasizes complex revenue and receivable transactions, such as performance obligations, long-term contracts, variable considerations, transaction pricing, and uncollectible accounts, and assesses how these transactions are reported and analyzed by external users. (F)

ACCT 5242 Financial Reporting for Assets and Investments 2 Credit Hours
Prerequisite: Graduate standing, departmental permission, and ACCT 2113 or ACCT 5202 or ACCT 5232. This course introduces the process of measuring and reporting assets and investments. Emphasizes topics such as asset acquisition, nonmonetary asset exchange, internally generated assets, impairment, depreciation, debt investments, equity investments, and the use of derivatives for speculative and hedging purposes. (F)
ACCT 5252 Financial Reporting for Liabilities and Equity 2 Credit Hours Prerequisite: Graduate standing, departmental permission, and ACCT 2113 or ACCT 5202 or ACCT 5232. This course introduces the process of valuing and reporting liabilities and equities. Emphasizes topics such as private and public debt offerings, lease accounting, income tax implications, equity-based compensation, dividends, dilutive instruments, and the computation of earnings per share. (Sp)

## ACCT 5262 Fundamentals of Income Taxation \& Tax

Accounting
2 Credit Hours
Prerequisite: Graduate standing, departmental permission, and
ACCT 2113 or ACCT 5202 or ACCT 5232. This course covers introduction
to the taxation of income generally including the definition and measurement of taxable income and the recognition and taxation of gains and losses from property transactions. (F)

## ACCT 5272 Fundamentals of Taxation of Business \& Employment Income <br> 2 Credit Hours

Prerequisite: Graduate standing, departmental permission, and ACCT 2113 or ACCT 5202 or ACCT 5232. This course covers the introduction to the alternate organizational forms in which businesses may be conducted, the measurement and taxation of income generated by those business forms, and the impact of organizational form choice on the owners of the business. (Sp)

## ACCT 5282 Fundamentals of Accounting Information Systems Credit

Prerequisite: Graduate standing, departmental permission, and ACCT 2113 or ACCT 5202 or ACCT 5232. This course introduces the conceptual foundations of AIS and data analytics. Addresses issues and mitigating factors of accounting information systems reliability. (Sp)
ACCT 5292 Fundamentals of Internal Control 2 Credit Hours Prerequisite: Graduate standing, departmental permission, and ACCT 3353 or ACCT 5282 or MIS 3353. This course introduces the basic concepts of system documentation and internal controls of accounting information systems. Discusses relevant controls to the audit of financial statements and reporting in the context of the audit risk model. (Sp)

ACCT 5302 Fundamentals of Auditing 2 Credit Hours
Prerequisite: Graduate standing, departmental permission, and ACCT 3113 or ACCT 5242 and ACCT 3123 or ACCT 5252. This course will develop the perspective and knowledge necessary to understand the audit process and gain basic competency in audit risk assessment and reporting. (Su)

## ACCT 5303 Accounting Data Analytics

3 Credit Hours
Prerequisite: ACCT 3353 and graduate standing. This course covers the use of data analytics and visualization in the accounting profession, including analytics processes and tools to generate meaningful accounting insights and answer accounting questions. Students will also learn to think critically, solve problems, and make good decisions about the use of analytics in the accounting environment. Applications in tax, audit, managerial, and financial accounting will be ( $F, S p$ )

## ACCT 5352 Financial Statement Analysis Theory and

 Methods2 Credit Hours
Prerequisites: graduate standing; departmental permission. Intended to increase your ability to use and make decisions using information presented in the financial statements of publicly traded companies. A number of different decision contexts will be examined including valuation of potential acquisitions, investment analysis, credit analysis, managing corporate financing policies and analyzing business communications. Will consider the role of both accounting and nonaccounting information. (Irreg.)

## ACCT 5353 Financial Statement Analysis

3 Credit Hours
Prerequisite: graduate standing or permission of instructor. Topics in analysis and use of general purpose financial statements for decision making, ratio analysis, credit risk, and valuation will be covered. (Irreg.)

ACCT 5403 Accounting Ethics and Professional Responsibilities 3
Credit
Prerequisite: graduate standing, 24 hours of accounting, and permission. Examines the ethical issues encountered by, and the professional and legal obligations of, practicing accountants with the ultimate goal of enhancing ethical decision-making and behavior in the profession. Applies both ethical theories of decision-making and professional standards to real-world problems encountered across various functional areas of accounting. (Irreg.)

ACCT 5543 Auditing
3 Credit Hours
(Slashlisted with ACCT 4543) Prerequisite: Graduate standing and permission of instructor. This course will cover auditing concepts, standards, principles, and procedures; coverage includes professional ethics, auditors' legal responsibilities, electronic data processing (EDP) control systems, audit sampling, and audit reports. No student may earn credit for both 4543 and 5543. (Irreg.)

ACCT 5553 Fraud Examination 3 Credit Hours
Prerequisite: 4543 , graduate standing or permission. To develop a broad understanding of the different types of fraud that affect organizations, as well as to learn how and why fraud occurs. To understand the fundamentals regarding fraud prevention and detection. To learn how to conduct fraud investigations. To learn what is required of external auditors regarding fraud. The course focuses on organizational fraud (e.g. employee and management fraud). (Irreg.)

ACCT 5563 Oil \& Gas Accounting I
3 Credit Hours
(Slashlisted with ACCT 4563) Prerequisite: Graduate standing and permission of instructor. A study of financial accounting issues specifically directed toward oil and gas companies. Includes basic oil and gas transactions: leases, subleases, free wells, farmouts, and carried interests. This course covers accounting for acquisition costs, exploration and development costs, operating costs, joint interest costs, and revenue accounting for oil and gas companies. Field trip required. No student may earn credit for both 4563 and 5563. (F)
ACCT 5573 Advanced Oil and Gas Accounting and Taxation

3 Credit Hours
Prerequisites: ACCT 4563 or ACCT 5563, ACCT 3603, and Graduate standing. This course will cover accounting for derivatives, asset retirement obligations, supplemental footnote disclosures, analysis of financial statements of oil and gas companies, and alternative sources of energy. Approximately $1 / 3$ of the course will be devoted to taxation of oil and gas companies. (Irreg.)

ACCT 5583 Internal Auditing
3 Credit Hours
(Slashlisted with ACCT 4583) Prerequisite: Graduate standing,
ACCT 3353, and ACCT 4543. Internal audit from a broad perspective including evaluating business processes, information technology, accounting systems, internal auditing standards, risk assessment, governance, ethics, audit techniques, and emerging issues. The course covers the design of business processes and implementation of key control concepts, and will use a case study approach addressing tactical, strategic, systems, and operational areas. No student may earn credit for both 4583 and 5583. (F, Sp)

## ACCT 5613 Tax Research and Practice

3 Credit Hours
Prerequisite: Graduate standing and ACCT 3603 (or equivalent). Course focuses on the development of skills necessary to resolve issues in tax practice. Objectives include developing knowledge of tax research resources, understanding the framework of tax law, and understanding ethics as applied to tax practice. (Irreg.)

ACCT 5643 Advanced External Auditing
Prerequisite: Graduate standing, Accounting majors only, ACCT 4543, and departmental permission. Designed to introduce students to advanced external auditing topics, such as how to audit internal controls, revenue, and fair value, with a special emphasis on audit data analytics. Taught using a mixture of lecture, cases, and projects. Students gain skills in platforms such as Excel, IDEA, Tableau, and others. (Irreg.)
ACCT 5703 Income Tax Accounting II 3 Credit Hours (Slashlisted with 4703) Prerequisite: 3603 or permission and junior standing. Advanced issues related to the taxation of multi-jurisdictional operations and transactions involving corporations, partnerships, estates, and trusts, and their owners throughout the life of the entity. No student may earn credit for both 4703 and 5703. ( $F, S p$ )
ACCT 5960 Directed Readings 1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing and permission of department. May be repeated; maximum credit twelve hours. Directed readings and/or literature reviews under the direction of a faculty member. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
ACCT 5970 Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing and permission. May be repeated with change of subject matter; maximum credit eight hours. A seminar for graduate students, with topics to be announced each time the course is offered. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
ACCT 5980 Research for Master's Thesis
2-9 Credit Hours
Variable enrollment, two to nine hours; maximum credit applicable toward degree, four hours. (F, Sp, Su)
ACCT 5990 Research in Accounting
1-4 Credit Hours
1 to 4 hours. Prerequisite: graduate standing and permission of department. May be repeated; maximum credit eight hours. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
ACCT 6193 Introduction to Accounting Research 3 Credit Hours Prerequisite: graduate standing and permission. May be repeated with change of content; maximum credit six hours. A survey of current topics appearing in the academic accounting literature. Students will analyze and critique emerging original research in accounting. Intended for, but not restricted to, doctoral accounting students to provide a foundation for their future research efforts. Required for all Ph.D. students whose dissertation topic is in the area of accounting. (Irreg.)
ACCT 6553 Accounting Theory and Research
3 Credit Hours
Prerequisite: graduate standing, 24 hours of accounting and permission. Examines the history and development of accounting theory and its reflection in current professional standards. In the process, the course also facilitates the development of the knowledge and skills necessary to research and analyze specific practice and policy issues. (Irreg.)
ACCT 6613 Federal Income Taxation of Corporations and Shareholders 3 Credit Hours
Prerequisite: Graduate standing and ACCT 5613 or concurrent enrollment. An advanced study of corporate income taxation, including corporate formation, concept of earnings and profits, acquisitions and liquidations, reasonable compensation, stock redemptions, accumulated earnings tax, personal holding companies, reorganizations, Subchapter S corporations, and other tax areas. (Irreg.)
ACCT 6623 Federal Income Taxation of Partnerships 3 Credit Hours Prerequisite: Graduate standing, ACCT 5613 and ACCT 6613, or departmental permission. An advanced study of acquisitions of partnership interests, the basis of a partner's partnership interest, taxing partnership operations, transfers of partnership interests, partnership distributions, death or retirement of a partner, and adjustments to the basis of partnership assets. (Irreg.)

ACCT 6633 Selected Topics in Taxation
3 Credit Hours
Prerequisite: Graduate standing, permission of instructor, and ACCT 5613. Selected topics will focus on concepts and functional areas currently relevant to the field of taxation and tax accounting. (Sp)

## ACCT 6713 Judgment and Decision Making Research

 Seminar
## 3 Credit Hours

Prerequisite: 6193 or permission of instructor. Introduces basic psychology research in judgment and decision making, explores accounting and accounting-related work in judgment and decision making, and develops evaluation skills for experimental research. (Irreg.)
ACCT 6723 Archival Financial Reporting Research Seminar 3 Credit Hours
Prerequisite: 6193 or permission of instructor. Heavy emphasis placed on basic theory and empirical findings of how accounting information relates to market prices. Additional topics may include archival evidence of firm's earnings management activities, the role of financial analysts' earnings forecasts in financial accounting research, and cross-company differences in financial reporting. (Irreg.)
ACCT 6960 Directed Readings 1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit six hours. Directed readings and/or literature review under the direction of a faculty member. (Irreg.)

ACCT 6970 Special Topics/Seminar 1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing and ACCT 6193 or permission of instructor; May be repeated with change of content; maximum credit 12 hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or research and field projects. (Irreg.)

## ACCT 6973 Seminar

3 Credit Hours
Prerequisite: 6193 or permission of instructor. May be repeated with change of topic; maximum credit six hours. Seminar in latest developments in research and theory from one of the following general areas of accounting: auditing, taxation, positive theory, managerial accounting, or financial reporting. Specific topic is announced for each time of offering. (Irreg.)
ACCT 6980 Research for Doctoral Dissertation 2-16 Credit Hours 2 to 16 hours. Prerequisite: Graduate standing and permission of instructor; may be repeated. Directed research culminating in the completion of the doctoral dissertation. (F, Sp, Su)

## ACCT 6990 Independent Study <br> 1-3 Credit Hours

1 to 3 hours. Prerequisite: Graduate standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)

## AERO-Aerospace Studies

AERO 1011 Introduction to the Department of the Air Force - Heritage and Values

1 Credit Hour
Prerequisite: concurrent enrollment in AERO 1300. This course provides an introduction to the Air and Space Forces, hopefully encouraging students to pursue an AF career. The course also lays the foundation for becoming an Air or Space professional by outlining our heritage and values. As a foundational course, AERO 1011 also provides a historical perspective with lessons on war, AF operations, and principles of airpower. (F)

AERO 1021 The Air Force Today
1 Credit Hour
Prerequisite: departmental permission; concurrent enrollment in 1300. A study of aerospace defense, missile defense, general purpose forces and aerospace support forces. The mission, resources and operation of tactical air forces, with special attention to limited war; and a review of Army, Navy and Marine general purpose forces. (Sp)

AERO 1300 Leadership Laboratory O Credit Hours
Prerequisite: concurrent enrollment in AERO 1011, 1021, 2011, 2021, $3013,3023,4013$ or 4023 or permission. Designed to introduce the student to the customs and courtesies associated with the Air Force. Also provides a practicum for the initial development of leadership and command abilities. (F, Sp)

AERO 2011 Team and Leadership Fundamentals I 1 Credit Hour Prerequisite: Corequisite: AERO 1300. This course is designed to provide a fundamental understanding of both leadership and team building. It is imperative that students are taught from the beginning that there are many layers to leadership, including listening, understanding themselves, being a good follower and problem solving efficiently. Students should demonstrate basic verbal and written communication skills. (F)

AERO 2021 Team and Leadership Fundamentals II 1 Credit Hour Prerequisite: Corequisite: AERO 1300. This course is designed to continue providing a fundamental understanding of both leadership and team building. It is imperative that students are taught from the beginning that there are many layers to leadership, including listening, understanding themselves, being a good follower and problem solving efficiently. Students should demonstrate basic verbal and written communication skills. (Sp)

AERO 3013 Air Force Leading People and Effective Communication I 3 Credit Hours
Prerequisite: Departmental Permission; Corequisite: AERO 1300. This course is designed to build on the leadership fundamentals taught in AERO 2021. The students will have the opportunity to utilize their skills as they begin more of a leadership role in the detachment. The goal is for students to have a more in-depth understanding of how to effectively lead people. Concurrent enrollment in AERO 1300 is required. (F)

AERO 3023 Air Force Leading People and Effective Communication 2

3 Credit Hours
Prerequisite: AERO 3013 or Departmental Permission; Corequisite: AERO 1300. This course is designed to build on the leadership fundamentals taught in AERO 3013. The students will have the opportunity to utilize their skills as they begin more of a leadership role in the detachment. The goal is for students to have a more in-depth understanding of how to effectively lead people. Concurrent enrollment in AERO 1300 is required. (Sp)

AERO 4013 American National Security I 3 Credit Hours Prerequisite: 3023 or departmental permission. Conceptual study of the U.S. national security policy examining the formulation, organization and implementation of national security; the context of national security; the evolution of strategy; and the management of conflict. Included is a block of instruction on the military justice system. Concurrent enrollment in 4100 is required. (F)

AERO 4023 American National Security II
3 Credit Hours
Prerequisite: 4013 or departmental permission. Examines U.S. national security policy in the international setting; arms control and peacekeeping efforts; and civil-military interaction. Includes a study of the military profession and officership. Designed to provide future Air Force officers with a background in the profession and U.S. national security policy so that they can function effectively in today's Air Force. Concurrent enrollment in 4100 is required. (Sp)

## AFAM-African \& African American Studies

AFAM 2003 Introduction to African and African-American Studies<br>3 Credit Hours

Introduces students to African and African-American Studies at the University of Oklahoma, and at other institutions of higher education in the United States. Students will study the major ideas, concepts, problems, issues, research and scholars in the field. Provides career focus and information for students who will major or minor in African and African-American Studies. (F, Sp) [IV-WDC].

AFAM 2113 Africa and the Diaspora
3 Credit Hours
The course introduces students to the study of Africa and the dispersion of African people throughout the New World. Focus is placed upon the geographical and historical understanding of the continent of Africa and the identification of central causes of underdevelopment within the continent. (Irreg.) [IV-WDC].

AFAM 2970 Special Topics/Seminar 1-3 Credit Hours 1 to 3 hours. Prerequisite: May be repeated; Maximum credit nine hours. Special topics course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research, and field projects. (Irreg.)

## AFAM 3123 West African and African-American Experiences 3 Credit

 HoursPrerequisite: any course that focuses on African or African American content, or English 1213. Provides a basis for understanding discourse concerning the future of West Africa and Africans in the American Diaspora. Examines significant issues concerning West African people, their past, their priorities, and prognoses. (Irreg.)

AFAM 3133 Introduction to African Aesthetics 3 Credit Hours
Prerequisite: any course that focuses on African or African American content, or English 1213. Explores the philosophy, culture, and aesthetic expressions of African Americans before, during, and after enslavement through a comparison of African and African American culture. Emphasis is placed upon developing a body of knowledge and analytic skills that will enable students to deepen their understanding of traditional and contemporary culture practiced by the African American community. (Irreg.) [IV-WDC].

AFAM 3143 Gospel Music Past and Present 3 Credit Hours Prerequisite: junior standing. African and African-American history as it relates to gospel music. The class correlates the climate and cultural history with various genres of music that led to gospel music. Individual artists are studied not in isolation but as part of the larger cultural context. (F, Sp) [IV-AF].

AFAM 3333 The Black West
3 Credit Hours
(Crosslisted with HIST 3333) Prerequisite: Junior standing, or any 2000level African and African American Studies class, or permission of instructor. Survey of Black history and experience in the American West. Students will learn about life in the region through primary documents, scholarly texts, literature, film, and popular culture. Emphasis on how identity, regionalism, and nationalism converge in North America. Particular attention will be paid to Oklahoma and the larger Great Plains. (Irreg.)

## AFAM 3343 Black Greek Letter Organizations 3 Credit Hours

 Prerequisite: junior standing or departmental permission and successful completion of at least one AFAM course. Examines the history and culture of black greek-letter organizations (BGLOs), the contributions of the BGLOs (also referred to as historically black fraternities and sororities) to the black community through leadership and service, and issues relevant to the future of BGLOs in the 21 st century. (Irreg.)
## AFAM 3413 African American Education in the United States <br> 3 Credit Hours

Prerequisite: any course that focuses on African or African-American content, or English 1213. Examines two major historical features of African American education: the ways in which the African American community has sought to educate itself and the ways in which white Americans have sought to educate African Americans. Emphasis is placed on the purpose of education, and alternative visions of educational possibility. (Irreg.)

## AFAM 3423 African-American Men

3 Credit Hours
Prerequisite: any course the focuses on African and African-American content, or English 1213. Examines the status and role of the AfricanAmerican male, from the perspective of contemporary research and literature which should frame the extant disclosure and discussions, policy-making, and future research. (Irreg.)

## AFAM 3433 African American Women

3 Credit Hours
Prerequisite: any course the focuses on African or African American content, or English 1213. Examines the history and experience of African American women, focusing on race, gender, and socio-economic status and the corresponding effects of these forces in their lives. (Irreg.)
AFAM 3440 Mentored Research Experiences 3 Credit Hours
0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)

AFAM 3453 The Black Athlete in America 3 Credit Hours Prerequisite: ENGL 1213 or EXPO 1213 or sophomore standing. Provides students with a historical and contemporary overview of the Black athlete in American society. This course will underscore and examine the Black athlete from a social, political, and cultural perspective. Many of the misconceptions and deep-seated stereotypes of Black athletes both in intercollegiate athletics and professional sports will be uncovered. Additionally, perspectives will be gained on the changing status of Black athletes and how those changes have engendered the changing of sport, American society, and critical triumphs within Black culture. (Irreg.)

AFAM 3513 AFAM Research Methods
3 Credit Hours
Prerequisite: AFAM major or minor, junior standing. This course is designed to introduce students to research methods in African and African American studies. Qualitative and quantitative research methods are studied, discussed, and undertaken. Course design stresses the importance of using both methods to cross-validate findings. (Irreg.)

## AFAM 3613 Visual Culture and African American Identity:

1895-1939
3 Credit Hours
Prerequisite: ENGL 1213 or EXPO 1213. Examines the visual commodities of black and white cultural producers to analyze issues of caste and class status, gender, and sexuality that historically and currently inform competing notions of blackness within the public sphere. (Irreg.) [IVWDC].

## AFAM 3960 Honors Reading

1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Consists of topics designated by the instructor in keeping with the student's major program. Covers topics not usually presented in the regular courses.

## AFAM 3970 Honors Seminar 1-3 Credit Hours

1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Subjects covered vary. Deals with concepts not usually treated in regular courses.

## AFAM 3980 Honors Research

1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Provides an opportunity for the gifted Honors candidate to work at a special project in the student's field. (F, Sp, Su)
AFAM 3990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: permission of instructor and junior standing. May be repeated once with change of content. Independent study may be arranged to study a subject not available through regular course offerings. $(\mathrm{F}, \mathrm{Sp}, \mathrm{Su})$

## AFAM 4003 Senior Seminar in African and African-American

 Studies 3 Credit HoursPrerequisite: completion of 12 hours of required AFAM or AFAM-related courses. Provides students the opportunity to review and integrate their study in African and African-American courses. Students will be involved in academic experiences that facilitate the translation from theory to practice. Experiences will vary depending on the instructor. (Sp) [V].

## AFAM 4010 Special Topics In African And African-American

 Studies1-3 Credit Hours
1 to 3 hours. Prerequisite: junior standing and any course covering African and African-American issues. May be repeated with change of content; maximum credit nine hours. Designed to permit the study of specific and changing issues and problems in AFAM Studies. Course will also be used for special workshops, conferences, seminars, etc. and individually planned and supervised activities focused on specific areas of concern. (Irreg.)
AFAM 4133 Contemporary Visual Art of Africa 3 Credit Hours Prerequisite: junior standing and any 2000-level African and AfricanAmerican Studies (AFAM) class. This course explores current visual arts developments in Africa. The course traces the historical evolution, influences and status of contemporary African art, with special reference to established visual artists who either work within or outside of Africa.
(Sp)

## AFAM 4213 African Dance

Prerequisite: any course that focuses on African or African American content, or English 1213. Examines various essential dance movements from the African Diaspora. Theory and praxis meet in an effort to better understand the culture and language of dance amongst African people. (Irreg.) [IV-AF].

## AFAM 4233 Blacks and the Movies: Hollywood and Black Independent

 Film 3 Credit HoursPrerequisite: any course that focuses on African or African American content, or English 1213. Historical overview of the development of African American cinema. Examines how film has been used to culturally define the parameters of black cultural identity and how black cultural producers promoted alternate constructions of black identity. (Irreg.)

## AFAM 4243 The Black Arts Movement

3 Credit Hours
Prerequisite: ENGL 1213 or EXPO 1213, or permission of instructor, or junior standing. Examines the literature, art, music, film, and cultural commentary of the Black Arts Movement. Focuses on the notion of 'blackness' and the black experience as developed in the cultural expressions of key figures of the Black Arts Movement, and the subsequent connection of that movement to further changes in literature, drama, film, music and art. Also explores the emergence of a critical discourse specific to a "new" black aesthetic. (Irreg.)
AFAM 4413 Issues in the African American Family 3 Credit Hours Prerequisite: any course that focuses on African or African American content, or English 1213. The purpose of the class is to explore the interand intra-structural components of the African American family using an applied social systems and ecological approach. Great emphasis will be placed on historical and concurrent social, religious, political and economic factors that influence the psyche of both the family and in a broader sense a culture rooted in the Afrocentric paradigm. (Irreg.)

## AFAM 4423 African American Health Issues 3 Credit Hours

Prerequisite: any course that focuses upon African or African American content, or English 1213. Examines health problems, health status, and health behavior of African American men and women. A life course perspective is emphasized from birth to later life. It is assumed that being African American predisposes persons to health problems that increase the risk of disease or that influence health based on the diversity of cultural beliefs, values, and practices. Access to health services will be addressed. (Irreg.)
AFAM 4443 African American Mental Health 3 Credit Hours Prerequisite: English 1213 or Expository Writing 1213. Introduces issues related to African American mental health in this country. Topics discussed and explored in this course will cover the past, present, and future states of mental health in the African American community. Students will investigate their personal history of mental health and uncover ways that those histories relate to and connect with the issues addressed throughout the course. (F)

AFAM 4493 Africa and the Atlantic Slave Trade 3 Credit Hours (Crosslisted with HIST 4493) Prerequisite: ENGL 1213 or EXPO 1213. About the changing nature of slavery in and the impact of slave trading on Africans in their homelands and in the diaspora. Origins in Africa; rise of the Atlantic trade; impact of the trade; middle passage, etc. (Irreg.) [IVWDC].

AFAM 4623 Hip Hop Culture and Contemporary America 3 Credit Hours Prerequisite: any course that focuses on African or African American content, or English 1213. Historical inquiry into behavioral and sociopolitical trends of hip hop culture. Attempts to codify and recognize dominant cultural attitudes, concepts and paradigms as global phenomenon shaping understanding of contemporary African American character, identity, and culture. (Irreg.)
AFAM 4633 African American Religious Traditions 3 Credit Hours Prerequisite: any course that focuses on African or African American content, or English 1213. An anthropological and historical inquiry into the nature of the religious experience of Africans enslaved and involuntarily brought to the United States. Emphasis is placed upon the identification and understanding of the central cultural and religious practices and products form black peoples' experiences of the holy. (Irreg.)
AFAM 4643 Black Feminism and Womanism 3 Credit Hours
(Crosslisted with WGS 4643) Prerequisite: Junior standing and any 2000-level African and African-American Studies class. This course analyzes the way race, gender, sexuality, and socioeconomic status have historically dominated, intersected, and/or competed with the lives and experiences of Black women. This course examines the way Black women have drawn upon these internal struggles to serve as voices of power and agents of social change. Readings in this course will highlight activism, literature, and social justice. (Irreg.)

AFAM 4713 Afrocentric Thinking and the Civil Rights

## Movement 3 Credit Hours

Prerequisite: any course that focuses on African or African American content, or English 1213. Examines afrocentric thinking and identifies key afrocentric patterns and strategies within the civil rights movement. Students will analyze African American leadership and how leaders brought afrocentric thinking to the forefront. (Irreg.)

AFAM 4733 Civil Rights Law: Employment and Education 3 Credit Hours Prerequisite: any course the focuses on African or African American content, or English 1213. Analyzes civil rights law in employment and education. Focuses on laws that address discrimination, equal employment opportunity, equal educational opportunity and affirmative action, as well as the legal foundation for diversity initiatives. Examines regulations of enforcement agencies, and agency grievance procedures, including selected court cases. (Irreg.)
AFAM 4743 Black Women and Leadership 3 Credit Hours Prerequisite: ENGL 1213 or EXPO 1213 and junior standing. Explores issues and strategies related to the roles and responsibilities of women in leadership positions and public service. The focus will be on AfricanAmerican female leaders in diverse contexts. Do women have an identifiably different ways of leading? How does leadership manifest itself in the public arena? Why does women's public leadership matter? (Irreg.)
AFAM 4763 The History of Lynching and Racial Violence in America 3 Credit Hours Prerequisite: English 1213 or Expository Writing 1213 with a grade of C or better. Explores the historical development of lynching, survey of lynching and its impact on American society; investigates the ways race, class, gender, and sexuality shaped particular lynching episodes, justifications for the practice and the historical legacy. (Irreg.)

AFAM 4813 Prison Industrial Complex 3 Credit Hours
Prerequisite: ENGL 1213 or EXPO 1213, or permission of instructor, or junior standing. The American prison industrial complex is a phenomenon with roots in American prison history, convict leasing, and the proliferation of prison industries. Designed to familiarize students with the phenomenon, how it came to exist, and the impact it has had and is having on American society in general, and on the African American community in particular. (Irreg.) [III-SS].
AFAM 4823 African American Politics and Public Policy 3 Credit Hours Prerequisite: ENGL 1213 or EXPO 1213, or permission of instructor, or junior standing. Focuses on the African American experience and politics, examining the history and experience from the civil rights era to the election of President Barack Obama. Materials will discuss grassroots and national political agendas, and explore the politics of topics such as environmental justice, healthcare, literature, music, sexuality and voting. (Irreg.) [III-SS].
AFAM 4960 Directed Readings 1-4 Credit Hours
1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean. May be repeated; maximum credit four hours. Designed for upper-division students who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)
AFAM 4970 Special Topics/Seminar 1-3 Credit Hours
1 to 3 hours. Prerequisite: Senior standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

## AFAM 4990 Independent Study

1-3 Credit Hours
Prerequisite: permission of instructor. Permits the student to study in depth, under the guidance of the instructor, particular and special African and African-American topics of interest to the student and within the expertise of the instructor. Generally, students and the instructor meet to determine the nature of independent study, schedule progress reports and meetings, timelines for the submission of assignments, nature of the evaluation process and culminating effort or activity. (F, Sp, Su)

## AGSC-Atmospheric and Geographic Sciences

AGSC 2970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: May be repeated; Maximum credit nine hours. Special topics course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research, and field projects. (Irreg.)

## AGSC 3011 Career Planning \& Development for A\&GS

## Majors

## 1 Credit Hour

Prerequisite: Junior standing or permission of instructor. Provides students with instruction in the career planning process directly related to their major and, ultimately, the world of work. Research shows that the majority of people lose their jobs because of poor work ethic, not because of aptitude. Course teaches appropriate skills desired by employers across AGS disciplines. Through lecture, discussion, individual projects and guest speakers, the interactive curriculum will cover topics such as behavioral interviewing techniques, self-directed job search strategies and career opportunities in multiple job sectors. As the course progresses, students will develop a career portfolio which includes a career assessment, class notes, handouts, cover letters and resumes (including electronic versions).

AGSC 3440 Mentored Research Experience
3 Credit Hours
0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)
AGSC 3960 Honors Reading
1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Consists of topics designated by the instructor in keeping with the student's major program. Covers topics not usually presented in the regular courses.

AGSC 3970 Honors Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Subjects covered vary. Deals with concepts not usually treated in regular courses. (Irreg.)
AGSC 3980 Honors Research
1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Provides an opportunity for the gifted Honors candidate to work at a special project in the student's field. (F, Sp, Su)
AGSC 3990 Independent Study 1-3 Credit Hours
1 to 3 hours. Prerequisite: permission of instructor and junior standing. May be repeated once with change of content. Independent study may be arranged to study a subject not available through regular course offerings. (F, Sp, Su)
AGSC 4960 Directed Readings 1-4 Credit Hours
1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean. May be repeated; maximum credit four hours. Designed for upper-division students who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)
AGSC G4970 Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: permission of instructor. May be repeated with change of subject matter; maximum credit nine hours. Subjects covered vary. Deals with interdisciplinary concepts in atmospheric and geographic sciences not usually covered in regular courses. (Irreg.)
AGSC 4990 Special Studies 1-4 Credit Hours
1 to 4 hours. Prerequisite: Permission of instructor, upper-division standing. Contracted special problems study for topics not currently offered in regularly scheduled courses; may include library and/or laboratory research and field projects.
AGSC 5960 Directed Readings
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing and permission of department. May be repeated; maximum credit twelve hours. Directed readings and/or literature reviews under the direction of a faculty member. (F, Sp, Su)

AGSC 5970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: permission of instructor. May be repeated with change of subject matter; maximum credit nine hours. Subjects covered vary. Deals with interdisciplinary concepts in atmospheric and geographic sciences not usually treated in regular courses. (Irreg.)

AGSC 5990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)

## AHS-Allied Health Sciences

AHS 1400 Orientation To The Health Professions 1 Credit Hour Orientation to the health professions. 1 to 2 Hours. Typically, a onehour survey course to introduce and explore the health professions offered by the colleges of the University of Oklahoma Health Sciences Center. Through a series of lectures, students will interact with educators, practitioners, and students in: audiology, dental hygiene, dentistry, medicine, nuclear medicine, nursing, nutritional sciences, occupational therapy, pharmacy, physical therapy, physician associate, public health, radiation therapy, radiography, sonography, and speech-language pathology. (F, Sp)

AHS 3440 Mentored Research Experience
3 Credit Hours
0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)

## AME-Aerospace \& Mechanical Engineering

## AME 2102 Engineering Design Graphics 2 Credit Hours

Prerequisite: Sophomore standing and majors only; ENGR 1413, and MATH 1914 or MATH 2423. Visualization and modeling techniques for product design and development. Design methodology, graphic standards, projection theory, freehand sketching, and spatial geometry. Three-dimensional Computer-Aided-Design modeling, components and assemblies, graphic standards, geometric dimensioning and tolerancing, engineering drawings. Solving open-ended design and visualization problems. (Sp)
AME 2113 Statics
3 Credit Hours
Prerequisite: (PHYS 2514; MATH 1823 or 1914; MATH 2423 or 2924; and CHEM 1315 all with a minimum grade of C; MATH 2433 or 2934 or concurrent enrollment. Vector representation of forces and moments: general three-dimensional theorems of statics; centroids and moments of area and inertia. Free-body diagrams, equilibrium of a particle and of rigid bodies, distributed loads, friction and internal shear and moment loads. Analysis of trusses, frames, and machines. (F)

AME 2213 Thermodynamics 3 Credit Hours
Prerequisite: Majors only; (Physics 2514; MATH 1823 or 1914; MATH 2423 or 2924; and CHEM 1315) all with a minimum grade of C. First and second laws of thermodynamics are developed and applied to the solutions of problems from a variety of engineering fields. Extensive use is made of differential calculus to interrelate thermodynamics functions. (F)

AME 2223 Introduction to Aerospace Engineering 3 Credit Hours
Prerequisite: AE majors (A010 \& B010) only; PHYS 2514; MATH 1823 or 1914; MATH 2423 or 2924; and CHEM 1315 all with a minimum grade of C. Introduction to the foundational dynamics of aerospace vehicles, propulsion system performance, and basic aerodynamic forces and conventions. (F)

## AME 2303 Materials, Design and Manufacturing Processes 3 Credit Hours

(Crosslisted with I E 2303) Prerequisite: 2113 or Civil Engineering 2113 or Engineering 2113. Mechanical and physical properties of engineering materials. Introduction to design concepts, manufacturing processes and equipment used in engineering. (Sp)

## AME 2402 Engineering Computing 2 Credit Hours

Prerequisite: MATH 1823 or 1914 or concurrent enrollment; Majors only. Introduction to computer programming and university computing facilities. Program design and development: computer application exercises in engineering. (F)

## AME 2533 Dynamics

3 Credit Hours
Prerequisite: AME 2113, MATH 2433 or 2934; Majors only. Dynamics
(kinematics and kinetics) of particles and rigid bodies for rectilinear, curvilinear and angular motion; work and energy methods; conservations of impulse and momentum; introduction to mechanical vibrations. (Sp)

## AME 2623 Circuits and Sensors <br> 3 Credit Hours

Prerequisite: PHYS 2514; MATH 1823 or 1914; MATH 2423 or 2924; and CHEM 1315 all with a minimum grade of $C$ or better with an overall average of 3.0 in these four courses - AP credit accepted and weighted based upon score; MATH 3413 and 3401 or concurrent enrollment; PHYS 2524 or concurrent enrollment; Majors only. Formulation and solution of circuit equations, network theorems, sinusoidal steady-state analysis, simple transients. Introduction to digital logic circuits. Physical principles of sensing and actuation. Applications to engineered systems of computer programming, embedded systems, and controls. (Sp)
AME 3103 Interactive Engineering Design Simulation 3 Credit Hours Prerequisite: AME 3143, Solid Mechanics; and AME 3153, Fluid Mechanics or AME 3253, Aerodynamics. Visualization and introductory finite element modeling techniques for product design and development. Three-dimensional CAD modeling, components and assemblies, graphic standards, dimensions and tolerances, engineering drawings. Introduction to finite element methods for structural and fluid mechanics problems, with verification. (Sp)

## AME 3112 Solid Mechanics Lab

2 Credit Hours
Prerequisite: 3143 or concurrent enrollment. Measurement of displacement; velocity, acceleration, force, torque, strain, stress, data acquisition and processing; data and uncertainty analysis; report writing. (F)

AME 3122 Heat Transfer and Fluid Mechanics Lab 2 Credit Hours Prerequisite: AME 3112; AME 3173 or concurrent enrollment. Basic measurement concepts in fluid mechanics and thermal science. Concepts and methods of measuring pressure, temperature, flow, thermal and transport properties. Laboratory. (Sp)

AME 3143 Solid Mechanics
3 Credit Hours
Prerequisite: MATH 3113, or MATH 3413 and MATH 3401; AME 2303;
AME 2533. Concepts of stress and strain; mechanical behavior of engineering materials; analysis of uniform stress states; analysis of members in torsion; stresses and deflections in beams; modes and theories of failure; design criteria. (F)

AME 3153 Fluid Mechanics
3 Credit Hours
Prerequisite: AME 2113, AME 2213, AME 2533, and MATH 3113; majors only. Principles of fluid mechanics: fluid statics, flow descriptions, conservation equations, dimensional analysis, potential flow, viscous flow and internal flow. (F)

AME 3173 Heat Transfer
3 Credit Hours
Prerequisite: AME 2213 and AME 3153 or CEES 2223. Heat transfer by conduction, convection, and radiation; mass transfer and combined modes of heat transfer. (Sp)

AME 3253 Aerodynamics 3 Credit Hours Prerequisite: AME 2213, AME 2223, AME 2533, MATH 3413 and MATH 3401. Fluid properties, fluid statics, flow description, conservation equation; incompressible inviscid flow dynamics; characteristic airfoil parameters; two-dimensional flow around thin airfoils; flow around wings of finite span; boundary layer development; compressibility; governing equations for inviscid compressible flow normal and oblique shock relations; Prandtl-Meyer expansion waves; quasi-one dimensional flow through nozzles and diffusers. (F)
AME 3272 Windtunnel Laboratory
2 Credit Hours
Prerequisite: AME 3253 or concurrent enrollment. Operation and calibration of a subsonic wind tunnel. Experimental testing of airfoils, model airplanes, and aerodynamic shapes. Calibration and use of balance and associated test equipment. Laboratory (F)
AME 3333 Flight Mechanics 3 Credit Hours
Prerequisites: AME 2223, AME 2533, and AME 3253. Classical linear stability analysis and equations of motion in the body frame for rigid body aircraft. Static and dynamic analysis of aircraft open loop stability. Aircraft design topics including weight and balance, trim, and control sizing. (Sp)
AME 3353 Design of Mechanical Components 3 Credit Hours
Prerequisite: 2303 and 3143. Analysis and design of mechanical subsystems and selection of elements such as gears, shafts, clutches, brakes and modern mechanical components. (Sp)
AME 3363 Design of Thermal-Fluid Systems 3 Credit Hours Prerequisite: AME 2402 or C S 1313, AME 3153 or AME 3253, and AME 3173. Design of fluid flow, heat transfer and energy systems including analysis, synthesis and optimization. Topics include but are not limited to: ducts and piping systems, fluid machinery, heat exchangers, thermal storage devices, furnaces, combustors, refrigeration and air conditioning systems. (F)

## AME 3413 Vibrating Systems

3 Credit Hours
Prerequisite: 2533 and Mathematics 3113. Free and forced vibrations in lumped-parameter linear systems of one, two or more degrees of freedom. Resonance phenomena, dynamic absorbers; vibrationmeasuring equipment. Introduction to Laplace transforms and transient vibrations, distributed systems. (Irreg.)

## AME 3440 Mentored Research Experience 3 Credit Hours

0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it the with the URCP office. Not for honors credit. (F, Sp, Su)

AME 3523 Aerospace Structural Analysis
3 Credit Hours
Prerequisite: AME 3143, MATH 3401 and MATH 3413. Advanced concepts of stress and strain; introduction to the analysis of aerospace engineering structures; complex bending and torsion, shear flows in thinwalled and stringer-skin sections; buckling; introduction to the finite element method; introduction to composite materials. (Sp)
AME 3623 Embedded Real-Time Systems
3 Credit Hours
Prerequisite: AME 2623 or equivalent, C S 1313 or equivalent. The fundamentals of real-time embedded systems are covered including processes, scheduling, frequency requirements, and watchdog timers. Includes work with actual real-time systems. (Sp)
$\begin{array}{lll}\text { AME } 3723 \text { Numerical Methods For Engineering Computation } 3 \\ \text { Credit } & & \text { Hours }\end{array}$
Prerequisite: AME 2402 or C S 1313, and MATH 3113 or MATH 3413.
Course uses specific software applications tailored toward aerospace and mechanical engineering. Basic methods for obtaining numerical solutions with a digital computer. Included are methods for the solutions of algebraic and transcendental equations, simultaneous linear equations, ordinary and partial differential equations, and curve fitting techniques. The methods are compared with respect to computational efficiency and accuracy. (F)

## AME 3960 Honors Reading

1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Consists of topics designated by the instructor in keeping with the student's major program. Coverage includes materials not usually presented in the regular courses. (F, Sp, Su)

## AME 3970 Honors Seminar

1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. The projects covered will vary. Deals with concepts not usually presented in regular coursework. (F, Sp, Su)

AME 3980 Honors Research 1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Provides an opportunity for the gifted Honors candidate to work on a special project in the student's field. (F, Sp, Su)
AME 3990 Independent Study 1-3 Credit Hours
1 to 3 hours. Prerequisite: permission of instructor and junior standing. May be repeated once with change of content. Independent study may be arranged to study a subject not available through regular course offerings. (F, Sp, Su)
AME 4003 Introduction to Structural Health Monitoring 3 Credit Hours (Slashlisted with AME 5003) Prerequisite: AME 3112 and AME 3143. Comprehensive instruction of structural dynamics, signal processing, passive and active sensing, feature extraction, statistical pattern recognition, nondestructive evaluation methods. No student may earn credit for both 4003 and 5003. (F)
AME 4013 Introduction to Medical Device Design 3 Credit Hours (Slashlisted with AME 5013; Crosslisted with BME 4013) Prerequisite: Junior standing or permission of instructor. Introduction to medical device design with emphasis on the entire procedure of developing a medical device from identifying the unmet medical need to product launching. Topics include marketing and technology survey, concept development, the biocompatible material, device prototype, bench test, in vitro/in vivo test, clinical trial and FDA regulation. No student may earn credit for both 4013 and 5013. (Sp)

AME 4043 Analysis of Heat Pumping Systems 3 Credit Hours (Slashlisted with AME 5043) Prerequisite: AME 2213 and AME 3173. A systematic introduction of thermodynamic analysis methods for heat pumping systems, including vapor-compression, absorption and other common heat pumping technologies. A specific focus is on the applications to air-conditioning, heat pump and refrigeration equipment. No student may earn credit for both 4043 and 5043. (F)
AME 4093 Applied Biomechanics - Ear Mechanics 3 Credit Hours (Slashlisted with AME 5093; Crosslisted with BME 4093) Prerequisite: Junior standing; PHYS 2514; MATH 1823 or 1914; MATH 2423 or 2924; and CHEM 1315 all with a minimum grade of $C$ or better. The course curriculum starts with a review of some basic solid mechanics and fluid mechanics. Then the course will review the applications of mechanics in different biosystems or organs. Finally, this course will cover how to apply mechanics on ear tissue mechanical measurements, ear modeling and ear implant design. No student may earn credit for both 4093 and 5093. (F)

AME 4133 Heat Transfer in Multiphase Systems 3 Credit Hours (Slashlisted with AME 5133) Prerequisite: MATH 2433, PHYS 2524, AME 2213, AME 3153 and AME 3173; senior standing or permission of instructor. Basic principles for analysis of transport phenomena in multiphase systems are developed and their application to a wide variety of engineering systems including phase change is presented. The scope is limited to thermodynamics and heat and mass transfer fundamentals in solid-liquid, liquid-vapor and solid-vapor phase change processes with emphasis on condensation, evaporation, sublimation, vapor deposition, boiling, melting and solidification. No student may earn credit for both 4133 and 5133. (Sp)

## AME 4143 Nanocomposites 3 Credit Hours

(Slashlisted with 5143) Prerequisite: 3143 or permission from instructor. Nanostructured materials and their interactions with polymer matrices; dispersion of nanoparticles and nanotubes; surface and interfaces; structure and characterization of nanophases; synthesis and processing of structural nanocomposites; characterization of properties of nanocomposites; nanomechanics of elastic modulii; potential applications and design. No student may earn credit for both 4143 and 5143. (Irreg.)
AME 4163 Principles of Engineering Design
3 Credit Hours
Prerequisites: AME 3103, AME 2533, AME 3353. Design process and methodology from concept through analysis, layout and prototyping. Types of design problems, human element in design, computer aid in design, specification development, concept generation, concept evaluation, product generation, function and performance evaluation, prototyping, design for manufacturing, design for assembly, design for life-cycle, sustainability, final product documentation, inclusive intergroup communication, ethics, safety and economics. (F)

## AME 4183 Design Theory and Methods

3 Credit Hours
(Slashlisted with AME 5183) Prerequisite: AME 3103 and AME 3723, or permission of instructor. A general understanding of modern design theory and mainstream design methods for support of engineering design. Topics include: game and utility theories, decision-based design, single-objective design optimization, multi-objective design optimization, gradient calculation, multi-disciplinary design optimization, and practical engineering applications. Software tools installed on students' laptops for use in lectures, to work on homework, take tests, and collaborate on class project. No student may earn credit for both 4183 and 5183. (Irreg.)

AME 4193 Introduction to Computer-Aided Design 3 Credit Hours (Slashlisted with AME 5193) Prerequisite: AME 3103 and MATH 2443/2934, or permission of instructor. A general understanding of computer-aided design and underline theory of commercial CAD systems for support of engineering design. Topics include: e-Design paradigm, geometric modeling, solid modeling (CSG, B-Rep, parametric modeling, direct modeling), assembly modeling, design parametrization, and product data exchange and management. Offered as a laptop course with hands-on lab sessions. No student may earn credit for both 4193 and 5193. (Irreg.)
AME 4213 Biomechanics I
3 Credit Hours
(Slashlisted with AME 5213) Prerequisite: 3143 and 3153 or permission of instructor. Introduction to physiological systems with emphasis on structure and function of tissues and organs; application of continuum mechanics to understanding of tissue and organ behavior at microscopic and macroscopic levels; viscoelastic and solid biomaterials. No student may earn credit for both 4213 and 5213. (F)
AME G4243 Aerospace Propulsion Systems
3 Credit Hours
Prerequisites: AME 2213 and AME 3253. Propulsion systems, review of compressible flow, combustion and thermochemical analysis, gas turbine and jet engines, rocket vehicles, chemical rockets. This course is approved for graduate credit. (F)
AME 4263 Computer Integrated Manufacturing 3 Credit Hours (Slashlisted with AME 5263) Prerequisites: AME 2303 or permission of instructor. A general understanding of computer-based methods for manufacturing and assembly of mechanical products. The concept and methods for product manufacturing and assembly will be introduced from design viewpoint. No student may earn credit for both 4263 and 5263. (Irreg.)

AME 4273 Aerospace Systems Design I
3 Credit Hours
(Slashlisted with AME 5273) Prerequisites: AME 3103, AME 3253, AME 3333, and AME 3523 or permission of the instructor. Analysis, design, and optimization of an aerospace system. Performance analysis, mission simulation, and multi-disciplinary optimization of flight vehicles using both classical and modern design and analysis methods. No student may earn credit for both 4273 and 5273. Laboratory (F)

## AME 4281 Engineering Co-Op Program

1 Credit Hour
(Crosslisted with BME, C S, CEES, CH E, ECE, EPHY and ISE 4281) Prerequisite: Departmental permission and junior standing. May be repeated; maximum credit 6 hours. The Co-Op program provides students an opportunity to enhance their education via career exploration in related professional work experiences. Course assignments help students articulate their experiences by completing journals; mid-term paper; final paper and/or final presentation. Faculty receive an evaluation from the student's Co-Op supervisor who monitors performance. Faculty collaborate with the Co-Op supervisor to ensure student success. (F, Sp, Su )
AME 4283 Concurrent Design and Manufacturing
3 Credit Hours
Prerequisite: 2303, 2533, and 3143. The general concepts and methods in performing concurrent design and manufacturing for product development. Fundamental design theories and methods such as utility theory, state transition matrix method, game theory, and system life-cycle modeling and optimization will be introduced. No student may earn credit for both 4283 and 5283. (F)

AME 4303 Designing for Open Innovation
3 Credit Hours
(Slashlisted with AME 5303) Prerequisite: All seniors in engineering, business, and the sciences or permission of the instructor. Open innovation; designing for sustainability; realizing new complex engineered systems; system definition, verification and validation; identifying and managing dilemmas; Blooms Taxonomy; white space competencies, energy systems. No student may earn credit for both 4303 and 5303. (Irreg.)
AME 4373 Aerospace Systems Design II
3 Credit Hours (Slashlisted with AME 5373) Prerequisite: AME 4273 or permission of the instructor. Synthesis course that emulates a team aircraft design program from conceptual design to flight test and mission evaluation. Conceptual design, preliminary analysis, detailed CAD, FEA, and CFD analysis; optimization of aircraft configuration. Advanced design, analysis, and fabrication methods based on a complete flight vehicle, a propulsion system, a structural system, or a control system. Laboratory. No student may earn credit for both 4373 and 5373. (Sp) [V].
AME G4383 Control Systems 3 Credit Hours
Prerequisite: 2533, Mathematics 3413 and 3401. Introduction to the concepts and theory of feedback control systems. Representation of electromechanical systems and aerospace vehicles by transfer and state variable methods. Stability and performance analysis, design techniques and synthesis methods for linear control systems. (F)
AME 4393 Renewable Energy Systems and Control 3 Credit Hours (Slashlisted with AME 5393) Prerequisite: Senior Standing; MATH 2934 or MATH 2443; AME 2402 or CS 1313; AME 3723 or equivalent; MATH 3333 and AME 4383 or ECE G441 are preferred but not required. This course introduces students to the fundamentals of data science methods for the design and operation of energy systems. The course is oriented towards students pursuing a technical career in cleantech, or a graduate study in the energy sciences and engineering. Course contents include: mathematical modeling \& analysis, state estimation, optimization, machine learning, and optimal control. No student may earn credit for both 4393 and 5393. (Sp)
AME G4442 Internal Combustion Engines Laboratory 2 Credit Hours Prerequisite: 3122 or graduate standing. Test equipment and instrumentation, propulsion systems, reciprocating engines, supercharger fuel systems, tests and evaluation. Lecture and Laboratory (Sp)
AME 4493 Space Sciences and Astrodynamics 3 Credit Hours (Slashlisted with AME 5493) Prerequisites: PHYS 2524, MATH 2443 or 2934. Selected topics in astrophysics which may include astrodynamics, stellar structure and evolution, stellar pulsation, supernovae black holes, interstellar medium, galactic structure and clusters and superclusters, active galaxies, quasars, and cosmology. No student may earn credit for both 4493 and 5493. (F)
AME 4503 Nonlinear Dynamical Systems and Control 3 Credit Hours (Slashlisted with AME 5503) Prerequisite: AME 4383 or Instructor's permission. Students will learn to analyze and control nonlinear dynamical systems and apply that knowledge to real engineering problems. No student may earn credit for both 4503 and 5503. (Sp)

## AME 4513 Flight Controls

3 Credit Hours
(Slashlisted with AME 5513) Prerequisites: AME 3333 and AME 4383. Classical and modern control theory with applications to aircraft flight control system design. No student may earn credit for both 4513 and 5513. (F)

AME 4553 Design Practicum
3 Credit Hours
Prerequisite: senior standing, 3363 and 4163. Design study of actual problems in industry. Lecture and Laboratory (Sp) [V].

AME 4593 Space Systems and Mission Design 3 Credit Hours
(Slashlisted with 5593) Prerequisite: 4493 or permission from instructor. Topics include basic orbital mechanics, orbit determination, perturbations, numerical techniques, interplanetary transfer, influence of space environment, atmospheric re-entry. Space vehicles subsystems design; propulsion, attitude determination and control, structural design, thermal control, power and telecommunications. Investigation into mission design concepts and consideration. No student may earn credit for both 4593 and 5593. (Sp)

AME G4653 Air Conditioning Systems
3 Credit Hours
Prerequisite: 3173. Theory and design of systems for controlling properties such as temperature, humidity, air purity, air distribution and noise in enclosures. (Sp)
AME 4802 Robotics Laboratory

## 2 Credit Hours

Prerequisite: AME major only (A010 or B010); AME 3112, C S 1313 or equivalent. Hands-on studies of robot systems with emphasis on semiautonomous mobile robots. Mechanical, electrical and computational features of robots will be investigated. Lecture and Laboratory (F)
AME G4822 Fluid and Thermal Laboratory
2 Credit Hours
Prerequisite: 3173; 3122 or equivalent or graduate standing. May be repeated with change of content; maximum credit six hours. Experimental studies in heat transfer or fluid mechanics. Lecture and Laboratory (F)

## AME G4832 Micro and Nanomaterials Lab

## 2 Credit Hours

Prerequisites: AME 3112, AME 3143 or equivalent or graduate standing. Introduction of experimental analysis and characterization techniques of different types of advanced materials to include polymeric micro composite materials and nanocomposites. Topics include fabrication methods. Determination of mechanical proper ties, microstructural analysis, nondestructive determination of properties of isotropic and anisotropic solids and microscopy techniques. Laboratory. (Irreg.)
AME 4960 Directed Readings 1-4 Credit Hours
1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean. May be repeated; maximum credit four hours. Designed for upper-division students who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)
AME 4970 Special Topics/Seminar
1-3 Credit Hours 1 to 3 hours. Prerequisite: Senior standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

AME 4971 Seminar
1 Credit Hour
(Slashlisted with 5971) Prerequisite: senior standing. May be repeated without limit; maximum credit one hour for a B.S. degree. Recent developments in selected subjects in aerospace and mechanical engineering presented by invited experts from on and off campus. No student may earn credit for both 4971 and 5971. (F, Sp)
AME 4980 Undergraduate Research Studies 1-3 Credit Hours 1 to 3 hours. Prerequisite: permission of instructor. May be repeated; maximum credit six hours. Work with various faculty members on individual research projects. The nature of the research and the hours credit varies. (F, Sp, Su)

AME 4990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: Senior standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)

AME 5003 Introduction to Structural Health Monitoring 3 Credit Hours (Slashlisted with AME 4003) Prerequisite: Graduate standing, AME 3112, AME 3143, and AME 3353. Comprehensive instruction of structura dynamics, signal processing, passive and active sensing, feature extraction, statistical pattern recognition, nondestructive evaluation methods. No student may earn credit for both 4003 and 5003. (F)

AME 5013 Introduction to Medical Device Design 3 Credit Hours (Slashlisted with AME 4013; Crosslisted with BME 5013) Prerequisite: Graduate standing or permission of instructor. Introduction to medical device design with emphasis on the entire procedure of developing a medical device, from identifying the unmet medical need to product launching. Topics include marketing and technology survey, concept development, the biocompatible material, device prototype, bench test, in vitro/in vivo test, clinical trial, and FDA regulation. No student may earn credit for both 4013 and 5013. (Sp)

AME 5023 Elastic Stress Analysis
3 Credit Hours
Prerequisite: 3143 and Mathematics 3113; or permission. Theory of stress for continuous media, large displacement strain theory, stressstrain relations for elastic media, plane elasticity, application of theory to modern engineering problems. (F)

AME 5043 Analysis of Heat Pumping Systems 3 Credit Hours
(Slashlisted with AME 4043) Prerequisite: Graduate standing or permission of instructor. A systematic introduction of thermodynamic analysis methods for heat pumping systems, including vaporcompression, absorption, and other common heat pumping technologies. A specific focus is on the applications to air-conditioning, heat pump, and refrigeration equipment. No student may earn credit for both 4043 and 5043. (F)

## AME 5063 Composite Materials

3 Credit Hours
Prerequisite: 3143 or permission. Nature and scope of composite materials; stress-strain relations and strength of a single layer of a laminated composite; laminated composite-material beams, plates and cylindrical shells; micromechanics and characterization of stiffness, fracture and transport properties; applications and optimal design. (Irreg.)

## AME 5093 Applied Biomechanics - Ear Mechanics 3 Credit Hours

(Slashlisted with AME 4093; Crosslisted with BME 5093) Prerequisite: Graduate standing. The course curriculum starts with a review of some basic solid mechanics and fluid mechanics. Then the course will review the applications of mechanics in different biosystems or organs. Finally, this course will cover how to apply mechanics on ear tissue mechanical measurements, ear modeling and ear implant design. No student may earn credit for both 4093 and 5093. (F)

AME 5133 Heat Transfer in Multiphase Systems 3 Credit Hours (Slashlisted with AME 4133) Prerequisite: MATH 2433, PHYS 2524, AME 2213, AME 3153 and AME 3173; graduate standing or permission of instructor. Basic principles for analysis of transport phenomena in multiphase systems are developed and their applications to a wide variety of engineering systems including phase change are presented. The scope is limited to thermodynamics and heat and mass transfer fundamentals in solid-liquid, liquid-vapor and solid-vapor phase change processes with emphasis on condensation, evaporation, sublimation, vapor deposition, boiling, melting and solidification. No student may earn credit for both 4133 and 5133. (Sp)

AME 5143 Nanocomposites
3 Credit Hours
(Slashlisted with 4143) Prerequisite: 3143 , graduate standing or permission of instructor. Nanostructured materials and their interactions with polymer matrices; dispersion of nanoparticles and nanotubes surface and interfaces; structure and characterization of nanophases; synthesis and processing of structural nanocomposites; characterization of properties of nanocomposites; nanomechanics of elastic modulii; potential applications and design. No student may earn credit for both 4143 and 5143. (Irreg)

AME 5183 Design Theory and Methods 3 Credit Hours
(Slashlisted with AME 4183) Prerequisite: Graduate standing or permission of instructor. A general understanding of modern design theory and mainstream design methods for support of engineering design. Topics include game and utility theories, decision-based design, single-objective design optimization, multi-objective design optimization, gradient calculation, multi-disciplinary design optimization, and practical engineering applications. Software tools installed on students' laptops for use in lectures, to work on homework, take tests, and collaborate on class project. No student may earn credit for both 4183 and 5183. (Irreg.)

AME 5193 Introduction to Computer-Aided Design 3 Credit Hours (Slashlisted with AME 4193) Prerequisite: Graduate standing or permission of instructor. A general understanding of computer-aided design and underline theory of commercial CAD systems for support of engineering design. Topics include: e-Design paradigm, geometric modeling, solid modeling (CSG, B-Rep, parametric modeling, direct modeling), assembly modeling, and design parametrization. Offered as a laptop course with hands-on lab sessions. No student may earn credit for both 4193 and 5193. (Irreg.)

AME 5213 Biomechanics I
3 Credit Hours
(Slashlisted with 4213; Crosslisted with BME 5213) Prerequisite: AME 3143 and AME 3153 or permission of instructor. Introduction to physiological systems with emphasis on structure and function of tissues and organs; application of continuum mechanics to understanding of tissue and organ behavior at microscopic and macroscopic levels; viscoelastic and solid biomaterials. No student may earn credit for both 4213 and 5213. (F)

AME 5263 Computer Integrated Manufacturing 3 Credit Hours (Slashlisted with AME 4263) Prerequisite: graduate standing in engineering or permission of instructor. A general understanding of computer-based methods for manufacturing and assembly of mechanical products. The concept and methods for product manufacturing and assembly will be introduced from design viewpoint. No student may earn credit for both 4263 and 5263. (Irreg.)

AME 5273 Aerospace Systems Design I
3 Credit Hours
(Slashlisted with AME 4273) Prerequisites: AME 3103, 3253, 3333, 3523 or permission of the instructor. Analysis, design, and optimization of an aerospace system. Performance analysis, mission simulation, and multidisciplinary optimization of flight vehicles using both classical and modern design and analysis methods. No student may earn credit for both 4273 and 5273. Laboratory (F)

AME 5283 Concurrent Design and Manufacturing 3 Credit Hours Prerequisite: graduate standing in engineering. The general concepts and methods in performing concurrent design and manufacturing for product development. Fundamental design theories and methods such as utility theory, state transition matrix method, game theory, and system life-cycle modeling and optimization will be introduced. No student may earn credit for both 4283 and 5283. (F)

AME 5303 Designing for Open Innovation 3 Credit Hours
(Slashlisted with AME 4303) Prerequisite: Graduate standing in engineering, business, natural sciences, or permission of instructor. Open innovation; designing for sustainability; realizing new complex engineered systems; system definition, verification and validation; identifying and managing dilemmas; Blooms Taxonomy; white space competencies, energy systems. No student may earn credit for both 4303 and 5303. (Irreg.)
AME 5333 Thermodynamics and Combustion 3 Credit Hours
Prerequisite: Graduate standing and AME 2213, or permission of instructor. Thermodynamics of non-reacting and reacting mixtures, chemical equilibrium, flame temperature, transport processes in combustion, chemical kinetics, fuels and their combustion properties, premixed and diffusion flames, deflagrations and detonations, practical combustion systems, and pollutant emissions. (Sp)

## AME 5373 Aerospace Systems Design II

3 Credit Hours
(Slashlisted with AME 4373) Prerequisite: AME 4273 or permission of the instructor. Synthesis course that emulates a team aircraft design program from conceptual design to flight test and mission evaluation. Conceptual design, preliminary analysis, detailed CAD, FEA, and CFD analysis; optimization of aircraft configuration. Advanced design, analysis, and fabrication methods based on a complete flight vehicle, a propulsion system, a structural system, or a control system. No student may earn credit for both 4373 and 5373. Laboratory. (Sp)

AME 5393 Renewable Energy Systems and Control 3 Credit Hours (Slashlisted with AME 4393) Prerequisite: Graduate Standing; MATH 2934 or MATH 2443; AME 2402 or CS 1313; AME 3723 or equivalent; MATH 3333 and AME 4383 or ECE G441 are preferred but not required. This course introduces students to the fundamentals of data science methods for the design and operation of energy systems. The course is oriented towards students pursuing a technical career in cleantech or graduate study in the energy sciences and engineering. Course contents include mathematical modeling \& analysis, state estimation, optimization, machine learning, and optimal control. No student may earn credit for both 4393 and 5393. (Sp)
AME 5493 Space Sciences and Astrodynamics 3 Credit Hours (Slashlisted with AME 4493) Prerequisite: PHYS 2524, MATH 2443 or MATH 2934. Selected topics in astrophysics, the solar system; basic orbital mechanics, orbit determination and maneuvers, perturbations, numerical techniques, rendezvous and proximity operations, the N body problem and approximations, interplanetary transfers. Design considerations. No student may earn credit for both 4493 and 5493. (F)
AME 5503 Nonlinear Dynamical Systems and Control 3 Credit Hours (Slashlisted with AME 4503) Prerequisite: Graduate standing. Students will learn to analyze and control nonlinear dynamical systems and apply that knowledge to real engineering problems. No student may earn credit for both 4503 and 5503. (Sp)

## AME 5513 Flight Controls

3 Credit Hours
(Slashlisted with AME 4513) Prerequisites: permission of instructor. Classical and modern control theory with applications to aircraft flight control system design. No student may earn credit for both 4513 and 5513. (F)

## AME 5573 Advanced Engineering Analysis I <br> 3 Credit Hours

Prerequisite: Mathematics 3413 or equivalent. Vector and tensor analysis. Calculus of variations followed by variational methods and/or the method of weighted residuals. (Irreg.)

AME 5583 Advanced Engineering Analysis II 3 Credit Hours
Prerequisite: 5573 or permission. Selected topics in Advanced
Engineering Analysis, such as lie theory for ordinary differential equations; eigenvalue problems and spectral analysis; transform methods; solution methods for partial differential equations. (Irreg.)
AME 5593 Space Systems And Mission Design 3 Credit Hours
(Slashlisted with 4593) Prerequisite: 4493 or permission from instructor. Topics include basic orbital mechanics, orbit determination, perturbations, numerical techniques, interplanetary transfer, influence of space environment, atmospheric re-entry. Space vehicles subsystems design; propulsion, attitude determination and control, structural design, thermal control, power and telecommunications. Investigation into mission design concepts and consideration. No student may earn credit for both 4593 and 5593. (Sp)
AME 5710 Topics in Solid Mechanics
1-3 Credit Hours
1 to 3 hours. Prerequisite: permission of instructor. May be repeated with change of content; maximum credit nine hours for master's degree or twelve hours for a doctoral degree. Selected topics in continuum mechanics, such as theory of continuum mechanics, finite element methods, fatigue analysis and fracture mechanics.
AME 5720 Topics in Fluid Mechanics

## 1-3 Credit Hours

1 to 3 hours. Prerequisite: 5903 or permission of instructor. May be repeated with change of content; maximum credit nine hours for master's or 12 hours for a doctoral degree program. Concentration in a particular field of specialization in fluid mechanics, such as: rotating flows; hypersonic flow theory; advanced aerodynamics; advanced stability theory; plasma and laser dynamics. (Irreg.)
AME 5740 Topics in Design
1-3 Credit Hours
Prerequisite: permission of instructor. May be repeated with change of content; maximum credit nine hours for master's or 12 hours for doctoral degree program. Selected topics in conceptual, preliminary and final design; CAD and optimization applications.
AME 5763 Introduction to the Finite Element Method 3 Credit Hours (Crosslisted with CEES 5763) Prerequisite: graduate standing. Weighted residual and variational approaches. Finite element formulation for rod, truss and beam elements; plane stress and plane strain problem; axisymmetric and three-dimensional analysis; isoparametric elements; conforming and nonconforming plate and shell elements. (Sp)
AME 5803 Principles of Heat Transfer
3 Credit Hours
Prerequisite: 3173 or permission. Steady and transient heat conduction in multi-dimensional systems, convective heat transfer for external flows, convective heat transfer for internal flows, radiant heat transfer in lumped systems, integral equations of thermal radiation, and combined mode heat transfer. (F)
AME 5890 Guided Individual Studies 1-4 Credit Hours
1 to 4 hours. Prerequisite: graduate standing and permission. May be repeated; maximum credit nine hours. May be subject to restricted applicability for specific degree requirements. Guided study of selected topics not offered in regularly scheduled classes. Arrangements and work requirements established by prior agreement of instructor and student(s). Students should expect to spend at least sixty hours of reading and study for each credit hour. (F, Sp, Su)
AME 5903 Fundamental Fluid Dynamics
3 Credit Hours
Prerequisite: 3153,5573 or concurrent enrollment, or permission. Basic laws of fluid motion; Navier-Stokes equations, kinematics of the flow field, vorticity and circulation, basic theorems for inviscid, incompressible flows, potential-flow application, exact solutions. (F)

## AME 5913 Viscous Fluid Dynamics

3 Credit Hours
Prerequisite: 5903 or permission. Fundamental exact solutions of viscous flow; Stokes' flow, boundary-layer flow, drag and resistance to motion, elements of heat transfer, effects of compressibility, thin shear layers, jets and wakes, elements of turbulence. (Sp)

## AME 5960 Directed Readings <br> 1-3 Credit Hours

1 to 3 hours. Prerequisite: graduate standing and permission of department. May be repeated; maximum credit twelve hours. Directed readings and/or literature reviews under the direction of a faculty member. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
AME 5970 Special Topics/Seminar 1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

## AME 5971 Seminar

1 Credit Hour
(Slashlisted with 4971) Prerequisite: graduate standing. May be repeated without limit; maximum credit two hours for master's degree or four hours for a doctoral degree. Recent developments in selected subjects in aerospace and mechanical engineering presented by invited experts from on and off campus. No student may earn credit for both 4971 and 5971. (F, Sp)

AME 5980 Research for Master's Thesis 2-9 Credit Hours Variable enrollment, two to nine hours; maximum credit applicable toward degree, six hours. (F, Sp, Su)

AME 5983 Computational Fluid Dynamics 3 Credit Hours Prerequisite: 5573,5903,5973, or permission of instructor. Methods for the numerical solution of the Euler, boundary-layer, Navier-Stokes and parabolized Navier-Stokes equations. (Irreg.)
AME 5990 Special Projects 1-9 Credit Hours 1 to 9 hours. Prerequisite: graduate standing and permission of instructor. May be repeated but total credit applicable to any degree may be limited. Individual or group R \& D projects involving original laboratory, analytical or theoretical investigations and syntheses. Specific objectives and work requirements established by prior agreement of the instructor and student. Students should expect to spend at least 60 hours for each credit hour and to submit appropriate reports or papers. (F, Sp, Su)
AME 6033 Fracture Mechanics
3 Credit Hours
Prerequisite: 5023 or equivalent. Elastic crack-tip stress field, cracktip plastic zone, energy principle, plane strain fracture toughness, crack opening displacement criterion, fatigue crack propagation and applications. (Irreg.)

## AME 6663 Advanced Finite Element Methods 3 Credit Hours

(Crosslisted with CEES 6663) Prerequisite: 5763. Selected topics such as: nonlinear material problems, plasticity, creep (visco-plasticity), fracture, etc.; geometrically nonlinear problems; large displacements and structural stability; dynamic problems and analytical solution procedures; soil-structure interactions, application of the finite element method to fluid and heat transfer problem. (Irreg.)

## AME 6960 Directed Readings

1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit six hours. Directed readings and/or literature review under the direction of a faculty member. (Irreg.)

AME 6970 Advanced Topics In Aerospace And/Or Mechanical Engineering 1-3 Credit Hours
Prerequisite: permission of instructor. May be repeated with change of content; maximum credit nine hours for a master's and twelve hours for doctoral degree program. Selected advanced topics in all aspects of aerospace and/or mechanical engineering.

AME 6980 Research for Doctoral Dissertation 2-16 Credit Hours 2 to 16 hours. Prerequisite: Graduate standing and permission of instructor; may be repeated. Directed research culminating in the completion of the doctoral dissertation. (F, Sp, Su)
AME 6990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)

## AMGT-Arts Management

## AMGT 2013 Marketing in the Arts

3 Credit Hours
Any entrepreneurial or organizational role in the professional arts industry calls for an understanding of negotiation (advocating for an outcome with multiple parties) and marketing (advocating for one's mission, service, or product). This course explores the basics of negotiations and marketing. There is a particular emphasis on social media and engagement. (Irreg.)
AMGT 3013 Fundraising for the Arts
3 Credit Hours
Prerequisite: Junior standing. An exploration of approaches to the development of capital for projects, whether for artists to arts organizations, including techniques for the facilitation of individual donations, corporate and foundation contributions, and government grants. Students will learn important frameworks and tools for organizing a number of possible avenues of financial support, including workback and follow-up schedules. (Irreg.)
AMGT 3023 Entrepreneurial Mindset in the Arts 3 Credit Hours Prerequisite: AMGT 2013 and AMGT 3013. This course is designed for students who are intent on developing artistic sustainability, entrepreneurial success, and creative/social change. A career in tomorrow's art industry benefits from a mindset that welcomes change, fast-paced decision-making, and a rock-solid foundation of values, work ethic, and reasoning. This hands-on course is delivered through exercises and mini-projects dealing with ideation, action, marketing, pitching, and strategy. (Irreg.)
AMGT 3440 Mentored Research Experience 3 Credit Hours 0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)
AMGT 4030 Internship I in the Arts 1-3 Credit Hours
1 to 3 hours. (Slashlisted with AMGT 5030) Prerequisite: Junior standing or permission of the instructor; May be repeated; Maximum credit: six hours. Students arrange for and work in a focused professional work experience. No student may earn credit for both 4030 and 5030. (Irreg.)

AMGT 4173 Artist Management 3 Credit Hours
(Slashlisted with AMGT 5173) Prerequisite: Junior standing. This course explores the role, importance, and function of artist managers and artistic teams. How they impact the career of the artist and their brand. Students will examine the principles of leadership dynamics and motivation to focus and empower current and potential managers. This course provides the tools necessary to manage artists' careers across various artistic disciplines. No student may earn credit for both 4173 and 5173. (Sp)


#### Abstract

AMGT 4213 Arts Incubation Lab 3 Credit Hours (Slashlisted with 5213) Prerequisite: Student must be declared as a Arts Management and Entrepreneurship minor; AMGT 3023; permission of instructor. This course is based on experiential learning and runs concurrently with an external competitive program for entrepreneurial projects in the professional arts marketplace. Students in this course will have the opportunity to build on the basics of entrepreneurship and management skills acquired within the courses of the undergraduate minor in Arts Management and Entrepreneurship. No student may earn credit for both 4213 and 5213. (Su)


AMGT 4970 Special Topics/Seminar 1-3 Credit Hours 1 to 3 hours. Prerequisite: Senior standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)
AMGT 4990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: Senior standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)
AMGT 5013 Overview of Arts Management and Entrepreneurship $\begin{gathered}3 \\ \text { Credit }\end{gathered} \quad$ Hours
Prerequisite: graduate standing. This class will present an overview and historical perspective of the field of arts entrepreneurship and management. Readings will be supplemented by guest speakers and visits to professional organizations, enhancing the student's understanding of the diversity of the professional opportunities in arts administration and arts management. (Irreg.)
AMGT 5030 Internship I in The Arts 1-3 Credit Hours
1 to 3 hours. (Slashlisted with AMGT 4030) Prerequisite: Graduate standing, AMGT 5013, and permission of instructor; may be repeated, maximum 6 credits. Students arrange for and work in a focused professional work experience. No student may earn credit for both 4030 and 5030. (Irreg.)
AMGT 5033 Entrepreneurial Mindset in the Arts 3 Credit Hours
Prerequisite: Graduate standing, AMGT 5013 or concurrent enrollment, and departmental permission. This course is designed for students who are intent on developing artistic sustainability, entrepreneurial success, and creative/social change. A career in tomorrow's art industry benefits from a mindset that welcomes change, fast-paced decision-making, and a rock-solid foundation of values, work ethic, and reasoning. This course is delivered through various arts-focused exercises/projects dealing with ideation, action, marketing, pitching, plans and strategy. (F, Sp)

AMGT 5173 Artist Management
3 Credit Hours
(Slashlisted with AMGT 4173) Prerequisite: Graduate standing,
AMGT 5013, and permission of instructor. This course explores the role and importance and function of artist managers and artistic teams, and how they impact the career of the artist and their brand. Students will examine the principles of leadership dynamics and motivation to focus and empower current and potential managers. This course provides the tools necessary to manage artists' careers across various artistic disciplines. No student may earn credit for both 4173 and 5173. (Sp)

## AMGT 5213 Arts Incubation Lab

3 Credit Hours
(Slashlisted with AMGT 4213) Prerequisite: Graduate standing, AMGT 5013, and permission of instructor. This course is based on experiential learning and runs concurrently with an external competitive program for entrepreneurial projects in the professional arts marketplace. Students in this course will have the opportunity to build on the basics of entrepreneurship and management skills acquired within the courses of the Graduate Certificate in Arts Management and Entrepreneurship. No student may earn credit for both 4213 and 5213.
AMGT 5223 Marketing in the Arts
3 Credit Hours
Prerequisite: Graduate standing, AMGT 5013 or concurrent enrollment, and departmental permission. This course will examine the challenges of audience development and discussion of the role of art in contemporary society. This course will explore the basics of negotiations (distributive and integrative bargaining) before delving into current examples in the arts industry and explores the basics of marketing (planning, implementation, analysis) as well as how these principles relate to social media. (F, Sp)

## AMGT 5233 Financial Management and Budgeting in the

## Arts

3 Credit Hours
Prerequisite: Graduate standing, AMGT 5013 or concurrent enrollment, and departmental permission. This class will examine financial models, accounting, and contractual practices of successful cultural-based organizations. Arts managers are expected to understand how to apply best financial management and budgeting practices to cultural organizations. This course provides an overview of best practices to budgeting for artistic ideas for entrepreneurs and will explore longrange planning implications and budget forecasting models for arts organizations. (F, Sp)
AMGT 5243 Leadership and Strategic Thinking in the
Arts
3 Credit Hours
Prerequisite: Graduate standing, AMGT 5013 or concurrent enrollment, and departmental permission. This course is for students who are intent on developing sustainability and use design-thinking strategies to achieve their goals as entrepreneurial artists or by serving culture-based organizations. The course provides best strategic practices for leaders of arts organizations, encouraging students to determine the importance of planning and decision-making, and will address the importance of strategic thinking, change management, and leadership. (F, Sp)
AMGT 5263 Fundraising and Development in the Arts 3 Credit Hours Prerequisite: Graduate standing, AMGT 5013 or concurrent enrollment, and departmental permission. This course explores approaches to the development of capital for projects, whether for artists or arts organizations, including techniques for facilitation of individual donations, corporate/foundation contributions, and government grants. Students will learn important frameworks and tools for organizing avenues of financial support, including workback and follow-up schedules, drafting appeal letters, managing deadlines, cultivating requests, and writing with key governing values. (F, Sp, Su)

AMGT 5273 Innovative Approaches to Museum Leadership 3 Credit Hours
Prerequisite: Graduate standing and Arts Management majors only. This course prepares students to lead effectively in the constantly evolving museum landscape. It cultivates the field knowledge, professional skills, and innovative mindset necessary to practice leadership at all organizational levels. Students will be introduced to the organizational structures, policies, and practices of museum governance, including topics such as museum mission, strategy, and administration. (Sp)

## AMGT 5283 The Global Arts Market

3 Credit Hours
Prerequisite: Graduate standing and Arts Management majors only. This course offers an in-depth exploration of the art business world. It equips students with practical understanding of the various aspects of the art industry, including galleries, auction houses, art fairs, foundations, museums, and artist collectives. Through the analysis of case studies and real-world examples, students will learn about the economic, legal, and ethical considerations underpinning the art market. (F)

## AMGT 5853 Theatre Management <br> 3 Credit Hours

 Prerequisite: Graduate standing, AMGT 5013 or concurrent enrollment, and majors only or permission of Program Director. This course focuses on the study of the fundamental operations of commercial, professional non-profit, stock, dinner, and university theatre in the United States.Reserved for students in the OU Online MA in Arts Management. (F, Sp)
AMGT 5960 Directed Readings 1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit six hours. Directed readings and/ or literature review on selected topics under the direction of a faculty member. (Irreg.)
AMGT 5970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

## AMGT 5990 Independent Study

1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing and permission of instructor; May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)

## ANTH-Anthropology

ANTH 1104 YES Oklahoma - A Primer for Cancer
Research
Prerequisite: Enrollment in OU's YES Oklahoma summer STEM program (instructor permission and concurrent high school student). Understanding cancer research and its societal and cultural contexts is vital for all. The course has a nature, life and social science perspective, yet the assignments are heavily social science methods. (Su) [III-SS].
ANTH 1113 What Makes Us Human? Exploring Cultural and Biological
Diversity
3 Credit Hours
An introduction to the anthropological way of thinking about culture, language, social organization, religion, gender, prehistory, the rise of civilization, evolution and fossil hominins. Anthropological perspectives on the roles culture and biology play in influencing modern and ancient diversity of human behavior will be explored. (F, Sp, Su) [III-SS] .

ANTH 1124 YES Oklahoma: Cancer Research Training 4 Credit Hours Prerequisite: Enrollment in OU's YES Oklahoma summer STEM program (instructor permission and concurrent high school student). This is the natural science course for the concurrently enrolled students of YES Oklahoma; the focus is scientific methodology and an introduction to a body of foundational and factual knowledge about cancer. Included is an introduction to genomics, human variation and cancer biology, laboratory research experiences and professionalization. (Su) [II-NSL].
ANTH 1203 Language Across Cultures
3 Credit Hours
(Crosslisted with LING 1203) Theories of language family origins and their relationship to human migration; types of human languages; linguistic concept of genetic relatedness; writing systems development; non-Western sociolinguistic and usage phenomena; cultural and scientific importance of endangered languages; how languages become endangered; factors involved in preservation. This course may not count for major credit. (Sp) [IV-WDC].

## ANTH 1253 Folklore and Folklife

3 Credit Hours
Introduces the academic study of folklore and folklife by introducing four key concepts: Tradition, community, art and performance. Verbal folklore, material culture, performance genres and customary knowledge will be examined. Issues of cultural diversity and historical change will be addressed. Special emphasis will be placed on exploring traditional cultures in the United States and Europe. (F) [IV-AF] .
ANTH 1413 Great Discoveries in Archaeology
3 Credit Hours
Introduces students to the accomplishments of ancient civilizations around the world. A brief overview of archaeological methods and research and of the precursors of civilizations. Concentrates on major civilizations of the world including Mesopotamia, Europe, Egypt, subSaharan Africa, India, China, Southeast Asia, Mesoamerica, South America, and the North American Midwest. (F) [IV-WDC].
ANTH 1823 Religion in Everyday Life
3 Credit Hours
This course focuses on the variety of religious phenomena found throughout the world and the theoretical approaches anthropologists use to account for them. Using ethnographic studies of belief in practice, we will seek to understand the role that religions play in the human experience. (F, Sp) [IV-WDC].

## ANTH 1913 Plagues and People: Health and Disease in Human Society <br> 3 Credit Hours

The study of the impact of diseases such as malaria, bubonic plague, and AIDS on human society, from their effects on populations to how they have influenced the course of history. Identification of social and cultural factors, conditions that influence and impede the spread of contagious diseases, ethical issues concerning the treatment of the sick, and policies designed to halt epidemics will be examined. The contemporary threat of biological weapons and the impact on local and national public health efforts in the U.S. will be discussed. (Irreg.) [III-SS] .
ANTH 2203 Global Cultural Diversity
3 Credit Hours
A survey of global cultures, introducing students to the diversity of human organization, behavior, and worldviews, including modes of livelihood, political organization, religious practices, gender systems, kinship structures, social inequality, and the effects of globalization. $(\mathrm{F}$, Sp, Su) [IV-WDC].

## ANTH 2253 Human and Animal Interaction Across

 Cultures3 Credit Hours
Students will examine the varied ways we think, feel, and interact with animals across cultures, and moral quandaries/contradictions around animal treatment. Emphases include animals' roles; humans' ideas, attitudes, and emotions toward animals; and how these impact our behavior toward them. Our ultimate goal is to broaden notions of humananimal interaction and awaken curiosity about these frequently take-forgranted cross-species relationships. (Irreg.) [IV-WDC].

ANTH 2303 General Linguistics
3 Credit Hours
(Crosslisted with LING 2303) Humanistic and formal study of natural languages: how they are similar to and different from one another in their use of speech sounds, logical structures and mechanisms that integrate events, objects and speakers in spatio-temporal contexts. The relationship between language and culture; language acquisition and language change. ( $\mathrm{F}, \mathrm{Su}$ ) [l-O].

## ANTH 2613 Native Peoples of North America 3 Credit Hours

An introduction to the native societies and cultures north of Mexico from pre-Columbian times to the present. ( $\mathrm{Sp}, \mathrm{Su}$ ) [IV-WDC] .
ANTH 2970 Special Topics/Seminar
1-3 Credit Hours
Special Topics. 1 to 3 hours. May be repeated; Maximum credit nine hours. Special topics course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research, and field projects. (Irreg.)

## ANTH 3011 Anthropology Cornerstone I: Introduction to the Major <br> 1 Credit Hour

Prerequisite: Anthropology major or minor. Recommended for students in their first year of the major. This provides an introduction to the Anthropology Major. Topics include: Introduction to the subfields of anthropology, introduction to the department, information on enhancement and hands-on research opportunities (field schools, internships, labwork, study abroad), and ethics. Emphasis on the opportunities within the department and on guiding students to relevant resources. (Sp)

## ANTH 3021 Anthropology Cornerstone II: Research and

## Writing

1 Credit Hour
Prerequisite: Sophomore standing, enrollment in at least one ANTH upper-division elective, and the student is an Anthropology major or minor. Recommended when students start taking upper division Anthropology electives. This course provides a foundation in anthropological research and writing in order to develop student abilities as persuasive academic writers. Topics include: research literacy, crafting a written argument, citation and peer review, and critical analysis of published research. Emphasis is placed on developing students as advanced-level undergraduate researchers and persuasive writers. (Sp)
ANTH 3031 Anthropology Cornerstone III: Professionalization 1 Credit
Prerequisite: Anthropology major or minor, and Senior standing, or Department Permission. Recommended for graduating seniors, OR juniors who are applying to postgraduate school in the next year (get Departmental permission to enroll). This course provides students with information about professionalizing their anthropology degree. Topics include: long-term goal setting, cultivating professional networks and faculty references, information about graduate school and non-academic employment, and generalized professional skills such as interviewing and public speaking. (F)

ANTH 3063 Language and Culture
3 Credit Hours
Prerequisite: sophomore standing. The relationships between language and the rest of culture, with emphasis on diachronic as well as synchronic problems. Such crucial issues as the limitation of language on thought and perception and language and conceptualization are also considered. (F, Sp) [IV-WDC].
ANTH 3113 Principles of Archaeology 3 Credit Hours Prerequisite: sophomore standing or 3 credit hours in ANTH or concurrent enrollment in 3 credit hours of ANTH or permission of the instructor. To acquaint the beginning student with the discipline of archaeology as it is now practiced within the science of anthropology. No student may earn credit for both ANTH 2113 and ANTH 3113. (F, Sp) [III-SS].
ANTH 3203 Introduction to Biological Anthropology 3 Credit Hours Prerequisite: Sophomore standing or 3 credit hours in ANTH or concurrent enrollment in 3 credit hours of ANTH or permission of the instructor. Examines human biology within an evolutionary context.
Course content includes a history of evolutionary thought from before Darwin to present; basic genetics; primate biology and behavior; human evolution and the fossil record; human biological variation; and human adaptation. No student may earn credit for both ANTH 2503 and ANTH 3203. (F, Sp)
ANTH 3243 Anthropological Approaches to Health, Illness and Healing

3 Credit Hours
Prerequisite: Sophomore standing. An examination of illness, health, and healing processes in cross-cultural perspective within the framework of medical anthropology. Drawing on global examples, the course considers topics such as the body, biotechnologies, illness experience, health disparities, and the intersection of gender and health. (Irreg.) [IV-WDC].

## ANTH 3423 Anthropology of Religion

3 Credit Hours
Prerequisite: Junior standing or 3 hours of ANTH. A consideration of the nature and role of religion in small-scale societies. Emphasis will be given to the relationship of the various anthropological approaches to religion with the intellectual history of anthropology as a discipline. (Irreg.) [IVWDC].

## ANTH 3440 Mentored Research Experience

3 Credit Hours
0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)

## ANTH 3453 Contemporary Native American Issues 3 Credit Hours

 Prerequisite: English 1213/Expo 1213 or junior standing. A survey of the social, political and economic issues of modern Native American groups. The relationship between native tribal cultures and American economic and government interests will be examined. (Irreg.) [IV-WDC].
## ANTH 3613 Community Archaeology

3 Credit Hours
Prerequisite: Junior standing or permission of the instructor. Community Archaeology is an approach that partners archaeologists with members of communities impacted by their work, including but not limited to members of descendant and local communities. Students will learn to conduct "community-based participatory research" (CBPR) and will partner with a community of their choice to conduct original CBPR that benefits their partner. Service-learning credit is available. (Irreg.)

ANTH 3783 The Anthropology of Slavery and Captivity 3 Credit Hours Prerequisite: junior standing or 3 hours of ANTH. Examines slavery from the anthropological and historical perspectives and specifically seeks to expand students' understanding of the experiences of slaves in Africa, North America, and in South Asia. The origins of slavery, how slavery in Africa and the Americas existed before and after colonization by Europeans, and issues of race, power, and resistance will be explored. (F, Sp) [IV-WDC].
ANTH 3810 Internship in Linguistic Anthropology 1-6 Credit Hours Prerequisite: 1113, 2303 and six additional credit hours in Anthropology. May be repeated. Maximum credit six hours. Designed to provide training in linguistic anthropology . Internships are arranged on an individual basis with professional linguistic anthropologists or with professionals working in a setting in which cultural linguistic research can be performed. Students must meet criteria for acceptable performance and submit a final paper. (F, Sp, Su)

## ANTH 3833 Language and Power

3 Credit Hours
Prerequisite: Junior Standing. Students examine the intersection of language and power from a broadly sociolinguistic perspective. There are many false beliefs about the nature of language. This course uses the tools of linguistic science to interrogate those beliefs in order to better understand language in society, uncover the origins of popular (mis)conceptions about language variation, and nurture an appreciation for global linguistic diversity. (Irreg.) [III-SS].

## ANTH 3853 Music, Language and Culture

3 Credit Hours
Prerequisite: junior standing or permission of instructor. Explores the recent wave of literature on the common roots of language and music, covering everything from their foundations in social interaction to their biological expression and development in evolutionary terms. (Irreg.) [IVWDC].

## ANTH 3873 Primate Evolution and Behavior

3 Credit Hours
Prerequisite: ANTH 3203 or junior standing or permission of instructor. Course looks at primates, our closest living relatives, with particular emphasis on the evolution and ecology of primate behavior, and uses evolutionary theory as the underlying theoretical perspective. (Irreg.) [IINS].

## ANTH 3893 Maya, Aztec and Inca: High Civilizations of Ancient

 America3 Credit Hours
Prerequisite: junior standing or 3 hours of ANTH. An archaeological and ethnological study of the pre-Spanish cultures of Mesoamerica and the Central Andes giving primary emphasis to the Maya of Yucatan, the Aztec of Mexico and the Inca of Peru. (F, Sp) [IV-WDC] .

## ANTH 3910 Internship in Biological Anthropology 6 Credit Hours

 Prerequisite: ANTH 3203 and six additional credit hours in anthropology. May be repeated; maximum credit six hours. Designed to provide field and/or laboratory training in biological anthropology. Internships are arranged on an individual basis with professional biological anthropologists. Students must meet criteria for acceptable performance and submit a final paper. (Sp, Su)ANTH 3920 Internship in Museum Anthropology 1-6 Credit Hours Prerequisite: junior standing or 6 hours of ANTH. May be repeated; maximum credit six hours. Designed to provide hands-on training in anthropological museum work. Internships are arranged on an individual basis with professional museum anthropologists or with professionals working in a museum in which anthropology-oriented museum work is undertaken. Students must meet criteria for acceptable performance and submit a final report. (F, Sp, Su)

ANTH 3930 Fieldwork in Archaeology
1-8 Credit Hours
1 to 8 hours. Prerequisite: ANTH 3113 or sophomore standing or permission of instructor. May be repeated; maximum credit eight hours. Designed to teach the student field methods in archaeology through actual participation in a field program using a combination of lectures, lab, discussion, and/or research. The subject matter depends upon the specific summer session and varies from year to year. The course is given during the summer session and the length of the class will vary with the project. (Su)

## ANTH 3933 Archaeology Lab Practicum

3 Credit Hours
Prerequisite: ANTH 3113 or sophomore standing or permission of instructor. This course offers students hands-on experience working with real archaeological collections in a lab setting and is typically paired with a field school. Students will learn to accession, analyze, and interpret artifacts and records from an archaeological field project. (Su)
ANTH 3940 Internship in Archaeology
1-6 Credit Hours
Prerequisite: ANTH 3113. May be repeated; maximum credit six hours. Designed to provide advanced archaeological field and/or laboratory training for students who already have some archaeological field and/ or laboratory experience. Internships are arranged on an individual basis with professional archaeologists. Students must meet criteria for acceptable performance and submit a final report. (F, Sp, Su)
ANTH 3950 Internship in Cultural Anthropology 1-6 Credit Hours
Prerequisite: Six credit hours in cultural anthropology. May be repeated; maximum credit six hours. Designed to provide field training in cultural anthropology. Internships are arranged on an individual basis with professional cultural anthropologists or with professionals working in a setting in which cultural anthropology research can be performed. Students must meet criteria for acceptable performance and submit a final report. (F, Sp, Su)

ANTH 3953 Proseminar in Anthropology
3 Credit Hours
Prerequisite: junior standing or 3 hours of ANTH. May be repeated; maximum credit six hours. Topics will vary and are intended to acquaint undergraduate majors with subdisciplines through specialized study involving anthropological theory, methodology, the preparation, development and writing of reports. (F, Sp)

## ANTH 3960 Honors Reading <br> 1-3 Credit Hours

1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Honors Reading will provide students with the opportunity to develop an appropriate body of reading materials on topics not covered in detail in routine coursework. Students will be obliged to assume the primary initiative in selecting the topic, compiling the bibliography and completing the reading, and will report their progress in weekly sessions to their instructor. Credit will be given in this course only after an intensive oral examination. (F, Sp)

ANTH 3970 Honors Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. The topics addressed in this course will cover highly circumscribed areas of anthropological inquiry which are intensively investigated during the course of the semester. Originality of research and approach will be required and each student will be expected to contribute to the proceedings as a relatively mature scholar. (Irreg.)

ANTH 3980 Honors Research
1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Provides an opportunity for the gifted Honors candidate to work at a special project under the guidance of a professor in the student's major department. (F, Sp)

ANTH 3990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: permission of instructor and junior standing. May be repeated once with change of content. Independent study may be arranged to study a subject not available through regular course offerings. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

## ANTH 4023 Museum Anthropology

3 Credit Hours
Prerequisite: Junior standing or 3 hours of ANTH. This course takes a critical approach to examining the intertwined history of museums and anthropological practice. We pay special attention to the ethical and moral considerations endemic to museum work. The course also covers basic principles of collections management, acquisitions, and exhibition. The course seeks to familiarize students with professional career paths for anthropological work in museums. (Sp)

## ANTH 4053 Morphology

3 Credit Hours
(Slashlisted with ANTH 5053; Crosslisted with LING 4053) Prerequisite: 3053 and 3353. Introduces and develops theories and concepts of morphology including word formation, derivation, inflection, nonconcatenative morphs, covert categories, prosodic phenomena, morphosyntactic categories and clitics. Data from non-Western languages will be prominent. No student may earn credit for both 4053 and 5053. (Irreg.)
ANTH 4063 Language Contact, Loss, and Revitalization 3 Credit Hours Prerequisite: 2303 and junior standing. Covers the linguistic, social and cultural factors involved in contact-induced language change and language shift, and on the main trends and literature in revitalization and maintenance of endangered languages. Students gain experience in practical applications of language revitalization, focusing on languages of the Americas. No student may earn credit for both 4063 and 5063. (Irreg.)
ANTH 4073 Anthropology of Jews and Jewishness 3 Credit Hours Prerequisite: junior standing or 3 hours of ANTH. Explores major anthropological issues through the lens of ethnography conducted in Jewish communities around the world. The particular combinations of race, religion, ethnicity, identity, and gender as they are understood and expressed by Jews cross-culturally challenge our understanding of continuity and change in human societies. (Irreg.) [IV-WDC] .

## ANTH 4093 Bodies and Materialities

3 Credit Hours
(Slashlisted with ANTH 5093) Prerequisite: Junior standing or 3 hours of ANTH. This course will examine the body and material culture as a focus for an anthropological investigation into past populations. To acquaint ourselves with: a) the historical background to contemporary theories on materiality and embodiment, and b) critical evaluation of application of these theories to the archaeological record, and their potential and limitations. No student may earn credit for both 4093 and 5093. (Irreg.)
ANTH 4113 Anthropology Capstone 3 Credit Hours Prerequisite: ANTH 2203 or ANTH 2303 or ANTH 3113 or ANTH 3203, and Junior standing. Extensive research in anthropological sources relating to a special problem or topic selected by the instructor. Emphasis will be on synthesis of material presented in the course with previous material learned in Anthropology courses for the individual preparation of research papers. Content varies by section. (Irreg.) [V].

ANTH 4163 The Study of Material Culture 3 Credit Hours (Slashlisted with ANTH 5163) Prerequisite: junior standing or 3 hours of ANTH. Focuses on the study of the things people make and the broader social contexts in which objects are used, circulated, made meaningful, and consumed. Methods and theories developed in geography, folklore, cultural anthropology, archeology, and related social sciences will be examined. No student may earn credit for both 4163 and 5163. (F)

ANTH 4223 The Anthropology of Childhood
3 Credit Hours
Prerequisite: English 1213/Expository Writing 1213. Explores global and deep historical perspectives on childhood, using methods from cultural anthropology. Specific attention is paid to beliefs and practices regarding reproduction and childbirth, infancy and toddlerhood, learning and school, adolescence and sexuality, and early adulthood and parenting. Course materials will emphasize understanding the role of social and cultural context in shaping the experiences of children and families. (Irreg.)[IVWDC].
ANTH 4253 The Anthropology of Communities
3 Credit Hours
(Slashlisted with ANTH 5253) Prerequisite: junior standing or 3 hours of ANTH. Designed to introduce students to the community in applying anthropological field techniques and theory. while gaining training in method and theory in class, students will be given assignments to execute in community settings. Particular emphasis will be placed on ethnicity, gender and seniority as ethnological parameters. No student may earn credit for both 4253 and 5253. (Irreg.)

## ANTH 4283 Curriculum \& Teaching Materials Development for Endangered Languages <br> 3 Credit Hours

Prerequisite: ANTH/LING 2303 and junior standing. Provides tools to create maximally useful teaching and learning materials for under-studied languages. Focuses on teaching methods that emphasize language for actual day-to-day communication and language curricula that is culturally situated. (Irreg.)

ANTH 4303 Women and Development in Africa
3 Credit Hours (Slashlisted with ANTH 5303) Prerequisite: junior standing or 3 hours of ANTH. Examines women's involvement in economic development in Africa. Some consideration will be given to family structure and social stratification, as well as women's participation in the social, political and economic spheres. Avenues for viable social change will also be considered. No student may earn credit for both 4303 and 5303. (Irreg.) [IV-WDC] .

ANTH 4323 The Anthropology of Aging
3 Credit Hours
(Slashlisted with ANTH 5323) Prerequisite: English 1213/Expository Writing 1213. Examines the process and experience of aging as it relates to culture, and what it means to get older in a variety of cultural contexts, including the United States. Special attention will be devoted to cultural ideas about aging, the roles of older people, illness, caregiving, dying, and what it means to age well in a variety of cultures. No student may earn credit for both 4323 and 5323. (Irreg.) [IV-WDC].

## ANTH 4333 Archaeologies of Movement and Migration in North America 3 Credit Hours

Prerequisite: Junior standing or 3 hours of ANTH. This course will draw from the work of archaeologists to explore the long-term histories of human migration and movement in North America. We will investigate why movement has been so critical for our ancestors, the different types of movement, why people migrate, and consider the history of voluntary and forced migrations in our continent's history. (Irreg.) [IV-WDC].

ANTH 4423 Introduction to Population Genetics 3 Credit Hours (Slashlisted with ANTH 5423) Prerequisite: ANTH 3203 or 3 hours of BIOL. Population genetics is a classic course in biological anthropology sciences, and studies the fundamental forces that cause genetic change within and between populations. No student may earn credit for both 4423 and 5423. (Irreg.)

ANTH 4433 Ethnographic Writing
3 Credit Hours
(Slashlisted with ANTH 5433) Prerequisite: Junior standing or 3 hours of ANTH. This course is an immersion in creative ethnographic writing. It teaches students how to gather original ethnographic data and to translate their findings into an insightful, artfully written study. No student may earn credit for both 4433 and 5433. (Irreg.)

ANTH 4443 Visual Anthropology 3 Credit Hours
Prerequisite: junior standing or 3 hours of ANTH. Explores the historical and contemporary use of media to represent culture, and examines the changes in styles of ethnographic film from direct cinema and observational cinema to reflexivity, personal cinema, indigenous media, and collaboration between ethnographic filmmaker and film subject. (Irreg.) [IV-WDC]

## ANTH 4463 Peopling of the New World <br> 3 Credit Hours

(Slashlisted with 5463) Prerequisite: ANTH 1413 or ANTH 3113 or permission of instructor. Introduces the dynamic domain of the earliest human colonization of the Americas. Focuses on such key "peopling" debates as the geographic origins of First Americans; when people first arrived in the New World; and if and how ancient human skeletal remains should be studied. No student may earn credit for both 4463 and 5463. (Irreg.)

## ANTH 4513 Applying Anthropology to Contemporary Social Problems 3 Credit Hours

(Slashlisted with ANTH 5513) Prerequisite: ANTH 2203 or approval of instructor. Explores the application of anthropological knowledge and practice to contemporary societal challenges. How anthropological concepts, methods, and insights can be used to understand and solve problems. (Irreg.) No student may earn credit for both 4513 and 5513. (Irreg.)

ANTH 4593 Anthropology of Human Reproduction 3 Credit Hours Prerequisite: ANTH 3203 or junior standing. Examines the major features of human fertility and reproduction, exploring the interactions between physiology, ecology, and behavior. The course applies an anthropological perspective to such issues as cross-cultural patterns of fertility, the timing and probability of conception, age at first and last reproduction, and male reproductive physiology. (Irreg.) [II-NS]

## ANTH 4623 Approaches to Cross-Cultural Human Problems 3 Credit Hours

Prerequisite: junior standing or 3 hours of ANTH. Introduces students to the complex problems of contemporary global-scale cultures and helps them better understand their place on this global arena. This course will look at specific international issues or problems, and relate them to processes occurring in many parts of the world. (Irreg.) [IV-WDC].

ANTH 4643 Psychiatric Anthropology
3 Credit Hours
(Slashlisted with 5643) Prerequisite: junior standing or 3 hours of ANTH. Explores historical and contemporary thinking about culture and mental illness, and examines classic formulations of the relationship between anthropology and psychiatry. No student may earn credit for both 4643 and 5643. (Irreg.)

ANTH G4713 Statistical Concepts in Anthropology 3 Credit Hours Prerequisite: junior standing or 3 hours of ANTH. An introduction to anthropological statistics. Emphasis will be placed on anthropological research design and analysis of anthropological data. (Irreg.)

ANTH 4723 Gender and Health 3 Credit Hours
Prerequisite: junior standing or 3 hours of ANTH. Provides an overview of the complex scientific and cultural interface between sex, gender, and health. Topics covered include gender identity and biological sex, various life cycles issues such as birth, sexual maturity, reproduction, and postreproductive years. No student may earn credit for both 4723 and 5723 . (Irreg.)

ANTH 4733 Bioarchaeology of Death \& Burials 3 Credit Hours (Slashlisted with 5733) Prerequisite: Junior standing or 3 hours of ANTH. The dead can tell us many secrets if we know how to "listen" to their stories. We will explore the social significance of death, burial and commemoration among diverse groups around the world. Using cutting edge archaeological methods and theories, we will work to understand how death is materialized in the archaeological record. No student may earn credit for both 4733 and 5733. (F, Sp)

ANTH 4753 Body, Culture, Power: Anthropologies of Flesh

3 Credit Hours
(Slashlisted with ANTH 5753) Prerequisite: Junior standing or 3 hours of ANTH. The body has come to occupy a central place in anthropological inquiry. This course looks at the body from different theoretical perspectives, offering a survey of recent scholarship on embodiment and biopower. We explore how the body is a medium for experience, and consider regulation of the "body politic" through immigration policy, reproductive governance, fertility control, and technological advancement. No student may earn credit for both 4753 and 5753. (Irreg.)

ANTH 4783 Landscape Archaeology 3 Credit Hours
Prerequisite: junior standing or 3 hours of ANTH. Introduces the method and theory of landscape archaeology, which is the study of how humans experience, modify, and respond to their natural and social environments Archaeological and contemporary case studies will be examined using methods like environmental reconstruction, geoarchaeology, remote sensing, and GIS, to examine human-natural systems, resilience and vulnerability, sacred landscapes, monumentality, and mobility. (Irreg.) [IVWDC].

ANTH 4813 Archaeology of North America 3 Credit Hours
(Slashlisted with ANTH 5813) Prerequisite: junior standing or 3 hours of ANTH. A course in the prehistory of the American Indian. Study of the prehistory of North America north of Mexico. Consideration of the various archeological areas of the continent in terms of the prehistoric sequence of events from the earliest times up to European contact. No student may earn credit for both 4813 and 5813. (Irreg.) [IV-WDC] .

ANTH 4823 Medical Anthropology
3 Credit Hours
(Slashlisted with ANTH 5823) Prerequisite: junior standing or permission of instructor. An introduction to the field of medical anthropology, the subfield of anthropology that focuses on the interaction of culture and biology in the areas of health, medicine and disease. Medical anthropology offers a unique perspective on how people cope with disease and how medical systems are constructed. Includes theoretical and topical overviews of the field. No student may earn credit for both 4823 and 5823. (F)

ANTH G4833 Archaeology of the Great Plains 3 Credit Hours Prerequisite: junior standing or 3 hours of ANTH. A detailed survey of the archaeological remains from the Great Plains from the earliest occupation of the area until the reservation period. (Irreg.)

## ANTH 4843 Cross-Cultural Study of Sex, Gender and

## Sexuality

3 Credit Hours
(Slashlisted with ANTH 5843) Prerequisite: junior standing or 3 hours of ANTH. A consideration of ethnographic material that challenges understandings of the relationships among sex, gender, and sexuality. Topics include language, socialization, segregation and inequality, gender variance and "third gender" categories, sexual practices and identities, and transsexual and transgender phenomena. No student may earn credit for both 4843 and 5843. (Irreg.) [IV-WDC].

ANTH G4853 Archaeology of the Greater Southwest 3 Credit Hours Prerequisite: junior standing or 3 hours of ANTH. A detailed survey of the prehistoric sequence in the American Southwest and northwestern Mexico from earliest times up to the time of European contact. (Irreg.)

## ANTH 4863 Archaeology of the Southeast

3 Credit Hours
(Slashlisted with ANTH 5863) Prerequisite: junior standing or 3 hours of ANTH. A study of the prehistoric and early historic Native American culture histories. Some attention will be given to historic African and European cultures in the Southeast. Emphasis will be placed on longterm social change, pan-regional trends and colonial transformations. No student may earn credit for both 4863 and 5863. (Irreg.)
ANTH 4883 Dates, Compositions, and Ancestors: Scientific
Applications in Archaeology 3 Credit Hours
(Slashlisted with ANTH 5883) Prerequisite: Junior standing or 3 hours of ANTH. Provides an overview of physical science applications in archaeological research. Topics include: dating objects, determining where an object was made, inferring the use of artifacts, and reconstructing genetic relationships between groups. Emphasis is placed on both how these techniques work and how they can be appropriately utilized to understand prehistoric social organization. No student may earn credit for both 4883 and 5883. (Irreg.)

## ANTH 4903 Race and Ethnicity

3 Credit Hours
Prerequisite: junior standing or 3 hours of ANTH. Introduces a broad spectrum of issues, concepts and methods in the anthropology of race and ethnicity. The goal is to teach students to think, read and write critically about race and ethnicity from a cross-cultural perspective, a strategy that encourages better understanding of the various forms of structural oppression that structure everyday lives. (Irreg.) [IV-WC] .
ANTH G4943 Human Osteology and Paleopathology 3 Credit Hours Prerequisite: ANTH 3203 or permission of instructor. Allows the student to develop a basic familiarity with human skeletal remains, standard anatomical terminology, and methods and techniques of data collection. In turn, these osteological skills will provide a means to explore questions of human adaptability, variation, evolution, patterns of health and disease in prehistory, and the applicability of these findings to contemporary problems. (Irreg.)

## ANTH 4953 Special Topics in Anthropology 3 Credit Hours

Prerequisite: Junior standing or 3 hours of ANTH or permission of the instructor. May be repeated with change of content; maximum credit twelve hours. Topics will vary and are intended to acquaint the advanced anthropology major with subdisciplines through specialized study involving anthropological theory, methodology, the preparation, development and writing of reports. (Irreg.)

## ANTH 4960 Directed Readings 1-4 Credit Hours

1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean. May be repeated; maximum credit four hours. Designed for upper-division students who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)

ANTH 4970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: Senior standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

ANTH 4973 Introduction to Faunal Analysis
3 Credit Hours
(Slashlisted with ANTH 5973) Prerequisite: ANTH 3113. An introductorylevel look at animal bone analysis as performed by archaeologists and zooarchaeologists. The bones of birds, fish, reptiles, amphibians, and mammals, as well as mollusk shell, are discussed under the topics of taxonomy, taphonomy, age and sex determination, morphometrics, seasonality, and specialized techniques. No student may earn credit for both 4973 and 5973. (Irreg.)

## ANTH 4990 Independent Study

## 1-3 Credit Hours

1 to 3 hours. Prerequisite: permission of instructor and junior standing. May be repeated; maximum credit six hours. Contracted independent study for topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)

ANTH 4993 Reconstruction of Life from the Skeleton
3 Credit Hours (Slashlisted with ANTH 5993) Prerequisite: Junior standing or 3 hours of ANTH. Bioarchaeology is the study of human skeletal remains. This includes a myriad of interconnected phenomena including mortuary contexts, paleopathology, and assessing human variation and adaptation. It also encompasses scientific approaches and applications of social theory, and ethical issues. Students will develop a historical perspective on bioarchaeology. Emphases also are placed on recent discoveries, new interpretations and theoretical approaches. No student may earn credit for both 4993 and 5993. (Irreg.)
ANTH 5001 Professionalization in Anthropology
1 Credit Hour
Prerequisite: graduate standing. Prepares students for graduate school and careers in Anthropology. Topics covered include publishing, grant writing, professional conduct, expectations in graduate school, and more. (F)

ANTH 5053 Morphology
3 Credit Hours
(Slashlisted with ANTH 4053) Prerequisite: Graduate standing. Introduces and develops theories and concepts of morphology including word formation, derivation, inflection, non-concatenative morphs, covert categories, prosodic phenomena, morphosyntactic categories, and clitics. Data from non-Western languages will be prominent. No student may earn credit for both 4053 and 5053. (lrreg.)
ANTH 5063 Language Contact, Loss, and Revitalization 3 Credit Hours Prerequisite: 2303 and graduate standing. Covers the linguistic, social and cultural factors involved in contact-induced language change and language shift, and on the main trends and literature in revitalization and maintenance of endangered languages. Students gain experience in practical applications of language revitalization, focusing on languages of the Americas. No student may earn credit for both 4063 and 5063. (Irreg.)
ANTH 5083 Quantitative Methods in Anthropology 3 Credit Hours Prerequisite; graduate standing. Introduces students to the basics of quantitative analysis in the field of anthropology. Topics include parametric and non-parametric measurements of significance and association, mulitvariate techniques, and concepts useful to anthropologists such as spatial analysis and sampling. (Irreg.)

## ANTH 5093 Bodies and Materialities

(Slashlisted with 4093) Prerequisite: Graduate standing. This course will examine the body and material culture as a focus for an anthropological investigation into past populations. The course goals are to acquaint ourselves with the historical background to contemporary theories on materiality and embodiment, and critically evaluate the application of these theories to the archaeological record and their potentials and limitations. No student may earn credit for both 4093 and 5093. (Irreg.)
ANTH 5123 Contemporary Culture Theory
3 Credit Hours
Prerequisite: ANTH 5223. Introduces students to different unit and levels of sociocultural analysis. Students will be required to address a series of research problems as a means of understanding sociocultural analysis. (Sp)

ANTH 5153 Ethnography of Communication 3 Credit Hours
Prerequisite: graduate standing. This course focuses on language use in larger discourse and cultural contexts and how language is used to conduct the social life and the dynamics of culture. Topics include topic and focus, deixis, reported speech, speaking styles, strategies, and genres, and language and ethnicity. (F)

## ANTH 5163 The Study of Material Culture

3 Credit Hours
(Slashlisted with ANTH 4163) Prerequisite: graduate standing. Focuses on the study of the things people make and the broader social contexts in which objects are used, circulated, made meaningful, and consumed. Methods and theories developed in the fields of geography, folklore, cultural anthropology, archaeology, and related social sciences will be examined. No student may earn credit for both 4163 and 5163. (F)

ANTH 5183 Contemporary Native American Ethnography 3 Credit Hours Prerequisite: graduate standing. Examines the impact of changes in the relationship between anthropologists and Native communities and the possibilities for an improved collaborative relationship between anthropologists and First Nations communities in the U.S. and Canada. Through readings, class discussion, and media we examine the ways in which Native people maintain cultural identity and sovereignty in response to ever-changing social conditions of life in the 21 st century. (Irreg.)

## ANTH 5203 Hunter-Gatherers

3 Credit Hours
Prerequisite: graduate standing. Considers the social, economic, ecological, and historical variation in hunter-gatherer societies. The history and theory of hunter-gatherer studies will be explored. Ethnographic and archaeological case studies will be used to examine settlement and mobility practices, architecture, subsistence, social organization, interaction, technology, and cosmology. (Irreg.)

## ANTH 5213 Ethnographic Methods <br> 3 Credit Hours

Prerequisite: graduate standing. Survey of ethnographic methods in anthropological research, with weekly fieldwork assignments and writing exercises. First half of class devoted to current theoretical debates, including the post-modern controversy and literary issues in classic ethnography. Second half of class devoted to hands-on research, including participant-observation, interviews, field notes, databases, and linguistic elicitation. (Irreg)

## ANTH 5223 Foundations of Social Thought

3 Credit Hours
Prerequisite: Graduate standing; majors only or permission of instructor. Survey of anthropological theorists and theories of culture (evolutionary, functional, cognitive, ecological, structural, symbolic, etc.) and their impact on research methods in each of the four fields of anthropology and related disciplines. Emphasis will be given to a discussion of primary texts written by the major theorists. (F)

ANTH 5253 The Anthropology of Communities 3 Credit Hours
(Slashlisted with ANTH 4253) Prerequisite: graduate standing. Designed to introduce students to the community in applying anthropological field techniques and theory. while gaining training in method and theory in class, students will be given assignments to execute in community settings. Particular emphasis will be placed on ethnicity, gender and seniority as ethnological parameters. No student may earn credit for both 4253 and 5253. (Irreg.)

ANTH 5273 Topics in Social Anthropology 3 Credit Hours May be repeated; maximum credit twelve hours. Topics vary. (F, Sp)
ANTH 5293 Origins of Complex Society 3 Credit Hours
Prerequisite: graduate standing. Examines the origins and development of complex society and the institutionalization of social inequalities.
Complexity is examined along a changing scale of sociopolitical organization, from small "egalitarian" societies to middle-range "chiefdoms" to large archaic states, using both archaeological and ethnographic examples. (Sp)
ANTH 5303 Women and Development in Africa 3 Credit Hours
(Slashlisted with ANTH 4303) Prerequisite: graduate-level social science course. Examines women's involvement in economic development in Africa. Some consideration will be given to family structure and social stratification, as well as women's participation in the social, political and economic spheres. Avenues for viable social change will also be considered. No student may earn credit for both 4303 and 5303. (Irreg.)

## ANTH 5323 The Anthropology of Aging

3 Credit Hours
(Slashlisted with ANTH 4323) Prerequisite: ANTH 5223 and graduate standing. Examines the process and experience of aging as it relates to culture, and what it means to get older in a variety of cultural contexts, including the United States. Special attention will be devoted to cultural ideas about aging, the roles of older people, illness, caregiving, dying, and what it means to age well in a variety of cultures. No student may earn credit for both 4323 and 5323. (Irreg.)
ANTH 5363 Linguistic Anthropology
3 Credit Hours
Prerequisite: graduate standing in Anthropology or permission of instructor. Course covers the history of theory in linguistic anthropology, starting with the early work of Boas, Sapir, and Whorf, and continuing with the writings of Levi-Strauss, Hymes, Basso, Silverstein, Bakhtin, and Hill. Surveys contemporary trends in discourse analysis, sociolinguistics and cognitive linguistics. Course is a required core course for anthropology graduate students.(F, Sp)

## ANTH 5393 Anthropology and the Health of Indigenous People <br> 3 Credit Hours

Prerequisite: graduate standing. Introduces graduate students to research in medical, biological, linguistic, and sociocultural anthropology and archaeology that relates to the health and well-being of global indigenous populations, with an emphasis on the native peoples of the Americas. (F)

ANTH 5413 Public Archaeology
3 Credit Hours
Prerequisite: graduate standing, permission of instructor. Focus is on the articulation of graduate academic training in archaeology with current federal rules and regulations, and educational outreach concerning archaeological research and goals. Emphasis is on advanced training in the preservation and management of archaeological resources. (Irreg.)

ANTH 5423 Introduction to Population Genetics 3 Credit Hours
(Slashlisted with ANTH 4423) Prerequisite: graduate standing. Population genetics is a classic course in biological anthropology sciences, and studies the fundamental forces that cause genetic change within and between populations. No student may earn credit for both 4423 and 5423. (Irreg.)

ANTH 5433 Ethnographic Writing 3 Credit Hours
(Slashlisted with ANTH 4433) Prerequisite: Graduate standing. This course is an immersion in creative ethnographic writing. It teaches students how to gather original ethnographic data and to translate their findings into an insightful, artfully written study. No student may earn credit for both 4433 and 5433. (Irreg.)

## ANTH 5463 Peopling of the New World <br> 3 Credit Hours

(Slashlisted with ANTH 4463) Prerequisite: graduate standing. Introduces the dynamic domain of the earliest human colonization of the Americas. Focuses on such key "peopling" debates as the geographic origins of First Americans; when people first arrived in the New World; and if and how ancient human skeletal remains should be studied. No student may earn credit for both 4463 and 5463. (Irreg.)

## ANTH 5513 Applying Anthropology to Contemporary Social Problems 3 Credit Hours

(Slashlisted with ANTH 4513) Prerequisite: Graduate standing in Anthropology or instructor approval. Explores the application of anthropological knowledge and practice to contemporary societal challenges. How anthropological concepts, methods, and insights can be used to understand and solve problems. (Irreg.) No student may earn credit for both 4513 and 5513. (Irreg.)
ANTH 5543 Research Design 3 Credit Hours
Prerequisite: graduate standing and 5223. Studies ethnographic research methods and design. An overview of current practices and theoretical disputes, followed by group discussion of individual class members' unique research design problem. (Irreg.)

## ANTH 5593 Spatial Methods and Technologies in Anthropology 3 Credit <br> Hours

Prerequisite: graduate standing. Introduces the theory and techniques of GIS, remote sensing, mapping, and GPS as it relates to anthropological fieldwork. The emphasis will be on topics related to and management of spatial data that is aimed specifically at the archaeologist or cultural anthropologist expecting to use GIS in the course of their research or applied work. (Irreg.)
ANTH 5643 Psychiatric Anthropology 3 Credit Hours
(Slashlisted with ANTH 4643) Prerequisite: ANTH 5223 and graduate standing. Explores historical and contemporary thinking about culture and mental illness, and examines classic formulations of the relationship between anthropology and psychiatry. No student may earn credit for both 4643 and 5643.(Irreg.)
ANTH 5733 Bioarchaeology of Death \& Burials 3 Credit Hours
(Slashlisted with 4733) Prerequisite: Graduate standing. The dead can tell us many secrets if we know how to "listen" to their stories. We will explore the social significance of death, burial, and commemoration among diverse groups around the world. Using cutting edge archaeological methods and theories, we will work to understand how death is materialized in the archaeological record. No student may earn credit for both 4733 and 5733. (F, Sp)

ANTH 5753 Body, Culture, Power: Anthropologies of Flesh

## 3 Credit Hours

(Slashlisted with ANTH 4753) Prerequisite: Graduate standing. The body has come to occupy a central place in anthropological inquiry. This course looks at the body from different theoretical perspectives, offering a survey of recent scholarship on embodiment and biopower. We explore how the body is a medium for experience and consider regulation of the "body politic" through immigration policy, reproductive governance, fertility control, and technological advancement. No student may earn credit for both 4753 and 5753. (Irreg.)

ANTH 5783 Ceramics in Archaeology 3 Credit Hours
Prerequisite: graduate standing. The theoretical frameworks surrounding the analysis of ceramics in archaeology are discussed. Topics considered may include analytic methods, origins, mobility and sedentism, function, production, gender, specialization, distribution, style, ethnicity, household size, ideology, and social identity. (Irreg.)

ANTH 5803 Theories of Identity
3 Credit Hours
Prerequisite: 5223 and graduate standing. Considers the relationship between ethnicity and other social categories on processes such as race, peoplehood, culture, tradition, heritage, nationality, religion, gender, and class. (Sp)
ANTH 5813 Archaeology of North America
3 Credit Hours
(Slashlisted with ANTH 4813) Prerequisite: graduate standing. A course in the prehistory of the American Indian. Study of the prehistory of North America north of Mexico. Consideration of the various archeological areas of the continent in terms of the prehistoric sequence of events from the earliest times up to European contact. No student may earn credit for both 4813 and 5813. (Irreg.)
ANTH 5823 Medical Anthropology
3 Credit Hours
(Slashlisted with ANTH 4823) Prerequisite: graduate standing and permission of instructor. An introduction to the field of medical anthropology, the subfield of anthropology that focuses on the interaction of culture and biology in the areas of health, medicine and disease. Medical anthropology offers a unique perspective on how people cope with disease and how medical systems are constructed. Includes theoretical and topical overviews of the field. No student may earn credit for both 4823 and 5823.(F)

## ANTH 5843 Cross-Cultural Study of Sex, Gender and <br> 3 Credit Hours

(Slashlisted with ANTH 4843) Prerequisite: graduate standing. A consideration of ethnographic material that challenges understandings of the relationships among sex, gender, and sexuality. Topics include language, socialization, segregation and inequality, gender variance and "third gender" categories, sexual practices and identities, and transsexual and transgender phenomena. No student may earn credit for both 4843 and 5843. (Irreg.)
ANTH 5863 Archaeology of the Southeast 3 Credit Hours (Slashlisted with ANTH 4863) Prerequisite: graduate standing. A study of the pre-contact and early post-contact Native American culture histories. Some attention will be given to historic African and European cultures in the Southeast. Emphasis will be placed on long-term social change, panregional trends and colonial transformations. No student may earn credit for both 4863 and 5863. (Sp)

## ANTH 5883 Dates, Compositions, and Ancestors: Scientific <br> Applications in Archaeology <br> 3 Credit Hours

(Slashlisted with ANTH 4883) Prerequisite: graduate standing. Provides an overview of physical science applications in archaeological research. Topics include: dating objects, determining where an object was made, inferring the use of artifacts, and reconstructing genetic relationships between groups. Emphasis is placed on both how these techniques work and how they can be appropriately utilized to understand prehistoric social organization. No student may earn credit for both 4883 and 5883. (Irreg.)

ANTH 5893 Topics in Archaeology
3 Credit Hours
May be repeated; maximum credit 12 hours. Topics will vary. Laboratory (F, Sp)

ANTH 5913 Topics in Biological Anthropology 3 Credit Hours
Prerequisite: graduate standing. May be repeated with change of topic; maximum credit 12 hours. An opportunity for a seminar of interest in biological anthropology. (F, Sp)

ANTH 5923 Lithic Technology and Analysis 3 Credit Hours Prerequisite: graduate standing in Anthropology or permission of instructor. Instructs students in flint knapping, raw material properties, chipped stone analysis, and the application of analytical approaches to archaeological research problems. (Irreg.)

## ANTH 5960 Directed Readings

1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing and permission of department. May be repeated; maximum credit twelve hours. Directed readings and/or literature reviews under the direction of a faculty member. (F, Sp, Su)

## ANTH 5963 Writing for Anthropologists 3 Credit Hours

Prerequisite: graduate standing in Anthropology. Teaches students to be better and more efficient anthropological writers. Topics range from pragmatic approaches to increasing productivity; to understanding the peer-reviewed process; to the nuts and bolts of writing an effective research paper, literature review, and grant proposal. (Irreg.)

ANTH 5970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing or permission of instructor May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

ANTH 5973 Introduction to Faunal Analysis 3 Credit Hours
(Slashlisted with ANTH 4973) Prerequisite: graduate standing. An introductory-level at animal bone analysis as performed by archaeologists and zoo archaeologists. The bones of birds, fish, reptiles, amphibians, and mammals, as well as mollusk shell are discussed under the topics of taxonomy, age and sex determination, morphometrics, seasonality, and specialized techniques. No student may earn credit for both 4973 and 5973. (Irreg.)

ANTH 5980 Research for Master's Thesis 2-9 Credit Hours
Variable enrollment, two to nine hours; maximum credit applicable toward degree, four hours. Laboratory (F, Sp, Su)

ANTH 5990 Special Anthropological Problems 1-3 Credit Hours
1 to 3 hours. May be repeated; maximum credit 12 hours. Permits the student to investigate a specific problem in terms of currently available data. It may be within any field of anthropology recommended by the instructor or adviser. (F, Sp, Su)

ANTH 5993 Reconstruction of Life from the Skeleton 3 Credit Hours (Slashlisted with ANTH 4993) Prerequisite: Graduate standing. Bioarchaeology is the study of human skeletal remains. This includes a myriad of interconnected phenomena including mortuary contexts, paleopathology, and assessing human variation and adaptation. It also encompasses scientific approaches, applications of social theory, and ethical issues. Students will develop a historical perspective on bioarchaeology. Emphases also are placed on recent discoveries, new interpretations and theoretical approaches. No student may earn credit for both 4993 and 5993. (Irreg.)

ANTH 6203 Political Economy
3 Credit Hours
Prerequisite: graduate standing. Examines the political-economic perspective in anthropology and explores its approach to the construction of knowledge, culture, the nature of social systems, social history, archaeology, ethnography (the remote and recent past), ethnicity, class, and gender. (F)

ANTH 6223 Community Engaged Anthropology 3 Credit Hours
Prerequisite: Graduate standing. This course examines communityengaged research from historical, methodological, and practical perspectives, and examines the many roles a community-engaged researcher assumes, the responsibilities of researchers to members of the communities in which they work, as well as the nature and limits of those responsibilities. Emphasis is placed on developing partnerships that blur the line between "research" and "researched." (Irreg.)

ANTH 6310 Internship in Applied Medical Anthropology 1-6 Credit Hours
1 to 6 hours. Prerequisite: Graduate standing in Anthropology or instructor approval. The internship in Applied Medical Anthropology provides an opportunity for students to apply anthropological theory and method to real-world health problems. Students work collaboratively with an organization/community on an agreed upon issue related to human health, contributing to its efforts, while learning how to put anthropological skills into practice. (F, Sp, Su)

## ANTH 6590 Fieldwork in American Indian Languages 3-6 Credit Hours

 3 to 6 hours. Prerequisite: Graduate standing. Advanced field experience in the recording and analysis of Native American languages, including a discussion of problems in selecting and effectively utilizing informants. (Irreg.)
## ANTH 6633 Method and Theory in Biological Anthropology 3 Credit Hours

Prerequisite: graduate standing in Anthropology or permission of instructor. The core course in biological anthropology. Historical development of biological (physical) anthropology; the development and application of method and theory in the major subfields of biological anthropology. (Sp)

ANTH 6650 Advanced Fieldwork in Anthropology 3-8 Credit Hours 3 to 8 hours. Prerequisite: permission of chairperson and dean of the Graduate College. Students interested in this summer program should request a Special Announcement from the Department of Anthropology. Laboratory (Su)

ANTH 6713 Archaeological Theory
3 Credit Hours
Prerequisite: graduate standing in Anthropology or permission of instructor. This course explores archaeological theory, its evolution and context. As an anthropological core class, it stresses the articulation of archaeological theory within its wider parent discipline, anthropology. (F)

ANTH 6750 Research in Archaeology
1-4 Credit Hours
1 to 4 hours. Permits the student to undertake independent research. Such research is normally limited to original or unpublished work. (Problems to be solved by library research are properly within the scope of 5990.) Laboratory (F, Sp)
ANTH 6803 Advanced Archaeological Theory 3 Credit Hours Prerequisite; 6713. An advanced course in archaeological theory focusing especially on those theories prominent in the last decade. The course concentrates on theoretical frameworks that might form the students' dissertation research. (Irreg,)
ANTH 6810 Research in Ethnology
1-4 Credit Hours
1 to 4 hours. Permits the student to undertake independent fieldwork to study some problems in ethnology. (F, Sp, Su)

## ANTH 6843 Foundations of Biological and Medical Anthropology

3 Credit Hours
Prerequisite: graduate standing in Anthropology. Introduces students to the theoretical foundations of biological and medical anthropology. (F)
ANTH 6960 Directed Readings
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit six hours. Directed readings and/or literature review under the direction of a faculty member. (Irreg.)

ANTH 6970 Special Topics/Seminar 1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit 12 hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or research and field projects. (Irreg.)
ANTH 6980 Research for Doctoral Dissertation 2-16 Credit Hours 2 to 16 hours. Prerequisite: Graduate standing; may be repeated. Directed research culminating in the completion of the doctoral dissertation. (F, $\mathrm{Sp}, \mathrm{Su}$ )

ANTH 6990 Independent Study 1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)

## ARAB-Arabic

ARAB 1115 Beginning Arabic
5 Credit Hours
Aims at developing mastery of Arabic phonology and script, control of basic vocabulary, grammar, basic communicative situations, and cultural concepts explicitly expressed in the language. Listening and speaking are emphasized from the very beginning. This course does not count for major credit in the Department of Modern Languages, Literatures and Linguistics. (F) [I-FL].
ARAB 1225 Beginning Arabic Continued 5 Credit Hours Prerequisite: 1115. Focuses on all language skills (listening, speaking, reading, and writing), including developing the ability to interact successfully in basic communicative situations. Short texts and topics of general import as well as cultural concepts embedded in the language will be covered. This course does not count for major credit in the Department of Modern Languages, Literatures and Linguistics. (Sp) [l$\mathrm{FL}]$.

ARAB 2013 Colloquial Arabic
3 Credit Hours
Prerequisite: ARAB 1225. May be repeated once with a change of topic (dialect); maximum credit 6 hours. Develops communicative functional abilities, in particular speaking and listening, in one of the regional spoken dialects of the Arab world. The direct connection between the colloquial dialect taught and Modern Standard Arabic will be explored. Relevant aspects of local culture will be covered, as well as the cultural appropriateness of communicative functions introduced. (F, Sp)
ARAB 2113 Intermediate Arabic
3 Credit Hours
Prerequisite: ARAB 1225. Aims at developing language skills (listening, speaking, reading and writing) at the intermediate level, with more emphasis on reading and writing. Expands into more complex structures, wider communicative situations and vocabulary relating to practical, social, cultural and media topics. (F)
ARAB 2223 Intermediate Arabic Continued 3 Credit Hours Prerequisite: ARAB 2113; ARAB 2013 or concurrent enrollment. Continues developing language skills (listening, speaking, reading and writing) at the intermediate level, with more emphasis on reading and writing. Continues to expand into more complex structures, wider communicative situations and vocabulary relating to practical, social, cultural and media topics. (Sp)
ARAB 2970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: May be repeated; Maximum credit nine hours.
Special topics course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research, and field projects. (Irreg.)

## ARAB 3113 Advanced Arabic

3 Credit Hours
Prerequisite: 2223. Students are expected to read, listen to, and understand the content and intent of a variety of authentic texts; write at the paragraph level; and participate in formal and informal discussion on social and professional topics. (F)
ARAB 3223 Advanced Arabic (Continued) 3 Credit Hours
Prerequisite: 3113 . Students are expected to read, listen to, and understand the content and intent of a variety of authentic texts; write at the paragraph level; and participate in formal and informal discussion on social and professional topics. (Sp)

ARAB 3423 Advanced Arabic Composition
3 Credit Hours
Prerequisite: ARAB 2223. Instruction in proper writing habits at an advanced level, toward the achievement of idiomatic formal Arabic. Focuses on writing in Arabic for personal, professional and academic needs. Develops the ability to narrate and describe in the different Arabic tenses (past, present and future), narrate and describe with a sufficient control of aspect (indicating whether an action is completed), write summaries of familiar topics, combine sentences into texts of paragraph length, and use cohesive devices properly. (F)
ARAB 3440 Mentored Research Experience
3 Credit Hours
0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)
ARAB 3960 Honors Reading
1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Consists of topics designated by the instructor in keeping with the student's major program. Covers topics not usually presented in the regular courses.

ARAB 3970 Honors Seminar
-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Subjects covered vary. Deals with concepts not usually treated in regular courses.

## ARAB 3980 Honors Research

1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Provides an opportunity for the gifted Honors candidate to work at a special project in the student's field. (F, Sp, Su)

ARAB 3990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: one course in general area to be studied permission of instructor and department. May be repeated; maximum credit six hours. Contracted independent study for topic not currently offered in regularly scheduled courses. (F, Sp)

## ARAB 4413 Arabic Structure 3 Credit Hours

Prerequisite: 3223. Detailed explanations of the structure of the Arabic language at both the theoretical and pedagogical levels. The different phonological, morphological, and syntactic rules are presented and discussed holistically, combining both form and function, to achieve adequate knowledge of Arabic structure. The course is conducted mostly in Arabic. (F)

## ARAB 4433 Arabic Media and Politics 3 Credit Hours

Prerequisite: 3223. Exposes students to various types of mass media covering contemporary political, economic, historical, and social issues in the Arab world. Sociolinguistic features of news reports are examined to understand the content, political underpinnings, and the framing or packaging techniques used in media discourse. The course is conducted entirely in Arabic. (F)

ARAB 4443 Readings in Islamic Religious Texts 3 Credit Hours Prerequisite: 3223. Representative texts in Arabic from the Qur'an, Qur'anic Exegesis, Prophetic Hadith, Prophet Muhammad's biographies, and legal, mystical, and theological treatises. The objectives are to understand major Islamic doctrines, and themes, and to develop working knowledge of genre specific vocabulary and style. Class is conducted in Arabic. (Sp)

ARAB 4960 Directed Readings 1-4 Credit Hours
1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean. May be repeated; maximum credit four hours. Designed for upper-division students who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)

ARAB 4970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: Senior standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

ARAB 4990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: four courses in general area to be studied permission of instructor and department. May be repeated; maximum credit six hours. Contracted independent study for topic not currently offered in regularly scheduled courses. (F, Sp)

ARAB 4993 Readings in Contemporary Arab Culture 3 Credit Hours Prerequisite: ARAB 4413 and ARAB 4433. Deeper understanding of major cultural issues by examining critical texts of intellectual figures throughout the contemporary Arab world. Prepares students to write their final project in Arabic, and provides opportunities for developing their language skills further for adequate mastery of the language. Course is conducted entirely in Arabic. (Sp) [V] .

## ARCH-Architecture

## ARCH 1155 Design I- Design Fundamentals <br> 5 Credit Hours

Prerequisite: Co-requisites: ARCH 1163 or permission of director. Development of foundational design and representational skills, and graphic conventions including sketching and digital methods. The course introduces processes of Creating-Making through methods engaged in critical thinking and experiential knowing. Methods of composition are introduced and explored: design elements and principles, proportion and scale, ordering systems, and organizational strategies. Introduction to issues of craft and material engagement. (F)

ARCH 1163 Methods I - Materiality of Place
3 Credit Hours
Prerequisite: Co-requisites: ARCH 1155 or permission of director. Introduction to principles of representation in freehand, handconstructed, and computer-generated form through a variety of media, formats, and techniques, including projective geometry, orthographic and axonometric drawings, perspectives, sketches, and more. A wide breadth of architectural vocabulary will be explored and related to the design studio activities. (F)

ARCH 1255 Design II - Craft and Making 5 Credit Hours Prerequisite: ARCH 1163 and ARCH 1155, Corequisite: ARCH 1263; or permission of director. A continuation in the development of fundamental design skills through introductions to the material, formal, and spatial properties of architecture. Fabrication safety, craft, and techniques will be introduced and developed through the making of full-scale constructions. Continued ideas involving Creating-Making are explored through exercises in the formal, spatial, and material qualities of human environments. (Sp)

ARCH 1263 Methods II - Pattern of Architecture 3 Credit Hours Prerequisite: ARCH 1163 and ARCH 1155, Corequisite: ARCH 1255; or permission of director. An introduction to organizational strategies across a range of architectural scales. Ordering principles are investigated from micro through macro, from the materiality and tectonics of details, to urban patterns. Architectural assemblies and building technology will introduce structural systems and material characteristics. Massing and typology studies will introduce relationships of building to site and environment. (Sp)

## ARCH 1713 Architectural Journeys in Europe and the

 Americas3 Credit Hours
Introduction to the built environment using residence, public buildings, and communities as vehicles. Overview of architectural history is interwoven with an introduction to architectural form, space, order, and the elements of architecture. Stories of European and American cities serve as a vehicle to explore both architectural styles and to apply ways of thinking about space and how humans live together. (Sp) [IV-AF].

ARCH 1723 Architectural Explorations in Asia, Africa, and
Australia
3 Credit Hours
Introduction to the built environment using residence, public buildings, and communities as vehicles. Overview of architectural history is interwoven with an introduction to architectural form, space, order, and the elements of architecture. Stories of East Asian, South Asian, and Southeast Asian cities serve as a vehicle to explore architectural styles, space, and how humans live together. (F) [IV-WDC].

ARCH 2243 History of the Built Environment I 3 Credit Hours
Prerequisite: majors only or permission of director. Co-requisite:
ARCH 2363, ARCH 2356; for Interior Design majors: completion of A HI 2213 and A HI 2223. A theoretical investigation of the cultural, political, and aesthetic values of diverse Western and non-Western cultures and how these affect the built environment from pre-history through the Renaissance. This course continues the development of critical writing skills and further develops analytic skills that act to inform design decisions related to studio projects. (F) [IV-WC].
ARCH 2343 History of the Built Environment II 3 Credit Hours Prerequisites: ARCH 2363, ARCH 2356, ARCH 2243. Co-requisites: ARCH 2463, ARCH 2456, ARCH 4193; or permission of director. An investigation of the cultural, political, and aesthetic values of diverse Western and non-Western cultures and how these have affected the built environment from the Renaissance through the 19th century. This course continues the development of critical writing skills and further develops analytic skills that act to inform design decisions related to studio projects. (Sp) [IV-WC].
ARCH 2356 Design III - Crafting Place 6 Credit Hours
Prerequisites: ARCH 1263, ARCH 1255 with a grade of C or better. Corequisites: ARCH 2363, ARCH 2243; or permission of director. Development of formal and spatial architectural components that demonstrate engagement with design principles, precedent analysis, human factors, and environmental and cultural influences on design. Expression of ideas through the application of virtual techniques of representation and visual communication are required. (F)
ARCH 2363 Materials and Form 3 Credit Hours
(Crosslisted with CNS 2363) Prerequisite: Majors only. An introduction to the nature of building materials with regard to form, strength, durability, workability, structure, connections, surfaces, and edges. Analysis of architectural expression through the use of building materials including the effects of: light, air movement, humidity, and their relationships to both one another and formal and spatial expressions. (F)
ARCH 2456 Design IV - Materials and Making 6 Credit Hours Prerequisite: ARCH 2363, ARCH 2356, ARCH 2243 with a grade of C or better. Corequisites: ARCH 2463, ARCH 2343, and ARCH 4193; Majors only; or permission of director. Introduces projects of moderate complexities demonstrating intermediate design principles within the context of the urban environment demonstrating an understanding of material. Students begin to engage the effects of site and environmental conditions upon material, formal, and spatial design decisions. (Sp)

## ARCH 2463 Methods IV- Sustainable and Resilient Systems

I
3 Credit Hours
Prerequisite: ARCH 2363, ARCH 2356, and ARCH 2243 with a grade of $C$ or better. Co-requisites: ARCH 2456, ARCH 2343, ARCH 4193; or permission of director. Introduction to psychrometrics, heat transmission, mechanical heating and cooling, natural ventilation, passive solar conditioning, plumbing, and fire protection in buildings. (Sp)

ARCH 2970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: May be repeated; Maximum credit nine hours. Special topics course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research, and field projects. (Irreg.)
ARCH 3013 Architecture for Non-Majors 3 Credit Hours
Prerequisite: junior standing. An introduction of basic principles of architecture for the non-architect. Understanding of the qualities and characteristics of a well-designed architectural environment. Not open to architecture majors. (F, Sp) [IV-AF].

ARCH 3440 Mentored Research Experience
3 Credit Hours
0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)
ARCH 3556 Design V - Architectural Making I
6 Credit Hours
Prerequisite: ARCH 2463, ARCH 2456, ARCH 2343, and ARCH 4193 with a grade of C or better. Co-requisites: ARCH 4563, ARCH 4233, ARCH 4453; or permission of director. Introduces principles and techniques of site design within a building context of place, order, form, and structure. It also introduces climatic data analysis software as a means for teaching evidence based design and sustainable design principles. Studio-based lectures and assignments will challenge students to analyze, adapt to, and transform the site within a building design context. (F)
ARCH 3656 Design VI - Architectural Making II 6 Credit Hours Prerequisites: ARCH 4563, ARCH 3556, ARCH 4233, ARCH 4453 with a grade of C or better. Co-requisites: ARCH 4663 , ARCH 4543; or permission of director. Students develop the ability to design in the context of existing urban environments. Students are challenged to take into account the layered histories of cities as well as the complexities of dealing with site and street design for urban contexts. Course features guest lectures from experts on urban design and planning; and special topics pertaining to individual studio programs. (Sp)
ARCH 3960 Honors Reading 1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Consists of topics designated by the instructor in keeping with the student's major program. The topics will cover materials not usually presented in the regular courses. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

## ARCH 3970 Honors Seminar <br> 1-3 Credit Hours

1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. The projects covered will vary. The content will deal with concepts not usually presented in regular coursework.
ARCH 3980 Honors Research 1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. Provides an opportunity for the gifted Honors candidate to work at a special project in the student's field. (F, Sp)
ARCH 3990 Independent Study 1-3 Credit Hours
1 to 3 hours. Prerequisite: permission of instructor and junior standing. May be repeated once with change of content. Independent study may be arranged to study a subject not available through regular course offerings. (F, Sp, Su)

## ARCH 4000 Foreign Study

0 Credit Hours
Prerequisite: permission of instructor. The student will experience an alternative culture or setting that enhances awareness and sensitivity. While this course normally involves foreign studies, it may include design/build, community service, volunteer activities, or other experiences relevant to Creating-Making. The duration of this experience shall be no less than eight weeks, and must be approved by a faculty coordinator. (F, Sp, Su)

ARCH 4053 Methods X- Tool of Practice 3 Credit Hours
(Slashlisted with ARCH 5053) Prerequisites: ARCH 4923, ARCH 4956 with a grade of $C$ or better. Co-requisites: ARCH 4056 or permission of director. Explores issues in contemporary architectural practice including the role of the client, contracts, practice and project management, leadership skills, legal responsibilities, and ethics. Emphasis is placed upon issues of cultural and environmental sustainability, political activism, and the changing role of the architecture profession. The course contains program specific research and support related to studio projects. No student may earn credit for both 4053 and 5053. (Sp)

ARCH 4056 Design X- Options Studio II 6 Credit Hours Prerequisite: ARCH 4723 , ARCH 4756, and ARCH 4333 with a grade of $C$ or better. This course examines analytical and methodological aspects of the design process through individual architectural projects. Students develop design proposals through means of intensive modeling and representation, both in analog and digital media. Fundamental issues of form, order, site, program along with schematic structure and constructability concepts are developed as part of the final project. (Sp)

ARCH 4160 Internship 0 Credit Hours
(Slashlisted with ARCH 5160) Prerequisite: ARCH 4723, ARCH 4756; or permission of director. This internship requirement corresponds with the National Council of Architectural Registration Boards Internship Development Program (IDP) and provides students with experience in an architecture office or in a related field. Students must follow the Division's Internship Program Guidelines in order to verify the appropriate experience is gained and documented. No student may earn credit for both 4160 and 5160. (F, Sp, Su)

ARCH 4161 Co-Op: Cooperative Education Experience 1 Credit Hour (Slashlisted with ARCH 5161) Prerequisite: ARCH 4723 and ARCH 4756; or permission of director. The purpose of the Cooperative Education Program is to provide students with an actual office practice experience prior to graduation. The student is ideally exposed to a broad range of areas, such as construction documents, marketing, office practice, business management, client reviews, construction administration and a host of other daily activities that may be possible while working in Host Firms. No student may earn credit for both 4161 and 5161. (F, Sp, Su)
ARCH 4183 Survey of Middle Eastern Architecture 3 Credit Hours (Slashlisted with ARCH 5183) Prerequisite: Junior standing or permission of instructor. Survey of Middle Eastern architecture and the impact architects and architecture from this time and region had upon the advancement of environmental/urban design throughout the rest of history. No student may earn credit for both 4183 and 5183. (Irreg.) [IVWDC].
ARCH 4193 Architectural Structures I
3 Credit Hours
(Slashlisted with ARCH 5193; Crosslisted with CNS 4193) Prerequisite: Architecture major and completion of MATH 1523 and PHYS 1114; or Construction Science major and completion of PHYS 2414 and MATH 1523; or permission of division director. An introduction to basic physics, forces within structural systems, material strength, and associated structural engineering principles. Develops both intuitive and empirical knowledge of forces within structural systems that serve as a foundation for future courses within the Structures sequence. No student may earn credit for both 4193 and 5193. (Sp)

ARCH 4233 Architectural Structures II
3 Credit Hours
(Slashlisted with ARCH 5233; Crosslisted with CNS 4233) Prerequisite: ARCH 4193 or CNS 4193; majors only. Focus is on wood, concrete, and steel as structural materials. Material properties, common manufactured systems, common material sections, and common connection types will be explored with students demonstrating the ability to develop technical details related to various structural systems. No student may earn credit for both 4233 and 5233. (F)
ARCH 4283 Persian Architecture
3 Credit Hours
(Slashlisted with ARCH 5283) Prerequisite: junior standing. The goal of the course is to guide students into an understanding of the important contributions that Persian Architecture has made to the built environment. This course provides a comprehensive history of ancient Iranian architecture and urbanism, from the first societies to the present. No student may earn credit for both 4283 and 5283. (Sp)
ARCH 4333 Advanced Structures
3 Credit Hours
(Slashlisted with ARCH 5333) Prerequisite: ARCH 4193 and ARCH 4233; or permission of director. Introduces design of structural members using reinforced concrete. It covers the structural concrete, loads, analyses of tension and compression members, bending design for beams, axial load design for columns, structural systems, and design of reinforced concrete buildings. Concrete structures as taught for architects emphasizes principles of design rather than formulaic calculations. It emphasizes learning through project based collaborations. No student may earn credit for both 4333 and 5333. (F)

ARCH 4353 LEED Seminar
3 Credit Hours
Prerequisite: senior standing. Gives a comprehensive understanding of leadership in energy and environmental design (LEED) and the certification process. Students acquire first-hand experience in the process of "greening up" a campus. Prepares students with the knowledge necessary to sit for and pass the LEED certification exam. (F, Sp)
ARCH 4433 Rendering
3 Credit Hours
Prerequisite: senior standing. Helps students develop a more advanced understanding of graphic presentation principles and the use of pen and pencil, marker, and water color in developing presentation floor plans, sections, elevations and 3-D renderings. (Sp) [IV-AF].

ARCH 4453 Modern and Contemporary Architecture 3 Credit Hours (Slashlisted with ARCH 5453) Prerequisite: Junior level standing; or permission of director. The course focus is on the relationship between architectural theories and projects during culture and the modern era. It considers how particular historical contexts shaped theories of design as well as how architects responded to the change. The course examines the relationship between the constructed environment and notions of modernity, developments in technology, building traditions, and politics. No student may earn credit for both 4453 and 5453. (F)
ARCH 4493 Architecture of Democracy 3 Credit Hours (Slashlisted with ARCH 5493; Crosslisted with P SC 4493) Prerequisite: P SC 1113 or permission of instructor. This course explores how space, place and values come together in public spaces, by reviewing the evolution of architecture as it relates to human governance; introducing methods for assessing and designing physical space as an expression of human values; examines the social meaning and behavioral impact of spaces; studies the expression of democratic values in public spaces. No student may earn credit for both 4493 and 5493. (Irreg.)

ARCH 4513 Creativity Through Sketching 3 Credit Hours (Slashlisted with ARCH 5513) Prerequisite: ENGL 1213 or EXPO 1213. This course teaches students how to express themselves creatively through sketching. Students receive instruction and assignments tailored to help them learn basic sketching techniques with the aim of developing their own expressive means of communicating through sketching. No student may earn credit for both 4513 and 5513. (F) [IV-AF].
ARCH 4543 Architectural Theory and Criticism 3 Credit Hours (Slashlisted with ARCH 5543) Prerequisite: Junior level standing; or permission of director. The development of research and academic writing in an urban and architectural context. Development of critical and analytical writing skills through the use of original research and/ or analysis term papers. Topics may range from periods, politics, technology, economics, religion, gender, and culture. Open to nonarchitecture majors to encourage interdisciplinary research/writing. No student may earn credit for both 4543 and 5543. (Sp)

## ARCH 4563 Methods V- Sustainable and Resilient Systems

II
3 Credit Hours
Prerequisite: ARCH 2463, ARCH 2456, ARCH 2343, ARCH 4193 with a grade of C or better. Co-requisite: ARCH 3556, ARCH 4453, ARCH 4233; or permission of director. Introduction to plumbing, lighting, acoustics, and other auxiliary systems that impact the Creating-Making of the built environment. These systems are discussed in relation to issues of sustainability and human comfort. Codes and standards that effect building design will be introduced and discussed. (F)
ARCH 4663 Methods VI- Urban Design Methodologies 3 Credit Hours (Slashlisted with ARCH 5663). Prerequisites: ARCH 4563, ARCH 3556, ARCH 4233, ARCH 4453 with a grade of $C$ or better. Co-requisites: ARCH 3656, ARCH 4543 or permission of program director. Provides an introduction to urban design, an overview of its history, and a cross section of contemporary strategies to effect desired urban design conditions. The course content may support design work developed in studios of the architecture curriculum. Students may not earn credit for both 4663 and 5663. (Sp)
ARCH 4713 Real Estate Fundamentals
3 Credit Hours
(Slashlisted with ARCH 5713) Prerequisite: Junior Standing. This course is the first part of a two-course series providing an introductory survey of real estate development in terms of terminology, data, and the players, parties, and processes involved from both theoretical and practical perspectives. This course, Real Estate I, is intended to provide students with a fundamental understanding of real property's role in the creation of cities. No student may earn credit for both 4713 and 5713. (F)

## ARCH 4723 Methods VII - Advanced Systems 3 Credit Hours

 (Slashlisted with ARCH 5723) Prerequisites: ARCH 4543, ARCH 4663, ARCH 3656 with a grade of C or better. Co-requisites: ARCH 4756; or permission of director. Introduction to advanced issues of structure, building systems, sustainability, and integrated building management systems. Course material will develop advanced understanding of the theories and practices of these complex systems and their effects on the built environment. No student may earn credit for both 4723 and 5723. (F)ARCH 4743 Legal Framework for Design
3 Credit Hours
(Slashlisted with ARCH 5743) Prerequisite: Junior standing or permission of instructor. The course covers the study of legal principles relevant to real estate and real-estate projects, and the business entities through which to conduct that business. No student may earn credit for both 4743 and 5743. (F)

ARCH 4756 Design VII - Systems and Context 6 Credit Hours
Prerequisites: ARCH 4543, ARCH 4663, ARCH 3656 with a grade of C or better. Co-requisites: ARCH 4723; or permission of director. This capstone course emphasizes the relationship of schematic design to contract documents through a broad exploration of structural, mechanical, electrical, plumbing, and other buildings systems. It builds on the fundamental issues of place, order, form, structure, site and programming. It is also dedicated to developing interdisciplinary and collaborative skills through team-based projects and other small group exercises. (F) [V].

ARCH 4783 Architectural Acoustics
3 Credit Hours
(Slashlisted with ARCH 5783) Prerequisite: 3rd, 4th or 5th year student in the College of Architecture. Focuses primarily on the nature of architectural acoustics based on material choices, surface arrangement, and the overall shaping of space to promote natural acoustics. There will also be some discussion concerning natural lighting and how design decisions for lighting and acoustics can work in unison. Students may not earn credit for both 4783 and 5783. (Irreg.)
ARCH 4813 Real Estate Development
3 Credit Hours
(Slashlisted with ARCH 5813) Prerequisite: Junior Standing. The course is the second part of a two-course series providing an introductory survey of real estate development in terms of terminology, data, and the players, parties, and processes involved from both theoretical and practical perspectives. This course, Real Estate II, is intended to provide students with an understanding of the development process from beginning to end. No student may earn credit for both 4813 and 5813. (Sp)
ARCH 4923 Methods IX- Entrepreneurial Architect and

## Leadership

3 Credit Hours
(Slashlisted with ARCH 5923) Prerequisites: ARCH 4723, ARCH 4756, ARCH 4333 with a grade of C or better. Co-requisites: ARCH 4956; or permission of director. Explores finance and leadership issues that currently confront the development, design, and construction industries. Expertise and decision-making capabilities with be explored. No student may earn credit for both 4923 and 5923. (F)

## ARCH G4940 Field Work

1-4 Credit Hours
1 to 4 hours. Prerequisite: senior standing and permission of instructor. Field study related to the student's area of interest in a position approved by the instructor. One hour credit per 120 hours of field work or equivalent. Documentation and evaluation is required. (F, Sp, Su)
ARCH 4956 Design IX- Options Studio I
6 Credit Hours
Prerequisite: ARCH 4723, ARCH 4756, ARCH 4333 with a grade of C or better. This course addresses advanced aspects of architectural design. It focuses on the development of analytical and methodological aspects of the design process, including but not limited to problem formulation, design representation and decision-making. Projects investigate a number of issues ranging from socio-economic, demographic, spatial justice, equity and environmental challenges, among others. (F)

## ARCH 4960 Directed Readings <br> 1-4 Credit Hours

1 to 4 hours. Prerequisite: senior standing and permission of instructor. May be repeated with change of subject; maximum credit 12 hours. Designed for upper-division students who need opportunity to study a specific problem in greater depth than formal course content permits. (F, $\mathrm{Sp}, \mathrm{Su}$ )
ARCH G4970 General Departmental Seminar
1-6 Credit Hours
1 to 6 hours. Prerequisite: senior or graduate standing, or permission of instructor. May be repeated with change of content. Special topics in architecture. (F, Sp, Su)

ARCH 4990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: four courses in general area to be studied; permission of instructor and department. May be repeated; maximum credit six hours. Contracted independent study for topic not currently offered in regularly scheduled courses. ( $F, S p$ )

## ARCH 5053 Methods X - Tools of Practice

3 Credit Hours
(Slashlisted with ARCH 4053) Prerequisites: Program admission or permission of graduate liaison. Explores issues in contemporary architectural practice including the role of the client, contracts, practice and project management, leadership skills, legal responsibilities, and ethics. Emphasis is placed upon issues of cultural and environmental sustainability, political activism, and the changing role of the architecture profession. The course contains program specific research and support related to studio projects. No student may earn credit for both 4053 and 5053. (Sp)

ARCH 5055 Design X - Comprehensive Architecture II 5 Credit Hours Prerequisite: ARCH 5922, ARCH 5955, or permission of graduate liaison. Corequisite: 5022. A continuation of ARCH 5955. Students are expected to further develop their project to a level of Design Development and limited Construction Detailing. The course encourages the continued exploration, speculation, and experimental innovation begun in Design IX extended into materials detailing, construction methods, mechanical systems, and creative spatial and aesthetic development. Component and assembly prototyping and performance modeling are included. (Sp)

## ARCH 5143 Architectural History 3 Credit Hours

Prerequisite: Program admission or permission of graduate liaison. A theoretical investigation of the cultural, political, and aesthetic values of diverse Western and non-Western cultures and how these affect the built environment. This course continues the development of critical writing skills and further develops analytic skills that act to inform design decisions related to studio projects. (F)

## ARCH 5160 Internship

0 Credit Hours
(Slashlisted with ARCH 4160) Prerequisite: Program admission or permission of graduate liaison. This internship requirement corresponds with the National Council of Architectural Registration Boards Internship Development Program (IDP) and provides students with experience in an architecture office or in a related field. Students must follow the Division's Internship Program Guidelines in order to verify the appropriate experience is gained and documented. No student may earn credit for both 4160 and 5160. (F, Sp, Su)
ARCH 5161 Co-Op: Cooperative Education Experience 1 Credit Hour (Slashlisted with ARCH 4161) Prerequisite: Graduate standing. The purpose of this Cooperative Education Program is to provide students with an actual office practice experience prior to graduation. The student is ideally exposed to a broad range of areas, such as construction documents, marketing, office practice, business management, client reviews, construction administration, and a host of other daily activities that may be possible while working in host firms. No student may earn credit for both 4161 and 5161 .

ARCH 5183 Survey of Middle Eastern Architecture 3 Credit Hours (Slashlisted with 4183) Prerequisite: Graduate standing or permission of instructor. Survey of Middle Eastern architecture and the impact architects and architecture from this time and region had upon the advancement of environmental/urban design throughout the rest of history. No student may earn credit for both 4183 and 5183. (Irreg.)

ARCH 5193 Architectural Structures I
3 Credit Hours
(Slashlisted with ARCH 4193) Prerequisite: graduate standing and majors only; or permission of graduate liaison. An introduction to basic physics, forces within structural systems, material strength, and associated structural engineering principles. Develops both intuitive and empirical knowledge of forces within structural systems that serve as a foundation for future courses within the Structures sequence. No student may earn credit for both 4193 and 5193. (Sp)
ARCH 5233 Architectural Structures II
3 Credit Hours
(Slashlisted with ARCH 4233) Prerequisite: Program admission or permission of graduate liaison. Focus is on wood, concrete, and steel as structural materials. Material properties, common manufactured systems, common material sections, and common connection types will be explored with students demonstrating the ability to develop technical details related to various structural systems. No student may earn credit for both 4233 and 5233. (F)

ARCH 5283 Persian Architecture
3 Credit Hours
(Slashlisted with ARCH 4283) Prerequisite: graduate standing. The goal of the course is to guide students into an understanding of the important contributions that Persian Architecture has made to the built environment. This course provides a comprehensive history of ancient Iranian architecture and urbanism, from the first societies to the present. No student may earn credit for both 4283 and 5283. (Sp)

## ARCH 5333 Advanced Structures

3 Credit Hours
(Slashlisted with ARCH 4333) Prerequisite: Program admission or permission of graduate liaison. Introduces design of structural members using reinforced concrete. It covers the structural concrete, loads, analyses of tension and compression members, bending design for beams, axial load design for columns, structural systems, and design of reinforced concrete buildings. Concrete structures as taught for architects emphasizes principles of design rather than formulaic calculations. It emphasizes learning through project based collaborations. No student may earn credit for both 4333 and 5333. (F)
ARCH 5363 Methods III- Materials and Form
3 Credit Hours
Prerequisite: Program admission or permission of graduate liaison. Introduction to the nature of building materials with regard to form, strength, durability, workability, structure, connections, surfaces, and edges. Analysis of architectural expression through the use of building materials including the effects of: light, air movement, humidity, and their relationships to both one another and formal and spatial expressions. (F)
ARCH 5453 Modern and Contemporary Architecture 3 Credit Hours (Slashlisted with ARCH 4453) Prerequisite: Program admission or permission of graduate liaison. The course focus is on the relationship between architectural theories and projects during culture and the modern era. It considers how particular historical contexts shaped theories of design as well as how architects responded to the change. The course examines the relationship between the constructed environment and notions of modernity, developments in technology, building traditions, and politics. No student may earn credit for both 4453 and 5453. (F)
ARCH 5463 Advanced Sustainable and Resilient Systems 3 Credit Hours
Prerequisite: Graduate standing, ARCH 5363 and ARCH 5516 with a grade of C or better. Introduction to plumbing, lighting, acoustics, and other auxiliary systems that impact the Creating-Making of the built environment. These systems are discussed in relation to issues of sustainability and human comfort. Codes and standards that effect building design will be introduced and discussed. (Sp)

ARCH 5493 Architecture of Democracy 3 Credit Hours
(Slashlisted with ARCH 4493; Crosslisted with P SC 5493) Prerequisite: Graduate standing or permission of instructor. This course explores how space, place and values come together in public spaces by reviewing the evolution of architecture as it relates to human governance; introducing methods for assessing and designing physical space as an expression of human values; examining the social meaning and behavioral impact of spaces; and studying the expression of democratic values in public spaces. No student may earn credit for both 4493 and 5493. (Irreg.)

## ARCH 5513 Creativity Through Sketching

3 Credit Hours
(Slashlisted with ARCH 4513) Prerequisite: Graduate standing or instructor permission. This course teaches students how to express themselves creatively through sketching. Students receive instruction and assignments tailored to help them learn basic sketching techniques with the aim of developing their own expressive means of communicating through sketching. No student may earn credit for both 4513 and 5513. (F)

## ARCH 5516 Graduate Architectural Design I 6 Credit Hours

Prerequisite: Program admission or permission of the graduate liaison. Introduces projects of moderate complexities demonstrating intermediate design principles within the context of the built environment. Application of both physical and virtual communication skills as professional techniques of representation and communication are required. (F)
ARCH 5526 Graduate Architectural Design II 6 Credit Hours Prerequisite: Program admission or permission of graduate liaison. Continuation of ARCH 5126 with an introduction to passive and active forms of lighting, acoustics, conveyance systems, and electrical systems. An emphasis will be placed on the relation between these auxiliary building systems and Creating-Making. Issues of sustainability including environmental impacts, resource utilization, ethical resource efficiencies and performance-based design will be related to concepts of CreatingMaking. Codes and standards that effect the built environment will be explored. (Sp)

## ARCH 5536 Graduate Architectural Design III 6 Credit Hours

Prerequisite: Program admission or permission of graduate liaison. Emphasis is on the relationship of schematic design to contract documents in order to understand structural, mechanical, electrical, plumbing, and other systems within buildings. Students demonstrate an understanding of drafting conventions, the production of traditional contract documents, Building Information Modeling, and the communication of additional solutions necessary for construction. The course develops interdisciplinary and collaborative skills through team projects. (F) [V].
ARCH 5543 Architectural Theory and Criticism 3 Credit Hours
(Slashlisted with ARCH 4543) Prerequisite: Program admission or permission of graduate liaison. The development of research and academic writing in an urban and architectural context. Development of critical and analytical writing skills through the use of original research and/or analysis term papers. Topics may range from periods, politics, technology, economics, religion, gender, and culture. Open to nonarchitecture majors to encourage interdisciplinary research/writing. No student may earn credit for both 4543 and 5543. (Sp)

ARCH 5546 Graduate Architectural Design IV 6 Credit Hours
Prerequisite: Program admission or permission of graduate liaison. Emphasis is on the development of a complete project from schematic design through design development and construction detailing. Students will develop a building of limited programmatic complexity through more complete technical development. The application of Building Information Modeling software will be required. This course addresses and builds upon the collaborative and analytic knowledge developed in ARCH 5423. (Sp)
ARCH 5663 Methods VI- Urban Design Methodologies 3 Credit Hours (Slashlisted with ARCH 4663) Pre-requisites: Program admission or permission of graduate liaison. Provides an introduction to urban design, an overview of its history and a cross section of contemporary strategies to effect desired urban design conditions. The course content may support design work developed in studios of the architecture curriculum. No student may earn credit for both 4663 and 5663. (Sp)
ARCH 5713 Real Estate Fundamentals
3 Credit Hours
(Slashlisted with ARCH 4713) Prerequisite: Graduate standing or permission of instructor. This course is the first of a two-course series providing an introductory survey of real estate development in terms of terminology, data, and the players, parties, and processes involved from both theoretical and practical perspectives. The course is intended to provide students with a fundamental understanding of real property's role in the creation of cities. No student may earn credit for both 4713 and 5713. (F)

ARCH 5723 Methods VII-Advanced Systems 3 Credit Hours (Slashlisted with ARCH 4723) Prerequisite: Program admission or permission of graduate liaison. This course introduces students to advanced issues of structure, building systems, sustainability, and integrated building management systems. Course material will develop advanced understanding of the theories and practices of these complex systems and their effects on the built environment. No student may earn credit for both 4723 and 5723. (F)
ARCH 5743 Legal Framework for Design
3 Credit Hours
(Slashlisted with ARCH 4743) Prerequisite: Graduate standing or permission of instructor. The course covers the study of legal principles relevant to real estate, real estate projects, and the business entities through which to conduct that business. No student may earn credit for both 4743 and 5743. (F)
ARCH 5763 Landscape Architecture for Architects 3 Credit Hours Prerequisite: graduate standing or permission of instructor. Analysis and organization of the site together with the use of plant materials in landscape design. (Sp)

## ARCH 5783 Architectural Acoustics

3 Credit Hours
(Slashlisted with ARCH 4783) Prerequisite: Graduate standing and permission of instructor. Focuses primarily on the nature of architectural acoustics based on material choices, surface arrangement, and the overall shaping of space to promote natural acoustics. There will also be some discussion concerning natural lighting and how design decisions for lighting and acoustics can work in unison. Students may not earn credit for both 4783 and 5783. (Irreg.)
ARCH 5812 Human Centric Design: Equity and Comfort 2 Credit Hours Prerequisite: Graduate standing and majors only. An introduction to environmental justice, including stakeholders and community engagement. A survey of how human comfort metrics intersect with site and climate. Introduces systemic issues associated with equity in the built environment and indigenous approaches. (F, Sp, Su)

ARCH 5813 Real Estate Development 3 Credit Hours
(Slashlisted with ARCH 4813) Prerequisite: Graduate standing or permission of the instructor. The course provides an introductory survey of real estate development in terms of terminology, data, and the players, parties, and processes involved from both theoretical and practical perspectives. This course is intended to provide students with an understanding of the development process from beginning to end. No student may earn credit for both 4813 and 5813. (Sp)
ARCH 5822 Foundations of Building Physics and Analysis 2 Credit Hours
Prerequisite: Graduate standing and majors only. An introduction to topics in building physics including indoor and outdoor climate, passive technologies, daylighting, water issues, psychrometrics, and heat transfer. Explores the scientific method and application with building performance analysis, simple software-based calculations used to evaluate designs and construction against codes and standards. Explores connections between site and sustainable building metrics, Zero Tool, and AIA Framework for Design Excellence. (F, Sp, Su)
ARCH 5832 Introduction to Building Performance Analysis 2 Credit Hours
Prerequisite: Graduate standing; ARCH 5812, ARCH 5822; majors only. An introduction to metrics for evaluating building performance and tools for evaluation. Explores performance targets such as the Architecture 2030 Challenge. Examines pre- and post-occupancy performance analysis tools, equipment, and methods. Introduces software such as Cove Tools, Autodesk Insight, and Sefaira. (F, Sp)

## ARCH 5842 Introduction to Research Methods for Analysis <br> 2 Credit Hours

Prerequisite: Graduate standing; ARCH 5812, ARCH 5822; majors only. An introduction to design research methods. Examines the application of quantitative and qualitative research methods to research questions in architecture and urban design from pre-design to post-occupancy evaluation. Explores the practice of evidence-based design. (F, Sp)
ARCH 5852 Sustainable Design and BIM Workflows 2 Credit Hours Prerequisite: Graduate standing; ARCH 5812, ARCH 5822; majors only. An introduction to Building Information Modeling (BIM) sustainable design workflows. Explores how designers, engineers, and contractors collaborate through BIM to reach sustainable design goals. Examines how BIM can be used to drive sustainable design and decision-making in theory and practice. (F, Sp)
ARCH 5862 Sustainable Urban Design 2 Credit Hours
Prerequisite: Graduate standing; ARCH 5812, ARCH 5822; majors only. An introduction to sustainable urban design principles and practices. Explores Geographic Information System (GIS) tools and EPA databases such as the TRI Explorer as they relate to sustainable urbanism, real estate, and equity. Introduces the Ecodistrict Accredited Professional program. (F, Sp)
ARCH 5863 Methods VIII-Building Performance Analytics 3 Credit Hours
Prerequisite: Graduate standing in Architecture, ARCH 5723, and ARCH 5536; corequisite, ARCH 5546; or permission of graduate liaison. Advanced level course investigating contemporary theories and practices of sustainable and resilient design. Case studies are used to examine the connections between theories and practices particularly with regard to circular economies, and life cycle costs. (Sp)

ARCH 5872 LEED GA Exam
2 Credit Hours
Prerequisite: Graduate standing; ARCH 5812, ARCH 5822; majors only. An introduction to the US Green Building Council Leadership in Energy and Environmental Design (LEED) program. Examines how buildings can be designed and operated to reduce energy consumption, protect resources and promote health through the LEED program. Prepares students for taking the LEED Green Associate Exam. (F, Sp)
ARCH 5882 WELL AP Exam
2 Credit Hours
Prerequisite: Graduate standing; ARCH 5812, ARCH 5822; majors only. An introduction to the theory and practices associated with WELL Building Standard. Explores the research on human health and the design of the built environment that forms the foundation for the WELL building program. Prepares students for taking the WELL Accredited Professional exam. (F, Sp)
ARCH 5892 LCCA and the Circular Economy 2 Credit Hours
Prerequisite: Graduate standing; ARCH 5842; majors only. Introduction to Life Cycle Cost Accounting (LCCA) and the Circular Economy. Explores the economic history, basic theory, and practices associated with LCCA. Examines connections between performative building design evaluations and sustainability's three "E's": Environment, Equity, and Economic factors. Considers the role of the architect in a global context and their interdisciplinary impact on sustainability. (F, Sp)
ARCH 5902 Building Operations Management 2 Credit Hours Prerequisite: Graduate standing; ARCH 5812, ARCH 5822; majors only. This course will explore the Rocky Mountain Institute (RMI) "NZE Leasing Best Practice Guide" and ULI's "Blueprint for Green Real Estate" including the steps of how to write and negotiate an NZE lease with elements that include energy budgets, building dashboards, recommissioning, green building financing models, and BIM-enabled digital twins. (F, Sp)

## ARCH 5912 Sustainable Design Case Studies

2 Credit Hours
Prerequisite: Graduate standing; ARCH 5842; majors only. Explores the realities of building impacts on the environment through sustainable design case studies. Introduces the case study method of analysis using the AIA Framework for Design Excellence. Introduces tools and methods for undertaking case study analysis of built works. (F, Sp)
ARCH 5923 Methods IX - Entrepreneurial Architect and Leadership

3 Credit Hours
(Slashlisted with ARCH 4923) Prerequisites: Program admission or permission of graduate liaison. Explores finance and leadership issues that currently confront the development, design, and construction industries. Expertise and decision-making capabilities with be explored. No student may earn credit for both 4923 and 5923. (F)
ARCH 5932 Sustainable Design Literature Reviews 2 Credit Hours Prerequisite: Graduate standing; ARCH 5912; majors only. Introduces literature reviews in the context of architectural research questions. Explores design research methods and process through a review of existing literature on a topic. Develops an understanding of how to identify gaps in existing knowledge. (F, Sp)
ARCH 5942 Case Study Research
2 Credit Hours
Prerequisite: Graduate standing; ARCH 5932; majors only. Explores examples of sustainable building design and construction through case study analysis following the American Institute of Architects case study format. Provides an opportunity for individual research project development. Includes consideration of sustainable design standards such as LEED and/or WELL. (F, Sp)

ARCH 5952 Comprehensive Exam
2 Credit Hours
Prerequisite: Graduate standing; ARCH 5882 and ARCH 5892; majors only. This course prepares students to take the Comprehensive Examination, given at the end of the course, demonstrating: 1) their experience in secondary research in their area of program concentration; 2) their knowledge of the areas and subareas of the discipline and their position relative to these areas; and (3) their pedagogical knowledge, techniques and literature. (F, Sp, Su)
ARCH 5960 Directed Readings
1-4 Credit Hours
1 to 4 hours. Prerequisite: fifth year or graduate standing in architecture and permission of instructor. May be repeated with change of subject; maximum credit nine hours. Studies in major field as approved by instructor. (F, Sp, Su)

ARCH 5962 Case Study Development and Presentation 2 Credit Hours Prerequisite: Graduate standing; ARCH 5942; majors only. Building on ARCH 5942, case studies are developed through peer reviews and presentations. Publication venues are investigated. (F, Sp)
ARCH 5970 General Departmental Seminar
1-4 Credit Hours
1 to 4 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit 12 hours. Advanced professional topics in architecture, construction science, urban design or environmental design. Lectures, team and individual assignments. (F)

ARCH 5980 Research for Master's Thesis 2-9 Credit Hours Prerequisite: Graduate standing. Variable enrollment, two to nine hours; Laboratory (F, Sp, Su)

ARCH 5990 Special Studies in Architecture
1-6 Credit Hours
1 to 6 hours. Prerequisite: fifth year or graduate standing and permission of instructor. May be repeated; maximum credit nine hours. Subject as assigned by instructor will be explored in depth. Documentation and presentation varies with nature of problem. Laboratory (Sp, Su)
ARCH 6056 Design X-Comprehensive Architecture II 6 Credit Hours Prerequisite: Graduate standing and ARCH 6956, or permission of graduate liaison. This course is a continuation of ARCH 6956. Analytical and methodological aspects of the design process introduced in the Fall are reinforced in the context of individual architectural projects. Schematic design alternatives developed at the end of ARCH 6956 will be developed. Fundamental issues of form, order, site, program, and building systems integration are developed for the final project. (Sp)

## ARCH 6156 Graduate Studio I

6 Credit Hours
Prerequisite: Permission of graduate liaison. The class introduces fundamental design and visual communication skills through the use of material, formal, and spatial properties of architecture. Fabrication safety, craft, and techniques will be introduced and developed through the making. Ideas involving creating-making are explored through exercises in the formal, spatial and material qualities of human environments.(Su)

ARCH 6590 Professional Project Research 1-4 Credit Hours
1 to 4 hours. Prerequisite: permission of instructor. Research and development on subjects related to the professional project in architectural studies, architectural technology, historic preservation, urban design or other approved topics. (F,Sp, Su)
ARCH 6643 Urban Design Theory 3 Credit Hours (Crosslisted with L A 6643 and RCPL 6643) Prerequisite: graduate standing. A survey of theory relevant to the urban design process, including social and behavioral concepts, visual and aesthetic theory, spatial and geographic factors of urban form. (Sp)

ARCH 6680 Urban Design Studio
1-6 Credit Hours
1 to 6 hours. Prerequisite: graduate standing. May be repeated with different content; maximum credit six hours. The course involves advanced architectural design projects with an emphasis in architectural studies, architectural technology, historic preservation, urban design, or other approved topics. Laboratory. (F, Sp)

## ARCH 6690 Professional Project

1-6 Credit Hours
1 to 6 hours. Prerequisite: 5595 or 6680 . May be repeated; maximum credit six hours. A terminal professional project demonstrating comprehensive understanding and integrative capabilities in architectural studies, architectural technology, historic preservation, urban design or other approved topics. Laboratory (F, Sp, Su)
ARCH 6956 Design IX- Comprehensive Architecture I 6 Credit Hours Prerequisite: Program admission or permission of graduate liaison. This is the first of a two-semester sequence that concludes with ARCH 6056. The course encourages innovative exploration, analysis, speculation, and experimentation in developing schematic proposals. Building design concepts will consider attitudes towards ethical, environmental, site, sustainable, social, financial, material, and historical issues within the built environment and the program's Creating-Making curriculum. (F)

## ARCH 6960 Directed Readings

1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit six hours. Directed readings and/or literature review under the direction of a faculty member. (Irreg.)
ARCH 6970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit 12 hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or research and field projects. (Irreg.)

ARCH 6990 Special Studies in Architecture 1-6 Credit Hours 1 to 6 hours. Prerequisite: graduate standing. May be repeated; maximum credit 12 hours. The candidate will thoroughly explore the particular phase of architecture selected for advanced study by the student and the graduate committee; presentation of the work will be determined by the nature of the contribution. Laboratory (F, Sp, Su)

## ARNM-Art for Non-Majors

ARNM 1003 Art For Non-Majors: Two-Dimensional 3 Credit Hours May be repeated; maximum credit six hours. Provides students who are not art majors with an introduction to the basic studio processes of painting and drawing. (Irreg.)

## ARNM 2843 Photography for Non Art Majors

3 Credit Hours
This course will introduce the non art major to camera controls and traditional darkroom operations including film processing, contact printing, enlarging and processing of black and white material, matting and presentation. Students enrolling in this course do not need to have any previous photographic or art skills. This course will complete a portfolio of images to complete the course. Textbook required. (Irreg.)
ARNM 2970 Special Topics/Seminar 1-3 Credit Hours
1 to 3 hours. Prerequisite: sophomore standing or permission of instructor. May be repeated; maximum credit six hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

ARNM 3440 Mentored Research Experience 3 Credit Hours
0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)

## ARNM 3960 Honors Reading

1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Consists of topics designated by the instructor in keeping with the student's major program. Covers topics not usually presented in the regular courses.

## ARNM 3970 Honors Seminar <br> 1-3 Credit Hours

1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Subjects covered vary. Deals with concepts not usually treated in regular courses.
ARNM 3980 Honors Research 1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Provides an opportunity for the gifted Honors candidate to work at a special project in the student's field. (F, Sp, Su)
ARNM 3990 Independent Study 1-3 Credit Hours
1 to 3 hours. Prerequisite: permission of instructor and junior standing. May be repeated once with change of content. Independent study may be arranged to study a subject not available through regular course offerings. (F, Sp, Su)
ARNM 4970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: junior standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

## ART-Art

## ART 1033 Core Studio I: Surface

3 Credit Hours
Prerequisite: majors only; co-requisite: ART 1043. Core Studio I: Surface is a foundation level course that introduces students to a variety of experiences using two-dimensional design and drawing practices. The course will focus on developing conceptual imagery as expressed through the organization of spatial relationships using design elements and principles, visual observation, color relationships,and the investigation of line, perspective, the figure, gesture, and space.(F)

ART 1043 Core Studio II: Space and Time
3 Credit Hours
Prerequisite: majors only; co-requisite: ART 1033. A foundation level course that introduces students to a variety of experiences using interdisciplinary spatial relationships and three-dimensional design practices. The course will focus on developing a keen awareness of space, form, and time via the application of design principles to handmade forms. Students will create artworks through a variety of media investigations to enhance awareness of the interconnections within visual art and design disciplines. The course emphasizes ideation and process, and exploring and exploiting subject matter and media as a means of obtaining individual conceptual goals.(F)

ART 1133 Core III: Technology
3 Credit Hours
Prerequisite: majors only; ART 1033 and ART 1043. Co-requisite:
ART 1143. A foundation level course that introduces students to a variety of experience using electronic tools, processes and techniques. The course will focus on image, interactivity, and motion using core concepts \& principles. (Sp)

ART 1143 Core IV: Integrated Studio
3 Credit Hours
Prerequisites: majors only; ART 1033 and ART 1043. Co-requisite: ART 1133. Integrated Studio is a foundation level art practice course that introduces students to the broad dialogues driving activity in the world of contemporary art. Students learn to structure their work around core concepts and make practical decisions that propel critical discourse within the context of an art or design practice. (Sp)

ART 2253 Beginning Ceramics
3 Credit Hours
Prerequisite: majors only; ART 1033 and ART 1043. Introduction to various hand-building, glazing and firing techniques. Emphasis placed on developing an understanding of working in three dimensions (with clay as the medium), and on interpreting shape by combining surface color and three-dimensional form. Conceptual and critical issues introduced. (F, Sp)

## ART 2313 Beginning Drawing

3 Credit Hours
Prerequisite: majors only; ART 1033 and ART 1043. Uses representational drawing to increase observational abilities. Perspective, value, form, texture, proportion and scale are studied using still life, the figure and outside drawing assignments. (Irreg.)
ART 2413 Beginning Painting
3 Credit Hours
Prerequisite: majors only; ART 1033 and ART 1043. The aqueous media used in various approaches to painting problems (processes and concepts); lectures, group criticism and individual instruction assist the student in studying the fundamentals of painting. (Irreg.)

ART 2523 Beginning Sculpture: Figurative
3 Credit Hours
Prerequisite: majors only; ART 1033 and ART 1043. Creating in oil base clay the human skull and a life-size portrait; creating a waste mold and making a plaster cast from it. (Irreg.)
ART 2533 Beginning Sculpture: Contemporary 3 Credit Hours Prerequisite: Majors only; ART 1033 and ART 1043. This course will introduce students to the methods of sculpture including material exploration, space investigation and conceptual development of sculptural experiences. Scale, material relationships, craft, context, and final presentation will be fundamental aspects covered in this course. Students will be encouraged to formulate elements of self-expression, research artists \& ideas, and develop a vocabulary for constructive criticism. (Irreg.)
ART 2743 Beginning Printmaking
3 Credit Hours
Prerequisites: majors only; ART 1033. This course is a formal introduction to the art of printmaking and the disciplines that comprise it. Students learn to create repeatable matrices in various media, including relief, screen, lithography, and intaglio printing. Technical demonstrations combine with lectures to provide students a sense of the materials, tools, and skills involved in printing as well as printmaking's history and the role it has played in our culture. (Irreg.)

ART 2873 Video for the Artist I
3 Credit Hours
Prerequisite: majors only; ART 1013, ART 1023, ART 1113, ARTC 1003,
ARTC 1103. Emphasis on developing video production and postproduction skills. Training exercises in studio and field production, camera work, lighting and sound. Instruction and practice in analog and digital editing. Exploration of digital media. Students will produce a number of short projects. (Irreg.)

ART 2970 Studio Special Topics
1-3 Credit Hours
Prerequisite: majors only; ART 1033 and ART 1043. May be repeated with change of content; maximum credit nine hours. Special topics course for content not currently offered in regular scheduled courses. (Irreg.)

## ART 3143 Core III: Integrated Studio

3 Credit Hours
Prerequisite: ART 1033 and ART 1043; Junior standing or above, majors only. Integrated Studio is a junior-level art practice course that engages students in dialogue and collaboration centered around issues related to contemporary art. (F)

ART 3253 Intermediate Ceramic Design
3 Credit Hours
Prerequisite: 2253. Continued exploration of various hand-building,
glazing and firing techniques. Primarily low fire processes. Formal issues such as sculptural composition, form and surface development, and the interpretation of function addressed. Emphasis placed on developing a personal language of materials and ideas. Progression through the range of ceramic-making skill sets. Conceptual and critical issues expanded. (F, Sp )
ART 3263 Intermediate Ceramic Processes 3 Credit Hours
Prerequisite: 2253. Continued exploration of various hand-building, glazing and firing techniques. Primarily high fire processes. Utilitarian and sculptural concerns, creative problem solving, art making strategies addressed. Emphasis placed on developing a personal language of materials and ideas. Progression through the range of ceramic-making skill sets. Conceptual and critical issues expanded. (F, Sp)
ART 3313 Intermediate Drawing Processes 3 Credit Hours
Prerequisite: 2313 or permission of instructor. Intermediate life drawing in various media with use of the human figure as the primary subject. The development of drawing processes and proficiency is stressed. (Irreg.)

## ART 3323 Experimental Drawing Practices

3 Credit Hours
Prerequisites: majors only; junior standing; ART 2313. Drawing will be explored as a unique visual language. An emphasis will be placed on experimentation, exploration and the development of a personal drawing practice. (Irreg.)

## ART 3343 Comics \& Sequential Art

3 Credit Hours
Prerequisite: Majors only and ART 2313; may be repeated; maximum credit 6 hours. Comics and Sequential Art has been designed to gain insight into the depth, complexity, and cultural significance of comics through the making and analyzing of how this art form functions differently from other traditional two-dimensional art mediums. (Sp)

## ART 3353 Collage \& Assemblage <br> 3 Credit Hours

Prerequisite: Majors only, Junior standing, and ART 2313 or permission of instructor; may be repeated; maximum credit 6 hours. This course examines the history, theory, and practice of collage and its use in related mediums including assemblage, installation art, film and video, sound art, etc. Students will learn about major tendencies within the history of the medium, key figures from the past, leading ideas about collage, and techniques for making culture from culture. (Irreg.)
ART 3413 Intermediate Painting Studio I 3 Credit Hours
Prerequisite: majors only; junior standing; ART 2413. Personal painting issues are developed in a variety of media. An emphasis on experimentation, exploration, development of imagery and personal expression. (Irreg.)

ART 3423 Intermediate Painting Studio 2
3 Credit Hours
Prerequisites: majors only; junior standing; ART 2413. Individual painting issues are pursued through an intense exploration of ideas and technical risk taking. Students will develop research methodologies that will influence their visual and conceptual problem solving. (Irreg.)

ART 3440 Mentored Research Experience
3 Credit Hours
0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)

## ART 3513 Intermediate Sculpture: Contemporary Process 3 Credit

 HoursPrerequisite: ART 2513 or ART 2523 or permission of instructor. Examination of metal fabrication, welding, woodworking (construction and carving), and advanced assembly with nontraditional materials.
Concerns in the development of formal visual issues, presentation, concept and theory of contemporary sculpture will be emphasized.
(Irreg.)
ART 3523 Intermediate Sculpture: Figurative Processes 3 Credit Hours Prerequisite: 2513, 2523 or permission of instructor on a space available basis. Creating a bas-relief and sculpting the human hand and foot in oil based clay; creating a slip cast mold of the bas-relief for water base clay castings. (Irreg.)

## ART 3533 Sculpture: Digital Fabrication for Artists and

## Designers

3 Credit Hours
Prerequisites: majors only; junior standing; ART 2533. Focuses on digital fabrication technologies associated with CAD modeling and vector based digital production. Students will be involved in developing projects that will be constructed using a variety of 3D printing and CNC technologies using plastic, acrylic, metal, wood, and fabrics. Students will be expected to develop a vocabulary of digital production as it relates to contemporary art and design. (Irreg.)
ART 3543 Intermediate Sculpture: Figurative Small Projects 3 Credit Hours
Prerequisite: 2513 or 2523 or permission of the instructor. Creating a plaster sculpture(s) with a foam core; students will sculpt several small figurative sculptures from oil based clay. Armatures for smaller sculptures are designed and developed for more complex compositions. (Irreg.)

## ART 3563 Sculpture: Functional Design Studio

3 Credit Hours
Prerequisites: majors only; junior standing; ART 2533. Investigate function as a means for creative experience and interaction. This includes furniture design, product development, utilitarian objects, and other associated objects that exist functionally within our environment. Design principles, construction techniques, and craft will be emphasized. Students will employ traditional construction techniques as well as digital fabrication to plan, design and build projects that approach utility from various practical and experimental approaches. (Irreg.)

## ART 3743 Intermediate Printmaking I: Lithography and Planar

 Processes 3 Credit HoursPrerequisite: Majors only; ART 2743; May be repeated; maximum credit 6 hours. This section of printmaking is designed for investigating multiple surfaces and processes in intermediate printmaking with an emphasis on drawing. The different levels of each process will allow students to develop their understanding of the basic concepts of the intaglio, lithography and relief processes. (Irreg.)

## ART 3753 Intermediate Printmaking II-Screen Printing and Digital

## Processes

3 Credit Hours
Prerequisite: Majors only; ART 2743; May be repeated; maximum credit 6 hours. This course serves as a practical investigation of photo-process screenprinting and an introduction to various other forms of photo and digital printmaking. Students learn to handle, utilize, and manipulate photosensitive materials and how these materials are commonly utilized in the creation of print media. ( $F, S p$ )
ART 3763 Intermediate Printmaking III-Book Arts 3 Credit Hours Prerequisite: Majors only; ART 2743; May be repeated; maximum credit 6 hours. Students focus on techniques related to book arts, case building, and letterpress printing as they learn to utilize the formal materials of printmaking (paper, board, and fabric) as expressive elements in their creative process. The concepts that guide bookmaking and book construction are covered in an open and nontraditional manner to allow for experimentation, self-expression, and evolution. (Irreg.)

ART 3823 Concepts in Electronic Media
3 Credit Hours
Prerequisite: Majors only; ATC 2823. Consideration of conceptual and aesthetic issues within technological systems, which may include interactive media, immersive virtual environments, experimental games, visualization \& simulation, and 3-D object development. Exposure to a variety of possible technical processes as they consider visual strategies regarding the constraints of visual spaces. Topics may include, but are not limited to 3-D modeling, real-time processing, database/ interactive narrative, game play, and strategies for designing objects and environments. A personal laptop is required. (Irreg.)
ART 3853 Intermediate Traditional Photography 3 Credit Hours Prerequisite: Majors only; ART 2853 or ATC 2853. May be repeated with change of content; maximum credit 6 hours. This course will explore traditional photographic practices. It focuses on the development of concepts in the imagemaking process and explores various means for producing a cohesive body of work. Instructor will determine the content and methodology, but all courses will include refinement of ideas and informed discussion with referential context. Readings and writings will supplement class discussion. Laboratory. (Irreg.)

ART 3863 Intermediate Digital Photography
3 Credit Hours
Prerequisite: Majors only; ART 2853 or ATC 2853. Explores digital photographic practices. Focus on the development of concepts in the image making process, and explores various means for producing a cohesive body of work. The content and methodology will be determined by the instructor, but all courses will include refinement of ideas and informed discussion with referential context. Readings and writings will supplement class discussion. Laboratory. (Irreg.)
ART 3873 Video for the Artist II 3 Credit Hours Prerequisite: Majors only; ATC 2873. Continuation of ATC 2873. Introduction to advanced imaging and editing techniques. (F)
ART 3960 Honors Reading
1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated with change of subject matter; maximum credit six hours. Consists of either reading topics or independent study designated by the instructor in keeping with the student's major program. The topics of study will cover materials not usually presented in the regular courses. ( $F$, Sp)

## ART 3970 Honors Seminar

1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program, junior or senior standing. May be repeated with change of subject matter; maximum credit six hours. The projects covered will vary. The content will deal with concepts not usually presented in regular coursework. (Irreg.)

ART 3980 Honors Research
1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated with change of subject; maximum credit six hours. Provides an opportunity for the gifted honors candidate to work at a special project in the student's field. (F, Sp)
ART 3990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: permission of instructor and junior standing. May be repeated once with change of content. Independent study may be arranged to study a subject not available through regular course offerings. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
ART 4253 Advanced Ceramics
3 Credit Hours
Prerequisite: 3253, 3263. May be repeated, maximum credit twelve hours. Emphasis on articulating and developing individual projects in ceramics. Students are expected to research materials and techniques pertinent to development and exploration of personal direction of form and ideas. Each student is expected to create a body of work building on prior exploration of color and form in clay and glazes, traditional and/or non-traditional techniques. Emphasis is on students' individual area of interest. (F, Sp)

ART 4323 Advanced Drawing Concepts
3 Credit Hours
Prerequisite: $2313,2323,3313$, or 3323,4313 . Students are encouraged to refine their portfolio of work representing drawing proficiency and professional maturity. (Irreg.)
ART 4333 Drawing the Natural World
3 Credit Hours
Prerequisite: Majors only, junior standing, and ART 3313 or ART 3323. This course explores methods for observing and drawing natural objects with an emphasis on scientific illustration as an application. Students will gain experience drawing specimens from life, while exploring mediums and conventions specific to the field of scientific illustration. (F, Sp)

ART 4423 Advanced Painting Concepts 3 Credit Hours Prerequisite: 4413. A series of paintings are created representing a body of work of a professional nature. (Irreg.)

ART 4433 Alternative Painting Practices
3 Credit Hours
Prerequisites: majors only; junior standing; ART 2413, ART 3413,
ART 3423. May be repeated; maximum credit 6 hours. Advanced-level topics to be determined by department and which may include materials and techniques; landscape painting; figurative painting or related topics. Each option will permit concentration and encourage realization of conceptual goals. (Irreg.)

ART 4513 Advanced Sculpture: Contemporary 3 Credit Hours Prerequisite: ART 3513 or ART 3533 or permission of instructor. May be repeated twice; maximum credit nine hours. Self-directed research objectives in terms of sculpture technique, process and concept. Progress relating to personal artistic growth and professional discipline will be expected. Emphasis will be placed on producing a unique body of work for portfolio development and exhibition. (Irreg.)

ART 4533 Advanced Sculpture: Figurative I
3 Credit Hours
Prerequisite: 2513, 3513,3523. Develop the student's awareness of form through the modeling of the human figure. The students will study the fundamentals of sculpture such as armature, design, materials, tools and techniques. (Irreg.)
ART 4543 Advanced Sculpture: Figurative II
3 Credit Hours
Prerequisite: 4533. Continuation of the techniques developed in 4533.
Students will explore more complex compositions and armature designs while modeling the human form. There will be more emphasis on human and animal anatomy. Will expand into the study and application of basreliefs. (Irreg.)

ART 4573 Monumental Sculpture
3 Credit Hours
Prerequisite: $\mathbf{4 5 4 3}$. Students will be introduced to various enlarging techniques, taking a sculpture from the maquette (small version) to lifesize or monumental scale. Focus on enlarging with the grid method. Use of a pantograph and the wafer method will also be discussed. Emphasis will be placed on the professional aspects of working with foundries, installations, and clientele. (F)
ART 4743 Advanced Printmaking Studio 3 Credit Hours Prerequisites: majors only, junior standing; Art 3743, ART 3753 or ART 3763. May be repeated; maximum credit 6 hours. Offers advanced instruction in all areas of printmaking. Through discussion, lecture, and demonstration, instructors work closely with students to improve their technical and conceptual acuity. Students expand their formal understanding of print processes as they deepen their focus on the concepts that drive their art practice. (Irreg.)
ART 4823 Advanced Art and Technology 3 Credit Hours Prerequisite: Majors only; ART 3823. May be repeated with change of content; maximum credit 12 hours. Advanced-level topics are determined by department. Individual topics may include, but are not limited to: Interactive Objects and Environment, Experimental Electronics, Sound Synthesis, Virtual Space, and hardware/software/wetware. (Irreg.)
ART 4833 Experimental Art and Technology 3 Credit Hours Prerequisite: Majors only; ART 3823. May be repeated with change of content; maximum credit 12 hours. Experimental topics determined by department, and may include, but not limited to: Art \& Science, Expanded Narrative, Game Art, Critical Play, Tactical Media, Sensory Systems, Networks, Bio-media and Participatory Media. (Irreg.)

## ART 4843 Applied Photo Practice 3 Credit Hours

Prerequisite: 2853 and 3853. May be repeated; maximum credit 15 hours. Explores various applied and practical topics of photography to be determined by department. Topics may include view camera technique, zone system, photo illustration, studio experience and extended research and presentation of related topics. Each option will permit concentration and encourage realization of conceptual goals. (Irreg.)

## ART 4853 Advanced Photo Practices 3 Credit Hours

Prerequisite: 2853 and 3853. May be repeated with change of content; maximum credit 15 hours. Advanced-level topics to be determined by department and which may include advanced B\&W; color; books and portfolios. Extended research and presentation of related topics. Each option will permit concentration and encourage realization of conceptual goals. (Irreg.)

## ART 4863 Alternative Photo Practices

3 Credit Hours
Prerequisite: majors only; ART 2853 or ATC 2853 and ART 3853. May be repeated; maximum credit 15 hours. Topics of historical processes, contemporary explorations, and alternatives to traditional photo methods to be determined by department (nonsilver I and II; process imagery, alternative color, digital imaging, extended research and presentation, etc.). Each method will permit concentration and encourage realization of conceptual goals. (Irreg.)
ART 4883 BFA Senior Studio I 3 Credit Hours Prerequisite: majors only; senior standing; BFA studio majors having completed a minimum of 12 hours of 3000 or 4000 level studio courses and permission of the instructor. The BFA Senior Studio is an immersive experience of art making, creativity, and thinking. This intensive studio experience is focused on studio practice and research related to the artist's discipline. The expectation is that BFA seniors are working towards a professional career and/or the MFA degree. (F)

ART 4893 BFA Senior Studio II
3 Credit Hours
Prerequisite: ART 4883, majors only, senior standing, and permission of the instructor; co-requisite: ART 4993 Senior Experience. The BFA Senior Studio II is a continuation of creative work established in BFA Studio I. Building on their ideas and personal expression, students will refine theoretical and conceptual ideas, expand their research interests, and further develop new work. (Sp)

ART 4913 Ceramics Studio Topics
3 Credit Hours
Prerequisite: majors with junior standing or permission of instructor. May be repeated with change of subject matter; maximum credit nine hours. Special topics course in ceramics for content not currently offered in regularly scheduled courses. (Irreg.)

ART 4923 Drawing Studio Topics
3 Credit Hours
Prerequisite: majors with junior standing or permission of instructor. May be repeated with change of subject matter; maximum credit nine hours. Special topics course in drawing for content not currently offered in regularly scheduled courses. (Irreg.)
ART 4930 Internship 1-6 Credit Hours 1 to 6 Hours. Prerequisite: permission of instructor; majors only. May be repeated; maximum credit six hours. Students arrange and participate in a professional work experience with an approved internship site. (Irreg.)

## ART 4933 Painting Studio Topics

3 Credit Hours
Prerequisite: majors with junior standing or permission of the instructor.
May be repeated with change of subject matter; maximum credit nine hours. Special topics course in painting for content not currently offered in regularly scheduled courses. (Irreg.)
ART 4953 Sculpture Studio Topics
3 Credit Hours
Prerequisite: majors with junior standing or permission of instructor. May be repeated with change of subject matter; maximum credit nine hours.
Special topics course in sculpture for content not currently offered in regularly scheduled courses. (Irreg.)

ART 4960 Directed Readings 1-4 Credit Hours
1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean. May be repeated; maximum credit four hours. Designed for upper-division students who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)
ART 4963 Photography Studio Topics
3 Credit Hours
Prerequisite: majors with junior standing or permission of instructor. May be repeated with change of subject matter; maximum credit nine hours.
Special topics course in photography for content not currently offered in regularly scheduled courses. (Irreg.)

## ART 4970 Special Topics

1-3 Credit Hours
1 to 3 hours. Prerequisite: majors with junior standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics course for content not currently offered in regular scheduled courses. (Irreg.)
ART 4973 Film and Video Studio Topics
3 Credit Hours
Prerequisite: majors with junior standing or permission of instructor. May be repeated with change of subject matter; maximum credit nine hours. Special topics course in film and video for content not currently offered in regularly scheduled courses. (Irreg.)
ART 4983 Senior Capstone Experience
3 Credit Hours
Prerequisite: senior classification. May not be repeated for credit. Primary objective is to provide a culminating experience for the senior-year student. Satisfies the University-wide General Education Requirement for a capstone course for art majors. [V] .

ART 4990 Independent Study
1-3 Credit Hours
Prerequisite: junior standing or permission of instructor. May be repeated; maximum credit six hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. Title is variable only to reflect specific discipline area within the School of Art. (Irreg.)

ART 4993 Senior Experience
3 Credit Hours
Prerequisite: ART 3143, senior standing, majors only. The primary objective of this class is to provide a culminating experience for the senior-year studio student. There are two primary objectives that must be completed: 1) A written document presented in the form of a selfautobiographical monograph and 2) The artwork you display in the Senior Exhibition. (Sp)

ART 5013 Graduate Studio Ceramics
3 Credit Hours
Prerequisite: graduate standing in Art. Individual problems in the ceramics studio area. (Irreg.)

ART 5033 Graduate Studio Painting I 3 Credit Hours
Prerequisite: graduate standing in Art. Individual problems in the painting studio area. (Irreg.)

ART 5043 Graduate Studio Printmaking I 3 Credit Hours
Graduate Studio Printmaking I. Prerequisite: Graduate Standing In Art Individual Problems In The Printmaking Studio Area (Irreg)
ART 5053 Graduate Studio Sculpture I 3 Credit Hours
Prerequisite: graduate standing in Art. Individual problems in the sculpture studio area. (Irreg.)

ART 5063 Graduate Studio Photography I 3 Credit Hours
Prerequisite: graduate standing in Art. Individual problems in the photography studio area. (Irreg.)

ART 5073 Graduate Studio Film/Video I 3 Credit Hours
Prerequisite: graduate standing in Art. Individual problems in the film/ video studio area. (Irreg.)

ART 5113 Graduate Studio Ceramics II 3 Credit Hours
Prerequisite: graduate standing in Art. Individual problems in the ceramics studio area. (Irreg.)

ART 5133 Graduate Studio Painting II 3 Credit Hours Prerequisite: graduate standing in Art. Individual problems in the painting studio area. (Irreg.)

ART 5143 Graduate Studio Printmaking II 3 Credit Hours
Prerequisite: graduate standing in Art. Individual problems in the printmaking studio area. (Irreg.)

ART 5153 Graduate Studio Sculpture II 3 Credit Hours
Prerequisite: graduate standing in Art. Individual problems in the sculpture studio area. (Irreg.)

ART 5163 Graduate Studio Photography II 3 Credit Hours
Prerequisite: graduate standing in Art. Individual problems in the photography studio area. (Irreg.)

ART 5173 Graduate Studio Film/Video II
3 Credit Hours
Prerequisite: graduate standing in Art. Individual problems in the film/ video studio area. (Irreg.)

ART 5213 Graduate Studio Ceramics III 3 Credit Hours
Prerequisite: graduate standing in Art. Individual problems in the ceramics studio area. (Irreg.)

ART 5233 Graduate Student Painting III 3 Credit Hours Prerequisite: graduate standing in Art. Individual problems in the painting studio area. (Irreg.)

ART 5243 Graduate Studio Printmaking III 3 Credit Hours
Prerequisite: graduate standing in Art. Individual problems in the printmaking studio area. (Irreg.)

ART 5253 Graduate Studio Sculpture III
3 Credit Hours
Prerequisite: graduate standing in Art. Individual problems in the sculpture studio area. (Irreg.)

ART 5263 Graduate Studio Photography III 3 Credit Hours Prerequisite: graduate standing in Art. Individual problems in the photography studio area. (Irreg.)

ART 5273 Graduate Studio Film/Video III 3 Credit Hours Prerequisite: graduate standing in Art. Individual problems in the film/ video studio area. (Irreg.)

ART 5313 Graduate Studio Ceramics IV 3 Credit Hours
Prerequisite: graduate standing in Art. Individual problems in the ceramics studio area. (Irreg.)

ART 5333 Graduate Studio Painting IV
3 Credit Hours
Prerequisite: graduate standing in Art. Individual problems in the painting studio area. (Irreg.)

ART 5343 Graduate Studio Printmaking IV 3 Credit Hours
Prerequisite: graduate standing in Art. Individual problems in the printmaking studio area. (Irreg.)

ART 5353 Graduate Studio Sculpture IV
3 Credit Hours
Prerequisite: graduate standing in Art. Individual problems in the sculpture studio area. (Irreg.)

ART 5363 Graduate Studio Photography IV 3 Credit Hours
Prerequisite: graduate standing in Art. Individual problems in the photography studio area. (Irreg.)

ART 5373 Graduate Studio Film/Video IV 3 Credit Hours
Prerequisite: graduate standing in Art. Individual problems in the film/ video studio area. (Irreg.)

ART 5413 Graduate Studio Ceramics V 3 Credit Hours
Prerequisite: graduate standing in Art. Individual problems in the ceramics studio area. (Irreg.)

ART 5433 Graduate Studio Painting V 3 Credit Hours Prerequisite: graduate standing in Art. Individual problems in the painting studio area. (Irreg.)

ART 5443 Graduate Studio Printmaking V 3 Credit Hours
Prerequisite: graduate standing in Art. Individual problems in the printmaking studio area. (Irreg.)

ART 5453 Graduate Studio Sculpture V
3 Credit Hours
Prerequisite: graduate standing in Art. Individual problems in the sculpture studio area. (Irreg.)

ART 5473 Graduate Studio Film/Video V 3 Credit Hours
Prerequisite: graduate standing in Art. Individual problems in the film/ video studio area. (Irreg.)

ART 5513 Graduate Studio Ceramics VI 3 Credit Hours Prerequisite: graduate standing in Art. Individual problems in the ceramics studio area. (Irreg.)

ART 5533 Graduate Studio Painting VI 3 Credit Hours Prerequisite: graduate standing in Art. Individual problems in the painting studio area. (Irreg.)

ART 5543 Graduate Studio Printmaking VI
3 Credit Hours
Prerequisite: graduate standing in Art. Individual problems in the printmaking studio area. (Irreg.)

ART 5553 Graduate Studio Sculpture VI 3 Credit Hours
Prerequisite: graduate standing in Art. Individual problems in the sculpture studio area. (Irreg.)
ART 5573 Graduate Studio Film/Video VI 3 Credit Hours
Prerequisite: graduate standing in Art. Individual problems in the film/ video studio area. (Irreg.)
ART 5613 Graduate Studio Ceramics VII 3 Credit Hours
Prerequisite: graduate standing in Art. Individual problems in the ceramics studio area. (Irreg.)
ART 5633 Graduate Studio Painting VII 3 Credit Hours
Prerequisite: graduate standing in Art. Individual problems in the painting studio area. (Irreg.)
ART 5643 Graduate Studio Printmaking VII 3 Credit Hours
Prerequisite: graduate standing in Art. Individual problems in the printmaking studio area. (Irreg.)
ART 5653 Graduate Studio Sculpture VII 3 Credit Hours
Prerequisite: graduate standing in Art. Individual problems in the sculpture studio area. (Irreg.)
ART 5673 Graduate Studio Film/Video VII 3 Credit Hours
Prerequisite: graduate standing in Art. Individual problems in the film/ video studio area. (Irreg.)
ART 5713 Graduate Studio Ceramics VIII 3 Credit Hours
Prerequisite: graduate standing in Art. Individual problems in the ceramics studio area. (Irreg.)

ART 5733 Graduate Studio Painting VIII 3 Credit Hours Prerequisite: graduate standing in Art. Individual problems in the painting studio area. (Irreg.)
ART 5743 Graduate Studio Printmaking VIII 3 Credit Hours
Prerequisite: graduate standing in Art. Individual problems in the printmaking studio area. (Irreg.)
ART 5753 Graduate Studio Sculpture VIII 3 Credit Hours
Prerequisite: graduate standing in Art. Individual problems in the sculpture studio area. (Irreg.)
ART 5773 Graduate Studio Film/Video VIII 3 Credit Hours
Prerequisite: graduate standing in Art. Individual problems in the film/ video studio area. (Irreg.)
ART 5813 Graduate Studio Ceramics IX 3 Credit Hours
Prerequisite: graduate standing in Art. Individual problems in the ceramics studio area. (Irreg.)
ART 5833 Graduate Studio Painting IX
3 Credit Hours
Prerequisite: graduate standing in Art. Individual problems in the painting studio area. (Irreg.)
ART 5843 Graduate Studio Printmaking IX 3 Credit Hours
Prerequisite: graduate standing in Art. Individual problems in the printmaking studio area. (Irreg.)
ART 5913 Graduate Studio Ceramics $X \quad 3$ Credit Hours
Prerequisite: graduate standing in Art. Individual problems in the ceramics studio area. (Irreg.)
ART 5933 Graduate Studio Painting X
3 Credit Hours
Prerequisite: graduate standing in Art. Individual problems in the painting studio area. (Irreg.)

ART 5960 Directed Readings
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing and permission of department. May be repeated; maximum credit twelve hours. Directed readings and/or literature reviews under the direction of a faculty member. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
ART 5970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)
ART 5980 Research for Master's Thesis
2-9 Credit Hours
Variable enrollment, two to nine hours; maximum credit applicable toward degree, four hours. (F, Sp, Su)
ART 5990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)
ART 6010 Graduate Studio
1-6 Credit Hours
1 to 6 hours. Prerequisite: graduate standing- 30 hours. May be repeated with change of subject; maximum credit twelve hours. Individual problems in major studio area, with a choice of medium. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
ART 6013 Graduate Studio Ceramics XI 3 Credit Hours
Prerequisite: graduate standing in Art. Individual problems in the ceramics studio area. (Irreg.)
ART 6033 Graduate Studio Painting XI
3 Credit Hours
Prerequisite: graduate standing in Art. Individual problems in the painting studio area. (Irreg.)
ART 6133 Graduate Studio Painting XII 3 Credit Hours
Prerequisite: graduate standing in Art. Individual problems in the painting studio area. (Irreg.)
ART 6880 Graduate Exhibition 1-4 Credit Hours
1 to 4 hours. Prerequisite: at least 30 hours of graduate credit successfully completed. May be repeated; maximum credit four hours. A special project course culminating in a graduate exhibition presented by the candidate for the Master of Fine Arts degree. Students enrolled will be following the "no thesis" plan. (F, Sp, Su)
ART 6960 Directed Readings 1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit six hours. Directed readings and/or literature review under the direction of a faculty member. (Irreg.)

## ART 6970 Special Topics/Seminar 1-3 Credit Hours

1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit 12 hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or research and field projects. (Irreg.)
ART 6990 Independent Study 1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)

# ARTC-Art Theory \& Criticism 

ARTC 2813 Introduction to Visual Culture and Media Literacy<br>3 Credit Hours

Prerequisite: ENGL 1213. An introduction to the study of media in relationship to modern society and culture. Establish methodologies for describing and analyzing diverse forms of media, including print, television, cinema, and digital communication. Critically examines the historical scholarship, theory, and media practice that informs current conversations in the fields of media and cultural studies. (Irreg.)
ARTC 3440 Mentored Research Experience
3 Credit Hours
0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)

ARTC 3930 Special Topics In Theory \& Criticism 2-6 Credit Hours Prerequisite: junior Standing. May be repeated with change of content; maximum credit six hours. Covers various topics dealing with diverse issues relating to the visual arts. (Irreg.)
ARTC 3960 Honors Reading 1-3 Credit Hours
1 to 3 hours. Prerequisite: Admission to Honors Program. May be repeated; maximum credit six hours. Consists of topics designated by the instructor in keeping with the student's major program. The topics will cover materials not usually presented in the regular courses. (F, Sp, Su)

ARTC 3970 Honors Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Subjects covered vary. Deals with concepts not usually treated in regular courses. (Irreg.)
ARTC 3980 Honors Research
1-3 Credit Hours
1 to 3 hours. Prerequisite: Admission to Honors Program. May be repeated; maximum credit six hours. Will provide an opportunity for the gifted Honors candidate to work at a special project in the student's field. (F, Sp, Su)

ARTC 3990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: permission of instructor and junior standing. May be repeated once with change of content. Independent study may be arranged to study a subject not available through regular course offerings. (F, Sp, Su)

ARTC 4513 Understanding Comics, Criticism \& Practice 3 Credit Hours Prerequisites: junior or senior standing; ENGL 1113; ENGL 1213/ EXPO 1213 or EXPO 1223. May be repeated with change of content: maximum credit 6 hours. An online course designed to give insight into the depth, complexity and intellectual significance of comics. The overall goal of this course is for students to understand the visual and conceptual inner-workings of comics. (Irreg.)
ARTC 4853 Photography: Theory and Criticism
3 Credit Hours Prerequisite: majors with junior standing or permission of instructor. May be repeated with change of content; maximum credit 9 hours. Covers various topics related to critical issues in photographic thought and cultural studies. Students will examine literary resources, view various media sources and participate in a variety of interactions with peers and available guests. (Irreg.)

ARTC 4933 Process and Theory Workshop
3 Credit Hours
(Slashlisted with ARTC 5933; Crosslisted with A HI 4933) Prerequisite: Junior standing or permission of instructor; majors only. May be repeated with change of subject; maximum credit 6 hours. The course will offer a deeper grounding in relevant theoretical issues, as students explore together the interdisciplinary landscapes of contemporary theory and assess their relevance for artistic practice and art historical research. No student may earn credit for both 4933 and 5933. (Irreg.)
ARTC 4943 Business of Art: Professional Practice
3 Credit Hours
(Slashlisted with ARTC 5943) Prerequisite: Junior standing and majors only. This course is designed for students who plan to enter a career in the visual arts. Students will learn professional tactics to improve their marketing and visibility as visual artists. Emphasis on publicity, selfpromotion, effective communication, and presentation skills that will assist with career opportunities, exhibition opportunities, management of finances, budgets, and strategies for career growth. No student may earn credit for both 4943 and 5943. (Irreg.)

## ARTC 4960 Directed Readings

## 1-4 Credit Hours

1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean. May be repeated; maximum credit four hours. Designed for upper-division students who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)

ARTC 4970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: Senior standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)
ARTC 4990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: Senior standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)

ARTC 5013 Graduate Seminar
3 Credit Hours
Prerequisite: graduate standing. A required course during the first semester that focuses upon developing an informed approach to the art making process. It will utilize readings, writings, and visual references to form a basis for discussions. Each student will conduct a presentation on the aesthetic basis of their own work to the class. (F, Sp)

ARTC 5933 Process and Theory Workshop
3 Credit Hours
(Slashlisted with ARTC 4933; Crosslisted with A HI 5933) Prerequisite: Graduate standing and permission of instructor. May be repeated with change of subject; maximum credit 6 hours. The course will offer a deeper grounding in relevant theoretical issues, as students explore together the interdisciplinary landscapes of contemporary theory and assess their relevance for artistic practice and art historical research. No student may earn credit for both 4933 and 5933. (Irreg.)
ARTC 5943 Business of Art: Professional Practice 3 Credit Hours (Slashlisted with ARTC 4943) Prerequisite: Graduate standing and permission of instructor. This course is designed for students who plan to enter a career in the visual arts. Students will learn professional tactics to improve their marketing and visibility as visual artists. Emphasis on publicity, self-promotion, effective communication, and presentation skills that will assist with career opportunities, exhibition opportunities, management of finances, budgets, and strategies for career growth. (Irreg.) No student may earn credit for both 4943 and 5943. (Irreg.)

ARTC 5960 Directed Readings
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing and permission of department. May be repeated; maximum credit twelve hours. Directed readings and/or literature reviews under the direction of a faculty member. (F, Sp, Su)
ARTC 5970 Special Topics/Seminar 1-3 Credit Hours 1 to 3 hours. Prerequisite: Graduate standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)
ARTC 5990 Independent Study 1-3 Credit Hours 1 to 3 hours. Prerequisite: Graduate standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)
ARTC 6881 Thesis Proposal/Statement
1 Credit Hour
Prerequisite: 5013. Provides guidance for the development of the thesis exhibition proposal and the written statement required to accompany the exhibition of visual work. The student enrolls in this course the semester prior to the thesis exhibition and may enroll again for completion of the written component. (F, Sp)

## ARTH-Art Therapy

ARTH 3403 Theory and Application of Art Therapy 3 Credit Hours Prerequisite; junior standing, not for Art or Art History majors. Class considers the underlying principles, prevailing theories, current practice and evolving uses of art therapy with a focus on the theory and interdisciplinary nature of art therapy. In addition, the social and interpersonal applications of art, which are on a continuum with art therapy, will be addressed liking the disciplines of art and therapy. The primary approaches of art psychotherapy and art as therapy will be contrasted and students will create and discuss art within both theoretical frameworks. (Irreg.)

## ARTH 3440 Mentored Research Experience <br> 3 Credit Hours

0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)
ARTH 3503 Theory and Application of Creative Therapies 3 Credit Hours Prerequisite: junior standing, not for Art or Art History majors. Class covers a broad range of therapeutic methods which all draw from a theoretical base in the arts, creativity, and expression. A strong focus will be on creativity theory and how it is applied through creative therapy disciplines such as art, music, dance and drama therapy. These creative therapies will be linked in terms of physical and mental outcomes expected and that are documented in the literature and research. Students will be required to take a critical look at both the theoretical basis and the practical applications of these creative modes. (Irreg.)

## ARTH 3960 Honors Reading <br> 1-3 Credit Hours

1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Consists of topics designated by the instructor in keeping with the student's major program. Covers topics not usually presented in the regular courses.

ARTH 3970 Honors Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Subjects covered vary. Deals with concepts not usually treated in regular courses. (Irreg.)
ARTH 3980 Honors Seminar 1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Provides an opportunity for the gifted Honors candidate to work at a special project in the student's field. (F, Sp, Su)

ARTH 3990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: permission of instructor and junior standing. May be repeated once with change of content. Independent study may be arranged to study a subject not available through regular course offerings. (F, Sp, Su)

## ARTH 4950 Art Therapy Practicum

2-6 Credit Hours
Prerequisite: junior standing, two courses in social sciences; not for Art or Art History majors. Class covers a broad range of therapeutic modalities which all draw from a theoretical base in creativity and expression. A strong focus will be on creativity theory and how it is applied through creative therapy modalities. Modalities taught will be linked in terms of physical and mental outcomes expected and that are documented in the creative therapies literature and research. Students will be required to take a critical look at both the theoretical basis and practical application of these creative modes. (Irreg.)
ARTH 4960 Directed Readings
1-4 Credit Hours
1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean. May be repeated; maximum credit four hours. Designed for upper-division students who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)
ARTH 4970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: Senior standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)
ARTH 4973 Special Topics in Art Therapy
3 Credit Hours
Prerequisite; 3403 or 3503, not for Art or Art History majors. May be repeated with change of content; maximum credit six hours. Covers various topics dealing with diverse issues relating to the visual arts in therapeutic applications. Special topics allows a focus on one particular area or application of art therapy through readings, artwork (arts-based research protocols), and class discussion. Individualized readings and assignments may focus on a student's interdisciplinary interest. (Irreg.)

## ARTH 4990 Independent Study <br> 1-3 Credit Hours

1 to 3 hours. Prerequisite: Senior standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)

## ASTR-Astronomy

## ASTR 1504 Astronomy: Exploring the Universe

4 Credit Hours
An introduction to the concepts of modern astronomy. The solar system, the sun and stars, the Milky Way and other galaxies, current theories of the origin, evolution and fate of the universe. Not for major credit. A student may not receive credit for this course and ASTR 1514. (F, Sp, Su) [II-NS].

## ASTR 1514 Astronomy: Exploring the Universe with Laboratory

4 Credit Hours
0 to 4 hours. An introduction to the concepts of modern astronomy. The solar system, the sun and stars, the Milky Way and other galaxies, current theories of the origin, evolution, and fate of the universe. Not for major credit. A student may not receive credit for this course and ASTR 1504. Laboratory (F, Sp, Su) [II-NSL].

ASTR 1523 Life in the Universe 3 Credit Hours Introductory astronomy course focusing on general physical conditions under which life is thought to arise and evolve in the universe. Topics include historical astronomy, gravitation and planetary orbits, the solar system. The earth's geology and atmosphere, stellar evolution, theories for the origin of life on earth, the discoveries of extrasolar planets, and the search for extraterrestrial life. (Sp) [II-NS].

## ASTR 2513 Introductory Astrophysics <br> 3 Credit Hours

Prerequisite: PHYS 1215 or 2524, or permission of instructor. An introduction to solar system astronomy and basic astrophysical concepts for majors and students with a knowledge of introductory physics and calculus. Includes planetary system formation, asteroids, comets, terrestrial planets and giant planets. Astrophysical concepts including Keplers laws, blackbody radiation, hydrostatic equilibrium and heat transfer. Elements of astronomy, including time, celestial coordinates, telescopes and detectors, magnitudes and color indices. (F)

ASTR 2970 Special Topics/Seminar
1-3 Credit Hours
Special Topics. 1 to 3 hours. May be repeated; Maximum credit nine hours. Special topics course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research, and field projects. (Irreg.)

## ASTR 3103 Stars

3 Credit Hours
Prerequisite: 2513 or permission of instructor. Stellar properties and stellar evolution. Includes fundamental properties of stars (temperature, luminosity, mass) and how to determine them, star formation, main sequence, post main sequence, supernovae, black holes, neutron stars, white dwarfs, binary stars. (F)

## ASTR 3113 Galaxies and Cosmology

## Credit Hours

Prerequisite: 2513 or permission of instructor; 3103 strongly
recommended. Galactic and extragalactic astronomy. Includes the Milky Way galaxy, the interstellar medium, normal and active galaxies, clusters of galaxies, cosmology. (Sp)

ASTR 3190 Topics in Astronomy
1-3 Credit Hours
1 to 3 hours. Prerequisite: permission of instructor. May be repeated with change of subject matter; maximum credit nine hours. (F, Su)

ASTR 3440 Mentored Research Experience
3 Credit Hours
0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)

## ASTR 3960 Honors Reading

1-3 Credit Hours
1 to 3 hours. Prerequisite: Admission to Honors Program. May be repeated; maximum credit six hours. Consists of topics designated by the instructor in keeping with the student's major program. The topics will cover materials not usually presented in the regular courses. (F, Sp, Su)

ASTR 3970 Honors Seminar
-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Subjects covered vary. Deals with concepts not usually treated in regular courses. (Irreg.)

ASTR 3980 Honors Research
1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Provides an opportunity for the gifted Honors candidate to work at a special project in the student's field. (F, Sp, Su)

ASTR 3990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: one course in general area to be studied; permission of instructor and department. May be repeated; maximum credit six hours. Contracted independent study for topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Sp, Su)

ASTR G4303 Stellar Astrophysics
3 Credit Hours
Prerequisite: 3113 or permission of instructor. Physics of stars: gas and radiation laws, stellar atmospheres and spectra, stellar interiors and evolution. (F)

ASTR 4523 Advanced Observatory Methods 3 Credit Hours
Prerequisite: 2513 and 3103 . Techniques of multiwavelength observational astronomy. Includes time and coordinates, physics of astronomical ccds, telescopes, photometry, extinction correction, technical feasibility calculations, optical spectroscopy, and x-ray astronomy. Introductions to gamma-ray, infrared, UV radio astronomy. No student may earn credit for both 4523 and 5523. (Irreg.)

ASTR 4960 Directed Readings
-4 Credit Hours
1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean. May be repeated; maximum credit four hours. Designed for upper-division students who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)

ASTR 4970 Special Topics/Seminar 1-3 Credit Hours
1 to 3 hours. Prerequisite: Senior standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

ASTR 4990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: three courses in general area to be studied; permission of instructor and department. May be repeated; maximum credit six hours. Contracted independent study for topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (F, Sp, Su)

ASTR 5403 High-Energy Astrophysics 3 Credit Hours
Prerequisite: 4303 or permission of instructor. High-energy radiation processes in astronomy: synchrotron radiation, bremsstrahlung, inverse Compton-effect. New wavebands of observation, UV, X-ray and gammaray astronomy. Radioastronomy: supernova remnants, pulsars, neutron stars. Radiogalaxies, active galactic nuclei, quasars. Theories of the origin of cosmic rays. (Irreg.)

ASTR 5453 Extragalactic Astronomy and Cosmology 3 Credit Hours Prerequisite: 3113 or 4303 or permission of instructor. Basic properties of stars. Review of observational tools for extragalactic work. Stellar content and interstellar medium in normal galaxies. Introduction to the theory of Big Bang cosmology. Comparison of observational data to cosmological predictions. The extragalactic distance scale and the age of the universe. Large scale structure: galaxy clusters and superclusters. Active galaxies -- radio galaxies and quasars. (Irreg.)

ASTR 5463 Stellar Atmospheres
3 Credit Hours
Prerequisite: 4303 or permission of instructor. Local thermodynamic equilibrium. Radiative transfer, continuous absorption coefficient and model stellar atmospheres. Atomic and molecular spectroscopy and the quantitative analysis of stellar spectra. Atomic processes and departures from local thermodynamic equilibrium. Extended and expanding atmospheres, novae, supernovae. (Irreg.)
ASTR 5473 Stellar Interiors 3 Credit Hours
Prerequisite: 4303 or permission of instructor. Evolution and energy balance of stars including gravitational attraction, nucleosynthesis, radiative and convective energy, transport and equilibrium, construction of stellar models for pre-main sequence and main sequence stars, and the theory of giants and white dwarfs. (Irreg.)
ASTR 5513 Interstellar Medium 3 Credit Hours 4303 or permission. Processes in low-density media are explored, including the physics relevant to emission line objects such as HII and HI regions, molecular clouds, and active galaxies. Techniques for deriving chemical abundances are explored, as are interstellar absorption by gas and dust and radiation transfer. (Irreg.)

ASTR 5523 Advanced Observatory Methods 3 Credit Hours
Prerequisite: 2513 and 3103. Techniques of multiwavelength
observational astronomy. Includes time and coordinates, physics of astronomical ccds, telescopes, photometry, extinction correction, technical feasibility calculations, optical spectroscopy, and x-ray astronomy. Introductions to gamma-ray, infrared, UV radio astronomy. No student may earn credit for both 4523 and 5523. (Irreg.)

ASTR 5900 Seminar in Astrophysics 3 Credit Hours
Prerequisite: permission of instructor. May be repeated with change of subject matter; maximum credit nine hours. A research seminar devoted to the study of specialized topics in astronomy and astrophysics. Topics selected will reflect the interest of the instructor and students. (Irreg.)

## ASTR 5960 Directed Readings

1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing and permission of department. May be repeated; maximum credit twelve hours. Directed readings and/or literature reviews under the direction of a faculty member. (F, Sp, Su)
ASTR 5970 Special Topics/Seminar 1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

## ASTR 5990 Independent Study

1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)

## ATC-Art, Technology, and Culture

ATC 2823 Space - Introductory Studio Practice 3 Credit Hours
Prerequisite: Majors only; ART 1033 and ART 1043. Establishes a foundational perspective that considers embodiment and space in the digital age. Examines how networked information spaces might be understood, intervened with, repurposed, and inhabited as socially navigable spaces. This examination will be supported by an equal commitment to the physical via site specificity and emerging forms of public art practice. The goal is first of all, to engage the term 'space', and secondly, to examine possibilities as that engagement is extended into practice. (Irreg.)
ATC 2853 Image - Introductory Studio Practice 3 Credit Hours Prerequisites: Majors only; ART 1033 and ART 1043 or concurrent enrollment. An introduction to light and lens-based imaging with a specific emphasis on photography and the photographic image. Instructor determines content and methodology; all courses will include refinement of basic technical skills as well as critical engagement with photography and its ontology. Readings and writings will supplement class discussion.(Irreg.)
ATC 2873 Time - Introductory Studio Practice
3 Credit Hours
Prerequisites: Majors only; ART 1033 and ART 1043. Introduces students to a variety of temporal experience given form in film, video, and uses of the Internet. Time is conceived in terms of: (1)a succession of passing frames, (2) the mediated presence of another consciousness, (3) the inscription of testimony for an archive,(4) the live performance in bodily or vocalized sound, and (5) the re-marking of community over the course of technological change. Basic instruction is provided in the various technologies necessary to explore these topics. (Irreg.)
ATC 3440 Mentored Research Experience
3 Credit Hours
0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)
ATC 3843 3D Modeling for Computer Animation 3 Credit Hours Prerequisite: Majors only. Online intensive digital studio course covers beginning to advanced 3D modeling techniques in industry-standard animation software. Course content includes video tutorials, online discussion forums, projects, and critical feedback. Topics may include using curves, polygon modeling, material shaders, 3D sculpting, texturing, lighting and rendering. (Irreg.)

## ATC 3883 2D Computer Animation

3 Credit Hours
Prerequisite: Majors only; ATC 2823, or ATC 2873 or permission of instructor. Introduction to computer animation as an art form. Course content includes technical tutorials, screenings, projects, and critiques. Topics may include stop motion, 2D animation, 3D animation, abstract motion graphics, effects, character design, and narrative and/or experimental approaches. A personal laptop is required. (Irreg.)

## ATC 3893 Experimental Animation <br> 3 Credit Hours

Prerequisite: Majors only; ATC 2823 or permission of instructor. Advanced studio course covers abstract and experimental approaches to animation as an art form. Course content includes technical tutorials, screenings, projects, and critiques. Topics may include advanced motion graphics, dynamics simulation, motion capture, and procedural animation. A personal laptop is required. (Irreg.)

ATC 3913 Interface - Code Is Not Neutral
Prerequisite: Majors only; ART 1033 and ART 1043. This course teaches students to how to design and develop interactive User Interface and Extended Reality web products. Technical instruction covers the design and development process from wire framing, to mockups, to developing, to testing and debugging a usable web product. (Irreg.)

ATC 4863 BFA Studio 3 Credit Hours
Prerequisites: Majors only; ATC 2823, ATC 2853, and ATC 2873; admission to ATC major. May be repeated with change of content; maximum credit 12 hours. In this course, students develop research techniques in support of their studio practice. Seemingly diverse concentrations(for example: photography, performance, and robotics) synthesize with a common intent to investigate and communicate ideas. Students are exposed to experiences involving professional practices,including critical critique, proposed solutions and examinations of problems, public speaking/discourse, writing about art, and the formal presentation of artworks. Students' effort are concentrated through the series of Studio/Seminar courses that culminate in the public presentation of their thesis.(Irreg.)

## ATC 4883 Narrative Animation

3 Credit Hours
Prerequisite: Majors only; ATC 3843 or ATC 3883 or ATC 3893 or permission of instructor. Advanced studio course covers narrative and cinematic approaches to animation as an art form. Course content includes technical tutorials, screenings, projects, and critiques. Topics may include storyboarding, character design, rigging, sound design, motion capture, dynamics, and advanced rendering techniques. A personal laptop is required. (Irreg.)
ATC 4893 Expanded Animation
3 Credit Hours
Prerequisite: Majors only; ATC 3843 or ATC 3893 or permission of instructor. Advanced studio course exploring special topics in animation which may include virtual reality, augmented reality, motion tracking, motion capture, projection mapping, and immersive media installation. A personal laptop is required. (Irreg.)

## AVIA-Aviation

AVIA 1013 Introduction to Air Traffic Control 3 Credit Hours
Prerequisite: Permission of the department. The purpose of this course is to learn about the air traffic control system from both the pilot and controller's perspectives. This course is the first of eight ATC courses required for the Air Traffic Management degree path or ATC minor and a prerequisite for basic air traffic control regulations. (F, Sp)

## AVIA 1111 Aviation Orientation <br> 1 Credit Hour

Prerequisite: Majors only and departmental permission. Required orientation course for all declared Aviation Majors during their first semester. Orients students to the department, curriculum, resources, and provides an overview of the various aviation professions. Guest lecturers will include departmental instructors covering all aspects of the industry, as well as the advising staff. ( $\mathrm{F}, \mathrm{Sp}$ )

AVIA 1113 Introduction to Aviation
3 Credit Hours
Prepares student to take the FAA private pilot written examination.
Covers FAR's, meteorology, aerodynamics, flight physiology, performance charts, radio navigation techniques. (F, Sp, Su)

AVIA 1133 Private Ground - Helicopter 3 Credit Hours Prerequisite: departmental permission. Prepares students to take the FAA Computer Knowledge Test. Students will develop the knowledge specified by 14 CFR Section 141 App B 3 (b) for a Private Pilot Rotorcraft/Helicopter certificate. (F, Sp, Su)

AVIA 1213 Basic Air Traffic Control Regulations 3 Credit Hours Prerequisite: AVIA 1013 and permission of the department. This course is a progressive continuation of introduction to air traffic control and a prerequisite for general air traffic control procedures. This course is more narrowly focused on study and interpretation of the FAA orders and regulations that govern the air traffic control system and the national airspace system. (Sp, Su)
AVIA 1222 Primary Flying
2 Credit Hours
Prerequisite: 1113 or permission of department. Includes in-flight instruction with effort directed toward obtaining FAA certification as a private pilot. Third class medical must be obtained prior to flying. (F, Sp, Su )

## AVIA 1332 Private Flight - Helicopter

2 Credit Hours
Prerequisite: departmental permission. Prepares students with the knowledge, skill, and aeronautical experience necessary to meet the requirements for a private pilot certificate with a rotorcraft/helicopter category. (F, Sp, Su)

## AVIA 2013 General Air Traffic Control Procedures 3 Credit Hours

Prerequisite: AVIA 1013, 1213, and permission of the department. This course will present the study of "general control" procedures used in the terminal and en route control options as well as FAA flight service processes and procedures. This course will serve as a prerequisite for airport traffic control procedures. (F)

## AVIA 2231 Advanced Flying

1 Credit Hour
Prerequisite: AVIA 1222 or private pilot certificate. Flight instruction in preparation for FAA commercial pilot certificate. (F, Sp, Su)
AVIA 2341 Secondary Flying 1 Credit Hour
Prerequisite: 2231. Consists of cross-country experience under the direct supervision of an instructor pilot. Part of the FAA Part 141 commercial certification course. (F, Sp, Su)
AVIA 2513 The History of Aviation
3 Credit Hours
Prerequisite: Must be a declared aviation major with permission of the department. Chronicles the history of aviation through an in-depth study of powered flight and focus on the development of civil, commercial, and military aviation. Covers significant events and people throughout aviation history from the first powered flight through present day developments and a brief look into the future. Also examines the impact of aviation on recreation, transportation, warfare, and exploration. (F, Sp)

## AVIA 2613 Aviation Safety

3 Credit Hours
Prerequisite: Sophomore standing and departmental permission.
This course will examine all aspects of accidents/incidents involving airline and general aviation flights. It examines those areas from the perspective of pilots, crew members, air traffic controllers and National Transportation Safety Board (NTSB) findings. Each accident/incident is dissected with the goal of determining what went wrong and lessons that can be learned. (F, Sp)

AVIA 2970 Special Topics/Seminar 1-3 Credit Hours
1 to 3 hours. Prerequisite: Must be a declared aviation major with permission of the department. May be repeated; Maximum credit nine hours. Special topics course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research, and field projects. (Irreg.)

## AVIA 3013 Career Development for Aviation Professionals 3 Credit

 HoursPrerequisite: Sophomore standing and must be a declared aviation major with permission of the department. This course will provide an overview of the career planning process for aviation students. Students will master the techniques of self-assessment, resume and letter writing, interviewing, researching companies, proper writing techniques, ethics and etiquette, and networking. This course is intended to help students prepare for internship interviews or entering the aviation industry as a professional. ( $\mathrm{F}, \mathrm{Sp}$ )
AVIA 3103 Flight Deck Environmental Issues 3 Credit Hours Prerequisite: Must be a declared aviation major and departmental permission. Human-machine interface issues in today's modern flight deck are the focus of the course. Leading to that end, the student will explore the cognitive and psychomotor domains of learning, review studies of aircrew interface problems, learn coping mechanisms used by today's best aviation trainers to overcome design-induced problems in cockpit advanced technology. ( $\mathrm{F}, \mathrm{Sp}$ )
AVIA 3111 Advanced Flight Maneuvers
1 Credit Hour
Prerequisite: 1222 or FAA private pilot certificate. Increase the student's knowledge and understanding of advanced flight maneuvers. Accelerated stalls, spins, inverted flight, and recovery from unusual altitudes. Advanced aerodynamics will be discussed and demonstrated. (F, Sp, Su)

## AVIA 3113 Commercial Aviation

3 Credit Hours
Prerequisite: AVIA 3133 or instrument rating and permission of the department. Course provides the student the knowledge required to obtain a commercial pilot certificate. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
AVIA 3123 Instrument Ground - Helicopter 3 Credit Hours Prerequisite: Sophomore standing and departmental permission; AVIA 1133 and AVIA 1332 with grade of $C$ or better. Prepare students with the knowledge specified by 14 CFR Section 61.65 and 14 CFR Section 141 Appendix C for an Instrument Pilot Rotorcraft/Helicopter certificate. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

## AVIA 3133 Fundamentals of Instrument Flight 3 Credit Hours

 Prerequisite: 2231 and private pilot license. Federal aviation regulations as pertain to instrument flight rules (IFR), weather and forecast products, interpretation of en route low altitude charts and terminal instrument approach procedures, instrument flight procedures and techniques. (F, Sp, Su )
## AVIA 3143 Commercial Ground Helicopter <br> 3 Credit Hours

Prerequisite: Sophomore standing and departmental permission; AVIA 1133, AVIA 1332, AVIA 3123 and AVIA 3532 with grade of $C$ or better. Prepare students with the knowledge specified by 14 CFR Section 61.125 for a Commercial Pilot Rotorcraft/Helicopter certificate. (F, Sp, Su)

AVIA 3213 Airport Traffic Procedures
3 Credit Hours
Prerequisite: AVIA 1013, 1213, 2013, and permission of the department. The primary focus of this course is to study visual air traffic control procedures, specifically, to learn the principles of operation and the separation methods required in the air traffic control tower environment. This course will serve as a prerequisite for IFR Air Traffic Control Procedures. (Sp)
AVIA 3313 IFR Air Traffic Procedures 3 Credit Hours Prerequisite: AVIA 1013, 1213, 2013, 3213, and permission of the department. Focus on the requirements and procedures used in the IFR air traffic control environment. The students will study all of the separation standards and rules used in radar and non-radar environments in the approach control and air route traffic control facilities. This course will serve as a prerequisite for Air Traffic Simulation. (F)

AVIA 3333 Survey of Aviation Law
3 Credit Hours
Prerequisite: AVIA 1113, junior standing, and permission of the department. Survey of legal issues in aviation. The student will review legislation, regulatory agencies, and case studies dealing with legal issues in the medium of airspace above the ground-predominantly over the United States. The student will be able to identify and comprehend the historical events and technical terms that describe national and international legal precedents that have shaped aviation law. (F, Sp)

## AVIA 3440 Mentored Research Experience <br> 3 Credit Hours

0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)

## AVIA 3513 Airport Operations Management

3 Credit Hours
Prerequisite: AVIA 1113, junior standing, permission of the department, and must be a declared Aviation major. Provides the student with an indepth analysis of airport management, operations and planning functions necessary to operate, develop, and maintain safe and efficient airport facilities as is the practice in the United States. Also introduces air traffic control (ATC) concepts. (F, Sp)
AVIA 3532 Instrument Flying - Helicopter
2 Credit Hours
Prerequisite: Sophomore standing and departmental permission;
AVIA 1133 and AVIA 1332 with grades of $C$ or better. Prepare students with the knowledge, skill, and aeronautical experience necessary to meet the requirements for an Instrument Pilot Rating with a rotorcraft/ helicopter category to include Preflight Preparation, Preflight Procedures, Air Traffic Control Clearances \& Procedures, Flight by Reference to Instruments, Navigation Systems, Instrument Approach Procedures, Emergency Operations and Post-flight Procedures. (F, Sp, Su)
AVIA 3572 Instrument Flying
2 Credit Hours
Prerequisite: 3133 and private pilot certificate. Individual flight simulator instruction in the technique of flying solely by reference to instruments. Ground instruction in radio navigation, meteorology, instrument approach procedures, air traffic control procedures and federal aviation regulations. (F, Sp, Su)
AVIA 3581 Multi-Engine Flying
1 Credit Hour
Prerequisite: 4552 or commercial pilot certificate. A study of the design, construction and flight characteristics of multiengine aircraft. Inflight instruction in pilotage and operation of multiengine airplanes. Designed to qualify the student for certification as a multiengine pilot. (F, Sp, Su)

## AVIA 3913 Aerospace Contract Administration

3 Credit Hours
Prerequisite: Junior standing, permission of the department, and must be a declared aviation major. Survey and study of specialized procedures used in the management and administration of aerospace (aviation) contracts, particularly associated with commercial and defense systems acquisitions. Students will use case study analysis, involving aerospace development and acquisition procedures, to enhance the learning experience and prepare them for future employment in the aerospace industry. (F)

AVIA 3923 Aerospace Operational Research 3 Credit Hours
Prerequisite: Junior standing, must be a declared Aviation major, and departmental permission. Students will be introduced to the fundamental methods and techniques employed by the aviation/aerospace industry when researching and analyzing operational issues. Students will be able to use specialized research methods to collect data, analyze it, and then draw logical conclusions. Knowledge, skills, and abilities learned in this course will prepare students for Senior Capstone. (F)

## AVIA 3960 Honors Reading 1-3 Credit Hours

1 to 3 hours. Prerequisite: Admission to Honors Program. May be repeated; maximum credit six hours. Consists of topics designated by the instructor in keeping with the student's major program. The topics will cover materials not usually presented in the regular courses. (F, Sp, Su)

AVIA 3970 Honors Seminar 1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Subjects covered vary. Deals with concepts not usually treated in regular courses. (Irreg.)

AVIA 3980 Honors Research
1-3 Credit Hours
1 to 3 hours. Prerequisite: Admission to Honors Program. May be repeated; maximum credit six hours. Will provide an opportunity for the gifted Honors candidate to work at a special project in the student's field. (F, Sp, Su)

AVIA 3990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: permission of instructor and junior standing. May be repeated once with change of content. Independent study may be arranged to study a subject not available through regular course offerings. (F, Sp, Su)

AVIA 4004 Air Traffic Control Tower Simulation 4 Credit Hours
Prerequisite: AVIA $1013,1213,2013,3213,3313$, and 4013 ; all with minimum grade of $C$; and permission of the department. Provides students an opportunity to apply knowledge learned in previous air traffic control courses, specifically AVIA 3213, and expand the knowledge base of terminal ATC procedures. The application and expansion of knowledge will occur in lectures and through working in a high fidelity, simulated ATC tower environment. (F)

AVIA 4013 En-Route Radar Lab
3 Credit Hours
Prerequisite: AVIA 1013, 1213, 2013, 3213, 3313; all with minimum grade of C ; and permission of the department. Lab to prepare student for on-the-job training in an FAA En-Route Air Traffic Control facility. Course will consist of dynamic simulation exercises in an ATC computer lab as well as classroom briefings. Students will run scenarios as the controller and as a pseudo pilot. Course objectives are based on federal guidelines by the Federal Aviation Administration. (Sp)

AVIA 4023 Tracon Radar Lab
3 Credit Hours
Prerequisite: AVIA $1013,1213,2013,3213,3313,4004$, and 4013 ; all with minimum grade of C ; and permission of the department. Lab to prepare students for on-the-job training in an FAA Terminal Radar Air Traffic Control facility. Course will consist of dynamic simulation exercises in an ATC computer lab as well as classroom briefings. Students will run scenarios as the controller and as a pseudo pilot. Objectives are based on federal guidelines by the Federal Aviation Administration. (Sp)

AVIA 4033 EnRoute Radar Lab-Enhanced Follow On 3 Credit Hours Prerequisite: Junior standing; AVIA 1013, AVIA 1213, AVIA 2013, AVIA 3313, and AVIA 4013, all with a minimum grade of C. Provides students an opportunity to apply knowledge learned in previous air-trafficcontrol courses, including AVIA 3313 and AVIA 4013, and to prepare student for on-the-job training in an FAA EnRoute Air Traffic Control facility. Course consists of simulation exercises in an ATC computer lab as well as classroom briefings. Students will run scenarios as the controller and as a pseudo pilot. (F, Sp, Su)

AVIA 4043 ATC Tower Simulation Enhanced Follow On 3 Credit Hours Prerequisite: Junior standing; AVIA 1013, AVIA 1213, AVIA 2013, AVIA 3313, AVIA 4013, and AVIA 4004, all with minimum grade of C. This course provides students an opportunity to apply knowledge learned in previous air traffic control courses, specifically AVIA 4004, and expand the knowledge base of terminal ATC procedures. The application and expansion of knowledge will occur in lectures and through working in a high fidelity, simulated ATC tower environment. (F, Sp, Su)

AVIA 4113 CFI Seminar
3 Credit Hours
Prerequisite: 3133, 3113 . Increase student knowledge of theories of learning, flight instructor authority, and responsibility and classroom and flight techniques. Emphasis on principles of instruction, student motivation and maneuver error analysis. (F, Sp, Su)

AVIA 4123 Helicopter Flight Instructor Ground
3 Credit Hours
Prerequisite: Junior standing and departmental permission; AVIA 1133, AVIA 1332, AVIA 3123, AVIA 3532, AVIA 3143 and AVIA 4332 with grade of C or better. Prepare student instructor candidates with the knowledge specified by 14 CFR Section 61.181 and 14 CFR Section 141 Appendix F for a Flight Instructor Pilot Rotorcraft/Helicopter certificate. (F, Sp, Su)

AVIA 4313 Turbine Transition
3 Credit Hours
Prerequisite: AVIA 3581, 4552, and permission of the department. Introduce the student to the procedures of flying a turbine aircraft and the concepts of crew resource management. Emphasis is placed on the basic terminology and procedures and emergency operations. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

## AVIA 4332 Commercial Flying - Helicopter <br> 2 Credit Hours

Prerequisite: Sophomore standing and departmental permission;
AVIA 1133, AVIA 1332, AVIA 3123 and AVIA 3532 with grade of $C$ or better. Prepare students with the knowledge, skill, and aeronautical experience necessary to meet the requirements for a Commercial Pilot Certificate with a rotorcraft/helicopter category. (F, Sp, Su)

AVIA 4423 Crew Resource Management
3 Credit Hours
Prerequisite: AVIA 1113, junior standing, permission of the department, and must be a declared aviation major. To teach the student the principles and procedures of a two or more person cockpit. Includes: briefings, call-outs, and emergency procedures. (F, Sp)

AVIA 4552 Commercial Flying
2 Credit Hours
Prerequisite: 3113 . The final stage of the FAA Part 141 commercial pilot certification course. Designed to polish pilot skills in commercial aircraft maneuvers.(F, Sp, Su)

## AVIA 4602 Flight Instructor-Airplane

2 Credit Hours
Prerequisite: commercial pilot certificate and instrument rating. Flight instruction in preparation for FAA flight instructor certificate. (F, Sp, Su)

AVIA 4613 Instrument Flight Instructor
3 Credit Hours
Prerequisite: commercial pilot certificate and flight instructor-airplane certificate. Consists of lecture and flight instruction in the specialized teaching techniques and procedures required of an instrument flight instructor. At the end of the course, the student will meet the requirements for certification by the FAA as an instrument flight instructor. (F, Sp, Su)

AVIA 4632 Flight Instructor - Helicopter 2 Credit Hours
Prerequisite: Junior standing and departmental permission; AVIA 1133,
AVIA 1332, AVIA 3123, AVIA 3532, AVIA 3143 and AVIA 4332 with grade of $C$ or better. Prepare students with the knowledge, skill, and aeronautical experience necessary to meet the requirements for a Certified Flight Instructor Rating with a rotorcraft/helicopter category. (F, $\mathrm{Sp}, \mathrm{Su}$ )
AVIA 4642 Instrument Instructor Helicopter Flight 2 Credit Hours Prerequisite: Junior standing and departmental permission; AVIA 1133, AVIA 1332, AVIA 3123, AVIA 3532, AVIA 3143, AVIA 4332, AVIA 4123 and AVIA 4632 with grade of $C$ or better. Prepare students with the knowledge, skill, and aeronautical experience necessary to meet the requirements for an Certified Flight Instructor Instrument Pilot Rating with a rotorcraft/ helicopter category to include Preflight Preparation, Preflight Procedures, Air Traffic Control Clearances \& Procedures, Flight by Reference to Instruments, Navigation Systems, Instrument Approach Procedures, Emergency Operations and Post-flight Procedures. (F, Sp, Su)

AVIA 4643 Instrument Instructor Ground - Helicopter 3 Credit Hours Prerequisite: Junior standing and departmental permission; AVIA 1133, AVIA 1332, AVIA 3123, AVIA 3532, AVIA 3143, AVIA 4332, AVIA 4123 and AVIA 4632 with grade of C or better. Prepare the student with the knowledge specified by 14 CFR Section 61.65 and 14 CFR Section 141 Appendix G for the Flight Instructor Instrument Rotorcraft/Helicopter Rating. (F, Sp, Su)
AVIA 4663 Survey of Aerospace Ethical Issues 3 Credit Hours Prerequisite: Junior standing, permission of the department, and must be a declared aviation major. A survey of past and present ethical issues influencing the development of ethical behavior among U.S. aerospace companies and commercial and corporate aviation. Individual development of defense mechanisms to ensure ethical behavior in competitive environments. (F, Sp, Su)
AVIA 4713 Senior Capstone 3 Credit Hours Prerequisite: senior standing, permission of department, and all major upper-division courses or concurrent enrollment. This project course builds on the accumulated knowledge from all courses to date. Lectures will cover problem identification, analysis, generation of alternatives, cost/benefit studies, interviews and presentations. Student teams will analyze and make recommendations on an actual problem for an aviation related organization, such as the FAA. (F, Sp) [V].

## AVIA 4803 Aviation Mental Health: Psychological Implications for Air Transportation <br> 3 Credit Hours

Prerequisite: junior standing, permission of the department, and must be a declared aviation major. Students will learn about mental health issues relevant to passengers, cabin crew, and flight deck crew--that have farreaching psychological implications for all those who travel by means of air transportation--through the experiences of flight attendants, pilots, clinicians, researchers, trainers, and professors. (Sp, Su)

## AVIA 4960 Directed Readings

1-4 Credit Hours
1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean. May be repeated; maximum credit four hours. Designed for upper-division students who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)
AVIA 4970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: Senior standing and permission of department; May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

AVIA G4983 Airline Management
3 Credit Hours
Prerequisite: Junior or graduate standing, and departmental permission; must be a declared aviation major. Study of the managerial aspects of the airline industry to include economic and organizational characteristics, marketing, operational scheduling, fleet planning, and labor relations. Students participate in management simulation as senior executives of a regional domestic carrier. (F, Sp)
AVIA 4990 Special Studies in Aviation
1-4 Credit Hours 1 to 4 hours. Prerequisite: departmental permission. Will encompass various aviation-related topics including many specialty flight programs; such as, aerobatic instruction, multiengine training, pilot refresher training, etc. ( $F, S p, S u$ )

## B AD-Business Administration

## B AD 1001 Personal Computing Productivity Tools 1 Credit Hour

 B AD 1001 is designed to help all business majors and business minors succeed as students and young professionals. Being able to effectively utilize OneDrive (cloud storage system) and Microsoft Excel are skills recognized by all employers. These skills allow young professionals to differentiate themselves from others when applying for internships or jobs. (F, Sp, Su)B AD 1010 Passport to Success II
0 Credit Hours
Prerequisite: Degree Candidacy. Collection of curricular, co-curricular and extracurricular activities that enable students to succeed in the workplace regardless of major within Price College of Business. Students are required to earn a total of 40 "milestones" to successfully graduate from Price College. At least five and no more than seven milestones should be earned each semester. Milestones are chosen from an approved list. (F, Sp)

## B AD 1523 Business for People, Prosperity, and the Planet

## 3 Credit Hours

This course introduces students to the world of business while supporting their transition to the University of Oklahoma and building a collaborative learning community. This course uses a business simulation to help you build cultural fluency, critical thinking, civil discourse, citizenship, and community engagement, which are all keys to their success in college and beyond. (F, Sp) [V-FYE].

B AD 2091 Career Readiness I-Transitioning to the

## Workplace

## 1 Credit Hour

Prerequisite: Business majors only. Introduces students to the professional world of business. Emphasizes important aspects such as business culture, communications, ethics, social responsibility and business skills development. Prepares students for a professional future and to identify and address strengths and weaknesses for earning that first job. Includes Career Services registration, creation of a usable resume, and exploration of people skills necessary for success. (F, Sp)
B AD 2113 Introduction to Business I
3 Credit Hours
Designed for non-Business majors. Gives each student a comprehensive introduction to the study of business. Focuses on creation and maintenance of a long-term strategic vision for the firm. Introduces and builds an understanding of the functional business areas such as management, marketing, accounting, finance, and information systems. The concepts learned are essential in managing business activities in an increasingly competitive business world. (F, Sp)

B AD 2970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: May be repeated; Maximum credit nine hours Special topics course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research, and field projects. (Irreg.)

B AD 3013 Integrated Business Core Practicum 3 Credit Hours Prerequisite: ACCT 2123 or concurrent enrollment; Corequisite: enrollment in Integrated Business Core (L S 3323, MGT 3013, MKT 3013); Students must be approved for degree candidacy by Price College. Students will apply concepts from the corequisite courses to their own start-up business ventures and to community service projects. (F, Sp)

B AD 3091 Career Readiness II-Advancing in the Workplace 1 Credit Hour

Prerequisite: Student must be approved for degree candidacy by Price College, junior standing, and B AD 2091. An immersive course designed to explore areas of professional development that will help lead students on a path to a successful career. As an accompaniment to BAD 2091Business and Professional Basics, this course is designed to further explore areas that will help you, the student, become a more successful, well-rounded business professional as you seek internships and full-time job placement. (F, Sp)

B AD 3113 Managing Corporate Communication 3 Credit Hours (Crosslisted with MGT 3113) Prerequisite: Student must be approved for degree candidacy by Price College; ACCT 2123 or concurrent enrollment; MATH 1743 or MATH 1823 or MATH 1914; B C 2813. Strategic Communication challenges students to master their writing, listening, presentation, and interpersonal communication skills to excel in various business environments. Students will also develop strategies to promote customer engagement and loyalty through social media review sites. Emphasis is placed on credibility management, audience analysis, research, revision, and rehearsal to equip students for professional success. (F, Sp)

B AD 3440 Mentored Research Experience 3 Credit Hours
0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office Not for honors credit. (F, Sp, Su)

B AD 3513 International Business
3 Credit Hours
Prerequisite: Student must be approved for degree candidacy in the Price College of Business; ACCT 2123 or concurrent enrollment. The nature and economic role of the multinational corporation including the impact of legal, political, educational, sociological, and cultural variables upon firm performance and managerial activity; case studies illustrate managerial, marketing, financial and accounting activities projected across national boundaries. (F, Sp)

B AD 3700 Internship in Business Administration 1-3 Credit Hours 1 to 3 hours. Prerequisite: student must be approved for degree candidacy by Price College; permission showing approval from the designated faculty or advisor overseeing internships for credit. . (F, Sp, Su )

B AD 3710 Topics in Business Administration 1-3 Credit Hours 1 to 3 hours. Prerequisite: student must be approved for degree candidacy in Price College of Business. May be repeated; maximum credit nine hours. Permits students to study topics in business administration not included in standard course offerings. Subject of course will vary. (F, Sp, Su)

B AD 3960 Honors Reading
1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Provides an opportunity for the gifted honors candidate to study materials not usually presented in regular courses.(F, Sp, Su)

B AD 3970 Honors Seminar 1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Subjects covered vary. Deals with concepts not usually treated in regular courses. (Irreg.)

B AD 3980 Honors Research
1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program; junior standing. May be repeated; maximum credit six hours. Independent research on special projects. (F, Sp)

B AD 3990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: permission of instructor and junior standing. May be repeated once with change of content. Independent study may be arranged to study a subject not available through regular course offerings. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

## B AD 4013 Business Strategy and Policy <br> 3 Credit Hours

Prerequisite: senior standing and completion of all other College of Business core courses. Administrative decision making with emphasis on analyzing business problems, formulating policies and implementing plans for action; comprehensive cases provide the opportunity to study the proper interrelationships among production, finance, marketing and the many other functions involved in managing a business enterprise. Should be taken in student's final semester. (F, Sp, Su) [V].

B AD 4960 Directed Readings
1-4 Credit Hours
1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean. May be repeated; maximum credit four hours. Designed for upper-division students who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)

B AD 4970 Special Topics/Seminar 1-3 Credit Hours
1 to 3 hours. Prerequisite: Senior standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)
B AD 4990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: Senior standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)

B AD 5001 Quantitative Methods and Modeling I 1 Credit Hour Prerequisites: graduate standing; departmental permission. Review of important mathematical concepts used in business decision making (emphasis on problem solving). Spreadsheets are used as the principal device for building models. The course covers concepts in the effective spreadsheet design and use. Through development and usage of specific spreadsheets, students will become well-versed in verbalizing, visualizing, forming equations, and calculating answers to key types of business problems. (Irreg.)

B AD 5010 Foundations of MBA Success
Credit Hours
Prerequisites: departmental permission; graduate standing; majors only. This course provides an orientation to the Price MBA program, and is an essential ingredient for succeeding in the program and beyond. (F)

B AD 5101 MBA - Professional Development 1 Credit Hour
Prerequisite: admission to MBA program. Stresses professional development skills. Designed to prepare students for their professional careers and the job search process in particular. Topics include: resume writing, job search and interview, negotiation skills, business etiquette, career decisions, and project and career management. (F)

## B AD 5102 Managerial Economics <br> 2 Credit Hours

Prerequisites: graduate standing; departmental permission.
Microeconomic concepts and analysis as used in managerial decisionmaking with emphasis on marginal analysis, comparative advantage, resource allocation, opportunity cost, demand and supply, elasticity, economic efficiency, price discrimination, welfare analysis, production and cost functions, productivity, market structures, externalities and public goods, game theory, information asymmetry, market signaling, and government regulation of anti-competitive behavior. (Irreg.)

## B AD 5122 Quantitative Analysis I

2 Credit Hours
Prerequisite: Graduate standing and departmental permission. This course examines key probability and applied statistical concepts. General course objectives are: 1) enhanced Excel modeling skills; 2) understanding and use of descriptive statistics; 3 ) basics of probability theory; 4) use and interpretation of various probability models; 5) ANOVA; and 6) regression analysis. Microsoft Excel will be used to illustrate many of these topics. (Irreg.)

## B AD 5172 Business, Government and Society

2 Credit Hours
Prerequisite: graduate standing, admission into Business graduate program and department permission. Within the study of business, emphasis is placed upon market competition while little attention is paid to "non-market" conditions. Examples of non-market issues include: legislation, lawsuits, etc. Non-market conditions are often reviewed as external events having limited effect upon the strategies of the firm. This course seeks to integrate these concepts/ demonstrate the importance of strategically managing these issues. (Su)
B AD 5182 Quantitative Analysis II 2 Credit Hours Prerequisite: Graduate standing, departmental permission, and B AD 5122. This course expands treatment of multiple regression analysis and pursues other models and analytical techniques for actionable managerial decision making. Data analysis techniques in the context of Business Intelligence are covered. Specific techniques include multiple regression models and implications of violation of classical assumptions, basic forecasting techniques, linear programming, and optimization and simulation techniques for decision support. (Irreg.)

## B AD 5201 MBA - Professional Development II <br> 1 Credit Hour

Prerequisite: B AD 5101. This course will enable students to develop critical skills needed to identify, prepare for, and pursue a post MBA career. The course will focus on real-world and practical aspects of the business arena. Students will interact with key business leaders representing a variety of industries and functional areas. (Sp)
B AD 5202 Career \& Professional Development
2 Credit Hours
Prerequisite: Admission into the Professional MBA or Online MBA Program, Graduate Standing, and Departmental Permission. This course will prepare MBA students for the world of work. This class will enable students to develop the critical skills necessary to identify, prepare for, and confidently pursue a post-MBA career - and ultimately become great business leaders. The course will also focus on real-world and practical skills to succeed in the workplace. (F, Sp)

B AD 5302 Advanced Leadership
2 Credit Hours
Prerequisite: Graduate standing and departmental permission. You will explore leadership traits, behaviors, styles, and skills that are important to being an effective leader. We will highlight research in leadership and review important business concepts from business press and books. You will be asked to deeply reflect on your current leadership situation and create an actionable development plan that will move your forward in your leadership career. (Irreg.)
B AD 5312 Strategic Communication
2 Credit Hours
Prerequisite: Graduate standing and departmental permission. Strategic Communication challenges students to master writing, listening, presentation, and interpersonal skills to lead in business environments. Students will develop strategies to promote engagement and loyalty with internal and external stakeholders. Emphasis is placed on credibility management, audience analysis, research, revision, and rehearsal to equip students for professional success. (Irreg.)

## B AD 5322 Strategic Leadership \& Communication in the Workplace <br> 2 Credit Hours

Prerequisite: Graduate standing. In today's workplace, the most influential leaders are self-aware, emotionally intelligent, and continuously strive to improve the skills necessary to manage and lead professionally. These leaders are also excellent communicators committed to strengthening their speaking \& listening skills. In this course, students will explore methods to improve their ability to lead and communicate effectively at any level of leadership. (Su)
B AD 5490 Readings in Business Communication and Business Administration

1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing and permission. May be repeated; maximum credit 12 hours. Preparation and submission of a research report on an assigned comprehensive topic relating to the business enterprise or to its ethical environment. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

## B AD 5812 Global Business Experience

2 Credit Hours
Prerequisite: graduate standing and department permission. The course will focus on a study-abroad experience in a specific country. Students will have in-class instruction prior to and during their trip. Students will visit local and U.S. businesses; interact with and governmental leaders; participate in cultural events and experience local customs and culture; analyze cases involving the country; and, complete a written report.
(Irreg.)
B AD 5822 Business Consulting Practicum
2 Credit Hours
Prerequisite: graduate standing and department permission. This course applies the "Design Thinking" approach, which relies on rapid action followed by interaction and then reflection, to business consulting projects. It offers an immersive experience to students by using a handson, iterative approach to collaboratively solving real world business problems, and may include developing innovative products, processes and services. (Sp)
B AD 5832 Applied Field Project
2 Credit Hours
Prerequisite: Graduate standing or department permission. This semester-long course will provide experiential learning in a student's area of specialization and thereby enable them to apply their academic knowledge to real world contexts. Students specializing in different academic areas will be matched with internships in those areas. (F)

B AD 5902 Strategic Management
2 Credit Hours
Prerequisite: graduate standing and permission of the department. The study of management decisions and actions to improve an organization's competitiveness in global business environments. Uses a variety of pedagogies to integrate strategies. Students develop skills to formulate, implement, and evaluate organizational strategies in rapidly changing environments. This course is an integrative/cross-functional course. (F, Su )

B AD 5960 Directed Readings
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing and permission of department. May be repeated; maximum credit twelve hours. Directed readings and/or literature reviews under the direction of a faculty member. (F, Sp, Su)

B AD 5970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

## B AD 5973 Seminar <br> 3 Credit Hours

Prerequisite: graduate standing, permission (Director-CBA Graduate Programs). May be repeated with change of topic; maximum credit nine hours. A seminar for graduate students with topics to be announced each time the course is offered. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

B AD 5980 Research for Master's Thesis
2-9 Credit Hours
Variable enrollment, two to nine hours; maximum credit applicable toward degree, four hours. (F, Sp, Su)

B AD 5990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)

B AD 6243 Applied Univariate Statistics 3 Credit Hours
Prerequisite: Ph.D. standing or permission of instructor, permission (director-CBA graduate programs). Probability, algebra of expectations, random sampling, sampling distributions, point and interval estimation, tests of hypotheses, parametric and nonparametric, sampling methods, survey design, general linear model, computer applications, statistical analysis system. (F)

## B AD 6960 Directed Readings

1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor May be repeated; maximum credit six hours. Directed readings and/or literature review under the direction of a faculty member. (Irreg.)

B AD 6970 Special Topics/Seminar 1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor.
May be repeated; maximum credit 12 hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or research and field projects. (Irreg.)

B AD 6980 Research for Doctoral Dissertation 2-16 Credit Hours
2 to 16 hours. Prerequisites: Graduate standing and permission of instructor; may be repeated. Directed research culminating in the completion of the doctoral dissertation. (F, Sp, Su)

B AD 6990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)

## B C-Business Communication

## B C 2813 Strategic Communication for Business Professionals 3 Credit

Prerequisite: Business majors or other majors approved by Price College advising; ENGL 1213 or EXPO 1213 or equivalent. Introduces the strategies, processes, and resources necessary for writers in business and professional contexts. Students practice informative and analytical business genres while gaining expertise in research, writing, and revision. (F, Sp, Su)

B C 3440 Mentored Research Experience 3 Credit Hours
0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)

B C 3960 Honors Reading
1-3 Credit Hours
1 to 3 hours. Prerequisite: Admission to Honors Program. May be repeated; maximum credit six hours. Consists of topics designated by the instructor in keeping with the student's major program. The topics will cover materials not usually presented in the regular courses. (F, Sp, Su)

B C 3970 Honors Seminar 1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Subjects covered vary. Deals with concepts not usually treated in regular courses. (Irreg.)

B C 3980 Honors Research 1-3 Credit Hours
1 to 3 hours. Prerequisite: Admission to Honors Program. May be repeated; maximum credit six hours. Will provide an opportunity for the gifted Honors candidate to work at a special project in the student's field. (F, Sp, Su)

B C 3990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: permission of instructor and junior standing. May be repeated once with change of content. Independent study may be arranged to study a subject not available through regular course offerings. (F, Sp, Su)

## BASN-Bassoon

| BASN 2000 | Freshman and/or Sophomore Secondary Bassoon | 1-2 |
| :--- | :--- | :--- |
| Credit |  | Hours |

1 to 2 hours. Prerequisite: permission of adviser and instructor. May be repeated; maximum credit toward B.F.A., B.M.A., B.M.E., and B.M. degrees, eight hours. For freshman and sophomore music students studying in a secondary (or minor) performance area. (F, Sp, Su)

BASN 2020 Bassoon for Music Majors; Freshman/
Sophomore
2-4 Credit Hours
2 to 4 hours. Prerequisite: Majors only. May be repeated; maximum credit 12 hours. Applied instrumental lessons for freshmen and sophomore music majors in a School of Music degree program. (F, Sp)

BASN 3440 Mentored Research Experience 3 Credit Hours
0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)
BASN 4000 Junior and/or Senior Secondary Bassoon 1-2 Credit Hours 1 to 2 hours. Prerequisite: permission of adviser and instructor. May be repeated; maximum credit toward B.F.A., B.M.A., B.M.E., and B.M. degrees, eight hours. For junior and senior music students studying in a secondary (or minor) performance area. (F, Sp, Su)

BASN 4020 Bassoon for Music Majors: Junior/Senior 1-4 Credit Hours 1 to 4 hours. Prerequisite: Majors only; junior standing. May be repeated; maximum credit 20 hours. Applied instrumental lessons for junior and senior music majors in a School of Music degree program. (F, Sp)
BASN 5000 Master's Level Secondary Bassoon 1-2 Credit Hours 1 to 2 hours. Prerequisite: graduate standing in music; permission of adviser and instructor. May be repeated; maximum credit eight hours on a given instrument (including voice). For master's degree music students studying in a secondary (or minor) performance area. (F, Sp, Su)

BASN 5010 Master's-Level Bassoon for Non-Performance Music Majors

1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing in music; permission of adviser and instructor. May be repeated; maximum credit eight hours on a given instrument (including voice). For master's degree students other than performance majors in their major field. (F, Sp, Su)

## BASN 5020 Master's-Level Bassoon for Performance Majors <br> 2-4 Credit <br> Hours

2 to 4 hours. Prerequisite: graduate standing in music; permission of adviser and instructor; 4020 and 4021 or equivalent. May be repeated; maximum credit toward an M.M. degree 10 hours. (F, Sp, Su)
BASN 6000 Doctoral Secondary Bassoon 1-2 Credit Hours
1 to 2 hours. Prerequisite: graduate standing in music, permission of adviser or instructor. May be repeated; maximum credit eight hours on a given instrument (including voice). For doctoral degree music students studying in a secondary (or minor) performance area. (F, Sp, Su)

BASN 6010 Doctoral Bassoon for Non-Performance Music Majors 2-3 Credit Hours
2 to 3 hours. Prerequisite: graduate standing in music; permission of adviser and instructor. May be repeated. Doctoral-level study of applied music in the major performance area for students other than performance majors in their primary field. (F, Sp, Su)
BASN 6020 Doctoral Bassoon for Performance Majors 2-4 Credit Hours 2 to 4 hours. Prerequisite: graduate standing in music; 5042; permission of adviser and instructor. May be repeated; credit applicable toward applied music requirements for the Doctor of Musical Arts degree. Doctoral-level study of applied music for performance majors in their primary field. (F, Sp, Su)

## BASS-Bass

BASS 2000 Freshman and/or Sophomore Secondary Bass 1-2 Credit
Hours
1 to 2 hours. Prerequisite: permission of adviser and instructor. May be repeated; maximum credit toward B.F.A., B.M.A., B.M.E., and B.M. degrees, eight hours. For freshman and sophomore music students studying in a secondary (or minor) performance area. (F, Sp, Su)
BASS 2020 Bass for Music Majors: Freshman/Sophomore 2-4 Credit Hours
2 to 4 hours. Prerequisite: Majors only. May be repeated; maximum credit 12 hours. Applied instrumental lessons for freshmen and sophomore music majors in a School of Music degree program. (F, Sp)
BASS 3440 Mentored Research Experience 3 Credit Hours 0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)

BASS 4000 Junior and/or Senior Secondary Bass 1-2 Credit Hours 1 to 2 hours. Prerequisite: permission of adviser and instructor. May be repeated; maximum credit toward B.F.A., B.M.A., B.M.E., and B.M. degrees, eight hours. For junior and senior music students studying in a secondary (or minor) performance area. (F, Sp, Su)
BASS 4020 Bass for Music Majors: Junior/Senior 1-4 Credit Hours 1 to 4 hours. Prerequisite: Majors only; junior standing. May be repeated; maximum credit 20 hours. Applied instrumental lessons for junior and senior music majors in a School of Music degree program. (F, Sp)
BASS 5000 Master's Level Secondary Bass 1-2 Credit Hours 1 to 2 hours. Prerequisite: graduate standing in music; permission of adviser and instructor. May be repeated; maximum credit eight hours on a given instrument (including voice). For master's degree music students studying in a secondary (or minor) performance area. (F, Sp, Su)
BASS 5010 Master's-Level Bass for Non-Performance Music Majors

1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing in music; permission of adviser and instructor. May be repeated; maximum credit eight hours on a given instrument (including voice). For master's degree students other than performance majors in their major field. (F, Sp, Su)
BASS 5020 Master's-Level Bass for Performance Majors 2-4 Credit Hours
2 to 4 hours. Prerequisite: graduate standing in music; permission of adviser and instructor; 4020 and 4021 or equivalent. May be repeated; maximum credit toward an M.M. degree 10 hours. (F, Sp, Su)

## BASS 6000 Doctoral Secondary Bass

1-2 Credit Hours
1 to 2 hours. Prerequisite: graduate standing in music, permission of adviser or instructor. May be repeated; maximum credit eight hours on a given instrument (including voice). For doctoral degree music students studying in a secondary (or minor) performance area. (F, Sp, Su)
BASS 6010 Doctoral Bass for Non-Performance Music Majors 2-3 Credit Hours
2 to 3 hours. Prerequisite: graduate standing in music; permission of adviser and instructor. May be repeated. Doctoral-level study of applied music in the major performance area for students other than performance majors in their primary field. (F, Sp, Su)

BASS 6020 Doctoral Bass for Performance Majors 2-4 Credit Hours
2 to 4 hours. Prerequisite: graduate standing in music; 5042; permission of adviser and instructor. May be repeated; credit applicable toward applied music requirements for the Doctor of Musical Arts degree. Doctoral-level study of applied music for performance majors in their primary field. (F, Sp, Su)

## BIA-Business Intelligence \& Analysis

## BIA 3713 Introduction to Business Intelligence and Analytics <br> 3 Credit Hours

Prerequisite: MIS 2113; departmental permission; Student must be approved for degree candidacy by Price College of Business and must be accepted into the Business Intelligence and Analytics Certificate Program. This course will introduce concepts in Business Analytics (BA) and develop basic analytics skills with tools such Microsoft Power BI. Through case studies, lectures and hands-on exercise, students will learn about Business Intelligence and Analytics relevant to business organizations. (Irreg.)

## BIA 3723 Data Management and Presentation for Business

 Intelligence3 Credit Hours
Prerequisite: MIS 2113 and BIA 3713 or concurrent enrollment in BIA 3713; departmental permission required; Student must be approved for degree candidacy by Price College and must be accepted into the Business Intelligence and Analytics Certificate Program. Students will learn to use dashboards to communicate large amounts of critical information as a narrative. There will be discussions through case studies of actual BI implementation in well-known corporations. This course is designed to show a managerial perspective to data and BI, but will involve practical hands-on experiences through which students can become skilled in using BI software. (Irreg.)

## BIA 3733 Programming for Business and Artificial Intelligence

## 3 Credit Hours

Prerequisite: BIA 3713, BIA 3723, and departmental permission; must be accepted into the Business Intelligence and Analytics Certificate Program. An introduction to the tools for management and development of business intelligence. The course will introduce and compare several of the emerging tools for conducting data analysis in a business environment. (Irreg.)

BIA 4743 Data Mining for Business and Artificial Intelligence

## 3 Credit Hours

Prerequisite: BIA 3733 and departmental permission; must be accepted into the Business Intelligence and Analytics Certificate Program. In this course, we will review techniques that we have used quite often in data science, and then spend time in learning new methods in analytics. We will conduct data mining exercises and develop predictive models based on observed patterns in data. (Irreg.)

## BIOL-Biology

BIOL 1003 Contemporary Issues in Biology
3 Credit Hours
An introduction to biology, focusing on the scientific background needed to understand selected issues related to cells, genetics and inheritance, evolution and ecology. Not open to students with credit for BIOL 1005, BIOL 1013, BIOL 1114, BIOL 1124, BIOL 1134, or PBIO 1114. Cannot be used for major credit in Biology, Microbiology, or Plant Biology. (F, Sp) [IINS].

BIOL 1005 Concepts in Biology
5 Credit Hours
Prerequisite: None, but high school or college chemistry is recommended.
An introduction to the life sciences, focusing on the structure and function of organisms and their relationship to the environment. Fulfills general education laboratory science requirement. Not open to students with credit for BIOL 1003 or BIOL 1134, or PBIO 1114, BIOL 1114 or BIOL 1124. Cannot be used for major credit in Biology, Plant Biology, or Microbiology. Field trips. (F, Sp) [II-NSL].

BIOL 1013 Introduction to Biology
3 Credit Hours
Introductory survey of the fundamental concepts that underlie biological phenomena from the cellular to the ecosystem level. Not open to students with credit for BIOL 1003, BIOL 1005, BIOL 1114, BIOL 1124, or BIOL 1134. Cannot be used for major credit in Biology, Plant Biology or Microbiology. (F, Sp) [II-NS].

BIOL 1114 Introductory Zoology
4 Credit Hours
Major biological principles and concepts as illustrated in the structure, function and evolution of animals. Emphasis is on self-regulatory mechanisms, especially in the vertebrates, and their adaptive significance. (F, Sp, Su) [II-NS]

BIOL 1121 Introductory Zoology Lab
Credit Hour
Prerequisite: previous completion or concurrent enrollment in 1114. Laboratory study of structure and development of organ systems. Experiments on physiological process of selected vertebrates and invertebrates. (F, Sp, Su) [II-NSL].

BIOL 1124 Intro Biol: Molecule/Cell/Phys
4 Credit Hours
Major principles and concepts are presented in the function and physiology of animals, plants, fungi and microbes. Emphasis is on biological chemistry, cell structure and function, cellular energetics, molecular genetics, homeostasis and physiology. Includes biological laboratory experience with emphasis on critical thinking and problem solving. (F, Sp, Su) [II-NSL].

## BIOL 1134 Introductory Biology: Evolution, Ecology and

 Diversity4 Credit Hours
Prerequisite: Life science majors only. Major biological principles and concepts as illustrated in a survey of the diversity, behavior, and ecological functions of animals, plants, fungi, and microbes. Emphasis is on evolution, ecology, and diversity. Will include biological laboratory experience with emphasis on problem solving. Will include training in scientific procedures, including laboratory technical skills, writing skills, and introduction to statistical analysis. (Sp) [II-NSL].

BIOL 1203 The Age of Dinosaurs
3 Credit Hours
(Crosslisted with GEOL 1203) Introduction to basic principles and theories in biology (evolution, systematics, vertebrate morphology and relationships) and geology (geologic time, earth history, plate tectonics, sedimentation and stratigraphy), focusing on the evolutionary history of Dinosauria. May not be counted for major coursework in Biology or Geology. (F) [II-NS]

BIOL 2124 Human Physiology
4 Credit Hours
Prerequisite: BIOL 1114 and BIOL 1121 with a grade of C or better, or BIOL 1124 with a grade of $C$ or better; a course in chemistry with a grade of $C$ or better. May not be applied for biology major credit. Open only to majors in nursing, physical therapy, health and exercise science, and selected fields. Function of vertebrate organ systems in homeostasis. Circulation, digestion, endocrine and nervous control, metabolism, muscle action and respiration, with emphasis on humans. Laboratory. (F, Sp, Su)

BIOL 2234 Introduction to Human Anatomy
4 Credit Hours
Prerequisite: BIOL 1114 and BIOL 1121 with a grade of $C$ or better, or BIOL 1124 with a grade of C or better, sophomore standing. (Cannot be enrolled concurrently with BIOL 2255). Open only to majors in health and exercise science, physical therapy, nursing and selected fields. An introduction to the gross morphology of the human body. The course will use a lab/lecture format with extensive use of models, videos, and computer-assisted instruction as well as prosected cadavers. Not for Biology major credit. (F)

## BIOL 2255 Human Anatomy

5 Credit Hours
Prerequisite: BIOL 1114 and BIOL 1121 with a grade of C or better, or BIOL 1124 with a grade of C or better, sophomore standing. (Cannot be enrolled concurrently with BIOL 2234). Open only to majors in health and exercise science, physical therapy, nursing and selected fields. See http:// biology.ou.edu/human_anatomy-physiology.htm for complete list. The development and gross morphology of the human body and its systems. Laboratory dissection of human cadavers. Not for biology major credit. Laboratory (F, Sp)
BIOL 2404 Ecology/Environmental Quality 4 Credit Hours (Crosslisted with PBIO 2404) Prerequisite: sophomore standing. Study of ecological principles and their applications to human systems, study of population, air pollution, water pollution, energy issues, etc. Laboratory exercises focus on learning scientific methods of measurement of environmental quality factors. Laboratory (Sp) [II-NSL].

## BIOL 2815 Introduction to Microbiology 5 Credit Hours

Prerequisite: one course in college chemistry. Introduction to microorganisms as biological entities. Survey of the roles of microorganisms in the ecosystem. Application of microorganisms to industrial and environmental problems. Discussion of microorganisms as causes of human disease and response of hosts to microbial invasion. This course does not count for major credit in Biology, Microbiology or Plant Biology. Laboratory (F, Sp, Su) [II-NSL].
BIOL 2913 Intro to Quantitative Biology 3 Credit Hours Prerequisite: 1114 and 1121, or 1124, or Biology 1134, Mathematics 1523 or 1643 or higher, or permission of instructor. The connections between basic mathematics and how biological data are organized, tested, and interpreted. Includes review of probability theory, introduction to parametric and non-parametric biostatistics, fundamentals of experimental design, and sketches of how optimality theory can be used to generate biological questions. (Sp even-numbered years)

## BIOL 2970 Special Topics <br> 3 Credit Hours

0 to 3 hours. Prerequisite: BIOL 1134 and BIOL 1124; or BIOL 1134 and BIOL 1114 and BIOL 1121; or BIOL 1124, BIOL 1134, or BIOL 1114 and BIOL 1121, and either Plant Biology 1114 or Chemistry 1315; or permission of instructor; May be repeated with change of content, maximum credit nine hours. Seminar or special topics course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research, and field projects. (Irreg.)
BIOL 3001 Microbiology: the Discipline and Degree 1 Credit Hour Prerequisite: BIOL 1114 or BIOL 1124 or BIOL 1134. Introduce students to their discipline, degree and faculty. Allows students microbiology credit prior to MBIO 3813, which has a prerequisite of Chemistry 3053. By the end of the course students will have an introduction to use of the literature of microbiology and writing in scientific English, as well as familiarity with the discipline, progress towards degree completion and their faculty. (Sp)

BIOL 3013 Evolution
Prerequisite: BIOL 1124 and BIOL 1134. Processes of evolution including natural selection and non-selective forces. Phylogenetics and the history of life. The nature and origin of species. Factors contributing to divergence of genes, populations, species, and higher taxa such as genetics, ecology, geography, and behavior. (F, Sp)

BIOL 3063 Veterinary Entomology 3 Credit Hours
Prerequisite: BIOL 1124, or BIOL 1114 and BIOL 1121; and BIOL 1134.
The study of insects and their near relatives, such as ticks, as they relate to the causation of economic loss and transmission of disease organisms in livestock and companion animals. Insect biology, disease transmission, and methods of control will be stressed in lecture. Laboratory emphasizes 1) collection, preservation, and pathogens, and 2) methods used to control/evaluate insecticides and acaricides. Laboratory.
BIOL 3073 Medical Entomology
3 Credit Hours
Prerequisite: 1114 and 1121, or Biology 1134. Medical entomology investigates the relationship of insects and other arthropods to the health of humans, domestic animals, and wildlife. Laboratory. (Sp)

BIOL 3083 Animal Behavior
3 Credit Hours
(Crosslisted with PSY 3083) Prerequisite: 2013 or permission of instructor. Animal behavior from an evolutionary perspective. The effects of natural selections on mechanisms underlying behavior and on diversity of behavior among and within species. (F, Sp)
BIOL 3101 Principles of Physiology Lab
1 Credit Hour
Prerequisite: BIOL 3103 or concurrent enrollment. Provides students with an introduction to methods and procedures used in physiological research. Topics include data acquisition, analysis and basic statistics, effects of temperature on living systems, nervous system functions, muscle mechanics and physiology, and studies of metabolic rates. In addition to hands-on lab experience, library projects and research papers are used to introduce students to methods of scientific communication. (Sp)
BIOL 3103 Principles of Physiology
3 Credit Hours
Prerequisite: ZOO/BIOL 1124, or ZOO/BIOL 1114 and ZOO/BIOL 1121; and Biology 1134, or permission of instructor. One semester of physics and organic chemistry strongly recommended. Introduction to basic concepts of physiology; relation of functions of organisms to physical and chemical principles, and to the environment; discussion of experimental design, constituents of tissues, energy, growth, homeostasis, cellular and organ functions. (F, Sp)
BIOL 3111 Undergraduate Professional Development 1 Credit Hour Prerequisite: permission of instructor. The Professional Development course is designed to assist our microbiology students in achieving their career goals by enhancing their ability to communicate their accomplishments effectively. Students will learn about the career opportunities in microbiology, how to prepare resumes and/or graduate and professional school applications, how to communicate effectively in an interview, and how to build a professional network. (Sp)
BIOL 3113 Cell Biology
3 Credit Hours
(Crosslisted with PBIO and MBIO 3113) Prerequisite: 1114, or 1124, or BIOL 1134, or PBIO 1114, and CHEM 3053. Introduction to the cell as a unit of life. A chemical and physical comparison of procaryotic and eucaryotic cells to include a discussion of cell metabolism, types of metabolic regulation, and an analysis of ultrastructure. Emphasis will be placed on the dynamic changes in metabolism and ultrastructure which occur during the life of a cell. (F, Sp)

BIOL 3122 Cell Biology Laboratory
Prerequisite: BIOL 1124; Prerequisite or Concurrent Enrollment: BIOL 3113. This laboratory course introduces fundamental concepts of cellular biology through hands-on experience. The emphasis is to promote development of skills in formulating hypotheses, experimental design, data analysis and interpretation, and the ability to engage in ethical research, scientific writing, and communication. (F)
BIOL 3163 Economic Botany
3 Credit Hours
Prerequisite: BOT 1114 or BIOL 1114 or BIOL 1134 or BIOL 1005 or any introductory biology course. A survey of plants and plant products used in industry, drug plants and drugs, and especially food plants and food adjuncts. Origin of agriculture, domestication and evolution of crop plants, and uses of plants in different cultures are emphasized. (F) [IVWC].

## BIOL 3201 Animal Development Lab

1 Credit Hour
Prerequisite: 3203 or concurrent enrollment. Laboratory study of the development and embryology of a variety of animals. Developmental concepts and mechanisms will be illustrated through the use of prepared materials and hands-on experiments. Laboratory ( $\mathrm{F}, \mathrm{Sp}$ )

## BIOL 3203 Animal Development

3 Credit Hours
Prerequisite: BIOL 1124, or BIOL 1114 and BIOL 1121; and BIOL 3333; and BIOL 1134. Study of animal development from gamete formation through organogenesis and postembryonic phases in different animal models.
Concepts and mechanisms at the tissue, cellular and molecular levels will supplement descriptive analyses of development. (Sp)
BIOL 3214 Comparative Vertebrate Anatomy 4 Credit Hours
Prerequisite: BIOL 1114 and BIOL 1121; or BIOL 1124; or BIOL 1134; or equivalent. A study of the anatomy and evolutionary development of vertebrate organ systems. Representative vertebrates are studied in laboratory. Laboratory (F)

BIOL 3333 Genetics
3 Credit Hours
(Crosslisted with PBIO 3333) Prerequisite: BIOL 1124, or BIOL 1114 and BIOL 1121; BIOL 1134 recommended. Principles of inheritance at gene, chromosome, and population levels; nature of the genetic material and its involvement in the determination of structure and function. ( $F, S p$ )

## BIOL 3342 Genetics Laboratory

2 Credit Hours
Prerequisite: BIOL 3333 or concurrent enrollment, or equivalent. The demonstrations, crosses and experiments are designed to illustrate various genetic phenomena, including Mendelian laws, recombination, mutation, natural and artificial selection, and interaction of genotype with environment. The primary organism studied is Drosophila, with some use of corn, Neurospora, and others. Laboratory (F)
BIOL 3403 Principles of Ecology
3 Credit Hours
Prerequisite: BIOL 1114 and BIOL 1121, or BIOL 1134, or PBIO 1114.
Patterns of environments and biological communities; the processes maintaining these patterns. Field trips. Some overnight trips. Laboratory (F, Sp)
BIOL 3440 Mentored Research Experience
3 Credit Hours
0 to 3 hours. Prerequisite: ENGL 1113 or equivalent, and permission of instructor; May be repeated, maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)

BIOL 3451 Methods in Plant Ecology
1 Credit Hour
Prerequisite: corequisite BIOL 3453. Methodology in plant physiological, population, community and ecosystem ecology will be covered. Emphasis will be on actual field or laboratory experience and the applicability of these methods to other areas of ecology. Laboratory. (F)
BIOL 3453 Principles of Plant Ecology
3 Credit Hours Prerequisite: BIOL 1114 or BIOL 1134. Introduction to physiological, population and community ecology. Emphasis is placed on environmental factors, disturbance and succession and how these factors affect species diversity and landscape patterns. One field trip. (F)
BIOL 3463 Water and Ecological Sustainability 3 Credit Hours (Crosslisted with ENST 3463) Prerequisite: junior standing and English 1213 or Expository Writing 1213, BIOL 1114 or BIOL 1124 or BIOL 1134, or permission of instructor. Objective of the course is to allow students to examine and discuss important historical and current issues relating to the interactions between socio-economic use of water resources and ecosystem biodiversity, function, and sustainability. (F) [II-NS].
BIOL 3563 Biological Conservation
3 Credit Hours
Prerequisite: BIOL 1114 and BIOL 1121, or BIOL 1134, or PBIO 1114.
Active learning format course for exploring ecological, legal, and societal issues affecting biodiversity at local, regional, and global scales. Offered Fall of even-numbered years. (Irreg.)

BIOL 3673 Practical Bioinformatics
3 Credit Hours
Prerequisite: junior standing; BIOL 2815 or BIOL 3813 or BIOL 1114 or BIOL 1005 or equivalent introductory biology course or instructor permission. Study of the use of computers to analyze and interpret various types of biological data. Topics covered will include accessing genomics databases, aligning DNA and protein sequences, searching genomic databases for similar sequences, analyzing protein structure, and building molecular phylogenies. Classes will emphasize group work and in-class computer exercises in a highly interactive environment. (Sp)
BIOL 3812 Fundamentals of Microbiology Laboratory 2 Credit Hours Prerequisite: credit or concurrent enrollment in 3813 . Fundamental microbiological methods: aseptic technique, culture methods, microscopy, metabolic and physiological tests, bacterial isolation and identification, environmental microbiology. Laboratory. (F, Sp, Su)

BIOL 3813 Fundamentals of Microbiology 3 Credit Hours Prerequisite: BIOL 1005 or BIOL 1114 or BIOL 1124 or BIOL 1134; and CHEM 1315; and CHEM 1415 or CHEM 1335; and CHEM 1435. Cell structure and phylogeny of bacteria, archaea, and eukaryotic microorganisms; growth, metabolism and ecological roles; symbiotic relationships; gene expression, genetic exchange, genomics. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
BIOL 3833 Introduction to Neurobiology
3 Credit Hours
Prerequisite: BIOL 1124. Introduction to cellular and behavioral neurobiology. Topics covered will include cellular neurobiology, neurophysiology, neuroanatomy, sensory processing, movement, and neurobiology of behavior. (Sp)
BIOL 3960 Honors Reading (HONORS)
1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program and departmental permission; May be repeated, maximum credit six hours. Will consist of topics designated by the instructor. The content will emphasize work not presented in other courses. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

## BIOL 3970 Honors Seminar

1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program; May be repeated, maximum credit six hours. Discussion of recent and current research trends and significant developments in zoology. (Irreg.)

BIOL 3980 Honors Research (HONORS)
1-3 Credit Hours
1 to 3 hours. Prerequisite: Departmental permission and admission to Honors Program; May be repeated, maximum credit six hours. Will provide an opportunity for the gifted Honors candidate to work at a special project under the guidance of a professor in the student's field. Laboratory ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

## BIOL 3990 Independent Study

1-3 Credit Hours
1 to 3 hours. Prerequisite: one course in general area to be studied and permission of instructor and department; May be repeated, maximum credit six hours. Contracted independent study for topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (F, Sp, Su)
BIOL 4003 Arthropod Vector Surveillance and Management 3 Credit

## Hours

Prerequisite: BIOL 1124 or BIOL 1134. Immerse yourself in a medicalveterinary field experience. Collect, preserve, and identify arthropod pests and vectors of pathogens that cause disease in humans and animals. Determine the risk associated with arthropod pests and vector borne diseases and develop an integrated pest (vector) management program to reduce that risk. Laboratory. (Sp)

BIOL 4023 Field Mammalogy
3 Credit Hours
(Slashlisted with BIOL 5023) Prerequisite: two college science courses that include a laboratory, one of which should be in biological sciences or permission of UOBS Director; Course taught at Biological Station, students must apply for enrollment into course. Study of mammals with emphasis on principle of mammalian ecology, conservation, biodiversity, techniques of field study, and methods of collection and preservation. Topics include characteristics of mammals, classification, natural history, ecology, biodiversity, conservation, and techniques in field study. Emphasis is given to mammals of southern Oklahoma and northern Texas. Laboratory. No student may earn credit for both 4023 and 5023. (Su)
BIOL G4034 Mammalogy
4 Credit Hours
Prerequisite: BIOL 1124 and BIOL 1134. Classification, distribution, and natural history of mammals with emphasis on Oklahoma species. Mammals are collected and prepared for scientific collections. Field trips. Some overnight camping. Laboratory. Offered Fall even-numbered years. (Irreg.)
BIOL 4043 Research in Ecology

## 3 Credit Hours

Prerequisite: Two college sciences courses that include a laboratory; one of these courses must be focused within the field of biology. Field study of population and community dynamics in which students work collaboratively to design, conduct, and present the results of original experiments in an interactive and supportive setting. (Su)

## BIOL G4044 Ornithology

4 Credit Hours
Prerequisite: BIOL 1124, or BIOL 1114 and 1121; and BIOL 1134. Biology of birds. Identification of birds in North America with emphasis on Oklahoma; relationships, natural history and behavior or birds. Field trips. Laboratory. Offered Sp odd-numbered years. (Irreg.)

## BIOL 4053 Forensic Entomology 3 Credit Hours

Prerequisite: BIOL 1124, or BIOL 1114 and BIOL 1121; and BIOL 1134 . Lecture will explore the use of insects in forensic entomology and its impact on death scene investigation, neglect or abuse; contamination of food products and other marketable goods and subsequent litigation. Lab will be centered on a "death scene investigation". Students will collect data from a pig carcass to determine factors that affect the rate of decomposition. Laboratory.

BIOL 4063 Field Herpetology
3 Credit Hours
(Slashlisted with BIOL 5063) Prerequisite: two college science courses that include a laboratory, one of which should be in biological sciences or permission of UOBS Director. Overview of methods, techniques, and standards for the collection, management, and analysis of herpetological field data for various applications. Includes collection of amphibians and reptiles, and diagnostic (morphological, ecological, and behavioral) characteristics of species. Students design and complete individual projects that address current issues in biology and conservation in herpetology. Laboratory. No student may earn credit for both 4063 and 5063. (Su)

BIOL G4073 General Entomology
3 Credit Hours
Prerequisite: Sophomore standing, and BIOL 1114 and BIOL 1121, or BIOL 1134, or PBIO 1114, or BIOL 1005, or permission of instructor. Introduction to the world of insects. Morphological and physiological adaptations; taxonomy, life histories, and methods of collection. Field trips. Laboratory (F)

BIOL G4083 Herpetology
3 Credit Hours
Prerequisite: 2013 and Biology 1134 or permission of instructor. An introduction to the study of amphibians and reptiles. Taxonomy, ecology, behavior and life histories of amphibians and reptiles, with emphasis on local forms. Field trips. Laboratory. Offered Fall of odd-numbered years. (Irreg.)

## BIOL 4113 Cellular Pathology

3 Credit Hours
(Slashlisted with BIOL 5113) Prerequisite: 3113 or permission of instructor. The course focus is on the molecular and cellular bases of disease and alterations in cellular processes that lead to the development of various pathological conditions. Topics include symptoms of cellular disease, pathology of organelles, cell injury, cell death, immunopathology, neoplasia and genetic disorders. No student may earn credit for both 4113 and 5113. (F)
BIOL G4114 Principles of Plant Physiology 4 Credit Hour Prerequisite: BIOL 1114 and CHEM 3053, or permission of instructor. Plant Physiology is the study of how plants grow and develop, respond to biotic and abiotic factors in their environments, convert solar energy to chemical energy, and generally how plants go about their business. Modern plant physiology is a fairly all-inclusive discipline and incorporates plant anatomy and morphology, biochemistry, genetics, molecular biology, etc. Laboratory. (F)
BIOL 4153 Endocrinology
3 Credit Hours
(Slashlisted with BIOL 5153) Prerequisite: BIOL 3103; BIOL 3113 also strongly recommended. Endocrinology covers the structure and function of endocrine glands and the mechanisms of hormone action. Coverage of the endocrine glands includes biosynthesis of hormones, control and secretion of hormones, physiological, morphological, and behavioral actions of hormones, as well as a review of common endocrine disorders and clinical conditions. No student may earn credit for both 4153 and 5153. (Sp)

BIOL 4204 Vertebrate Paleobiology
4 Credit Hours
(Crosslisted with GEOL 4204) Prerequisite: BIOL 1114 and 1121, or 1124 or 1134; BIOL 3214; or permission of instructor. Systematics, relationships, zoogeography and evolutionary morphology of the major groups of vertebrates. Field trips. Laboratory. (Sp)

BIOL 4233 Neurobiology of Disease
3 Credit Hours
(Slashlisted with BIOL 5233) Prerequisite: BIOL 4833 (preferred), or BIOL 3113 and BIOL 3333, or BIOL 2124 or BIOL 3103; or permission of the instructor. Cellular and molecular mechanisms underlying both normal neuronal function and neuronal disorders. Includes a review of basic concepts in neuroscience through traditional lectures, and reading and discussion of original research articles. Students are required to give oral presentations, write critiques and term papers, and present research posters. No student may earn credit for both 4233 and 5233. (F)

## BIOL G4244 Animal Histology

4 Credit Hours
0 to 4 hours. Prerequisite: BIOL 3103 and BIOL 3113, or permission of instructor. Structure and function of animal tissues with emphasis on the cellular basis of tissue and organ function. Laboratory emphasizes the identification of cells and tissues with the use of the light microscope. Laboratory (Sp)
BIOL 4264 Morphology of Vascular Plants 4 Credit Hours
Prerequisite: permission of instructor. Structural organization and phylogenetic relationships of vascular land plants are explored using living and extinct plants. Emphasis is given to understanding the origins, unique and common features of plant life histories, organography and morphogenesis. (Irreg.)
BIOL 4353 Molecular Tech-Field Biology
3 Credit Hours (Slashlisted with BIOL 5353) Prerequisite: 1114 and 1121, or 1124 and permission of instructor; 3333 or 3403 recommended. Selected protocols and data interpretation using molecular techniques to study protein and DNA variation in natural populations and the application of molecular techniques to research problems in ecology, systematics, animal behavior, conservation biology, and related areas. Graduate students enrolled in 5353 will have additional project expectations and written work. Taught at the OU Biological Station. Field trips. Laboratory No student may earn credit for both 4353 and 5353. (Su)
BIOL 4361 Experimental Genetics and Cell Biology Lab 1 Credit Hour Prerequisite: BIOL 3333 or BIOL 3113 . Students will be introduced to experimental design and techniques including types of microscopy such as SEM and TEM, cell and tissue culture, DNA isolation, protein and DNA electrophoresis, PCR, and introductory bioinformatics. Offered Sp of odd numbered years. (Irreg.)

## BIOL 4423 Stream Ecology

3 Credit Hours
Prerequisite: BIOL 1124, or BIOL 1114 and BIOL 1121; and BIOL 1134; junior or senior standing, or permission of instructor. A combined lecture/ laboratory course that focuses on the physical, chemical, and biological features of stream ecosystems, including current theories explaining species interactions and stream function. Course requirements/ evaluation including a midterm and final examination, individual research papers and presentations, participation in group laboratory and field experiments, and reading and discussing the primary literature. Field trips. Laboratory. Offered Fa of odd-numbered years. (Irreg.)

## BIOL G4463 Lake Ecology

3 Credit Hours
Prerequisite: BIOL 3403, or permission of instructor. An introduction to the biology, chemistry, physics, and geology of freshwater environments, with emphasis on ecology. (Sp)

## BIOL 4483 Physiological Plant Ecology

3 Credit Hours
(Slashlisted with BIOL 5483) Prerequisite: BIOL 3453 or BIOL 4115, or permission of instructor. Study of energy budgets, plant water relations, carbon uptake and release, nutrient uptake and availability, and other factors as they affect plant growth, competition and ecosystem-level factors. In-depth analysis of current literature. (F, even-numbered years) No student may earn credit for both 4483 and 5483.

BIOL G4493 Ichthyology
3 Credit Hours
Prerequisite: BIOL 1124, or BIOL 1114 and BIOL 1121; and BIOL 1134 . Taxonomy, morphology, ecology and distribution of fishes, with emphasis on those of the region. Field trips. Some overnight trips. Laboratory. (Sp)
BIOL 4523 Biogeography and Macroecology
3 Credit Hours
(Slashlisted with BIOL 5523) Prerequisite: BIOL 3013: Evolution, or permission of instructor. This course will explore the causes and consequences of the geographic distribution of life on Earth. We will discuss the processes which shape individual species distributions, why some regions host more species than others, and how the evolution of biodiversity is tied to the history and geography of Earth itself. No student may earn credit for both 4523 and 5523. (F)

## BIOL 4534 Plant Systematics

4 Credit Hours
(Slashlisted with BIOL 5534) Prerequisite: BIOL 1114 and BIOL 1134, or permission of instructor. Introduction to the evolution and identification of vascular plants with emphasis on the origin and evolution of the Oklahoma flora. Laboratory activities stress identification skills, terminology, field techniques, and family recognition for the flora of Oklahoma. Field trips. Laboratory. No student may earn credit for both 4534 and 5534. (Irreg.)

BIOL 4553 Wetlands Ecology

## 3 Credit Hours

(Slashlisted with BIOL 5553) Prerequisite: Two college science courses that include a laboratory, one of which should be in biological sciences or permission of UOBS Director. Comprehensive field-based examination of wetland science and management. Biological, physical, chemical, and hydrological aspects of wetland ecosystem structure and function are explored through visits to several field sites. Major wetland types and resources are examined and the biogeochemical and ecological diversity of wetland waters, soils, vegetation, and fauna is investigated. Laboratory. No student may earn credit for both 4553 and 5553. (Su)

## BIOL 4573 Conservation Genetics

3 Credit Hours
Prerequisite: 3333 or permission of the instructor. This lecture/discussion course will examine the use of population genetic/ecological genetic principles in the study and management of populations of threatened and/or endangered species. No student may earn credit for both 4573 and 5573. (Sp)
BIOL 4633 Ecology and Evolution of Infectious Diseases 3 Credit Hours (Slashlisted with BIOL 5633) Prerequisite: Junior standing, and a course on foundations of ecology and evolution is strongly recommended. Basic biological principles in how parasites are transmitted in natural populations, coevolution of hosts and parasites, and how novel parasites emerge and impact their host populations, including zoonotic parasites. No student may earn credit for both 4633 and 5633. (Sp)
BIOL G4653 Parasitology
3 Credit Hours
Prerequisite: BIOL 1124, or BIOL 1114 and BIOL 1121; and BIOL 1134.
Parasitology is an introduction to the biological relationships known as parasitism. Although there are many different types of parasites, this course will focus on primarily protozoan and helminthes parasites that cause disease in humans and domestic animals. Field trips. Laboratory. (Sp)

## BIOL 4663 Advanced Limnology

3 Credit Hours
(Slashlisted with BIOL 5663) Prerequisite: BIOL 4423 or BIOL 5423, or BIOL 4463, or permission of instructor; May be repeated with change of content, maximum credit 6 hours. Detailed study of fundamental or contemporary topics within limnology, such as biogeochemistry, nutrient cycling, ecological stoichiometry, biodiversity, and predatory-prey and food-web dynamics in aquatic communities. No student may earn credit for both 4663 and 5663. (Sp)

BIOL 4673 Microbiomes: Health \& Disease 3 Credit Hours
(Slashlisted with BIOL 5673) Prerequisite: Senior standing; BIOL 3812 and BIOL 3813 and CHEM 3013 or CHEM 3053, or permission of instructor. Introduces students to the modern-day characterization of microbiomes, from initial sequence information to the living organisms that make up these complex communities. Students will become familiar with the role microbiomes play in health and disease processes in addition to their role in personalized medicine. No student may earn credit for both 4673 and 5673. (Irreg.)

## BIOL 4703 Basic Virology

3 Credit Hours
Prerequisite: BIOL 3813 and CHEM 3653 or BIOL 4843, or permission of instructor. Introduction to the principles of viruses that infect animals, plants and bacteria. Topics will include viral structural and taxonomy, virus replication and disease pathogenesis, methods of viral detection and diagnosis, host resistance to viral infections, viruses and cancer and the used of viruses in gene therapy and vaccine applications. (Sp)

## BIOL 4733 Microbial Genetics

3 Credit Hours
(Slashlisted with BIOL 5733) Prerequisite: BIOL 4843 or permission of instructor. Microbial genetics underlies important topics such as antibiotic resistance, genetic engineering, drug development, and many biotechnological advances. Explores the interesting world of microbial genetics by discussing molecular genetic methods and related aspects of bacterial and archaeal biology. Examples will include both traditional and recently developed microbial model systems. No student may earn credit for both 4733 and 5733. (Sp)
BIOL 4743 Case Studies in Medical Microbiology 3 Credit Hours Prerequisite: BIOL 3813; BIOL 4823 or concurrent enrollment; or instructor permission. Provides in-depth knowledge of infectious diseases utilizing an inquiry-based format. Case studies will be discussed in the context of patient symptoms as well as molecular- and culture-based test results. Case studies from standard textbooks and clinical microbiology journals will be utilized. Students will gain experience in identifying causative agents of numerous infections. Ideal course for pre-dental, pre-medical and pre-pharmacy students. (Irreg.)
BIOL 4753 Molecular Evolution and Phylogenetics 3 Credit Hours (Slashlisted with BIOL 5753) Prerequisite: BIOL 2013 or BIOL 3333 or permission of instructor. Theory and practice of inferring evolutionary history from molecular and morphological data. Applications of the phylogenetic approach in systematics, comparative biology, molecular evolution, and genomics will be covered. (F even-numbered years) No student may earn credit for both 4753 and 5753.

## BIOL 4783 Introduction to Python Programming for Data <br> Analytics <br> 3 Credit Hours

(Slashlisted with BIOL 5783) Prerequisite: senior standing. This course will introduce students, who have no prior programming experience, to Python programming. It will cover data analysis and visualization methods in Python. Real-world examples will be used to teach general concepts in data analytics and practical coding skills in Python. No student may earn credit for both 4783 and 5783.
BIOL 4793 Microbial Genetics 3 Credit Hours (Slashlisted with BIOL 5793) Prerequisite: BIOL 4843 or permission of instructor. Microbial genetics underlies important topics such as antibiotic resistance, genetic engineering, drug development, and many biotechnological advances. Explores the interesting world of microbial genetics by discussing molecular genetic methods and related aspects of bacterial and archaeal biology. Examples will include both traditional and recently developed microbial model systems. No student may earn credit for both 4793 and 5793. (Sp)

BIOL 4810 Special Topics
3 Credit Hours
0 to 3 hours. (Slashlisted with BIOL 5810) Prerequisite: BIOL 3812 and BIOL 3813, and permission of instructor. Topics will include newly developing areas of the discipline. Taught at an upper-division level based on previous course background. May be repeated with change of content, maximum credit 3 hours per semester, 9 hours total. No student may earn credit for both 4810 and 5810. (Irreg.)
BIOL G4813 Pathogenic Microbiology Laboratory 3 Credit Hours Prerequisite: BIOL 3812 and BIOL 3813. This course will focus primarily on bacterial species that cause disease in humans. Emphasis will be placed on the use of selective/differential media for pathogen isolation; the key diagnostic features of pathogenic bacteria and the application of rapid technologies for pathogen identification. Scientific papers will also be used to highlight the virulence properties of various pathogens. (F)
$\begin{array}{lll}\text { BIOL G4823 Pathogenic Microbiology and Infectious Disease } & 3 \\ \text { Credit } & & \text { Hours }\end{array}$
Prerequisite: BIOL 3812 and BIOL 3813. Introduces the basic methods for pathogenic microbiology and infectious disease epidemiology. Topics covered include definitions and nomenclature, outbreak investigations, disease surveillance, case-studies, laboratory diagnosis, immunology, molecular epidemiology, dynamics of transmission, and vaccine effectiveness. Emerging pathogens, their effects on society and the health care services will also be addressed. (F)
BIOL 4833 Neurobiology
3 Credit Hours
(Slashlisted with BIOL 5833) Prerequisite: permission of instructor. Advanced examination of cellular and behavioral neurobiology. Topics covered will include membrane biophysics, cellular neurobiology, neurophysiology, neuroanatomy, sensory processing, movement, and neurobiology of behavior. No student may earn credit for both 4833 and 5833. (F)

BIOL 4843 Molecular Biology
3 Credit Hours
(Slashlisted with BIOL 5843) Prerequisite: BIOL 1114 or BIOL 1124 or BIOL 1134, BIOL 3812 and BIOL 3813, and one course in Organic Chemistry (CHEM 3053 or CHEM 3064). Introduction to the characteristics and biological functions of nucleic acids and proteins in living cells with emphasis on nucleic acid replication, transcription, translation and regulation; also emphasis on the molecular aspects of microbial genetics transformation, transduction and conjugation; and emphasis on molecular immunology and genetic engineering/ recombinant DNA technology. No student may earn credit for both 4843 and 5843. (F, Sp)
BIOL G4853 Physiology of Microorganisms
3 Credit Hours
Prerequisite: BIOL 3812 and BIOL 3813 and one course in Organic Chemistry. Diversity, metabolism, energetics and physiology of microorganisms. (Sp)
BIOL 4863 Neural Control of Movement
3 Credit Hours
(Slashlisted with BIOL 5863) Prerequisite: BIOL 3103, or BIOL 3113, or BIOL 3833, or BIOL 4833, or BIOL 5833, or permission of instructor. Introduction to neural control of movement through reading and discussion of key original research articles from the 19th century to the present. Students lead discussions and write essays addressing a general question, utilizing data from the articles. Topics include localization of function, sensory vs. central contributions, roles of single neurons, effects of neuromodulators, and motor learning. No student may earn credit for both 4863 and 5863. (Sp)

BIOL 4871 Current Topics in Neurobiology 1 Credit Hour
(Slashlisted with BIOL 5871) Prerequisite: BIOL 3833 or permission of instructor; May be repeated with change of content, maximum credit three hours. A seminar course designed to develop a student's abilities to interpret and critically evaluate research in cellular and behavioral neurobiology. Involves both public seminars and journal club style discussions of contemporary literature. No student may earn credit for both 4871 and 5871. (F, Sp)
BIOL 4873 Diversity of Biological Sex Characteristics 3 Credit Hours (Slashlisted with BIOL 5873) Prerequisite: BIOL 1124 and BIOL 1134. This course explores the diverse biological sex characteristics of nonhuman animals and people. We examine the evolution of sexual reproduction, sex-determining mechanisms, and hermaphroditic, parthenogenetic, intersex, and multiple-gender animal species, followed by the biology of intersex and transgender people. Finally, we discuss human infant genital surgeries and participation in athletic competitions. No student may earn credit for both 4873 and 5873. (F)
BIOL G4883 Water Microbiology Laboratory 3 Credit Hours Prerequisite: BIOL 3812 and BIOL 3813. Focuses on the causes and prevention of waterborne microbial diseases and the use of microorganisms to improve water quality. Topics include: waterborne diseases, detection of waterborne pathogens, epidemiology, indicator organisms, water quality standards, treatment of drinking water and sewage, and groundwater contamination. The laboratory provides training in the standard methods used to detect microbial contamination. (F)

## BIOL 4893 Behavioral Neurobiology

3 Credit Hours
(Slashlisted with BIOL 5893) Prerequisite: BIOL 3103, or BIOL 3113, or BIOL 3833, or BIOL 4833, or BIOL 5833, or permission of instructor. Examines neurobiological mechanisms of natural animal behaviors (i.e. neuroethology), utilizing textbook and lectures as well as in-depth reading, discussion, and student presentation of original research articles. No student may earn credit for both 4893 and 5893. (F)

## BIOL 4903 Topics in Virology <br> 3 Credit Hours

(Slashlisted with BIOL 5903) Prerequisite: CHEM 3653 or BIOL 4843 or permission of instructor. Aspects related to selected RNA viruses, such as HIV/AIDS and polio virus, will be studied and discussed. Topics will include the molecular structure of RNA viruses, the mechanisms of viral assembly and replication, viral disease pathogenosis, host responses to viral infections, vaccine development, anti-viral and RNA interference (RNAi) therapeutics. No student may earn credit for both 4903 and 5903. (F)

## BIOL G4913 Quantitative Biology

3 Credit Hours
Prerequisite: BIOL 1124, or BIOL 1114 and BIOL 1121; and BIOL 1134; Permission of instructor required. Techniques for complex data analysis and experimental design. (F)

## BIOL 4943 Multivariate Analysis

3 Credit Hours
(Slashlisted with BIOL 5943) Prerequisite: BIOL 4913 or permission of instructor. An introduction to the concepts and underpinnings of multivariate statistics used commonly in the life sciences. It includes sections on regression, central tendency, data reduction, cluster analyses, and ordination and treats both parametric and non-parametric approaches. No student may earn credit for both 4943 and 5943. (Sp)

BIOL 4953 BioWriting
(Slashlisted with BIOL 5953; Crosslisted with MBIO and PBIO 4953) Prerequisite: permission of instructor. This course provides students engaged in research with the information and skills needed to effectively communicate as professional biologists. Students will learn to report the results of their own research in the format of a journal article, conferencestyle presentation, and poster. No student may earn credit for both 4953 and 5953. (Irreg.)
BIOL 4960 Directed Readings
1-4 Credit Hours
1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean; May be repeated, maximum credit four hours. Designed for upper-division students who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)
BIOL 4961 Undergraduate Seminar
1 Credit Hour
Prerequisite: Senior standing in Zoology/Biology or permission of department; May be repeated, maximum credit two hours. Survey of current research programs in environmental biology, cell biology, physiology, animal behavior and other fields presented in weekly public seminars by visiting and local experts in biology. (F, Sp)
BIOL 4970 Special Topics in Biology
3 Credit Hours
0 to 3 hours. Prerequisite: permission of instructor and department; May be repeated with change of content, maximum credit nine hours. Seminar or special topic course; may include laboratory or field work. No student may earn credit for 4970 and 5970 on the same topic. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
BIOL 4981 Current Topics in Disease Ecology 1 Credit Hour (Slashlisted with BIOL 5981) Prerequisite: Junior standing. This seminar course will involve discussion of recent empirical and theoretical literature in the field of disease ecology and evolution. No student may earn credit for both 4981 and 5981. (F, Sp)
BIOL 4983 Senior Seminar 3 Credit Hours Prerequisite: BIOL major with senior standing, or permission. An interdisciplinary approach will be used to synthesize ideas from the major fields of zoology. Readings and discussion will focus on contemporary social, ethical and economic issues. (F, Sp) [V].
BIOL 4990 Independent Study 1-3 Credit Hours 1 to 3 hours. Prerequisite: three courses in general area to be studied and permission of instructor and department; May be repeated, maximum credit six hours. Contracted independent study for topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (F, Sp, Su)
BIOL 5023 Field Mammalogy
3 Credit Hours
(Slashlisted with BIOL 4023) Prerequisite: graduate standing and two college science courses that include a laboratory, one of which should be in biological sciences or permission of UOBS Director. Study of mammals with emphasis on principle of mammalian ecology, conservation, biodiversity, techniques of field study, and methods of collection and preservation. Topics include characteristics of mammals, classification, natural history, ecology, biodiversity, conservation, and techniques in field study. Emphasis is given to mammals of southern Oklahoma and northern Texas. No student may earn credit for both 4023 and 5023. Laboratory. (Su)

BIOL 5063 Field Herpetology
3 Credit Hours
(Slashlisted with BIOL 4063) Prerequisite: graduate standing and two college science courses that include a laboratory, one of which should be in biological sciences or permission of UOBS Director. Overview of methods, techniques, and standards for the collection, management, and analysis of herpetological field data for various applications. Includes collection of amphibians and reptiles, and diagnostic (morphological, ecological, and behavioral) characteristics of species. Students design and complete individual projects that address current issues in biology and conservation in herpetology. No student may earn credit for both 4063 and 5063. Laboratory. (Su)
BIOL 5113 Cellular Pathology 3 Credit Hours
(Slashlisted with BIOL 4113) Prerequisite: Graduate standing and BIOL 3113 or permission of instructor. The course focus is on the molecular and cellular bases of disease and alterations in cellular process that lead to the development of various pathological conditions. Topics include symptoms of cellular disease, pathology of organelles, cell injury, cell death, immunopathology, neoplasia and genetic disorders. No student may earn credit for both 4113 and 5113. (F)

## BIOL 5153 Endocrinology <br> 3 Credit Hours

(Slashlisted with BIOL 4153) Prerequisite: Graduate standing and BIOL 3103; BIOL 3113 also strongly recommended. Endocrinology covers the structure and function of endocrine glands and the mechanisms of hormone action. Coverage of the endocrine glands includes biosynthesis of hormones, control and secretion of hormones, physiological, morphological, and behavioral actions of hormones, as well as a review of common endocrine disorders and clinical conditions. No student may earn credit for both 4153 and 5153. (Sp)

BIOL 5233 Neurobiology of Disease 3 Credit Hours
(Slashlisted with BIOL 4233) Prerequisite: BIOL 4833 (preferred), or BIOL 3113 and BIOL 3333, or BIOL 2124 or BIOL 3103; or permission of the instructor. Cellular and molecular mechanisms underlying both normal neuronal function and neuronal disorders. Includes a review of basic concepts in neuroscience through traditional lectures, and reading and discussion of original research articles. Students are required to give oral presentations, write critiques and term papers, and present research posters. No student may earn credit for both 4233 and 5233. (F)
BIOL 5353 Molecular Tech-Field Biology
3 Credit Hours
(Slashlisted with BIOL 4353) Prerequisite: Graduate standing and permission of instructor. Selected protocols and data interpretation using molecular techniques to study protein and DNA variation in natural populations and the application of molecular techniques to research problems in ecology, systematics, animal behavior, conservation biology, and related areas. Graduate students enrolled in 5353 will have additional project expectations and written work. Taught at the OU Biological Station. Field trips. Laboratory No student may earn credit for both 4353 and 5353. (Su)
BIOL 5364 Transmissn Electron Microscopy 4 Credit Hours (Crosslisted with PBIO and MBIO 5364) Prerequisite: Graduate standing and permission of instructor. Introduction to the theory of transmission electron microscopy and practical instruction in specimen preparation, ultramicrotomy, instrument operation, photography and quantitative methods. Laboratory. (F)

BIOL 5374 Scanning Electron Microscopy
4 Credit Hours
(Crosslisted with PBIO and MBIO 5374) Prerequisite: basic chemistry; basic physics; demonstrated need; graduate standing and permission of instructor. Principles of scanning electron microscopy are combined with training in the operation of the SEM and ancillary equipment. Students will be certified in the operation of all equipment. Sample preparationon a variety of samples and darkroom procedures will be performed. Independent project with oral report and poster required. Laboratory (Irreg.)

## BIOL 5394 Advanced Light Microscopy

4 Credit Hours
(Crosslisted with MBIO and PBIO 5394) Prerequisite: permission of instructor and graduate standing. Focuses on theory and techniques in light microscopy covering principles including confocal laser scanning microscopy, multiple photon imaging, FLIM/FCS, FRET, fluorescence microscopy, phase contrast, DIC, 3D rendering, and other advanced optical technologies. Also includes a lab section where students will learn to use advanced epifluorescence and confocal microscopes. (F)

BIOL 5403 Population Ecology
3 Credit Hours
Prerequisite: graduate standing. History, demography, environmental factors, density-dependent factors, genetics and population ecology, theories of population and community organization (ideas of Elton, Williams, Preston, MacArthur, Smith, Hairston, and Slodbodkin). No laboratory. Offered Sp of even-numbered years. (Irreg.)

## BIOL 5413 Community Ecology

3 Credit Hours
Prerequisite: Graduate standing, BIOL 3403 and MATH 1743 or 1823, or permission. Theoretical and empirical study of the structure and organization of natural communities. Topics include competition, predation, disturbance, abiotic gradients, species equilibria.
BIOL 5423 Stream Ecology
3 Credit Hours
Prerequisite: graduate standing or permission of instructor. A combined lecture/laboratory course that focuses on the physical, chemical, and biological features of stream ecosystems, including current theories explaining species interactions and stream function. Course requirements/evaluation including a midterm and final examination, individual research papers and presentations, participation in group laboratory and field experiments, and reading and discussing the primary literature. Field trips. Laboratory. Offered Fa of odd-numbered years. (Irreg.)
BIOL 5453 Advanced Ecology/Evol Biology
3 Credit Hours
(Crosslisted with PBIO 5453) Prerequisite: Graduate standing and BIOL 3403. Required for students in the ecology and evolutionary biology doctoral program. An introduction to current research opportunities and research programs in ecology and evolutionary biology at the University of Oklahoma. Specific topics and lecturers will vary from week to week to give students a broad overview of ongoing research projects. (F)
BIOL 5471 Seminar in Ecology \& Evolutionary Biology 1 Credit Hour (Crosslisted with PBIO and MBIO 5471) Prerequisite: graduate standing; May be repeated, maximum credit 2 hours. Two semesters of enrollment are required for students in the ecology and evolutionary biology doctoral program. An intensive, student-based seminar in which students present both proposals and ongoing progress reports on doctoral level research projects in ecology and evolutionary biology. (F, Sp)

BIOL 5483 Physiological Plant Ecology
3 Credit Hours
(Slashlisted with BIOL 4483) Prerequisite: graduate standing; BIOL 3453 or BIOL 4115 , or permission of instructor. Study of energy budgets, plant water relations, carbon uptake and release, nutrient uptake and availability, and other factors as they affect plant growth, competition and other ecosystem-level factors. In-depth analysis of current literature. (F, even-numbered years). No student may earn credit for both 4483 and 5483.

BIOL 5523 Biogeography and Macroecology 3 Credit Hours (Slashlisted with BIOL 4523) Prerequisite: Graduate standing and BIOL 3013, or Permission of Instructor. This course will explore the causes and consequences of the geographic distribution of life on Earth. We will discuss the processes which shape individual species distributions, why some regions host more species than others, and how the evolution of biodiversity is tied to the history and geography of Earth itself. No student may earn credit for both 4523 and 5523. (F)

## BIOL 5534 Plant Systematics

4 Credit Hours
(Slashlisted with BIOL 4534) Prerequisite: graduate standing. Introduction to the evolution and identification of vascular plants with emphasis on the origin and evolution of the Oklahoma flora. Laboratory activities stress identification skills, terminology, field techniques, and family recognition for the flora of Oklahoma. Field trips. Laboratory. No student may earn credit for both 4534 and 5534. (Irreg.)

## BIOL 5553 Wetlands Ecology

3 Credit Hours
(Slashlisted with BIOL 4553) Prerequisite: graduate standing and two college science courses that include a laboratory, one of which should be in biological sciences or permission of UOBS Director. Comprehensive field-based examination of wetland science and management. Biological, physical, chemical, and hydrological aspects of wetland ecosystem structure and function are explored through visits to several field sites. Major wetland types and resources are examined and the biogeochemical and ecological diversity of wetland waters, soils, vegetation, and fauna is investigated. No student may earn credit for both 4553 and 5553. Laboratory. (Su)
BIOL 5573 Conservation Genetics
3 Credit Hours
Prerequisite: Graduate standing and BIOL 3333 or permission of the instructor. This lecture/discussion course will examine the use of population genetic/ecological genetic principles in the study and management of populations of threatened and/or endangered species. (Sp)
BIOL 5633 Ecology and Evolution of Infectious Diseases 3 Credit Hours (Slashlisted with BIOL 4633) Prerequisite: Graduate standing; a course on foundations of ecology and evolution is strongly recommended. Basic biological principles in how parasites are transmitted in natural populations, coevolution of hosts and parasites, and how novel parasites emerge and impact their host populations, including zoonotic parasites. No student may earn credit for both 4633 and 5633. (Sp)

## BIOL 5663 Advanced Limnology

3 Credit Hours
(Slashlisted with BIOL 5663) Prerequisite: 4423 or 5423 , or 4463 and 4471, or permission of instructor; May be repeated with change of content, maximum credit 6 hours. Detailed study of fundamental or contemporary topics within limnology, such as biogeochemistry, nutrient cycling, ecological stoichiometry, biodiversity, and predator-prey and foodweb dynamics in aquatic communities. No student may earn credit for both 4663 and 5663. (Sp)

BIOL 5673 Microbiomes: Health \& Disease
3 Credit Hours
(Slashlisted with BIOL 4673) Prerequisite: graduate standing; and BIOL 3812 and BIOL 3813 and CHEM 3013 or CHEM 3053; or permission of instructor. Introduces students to the modern-day characterization of microbiomes, from initial sequence information to the living organisms that make up these complex communities. Students will become familiar with the role microbiomes play in health and disease processes in addition to their role in personalized medicine. No student may earn credit for both 4673 and 5673. (Irreg.)
BIOL 5733 Microbial Genetics
3 Credit Hours
(Slashlisted with BIOL 4733) Prerequisite: graduate standing; BIOL 4843 or 5843, or permission of instructor. Microbial genetics underlies important topics such as antibiotic resistance, genetic engineering, drug development, and many biotechnological advances. Explores the interesting world of microbial genetics by discussing molecular genetic methods and related aspects of bacterial and archaeal biology. Examples will include both traditional and recently developed microbial model systems. No student may earn credit for both 4733 and 5733. (Sp)
BIOL 5753 Molecular Evolution and Phylogenetics 3 Credit Hours (Slashlisted with BIOL 4753) Prerequisite: BIOL 2013 or BIOL 3333 or permission of instructor and graduate standing. Theory and practice of inferring evolutionary history from molecular and morphological data. Applications of the phylogenetic approach in systematics, comparative biology, molecular evolution, and genomics will be covered. Offered Fa of even-numbered years. No student may earn credit for both 4753 and 5753. (Irreg.)

## BIOL 5783 Introduction to Python Programming for Data

Analytics
3 Credit Hours
(Slashlisted with BIOL 4783) Prerequisite: graduate standing. This course will introduce students, who have no prior programming experience, to Python programming. It will cover data analysis and visualization methods in Python. Real-world examples will be used to teach general concepts in data analytics and practical coding skills in Python. No student may earn credit for both 4783 and 5783. (F)
BIOL 5793 Microbial Genetics
3 Credit Hours
(Slashlisted with BIOL 4793) Prerequisite: graduate standing; BIOL 4843 or 5843 , or permission of instructor. Microbial genetics underlies important topics such as antibiotic resistance, genetic engineering, drug development, and many biotechnological advances. Explores the interesting world of microbial genetics by discussing molecular genetic methods and related aspects of bacterial and archaeal biology. Examples will include both traditional and recently developed microbial model systems. No student may earn credit for both 4793 and 5793. (Sp)

## BIOL 5810 Special Topics

3 Credit Hours
0 to 3 hours. (Slashlisted with BIOL 4810) Prerequisite: graduate standing and permission of instructor; BIOL 3812 and BIOL 3813. Topics will include newly developing areas of the discipline. Taught at graduate level based on previous course background. May be repeated with change of content, maximum credit 3 hours per semester, 9 hours total. No student may earn credit for both 4810 and 5810. (Irreg.)
BIOL 5833 Neurobiology 3 Credit Hours (Slashlisted with BIOL 4833) Prerequisite: graduate standing or permission of instructor. Advanced examination of cellular and behavioral neurobiology. Topics covered will include membrane biophysics, cellular neurobiology, neurophysiology, neuroanatomy, sensory processing, movement, and neurobiology of behavior. No student may earn credit for both 4833 and 5833. (F)

BIOL 5843 Molecular Biology
3 Credit Hours
(Slashlisted with BIOL 4843) Prerequisite: graduate standing or permission of instructor. Introduction to the characteristics and biological functions of nucleic acids and proteins in living cells with emphasis on nucleic acid replication, transcription, translation and regulation; also emphasis on the molecular aspects of microbial genetics transformation, transduction and conjugation; and emphasis on molecular immunology and genetic engineering/recombinant DNA technology. No student may earn credit for both 4843 and 5843. (F, Sp)
BIOL 5863 Neural Control of Movement 3 Credit Hours (Slashlisted with BIOL 4863) Prerequisite: Graduate standing and BIOL 3103 or BIOL 3113 or BIOL 4833/5833, or permission of instructor. Introduction to neural control of movement through reading and discussion of key original research articles from the 19th century to the present. Students lead discussions and write essays addressing a general question, utilizing data from the articles. Topics include localization of function, sensory vs. central contributions, roles of single neurons, effects of neuromodulators, and motor learning. No student may earn credit for both 4863 and 5863. (Sp)
BIOL 5871 Current Topics in Neurobiology 1 Credit Hour (Slashlisted with BIOL 4871) Prerequisite: Graduate standing and permission of the instructor; May be repeated, maximum credit three hours. A seminar course designed to develop a student's abilities to interpret and critically evaluate research in cellular and behavioral neurobiology. Involves both public seminars and journal club style discussions of contemporary literature. No student may earn credit for both 4871 and 5871 concurrently. No student may earn credit for both 4871 and 5871. (F, Sp)
BIOL 5873 Diversity of Biological Sex Characteristics 3 Credit Hours (Slashlisted with BIOL 4873) Prerequisite: Graduate standing. This course explores the diverse biological sex characteristics of nonhuman animals and people. We examine the evolution of sexual reproduction, sex-determining mechanisms, and hermaphroditic, parthenogenetic, intersex, and multiple-gender animal species, followed by the biology of intersex and transgender people. Finally, we discuss human infant genital surgeries and participation in athletic competitions. No student may earn credit for both 4873 and 5873. (F)
BIOL 5893 Behavioral Neurobiology
3 Credit Hours
(Slashlisted with BIOL 4893) Prerequisite: Graduate standing and BIOL 3103 or BIOL 3113 , or BIOL 4833/5833 or permission of instructor. Examines neurobiological mechanisms of natural animal behaviors (i.e., neuroethology), utilizing textbook and lectures as well as in-depth reading, discussion, and student presentation of original research articles. No student may earn credit for both 4893 and 5893. (F)

## BIOL 5903 Topics in Virology <br> 3 Credit Hours

(Slashlisted with BIOL 4903) Prerequisite: graduate standing; and CHEM 3653 or BIOL 4843 or permission of instructor. Aspects related to selected RNA viruses, such as HIV/AIDS and polio virus, will be studied and discussed. Topics will include the molecular structure of RNA viruses, the mechanisms of viral assembly and replication, viral disease pathogenosis, host responses to viral infections, vaccine development, anti-viral and RNA interference (RNAi) therapeutics. No student may earn credit for both 4903 and 5903. No student may earn credit for both 4903 and 5903. (F)

BIOL 5923 Programming in R for Biology 3 Credit Hours
Prerequisite: graduate standing or permission of instructor. $R$ is a data analysis and graphics platform that has become increasingly popular in the sciences because of its power and versatility. This course provides an introduction to programming using $R$ for applications in the biological sciences, with an emphasis on implementation. (F)
BIOL 5943 Multivariate Analysis
3 Credit Hours
(Slashlisted with BIOL 4943) Prerequisite: Graduate standing and BIOL 4913 or permission of instructor. Introduces the concepts and underpinnings of multivariate statistics used commonly in the life sciences. The following topics will be included: regression, central tendency, data reduction, cluster analyses, and ordination and treats both parametric and non-parametric approaches. No student may earn credit for both 4943 and 5943. (Sp)
BIOL 5953 BioWriting
3 Credit Hours
(Slashlisted with BIOL 4953; Crosslisted with MBIO and PBIO 5953)
Prerequisite: Graduate standing and permission of instructor. This course
provides students engaged in research with the information and skills needed to effectively communicate as professional biologists. Students will learn to report the results of their own research in the format of a journal article, conference-style presentation, and poster. Graduate students have additional assignments beyond those completed by undergraduates. No student may earn credit for both 4953 and 5953. (Irreg.)

## BIOL 5960 Directed Readings

1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing and permission of department; May be repeated, maximum credit twelve hours. Directed readings and/or literature reviews under the direction of a faculty member. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
BIOL 5970 Special Topics in Biology
3 Credit Hours
0 to 3 hours. Prerequisite: Graduate standing and permission of instructor; May be repeated with change of topic, maximum credit 12 hours. Special topics course; may include laboratory or field work. No student may earn credit for 4970 and 5970 on the same topic. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
BIOL 5980 Research for Master's Thesis
2-9 Credit Hours
2 to 9 hours. Prerequisite: Graduate standing. Variable enrollment, two to nine hours; maximum credit applicable toward degree, six hours. Laboratory ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
BIOL 5981 Current Topics in Disease Ecology 1 Credit Hour (Slashlisted with BIOL 4981) Prerequisite: Graduate standing; May be repeated, maximum credit 9 hours. This seminar course will involve discussion of recent empirical and theoretical literature in the field of disease ecology and evolution. No student may earn credit for both 4981 and 5981. (F, Sp)
BIOL 5990 Independent Study
1-6 Credit Hours
1 to 6 hours. Prerequisite: Graduate standing and permission. May be repeated in different fields; maximum credit 12 hours. Directed readings. Written report required. No laboratory. (F, Sp, Su)
BIOL 6960 Directed Readings 1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor; May be repeated, maximum credit six hours. Directed readings and/or literature review under the direction of a faculty member. (Irreg.)
BIOL 6970 Seminar 1-4 Credit Hours
1 to 4 hours. Prerequisite: graduate standing and permission of instructor; May be repeated, maximum credit 12 hours; no more than six hours may be in any one field. No laboratory. (F, Sp, Su)

BIOL 6980 Research for Doctoral Dissertation 2-16 Credit Hours
2 to 16 hours. Prerequisites: Graduate standing and permission of instructor; may be repeated. Directed research culminating in the completion of the doctoral dissertation. (F, Sp, Su)

BIOL 6990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing and permission of instructor; May be repeated, maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)

## BME-Biomedical Engineering

BME 1421 Introduction to Biomedical Engineering 1 Credit Hour Prerequisite: Freshman Standing. This course serves as an introduction to and overview of biomedical engineering. Course content serves to provide appreciation for the breadth of the biomedical engineering field and to guide first year students in making curriculum, major, and career choices. (F, Sp)

BME 2333 Biomedical Engineering Fundamentals 3 Credit Hours Prerequisite: Course is not open to freshmen; Majors only; MATH 1823 or 1914; MATH 2423 or 2924; CHEM 1315 or 1335; CHEM 1415 or 1435; and PHYS 2514, and BME 1421 or permission of instructor. Introduction to material, energy, charge, and momentum balances in biological systems. Steady state and transient conservation equations for mass, energy, charge, and momentum will be derived and applied using basic mathematical principles, physical laws, stoichiometry, and thermodynamic properties. (F)

BME 2433 Signals and Systems for Biomedical Engineering 3 Credit Hours
Prerequisite: BME 2333; ECE 2723 or concurrent enrollment; course is not open to freshmen. Students learn circuits and linear systems concepts necessary for analysis and design of biomedical systems. Theory is motivated by examples from biomedical engineering. Topics covered include electrical circuit fundamentals, operational amplifiers, frequency response, electrical transients, impulse response, transfer functions, and convolution, all motivated by circuit and biomedical examples. Elements of continuous time domain-frequency domain analytical techniques are developed. (Sp)

BME 2970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

BME 3113 Bioimaging
3 Credit Hours
Prerequisite: BME 2333; BME 2433; PHYS 2524 and MATH 3113.
Introduction to medical imaging techniques such as x-ray, computed tomography, magnetic resonance, and ultrasound. (F, Sp)

BME 3123 Biotransport
3 Credit Hours
Prerequisite: BME 2333; PHYS 2524 and MATH 3113. Covers key transport concepts in biomedical engineering. Emphasis is put on mass and momentum transport with applications related to biology, medical science and biotechnology. (F, Sp)

BME 3133 Bioelectricity

## 3 Credit Hours

Prerequisite: BME 2333; 2433; PHYS 2524 and MATH 3113. The electrophysiology of excitable cells from a quantitative perspective. Topics include the ionic basis of action potentials, quantitative models for nerve and muscle including the Hodgkin-Huxley equations, impulse propagation, synaptic dynamics, source-field relationships, and an introduction to functional electrical stimulation. (F, Sp)

BME 3143 Biomechanics
3 Credit Hours
Prerequisite: BME 2333, PHYS 2524, and MATH 3113. Analysis of human motion, evaluation of tissue solid mechanics, and use of momentum balance in fluid mechanics. (F, Sp)

BME 3153 Molecular, Cellular and Tissue Engineering 3 Credit Hours Prerequisite: BME 2333, MATH 3113 and BIOL 1124. Application of engineering methods to study, measure, repair, or replace biological functions at the molecular, cellular, or tissue-level length scales. (F, Sp)

BME 3163 Biomedical Micro-/Nano-Technology 3 Credit Hours Prerequisite: BME 2333; PHYS 2524; MATH 3113; majors only. Introduction to micro/nanotechnology in biomedical settings, including micro/nanotechnologies used to investigate biological systems, physiological responses to nanotherapeutics, and first principles of microfluidics and microfabrication. (F, Sp)

BME 3171 Biomedical Engineering Lab 1
1 Credit Hour
Prerequisite: Junior standing; ISE 3293 or departmental permission; BME 3143 or concurrent enrollment; majors only. Hands-on lab that teaches students technical skills associated with BME biomechanics, and also includes topics such as bioelectricity and bioimaging. Lab components include hypothesis testing and analysis, computer simulation, lab safety and instrument training, and technical communication. (F)

BME 3181 Biomedical Engineering Lab 21 Credit Hour Prerequisite: Junior standing; BME 3171; BME 3123 or concurrent enrollment, and BME 4813 or concurrent enrollment; majors only. Hands-on lab that teaches students technical skills associated with biotransport and quantitative physiology, and includes topics such as molecular, cellular \& tissue engineering, bioimaging, and micro/ nanotechnology. Lab components include hypothesis testing and analysis, computer simulation, lab safety and instrument training, and technical communication. (Sp)

BME 3233 Biomaterials

## 3 Credit Hours

Prerequisite: BIOL 1124, BME 2333, PHYS 2524, and BME 3143; majors only; permission of instructor. Introduction to materials used in biomedical environment, the design and use of implantable materials, such as metals, polyethylene, ceramics, and composites, biocompatibility, test methods, and tissue growth on biomaterials. (F)

BME 3243 Biomechanics of Human Movement 3 Credit Hours Prerequisite: BME 3143. This course introduces advanced undergraduate students to musculoskeletal biomechanics and the quantitative analysis of human movement. Topics covered will include rigid-body kinematics, dynamics, motion capture, external force measurement, electromyography, and mechanical properties of muscles and tendons. (Sp)

BME 3440 Mentored Research Experience
3 Credit Hours
0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)

## BME 3531 Bioinstrumentation Lab <br> 1 Credit Hour

Prerequisite: BME 2433, corequisite BME 3533; Majors only. Fundamental circuit elements and concepts include resistance, capacitance, inductance, op-amps, impedance, voltage, current, power, and frequency. Fundamental analog measurement concepts include adequate bandwidth and amplitude and phase linearity. Examples of medical measurements and devices are included for the fundamental circuit and measurement concepts covered above. Introduction of laboratory instruments used to simulate measurements of and direct measure physiological events. (F)
BME 3533 Biomedical Instrumentation
3 Credit Hours
Prerequisite: Majors only; BME 2433 and ECE 2723. Measurement and analysis of biopotentials and biomedical transducer characteristics; electrical safety applications of FET's; integrated circuits, operational amplifiers for signal processing and computer interfacing; signal analysis and display on the laboratory minicomputer. (Sp)
BME 3722 Numerical Methods in Biomedical Engineering 2 Credit

## Hours

Prerequisite: Majors only; C S 1213, MATH 3113, and BME 2333. Introduces principles and techniques of numerical analysis of biomedical engineering problems using software packages. Covers numerical methods of interpolation, curve fitting, solving linear systems, analysis of ordinary and partial differential equations, numerical modeling of biomedical engineering systems, symbolic computation, and scientific visualization. (F)

## BME 3723 Numerical Methods in Biomedical Engineering 3 Credit Hours

Prerequisite: Majors only; CS 1213; MATH 3113; and BME 2333. Introduces principles and techniques of numerical analysis of biomedical engineering problems using software packages. Covers numerical methods of interpolation, curve fitting, solving linear systems, analysis of ordinary and partial equations, numerical modeling of biomedical engineering systems, symbolic computation, and scientific visualization. (F)

BME 3960 Honors Reading
1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Consists of topics designated by the instructor in keeping with the student's major program. Covers materials not usually presented in the regular courses. (F, Sp, Su)
BME 3980 Honors Research 1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit 6 hours. Selected students work with individual faculty members on research problems in biomedical engineering. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

BME 4013 Introduction to Medical Device Design 3 Credit Hours
(Slashlisted with BME 5013; Crosslisted with AME 4013) Prerequisite: Junior standing or permission of instructor. Introduction to medical device design with emphasis on the entire procedure of developing a medical device from identifying the unmet medical need to product launching. Topics include marketing and technology survey, concept development, the biocompatible material, device prototype, bench test, in vitro/in vivo test, clinical trial and FDA regulation. No student may earn credit for both 4013 and 5013. (Sp)

BME 4050 Design Projects in Biomedical Engineering 3 Credit Hours 0 to 3 hours. Prerequisite: Permission of Instructor. May be repeated; maximum credit 6 hours. This course is designed for students who are participating in design and project based experiences. This course is different from mentored research in that the student is expected to have completed a functioning prototype or design solution by the end of the experience. Credit hours may vary, based on the size, scope, and expectations of the project. ( $\mathrm{F}, \mathrm{Sp}$ )
BME 4093 Applied Biomechanics - Ear Mechanics 3 Credit Hours (Slashlisted with BME 5093; Crosslisted with AME 4093) Prerequisite: Junior Standing; PHYS 2514; MATH 1823 or 1914; MATH 2423 or 2924; and CHEM 1315 all with a minimum grade of $C$ or better. The course curriculum starts with a review of some basic solid mechanics and fluid mechanics. Then the course will review the applications of mechanics in different biosystems or organs. Finally, this course will cover how to apply mechanics on ear tissue mechanical measurements, ear modeling and ear implant design. No student may earn credit for both 4093 and 5093. (F)

BME 4243 Biochemical Engineering
3 Credit Hours
(Slashlisted with BME 5243; Crosslisted with CH E 4243) Prerequisite: CHE 3113 or permission of instructor. Current bioprocesses for reaction and separation with emphasis on fundamental principles of biochemical engineering, biochemistry, and microbiology. No student may earn credit for both 4243 and 5243. (Sp)
BME 4281 Engineering Co-Op Program 1 Credit Hour
(Crosslisted with AME, C S, CEES, CH E, ECE, ISE and EPHY 4281) Prerequisite: Departmental permission and junior standing. May be repeated; maximum credit 6 hours. The Co-Op program provides students an opportunity to enhance their education via career exploration in related professional work experiences. Course assignments help students articulate their experiences by completing journals; mid-term paper; final paper and/or final presentation. Faculty receive an evaluation from the student's Co-Op supervisor who monitors performance. Faculty collaborate with the Co-Op supervisor to ensure student success. (F, Sp, Su )
BME 4373 Tissue Engineering
3 Credit Hours
(Slashlisted with BME 5373; Crosslisted with CH E 4373) Prerequisite: senior standing or permission of instructor. Examines the background and recent advances in the science of combining multiple cell types with an appropriate support to provide a construct that can replace or support damaged tissue. No student may earn credit for both 4373 and 5373. (Irreg.)
BME 4423 Genetic Engineering and Biotechnology 3 Credit Hours (Slashlisted with BME 5423; Crosslisted with CH E 4423) Prerequisite: permission of instructor for upper-class undergraduates. The course will cover state-of-the-art technologies of manipulating and controlling genes, genomes and cellular pathways with a goal of engineering human (stem) cells and microbes for health, environmental and industrial applications. No student may earn credit for both 4423 and 5423. (F)

BME 4533 Neural Engineering
(Slashlisted with BME 5533) Prerequisite: BME 3113 or BME 3133 or concurrent enrollment, or instructor permission. Principles and technologies of applying engineering to neuroscience, including areas as neural tissue engineering, models of neural function, neural interface and neuromodulation technology. Examples of neural engineering systems focus on brain-controlled interface and prosthetic systems currently in development or produced commercially, neurofeedback and brain stimulation systems for treating disorders such as depression. $\operatorname{MATLAB}(R)$ programming is required. No student may earn credit for both 4533 and 5533. (F)

## BME 4713 Biomedical Engineering Design I

3 Credit Hours
Prerequisite: BME 3533 or concurrent enrollment; Senior standing in the BS in BME curriculum. Structured methodologies for designing systems or to interface with living systems. Creative design, analysis, selection, development, and fabrication of biomedical components and systems. (F)

## BME G4813 Quantitative Physiology

3 Credit Hours
Prerequisite: BME 3722, junior standing, and majors only. Introduces students to the mathematical and numerical techniques used to develop, solve, and analyze quantitative models of physiology systems. ( Sp )

## BME 4823 Biomedical Engineering Design II 3 Credit Hours

 Prerequisite: BME 4713. Development of team projects in biomedical engineering with emphasis on prototype development and quantitative analysis, and written and oral reporting of the outcome. Capstone. (Sp) [V].
## BME 4873 Network Modeling and Analysis of Complex Systems

3 Credit Hours
(Slashlisted with BME 5873) Prerequisite: BME 3722 or permission of instructor. In this course, we will cover the key concepts and methodologies for studying the structure and dynamics of complex biological systems such as protein, genetic, and neural networks. No student may earn credit for both 4873 and 5873. (Sp)

## BME 4970 Special Topics/Seminar

1-3 Credit Hours
1 to 3 hours. Prerequisite: Senior standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

## BME 4980 Senior Thesis

1-3 Credit Hours
1 to 3 hours. Prerequisite: Senior standing, BME 3440 or BME 3980, and permission of instructor. The Senior Thesis is an option for seniors who are especially interested in research and/or intending to continue on to a PhD program. Students who have completed the first semester (fall of their senior year) and have satisfactorily passed the fall semester report will enroll in this course for the Spring of their senior year only. (Sp)
BME 5013 Introduction to Medical Device Design 3 Credit Hours (Slashlisted with BME 4013; Crosslisted with AME 5013) Prerequisite: Graduate standing or permission of instructor. Introduction to medical device design with emphasis on the entire procedure of developing a medical device, from identifying the unmet medical need to product launching. Topics include marketing and technology survey, concept development, the biocompatible material, device prototype, bench test, in vitro/in vivo test, clinical trial, and FDA regulation. No student may earn credit for both 4013 and 5013. (Sp)

BME 5093 Applied Biomechanics - Ear Mechanics 3 Credit Hours (Slashlisted with BME 4093; Crosslisted with AME 5093) Prerequisite: Graduate Standing. The course curriculum starts with a review of some basic solid mechanics and fluid mechanics. Then the course will review the applications of mechanics in different biosystems or organs. Finally, this course will cover how to apply mechanics on ear tissue mechanical measurements, ear modeling and ear implant design. No student may earn credit for both 4093 and 5093. (F)
BME 5113 Special Topics in Cancer
3 Credit Hours
Prerequisite: Graduate standing and permission of instructor. Students will develop an appreciation of the tools available at hand to dissect the molecular mechanisms controlling cancer development such that they can take this knowledge to the bench to develop their own graduate research. (Sp)
BME 5123 Biophotonics Imaging Microscopy
3 Credit Hours
Prerequisite: Graduate standing; BME 2333; BME 2433; PHYS 2524 and MATH 3113; or instructor permission. Optical imaging, spectroscopy, and microscopy have become indispensable tools in modern biomedical research. This course will cover the principles and instrumentation of various biomedical optical techniques, including fluorescence and Raman spectroscopy, confocal and multi-photon microscopy, optical coherence tomography, and diffuse optical tomography. Biomedical applications, particularly on cancer and brain research, will also be discussed. (F)

## BME 5133 Therapeutic Biophotonics

3 Credit Hours
Prerequisite: Graduate standing, BME 4813 or permission of the instructor. This course will introduce the effects of photothermal, photochemical, photomechanical, photoimmunological, and photomodulational interactions. Applications of biophotonics in treatment of cancer and other diseases in basic, translational, and clinical studies will be discussed. Modern multiomics technologies, such as spatial and/or single cell transcriptomics for analysis of phototherapy induced biological effects will also be discussed. (Sp)
BME 5143 Biosensor. Fundamentals and Applications 3 Credit Hours Prerequisite: Graduate standing or Permission of Instructor. Healthcare, precision medicine, and self-monitoring of health all depend on biosensors. The goal of the course is to provide students a thorough introduction to the topic of biosensors as well as a quantitative and indepth understanding of device design and performance evaluation. (Sp)
BME 5213 Biomechanics I
3 Credit Hours
(Crosslisted with AME 5213) Prerequisite: AME 3143 and AME 3153 or permission of instructor. Introduction to physiological systems with emphasis on structure and function of tissues and organs; application of continuum mechanics to understanding of tissue and organ behavior at microscopic and macroscopic levels; viscoelastic behavior at microscopic and macroscopic levels; viscoelastic and solid biomaterials. (F)

BME 5233 Biomaterials
3 Credit Hours
Prerequisite: Graduate standing, BME 3233, and permission of instructor. Introduction to materials used in biomedical environment, the design and use of implantable materials (such as metals, polyethylene, ceramics, composites), biocompatibility, test methods, and tissue growth on biomaterials. (Sp)

BME 5243 Biochemical Engineering
3 Credit Hours
(Slashlisted with BME 4243; Crosslisted with CH E 5243) Prerequisite:
CH E 5971; graduate standing or instructor permission. Current bioprocesses for reaction and separation with emphasis on fundamental principles of biochemical engineering, biochemistry, and microbiology. No student may earn credit for both 4243 and 5243. (Sp)

BME 5283 ImmunoEngineering
3 Credit Hours
Prerequisite: Graduate standing or permission of instructor. The immune system plays a big role to maintain the homeostasis in our body. It provides the first reaction to external stresses, such as pathogens, biomaterials and implants, and cancer. Dysregulations in immune system can cause autoimmune diseases or determine our fate when we are exposed to external diseases. (Sp)
BME 5293 Transport in Biological Systems 3 Credit Hours (Crosslisted with CH E 5293) Prerequisite: Chemical Engineering Graduate standing or permission of instructor; CH E 5971. Theoretical and practical aspects of transport phenomena in living organisms and biomedical technologies. Applications include hemorheology, drug delivery, extracorporeal circulation and artificial organs. (Irreg.)
BME 5363 Optical Engineering
3 Credit Hours
(Crosslisted with ECE 5363) Prerequisite: ECE 3793. Underlying theory and design of optical systems. Interference, diffraction and coherence phenomena will be examined as a basis for studying the limits of optical system performance. Other topics include a detailed study of polarization, the interaction of light with various media and geometrical optics. (Sp)

## BME 5373 Tissue Engineering

3 Credit Hours
(Slashlisted with BME 4373; Crosslisted with CH E 5373) Prerequisite: CH E 5971; graduate standing, admission into Gallogly College of Engineering or permission of instructor. Examines the background and recent advances in the science of combining multiple cell types with an appropriate support to provide a construct that can replace or support damaged tissue. No student may earn credit for both 4373 and 5373. (Irreg.)

## BME 5413 Nanomedicine

3 Credit Hours
Prerequisite: BME 3163 and permission of instructor. Introduction to nanomaterials used in preclinical and clinical stages; the design, application, and evaluation of nanomaterials to diagnose and treat diseases, including cancer. (Sp)
BME 5423 Genetic Engineering and Biotechnology 3 Credit Hours (Slashlisted with BME 4423; Crosslisted with CH E 5423) Prerequisite: Graduate standing in CBME or SBME, or permission of instructor. The course will cover state-of-the-art technologies of manipulating and controlling genes, genomes and cellular pathways with a goal of engineering human (stem) cells and microbes for health, environmental and industrial applications. No student may earn credit for both 4423 and 5423. (F)

BME 5443 Neural System and Rehabilitation Engineering3 Credit Hours Prerequisite: Graduate standing or permission of instructor. Advanced knowledge of neural control of movement, musculoskeletal system, and movement impairment and disability will be discussed. Topics include the frontiers of rehabilitation engineering, including assistive technologies, brain-computer interfaces, non-invasive brain stimulation, regenerative rehabilitation, and machine learning in rehabilitation. The students will learn writing skills for NIH/AHA aims page for research projects in the field of rehabilitation (Sp)
BME 5453 Polymer Science and Engineering 3 Credit Hours
(Crosslisted with CH E 5453) Prerequisite: Chemical Engineering Graduate standing or permission of instructor; CHE 5971. This course will be focused on the synthesis, characterization, processing, and properties of state-of-the-art polymeric and multicomponent polymeric materials. Students should come into the course with a background knowledge of polymers such as that found in an Engineering Materials and/or Organic Chemistry Course. (Sp)

BME 5533 Neural Engineering
3 Credit Hours
(Slashlisted with BME 4533) Prerequisite: Graduate standing or permission of instructor. Principles and technologies of applying engineering to neuroscience, including neural tissue engineering, models of neural function, neural interface, and neuromodulation technology. Examples of neural engineering systems focus on brain-controlled interface and prosthetic systems currently in development or produced commercially, and neurofeedback and brain stimulation systems for treating disorders such as depression. $\operatorname{MATLAB}(\mathrm{R})$ programming is required. No student may earn credit for both 4533 and 5533. (F)

BME 5853 Biomedical Signals and Systems
3 Credit Hours
(Crosslisted with ECE 5853) Prerequisites: ECE 3723 and ECE 3793, or equivalent course in electrical circuits and signal processing, or permission of instructor. Comprehensive coverage of topics related to signals in humans. Emphasis on using engineering tools to interpret signals and underlying physiological principles. Focus on emerging engineering technologies, physiological knowledge and clinical application. (Sp)

## BME 5863 Bioinstrumentation

3 Credit Hours
(Crosslisted with ECE 5863) Prerequisite: ECE 4213 or permission of the instructor. A comprehensive coverage of topics related to principles, applications, and design of medical instruments widely used in hospitals and clinical researches. Emphasis is placed on general design concepts, discussions on a great variety of medical devices, and medical device safety issues. Materials cover different levels and various aspects of human systems, such as heart, brain, circulation, respiration. (F, Sp)

## BME 5873 Network Modeling and Analysis of Complex Systems

3 Credit Hours
(Slashlisted with BME 4873) Prerequisite: graduate standing or permission of instructor. In this course, we will cover the key concepts and methodologies for studying the structure and dynamics of complex biological systems such as protein, genetic, and neural networks. No student may earn credit for both 4873 and 5873. (Sp)
BME 5960 Directed Readings
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of department. May be repeated; maximum credit sic hours. Directed readings and/or literature reviews under the direction of a faculty member. (Irreg.)
BME 5970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)
BME 5971 Seminar in Biomedical Engineering Research 1 Credit Hour Prerequisite: Graduate standing and BME majors only; May be repeated with change of content; maximum credit 6 hours. The department will invite speakers and the graduate students to present their ongoing research. Students will learn the frontiers in biomedical engineering and relevant fields and will have the opportunity for discussion with leading scientists. Students will also be encouraged to present their own research work and get feedback from faculty and peers. ( $F, S p$ )
BME 5973 Special Topics in Electrical and Computer Engineering

## 3 Credit Hours

(Crosslisted with ECE 5973) Prerequisite: Graduate standing and permission of instructor. May be repeated with change of content; maximum credit 12 hours. Selected topics of current research interest not covered by regularly scheduled coursework. (F, Sp, Su)

BME 5980 Research for Master's Thesis 2-6 Credit Hours
2 to 6 hours. Prerequisite: graduate standing or permission by instructor. May be repeated; maximum credit toward degree six hours. Directed research culminating in the completion of the master's thesis. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
BME 5990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission by instructor. May be repeated with change of subject matter; maximum credit six hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/ or laboratory research and field projects. (Irreg.)
BME 6213 Optical Information Processing 3 Credit Hours Prerequisite: ECE 5213 and ECE 5353. Application of Fourier transforms, linear systems, and diffraction theory to the analysis of optical systems. Emphasis is on the use of optical systems for information processing, including image enhancement, pattern recognition, data processing, optical switching, and computing. (F)

BME 6960 Directed Readings
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit six hours. Directed readings and/or literature review under the direction of a faculty member. (Irreg.)
BME 6970 Advanced Topics in Bioengineering 1-6 Credit Hours
1 to 6 hours. Prerequisite: graduate standing or instructor permission.
May be repeated with change of topic; maximum credit towards degree six hours. Selected topics of current faculty research interest at the PhD level not covered by regularly scheduled courses. (Irreg.)
BME 6980 Research for Doctoral Dissertation 2-16 Credit Hours 2 to 16 hours. Prerequisite: Graduate standing and permission of instructor; may be repeated. Directed research culminating in the completion of the doctoral dissertation. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
BME 6990 Independent Study 1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)

## C S-Computer Science

C S 1213 Programming for Non-Majors with Python 3 Credit Hours Prerequisite: Mathematics 1503 or concurrent enrollment. Introduction to the design and implementation of computer programs in the language Python. We will cover data types, control flow, iterations, functions, and the use of external libraries for text processing, graphics, image manipulation, web programming and others. Emphasis on problem solving with examples drawn from diverse disciplines. (F, Sp)
C S 1313 Programming for Non-Majors with C 3 Credit Hours
Prerequisite: MATH 1523 or concurrent enrollment. Introduction to the design and implementation of computer programs. Emphasis on problem solving. Topics include: variables and constants, arithmetic and Boolean expressions, conditional statements, loops, procedures and functions, arrays, standard libraries, input and output, structures, and program documentation. (F, Sp)

C S 1321 Java for Programmers
1 Credit Hour
Prerequisite: Departmental Permission; and Math 1523 or MATH 1743 or equivalent or concurrent enrollment, or placement into Math 1823 or higher. Introduction to computer programming using the Java programming language for students who are already proficient in another programming language. Topics include: variables and constants, arithmetic and Boolean expressions, conditional statements, repetition, methods, arrays, linear and binary search, basic sorting algorithms, object-oriented programming, documentation, and testing. Students may not take this class after passing CS 2334. (F, Sp)

## C S 1323 Introduction to Computer Programming for

 Programmers
## 3 Credit Hours

Prerequisite: Departmental Permission; and Math 1523 or MATH 1743 or equivalent or concurrent enrollment, or placement into Math 1823 or higher. Introduction to the design and implementation of computer software with an emphasis on abstraction and program organization for students with some prior programming experience. Topics include: variables and constants, arithmetic and Boolean expressions, conditional statements, repetition, methods, arrays, linear and binary search, basic sorting algorithms, object-oriented programming, documentation, and testing. Students may not take this class after passing CS 2334. (F, Sp)

## C S 1324 Introduction to Computer Programming for Non-

 Programmers 4 Credit HoursPrerequisite: Departmental Permission; and Math 1523 or MATH 1743 or equivalent or concurrent enrollment, or placement into Math 1823 or higher. Introduction to the design and implementation of computer software with an emphasis on abstraction and program organization for students with no prior programming experience. Topics include: variables and constants, arithmetic and Boolean expressions, conditional statements, repetition, methods, arrays, linear and binary search, basic sorting algorithms, object-oriented programming, documentation, and testing. Students may not take this class after passing CS 2334. (F, Sp)

C S 2334 Programming Structures and Abstractions 4 Credit Hours Prerequisite: C S 1323 or 1321 or 1324 , and MATH 1523 or higher. The design and implementation of computer programs using disciplined methodologies. Use of several abstract data types. Software reuse through encapsulation, composition, aggregation, inheritance, polymorphism, and generics. Topics include recursion, GUI development, file processing, and unit testing. A program design tool will be used. Introduction to ethics in computer science, including philosophical ethics theories. Discussion of intellectual property rights and privacy. (F, Sp)
C S 2413 Data Structures
3 Credit Hours
Prerequisite: C S 2334 and MATH 1823 or 1914; and C S 2813 or MATH 2513, or concurrent enrollment in C S 2813 or MATH 2513. Representation, analysis and implementation of data structures and associated algorithms including: algorithm complexity, sorting algorithms, lists, stacks, queues, search trees (AVL, Red-Black, Splay, 2-3), Heaps, Graphs, and Hashing. Written communications required in some projects. Ethical issues and tools and techniques used in writing secure applications will also be discussed. The primary programming language is $\mathrm{C}++$ with a debugging tool. $(\mathrm{F}, \mathrm{Sp})$

C S 2414 Data Structures
4 Credit Hours
Prerequisite: C S 2334 and MATH 1823 or 1914; and C S 2813 or
MATH 2513, or concurrent enrollment in C S 2813 or MATH 2513. Representation, analysis and implementation of data structures and associated algorithms including: algorithm complexity, sorting algorithms, lists, stacks, queues, search trees (AVL, Red-Black, Splay, 2-3), Heaps, Graphs, and Hashing. Written communications required in some projects. Ethical issues and tools and techniques used in writing secure applications will also be discussed. The primary programming language is $\mathrm{C}++$ with a debugging tool. $(\mathrm{F}, \mathrm{Sp})$
C S 2614 Computer Organization 4 Credit Hours Prerequisite: CS 2334. An introduction to the architecture, organization and design of uniprocessor-based computer systems. Topics include processor, control and memory design and organization, pipelining and vector processing, computer arithmetic, I/O organization, and computer systems security. ( $\mathrm{F}, \mathrm{Sp}$ )

## C S 2813 Discrete Structures

3 Credit Hours
Prerequisite: C S 2334; MATH 2423 or MATH 2924 as prerequisite or concurrent enrollment. Introduction to the theory of discrete structures useful in computer science. Topics include combinatorics, relations, functions, computational complexity, recurrences, and graph theory. (F, Sp )

## C S 2970 Special Topics/Seminar 1-3 Credit Hours

Special Topics. 1 to 3 hours. May be repeated; Maximum credit nine hours. Special topics course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research, and field projects. (Irreg.)
C S 3113 Introduction to Operating Systems 3 Credit Hours Prerequisite: C S 2413 or C S 2414, and C S 2813 or MATH 2513, and C S 2614 or ECE 3223. An introduction to the major concepts and techniques of designing and implementing operating systems including: memory management, process management, information management, and computer security. Principles of performance evaluation. Class projects require the design and implementation of software systems. A UNIX family operating system will be used. (F)
C S 3203 Software Engineering
3 Credit Hours
Prerequisite: C S 2413 or CS 2414, and C S 2813 or MATH 2513. Methods and tools for software specification, design, implementation, testing, code management and documentation. Emphasis on architectural modularity, encapsulation of software objects, and current industrial software development processes. Students will make reasoned choices among software components. Study of professional ethics, responsibility, and legal issues. No student may obtain credit for CS 3203 and C S 5213. (F, Sp )

## C S 3323 Principles of Programming Languages 3 Credit Hours

Prerequisite: C S 2413 or C S 2414, and C S 2813 or MATH 2513, and ENGL 3153 or BC 2813 or ENGR 2002 as a prerequisite or concurrent enrollment. An introduction to theoretical foundations and paradigms of programming languages. Topics include basic concepts such as lexical analysis, syntax analysis, type systems and semantics, some practical issues such as memory management and exception handling, and programming paradigms such as imperative programming, objectoriented programming, functional programming and scripting. (Sp)

C S 3440 Mentored Research Experience
3 Credit Hours
0 to 3 hours. Prerequisite: ENGL 1213 or EXPO 1213, and permission of instructor; may be repeated; maximum credit 12 hours. For the inquisitive student to apply computer science in a project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. . (F, Sp, $\mathrm{Su})$
C S 3450 Undergraduate Research
3 Credit Hours
0 to 3 hours. Prerequisite: (CS 2413 or CS 2414 and CS 2813 or Math 2513) and permission of instructor; may be repeated, maximum credit 6 hours. For the inquisitive student to perform computer science research or creative activity under the mentorship of a faculty member. Not for honors credit. (F, Sp, Su)
C S 3823 Theory of Computation
3 Credit Hours
Prerequisite: CS 2413 and CS 2813 or MATH 2513 or CS 5005 or
DSA 5005. Introduction to abstract machine theory and formal language theory. Topics include Turing machines, finite/pushdown automata, deterministic versus nondeterministic computations, context-free grammars, and mathematical properties of these systems. (F)
C S 3960 Honors Reading 1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Consists of topics designated by the instructor in keeping with the student's major program. Covers materials not usually presented in the regular courses. (F, Sp)
C S 3970 Honors Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated with change of topic; maximum credit eight hours. Projects covered will vary. Deals with concepts not usually presented in regular coursework. (Irreg.)
C S 3980 Honors Research 1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated with change of subject matter; maximum credit six hours. Provides an opportunity for the gifted Honors candidate to work on a special project in the student's field. (F, Sp, Su)
C S 3990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: permission of instructor and junior standing. May be repeated once with change of content. Independent study may be arranged to study a subject not available through regular course offerings. (F, Sp, Su)
C S 4013 Artificial Intelligence
3 Credit Hours
(Slashlisted with C S 5013) Prerequisite: CS 2413 or CS 5005, and CS 2813 or CS 4005 or MATH 2513. Study of the methods of search, knowledge representation, heuristics, and other aspects of automating the solution of problems requiring intelligence. No student may earn credit for both 4013 and 5013. (Sp)

C S 4023 Introduction to Intelligent Robotics 3 Credit Hours (Slashlisted with C S 5023) Prerequisite: C S 2413, and C S 2813 or MATH 2513. History of intelligent robotics; functional models approach; reactive robots; ethology for robotics; architectures and methodologies; implementation; sensing; hybrid deliberative/reactive robotics; multirobot systems; navigation; topological path planning; metric path planning; localization and mapping. No student may earn credit for both 4023 and 5023. (F)

C S 4033 Machine Learning Fundamentals 3 Credit Hours
(Slashlisted with C S 5033) Prerequisites: C S 2413, and C S 2813 or MATH 2513, and MATH 4753 or ISE 3293 or MATH 4743, and MATH 3333, and MATH 3113 or MATH 3413. Topics include decision trees, relational learning, neural networks, Bayesian learning, reinforcement learning, multiple-instance learning, feature selection, learning appropriate representations, clustering, and kernel methods. No student may earn credit for both 4033 and 5033. (F)
C S 4053 Computer Graphics
3 Credit Hours
(Slashlisted with C S 5053) Prerequisite: C S 2413, and C S 2813 or MATH 2513, and MATH 3333. An introduction to computer graphics. Topics include coordinate systems, transformations, rendering in both two and three dimensions, and graphical programming. No student may earn credit for both 4053 and 5053. (F)

C S 4063 Human Computer Interaction
3 Credit Hours
(Slashlisted with CS 5063) Prerequisite: C S 2413, and C S 2813 or MATH 2513. An introduction to human-computer interaction and graphical user interfaces. Topics include principles of human-computer interaction, human perceptual and cognitive abilities, user interface analysis and design, window systems, and social implications of computing. Current user interface programming tools will be described and used. Oral presentations are required for some assignments. No student may earn credit for both 4063 and 5063. (Sp)

## C S 4113 Distributed Operating Systems

3 Credit Hours
(Slashlisted with C S 5113) Prerequisite: C S 3113, and Mathematics 4753 or Industrial Engineering 3293 or Mathematics 4743 or Engineering 3293. Continuation of study from 3113. Advanced topics and examples and simulation techniques used in performance evaluation. No student may earn credit for both 4113 and 5113. (Sp)
C S 4133 Data Networks
3 Credit Hours
(Slashlisted with 5133) Prerequisite: 3113 or permission of instructor. Comprehensive treatment of data networking principles including: layered protocol design and their functions, tools for performance analysis, multiaccess communication, routing and flow control. No student may earn credit for both 4133 and 5133. (F)

## C S 4173 Computer Security

3 Credit Hours
(Slashlisted with C S 5173) Prerequisite: CS 3113. An introduction to computer security. Topics include applied cryptography, access control, programming and software security, operating system security, network security protocols, and the legal and ethical aspects of security software. (F)

## C S 4273 Capstone Design Project

3 Credit Hours
Prerequisite: C S 3203, and C S major or C S minor. Students working in teams implement a significant software product, including design documents, user's guide, and process reports. Emphasis is on data abstraction and reusable components. Students will make reasoned choices among software components. Students will practice oral/ written communication skills, learn about professional social issues and responsibilities. No student may obtain credit for C S 4273 and C S 5213. (F, Sp) [V].

C S 4281 Engineering Co-Op Program

## 1 Credit Hour

(Crosslisted with AME, CH E, CEES, ECE, EPHY, ISE and BME 4281)
Prerequisite: Departmental permission and junior standing. May be repeated; maximum credit 6 hours. The Co-Op program provides students an opportunity to enhance their education via career exploration in related professional work experiences. Course assignments help students articulate their experiences by completing journals; mid-term paper; final paper and/or final presentation. Faculty receive an evaluation from the student's Co-Op supervisor who monitors performance. Faculty collaborate with the Co-Op supervisor to ensure student success. (F, Sp, Su)
C S G4323 Compiler Construction
3 Credit Hours
Prerequisite: 2413 and 3823. Introduction to the theory and
implementation of programming language compilers and interpreters. Class projects require the design of medium scale software systems. (Sp)
C S 4410 Programming Competition
0 Credit Hours
Prerequisite: Permission of Instructor. Prepare students to participate in regional, national, and international computer programming competitions. Students will work in teams to solve challenging computer programming problems. (F, Sp)

## C S G4413 Algorithm Analysis

3 Credit Hours
(Crosslisted with DSA 4413) Prerequisites: C S 2413 and C S 2813; or MATH 2513; or C S 5005. Design and analysis of algorithms and measurement of their complexity. This course introduces various algorithm design strategies: divide and conquer, greedy principle and dynamic programming to solve a variety of problems using algorithms of various types - deterministic and randomized, serial and parallel, centralized and decentralized, program based and circuit based. (F)
C S 4433 Computational Methods in Discrete Optimization 3 Credit Hours
(Slashlisted with C S 5433) Prerequisite: MATH 3333 and C S 4413 or concurrent enrollment in 4413. Linear programming: simplex method for LP problems, degeneracy and anticycling strategies, duality theory and complementary slackness conditions, revised simplex method, sensitivity analysis and simplex method for general LP problems. Network optimization: the transshipment problem, network simplex method, shortest path algorithms, the maximum flow problem, and the primal dual method. No student may earn credit for both 4433 and 5433. (F, Sp)
C S 4473 Parallel, Distributed, and Network Programming 3 Credit Hours
(Slashlisted with C S 5473) Prerequisite: CS 3113 and CS 4413. Parallel and distributed architectures, algorithms, programming paradigms and network communication protocols and programming. Topics include asynchronous/synchronous computation, GPU architectures, load balancing, memory hierarchies, other parallel and distributed models of computation, concepts about computer networks, including internet protocol stack and internet architecture, and socket programming using TCP and UDP. No student may earn credit for both 4473 and 5473. (Sp)

C S G4513 Database Management Systems 3 Credit Hours (Crosslisted with DSA 4513) Prerequisites: C S 2413 and C S 2813; or MATH 2513; or C S 5005. The design and implementation of a DBMS including data models, query languages, entity-relationship diagrams, functional dependencies, normalization, storage structures, access methods, query processing, security and transaction management, and applications. The impact of databases on individuals, organizations, and society, and legal and professional responsibilities including security and privacy will be discussed. A commercial DBMS is used. Students practice written communication skills. (F)

C S G4613 Computer Architecture 3 Credit Hours
(Crosslisted with ECE 4613) Prerequisite: ECE 3223 or C S 2614 or C S 2613. Covers basic concepts of computer system design and communication between components, along with current and historical examples of computer architecture. ( $\mathrm{F}, \mathrm{Sp}$ )

C S 4723 Neural Data Science
3 Credit Hours
(Slashlisted with C S 5723) Prerequisite: Computer Programming (CS 1213 or CS 1313 or CS 1321 or CS 1323 or CS 1324) and Statistics (ECE 2523 or ISE 3293 or Math 4743 or Math 4753); or permission of instructor. This course will introduce the fundamental concepts of neural data analysis and its implementation using computer programming. Topics include statistical modeling, connectivity analysis, time-frequency analysis, and pattern recognition. No student may earn credit for both 4723 and 5723. (F)
C S 4733 Computer Vision for Autonomous Vehicles 3 Credit Hours (Slashlisted with C S 5733) Prerequisite: C S2413 or C S 2414 or C S 5005; and MATH 3333; or permission of instructor. This course delves into the foundational principles of mathematics and the practical implementation of state-of-the-art autonomous navigation algorithms, specifically within the domains of self-driving cars, delivery robots, and autonomous aerial vehicles such as drones. Positioned within the field of robotics, it explores various aspects of autonomous navigation, covering motion planning, computer vision, localization, and mapping. No student may earn credit for both 4733 and 5733. (F)

## C S 4743 Scientific Computing I

3 Credit Hours
(Slashlisted with C S 5743) Prerequisite: MATH 3333. Interaction between applications, architectures, and algorithms. Review of linear algebra, serial, pipelined vector processors, cluster of processors. Measures of proformance of parallel algorithms. Parallel algorithms for the solution of linear systems. No student may earn credit for both 4743 and 5743. (F)
C S 4823 Cryptography
3 Credit Hours
(Slashlisted with 5823) Prerequisite: 3823 and 4413. Elementary number theory, time complexity for doing arithmetic, finite fields, RSA, discrete logarithm and Diffie-Hellman, zero-knowledge protocols and oblivious transfer. Basic elliptic curve cryptosystems, elliptic curve factorization and primality proving. No student may earn credit for both 4823 and 5823. (Sp)

C S 4910 Senior Reading and Research
1-3 Credit Hours
1 to 3 hours. Prerequisite: senior standing, permission of instructor. May be repeated with change of subject matter; maximum credit six hours. Individually supervised reading and research in computing science for gifted seniors. (F, Sp, Su)

## C S 4970 Undergraduate Seminar

1-3 Credit Hours
0 to 3 hours. May be repeated with change of subject matter; maximum credit three hours. A special type of seminar necessitated by the rapidly changing nature of modern data processing information science and computing sciences. (Irreg.)

C S 4973 Special Topics
3 Credit Hours
Prerequisite: 2413 and permission of instructor. May be repeated with change of subject matter; maximum credit nine hours. A special topics course necessitated by the rapidly changing nature of computer sciences. Topics offered under this number will be accepted as approved Computer Science electives for Computer Science majors. (Irreg.)

C S 4990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: Senior standing and permission of instructor. May be repeated; maximum credit nine hours but total credit applicable to any degree may be limited. Individual or group research and development projects involving original laboratory, analytical or theoretical investigations and syntheses. Specific objectives and work requirements are established by prior agreement of the instructor and student. Students should expect to spend at least 48 hours for each credit hour and to submit appropriate reports or papers (F, Sp, Su).
C S 5005 Computing Structures 5 Credit Hours
(Crosslisted with DSA 5005) Prerequisite: CS 2334, MATH 1914 or MATH 1823 or with permission of graduate liaison. This course has three parts: discrete mathematics, object-oriented programming in C++, and data structures in C++. As part of the discrete mathematics students will be introduced to combinatorics, logic, relations, functions, computational complexity, automata, and graph theory. Students will be introduced to the fundamentals of object-oriented programming and learn to design, build, and analyze data structures using object-oriented principles and techniques. Credit hours earned for this course cannot be used to fulfill degree requirements for the B.S., M.S. or Ph.D. programs in computer science. (Irreg.)

C S 5013 Artificial Intelligence
3 Credit Hours
(Slashlisted with C S 4013) Prerequisite: graduate standing and C S 2413 or C S 5005, and C S 2813 or C S 4005 or MATH 2513. Study of the methods of search, knowledge representation, heuristics, and other aspects of automating the solution of problems requiring intelligence. No student may earn credit for both 4013 and 5013. (Sp)
C S 5023 Introduction to Intelligent Robotics
3 Credit Hours
(Slashlisted with C S 4023) Prerequisite: graduate standing and C S 2413, and C S 2813 or MATH 2513. History of intelligent robotics; functional models approach; reactive robots; ethology for robotics; architectures and methodologies; implementation; sensing; hybrid deliberative/reactive robotics; multi-robot systems; navigation; topological path planning; metric path planning; localization and mapping. No student may earn credit for both 4023 and 5023. (F)
C S 5033 Machine Learning Fundamentals 3 Credit Hours (Slashlisted with C S 4033) Prerequisite: Graduate standing and C S 2413; C S 2813 or MATH 2513; MATH 4753 or ISE 3293 or MATH 4743; MATH 3333; and MATH 3113 or MATH 3413. Topics include decision trees, relational learning, neural networks, Bayesian learning, reinforcement learning, multiple-instance learning, feature selection, learning appropriate representations, clustering, and kernel methods. No student may earn credit for both 4033 and 5033. (F)
C S 5043 Advanced Machine Learning 3 Credit Hours Prerequisite: Graduate standing; MATH 3333; MATH 4743 or MATH 4753 or ENGR 3293 or ISE 3293; and C S 4033/5033 or C S 5073; or permission of the instructor. Topics include deep learning, deep networks, convolutional neural networks, recurrent neural networks, transformers, autoencoders, generative adversarial networks, and explainable deep learning. (Irreg.)
C S 5053 Computer Graphics
3 Credit Hours
(Slashlisted with C S 4053) Prerequisite: graduate standing and C S 2413, and C S 2813 or MATH 2513, and MATH 3333. An introduction to computer graphics. Topics include coordinate systems, transformations, rendering in both two and three dimensions, and graphical programming. No student may earn credit for both 4053 and 5053. (F)

C S 5063 Human Computer Interaction 3 Credit Hours (Slashlisted with CS 4063) Prerequisite: Graduate standing and C S 2413, and C S 2813 or MATH 2513; or departmental permission. An introduction to human computer interaction and graphical user interfaces. Topics include principles of human computer interaction, human perceptual and cognitive abilities, user interface analysis and design, window systems, and social implications of computing. Current user interface programming tools will be described and used. Oral presentations are required for some assignments. No student may earn credit for both 4063 and 5063. (Sp)

## C S 5073 Artificial Neural Networks Evolution 3 Credit Hours

 Prerequisite: CS 2413 and CS 2813, or CS 5005, and MATH 3333. Overview of computational intelligence and artificial evolution, artificial neural networks and artificial evolution, introduction to artificial life and neuro-evolution, and evolutionary robotics. (F)
## C S 5093 Visual Analytics

3 Credit Hours
Prerequisite: permission of instructor. Exploration and analysis of complex information through visual interactive computational tools and techniques. Topics include analytic reasoning, sense-making, knowledge dissemination, data representation and transformation, visual abstraction, coordinated interaction, visual query languages, spatiotemporal visualization, and applications of visual analysis. (Sp)

## C S 5113 Distributed Operating Systems

3 Credit Hours
(Slashlisted with C S 4113) Prerequisite: Graduate standing, C S 3113; and MATH 4753, ISE 3293, or MATH 4743. Advanced topics, examples, and simulation techniques used in performance evaluation. No student may earn credit for both 4113 and 5113. (Sp)
C S 5133 Data Networks
3 Credit Hours
(Slashlisted with 4133) Prerequisite: 3113 or 5004 or permission of instructor. Comprehensive treatment of data networking principles including: layered protocol designs and their functions, tools for performance analysis, multi-access communication, routing and flow control. No student may earn credit for both 4133 and 5133. (F)

## C S 5143 Network Design and Management

3 Credit Hours
Prerequisite: 4133 or 5133 , or equivalent. Basic concepts in networks; modeling and evaluation techniques; network analysis: delay, loss and throughput, centralized network design; distributed network design, network reliability; applications to local area wireless, wide area, multiservice networking, etc.; network management: SNMP, OSI management, distributed network management and architectures. (Sp)

## C S 5173 Computer Security

3 Credit Hours
(Slashlisted with C S 4173) Prerequisite: CS 3113. An introduction to computer security. Topics include applied cryptography, access control, programming and software security, operating system security, network security protocols, and the legal and ethical aspects of security software (F)

## C S 5183 Wireless and Mobile Networks 3 Credit Hours

Prerequisite: Graduate standing, CS 4133/5133; MATH 4743 or MATH G4753 or ISE 3293 or ECE 2523 or permission of instructor. This course provides a systematic view of designing and securing wireless mobile computing systems and networks. It covers system and security elements from the physical layer all the way to the application layer in wireless mobile computing. (Sp)

C S 5213 Software Engineering Processes
3 Credit Hours
Prerequisite: graduate standing, C S 3113 or C S 3823 or C S 5005. No student may obtain credit for C S 4263 or C S 4273 and CS 5213. Effective processes for software requirements specification, planning, design, documentation, development, review, defect tracking, testing, product delivery, and product evaluation. Emphasis on resource tracking and software quality. Students work in teams to develop, deliver, and evaluate software products. (Sp)
C S 5293 Text Analytics 3 Credit Hours
Prerequisite: C S 2413 or C S 5005; CS 2813 or MATH 2513; and
MATH 4743 or MATH 4753 or ISE 3293 or ISE 5013. The course covers the design and implementation of algorithms to extract useful knowledge from text to support decision making, including methods to obtain data sets, understanding data formats, detecting duplicates, cleaning data sets, tagging, indexing, search, evaluating algorithms, classification, clustering, topic modeling, and entity resolution. (Sp)

C S 5413 Computational Complexity 3 Credit Hours Prerequisite: 4413 and 3823 or 5813. Computational complexity theory dealing with various models of computation and a detailed analysis of $P$ and NP hard problems. (Sp)

## C S 5433 Computational Methods in Discrete Optimization 3 Credit Hours

(Slashlisted with C S 4433) Prerequisite: MATH 3333 and C S 4413 or concurrent enrollment in 4413. Linear programming: simplex method for LP problems, degeneracy and anticycling strategies, duality theory and complementary slackness conditions, revised simplex method, sensitivity analysis and simplex method for general LP problems. Network optimization: the transshipment problem, network simplex method, shortest path algorithms, the maximum flow problem, and the primal dual method. No student may earn credit for both 4433 and 5433. (F)

C S 5463 Advanced Computer Architecture

## 3 Credit Hours

(Crosslisted with ECE 5463) Prerequisite: C S 4613. The design of modern programmable computer systems with emphases on exploiting parallelism at all levels, designing within constraints, including energy consumption, and the impact of architecture on software design. Covers state of the art computer architecture, case studies and trends. (Sp)

C S 5473 Parallel, Distributed, and Network Programming 3 Credit Hours
(Slashlisted with C S 4473) Prerequisite: Graduate standing, C S 3113, and C S 4413. Parallel and distributed architectures, algorithms, programming paradigms and network communication protocols and programming. Topics include asynchronous/synchronous computation, GPU architectures, load balancing, memory hierarchies, other parallel and distributed models of computation, concepts about computer networks, including internet protocol stack and internet architecture, and socket programming using TCP and UDP. No student may earn credit for both 4473 and 5473. (Sp)

C S 5483 Network Science
3 Credit Hours
Prerequisite: C S 4413 or DSA 4413 or permission of instructor. Topics to be covered include fundamental algorithms for network analysis, investigating properties of networks, learning community detection methods, understanding network inference methods, understanding dynamics of networks, percolation, resilience, spreading phenomenon, social influence, and cascades. A variety of application contexts will be used, including physical, informational, biological, cognitive, and social systems. (F)

C S 5513 Advanced Database Management 3 Credit Hours
Prerequisite: 4513. An advanced course dealing with both current database applied research subjects and theoretical aspects of relational databases. Selected topics such as distributed databases, objectoriented databases, real-time databases, and multimedia databases will be discussed. (Sp)

## C S 5593 Data Mining

## 3 Credit Hours

Prerequisite: graduate standing and permission from the instructor or department. Covers the process, concepts and techniques in data mining, including advanced techniques that deal with Big Data. It provides students with the necessary background to conduct data mining tasks for real world problems. The topics covered include understanding and preprocessing data, classification, association analysis, cluster analysis, anomaly detection, and Big Data mining. (F)

## C S 5613 Computer Networks and Distributed Processing 3 Credit Hours

Prerequisite: 4613. Provides a comprehensive treatment of the analysis and design of computer networks. Data communication techniques and distributed processing in a network architecture will be examined. (Sp)

## C S 5703 Machine Learning Practice

3 Credit Hours
(Crosslisted with DSA 5703) Prerequisite: Graduate standing;
C S 4013/5013, C S 5593, ISE/DSA 5103; or permission of instructor. Machine learning is the data-driven process of constructing mathematical models that can be predictive of data observed in the future. In this course, we will study the use of a range of supervised, semisupervised and unsupervised methods to solve both classification and regression problems. (F)

## C S 5713 Computational Learning Theory 3 Credit Hours

Prerequisite: Departmental Permission and C S 4413 or DSA 4413.
Topics of machine learning theory. Learning using membership queries, equivalence queries, version spaces, decision trees, perceptrons. Probably approximately correct (PAC) learning, Occam algorithms, VC-dimension, sample sizes for distribution-independent learning. Representation issues, proper learning, reductions, intractability, learning in the realizable case, agnostic learning. Noise models, statistical queries, PAC learning under noise. Adversarially robust learning against poisoning attacks and against adversarial examples. (F)

## C S 5723 Neural Data Science

3 Credit Hours
(Slashlisted with C S 4723) Prerequisite: Graduate standing or permission of instructor. This course will introduce the fundamental concepts of neural data analysis and its implementation using computer programming. Topics include statistical modeling, connectivity analysis, time-frequency analysis, and pattern recognition. No student may earn credit for both 4723 and 5723. (F)
C S 5733 Computer Vision for Autonomous Vehicles 3 Credit Hours (Slashlisted with C S 4733) Prerequisite: Graduate standing or permission of instructor. This course delves into the foundational principles of mathematics and the practical implementation of state-of-the-art autonomous navigation algorithms, specifically within the domains of self-driving cars, delivery robots, and autonomous aerial vehicles such as drones. Positioned within the field of robotics, it explores various aspects of autonomous navigation, covering motion planning, computer vision, localization, and mapping. No student may earn credit for both 4733 and 5733. (F)

C S 5743 Scientific Computing I

## 3 Credit Hours

(Slashlisted with C S 4743) Prerequisite: graduate standing and MATH 3333 and AME 3723 or MATH 4073 or ENGR 3723 or C S 3723. Interaction between applications, architectures, and algorithms. Review of linear algebra, serial, pipelined vector processors, cluster of processors. Measures of proformance of parallel algorithms. Parallel algorithms for the solution of linear systems. No student may earn credit for both 4743 and 5743. (F)
C S 5753 Scientific Computing II
3 Credit Hours
Prerequisite: 5743. Special research topics in scientific computing. Possible topics include optimization algorithms, time series modeling, Kalman filtering techniques, and multivariate statistical techniques. (Sp)

## C S 5813 Formal Languages

3 Credit Hours
Prerequisite: 3823. Theory of formal languages. Mathematical modeling of natural or artificial objects, events, and phenomena. Topics include systems for linear/nonlinear objects, their language-theoretical properties, and the related machine theory. (F)
C S 5823 Cryptography
3 Credit Hours
(Slashlisted with 4823) Prerequisite: 3823 and 4413. Elementary number theory, time complexity for doing arithmetic, finite fields, RSA, discrete logarithm and Diffie-Hellman, zero-knowledge protocols and oblivious transfer. Basic elliptic curve cryptosystems, elliptic curve factorization and primality proving. No student may earn credit for both 4823 and 5823. (Sp)

C S 5833 Blockchains \& Cryptocurrencies 3 Credit Hours
Prerequisite: Departmental Permission and C S 3823 or C S 4413. This course attempts to bridge the gap in the technical understanding of blockchain architectures and their applications as a currency. Specifically, this course will address the following fundamental questions and more: How does Bitcoin work and what makes it different? How secure are Bitcoins? How anonymous are Bitcoin users? What applications can be built using Bitcoin as a platform? (Sp)
C S 5880 Graduate Project
2-6 Credit Hours
2 to 6 hours. Prerequisite: Graduate standing and permission of department. For students electing the non-thesis project option. Students will plan and carry out a project in computer science under the direction of their project committee. Students must take at least 6 credit hours of CS 5880 over one or more semesters; only the first 6 credits will count towards the non-thesis project program requirement. (F, Sp, Su)

## C S 5903 Graduate Perspectives on Computing 3 Credit Hours

Prerequisite: Graduate standing and permission of department. A broad survey of principles, pathways, practices, and research in computer science. Topics include foundations and current computing research on systems, theory, artificial intelligence \& machine learning, and people \& data; ethics, integrity, social implications, and professional practices in computing; and essential skills and tools for computing research and practice. (F, Sp)

C S 5960 Directed Readings
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing and permission of department. May be repeated; maximum credit twelve hours. Directed readings and/or literature reviews under the direction of a faculty member. (F, Sp, Su)
C S 5970 Graduate Seminar
1-3 Credit Hours
Prerequisite: permission of instructor. May be repeated with a change of subject matter; maximum credit six hours. Selected topics of current research interest not covered by regularly scheduled coursework. (F, Sp, Su )

C S 5980 Research for Master's Thesis
2-9 Credit Hours
Variable enrollment, two to nine hours; maximum credit applicable toward degree, six hours. (F, Sp, Su)

## C S 5990 Independent Studies

1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing, permission of instructor. May be repeated with change of topic; maximum graduate credit nine hours. Supervised individual reading and research in computer science for graduate students. (F, Sp, Su)

## C S 6960 Directed Readings <br> 1-3 Credit Hours

1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit six hours. Directed readings and/or literature review under the direction of a faculty member. (Irreg.)

C S 6970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor.
May be repeated; maximum credit 12 hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or research and field projects. (Irreg.)

C S 6980 Research for Doctoral Dissertation 2-16 Credit Hours
2 to 16 hours. Prerequisites: Graduate standing and permission of instructor; may be repeated. Directed research culminating in the completion of the doctoral dissertation. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

C S 6990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)

## CAS-College of Arts \& Sciences

CAS 1523 Gateway to Belonging at OU 3 Credit Hours
This course teaches critical thinking skills and supports students in developing a true understanding of others, as well as a sense of belonging at OU and beyond. It offers students an opportunity to consider how they have formed their own beliefs and opinions and how they can interact with one another to gain the most from their college experience. (F, Sp, Su) [V-FYE].

CAS 1543 Ethical and Intercultural Leadership 3 Credit Hours This course offers students an exploration of ethical and intercultural leadership through an interdisciplinary lens. Students will have an opportunity to practice ethical and moral decision-making and other competencies, skills, and attitudes that are beneficial for leading and facilitating intercultural groups in the campus and community environments. (F, Sp, Su) [V-FYE].

CAS 1553 Gateway to the Sciences
3 Credit Hours
This course enriches the first-year experience. Students explore and discuss how various fields of science impact society and learn about their research methods. Students develop an awareness of the rich diversity of scientists and scientific disciplines. Students get to know faculty and advisors from various departments. Students are empowered through the development of foundational knowledge and skills. (F, Sp, Su) [V-FYE].

CAS 1563 Gateway to the Social Sciences
3 Credit Hours
This course enhances the first-year experience by cultivating a supportive student community that thrives on interactive learning. Participants will actively examine how diverse fields within the realm of social sciences influence society, and gain insights into their research methodologies. Students will also gain an understanding of the rich diversity of scientific disciplines within the social sciences. (F, Sp, Su) [V-FYE].

CAS 1573 Gateway to the Humanities 3 Credit Hours This course enhances the first-year experience by cultivating a supportive student community that thrives on interactive learning. Participants will actively examine how diverse fields within the realm of the Humanities influence society, and gain insights into their research methodologies. Students will also gain an understanding of the rich diversity of disciplines within the Humanities. (F, Sp, Su) [V-FYE].

CAS 2091 Career Planning for Arts and Sciences Students 1 Credit Hour Assist students to determine personal career goals, explore career opportunities beyond graduation, develop a strategy for the job search process, and improve job search techniques as life-long resource tools. (F, Sp)

CAS 2970 Special Topics
1-3 Credit Hours
1 to 3 hours. Prerequisite: May be repeated; Maximum credit nine hours. Special topics course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research, and field projects. (Irreg.)

CAS 3002 Digital Scholarship Internship
2 Credit Hours
Prerequisite: junior standing or permission of instructor. Provides the opportunity to learn technological means of communicating academic information to the public. Such digital skills are increasingly necessary in a global job market. Students will reflect upon and integrate their practical experiences learning technological communication formats into their major, minor, or study abroad coursework, incorporating how the internship illuminates and augments a particular aspect of academic research. (F, Sp, Su)

CAS 3091 Career Planning for Arts and Sciences Students 1 Credit Hour Prerequisite: CAS major; must have completed 30 hours. Assist students to determine personal career goals, explore career opportunities beyond graduation, develop a strategy for the job search process, and improve job search techniques as life-long resource tools. (F, Sp)

CAS 3440 Mentored Research Experience 3 Credit Hours 0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)

## CAS 3900 Study Abroad <br> 1-6 Credit Hours

1-6 hours. Prerequisite: sophomore standing and completion of ENGL 1213, or permission of instructor. May be repeated; maximum credit 12 hours. Content/location varies. Enrollment in this course indicates that the student is participating in an OU study abroad program run by the College of Arts and Sciences, taught by OU faculty. They will study various cultural, historical, political, social, economic or linguistics issues relevant to understanding their study abroad environment in the specific country chosen and reflected in the course title. (Su)

CAS 3901 Arts and Sciences Co-Op Program 1 Credit Hour
Prerequisite: concurrent participation in A\&S Co-Op Program. Program allows students to work outside the university in a job related to the major. Enrollment in this course will be during a term in which a student is working full-time, with the cooperation of the employer, with the intent of returning to OU to continue with the degree requirements. Upon completion of the term's work, the student will write a paper describing their work experience and the relevance to their major. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
CAS 3960 Honors Reading 1-3 Credit Hours
1 to 3 hours. Prerequisite: Admission to Honors Program. May be repeated; maximum credit six hours. Consists of topics designated by the instructor in keeping with the student's major program. The topics will cover materials not usually presented in the regular courses. (F, Sp, Su)
CAS 3970 Honors Seminar 1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Subjects covered vary. Deals with concepts not usually treated in regular courses. (Irreg.)
CAS 3980 Honors Research
1-3 Credit Hours
1 to 3 hours. Prerequisite: Admission to Honors Program. May be repeated; maximum credit six hours. Will provide an opportunity for the gifted Honors candidate to work at a special project in the student's field. (F, Sp, Su)
CAS 3990 Independent Study 1-3 Credit Hours
1 to 3 hours. Prerequisite: permission of instructor and junior standing. May be repeated once with change of content. Independent study may be arranged to study a subject not available through regular course offerings. (F, Sp, Su)

## CAS 4113 Life After OU: A Survival Course

3 Credit Hours
Prerequisite: senior standing. Introduces students to practical aspects of life after college. Includes interviewing; legal aspects of employment; money, banking and finances; insurance; mortgages; estate planning; and civic involvement. (Irreg.)

## CAS 4630 CAS Internship

1-6 Credit Hours
1 to 6 hours. Prerequisite: CAS major; must have completed at least 30 hours; permission of instructor. May be repeated; maximum credit six hours. Provides hands-on experience for students in chosen field of study. (F, Sp, Su)
CAS 4703 Multidisciplinary Capstone
3 Credit Hours
Prerequisite: senior standing and permission. Explores interdisciplinary topics through research, analysis, and writing. It will incorporate instruction in appropriate research methods, focus on contemporary issues from a global perspective, and prepare students to function as informed citizens in a democracy. Required readings will provide a common basis for discussion. (F, Sp) [V] .
CAS 4710 Entrepreneurship Internship
1-3 Credit Hours
Prerequisite: Student must have declared minor in enterprise studies. May be repeated for up to six hours credit. (F, Sp, Su)

## CAS 4960 Directed Readings 1-4 Credit Hours

1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean. May be repeated; maximum credit four hours. Designed for upper-division students who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)

## CAS 4970 Special Topics/Seminar

1-3 Credit Hours
1 to 3 hours. Prerequisite: Senior standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

CAS 4990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: Senior standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)

CAS 5003 Introduction to Grad Studies
3 Credit Hours
Prerequisite: graduate standing. Intensive seminar providing orientation to advanced interdisciplinary study, appreciation for standards of performance and scholarship appropriate to graduate study, development of skills necessary for success in academic research and writing in a graduate interdisciplinary program. (F, Sp, Su)

CAS 5013 Interdisciplinary Foundations
3 Credit Hours
Prerequisite: graduate standing. Selected readings designed to reinforce the interdisciplinary approach to graduate studies and to introduce the concept of paradigms as an organizing principle for understanding and interpreting information. (F, Sp, Su)
CAS 5043 Research Methods
3 Credit Hours
Prerequisite: graduate standing, CAS 5003 and CAS 5013; or permission of dean. Theories and techniques of research designed to prepare MLS students to carry out individual research on a topic within an interdisciplinary program of study. (F, Sp, Su)
CAS 5073 Quantitative Research Methods for Interdisciplinary Studies

3 Credit Hours
Prerequisite: Graduate standing, CAS 5003 and CAS 5013 or permission from graduate advisor. Introduction to descriptive and inferential statistics for quantitative research in interdisciplinary studies. Includes use of graphs, frequency distributions, probability, central tendency, dispersion, hypothesis testing, tests of mean differences, and correlation. (F, Sp, Su)

## CAS 5083 Qualitative Research Methods in Interdisciplinary

 Studies 3 Credit HoursPrerequisite: graduate standing, CAS 5003 and CAS 5013; or permission of dean. An inquiry designed to acquaint students with qualitative research methods in interdisciplinary study. By the end of the course, the student will be familiar with the most common methods and issues qualitative research. Students will learn how to design a study; how to recognize and address ethical issues; and how to analyze qualitative data. (F, Sp, Su)
CAS 5700 Advanced Topics in Interdisciplinary Studies2-9 Credit Hours 2 to 9 hours. Prerequisite: graduate standing. Intensive research on a topic related to the student's program of study; variable topics. (F, Sp, Su)

## CAS 5920 Internship

2-6 Credit Hours
2 to 6 hours. Prerequisite: Graduate standing, CAS 5003, and permission of dean; May be repeated, maximum credit six hours. 450 hours of field experience directly related to study focus in the MA in Integrative Studies program ( 75 hours per credit hour of enrollment). Requirements include journal, reports, written summary, and comprehensive examination over these materials. $(\mathrm{F}, \mathrm{Sp}, \mathrm{Su})$

CAS 5940 Research Project
2-6 Credit Hours
2 to 6 hours. Prerequisite: Graduate standing, CAS 5003, CAS 5013, and completion of first concentration core class; May be repeated, maximum credit six hours. Development of creative or applied research project related to MA in Integrative Studies study focus. The final form will vary according to topic and purpose of the project but must include a written component. Comprehensive examination over the research project is required. $(\mathrm{F}, \mathrm{Sp}, \mathrm{Su})$

CAS 5960 Directed Readings
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing and permission of department. May be repeated; maximum credit twelve hours. Directed readings and/or literature reviews under the direction of a faculty member. (F, Sp, Su)

CAS 5970 Special Topics/Seminar 1-3 Credit Hours 1 to 3 hours. Prerequisite: Graduate standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)
CAS 5990 Independent Study 1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)

# CEE-College of Earth \& Energy 

CEE 1513 Towards Just and Responsible Energy Engineering 3 Credit Hours

Prerequisite: none. Introducing students to the role and impact of energy engineering in the world, energy sources and uses, natural resources, energy justice, the environment, and sustainability. Allows students to explore individual and collective responsibilities as engineers to the energy industry and to build some of the skills needed including cultural fluency, critical thinking, civil discourse, citizenship, and community engagement. (F) [V-FYE]

## CEE 3440 Mentored Research Experience

3 Credit Hours
0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)

CEE 4960 Directed Readings
1-4 Credit Hours
1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean. May be repeated; maximum credit four hours. Designed for upper-division students who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)

CEE 4970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: senior standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

CEE 4990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: senior standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (lrreg.)

CEE 5960 Directed Readings
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing and permission of department. May be repeated; maximum credit twelve hours. Directed readings and/or literature reviews under the direction of a faculty member. (F, Sp, Su)

CEE 5970 Special Topics/Seminar
-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

CEE 5990 Independent Study 1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)

## CEES-Civil Engineering \& Environmental Science

CEES 1000 CEES Seminar<br>0 Credit Hours

Seminar provides a common meeting time for students and faculty for department activities, such as invited speakers, project presentations, educational surveys, cross-course project coordination, and policy announcements. Students must enroll every semester that they are matriculated in CEES at OU after the freshman year, but in no case can a student graduate without successfully completing four semesters of seminar. ( $\mathrm{F}, \mathrm{Sp}$ )

CEES 1111 Exploring CEES
1 Credit Hour
Prerequisite: Majors only. Introduction to fundamental concepts (principles of mechanics, energy balances, simple circuits), problem solving and design, simple computing software, and disciplinary topics for architectural, civil or environmental engineers and environmental scientists. (Sp)

CEES 1112 Introduction to Civil Engineering and Environmental Science

2 Credit Hours
Prerequisite: Freshman only. Introduction to fundamental concepts (mass/flow balance), problem solving and design, and simple computing software for architectural, civil or environmental engineers and environmental scientists. (F)

CEES 2113 Statics
3 Credit Hours
Prerequisite: PHYS 2514 and MATH 2433 or MATH 2934 or concurrent enrollment in MATH 2433 or MATH 2934. Vector representation of forces and moments; general three-dimensional theorems of statics; centroids and moments of area and inertia. Free-body diagrams, equilibrium of a particle and of rigid bodies, distributed loads, friction and internal shear and moment loads. Analysis of trusses, frames, and machines. (F)

CEES 2153 Mechanics of Materials 3 Credit Hours
Prerequisites: 2113 or AME 2113 or PE 2113. Basic principles of mechanics, including the definition of stress and strain, transformations and principal values for the stress and strain tensors, kinematic relations, review of conservation equations and the development and application of constitutive laws for idealized materials. Elementary elastostatics utilizing Hooke's law; constitutive relations for a linear-elastic continuum, including elastic parameters such as Young's modulus, shear and bulk moduli and Poisson's ratio. Solution of elementary one- and twodimensional mechanics problems, including thermal stresses and strains, beam flexure, shear and deflections, pressure vessels and buckling of columns. (Sp)

CEES 2213 CADD Fundamentals 3 Credit Hours
Prerequisite: CEES Majors only and Sophomore standing. Introduction to computer aided design and drafting with a focus on the AutoCAD and MicroStation platforms. This course is primarily about learning to use the software and learning how to convey an engineering design graphically. (F)

## CEES 2223 Fluid Mechanics

3 Credit Hours
Prerequisites: 2113 or AME 2113 or PE 2113, and Math 3113 or concurrent enrollment. Coverage of the fundamentals of fluid statics and dynamics. Formulation of the equation of fluid flow, i.e., Navier-Stokes equation, Eulers equations, Bernoulli equations, etc. and their application. Examples of ideal fluid flow, such as flow in open and closed conduits. (Sp)

## CEES 2313 Water Quality Fundamentals <br> 3 Credit Hours

Prerequisite: CHEM 1415, MATH 2423 or MATH 2924. Introduction to environmental mass balance and fate processes. Studies of mass and energy transfer, introductory environmental chemistry, water quality parameters, mathematics of growth, statistics and data analysis, introduction to environmental laws and regulations. (F)
CEES 2323 Environmental Transport and Fate Process 3 Credit Hours Prerequisite: 2313. Physicochemical and biological processes controlling contaminant distribution and fate; hydrological processes controlling contaminant transport; sources, prevention and remediation of environmental pollutants. (Sp)
CEES 2412 Earth Systems and Processes
2 Credit Hours
Prerequisite: CHEM 1315, and MATH 1823 or MATH 1914. This course provides environmental engineering and science students with a working knowledge of earth systems and their processes, specifically emphasizing the atmosphere, hydrological systems, limnology, soils, and ocean systems. This course will exam the physical structure of these systems, as well as their physical-chemical processes, and how the transfer of energy and mass between earth systems influences the global climate. (Sp)

## CEES 2970 Special Topics/Seminar

1-3 Credit Hours
Special Topics. 1 to 3 hours. May be repeated; Maximum credit nine hours. Special topics course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research, and field projects. (Irreg.)
CEES 3213 Water Resources Engineering

## 3 Credit Hours

Prerequisite: 2223 or permission of instructor. Municipal water demands, surface water hydrology, ground water hydrology, water distribution systems, pump design, wastewater collection systems, storm water management, water law. (F)
CEES 3243 Water and Wastewater Treatment Design 3 Credit Hours Prerequisite: CEES 2223. Design of municipal water and wastewater treatment plants. Emphasis is placed on the characterization of water and wastewater and physical, chemical and biological treatment methods. Sludge processing advanced treatment methods and treatment plant hydraulics are also considered. (Sp)

## CEES 3251 WaTER Center Integrated Seminar <br> 1 Credit Hour

Prerequisite: permission of instructor. This course is a weekly hour-long seminar in which students will hear from guest speakers discussing WASH projects in emerging regions, present their intercultural experience in the form of a case study, and listen to other case study presentations. Students may also read and discuss assigned readings (e.g., published peer-reviewed papers of other researchers doing similar work). (F,SP)

CEES 3263 Introduction to Dynamics for Architectural and Civil Engineers

## 3 Credit Hours

Prerequisite: CEES 2153 and MATH 3113. Kinematics and kinetics of rigid bodies; free and forced vibrations of undamped and damped single degree-of-freedom systems; concept of mass, stiffness, and damping for typical structures; introduction to vibrations of two and more degrees-of-freedom systems; and determination of loads on structures from dynamic events such as earthquakes. (F)
CEES 3361 Soil Mechanics Laboratory
1 Credit Hour
Prerequisite: CEES 2153 or PE 2153; CEES 3363 or concurrent enrollment (you must be enrolled in both lecture and lab section together the first time you attempt either). This is one of two complimentary courses taken in the area of Geotechnical Engineering and serves as an introduction to soil mechanics. During this course, the student will conduct simple laboratory tests to identify and classify soils, characterize the compacted properties of soil, and quantify soil permeability, compressibility and strength. (F)

CEES 3363 Soil Mechanics
3 Credit Hours
Prerequisite: CEES 2153 or PE 2153; CEES 3361 or concurrent enrollment (you must be enrolled in both lecture and a lab section together the first time you attempt either). General treatment of the physical and mechanical properties of soils. Topics include soil composition, classification, phase relationships, compaction, effective stress, consolidation, shear strength and permeability and seepage. (F)

## CEES 3403 Materials

3 Credit Hours
Prerequisite: CEES 2153 or PE 2153 or concurrent enrollment. Study of the properties of materials utilized by architectural and civil engineers; analyses of aggregates, concrete, masonry, steel, asphalt, plastics and wood. Laboratory. (Sp)
CEES 3413 Structural Analysis I
3 Credit Hours
Prerequisite: CEES 2153 or PE 2153. Loads, reactions and force systems; introduction to design codes; analysis of frames and trusses; calculation of structural deformations; and analysis of indeterminate structures. Emphasis on classical solutions and time-tested approaches to structural engineering. Introduction to structural analysis computer programs to solve complex problems. (F)
CEES 3422 Intercultural Immersion Experience in an Emerging Region

2 Credit Hours
Prerequisite: permission of instructor. This course is intended to be a 3-6 week summer international immersion experience with a WaTER component (technological, cultural, business lens on water, sanitation, hygiene in a particular context). Students design their own experience/ internship, write a proposal of planned activities, and secure CEES faculty advisor approval. After completion, students submit a written report and oral presentation to a review committee. (Su)
CEES 3440 Mentored Research Experience 3 Credit Hours 0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)
CEES 3453 Introduction to Construction Management 3 Credit Hours Prerequisite: CEES 2213 and junior level standing in CEES. Introduction to methods for managing construction projects including scheduling, cost estimating, contracts, pay request, change orders, and requests for information. Students will also learn how to read construction documents and understand project specifications. (Sp)

CEES 3663 Structural Design - Steel I 3 Credit Hours
Prerequisite: CEES 3413 and CEES 3403 or concurrent enrollment in CEES 3403. Design of steel structural members including tension elements, columns, beams, and beam-columns; bolted and welded connection design; composite beam design; introduction to plastic design. Laboratory. (Sp)

CEES 3673 Structural Design - Concrete I
3 Credit Hours
Prerequisite: CEES 3403, CEES 3413. Analysis and design of reinforced concrete beams, columns, slabs, footings, etc., along with discussion of current building practice. Laboratory (F or Sp)

CEES 3883 Transportation Engineering 3 Credit Hours
Prerequisite: CEES 2153 or P E 2153 and CEES 3403 or concurrent enrollment. Introduction to transportation planning, design, construction, operations and maintenance emphasizing the highway/street mode Includes demand modeling, route location and design, pavements including hot mix asphalt volumetrics and stability, drainage, and traffic control devices. (Sp)

CEES 3960 Honors Reading
1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Consists of topics designated by the instructor in keeping with the student's major program. The topics will cover materials not usually presented in the regular courses. (F, Sp, Su)

CEES 3970 Honors Seminar 1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. The projects covered will vary. Deals with concepts not usually presented in regular coursework. (Irreg.)

CEES 3980 Honors Research 1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Provides an opportunity for the gifted Honors candidate to work on a special project in the field. (Sp)

CEES 3990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: permission of instructor and junior standing. May be repeated once with change of content. Independent study may be arranged to study a subject not available through regular course offerings. (F, Sp, Su)

CEES 4113 Building Lighting and Electrical Systems 3 Credit Hours Prerequisite: MATH 2423 or MATH 2924; PHYS 2524; and ENGR 2431 or concurrent enrollment, CEES majors only. Fundamentals of building lighting and electrical systems. Lighting topics include the determination of appropriate lighting quantity and quality, luminaires and lighting design procedures for residential, commercial and industrial buildings. Electrical topics will include service voltages, overcurrent protection, short circuit analysis and branch circuit design for residential, commercial and industrial buildings. (F or Sp)

CEES 4114 Aquatic Chemistry
4 Credit Hours
(Slashlisted with CEES 5114) Prerequisite: CHEM 1415 and CEES 2323 or permission of instructor. Environmental kinetics and thermodynamics in aquatic systems; acid/base, precipitation/solubility, metal complexation and oxidation/reduction reactions; environmental colloidal and solidliquid interface chemistry. No student may earn credit for both 4114 and 5114 or Environmental Science 4114 and 5114. Laboratory. No student may earn credit for both 4114 and 5114. (F)

CEES G4123 Open Channel Flow
3 Credit Hours
Prerequisite: CEES 2223. Theory, analysis and design of channels, aqueducts, headworks, siphons, spillways and hydraulic structures. An in-depth study of critical flow and measurement techniques. Backwater analysis by analytical, calculator and computer methods. Special emphasis on practical problems of general interest. (F)

CEES G4243 Water Technologies for Emerging Regions 3 Credit Hours Prerequisite: 2223 or 2323 or equivalent or instructor permission Students will gain an understanding of water and sanitation issues in remote villages of developing countries. Explore and design sustainable technologies appropriate to these settings including cultural, political and economic factors. (Sp)

CEES G4253 Statistics and Probability
3 Credit Hours
Prerequisite: MATH 2423 or 2924 and PHYS 2524 or 2424. Designed to help students understand the fundamentals of probability, statistics, reliability, and risk methods in support of decision making for future engineers and scientists. Fundamental concepts in probability and statistics will be reviewed and used. Engineering decisions are often based on data that contain uncertainty; future scientists and engineers should understand how uncertainty affects calculated quantities accuracy, precision, and reliability. (Sp)

CEES G4263 Hazardous and Solid Waste Management 3 Credit Hours Prerequisite: junior or above status in CEES or permission of instructor.
Sources and types of solid wastes; identification and classification of hazardous wastes; waste handling, transportation, treatment and disposal techniques, federal and state legislation; and environmental and health effects. (F)

CEES G4273 WaTER Technical Field Methods 3 Credit Hours Prerequisite: permission of instructor. A hands-on practicum for construction and implementation of water and sanitation projects in developing countries. Course modules reflect the typical projects and skills needed by development workers in organizations such as Peace Corps, USAID, Engineers Without Borders, and faith-based organizations. Emphasis will be on sustainable technologies using methods and materials appropriate to emerging regions. Non-engineering students are encouraged to participate. (Su)

CEES 4281 Engineering Co-Op Program 1 Credit Hour
(Crosslisted with AME, CH E, C S, ECE, EPHY, ISE and BME 4281) Prerequisite: Departmental permission and junior standing. May be repeated; maximum credit 6 hours. The Co-Op program provides students an opportunity to enhance their education via career exploration in related professional work experiences. Course assignments help students articulate their experiences by completing journals; mid-term paper; final paper and/or final presentation. Faculty receive an evaluation from the student's Co-Op supervisor who monitors performance. Faculty collaborate with the Co-Op supervisor to ensure student success. (F, Sp, Su)

CEES 4324 Environmental Biology and Ecology 4 Credit Hours (Slashlisted with CEES 5324) Prerequisite: CEES 2323. Examines applied environmental biology; biological consequences of environmental impacts; mitigation of environmental impacts via biogeochemical, ecological and microbial processes. No student may earn credit for both 4324 and 5324. Laboratory (F)

CEES G4333 Foundation Engineering

## 3 Credit Hours

Prerequisite: CEES 3363. Substructure analysis and design to meet various soil conditions; footings and rafts, shoring and underpinning, piles, cofferdams, caissons, breakwaters, piers, wharves, vibratory effects on foundations. (Sp)

CEES 4363 Ecological Engineering Science
3 Credit Hours
(Slashlisted with 5363) Prerequisite: Senior standing or permission of instructor. Exploration of the design of sustainable ecosystems integrating human society with its natural environment for the benefit of both. Uses a systems perspective that resilient and sustainable solutions involve working with natural ecological and biogeochemical processes and not against them, and require less fossil fuel input, produce less pollution, and represent cost-effective alternatives to traditional energyand resource-intensive technologies. No student may earn credit for both 4363 and 5363. (Sp)

CEES 4373 Water Resources Systems Modeling 3 Credit Hours (Slashlisted with CEES 5373) Prerequisite: CEES 3213 or concurrent enrollment or instructor permission. Theory and concept of water resources management. An in-depth study of theory of optimization, hydrologic modeling, reservoir and dams operation. Data analysis and computational methods for hydrology and water resources management. Special emphasis on system modeling and parameter tuning using automatic calibration approaches. Basic level of scientific programming. No student may earn credit for both 4373 and 5373. (F)
CEES 4423 CEES Professional Internship or Co-op 3 Credit Hours Prerequisite: completion of at least 19 hours of Civil Engineering and Environmental Science (CEES) coursework (for Civil Engineering and Environmental Engineering majors); or completion of at least 19 hours of CEES and science coursework (for Environmental Science majors); or completion of at least 19 hours CEES and Architecture (ARCH) coursework (for Architectural Engineering majors). Provides three hours of professional elective credit for 400 hours of internship. Prior to starting the internship, students should write a proposal of planned activities and secure the approval from a CEES faculty member to serve as an of the advisor. After completion of the internship or co-op, the students should enroll in this course. The student must then submit a written report, and make an oral presentation for a three-member review committee that includes the faculty advisor. (F, Sp, Su)
CEES G4453 Geomatics Engineering
3 Credit Hours
Prerequisites: CEES 2213, CEES 3403 and MATH 2433 or MATH 2934 or instructor permission. Geomatics engineering deals with the science of determining relative positions of features for mapping, engineering and construction plans. Topics include digital leveling, orientation, distance measurement, traversing and control surveys, accuracy, error sources, precise horizontal and zenith angle measurements, and introduction of global navigation satellite system. Laboratory (F)

## CEES G4663 Introduction to Matrix Methods in Structural <br> Analysis <br> 3 Credit Hours

Prerequisite: CEES 3413. Review of matrix algebra and solution of linear equations; energy concepts and principle of virtual work; fundamentals of flexibility and stiffness methods; coordinate transformation and matrix assemblage; computer-oriented direct stiffness method and computer code developments; secondary effects; support settlement and temperature change; method of finite differences and application to beam and plate problems. (F or Sp)

CEES G4753 Structural Design - Wood 3 Credit Hours Prerequisite: CEES 3413 or equivalent. Material properties and behavior of wood. Analysis and design of solid and laminated structural members, connections, systems, trusses and arches. Current developments in structural wood design and research. (F)

CEES 4843 Hydrology
3 Credit Hours
(Slashlisted with CEES 5843) Prerequisite: MATH 2924/2423 and CEES 4253 (pre-or co-requisite) or instructor permission. Hydrology is the study of water across the globe. This is an applied course on hydrology dealing with environmental water problems; principles of hydrologic systems, their structure and components; and methods of analysis and their application to various purposes of water resources planning and development. No student may earn credit for both 4843 and 5843. (Sp)
CEES G4883 Traffic Analysis, Design and Control 3 Credit Hours
Prerequisite: CEES 3883 or Permission of Instructor. Study of fundamentals of traffic engineering; components of the traffic system; intersection types and design elements; basic variables of the traffic system (flow, capacity, level of service, delay); design and analysis of traffic signals and intersections; traffic control and traffic impact analysis; safety performance and traffic crash analysis; use of the Highway Capacity Manual and traffic analysis software. (F)

## CEES 4901 Introduction to CE Capstone <br> 1 Credit Hour

Prerequisite: CEES 3213, CEES 3363, and CEES 3663 or CEES 3673 (or concurrent enrollment). Introduction to the capstone design project, which is a two-semester-long, open-ended engineering design problem that requires applying the skills and techniques acquired in earlier engineering course work. This course will focus on introducing the project requirements; forming multi-disciplinary teams of students; developing team identities; assigning team roles; evaluating project constraints; and developing a project design schedule. (F)
CEES 4903 Civil Engineering Capstone 3 Credit Hours Prerequisite: CEES 3213, and CEES 3363, and CEES 3663 or CEES 3673, and CEES 4901. Solution of major design problems by a team approach of disciplines. Problems to be varied within the areas of civil engineering (structural; geotechnical; and transportation) according to the student's major interest. The capstone project will be under direct faculty supervision. (Sp) [V].

## CEES 4911 Introduction to ES Capstone

1 Credit Hour Prerequisite: CEES 4114 or CEES 5114 (or concurrent enrollment), CEES 4324 or CEES 5324 (or concurrent enrollment). Introduction to the capstone design project, which is a two-semester-long, openended engineering design problem that requires applying the skills and techniques acquired in earlier engineering course work. This course will focus on introducing the project requirements; forming multi-disciplinary teams of students; developing team identities; assigning team roles; evaluating project constraints; and developing a project design schedule. (F)

CEES 4913 Environmental Science Capstone

## 3 Credit Hours

Prerequisite: CEES 4911 and CEES 4253 (or concurrent enrollment). The capstone experience draws upon undergraduate course work in environmental science, biology, chemistry, physics, mathematics, and related sciences. Student teams address a client-driven, open-ended, realworld problem. Faculty coordinators serve in advisory capacities only, introducing field, laboratory, and computer methods and coordinating class meetings and presentations. Any other in-class presentations cover non-traditional (non-technical) topics. (Sp) [V].

CEES 4921 Introduction to EE Capstone 1 Credit Hour
Prerequisite: CEES 3213, CEES 4114 or CEES 5114 (or concurrent enrollment), CEES 4324 or CEES 5324 (or concurrent enrollment). Introduction to the capstone design project, which is a two-semesterlong, open-ended engineering design problem that requires applying the skills and techniques acquired in earlier engineering course work. This course will focus on introducing the project requirements; forming multidisciplinary teams of students; developing team identities; assigning team roles; evaluating project constraints; and developing a project design schedule. (F)

CEES 4923 Environmental Engineering Capstone 3 Credit Hours Prerequisite: CEES 4921 and CEES 4253 (or concurrent enrollment). The capstone experience is a course where students draw upon their undergraduate course work for analysis of an open-ended, real world problem. Faculty coordinators serve in advisory capacities only. All inclass presentations will cover non-traditional (non-technical) topics. Students are presumed to have been trained in basic natural and engineering sciences and introduced to environmental sampling/analysis and impact/risk assessment methods. (Sp) [V].
CEES 4943 Air Quality Management 3 Credit Hours
Prerequisite: CEES 2313 or CEES 2223 or instructor permission. Important aspects of air quality will be covered, including air quality legislation, major sources and effects of air pollutants, monitoring, atmospheric dispersion, and air quality modeling. (Sp)

CEES 4951 Contemporary Topics in Professional Practice 1 Credit Hour Prerequisite: Junior standing in Civil Engineering or Environmental Engineering. Civil engineering is a dynamic profession, as methods of practice evolve to address the many pressing problems in today's built and natural environment. This course provides an introduction to contemporary topics in professional practice, such as basic concepts of sustainability in engineering design, modern tools for project management, and the role of business/policy considerations in practice. (F)

CEES 4960 Directed Readings
1-4 Credit Hours
1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean. May be repeated; maximum credit four hours. Designed for upper-division students who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)
CEES 4970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: Senior standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

CEES 4980 Environmental Science Senior Research 1-12 Credit Hours Prerequisite: senior standing. Maximum credit twelve hours. Intensive research investigation of a special project under the direction of a faculty member. (F, Sp, Su)

CEES 4990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: Senior standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)

CEES 4991 Introduction to AE Capstone
1 Credit Hour
Prerequisite: CEES 3663 (or concurrent enrollment), CEES 3673 (or concurrent enrollment), CEES 4113, and AME 4653 (or concurrent enrollment). Introduction to the capstone design project, which is a two-semester-long, open-ended engineering design problem that requires applying the skills and techniques acquired in earlier engineering course work. This course will focus on introducing the project requirements; forming multi-disciplinary teams of students; developing team identities; assigning team roles; evaluating project constraints; and developing a project design schedule. (F)

CEES 4993 Architecture Engineering Capstone 3 Credit Hours Prerequisite: CEES 3663, CEES 3673, CEES 4991 and AME 4653; CEES 4113 and CEES 4333 or concurrent enrollment. A capstone course emphasizing design of structural components and environmental systems of buildings. Requires students to have knowledge and skills from prerequisite courses to address a real-world, open-ended design problem. (Sp) [V].

CEES 5010 Civil Engineering Problems
1-4 Credit Hours
Prerequisite: senior or graduate standing and permission of instructor. May be repeated; maximum credit four hours for a master's program or six hours for a doctoral program, including hours taken as part of another graduate program. Independent or small group study under the supervision of one or more faculty members. (F, Sp, Su)

CEES 5020 Special Topics in Civil Engineering 1-6 Credit Hours 1 to 6 hours. Prerequisite: senior or graduate standing and permission of instructor. May be repeated with change of topic; maximum credit twelve hours. Examines subject matter in civil engineering not covered by existing course offerings as a regular course. (F, Sp, Su)
CEES 5021 Technical Communications 1 Credit Hour
Prerequisite: CEES graduate standing or permission of instructor. Focused on enabling students to improve oral and written communications skills. Examines appropriate formats for various technical publications, as well as methods and practices for developing effective oral presentations. Each student will be required to develop an oral presentation about his/her written product. (Sp)
CEES 5103 Water Policy and Institutions
3 Credit Hours
Prerequisite: Graduate standing or permission of instructor. This course examines the evolution of water policy in the United States and the substantive roles that federal and state water resource institutions have played. Students will gain an understanding of the legal and institutional frameworks within which water resources are managed and the broader implications of climate change for water security. (F)
CEES 5113 Water Management Chemistry 3 Credit Hours Prerequisite: Graduate standing or permission of instructor. This course provides knowledge of water chemistry encountered in the management and assessment of water quality. Course goals are: 1) to become proficient interpreting water chemistry data so to be able to successfully evaluate the water quality status of a water resource, and 2) to know which specific water chemistry parameters are essential to measure for monitoring water quality problems. (F)

## CEES 5114 Aquatic Chemistry

4 Credit Hours
(Slashlisted with 4114) Prerequisite: graduate standing, one year general chemistry. Environmental kinetics and thermodynamics in aquatic systems; acid/base, precipitation/solubility, metal complexation and oxidation/reduction reactions; environmental colloidal and solid-liquid interface chemistry. No student may earn credit for both 4114 and 5114 or Environmental Science 4114 and 5114. Laboratory. (F)

## CEES 5123 Climate Change and Impacts on Water Energy Food

 Nexus3 Credit Hours
Prerequisite: Graduate standing or permission of instructor. An interdisciplinary course to learn the basics of climate change and its impacts on the interactions among water, energy and food nexus. The course provides fundamental theories of climate change, water cycle, and technologies about renewable energy (hydro, wind, solar, ocean, biomass, geothermal) and non-renewable energy (fossil fuels). The course talks about global food production and teaches basic Python programming. (Sp)

## CEES 5133 Water Sustainability 3 Credit Hours

(Crosslisted with CHE5133) Prerequisite: Civil Engineering,
Environmental Engineering, or Environmental Science Graduate standing; or permission of instructor. Introduction to water reclamation and reuse. Wastewater characteristics. Conventional approaches for wastewater treatment. Emerging materials and technologies for water remediation. Water reuse applications and outlook. (Irreg.)

## CEES 5153 Water Innovation: Technology, Policy, and Organizational Issues <br> 3 Credit Hours

Prerequisite: Graduate standing or permission of instructor. This course encompasses water technologies and their extended innovation processes in three substantive sections. A basic understanding of technological innovation frameworks precedes discussion of water systems. The second section addresses water policy in general as well as specific cases of policy innovation. The final section covers organizations and how they can become more innovative with respect to water systems. (Sp)
CEES 5233 Biological Waste Treatment Design 3 Credit Hours
Prerequisite: Graduate standing or permission of instructor. Waste treatment design using biological processes; emphasis on treatment biokinetics, municipal wastewater treatment processes, and design of municipal wastewater unit processes; application of biological treatment concepts to other wastes including industrial wastes, groundwater, and solid or hazardous wastes. (F)

## CEES 5243 Physical-Chemical Water Treatment 3 Credit Hours

Prerequisite: graduate standing or permission of instructor. The course covers physical and chemical processes for water purification, primarily for drinking water treatment, including governing regulations (the Safe Drinking Water Act), reactor kinetics, coagulation, flocculation, sedimentation, filtration, disinfection, demineralization, taste and odor removal, and advanced treatment. (Sp)
CEES 5244 Physicochemical Water Treatment Processes 4 Credit Hours Prerequisite: graduate standing or permission of instructor. Physical and chemical processes for drinking water, ground water and industrial water treatment. Processes discussed include coagulation/flocculation, gravity separation, filtration, disinfection, adsorption, advanced oxidation, and phase transfer (e.g., air stripping). (Sp even years)
CEES 5313 Engineering Geology
3 Credit Hours
Prerequisites: CEES 3363, CEES 3361 and permission of instructor. Understanding geology in engineering design and mitigation: topics include weathering and soil-forming processes; engineering properties of rock; landslides and debris flow (slope stability); fluvial processes and hazards; land subsidence; expansive soil; hazard, risk and land-use planning. (F)
CEES 5323 Geosynthetics
3 Credit Hours
Prerequisites: CEES 3363 and CEES 3361. To introduce students to concepts and design methods involving the use of geosynthetics in geotechnical and transportation engineering applications. (F)

CEES 5324 Environmental Biology and Ecology 4 Credit Hours
(Slashlisted with CEES 4324) Prerequisite: Graduate standing in CEES.
Examines applied environmental biology; biological consequences of environmental impacts; mitigation of environmental impacts via biogeochemical, ecological and microbial processes. Laboratory No student may earn credit for both 4324 and 5324. (F)

CEES 5343 Advanced Soil Mechanics
3 Credit Hours
Prerequisites: CEES 3363, CEES 3361 and permission of instructor. Advanced treatment of theories and principles of shearing strength, stress distribution and settlement analysis. (F)
CEES 5353 Introduction to Soil Dynamics 3 Credit Hours
Prerequisite: Graduate Standing, CEES 3363 or permission of instructor. Review of basic concepts (single- and multi-degree of freedom system, wave propagation, behavior of dynamically loaded soils), liquefaction, vibrations of footings on elastic half space, analog models, dynamics of pile foundations, machine foundations, design of foundations for dynamic loads including earthquake loading. (Irreg.)
CEES 5363 Ecological Engineering Science
3 Credit Hours
(Slashlisted with CEES 4363) Prerequisite: senior or graduate standing. Exploration of the design of sustainable ecosystems integrating human society with its natural environment for the benefit of both. Uses a systems perspective that resilient and sustainable solutions involve working with natural ecological and biogeochemical processes and not against them, and require less fossil fuel input, produce less pollution, and represent cost-effective alternatives to traditional energy-and resource-intensive technologies. No student may earn credit for both 4363 and 5363. (Sp)
CEES 5373 Water Resources Systems Modeling 3 Credit Hours
(Slashlisted with CEES 4373) Prerequisite: Graduate standing or permission of instructor. Theory and concept of water resources management. An in-depth study of theory of optimization, hydrologic modeling, reservoir and dams operation. Data analysis and computational methods for hydrology and water resources management. Special emphasis on system modeling and parameter tuning using automatic calibration approaches. Basic level of scientific programming. No student may earn credit for both 4373 and 5373. (F)
CEES 5383 Earthquake Engineering
3 Credit Hours
Prerequisite: senior or graduate standing. To provide students with an understanding of the effects of earthquakes on civil engineering structures and analytical tools for their seismic analysis. (F)

## CEES 5393 Reinforced Soil Structures

3 Credit Hours
Prerequisites: CEES 3363 and CEES 3361. Introduce students to the analysis and design methods related to geotechnical structures reinforced with geosynthetics. The main focus of this course will be on reinforced soil walls, slopes and embankments. (Sp)
CEES 5413 Soil-Structure Interaction 3 Credit Hours
Prerequisite: Graduate standing and CEES 3363, or permission
of instructor. Introduction-definition, methods of solution; beams on deformable foundations; analysis and design of axially loaded structures -- single pile, pile groups, retaining walls; plates on deformable foundations; role of interfaces and joints; wave equation for pile behavior. (Irreg.)

CEES 5433 In-Situ Soil Testing 3 Credit Hours
Prerequisites: CEES 3363, CEES 3361 and permission of instructor. This is a "hands-on" course that focuses on conducting and interpreting laboratory and in-situ tests for geotechnical engineering. Topics can include but are not limited to drilling, sampling, soil characterization, triaxial shear testing, one-dimensional compression, flexible wall permeability testing, pressuremeter, cone penetrometer, borehole shear, and pile load testing. Laboratory (Sp)
CEES 5443 Unsaturated Soil Mechanics
3 Credit Hours
Prerequisites: CEES 3363 and CEES 3361. Provide students with an understanding of the theoretical and practical fundamentals of unsaturated soil mechanics with applications in geotechnical engineering. (F)

CEES 5473 Forensic Geotechnical Engineering 3 Credit Hours Prerequisites: CEES 3363 and CEES 3361. Examines methods for investigating and analyzing geotechnical failures. Examples include slope failures, pavement subgrade failures, foundation failures, excessive seepage from earth dams, and excavation failures. The course also addresses the role of the engineer as a consultant and/or expert witness in legal cases involving geotechnical failures. (F or Sp)

CEES 5493 Transportation and Land Development 3 Credit Hours (Crosslisted with RCPL 5493) Prerequisite: graduate standing or permission. Study of interactions between land development activity and the transportation network. Application of planning and design techniques to manage the impacts of development upon the transportation system.

## CEES 5503 Highway Engineering

3 Credit Hours
Prerequisite: Graduate standing or permission of instructor. In this course, students will study geometric elements of highway design, with emphasis on highway safety and traffic flow, design controls, route analysis, and alignment. Highway engineering includes corridor selection, design of vertical and horizontal alignments, evaluation of earthwork requirements, drainage and culvert design, and safety considerations. (Su)

## CEES 5513 Traffic Engineering

3 Credit Hours
Prerequisite: Graduate standing or permission of instructor. This course focuses on traffic flow theory, analysis of traffic data, and advanced technology applications for data collection, traffic control, and real-time system management. It will include emphasis on highway capacity, signal integration, intelligent transportation systems (ITS), and impacts of advanced technology, including automated vehicles. (Sp)

CEES 5523 Transportation Asset Management 3 Credit Hours Prerequisite: Graduate standing or permission of instructor. This course focuses on fundamental elements of transportation asset management and application of its principles; explores the impetus, philosophy, and policy for implementing a long term, comprehensive plan for managing infrastructure assets; presents engineering and economic analysis concepts and processes used to evaluate and support strategic and systematic planning, finance, investment, performance, measurement, management, and preservation of a transportation system. (Su)
CEES 5533 Multimodal Transportation 3 Credit Hours
Prerequisite: Graduate standing or permission of instructor. Course focuses on fundamental elements of system performance for the multimodal transportation system and application of its principles; explores the impetus, philosophy, and policy for implementing a long term, comprehensive plan; presents transportation modes, including land, air and marine, modal shift and impact; presents engineering/economic analysis concepts used to evaluate and support planning, design, and financing processes for multimodal system. (Sp)

CEES 5543 Hazards Mitigation \& Community Resilience 3 Credit Hours
Prerequisite: Graduate standing or permission of instructor. This course will address, describe, and quantify in time and space the physical phenomena of several natural and man-made hazards. Students will learn about the current best practices and identify novel approaches to mitigate such risks and hazards to be able to sustain and protect the well-being of the residents as well as the infrastructure systems in the community. (F)
CEES 5583 Water Law
3 Credit Hours
Prerequisite: Graduate standing or permission of instructor. A course for non-lawyers that explores systems of water rights; riparian, appropriation, and prescriptive rights; stream, surface, and ground water; development of water supplies; nationwide conflicts; water pollution control; federal and Indian rights and federal water resource issues and problems, so that water managers, environmental scientists or policy makers can provide needed input to threats to and protection of water. (Su)

CEES 5623 Watershed Management and Restoration 3 Credit Hours Prerequisite: Graduate standing or permission of instructor. Course provides a comprehensive examination of watershed assessment, management, planning, protection, and restoration. Processes governing drainage-basin scale physiography, hydrology, hydrogeomorphology, and ecology are examined, emphasizing water quality-driven approaches to watershed management and restoration. ( $F$ even years)

CEES 5624 Biological Waste Treatment
4 Credit Hours
Treatment of waste using biological processes; emphasis on treatment kinetics, municipal wastewater treatment processes, and design of municipal wastewater unit processes; application of biological treatment concepts to other wastes including industrial wastes, groundwater, and solid or hazardous wastes. Laboratory (F)
CEES 5643 Quantitative Hydrometeorology
3 Credit Hours
(Crosslisted with METR 5643) Prerequisite: Graduate standing or permission of instructor. Theory and concept of hydrometeorology and remote sensing, across atmospheric science and hydrology and across water science and engineering. An in-depth study of precipitation estimation from in-situ, radar, satellite, uncertainty modeling and decision making. Data analysis and computational methods for hydrometeorology. Special emphasis on probabilities/statistics and decision making. Basic level of scientific programming is helpful but not mandatory. (Irreg.)

CEES 5653 Advanced Mechanics of Materials 3 Credit Hours Prerequisite: CEES 2153 or PE 2153 and senior or graduate standing. Principal stresses and strains; theories of failure; introduction to elasticity; unsymmetrical bending and shear; torsion of noncircular solid cross sections, cellular sections and open sections; introduction to plate bending and buckling. (F)
CEES 5663 Structural Analysis II
3 Credit Hours
Prerequisite: Graduate standing and CEES 3413, or permission of instructor. This course addresses many of the classical methods used in the analysis of structures before the advent of the computer, such as virtual work, force method, slope-deflection, and approximate methods. Second-order analysis, stability, and matrix methods are also covered, and modern structural analysis software is introduced. (Sp)

CEES 5673 Colloid and Surface Science
3 Credit Hours
(Crosslisted with CH E 5673) Prerequisite: Civil Engineering,
Environmental Engineering, or Environmental Science Graduate standing or permission of instructor. Capillarity, surface thermodynamics,
adsorption from vapor and liquid phases, contact angles, micelle formation, solubilization, emulsions and foams. Applications to be discussed include detergency, enhanced oil recovery and adsorption for pollution control. (Irreg.)

CEES 5683 Dynamics of Structures
3 Credit Hours
Prerequisite: Graduate standing, CEES 3263, and CEES 3413. Topics covered include free vibration, forced vibration, and transient response of structures having one, multiple or infinite number of degrees-offreedom; structural damping effects; numerical solution techniques; Lagrange's equation of motion; and Rayleigh-Ritz method. General matrix formulation for multiple degrees-of-freedom and modal coordinate transformation. Introduction to earthquake engineering concepts. (F)
CEES 5693 Structural Design of Pavements 3 Credit Hours
Prerequisites: CEES 3363, 3361 and 3883. Effect of load and climate on the design of rigid and flexible pavements and interaction of pavement components. (Irreg.)
CEES 5713 Structural Design - Masonry
3 Credit Hours
Prerequisite: Graduate standing or permission of instructor. A course for students who desire to learn how to design structures using a composite material such as masonry. From its historical use to the modern design involving reinforced masonry, the student will become familiar with the material properties, the different structural elements and their role in transferring horizontal and vertical loads. Code provisions will be reviewed throughout the course. (Sp)

## CEES 5723 Design of RC Structures with Fiber Reinforced

## Polymers

3 Credit Hours
Prerequisite: Graduate standing or permission of instructor. This class will be focused on understanding behavior of Fiber Reinforced Polymer (FRP) materials; the design of reinforced concrete structures using FRP reinforcement; the strengthening of existing structures using FRP materials. (F)
CEES 5733 Hydroclimatology 3 Credit Hours (Crosslisted with METR 5733) Prerequisite: Graduate standing or permission of instructor. Theory and concept of hydroclimatology across atmospheric science and hydrology. An in-depth study of the local to global climate of precipitation with specific foci on drought, pluvials, and how they vary in a changing climate system. Data analysis and computational methods for hydroclimatology. Basic level of scientific programming is helpful but not mandatory. (Su)
CEES 5763 Introduction to Finite Element Method 3 Credit Hours (Crosslisted with AME 5763) Prerequisite: graduate standing. Weighted residual and variational approaches. Finite element formulation for rod, truss and beam elements; plane stress and plane strain problem; axisymmetric and three-dimensional analysis; isoparametric elements; conforming and nonconforming plate and shell elements. (Sp)
CEES 5773 Structural Design--Steel II
3 Credit Hours
Prerequisite: CEES 3663. Advanced structural steel design including steel deck diaphragms, column and beam bracing, composite beam design, rigid frame design, torsional member design, plate girder design, and design of building connections. (F or Sp)
CEES 5783 Structural Design--Concrete II
3 Credit Hours
Prerequisite: CEES 3673. Advanced reinforced concrete behavior and design including limit design, anchorage slender columns, truss models for shear and torsion on beams, two-way and flat slabs, and the art of detailing. ( F or Sp )
CEES 5793 Design of Prestressed Concrete Structures 3 Credit Hours Prerequisite: CEES 3673. Design procedures for pretensioned and post-tensioned concrete structures, with emphasis on the behavior of prestressed concrete. Topics include methods of analysis, time dependent effects, fabrication and construction procedures, connections, highway bridges, frames, composite construction, continuous structures, and anchorage zone detailing. (Irreg.)

CEES 5813 Water Treatment, Reuse, and Health Impacts 3 Credit Hours Prerequisite: Graduate standing or permission of instructor. An introduction to water quality applications and the health impacts of water and wastewater. The course covers the basic principles of public health epidemiology and water-related diseases. Conventional and advanced water treatment methods are presented, along with various types of potable and non-potable water reuse to supplement public water supply in times of water stress. (Sp)
CEES 5833 Ground Water Quality Protection
3 Credit Hours
Prerequisite: graduate standing or permission. Introduction to ground water quality protection. Covers sources of ground water, ground water hydrology, ground water information sources, ground water pollution sources, subsurface transport and fate processes and monitoring of ground water systems. (F)
CEES 5843 Hydrology
3 Credit Hours
(Slashlisted with CEES 4843) Prerequisite: Graduate standing or permission of instructor. Hydrology is the study of water across the globe. This is an applied course on hydrology dealing with environmental water problems; principles of hydrologic systems, their structure and components; and methods of analysis and their application to various purposes of water resources planning and development. No student may earn credit for both 4843 and 5843. (Sp)
CEES 5853 Groundwater and Seepage
3 Credit Hours
Prerequisite: graduate standing in civil engineering, environmental engineering, environmental science, geology or permission of instructor. An applied course dealing with properties of aquifers, modeling of groundwater flow, groundwater hydrology and its interrelation with surface water, well hydraulics, pumping tests and safe yield of aquifers. (F)

CEES 5873 Water Quality Management
3 Credit Hours
Prerequisite: MATH 3113, and graduate standing, or instructor permission. Water quality in lakes, rivers, estuaries; chemical, physical and biological aspects of marine and fresh waters; waste assimilation; system modeling; water quality management; waste load allocation, and engineer controls. (Sp)
CEES 5883 Environmental Modeling
3 Credit Hours
Prerequisite: MATH 3113, graduate standing or instructor permission. Introduction to theoretical and practical issues of computer-based environmental modeling. Covers problem formulation, implementation, and application. Topical areas include conceptualizing problems, conservation laws, partial differential equations, numerical methods, and applications ranging from coastal hydrodynamics to contaminant transport. Emphasis on understanding the model process rather than using "canned" models. (F)

## CEES 5903 Remote Sensing Hydrology

3 Credit Hours
Prerequisite: senior standing, or graduate standing, or permission of instructor. Overview of various orbital satellite platforms/sensors and introduces advances in remote sensing hydrology from space-borne observations, state-of-the-art retrieval algorithms for hydrological variables, and ground validation strategies. Required for Hydrology minors. (Sp)
CEES 5933 Climate Change and Water Sustainability 3 Credit Hours Prerequisite: Graduate standing or permission of instructor. This seminar course is for students who wish to understand the Earth's climate variability and water sustainability. In the context of an integrated Earth climate system, the course provides an overview of global water resources, impacts of climate change on various systems, and recommends practical responses to mitigate climate change. (F)

CEES 5960 Directed Readings
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing and permission of department. May be repeated; maximum credit twelve hours. Directed readings and/or literature reviews under the direction of a faculty member. (F, Sp, Su)

CEES 5963 Water Security
3 Credit Hours
Prerequisite: Graduate standing or permission of instructor. This course defines water security as existing at the water quantity-quality-equity nexus, looks at historical examples of water insecurity, discusses major water security challenges (e.g., natural disasters, global warming, the water-food-energy nexus, urbanization, transboundary issues) as well as responses to these challenges (e.g., water resilience plans, LID, desalination/reuse technologies, developing a water ethic) and evaluates pioneering water security initiatives. (Sp)

CEES 5970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

CEES 5973 Fundamental Hydrology 3 Credit Hours
Prerequisite: Graduate standing or permission of instructor. A science-based course for students who desire to be water managers, environmental scientists, or policy makers. The course provides a quantitative introduction to atmospheric, surface, and subsurface hydrology. Modules present the storage and movement of water between the environmental compartments, the effect of human activities on the natural water cycle, and the threats to and protection of water security. (Sp)

CEES 5980 Research for Master's Thesis
2-9 Credit Hours
Variable enrollment, two to nine hours; maximum credit applicable toward degree, four hours. (F, Sp, Su)

## CEES 5982 CEES Non-Thesis Project

2 Credit Hours
Prerequisite: graduate standing and instructor permission. This is for all CEES non-thesis students to take as their final project for their nonthesis defense. Each student with their faculty advisor will determine what the project will cover. Each student will be required to develop an oral presentation about his/her written project. (F, Sp, Su)

CEES 5990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)

CEES 6663 Advanced Finite Element Methods 3 Credit Hours (Crosslisted with AME 6663) Prerequisite: 5763. Selected topics such as: nonlinear material problems, plasticity, creep (visco-plasticity), fracture, etc.; geometrically nonlinear problems, large displacement and structural stability; dynamic problems and analytical solution procedures; soilstructure interactions; application of finite element method to fluid and heat transfer problem. (Irreg.)

CEES 6960 Directed Readings
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit six hours. Directed readings and/or literature review under the direction of a faculty member. (Irreg.)

CEES 6970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor
May be repeated; maximum credit 12 hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or research and field projects. (Irreg.)

CEES 6980 Research for Doctoral Dissertation 2-16 Credit Hours
2 to 16 hours. Prerequisites: Graduate standing and permission of instructor; may be repeated. Directed research culminating in the completion of the doctoral dissertation. (F, Sp, Su)

CEES 6990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory
research and field projects. (Irreg.)

## CELO-Cello

## CELO 2000 Freshman and/or Sophomore Secondary Cello 1-2 Credit Hours

1 to 2 hours. Prerequisite: permission of adviser and instructor. May be repeated; maximum credit toward B.F.A., B.M.A., B.M.E., and B.M. degrees, eight hours. For freshman and sophomore music students studying in a secondary (or minor) performance area. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

CELO 2020 Cello for Music Majors: Freshman/Sophomore 2-4 Credit Hours
2 to 4 hours. Prerequisite: Majors only. May be repeated; maximum credit 12 hours. Applied instrumental lessons for freshmen and sophomore music majors in a School of Music degree program. (F, Sp)

CELO 3440 Mentored Research Experience 3 Credit Hours
0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)

CELO 4000 Junior and/or Senior Secondary Cello 1-2 Credit Hours 1 to 2 hours. Prerequisite: permission of adviser and instructor. May be repeated; maximum credit toward B.F.A., B.M.A., B.M.E., and B.M. degrees, eight hours. For junior and senior music students studying in a secondary (or minor) performance area. (F, Sp, Su)

CELO 4020 Cello for Music Majors: Junior/Senior 1-4 Credit Hours 1 to 4 hours. Prerequisite: Majors only; junior standing. May be repeated; maximum credit 20 hours. Applied instrumental lessons for junior and senior music majors in a School of Music degree program. (F, Sp)

CELO 5000 Master's-Level Secondary Cello 1-2 Credit Hours 1 to 2 hours. Prerequisite: graduate standing in music; permission of adviser and instructor. May be repeated; maximum credit eight hours on a given instrument (including voice). For master's degree music students studying in a secondary (or minor) performance area. (F, Sp, Su)

CELO 5010 Master's-Level Cello for Non-Performance Music Majors

1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing in music; permission of adviser and instructor. May be repeated; maximum credit eight hours on a given instrument (including voice). For master's degree students other than performance majors in their major field. (F, Sp, Su)

CELO 5020 Master's-Level Cello For Performance Majors 2-4 Credit Hours
2 to 4 hours. Prerequisite: graduate standing in music; permission of adviser and instructor; 4020 and 4021 or equivalent. May be repeated; maximum credit toward an M.M. degree 10 hours. (F, Sp, Su)
CELO 6000 Doctoral Secondary Cello 1-2 Credit Hours
1 to 2 hours. Prerequisite: graduate standing in music, permission of adviser or instructor. May be repeated; maximum credit eight hours on a given instrument (including voice). For doctoral degree music students studying in a secondary (or minor) performance area. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
CELO 6010 Doctoral Cello for Non-Performance Music Majors 2-3 Credit Hours
2 to 3 hours. Prerequisite: graduate standing in music; permission of adviser and instructor. May be repeated. Doctoral-level study of applied music in the major performance area for students other than performance majors in their primary field. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
CELO 6020 Doctoral Cello for Performance Majors 2-4 Credit Hours 2 to 4 hours. Prerequisite: graduate standing in music; 5042; permission of adviser and instructor. May be repeated; credit applicable toward applied music requirements for the Doctor of Musical Arts degree. Doctoral-level study of applied music for performance majors in their primary field. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

## CH E-Chemical Engineering

CHE 2003 Chemical Engineering Computing/Statistics 3 Credit Hours Prerequisite: CHE 2033 (or concurrent enrollment in CHE 2033), and MATH 1823 or 1914 or concurrent enrollment. Introduction to engineering computing and programming using prevalent engineering computing software; program design and development; computer application exercises in engineering. Basic statistical concepts. Computer application exercise in engineering and statistics. (Sp)
CH E 2033 Chemical Engineering Fundamentals 3 Credit Hours Prerequisite: MATH 1823 or 1914, and CHEM 1415 or CHEM 1425 or CHEM 1435 or equivalent. Material balances involving physical equilibria and chemical reaction; energy balances; gas behavior including vapor pressure and Raoult's Law. (F, Sp)

CH E 3113 Momentum, Heat and Mass Transfer I 3 Credit Hours Prerequisite: CH E 2033; MATH 2443 or 2934 or concurrent enrollment in 2443 or 2934; completion or concurrent enrollment in PHYS 2524 and completion or concurrent enrollment in MATH 3113. The common mathematical and physical basis of these processes is presented. Calculation methods for all three processes are developed. Design procedures of equipment for fluid flow, heat transfer and diffusional processes are given. (Sp)
CHE 3123 Momentum, Heat and Mass Transfer II 3 Credit Hours Prerequisite: CHE 3113 and MATH 3113. The common mathematical and physical basis of these processes is presented. Calculation methods for all three processes are developed. Design procedures of equipment for fluid flow, heat transfer and diffusional processes are given. (F)
CH E 3313 Structure and Properties of Materials
3 Credit Hours Prerequisite: CHEM 1415 or CHEM 1425 or CHEM 1435, PHYS 2524, and CHE 3123 or instructor permission. The behavior of materials under various conditions and environments is correlated to atomic and molecular structure and bonding. (Sp)

CHE 3333 Separation Processes
3 Credit Hours
Prerequisite: CH E 3123 and CH E 3473. Coverage of the fundamentals and modeling techniques of various separation processes found in the chemical process industries. Discussion of various computational approaches for binary and multicomponent separations; factors affecting efficiency, capacity and energy requirements. (Sp)
CH E 3432 Unit Operations Laboratory 2 Credit Hours Prerequisite: CH E 3123, CH E 3333 or concurrent enrollment in CH E 3333, and CH E 3473. Experimental examination of processes involving fluid flow, heat and mass transfer, kinetics and process control. Process parameters and physical properties are measured. Results are presented in written reports and oral presentations. Laboratory. (Sp)
CH E 3440 Mentored Research Experience
3 Credit Hours
0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)

CH E 3473 Chemical Engineering Thermodynamics 3 Credit Hours Prerequisite: CH E 2033, CH E 3113, MATH 2443 or 2934, and CHEM 3423; junior standing. Application of the first and second laws of thermodynamics to the analysis of phase change, solution behavior and chemical equilibria and reaction. (F)

## CH E 3723 Numerical Methods for Engineering Computation 3 Credit

 HoursPrerequisite: CHE 2003 and MATH 3113 or 3413 . Course uses specific software applications tailored toward chemical engineering. Basic methods for obtaining numerical solutions with a digital computer. Included are methods for the solutions of algebraic and transcendental equations, simultaneous linear equations, ordinary and partial differential equations, and curve fitting techniques. The methods are compared with respect to computational efficiency and accuracy. (F)

CH E 3953 Undergraduate Research
3 Credit Hours
Prerequisite: Permission of instructor. Students work on an individual research project in Chemical Engineering. (F, Sp, Su)
CH E 3960 Honors Reading 1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Consists of topics designated by the instructor in keeping with the student's major program. Covers materials not usually presented in the regular courses. (F, Sp, Su)
CH E 3970 Honors Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. The projects covered will vary. Deals with concepts not usually presented in regular coursework. (Irreg.)

CH E 3983 Honors Research
3 Credit Hours
Prerequisite: Admission to Honors Program, and instructor permission. Provides an opportunity for the Honors candidate to work on a special project in the student's field. Laboratory ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
CHEG4153 Process Dynamics and Control 3 Credit Hours Prerequisite: 4473. Formulation of first-order models for storage tanks, chemical reactors and heated, stirred tanks; transient and steady-state process dynamics; three-mode control of unit operations; higher-order systems and counter-current operations; analog simulation and digital control of chemical processes. (F)

CH E 4203 Bioengineering Principles 3 Credit Hours
(Slashlisted with CH E 5203) Prerequisite: MATH 3113 and PHYS 2524; or permission of instructor. Principles of bioengineering including biomechanics of solids and fluids and mass transfer as they apply to the human body, biomaterials, drug delivery, and tissue engineering. No student may earn credit for both 4203 and 5203. (Sp)

CH E 4243 Biochemical Engineering 3 Credit Hours
(Slashlisted with CH E 5243; Crosslisted with BME 4243) Prerequisite: CH E 3113 or permission of instructor. Current bioprocesses for reaction and separation with emphasis on fundamental principles of chemical engineering, biochemistry, and microbiology. No student may earn credit for both 4243 and 5243. (Sp)

CH E G4253 Process Design \& Safety
3 Credit Hours
Prerequisite: Graduate standing or CH E 3333. Processes and process equipment design including safety considerations; technical design of units combined into plants. (F)

CH E G4262 Chemical Engineering Design Laboratory 2 Credit Hours Prerequisite: CH E 3432 and CH E 4253 or concurrent enrollment in CH E 4253. Experimental techniques for the acquisition of pilot plant data, using unit operations equipment and reactors for use in process design. Results are presented in written reports and oral presentations. Laboratory. (F)

## CH E G4273 Advanced Process Design <br> 3 Credit Hours

Prerequisite: CH E 3333, CH E 4153, CH E 4253, CH E 4262, and
CH E 4473. Process and process equipment design, complete design of process plants including complete flow sheets, estimated plant costs, costs of process development, economics of investment. Results are presented in written reports and oral presentations. (Sp) [V].

CH E 4281 Engineering Co-Op Program
1 Credit Hour
Crosslisted with AME, CEES, C S, ECE, EPHY, ISE and BME 4281)
Prerequisite: Departmental permission and junior standing. May be repeated; maximum credit 6 hours. The Co-Op program provides students an opportunity to enhance their education via career exploration in related professional work experiences. Course assignments help students articulate their experiences by completing journals; mid-term paper; final paper and/or final presentation. Faculty receive an evaluation from the student's Co-Op supervisor who monitors performance. Faculty collaborate with the Co-Op supervisor to ensure student success. (F, Sp, Su)

CH E 4323 Chemical Process Sustainability 3 Credit Hours
Prerequisite: permission of instructor. Concepts of sustainability relevant to chemical processes, including energy and waste minimization, reduction, of greenhouse gas emissions, economic impact of sustainable practices. (Sp)

CH E 4373 Tissue Engineering
3 Credit Hours
(Slashlisted with CH E 5373; Crosslisted with BME 4373) Prerequisite: senior standing or permission of instructor. Examines the background and recent advances in the science of combining multiple cell types with an appropriate support to provide a construct that can replace or support damaged tissue. No student may earn credit for both 4373 and 5373. (Irreg.)

CH E 4423 Genetic Engineering and Biotechnology 3 Credit Hours (Slashlisted with CH E 5423; Crosslisted with BME 4423) Prerequisite: Permission of instructor for upper-class undergraduates. The course will cover state-of-the-art technologies of manipulating and controlling genes and genomes with a goal of engineering human and non-human cells for health and industrial applications. No student may earn credit for both 4423 and 5423. (F)

H E G4473 Kinetics
3 Credit Hours
Prerequisite: 3473, 3723, Mathematics 3113. Fundamentals of rates, homogeneous isothermal reactions, non-isothermal reactions, reactors and design, heterogeneous reactions, fixed and fluidized bed reactors, experimental data reduction, non-ideal flow reaction systems. (Sp)

CH E 4583 Advanced Techniques in Biomanufacturing 3 Credit Hours (Slashlisted with CH E 5583) Prerequisite: CHE 4373 or CHE 5373 or BME 5373 or CHE 4423 or CHE 5423 or BME 5423; co-requisite CHE 4243 or ChE 5243 or BME 5243; or permission of instructor. Biomanufacturing is a multidisciplinary program that requires a strong collaboration among diverse functional groups. This course aims to impact knowledge about biomanufacturing workflow including fermentation, and downstream bioprocessing, with a focus on biological products, design and industrial practices. The main objective is to train students to develop hands-on experience through working with advanced unit operations being used in this field. No student may earn credit for both 4583 and 5583. (Sp)

CH E 4953 Undergraduate Research II
3 Credit Hours
Prerequisite: CHE 3953 and permission of instructor. Students interested in pursuing and advanced Chemical Engineering degree work on an individual research project in Chemical Engineering. ( $F, \mathrm{Sp}, \mathrm{Su}$ )

CH E 4960 Directed Readings
1-4 Credit Hours
1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean. May be repeated; maximum credit four hours. Designed for upper-division students who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)

CH E 4970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: Senior standing or permission of instructor May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

CH E 4983 Honors Research II
3 Credit Hours
Prerequisite: CHE 3983, admission to Honors Program and instructor permission. Honors students interested in pursuing an advanced CH E degree work on an individual research project in Chemical Engineering. (F, Sp, Su)

CH E 4990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: Senior standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. ndependent study may include library and/or laboratory research and field projects. (Irreg.)

CH E 5003 Management \& Leadership
3 Credit Hours
Prerequisite: MATH 1914 or equivalent and graduate standing. The graduates will master the differences between management and leadership, will be able to assemble teams based on main personality traits, will effectively design risk mitigation strategies, and will be proficient in managing financial resources. Invited speakers from academia and industry will allow the graduates understand that effective management/leadership depends on the circumstances. (F)

CH E 5013 Decision \& Risk Analysis
3 Credit Hours
Prerequisite: MATH 1914 or equivalent and graduate standing. The graduates will master methods for predicting capital and operational costs of chemical plants, approaches for the quantification of uncertainties and how such uncertainty could affect the profitability of industrial operations, and the most common approaches for decision making in industry, with their pros and cons. Industrial speakers will provide a framework for the material discussed in class. (Sp)

CH E 5023 Challenge Group Project
3 Credit Hours
Prerequisite: MATH 1914 or equivalent and graduate standing. The Challenge consists primarily of a group research project on a topic relevant to the MS in Sustainability. Projects will be offered by Faculty members in the School of Chemical, Biological and Materials Engineering. The instructor will coordinate the activities and assign some individual tasks. Specialistic presentations will be offered to support the projects development. (Su)

## CHE 5033 Environmental Separations

3 Credit Hours
Prerequisite: MATH 1914 or equivalent and graduate standing.
The graduates will master fundamentals and applied aspects of: 1. Sustainable aspects of gas and liquid separations 2. Emergent technologies for the prevention and remediation of liquid contamination. The course will cover existing technologies, as well as current cuttingedge research in these fields, with an emphasis on the potential applicability in the field. (F)

## CH E 5043 Business Sustainability

3 Credit Hours
Prerequisite: MATH 1914 or equivalent and graduate standing. The graduates will be able to plan and assess the efficacy of business strategies to ensure the sustainability of commercial operations. In particular, the graduates will be able to (a) Achieve and maintain the social license to operate; (b) Operate within the boundaries of environmental regulations; and (c) Promote the goals of a diverse, inclusive, and equitable work force. (Sp)
CH E 5053 Carbon Capture \& Utilization 3 Credit Hours
Prerequisite: MATH 1914 or equivalent and graduate standing. The graduates will quantify pros and cons of cutting-edge technologies available for capturing, storing, and utilizing CO2 (CCUS). They will become familiar with technological developments in catalysis (for carbon utilization), materials design (carbon capture), and sequestration (geological repositories, hydrates, mineralization, direct capture from air). The graduates will quantify capital and operational costs associated with these technologies. (Sp)
CH E 5063 Sustainable Energy Applications 3 Credit Hours
Prerequisite: Graduate standing. This class presents the fundamental concepts of thermal-, electro-, and photo-catalysis and then builds on that knowledge to cover important sustainable energy conversion applications. Topics to be covered include fuel cells, water electrolyzers, CO2 conversion to valuable fuels and chemicals, ammonia synthesis, batteries and other state-of-the-art technologies. (F)
CH E 5123 Sustainable Separations 3 Credit Hours
Prerequisite: Graduate Standing or Permission of Instructor. Students will learn the fundamentals of membrane separations. Lectures will connect the mechanism of small molecule transport in polymer membranes to the design of functional membrane materials exhibiting pre-assigned permeability, selectivity, and durability. Details of a variety of membrane processes for gas, vapor, organic liquid and water separation, as well as selective ion separation, will be presented and discussed. (Sp)

CH E 5133 Water Sustainability
3 Credit Hours
(Crosslisted with CEES 5133) Prerequisite: Chemical Engineering Graduate standing or permission of instructor. Introduction to water reclamation and reuse. Wastewater characteristics. Conventional approaches for wastewater treatment. Emerging materials and technologies for water remediation. Water reuse applications and outlook. (Irreg.)

CH E 5143 Multiscale Modeling of Matter
3 Credit Hours
Prerequisite: Chemical Engineering Graduate standing or permission of instructor; CH E 5971. The course is suitable for students who are already familiar with classical thermodynamics, differential and integral calculus. This course covers multiscale modeling methods at atomistic and meso scales. By a combination of method discussions and hands-on tutorials, students will learn fundamentals of structures and properties of matter. Both molecular dynamics simulation and Monte Carlo method will be discussed in detail. (F)
CH E 5163 Heterogeneous Catalysis
3 Credit Hours
Prerequisite: Chemical Engineering Graduate standing or permission of instructor; CH E 5971. Physical characterization of heterogeneous catalysts; catalytic activity of metals, semiconductors, solid acids, and shape-selective materials. Theories of catalytic activity, catalytic reactors, basics of catalyst surface characterization and activity measurement. (F)
CHE5183 Graduate Transport Phenomena
3 Credit Hours
Prerequisite: Chemical Engineering Graduate standing or permission of instructor; CH E 5971. Fundamentals of the theory of transport process; heat, mass, momentum transfer combined with chemical reactions; derivation of different equations to describe processes and process units; analytical and numerical solutions of systems of describing equations. (F)

CH E 5203 Bioengineering Principles
3 Credit Hours
(Slashlisted with CHE 4203) Prerequisite: MATH 3113 and PHYS 2524; graduate standing. Principles of bioengineering for the areas of the biomechanics of solids and fluids, mass transfer, biomaterials, electrical networks, imaging, and ionizing radiation as they apply to the human body. No student may earn credit for both 4203 and 5203. (Sp)
CHE5213 Experimental Methods in Materials Research 3 Credit Hours Prerequisite: Graduate standing or permission of instructor; CH E 5971. Course will focus on theory and application of experimental techniques to characterize hard and soft materials including metals, ceramics, polymers, and composites. This course will include lectures, lab visits with demonstrations, and hands-on laboratory activities. (Sp)

## CH E 5223 Refining Principles

3 Credit Hours
Prerequisite: Chemical Engineering Graduate standing or permission of instructor; CH E 5971. Introduction to petroleum refining and how feedstocks are valued and selected. Covers more in-depth operation and modeling of several treatment and conversion processes including hydrotreating, catalytic cracking, hydrocracking, and coking. Additional concepts covered include crude oil fractionation, solids handling, and an introduction to several supporting processes. (Sp)
CH E 5233 Colloidal Assembly
3 Credit Hours
Prerequisite: Chemical Engineering Graduate standing or permission of instructor; CH E 5971. The aim of this course is to provide fundamental knowledge of colloid and interface science with a focus on the assembly phenomenon at the nano and colloidal scale. The concepts discussed in this class will equip students with essential skills helpful in understanding and analyzing literature that entails colloidal building blocks. (F)

## CH E 5243 Biochemical Engineering

3 Credit Hours
(Slashlisted with CH E 4243; Crosslisted with BME 5243) Prerequisite: CH E 5971; Chemical Engineering Graduate standing or permission of instructor. Current bioprocesses for reaction and separation with emphasis on fundamental principles of chemical engineering, biochemistry, and microbiology. No student may earn credit for both 4243 and 5243. (Sp)

## CH E 5263 Industrial and Environmental Transport Processes 3 Credit

Prerequisite: Chemical Engineering Graduate standing or permission of instructor; CH E 5971. This course is designed to introduce students to areas in transport phenomena that are critical to common applications. We will cover theory, predictive modeling, applications and numerical methods for multiphase flows (gas-liquid and flows with small particles), turbulent flows with transport of heat or mass, and (time permitting) microfluidics. (Sp)

## CH E 5293 Transport in Biological Systems <br> 3 Credit Hours

(Crosslisted with BME 5293) Prerequisite: Chemical Engineering Graduate standing or permission of instructor; CH E 5971. Theoretical and practical aspects of transport phenomena in living organisms and biomedical technologies. Applications include hemorheology, drug delivery, extracorporeal circulation, and artificial organs. (Irreg.)
CH E 5323 Sustainable Engineering Principles
3 Credit Hours
Prerequisite: Chemical Engineering Graduate standing or permission of instructor; CH E 5971. Basic concepts of sustainability will be discussed including elements relevant to materials manufacturing, chemical processes, energy production, waste minimization, and reduction of greenhouse gas emissions. Emphasis will be given to equity, diversity, and inclusion in the workplace. Students will also learn to quantify the environmental impact of materials, products and processes via the implementation of a life cycle assessment. (F)

## CH E 5333 Sustainable Polymer Manufacturing 3 Credit Hours

Prerequisite: Chemical Engineering Graduate standing or permission of instructor; CH E 5971. Course will provide opportunities for students to develop skills necessary to understand the basic principles of polymer life cycles, polymer properties and environmental footprints, manufacturing, design guidelines for sustainability, and recycling/ upcycling. Provides an overview of the contradictory positive and negative characteristics of polymers with respect to sustainability. Discuss conventional processing and additive manufacturing methods for producing polymeric parts and goods. (F)

## CH E 5343 Sustainable Process Design 3 Credit Hours

Prerequisite: Chemical Engineering graduate standing or permission of instructor; CH E 5971. This course will cover concepts of sustainable design of chemical processes, including issues related to energy usage and GHG emissions, long-term availability of raw materials, and changes to process design that can lead to sustainable outcomes, including green' chemistry options. (Sp)

## CH E 5353 Emerging Technologies toward Water Sustainability Credit

Prerequisite: Chemical Engineering Graduate standing or permission of instructor; CH E 5971. This course will provide an introduction to water reclamation and reuse, wastewater characteristics, conventional approaches for wastewater treatment, emerging materials and technologies for water remediation, and water reuse applications and outlook. (F)

CH E 5373 Tissue Engineering
3 Credit Hours
(Slashlisted with CH E 4373; Crosslisted with BME 5373) Prerequisite: CH E 5971; graduate standing, admission into Gallogly College of Engineering or permission of instructor. Examines the background and recent advances in the science of combining multiple cell types with an appropriate support to provide a construct that can replace or support damaged tissue. No student may earn credit for both 4373 and 5373. (Irreg.)

CH E 5393 Rheology of Complex Fluids 3 Credit Hours
(Crosslisted with P E 5393) Prerequisite: Chemical Engineering Graduate standing or permission of instructor; CH E 5971. Develop skills necessary to understand the basic principles of rheological and viscoelastic properties of complex fluids, such as polymer melts and solutions, emulsions, suspensions, multiphase flow, etc. Covers the flow behavior of non-Newtonian fluids and viscoelastic fluids. Newtonian fluid mechanics will be reviewed to describe the standard flows for rheology. Rheometry the technique for characterization of fluids, will be discussed. (Sp)

CH E 5423 Genetic Engineering and Biotechnology 3 Credit Hours (Slashlisted with CH E 4423; Crosslisted with BME 5423) Prerequisite: Graduate standing in CBME or SBME, or permission of instructor. The course will cover state-of-the-art technologies of manipulating and controlling genes, genomes and cellular pathways with a goal of engineering human (stem) cells and microbes for health, environmental and industrial applications. No student may earn credit for both 4423 and 5423. (F)

## CH E 5453 Polymer Science and Engineering

3 Credit Hours
(Crosslisted with BME 5453) Prerequisite: Chemical Engineering Graduate standing or permission of instructor; CH E 5971. This course will be focused on the synthesis, characterization, processing, and properties of state-of-the-art polymeric and multicomponent polymeric materials. Students should come into the course with a background knowledge of polymers such as that found in an Engineering Materials and/or Organic Chemistry Course. (Sp)

CH E 5463 Polymer Processing
3 Credit Hours
Prerequisite: Chemical Engineering Graduate standing or permission of instructor; CH E 5971. The theory and practice of the production of finished polymer shapes (tubes, sheets, fibers, bottles, etc.) from polymeric raw materials. (Alt. F)

CH E 5480 Topics in Chemical Engineering 1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated with change of content. Seminar course in specialized topics in chemical engineering. (Irreg.)

CH E 5523 Advanced Mathematical Methods in Science and Engineering 3 Credit Hours
Prerequisite: Chemical Engineering Graduate standing or permission of instructor; CH E 5971. Scale and vector field theory. Ordinary and partial differential equations. Matrix algebra. Complex analysis. (F)

CH E 5533 Materials Design for Energy Application 3 Credit Hours Prerequisite: Chemical Engineering Graduate standing or permission of instructor; CH E 5971. This course is focused on electrochemical engineering and its application in several energy-related research areas such as lithium ion batteries, fuel cells, and water electrolysis and photolysis. We will introduce basic principles of electrochemistry and materials science and discuss various issues in these energy-related applications and how to address them from a materials science and engineering perspective. (Irreg.)

CH E 5583 Advanced Techniques in Biomanufacturing 3 Credit Hours (Slashlisted with CH E 4583) Prerequisite: CHE 5373 or BME 5373 or CHE 5423 or BME 5423; co-requisite CHE 5243 or BME 5243; graduate standing or permission of instructor. Biomanufacturing is a multidisciplinary program that requires a strong collaboration among diverse functional groups. This course aims to impact knowledge about biomanufacturing workflow including fermentation, and downstream bioprocessing, with a focus on biological products, design and industrial practices. The main objective is to train students to develop hands-on experience through working with advanced unit operations being used in this field. No student may earn credit for both 4583 and 5583. (Sp)

CH E 5673 Colloid and Surface Science 3 Credit Hour
(Crosslisted with CEES 5673) Prerequisite: Chemical Engineering
Graduate standing or permission of instructor. Capillarity, surface thermodynamics, adsorption from vapor and liquid phases, contact angles, micelle formation, solubilization, emulsions and foams. Applications to be discussed include detergency, enhanced oil recovery and adsorption for pollution control. (Irreg.)
$\begin{array}{lll}\text { CH E } 5843 & \text { Advanced Chemical Engineering Thermodynamics } & 3 \\ \text { Credit } & & \text { Hours }\end{array}$
Prerequisite: Chemical Engineering Graduate standing or permission of instructor; CHE 5971. Advanced thermodynamics as applied to engineering problems and design. (F)

CH E 5960 Directed Readings 1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing and permission of department. May be repeated; maximum credit twelve hours. Directed readings and/or literature reviews under the direction of a faculty member. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
CH E 5970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: Chemical Engineering Graduate standing or permission of instructor; CH E 5971; May be repeated, maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)
CH E 5971 Seminar in Chemical Engineering Research 1 Credit Hour Prerequisite: Graduate Standing or departmental permission. Speakers from academia and industry elaborate on methods and results from research in their areas of expertise to provide the student with an appreciation of the problems of current interest in chemical engineering. (F, Sp)

CH E 5980 Research for Master's Thesis 2-9 Credit Hours
Variable enrollment, two to nine hours; maximum credit applicable toward degree, six hours. Laboratory (F, Sp, Su)

CH E 5990 Independent Study 1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)
CH E 6522 Designing Circular Materials
2 Credit Hours
Prerequisite: Graduate standing or instructor permission. This course will adapt the economic concept of 'circular economy' to the design of new materials and products for a variety of practical applications, including recycling and up-cycling. Techniques to quantify sustainability in materials science will also be introduced.

CH E 6523 Materials Discovery
3 Credit Hours
Prerequisite: Graduate standing or instructor permission. This course will introduce a variety of cutting-edge computational tools, ranging from data analysis to simulations, from machine learning to artificial intelligence, and others, and will discuss methods in which these techniques can be used to discover new advanced materials for a variety of cutting-edge applications. (F, Sp)
CH E 6524 Advanced Characterization of Materials 4 Credit Hours Prerequisite: Graduate standing or instructor permission. This course will explore several cutting-edge experimental techniques currently used to characterize the electronic, atomic, and molecular structure of materials. The course will have both class and laboratory sections. (F, Sp)

CHE 6533 Fundamentals of Materials Structural Properties 3 Credit Hours
Prerequisite: Graduate standing or instructor permission. This course will explore the molecular features of different materials, including but not limited to metals, ceramics, and polymers. The relation between structure and properties of these materials will be developed, achieving a quantitative understanding of how defects can lead to peculiar properties, or perhaps failure. (F, Sp)
CHE6723 Advanced Kinetics and Reaction Engineering 3 Credit Hours Prerequisite: Chemical Engineering Graduate standing or permission of instructor; CH E 5971. Understanding and analysis of complex kinetics and reactor systems: free radical and cracking reactions, polymerization, biokinetics and catalytic kinetics with mass heat transfer limitations. Advanced reactor systems such as catalytic fixed bed reactors in oneand two-dimensions, equilibrium limited reaction systems, fluidized and trickle bed reactors, etc. are considered. (F)

CH E 6960 Directed Readings
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit six hours. Directed readings and/or literature review under the direction of a faculty member. (Irreg.)

## CH E 6970 Special Topics/Seminar 1-3 Credit Hours

1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit 12 hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or research and field projects. (Irreg.)
CH E 6980 Research for Doctoral Dissertation 2-16 Credit Hours 2 to 16 hours. Prerequisite: Chemical Engineering Graduate standing or permission of instructor; CH E 5971 Laboratory. Directed research culminating in the completion of the doctoral dissertation. (F, Sp, Su)

CH E 6990 Special Chemical Engineering Problems 1-2 Credit Hours 1 to 2 Hours. Prerequisite: permission. May be repeated; maximum credit four hours. Special research problems are pursued by the students either as individuals or as a group under staff direction. (F, Sp, Su)

## CHEM-Chemistry

CHEM 1305 Fundamentals of General Chemistry 5 Credit Hours Prerequisite: MATH 1503 or MATH 1643 or a Math ACT score of 23 or higher. This course covers topics from both semesters of the traditional general chemistry series and is geared towards students who need only one semester of general chemistry. Topics to be covered may range from biochemistry, inorganic, organic, and environmental chemistry. Not open to students with credit for CHEM 1315, CHEM 1335, CHEM 1415, or CHEM 1435. (F) [II-NSL].
CHEM 1315 General Chemistry
5 Credit Hours
Prerequisite: MATH 1503 or MATH 1643, or Math ACT equal to or greater than 25. General Chemistry is an overview of the chemical basis of natural phenomena. First of a two-semester sequence in general chemistry. Topics covered: basic measurement, atomic theory, electron configuration, periodicity, chemical reactivity and energetics, stoichiometry, gas laws and changes in state, bonding and molecular structure. A student may not receive credit for this course and CHEM 1335. Laboratory. (F, Sp, Su) [II-NSL] .

CHEM 1335 General Chemistry I: Signature Course 5 Credit Hours Prerequisite: MATH 1503 or MATH 1643, or Math ACT equal to or greater than 25 AND 2 years high school chemistry OR AP Chemistry. General Chemistry is an overview of the chemical basis of natural phenomena. First of a two-semester sequence which prepares students for higherlevel courses and research. Topics include atomic and molecular structure, chemical reactions, basic thermodynamics, properties of gases, liquids, solids and solutions, including select stoichiometric and quantitative analysis. A student may not receive credit for this course and CHEM 1315. (F, Sp) [II-NSL].

CHEM 1415 General Chemistry (Continued) 5 Credit Hours
Prerequisite: CHEM 1305 with a minimum grade of B or CHEM 1315 with a minimum grade of $C$ or CHEM 1335 with a minimum grade of $C$ or a satisfactory score on the chemistry placement examination. Topics covered include thermochemistry, equilibrium, thermodynamics, acid and base properties, kinetics and electrochemistry. A student may not receive credit for this course and CHEM 1435. Laboratory. (F, Sp, Su) [II-NSL].

CHEM 1425 Advanced General Chemistry (HONORS) 5 Credit Hours Prerequisite: Admission to Honors Program; STEM major and four years of high school math and 1 year high school chemistry, or permission of instructor. Designed for STEM majors well prepared in high school chemistry and math. Topics covered at an advanced level of understanding. The topics include: nature of solutions, equilibrium, thermodynamics, acid and base properties, kinetics and electrochemistry, gas laws and changes in state, molecular structure. Laboratory. (F) [IINSL].

CHEM 1435 General Chemistry II: Signature Course 5 Credit Hours Prerequisite: grade of C or better in CHEM 1315 or CHEM 1335 or satisfactory score on the chemistry placement examination. General Chemistry is an overview of the chemical basis of natural phenomena. Second of a two-semester sequence which prepares students for higher-level courses and research. Topics include chemical kinetics and thermodynamics including calorimetry, equilibria, electrochemistry, nuclear chemistry, ionic salts, properties of acids and bases, and acidbase reactions including buffers. Students may not receive credit for 1435 and 1415. Laboratory. (F, Sp) [II-NSL]

CHEM 2970 Special Topics/Seminar
1-3 Credit Hours
Special Topics. 1 to 3 hours. May be repeated; Maximum credit nine hours. Special topics course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research, and field projects. (Irreg.)

CHEM 3005 Quantitative Analysis
5 Credit Hours
Prerequisite: CHEM 1415 or CHEM 1425 or CHEM 1435 or equivalent. Analysis by quantitative procedures. Laboratory. (F, Sp)

CHEM 3053 Organic Chemistry I: Biological Emphasis 3 Credit Hours Prerequisite: CHEM 1415 or CHEM 1425 or CHEM 1435. Intended for life science majors. First course in a two-semester sequence (3053 and 3153). This course will cover the concepts of organic structure, nomenclature, and reactivity with an emphasis on biological applications. (F, Sp, Su)

CHEM 3064 Organic Chemistry
4 Credit Hours
Prerequisite: CHEM 1415 or CHEM 1425 or CHEM 1435. Intended for chemistry and biochemistry majors. First course in a two-semester sequence (3064 and 3164). This course will cover the concepts of organic structure, nomenclature, reactivity, and synthesis. The laboratory will use selected experiments to develop the fundamental techniques used in organic research including utilization of spectroscopy and to demonstrate the application of the scientific approach to laboratory work. Laboratory. (F)

CHEM 3152 Organic Chemistry Laboratory: Biological Emphasis 2 Credit
Prerequisite: CHEM 3053 or concurrent enrollment. Intended for life science majors. Laboratory course designed to accompany CHEM 3053 and CHEM 3153. Selected experiments designed to illustrate the fundamental techniques used in organic chemistry, to develop familiarity with the properties of organic compounds and to introduce analytical techniques including spectroscopy. (F, Sp, Su)

CHEM 3153 Organic Chemistry II: Biological Emphasis 3 Credit Hours Prerequisite: CHEM 3053 with a grade of C or better. Intended for life science majors. Second course in a two-semester sequence (3053 and 3153). This course will cover the concepts of organic chemical reactivity with an emphasis on carbohydrates, lipids, and proteins. (F, Sp, Su)

CHEM 3164 Organic Chemistry II
4 Credit Hours
Prerequisite: CHEM 3064, or both CHEM 3053 and CHEM 3152; with a grade of C or better. Intended for chemistry and biochemistry majors. Second course in a two-semester sequence (3064 and 3164). This course will continue the development of organic chemical reactivity, with an emphasis on synthesis, polymers, and biomolecules. The laboratory will use selected experiments to continue the development of techniques used in organic research with an emphasis on synthesis. Laboratory (Sp)

CHEM 3421 Physical Chemistry Laboratory 1 Credit Hour Prerequisite: 3423 or concurrent enrollment. Physiochemical measurements and calculations. (F, Sp, Su)

CHEM 3423 Physical Chemistry I
3 Credit Hours
Prerequisite: CHEM 1415 or CHEM 1425 or CHEM 1435; MATH 2423 or
MATH 2924 or concurrent enrollment. Kinetic theory of ideal gases and properties of real gases; first, second, and third laws of thermodynamics; chemical and phase equilibria; and chemical kinetics and reaction mechanisms. (F, Sp, Su)

CHEM 3440 Mentored Research Experience
3 Credit Hours
0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)

CHEM 3451 Basic Physical Chemistry Laboratory 1 Credit Hour Prerequisite: 3453 or concurrent enrollment. Laboratory application of physical chemical principles and techniques. (F, Sp)

CHEM 3453 Basic Physical Chemistry 3 Credit Hours
Prerequisite: CHEM 1415 or CHEM 1425 or CHEM 1435; MATH 1823
or MATH 1914; PHYS 2424 or PHYS 2524. The application of physical chemical principles and methods. (F, Sp)

CHEM 3521 Physical Chemistry Laboratory 1 Credit Hour
Prerequisite: CHEM 3523 or concurrent enrollment and CHEM 3421 with a grade of C or better. To perform experiments which illustrate important principles in physical chemistry. (F, Sp, Su)

CHEM 3523 Physical Chemistry II 3 Credit Hours Prerequisite: 3423 with a grade of "C" or above. Continuation of 3423. Kinetics, electrochemistry, atomic and molecular states of matter, etc. (F, Sp)

CHEM 3653 Introduction to Biochemistry
3 Credit Hours
Prerequisite: CHEM 3013, CHEM 3053, or CHEM 3064, with a grade of C or better. Chemistry of proteins, carbohydrates, lipids, and nucleic acids; enzyme kinetics; biochemical energetics; intermediary metabolism; regulatory processes. A Student may not receive credit for this course and CHEM 3853. (F)
CHEM 3753 Introduction to Biochemical Methods 3 Credit Hours Prerequisite: CHEM 3653 or CHEM 3853 or concurrent enrollment. A survey of current and routinely used methods in biochemistry. Students attend lecture twice weekly and a three-hour lab per week. Laboratory (Sp)
CHEM 3853 Biochemistry I
3 Credit Hours
Prerequisite: CHEM 3153 or CHEM 3164 with a grade of C or better. Course 1 of a 2 course progression with focus on Biochemistry. Provides an overview of the cell as an elaborate chemical reactor. Serves as a foundation for further in-depth studies of cellular metabolism. Topics include: structure and function of major biomolecules, catalysis, energy generation, biosynthesis, and information processing. A student may not receive credit for this course and CHEM 3653. (F)

## CHEM 3953 Biochemistry II

3 Credit Hours
Prerequisite: CHEM 3853 with a grade of C of better, or CHEM 3653 with a grade of $B$ or better. Course 2 of a 2 course progression with focus on Biochemistry. Topics include information metabolism, biochemical aspects of cell organization, and primary molecular biology reactions. Special emphasis on inhibition of various pathways and drug design and discovery. (Sp)

CHEM 3960 Honors Reading 1-3 Credit Hours 1 to 3 hours. Prerequisite: permission of instructor and permission of Honors College. May be repeated; maximum credit six hours. Consists of topics designated by the instructor in keeping with the student's major program. The topics will cover materials not usually presented in the regular courses. (F, Sp, Su)
CHEM 3970 Honors Seminar 1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. The projects covered in this course will vary. The content will deal with concepts not usually presented in regular coursework. (Irreg.)
CHEM 3980 Honors Research
1-3 Credit Hours
1 to 3 hours. Prerequisite: permission of instructor and permission of Honors College. May be repeated; maximum credit six hours. Provides an opportunity for the gifted Honors candidate to work at a special project in the student's field. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

CHEM 3990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: permission of instructor. May be repeated; maximum credit six hours. Contracted independent study for topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (F, Sp, Su)
CHEM 4023 Instrumental Methods of Chemical Analysis 3 Credit Hours Prerequisite: CHEM 3005. Introduction to instrumental methods of analysis, with emphasis upon electrometric and spectroscopic techniques and instruments. Includes sampling procedures, requirements of reagents and standards, and evaluation of errors. (F)
CHEM 4033 Instrumental Methods of Chemical Analysis

## Laboratory

3 Credit Hours
Prerequisite: 4023. Selected experiments illustrating the principles developed in 4023. Two four and a half hour laboratories per week.
Laboratory (Sp)

CHEM 4053 Culinary Chemistry and Culture in Italy 3 Credit Hours Prerequisite: CHEM 1415 or CHEM 1435 with a grade of C or better. The overall objectives are to understand the chemicals in major chemical processes that occur in the production of wine, cheese, pasta, and gelato and the importance of the traditional meal in Italian culture and knowledge of the varieties of wine and cheese in Italy, making direct and integrated connections between the Organic Chemistry covered in and outside of the classroom. (Su)
CHEM 4232 Laboratory Glassblowing
2 Credit Hours
Prerequisite: Departmental permission. Discussion of materials and techniques with demonstrations of procedures. Exercises will be performed in the laboratory with a special emphasis upon the different types of seals required in the construction of glass apparatus. One hour of lecture and three hours of laboratory will be scheduled each week. (F, Sp )
CHEM 4333 Advanced Inorganic Chemistry-Periodic System 3 Credit
Prerequisite: CHEM 3053 or CHEM 3064. A survey of all elements and important compounds based on atomic structure and position in the Periodic System; effect of atomic size, ionic size and charge on the properties of elements. Inorganic nomenclature. (F)
CHEM 4444 Advanced Synthesis and Spectral Characterization 4 Credit

Hours
Prerequisite: CHEM 3164, or both CHEM 3152 and CHEM 3153. Lectures cover spectroscopic analysis, thermodynamics of synthesis and fundamentals of advanced techniques, and hands-on spectroscopic identification of reaction products. Two lecture and six laboratory hours per week. Laboratory (Sp)
CHEM 4753 Principles of Biochemistry I
3 Credit Hours
Prerequisite: CHEM 3153 or CHEM 3164, CHEM 3423 or CHEM 3453,
CHEM 3653 or CHEM 3853 or equivalent. The first semester of a two-semester sequence covering the fundamental principles of protein structure and function, enzymology, carbohydrate and lipid metabolism, biochemical energetics, membranes, nucleic acid and protein metabolism, information transfer and the genetic code, and the interdependence of biochemical pathways. (F)
CHEM 4913 Senior Thesis
3 Credit Hours
Prerequisite: permission of instructor and permission of department. Capstone Course. Research project, theoretical or experimental, to be arranged with individual faculty member, leading to a senior thesis. Each student will present an oral report in a lecture presentation or poster format to an audience of students and faculty. Laboratory ( $\mathrm{F}, \mathrm{Sp}$ ) [V].
CHEM 4923 Senior Project
3 Credit Hours
Prerequisite: Permission of instructor and permission of department. Capstone Course. Topics of current interest and importance in chemistry or biochemistry, requiring in-depth reading, extensive literature search, group work, and report writing. (F, Sp) [V].

CHEM 4933 Current Topics in Biochemistry 3 Credit Hours Prerequisite: Either CHEM 3653 or CHEM 3853; CHEM 3753; and one semester of physical chemistry with lab. Capstone course for biochemistry majors. Topics of current interest in biochemistry. Students will attend lectures and will be involved in literature search, group discussion, oral presentation, and report writing. (Sp) [V].

CHEM 4960 Directed Readings
1-4 Credit Hours
1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean. May be repeated; maximum credit four hours. Designed for upper-division students who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)

CHEM 4970 Special Topics/Seminar 1-3 Credit Hours
1 to 3 hours. Prerequisite: Senior standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

CHEM 4980 Undergraduate Research
1-4 Credit Hours
Prerequisite: permission of instructor. May be repeated; maximum credit six hours. Provides an opportunity for student to work on a special project under the supervision of faculty in the student's field. (F, Sp, Su)

CHEM 4990 Independent Study 1-3 Credit Hours 1 to 3 hours. Prerequisite: permission of instructor. May be repeated maximum credit six hours. Contracted independent study for topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (F, Sp, Su)

CHEM 5001 Practicum in General Chemistry Education 1 Credit Hour Prerequisite: graduate standing in the Department of Chemistry and Biochemistry or permission of instructor. Explores the pedagogical issues associated with teaching general chemistry at the undergraduate level. Includes administration of instruction, student and teacher behavior goals of instruction, instructional strategies, student thinking processes, problem solving, and grading. (F)

CHEM 5011 Fundamentals I
1 Credit Hour
Prerequisite: graduate standing in the Department of Chemistry and Biochemistry or permission of instructor. Designed to provide all students entering the graduate program with the skills required to succeed in the Ph.D. program. (F)

CHEM 5021 Fundamentals II
1 Credit Hour
Prerequisite: graduate standing in the Department of Chemistry and Biochemistry or permission of instructor. Designed to provide all firstyear graduate students with the skills required to succeed in the Ph.D. program. (Sp)

CHEM 5080 Laboratory Rotations
1-2 Credit Hours
1 to 2 hours. Prerequisite: graduate standing in the Department of Chemistry and Biochemistry. May be repeated; maximum credit 3 hours. Seven-week rotations per credit hour in research laboratories, normally during the first semester of graduate school. (F, Sp)

CHEM 5090 Departmental Colloquium 0 Credit Hours
Prerequisite: graduate standing in the Department of Chemistry and Biochemistry or permission of instructor. Enrollment is expected during each semester of graduate study. Oral presentations on recent developments in chemistry and biochemistry by invited speakers, faculty, advanced graduate students, and postdoctoral fellows. (F, Sp)

CHEM 5100 Instrumental Methods of Analysis 1-3 Credit Hours 1 to 3 hours. Prerequisite: graduate standing in the Department of Chemistry and Biochemistry or permission of instructor. May be repeated with change of content; maximum credit 4 hours. Core course for the Analytical Program. Topics will provide an overview of various instrumental methods employed for qualitative and quantitative chemical analysis. (F, Sp)

CHEM 5110 Spectroscopic Chemical Analysis
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing in the Department of Chemistry and Biochemistry or permission of instructor. May be repeated with change of content; maximum credit 4 hours. Core course for the Analytical Program. Theory and operation of instruments employed for optical spectroscopy. (F, Sp)

CHEM 5120 Separation Methods
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing in the Department of Chemistry and Biochemistry or permission of instructor. May be repeated with change of content; maximum credit 4 hours. Core course for the Analytical Program. Basic principles underlying methods employed for chemical separations with emphasis on chromatographic methods. (F, Sp)

CHEM 5160 Special Topics in Analytical Chemistry: Instrumentation

1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing in the Department of Chemistry and Biochemistry and CHEM 5100, or permission of instructor. May be repeated with change of content; maximum credit 12 hours. Selected topics will focus on instrumentation and applications of selected chemical analysis techniques. (Irreg.)

CHEM 5170 Special Topics in Analytical Chemistry: Methodology

1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing in the Department of Chemistry and Biochemistry and CHEM 5100, or permission of the instructor. May be repeated with change in subject matter for a maximum of 12 credit hours. Selected topics will focus on details of specific methodologies employed for chemical analysis. (Irreg)

CHEM 5180 Practicum in Analytical Chemistry 1-2 Credit Hours 1 to 2 hours. Prerequisite: Graduate standing in the Department of Chemistry and Biochemistry and CHEM 5100, or permission of the instructor. May be repeated with change of content; maximum credit four hours. Study and training in practical methods relevant to analytical chemistry. (F, Sp)

CHEM 5191 Seminar in Analytical Chemistry
1 Credit Hour
Prerequisite: graduate standing in the Department of Chemistry and Biochemistry or permission of instructor. May be repeated; maximum credit 12 hours. Oral presentations and discussions of topics relevant to the current state-of-the-art in analytical chemistry research. (F, Sp)
CHEM 5200 Principles of Biochemistry
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing in the Department of Chemistry and Biochemistry or permission of instructor. May be repeated with change of content; maximum credit 4 hours. Core course for graduate Biochemistry Program. Fundamental principles of biomolecules, protein structure and function, enzymology, carbohydrate and lipid metabolism, nucleic acid and protein metabolism, membranes and signal transduction, expression and transmission of genetic information, and the interdependence of biochemical pathways. (F, Sp)

CHEM 5210 Molecular Biology 1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing in the Department of Chemistry and Biochemistry or permission of instructor. May be repeated with change of content; maximum credit 4 hours. Core course for graduate Biochemistry Program. Characteristics and biological functions of nucleic acids and proteins in living cells with emphasis on nucleic acid replication, transcription, translation and regulation; also emphasis on the molecular aspects of genetic engineering/recombinant DNA technology (F, Sp)

CHEM 5240 Biochemical and Biophysical Methods 1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing in the Department of Chemistry and Biochemistry and CHEM 5200, or permission of the instructor. Basic principles and practical applications of the analytical and preparative techniques used in current biochemical and biophysical research. (F, Sp)

CHEM 5260 Special Topics in Biochemistry I 1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing in the Department of Chemistry and Biochemistry and CHEM 5240, or permission of the instructor. May be repeated with change of content; maximum credit 12 hours. Selected contemporary topics that investigate the frontiers of knowledge in biochemistry. (Irreg.)

CHEM 5270 Special Topics in Biochemistry II 1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing in the Department of Chemistry and Biochemistry and CHEM 5240, or permission of the instructor. May be repeated with change of content; maximum credit 12 hours. Selected contemporary topics that focus on applications of biochemical knowledge. (Irreg.)
CHEM 5280 Practicum in Biochemistry
1-2 Credit Hours
1 to 2 hours. Prerequisite: Graduate standing in the Department of Chemistry and Biochemistry and CHEM 5240, or permission of the instructor. May be repeated with change of content; maximum credit four hours. Study and training in practical methods relevant to biochemistry. (F, Sp)
CHEM 5291 Seminar in Biochemistry
1 Credit Hour
Prerequisite: graduate standing in the Department of Chemistry and Biochemistry or permission of instructor. May be repeated; maximum credit 12 hours. Research seminar in which graduate students and invited speakers present and discuss current advances in biochemical research. (F, Sp)

CHEM 5300 Intermediate Inorganic Chemistry 1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing in the Department of Chemistry and Biochemistry or permission of instructor. May be repeated with change of content; maximum credit 4 hours. Fundamental concepts and an introduction to modern inorganic chemistry. Topics may include: atomic structure and relation to properties of the elements, bonding theory, coordination and bioinorganic compounds, organometallic compounds and catalysis, symmetry and applications to spectroscopy, magnetic materials. (F, Sp)
CHEM 5330 Advanced Inorganic Chemistry 1-3 Credit Hours 1 to 3 hours. Prerequisite: Graduate standing in the Department of Chemistry and Biochemistry and CHEM 5300, or permission of instructor. May be repeated with change of content; maximum credit 12 hours. For students majoring in inorganic chemistry. Selected topics for this course may include: physical and experimental methods in inorganic chemistry, modern spectroscopic methods in inorganic chemistry, bioinorganic and organometallic reactions, advanced kinetics and inorganic reaction mechanisms, catalysis, and advanced experimental design for mechanistic evaluation. (F, Sp)

CHEM 5360 Frontiers in Inorganic Chemistry
1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing in the Department of Chemistry and Biochemistry and CHEM 5300, or permission of instructor. May be repeated with change of content; maximum credit 12 hours. Selected topics concerning the theory, synthesis, reactivity and applications of inorganic and coordination compounds. Topics may include: computational chemistry, electrochemistry, metals in biology and medicine, industrial and biological main group chemistry, environmental chemistry, applications of inorganic compounds in alternative energy (nuclear cycle, hydrogen cycle, photovoltaics), and inorganic materials science (metal-organic frameworks, metallopolymers, inorganic polymers). (F, Sp)
CHEM 5380 Practicum in Inorganic Chemistry
1-2 Credit Hours
1 to 2 hours. Prerequisite: Graduate standing in the Department of Chemistry and Biochemistry and CHEM 5300, or permission of instructor. May be repeated with change of content; maximum credit 4 hours. Study and training in practical methods relevant to inorganic chemistry. (F, Sp)

## CHEM 5391 Seminar in Inorganic Chemistry <br> 1 Credit Hour

Prerequisite: Graduate standing in the Department of Chemistry and Biochemistry and CHEM 5300, or permission of instructor. May be repeated; maximum credit 12 hours. Graduate student research seminar and related activities, with a selection of topics related to research preparation and research outcomes. ( $\mathrm{F}, \mathrm{Sp}$ )
CHEM 5400 Organic Chemistry I: Mechanisms and

## Reactivity

1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing in the Department of Chemistry and Biochemistry or permission of instructor. May be repeated with change of content; maximum credit 4 hours. Core course for graduate Program of Study in Organic Chemistry. Introduction to the study of organic reaction mechanisms and reactivity. (F, Sp)
CHEM 5430 Organic Chemistry II: Reactions and Synthesis 1-3 Credit

Hours
1 to 3 hours. Prerequisite: Graduate standing in the Department of Chemistry and Biochemistry and CHEM 5400, or permission of instructor. May be repeated with change of content; maximum credit 4 hours. Core course for graduate Program of Study in Organic Chemistry. Detailed treatment of reactions used in organic synthesis and the design of synthetic strategy. (F, Sp)

CHEM 5450 Structural Characterization of Organic Compounds $\quad$ 1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing in the Department of Chemistry and Biochemistry and CHEM 5400, or permission of instructor. May be repeated with change of content; maximum credit 4 hours. Application of current methods to problems of structure determination in organic chemistry. (F, Sp)

## CHEM 5460 Special Topics in Chemical Reactivity and Physical

 Organic Chemistry 1-3 Credit Hours1 to 3 hours. Prerequisite: Graduate standing in the Department of Chemistry and Biochemistry and CHEM 5400, or permission of instructor. May be repeated with change of content; maximum credit 12 hours. Selected topics in the study and application of specialized chemical reaction methods. Topics may include: theoretical or computational aspects of organic chemistry; advanced study of reaction mechanisms; study and application of novel chemical methods such as photochemical methods, organometallic chemistry, chemical catalysis, reagent design and application. (Irreg.)

CHEM 5470 Special Topics in Bioorganic and Specialized Organic Compounds

1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing in the Department of Chemistry and Biochemistry and CHEM 5400, or permission of instructor. May be repeated with change of content; maximum credit 12 hours. Selected topics in the study and preparation of specialized classes of organic compounds including biologically related aspects of organic chemistry. Topics may include: specialized synthesis and design strategies; medicinal chemistry; study and application of biosynthetic methods; advanced synthetic design for targeted organic compounds; study of specialized classes of compounds including natural products, medicinal compounds, bioactive compounds, polymers, functional materials and devices. (Irreg.)

CHEM 5480 Practicum in Organic Chemistry 1-2 Credit Hours 1 to 2 hours. Prerequisite: Graduate standing in the Department of Chemistry and Biochemistry and CHEM 5400, or permission of instructor. May be repeated with change of content; maximum credit 4 hours. Study and training in practical methods relevant to organic chemistry. Topics may include: use of modern instrumental methods for organic structural determination; acquisition and interpretation of spectral data for structural determination; optimization of measurement techniques; specialized preparative laboratory methods; specialized methods for separation and analysis of organic compounds. (F, Sp)
CHEM 5491 Seminar in Organic Chemistry 1 Credit Hour
Prerequisite: Graduate standing in the Department of Chemistry and Biochemistry and CHEM 5400, or permission of instructor. May be repeated; maximum credit 12 hours. Research and literature seminar for presenting and discussing a selection of topics from current literature or research in organic chemistry. ( $F, S p$ )
CHEM 5500 Topics in Quantum Chemistry 1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing in the Department of Chemistry and Biochemistry or permission of instructor. May be repeated with change of content; maximum credit 6 hours. Review of classical mechanics; introduction to wave mechanics and applications to atoms and molecules. This is a core course for graduate majors. (F, Sp)

CHEM 5530 Topics in Statistical Thermodynamics 1-3 Credit Hours 1 to 3 hours. Prerequisite: Graduate standing in the Department of Chemistry and Biochemistry and CHEM 5500 or concurrent enrollment, or permission of the instructor. May be repeated with change of content; maximum credit 6 hours. Chemical thermodynamics, statistical thermodynamics, chemical kinetics, applications of quantum chemistry, structure of matter. This is a core course for graduate majors. ( $\mathrm{F}, \mathrm{Sp}$ )

CHEM 5570 Selected Topics in Physical Chemistry 1-3 Credit Hours 1 to 3 hours. Prerequisite: Graduate standing in the Department of Chemistry and Biochemistry and CHEM 5500 or CHEM 5520, or permission of instructor. May be repeated with change of content; maximum credit 12 hours. Studies in special areas of physical chemistry not covered in the regular course curriculum. (F, Sp)

CHEM 5580 Practicum in Physical Chemistry 1-2 Credit Hours
1 to 2 hours. Prerequisite: Graduate standing in the Department of Chemistry and Biochemistry and CHEM 5500 or CHEM 5520, or permission of instructor. May be repeated with change of content; maximum credit 4 hours. Study and training in practical methods relevant to physical chemistry. (F, Sp)

CHEM 5591 Seminar in Physical Chemistry
1 Credit Hour
Prerequisite: Graduate standing in the Department of Chemistry and Biochemistry and CHEM 5500 or CHEM 5520, or permission of instructor. May be repeated; maximum credit 12 hours. Participation is required of all graduate students majoring in physical chemistry. Research seminar, with a selection of topics from current or projected research at the University of Oklahoma. Discussion of contemporary topics in physical chemistry and related disciplines. (F, Sp)
CHEM 5730 Macromolecular Crystallography
1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing in the Department of Chemistry and Biochemistry and CHEM 5210, or permission of instructor. May be repeated with change of content; maximum credit 4 hours. Principles of diffraction, symmetry, reciprocal space, data collection, data reduction and absorption corrections; methods for structure solution and refinement; and interpretation of data and limitations thereof. (F, Sp)
CHEM 5750 Macromolecular Structure and Function 1-3 Credit Hours 1 to 3 hours. Prerequisite: Graduate standing in the Department of Chemistry and Biochemistry and CHEM 5200, or permission of instructor. May be repeated with change of content; maximum credit 4 hours. Principles of protein architecture and levels of organization, nucleic acid structure, functional roles of intermolecular interactions, structurefunction in protein and nucleic acid complexes. (F, Sp)
CHEM 5760 Special Topics in Structural Biology 1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing in the Department of Chemistry and Biochemistry and CHEM 5200, or permission of instructor. May be repeated with change of content; maximum credit 12 hours. Content may include the structural basis of signal transduction, structural dynamics, computational methods for biological macromolecules, microscopy, structural basis for gene regulation, and structure-guided drug discovery and design. (Irreg.)
CHEM 5780 Practicum in Structural Biology
1-2 Credit Hours
1 to 2 hours. Prerequisite: Graduate standing in the Department of Chemistry and Biochemistry and CHEM 5730 or CHEM 5740, or permission of instructor. May be repeated; maximum credit four hours. The X-ray practicum (prerequisite: 5730) includes crystallization, advanced checkout and operation of X-ray diffractometers, data collection using research samples, structure solution and refinement, and evaluation of crystal structure quality. The NMR practicum (prerequisite: 5740) includes sample preparation of biological macromolecule on a research sample, advanced checkout and operation of NMR spectrometers, structure determination and dynamics, and evaluation of structure quality. (F, Sp)
CHEM 5960 Directed Readings in Chemistry

## 1-2 Credit Hours

1 to 2 hours. Prerequisite: permission. May be repeated with change of content; maximum credit six hours. Selected from topics of current interest in any of the areas of chemistry. (F, Sp, Su)
CHEM 5970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

CHEM 5980 Research for Master's Thesis
2-9 Credit Hours
Variable enrollment, two to nine hours; maximum credit applicable toward degree, six hours. (F, Sp, Su)

CHEM 5990 Independent Studies
1-3 Credit Hours
1 to 3 hours. May be repeated with change of subject matter; maximum credit nine hours. Staff members in the student's field of interest supervise research and/or library studies which closes gaps in student's training or builds on this training in specialized areas. (F, Sp, Su)

CHEM 6960 Directed Readings 1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit six hours. Directed readings and/or literature review under the direction of a faculty member. (Irreg.)

CHEM 6980 Research for Doctoral Dissertation 2-16 Credit Hours 2 to 16 hours. Prerequisite: Graduate standing; may be repeated. Directed research culminating in the completion of the doctoral dissertation. (F, Sp, Su)

CHEM 6990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)

## CHER-Cherokee

CHER 1715 Beginning Cherokee 5 Credit Hours Introduction to the structure of the Cherokee language with special attention to its phonology, morphology, and syntax. Conversational practice, vocabulary-building, and the history and culture of the native speech community also are emphasized. (F, Sp) [I-FL].

CHER 1725 Beginning Cherokee-Continued Credit Hours Prerequisite: 1715. A continuation of the study of the structure of the Cherokee language with special attention to its phonology, morphology, and syntax. Conversational practice, vocabulary-building, and the history and culture of the native speech community are emphasized. (Sp) [I-FL].

CHER 2733 Intermediate Cherokee
3 Credit Hours
Prerequisite: 1723. A systematic review of the structure of the Cherokee language. Syntactic control and vocabulary expansion are emphasized. Conversational practice and traditional oral texts are used to develop proficiency. (F)

CHER 3440 Mentored Research Experience 3 Credit Hours
0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)

## CHIN-Chinese

CHIN 1115 Beginning Chinese
5 Credit Hours
An elementary course in understanding, speaking, reading and writing Mandarin Chinese. This course does not count for major credit in the Department of Modern Languages, Literatures and Linguistics. (F) [I-FL].

CHIN 1225 Beginning Chinese (Continued)
5 Credit Hours
Prerequisite: 1115. Continued training in understanding, speaking, reading and writing elementary Mandarin Chinese. This course does not count for major credit in the Department of Modern Languages, Literatures and Linguistics. (Sp) [I-FL].

CHIN 2113 Intermediate Chinese
3 Credit Hours
Prerequisite: 1225. Combination of basic Chinese grammar and vocabulary and their application to spoken and written Mandarin Chinese. (F)

CHIN 2223 Intermediate Chinese (Continued) 3 Credit Hours
Prerequisite: 2113. Continued training in the use of grammar and vocabulary in both spoken and written Mandarin Chinese. (Sp)

CHIN 2323 Intermediate Listening and Speaking 3 Credit Hours
Prerequisite: permission of department. Serves as the prerequisite for Chinese 3113 (Advanced Chinese I.) Assignments and class activities include immersion in daily family-type communication, conversations and functioning in daily business activities, travel and functioning at the intermediate proficiency level. Upon completion, students will have developed the languages skills that will allow them to function with most daily situations in a Chinese-speaking country. (F, Sp)

CHIN 2970 Special Topics/Seminar 1-3 Credit Hours Special Topics. 1 to 3 hours. May be repeated; Maximum credit nine hours. Special topics course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research, and field projects. (Irreg.)

CHIN 3113 Advanced Chinese I
3 Credit Hours
Prerequisite: CHIN 2223 and CHIN 2323 or equivalent. An integrated advanced course designed to improve skills in the four aspects of learning Mandarin Chinese as a foreign language: listening, speaking, reading, and writing. Emphasis is on the phonetics of standard Mandarin Chinese and conversation on topics in daily life. (F)

CHIN 3223 Advanced Chinese II 3 Credit Hours Prerequisite: 3113 or equivalent. Continue to improve skills in the four aspects of learning Mandarin Chinese as a foreign language: listening, speaking, reading, and writing. Emphasis on composition and advancedlevel reading comprehension. (Sp.

CHIN 3323 Advanced Listening and Speaking 3 Credit Hours Prerequisite: 2223. Develops listening and speaking skills of students who have taken intermediate Chinese. Conversations are presented in authentic and naturally-paced language. Lessons are constructed to support existing knowledge and develop mastery of new vocabulary, grammatical patterns, and sociocultural formalities in ways that are compatible with genuine communication. (F)

CHIN 3440 Mentored Research Experience
3 Credit Hours
0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)

CHIN 3623 Business Chinese
3 Credit Hours
Prerequisite: permission of department. Designed for students who have completed at least two years basic Chinese language learning and have an interest in business-related communications with Chinese- speaking people. Aims to prepare students with the language skills and cultural knowledge for a globalized economy through learning the vocabulary, usages, customs and conventions required for business activities with China. (F)

CHIN 3960 Honors Reading 1-3 Credit Hours
1 to 3 hours. Prerequisite: Admission to Honors Program. May be repeated; maximum credit six hours. Consists of topics designated by the instructor in keeping with the student's major program. The topics will cover materials not usually presented in the regular courses. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

CHIN 3970 Honors Seminar 1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Subjects covered vary. Deals with concepts not usually treated in regular courses. (Irreg.)

CHIN 3980 Honors Research 1-3 Credit Hours
1 to 3 hours. Prerequisite: Admission to Honors Program. May be repeated; maximum credit six hours. Will provide an opportunity for the gifted Honors candidate to work at a special project in the student's field. (F, Sp, Su)

CHIN 3990 Independent Study 1-3 Credit Hours
1 to 3 hours. Prerequisite: two courses in Chinese; permission of instructor and department. May be repeated; maximum credit six hours. Contracted independent study for topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (F, Sp)
CHIN 4113 Advanced Reading and Writing
3 Credit Hours
Prerequisite: 3223. Advanced reading and comprehension of authentic Chinese texts. Development of good writing skills with correct usage of grammar. (Sp)

CHIN 4333 Translating Chinese
3 Credit Hours
Prerequisite: CHIN 3113. Assists advanced Chinese major or minor students attain better Chinese-to-English translation skills through practical training and hands-on instruction. The emphasis is on comprehension of original Chinese texts, with particular attention to idioms and expressions. (Irreg.)

CHIN 4533 Learning Chinese through Media
3 Credit Hours
Prerequisite: CHIN 3113 or equivalent. Intended for advanced students to enhance their reading/listening proficiency in modern Chinese language and further develop their self-learning skills. Students will be immersed in a simulacrum of Chinese media by reading Chinese news reports; watching Chinese news videos, short films, and TV programs; and using the Chinese encyclopedia. (F)
CHIN 4543 Study of Classical Chinese and Calligraphy 3 Credit Hours Prerequisite: CHIN 3223. Major aspects covered include 1) grammatical structures of classical Chinese compared to modern Chinese; 2) lexical and semantic features of most commonly used words and phrases; 3) reading and understanding of simple texts from the classics; 4) cultural perspectives to appreciate Chinese heritage texts, paintings and calligraphy. (F)

CHIN 4960 Directed Readings 1-4 Credit Hours
1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean. May be repeated; maximum credit four hours. Designed for upper-division students who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)
CHIN 4970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: Senior standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

CHIN 4990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: four courses in Chinese and general area to be studied; permission of instructor and department. May be repeated; maximum credit six hours. Contracted independent study for topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (F, Sp, Su)

CHIN 4993 Senior Capstone for Chinese
3 Credit Hours
Prerequisite: Senior standing or permission of instructor. Designed to serve as the senior capstone experience for the Chinese major. Students will study linguistic theory, technique, and methodology. Includes reading in critical analysis as preparation for writing assignments and final project to be written in Chinese. (F) [V].

## CHOC-Choctaw

## CHOC 1715 Beginning Choctaw

## 5 Credit Hours

Introduction to the structure of the Choctaw language with special attention to its phonology, morphology, and syntax. Conversational practice, vocabulary-building, and the history and culture of the native speech community also are emphasized. (F, Sp) [I-FL].

## CHOC 1725 Beginning Choctaw-Continued

5 Credit Hours
Prerequisite: 1715. A continuation of the study of the structure of the Choctaw language with special attention to its phonology, morphology, and syntax. Conversational practice, vocabulary-building, and the history and culture of the native speech community are emphasized. (Sp) [I-FL].

CHOC 2733 Intermediate Choctaw
3 Credit Hours
Prerequisite: 1723. A systematic review of the structure of the Choctaw language. Syntactic control and vocabulary expansion are emphasized. Conversational practice and traditional oral texts are used to develop proficiency. (F)

## CHOC 3440 Mentored Research Experience 3 Credit Hours

0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)

## CL C-Classical Culture

## CL C 1123 Gods and Heroes in Art

3 Credit Hours
Students will be introduced to stories of ancient gods, goddesses, heroes, and lovers as they have been depicted by various art forms through the ages. Examples of these art forms will include sculptures, mosaics, frescoes, paintings, theater, and motion pictures. Through exposure to a variety of art, students will craft educated opinions about artistic works, both ancient and modern. (F, Sp) [IV-AF].

CL C 1133 The Roman War Machine
3 Credit Hours
This course examines the history and archaeology of the Roman army in times of war and peace, and in doing so provides an introduction to ancient history, classical studies, and Mediterranean archaeology. Drawing on a diverse range of materials, including art, artifacts, and primary source documents, this course explores warfare from Pre-Roman times to Late Antiquity. (F, Sp)

CL C 2143 Women in Antiquity
3 Credit Hours
Prerequisite: ENGL 1213 or EXPO 1213. Survey of the roles of women in Ancient Greece from the Bronze Age through the Hellenistic Period. Primary and secondary sources are utilized to provide students with both a literary and historical perspective of women in this time frame. (Irreg.)

CL C 2213 Introduction to Classical Archaeology 3 Credit Hours Introductory survey of the archaeological discovery of the ancient civilizations of the Near and Middle East and the Mediterranean World, including the Mesopotamian, Egyptian, Hebrew, Roman, Minoan, Mycenaean, and Greek civilizations. Attention is given to principal sites for each civilization, their discovery, and the techniques and methodology of classical archaeology. (F, Sp) [IV-WC].

CL C 2383 Classical Mythology
3 Credit Hours
Lectures, with assigned readings. The origin and development of Greek and Roman myths indispensable for the understanding of ancient and modern literature; with allusion to their influence on art and religion. ( $F$, $\mathrm{Sp}, \mathrm{Su}$ ) [IV-WC] .

## CL C 2413 Medical Vocabulary

3 Credit Hours
Prerequisite: sophomore standing. Designed to be of special use to students of the biological sciences. Study of basic Greek and Latin elements of medical terminology through the analysis of select vocabularies and word lists. (F, Sp, Su)

CL C 2603 The Rise and Fall of Greece 3 Credit Hours
Prerequisite: English 1213/Expository Writing 1213. Traces the development of the democratic ideal in Greece through the classical period. Aspects of culture such as literature, religion, art and architecture, education, science and technology, intellectual life and the role of women are emphasized. (F) [IV-WC].
CL C 2613 The Rise and Fall of Rome 3 Credit Hours Prerequisite: English 1213/Expository Writing 1213. Examines the development and dissemination of Roman civilization in ancient times and its influence on the modern world. Aspects of Roman culture such as literature, law, religion, art and architecture, education, intellectual life, popular entertainment, and the role of women are emphasized. (Sp) [IVWC].
CL C 2970 Special Topics/Seminar 1-3 Credit Hours
Special Topics. 1 to 3 hours. May be repeated; Maximum credit nine hours. Special topics course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research, and field projects. (Irreg.)
CL C 3033 Latin Literature in English Translation 3 Credit Hours Prerequisite: sophomore standing. May be repeated; maximum credit six hours. readings in a selected genre (e.g. epic, drama, satire, lyric) with lectures on the history and development of latin literature. The Greek background to Latin literature and the Romans' influence on later works. [IV-WC].
CL C 3053 Origins of Christianity: Jesus to Augustine 3 Credit Hours Prerequisite: English 1213. A survey of early Christian history that aims to set the Christian scriptures in their cultural and political context. Canonical, non-canonical, Jewish, and pagan sources are read alongside one another in order to consider the interrelationships among various religious ideas in the Roman world. (F) [IV-WC].

CLC 3103 States in Crisis in Greek and Roman Literature3 Credit Hours Prerequisite: ENGL 1213/EXPO 1213; Course is not open to freshmen. The framers of the Constitution looked to ancient Athens, with its democracy, and Rome, with its republic, as models for a form of government that could withstand the vagaries of time. This course examines how those ancient governments fared during critical moments in their history. (Irreg.) [IV-WC].
CL C 3113 Gods and Heroes of Ancient Epic 3 Credit Hours Prerequisite: English 1213/Expository Writing 1213. The epic poetry of Homer, Hesiod, Vergil and other Greek and Roman writers in its literary and historical context. The epic tradition in later European literature. (F) [IV-WC].

CL C 3123 Ancient Drama in English Translation 3 Credit Hours Prerequisite: junior standing or permission of the instructor. Lectures on the development of the ancient Greek and Roman drama. Lectures with readings and discussion from the works of Aeschulus, Sophocles, Euripides, Aristophanes, Plautus, Terence, and Seneca and from Aristole's poetics. The influence of ancient drama on European literature. (F) [IVWC].
CL C 3133 Plato and the Platonic Tradition
3 Credit Hours
A study of the major ideas in the central works of Plato and of their influence on the Neoplatonists. (Sp) [IV-WC].

CL C 3163 Visions of Heaven and Hell: Virgil, Dante, and Milton

## 3 Credit Hours

Prerequisite: sophomore standing. Focuses on Virgil's influence on Dante. Virgil celebrates, in both The Georgics and The Aeneid, the outcome of the struggle against external furor and passion and those elements within the individual. Dante, with Virgil as his spiritual guide in The Inferno, presents a series of spiritual exercises. (F, Sp) [IV-WC].

CL C 3183 Hellas, the Civilization of Ancient Greece 3 Credit Hours Prerequisite: junior standing and permission of instructor. Hellas examines the human factor dominating western history, philosophy, literature and political science as Greek civilization chronologically evolves. Responsible behavior, balance and control are the lessons of all Greek literature, art, philosophy and social institutions. (Sp) [IV-WC].
CL C 3213 Classical Art \& Archaeology: Greek Art to the Death of Alexander

3 Credit Hours
Prerequisite: sophomore standing. Lectures, occasionally illustrated and assigned readings. Survey of the architecture, sculpture, painting and minor arts in the Greek regions of the Eastern Mediterranean in the successive stages of their development; with analyses of dominant styles and detailed study of select masterpieces and monuments. (F) [IV-AF].

CL C 3223 Classical Art \& Archaeology: Hellenistic Greek Art; Roman Art 3 Credit Hours
(Crosslisted with A HI 3223) Prerequisite: sophomore standing. Continuation of 3213. Survey of Hellenistic art with particular attention to the individuality of style and diversity of matter. Early Etruscan and Roman art. The development of Roman art in native and assimilated forms; studies in domestic and national monuments. (Sp) [IV-AF].

CL C 3233 The Roman Forum and its Monuments 3 Credit Hours Focus on the excavation of the Roman Forum, the central part of ancient Rome. concentrate study on archaeological methodology, specific excavations, topography of Rome, and the cultural significance of Roman urban development on the ancient world.

CLC 3243 Food and Drink in the Ancient Mediterranean 3 Credit Hours Prerequisite: English 1213/Expo 1213. You are what you eat. You are how you eat. You are when and where and with whom you eat. This was as true in the ancient Mediterranean world of Greece and Rome as it remains in our own. To explore the foodways in the past, we will draw on a wide menu of ancient texts, images, and material culture. ( $\mathrm{F}, \mathrm{Sp}$ )

## CL C 3253 Ancient Athletics: Fun and Games in the Mediterranean World 3 Credit Hours

Prerequisite: English 1213/Expository Writing 1213. Athletic activities, and games of all kinds, were just as popular and significant in the ancient Greek and Roman worlds as they are today. We will use primary texts, artistic representations, archaeological discoveries, and modern analogies to explore topics ranging from the rise of the Olympic Games and gladiatorial combats, to just what people considered 'fun' in the ancient world. (F, Sp)
CL C 3283 Roma: The Civilization of Ancient Rome 3 Credit Hours Prerequisite: junior standing and permission of instructor. This course surveys the Roman nation from its legendary origins in 753 BCE to the collapse of the Western Empire in 476 CE. Through readings from standard texts and historical fiction, students will learn about Roman history, literature and philosophy and its influence on the modern world. (Sp) [IV-WC].
CL C 3403 Law and Justice 3 Credit Hours
Prerequisite: junior standing or permission of the instructor. With
Aristotle's politics as the principal guide, course follows development of justice throughout the Greco-Roman experience. (F) [IV-WC].

CL C 3413 Archaeologies of Ancient Espionage 3 Credit Hours Prerequisite: English 1213/Expository Writing 1213. Spies, surveillance, security - these concepts loom large today, but have their origins in the distant past. This course examines archaeological remains, material and visual culture, and ancient texts to understand espionage, border security, signals intelligence, and surveillance systems in ancient Greece and Rome. We examine intelligence activities from the perspective of ancient empires and resistance to them. (F)

## CL C 3440 Mentored Research Experience

3 Credit Hours
0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)
CL C 3510 Selected Topics in Classical Culture 2-3 Credit Hours 2 to 3 Hours. May be repeated; maximum credit nine Hours. A study of selected topics in the civilizations and cultures of the Romans, Greeks and Hebrews. (F, Sp, Su)
CL C 3613 Classical Influence on Modern Literature 3 Credit Hours Prerequisite: ENGL 1213 or EXPO 1213. May be repeated with change of content; maximum credit 6 hours. Identifies the continuing importance of the classical tradition in modern literature. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ ) [IV-WC].

CL C 3803 The World of Late Antiquity: From Rome to Baghdad

3 Credit Hours
Prerequisite: English/Expository Writing 1213. This course introduces students to the historical period of Late Antiquity (circa 300 to 800 CE). The Mediterranean will be the center of attention, but Mesopotamia, Arabia, the Caucasus, the Balkans, and Western Europe will also be considered in turn, along with the rise and development of Christianity and the emergence of Islam as a permanent presence in the East. (F, Sp) [IV-WC].
CL C 3960 Honors Reading 1-3 Credit Hours
1 to 3 Hours. Prerequisite: admission to honors program. May be repeated; maximum credit six hours. Consists of topics designated by the instructor in keeping with the student's major program. The topics will cover materials not usually presented in the regular courses. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
CL C 3970 Honors Seminar
1-3 Credit Hours
1 to 3 Hours. Prerequisite: admission to honors program. May be repeated; maximum credit six hours. The projects covered will vary. The content will deal with concepts not usually presented in regular coursework. (F, Sp)

CL C 3980 Honors Research
1-3 Credit Hours
1 to 3 Hours. Prerequisite: admission to honors program. May be repeated; maximum credit six hours. Will provide an opportunity for the gifted Honors candidate to work at a special project in the student's field. (F, Sp, Su)
CL C 3990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: permission of instructor and junior standing. May be repeated once with change of content. Independent study may be arranged to study a subject not available through regular course offerings. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

CL C 4503 Classics Capstone
3 Credit Hours
Prerequisite: senior standing in major. Students review major facts, figures, and events of Greco-Roman antiquity and write a senior paper on a topic to be chosen in consultation with the instructor, using primary and secondary sources to demonstrate a comprehensive understanding of one of the major areas of Greco-Roman civilization. (Sp) [V].
CL C 4960 Directed Readings 1-4 Credit Hours
1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean. May be repeated; maximum credit four hours. Designed for upper-division students who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)

## CL C 4970 Special Topics/Seminar <br> 1-3 Credit Hours

1 to 3 hours. Prerequisite: Senior standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

## CL C 4990 Independent Study

1-3 Credit Hours
1 to 3 hours. Prerequisite: three courses in general area to be studied; permission of instructor and department. May be repeated; maximum credit six hours. Contracted independent study for topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (F, Sp, Su)

## CL C 5990 Special Studies <br> 1-3 Credit Hours

1 to 3 Hours. Prerequisite: graduate standing. May be repeated; maximum credit six hours. Reading and research, arranged and directed in consultation with the instructor, in specified areas of classical civilization and culture. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

## CLAR-Clarinet

CLAR 2000 Freshman and/or Sophomore Secondary Clarinet 1-2 Credit<br>Hours

1 to 2 hours. Prerequisite: permission of adviser and instructor. May be repeated; maximum credit toward B.F.A., B.M.A., B.M.E., and B.M. degrees, eight hours. For freshman and sophomore music students studying in a secondary (or minor) performance area. (F, Sp, Su)
CLAR 2020 Clarinet for Music Majors: Freshman/Sophomore $\quad \mathbf{2 - 4}$ Credit Hours
2 to 4 hours. Prerequisite: Majors only. May be repeated; maximum credit 12 hours. Applied instrumental lessons for freshmen and sophomore music majors in a School of Music degree program. (F, Sp)
CLAR 3440 Mentored Research Experience
3 Credit Hours
0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)

CLAR 4000 Junior and/or Senior Secondary Clarinet 1-2 Credit Hours 1 to 2 hours. Prerequisite: permission of adviser and instructor. May be repeated; maximum credit toward B.F.A., B.M.A., B.M.E., and B.M. degrees, eight hours. For junior and senior music students studying in a secondary (or minor) performance area. (F, Sp, Su)
CLAR 4020 Clarinet for Music Majors: Junior/Senior 1-4 Credit Hours 1 to 4 hours. Prerequisite: Majors only; junior standing. May be repeated; maximum credit 20 hours. Applied instrumental lessons for junior and senior music majors in a School of Music degree program. (F, Sp)
CLAR 5000 Master's-Level Secondary Clarinet 1-2 Credit Hours 1 to 2 hours. Prerequisite: graduate standing in music; permission of adviser and instructor. May be repeated; maximum credit eight hours on a given instrument (including voice). For master's degree music students studying in a secondary (or minor) performance area. (F, Sp, Su)
CLAR 5010 Master's-Level Clarinet for Non-Performance Music Majors

1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing in music; permission of adviser and instructor. May be repeated; maximum credit eight hours on a given instrument (including voice). For master's degree students other than performance majors in their major field. (F, Sp, Su)
CLAR 5020 Master's-Level Clarinet for Performance Majors $\mathbf{2 - 4}$ Credit Hours
2 to 4 hours. Prerequisite: graduate standing in music; permission of adviser and instructor; 4020 and 4021 or equivalent. May be repeated; maximum credit toward an M.M. degree 10 hours. (F, Sp, Su)

CLAR 6000 Doctoral Secondary Clarinet
1-2 Credit Hours
1 to 2 hours. Prerequisite: graduate standing in music, permission of adviser or instructor. May be repeated; maximum credit eight hours on a given instrument (including voice). For doctoral degree music students studying in a secondary (or minor) performance area. (F, Sp, Su)
CLAR 6010 Doctoral Clarinet for Non-Performance Music Majors 2-3 Credit Hours
2 to 3 hours. Prerequisite: graduate standing in music; permission of adviser and instructor. May be repeated. Doctoral-level study of applied music in the major performance area for students other than performance majors in their primary field. (F, Sp, Su)

CLAR 6020 Doctoral Clarinet for Performance Majors 2-4 Credit Hours 2 to 4 hours. Prerequisite: graduate standing in music; 5042; permission of adviser and instructor. May be repeated; credit applicable toward applied music requirements for the Doctor of Musical Arts degree. Doctoral-level study of applied music for performance majors in their primary field. (F, Sp, Su)

## CNS-Construction Science

CNS 1111 Introduction to Construction Management 1 Credit Hour An introduction to the concepts and issues related to construction management, as well as a description of the roles and careers available in the construction industry. (F)

CNS 1312 Computers in Construction Lab
2 Credit Hours
Prerequisite: Majors only and CNS 2833. Introductory course providing students with basic computer application knowledge relevant to the construction industry. (Sp)
CNS 2133 Introduction to Housing in America 3 Credit Hours This course covers housing in America. It provides a background of the evolution of the American home, including regional and cultural influences, governmental housing policies, urban and suburban residential development, and construction materials and methods. (Sp) [IV-WC].
CNS 2303 Construction Industry Fundamentals 3 Credit Hours Students will gain an understanding of the construction industry. A brief history of the industry, its different segments, stakeholders, roles, and characteristics are covered. Attention is paid to the general construction process and the documents used in construction (blueprints, specifications, and contracts). These concepts are foundational to subsequent construction management courses. (F, Sp, Su)
CNS 2313 Construction Materials and Methods 3 Credit Hours Students will gain an understanding of the materials and methods commonly used in the construction of buildings and other projects. Topics include: sitework, concrete, masonry, metals, woods and plastics, thermal and moisture protection, openings, finishes, specialties, Equipment, Mechanical, Electrical, \& Plumbing. (F, Sp, Su)

## CNS 2363 Materials and Form

3 Credit Hours
(Crosslisted with ARCH 2363) Prerequisite: ARCH or CNS majors only. An introduction to the nature of building materials with regard to form, strength, durability, workability, structure connections, surfaces and edges. Analysis of architectural expression through the use of building materials including the effects of light, air movement, humidity, and their relationships to both one another and formal and spatial expressions. (F)

CNS 2433 MEP Systems 1
3 Credit Hours
Prerequisite: CNS 2833; majors only. The Mechanical Electrical \& Plumbing (MEP) Systems course introduces theories, concepts, and their materials and methods. The course prepares construction science students to work closely with mechanical engineers and subcontractors. Design aspects of MEP systems are introduced, while the course is mainly focused on understanding MEP systems, their procurement and installation. (Sp)
CNS 2811 Construction Fundamentals Lab
1 Credit Hour
Prerequisite: CNS 1111 and CNS 2363; Corequisite: CNS 2813. Practical exercises reinforce material seen in CNS 2813 to improve students' understanding and ability to interpret construction drawings and specifications, use hands on techniques to understand actual installation of common materials and systems used in building construction. (F)

CNS 2813 Construction Documents
3 Credit Hours
Prerequisite: Majors only; CNS 1111 and CNS 2363; Corequisite (major only, not required for CNS minor): CNS 2811. Students will learn to read, find information, and interpret the drawings and specifications of typical construction projects. (F)

CNS 2833 Materials and Methods for Construction 3 Credit Hours Prerequisite: CNS 1111 and CNS 2363; CNS majors only. Focuses on materials and methods used to construct a building from the roofed frame to flooring installation. Content includes exterior cladding, finishes, and waterproofing, exterior glazing systems, electrical, plumbing, and mechanical system installation basics, above the ceiling installation, interior walls and finishes, interior doors and hardware, dropped ceilings and flooring. (Sp)

CNS 3103 Construction Surveying
3 Credit Hours
Prerequisite: Majors only; junior standing; CNS 2813 and CNS 1312; Corequisite: CNS 3533. The purpose of this course is to acquaint the student with basic concepts of surveying and to provide practical training necessary for construction applications. (F)

CNS 3303 Preconstruction Management
3 Credit Hours
Prerequisite: CNS 2303 and CNS 2313 or permission of instructor. Students will gain a deeper understanding of the preconstruction management aspect of construction. Special attention will be paid to business development, delivery methods, contract types, negotiation, bidding documents, and preconstruction. Students will explore these concepts through the lens of real world case studies. (F, Sp, Su)

CNS 3313 Applied Construction Project Management 3 Credit Hours Prerequisite: CNS 3303. Students will gain a deeper understanding of project management processes and procedures. The course will focus on documentation, project cost controls, trade coordination, permitting, risk management, safety management, different meeting requirements, and the differences between project management for a general contractor vs a specialty contractor. (F, Sp, Su)

CNS 3323 Applied Construction Estimating \& Scheduling 3 Credit Hours Prerequisite: CNS 3313. Students will gain a deeper understanding of cost estimating and scheduling processes. Through the study of contract documents and estimating practices, students will learn basic estimating skills, schedule concepts and strategies, and basic scheduling software. (F, Sp, Su)

CNS 3333 Construction Efficiency
3 Credit Hours
Prerequisite: CNS 3313. Students will gain a deeper understanding of construction efficiency as facilitated through the application of specialized software, technology, sustainability concepts, and management strategies. Students will use these various lenses during the course to explore opportunities for efficiency during the various phases of a construction project. (F, Sp, Su)

CNS 3343 Communication and Personnel Management in Construction 3 Credit Hours
Prerequisite: CNS 3313. Students will gain a deeper understanding of communication and personnel management in construction. Students will learn about technical communication, the difference between leadership and management, relationships between trades people and general contractor staff, ethics and personal behavior, resumes, LinkedIn, proposal presentations, and personal growth. (F, Sp, Su)

NS 3413 Construction Communication
3 Credit Hours
Prerequisite: Majors only; Junior Standing; CNS 3533 and COMM 1113;
Corequisite: CNS 3823. A communication course designed to focus on written, visual, and oral communication appropriate to the construction industry. The course will expand on the fundamentals of communication with specific instruction about the techniques and tools used to communicate with both internal and external team members. (Sp)

CNS 3440 Mentored Research Experience 3 Credit Hours
0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)

CNS 3443 MEP Systems 2
3 Credit Hours
Prerequisite: Majors only; Junior Standing; CNS 2433; Corequisite: CNS 3533. This course builds on the theories, concepts, materials, and methods of mechanical, electrical, \& Plumbing (MEP) systems students were introduced to in CNS 2433. The accumulated knowledge will be used to explore building science and coordination of MEP subcontractors. (F)

CNS 3533 Construction Cost Estimating
3 Credit Hours
Prerequisite: Majors only; Junior Standing; CNS 2813 and CNS 1312. In this course we will learn the basic foundations of the estimating process and about the different components of a construction project estimate. These include: quantity surveying, estimate organization, direct and indirect costs, cost database use, and bid preparation. Students will create cost estimates using manual and electronic take-off estimating software. (F)

CNS 3543 Project Planning and Scheduling
3 Credit Hours
Prerequisite: Majors only; Junior Standing; CNS 2813 and CNS 3533; Corequisite: CNS 3413. Students will learn about scheduling concepts in an integrated construction planning and control system. Students will gain knowledge about different scheduling techniques and computer applications employed to facilitate the scheduling process. Students will learn to create schedules using manual network computations and scheduling software. (Sp)

CNS 3823 Project Management \& Cost Controls 3 Credit Hours Prerequisite: Majors only; Junior Standing; CNS 3533; Corequisite: CNS 3543. Focuses on the management of a commercial building project after the contract is awarded. Content includes required project communication and documentation and setup and use of a cost accounting system to track and manage the project - including field productivity, work sequence, cost and profitability, payment and cash flow, schedule compression and updating change process and closeout. (Sp)

CNS 3881 Construction Safety
1 Credit Hour
Prerequisite: Majors only; Junior Standing; CNS 4941. Students will learn strategies and understand how construction managers proactively plan to ensure safety on an active job site, including the creation of a safety plan for a construction project. (F)

CNS 3943 Field Work
3 Credit Hours
Prerequisite: CNS major and permission. Utilize a construction work experience to prepare for construction management functions. Student is responsible for finding the construction-related activity and proposing a work-related project. Written and oral presentation is required. (F, Sp, Su)

CNS 3960 Honors Reading 1-3 Credit Hours
1 to 3 hours. Prerequisite: Admission to Honors Program. May be repeated; maximum credit six hours. Consists of topics designated by the instructor in keeping with the student's major program. The topics will cover materials not usually presented in the regular courses. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

## CNS 3970 Honors Seminar <br> 1-3 Credit Hours

1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Subjects covered vary. Deals with concepts not usually treated in regular courses. (Irreg.)

CNS 3980 Honors Research
1-3 Credit Hours
1 to 3 hours. Prerequisite: Admission to Honors Program. May be repeated; maximum credit six hours. Will provide an opportunity for the gifted Honors candidate to work at a special project in the student's field. (F, Sp, Su)
CNS 3990 Independent Study 1-3 Credit Hours
1 to 3 hours. Prerequisite: permission of instructor and junior standing. May be repeated once with change of content. Independent study may be arranged to study a subject not available through regular course offerings. (F, Sp, Su)
CNS 4133 BIM for Constructors
3 Credit Hours
(Slashlisted with CNS 5133) Prerequisite: Majors only; Senior Standing; CNS 3823; Corequisite: CNS 4523. This Building Information Modeling (BIM) course is designed for the construction professional. Students will gain knowledge about the concepts, core business processes, and software involved in a building information model. BIM is presented as a methodology and tool that provides for shared information across the facility's lifecycle. No student may earn credit for both 4133 and 5133. (F)

## CNS 4143 Legal Issues in Construction

3 Credit Hours
(Slashlisted with CNS 5143) Prerequisite: Majors only, Senior Standing, and CNS 4523. An examination of current construction law as it pertains to the day-to-day management of the construction contract. Includes legal ramifications of construction bidding, contracts, changes, delays, and dispute resolution. Course emphasizes reduction of disputes through knowledge. No student may earn credit for both 4143 and 5143. (Sp)

## CNS 4193 Architectural Structures I 3 Credit Hours

(Crosslisted with ARCH 4193) Prerequisite: Architecture major and completion of MATH 1523 and PHYS 1114 or Construction Science major and completion of PHYS 2414 and MATH 1523 or permission of the division director. An introduction to basic physics, forces within structural systems, material strength, and associated structural engineering principles. Develops both intuitive and empirical knowledge of forces with structural systems that serve as a foundation for future courses within the structures sequence. (Sp)
CNS 4213 Design-Build Principles and Practices 3 Credit Hours (Slashlisted with CNS 5213) Prerequisites: 3rd, 4th or 5th year College of Architecture student or instructor permission. Introduces design and construction students to the principles and practices of design-build. Course is approved by the Design-Build Institute of America. Students who successfully complete core course requirements will earn credit for the professional designation as Associate DBIA Professional. Students may not earn credit for both 4213 and 5213. (Sp)

CNS 4303 Lean Construction Management
3 Credit Hours
(Slashlisted with 5303) Prerequisite: Junior standing; Majors only; Permission of instructor. (Slashlisted with CNS 5303.) Explores the lean concepts specifically tailored to the Architecture Engineering Construction (AEC) industry. Students will learn how lean concepts along with creative transformational thinking and technological advancement can improve and sustain performance in the construction industry. Students may not earn credit for both CNS 4303 and CNS 5303. (Sp) No student may earn credit for both 4303 and 5303. (Sp)
CNS 4403 Leadership in the Construction Industry 3 Credit Hours (Slashlisted with 5403) Prerequisite: Permission of instructor. A study of leadership styles and best practices found in the Architecture, Engineering and Construction industries. The course is designed to educate students about individual, organizational and process/structural leadership. No student may earn credit for both 4403 and 5403. (Sp)
CNS 4503 Residential Construction
3 Credit Hours
(Slashlisted with CNS 5503) Prerequisite: Junior standing; CNS majors only or instructor approval. Examines the processes and stakeholders specific to residential property development, including predevelopment activities, feasibility analyses, project financing, and relevant regulatory frameworks. The course also covers material selection and installation practices specific to residential projects, as well as emerging trends in homebuilding and multifamily construction. No student may earn credit for both 4503 and 5503. (F)

## CNS 4512 Soils and Foundations

## 2 Credit Hours

Prerequisite: Majors only, Senior Standing, and CNS 4193. Content includes identification and classification of soil properties as they pertain to a construction project, the role of the geotechnical engineer, soils reports, soil preparation, foundation design, soil testing, and the causes of building settlement. Practical exercises are emphasized. (F)

## CNS 4523 Pre-Construction Services

3 Credit Hours
(Slashlisted with CNS 5523) Prerequisite: Majors only; Senior Standing; CNS 3533 and CNS 3543; Corequisite: CNS 4133. Pre-construction services provide owners with greater project clarity and expectations before their project begins while also aligning owners, designers, and contractors. This course covers the practices performed during preconstruction to increase project success from the owner's, designer's, and contractor's perspectives. Topics include: feasibility reports, budget development, value engineering, economics, risk management, QC, site management, and subcontractor procurement. No student may earn credit for both 4523 and 5523. (F)
CNS 4603 Design + Build: Construction Lab 3 Credit Hours Prerequisite: Junior standing and permission of instructor. Design + Build: Construction Lab is a comprehensive, interdisciplinary, and handson learning experience. Serving a community partner, students analyze a conceptual design for cost effectiveness and constructability, then assist in developing construction drawings. Upon completing material investigation and systems analyses, students spend the majority of the semester constructing the project and undertake all activities leading to a completed facility. (Sp)
CNS 4853 Heavy Civil Construction Project Management 3 Credit Hours (Slashlisted with CNS 5853) Prerequisite: Junior standing and majors only. This course is designed to familiarize students with the peculiarities of the heavy-civil construction industry, and to provide students with the analytical skills to compete for projects in that arena. Students will study projects which may include the construction of airports, highways, bridges, dams, tunnels, and similar heavy civil projects. No student may earn credit for both 4853 and 5853. (Sp)

CNS 4941 Field Work (Internship) - Required 1 Credit Hour
Prerequisite: Majors only; Junior Standing; CNS 3533; CNS 3413; CNS 3813; CNS 3823. Utilize a construction work experience to prepare for construction management functions and understand entry level roles in the construction industry. Students are responsible for securing a construction-related internship. Written and oral presentation are required. Students must work for 12 weeks and 480 hours. (Su)

CNS 4960 Directed Readings
1-4 Credit Hours
1 to 4 hours. Prerequisite: senior standing, permission. May be repeated with change of subject matter; maximum credit eight hours. Subjects proposed by students or instructors may be used to expand knowledge beyond the normal core construction curriculum. Verbal or written presentation may be required to demonstrate successful completion of a subject unit. (F, Sp, Su)

CNS 4970 Undergraduate General Departmental Seminar 1-4 Credit Hours
1 to 4 hours. Prerequisite: senior standing, permission. May be repeated with change of subject matter; maximum credit 12 hours. Special topics in construction science. (Irreg.)

CNS 4990 Independent Study 1-3 Credit Hours
1 to 3 hours. Prerequisite: Senior standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)

CNS 4993 Construction Science Capstone
3 Credit Hours
Prerequisite: Majors only; Senior Standing; CNS 4133 and CNS 4523
The capstone course is the culmination of the Construction Science undergraduate experience. Students apply all aspects of the construction project management process in an integrated manner to a construction project. Class interaction requires participants to utilize and extend knowledge of all areas of expertise used by construction managers. Teamwork, interdisciplinary collaboration, and cooperation are required. (Sp) [V].

CNS 5003 Construction Fundamentals I
3 Credit Hours
Prerequisite: Graduate standing and majors only. Course will familiarize students with the basic foundations of construction management, including reading and understanding construction plans and specifications, implementing cost estimating techniques, and developing and manipulating project schedules as applied to design and construction project management. (F)

CNS 5013 Construction Fundamentals II 3 Credit Hours Prerequisite: Graduate standing; CNS 5003 and CNS 5033. The course is designed to continue to familiarize students with the basic foundations of the project management and control mechanisms from the owner's, the designer's and the construction contractor's perspective. These concepts include terms, vocabulary, and paperwork used in the construction industry, as well as construction site safety and construction methods. (Sp)

## CNS 5023 Research Methods in Planning, Design and Construction 3 Credit Hours

Prerequisite: graduate standing and majors only. Framework for understanding the processes, components, and methods of empirical research used in the design and evaluation of planning, design, and construction problems. Emphasis is on understanding the primary types of research methods, evaluating the pros and cons of each, and developing the skills necessary to identify research questions and ways to answer research questions. (Sp)

CNS 5033 Applied Project Management
3 Credit Hours
Prerequisite: Graduate standing and majors only. Course is designed to familiarize students with the fundamental processes to apply principles of financial management to managing a construction project. These concepts include document management strategies, cost accounting and control, and project closeout. (F)

CNS 5133 BIM for Constructors
3 Credit Hours
(Slashlisted with CNS 4133) Prerequisite: Graduate standing; majors only; CNS 5013. This Building Information Modeling (BIM) course is designed for the construction professional. Students will gain knowledge about the concepts, core business processes, and software involved in a building information model. BIM is presented as a methodology and a tool that provides for shared information across the facility's lifecycle. No student may earn credit for both 4133 and 5133. (F)

CNS 5143 Legal Issues in Construction
3 Credit Hours
(Slashlisted with CNS 4143) Prerequisite: Graduate standing and majors only. An examination of current construction law as it pertains to the day-to-day management of the construction contract. Includes legal ramifications of construction bidding, contracts, changes, delays, and dispute resolution. Course emphasizes reduction of disputes through knowledge. No student may earn credit for both 4143 and 5143. (Sp)

CNS 5213 Design-Build Principles and Practices 3 Credit Hours (Slashlisted with CNS 4213) Prerequisite: Graduate standing and majors only, or departmental permission for non-majors. Introduces design and construction students to the principles and practices of design-build. Course is approved by the Design-Build Institute of America. Students who successfully complete core course requirements will earn credit for the professional designation as Associate DBIA Professional. No student may earn credit for both 4213 and 5213. (Sp)

CNS 5303 Lean Construction Management
3 Credit Hours
(Slashlisted with CNS 4303) Prerequisite: Graduate standing; majors only; and CNS 5013 or concurrent enrollment. Explores the lean concepts specifically tailored to the Architecture Engineering Construction (AEC) industry. Students will learn how lean concepts along with creative transformational thinking and technological advancement can improve and sustain performance in the construction industry. No student may earn credit for both 4303 and 5303. (Sp)

CNS 5403 Leadership in the Construction Industry 3 Credit Hours (Slashlisted with CNS 4403) Prerequisite: Graduate standing; majors only. A study of leadership styles and best practices found in the architecture, engineering, and construction industries. The course is designed to educate students about individual, organizational, and process/structural leadership. No student may earn credit for both 4403 and 5403. (Sp)

CNS 5503 Residential Construction
3 Credit Hours
(Slashlisted with CNS 4503) Prerequisite: Graduate standing. Examines the processes and stakeholders specific to residential property development, including predevelopment activities, feasibility analyses, project financing, and relevant regulatory frameworks. The course also covers material selection and installation practices specific to residential projects, as well as emerging trends in homebuilding and multifamily construction. No student may earn credit for both 4503 and 5503. (F)

CNS 5523 Pre-Construction Services
(Slashlisted with CNS 4523) Prerequisite: Graduate standing; majors only; and CNS 5013. Pre-construction services provide owners with greater project clarity and expectations before their project begins while also aligning owners, designers, and contractors. This course covers the practices performed during pre-construction to increase project success from the owner's, designer's, and contractor's perspectives. Topics include: feasibility reports, budget development, value engineering, economics, risk management, QC, site management, and subcontractor procurement. No student may earn credit for both 4523 and 5523. (F)
CNS 5611 Introduction to Construction Management 1 Credit Hour Prerequisite: Graduate standing and majors only. The purpose of this course is to learn about the various facets of the design and construction industry and the role of the construction manager. Students will engage in workshops with faculty and industry professionals from diverse backgrounds to explore the variety of specialties within the industry. (F, Sp )
CNS 5612 Construction Business Development 2 Credit Hours Prerequisite: Graduate standing and majors only. The purpose of this course is to explore strategies for connecting with potential clients, nurturing relationships with industry partners, developing proposals, and setting goals that will lead to company success. (Sp)
CNS 5621 Construction Management Capstone 1 Credit Hour Prerequisite: Graduate standing and majors only. This course gives students the opportunity to apply all of the concepts and topics from the program and create a project plan and proposal. Students will work with industry professionals and with fellow classmates in the development of the final project. ( $\mathrm{F}, \mathrm{Sp}$ )
CNS 5622 Lean Construction: Principles and Methodologies 2 Credit Hours
Prerequisite: Graduate standing and majors only. The purpose of this course is to explore lean concepts as they are applied in the design and construction industry. Students will learn how to use creative thinking and available technologies to apply lean concepts to processes in the design and construction industry to foster sustained, improved performance. (F)

## CNS 5632 Leadership Principles in the Construction Industry <br> 2 Credit Hours

Prerequisite: Graduate standing and majors only. The purpose of this course is to explore leadership styles, techniques, and best practices and how they are applied in the design and construction industry. (Sp)

## CNS 5642 Advanced Construction Law 2 Credit Hours

 Prerequisite: Graduate standing and majors only. The purpose of this course is to examine construction law as it pertains to the management of the design and construction process. Students will examine the legal ramifications of construction bidding, contracts, performance, changes, delays, and dispute resolution. Students will learn how legal requirements impact the design and construction process beginning in the feasibility and financing phase through completion. (Su)CNS 5652 Experiential Learning in Design and Construction 2 Credit Hours
Prerequisite: Graduate standing and majors only. In this course, students will connect with industry professionals in a variety of roles within the industry to learn how the different roles contribute to the design and construction process. Students will shadow the professionals in the workplace and work with classmates to develop a framework of how various key team members influence a project. (F)

CNS 5853 Heavy Civil Construction Project Management 3 Credit Hours (Slashlisted with CNS 4853) Prerequisite: Graduate standing; majors only. This course will familiarize students with the challenges of the heavycivil construction industry and give them the analytical tools to compete for projects in that area. Skills include unit price estimating, construction equipment, linear scheduling, and major components of the construction of highways, bridges, and engineered facilities. No student may earn credit for both 4853 and 5853. (Sp)
CNS 5940 Construction Industry Practicum
1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing, majors only, and permission of instructor. May be repeated with change of content; maximum credit 3 hours. Students will utilize construction work experience to prepare for construction management functions. Students will find an activity and propose a work-related project. (F, Sp, Su)
CNS 5952 Special Studies Presentation 2 Credit Hours
Prerequisite: permission of committee chair. May be repeated; maximum credit six hours. Completion of research for the required special studies project selected by the student and advisory committee. (Irreg.)
CNS 5960 Directed Readings 1-4 Credit Hours
1 to 4 hours. Prerequisite: Graduate standing, majors only, and permission of instructor. May be repeated with change of content; maximum credit 6 hours. Studies in major field as approved by the individual instructor. (F, $\mathrm{Sp}, \mathrm{Su}$ )
CNS 5970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing and majors only. May be repeated with change of content; maximum credit 9 hours. Special topics or seminar course for content not currently offered in regularlyscheduled courses. May include library and/or laboratory research and field projects. (Irreg.)
CNS 5980 Research for Master's Thesis
2-9 Credit Hours 2 to 9 hours. Prerequisite: Graduate standing and majors only. May be repeated; Maximum credit applicable toward degree, 5 hours. Production of Master's Thesis. (F, Sp, Su)
CNS 5990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)
CNS 5993 Special Studies Research
3 Credit Hours
Prerequisite: Graduate standing and majors only. May be repeated with change of content; maximum credit 6 hours. Credit for applied research for the special studies project selected by the student and advisory committee. (Irreg.)

## COMM-Communication

COMM 1113 Principles of Communication 3 Credit Hours Introductory study of human communication emphasizing both theoretic understanding of the process as well as skillful application of communication principles and techniques within a variety of settings. ( $F$, $\mathrm{Sp}, \mathrm{Su})[\mathrm{l}-\mathrm{O}]$.
COMM 2003 Communication in Non-Western Culture 3 Credit Hours Designed to broaden students' perspectives on human communication beyond the boundaries of Western cultural traditions. Patterns of perception, language, verbal behavior, nonverbal behavior, and interpersonal orientation in Asian, Middle Eastern, African and Latin American traditions are studied. (F, Sp) [IV-WDC].

COMM 2111 Practicum in Forensics 1 Credit Hour
May be repeated; maximum credit four hours. Develop performance materials (speeches, interpretive cuttings, debate briefs) for use in speech/debate contests. Practice sessions with critiques of performances are given. ( $\mathrm{F}, \mathrm{Sp}$ )

COMM 2113 Business and Professional Communication 3 Credit Hours Seeks to enhance the student's awareness and appreciation of communication processes in business and professional settings. An emphasis is placed on improving skills in interpersonal relations, professional oral presentations, interviews, and group processes. Career opportunities in business and professional contexts are discussed. (F, Sp) [ $1-0]$.

## COMM 2213 Interpersonal Communication <br> 3 Credit Hours

This course surveys theory and research related to interpersonal communication. The course focuses on effectively managing personal (e.g., romantic, family, roommates, and friends) and professional relationships (e.g., work and classroom). The course's format consists of lectures, group discussions, experiential activities, and written assignments. ( $\mathrm{F}, \mathrm{Sp}$ )

## COMM 2323 Survey of Health Communication 3 Credit Hours

 An introduction to one of the fastest-growing areas of the communication discipline: health communication. Surveys current issues, theory, and research surrounding health communication and it will focus on a variety of issues, such as perceptions of health, provider-patient relationships, health organizations, health campaigns, intercultural issues, and the use of new communication technologies in health care. (Irreg.) [III-SS].
## COMM 2413 Media Literacy

3 Credit Hours
Students will develop the ability to question media content and to think critically about how media generate meaning and affect our lives. Topics include: social impact of popular culture, influence of advertising on media content, mass media as a global industry, how to read the news, and media as a source of information and entertainment. (Irreg.) [III-SS].

COMM 2513 Introduction to Statistics 3 Credit Hours
Prerequisite: Mathematics 0123 or a satisfactory score on the math placement test. This course introduces statistics with the purpose of providing tools for interpreting and conducting social science research. Topics include; central tendency, variability, normal distributions, sampling distributions, correlation, regression, T-tests, anovas, and nonparametric statistics. ( $\mathrm{F}, \mathrm{Sp}$ ) [I-M].

## COMM 2613 Public Speaking

3 Credit Hours
Develops skill in the composition and delivery of speeches suitable to various common speech situations and criteria for judging speeches heard or read. Topics include: nature of public speaking; choosing and presenting a topic; analyzing an audience; organizing and outlining. (F, $\mathrm{Sp}, \mathrm{Su}$ ) [l-0].
COMM 2713 Communication Theory
3 Credit Hours
Prerequisite: 1113. Examines the formats, roles, strategies and constraints of human communication in varied social contexts. (F, Sp)

## COMM 2970 Special Topics/Seminar <br> 1-3 Credit Hours

Special Topics. 1 to 3 hours. May be repeated; Maximum credit nine hours. Special topics course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research, and field projects. (Irreg.)

COMM 3003 Political Campaign Processes 3 Credit Hours Prerequisite: COMM 1113 or P SC 1113 and junior standing or permission of instructor. Teaches students to apply communication skills including public speaking, debating, mass media news and advertising to political campaigns. (F, Sp)

COMM 3023 Communication Research Methods 3 Credit Hours
Prerequisite: COMM 1113 and COMM 2513. Studies the goals, objects and methods of communication research. Emphasis is on the student's role as a critical consumer of research; exploration of vocational/ professional applications of communication study. (F, Sp)

COMM 3223 Small Group Communication
3 Credit Hours
Prerequisite: COMM 1113 and junior standing or permission of instructor. Examination of communication principles in the small group setting. Includes consideration of task and interpersonal dimensions, cohesiveness, conformity and approaches to leadership. (F, Sp)
COMM 3243 Communication and Social Change 3 Credit Hours Prerequisite: COMM 1113 and junior standing or permission of instructor. Critical analysis and evaluation of persuasive strategies employed in historical and contemporary social movements, especially situations involving agitation and counter-agitation. (F, Sp)

COMM 3253 Persuasion Principles
3 Credit Hours
Prerequisite: COMM 1113 and junior standing or permission of instructor. This course investigates various communication and social science theories dealing with cognitive, affective, emotional, and motivational processes associated with persuasion and social influence. The primary focus is on the psychological means and methods different sources use to manipulate communication to influence people within various contexts, as well as the means receivers have for accepting or resisting that influence. (Irreg.)
COMM 3263 Organizational Communication 3 Credit Hours Prerequisite: COMM 1113 and junior standing or permission of instructor. Focus on the communication patterns and strategies of private and governmental organizations, including most recent research on problems in management, motivation and communication systems. ( $\mathrm{F}, \mathrm{Sp}$ )

COMM 3283 Communication and Emotion
3 Credit Hours
Prerequisite: COMM 1113 and junior standing or permission of instructor. Communication and emotion is an advanced course designed to examine the interrelationships between human communication and affective, emotional, and cognitive processes. Emphasis is on theory and research regarding the function of affect and emotion as they impact thinking, feeling, mood, memory, and expression in communication and social interaction. (Irreg.)

COMM 3313 Communication and Public Health 3 Credit Hours
Prerequisite: COMM 1113 and junior standing or permission of instructor. Introduction to concepts fundamental to understanding human health behavior and health promotion. Describes prevalent health behavior, psychosocial, and psychological theories of behavior change used by health educators and researchers in a variety of contexts. Examines several individual-based, social-based, organization-based, and eco-social theories, including the health belief model, the theory of planned behavior, the transtheoretical model, decision-making, and social support. (F, Sp)

COMM 3413 Interethnic Communication
3 Credit Hours
Prerequisite: COMM 1113 and junior standing or permission of instructor. Examines the nature of communication between individuals of differing ethnic/racial backgrounds. Identifies behaviors that impede or facilitate the development of positive interethnic relationships. Explores various societal, situational, and psychological forces that influence the communication process. (F, Sp)

COMM 3440 Mentored Research Experience 3 Credit Hours
0 to 3 hours. Prerequisites: COMM 1113 and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Project (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
COMM 3443 Deception
3 Credit Hours
Prerequisite: COMM 1113 and junior standing or permission of instructor. This course explores the varieties of deceptive communication, their causes and consequences in a wide range of contexts, as well as strategies that can be used to detect their occurrence. ( $\mathrm{F}, \mathrm{Sp}$ )
COMM 3483 Communication and Argumentation 3 Credit Hours Prerequisite: COMM 1113 and junior standing or permission of instructor. Seeks to acquaint the student with ways of constructing valid arguments, with application to such communication contexts as policy making, legal decision-making, organizational decision-making and personal inquiry.
Fundamentals of argumentation are explored, along with methods of argument construction and numerous contextual applications. (F, Sp)
COMM 3513 Intercultural Communication 3 Credit Hours
Prerequisite: COMM 1113 and junior standing or permission of instructor. Introduction to intercultural communication theory, research, and application addressing the challenges and the promise of communicating with people with differing cultural/subcultural backgrounds. Topics include cross-cultural variations in communication behavior, intercultural communication effectiveness, intercultural relationship development, cross-cultural adaptation, and intercultural community building. (F, Sp) [IV-WC].
COMM 3523 Communication in Relationships
3 Credit Hours
Prerequisite: COMM 1113 and junior standing or permission of instructor. Introduces and discusses various theoretical approaches (social exchange, pragmatism, social cognition, etc.) toward understanding human interaction. In addition, the following topics are covered: relationship development and termination, life-span communication, the family, friendship relationships, therapeutic relationships, and interpersonal relationships in various organizational settings. (F, Sp)
COMM 3543 Conflict Management and Negotiation 3 Credit Hours Prerequisite: COMM 1113 and junior standing or permission of instructor. Expands understanding and practical experience with negotiation and conflict management. Provides an understanding of negotiation and conflict management processes in a wide range of contexts and from a communication perspective. Also examines factors that influence communication in negotiation and conflict, types of strategies used, and their outcomes for the management of such situations. (Sp)
COMM 3563 Risk and Crisis Communication 3 Credit Hours
Prerequisite: COMM 1113 and junior standing or permission of instructor. Provides an understanding of the theory, research, and practice related to risk and crisis communication. The course's format consists of lectures, group discussions, experiential activities, and written assignments that require your active involvement. (Irreg.)

## COMM 3573 Communication and Humor

3 Credit Hours
Prerequisite: COMM 1113 and junior standing or permission of instructor. Provides an understanding of the role of humor in communication. Students will learn about theories and ideas related to humor and its effects on a variety of issues, including: relationships, persuasion, identity, media, and politics. Insight will be gained into humor and communication in a way that illuminates important issues in life. (Irreg.)

COMM 3643 Media and Society
3 Credit Hours
Prerequisite: COMM 1113 and junior standing or permission of instructor. Examines the role of the mass media in social life. Topics include the impact of technology, economics, law, work routines, and culture on media content, and the relationship between the messages created and the audiences that receive them. Competing theories about information dissemination and reception are considered. Emphasis on providing students a framework for thinking critically about mass media content. (Irreg.)
COMM 3653 Computer Mediated Communication
3 Credit Hours Prerequisite: COMM 1113 and junior standing or permission of instructor. An introduction to the area of computer-mediated communication (CMC). Will look at a number of contexts for CMC, including CMC and interpersonal communication, on-line communities, CMC within organizations, and CMC as mass communication. Will introduce students to the history of computer-mediated communication, theories of computer-mediated communication, and will explore communication within a variety of internet-based populations. (Irreg.)
COMM 3810 Variable Topics in Communication 1-6 Credit Hours 1 to 6 hours. Prerequisite: COMM 1113 and junior standing or permission of instructor. May be repeated with change of content; maximum credit six hours. Content will vary, but will cover a specific aspect or issue in Communication. Designed to present content not currently offered in regularly scheduled courses. (Irreg.)

COMM 3960 Honors Reading
1-3 Credit Hours
1 to 3 hours. Prerequisite: 1113, 2713 or junior standing with permission of instructor, and admission to Honors Program. May be repeated; maximum credit six hours. Consists of topics designated by the instructor in keeping with the student's major program. The topics will cover materials not usually presented in the regular courses. (Irreg.)
COMM 3980 Honors Research
1-3 Credit Hours
1 to 3 hours. Prerequisite: 1113, 2713 or junior standing with permission of instructor, and admission to Honors Program. May be repeated; maximum credit six hours. Will provide an opportunity for the gifted honors candidate to work at a special project in the student's field. (Irreg.)
COMM 3990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: permission of instructor and junior standing. May be repeated once with change of content. Independent study may be arranged to study a subject not available through regular course offerings. (F, Sp, Su)

## COMM G4010 Communication Internship

1-3 Credit Hours
1 to 6 hours. Prerequisite: junior or senior who has completed two-thirds of the communication courses required for graduation, plus permission of instructor. Applicants must have minimum overall GPA of 2.50 or higher and a minimum GPA of 2.75 in communication courses. May be repeated; maximum credit six hours. A planned work experience related to personal career and academic goals, integrated into the student's academic schedule. It includes working in an assigned workplace several hours a week in addition to completing academic assignments and meeting regularly with organizational and academic supervisors. (F, Sp, Su)

## COMM 4153 Nonverbal Communication

3 Credit Hours
Prerequisite: COMM 1113 and junior standing or permission of instructor. Seeks to expose students to recent research on nonverbal behavior, emphasizing those properties of communication which characterize social and cultural group memberships. (Irreg.)

## COMM G4233 Free Speech: Responsible Communication Under

Law
3 Credit Hours
Prerequisite: COMM 1113 and junior standing or permission of instructor. A study of the interaction between communication and the law. A consideration of the role of law as both deterrent and protector of the communicator's efforts. Attempts to provide a better understanding of the pervasiveness of regulation of communication. (Irreg.)
COMM 4243 Family Communication
3 Credit Hours
Prerequisite: COMM 1113 and junior standing or permission of instructor.
Examines social science research related to communication processes in family relationships. Focuses on the impact of communication in the development, maintenance, and dissolution of family relationships. Topics include: research methods and theory, stage models of family development, diversity issues related to families, and communication patterns related to different family forms including single-parent families, nuclear families, stepfamilies, and extended families. (Irreg.)

COMM 4253 Strategic Communication Campaigns 3 Credit Hours Prerequisite: COMM 1113 and junior standing or permission of instructor. Course focus is on the use of influence in modern campaigns. The course attempts to apply theories and strategies of persuasion to applied campaign settings. The broad objectives of the course includes fostering a student's ability to understand and to use the theories, strategies, and methods involved in persuasive campaigns in a generic sense and in terms of specific contexts. (Irreg.)

## COMM 4323 Political Communication

3 Credit Hours (Crosslisted with P SC 4323) Prerequisite: COMM 1113 or P SC 1113 and junior standing or permission of instructor. This course considers the role of communication in democracy. Topics include the kinds of information necessary to sustain democratic systems, the ways in which citizens are informed about public affairs, the function of news media in democratic systems, and how citizens, media and political leaders interact. ( $\mathrm{F}, \mathrm{Sp}$ )

## COMM 4413 Issues in Health Communication 3 Credit Hours

Prerequisite: COMM 1113 and junior standing or permission of instructor. Communication theories and principles in various contexts. Will be a thematic course, which focuses on in-depth, context-specific, health-related research and theories. Introduces various themes that are important in health communication, with particular focuses on interpersonal (e.g., social support, uncertainty management, providerpatient communication), cross-cultural (e.g., cross-cultural health care and illness ideology), and organizational (e.g., HMOs and risk communication) contexts. (Irreg.)
COMM 4423 Communication and Public Opinion 3 Credit Hours Prerequisite: COMM 1113 or P SC 1113 and junior standing or permission of instructor. Examines the concept and measurement of public opinion. Students learn critical and analytical tools for evaluating the current role of public opinion in democratic societies. Topics include how to measure public opinion, interpreting polling data, social and psychological aspects of public opinion, impacts of media and interpersonal communication on public opinion, and public opinion as group behavior. (Irreg.)

COMM 4513 International Communication 3 Credit Hours Prerequisite: COMM 1113 and junior standing or permission of instructor. Presentation and discussion of academic analyses of culture, politics, and ethics in various non-USA media systems. Issues covered include media ownership and concentration, ethnicity and gender in the media, media and international conflict, non-western media industries, global media audiences, and new information and communication technologies. (F, Sp)

COMM 4643 Mass Media Effects
3 Credit Hours
Prerequisite: COMM 1113 and junior standing or permission of instructor.
Examines theories and research that informs conclusions about mass communication effects. Focuses on media use patterns, social effects (violence, pornography, and stereotyping) and effects on children, public opinion, political effects (election campaigns), economic effects (advertising), cultural effects, new communication technologies, and long-term effects. The course also seeks to enhance the skills of critical reading, logical thinking, and use of media. (F)
COMM 4713 Issues in Communication Study 3 Credit Hours Prerequisite: Departmental permission, COMM 1113, COMM 2613, COMM 2713 (with a grade of $C$ or better), COMM 3023 (with a grade of $C$ or better), COMM 2513 and nine hours of Communication electives at the upper-division level; Must have earned senior standing ( 90 hours or more) prior to the semester of enrollment. Provides the opportunity to integrate knowledge about communication and apply it to a project culminating in a speech and senior paper. The project will develop a selected problem, issue, or controversy in communication. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ ) [V].
COMM 4960 Directed Readings 1-4 Credit Hours
1 to 4 hours. Prerequisite: good standing in University; permission of instructor. May be repeated; maximum credit four hours. Designed for upper-division students who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)
COMM 4970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: Senior standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)
COMM 4990 Independent Study 1-3 Credit Hours
1 to 3 hours. Prerequisite: COMM 1113 and COMM 2713 or junior standing with permission of instructor. May be repeated; maximum credit six hours. Contracted independent study for topic not currently offered in regularly scheduled courses. Independent study may include library and/ or laboratory research and field projects. ( $F, \mathrm{Sp}, \mathrm{Su}$ )

COMM 5003 Quantitative Research Methods
3 Credit Hours
Prerequisite: Graduate standing. This course introduces students to social-behavioral science processes of inquiry about human communication phenomena. It Examines the relationship of theory and method, looks at various research paradigms and designs, and provides an introduction to descriptive and inferential statistics. (Sp)

## COMM 5013 Introduction to Graduate Study

3 Credit Hours
Prerequisite: graduate standing or permission. Traces the development of research and professions in communication, providing an integrative conception of the discipline and an introduction to research and theory formulation. Students are exposed to those skills critical to success in graduate training in communication. (F)

## COMM 5023 Introduction to Quantitative Research Methods 3 Credit

 HoursPrerequisite: graduate standing. Introduction to social-behavioral science processes of inquiry about human communication phenomena for graduate students not pursuing a Ph.D. Examines the relationship of theory and method, between research paradigms and designs, and provides an introduction to descriptive and inferential statistics. (F, Sp, Su )

COMM 5033 Advanced Statistics 3 Credit Hours
Prerequisite: graduate standing and COMM 5003, or permission of instructor. Advanced statistics covering topics which include: ANOVA, ANCOVA, MANOVA, multiple regression, path analysis, and confirmatory and exploratory factor analysis. (F)
COMM 5043 Organizational Research Practicum 3 Credit Hours Prerequisite: graduate student major who has completed two-thirds of the communication courses required for graduation, plus permission. Applicants must have an overall grade point average of 3.25 or higher. Provides practical research experience in an organization. Student adviser and organization's sponsor must agree through a written contract about the goals, plan, and activities associated with the research project. (Irreg.)
COMM 5053 Introduction to Qualitative Research Methods 3 Credit Hours
Prerequisite: graduate standing. Introduction to various qualitative methodological strategies used in the social sciences for students not pursuing a Ph.D. Examines the relationship of method and theory and the process of collecting, coding, and analyzing data. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

COMM 5213 Interpersonal Communication
3 Credit Hours
Prerequisite: graduate standing or permission. Studies the research and theories in interpersonal communication with emphasis on dyads and small groups, public address, message analysis and nonverbal communication. (Irreg.)
COMM 5233 Communication and Social Change 3 Credit Hours
Prerequisite: graduate standing or permission. Studies alternative theories of social change, both historical and modern, with emphasis on the role played by communication at the interpersonal, group and social levels. (F)

## COMM 5253 Cross-Cultural Communication: Theory and

## Research

3 Credit Hours
Prerequisite: graduate standing or permission. Study of theory of crosscultural communication with special attention to language, stereotyping, perception, role, power and nonverbal communication as such variables operate in cross-cultural situations. (Irreg.)

## COMM 5263 Health Communication in Interpersonal Contexts <br> 3 <br> Credit <br> Hours

Prerequisite: graduate standing or permission of instructor. Provides a broad overview of theoretical and applied approaches to health communication. A variety of health communication topics including doctor-patient communication, health information campaigns, mass media influences on health, role of culture in health and disease, health care organizations, and group influences on well-being will be presented. (F)

COMM 5313 Qualitative Research Methods 3 Credit Hours
Prerequisite: graduate standing. Survey of different qualititative methodological strategies used in the social sciences to collect, code, and analyze information. (Sp)
COMM 5323 Advanced Qualitative Research 3 Credit Hours
Prerequisite: 5313. Designed to immerse students in the actual experience of conducting qualitative research in the field. Emphasis on participatory observation, ethnographic research, and textual analysis. (F)

## COMM 5333 Organizational Communication

3 Credit Hours
Prerequisite: graduate standing. Focuses on the communication environment of organizations, both internal and external, emphasizing implications of organizational designs for communication, communication principles to motivate employees, and the role of communication for productivity and the quality of life. (Irreg.)

COMM 5353 Conflict Management
3 Credit Hours
Prerequisite: graduate standing. Examines theory and research about conflict management in various communication contexts. Takes a social scientific approach to conflict management with emphasis on cognitive processes, affective systems, interaction sequences and strategies and tactics related to how people negotiate the meaning and management/ resolution of conflict. (Irreg.)
COMM 5363 Communication and Technology 3 Credit Hours
Prerequisite: graduate standing or permission. Provides a comprehensive overview of emerging technologies (e.g., teleconferencing, electronic mail, videotext, electronic bulletin boards, telecommuting, distance education, media richness, voice messaging, invisible technologies, etc.) and analyzes some of the social and behavioral effects of these technologies on human interaction in interpersonal, organizational, small group, and international contexts. (F)
COMM 5373 Communication and Leadership
3 Credit Hours
Prerequisite: graduate standing. Examines theory and research related to the philosophy and behaviors associated with leadership communication in various contexts. Emphasis placed on unique aspects of messages as individuals enact leadership roles. Scholarship from several areas of the social sciences will be considered, but communication theory will be given primary emphasis. (F)
COMM 5383 Survey of Political Communication 3 Credit Hours
(Crosslisted with P SC 5383) Prerequisite: graduate standing. Embraces the premise that meaningful democracy requires an effective political communication system. Examines some of the tensions between the requirements of democracy and the forms of communication that have emerged to meet them, exploring the roles of political leaders, citizens, and the media in the evolution of a democratic political information system. (Irreg.)

COMM 5393 Risk and Crisis Communication
3 Credit Hours
Prerequisite: graduate standing. The term "risk communication" refers to a body of knowledge and a set of practical skills that can be used in characterizing and managing issues, disseminating information, and communicating effectively in crises or emergency situations. Examines key concepts of risk communication, investigates risk communication theories and approaches as well as implements practical application in learning about communicating in risk situations. (Irreg.)
COMM 5453 Social Influence
3 Credit Hours
Prerequisite: graduate standing. A social scientific approach to the study of influence (persuasion), emphasizing scholarship drawn from speech communication, mass communication and social psychology. (F)
COMM 5553 Survey of Communication Campaigns 3 Credit Hours Prerequisite: graduate standing. Theory and research about persuasive communication campaigns which involve conscious sustained communication efforts designed to influence the thinking, feelings and/or behaviors of targeted receiver groups. (Sp)

COMM 5810 Special Topics in Communication
1-4 Credit Hours 1 to 4 hours. Prerequisite: graduate standing or permission of instructor. May be repeated with change of content; maximum credit nine hours. Topics will vary and are intended to acquaint the graduate communication major with specialized study involving communication theory, methodology and research. (F, Sp, Su)

## COMM 5960 Directed Readings

1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate Standing and permission of instructor; May be repeated; maximum credit three hours for the master's degree and nine hours for the Ph.D. Intensive survey of the literature in a selected area of communication under the direction of a graduate faculty member. (F, Sp, Su)

COMM 5970 Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing; others vary by topic. May be repeated with change of content; maximum credit nine hours. Varied special topics in communication. (Irreg.)

COMM 5980 Research for Master's Thesis
2-9 Credit Hours
2 to 9 hours. Prerequisite: Graduate standing, majors only, and permission of instructor. Variable enrollment, two to nine hours; maximum credit applicable toward degree, four hours. (F, Sp, Su)

COMM 5990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing and permission of instructor; May be repeated; maximum credit eight hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (F, Sp, Su)

COMM 6023 Communication Research Task Groups 3 Credit Hours Prerequisite: Graduate standing and permission of instructor; May be repeated; maximum credit 15 hours. Designed to explore numerous topics in communication study, including the development and execution of research in communication. (F, Sp, Su)

COMM 6233 Small Group Processes
3 Credit Hours
Prerequisite: graduate standing. Considers current status of small group theory and research, emphasizing leadership. Includes both the development of a tentative theory of leadership and the application of small group theory to the process of decision making. (F, Sp)

COMM 6314 History and Theory of Communication 4 Credit Hours Prerequisite: 5003,5013, and 5313 or permission of instructor. Presents the evolution of communication theory from ancient rhetorical traditions to the present. Topics covered include: classical origins of communication; enlightenment contributions to theory; interdisciplinary roots of communication study; and contemporary theories of communication. (Sp)
COMM 6323 International Communication
3 Credit Hours
Prerequisite: graduate standing or permission. An interdisciplinary survey of theory and research pertaining to issues of mass media and information and communication technologies and their interaction with culture, identity, politics, and ethics. (Irreg.)

COMM 6413 Interethnic Communication Seminar 3 Credit Hours Prerequisite: graduate standing or permission. An interdisciplinary survey of theory and research pertaining to issues of interethnic/interracial communication. Specific verbal and nonverbal communication behaviors are examined in conjunction with salient contextual factors of the macro-societal, situational, and psychological milieu surrounding the communication process. (Irreg.)

COMM 6423 Communication in Health Organizations 3 Credit Hours Prerequisite: graduate standing. Examines delivery and exchange of messages within health organizations with emphasis on conflict, bargaining, and negotiating, communication networks and environments, virtual systems of communication, etc. (Sp)

COMM 6433 Seminar in Intercultural Communication 3 Credit Hours
Prerequisite: graduate standing. Studies communication across cultural boundaries with emphasis on comparative analysis of communication systems of various cultures, factors involved in predicting intercultural communication patterns and effects, and the role of communication in cultural and technological development. Special attention is given to communication problems between subcultures in American society (Irreg.)

COMM 6453 Seminar in Social Influence
3 Credit Hours
Prerequisite: graduate standing. May be repeated with change of content; maximum credit six hours. Seminar on specialized topic in social influence. Content focus varies with instructor. (Sp)

COMM 6463 Media and Political Behavior 3 Credit Hours
Prerequisite: graduate standing. Examines the interplay of mediated communication and political behavior. Focuses on individual-level psychological processes that shed light on how news, political campaigns, new media, and entertainment programming may influence socialization, attitude formation, political decision-making and participation. (Irreg.)

COMM 6473 Communication and Public Opinion
3 Credit Hours
Prerequisite: graduate standing. Focuses on how collective and individual opinions are formed, communicated, and deployed to make decisions. Examines different conceptions of public opinion, such as the aggregation of individual citizens' opinions, the development of shared values and beliefs, and the active negotiation of opinion in the public sphere. (Irreg.)

COMM 6483 Media and Civic Life
3 Credit Hours
Prerequisite: graduate standing. Focuses on the relationship between media and civic life, including campaigns and engagement in the electoral arena, as well as broader perspectives of life as part of the general body politic. Examines the changing news and media landscape, including the affordances and limitations of contemporary and emerging communication platforms in democratic politics. (Irreg.)

COMM 6523 Health, Culture, and Communication 3 Credit Hours Prerequisite: graduate standing and permission of department. Examines the complex definitions and dimensions of culture and the various pathways in which culture can shape patients' illness experiences and providers' behaviors. This course focuses on three general areas: culture and health behaviors; healthcare delivery in cross-cultural contexts, and minority health. (Irreg.)

COMM 6563 Structural Equation Modeling
3 Credit Hours
Prerequisites: graduate standing and COMM 5033. Introduction to the analysis of covariance structures. Topics covered include confirmatory factor analysis, structural equation modeling, multi-group analyses, and latent means models. (Irreg.)

COMM 6573 Social Network Analysis
3 Credit Hours
Prerequisites: graduate standing and COMM 5033. Reviews theoretical, conceptual, and analytic issues associated with network perspectives on communicating and organizing. The course will review scholarship on the science of networks in communication, economics, organizational science, public health, political science, psychology, and sociology, in order to take an in-depth look at theories, methods, and tools to examine the structure and dynamics of networks. (Irreg.)

COMM 6960 Directed Readings 1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing and permission of instructor; May be repeated; maximum credit three hours for the master's degree and nine hours for the Ph.D. degree. Directed readings and/or literature review under the direction of a faculty member. (F, Sp, Su)

COMM 6970 Seminar in Communication 1-4 Credit Hours
1 to 4 hours. Prerequisite: graduate standing. May be repeated with change of content; maximum credit 15 hours. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
COMM 6980 Research for Doctoral Dissertation 2-16 Credit Hours 2 to 16 hours. Prerequisite: Graduate standing and permission of instructor; may be repeated. Maximum credit applicable toward degree, 15 hours. Directed research culminating in the completion of the doctoral dissertation. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
COMM 6990 Independent Study
1-4 Credit Hours
1 to 4 hours. Prerequisite: Graduate standing and permission of instructor; May be repeated; maximum credit eight hours. An individual course of intensive study with the area and problem to be determined by the student and the instructor responsible for supervising the study. ( F , $\mathrm{Sp}, \mathrm{Su}$ )

## COMP-Composition

COMP 2000 Freshman and/or Sophomore Secondary Composition 1-2 Credit

Hours
1 to 2 hours. Prerequisite: permission of adviser and instructor. May be repeated; maximum credit toward B.F.A., B.M.A., B.M.E., and B.M. degrees, eight hours. For freshman and sophomore music students studying in a secondary (or minor) performance area. (F, Sp, Su)

## COMP 2020 Freshman and/or Sophomore Composition for

 Performance Majors 2-4 Credit Hours1 to 4 hours. Prerequisite: permission of adviser and instructor. May be repeated; maximum credit toward the B.M. degree, eight hours. For freshman and sophomore music students in the B.M. (Performance or Composition majors) degree program who are studying in the major performance area. (F, Sp, Su)
COMP 3440 Mentored Research Experience 3 Credit Hours 0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)
COMP 4000 Junior and/or Senior Secondary Composition 1-2 Credit Hours
1 to 2 hours. Prerequisite: permission of adviser and instructor. May be repeated; maximum credit toward B.F.A., B.M.A., B.M.E., and B.M. degrees, eight hours. For junior and senior music students studying in a secondary (or minor) performance area. (F, Sp, Su)

## COMP 4020 Junior and/or Senior Composition for Performance

 Majors4 Credit Hours
1 to 4 hours. Prerequisite: permission of adviser and instructor. May be repeated; maximum credit toward the B.M. degree 14 hours. May be elected for two hours credit only during summer session. For junior and senior music students in the B.M. (Performance or Composition majors) degree program who are studying in the major performance area. (F, Sp, Su )
COMP 5000 Master's-Level Secondary Composition 1-2 Credit Hours 1 to 2 hours. Prerequisite: graduate standing in music; permission of adviser and instructor. May be repeated; maximum credit eight hours on a given instrument (including voice). For master's degree music students studying in a secondary (or minor) performance area. (F, Sp, Su)

COMP 5010 Master's-Level Composition for Non-Performance Music Majors

1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing in music; permission of adviser and instructor. May be repeated; maximum credit eight hours on a given instrument (including voice). For master's degree students other than performance majors in their major field. (F, Sp, Su)

## COMP 5020 Master's-Level Composition for Performance

Majors
2-4 Credit Hours
2 to 4 hours. Prerequisite: graduate standing in music; permission of adviser and instructor; 4020 and 4021 or equivalent. May be repeated; maximum credit toward an M.M. degree 10 hours. (F, Sp, Su)
COMP 6000 Doctoral Secondary Composition 1-2 Credit Hours 1 to 2 hours. Prerequisite: graduate standing in music, permission of adviser or instructor. May be repeated; maximum credit eight hours on a given instrument (including voice). For doctoral degree music students studying in a secondary (or minor) performance area. (F, Sp, Su)
$\begin{array}{ll}\text { COMP } 6010 \text { Doctoral Composition for Non-Performance Music } \\ \text { Majors } & \text { 2-3 Credit Hours }\end{array}$
2 to 3 hours. Prerequisite: graduate standing in music; permission of adviser and instructor. May be repeated. Doctoral-level study of applied music in the major performance area for students other than performance majors in their primary field. (F, Sp, Su)
COMP 6020 Doctoral Composition for Performance Majors 2-4

## Credit

Hours
2 to 4 hours. Prerequisite: graduate standing in music; 5042; permission of adviser and instructor. May be repeated; credit applicable toward applied music requirements for the Doctor of Musical Arts degree. Doctoral-level study of applied music for performance majors in their primary field. (F, Sp, Su)

## CREK-Creek

CREK 1715 Beginning Creek/Seminole 5 Credit Hours Introduction to the structure of the Creek/Seminole language with special attention to its phonology, morphology, and syntax. Conversational practice, vocabulary-building, and the history and culture of the native speech community also are emphasized. (F, Sp) [I-FL] .
CREK 1725 Beginning Creek/Seminole-continued 5 Credit Hours Prerequisite: 1715. A continuation of the study of the structure of the Creek/Seminole language with special attention to its phonology, morphology, and syntax. Conversational practice, vocabulary-building, and the history and culture of the native speech community are emphasized. (F, Sp) [I-FL].
CREK 2733 Intermediate Creek/Seminole
3 Credit Hours
Prerequisite: 1725. A systematic review of the structure of the Creek/ Seminole language. Syntactic control and vocabulary expansion are emphasized. Conversational practice and traditional oral texts are used to develop proficiency. (F)
CREK 3440 Mentored Research Experience 3 Credit Hours 0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)

## CRJU-Criminal Justice

CRJU 5013 Introduction to Criminal Justice
3 Credit Hours
Prerequisite: Graduate standing. This course provides a comprehensive overview of the American criminal justice system. Students will examine the historical foundations and evolution of key institutions, policies, and practices. A critical lens will be applied to analyze how structural inequality has contributed to disparate outcomes for marginalized groups. (F, Sp, Su)
CRJU 5063 Research Methods for Criminal Justice 3 Credit Hours Prerequisite: graduate standing, CAS 5003 and CAS 5013; or permission of dean. Introduces students to conducting and evaluating scientific research of the criminal justice system. Research methods overview the basics of research methodologies, with a focus on measurement and data collection. Statistical analysis overviews basic statistical techniques for analysis of criminal justice data, with a focus on both descriptive and inferential statistics. (F, Sp, Su)
CRJU 5073 Quantitative Research and Analysis 3 Credit Hours Prerequisite: Graduate standing and CRJU 5063; or permission of academic advisor. This course is designed as an introduction to quantitative statistical methods and their application in criminology and criminal justice research. The course features an overview of the use and interpretation of descriptive, inferential, and predictive statistics. Basic regression and data analysis techniques are discussed, along with bivariate and multivariate techniques. ( $F, S p, S u$ )

CRJU 5083 Qualitative Research Methods in Criminal Justice

3 Credit Hours Prerequisite: Graduate standing and CRJU 5063; or permission of academic advisor. This course is an introduction to the use of qualitative research methods and analysis in criminal justice research, including practical application of methods addressed in the course. (F, Sp, Su)
CRJU 5113 Theoretical Foundations of Criminal Justice 3 Credit Hours Prerequisite: graduate standing. Enhances students' understanding of criminal theory focusing on critical analysis of major theoretical perspectives in a social, historical and political context. (F, Sp, Su)

## CRJU 5133 Criminal Justice Policy Development 3 Credit Hours

 Prerequisite: graduate standing. Students will learn how to measure policies against established standards of practice and case law, writing model policies to gain experience in the process, and evaluating policies to see if they actually work. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )CRJU 5153 Ethical Decision Making in Criminal Justice 3 Credit Hours Prerequisite: graduate standing. Principles from the major ethical positions charted by Plato, Aristotle, Hume, Mill, Kant, and Rawls. Students will combine these principles with codes of practice and current case law, examine case vignettes and discuss the ethical components of each case. (F, Sp, Su)
CRJU 5203 Victimology and Restorative Justice 3 Credit Hours Prerequisite: graduate standing, CAS 5003, and CRJU 5113; or permission of dean. A survey of the evolving field of victimology from its preoccupation with the study of the victim as a co-active participant in crime to the reemergence of the victim as the focus of the criminal justice system and public policy. This course will also examine the corollary reemergence of the concept of restorative justice, which seeks to address the needs of victims, offenders, and the community. (F, Sp, Su)

CRJU 5213 Mediation \& Conflict Resolution for Criminal Justice Professionals 3 Credit Hours
Prerequisite: graduate standing, CAS 5003, and CRJU 5113; or permission of dean. An examination of practical strategies for managing and resolving conflicts in criminal justice professions. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

CRJU 5223 Community Corrections in the 21 st Century 3 Credit Hours Prerequisite: graduate standing, CAS 5003, and CRJU 5113; or permission of dean. Introduction to the topics of probation, parole, and other alternatives to incarceration, collectively referred to as Community Corrections. Emphasis will be placed on the role of research and program evaluation in determining policy/program effectiveness. (F, Sp, Su)
CRJU 5263 Restorative Justice Programs for Drug Offenders

## 3 Credit Hours

Prerequisite: graduate standing, CAS 5003, and CRJU 5113; or permission of dean. An exploration of the restorative justice model focusing on how drug courts have implemented key principles of restorative justice programs to deter crime and improve public health. (F, Sp, Su)
CRJU 5283 Human Trafficking and Prostitution 3 Credit Hours Prerequisite: Graduate standing, CAD 5003 and CRJU 5113. This course will unpack the international debate on trafficking and prostitution by examining the intersections of contemporary social issues, gender bias, poverty, social hierarchies, and culture that perpetuate human trafficking. We will critique mainstream trafficking frameworks that often result in revictimization of vulnerable people and explore feminist debates on sex work and competing policy approaches to regulating sex work. (F, Sp, Su)
CRJU 5303 Correctional Leadership 3 Credit Hours
Prerequisite: graduate standing, CAS 5003, and CRJU 5113; or permission of dean. A review of leadership styles, core competencies demonstrated by effective correctional leaders, skills sets needed for each managerial level within corrections, and elements of leadership that effect the development of a collaborate and dynamic workforce. (F, Sp, Su)
CRJU 5343 Mental Illness and the Criminal Justice System

## 3 Credit Hours

Prerequisite: graduate standing, CAS 5003, and CRJU 5113; or permission of dean. An examination of mental illness in the criminal justice system. (F, Sp, Su)

CRJU 5353 Women and Crime
3 Credit Hours
Prerequisite: graduate standing, CAS 5003 and CRJU 5113; or permission of dean. Provides an in-depth examination of women and crime, particularly in the United States, from a sociological perspective, focusing on theoretical explanations, women as offenders, women as victims of crime, and societal responses to female crime. ( $F, S p, S u$ )

## CRJU 5363 Penology <br> 3 Credit Hours

Prerequisite: graduate standing, CAS 5003 and CRJU 5113; or permission of dean. An exploration of key issues and emerging themes in scholarship on penology and corrections. Specific attention will be devoted to the United States and the significant correctional issues that it faces including theories of punishment, the history of incarceration, the current state of corrections in the United States, international comparisons in prisons, as well as an investigation of the future of incarceration. ( $F, S p$, Su )

CRJU 5403 Drug Enforcement Operations and Management 3 Credit Hours
Prerequisite: graduate standing, CAS 5003, and CRJU 5113; or permission of dean. This course will examine how criminal justice professionals administer and manage drug investigations. Administrative topics will include personnel issues, policy development, and budgeting. Operational management topics will include informant management, undercover operations, tactical operations, wire-intercepts, and money laundering investigations. (F, Sp, Su)
CRJU 5413 Substance Abuse and Crime in the United
States
3 Credit Hours
Prerequisite: graduate standing, CAS 5003, and CRJU 5113; or permission of dean. An examination of substance abuse trends in the United States.
Topics include the interrelationship between substance abuse and dependency, substance abuse treatment and the criminal justice system, and the effectiveness of drug policies and programs. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
CRJU 5423 Global Drug Trafficking, Narco-Terrorism, and United States Drug Policy

3 Credit Hours
Prerequisite: graduate standing, CAS 5003, and CRJU 5113; or permission of dean. An examination of the global nature of drug supply and demand, organizations involved in drug trafficking and narco-terrorism, and the implementation of US drug policies at the local, state, and federal levels. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

## CRJU 5463 Gangs in the United States

3 Credit Hours
Prerequisite: graduate standing, CAS 5003 and CRJU 5113; or permission of dean. Gang formation, risk factors for joining gangs, and the efficacy of different types of prevention, intervention and interdiction policies. The historical backgrounds of gangs, drugs, and violence in America, as well as current issues related to these subjects, will be explored. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
CRJU 5513 Studies in Police Leadership
3 Credit Hours
Prerequisite: graduate standing, CAS 5003, and CRJU 5113; or permission of dean. An exploration of the dynamics of leadership within the law enforcement context, including the history and evolution of police administration, general leadership theories, management best practices, as well as contemporary issues confronting the profession. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
CRJU 5533 Crime Analysis for Intelligence-Led Policing 3 Credit Hours Prerequisite: graduate standing, CAS 5003, and CRJU 5113; or permission of dean. Introduction to crime analysis and the use of data to intelligently prevent and/or interdict crime. (F, Sp, Su)
CRJU 5583 Cyber-Forensics
3 Credit Hours
Prerequisite: graduate standing, CAS 5003, and CRJU 5113; or permission of dean. An examination of the legal, ethical and technical aspects of cyber-forensics. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
CRJU 5700 Advanced Topics in Criminal Justice 2-9 Credit Hours 2 to 9 hours. Prerequisite: graduate standing. May be repeated with change of content; maximum credit 12 hours. Advanced studies in various criminal justice topics, offered under stated titles determined each semester by the instructor involved ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
CRJU 5920 Internship in Criminal Justice
2-6 Credit Hours
2 to 6 hours. Prerequisite: graduate standing, CAS 5003, and permission of dean. May be repeated; maximum credit six hours. 2-6 hours. Field experience directly related to study focus in the Criminal Justice program. Requirements include some combination of journal, progress reports, written summary of experiences, or academic paper, and a possible comprehensive examination over these materials. (F, Sp, Su)

CRJU 5953 Demonstration Project
3 Credit Hours
Prerequisite: Criminal Justice Majors only and graduate standing. The Demonstration Project is meant to be the culmination of the MS program in Criminal Justice. It gives students an opportunity to demonstrate the skills they have developed in the program, providing a "final experience" that fits with their specific interests. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
CRJU 5960 Directed Readings in Criminal Justice
2-9 Credit Hours 2 to 9 hours. Prerequisite: graduate standing, CAS 5003, and completion of first concentration course; or permission of dean. May be repeated with change of content; maximum credit 9 hours. In-depth study of literature on a topic related to the student's program of study; variable content. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
CRJU 5970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing, CAS 5003, and completion of first concentration course; or permission of dean. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)
CRJU 5980 Research for Master's Thesis 2-9 Credit Hours 2 to 9 hours. Prerequisite: graduate standing, CAS 5003, CAS 5013, and completion of first concentration course; or permission of dean. May be repeated; maximum credit six hours. Research and writing of a thesis for completion of PACS graduate degrees. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
CRJU 5990 Independent Study 1-3 Credit Hours 1 to 3 hours. Prerequisite: graduate standing, CAS 5003, and completion of first concentration course; or permission of dean. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)

## CYBS-Cybersecurity

CYBS 3113 Operating Systems Fundamentals 3 Credit Hours
Prerequisite: CYBS 3123. This course introduces major concepts and techniques for designing and implementing operating systems, including memory management, process management, information management, and computer security. Principles of performance evaluation. Class projects require the design and implementation of software systems. A UNIX family operating system will be used. (Sp)
CYBS 3123 Introduction to Unix Systems
3 Credit Hours
Prerequisite: C S 2413 and MATH 1914; and C S 2813 or MATH 2513. This course provides an introduction to the UNIX operating system. Topics include files and directories, electronic mail, security, advanced file systems, network utilities, network file sharing, text utilities, shell programming, regular expressions, UNIX internals, UNIX system administration, UNIX variations, and systems programming. Programming assignments involve the UNIX shell script language. (F)
CYBS 3213 Foundations of Cybersecurity 3 Credit Hours
Prerequisite: C S 2413, MATH 1914 and either C S 2813 or MATH 2513. This course introduces cybersecurity, principles, and technologies. It deals with security issues related to systems and software. Topics include cyber threats and vulnerabilities, information security frameworks and policies, cryptography, penetration testing, and in-depth defense. The goal is to develop a foundation for further study in cybersecurity. (F)

CYBS 3223 Applied Statistics for Computing 3 Credit Hours
Prerequisite: MATH 2423, course is not open to freshmen. This course is an introduction to basic statistical concepts and techniques with an emphasis on application to applied computing. Topics include basic properties of probability, a review of descriptive statistics, common discrete and continuous distributions of data, visualization of real data, hypothesis testing, parametric versus nonparametric tests, supervised and unsupervised learning methods, the bias-variance tradeoff, use of statistical packages. (F)

CYBS 3313 Introduction to Cyber Ethics and Law 3 Credit Hours Prerequisite: Junior Standing. Legal and ethical issues with networked IT, including privacy, surveillance, digital piracy, and military use. First unit introduces ethical frameworks applicable to cybersecurity, sources of applicable law and regulation. Second unit introduces issues relating to cybercrime: intellectual property, user privacy, information assurance, and harmful online content. Third unit introduces issues with IT in government operations. (Sp)

CYBS 3323 Hardware Security 3 Credit Hours Prerequisite: CYBS 3123 or concurrent enrollment in CYBS 3123. This course focuses on hardware (HW) security and covers security and trust from the HW perspective. It introduces students to HW components, including SoC and PCB, and examines security and trust issues in such HW components. Topics include digital lock, circuit theory, ASICs and FPGAs, HW security threats, malware, and attacks, along with specific countermeasures against HW attacks. (F)
CYBS 3440 Mentored Research Experience 3 Credit Hours
0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it the with the URCP office. Not for honors credit. (F, Sp, Su)
CYBS 3743 Cyberforensics Fundamentals 3 Credit Hours
Prerequisite: CYBS 3213. This course introduces students to cyber forensics and cyber-crime scene analysis fundamentals. The various laws and regulations dealing with computer forensic analysis are discussed. Students are introduced to the emerging international standards for cyber forensic analysis and a formal methodology for conducting computer forensic investigations. (Sp)
CYBS 3813 Network Fundamentals 3 Credit Hours
Prerequisite: C S 2413, MATH 1914, and either C S 2813 or MATH 2513. Introduces the fundamentals of computer networks, including network architectures, network topologies, network protocols, layering concepts (for example, ISO/OSI, TCP/IP reference models), wired and wireless network protocols, communication paradigms (point-to-point vs. multicast/broadcast, connectionless vs. connection-oriented), and networking APIs (sockets). Protocols in all layers will be introduced. In this course, socket programming is also introduced. (Sp)

CYBS 3913 Database Fundamentals 3 Credit Hours
Prerequisite: C S 2413, MATH 1914, and either C S 2813 or MATH 2513. Introduction to the concepts behind relational database systems, modeling with Entity-Relationship diagrams and how these are used for data design. SQL to define, manipulate, and test the database, programmatic access, and practical issues. Strong foundation in database security, auditing principles, practices and methodologies. Topics: application security models, security architecture, access controls, auditing, trust management, privacy, threat vectors, and attack methods. (Sp)

CYBS 3990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: permission of instructor and junior standing. May be repeated once with change of content. Independent study may be arranged to study a subject not available through regular course offerings. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

CYBS 4103 Engineering Secure Software
3 Credit Hours
Prerequisite: CYBS 3813 and CYBS 3913. This course covers topics at the intersection of security and software engineering. This course introduces software engineering processes and standards for building secure software applications. It discusses secure software life cycle development principles to include security in every phase. It also explores security issues and vulnerabilities in software applications due to a lack of secure software engineering processes. (F)
CYBS 4123 System Administration 3 Credit Hours
(Slashlisted with CYBS 5123) Prerequisite: CYBS 3123. This course provides a comprehensive introduction to system administration. Topics include virtualization, authentication and authorization, directory services, system management, and system security and set up of modern compute and storage clouds, networking systems, file systems, logging and analysis, and networking. Includes topics related to scripting for all administrative functions. Emphasis is placed on enterprise-level systems. No student may earn credit for both 4123 and 5123. (F, Sp)
CYBS 4133 Ethical Hacking and Penetration Testing 3 Credit Hours (Slashlisted with CYBS 5133) Prerequisite: CYBS 3113. This course covers concepts related to ethical hacking and penetration testing methods to assess, exploit, and report security vulnerabilities on systems and their resources. The course will emphasize the ethical application of penetration testing methods and hacking tools. No student may earn credit for both 4133 and 5133. ( $F, \mathrm{Sp}$ )
CYBS 4203 Cybersecurity Risk Management and Assessment Credit
(Slashlisted with CYBS 5203) Prerequisite: CYBS 3213. This course develops competency in information security policies and plans, including controls for physical hardware, software, and networks. The course introduces security risk detection strategies, countermeasures, damage assessment, and control. The course introduces the students to performing information system risk analysis and management audits. Tools for analyzing log files of various kinds will also be introduced. No student may earn credit for both 4203 and 5203. (F)
CYBS 4293 Introduction to Cloud Computing and Security 3 Credit Hours
(Slashlisted with CYBS 5293) Prerequisite: CYBS 3113. Course covers the concepts behind cloud computing, including storage and computing. We will also learn about virtualization, software as a service, and deployment models. We will learn about cybersecurity risks on cloud infrastructure and countermeasures using access policies, distributed access control, key management, and others. Covers topics in the cloud computing security guidelines set forth in international standards organizations. No student may earn credit for both 4293 and 5293. (Sp)
CYBS 4323 IoT Security and Privacy 3 Credit Hours
(Slashlisted with CYBS 5323) Prerequisite: CYBS 3323. This course prepares students to securely develop and operate Internet of Things (IOT) devices considering security and privacy. The course covers concepts of IoT architectures with a focus on security and privacy issues. No student may earn credit for both 4323 and 5323. ( $\mathrm{F}, \mathrm{Sp}$ )

CYBS 4333 Incidence Response Management 3 Credit Hours
(Slashlisted with CYBS 5333) Prerequisite: CYBS 3123. This course provides a comprehensive treatment of cyber incidents and how to manage them, including understanding attacker motivation, attack methods, and the anatomy of the attacks. Additionally, topics related to incidence readiness, remote triage tools, memory analysis, malware analysis, disk forensics, network intrusion detection tools, and others will be discussed. No student may earn credit for both 4333 and 5333. (F, Sp)
CYBS 4473 Network Security
3 Credit Hours
(Slashlisted with CYBS 5473) Prerequisite: CYBS 3113. The course deals with understanding all aspects of cybersecurity that involve the network. Topics will include network transport-level security, wireless network security, electronic mail security, IP security, firewalls, VPNs, Secure HTTP, person-in-the-middle attack scenarios, and SSL/TLS and SSH (SP). Learn about various tools for analyzing network data at various levels of the TCP/IP stack and operating security operations centers. No student may earn credit for both 4473 and 5473. (F)
CYBS 4583 Machine Learning for Cybersecurity 3 Credit Hours Prerequisite: CYBS 3213 and CYBS 3223. Various machine learning concepts, deep learning, time-series analysis, data mining, and other machine-learning concepts. Tools and libraries to analyze data sets, build predictive models, and evaluate the fit of the models. Common learning algorithms, including dimensionality reduction, classification, principal-component analysis, k-NN, k-means clustering, gradient descent, regression, logistic regression, regularization, multiclass data, algorithms, boosting and decision trees. Applies concepts to problems. (F, Sp)
CYBS 4883 Cryptography Fundamentals
3 Credit Hours
Prerequisite: CYBS 3213. This course introduces cryptography and its related tools. Specifically, in this course, cryptographic algorithms, protocols, and techniques will be introduced. The course will also introduce students to public key encryption, key exchange protocols, digital signatures, hashing-based encryption, and Data Encryption Standards. This course will also introduce cryptographic implementation in software and web application programming. (F)

CYBS 4953 Operating and Maintaining Cyber Ranges 3 Credit Hours Prerequisite: CYBS 4473. Students will learn to use and build a cyber range for various assessments of threats and exploits. They will learn to build configurations for different business operations and the formation of red and blue team exercises. Students will have real-world experiences in handling situations without the real-world risk associated with practicing on live production equipment and systems. (Sp)
CYBS 4963 Cybersecurity Capstone
3 Credit Hours
Prerequisite: CYBS 4103 and Senior Standing. Provides the students with an experience to exhibit their knowledge and skills in all areas of cybersecurity. Students will work in small groups to identify and scope a cybersecurity problem and/or challenges. Required to write a proposal about their project and asked to create a work plan to develop solution to solve the problem/challenge. Create a final report and presentation. (Sp)

## CYBS 4990 Independent Study

1-3 Credit Hours
1 to 3 hours. Prerequisite: permission of instructor and senior standing. May be repeated once with change of content. Contracted independent study for topic not currently offered in regularly scheduled courses. (F, Sp, Su )

CYBS 5113 Introduction to Cybersecurity Leadership 3 Credit Hours Prerequisite: Graduate standing. This course provides an in-depth exploration of insider threats within organizations and the strategies for managing and mitigating these risks. Students will learn about the motivations behind insider threats, detection methods, prevention techniques, and deterrence mechanisms. (F, Sp, Su)

CYBS 5123 System Administration 3 Credit Hours
(Slashlisted with CYBS 4123) Prerequisite: Graduate Standing. This course provides a comprehensive introduction to system administration. Topics include virtualization, authentication and authorization, directory services, system management, and system security and set up of modern compute and storage clouds, networking systems, file systems, logging and analysis, and networking. Includes topics related to scripting for all administrative functions. Emphasis is placed on enterprise-level systems. No student may earn credit for both 4123 and 5123. (F, Sp)
CYBS 5133 Ethical Hacking and Penetration Testing 3 Credit Hours (Slashlisted with CYBS 4133) Prerequisite: Graduate Standing. This course covers concepts related to ethical hacking and penetration testing methods to assess, exploit, and report security vulnerabilities on systems and their resources. The course will emphasize the ethical application of penetration testing methods and hacking tools. No student may earn credit for both 4133 and 5133. ( $F, S p$ )
CYBS 5203 Cybersecurity Risk Management and Assessment 3 Credit

Hours
(Slashlisted with CYBS 4203) Prerequisite: Graduate Standing. This course develops competency in information security policies and plans, including controls for physical hardware, software, and networks. The course introduces security risk detection strategies, countermeasures, damage assessment, and control. The course introduces the students to performing information system risk analysis and management audits. Tools for analyzing log files of various kinds will also be introduced. No student may earn credit for both 4203 and 5203. (F)

## CYBS 5213 Behavioral Cybersecurity

3 Credit Hours
Prerequisite: Graduate standing. This course explores the interdisciplinary field of behavioral cybersecurity, emphasizing the role of human personality in cybersecurity practices. It aims to address the growing challenges posed by the digital age. Course will examine the application of psychological methods, profiling techniques, and the use of game theory in understanding human behavior. (F, Sp, Su)
CYBS 5233 Cybersecurity Ethics, Policy, and Law 3 Credit Hours Prerequisite: Graduate standing. This course explores the intersection of ethics, policy, and law within the realm of cybersecurity. Students will engage with case studies, legal frameworks, and ethical dilemmas to critically analyze and navigate the complex landscape of digital security. The goal is to develop a foundation for applying ethical considerations in any organizational structure. (F, Sp, Su)
CYBS 5243 Threat Hunting and Incident Response 3 Credit Hours Prerequisite: Graduate standing. This course provides an in-depth exploration of threat hunting and incident response in cybersecurity. It moves beyond traditional defensive measures to actively seek out and mitigate novel cyber threats. Students will learn how to plan, execute, and recover from hunts, customize frameworks for specific use cases, and respond to incidents, including ransomware attacks. (F, Sp, Su)

CYBS 5253 Cybercrime and Cybersecurity 3 Credit Hours
Prerequisite: Graduate standing. This course delves into the intricacies of cybersecurity and cybercrime, offering a comprehensive overview of the challenges and strategies associated with protecting digital assets. Students will explore various threats, risk management approaches, and the critical roles of people, processes, and technology in cybersecurity. (F)

CYBS 5293 Introduction to Cloud Computing and Security 3 Credit Hours
(Slashlisted with CYBS 4293) Prerequisite: Graduate Standing. Course covers the concepts behind cloud computing, including storage and computing. We will also learn about virtualization, software as a service, and deployment models. We will learn about cybersecurity risks on cloud infrastructure and countermeasures using access policies, distributed access control, key management, and others. Covers topics in the cloud computing security guidelines set forth in international standards organizations. No student may earn credit for both 4293 and 5293. (Sp)
CYBS 5303 Insider Threat and Risk Management 3 Credit Hours Prerequisite: Graduate standing. This course provides an in-depth exploration of insider threats within organizations and the strategies for managing and mitigating these risks. Students will learn about the motivations behind insider threats, detection methods, prevention techniques, and deterrence mechanisms. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

## CYBS 5323 IoT Security and Privacy

3 Credit Hours
(Slashlisted with CYBS 4323) Prerequisite: Graduate Standing. This course prepares students to securely develop and operate Internet of Things (IOT) devices considering security and privacy. The course covers concepts of IoT architectures with a focus on security and privacy issues. No student may earn credit for both 4323 and 5323. (F, Sp)
CYBS 5333 Incidence Response Management
3 Credit Hours
(Slashlisted with CYBS 4333) Prerequisite: Graduate Standing. This course provides a comprehensive treatment of cyber incidents and how to manage them, including understanding attacker motivation, attack methods, and the anatomy of the attacks. Additionally, topics related to incidence readiness, remote triage tools, memory analysis, malware analysis, disk forensics, network intrusion detection tools, and others will be discussed. No student may earn credit for both 4333 and 5333. (F, Sp)

## CYBS 5383 Trust in Artificial Intelligence

3 Credit Hours
Prerequisite: Graduate standing. This course explores the intersection of artificial intelligence (AI), management, and trust, delving into how these elements influence each other in modern organizations. It covers various aspects of trust in AI, including organizational, psychological, technological, and ethical dimensions. The course also examines the role of trust in human-machine interaction, Al's impact on innovation, and reducing costs. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
CYBS 5443 Cyber Threat and Intelligence 3 Credit Hours
Prerequisite: Graduate standing. This course explores the dynamic and complex nature of cyber threats and the role of intelligence in addressing them. It covers the spectrum of threat intelligence, from tactical to strategic levels, and delves into the methodologies and technologies used to gather, analyze, and apply intelligence to enhance cybersecurity. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
CYBS 5453 Cybersecurity in a Cloud Environment 3 Credit Hours Prerequisite: Graduate standing. This course provides an in-depth look into the multifaceted aspects of cybersecurity within cloud computing environments. Covering fundamental concepts, architecture, software security, risk issues, and life cycle concerns, students will learn how to secure cloud services and infrastructure effectively. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

CYBS 5473 Network Security
3 Credit Hours
(Slashlisted with CYBS 4473) Prerequisite: Graduate Standing. The course deals with understanding all aspects of cybersecurity that involve the network. Topics will include network transport-level security, wireless network security, electronic mail security, IP security, firewalls, VPNs, Secure HTTP, person-in-the-middle attack scenarios, and SSL/TLS and SSH (SP). Learn about various tools for analyzing network data at various levels of the TCP/IP stack and operating security operations centers. No student may earn credit for both 4473 and 5473. (F)

## CYBS 5903 Master's Practicum

3 Credit Hours
Prerequisite: Graduate Standing. The course provides the students with a culminating experience to exhibit their knowledge and skills in all areas of cybersecurity. Students will collaboratively work in small groups to identify and scope a current cybersecurity problem and/or challenge. Students will be required to write a proposal, create a work plan, draft a final report and make a presentation. (Sp)

CYBS 5963 Strategic Planning in Cybersecurity Practicum 3 Credit Hours
Prerequisite: Graduate standing. This capstone course delves into the strategic planning and leadership aspects of cybersecurity. Students will explore the relationship between the business environment and organizational goals, risk management, and protecting information assets. The course will provide tools to build a cybersecurity strategic plan, develop IT security policies, and lead teams in the execution of these plans. (Irreg.)
CYBS 5980 Research for Master's Thesis
2-9 Credit Hours
2 to 9 hours. Prerequisite: Graduate Standing and Instructor Permission. Directed research culminating in the completion of the master's thesis. Variable enrollment, permission of instructor required, two to nine hours; maximum credit required for degree, six hours. (F, Sp)

## DANC-Dance

DANC 1212 Ballet Technique I
2 Credit Hours
May be repeated; maximum credit four hours. Practice of ballet technique at beginning level. This course does not count for major credit in the School of Dance. (F, Sp, Su)
DANC 1312 Modern Technique I
2 Credit Hours
May be repeated; maximum credit four hours. Practice of modern dance technique at the beginning level. This course does not count for major credit in the School of Dance. ( $F, \mathrm{Sp}, \mathrm{Su}$ )

DANC 1411 Stage Makeup for the Dancer
1 Credit Hour To develop skill in the application of basic stage makeup for the dancer, including character analysis and traditional styles. (Irreg.)
DANC 1713 Understanding Dance 3 Credit Hours A course in dance appreciation covering all aspects of various theatrical dance styles. (F, Sp) [IV-AF].
DANC 1813 Introduction to Non-Western Dance Forms 3 Credit Hours An abbreviated examination of the history, evolution, and significance of dance in three regions of the non-western world which possess very distinct dance cultures. (F, Sp) [IV-WDC] .

## DANC 1911 Rehearsal and Production

1 Credit Hour
Prerequisite: open to dance majors only. May be repeated; maximum credit four hours. Study, practice and participation in every phase of dance production work and management. Laboratory ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

DANC 1913 Music for Dancers
3 Credit Hours
This course is designed to increase the dancer's understanding of rhythm, notation of rhythm, musical forms and styles. Music from Western and Non-Western cultural practices as well as from varying historical periods will be explored. Students will make music together in the classroom to gain a deeper understanding of these topics. (F, Sp)

DANC 2212 Ballet Technique II 2 Credit Hours
Prerequisite: permission of instructor. May be repeated; maximum credit eight hours. Continuation of 1212. (F, Sp, Su)
DANC 2213 Intermediate Ballet Technique 3 Credit Hours Prerequisite: Majors only; permission of instructor; May be repeated; maximum credit 9 hours. Class includes participation in a complete ballet barre and center including adagio, pirouettes, petit allegro and grande allegro. The emphasis will be on the practice and principles of the classical ballet vocabulary. Students will be expected to develop and demonstrate the ability to perform the movements with proper body alignment and a sense of artistic expression. (F, Sp)

## DANC 2241 Pointe Class

1 Credit Hour
Prerequisites: Majors only; permission of instructor. Corequisite: must be enrolled in a ballet technique class. May be repeated; maximum credit 4 hours. Technique and practice on pointe to build strength and proficiency for ballet. (F,Sp)

DANC 2292 Ballet Company Apprentice
2 Credit Hours
Prerequisite: Majors only; permission of instructor. May be repeated; maximum credit eight hours. A practical analysis and application of the original and classical ballet repertoire. (F, Sp, Su)
DANC 2312 Modern Technique II 2 Credit Hours
Prerequisite: Majors only; permission of instructor. May be repeated; maximum credit eight hours. Continuation of 1312. (F, Sp)
DANC 2313 Intermediate Modern Technique 3 Credit Hours Prerequisite: Majors only; permission of instructor; May be repeated; maximum credit 12 hours. Intermediate modern dance technique emphasizes skill refinement, increased vocabulary, and performance capabilities. Class includes floor work, inversions, dynamic movement through space, turns and jumps. (F, Sp)

## DANC 2321 Dance Improvisation

1 Credit Hour
Prerequisite: majors only; permission of instructor. May be repeated; maximum credit four hours. An introduction to improvisation as a creative and choreographic tool. Students will develop the ability to comprehend, apply, and manipulate movement in order to craft creative impulses. Also explores how to convey concepts and meaning, informing and inspiring others through various methods of non-verbal communication. (F, Sp)

## DANC 2392 Modern Company Apprentice

2 Credit Hours
Prerequisite: Majors only; permission of instructor. May be repeated; maximum credit 10 hours. A practical analysis and application of the past and present choreographic dance works within the modern dance area. ( $F$, $\mathrm{Sp}, \mathrm{Su}$ )

## DANC 2412 Pilates Body Conditioning <br> 2 Credit Hours

May be repeated; maximum credit eight hours. The philosophy of awareness in movement and a total body/mind workout based on the methods developed by Joseph Pilates over 75 years ago. This method is one of physical and mental conditioning designed to work every muscle in the body in an efficient and balanced manner. (F, Sp)

DANC 2512 Ballroom Dancing I
2 Credit Hours
May be repeated; maximum credit eight hours. Instruction in traditional and popular social dances, as well as social skill and etiquette. Includes instruction in the basic ballroom dances of cha-cha, salsa, swing, tango, and waltz. Dancers take the basic skills and introduce new dances and rhythms with an added emphasis on dancing technique. (F, Sp)

## DANC 2522 Ballroom Dancing II

2 Credit Hours
Prerequisite: 2512 or permission of instructor. May be repeated; maximum credit eight hours. Intermediate-level ballroom dancing which builds on the basic skills of the dancer and introduces new dances and rhythms with an added emphasis on dancing techniques. Includes instruction in the foxtrot, rumba, samba, and east and west coast swings. A brief review of basic skills is presented at the beginning of the semester. (F, Sp)
DANC 2612 Belly Dance
2 Credit Hours
May be repeated three times; maximum credit eight hours. A course on one of the forms of dance from the Middle East, belly dancing, as referred to in North America. The class will focus on learning the technique of the dance as well providing the history of the form. ( $F, S p$ )

DANC 2632 Elements of Dance Composition
2 Credit Hours
Prerequisite: Majors only; permission of instructor. Theoretical and practical experience with the principles of composition in the area of expressive movement. (Irreg.)

## DANC 2712 Body Science for Dancers

2 Credit Hours
An introduction to human anatomy and body mechanics through the study of skeletal alignment and movement efficiency in dance training, teaching and performance. This course is only open to Dance majors, and is intended to be taken during the second semester of the freshman year or the first semester of the sophomore year. (Irreg.)

## DANC 2970 Special Topics

1-3 Credit Hours
1 to 3 hours. Prerequisite: May be repeated; Maximum credit nine hours. Special topics course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research, and field projects. (Irreg.)
DANC 3213 Ballet Technique III
3 Credit Hours
Prerequisite: Majors only; permission of instructor; May be repeated; maximum credit 24 hours. Class includes participation in an advanced ballet barre and center including adagio, pirouettes, petit allegro and grande allegro. The emphasis will be on the practice and advanced principles of the classical ballet vocabulary. Students will be expected to develop and demonstrate the ability to perform the movements with proper body alignment, musicality, and a sense of artistic expression. (F, Sp, Su)

## DANC 3272 Performance Practices in Ballet

2 Credit Hours
Prerequisite: Majors only; permission of instructor. An introduction to and participation in performance practices in character dance and pantomime in ballet training. Emphasis on the practice, principles and style of character dance and its function as an integral part of classical ballet repertory and the use of pantomime and acting techniques for dancers. Students learn character dance technique and choreography from the classical repertoire as well as practicing individual role development through character studies culminating in the use of pantomime vocabulary and expressive movement. (Irreg.)
DANC 3292 OU Ballet Company
2 Credit Hours
Prerequisite: Majors only; permission of instructor. May be repeated; maximum credit 16 hours. Rehearsal and performance with the OU Ballet Company. Laboratory (F, Sp, Su)

DANC 3313 Modern Technique III
3 Credit Hours
Prerequisite: Majors only; permission of instructor; May be repeated; maximum credit 24 hours. Modern Technique III emphasizes advanced skill refinement and creative exploration of performance capabilities Class includes advanced floor work, inversions, improvisation, composition, large movement through space, large turns and jumps. (F, Sp, Su)

DANC 3392 Contemporary Dance Oklahoma 2 Credit Hours Prerequisite: Majors only; permission of instructor. May be repeated; maximum credit 16 hours. Rehearsal and performance with the Contemporary Dance Oklahoma. (F, Sp, Su)

DANC 3412 Pilates Equipment
2 Credit Hours
Prerequisite: 2412 and permission of the instructor. May be repeated; maximum credit eight hours. Using Pilates equipment, the class foundation is built on that developed by Joseph Pilates as a method of physical and mental conditioning to work every muscle in one's body in an efficient and balanced manner. The basis throughout the semester is that philosophy of awareness in movement and a total body/mind workout. (F, Sp)

DANC 3440 Mentored Research Experience 3 Credit Hours 0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office Not for honors credit. (F, Sp, Su)

DANC 3632 Dance Composition
2 Credit Hours
Prerequisite: Majors only; permission of instructor. Theoretical and practical experience with the principles of composition in the area of expressive movement. (Irreg.)

## DANC 3743 Dance History: Early Roots <br> 3 Credit Hours

Prerequisite: junior standing or permission of instructor. A survey of the development of dance from pre-historic eras in western civilization through ancient cultures in Egypt, Greece and Rome. Investigations continue through Medieval, Renaissance and Baroque periods up to the evolution of Romantic ballet in the nineteenth century. (F) [IV-WC] .

## DANC 3753 Dance History: Three Centuries of Development 3 Credit Hours

Prerequisite: junior standing or permission of instructor. From nineteenthcentury Romanticism, this course traces the development of western theatrical dancing through the current season. (Sp) [IV-WC] .

DANC 3813 History of World Dance
3 Credit Hours
Prerequisite: junior standing or permission of instructor. An examination of the history, evolution and significance of dance in regions which possess very distinct dance cultures throughout the non-European world. (Irreg.) [IV-WDC] .

DANC 3960 Honors Reading
1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated with change of subject; maximum credit six hours. Consists of either reading topics or independent study designated by the instructor in keeping with the student's major program. Covers materials not usually presented in the regular courses. $(\mathrm{F}, \mathrm{Sp}, \mathrm{Su})$

DANC 3970 Honors Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program, junior or senior standing. May be repeated with change of subject; maximum credit six hours. The projects covered will vary. Deals with concepts not usually presented in regular coursework. (Irreg.)

DANC 3980 Honors Research
1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated with change of subject; maximum credit six hours. Provides an opportunity for the gifted Honors candidate to work at a special project in the student's field. (F, Sp, Su)

DANC 3990 Independent Study 1-3 Credit Hours
1 to 3 hours. Prerequisite: permission of instructor and junior standing. May be repeated once with change of content. Independent study may be arranged to study a subject not available through regular course offerings. (F, Sp, Su)

DANC G4022 Ballet Repertoire
2 Credit Hours
Prerequisite: Majors only; permission of instructor. Research and analysis of some of the works of the basic classical repertoire insofar as story contents. Musical and choreographic approaches are used by renowned choreographers. (Irreg.)

## DANC 4213 Ballet Technique IV

3 Credit Hours
Prerequisite: Majors only; permission of instructor; May be repeated; maximum credit 24 hours. Class includes participation in an advanced ballet barre and center including adagio, pirouettes, petit allegro and grande allegro. The emphasis will be on the strict practice and advanced principles of the classical ballet vocabulary. Students will be expected to demonstrate at an advanced level the ability to perform the movements with proper body alignment, musicality, and sense of artistic expression (F, Sp)

DANC 4241 Pas de Deux
1 Credit Hour
Prerequisite: Majors only; permission of instructor. May be repeated; maximum credit 2 hours. Basic techniques of partnering and being a partner in ballet performance. (Irreg.)

DANC 4313 Modern Technique IV
3 Credit Hours
Prerequisite: DANC 3313; Majors only; permission of instructor; May be repeated; maximum credit 24 hours. Modern Technique IV emphasizes advanced and complex skill refinement and creative approaches to performance capabilities. Class includes advanced floor work, inversions, improvisation, composition, musicality, large movements through space, large jumps and turns. (F, Sp, Su)

DANC 4612 Ballet Choreography
2 Credit Hours
Prerequisite: Majors only; permission of instructor. Study and practice in the principles of ballet composition, with emphasis on Romantic, Classical, Neoromantic and Neoclassical choreography. (Irreg.)

DANC 4721 Senior Capstone Lecture
1 Credit Hour
Prerequisite: Senior standing and permission of department; majors only. Professional preparation for a career in dance and related fields. Students will develop material relevant to a professional career in the industry. Topics include: goal setting, professional correspondence documents, interview techniques, audition preparation, applying for graduate school, video sample creation. Student and instructor initiated discussions with working professionals will explore the role of the dancer in the professional industry. (F) [V].

DANC 4722 Senior Capstone Project
2 Credit Hours
Prerequisite: DANC 4721 or concurrent enrollment; senior standing; Permission of department required; majors only. An advanced, individual project which demonstrates mastery of skills and knowledge in the student's area of interest. Taken in the senior year, the project will be selected under advisement, guided by the appropriate faculty member(s) and include required submission of a written component. (F, Sp) [V].

DANC G4812 Teaching of Ballet Technique 2 Credit Hours
Prerequisite: twelve hours of ballet or permission. Comprehensive study of the basic ballet exercises and body positions. Terminology and discussions on anatomy for the dancer. Experience in teaching of ballet. (Irreg.)

## DANC G4821 Teaching Practicum - Ballet

1 Credit Hour
Prerequisite: Majors only; DANC 4812. May be repeated; maximum credit three hours. Teaching children's ballet classes of various levels. Student will teach an average of twelve classes per semester, and meet with the supervising professor following observation of teaching assignments. (F, Sp)
DANC 4832 Methods in Teaching Dance
2 Credit Hours
Prerequisite: Majors only; permission of instructor. Methods of teaching through the creative approach. Progressions in teaching dance studies and techniques. (Irreg.)

DANC G4851 Practical Experience in Teaching Modern

## Dance

1 Credit Hour
Prerequisite: 4832. May be repeated; maximum credit three hours.
Practical teaching experience in modern dance or creative dance for children. (F, Sp)
DANC 4960 Directed Readings
1-4 Credit Hours
1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean. May be repeated; maximum credit four hours. Designed for upper-division students who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)
DANC 4970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: Senior standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)
DANC 4990 Special Studies
1-6 Credit Hours
1 to 6 hours. Prerequisite: Departmental permission; May be repeated with change of subject matter; maximum credit eight hours. Variable as to subject and credit for areas of specialty and/or interest not otherwise provided in the standard offering of courses. (F, Sp, Su)
DANC 5023 Introduction to Graduate Study in Dance 3 Credit Hours Prerequisite: graduate standing. Developing research, organizational and refined skills for scholarly writing. Establishing a foundation to analyze existing materials in the dance field for purposes of debate and theory construction. Providing clarification of MFA in Dance expectations and defining a direction/program of study which will enrich knowledge within the discipline. (Irreg.)
DANC 5090 Graduate Special Studies
1-6 Credit Hours
1 to 6 hours. Prerequisite: permission. May be repeated; maximum credit six hours. A special creative or research project course in any phase of dance adapted to the individual student. (F, Sp)
DANC 5224 Graduate Ballet Technique
4 Credit Hours
Prerequisite: Graduate standing and departmental permission; May be repeated; maximum credit 12 hours. Intensive study of dance techniques for proficiency in performance and teaching. (F, Sp, Su)

DANC 5292 Advanced Ballet Company Class 2 Credit Hours Prerequisite: graduate standing, permission of adviser. Continued enrollment based on performance; maximum credit ten hours. A rehearsal situation which provides the special training required in performance. It is conducted in a practicum-laboratory situation aimed at the advanced graduate student. Laboratory (F, Sp)

DANC 5322 Advanced Dance Improvisation
2 Credit Hours
Prerequisite: Graduate standing and Master of Fine Arts in Dance majors only. Development of advanced skills, tools, and conceptualization around dance improvisation and its application to the creative process of choreography. (F)

DANC 5324 Graduate Modern Dance Technique 4 Credit Hours Prerequisite: Graduate standing and departmental permission; May be repeated; maximum credit 12 hours. Intensive practice of modern dance techniques for proficiency in performance and teaching. (F, Sp)

DANC 5392 Advanced Modern Dance Company Class 2 Credit Hours Prerequisite: graduate standing, permission of adviser. Continued enrollment based on performance; maximum credit ten hours. A rehearsal situation which provides the special training required in performance. It is conducted in a practicum-laboratory situation aimed at the graduate student. Laboratory (F, Sp)

DANC 5613 Graduate Choreography
3 Credit Hours
Prerequisite: Graduate standing; DANC 3632 or DANC 4612, or departmental permission; May be repeated; maximum credit 6 hours. Practical application of principles of choreography in original production projects. (F, Sp)
DANC 5713 History of World Dance 3 Credit Hours
Prerequisite: Graduate standing, departmental permission, and Master of Fine Arts in Dance majors only. An examination of the history, evolution, and significance of dance in regions which possess very distinct dance cultures throughout the non-European world. (Irreg.)

DANC 5743 Dance History: Early Roots
3 Credit Hours
Prerequisite: graduate standing or permission of instructor. A survey of the development of dance from pre-historic eras in western civilization through ancient cultures in Egypt, Greece and Rome. Investigations continue through Medieval, Renaissance and Baroque periods up to the evolution of Romantic ballet in the nineteenth century. Will have additional meeting times, research and written assignments. (F)

DANC 5753 Dance History: Three Centuries of Development 3 Credit Hours
Prerequisite: graduate standing or permission of instructor. Development of western theatrical dancing from nineteenth-century Romanticism through the current season. Will have additional meetings, research and written assignments. (Sp)

DANC 5813 Advanced Teaching of Dance
3 Credit Hours
Prerequisite: Graduate standing. This course is designed to provide different voices and diverse points of view on teaching dance within higher education through reading assignments, discussions, and practical applications. (Irreg.)
DANC 5913 Graduate Project in Dance
3 Credit Hours
Prerequisite: permission. May be repeated with change of subject matter; maximum credit six hours. Study and practice in assuming full responsibility of a project in the area of dance. (F, Sp, Su)
DANC 5960 Directed Readings
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing and permission of department. May be repeated; maximum credit twelve hours. Directed readings and/or literature reviews under the direction of a faculty member. (F, Sp, Su)
DANC 5970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

DANC 5980 Research for Master's Thesis
2-9 Credit Hours
Variable enrollment, two to nine hours; maximum credit applicable toward degree, four hours. (F, Sp, Su)

## DANC 5990 Independent Study

1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)

## DENG-Developmental English

DENG 0113 Introduction to College Writing
3 Credit Hours
Course prepares students, who are judged at risk by secondary assessment, for "Principles of English Composition" (ENGL 1113). Course addresses issues of focus, development, expression, sentence structure, and editing skills. This course does not count for college credit at the University of Oklahoma. (F, Sp)

## DES-Design

DES 2633 Visual Communication I
3 Credit Hours Prerequisite: Majors only; ART 1033, ART 1043; corequisite: DES 2643. Introductory course in visual communication which focuses on nonverbal communication. Students are introduced to design research, theory and methods. This course explores the importance design plays in shaping meaning and interpretation through basic visual interaction. (F)

DES 2643 Design Technology
3 Credit Hours
Prerequisite: majors only, ART 1033 and ART 1043; corequisite: DES 2633. Introduction to electronic tools, processes and techniques as they relate to visual communications. (F)

DES 2653 Visual Communication II 3 Credit Hours Prerequisite: Majors only; DES 2633, DES 2643; corequisite: DES 2663. Course is structured to help students apply various strategies, concepts, and form/content relationships to their work. Projects stress theory, application and an introduction to the computer as a design process tool. (Sp)

## DES 2663 Typography I

3 Credit Hours
Prerequisite: Majors only; DES 2633, DES 2643; corequisite: DES 2653. Introduction to the basic concepts of typographic design through studio projects, critiques and lectures. (F, Sp)
DES 2970 Special Topics 1-3 Credit Hours
1 to 3 hours. Prerequisite: sophomore standing or permission of instructor. May be repeated; maximum credit six hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

## DES 3440 Mentored Research Experience

3 Credit Hours
0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)

DES 3633 Visual Communication III 3 Credit Hours
Prerequisite: Majors only; DES 2653, DES 2663; corequisite: DES 3663. Exploration and application of information systems as they apply to visual communications. (F)

DES 3643 Integrated Technology
3 Credit Hours
Prerequisite: Majors only; DES 3633, DES 3663; corequisite: DES 3653.
Emphasis will be in developing user interfaces, experiences and outcomes in design communication, moving from the printed page to electronic media. Development of strategies using new technologies into integrated systems. (Sp)

DES 3653 Visual Communication IV 3 Credit Hours
Prerequisite: Majors only; DES 3633 and DES 3663; corequisite:
DES 3643. Concentration is on design problem solving in visual communication at an intermediate level. (Sp)
DES 3663 Typography II
3 Credit Hours
Prerequisite: Majors only; DES 2653, DES 2663; corequisite: DES 3633. Concentrated exploration of issues within typography using word and image. Projects explore visual and verbal context and meaning through expressive and utilitarian aspects of typography. (F)

DES 3960 Honors Reading 1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated with change of subject matter; maximum credit six hours. Consists of either reading topics or independent study designated by the instructor in keeping with the student's major program. The topics of study will cover materials not usually presented in the regular courses. (F, Sp)

DES 3970 Honors Seminar 1-3 Credit Hours 1 to 3 hours. Prerequisite: admission to Honors Program, junior or senior standing. May be repeated with change of subject matter; maximum credit six hours. The projects covered will vary. The content will deal with concepts not usually presented in regular coursework. (Irreg.)
DES 3980 Honors Research 1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated with change of subject; maximum credit six hours. Provides an opportunity for the gifted honors candidate to work at a special project in the student's field. ( $F, S p$ )

DES 4643 Visual Communication V 3 Credit Hours Prerequisite: Majors only; DES 3653, DES 3643; corequisite:
DES 4653. Students explore contemporary and critical issues in visual communications. This course deals with the planning, design and
implementation of multi-faceted design problems directed towards an understanding and integration of people and visual communication. (F)

## DES 4653 Typography III <br> 3 Credit Hours

Prerequisite: Majors only; DES 3643, DES 3653; corequisite: DES 4643.
Typographic problem solving, exploration, and experimentation.
Emphasis is on the development of syntactic typographic relations in visual communication. (F)
DES 4663 Visual Communication VI
3 Credit Hours
Prerequisite: Majors only; DES 4643 and DES 4653. An advanced course in visual communication exploring multi-component graphic design problems that convey complex information. (Sp)

DES 4673 Professional Practice
3 Credit Hours
Prerequisite: DES 4643, DES 4653, majors only, and Senior standing; Co-requisite: DES 4663. The course focuses on concept development, methodology and creation of a professional body of graphic design work. The concentration is on portfolio development and assessment, client relationships, interviewing, contracts and pricing, budgeting, best practices, presentations, and identifying and pursuing goals and career paths. (Sp)

DES 4930 Internship
1-6 Credit Hours
1 to 6 Hours. Prerequisite: permission of instructor; majors only. May be repeated; maximum credit six hours. Students arrange and participate in a professional work experience with an approved internship site. (Irreg.)

DES 4970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: Senior standing or permission of instructor. May be repeated; maximum credit six hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

DES 4983 Senior Capstone Experience
3 Credit Hours
Prerequisite: senior standing; majors only. May not be repeated for credit. Primary objective is to provide a culminating experience for the senior-year student. Satisfies the University-wide General Education Requirement for a capstone course for design majors. (F, Sp) [V].

DES 4990 Independent Study
1-3 Credit Hours
Prerequisite: majors only; junior standing or permission of instructor. May be repeated: Maximum credit six hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent Study may include library and/or laboratory research and field projects. Title is variable only to reflect specific discipline area within the School of Art \& Art History. (lrreg)

DES 4993 Visual Communication Topics 3 Credit Hours
Prerequisite: majors only; junior standing. May be repeated with change of subject matter; maximum credit nine hours. Special topics course in visual communication for content not currently offered in regularly scheduled courses. (Irreg.)

DES 5093 Graduate Studio Visual Communication I 3 Credit Hours Prerequisite: graduate standing in Art. Individual problems in visual communications area. (Irreg.)

DES 5970 Special Topics
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or research and field projects. (Irreg.)

DES 5990 Independent Study 1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)

## DMAT-Developmental Mathematics

DMAT 0113 Elementary Algebra
3 Credit Hours
Prerequisite: completion of placement test. For students who score in the lowest bracket on the placement test. A review of beginning algebra including polynomial arithmetic, solving equations, graphing, inequalities, and the quadratic equation. Not acceptable for degree credit at the University of Oklahoma. (F, Sp, Su)

## DMAT 0115 Fundamental Algebra 5 Credit Hours

Prerequisite: placement test. Combines the course content of Math 0113 and 0123. A review of beginning algebra including polynomial arithmetic, solving equations, graphing, inequalities, rational expressions, exponents and radicals, imaginary and complex numbers, quadratic equations, systems of linear equations. Not acceptable for degree credit at the University of Oklahoma. (F, Sp, Su)

DMAT 0123 Intermediate Algebra
3 Credit Hours
Prerequisite: "C" or better in DMAT 0113 at OU, or satisfactory score on the placement test, or satisfactory score on the ACT/SAT. Properties of real numbers, equations and inequalities, algebra of rational expressions, exponents and radicals, introduction to quadratic equations, functions and graphs, systems of linear equations. Not acceptable for degree credit at the University of Oklahoma. (F, Sp, Su)

## DRAM-Drama

DRAM 1114 Costume Construction
4 Credit Hours
The theory and practice of the construction, finishing and handling of stage costumes. Includes practical production applications. Laboratory (F, Sp, Su)

DRAM 1124 Stagecraft
4 Credit Hours
Stagecraft. The Theory And Practice Of The Construction, Painting And Handling Of Scenery And Props. Includes Practical Production Applications. Laboratory (F, Sp, Su)

DRAM 1133 Drawing and Rendering
3 Credit Hours
Exploring methods of using freehand drawing to communicate design ideas. Skill building course: form, shape, color, texture, light. Includes some mechanical drawing. (F, Sp)

DRAM 1134 Stage Lighting and Sound
4 Credit Hours
Prerequisite: Majors only. This course acquaints students with the technical procedures and equipment involved in effective lighting and sound systems for theatrical productions. Emphasis includes safe handling of equipment, understanding basics of electricity and audio, and a hands-on process of working with lighting and sound equipment. Laboratory requirement reinforces concepts taught in class. (F, Sp)

DRAM 1141 Stage Management Seminar I 1 Credit Hour
A weekly forum for sharing insights and solving problems on current production assignments, as well as examining the bigger picture of stage management and theatre in America today. ( $\mathrm{F}, \mathrm{Sp}$ )

DRAM 1411 Makeup 1 Credit Hour
To direct and provide experience in the effective application of makeup materials in creating an impression of character. (F, Sp)

DRAM 1503 Acting for Non-Majors
3 Credit Hours
To develop a beginning understanding and appreciation of the art and skill of acting through the study of acting principles, dramatic scenes, and basic stage techniques. (F, Sp, Su)

DRAM 1513 Introduction to Acting
3 Credit Hours
To acquaint the beginning student with the fundamentals of acting and to explore the basic elements of the actor's art. Explores the physical, vocal, emotional and technical aspects of acting in a format that encourages freedom of imagination and personal growth. (F)

DRAM 1523 Character Study for the Actor 3 Credit Hours Prerequisite: 1513. To develop and exercise basic acting skills through practical application of the fundamental elements of the actor's art. The student will become familiar with the actor's tools and learn how to utilize them on a rudimentary level. Emphasis will be placed upon characterization and beginning script analysis required for character study. (Irreg.)

DRAM 1603 Voice And Diction for Non-Majors 3 Credit Hours Improves the student's voice, articulation, pronunciation and expressive intonation for effective communication. (Irreg.)

DRAM 1612 Introduction to Voice and Movement 2 Credit Hours Prerequisite: School of Drama freshmen performance majors. Skill-based course introduces the student to the foundations of voice and movement for the actor. (F)
DRAM 1643 Voice and Speech I 3 Credit Hours
Prerequisite: 1523. Improves the student's voice, articulation,
pronunciation and expressive intonation for effective communication, and performing for the stage. (F)

DRAM 1713 Understanding Theatre
3 Credit Hours
Prerequisite: Non-theatre majors only. A course in theatre appreciation covering the nature and creation of theatre, with opportunity for the students to attend theatrical productions. (F, Sp, Su) [IV-AF] .

DRAM 1731 Dramaturgy Studio $1 \quad 1$ Credit Hour
Prerequisite: Majors only or permission of instructor. A weekly forum to discuss and explore the role of the dramaturg in production in the Helmerich School of Drama as well as industry practices in the United States. (F, Sp)

## DRAM 1811 Music Notation and Score Reading for Stage Managers

 and Designers1 Credit Hour
Prerequisite: Majors only. Introduces music notation and score reading to stage management and design students who may work on musical theatre, ballet and/or opera in their academic and professional careers. (F)

DRAM 1911 Rehearsal and Production 1 Credit Hour
Prerequisite: open to drama majors only. May be repeated; maximum credit four hours. Study, practice and participation in every phase of dramatic production work and management; attendance and critical discussion of plays. Kinds of service are given unit evaluations in terms of relative difficulty and time consumption. Laboratory ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

DRAM 2013 Introduction to Theatrical Design and
Production
3 Credit Hours
Prerequisite: Majors only. Explores the processes of theatrical design in the forms of scenery, lighting, sound and costume design as well as stage management and technical direction. Also focuses on the creation of a holistic design approach uniting script analysis, research, visual imagery and storytelling into one single artistic form of communication. (F, Sp)

DRAM 2052 Traditional Media 2 Credit Hours
Prerequisite: DRAM 1133; majors only. Exploration and building of illustrative skills with the traditional art mediums used by theatrical designers. (Sp)

DRAM 2053 Computer Aided Design I for the Theatre 3 Credit Hours Prerequisite: DRAM 2153 or DRAM 3353. The course will teach students to develop basic design and rendering skills using computer-aided design software currently used in the entertainment industry. (Sp)

## DRAM 2062 Digital Media

2 Credit Hours
Prerequisite: DRAM 1133; majors only. A course in basic visual design principles, concepts, and techniques of computer-aided design and rendering for the theatre. (F)

DRAM 2141 Stage Management Seminar II
1 Credit Hour
Prerequisite: 1141 or permission of instructor. A weekly forum for sharing insights and solving problems on current production assignment, as well as examining the bigger picture of stage management and theatre in America today. (F, Sp)

DRAM 2153 Scene Design
3 Credit Hours
Prerequisite: 1124 and 1133. Acquaints the student with the practical and aesthetic principles involved, and provides experience in designing scenery. (F)

DRAM 2223 Lighting Design
3 Credit Hours
Prerequisite: DRAM 1134, majors only. Acquaints the student with advanced design, presentation, visual awareness and "styles" in lighting design. Includes practical production applications. (F)

DRAM 2233 Introduction to Technical Production 3 Credit Hours
Prerequisite: 1114, 1124, and major in drama. Survey of technical production skills in scene technology and costume technology including communications. Shop management and safety. (F)

DRAM 2243 Draping And Pattern Drafting
3 Credit Hours
Prerequisite: permission of instructor, and sophomore standing. Topics and experiences related to draping skills and pattern drafting for the theatre. Demonstrations and hands-on experience using techniques discussed. Laboratory (F)

DRAM 2253 Draping and Pattern Drafting II 3 Credit Hours Prerequisite: 2243. Continuation of 2243. Topics and experiences related to draping skills and pattern drafting for the theatre. Demonstrations and hands-on experience using techniques discussed. Laboratory (Sp)

DRAM 2323 Stage Movement 3 Credit Hours
Prerequisite: 1523. To give the drama student an understanding of the use of the body as an expressive instrument through development of flexibility, strength and coordination. (F)

DRAM 2333 Advanced Stage Movement
3 Credit Hours
Prerequisite: 2323 and sophomore standing. Focuses on physicality as a fundamental element of the actor's craft through manipulation of movement to explore emotional truth, create a character or convey the reality of a particular theatrical world to an audience. (Sp)

DRAM 2343 History of Costume
3 Credit Hours
Prerequisite: permission. Acquaints the student with the costumes worn by people of dramatically significant periods and countries. (Sp)

DRAM 2413 Sound Techniques 3 Credit Hours
Prerequisite: Majors only. A course in the fundamentals of theatrical sound and sound technology. (F)

DRAM 2423 Drafting for the Theatre
3 Credit Hours
Prerequisite: DRAM 1133; majors only. Increases the student's skill in the technical craft of drafting as a major communication device of scenery and lighting designers. Course will use international drafting conventions and U.S.I.T.T. standards. (Irreg.)

DRAM 2451 Lighting Seminar I
1 Credit Hour
Prerequisite: May be repeated; maximum 2 credit hours; Majors only, sophomore standing or permission. This course will provide opportunity for students to work on their design or production electrician duties in a mentoring environment. Class will also discuss contemporary trends and issues in the theatrical lighting design industry. ( $F, S p$ )

DRAM 2503 On-Camera Acting for Non-Majors 3 Credit Hours Instructs the student on requirements, discipline and basic techniques of performing on camera, with an appreciation of the full process of creating a film or television production. Non-majors course. (F)

## DRAM 2513 Scene Study for the Actor 3 Credit Hours

 Prerequisite: DRAM 1523; Corequisite: DRAM 1643; majors only. Designed to develop the actor's skill through the intensive study and performance of scenes from modern realistic world theatre. Emphasis will be placed upon building a character, milieu study, and scene structure. (F)DRAM 2523 Performing Shakespeare
3 Credit Hours
Prerequisite: 2513 and permission. Designed to develop the actor's skill through the intensive study and performance of scenes and monologues from Shakespeare and other verse drama. Emphasis will be placed upon handling language with believable and appropriate characterization. (Sp)

DRAM 2643 Voice and Speech II
3 Credit Hours
Prerequisite: 1643; corequisite: 2523 . Develops the actor's vocal instrument as an integrated and organic function of self and character. Focus on the expressive voice with verse texts. (Sp)
DRAM 2713 Introduction to Fine Arts
3 Credit Hours
Lectures, illustrated with slides, motion pictures, recordings and readings, surveying the development of the fine arts (architecture, drama, the visual arts and music) from prehistoric times to the present. Background material will include the religious, political and economic conditions and changes affecting the arts. (F) [IV-AF].
DRAM 2731 Dramaturgy Studio 2
1 Credit Hour
Prerequisite: DRAM 1731, Majors only or permission of instructor. A weekly forum to discuss and explore the role of the dramaturg in production in the Helmerich School of Drama as well as industry practices in the United States. (F, Sp)
DRAM 2733 Introduction to Dramaturgy
3 Credit Hours
Prerequisite: DRAM 1513 and ENGL 1213/EXPO 1213; majors only; sophomore standing. Introduces students to basic techniques of dramaturgy: research, text analysis, and collaboration for theatrical production. (F, Sp)
DRAM 2813 Stage Management
3 Credit Hours
Prerequisite: sophomore standing. Designed to give theatre students the background and skills to function as a stage manager for theatre, dance, or musical productions. An introductory course covering the basics of the stage manager's process from pre-production through closing as well as discussing professional topics such as theatrical unions, production management, and job opportunities. (F)
DRAM 2821 Design Drafting for Stage Managers 1 Credit Hour
Prerequisite: Majors only. Acquaints the stage management student to principles related to theatrical drafting, including terminology,
fundamentals, and graphic standards. (F)
DRAM 2970 Special Topics 1-3 Credit Hours
Special Topics. 1 to 3 hours. May be repeated; Maximum credit nine hours. Special topics course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research, and field projects. (Irreg.)
DRAM 3043 Computer Aided Design I for the Theatre 3 Credit Hours Prerequisite: Majors only and DRAM 2062. The course will teach students to develop design and rendering skills using computer-aided design software currently used in the entertainment industry. (Sp)
DRAM 3052 Illustration I: Dry Media 2 Credit Hours
Prerequisite: 1133 and sophomore standing. Studio class intended to facilitate illustration depicting theatre scenery and costume design through the use of colored pencil and pastel media. Focus on the human form clothed for theatre performance and on scenic rendering and/or vignettes. Exercises will stress the effect of light on the objects and the creation of fullness/plasticity. (F)
DRAM 3053 Computer Aided Design II for the Theatre 3 Credit Hours Prerequisite: Majors only and DRAM 3043. Covers the creation and manipulation of 3D objects, and developing those objects as design tools for presentation and visualization of a theatre design. Students will develop skills utilizing 3D visualization software currently used in the entertainment industry. (F)
DRAM 3063 Projection Design
3 Credit Hours
Prerequisite: Course is not open to freshman; majors only; DRAM 2153,
DRAM 2223, and DRAM 3043. This course explores the art and technique of projection design as it relates to theatrical performance and entertainment use. (Sp)

DRAM 3141 Stage Management Seminar III
1 Credit Hour
Prerequisite: 1141, 2141 or permission of instructor. A weekly forum
for sharing insights and solving problems on current production
assignments, as well as examining the bigger picture of stage
management and theatre in America. ( $F, S p$ )
DRAM 3223 Costume Construction Techniques
3 Credit Hours
Prerequisite: DRAM 2243, junior standing, majors only. Advanced work in the mechanics and technology of costume builder's draft including practical work in the costume shop. (F)
DRAM 3323 Stage Movement: Theatrical Intimacy 3 Credit Hours Prerequisite: DRAM 2323, junior standing, and departmental permission. Introduces students to the basic principles of acting and staging moments of theatrical intimacy. Course focuses on safety, documentation, and storytelling through theatrical intimacy standards. (Irreg.)
DRAM 3353 Costume Design
3 Credit Hours
Prerequisite: 1114. Acquaints students with elementary costume design and construction, historical styles, character evaluation and design sources. (F)
DRAM 3413 Sound Design
3 Credit Hours
Prerequisite: junior standing and permission of instructor. Provides theatre students with the basic skills and concepts for designing sound as support for a theatrical production. This is a design course providing the necessary skills in script analysis, research, style, sound resources, and sound scoring. (Irreg.)

DRAM 3433 Advanced Materials for Stage Scenery and Properties

3 Credit Hours
Prerequisite: 2233 junior standing and permission of instructor.
Application of metals, plastics and non-traditional materials in scenic and properties construction. Emphasis on safety and efficacy. (Sp)
DRAM 3440 Mentored Research Experience 3 Credit Hours 0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)
DRAM 3443 Digital Audio Techniques
3 Credit Hours
Prerequisite: Majors only; DRAM 2413 and DRAM 3413. This course will provide sound design students with an extended understanding of digital audio. Emphasis is placed on editing and manipulating digital audio, understanding digital audio workstations, and adapting digital audio techniques to digital mixers and other digital audio equipment. (F)
DRAM 3451 Lighting Seminar II 1 Credit Hour
Prerequisite: May be repeated; Maximum 2 credit hours; DRAM 2223, DRAM 2451, majors only, and junior standing or permission of instructor. This course builds on skills learned in DRAM 2223 and DRAM 2451 through practical application as a Lighting Designer or Production Electrician. Students will continue to develop skills used in the industry, and class will include focused discussions about contemporary trends and issues in theatrical lighting design and production. (F, Sp)
DRAM 3513 Performing Departures from Realism 3 Credit Hours Prerequisite: 2523 and juried audition. Acquaints students with performance theory and practice for non-realistic plays and forms, exploring the material through exercises, improvisations and performances of scripted scenes. (F)

DRAM 3523 Performing New Plays
3 Credit Hours
Prerequisite: 2523 and juried audition. Provides practical experiences for the actor in working with playwrights on new, unpublished plays through performances in scenes, staged readings and through text readings in American acting traditions. (Irreg.)

DRAM 3533 Advanced Shakespeare Performance 3 Credit Hours Prerequisites: majors only; junior status; DRAM 2523 and DRAM 2643. Students must have passed their sophomore jury prior to enrolling in this course. Designed to help the student further their skills in rehearsing and performing Shakespeare and other classical texts. Provides advanced training in verse scansion and form, and increases students' knowledge of lesser-known Shakespearean and other Elizabethan texts. (Sp)

## DRAM 3543 Audition Techniques

3 Credit Hours
Prerequisite: Majors only, junior standing, DRAM 2523, and juried audition. This course is designed to help advanced undergraduate actors learn, hone, and drill audition techniques for theatrical, film/TV, and commercial auditions at the professional level. (F)

DRAM 3613 Directing I
3 Credit Hours
Prerequisite: DRAM 2733; majors only. Consists of lectures,
demonstrations and exercises performed by members of the class
Includes, but is not limited to: stage management, dramatic and theatrical values of a play, play analysis and various techniques of directing. Laboratory (F)

DRAM 3623 Directing II
3 Credit Hours
Prerequisite: 3613. An intensive study for majors only of the craft and techniques involved in the directing of plays. Special emphasis is placed on script analysis; communication with actors; and practical laboratory work in employing these methods. Scenes from major dramatic works are rehearsed and prepared in class with extensive critique and "in-shop training." Laboratory (Irreg.)

DRAM 3643 Voice And Speech III
3 Credit Hours
Prerequisite: 2643, junior standing. Develops the actor's vocal instrument as an integrated function of self and character. Work on dialects. (F)

DRAM 3713 History of the Theatre I 3 Credit Hours
Prerequisite: junior standing and permission. Acquaints the student with the development of drama, theatre and production procedures through the ages from 500 B.C. to 1780. (F) [IV-WC].

DRAM 3723 History of the Theatre II 3 Credit Hours
Prerequisite: junior standing and permission. Continuation of 3713
Acquaints the student with the development of drama, theatre and production procedures through the ages from 1700 to the present. (Sp) [IV-WC].

DRAM 3731 Dramaturgy Studio 3 Credit Hour
Prerequisite: DRAM 2731, DRAM 2733 or permission of instructor. A weekly forum to discuss and explore the role of the dramaturg in the Helmerich School of Drama as well as industry practices in the United States. (F, Sp)

DRAM 3753 Dramatic Structures: Story, Genre, Culture, Theory

3 Credit Hours
Prerequisite: Majors only and DRAM 2733. What shapes do stories take in theater? This course surveys select dramaturgical structures and theories of dramatic composition across performance histories and cultures. In particular, the course focuses on the relationship between dramatic shapes and how these forms continue to exert their influence today. (Irreg.)

DRAM 3781 Topics in Dramatic Literature
1 Credit Hour
Prerequisite: DRAM 2733 and ENGL 1213 or EXPO 1213; Majors only. May be repeated; maximum credit 4 hours. Specialized study in selected topics in dramatic literature. (Irreg.)

DRAM 3822 Stage Management Studio I
2 Credit Hours
Prerequisite: 2813 and junior standing. May be repeated; maximum credit four hours. Practical experience in stage management on university theatre productions. Laboratory (F, Sp)

DRAM 3833 Advanced Stage Management
3 Credit Hours
Prerequisite: 2813 and major in Drama. Advanced studies of stage management. Topics covered include leadership, team-building, organization, communication, interpersonal relations, problem solving and creating a positive work environment. (Sp)

DRAM 3910 Advanced Rehearsal and Production 1-2 Credit Hours 1 to 2 hours. Prerequisite: DRAM 1114, DRAM 1124, and DRAM 1134; majors only. May be repeated; maximum credit four hours. Study and practice in an administrative or supervisory capacity of every phase of dramatic production work and management; attendance and critical discussion of plays. Kinds of service are given unit evaluation in terms of relative difficulty and time consumption. Laboratory (Irreg.)

DRAM 3960 Honors Reading 1-3 Credit Hours
1 to 3 hours. Prerequisite: Admission to honors program. May be repeated with change of subject; maximum credit six hours. Consists of either reading topics or independent study designated by the instructor in keeping with the student's major program. Covers materials not usually presented in the regular courses. (F, Sp, Su)

DRAM 3970 Honors Seminar 1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Subjects covered vary. Deals with concepts not usually treated in regular courses. (Irreg.)
DRAM 3980 Honors Research 1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated with change of subject; maximum credit six hours. Provides an opportunity for the gifted Honors candidate to work at a special project in the student's field. (F, Sp, Su)

DRAM 3990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: permission of instructor and junior standing. May be repeated once with change of content. Independent study may be arranged to study a subject not available through regular course offerings. (F, Sp, Su)

DRAM 4023 Model Building
3 Credit Hours
Prerequisite: DRAM 1133; majors only. Acquaints students with the process of building the scenographic model as it relates to the design process. Lecture and Laboratory (Sp)

DRAM 4073 Developing the Professional Perspective 3 Credit Hours Prerequisite: senior standing. Meant to give the artist the life tools to participate and thrive in an artistic lifestyle. (F)

DRAM G4113 Scene Painting
3 Credit Hours
Prerequisite: 1114, 1124, 1133. The study and practice of traditional and new scene painting materials and techniques. Individual scene painting problems in the uses of dry pigments, casein, aniline dyes and texture materials. Laboratory (Sp)

DRAM 4141 Stage Management Seminar IV
1 Credit Hour
Prerequisite: 1141, 2141, 3141 or permission of instructor. A weekly forum for sharing problems on current production assignments, as well as examining the bigger picture of stage management and theatre in America today. (F, Sp)

DRAM 4153 Advanced Scene Design 3 Credit Hours
Prerequisite: DRAM 3053; majors only. An advanced study in scenic design for a variety of theatrical forms, including multiple scene, unit and single settings for dance, drama, musical theatre and opera. (Irreg.)
DRAM 4163 Lighting Design II
3 Credit Hours
Prerequisite: DRAM 2223, majors only, and sophomore standing or permission. This course explores specific design techniques and styles in lighting for drama and dance. Students will investigate the differences of each genre as well as become familiar with contemporary and traditional styles found in both. (Sp)
DRAM 4173 Concert Lighting
3 Credit Hours
Prerequisite: Majors only; DRAM 2223 and DRAM 3053. This course explores the foundations of musical concert lighting, exploring the history of the art and the techniques used to create it. Students will develop skills in adapting techniques of modern lighting design to musical concert performance. (Sp)

DRAM 4213 Lighting Design III 3 Credit Hours Prerequisite: DRAM 4163, majors only, and junior standing or permission. This course explores specific design techniques and styles in lighting for opera and musical theatre. Students will investigate the differences of each genre as well as become familiar with contemporary and traditional styles found in both. (F)

## DRAM 4233 Costume Crafts for Theatre 3 Credit Hours

Prerequisite: DRAM 2243, DRAM 2253; junior standing; majors only. Study of and work with special techniques that employ dying and painting of fabrics and other materials used in costume construction; millinery (construction of headgear). Wig-making and the construction of threedimensional costume elements such as padding to alter the actor's physical appearance. (Sp)

DRAM G4243 Costume Shop Management 3 Credit Hours
Prerequisite: 2233, senior standing and permission of instructor. Instruction and experience in shop management including budgeting of resources, time management, personnel, and organization. (Sp)
DRAM G4253 History of Decor 3 Credit Hours
Prerequisite: majors only, junior standing and permission of instructor. Survey of interior and exterior decoration with particular emphasis on theatrical application. (F)

## DRAM 4263 Properties and Set Dressing for Theatre, T.V. and Film 3 Credit Hours

Prerequisite: DRAM 2233, junior standing. The course will provide a foundation of the skills associated with the role of the Properties Master for Theatre, T.V. and Film. Students will explore topics on materials, fabrication, period styles, project management, and shop supervision. (Sp)
DRAM 4272 Lighting Production 2 Credit Hours
Prerequisite: DRAM 1134, and DRAM 2223; majors only. The investigation of various lighting crafts including special effects, three-phase power, and lighting console programming. An in-depth study of the role of the master electrician's duties as they are understood in the industry including: power distribution, hang, load-in, and focus sessions. (Irreg.)
DRAM G4323 Stage Combat I: Unarmed Stage Combat 3 Credit Hours Prerequisite: 2323 and senior standing. Introduces students to the basic principles of unarmed stage combat. Course focuses on safety, emotional commitment and developing proficiency in techniques required for certification by society of American fight directors. (Sp)

DRAM G4333 Stage Combat: Edged Weaponry
3 Credit Hours
Prerequisite: 2323 and senior standing. Introduces students to the basic principles of armed stage combat using edged weaponry. Course focuses on safety, emotional commitment and developing proficiency in techniques required for certification by society of American fight directors. (Sp.)

DRAM G4353 Costume Design II
3 Credit Hours
Prerequisite: DRAM 2343, DRAM 3353; majors only. Promotes an understanding of style as a design consideration and encourages an awareness of the relationships between theatrical styles and historical styles. (Irreg.)
DRAM 4363 Costume Design III
3 Credit Hours
Prerequisite: DRAM 2343, DRAM 3353, DRAM 4353; majors only. To further develop costume design students presentation and illustration skills. Also, allows the student to explore every facet of the design process. (Irreg.)
DRAM 4413 Advanced Sound Design
3 Credit Hours
Prerequisite: DRAM 3413. The course builds upon the skills developed in DRAM 3413 to hone critical design practices in the art of Sound Design for the theatre. (F)
DRAM 4423 Sound Scoring
3 Credit Hours
Prerequisite: DRAM 1811 and DRAM 3413; majors only. Develops music research and compositional skills necessary to provide music sufficient to support the artistic goals of a theatrical production. (Sp)

DRAM 4451 Lighting Seminar III
1 Credit Hour
Prerequisite: May be repeated; maximum 2 credit hours; DRAM 3451, majors only, senior standing or permission. This course builds on skills learned in DRAM 3451 through practical application as a Lighting Designer or Production Electrician. Students will further develop skills used in the industry, and class will include focused discussions about contemporary trends and issues in theatrical lighting design and production (F, Sp)

DRAM 4513 Professional Preparation
3 Credit Hours
Prerequisite: Majors only, junior standing, and DRAM 3543. Teaches the skills necessary for the performer to enter the profession; preparation of photos and resumes, training for interviews, preparation for advanced training programs, and an introduction to issues unique to the business. (Sp)
DRAM G4523 Acting for the Camera
3 Credit Hours
Prerequisite: 2523 and jury auditions. Designed to instruct the student in the requirements, discipline, and basic techniques of working on camera as a professional actor, with an appreciation of the full process of creating a film or television program. All work by the student will be videotaped then subsequently replayed with a critique by the instructor. (Sp)
DRAM 4533 Master Teachers of Acting
3 Credit Hours
Prerequisite: DRAM 2523 and permission of instructor; majors only. A juried audition is required for permission. This is a team-taught course intended for upper-division acting students. The course provides 2-3 weeks each of extensive study of the techniques and methods of six legendary American acting teachers of the Stanislavski method. (Irreg.)
DRAM 4553 Acting for the Camera II
3 Credit Hours
Prerequisite: Majors only and DRAM 4523. Designed to continue instructing the student in the requirements, discipline, strategies, business tools, and techniques of working on camera as a professional actor, building on principles established in DRAM 4523. (Sp)

## DRAM 4563 Showcase

3 Credit Hours
Prerequisite: Majors only, senior standing, and DRAM 4523. This course is designed to create a flexible structure within which seniors will accomplish Senior Showcase preparation and acquire professional skills, materials, and strategies necessary for the successful navigation of the Senior Showcase process and their careers in the professional industry. (F)

DRAM 4643 Advanced Voice Extended Usage 3 Credit Hours
Prerequisite: juried auditions. Develop the voice for extended usage in combat, laughing, crying, shouting, screaming, topping extraneous noise, and projecting in large or outdoor venues. The foundations of breath, resonance, and the free and open vocal track will be reviewed. Anatomy and care of the voice will be stressed. Theories of voice training will be explored. Practice skills with monologues and short scenes. (Sp)
DRAM 4731 Dramaturgy Studio 4
1 Credit Hour
Prerequisite: Majors only, DRAM 1731, DRAM 2731, and DRAM 3731; may be repeated; maximum credit two hours. A weekly forum to discuss and explore the role of the dramaturg in production in the Helmerich School of Drama as well as industry practices in the United States. (F, Sp)

## DRAM 4733 Dramaturgy Seminar

3 Credit Hours
Prerequisite: DRAM 2733 or departmental permission. Designed to train students to do dramaturgy and literary management as they are currently practiced in American theatre. Develops students' skills in theatre research, writing and script analysis which may be applied to the functions of a dramaturg or other artist in the field. (Irreg.)

## DRAM 4743 US Latinx Theater \& Politics: 1950s to

 Today3 Credit Hours
Prerequisite: Majors only and DRAM 2733 or permission of instructor. This class looks at US-based Latinx theater and performance from the mid-twentieth century to today. In its discussions of artists, productions, aesthetics, themes, and companies, the class notes important contributions from theorists in Latinx studies; students will also consider the sociopolitical contexts that surround and shape Latinx theater and performance. (Irreg.)

## DRAM 4752 Season, Sequence, Script: The Art of Critical

Selection
2 Credit Hours
Prerequisite: Majors only and DRAM 2733. In this course, students will interact with the season selection process at the School of Drama and develop a roundtable appreciation for literary management, artistic leadership, project curation, and institutional outreach. Students will meet with artistic leaders, produce play reports, and pitch a final project of their own. (Irreg.)

## DRAM G4773 Playwriting I

3 Credit Hours
Prerequisite: DRAM 2733 and permission of instructor. Study and practice in playwriting. Acquaints the student with dramatic structure and technical limitations placed upon material written for dramatic production and provides experience in writing for the stage. ( $F, S p$ )

## DRAM G4783 Playwriting II 3 Credit Hours

Prerequisite: permission. Study and practice in playwriting. Acquaints the student with dramatic structure and technical limitations placed upon material written for dramatic production and provides experience in writing for the stage. (F, Sp)

DRAM 4803 Capstone Experience
3 Credit Hours
Prerequisite: permission of instructor. Advanced, individual project which demonstrates mastery of skills and knowledge in student's area of interest, selected under advisement and guided by appropriate faculty member(s). Take in the senior year, capstone requires written document, either explanatory or evaluative, of the entire capstone project in appropriate research paper format. (F, Sp, Su) [V] .

DRAM 4810 Performance Practicum
1-2 Credit Hours
1 to 2 hours. Prerequisite: Departmental permission. May be repeated; maximum credit 8 hours. Study and practice in process and performance as a cast member, dramaturg, or designer of OU theatre productions. ( F , Sp)

DRAM 4822 Stage Management Studio II
2 Credit Hours
Prerequisite: 3822 and senior standing. May be repeated; maximum credit four hours. Practical experience in stage management on university theatre productions. Laboratory ( $\mathrm{F}, \mathrm{Sp}$ )

DRAM G4853 Theatre Management
3 Credit Hours
Prerequisite: Junior standing and departmental permission. A study of the fundamental operations of commercial, professional non-profit, stock, dinner, and university theatre in the United States. (F)

DRAM 4900 Professional Semester
3-12 Credit Hours
3 to 12 hours. Prerequisite: junior or senior standing. Internship with a non-academic theatre (or theatre-related) organization which will augment the students academic experiences. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

DRAM 4940 Special Topics in Theatre 2-6 Credit Hours
2 to 6 hours. Prerequisite: May be repeated with change of content; maximum credit 12 hours; Majors only; junior standing or permission of instructor. Varying topics in the study and practice of theatre and drama not covered in regularly scheduled courses or new developments within the area of expertise. (Irreg.)
DRAM 4960 Directed Readings
1-4 Credit Hours
1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean. May be repeated; maximum credit four hours.
Designed for upper-division students who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)

DRAM 4970 Special Topics/Seminar 1-3 Credit Hours
1 to 3 hours. Prerequisite: Senior standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

## DRAM 4990 Special Studies

2-6 Credit Hours
2 to 6 hours. Prerequisite: permission. May be repeated with change of subject matter; maximum credit 12 hours. A special creative or research project course on an advanced level in any phase of the theatre or drama adapted to the individual student. (F, Sp, Su)
DRAM 5940 Special Topics in Theatre Drama
2-6 Credit Hours
Prerequisite: graduate standing or permission of instructor. For majors only. May be repeated with change of content; maximum credit nine hours. Varying topics in the study and practice of theatre and drama not covered in regularly scheduled courses or new developments within the area of expertise. (Irreg.)

DRAM 5960 Directed Readings
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing and permission of department. May be repeated; maximum credit twelve hours. Directed readings and/or literature reviews under the direction of a faculty member. (F, Sp, Su)

DRAM 5970 Graduate Seminar
1 to 4 hours. Prerequisite: 12 hours of drama and graduate standing or permission. May be repeated with change of subject matter; maximum credit 12 hours. (F, Sp, Su)

DRAM 5980 Research for Master's Thesis
2-9 Credit Hours
Variable enrollment, two to nine hours; maximum credit applicable toward degree, six hours. (F, Sp, Su)
DRAM 5990 Special Studies for Graduate Students 2-6 Credit Hours 2 to 6 hours. Prerequisite: permission. May be repeated with change of subject matter; maximum credit each time six hours. (F, Sp, Su)

## DRDG-Developmental Reading

DRDG 0112 Reading Improvement 2 Credit Hours
Designed to improve the ability of individual students to read and comprehend college-level material. Each student is tested to permit instruction to begin at the appropriate levels. Not acceptable for credit at the University of Oklahoma. (F, Sp, Su)

DRDG 0122 College Reading Strategies
2 Credit Hours
A continuation of DRDG 0112 . The course focuses on the development of reading strategies for college textbooks. Strategies include comprehension monitoring and how to construct a coherent interpretation of a passage. Not acceptable for credit at the University of Oklahoma. (F, Sp, Su)

## DSA-Data Science and Analytics

DSA 3013 Machine Learning for Data Science 3 Credit Hours
Prerequisite: CS 1213 or CS 1313 or CS 1321 or CS 1323 or CS 1324, and departmental permission. Machine Learning for Data Science provides a broad overview of widely accepted and state-of-the-art machine learning approaches to automatically extract information from a variety of data types. This course will include conceptual background on data, methods, and application approaches; coverage of issues of data security, privacy, and ethics related to machine learning; and practical, hands-on exercises. (Irreg.)
DSA 3023 Big Data Engineering
3 Credit Hours
Prerequisite: DSA 3013, and CS 1213 or CS 1313 or CS 1321 or CS 1323
or CS 1324, and departmental permission. Students in this course will develop basic ability to design, build, and implement data pipeline systems to allow efficient access to data and databases. Several topics will be covered including data wrangling, data ingestion, and storage engines. Cloud based systems for data processing and distributed computing will also be discussed. (Irreg.)

## DSA 4003 Applied Data Science

3 Credit Hours
Prerequisite: DSA 3013 and DSA 3023, and CS 1213 or CS 1313 or CS 1321 or CS 1323 or CS 1324; and departmental permission. In this course you will complete multiple larger-scale team projects on real-world complex data sets. The projects will allow you to develop and continue to refine your skills in problem identification, data visualization, data wrangling, data organization, machine learning, communication, and presentation. (Irreg.)

DSA G4413 Algorithm Analysis
3 Credit Hours
(Crosslisted with C S 4413) Prerequisites: C S 2413 and C S 2813; or MATH 2513; or DSA 5005; and departmental permission. Design and analysis of algorithms and measurement of their complexity. This course introduces various algorithm design strategies--divide and conquer, greedy principle and dynamic programming--to solve a variety of problems using algorithms of various types: deterministic and randomized, serial and parallel, centralized and decentralized, and program based and circuit based. (F)
DSA G4513 Database Management Systems 3 Credit Hours
(Crosslisted with C S 4513) Prerequisites: C S 2413 and C S 2813; or MATH 2513; or DSA 5005; and departmental permission. The design and implementation of a DBMS including data models, query languages, entity-relationship diagrams, functional dependencies, normalization, storage structures, access methods, query processing, security and transaction management, and applications. The impact of databases on individuals, organizations, and society, and legal and professional responsibilities including security and privacy will be discussed. A commercial DBMS is used. Students practice written communication skills. (F)

DSA 5001 Data Analytics and Media 1 Credit Hour
Prerequisites: Departmental permission; graduate standing. This course covers the application of data analytics to the media environment. Students will learn the application and usage of data analytics in media and its effectiveness; and how data analytics provides research tools to collect audiences' opinion on political, social, public issues, and consumers' responses to the brand. (Irreg)
DSA 5005 Computing Structures
5 Credit Hours
(Crosslisted with C S 5005) Prerequisite: CS 2334, MATH 1914 or MATH 1823 or with permission of graduate liaison. This course has three parts: discrete mathematics, object-oriented programming in $\mathrm{C}++$, and data structures in C++. As part of the discrete mathematics students will be introduced to combinatorics, logic, relations, functions, computational complexity, automata, and graph theory. Students will be introduced to the fundamentals of object-oriented programming and learn to design, build, and analyze data structures using object-oriented principles and techniques. Credit hours earned for this course cannot be used to fulfill degree requirements for the B.S., M.S. or Ph.D. programs in computer science. (Irreg.)
DSA 5011 Introduction to R 1 Credit Hour Prerequisites: departmental permission; graduate standing. $R$ is a free open source statistical programming language used by professionals in every field and industry. This introductory course aims to provide students with the fundamentals of R and R Studio. Instead of passively watching videos, students will apply $R$ to solve real data problems while receiving instant and personalized feedback that guides them to the correct solution. (Irreg.)
DSA 5013 Fundamentals of Engineering Statistical Analysis 3 Credit Hours
(Crosslisted with ISE 5013) Prerequisite: graduate standing. Introduction to probability, expectation, discrete and continuous distributions, sampling and descriptive statistics, parameter estimation, and statistical tests to aid decision making. The student will learn analysis techniques for verification of systems parameters. (F, Sp)

DSA 5021 Data Analytics Applied to Meteorology Data 1 Credit Hour Prerequisites: departmental permission; graduate standing. This course focuses on meteorology data that is stored regularly in space and time, so-called gridded data. For example, satellite or forecast data that is stored in a specific latitude-longitude grid, and available at uniform increments in time. Analysis of gridded data is abetted by programming in Python, offering an array syntax that exploits the uniformity of data. (Irreg.)
DSA 5031 Econometrics for DSA 1 Credit Hour
Prerequisite: Graduate standing and departmental permission. The main goal of this course is to learn a set of econometrics tools that can be applied in empirical research related to economic issues. The course will emphasize applying different estimation techniques, or quasiexperimental methods, to establish causal relationships in observational data. (Irreg.)
DSA 5041 Advanced R
1 Credit Hour
Prerequisite: Graduate standing in DSA/C S/ISE and DSA 5011, or departmental permission. R is a free open source statistical programming language used by professionals in every field and industry. This course will provide students with detailed knowledge of R and R Studio. Instead of passively watching videos, students will apply $R$ to solve real data problems while receiving instant and personalized feedback that guides them. (Irreg.)

## DSA 5051 Data Visualization <br> 1 Credit Hour

Prerequisite: Graduate standing in DSA/C S/ISE and departmental permission; DSA 5103 and DSA 4513 recommended. Aspiring data scientists need to be able to communicate the stories of data to communities of interest. This usually requires the depiction of data in visualizations. The course combines an overview of best practices for visualizations with practical knowledge, including the use of Tableau and how to gather user requirements. (Irreg.)

DSA 5061 Python for Data Science and Analytics 1 Credit Hour
Prerequisite: Graduate standing, C S 1313 or C S 1323, and departmental permission. This course introduces core programming basics, including data types, control structures, and algorithm development with functions via the Python programming language for students without prior programming experience. The course discusses the fundamental principles of Object-Oriented Programming and their application in data science and analytics. (Irreg.)

DSA 5103 Intelligent Data Analytics
3 Credit Hours
(Crosslisted with ISE 5103) Prerequisite: graduate standing or permission of instructor; ISE 3293 or ISE 5013; CS 1313 or CS 1323. In our society, data is rapidly increasing in volume, velocity, and variety. At the same time computing power and the sophistication of data analysis techniques are increasing. However, even with the expanding capabilities, businesses and organizations often find themselves "data rich, but information poor." Intelligent Data Analysis is a holistic approach to addressing realworld data intensive problems that integrates human intuition with data analysis tools to best draw out meaningful insights. To this end, the course has four underlying themes: defining the Problem, understanding and coping with Data, selecting and using appropriate Analytical Tools, and discovering and communicating the Insight. Techniques covered include data cleansing and pre-processing, exploratory analysis and visualization, dimension reduction, linear and logistic regression, decision trees, and clustering. This course will introduce students to a powerful open source statistical programming language (R) and include extensive hands-on data analysis and team projects. (F)

DSA 5113 Advanced Analytics and Metaheuristics 3 Credit Hours
(Crosslisted with ISE 5113) Prerequisite: ISE 5013, graduate standing or permission of Instructor. Explores advanced techniques for addressing complex optimization problems. Focus is on formulating mathematical models and developing problem solving strategies using methods in the context of Data Science and Analytics. Topics include continuous and combinatorial optimization with an emphasis on both traditional and modern heuristic techniques. (Sp)

DSA 5133 Energy Analytics
3 Credit Hours
(Crosslisted with ISE 5133) Prerequisite: Graduate standing or permission of instructor. In today's data-driven world, the ability to extract knowledge and create successful future energy projections is critical for the energy sectors. In this regard, data science body of knowledge promises a strong set of analytical tools that can be used for demand/supply forecasting and price prediction. This course aims at teaching the students the fundamentals of data analysis and interpretation. (F)

DSA 5203 Time Series Analysis
3 Credit Hours
Prerequisite: DSA/ISE/C S graduate standing or Departmental permission. This course will cover data mining and time series analysis. Modules include: statistical estimation, transformations and decomposition of time series, quantifying correlation structure in standard models, forecasting methods, linear least squares method, and volatility models. Students will utilize MATLAB Time Series Tool Box and open source programs in R. (Irreg.)

DSA 5303 Financial Engineering Analytics
3 Credit Hours
Prerequisite: departmental permission or DSA/ISE/C S graduate standing. Course focuses on use of optimization and stochastic models to solve portfolio optimization problems; price derivative securities including energy and weather derivatives; and applications of financial engineering, including algorithmic trading, financial networks, pricing of real options, and the use of machine learning in pricing. Data driven models and big data mining in financial engineering will be also discussed. (Irreg.)

DSA 5403 Bayesian Statistics
3 Credit Hours
Prerequisite: Departmental permission or DSA graduate standing. Course topics are models, probability, Bayes' Rule and R; inference to a binomial probability; and the generalized linear model. (Irreg.)

DSA 5503 Healthcare Analytics
3 Credit Hours
(Crosslisted with ISE 5503) Prerequisite: Graduate standing and ISE 3293 or ISE/DSA 5013. This course gives an overview of the primary concepts and methods towards developing artificial intelligence (AI)-enabled healthcare systems. We will focus on foundational methods in machine learning and data analytics for prediction and pattern recognition, and apply them to specific areas in medicine and healthcare including, but not limited to, disease diagnosis, patient treatments and their outcomes prediction. (Sp)

DSA 5703 Machine Learning Practice
3 Credit Hours
(Crosslisted with C S 5703) Prerequisite: Graduate standing; C S 4013/5013, C S 5593, or ISE/DSA 5103; or permission of instructor. Machine learning is the data-driven process of constructing mathematical models that can be predictive of data observed in the future. In this course, we will study the use of a range of supervised, semisupervised and unsupervised methods to solve both classification and regression problems. (F)

DSA 5900 Professional Practice
1-4 Credit Hours
1 to 4 hours. Prerequisite: Completed or concurrent enrollment in DSA 5103, DSA 5113, DSA 4413, and DSA 4513. Graduate standing and departmental permission. May be repeated; maximum credit four hours. Participation in a professional experience with an approved project sponsor and topic. A written report detailing the responsibilities and results of the experience is required upon completion along with an oral presentation. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

## DSA 5970 Special Topics/Seminar

1-3 Credit Hours
1 to 3 hours. Prerequisite: permission of instructor. May be repeated with a change of subject matter; maximum credit 12 hours. Selected topics of current research interest not covered by regularly scheduled coursework. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ ) (Irreg.)
DSA 5980 Research for Master's Thesis 2-9 Credit Hours 2 to 9 hours. Prerequisite: Graduate standing and departmental permission. Variable enrollment, two to nine hours; maximum credit applicable toward degree, six hours. (F, Sp, Su)
DSA 5990 Independent Study 1-3 Credit Hours 1 to 3 hours. Prerequisite: Graduate standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)
DSA 6980 Research for Doctoral Dissertation 2-16 Credit Hours 2 to 16 hours. Prerequisite: Graduate standing and permission of instructor; may be repeated. Directed research culminating in the completion of the doctoral dissertation. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

## EACS-Educational Administration Curriculum \& Supervision

EACS 2960 Individual Study
1-4 Credit Hours
1 to 4 hours. Prerequisite: good standing in University; fewer than 62 total hours; approval of instructor and dean. May be repeated; maximum credit four hours. Designed to provide an introduction to the study of education through a rigorous program of readings under the direction of a member of the faculty. (Irreg.)

EACS 3440 Mentored Research Experience
3 Credit Hours
0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)

EACS 3960 Honors Reading 1-3 Credit Hours Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Provides students with the opportunity to develop an appropriate body of reading materials on topics not covered in detail in routine coursework. Students will be obliged to assume the primary initiative in selecting the topic, compiling the bibliography and completing the reading, and will report their progress in weekly sessions to their instructor. Credit will be given only after an intensive oral examination. (Irreg.)
EACS 3970 Honors Seminar
1-3 Credit Hours
Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Covers variable subjects in education with in-depth studies of issues not covered in the standard course offerings. (Irreg.)

EACS 3980 Honors Research
1-3 Credit Hours
Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Provides an opportunity for honors students to work on a special project under the guidance of a professor in the student's major area of study. (Irreg.)

EACS 3990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: one course in general area to be studied;
permission of instructor and department. May be repeated; maximum credit six hours. Contracted independent study for topic not currently offered in regularly scheduled courses. (F, Sp)

EACS 4960 Directed Readings In Education 1-4 Credit Hours
1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean. May be repeated; maximum credit four hours.
Designed for upper-division students preparing to teach who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)

EACS 4970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: senior standing or permission of instructor. May be repeated with change of content; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

EACS 4980 Practicum in Education
1-3 Credit Hours
1 to 3 hours. Prerequisite: nine hours of education courses. Provides fieldtype experience under faculty supervision and is designed to introduce the student to the practical application of theory within an environment in which professional practice takes place. (Irreg.)

## EACS 4990 Special Problems in Education <br> 1-4 Credit Hours

1 to 4 hours. Prerequisite: permission of instructor. May be repeated with change of title and subject. Variable as to subject and credit for areas of specialty and/or interest not otherwise provided in the standard offering of courses. (Irreg.)

EACS 5023 Research Literacy
3 Credit Hours
Prerequisite: Graduate standing. Rigorous social science research can inform the development of policy and practice in schools. Yet, the methodological quality of research in the social sciences varies considerably. It is thus important for educational leaders to be discerning consumers of social science research. In this course, you will develop skills for locating, appraising, and synthesizing social science research. (F, Sp, Su)
EACS 5233 The Organization of Education
3 Credit Hours
Prerequisite: graduate standing. The organization of American schools. The history, relationships, functions, present status and trends in local, state and national education agencies. The places which professional educational associations, citizen's committees and other influential groups have in relation to schools. The administrative hierarchy in schools and the special functions of each level. The multicultural aspects of schooling in America. (F, Sp, Su)
EACS 5263 Education and the Law
3 Credit Hours
Prerequisite: graduate standing. Legal framework of education in the United States; consideration of federal and state constitutional provisions, federal and state statutes, federal and state judicial decisions and rules and regulations of the various federal and state agencies which affect education. (F, Sp, Su)

EACS 5333 Politics in Educational Administration 3 Credit Hours
Prerequisite: graduate standing. An overview of political activities at the local, state, and federal levels that will enhance the professional development of school administrators. Issues addressed include micropolitics at the school site and district offices; superintendent and school board relations; lobbying legislators and dealing with interest groups; the state political process, federal aid; and analysis of current political controversies. (F, Sp)

EACS 5343 Financial Leadership in the Schools 3 Credit Hours Prerequisite: graduate standing. Primarily for prospective building level educational leaders, and includes a comprehensive overview of the effective management of fiscal resources in public schools. (Su)

EACS 5353 Teacher Compensation, Recruitment and Retention Credit
Prerequisite: Graduate standing is required; EACS 5343 Financial Leadership in Schools or equivalent is recommended. The purpose of the seminar is to provide a forum for understanding research that informs teacher compensation, recruitment and retention practices, nationally and in Oklahoma, and to apply the research to education leadership settings. ( $\mathrm{F}, \mathrm{Sp}$ )

EACS 5403 Inquiry for Performance Improvement 3 Credit Hours Prerequisite: graduate standing. School administrators need to draw on knowledge and competencies related to the inquiry process, measurement and assessment, and data collection, analysis, and interpretation to lead continuous improvement. Inquiry for performance improvement is designed to develop the capacity of school leaders to manage effective performance by applying competencies of organizational research and development to the design and implementation of a balanced approach to performance management. (F, $\mathrm{Sp})$

EACS 5543 School Level Instructional Leadership 3 Credit Hours
Prerequisite: graduate standing. Focuses on school-level leadership in the areas of instructional and curriculum leadership. In the areas of instruction, the role of the principal is to develop the instructional capacity of teachers by developing human capital, enhancing the quality of teaching resources, developing instructional cultures/climate to improve teaching and learning. (F, Sp)

EACS 5573 Supervision of Instruction 3 Credit Hours Prerequisite: graduate standing. Focuses upon the clinical supervision of the classroom environment, instructional procedures and the evaluation of teaching through the processes of observation and consultation. Participants develop control of the instrumentation and procedures which enable them to gather, display and interpret data relevant to the evaluation of classroom environments. (F, Sp)

EACS 5593 Principal Leadership
3 Credit Hours Prerequisite: graduate standing. School leadership; effective schools; elementary and secondary administration; administration characteristics and responsibilities including personnel, fiscal, facility organization governance, and evaluation. (F)

EACS 5623 School and Staff Development Management 3 Credit Hours Prerequisite: graduate standing. Provides preparation in the development of technical and conceptual skills applicable to principals in their establishment of professional cultures in school environment(s). Topics will include: staff development; school climate variables; school imaging problems, strategies, and improvement models; student special interest programs and recognition procedures; and involving external groups in school improvement. (F, Sp)

EACS 5693 Technology in Educational Administration 3 Credit Hours Prerequisite: graduate standing. Provides the administrator the training in theory and application of computer concepts and the utilization of specific software programs and applications to enhance administrative decision making. (F)

EACS 5793 Technology Staff Development in Education 3 Credit Hours Prerequisite: 5693 or equivalent. Technology in the form of computers and multimedia devices is becoming increasingly prevalent in classrooms. As school districts are expending more funds to purchase equipment and provide networking, it is important that educators have the training and development necessary to effectively utilize technology to improve the instruction of students. The course is designed to familiarize students with research and best practices in the area of technology staff development. (Sp)

EACS 5823 The Charter School Phenomenon 3 Credit Hours
Prerequisite: Graduate standing. The course provides a forum to explore the historical, foundational (including educational choice), economic, social, political, financial, and performance elements of charter schools in the United States. (F, Sp, Su)

EACS 5913 Practicum in Education--Master's
3 Credit Hours
Prerequisite: Graduate standing; May be repeated; maximum credit six hours. Provides field-type experience under faculty supervision and is designed to introduce the student to the practical application of theory within an environment in which professional practice takes place. Seminar experience is to be included. (Irreg.)

EACS 5920 Internship in Education--Master's 1-6 Credit Hours 1 to 6 hours. Prerequisite: 5910, permission of instructor. May be repeated; maximum credit six hours. Variable as to title and subject profession. Available to master's degree programs specifically requiring an internship in addition to thirty-two hours of other coursework as part of the degree. Introduces the student to the profession under the supervision of a practitioner whose credentials are equal to those of the graduate faculty. (Irreg.)

## EACS 5923 Principal Internship

3 Credit Hours
Prerequisite: Graduate standing; Majors only. The internship provides field experiences and clinical practice for candidates within the school building environment to synthesize and apply the content knowledge and develop professional skills learned. Candidates are provided opportunities to gain experiences in two or more types of school settings to practice a wide range of relevant school-based knowledge and leadership skills, as well as supervision of instruction (F, Sp, Su)

EACS 5940 Field Studies in Education
-4 Credit Hours
1 to 4 hours. Prerequisite: 12 hours of education. May be repeated with change of subject matter; maximum credit eight hours. Practical problems in education as defined by members of the classes. Typical topics: defining educational objectives, relating school programs to established objectives, developing teaching-learning aids, organization for participation in developing and evaluating instructional programs, using community resources for learning, improving evaluation procedure. (Irreg.)

EACS 5960 Directed Readings
1-4 Credit Hours
1 to 4 hours. Prerequisite: 12 hours of education, approval of instructor, adviser and dean. May be repeated; maximum undergraduate credit eight hours; maximum graduate credit four hours. (Irreg.)

EACS 5970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

EACS 5980 Research For Master'S Thesis
2-9 Credit Hours
Variable enrollment, two to nine hours; maximum credit applicable toward degree, four hours. (F, Sp, Su)

EACS 5990 Independent Study
1-4 Credit Hours
1 to 4 hours. Prerequisite: graduate standing or permission by instructor. May be repeated with change of subject matter; maximum credit six hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/ or laboratory research and field projects. (Irreg.)

## EACS 6023 Applied Quantitative Research Methods in Educational Administration <br> 3 Credit Hours

Prerequisite: graduate standing. Designed to provide advanced graduate students with research skills required of effective executive educational leaders. This course will provide students with the analytical tools necessary to become effective, critical consumers of educational research, and to enable potential educational leaders to oversee and supervise staff in the preparation, development, and dissemination of evaluative research. (F)
EACS 6103 Visionary Leadership in Education 3 Credit Hours Prerequisite: graduate standing. The course is intended to prepare educational leaders who value and are committed to educating all students to become successful adults. Included is a detailed analysis of the role of vision and visionary leadership in educational organizations. Both scholarly literature and best practices concerning visionary leadership in education underlay course activities and discussions. (F)
EACS 6123 Administrative and Organizational Theory 3 Credit Hours Prerequisite: graduate standing. An introduction to the important theoretical bases underlying the administration of organizations, particularly educational organizations; topics include bureaucracy, social systems, leadership, decision-making, properties of systems, communication and situational analysis. (F, Sp)

EACS 6133 Qualitative Inquiry for Practitioners 3 Credit Hours Prerequisite: graduate standing. Introduces graduate students to concepts, methods, and issues in qualitative research as it is used in educational settings. Draws attention to epistemological and ethical concerns in social science and to strategic and logistical issues in the conduct of field research. Both positivist and interpretive approaches to the use of qualitative methods will be explored. Concept and theory building, strategies and techniques, and discussions of different issues of reliability and validity in the use of qualitative data will be emphasized. (F)
EACS 6203 Instructional Leadership in Educational Administration 3 Credit
Prerequisite: graduate standing. Focuses on instructional leadership and its emphasis on competencies necessary for leadership and management of school districts. The class draws from research, public policy and educational practices related to curriculum, instruction, assessment, strategic planning, and professional growth plans. Will enable school district administrators to plan for the integration of technology in curriculum implementation, instructional strategies, and evaluation/assessment. (Sp)

EACS 6213 Program Evaluation
3 Credit Hours
Prerequisite: Graduate standing or permission of instructor. This course builds knowledge and competencies on theory-based evaluation science through a review of evaluation approaches and theoretical paradigms, evaluation components, terms, and methods; and endemic issues and challenges in conducting evaluation in the social sciences. (Sp)
EACS 6223 Policy Planning and Development in Education 3 Credit Hours
Prerequisite: graduate standing or permission of instructor. An introduction to analytical techniques applicable to the development of education policy. Includes consideration of decision theory and its application to policy making. Social, political, economic and multicultural factors in the organization and its environment will be explored as contexts within which educational policy is established. (F)
EACS 6253 Financing Education
3 Credit Hours
Prerequisite: graduate standing, 5213,5223 , or equivalent or permission of instructor. A consideration of the roles of federal, state and local governments in the financing of education. Attention is given to the important contemporary issues related to educational financing at all three governmental levels. Also includes an introduction to the economics of education. (Sp)
EACS 6263 Educational and Community Relations 3 Credit Hours Prerequisite: graduate standing or permission of instructor. Examines the field of intra/interpersonal relationships in the context of educational organizations and their constituent communities; topics include authenticity, organizational communication, leader behavior, group dynamics, and conflict management. (F)
EACS 6303 Strategic and Financial Planning in Education 3 Credit Hours
Prerequisite: graduate standing. Strategic planning enables a district or school to shape and guide its overall educational objectives. Through effective strategic planning an educational organization creates a framework for developing, adapting and aligning organizational vision, mission and goals to achieve and sustain its desired educational outcomes. A critical element of the planning process is financial planning, in which the organization's goals are aligned with organizational resources. Course focuses on the leadership competencies necessary to formulate, execute and monitor the strategic planning for an educational organization based on research-based analytical techniques and models. Includes an examination for school district risk management. (Sp)
EACS 6503 Ethics in Educational Administration 3 Credit Hours Prerequisite: graduate standing. Intends to familiarize upper-level graduate students with ethical theories that can be utilized in the policy development and administration of school districts and related decision making. Prepares students to enter school district management with the skills necessary to assume a successful leadership role. Firm grounding in the current problems of today's schools will be used as an opportunity to explore decision making capacity as a district level administrator. Students will learn the foundations of ethics which will promote decision making. Challenges students to understand and apply ethical considerations with regard to 1) the rights of others with regard to confidentiality, dignity and honesty; 2) sensitivity to student diversity; and 3) impartiality in their interactions with others. Students will explain decisions based on ethical and legal principles. (Sp)

EACS 6553 Profiles in Leadership
3 Credit Hours
Prerequisite: Graduate standing. The purpose of this course is to further students' understanding and knowledge of the nature and responsibilities of a school leader. To this end, the course consists of the basic principles of effective leadership. First, we will take a deep dive into Profiles in Effective Leadership. Second, we will apply leadership behaviors to the school setting. (Sp)

EACS 6663 Special Education Law
3 Credit Hours
Prerequisite: graduate standing. Enables students to understand the legal complexities involved in identifying and providing educational services to students with special needs. (F)

EACS 6673 Advanced Inquiry
3 Credit Hours
Prerequisites: graduate standing and EACS 6023, 6713, and 6970. The course is intended to help provide advanced graduate students with necessary analytical skills to become effective consumers of research, and to produce an effective doctoral dissertation. The course focuses on skills related to formulation of research problems, developing research proposals, collection, analysis and interpretation of data. (Fa, Su)

EACS 6693 Educational Technology Leadership 3 Credit Hours Prerequisite: graduate standing, 5693. Designed to help enhance the competencies of school district administrators in the area of educational technology leadership. Focuses on technology leadership (at the central office level), rather than technology user skills. Intended for district level leaders (such as superintendents) who are not technology specialists (e.g., the course is not intended for district level technology directors or coordinators). (F)

## EACS 6713 Pro Seminar

3 Credit Hours
Prerequisite: graduate standing. The purpose of this course is to introduce beginning doctoral students to the concept and process of research. Included are issues related to the role of philosophical frameworks, theory, research conceptualization, scholarly writing, and rudimentary research methods. (F, Sp, Su)

EACS 6813 Prospectus Development
3 Credit Hours
Prerequisite: Graduate standing; majors only. This seminar is designed for advanced PhD students/candidates and is a formal venue for developing a sample dissertation prospectus as a starting point to work from and further develop with the student's dissertation chair and committee. (F)

EACS 6910 Practicum in Education--Doctoral 1-6 Credit Hours 1 to 6 hours. Prerequisite: admission to doctoral program, permission of instructor. May be repeated; maximum credit six hours. Variable as to title and subject profession. An advanced practicum for post-master's level students only. The object is to provide professional experience under faculty supervision in fields requiring a high degree of professional skill. Seminar experience is to be included. (Irreg.)
EACS 6920 Internship in Education--Doctoral 2-6 Credit Hours 1 to 6 hours. Prerequisite: written permission of the instructor. May be repeated; maximum credit 12 hours. Variable as to title and subject profession. An advanced internship for post-master's level students only. The object of the internship is to cultivate within the student a high degree of proficiency and professional independence. Field supervision is by a practitioner whose credentials are equal to those of the graduate faculty. (Irreg.)

EACS 6930 Intensive Studies in Education
-6 Credit Hours
1 to 6 hours. Prerequisite: 12 hours of education and permission of instructor. Repeatable with change of title and subject. Opportunity offered for professional educators and others interested in education, cooperatively, to seek solutions to educational problems. Organized groups work in curriculum, guidance, instruction, administration and supervision. Competent leadership and expert consultant service provided. (Irreg.)

EACS 6960 Directed Readings
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit six hours. Directed readings and/or literature review under the direction of a faculty member. (Irreg.)

EACS 6970 Post-Master's Seminar
2-4 Credit Hours
2 to 4 hours. Prerequisite: master's degree, 24 hours of education, permission of instructor. May be repeated with change of subject matter; maximum credit twelve hours. Enrollment limited to students who hold the master's degree. (F, Sp, Su)

EACS 6980 Research for Doctoral Dissertation 2-16 Credit Hours 2 to 16 hours. Prerequisite: Graduate standing and permission of instructor; may be repeated. Directed research culminating in the completion of the doctoral dissertation. (F, Sp, Su)

EACS 6990 Individual Study in Education 1-4 Credit Hours 1 to 4 hours. Prerequisite: 12 hours of education, graduate standing and permission of the instructor. May be repeated with change of subject matter; maximum credit eight hours. For advanced graduate students who need to study some problem or area not adequately covered in the organized courses, under the direction of a staff member in whose area of specialization the problem lies. (Irreg.)

## ECE-Electrical \& Computer Engineering

ECE 2214 Digital Design 4 Credit Hours
Prerequisite: MATH 1823 or MATH 1914. Number systems, Boolean algebra, minimization procedures, combinational logic functions, introduction to sequential logic design, finite state machines and clocked (synchronous) sequential circuits. Analysis, synthesis and implementation are appropriately emphasized. (F, Sp)

ECE 2523 Probability, Statistics and Random Processes 3 Credit Hours Prerequisite: ECE major or minor; MATH 2433 or MATH 2924. Covers the role of statistics in electrical and computer engineering and includes substantial exposure to applications appropriate to the discipline: basic probability; random variables, vectors and processes; time averages, expectations and laws of large numbers; stationarity, autocorrelation and spectral analysis; minimum mean squared error estimation; detection and linear filtering; IID, Markov, independent increment, counting, Gaussian and Poisson random processes. (F, Sp)

ECE 2713 Digital Signals and Filtering
3 Credit Hours
Prerequisite: ENGR 1411 or ENGR 3511 or concurrent enrollment; CS 1313 or CS 1321 or CS 1323 or CS 1324 or concurrent enrollment; and MATH 2423 or 2924. Digital signals and filter, discrete Fourier A and Z transforms, sampling. (F, Sp)

ECE 2723 Electrical Circuits I
3 Credit Hours
Prerequisites: ECE 2713 or concurrent enrollment in ECE 2713;
MATH 2423 or 2924; PHYS 2524. Introduction to circuit elements and the laws of electrical science. Loop and nodal analysis solution methods. Thevenin and Norton equivalent circuits. Superposition and source transformation methods. Laplace transform analysis of electrical circuits. Guest lectures introducing advanced topics. (F, Sp)

ECE 2970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: Permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)
ECE 3113 Energy Conversion I
3 Credit Hours
Prerequisite: ECE 2723 and ECE 3613. Survey of methods of energy conversion; field-energy force relationships, equations of motion, incremental motion transducers, transformer theory; introduction to rotating machines. (Sp)
ECE 3223 Microprocessor System Design 3 Credit Hours
Prerequisite: ECE 3773 or concurrent enrollment. Review of clocked sequential circuits; MSI/LSI devices and applications, including registers, busing, combinational functions; use of microprocessors and logic design using microprocessors. Emphasizes assembly of full functional units into workable systems. (F, Sp)
ECE 3323 Introduction to Solid State Electronic Devices 3 Credit Hours Prerequisite: 3613. Introduction to quantum mechanics, crystal properties and growth of semiconductors, energy bands in solids, charge carriers in semi-conductors, excess carriers in semiconductors, and introduction to diodes and transistors. (F, Sp)

## ECE 3440 Mentored Research Experience

3 Credit Hours
0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

ECE 3613 Electromagnetic Fields I
3 Credit Hours
Prerequisite: ECE 2723 and MATH 2443 or MATH 2934 and Mathematics 3113. Electrostatic and magnetostatic fields and sources, boundary conditions; introduction to Laplace's and Poisson's equations; quasistationary and time-varying fields; Maxwell's equations and circuit concepts. (F, Sp)
ECE 3723 Electrical Circuits II
3 Credit Hours
Prerequisites: ECE 2713, ECE 2723; and MATH 3113 or concurrent enrollment in MATH 3113. Analysis of electrical circuits in both time and frequency domains. Continuation of AC circuit theory, use of two port network theorems, impulse response, convolution, and differential equations. Laplace and Fourier transform analysis of electrical circuits. ( $\mathrm{F}, \mathrm{Sp}$ )
ECE 3773 Electrical and Computer Engineering Circuits

## Laboratory

3 Credit Hours
Prerequisite: ECE 2214 and either ECE 3723 or concurrent enrollment in ECE 3723. Electrical laboratory procedures, circuit construction, debug and experimental Confirmation of the principles of circuit theory. Introduction to use of laboratory instrumentation, including skills in the use of the oscilloscope in the evaluation of DC and AC circuits. Use and application of diodes, operational amplifiers and programmable logic devices. ( $F, S p$ )
ECE 3793 Signals and Systems 3 Credit Hours
Prerequisites: ECE 2713, ECE 2723, MATH 3113; and MATH 3333 or concurrent enrollment in MATH 3333. Linear systems; time domain analysis; frequency domain analysis; Fourier, Laplace and Z-transforms; introduction to communications and control. (F, Sp)

ECE 3813 Introductory Electronics
3 Credit Hours
Prerequisites: ECE 2713, and ECE 2723; CHEM 1315; and MATH 2443 or 2934 or concurrent enrollment in MATH 2443 or 2934. Small and large signal characteristics and models of electronic devices; analysis and design of elementary electronic circuits. ( $\mathrm{F}, \mathrm{Sp}$ )
ECE 3873 Electrical and Computer Engineering Electronics Laboratory

3 Credit Hours
Prerequisite: ECE 2523, ECE 3723, ECE 3773, ECE 3813, and ENGR 2002 or ENGR 2003. Electronic analog circuit design, simulation, construction, debugging and measurement of circuit behavior and noise using advanced instrumentation techniques; statistics-based circuit reliability theory; independent design skills development and technical writing. ( $F$, $\mathrm{Sp})$

ECE 3960 Honors Reading

## 1-3 Credit Hours

Prerequisite: admission to Honors program. May be repeated; maximum credit six hours. Consists of topics designated by the instructor in keeping with the student's major program. Covers materials not usually presented in the regular courses. (F, Sp, Su)
ECE 3970 Honors Seminar 1-3 Credit Hours
Prerequisite: Admission to Honors program. May be repeated; maximum credit six hours. Projects covered will vary. Deal with concepts not usually presented in regular coursework.

ECE 3980 Honors Research
1-3 Credit Hours
Prerequisite: admission to Honors program. May be repeated; maximum credit six hours. provides an opportunity for the gifted Honors candidate to work on a special project in the student's field. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
ECE 3990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: permission of instructor and junior standing. May be repeated once with change of content. Independent study may be arranged to study a subject not available through regular course offerings. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
ECE G4113 Analysis of Electrical Transmission
3 Credit Hours
Prerequisite: 3113. Transmission and distribution of electrical energy, particularly addressing electrical transmission systems in the competitive energy market. (F)
ECE 4213 Digital Signal Processing 3 Credit Hours
(Slashlisted with 5213) Prerequisite: 3793. Discrete-time linear systems, finite duration impulse response digital filters, finite work length effects, spectral analysis, fast Fourier-transforms, two-dimensional signal processing and applications. No student may earn credit for both 4213 and 5213. (F)

## ECE 4273 Digital Design Laboratory

3 Credit Hours
Prerequisite: Graduate standing, or ECE 3223 and ECE 3873. Design of digital systems with integrated circuits and MSI/LSI and microprocessor interfacing. ( $\mathrm{F}, \mathrm{Sp}$ )
ECE 4281 Engineering Co-Op Program 1 Credit Hour (Crosslisted with AME, BME, C S, CEES, CH E, EPHY and ISE 4281) Prerequisite: Departmental permission and junior standing. May be repeated; maximum credit 6 hours. The Co-Op program provides students an opportunity to enhance their education via career exploration in related professional work experiences. Course assignments help students articulate their experiences by completing journals; mid-term paper; final paper and/or final presentation. Faculty receive an evaluation from the student's Co-Op supervisor who monitors performance. Faculty collaborate with the Co-Op supervisor to ensure student success. (F, Sp, Su )

ECE 4363 Optical Engineering 3 Credit Hours
(Slashlisted with ECE 5363) Prerequisite: ECE 3793. Underlying theory and design of optical systems. Interference, diffraction and coherence phenomena will be examined as a basis for studying the limits of optical system performance. Other topics include a detailed study of polarization, the interaction of light with various media and geometrical optics. No student may earn credit for both 4363 and 5363. (Sp)

ECE 4383 IC Fabrication Technology I 3 Credit Hours
(Slashlisted with ECE 5383) Prerequisite: 3323. A treatment of the theory and processes involved in the fabrication of integrated circuits. No student may earn credit in both 4383 and 5383. (F)

ECE G4413 Introduction to Control System Engineering 3 Credit Hours Prerequisite: 3793. Analysis and synthesis of control systems; control systems performance and applications. (F)

ECE 4433 Measurement and Automation 3 Credit Hours
(Slashlisted with ECE 5433) Prerequisite: ECE 3793 or instructor permission or systems course in another major. Fundamentals of data acquisition and control. A series of design projects in data acquisition logging and real-time analysis. Includes machine vision and image processing as well as vibration, motion and real-time control. No student may earn credit for both 4433 and 5433. (F)

ECE G4523 Introduction to Communication Theory 3 Credit Hours Prerequisite: ECE 2523 and ECE 3793. An introductory treatment of statistical communication theory; description of a random process by auto-correlation and power spectral density functions, sources and properties of electrical noise, the effects of modulation, detection And filtering on signal information content, bandwidth and signal-to-noise ratio. (Sp)

ECE 4603 Radar Imaging 3 Credit Hours
(Slashlisted with ECE 5603) Prerequisite: senior standing or permission of instructor; ECE 3793. Course coverage includes radar signal models and phase histories, the types of processing steps used to focus radar data into high-resolution imagery, and fundamental behaviors and performance metrics of radar imaging. Course also investigates various radar imaging algorithms applied to range-Doppler imaging, synthetic aperture radar (SAR), inverse SAR, and angle-of-arrival (spatial) imaging. No student may earn credit for both 4603 and 5603. (Sp)

ECE G4613 Computer Architecture 3 Credit Hours
(Crosslisted with C S 4613) Prerequisite: ECE 3223 or C S 2614 or C S 2613. Covers basic concepts of computer system design and communication between components, along with current and historical examples of computer architecture. (F, Sp)

ECE 4623 Computer Hardware Design
3 Credit Hours
(Slashlisted with 5623) Prerequisite: 3223. Design of modern digital computing circuits, computer arithmetic, number systems, state machines, control units, data transfer, bus interfacing, VHDL language elements and usage, circuit simulation. No student may earn credit for both 4623 and 5623. (F)

ECE 4643 Radio Frequency and Microwave Engineering 3 Credit Hours (Slashlisted with ECE 5643) Prerequisite: ECE 3613. Analysis of radio frequency (RF) and microwave components, circuits and systems using modern engineering tools and measurement instruments. No student may earn credit for both 4643 and 5643. (Sp)

CE 4653 Digital Radar Systems
3 Credit Hours
(Slashlisted with ECE 5653) Prerequisite: ECE 3793. Modern and nextgeneration radar systems, with an emphasis on the digital receiver and post processing that follows the RF front-end. Several off-the-shelf receiver case studies will be conducted. These will focus on analog-todigital converter (ADC) selection followed by software defined radio (SDR) concepts for field programmable gate array (FPGA) implementation. These receivers may also be used for communication systems and have other broad applications. No student may earn credit for both 4653 and 5653. (F)

## ECE 4663 Radar Engineering

3 Credit Hours
(Crosslisted with METR 4663; Slashlisted with 5663) Prerequisite: Grade of C or better in 3613, or permission. Introduction to radar system designs and applications with emphasis on weather radar; radar system architecture and their functionalities and limitations of subsystems theories of radar detection and estimation in a noisy and cluttered environment; existing technologies and advanced techniques to improve radar performance. No student may earn credit in both 4663 and 5663 (F)

ECE 4693 Antennas
3 Credit Hours
(Slashlisted with ECE 5693). Prerequisite: ECE 3613 and ECE 4703 or permission of instructor. Introduction to antenna theory and design. Course covers design, construction, and measurement of antennas including, but not limited to the following specific types; dipoles, loops, aperture, microstrip, and broadband antennas, as well as array theory. No student may earn credit for both 4693 and 5693. (Sp)

ECE 4703 Electromagnetic Fields and Wave Propagation 3 Credit Hours (Slashlisted with ECE 5703). Prerequisite: ECE 3613. Maxwell's Equations, time-harmonic fields, plane waves, reflections on interfaces, waveguides and transmission lines, radiation, and antenna basics. No student may earn credit for both 4703 and 5703. (F, Sp)

ECE 4733 RF \& Microwave Filter Design 3 Credit Hours (Slashlisted with ECE 5733) Prerequisite: instructor permission. Introduction to advanced filter design. The use of filters is very widespread in all aspects of communication and radar systems. At the end of the semester, a student that has successfully embraced the subject will be able to design, fabricate, and test filters, using a range of different technologies and methods. No student may earn credit for both 4733 and 5733. (Sp)

ECE 4773 Laboratory (Special Projects)
3 Credit Hours
Prerequisite: 4273 or concurrent enrollment in 4273. Individually supervised special engineering problems of experimental nature. Laboratory (F, Sp) [V].

ECE G4813 Electronics
3 Credit Hours
Prerequisite: ECE 3813 and ECE 3873. Analysis and design of electronic circuits such as multi-stage amplifiers, feedback amplifiers, oscillators and power amplifiers. (Sp)

ECE G4823 Engineering Principles of the Human Body 3 Credit Hours Prerequisites: ECE 2723, PHYS 2514, MATH 2423 or 2924. Introduction to the foundational engineering approach to analyzing the human body's anatomy and physiological function. Topics include muscle and forces, fluid dynamics of the lungs and cardiovascular system, electrical signals in the body, and vision and optics of the eye. (Sp)

ECE 4833 VLSI Digital System Design
3 Credit Hours
(Slashlisted with ECE 5833) Prerequisite: ECE 3223 and ECE 3873. An introduction to Very-Large-Scale Integrated (VLSI) systems design methods; complementary Metal-Oxide Semiconductor (CMOS) technology emphasized. VLSI Computer Aided Design (CAD) tools and CMOS layout rules and techniques. Project oriented. No student may earn credit for both 4833 and 5833. (F)
ECE 4853 Biomedical Signals and Systems 3 Credit Hours (Slashlisted with ECE 5853) Prerequisite: ECE 3723 and ECE 3793, or equivalent courses in electrical circuits and signal processing, or permission of instructor. Comprehensive coverage of topics related to signals in humans. Emphasis on using engineering tools to interpret signals and underlying physiological principles. Focus on emerging engineering technologies, physiological knowledge and clinical application. No student may earn credit for both 4853 and 5853. (Sp)

## ECE 4863 Bioinstrumentation

3 Credit Hours
Prerequisite: ECE 3723 or ECE 4813 or permission of instructor. A comprehensive coverage of topics related to principles, applications and design of medical instruments widely used in hospitals and clinical research. Emphasis is placed on general design concepts, discussions on a great variety of medical devices and medical device safety issues. Materials cover different levels and various aspects of human systems, such as heart, brain, circulation, respiration. (F, Sp)
ECE 4960 Directed Readings
1-4 Credit Hours
1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean. May be repeated; maximum credit four hours. Designed for upper-division students who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)

## ECE 4970 Special Topics/Seminar

1-3 Credit Hours
1 to 3 hours. Prerequisite: Senior standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

## ECE 4973 Special Topics

3 Credit Hours
Prerequisite: Varies with course content. May be repeated with change of subject; maximum credit six hours in combination with 4990. Devoted to special topics in Electrical and Computer Engineering not covered in the current curriculum. (F, Sp, Su)
ECE 4990 Special Studies 1-3 Credit Hours
Prerequisite: Senior standing and permission. May be repeated with change of subject matter; maximum credit six hours in combination with 4973. Devoted to supervised individual studies of special topics (S/U Graded) in Electrical and Computer Engineering. (F, Sp, Su)
ECE 5123 Wireless Communications 3 Credit Hours Prerequisite: 3793 or permission. Wireless communications principles, multiple access techniques, wireless networking, and systems and standards. (F)
ECE 5153 Emerging Topics in LTE-Advanced and 5G 3 Credit Hours Prerequisite: Graduate standing. This course will train students to master the latest developments in the rapidly evolving landscape in wireless cellular networks, preparing them for working on emerging as well as near future wireless technologies. Focuses on selected topics for research and development of LTE-A and 5G cellular networks, such as PHY and MAC layer techniques suitable LTE-A \& 5G; network densification techniques. (Sp)

ECE 5183 Quantum Information Theory 3 Credit Hours
Prerequisite: linear algebra. Introductory course of quantum information theory. Topics covered include quantum state, quantum measurement, quantum channels, No-Cloning Theorem, Bell's inequalities, entanglement, quantum dense coding, quantum teleportation, distance measures, quantum entropy, quantum mutual information, information of quantum channels. (F)

## ECE 5213 Digital Signal Processing

3 Credit Hours
(Slashlisted with 4213) Prerequisite: 3793 . Discrete-time linear systems, finite duration impulse response digital filters, infinite impulse response digital filters, finite word length effects, spectral analysis, fast Fouriertransforms, two-dimensional signal processing and applications. No student may earn credit for both 4213 and 5213. (F)

## ECE 5223 Estimation and Identification

3 Credit Hours
Prerequisite: 5403 and 5523. Estimation and filtering, optimal filtering, modeling, parametric and nonparametric identification methods. (Sp)

## ECE 5273 Digital Image Processing

3 Credit Hours
Prerequisite: 3793 or permission of instructor. This course covers the theory, methods, and applications of image enhancement, image restoration, image compression, image segmentation, image representation and description, and image recognition and interpretation. (Sp)
ECE 5303 Solid State Electronics I
3 Credit Hours
Prerequisite: 3323. Principles and applications of electronic properties of solids for devices with particular emphasis on semiconductor junction, bulk and field effect devices. (F)
ECE 5323 Opto-Electronics I
3 Credit Hours
Prerequisite: 3323 or Engineering 2313. Introduction to phenomenological and quantum mechanical theory of solids; introduction to lasers and masers with particular emphasis on the physical mechanisms underlying interactions between electromagnetic radiation and atomic systems. ( $\mathrm{F}, \mathrm{Sp}$ )
ECE 5343 Quantum Structures and Devices 3 Credit Hours
Prerequisite: ECE 3323 or permission of instructor. Theory and application of KP method, strain effects, electrical and optical properties of quantum structures, semiconductor quantum devices including quantum well infrared photodetectors, quantum cascade and interband cascade lasers, type-II superlattice detectors. (Sp)
ECE 5363 Optical Engineering
3 Credit Hours
(Slashlisted with 4363; Crosslisted with BME 5363) Prerequisite: ECE 3793. Underlying theory and design of optical systems. Interference, diffraction, and coherence phenomena will be examined as a basis for studying the limits of optical system performance. Other topics include a detailed study of polarization, the interaction of light with various media, and geometrical optics. No student may earn credit for both 4363 and 5363. (Sp)

ECE 5383 IC Fabrication Technology I 3 Credit Hours
(Slashlisted with ECE 4383) Prerequisite: 3323. A treatment of the theory and processes involved in the fabrication of integrated circuits. No student may earn credit for both 4383 and 5383. (F)
ECE 5393 Integrated Circuit Fabrication Technology II 3 Credit Hours Prerequisite: ECE 5383. Students will gain hands-on experiences of cleanroom technologies of the semiconductor industry, including epitaxial crystal growth, photolithography,and some techniques such as SEM. (Sp)

ECE 5403 Linear Systems Analysis
3 Credit Hours
Prerequisite: Math 3333. In-depth background course in methods of linear analysis in systems engineering. Topics include least squares methods, singular value decomposition, continuous and discrete time linear dynamical systems, controllability and state transfer. (F)

ECE 5413 Control Theory
3 Credit Hours
Prerequisite: 4413, 5403. Controllability, optimal control and dynamic programming, LQR, observability, linear estimation and Kalman filter, realization theory. (Sp)

## ECE 5423 Power System Protection

3 Credit Hours
Prerequisite: Graduate Standing and ECE 3113 (ECE 4113 is also preferred) or permission of instructor. This course facilitates a study into the main protection system elements and their design fundamentals for modern power systems. It covers the operating principles of different types of fault sensing and interrupting components as well as coordination strategies and device settings for typical power system configurations including: generator, transformer, busbar, transmission line and distribution feeder protection. (Sp, Irreg.)

ECE 5433 Measurement and Automation
3 Credit Hours
(Slashlisted with ECE 4433) Prerequisite: Graduate standing and ECE 3793, or instructor permission, or systems course in another major. Fundamentals of data acquisition and control. A series of design projects in data acquisition, logging and real-time analysis. Includes machine vision and image processing as well as vibration, motion and real-time control. No student may earn credit for both 4433 and 5433. (F)
ECE 5463 Advanced Computer Architecture
3 Credit Hours
(Crosslisted with C S 5463) Prerequisite: graduate standing. The design of modern programmable computer systems with emphases on exploiting parallelism at all levels, designing within constraints including energy consumption, and the impact of architecture on software design. Covers state of the art computer architecture, case studies and trends. (Sp)

## ECE 5513 Communication Theory

3 Credit Hours
Prerequisite: 4523. Probability theory, stochastic processes, detection, extraction and predictions of signals in noise. (F)

## ECE 5523 Random Signals

3 Credit Hours
Prerequisite: Graduate standing, ECE 2523, ECE 3793, or permission of instructor. This course explores random signals from two perspectives: random variables and random processes. Topics include probability, single and double random variables, and random vectors; concepts of stationarity and ergodicity; random signals as an input into linear systems and the statistical properties of their outputs; random signal parameters; and quality of estimators. (F)

ECE 5553 Telecommunications Technology
3 Credit Hours
Prerequisite: 3793. The ways and means by which voice, data and video traffic are moved long distances. Topics include data networks, telephone systems, video, and optical systems. (F)
$\begin{array}{lll}\text { ECE } 5583 & \text { Information Theory and Probabilistic Programming } & 3 \\ \text { Credit } & \text { Hours }\end{array}$
Prerequisite: Graduate standing, and ECE 4523 or equivalent. Introductory course in information theory. Topics include asymptotic equipartition property, entropy, Fano's inequality, Huffman coding, lossy source coding theory, and channel coding theory. (F)
(Slashlisted with ECE 4603) Prerequisite: graduate standing or permission of instructor; ECE 3793 . Course coverage includes radar signal models and phase histories, the types of processing steps used to focus radar data into high-resolution imagery, and fundamental behaviors and performance metrics of radar imaging. Course also investigates various radar imaging algorithms applied to range-Doppler imaging, synthetic aperture radar (SAR), inverse SAR, and angle-of-arrival (spatial) imaging. No student may earn credit for both 4603 and 5603. (Sp)
ECE 5623 Computer Hardware Design
3 Credit Hours
(Slashlisted with 4623) Prerequisite: 3223. Design of modern digital computing circuits, computer arithmetic, number systems, state machines, control units, data transfer, bus interfacing, VHDL language elements and usage, circuit simulation. No student may earn credit for both 4623 and 5623. (F)
ECE 5643 Radio Frequency and Microwave Engineering 3 Credit Hours (Slashlisted with ECE 4643) Prerequisite: Graduate standing. Analysis of radio frequency (RF) and microwave components, circuits, and systems using modern engineering tools and measurement instruments. No student may earn credit for both 4643 and 5643. (Sp)
ECE 5653 Digital Radar Systems 3 Credit Hours
(Slashlisted with ECE 4653). Prerequisite: ECE 3793. Modern and nextgeneration radar systems, with an emphasis on the digital receiver and post processing that follows the RF front-end. Several off-the-shelf receiver case studies will be conducted. These will focus on analog-todigital converter (ADC) selection followed by software defined radio (SDR) concepts for field programmable gate array (FPGA) implementation. These receivers may also be used for communication systems and have other broad applications. No student may earn credit for both 4653 and 5653. (F)

ECE 5663 Radar Engineering
3 Credit Hours
(Crosslisted with METR 5663; Slashlisted with 4663) Prerequisite: Grade of $C$ or better in 3613 , or permission of instructor. Introduction to radar system designs and applications with emphasis on weather radar; radar system architecture and their functionalities and limitations of subsystems; theories of radar detection and estimation in a noisy and cluttered environment; existing technologies and advanced techniques to improve radar performance. No student may earn credit in both 4663 and 5663. (F)

ECE 5673 Weather Radar Theory and Practice 3 Credit Hours (Slashlisted with 4673, Crosslisted with METR 5673) Prerequisite: graduate standing, grade of $C$ or better in Math 3113 and Physics 2524, or permission of instructor. Introduction to electromagnetic waves and propagation through the atmosphere, radar design tradeoffs, antennas, transmitters, and coherent receivers; analysis of radar signals as noise-corrupted stochastic processes, with emphasis on digital signal processing for Doppler spectrum and moment estimation; implementation of processing algorithms using actual Doppler radar data. No student may earn credit for both 4673 and 5673. (F)
ECE 5683 Weather Radar Applications 3 Credit Hours (Crosslisted with METR 5683) Prerequisite: graduate standing in Meteorology or Engineering, or permission of instructor. Interpretation of meteorological structures using weather radar. Introduces scatter from hydrometeors and refractive index variations. Presentation of quantitative precipitation estimation methods based on the radar reflectivity factor, attenuation, and dual-polarization observations. Also includes the fundamental concepts of clear-air echoes and the estimation of winds under non-precipitation conditions. (Sp)

ECE 5693 Antennas
(Slashlisted with ECE 4693) Prerequisites: ECE 3613, ECE 4703, and permission of instructor. Introduction to antenna theory and design. Course covers design, construction, and measurement of antennas including, but not limited to the following specific types; dipoles, loops, aperture, microstrip, and broadband antennas, as well as array theory. No student may earn credit for both 4693 and 5693. (Sp)
ECE 5703 Electromagnetic Fields and Wave Propagation 3 Credit Hours (Slashlisted with ECE 4703) Prerequisite: Graduate standing, ECE 3613 and permission of instructor. Maxwell's Equations, time-harmonic fields, plane waves, reflections on interfaces, waveguides and transmission lines, radiation, and antenna basics. No student may earn credit for both 4703 and 5703. (F, Sp)
ECE 5723 Radar Signal Processing 3 Credit Hours
Prerequisite: ECE 3793 or equivalent. Radar fundamentals: radar range equation, waveforms, detection and matched filtering, ambiguity functions. Processing and Applications: Pulse-Doppler radar, synthetic aperture radar (SAR), moving target indication (MTI), space time adaptive processing (STAP). (Sp)

ECE 5733 RF \& Microwave Filter Design
3 Credit Hours
(Slashlisted with ECE 4733) Prerequisite: instructor permission. Introduction to advanced filter design. The use of filters is very widespread in all aspects of communication and radar systems. At the end of the semester, a student that has successfully embraced the subject will be able to design, fabricate, and test filters, using a range of different technologies and methods. No student may receive credit for both 4733 and 5733. (Sp)
ECE 5833 VLSI Digital System Design
3 Credit Hours
(Slashlisted with ECE 4833) Prerequisite: ECE 3223 and ECE 3873. An introduction to Very-Large-Scale Integrated (VLSI) systems design methods; complementary Metal-Oxide Semiconductor (CMOS) technology emphasized. VLSI Computer Aided Design (CAD) tools and CMOS layout rules and techniques. Project oriented. No student may earn credit for both 4833 and 5833. (F)

## ECE 5843 Medical Imaging Systems

3 Credit Hours
Prerequisite: 3793 or Fourier transforms, or permission. Fundamental principles of medical image formation, image acquisition and image quality evaluation, Major medical imaging modalities, such as radiography, fluoroscopy, computed tomography, ultrasound, MRI, and nuclear medicine will be introduced. Clinical applications and limitations of each modality will also be analyzed. (Sp)
ECE 5853 Biomedical Signals and Systems

## 3 Credit Hours

(Slashlisted with 4853, Crosslisted with BME 5853) Prerequisites: ECE 3723 and ECE 3793, or equivalent course in electrical circuits and signal processing, or permission of instructor. Comprehensive coverage of topics related to signals in humans. Emphasis on using engineering tools to interpret signals and underlying physiological principles. Focus on emerging engineering technologies, physiological knowledge and clinical application. No student may earn credit for both 4853 and 5853. (Sp)

## ECE 5863 Bioinstrumentation

3 Credit Hours
(Crosslisted with BME 5863) Prerequisite: ECE 4213 or permission of instructor. A comprehensive coverage of topics related to principles, applications, and design of medical instruments widely used in hospitals and clinical research. Emphasis is placed on general design concepts, discussions on a great variety of medical devices, and medical device safety issues. Materials cover different levels and various aspects of human systems, such as heart, brain, circulation, and respiration. (F, Sp)

ECE 5873 Advanced VLSI Design and Applications 3 Credit Hours Prerequisite: ECE 4833 or ECE 5833. Design of sophisticated digital integrated circuits; special purpose architectures used where appropriate; silicon compiler and hardware description language used; project oriented. (Sp)

ECE 5880 Professional Internship
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing and 12 credit hours toward graduate degree. May be repeated; maximum credit six hours; grade equivalent to $B$ or better required. Professional technical internship training in electrical and computer engineering, as part of M.S. or PhD degree requirements. A written report to be graded by a member of the graduate faculty is required. ( $F, \mathrm{Sp}, \mathrm{Su}$ )
ECE 5960 Directed Readings
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing and permission of department. May be repeated; maximum credit twelve hours. Directed readings and/or literature reviews under the direction of a faculty member. (F, Sp, Su)
ECE 5970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

## ECE 5973 Special Topics in Electrical and Computer

## Engineering

## 3 Credit Hours

(Crosslisted with BME 5973) Prerequisite: Graduate standing and permission of instructor. May be repeated with change of content; maximum credit 12 hours. Selected topics of current research interest not covered by regularly scheduled coursework. (F, Sp, Su)
ECE 5980 Research for Master's Thesis 2-9 Credit Hours
Variable enrollment, permission of instructor required, two to nine hours; credit required for degree, six hours. (F, Sp, Su)
ECE 5990 Special Studies 1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission. May be repeated with change of subject matter; maximum credit nine hours. Devoted to special topics in electrical engineering not covered in the regular curriculum or to supervised individual study. (F, Sp, Su)
ECE 6613 Weather Radar Polarimetry
3 Credit Hours
(Crosslisted with METR 6613) Prerequisite: graduate standing. Provides fundamentals and principles of weather radar polarimetry through understanding wave scattering and propogation in geophysical media subject to turbulent mixing and filled with hydrometers and other objects. The relations between polarimetric radar observables and physical parameters will be established. The methods and algorithms for retrieving cloud and precipitation microphysics for weather quantification and forecast will be introduced. (F)

ECE 6813 Advanced Topics in Biomedical Engineering 3 Credit Hours Prerequisite: 5843. May be repeated with change of content; maximum credit 12 hours. In-depth studies in biomedical engineering. Focus will be on advanced optoelectronic biomedical technologies, such as bioinstrumentation, biomedical imaging modalities. Students will learn the knowledge behind current technology and also research and development methods of applying future technology to clinical and biomedical applications. (Sp)

ECE 6950 Research in Electrical and Computer Engineering 1-4 Credit

Hours
1 to 4 hours. Prerequisite: graduate standing and permission of instructor in Electrical and Computer Engineering. May be repeated; maximum credit 24 hours. Research in electrical and computer engineering occurring prior to the General Examination. (F, Sp, Su)

## ECE 6960 Directed Readings

1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit six hours. Directed readings and/or literature review under the direction of a faculty member. (Irreg.)
ECE 6970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit 12 hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or research and field projects. (Irreg.)

## ECE 6980 Research for Doctoral Dissertation

2-16 Credit Hours
2 to 16 hours. Prerequisites: Graduate standing and permission of instructor; may be repeated. Directed research culminating in the completion of the doctoral dissertation. (F, Sp, Su)

## ECE 6990 Independent Study

1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)

## ECON-Economics

ECON 1113 Principles of Economics-Macro
3 Credit Hours
Prerequisite: Satisfactory score on the Math placement test, or, for incoming freshmen direct from high school, satisfactory score on the ACT/SAT. The functioning and current problems of the aggregate economy: determination and analysis of national income, employment, inflation and stabilization; money and banking, monetary and fiscal policy; and aspects of international interdependence. Laboratory (F, Sp, $\mathrm{Su})$ [III-SS].
ECON 1123 Principles of Economics-Micro 3 Credit Hours
Prerequisite: Satisfactory score on the Math placement test, or, for incoming freshmen direct from high school, satisfactory score on the ACT/SAT. Goals, incentives and allocation of resources resulting from economic behavior with applications and illustrations from current issues: operation of markets for goods, services and factors of production; the behavior of firms and industries in different types of competition and income distribution. Laboratory (F, Sp, Su) [III-SS].

ECON 2033 Your Guide to a Crazy World 3 Credit Hours
Have you ever wondered "What job is right for me?" or "Why do I do weird things?" Together, we'll explore the exciting world of economics in ways you've never imagined. From how we behave, to laws, health, cities, making a difference, politics, and much more. So, buckle up, and let's uncover the mysteries of life in our wild, wacky world! (F, Sp) [III-SS].

## ECON 2843 Elements of Statistics

3 Credit Hours
Prerequisite: ALEKS math assessment score of 040 or higher, or Math Offer of MATH 1523 or higher, or completion of MATH 1503 or higher. Basic statistical techniques emphasizing business and economic applications. Topics covered include data summary techniques, elementary probability theory, estimation, hypothesis testing, simple regression, time-series and index numbers. Laboratory (F, Sp, Su) [I-M].

ECON 2970 Special Topics
1-3 Credit Hours
Special Topics. 1 to 3 hours. May be repeated; Maximum credit nine hours. Special topics course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research, and field projects. (Irreg.)

ECON 3113 Intermediate Microeconomic Theory 3 Credit Hours Prerequisite: ECON 1113 and ECON 1123 with a grade of C or better and Mathematics 1743 or 1823 or 1914. Fundamental economic concepts and principles; value and distribution theories under conditions of competition, monopoly and monopolistic competition. Appraisal of modern problems in terms of these theories. (F, Sp, Su) [III-SS]
ECON 3133 Intermediate Macroeconomic Theory 3 Credit Hours Prerequisite: a grade of C or better in ECON 1113, ECON 1123, and MATH 1743 or 1823 or 1914. National income concepts; aggregate demand by household, business, government, and foreign sectors; determination of national income, interest rate, price, output, and employment levels. (F, Sp, Su)

## ECON 3213 Environmental Economics

3 Credit Hours
Prerequisite: a grade of C or better in ECON 1123. Economic approach to environmental protection; analysis focuses on property rights and externalities. Examines strategies for addressing externalities including command-and-control regulation, emissions taxes, and tradable discharge permits. Topics include air pollution, water pollution, waste disposal and recycling, and endangered species protection. (Irreg.)
ECON 3440 Mentored Research Experience 3 Credit Hours
0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)

ECON 3513 Labor Problems
3 Credit Hours
Prerequisite: a grade of C or better in 1113 and 1123. Problems of labor in an industrial society; wages, hours, working conditions, child labor. Conflicts between management and labor. (F)

ECON 3523 Health Economics
3 Credit Hours
Prerequisite: ECON 1113 and ECON 1123 with a grade of $C$ or higher. Overall view of health economics. Covers health insurance markets, externalities in health and medical care, health and labor markets, government intervention in health care provision, current health programs in the United States and models of health production. (Irreg.)
ECON 3613 International Trade Theory and Problems 3 Credit Hours Prerequisite: a grade of $C$ or better in 1113 and 1123. Benefits of trade, determination of the direction and level of trade, commercial policy and trade barriers, international trade problems and issues. (F, Sp)

ECON 3633 International Finance Theory and Problems 3 Credit Hours Prerequisite: a grade of $C$ or better in 1113 and 1123. Effects of international trade on employment, inflation, the exchange rate, effects of devaluation, types of international monetary arrangements, effects of foreign transfers, open economy macroeconomic policy. (F, Sp)
ECON 3713 Governmental Relations to Business 3 Credit Hours Prerequisite: a grade of C or better in ECON 1113 and ECON 1123. Analysis of economic aspects of government regulation and direction of business enterprise; controls affecting managerial discretion in the determination of prices and other basic business policies. (F, Sp, Su) [IIISS].

ECON 3880 Directed Readings
1-3 Credit Hours
1 to 3 hours. Prerequisite: permission of instructor. May be repeated; maximum credit six hours. Readings will consist of topics designated by the instructor in keeping with student's specialization within major program. Topics will cover materials not usually presented in regular courses. (F, Sp, Su)

ECON 3960 Honors Reading 1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to the Honors Program. May be repeated; maximum credit six hours. Consists of topics designated by the instructor in keeping with the student's major program. The topics will cover materials not usually presented in the regular courses. (F, Sp, Su)

## ECON 3970 Honors Seminar

1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. The projects covered will vary. The content deals with concepts not usually presented in regular coursework. (Sp)

## ECON 3980 Honors Research

1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Provides an opportunity for the gifted Honors candidate to work at a special project in the student's field. (F, Sp, Su)
ECON 3990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: permission of instructor and junior standing. May be repeated once with change of content. Independent study may be arranged to study a subject not available through regular course offerings. (F, Sp, Su)
ECON G4223 Econometric Analysis
3 Credit Hours
Prerequisite: a grade of $C$ or better in 1113, 1123, and 2843. Classical statistical inference; means, proportions, variances, analysis of variance and covariance; regression and correlation analysis; normal, binomial, chi-square, t, F, Poisson, exponential distributions. (F, Sp) [l-M] .

## ECON G4313 Industrial Organization

3 Credit Hours
Prerequisite: ECON 1113 and ECON 1123 with a grade of C or better. Industrial organization studies the way firms interact and compete with each other. Covers pricing strategies (price discrimination, bundling and tie-in sales); product strategies (product variety, quality, advertising); and mergers and acquisitions. Can be taken for graduate credit. (Irreg.)
ECON G4353 Public Finance: Issues and Taxation 3 Credit Hours Prerequisite: a grade of $C$ or better in 1113 and 1123. Public expenditures, their nature, cause of the increase, and classification; sources of public revenue; methods of distributing the tax burdens; public debts and debt management; introduction to fiscal theory and policy. (F, Sp)
ECON G4363 Sports Economics 3 Credit Hours Prerequisite: ECON 1113 and ECON 1123 with a grade of $C$ or higher, or permission of instructor. Application of economics principles and techniques to sports-related topics and problems. (Irreg.)
ECON 4413 International Trade, Laws and Institutions 3 Credit Hours Prerequisite: a grade of C or better in ECON 3613. Explores the interface of the economics and legal professions' analysis of international trade. The class will explore some of the issues and topics of common interest from the perspective of each profession. (F)

## ECON G4453 Urban Economics

3 Credit Hours
Prerequisite: ECON 3113 with a grade of C or better. Study of economic models of urban location, including firm location and residential location models. Public policy topics of urban taxation, residential housing discrimination, urban renewal, etc., will also be discussed from an economic perspective. Can be taken for graduate credit. (Irreg.)

ECON G4513 The Economics of Discrimination 3 Credit Hours
Prerequisite: a grade of $C$ or better in 1113 and 1123. This course will focus on discrimination in the labor market. Topics to be covered include wage discrimination, employment discrimination, and occupational segregation. Examples will be drawn frequently from current events and public policies. (F, Sp)

## ECON G4523 Economics of Education

## 3 Credit Hours

Prerequisite: Sophomore standing; ECON 1123 and ECON 2843. This course will focus on policy analysis of the market for education in the United States, including production and consumption of education services. Students will discuss and critically evaluate scientific studies related to key questions in the policy debate, and will learn tools for understanding how to distinguish between correlation and causation in the world of education policy. ( $F, S p$ )
ECON G4673 Economics-Money \& Banking
3 Credit Hours
Prerequisite: ECON 3133 with a grade of $C$ or better. Introduces the role of money, banks and financial institutions in the economy. Topics include banking and financial intermediation, financial market regulation, monetary economics and economic fluctuations, and monetary policy. Can be taken for graduate credit. (F)

ECON G4733 Economic Development in the Middle East 3 Credit Hours Prerequisites: ECON 1113 and ECON 1123 with a grade of $C$ or higher; ECON 3133 and/or ECON 3633 recommended. An introduction to the existing debates on comparative economic development in the Middle East and North Africa region during the post-independence period. (Irreg.)
ECON G4773 Economic Game Theory
3 Credit Hours
Prerequisite: ECON 3113 with a grade of C or better, and Mathematics 2123 or Mathematics 2423. Develops the fundamental concept of the Nash equilibrium, advancing to refinements such as subgame perfection and Bayesian perfection. Applications include oligopoly, adverse selection in insurance markets, and moral hazard in agency. May be taken for graduate credit (Sp)
ECON G4783 Behavioral and Experimental Economics 3 Credit Hours Prerequisite: ECON 1113, ECON 1123 and ECON 2843 with a grade of C or better. Analysis of behavioral economics models and factors using experimental approaches; investigation of where human behavior does not always fit standard economic models; experiments and theory covering game theory, market equilibrium, public choices, auctions, and bargaining. Can be taken for graduate credit. (Irreg.)
ECON 4853 World Economic Development
3 Credit Hours
(Slashlisted with 5853) Prerequisite: a grade of $C$ or better in 1113 and 1123. The economics of the developing nations; a review and analysis of common problems and issues. (Irreg.)

ECON 4960 Directed Readings
1-4 Credit Hours
1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean. May be repeated; maximum credit four hours. Designed for upper-division students who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)

ECON 4970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: Senior standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

ECON 4983 Economics as Social Science
3 Credit Hours
Prerequisite: a grade of $C$ or better in 2843,3113 and 3133 , or permission of instructor. Examination of selected topics in various subdisciplines within economics e.g., international trade and finance, econometrics, energy economics, public finance, labor economics, economic history and development, etc. [V] .

## ECON 4990 Independent Study

1-3 Credit Hours
1 to 3 hours. Prerequisite: Senior standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)

## ECON 5023 Statistics for Decision Making <br> 3 Credit Hours

Prerequisite: admission to Master of Business Administration program or permission of instructor. Covers basic probability density functions, the parametric estimating techniques of linear multivariate regression analysis and the elements of statistical decision making under uncertainty. (F, Sp, Su)

## ECON 5033 Managerial Economics I

3 Credit Hours
Prerequisite: graduate standing. Practical applications of economic theory and techniques to business problems. Topics include: demand theory and estimation; production and cost theory; empirical cost analysis; pricing practices, market structure and antitrust policy; corporate strategies for dealing with risk; long-term investment decisions with emphasis on plant size, technological change and investment requirements. (F, Sp)

## ECON 5043 Managerial Economics II

3 Credit Hours
Prerequisite: 5033, 5073. Emphasizes current topics in several areas including: regulation, business and government, antitrust economics, the economics of intellectual capital markets, and the economics of technological change. Strategies for management will also be discussed. (Irreg.)

## ECON 5073 Contemporary Economic Methods and Analysis 3 Credit

 HoursA review of contemporary economic methodology and theory and their application to the analysis of macroeconomic questions and problems in the American economy. Techniques of economic forecasting will also be covered. (F, Sp, Su)

ECON 5123 Advanced Price and Welfare Theory 3 Credit Hours
Prerequisite: 3113 or equivalent, senior standing or permission. An intensive study of the static and dynamic welfare and efficiency properties of the price and market system method of social organization. Topics include: theory of markets, game theory, capital theory and intertemporal equilibrium, general equilibrium and employment, welfare theory. (Sp)

ECON 5153 Mathematical Economics I
3 Credit Hours
Prerequisite: 2843, 3113, 3133. Investigation of several important models of economic activity. Emphasis on methods of analysis and interpretation involving construction of mathematical models reflecting the economic substance of these models. Implications for economic policy considered.

ECON 5163 Advanced Macroeconomic and Growth Theory 3 Credit Hours
Prerequisite: 3113, 3133. Comparison of static macroeconomic systems; introduction to dynamic macroeconomic systems; post-Keynesian and modern theories of economic growth. (F)

ECON 5173 Urban and Regional Analysis
3 Credit Hours
(Crosslisted with RCPL 5173) Prerequisite: Regional and City Planning 5113 or equivalent. A lecture-seminar-problems-oriented course designed to acquaint the student with the scientific techniques used to analyze urban and regional social, economic, political and environmental problems. Oriented to reflect requirements for studies leading to the preparation of goals, policies, and plans for urban and regional scale development. (Sp)

ECON 5213 Advanced Econometrics
3 Credit Hours
Prerequisite: graduate standing. Measurement of micro- and macroeconomic relations, both static and dynamic. Comparative statics and dynamics; practical use of inference from non-experimental data. dentification and estimation problems. (Irreg.)

ECON 5223 Bayesian Econometrics
3 Credit Hours
Prerequisite: Graduate standing and permission of instructor. Bayesian inference is the process of fitting probability models to datasets, resulting in probability distributions of model parameters and other unobserved quantities. The course will emphasize estimation of regression and parametric models, model checking, evaluation and extension, and fundamentals of Markov Chain simulation. Recurring comparisons to frequentist methods will permit assessments of the strengths and weaknesses of the Bayesian approach. (lrreg.)

ECON 5243 Econometrics II
3 Credit Hours
Prerequisite: 5213. Examines topics and techniques in applied econometric analysis. Course topics include limited dependent variables, sample selection bias, systems of equations and the use of econometric software. (Sp)

Prerequisite: Graduate standing and ECON 4223, ECON 5213 or ECON 5023; or permission of instructor. This class will provide an overview of the data science workflow, from collecting raw data to drawing a set of insights from which a decision maker can make informed decisions. The course will broadly cover a variety of advances in data collection, data storage, visualization, machine learning and econometrics topics, as well as teaching and reinforcing good programming practices. (F, Sp)

## ECON 5263 Econometrics Seminar

3 Credit Hours
Prerequisite: Graduate standing; ECON 5213 and ECON 5243. This course introduces how to write a research paper that meets the standards of peer-reviewed economics journals. It emphasizes the importance of basic concepts required when a researcher submits a journal article. The main goal is to learn a set of research concepts and tools which an economics graduate student should be able to use for applied research in economics. (F, Sp)

ECON 5283 Data Visualization and Analysis with Python 3 Credit Hours Prerequisite: Graduate Standing. Students will acquire essential skills for transforming data into meaningful visualizations and performing data analysis using Python. Emphasizing the creation of clear and elegant graphs from data, students will delve into the art of exploratory data visualization. Additionally, the course covers regression analysis and fundamental classification methods, demonstrating their real-world applications through hands-on experience with real data sets. (F, Sp, Su)

ECON 5293 Machine Learning with Causal Inference 3 Credit Hours Prerequisite: Graduate Standing. This course explores the convergence of machine learning and causal inference, equipping students with the necessary skills to leverage the power of machine learning while investigating causal relationships in their analyses. It encompasses core machine learning techniques such as model selection, prediction, treebased classification, and neural networks. (F, Sp, Su)

ECON 5313 Advanced Industrial Organization 3 Credit Hours
Prerequisite: graduate standing. Examines the market structure, conduct and performance of various industries. Topics include: theory and empirical results regarding structure, conduct and performance; the structure of U.S. industry versus other countries; recent developments; and antitrust policy. (Irreg.)
ECON 5353 Public Finance II
3 Credit Hours
Prerequisite: 4353 or permission of instructor. Teach advanced principles of public finance. The chief topics are market failure and public goods, public choice and principles of expenditure analysis.
ECON 5453 Advanced Urban Economics 3 Credit Hours Prerequisite: graduate standing. Study of economic models of urban location, including firm location and residential location models. Public policy topics of urban taxation, residential housing discrimination, urban renewal, etc. will also be discussed from an economic perspective. (Irreg.)

## ECON 5613 International Economics-Trade

3 Credit Hours
Prerequisite: 3613 and Mathematics 1743 or permission of instructor. Causes and effects of international trade; gain from trade; theory of tariff and effective protection; economic growth and trade; intermediate products; optimal trade policies; factor market imperfections; theory of integration. (Sp)
ECON 5633 International Economics--Finance 3 Credit Hours
Prerequisite: 3613 and Mathematics 1743 or permission of instructor. Foreign exchange rates; balance of payments; alternative international monetary systems; international reserves. (F)

ECON 5853 World Economic Development
3 Credit Hours
(Slashlisted with ECON 4853) Prerequisite: graduate standing. The economics of the developing nations; a review and analysis of common problems and issues. No student may earn credit for both 4853 and 5853. (Irreg.)
ECON 5940 Research in Economic Problems 1-3 Credit Hours
1 to 3 hours. May be repeated; maximum credit six hours. (F, Sp, Su)
ECON 5960 Readings in Selected Fields of Economics 1-4 Credit Hours 1 to 4 hours. May be repeated; maximum graduate credit eight hours. The only passing grade given in this course is the neutral grade of $S$. Directed readings under staff supervision for advanced students. A comprehensive report or examination is required. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

ECON 5970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

## ECON 5980 Research for Master's Thesis

2-9 Credit Hours
Variable enrollment, two to nine hours; maximum credit applicable toward degree, four hours. (F, Sp, Su)
ECON 5990 Special Studies 1-3 Credit Hours
1 to 3 hours. May be repeated with change of topic; maximum credit twelve hours. Advanced studies in various areas of economics. Given under stated titles determined each semester by the instructor involved. ( $\mathrm{F}, \mathrm{Sp}$ )
ECON 6213 Seminar in Price and Welfare Theory 3 Credit Hours
Prerequisite: 5123 or equivalent, graduate standing. Current theoretical issues and research developments are explored. Attention is given to externalities, social welfare functions, market and nonmarket choice mechanisms, capital theory and analysis of intertemporal adjustments, general equilibrium under dynamic growth conditions. (F)

ECON 6313 Seminar in Macro and Growth Theory 3 Credit Hours
Prerequisite: 5163. Detailed analysis of static and dynamic
macroeconomic systems; macrostatic and macrodynamic policy issue. (Irreg.)
ECON 6333 Seminar in Industrial Organization 3 Credit Hours
Prerequisite: graduate standing or permission of instructor. Survey of recent industrial organization, public utility and regulation literature.

## ECON 6343 Econometrics III

3 Credit Hours
Prerequisite: 5243. Topics and techniques in advanced econometric methods including time-series analysis and/or panel data analysis. May include applications in time-series econometrics such as ARMA models and VAR techniques; and applications in panel data econometrids including fixed effects, random effects and dynamic models. (F)
ECON 6433 Labor Economics I 3 Credit Hours
Prerequisite: Graduate standing. This course is the first of a twocourse sequence. Students will learn current research and theory at the frontier of labor economics. The basics of labor supply, demand, and equilibrium to build a basic theoretical foundation for research in labor economics will be covered. Field topics including immigration, education, discrimination, and marijuana legalization will be introduced. (Irreg.)
ECON 6533 Labor Economics II
3 Credit Hours
Prerequisite: Graduate standing and ECON 6433. This course is the second of the two-course sequence. Students will learn about traditional and contemporary topics in labor economics and will be encouraged to develop independent research interests. The course will emphasize the importance of research design for the identification of casual effects, as well as writing an academic research paper suitable for economics journal publication. (Irreg.)

## ECON 6653 Seminar in Growth

3 Credit Hours
Prerequisite: graduate standing and permission of instructor.
Endogenous growth theory, recent work on growth success and failures, regime switching models of growth, the effects of crises on long run performance, and the role of the IMF and World bank in development. Other topics may include financial crises, corruption, etc. (Irreg.)
ECON 6693 Seminar in Economic Development 3 Credit Hours
Problems of economic development with special emphasis on the developing nations. Theoretical as well as policy issues concerning the process of economic development are examined. (Irreg.)

## ECON 6773 Seminar in Public Economics

3 Credit Hours
Prerequisite: 5313 or permission of instructor. Survey of recent literature in the economics of public finance. Recent theoretical and empirical research will be examined. (Irreg.)

## ECON 6960 Directed Readings

1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit six hours. Directed readings and/or literature review under the direction of a faculty member. (Irreg.)
ECON 6970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit 12 hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or research and field projects. (Irreg.)

ECON 6980 Research for Doctoral Dissertation 2-16 Credit Hours 2 to 16 hours. Prerequisite: Graduate standing; may be repeated. Directed research culminating in the completion of the doctoral dissertation. ( F , Sp, Su)

ECON 6990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)

## EDAH-Adult and Higher Education

EDAH 2960 Individual Study
1-4 Credit Hours
1 to 4 hours. Prerequisite: good standing in University; fewer than 62 total hours; approval of instructor and dean. May be repeated; maximum credit four hours. Designed to provide an introduction to the study of education through a rigorous program of readings under the direction of a member of the faculty. (Irreg.)

EDAH 2962 Student Affairs Leadership 2 Credit Hours
Prerequisite: Departmental permission. This introduction to the field of Student Affairs explores the relationship between leadership and practice in college contexts. Course content is complemented and enhanced by practicum experiences in Student Affairs and/or leadership activities. This class also serves as a site for community building among campus leaders, fostering collaboration among students who may not have previously had opportunities to work together. (F, Sp)

EDAH 3440 Mentored Research Experience
3 Credit Hours
0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office Not for honors credit. (F, Sp, Su)

## EDAH 3960 Honors Reading

1-3 Credit Hours
Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Provides students with the opportunity to develop an appropriate body of reading materials on topics not covered in detai in routine coursework. Students will be obliged to assume the primary initiative in selecting the topic, compiling the bibliography and completing the reading, and will report their progress in weekly sessions to their instructor. Credit will be given only after an intensive oral examination (Irreg.)

EDAH 3970 Honors Seminar
1-3 Credit Hours
Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Covers variable subjects in education with in-depth studies of issues not covered in the standard course offerings. (Irreg.)

EDAH 3980 Honors Research
1-3 Credit Hours
Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Provides an opportunity for honors students to work on a special project under the guidance of a professor in the student's major area of study. (Irreg.)

EDAH 3990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: one course in general area to be studied permission of instructor and department. May be repeated; maximum credit six hours. Contracted independent study for topic not currently offered in regularly scheduled courses. (F, Sp)

EDAH 4960 Directed Readings in Education
-4 Credit Hours
1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean. May be repeated; maximum credit four hours. Designed for upper-division students preparing to teach who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)

EDAH 4970 Special Topics/Seminar 1-3 Credit Hours 1 to 3 hours. Prerequisite: senior standing or permission of instructor. May be repeated with change of content; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

EDAH 4980 Practicum in Education 1-3 Credit Hours
1 to 3 hours. Prerequisite: nine hours of education courses. Provides fieldtype experience under faculty supervision and is designed to introduce the student to the practical application of theory within an environment in which professional practice takes place. (Irreg.)

EDAH 4990 Special Problems in Education 1-4 Credit Hours 1 to 4 hours. Prerequisite: permission of instructor. May be repeated with change of title and subject. Variable as to subject and credit for areas of specialty and/or interest not otherwise provided in the standard offering of courses. (lrreg.)

EDAH 4993 R.A. Training Special Problems in Education 3 Credit Hours Prerequisite: junior standing. Introduces various theories and skills that aid the student in the performance of the duties of a resident advisor. Areas of study include student development theory, community development, programming, peer counseling, and policy enforcement. The class will review current issues confronting college students. Students will also be involved in University community-building programs and special events which relate to the roll of resident advisor. (F, Sp)

EDAH 5013 The Adult Learner
3 Credit Hours
Prerequisite: graduate standing. Course content includes: (a) recent history; (b) social, technological and economic factors associated with changes in educational philosophy with consequences for lifelong learning: (c) trend data on adult enrollments by socio-economic, racial, ethnic and other factors; (d) major providers; (e) research and issues concerning adult learning ability, adult development, stresses upon the adult learner, teaching adults, etc. (F)

EDAH 5023 Administration of Adult and Higher Education 3 Credit Hours

Prerequisite: graduate standing. Organization and administration of adult and higher education from legislative, legal, structural-functional, power, political, bureaucratic and social perspectives. Topics considered include: governance, central office organization, administrative position analysis, faculty organization, faculty participation in policy formation and decision making, academic freedom, goals analysis, budgetary policies and methods, and decision strategies. (F)

## EDAH 5033 Critical Literature in Adult and Higher

3 Credit Hours
Prerequisite: graduate standing. Explores twentieth-century ideas and issues in adult and higher education. The majority of the literature and discussion concern the university. (F)

## EDAH 5043 Introduction to Research in Adult and Higher Education <br> 3 Credit Hours

Prerequisite: graduate standing. Recommend specific prior enrollment -- see adviser. An introduction to data collection and analysis, research methods (experimental, quasi-experimental, qualitative), and statistics used in adult and higher education. (F, Sp, Su)

EDAH 5103 Instructional Strategies in Adult and Higher
Education
3 Credit Hours
Prerequisite: graduate standing. Encourages a rational consideration of the problems of college teaching. A problems-based course, requiring that each student be involved in an actual college teaching experience while taking it. Topics to be considered include: learning potentials of young adults; preparation of instructional objectives; evaluation of instruction; instructional techniques. (Su)
EDAH 5133 American Community/Junior College 3 Credit Hours A study of its purposes, functions, curriculum, organization and administration; exploring this uniquely American institution as an emerging factor and significant element in the structure of higher education in America today. (Sp)

## EDAH 5143 Leadership Development in Adult and Higher

## Education

3 Credit Hours
Prerequisite: graduate standing. Apply concepts from the behavioral and social sciences to the development of techniques and strategies specific to leadership development in adult and higher education. (Sp)
EDAH 5153 Legal Aspects Of Higher Education 3 Credit Hours
Prerequisite: graduate standing. Survey of principles, legislation, and court rulings in such areas as employment, affirmative action, dismissal, contracts, tenure, civil rights, due process, student rights, and other issues of concern to higher education administrators. (F)
EDAH 5163 Diversity Issues in Higher Education 3 Credit Hours Prerequisite: graduate standing. Explores the educational participation of diverse groups in higher education. The student will gain a further understanding of issues of race, ethnicity, gender, and physical disability and their influence on colleges and universities. ( $F, S p$ )

## EDAH 5173 Leadership and Administration in Student

 Affairs
## 3 Credit Hours

Prerequisite: graduate standing. Designed to provide student
foundational knowledge on topics related to leadership and administration of student affairs in collegiate settings. The course additionally exposes students to traditional and alternative leadership and administrative philosophies in college student affairs. Critical examination of how student affairs functions in the broader organizational structure and develop higher-ordered understanding of how institutional cultures (and a professional's role within those cultures) facilitate college student affairs administration. (F, Sp, Su)
EDAH 5193 Minority Serving Institutions
3 Credit Hours
Prerequisite: Graduate standing. This course is designed to provide students with a range of learning experiences that familiarize them with Minority Serving Institutions (MSIs). Students will explore the various types of MSIs, their historical development, missions, governance/ organizational structure, challenges, support/advocacy, and futures. Additionally, students will examine the student populations served by MSIs, policies that impact these institutions, and relevant contemporary issues. (Irreg.)
EDAH 5213 History of American Higher Education 3 Credit Hours Prerequisite: graduate standing or permission of instructor. The history of American higher education during the twentieth century, with an examination of the major issues which have shaped, and are shaping, the development of American colleges and universities. (Sp)

EDAH 5223 Foundations of Student Affairs in Higher
Education
3 Credit Hours
Prerequisite: graduate standing. A comprehensive introduction to the field of student affairs and its role within the context of American higher education. Specifically, provides an introduction to the origin, history, philosophy, and current practices of the college student affairs profession. A related goal is the development of a broad foundation of knowledge to which subsequent study, practitioner skills, and research strategies may be added. (F)
EDAH 5243 Financial Management In Higher Education 3 Credit Hours Prerequisite: graduate standing. Students will be introduced to the following topics: Administrative organization function and structure; financial management of sponsored programs (grants and contracts); fund accounting and basic financial statements; state coordination policies and procedures; basic budgeting concepts and techniques; cost analysis and comparisons. (Sp)
EDAH 5253 Institutional Research In Higher Education 3 Credit Hours Prerequisite: graduate standing. Recommend specific prior enrollment-see advisor. Covers the roles and functions of institutional research, student information systems, faculty and staff analysis, facilities analysis, capital and financial analysis, environmental scanning, assessment studies, program review, student outcomes studies, and quality assessment. (F)
EDAH 5263 Planning In Higher Education
3 Credit Hours
Prerequisite: Graduate standing. Recommend specific prior enrollmentsee advisor. Covers concepts, practices, issues and problems related to planning in higher education. (F)
EDAH 5273 Athletics In Higher Education 3 Credit Hours
(Crosslisted with H R 5273) Prerequisite: Graduate standing.
Provide students with an understanding of the history, structure and administration of intercollegiate athletics, as well as an opportunity to discuss a wide variety of related contemporary issues. (Irreg.)
EDAH 5293 Academic Advising in Student Affairs 3 Credit Hours Prerequisite: Graduate standing. This practitioner grounded course introduces the profession of academic advising through current research and campus field experiences. Topics include: history of the profession; developmental advising; theories of advising; advising models; advising skills; varying needs of diverse populations; role in student retention/ graduation; student advocacy, legal and ethical considerations; use of technology; evaluation and assessment. (Irreg.)
EDAH 5333 Program Planning For The Adult Learner 3 Credit Hours Prerequisite: graduate standing. Recommend specific prior enrollment-see advisor. Designed to develop an understanding of institutional roles and institutional differences; a knowledge of the principles of program planning in relation to the delivery of adult education. Reviews the elements of pProgram planning to include needs assessment, program design and delivery, and evaluation. (F)

EDAH 5383 Contemporary Issues In Student Personnel 3 Credit Hours Prerequisite: graduate standing. Designed to provide students an opportunity to synthesize ideas from previous coursework and practical experiences in student affairs. An integration of student development theories, current issues in the field, and analysis of case studies will be the focus of the course. ( $F, S p$ )

## EDAH 5413 Design And Delivery Of Distance Education

Programs
3 Credit Hours
Prerequisite: graduate standing. Designed to prepare student to design instruction for distance learning systems. Topics include the distance learner, facilitating learning at a distance, instructional design for distance learning systems, and assessment of learning at a distance. (Sp)

EDAH 5433 Organizational Design and Management of First Year Experience Programs

3 Credit Hours
Prerequisite: graduate standing. Focuses on the first-year experience through exploring existing research and practice in organizational design and management. Based on readings, research, national guidelines, course discussion, and personal/professional experience, graduate students will design their own first-year experience program for untraditional students within an institution of their choice. ( $\mathrm{F}, \mathrm{Sp}$ )
EDAH 5443 Organization Development and Change 3 Credit Hours Prerequisite: graduate standing. Designed to provide an overview of the practical skill sets required to plan, develop, and conduct organizational development activities within public as well as private sector organizations. Topics will include concepts of OD models and theories, organizational assessment procedures, various OD interventions methods, and technological tools for effect OD. Trends and contemporary solutions for organizational development will be introduced through webinars and demonstrations. (F, Sp, Su)

EDAH 5453 Autobiography and Lifewriting in Adult Education

3 Credit Hours
Prerequisite: graduate standing. Explores autobiography and other forms of life writing as an instructional method and research tool within the broader field of the study and education of adults. Reviews the historical and contemporary uses of autobiography, its related concepts and theories and major authors who have contributed to the field. These are explored in light of educational principles and how autobiography can lead to understanding of self and others. (F, Sp, Su)

EDAH 5473 Race, Class, and Gender in Education 3 Credit Hours Prerequisite: graduate standing. This course attempts to achieve congruence between common and differing oppressions, challenges and successes according to race, class, and gender. The topics are restricted to maximize integration with studies in the various educational specialties. Analysis of the work of educational institutions in light of the relationships of these institutions to the broader society in which they are situated. Particular attention is paid to the complexities of identity and multiculturalism across educational institutions and in the educational pipeline. (F, Sp, Su)

EDAH 5483 College Student Development 3 Credit Hours
Prerequisite: graduate standing. Designed to expose students to a variety of college student development theories as well as research that describes typical patterns of student growth and development during the college years. In addition, a primary objective of this course is to discuss how student affairs professionals, higher education administrators, and faculty may utilize student development theory to design programs, develop services, and create learning environments that support the academic and social development of students attending postsecondary institutions. (F, Sp, Su)

EDAH 5513 Management \& Admin Of The Training
Function
3 Credit Hours
Prerequisite: graduate standing. This course is designed for those preparing for or having oversight responsibilities in the training and development function. Topics will include the management function, staffing, ensuring the quality of training, legal issues, marketing and financial management.

EDAH 5523 Skills and Strategies in Designing, Developing, and Delivering Training 3 Credit Hours
Prerequisite: graduate standing. Addresses the core aspects of Instructional Systems Design (ISD) as applied to workforce learning, and performance. Learn and apply key principles involved in assessing, designing, developing, implementing, and evaluating face to face (traditional) training programs. Students select training topics identified as critical to success in the training and development field, and engage the ISD process in creating active training programs. (F, Sp)

EDAH 5543 Gender, Society, and Higher Education 3 Credit Hours Prerequisite: graduate standing. Addresses issues of gender as set within the historical, economic and socio-political context of American higher and post-secondary higher education. Multiple feminist perspectives are explored including, but not limited to, liberal feminism, radical feminism, Black feminism, womanism, Chicana feminism, Native American feminism, Arab American feminism, multicultural feminism, eco- and global feminism. The connections between theory, practice, and reflection are emphasized. Social justice and ally development are strong components of this course. (F, Sp)

EDAH 5563 Inclusive Praxis in Intercollegiate Athletics 3 Credit Hours Prerequisite: graduate standing. This course focuses on developing the inclusive practice, multicultural competence, and cultural humility of aspiring athletics administrators. Taught in a workshop format, this course will increase students' understanding various issues in the context of college sports, including race, gender, religion, nationality, class, sexual orientation, and power-based violence. (F, Sp, Su)

EDAH 5573 History of Intercollegiate Athletics 3 Credit Hours Prerequisite: graduate standing. The course will attempt to deal with the continuity and changes in college sports as part of higher education and American culture. It will include analysis of the changing ideals of the student-athlete and the college coach as well as analysis of the political economy associated with college sports at the levels of the campus, the conference, and national associations. (F, Sp, Su)

## EDAH 5583 Academics in intercollegiate Athletics Administration 3

 CreditHours
Prerequisite: Graduate standing. This course is designed to provide an indepth perspective regarding the history of academic support and student services in athletics, best practices in the profession, the relationship between the athletics and academic communities in higher education, and analysis of salient issues and challenges. (Sp)

EDAH 5613 Ethical Decision Making in Intercollegiate Athletics Administration

3 Credit Hours
Prerequisite: graduate standing. Explores ethical decision-making and conduct in the contemporary 21 st century intercollegiate athletics department. Specific issues related to the commercialization of college athletics that will be covered include: academic reform, diversity within intercollegiate athletics, pay-for-play, gender equity, fiscal management, compensation for student-athletes, and the recruiting process. Students will analyze current research and theoretical frameworks centering on ethical decision making, as well as utilize a theory to practice case-study pedagogical approach in order to evaluate their personal morals, values, and principles as they pertain to ethics in college sports to enhance future decision-making.(Sp)

## EDAH 5623 Marketing \& Development in Intercollegiate Athletics Administration 3 Credit Hours

Prerequisite: graduate standing. The theoretical and practical foundations of sport marketing and fan development in 21 st century intercollegiate athletics settings. Fundamental concepts that will be covered include: revenue generation, licensing, ticket sales, consumer marketing, and marketing matrix frameworks. Students will create an individual marketing proposal to develop an enhanced understanding of techniques and strategies used to successfully market large scale athletic events and enhance the consumer experience. (Sp)
EDAH 5633 Gender in Intercollegiate Athletics 3 Credit Hours
Prerequisite: graduate standing. The course examines how gender shapes the history, organization, and nature of higher education, sport, and society. The combination of theoretical, historical, and contemporary analysis will illuminate how gender shapes the daily interactions of all people and in turn sustains the lower social, political, and cultural standing of women in society at large. (F)

## EDAH 5653 Academic Reform and Athletic Academic

## Advising

3 Credit Hours
Prerequisite: graduate standing. Explores and provides an understanding of the National Collegiate Athletics Association's academic reform movement in the 21 st century and the subsequent effects on studentathletes in higher education. The course focuses in-depth on methods currently utilized in academic advisement of the student-athlete higher education population subset. In addition, focuses on the changes made to the current NCAA governing rules as they apply to academic support and advisement of student-athletes. Students will learn to critically analyze current academic reform measures taken by the NCAA and wrestle with present day challenges faced by athletics advisers in practitioner settings. The course will utilize case studies to frame critical inquiry and discussion to prepare future higher education leaders who work with this special population of students. (Sp)

## EDAH 5673 Organization \& Administration of Intercollegiate Athletics Administration <br> 3 Credit Hours

Prerequisite: graduate standing. Examines the organizational structure of intercollegiate athletics departments nested within NCAA Division I, II, and III institutions of higher education. Students will develop an understanding of the organizational structures of each administrative unit internal to a 21 st century intercollegiate athletics departments. Students will enhance personal leadership, communication and academic writing skills through multiple reflective exercises and case studies. Culminates with the development of a formal literature review and presentation.(F)

EDAH 5683 Race \& Ethnicity in Intercollegiate Athletics 3 Credit Hours Prerequisite: graduate standing. Using theory, research, personal narratives, and primary sources, this course examines race and ethnicity in college sports. Focus will be on racial diversity in sports, approaching the topic from a historic/structural perspective, a symbolic perspective, and an internal/personal perspective. (F, Sp, Su)

## EDAH 5693 Professional Development in Intercollegiate

## Athletics

3 Credit Hours
Prerequisite: graduate standing. Prepares students for impending job searches in a competitive 21 st century sport industry. Students complete career and professional development activities in addition to a personalized service-learning experience in intercollegiate athletics practitioner settings. Class time centers on: reflection of individual service-learning experiences, leadership growth and development, and workshop time to develop professional development portfolio. Students develop a professional portfolio over the course of the semester to include a current resume, cover letter, personal leadership philosophy, and site supervisor service-learning evaluations. This class is intended for students who have little to no previous experience in intercollegiate athletics. (F, Sp)

## EDAH 5813 NCAA Compliance I

3 Credit Hours
Prerequisites: graduate standing. Examination of the structure of the National Collegiate Athletics Association ("NCAA") from a legal framework. Drawing on legal and organizational theory, this course will present an overview of NCAA regulations, research of NCAA interpretations, waivers and secondary violations. Students will examine specific cases to analyze NCAA, conference, institutional regulations and policies. Students will develop an enhanced understanding of NCAA compliance standards in college sport, a foundational skillset for aspiring athletics administrators and specifically those who wish to work in a compliance office at an NCAA institution. (F)
EDAH 5823 NCAA Compliance II
3 Credit Hours
Prerequisite: EDAH 5813 and graduate standing. Examines the structure of the National Collegiate Athletics Association ("NCAA") from a legal framework. Provides aspiring athletics administrators with foundational knowledge on the NCAA Enforcement procedures, the new Enforcement Model and internal compliance investigation standards paramount to successfully operating the daily activities of an intercollegiate compliance office. Students will develop an enhanced understanding of NCAA compliance standards, NCAA regulations, NCAA enforcement procedures of institutional investigation to rules violations, reporting of violations and major infraction cases in college sport. (F)

## EDAH 5843 Event and Facility Management in Intercollegiate Athletics Administration 3 Credit Hours

Prerequisite: graduate standing. Provides students with an enhanced understanding of the logistical and operations management skillsets that are imperative for contemporary intercollegiate athletics administrators to possess. Drawing on consumer motivation and marketing theories, students will participate in the planning and development of a specific intercollegiate athletics event. By pairing theoretical discussion and practical application, students will learn how to safely and efficiently plan large-scale intercollegiate athletics events. (F)

EDAH 5853 Best Practices in Contemporary Intercollegiate Athletics Student Support Services

3 Credit Hours
Prerequisite: graduate standing. Designed to discuss different aspects of support services for student-athletes. Centers on developing an understanding of the role of student services units within intercollegiate athletics including athletic training, academics, nutrition, strength and condition, psychological support. Particular emphasis is placed on how these services interact with each other. Current research and perspectives from the field will be presented. Students will be expected to complete personal reflection exercises, case studies, and a culminating group project. (Sp)

EDAH 5863 Licensing, Trademark Law and Fundraising in IAA

3 Credit Hours
Prerequisite: graduate standing. Provide students with an introduction to the legal aspects of collegiate licensing and fundraising. Student will develop an enhanced understanding of the principles of intellectual property, trademark law and licensing. Explores the history and role that licensing plays in intercollegiate athletics. Culminates with the development of an athletic fundraising campaign group project. (Sp)
EDAH 5910 Practicum in Education--Master's 1-4 Credit Hours 1 to 4 hours. Prerequisite: graduate standing, permission of instructor and dean. May be repeated; maximum credit six hours. Variable as to title and subject profession. Provides field-type experience under faculty supervision and is designed to introduce the student to the practical application of theory within an environment in which professional practice takes place. Seminar experience is to be included.
EDAH 5920 Internship in Education--Master's 1-6 Credit Hours 1 to 6 hours. Prerequisite: 5910, permission of instructor. May be repeated; maximum credit six hours. Variable as to title and subject profession. Available to master's degree programs specifically requiring an internship in addition to thirty-two hours of other coursework as part of the degree. Introduces the student to the profession under the supervision of a practitioner whose credentials are equal to those of the graduate faculty.

## EDAH 5940 Field Studies in Education

1-4 Credit Hours
1 to 4 hours. Prerequisite: 12 hours of education. May be repeated with change of subject matter; maximum credit eight hours. Practical problems in education as defined by members of the classes. Typical topics: defining educational objectives, relating school programs to established objectives, developing teaching-learning aids, organization for participation in developing and evaluating instructional programs, using community resources for learning, improving evaluation procedure.

## EDAH 5960 Directed Readings <br> 1-4 Credit Hours

1 to 4 hours. Prerequisite: 12 hours of education, approval of instructor, adviser and dean. May be repeated; maximum undergraduate credit eight hours; maximum graduate credit four hours

EDAH 5970 Special Topics/Seminar 1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

EDAH 5973 Spirituality \& Religious Diversity in Higher Education

3 Credit Hours
Prerequisite: Graduate standing. The course addresses issues of spirituality and religious diversity in higher education within the historical and sociopolitical context of the U.S. Multiple critical theoretical perspectives on religion and spirituality will be drawn upon throughout the semester. The connections between theory, practice in higher education, and (self) reflection are emphasized. Social justice and ally development are strong components of this course. (F, Sp, Su)

EDAH 5980 Research for Master's Thesis 2-9 Credit Hours
Variable enrollment, two to nine hours; maximum credit applicable toward degree, four hours. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

EDAH 5990 Independent Study
1-4 Credit Hours
1 to 4 hours. Prerequisite: graduate standing or permission by instructor. May be repeated with change of subject matter; maximum credit six hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/ or laboratory research and field projects. (Irreg.)

## EDAH 6013 Pro Seminar. Foundations of Research in Adult and Higher Education 3 Credit Hours

Prerequisite: Graduate standing. Introduction to concepts and processes of education research, including conceptualizing a research study, and an overview of qualitative, quantitative, and mixed-method approaches. Will examine philosophical, epistemological, and paradigmatic frameworks; problem, purpose, and significance; and the varying roles of theory, methodology, and findings. Will discuss general expectations of graduate work, particularly what constitutes original research and academic writing. (F)
EDAH 6813 Prospectus Development
3 Credit Hours
Prerequisites: Departmental permission; graduate standing. This Prospectus Development Seminar is designed for advanced doctoral students/candidates and is a formal venue for developing a sample dissertation prospectus as a starting point to work from and further develop with your dissertation chair and committee. (Sp)

EDAH 6910 Practicum in Education--Doctoral 1-6 Credit Hours 1 to 6 hours. Prerequisite: admission to doctoral program, permission of instructor. May be repeated; maximum credit six hours. Variable as to title and subject profession. An advanced practicum for post-master's level students only. The object is to provide professional experience under faculty supervision in fields requiring a high degree of professional skill. Seminar experience is to be included. (Irreg.)

EDAH 6920 Internship in Education--Doctoral 1-6 Credit Hours 1 to 6 hours. Prerequisite: written permission of the instructor. May be repeated; maximum credit 12 hours. Variable as to title and subject profession. An advanced internship for post-master's level students only. The object of the internship is to cultivate within the student a high degree of proficiency and professional independence. Field supervision is by a practitioner whose credentials are equal to those of the graduate faculty. (Irreg.)

## EDAH 6930 Intensive Studies in Education

1-6 Credit Hours
1 to 6 hours. Prerequisite: 12 hours of education and permission of instructor. Repeatable with change of title and subject. Opportunity offered for professional educators and others interested in education, cooperatively, to seek solutions to educational problems. Organized groups work in curriculum, guidance, instruction, administration and supervision. Competent leadership and expert consultant service provided. (Irreg.)

EDAH 6960 Directed Readings
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit six hours. Directed readings and/or literature review under the direction of a faculty member. (Irreg.)
EDAH 6970 Post-Master's Seminar 2-4 Credit Hours
2 to 4 hours. Prerequisite: master's degree, 24 hours of education, permission of instructor. May be repeated with change of subject matter; maximum credit twelve hours. Enrollment limited to students who hold the master's degree. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

EDAH 6980 Research for Doctoral Dissertation 2-16 Credit Hours 2 to 16 hours. Prerequisites: Graduate standing and permission of instructor; may be repeated. Directed research culminating in the completion of the doctoral dissertation. (F, Sp, Su)
EDAH 6990 Individual Study in Education 1-4 Credit Hours
1 to 4 hours. Prerequisite: 12 hours of education, graduate standing and permission of the instructor. May be repeated with change of subject matter; maximum credit eight hours. For advanced graduate students who need to study some problem or area not adequately covered in the organized courses, under the direction of a staff member in whose area of specialization the problem lies. (Irreg.)

## EDEC-Early Childhood Education

EDEC 2203 Creative Expression in Early Childhood 3 Credit Hours Characteristics and processes of creativity as expressed by children from age two to eight are reviewed. Planning and production of materials that enhance creativity in self-expressive thought and play are emphasized.
(Sp)
EDEC 2960 Individual Study
1-4 Credit Hours
1 to 4 hours. Prerequisite: good standing in University; fewer than 62 total hours; approval of instructor and dean. May be repeated; maximum credit four hours. Designed to provide an introduction to the study of education through a rigorous program of readings under the direction of a member of the faculty. (Irreg.)
EDEC 3211 Laboratory Placement I
1 Credit Hour
Prerequisite: admission to Teacher Education program; Corequisite: EDEC 3333. Designed to provide students with the opportunity to implement what they are learning in other courses as they interact with children in a classroom setting. Students will carry out assignments during this lab that have been assigned in EDEC 3333 as well as other specialization classes. (F)

## EDEC 3221 Laboratory Placement II

1 Credit Hour
Prerequisite: admission to Teacher Education program; Corequisite: EDEC 3513 and EDEC 3233. Designed to provide students with the opportunity to implement what they are learning in other courses as they interact with children in a classroom setting. Students will carry out assignments during this lab that have been assigned in EDEC 3513 as well as other specialization classes. (Sp)
EDEC 3233 Family Engagement in Early Childhood Education

## 3 Credit Hours

Prerequisite: Admission into the ECE Norman/Tulsa Program; Junior Standing; EDEC 3333; corequisite: EDEC 3221, EDEC 3513, and
EDLT 4123. Includes techniques for parent conferencing and referrals, planning and presenting effective parent education meetings, parent involvement in the classroom and experience in making home visits. Focuses on family needs when children are aged two to eight. (Sp)

EDEC 3333 Social Emotional Learning and Child Guidance 3 Credit Hours
Prerequisites: EDEC 3413; EDEC 2203; EDEC 3543. Teaching strategies to promote prosocial skills in young children. Principles and practices of positive child guidance and facilitating an effective classroom community. How to enhance children's social and emotional learning. (F)

EDEC 3413 Early Childhood Development 3 Credit Hours Prerequisite: Admission to Early Childhood Teacher Preparation program. Social, physical and cognitive influences on behavior during the preschool years are described and explained. The developmental implications of changing from caregiver to peer relationships are examined. (Sp)

EDEC 3513 Integrated Curriculum (Birth-5)
3 Credit Hours
Prerequisite: junior standing and admission to OU Norman/Tulsa early childhood education program. Explores early childhood development domains (social, emotional, cognitive, language, fine motor, large motor, and creative development) and concepts associated with the subject areas of math, science, social studies, language, arts, music, and physical education. The course will focus on integrating the curriculum through teaching strategies, methods, and concepts that are appropriate learning experiences for young children, emphasizing ages birth through five years of age. (F Tulsa; Sp Norman)
EDEC 3523 Field Experience with Seminar (Infants/ Toddlers)

## 3 Credit Hours

Prerequisite: Junior standing and admission to OU-Tulsa early childhood education program. This course will focus on connections between developmental theory and practice. Emphasis will be placed on planning developmentally appropriate environments for infant-toddler growth and learning. This course includes 45 hours of field experience and a seminar that meets 90 minutes each week. ( Sp )

EDEC 3533 Infant-Toddler Development and Care 3 Credit Hours Prerequisite: junior standing and admission to OU-Tulsa early childhood education program. Designed to provide the student with knowledge and understanding of the importance of the developmental processes that occur in infants from conception to their third birthday. Environmental influences on each of the important stages of development (prenatal, neonatal, young, mobile and older infancy) will be explored. Theories of development, philosophies of care, and techniques for the promotion of optimal physical, motor, cognitive and social-emotional development will be shared. Cultural difference in caregiving strategies will be examined as well as the importance of a mutual supportive partnership between parents and substitute caregivers in caring for children with and without special needs. (F)

## EDEC 3541 Field Placement I

1 Credit Hour
Prerequisite: admission to teacher preparation program. Co-requisite:
EDEC 3543. Birth - three field placement where students will observe and interact with children. (F)

## EDEC 3543 Teaching and Learning in Early Childhood

 Education3 Credit Hours
Prerequisite: admission to OU Norman/Tulsa early childhood education program. Includes theoretical and practical aspects of the four domains of development for children ages birth to age eight. A major focus will be on the theoretical dispositions of Piaget and Vygotsky and major topics of study will include: autonomy, play, children's thinking, peer interactions, and child guidance. (Sp)

EDEC 3551 Theory \& Practice in the ECE Setting 1 Credit Hour
Prerequisite: Admission to OU Norman early childhood education program. This course will focus on connections between guidance, developmental theory, and practice. Students will have an opportunity to learn about and apply guidance practices in the early childhood classroom. Students will be mentored by master teachers at the Institute of Child Development. (F)

EDEC 3553 Field Experience with Seminar (3-5s) 3 Credit Hours Prerequisite: Junior standing and admission to OU-Tulsa early childhood education program. Focuses on implementing the theoretical aspects of the development of the whole child focusing primarily on ages 3-5. Emphasis will be placed on planning developmentally appropriate teaching and learning. (F)

EDEC 3563 Family and Community Connections 3 Credit Hours
Prerequisite: junior standing and admission to OU-Tulsa early childhood education program. Focuses on the importance of family and community connections in the education and development of young children ( $0-8$ years). Strategies for strengthening family and community connections in early childhood classrooms will be discussed including techniques for communicating effectively with families, promoting parent involvement, engaging community agencies and members, and making home visits.
(Sp)
EDEC 3573 Diverse Learners
3 Credit Hours
Prerequisite: junior standing and admission to OU Norman/Tulsa early childhood education program. Focuses on strategies for providing individualized, inclusive, and developmentally appropriate instruction for children 0-8. Topics addressed include cultural diversity, teaching in contexts of poverty, individualizing instruction according to learning styles, supporting dual language learners, and modifying/adapting instruction and environments for children with special needs. (F Norman, Su Tulsa)

## EDEC 3960 Honors Reading

1-3 Credit Hours
Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Provides students with the opportunity to develop an appropriate body of reading materials on topics not covered in detail in routine coursework. Students will be obliged to assume the primary initiative in selecting the topic, compiling the bibliography and completing the reading, and will report their progress in weekly sessions to their instructor. Credit will be given only after an intensive oral examination (Irreg.)
EDEC 3970 Honors Seminar
1-3 Credit Hours
Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Covers variable subjects in education with in-depth studies of issues not covered in the standard course offerings. (Irreg.)

## EDEC 3980 Honors Research

1-3 Credit Hours
Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Provides an opportunity for honors students to work on a special project under the guidance of a professor in the student's major area of study. (Irreg.)
EDEC 3990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: one course in general area to be studied; permission of instructor and department. May be repeated; maximum credit six hours. Contracted independent study for topic not currently offered in regularly scheduled courses. (F, Sp)

EDEC 4123 Curriculum of Early Childhood Education 3 Credit Hours Prerequisite: EDEC 4513; Admission to the ECE Norman program and senior standing. Co-requisite: EDUC 4050. A comprehensive study of the scope of early childhood education with specific concern for curriculum foundation and organization. (Sp) [V].

EDEC 4513 Integrated Curriculum (K-3) 3 Credit Hours
Prerequisite: Admission to the OU Norman/Tulsa early childhood education program; EDEC 3513; senior standing. Explores concepts associated with the major subject areas of math, science, social studies, language arts, music, and physical education. Focus is placed on integrating the curriculum through teaching strategies, methods, and concepts that are appropriate learning experiences for young children, emphasizing grades $K-3$. (F)

EDEC 4523 Field Experience with Seminar (K-3rd) 3 Credit Hours Prerequisite: Junior standing and admission to OU-Tulsa early childhood education program. Focuses on implementing the theoretical aspects of the development of the whole child focusing primarily on grades K-3. Emphasis will be placed on planning developmentally appropriate teaching and learning. (F)

EDEC 4533 Assessment in Early Childhood Education 3 Credit Hours Prerequisite: Senior Standing and admission to the OU Norman/Tulsa early childhood education program. A survey of the multiple purposes and types of assessment in early childhood including classroom assessment, standardized child assessment, and program evaluation. Addresses consideration of the various forms of assessment, evaluation of assessment techniques, and examination of current trends and practices. An overview of common assessment tools and techniques used with young children birth through age 8 will be included. (F)

## EDEC 4543 Senior Seminar in Early Childhood Education

(Capstone)
3 Credit Hours
Prerequisite: Senior standing and admission to OU-Tulsa early childhood education program. Focuses on being a professional in the field of early childhood education. This includes dissecting what it means to be a leader, advocate, collaborator, researcher, mentor, and a life-long learner (Sp)

## EDEC 4960 Directed Readings in Education

1-4 Credit Hours
1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean. May be repeated; maximum credit four hours. Designed for upper-division students preparing to teach who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)

EDEC 4970 Special Topics/Seminar
1-3 Credit Hours 1 to 3 hours. Prerequisite: senior standing or permission of instructor. May be repeated with change of content; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

## EDEC 4990 Special Problems in Education

1-4 Credit Hours
1 to 4 hours. Prerequisite: permission of instructor. May be repeated with change of title and subject. Variable as to subject and credit for areas of specialty and/or interest not otherwise provided in the standard offering of courses. (Irreg.)

EDEC 5233 Family Engagement in Education 3 Credit Hours
Prerequisite: graduate standing. This course includes techniques of parent conferences and referrals, planning and presenting effective parent meetings, fostering parent involvement in the classroom, and experience in making home visits. The focus is on family needs of children aged two to eight years. (Irreg)

EDEC 5333 Social and Emotional Learning 3 Credit Hours
Prerequisite: graduate standing. This course is designed to address the social and emotional development of young children and how development influences learning. This course links theory and research to the preschool early learning environment. It includes materials on ways to foster social and emotional well-being and enhance creativity in children. Effective methods of discipline and a multiethnic approach to curriculum are emphasized. (Irreg)
EDEC 5413 Early Childhood Development
3 Credit Hours
Prerequisite: graduate standing. Social, emotional, physical and cognitive influences on development from prebirth to age eight are identified. Issues associated with child development are discussed. The role of the early childhood professional is defined and examined. (lrreg)
EDEC 5533 Advanced Studies in Infant-Toddler Development Credit
Prerequisite: graduate standing or permission of instructor. An exploration of issues related to infant-toddler development and learning, especially as it relates to care in settings such as childcare centers and family childcare homes. Topics include exploration of the contexts in which infants and toddlers develop, and the influences of the caregiving environment on children's physical, emotional, and cognitive development, with a focus on attachment and brain development. (Irreg.)

## EDEC 5573 Diverse Learners

3 Credit Hours
Prerequisite: Graduate standing; admission into the Teacher Preparation Program. This course will study the needs of diverse children ages 0-8. Focus will be placed on strategies that provide for individualized inclusive and developmentally appropriate instruction, identifying historical and current factors of influence that characterize children's social environments, the roles of constructivist leadership, democratic ideals, and establishment of ethical environments essential in maximizing the individual potential of all children. (F)
EDEC 5910 Practicum in Education--Master's 1-4 Credit Hours 1 to 4 hours. Prerequisite: graduate standing, permission of instructor and dean. May be repeated; maximum credit six hours. Variable as to title and subject profession. Provides field-type experience under faculty supervision and is designed to introduce the student to the practical application of theory within an environment in which professional practice takes place. Seminar experience is to be included. (Irreg.)
EDEC 5920 Internship in Education--Master's 1-6 Credit Hours 1 to 6 hours. Prerequisite: 5910, permission of instructor. May be repeated; maximum credit six hours. Variable as to title and subject profession. Available to master's degree programs specifically requiring an internship in addition to thirty-two hours of other coursework as part of the degree. Introduces the student to the profession under the supervision of a practitioner whose credentials are equal to those of the graduate faculty. (Irreg.)
EDEC 5940 Field Studies in Education
1-4 Credit Hours
1 to 4 hours. Prerequisite: 12 hours of education. May be repeated with change of subject matter; maximum credit eight hours. Practical problems in education as defined by members of the classes. Typical topics: defining educational objectives, relating school programs to established objectives, developing teaching-learning aids, organization for participation in developing and evaluating instructional programs, using community resources for learning, improving evaluation procedure. (Irreg.)

## EDEC 5960 Directed Readings

1-4 Credit Hours
1 to 4 hours. Prerequisite: 12 hours of education, approval of instructor, adviser and dean. May be repeated; maximum undergraduate credit eight hours; maximum graduate credit four hours. (Irreg.)

EDEC 5970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)
EDEC 5980 Research for Master's Thesis 2-9 Credit Hours Variable enrollment, two to nine hours; maximum credit applicable toward degree, four hours. (F, Sp, Su)
EDEC 5990 Independent Study
1-4 Credit Hours
1 to 4 hours. Prerequisite: graduate standing or permission by instructor. May be repeated with change of subject matter; maximum credit six hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/ or laboratory research and field projects. (Irreg.)
EDEC 6033 Theory and Research in Early Childhood Education

## 3 Credit Hours

Prerequisite: graduate standing or permission of instructor. Designed to facilitate student's understanding of various theories relevant to early childhood education. In-depth analysis of various theories will be accompanied by examination of research guided by these theoretical perspectives. Discussion will include how these theoretical views and the research associated with them influences the field. (Irreg.)
EDEC 6303 Parent Involvement and Parent Education 3 Credit Hours Prerequisite: graduate standing. This seminar explores current developments in parent involvement and parent education. Research on parent education programs and parent involvement will be discussed as well as the effects of each on children and families. Interventions designed for various populations of children and families are examined. (Irreg.)

## EDEC 6403 Advocacy and Leadership in Early Childhood

## Education

3 Credit Hours
Prerequisite: graduate standing. Focuses on developing the skills and knowledge necessary to help individuals build coalitions and design effective public policy/advocacy initiatives. (Sp)

## EDEC 6433 Methods in Qualitative Research with Young

 Children3 Credit Hours
Prerequisite: graduate standing. The purpose of this course is to expand student's knowledge of qualitative methods in educational research, more specifically addressing the unique methods required when children are involved in the research process. The course has both a theoretical and applied focus. First, we examine how qualitative research is used in educational research. We will discuss qualitative methods as an interpretive inquiry focusing on topics such as the development and use of theory, kinds and interpretation of data, and issues of reliability. We will compare the different methods and methodologies used by researchers. Students will analyze and critique research articles using ideas and concepts discussed in the required texts and in class. Second, students will engage in a pilot study of their own in which they apply and experience qualitative research for themselves. Here students will develop a question, examine their own theoretical position, conduct a review of the literature, collect data, and produce a research paper. Together, these two approaches will introduce students to the main questions, concerns and goals of qualitative research. (lrreg.)

EDEC 6533 Assessment and Program Evaluation in Early Childhood Education: Advanced Seminar

3 Credit Hours
Prerequisites: graduate standing or permission of instructor. An in-depth exploration of the multiple purposes and types of assessment in early childhood education including classroom assessment, standardized child assessment, program evaluation, and accountability assessment. Also focuses on the various forms of assessment, evaluation of assessment techniques and practices, and examination of current trends and practices. A special focus will be placed on program evaluation and accountability assessments and approaches. (F)

EDEC 6833 Advanced Qualitative Analysis
3 Credit Hours
Prerequisite: graduate standing. This course is designed to provide doctoral students with an in-depth understanding of the variety of ways to theory build, analyze \& interpret qualitative research, write up findings, and synthesize information for interpretation. It is assumed that students enrolling in this class have already completed an introductory qualitative research methods course. (Irreg.)

EDEC 6910 Practicum in Educ--Doctoral
1-6 Credit Hours 1 to 6 hours. Prerequisite: admission to doctoral program, permission of instructor. May be repeated; maximum credit six hours. Variable as to title and subject profession. An advanced practicum for post-master's level students only. The object is to provide professional experience under faculty supervision in fields requiring a high degree of professional skill. Seminar experience is to be included. (Irreg.)

EDEC 6920 Internship in Education--Doctoral
1-6 Credit Hours
1 to 6 hours. Prerequisite: written permission of the instructor. May be repeated; maximum credit 12 hours. Variable as to title and subject profession. An advanced internship for post-master's level students only. The object of the internship is to cultivate within the student a high degree of proficiency and professional independence. Field supervision is by a practitioner whose credentials are equal to those of the graduate faculty. (Irreg.)

EDEC 6930 Intensive Studies in Education
1-6 Credit Hours
1 to 6 hours. Prerequisite: 12 hours of education and permission of instructor. Repeatable with change of title and subject. Opportunity offered for professional educators and others interested in education, cooperatively, to seek solutions to educational problems. Organized groups work in curriculum, guidance, instruction, administration and supervision. Competent leadership and expert consultant service provided. (Irreg.)

EDEC 6960 Directed Readings
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit six hours. Directed readings and/or literature review under the direction of a faculty member. (Irreg.)

EDEC 6970 Post-Master's Seminar
2-4 Credit Hours
2 to 4 hours. Prerequisite: master's degree, 24 hours of education, permission of instructor. May be repeated with change of subject matter; maximum credit twelve hours. Enrollment limited to students who hold the master's degree. (F, Sp, Su)

EDEC 6980 Research for Doctoral Dissertation 2-16 Credit Hours 2 to 16 hours. Prerequisites: Graduate standing and permission of instructor; may be repeated. Directed research culminating in the completion of the doctoral dissertation. (F, Sp, Su)

EDEC 6990 Individual Study in Education
1-4 Credit Hours
1 to 4 hours. Prerequisite: 12 hours of education, graduate standing and permission of the instructor. May be repeated with change of subject matter; maximum credit eight hours. For advanced graduate students who need to study some problem or area not adequately covered in the organized courses, under the direction of a staff member in whose area of specialization the problem lies. (Irreg.)

## EDEL-Elementary Education

EDEL 2960 Individual Study 1-4 Credit Hours
1 to 4 hours. Prerequisite: good standing in University; fewer than 62 total hours; approval of instructor and dean. May be repeated; maximum credit four hours. Designed to provide an introduction to the study of education through a rigorous program of readings under the direction of a member of the faculty. (Irreg.)

## EDEL 3002 Promoting Healthy Lifestyles for Elementary Students <br> 2 Credit Hours

Prerequisite: admission to the teacher education program. Students explore models for teaching that transform research on human movement, physical activity and health education into effective classroom teaching practice. Students gain understanding of teaching strategies that foster active, healthy lifestyles, the practice of skills for good health and enhanced quality of life for elementary students. (F, Sp)

EDEL 3243 Integrated Arts Education
3 Credit Hours
Prerequisite: admission to the teacher education program. Promotes literacy and skills involving art principles and processes in education and life. Explores arts integration across the curriculum as a means of expressing beauty/aesthetics, self-identification, social criticism, and critical reflection. (F, Sp, Su)

EDEL 3440 Mentored Research Experience
3 Credit Hours
0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)

EDEL 3960 Honors Reading
1-3 Credit Hours
Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Provides students with the opportunity to develop an appropriate body of reading materials on topics not covered in detail in routine coursework. Students will be obliged to assume the primary initiative in selecting the topic, compiling the bibliography and completing the reading, and will report their progress in weekly sessions to their instructor. Credit will be given only after an intensive oral examination. (Irreg.)
EDEL 3970 Honors Seminar
1-3 Credit Hours
Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Covers variable subjects in education with in-depth studies of issues not covered in the standard course offerings. (Irreg.)

EDEL 3980 Honors Research 1-3 Credit Hours
Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Provides an opportunity for honors students to work on a special project under the guidance of a professor in the student's major area of study. (Irreg.)

EDEL 3990 Independent Study
1 to 3 hours. Prerequisite: one course in general area to be studied; permission of instructor and department. May be repeated; maximum credit six hours. Contracted independent study for topic not currently offered in regularly scheduled courses. ( $F, S p$ )
EDEL 4063 Critical Inquiry and Integrated Instruction 3 Credit Hours Prerequisite: EDMA 4353, EDLT 4813, EDSC 4193, EDSS 4323, EDEL 4980; corequisite: EDUC 4050. Course for teacher candidates to understand how to support critical inquiry across the disciplines. Teacher candidates will also understand how to integrate and apply what they have learned throughout their coursework to organize a classroom to create a community of learners. ( $F, S p$ ) [V].

## EDEL 4101 Mentoring

1 Credit Hour
Prerequisite: admission to Teacher Education program and permission of adviser. This course should be taken in the semester which precedes enrollment in EDLT 4813, EDMA 4353, EDSC 4193, EDSS 4323, EDEL 4980. Students will study and analyze current education practices existing in today's elementary classrooms. Selected readings, significant discussion, hands-on activities and practical experiences wil enable students to think critically about the challenges and rewards of becoming an elementary educator. The course also guides students in preparing program portfolios. (F, Sp)
EDEL 4960 Directed Readings in Education 1-4 Credit Hours 1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean. May be repeated; maximum credit four hours. Designed for upper-division students preparing to teach who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)
EDEL 4970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: senior standing or permission of instructor. May be repeated with change of content; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)
EDEL 4980 Practicum in Elementary Education 1-3 Credit Hours Prerequisite: EDEL 4101; corequisite: EDMA 4353, EDLT 4813, EDSC 4193, EDSS 4323. Provides field-type experience under faculty supervision and is designed to introduce the student to the practical application of theory within an environment in which professional practice takes place. (F, Sp)

## EDEL 4990 Special Problems in Education

1-4 Credit Hours
1 to 4 hours. Prerequisite: permission of instructor. May be repeated with change of title and subject. Variable as to subject and credit for areas of specialty and/or interest not otherwise provided in the standard offering of courses. (Irreg.)
EDEL 5593 Issues in Teaching in Elementary Schools 3 Credit Hours Prerequisite: graduate standing. Interdisciplinary seminar focusing on critical analysis of issues related to teaching and learning in elementary schools. (Irreg.)
EDEL 5910 Practicum in Education--Master's 1-4 Credit Hours
1 to 4 hours. Prerequisite: graduate standing, permission of instructor and dean. May be repeated; maximum credit six hours. Variable as to title and subject profession. Provides field-type experience under faculty supervision and is designed to introduce the student to the practical application of theory within an environment in which professional practice takes place. Seminar experience is to be included. (Irreg.)

EDEL 5920 Internship in Education--Master's
1-6 Credit Hours
1 to 6 hours. Prerequisite: 5910, permission of instructor. May be repeated; maximum credit six hours. Variable as to title and subject profession. Available to master's degree programs specifically requiring an internship in addition to thirty-two hours of other coursework as part of the degree. Introduces the student to the profession under the supervision of a practitioner whose credentials are equal to those of the graduate faculty. (Irreg.)
EDEL 5940 Field Studies in Education 1-4 Credit Hours
1 to 4 hours. Prerequisite: 12 hours of education. May be repeated with change of subject matter; maximum credit eight hours. Practical problems in education as defined by members of the classes. Typical topics: defining educational objectives, relating school programs to established objectives, developing teaching-learning aids, organization for participation in developing and evaluating instructional programs, using community resources for learning, improving evaluation procedure. (Irreg.)
EDEL 5960 Directed Readings
1-4 Credit Hours
1 to 4 hours. Prerequisite: 12 hours of education, approval of instructor, adviser and dean. May be repeated; maximum undergraduate credit eight hours; maximum graduate credit four hours. (Irreg.)
EDEL 5970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

## EDEL 5980 Research for Master's Thesis

2-9 Credit Hours
Variable enrollment, two to nine hours; maximum credit applicable toward degree, four hours. (F, Sp, Su)

EDEL 5990 Independent Study
1-4 Credit Hours
1 to 4 hours. Prerequisite: graduate standing or permission by instructor. May be repeated with change of subject matter; maximum credit six hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/ or laboratory research and field projects. (Irreg.)
EDEL 6910 Practicum in Education--Doctoral 1-6 Credit Hours 1 to 6 hours. Prerequisite: admission to doctoral program, permission of instructor. May be repeated; maximum credit six hours. Variable as to title and subject profession. An advanced practicum for post-master's level students only. The object is to provide professional experience under faculty supervision in fields requiring a high degree of professional skill. Seminar experience is to be included. (Irreg.)
EDEL 6920 Internship in Education--Doctoral 2-6 Credit Hours 1 to 6 hours. Prerequisite: written permission of the instructor. May be repeated; maximum credit 12 hours. Variable as to title and subject profession. An advanced internship for post-master's level students only. The object of the internship is to cultivate within the student a high degree of proficiency and professional independence. Field supervision is by a practitioner whose credentials are equal to those of the graduate faculty. (Irreg.)

EDEL 6930 Intensive Studies in Education
1-6 Credit Hours
1 to 6 hours. Prerequisite: 12 hours of education and permission of instructor. Repeatable with change of title and subject. Opportunity offered for professional educators and others interested in education, cooperatively, to seek solutions to educational problems. Organized groups work in curriculum, guidance, instruction, administration and supervision. Competent leadership and expert consultant service provided. (Irreg.)

EDEL 6960 Directed Readings
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit six hours. Directed readings and/or literature review under the direction of a faculty member. (Irreg.)

## EDEL 6970 Post-Master's Seminar

2-4 Credit Hours
2 to 4 hours. Prerequisite: master's degree, 24 hours of education, permission of instructor. May be repeated with change of subject matter; maximum credit twelve hours. Enrollment limited to students who hold the master's degree. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

EDEL 6980 Research for Doctoral Dissertation 2-16 Credit Hours 2 to 16 hours. Prerequisites: Graduate standing and permission of instructor; may be repeated. Directed research culminating in the completion of the doctoral dissertation. (F, Sp, Su)

EDEL 6990 Individual Study in Education 1-4 Credit Hours 1 to 4 hours. Prerequisite: 12 hours of education, graduate standing and permission of the instructor. May be repeated with change of subject matter; maximum credit eight hours. For advanced graduate students who need to study some problem or area not adequately covered in the organized courses, under the direction of a staff member in whose area of specialization the problem lies. (Irreg.)

## EDEN-English Education

EDEN 2960 Individual Study
1-4 Credit Hours
1 to 4 hours. Prerequisite: good standing in University; fewer than 62 total hours; approval of instructor and dean. May be repeated; maximum credit four hours. Designed to provide an introduction to the study of education through a rigorous program of readings under the direction of a member of the faculty. (Irreg.)

EDEN 3223 Teaching Grammar and Composition in Middle/Secondary School 3 Credit Hours

Prerequisite: admission to teacher preparation program. Emphasizes the centrality of writing in the language arts, the teaching of grammar, and socio-cultural influences on learning. (F)

EDEN 3440 Mentored Research Experience
3 Credit Hours
0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)

EDEN 3960 Honors Reading
1-3 Credit Hours
Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Provides students with the opportunity to develop an appropriate body of reading materials on topics not covered in detail in routine coursework. Students will be obliged to assume the primary initiative in selecting the topic, compiling the bibliography and completing the reading, and will report their progress in weekly sessions to their instructor. Credit will be given only after an intensive oral examination. (Irreg.)

EDEN 3970 Honors Seminar 1-3 Credit Hours Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Covers variable subjects in education with in-depth studies of issues not covered in the standard course offerings. (Irreg.)

EDEN 3980 Honors Research
1-3 Credit Hours
Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Provides an opportunity for honors students to work on a special project under the guidance of a professor in the student's major area of study. (Irreg.)

EDEN 3990 Independent Study 1-3 Credit Hours
1 to 3 hours. Prerequisite: one course in general area to be studied; permission of instructor and department. May be repeated; maximum credit six hours. Contracted independent study for topic not currently offered in regularly scheduled courses. (F, Sp)

EDEN 4273 Creativity in Teaching Composition 3 Credit Hours (Slashlisted with 5273) Prerequisite: junior standing or permission of instructor. Features visual-verbal arts integration and teaching composition at primarily middle and secondary school levels. Students will paint, write, and otherwise practice the arts as well as consider current teaching implications. No student may earn credit for both 4273 and 5273 (Su)

EDEN 4283 Mediacy and the Pop Culture 3 Credit Hours Prerequisite: admission to the Teacher Education program. Examines the significance of youth media cultures as they intersect with literacy and learning in school settings. (Sp)

EDEN G4914 The Teaching of English
4 Credit Hours
Prerequisite: EDEN 3223, senior standing. Development of expertise in teaching the language arts at the secondary level, including classroom management, planning, data-based decision-making, and delivery of great lessons. 35 hours of field work in local schools. Written reports. (Sp) [V].

EDEN 4923 Literature for Adolescents and Young Adults 3 Credit Hours (Slashlisted with EDEN 5923) Prerequisite: EDEN 3223. A survey of literature written for adolescents and young adults and affiliated, contemporary pedagogies. No student may earn credit for both 4923 and 5923. (F)

EDEN 4960 Directed Readings in Education 1-4 Credit Hours 1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean. May be repeated; maximum credit four hours. Designed for upper-division students preparing to teach who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)

EDEN 4970 Special Topics/Seminar 1-3 Credit Hours 1 to 3 hours. Prerequisite: senior standing or permission of instructor. May be repeated with change of content; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

EDEN 4980 Practicum in Education
1-3 Credit Hours
1 to 3 hours. Prerequisite: nine hours of education courses. Provides fieldtype experience under faculty supervision and is designed to introduce the student to the practical application of theory within an environment in which professional practice takes place. (Irreg.)

EDEN 4990 Special Problems in Education
1-4 Credit Hours
1 to 4 hours. Prerequisite: permission of instructor. May be repeated with change of title and subject. Variable as to subject and credit for areas of specialty and/or interest not otherwise provided in the standard offering of courses. (Irreg.)

EDEN 5203 Action Research in English Education 3 Credit Hours
Prerequisite: graduate standing; co-requisite: 5920 (Internship). Nature and methodology of teacher research. Students will conduct a field research project with EDUC 5920, Internship in Education, to demonstrate understanding of fundamental field research design and practice, including writing the teacher research report. ( $F, S p$ )

EDEN 5213 Secondary English Curriculum 3 Credit Hours Prerequisite: graduate standing. General principles of curriculum development and particular problems with planning literature curricula. Evaluation and revision of school curricula based on theories of curriculum planning.

## EDEN 5223 The Teaching of Composition: Theory and Practice <br> 3 Credit Hours

Prerequisite: graduate standing. Analysis of competing theories of composition instruction. Study of issues related to planning writing activities, and consider problems related to writing about literature, informal writing, writing apprehension, teaching basic writers, and teaching syntax.

## EDEN 5233 The Teaching of Literature: Theory and

## Practice

3 Credit Hours
Prerequisite: graduate standing. Research and methodology important to teaching literature to young people and adults with particular focus on developing reading and responding abilities to poetry and fiction. Other emphases include reading-writing interactions, creative approaches to teaching traditional literature, uses of young adult literature, and developing middle/secondary literature curricula. (Sp)
EDEN 5243 The Teaching of Language: Theory and

## Practice

3 Credit Hours
Prerequisite: graduate standing. Research and teaching methodology important to providing language instruction for young people with particular focus on oral and written language development in a culturally diverse society. Topics include grammar, usage, dialect, semantics, vocabulary instruction and curriculum design. (F)

EDEN 5253 Research in English Education
3 Credit Hours
Prerequisite: graduate standing. Study of issues and methods involved with research in English education. May include experience in the collection and analysis of data. (Irreg.)
EDEN 5263 Special Topics in Literacy I
3 Credit Hours
Prerequisite: Permission of department. Possible topics include students in and out of school, culture and literacy, socio-historical perspectives on learning, and other analysis of literate activity. (F)
EDEN 5273 Creativity in Teaching Composition 3 Credit Hours (Slashlisted with 4273) Prerequisite: graduate standing or permission of instructor. This course features visual-verbal arts integration and teaching composition at primarily middle and secondary school levels. Students will paint, write, and otherwise practice the arts as well as consider current teaching implications. No student may earn credit for both 4273 and 5273 (Su)
EDEN 5283 Mediacy and the Pop Culture 3 Credit Hours
Prerequisite: graduate standing. Admission to the Teacher Education program. Examines the significance of youth media cultures as they intersect with literacy and learning in school settings. (Sp)
EDEN 5303 Oklahoma Writing Project
3 Credit Hours
Prerequisite: graduate standing and permission of instructor. Course is offered at summer institute. Focus is on improvement of personal writing and classroom writing instruction. Participants completing course become teacher consultants with Oklahoma Writing Project. (Su)

EDEN 5910 Practicum in Education--Master's
1-4 Credit Hours
1 to 4 hours. Prerequisite: graduate standing, permission of instructor and dean. May be repeated; maximum credit six hours. Variable as to title and subject profession. Provides field-type experience under faculty supervision and is designed to introduce the student to the practical application of theory within an environment in which professional practice takes place. Seminar experience is to be included. (Irreg.)
EDEN 5920 Internship in Education--Master's 1-6 Credit Hours
1 to 6 hours. Prerequisite: 5910, permission of instructor. May be repeated; maximum credit six hours. Variable as to title and subject profession. Available to master's degree programs specifically requiring an internship in addition to thirty-two hours of other coursework as part of the degree. Introduces the student to the profession under the supervision of a practitioner whose credentials are equal to those of the graduate faculty. (Irreg.)
EDEN 5923 Literature for Adolescents and Young Adults 3 Credit Hours (Slashlisted with EDEN 4923) Prerequisite: EDEN 3223. A survey of literature written for adolescents and young adults and affiliated, contemporary pedagogies. No student may earn credit for both 4923 and 5923. (F)

EDEN 5940 Field Studies in Education 1-4 Credit Hours
1 to 4 hours. Prerequisite: twelve hours of education. May be repeated with change of subject matter; maximum credit eight hours. Practical problems in education as defined by members of the classes. Typical topics: defining educational objectives, relating school programs to established objectives, developing teaching-learning aids, organization for participation in developing and evaluating instructional programs, using community resources for learning, improving evaluation procedure. (Irreg.)
EDEN 5960 Directed Readings
1-4 Credit Hours
1 to 4 hours. Prerequisite: twelve hours of education, approval of instructor, adviser and dean. May be repeated; maximum undergraduate credit eight hours; maximum graduate credit four hours. (Irreg.)
EDEN 5970 Special Topics/Seminar 1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)
EDEN 5980 Research for Master's Thesis
2-9 Credit Hours
Variable enrollment, two to nine hours; maximum credit applicable toward degree, four hours. (F, Sp, Su)
EDEN 5990 Independent Study 1-4 Credit Hours
1 to 4 hours. Prerequisite: graduate standing or permission by instructor. May be repeated with change of subject matter; maximum credit six hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/ or laboratory research and field projects. (Irreg.)
EDEN 6910 Practicum in Education--Doctoral 1-6 Credit Hours 1 to 6 hours. Prerequisite: admission to doctoral program, permission of instructor. May be repeated; maximum credit six hours. Variable as to title and subject profession. An advanced practicum for post-master's level students only. The object is to provide professional experience under faculty supervision in fields requiring a high degree of professional skill. Seminar experience is to be included. (Irreg.)

EDEN 6920 Internship in Education--Doctoral 2-6 Credit Hours
1 to 6 hours. Prerequisite: written permission of the instructor. May be repeated; maximum credit twelve hours. Variable as to title and subject profession. An advanced internship for post-master's level students only. The object of the internship is to cultivate within the student a high degree of proficiency and professional independence. Field supervision is by a practitioner whose credentials are equal to those of the graduate faculty. (Irreg.)
EDEN 6930 Intensive Studies in Education
1-6 Credit Hours
1 to 6 hours. Prerequisite: twelve hours of education and permission of instructor. Repeatable with change of title and subject. Opportunity offered for professional educators and others interested in education, cooperatively, to seek solutions to educational problems. Organized groups work in curriculum, guidance, instruction, administration and supervision. Competent leadership and expert consultant service provided. (Irreg.)

## EDEN 6960 Directed Readings <br> 1-3 Credit Hours

1 to 3 hours. Prerequisite: graduate standing or permission of instructor.
May be repeated; maximum credit six hours. Directed readings and/or literature review under the direction of a faculty member. (Irreg.)

EDEN 6970 Post-Master's Seminar 2-4 Credit Hours
2 to 4 hours. Prerequisite: master's degree, 24 hours of education, permission of instructor. May be repeated with change of subject matter; maximum credit twelve hours. Enrollment limited to students who hold the master's degree. (F, Sp, Su)

EDEN 6980 Research for Doctoral Dissertation 2-16 Credit Hours 2 to 16 hours. Prerequisites: Graduate standing and permission of instructor; may be repeated. Directed research culminating in the completion of the doctoral dissertation. (F, Sp, Su)

EDEN 6990 Individual Study in Education
1-4 Credit Hours
1 to 4 hours. Prerequisite: twelve hours of education, graduate standing and permission of the instructor. May be repeated with change of subject matter; maximum credit eight hours. For advanced graduate students who need to study some problem or area not adequately covered in the organized courses, under the direction of a staff member in whose area of specialization the problem lies. (Irreg.)

## EDLT-Literacy Education

EDLT 2960 Individual Study
1-4 Credit Hours
1 to 4 hours. Prerequisite: good standing in University; fewer than 62 total hours; approval of instructor and dean. May be repeated; maximum credit four hours. Designed to provide an introduction to the study of education through a rigorous program of readings under the direction of a member of the faculty. (Irreg.)

EDLT 3143 Language and Literacy Development Birth through $5 \quad 3$ Credit Hours
Prerequisite: Junior standing and admission to OU-Tulsa/Norman early childhood education program. Acquaints early childhood preservice teachers with theories of language and emergent literacy development, including key precursors to conventional reading and writing, developmentally appropriate assessment practices, evidencebased curriculum and instructional practices, and materials to support language and literacy learning in early childhood settings for children from birth through age 5. (Sp)

EDLT 3440 Mentored Research Experience
3 Credit Hours
0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)
EDLT 3911 Language and Literacy Practicum
1 Credit Hour Prerequisite: admission to Teacher Education program. Support preservice teachers in making connections between theories of language and literacy evaluation and instruction and literacy learning processes and behaviors of children in primary grades.

EDLT 3913 Literacy in the Primary Grades
3 Credit Hours
Prerequisite: admission to Teacher Education program. Explore issues and factors related to language and literacy development in primary grades; examine how to develop proficiency in supporting children's language development; learn literacy assessment activities, interpret findings and identify children's strengths and needs; and choose instructional strategies to help children become strategic readers and writers. (F, Sp, Su)

## EDLT 3960 Honors Reading

1-3 Credit Hours
Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Provides students with the opportunity to develop an appropriate body of reading materials on topics not covered in detail in routine coursework. Students will be obliged to assume the primary initiative in selecting the topic, compiling the bibliography and completing the reading, and will report their progress in weekly sessions to their instructor. Credit will be given only after an intensive oral examination. (Irreg.)

EDLT 3970 Honors Seminar 1-3 Credit Hours
Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Covers variable subjects in education with in-depth studies of issues not covered in the standard course offerings. (Irreg.)

## EDLT 3980 Honors Research <br> 1-3 Credit Hours

Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Provides an opportunity for honors students to work on a special project under the guidance of a professor in the student's major area of study. (Irreg.)
EDLT 3990 Independent Study 1-3 Credit Hours
1 to 3 hours. Prerequisite: one course in general area to be studied; permission of instructor and department. May be repeated; maximum credit six hours. Contracted independent study for topic not currently offered in regularly scheduled courses. (F, Sp)

EDLT 4113 Literacy in the Intermediate Grades 3 Credit Hours Prerequisite: EDLT 3913. Understand how to support students in the intermediate grades (4th through 6th) with a wide variety of instructional strategies and procedures to implement a balanced, comprehensive literacy program, including differentiating literacy instruction, using assessment to plan instruction, and emphasizing content area literacy. $(\mathrm{F}$, Sp, Su)

EDLT 4123 Language and Literacy Development in Kindergarten through 3rd. grade

3 Credit Hours
Prerequisite: Senior standing and admission to OU-Tulsa/Norman early childhood education program. Acquaints early childhood preservice teachers with foundations of reading and writing development in kindergarten and the primary grades, including a comprehensive literacy curriculum for reading, writing, and oral language learning how to assess literacy understandings, use data to plan instruction, evidence based developmentally appropriate instructional practices and materials to support children becoming independent conventional readers, writers, and language users. (F)
EDLT 4813 Literature and Writing Across the Curriculum 3 Credit Hours Prerequisite: EDLT 4113. Provides pre-service teachers with the knowledge and skills needed to provide writing instruction in the elementary classroom. Students will explore children's literature as a tool for language and literacy development and writing instruction. ( $\mathrm{F}, \mathrm{Sp}$ )
EDLT 4960 Directed Readings in Education 1-4 Credit Hours 1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean. May be repeated; maximum credit four hours. Designed for upper-division students preparing to teach who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)
EDLT 4970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: senior standing or permission of instructor. May be repeated with change of content; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

## EDLT 4980 Practicum in Education

1-3 Credit Hours
1 to 3 hours. Prerequisite: nine hours of education courses. Provides fieldtype experience under faculty supervision and is designed to introduce the student to the practical application of theory within an environment in which professional practice takes place. (Irreg.)

## EDLT 4990 Special Problems in Education <br> 1-4 Credit Hours

1 to 4 hours. Prerequisite: permission of instructor. May be repeated with change of title and subject. Variable as to subject and credit for areas of specialty and/or interest not otherwise provided in the standard offering of courses. (Irreg.)
EDLT 5910 Practicum in Education--Master's 1-4 Credit Hours
1 to 4 hours. Prerequisite: graduate standing, permission of instructor and dean. May be repeated; maximum credit six hours. Variable as to title and subject profession. Provides field-type experience under faculty supervision and is designed to introduce the student to the practical application of theory within an environment in which professional practice takes place. Seminar experience is to be included. (Irreg.)
EDLT 5920 Internship in Education--Master's 1-6 Credit Hours 1 to 6 hours. Prerequisite: 5910, permission of instructor. May be repeated; maximum credit six hours. Variable as to title and subject profession. Available to master's degree programs specifically requiring an internship in addition to thirty-two hours of other coursework as part of the degree. Introduces the student to the profession under the supervision of a practitioner whose credentials are equal to those of the graduate faculty. (Irreg.)

EDLT 5940 Field Studies in Education
1-4 Credit Hours
1 to 4 hours. Prerequisite: 12 hours of education. May be repeated with change of subject matter; maximum credit eight hours. Practical problems in education as defined by members of the classes. Typical topics: defining educational objectives, relating school programs to established objectives, developing teaching-learning aids, organization for participation in developing and evaluating instructional programs, using community resources for learning, improving evaluation procedure. (Irreg.)
EDLT 5960 Directed Readings 1-4 Credit Hours
1 to 4 hours. Prerequisite: 12 hours of education, approval of instructor, adviser and dean. May be repeated; maximum undergraduate credit eight hours; maximum graduate credit four hours. (Irreg.)

EDLT 5970 Special Topics/Seminar 1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor.
May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)
EDLT 5980 Research for Master's Thesis 2-9 Credit Hours
Variable enrollment, two to nine hours; maximum credit applicable toward degree, four hours. (F, Sp, Su)
EDLT 5990 Independent Study 1-4 Credit Hours
1 to 4 hours. Prerequisite: graduate standing or permission by instructor. May be repeated with change of subject matter; maximum credit six hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/ or laboratory research and field projects. (Irreg.)

## EDLT 6910 Practicum in Educ--Doctoral 1-6 Credit Hours

1 to 6 hours. Prerequisite: admission to doctoral program, permission of instructor. May be repeated; maximum credit six hours. Variable as to title and subject profession. An advanced practicum for post-master's level students only. The object is to provide professional experience under faculty supervision in fields requiring a high degree of professional skill. Seminar experience is to be included. (Irreg.)
EDLT 6920 Internship in Education--Doctoral
2-6 Credit Hours
1 to 6 hours. Prerequisite: written permission of the instructor. May be repeated; maximum credit 12 hours. Variable as to title and subject profession. An advanced internship for post-master's level students only. The object of the internship is to cultivate within the student a high degree of proficiency and professional independence. Field supervision is by a practitioner whose credentials are equal to those of the graduate faculty. (Irreg.)
EDLT 6930 Intensive Studies in Education
1-6 Credit Hours
1 to 6 hours. Prerequisite: 12 hours of education and permission of instructor. Repeatable with change of title and subject. Opportunity offered for professional educators and others interested in education, cooperatively, to seek solutions to educational problems. Organized groups work in curriculum, guidance, instruction, administration and supervision. Competent leadership and expert consultant service provided. (Irreg.)

EDLT 6960 Directed Readings
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit six hours. Directed readings and/or literature review under the direction of a faculty member. (Irreg.)

EDLT 6970 Post-Master's Seminar
2-4 Credit Hours
2 to 4 hours. Prerequisite: master's degree, 24 hours of education, permission of instructor. May be repeated with change of subject matter; maximum credit twelve hours. Enrollment limited to students who hold the master's degree. (F, Sp, Su)

EDLT 6980 Research for Doctoral Dissertation 2-16 Credit Hours
2 to 16 hours. Prerequisites: Graduate standing and permission of instructor; may be repeated. Directed research culminating in the completion of the doctoral dissertation. (F, Sp, Su)

EDLT 6990 Individual Study in Education 1-4 Credit Hours
1 to 4 hours. Prerequisite: 12 hours of education, graduate standing and permission of the instructor. May be repeated with change of subject matter; maximum credit eight hours. For advanced graduate students who need to study some problem or area not adequately covered in the organized courses, under the direction of a staff member in whose area of specialization the problem lies. (Irreg.)

## EDMA-Mathematics Education

EDMA 2353 Mathematical Communication and Structures 3 Credit Hours

Prerequisite: Admission to Jeannine Rainbolt College of Education and instructor permission. Manipulatives are learning tools used to create concrete and/or visual representations of abstract concepts. Students will use manipulatives to develop deeper conceptual understandings of elementary mathematics as well as their ability to communicate these understandings. Topics include number concepts, operations, algebraic reasoning, and geometric concepts. Students will develop and use multiple strategies for doing mathematics and communicating their mathematical thinking.

EDMA 2960 Individual Study
1-4 Credit Hours
1 to 4 hours. Prerequisite: good standing in University; fewer than 62 total hours; approval of instructor and dean. May be repeated; maximum credit four hours. Designed to provide an introduction to the study of education through a rigorous program of readings under the direction of a member of the faculty. (Irreg.)

EDMA 3353 PK-3 Mathematics Concepts
3 Credit Hours
Prerequisite: admission to the teacher education program and 1000-level Gen Ed approved Math, MATH 2213. Addresses the important "big" ideas in mathematics that are appropriate for pk-3rd grade students to learn. How research, theory and practice facilitate young children's learning will be explored. Will also be emphasis on inquiry based/problem centered curriculum, instructional strategies and assessment. (F, Sp, Su)

EDMA 3440 Mentored Research Experience
3 Credit Hours
0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)

EDMA 3960 Honors Reading
1-3 Credit Hours
Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Provides students with the opportunity to develop an appropriate body of reading materials on topics not covered in detail in routine coursework. Students will be obliged to assume the primary initiative in selecting the topic, compiling the bibliography and completing the reading, and will report their progress in weekly sessions to their instructor. Credit will be given only after an intensive oral examination. (Irreg.)

EDMA 3970 Honors Seminar 1-3 Credit Hours
Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Covers variable subjects in education with in-depth studies of issues not covered in the standard course offerings. (Irreg.)

EDMA 3980 Honors Research 1-3 Credit Hours
Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Provides an opportunity for honors students to work on a special project under the guidance of a professor in the student's major area of study. (Irreg.)

EDMA 3990 Independent Study 1-3 Credit Hours
1 to 3 hours. Prerequisite: one course in general area to be studied; permission of instructor and department. May be repeated; maximum credit six hours. Contracted independent study for topic not currently offered in regularly scheduled courses. (F, Sp)

## EDMA 4233 Developing Problem-Solving Environ for Secondary Math Learning <br> 3 Credit Hours

Prerequisite: Mathematics 2433 or Mathematics 2924, and full admission to the Mathematics Education Program. The development of problemsolving environments for middle and high school mathematics learning. Emphasizes student characteristics, issues of equity and diversity, theories of teaching and learning, and current best practices from research into mathematics teaching and learning. Areas of focus will include problem-centered learning, appropriate uses of technology, and inclusion of historical and interdisciplinary topics in teaching mathematics for all students. (F)

## EDMA 4243 Fundamental Concepts of Secondary Math

Learning
3 Credit Hours
Prerequisite: EIPT 3473, and senior standing. Fundamental concepts of mathematics relevant to the secondary school mathematics curriculum. Development of secondary mathematics curriculum and appropriate instructional methods for the teaching of Algebra, relations and functions. This course will serve as the senior capstone. (Sp) [V].

EDMA 4253 Teaching and Learning of Mathematics Reasoning and Proof

3 Credit Hours
Prerequisite: full admission to Mathematics Education Program; recommend completion of EDMA 4233. This course focuses on the content and methodology of teaching middle and high school mathematics including geometry and trigonometry generally defined as reasoning and proof. (F)

EDMA 4353 4-8 Grade Mathematics Concepts 3 Credit Hours Prerequisite: MATH 2213; MATH 2223; EDMA 3353; EDEL 4101; corequisite: EDLT 4813; EDSC 4193; EDSS 4323; EDEL 4980. Students will be engaged in planning, implementing, and evaluating mathematics curriculum and instruction in the elementary school grades 4-8. Materials and discussions relevant to learner diversity, the appropriate use of technology, and how to integrate mathematics with other subjects will be infused throughout the course. (F, Sp)

EDMA 4960 Directed Readings in Education 1-4 Credit Hours
1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean. May be repeated; maximum credit four hours. Designed for upper-division students preparing to teach who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)

## EDMA 4970 Special Topics/Seminar

## 1-3 Credit Hours

1 to 3 hours. Prerequisite: senior standing or permission of instructor. May be repeated with change of content; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)
EDMA 4980 Practicum in Mathematics Education 1-3 Credit Hours 1 to 3 hours. Prerequisite: nine hours of education courses. Provides fieldtype experience under faculty supervision and is designed to introduce the student to the practical application of theory within an environment in which professional practice takes place. (Irreg.)
EDMA 4990 Special Problems in Education 1-4 Credit Hours
1 to 4 hours. Prerequisite: permission of instructor. May be repeated with change of title and subject. Variable as to subject and credit for areas of specialty and/or interest not otherwise provided in the standard offering of courses. (Irreg.)

## EDMA 5153 Problem Centered Learning in Mathematics 3 Credit Hours

Prerequisite: graduate standing. Intended for mathematics teachers at any level, the course is designed so participants can engage in nonroutine problem solving as a basis for examining and reflecting on such an approach to the teaching and learning of mathematics. (Irreg.)
EDMA 5523 Elementary School Mathematics Curriculum 3 Credit Hours Prerequisite: graduate standing. Analysis of research, trends, and issues in elementary mathematics teaching. Special attention is given to the research and theoretical bases underpinning curricula. (Irreg.)

## EDMA 5533 The Middle School/High School Math

## Curriculum

3 Credit Hours
Prerequisite: graduate standing. Analysis of research, trends, and issues in middle school and high school mathematics teaching. Special attention is given to the research and theoretical bases underpinning curricula. (Irreg.)

## EDMA 5753 Theory and Research in Mathematics

## Education

## 3 Credit Hours

Prerequisite: graduate standing. Designed to enhance appreciation for and understanding of research methods and findings in mathematics education. Students explore the history of research in mathematics education, discuss various theories of mathematics learning and understanding, evaluate, synthesize, and critique mathematics education research, understand a variety of research methodologies, and conduct original research. (Irreg.)

EDMA 5763 History of Mathematics for Educators 3 Credit Hours Prerequisite: graduate standing. Designed to offer a sense of the rich history of mathematics as an intellectual pursuit as well as for its practical significance. Will include presentation of methods and materials historical in nature that can be utilized by practicing classroom teachers to motivate and understanding of and appreciation for mathematics. (Irreg.)

EDMA 5863 Social Justice by the Numbers
3 Credit Hours
Prerequisite: Graduate standing. This course invites students to expand their knowledge and awareness of issues of social justice in the context of numbers, develop a pedagogical model for teaching for social change, critically examine the content of school curriculum and instructional practices from the perspective of social justice, and contemplate the role of the teacher as an agent of change and transformative intellectual. (Irreg.)
EDMA 5910 Practicum in Education--Master's 1-4 Credit Hours 1 to 4 hours. Prerequisite: graduate standing, permission of instructor and dean. May be repeated; maximum credit six hours. Variable as to title and subject profession. Provides field-type experience under faculty supervision and is designed to introduce the student to the practical application of theory within an environment in which professional practice takes place. Seminar experience is to be included. (Irreg.)
EDMA 5920 Internship in Education--Master's 1-6 Credit Hours 1 to 6 hours. Prerequisite: 5910, permission of instructor. May be repeated; maximum credit six hours. Variable as to title and subject profession. Available to master's degree programs specifically requiring an internship in addition to thirty-two hours of other coursework as part of the degree. Introduces the student to the profession under the supervision of a practitioner whose credentials are equal to those of the graduate faculty. (Irreg.)
EDMA 5940 Field Studies in Mathematics Education 1-4 Credit Hours 1 to 4 hours. Prerequisite: 12 hours of education. May be repeated with change of subject matter; maximum credit eight hours. Practical problems in education as defined by members of the classes. Typical topics: defining educational objectives, relating school programs to established objectives, developing teaching-learning aids, organization for participation in developing and evaluating instructional programs, using community resources for learning, improving evaluation procedure. (Irreg.)

## EDMA 5960 Directed Readings

1-3 Credit Hours
1 to 4 hours. Prerequisite: 12 hours of education, approval of instructor, adviser and dean. May be repeated; maximum undergraduate credit eight hours; maximum graduate credit four hours. (Irreg.)
EDMA 5970 Special Topics/Seminar 1-3 Credit Hours 1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)
EDMA 5980 Research for Master's Thesis
2-9 Credit Hours
Variable enrollment, two to nine hours; maximum credit applicable toward degree, four hours. (F, Sp, Su)
EDMA 5990 Independent Study
1-4 Credit Hours
1 to 4 hours. Prerequisite: graduate standing or permission by instructor. May be repeated with change of subject matter; maximum credit six hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/ or laboratory research and field projects. (Irreg.)
EDMA 6163 Systems Theory \& Learning Organizations 3 Credit Hours Prerequisite: Graduate standing. Examines system theories, including the development and significance of complex adaptive systems, complexity analyses, and paradigms associated with new science, especially related to the educational context. (Irreg.)

EDMA 6910 Practicum in Education--Doctoral 1-6 Credit Hours
1 to 6 hours. Prerequisite: admission to doctoral program, permission of instructor. May be repeated; maximum credit six hours. Variable as to title and subject profession. An advanced practicum for post-master's level students only. The object is to provide professional experience under faculty supervision in fields requiring a high degree of professional skill. Seminar experience is to be included. (Irreg.)

EDMA 6920 Internship in Education--Doctoral 2-6 Credit Hours 1 to 6 hours. Prerequisite: written permission of the instructor. May be repeated; maximum credit 12 hours. Variable as to title and subject profession. An advanced internship for post-master's level students only. The object of the internship is to cultivate within the student a high degree of proficiency and professional independence. Field supervision is by a practitioner whose credentials are equal to those of the graduate faculty. (Irreg.)
EDMA 6930 Intensive Studies in Education 1-6 Credit Hours
1 to 6 hours. Prerequisite: 12 hours of education and permission of instructor. Repeatable with change of title and subject. Opportunity offered for professional educators and others interested in education, cooperatively, to seek solutions to educational problems. Organized groups work in curriculum, guidance, instruction, administration and supervision. Competent leadership and expert consultant service provided. (Irreg.)

## EDMA 6960 Directed Readings <br> 1-3 Credit Hours

1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit six hours. Directed readings and/or literature review under the direction of a faculty member. (Irreg.)

EDMA 6970 Post-Master's Seminar 2-4 Credit Hours
2 to 4 hours. Prerequisite: master's degree, 24 hours of education, permission of instructor. May be repeated with change of subject matter; maximum credit twelve hours. Enrollment limited to students who hold the master's degree. (F, Sp, Su)

EDMA 6980 Research for Doctoral Dissertation 2-16 Credit Hours 2 to 16 hours. Prerequisite: Graduate standing and permission of instructor; may be repeated. Directed research culminating in the completion of the doctoral dissertation. (F, Sp, Su)

EDMA 6990 Individual Study in Education 1-4 Credit Hours 1 to 4 hours. Prerequisite: 12 hours of education, graduate standing and permission of the instructor. May be repeated with change of subject matter; maximum credit eight hours. For advanced graduate students who need to study some problem or area not adequately covered in the organized courses, under the direction of a staff member in whose area of specialization the problem lies. (Irreg.)

## EDPC-Professional Counseling

EDPC G4413 Introduction to Counseling
3 Credit Hours
Prerequisite: Senior standing or permission of instructor; Majors only. Topics covered include development of the counseling and guidance profession, various approaches and techniques employed in counseling, the work of the counselor in various settings, and an introduction to basic theoretical and philosophical positions in counseling and guidance. (F, Sp)

EDPC 4970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: senior standing or permission of instructor. May be repeated with change of content; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

EDPC 5113 Human Development
3 Credit Hours
Prerequisite: Admission to Professional Counseling M.Ed. program or permission of instructor. An introductory survey of current theory and research as it applies to human development across the lifespan. Emphases include cognitive and language development, self and social development, and contextual influences on development. Particular focus will be on human development as related to counseling. (F)

EDPC 5253 Assessment in Counseling 3 Credit Hours
Prerequisite: admission to Professional Counseling, M.Ed. program or permission of instructor. Theories of personality and intelligence testing will be discussed. Students will gain knowledge and experience in administering, scoring, and interpreting personality tests and in interpreting intelligence tests with an emphasis on the Wechsler scales. (F)

EDPC 5263 Professional Issues and Ethics in Counseling 3 Credit Hours Prerequisite: Must be admitted to masters program in Professional Counseling. This course introduces graduate students in counseling to professional, legal and ethical issues in professional counseling. The course reviews literature and covers topics pertaining to counseling, supervision, teaching, and research, with special focus on areas that are most important and most current in the field. (Sp)

EDPC 5413 Occupational Information--Career Development 3 Credit Hours
Prerequisite: admission to Professional Counseling, M.Ed. program or Counseling Psychology, Ph.D. program, or permission of instructor. Methods of preparing informational files for student use; nature of educational and occupational information, job classification, sources of information, and occupational surveys and trends. Theories of career development; techniques of job and occupational analysis; individual experiences of reporting client career development. (F)

EDPC 5423 Methods and Techniques of Counseling 3 Credit Hours Prerequisite: admission to Professional Counseling, M.Ed. program or Counseling Psychology, Ph.D. program, or permission of instructor. Introduction to stages in the counseling process; interviewing skills; counseling objectives; appropriate strategies. Common theories of counseling and psychotherapy and ethical considerations are considered.
(Su)
EDPC 5433 Theories and Techniques of Group Counseling 3 Credit Hours
Prerequisite: admission to Professional Counseling, M.Ed. program or Counseling Psychology, Ph.D. program. Introduction to types of groups, group development, group leadership, and group dynamics with an emphasis on counseling groups. Includes experiential training in group work. (Su)

## EDPC 5443 Family Systems Theory

3 Credit Hours
Prerequisite: Admission to Professional Counseling M.Ed. program (M216). An introduction to family counseling and therapy as one of the approaches to dealing with interpersonal conflict. The focus of the course is to introduce a scientific paradigm for family systems and counseling and to use a competency-based approach to intervention that is consistent with current guidelines. Assessment approaches are also discussed. (F)

EDPC 5453 Social \& Cultural Diversity 3 Credit Hours Prerequisite: Admission to Professional Counseling M.Ed. program (M216). Focuses on increasing understanding of and sensitivity regarding cognitive aspects, discourses, political realities, and issues of awareness in various minority groups, including issues related to cultural values and spirituality. Methods for increasing multicultural communication and social justice research in counseling are discussed. (F)

EDPC 5473 Counseling Theories 3 Credit Hours
Prerequisite: admission to Professional Counseling, M.Ed. program or Counseling Psychology, Ph.D. program, or permission of instructor. Surveys prevalent counseling theories within the overarching categories of psychodynamic, humanistic, behavioral and cognitive-behavioral, and contextual and constructivist approaches. In addition, multicultural counseling competencies will be reviewed. Theories presented will be discussed in terms of counseling goals, central concepts and techniques, diversity applications, and research support. (F)
EDPC 5483 Diagnosis \& Treatment in Counseling 3 Credit Hours Prerequisite: EDPC 5423, 5473, 5263, and Majors only. Diagnostically oriented course in abnormal behavior stressing standard nosology exemplified by the Diagnostic and Statistical Manual of the American Psychiatric Association (DSM). (Sp)
EDPC 5493 Child and Adolescent Counseling 3 Credit Hours Prerequisite: Graduate standing, admission to the Professional Counseling Program, EDPC 5423, EDPC 5473, and EDPC 5263. Child and Adolescent Counseling presents theories, techniques, and strategies for counseling children and adolescents and their families in both school and clinical settings. The course will explore counseling issues, special considerations, and counseling interventions related to this population. (Sp)
EDPC 5503 Introduction to Neurofeedback in Counseling 3 Credit Hours Prerequisite: graduate standing; admission to Professional Counseling, M.Ed. program or permission of instructor. The course provides students with an introduction to the integration of neurofeedback into counseling practice and is designed to satisfy BCIA didactic requirements for neurofeedback certification. Neurofeedback is a form of biofeedback used to empower individuals to regulate their brainwave patterns. (F)

## EDPC 5513 Introduction to Abuse and Addictions Theory and Treatment 3 Credit Hours

Prerequisite: Admission to Professional Counseling M.Ed. program or permission of instructor. An overview of various abuse and addiction theories, treatment and stages of change, including substance use disorders, gambling addictions and sex addictions. (Su)
EDPC 5523 Addictions and Family Theory 3 Credit Hours Prerequisite: Admission to Professional Counseling M.Ed. program or permission of instructor. An overview of various addictions with emphasis on substance use disorders and their effect on individuals, families, and communities. The course will focus on prevention and treatment. (Sp)

## EDPC 5533 Psychopharmacology/Neurobiology of Addiction Credit

Prerequisite: Admission to Professional Counseling M.Ed. program or permission of instructor. In this course, alcohol and drug dependency is explored through the study of brain chemistry and related causal factors and pathophysiological processes. The role of psychopharmacology is addressed as an agent frequently used in the management and resolution of withdrawal symptoms. (Sp)
EDPC 5543 Addictions Counseling: Theoretical Approaches and CoOccurring Disorders 3 Credit Hours
Prerequisite: Admission to Professional Counseling M.Ed. program or permission of instructor. Examines major theoretical approaches to the treatment of substance abuse. Diagnosis of co-occurring disorders will also be addressed. (F)

EDPC 5553 Addictions in Family Counseling 3 Credit Hours
Prerequisite: Admission to Professional Counseling M.Ed. program or permission of instructor. Examines major Family Counseling Treatment approaches to substance abuse and addiction. Various assessment instruments will be examined and family dynamics will be studied. Multicultural issues will also be examined. (Sp)
EDPC 5623 Advanced Counseling Techniques 3 Credit Hours Prerequisite: Admission to Professional Counseling M.Ed. program (M216). This course is for students with advanced standing in Professional Counseling with a focus on deepening understanding of counseling theory and honing applied therapeutic skill. It is designed to facilitate exploration of advanced counseling theory and technique, with an emphasis on applied procedures. (Sp)
EDPC 5633 Counseling Supervision and Consultation 3 Credit Hours Prerequisite: Graduate standing and admission to Clinical Professional Counseling M.Ed. program. The purpose of this course is to begin to familiarize students in counseling with the research and applied literature on clinical supervision. The primary model examined is the developmental approach to supervision. Consultation will also be discussed. (Sp)
EDPC 5643 Foundations of School Counseling 3 Credit Hours
Prerequisite: Graduate standing and admission to the Professional Counseling program or School Counseling Certificate program. The role and functions of school counselors, including their work with students, teachers, administrators, and parents, as well as their complementary relationships with other student services personnel. (F)

## EDPC 5653 Crisis Counseling

3 Credit Hours
Prerequisite: Admission to Professional Counseling M.Ed. program (M216) or permission of instructor. An overview of methods and techniques used in assessing and implementing effective interventions in crisis counseling settings. (Su)
EDPC 5913 Practicum in Counseling--Master's
3 Credit Hours
Prerequisite: Admission to Professional Counseling, M.Ed. program or Counseling Psychology, Ph.D. program. May be repeated; maximum credit six hours. Variable as to title and subject profession. Provides field-type experience under faculty supervision and is designed to introduce the student to the practical application of theory within an environment in which professional practice takes place. Seminar experience is to be included. (F, Sp)
EDPC 5920 Optional Internship in Professional Counseling 1-3

## Credit

Hours
1 to 3 hours. Prerequisite: Graduate standing, departmental permission, and admission to the Professional Counseling M.Ed. program. Optional counseling internship designed to allow students to make up hours required for completion of practicum and/or internship requirements during summer semester. Introduces student to the profession under supervision of a practitioner whose professional credentials are equal to those of members of the clinical professional counseling program faculty. (Irreg.)
EDPC 5923 Internship in Professional Counseling 3 Credit Hours Prerequisite: Graduate standing and admission to the Professional Counseling M.Ed. program. May be repeated; maximum credit 6 hours. Introduces the student to the profession under the supervision of a practitioner whose credentials are equal to those of the graduate faculty. (Irreg.)

EDPC 5960 Directed Readings
1-4 Credit Hours
1 to 4 hours. Prerequisite: 12 hours of education, approval of instructor, adviser and dean. May be repeated; maximum undergraduate credit eight hours; maximum graduate credit four hours. (Irreg.)
EDPC 5970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

EDPC 5980 Research for Master's Thesis 2-9 Credit Hours
Variable enrollment, two to nine hours; maximum credit applicable toward degree, four hours. Laboratory (F, Sp, Su)

EDPC 6990 Individual Study in Education
1-4 Credit Hours
1 to 4 hours. Prerequisite: 12 hours of education, graduate standing and permission of the instructor. May be repeated with change of subject matter; maximum credit eight hours. For advanced graduate students who need to study some problem or area not adequately covered in the organized courses, under the direction of a staff member in whose area of specialization the problem lies. (Irreg.)

## EDPY-Education \& Counseling Psychology

EDPY 2960 Individual Study
1-4 Credit Hours
1 to 4 hours. Prerequisite: good standing in University; fewer than 62 total hours; approval of instructor and dean. May be repeated; maximum credit four hours. Designed to provide an introduction to the study of education through a rigorous program of readings under the direction of a member of the faculty. (Irreg.)

EDPY 3440 Mentored Research Experience
3 Credit Hours
0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)

EDPY 3960 Honors Reading 1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Provides students with the opportunity to develop an appropriate body of reading materials on topics not covered in detail in routine coursework. Students will assume the primary initiative in selecting the topic, compiling the bibliography and completing the reading, and will report their progress in weekly sessions to their instructor. Credit will be given only after an intensive oral examination. (Irreg.)

EDPY 3970 Honors Seminar
1-3 Credit Hours
Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Covers variable subjects in education with in-depth studies of issues not covered in the standard course offerings. (Irreg.)

EDPY 3980 Honors Research
1-3 Credit Hours
Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Provides an opportunity for honors students to work on a special project under the guidance of a professor in the student's major area of study. (Irreg.)

EDPY 3990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: one course in general area to be studied; permission of instructor and department. May be repeated; maximum credit six hours. Contracted independent study for topic not currently offered in regularly scheduled courses. (F, Sp)

EDPY 4960 Directed Readings in Education 1-4 Credit Hours 1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean. May be repeated; maximum credit four hours Designed for upper-division students preparing to teach who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)

EDPY 4970 Special Topics/Seminar 1-3 Credit Hours
1 to 3 hours. Prerequisite: senior standing or permission of instructor. May be repeated with change of content; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

EDPY 4980 Practicum in Educational Psychology 1-3 Credit Hours 1 to 3 hours. Prerequisite: nine hours of education courses. Provides fieldtype experience under faculty supervision and is designed to introduce the student to the practical application of theory within an environment in which professional practice takes place. (Irreg.)

## EDPY 4990 Special Problems in Education

## 1-4 Credit Hours

1 to 4 hours. Prerequisite: permission of instructor. May be repeated with change of title and subject. Variable as to subject and credit for areas of specialty and/or interest not otherwise provided in the standard offering of courses. (Irreg.)

EDPY 5940 Field Studies in Education 1-4 Credit Hours
1 to 4 hours. Prerequisite: 12 hours of education. May be repeated with change of subject matter; maximum credit eight hours. Practical problems in education as defined by members of the classes. Typical topics: defining educational objectives, relating school programs to established objectives, developing teaching-learning aids, organization for participation in developing and evaluating instructional programs, using community resources for learning, improving evaluation procedure. (Irreg.)

EDPY 5960 Directed Readings
1-4 Credit Hours
1 to 4 hours. Prerequisite: 12 hours of education, approval of instructor, adviser and dean. May be repeated; maximum undergraduate credit eight hours; maximum graduate credit four hours. Directed readings and/or literature reviews under the direction of a faculty member. (Irreg.)
EDPY 5970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently ofered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

EDPY 5980 Research for Master's Thesis 2-9 Credit Hours
2 to 9 hours. Prerequisite: Graduate Standing. Variable enrollment, two to nine hours; maximum credit applicable toward degree, four hours. (F, Sp, Su)
EDPY 5990 Independent Study 1-4 Credit Hours
1 to 4 hours. Prerequisite: graduate standing or permission by instructor. May be repeated with change of subject matter; maximum credit six hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/ or laboratory research and field projects. (Irreg.)

EDPY 6920 Internship in Education--Doctoral 1-6 Credit Hours
1 to 6 hours. Prerequisite: written permission of the instructor. May be repeated; maximum credit 12 hours. Variable as to title and subject profession. An advanced internship for post-master's level students only. The object of the internship is to cultivate within the student a high degree of proficiency and professional independence. Field supervision is by a practitioner whose credentials are equal to those of the graduate faculty. (Irreg.)
EDPY 6930 Intensive Studies in Education 1-6 Credit Hours
1 to 6 hours. Prerequisite: 12 hours of education and permission of instructor. Repeatable with change of title and subject. Opportunity offered for professional educators and others interested in education, cooperatively, to seek solutions to educational problems. Organized groups work in curriculum, guidance, instruction, administration and supervision. Competent leadership and expert consultant service provided. (Irreg.)
EDPY 6960 Directed Readings 1-3 Credit Hours 1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit six hours. Directed readings and/or literature review under the direction of a faculty member. (Irreg.)

EDPY 6970 Post-Master's Seminar 2-4 Credit Hours 2 to 4 hours. Prerequisite: master's degree, 24 hours of education, permission of instructor. May be repeated with change of subject matter; maximum credit twelve hours. Enrollment limited to students who hold the master's degree. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
EDPY 6980 Research for Doctoral Dissertation 2-16 Credit Hours 2 to 16 hours. Prerequisite: Graduate standing and permission of instructor; may be repeated. Directed research culminating in the completion of the doctoral dissertation. Maximum of 15 hours credit for the Ed.D. and 30 hours for the Ph.D. (F, Sp, Su)

EDPY 6990 Individual Study in Education
1-4 Credit Hours
1 to 4 hours. Prerequisite: 12 hours of education, graduate standing and permission of the instructor. May be repeated with change of subject matter; maximum credit eight hours. For advanced graduate students who need to study some problem or area not adequately covered in the organized courses, under the direction of a staff member in whose area of specialization the problem lies. (Irreg.)

## EDRG-Reading Education

EDRG 0999 Remedial Reading
10 Credit Hours
EDRG 2960 Individual Study
1-4 Credit Hours
1 to 4 hours. Prerequisite: good standing in University; fewer than 62 total hours; approval of instructor and dean. May be repeated; maximum credit four hours. Designed to provide an introduction to the study of education through a rigorous program of readings under the direction of a member of the faculty. (Irreg.)
EDRG 3440 Mentored Research Experience 3 Credit Hours 0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)

EDRG 3960 Honors Reading
1-3 Credit Hours
Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Provides students with the opportunity to develop an appropriate body of reading materials on topics not covered in detail in routine coursework. Students will be obliged to assume the primary initiative in selecting the topic, compiling the bibliography and completing the reading, and will report their progress in weekly sessions to their instructor. Credit will be given only after an intensive oral examination. (Irreg.)

EDRG 3970 Honors Seminar 1-3 Credit Hours
Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Covers variable subjects in education with in-depth studies of issues not covered in the standard course offerings. (Irreg.)

## EDRG 3980 Honors Research 1-3 Credit Hours

Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Provides an opportunity for honors students to work on a special project under the guidance of a professor in the student's major area of study. (Irreg.)
EDRG 3990 Independent Study 1-3 Credit Hours
1 to 3 hours. Prerequisite: one course in general area to be studied; permission of instructor and department. May be repeated; maximum credit six hours. Contracted independent study for topic not currently offered in regularly scheduled courses. (F, Sp)
EDRG 4960 Directed Readings in Education 1-4 Credit Hours
1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean. May be repeated; maximum credit four hours. Designed for upper-division students preparing to teach who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)

## EDRG 4970 Special Topics/Seminar <br> 1-3 Credit Hours

1 to 3 hours. Prerequisite: senior standing or permission of instructor. May be repeated with change of content; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)
EDRG 4980 Practicum in Reading Education 1-3 Credit Hours 1 to 3 hours. Prerequisite: nine hours of education courses. Provides fieldtype experience under faculty supervision and is designed to introduce the student to the practical application of theory within an environment in which professional practice takes place. (Irreg.)
EDRG 4990 Special Problems in Education
1-4 Credit Hours 1 to 4 hours. Prerequisite: permission of instructor. May be repeated with change of title and subject. Variable as to subject and credit for areas of specialty and/or interest not otherwise provided in the standard offering of courses. (Irreg.)
EDRG 5553 Issues and Research in Reading/Literacy 3 Credit Hours Prerequisite: graduate standing. Exploration of current issues in reading and literacy. Examination and critique of different paradigms of research. Students will plan and conduct a research project on one of the issues using one of the research paradigms. (Irreg.)
EDRG 5573 Culture, Language and Literacy 3 Credit Hours Prerequisite: graduate standing. Study of cultural diversity through the lenses of language and literacy. Information presented is woven through these strands: language and learning, second language learning, culture and identity. (Irreg.)

EDRG 5641 Topics in Literacy
1 Credit Hour
Prerequisite: Admission to the Literacy Specialist Graduate Certificate This course provides a review of the theoretical and evidence-based foundations of reading and writing processes and instruction from previous courses. (Irreg.)

EDRG 5643 Survey of Literacy for All Learners 3 Credit Hours
Prerequisite: graduate standing. Survey of the theoretical and evidence based foundations of reading, writing, communication and the integral role of the reading/literacy specialist in schools. This course has a special emphasis on students experiencing literacy difficulties. (Irreg.)

EDRG 5723 Emergent and Beginning Literacy 3 Credit Hours
Prerequisite: graduate standing. Discuss and explore topics related to how young children develop emergent and beginning literacy skills and knowledge, and how teachers effectively support that literacy learning. (Irreg.)

## EDRG 5733 Adolescent Literacy

3 Credit Hours
Prerequisite: graduate standing. May be repeated; maximum credit 6 hours. Explore theoretical and practical base for adolescent literacy, including school and community content for adolescent literacy instruction, integration of literacy with content instruction, transition across grades. (Irreg.)

EDRG 5753 Digital and Multimodal Literacies 3 Credit Hours
Prerequisite: graduate standing. Students will explore New Literacies theories, the essential skills and social practices learners master to become proficient in digital and multimodal literacy. They will understand and become proficient users of web 2.0 applications to support student learning in PreK - 12 classrooms. (Irreg.)

EDRG 5803 Theories of Reading \& Literacy 3 Credit Hours
Prerequisite: graduate standing, 5613. Explores the theoretical basis of the reading, writing, and learning process. Topics to be discussed include the importance of language, social content, and culture; the meaning construction process; the role of perception, word recognition, metacognition, and affect on literacy and learning; and, how different models of the reading/writing process suggest different classroom learning environments. (Sp)

## EDRG 5814 Applications of Literacy Assessment and

Evaluation
4 Credit Hours
Prerequisite: graduate standing. Focus is on group and individua classroom assessment strategies for the areas of literacy competence, including emergent literacy, reading comprehension, automatic word recognition, vocabulary knowledge, fluency, spelling, and composition Students will be supervised in the administration and interpretation of a variety of formal and informal assessments, including standardized measures (both norm- and criterion-referenced), screening and diagnostic tests, and anecdotal observations. (Sp)

## EDRG 5843 Writing Across the Disciplines

3 Credit Hours
Prerequisite: graduate standing. Students will learn the theory, pedagogy, and research about writing instruction across the disciplines. Skills to support elementary and secondary teachers to prepare students to be college and career-ready writers will also be emphasized. (Irreg.)

EDRG 5903 Literacy Leadership
3 Credit Hours
Prerequisite: graduate standing. Examines effective literacy leadership and the role of the reading specialist, including supporting teacher growth, designing professional development, and contributing to an effective whole school literacy program. (Irreg.)

5910 Practicum in Education--Master's
1 to 4 hours. Prerequisite: graduate standing, permission of instructor and dean. May be repeated; maximum credit six hours. Variable as to title and subject profession. Provides field-type experience under faculty supervision and is designed to introduce the student to the practical application of theory within an environment in which professional practice takes place. Seminar experience is to be included. (Irreg.)

EDRG 5920 Internship in Education--Master's 1-6 Credit Hours
1 to 6 hours. Prerequisite: 5910, permission of instructor. May be repeated; maximum credit six hours. Variable as to title and subject profession. Available to master's degree programs specifically requiring an internship in addition to thirty-two hours of other coursework as part of the degree. Introduces the student to the profession under the supervision of a practitioner whose credentials are equal to those of the graduate faculty. (Irreg.)

## EDRG 5934 Applications of Literacy Instructional Strategies 4 Credit

 HoursPrerequisite: graduate standing. Focus is on group and individual classroom instructional strategies for the areas of literacy competence, including emergent literacy, reading comprehension, automatic word recognition, vocabulary knowledge, fluency, and spelling. Students will be supervised in the application of these strategies in a clinic setting with children and young adults learners. (F)

EDRG 5940 Field Studies in Education
1-4 Credit Hours
1 to 4 hours. Prerequisite: 12 hours of education. May be repeated with change of subject matter; maximum credit eight hours. Practical problems in education as defined by members of the classes. Typical topics: defining educational objectives, relating school programs to established objectives, developing teaching-learning aids, organization for participation in developing and evaluating instructional programs, using community resources for learning, improving evaluation procedure. (Irreg.)

EDRG 5960 Directed Readings 1-4 Credit Hours 1 to 4 hours. Prerequisite: 12 hours of education, approval of instructor, adviser and dean. May be repeated; maximum undergraduate credit eight hours; maximum graduate credit four hours. (Irreg.)

EDRG 5970 Special Topics/Seminar 1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

EDRG 5980 Research for Master's Thesis 2-9 Credit Hours
Variable enrollment, two to nine hours; maximum credit applicable toward degree, four hours. (F, Sp, Su)

EDRG 5990 Independent Study
-4 Credit Hours
1 to 4 hours. Prerequisite: graduate standing or permission by instructor. May be repeated with change of subject matter; maximum credit six hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/ or laboratory research and field projects. (Irreg.)

EDRG 6910 Practicum in Education--Doctoral 1-6 Credit Hours 1 to 6 hours. Prerequisite: admission to doctoral program, permission of instructor. May be repeated; maximum credit six hours. Variable as to title and subject profession. An advanced practicum for post-master's level students only. The object is to provide professional experience under faculty supervision in fields requiring a high degree of professional skill Seminar experience is to be included. (Irreg.)

EDRG 6920 Internship in Education--Doctoral 2-6 Credit Hours
1 to 6 hours. Prerequisite: written permission of the instructor. May be repeated; maximum credit 12 hours. Variable as to title and subject profession. An advanced internship for post-master's level students only. The object of the internship is to cultivate within the student a high degree of proficiency and professional independence. Field supervision is by a practitioner whose credentials are equal to those of the graduate faculty. (Irreg.)
EDRG 6930 Intensive Studies in Education 1-6 Credit Hours
1 to 6 hours. Prerequisite: 12 hours of education and permission of instructor. Repeatable with change of title and subject. Opportunity offered for professional educators and others interested in education, cooperatively, to seek solutions to educational problems. Organized groups work in curriculum, guidance, instruction, administration and supervision. Competent leadership and expert consultant service provided. (Irreg.)
EDRG 6960 Directed Readings 1-3 Credit Hours 1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit six hours. Directed readings and/or literature review under the direction of a faculty member. (Irreg.)
EDRG 6970 Post-Master's Seminar 2-4 Credit Hours 2 to 4 hours. Prerequisite: master's degree, 24 hours of education, permission of instructor. May be repeated with change of subject matter; maximum credit twelve hours. Enrollment limited to students who hold the master's degree. (F, Sp, Su)
EDRG 6980 Research for Doctoral Dissertation 2-16 Credit Hours 2 to 16 hours. Prerequisite: Graduate standing and permission of instructor; may be repeated. Directed research culminating in the completion of the doctoral dissertation. Maximum of 15 hours credit for the Ed.D. and 30 hours for the Ph.D. (F, Sp, Su)
EDRG 6990 Individual Study in Education 1-4 Credit Hours 1 to 4 hours. Prerequisite: 12 hours of education, graduate standing and permission of the instructor. May be repeated with change of subject matter; maximum credit eight hours. For advanced graduate students who need to study some problem or area not adequately covered in the organized courses, under the direction of a staff member in whose area of specialization the problem lies. (Irreg.)

## EDS-Educational Studies

EDS 2960 Individual Study 1-4 Credit Hours
1 to 4 hours. Prerequisite: good standing in University; fewer than 62 total hours; approval of instructor and dean. May be repeated; maximum credit four hours. Designed to provide an introduction to the study of education through a rigorous program of readings under the direction of a member of the faculty. (Irreg.)
EDS 3440 Mentored Research Experience
3 Credit Hours
0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)

EDS 3960 Honors Reading
1-3 Credit Hours
Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Provides students with the opportunity to develop an appropriate body of reading materials on topics not covered in detail in routine coursework. Students will be obliged to assume the primary initiative in selecting the topic, compiling the bibliography and completing the reading, and will report their progress in weekly sessions to their instructor. Credit will be given only after an intensive oral examination. (Irreg.)
EDS 3970 Honors Seminar 1-3 Credit Hours
Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Covers variable subjects in education with in-depth studies of issues not covered in the standard course offerings. (Irreg.)
EDS 3980 Honors Research 1-3 Credit Hours
Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Provides an opportunity for honors students to work on a special project under the guidance of a professor in the student's major area of study. (Irreg.)
EDS 3990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: one course in general area to be studied; permission of instructor and department. May be repeated; maximum credit six hours. Contracted independent study for topic not currently offered in regularly scheduled courses. (F, Sp)
EDS 4003 Schools in American Cultures 3 Credit Hours
Prerequisite: admission to Teacher Education program; EIPT 3473 or EDEC 3413. An overview of education as a profession based upon historical and philosophical principles including a treatment of current problems and affairs with specific attention given to multicultural phenomena. ( $\mathrm{F}, \mathrm{Sp}$ )

EDS 4633 Latina Feminist Epistemologies
3 Credit Hours
(Slashlisted with EDS 5633; Crosslisted with WGS 4633) Prerequisite: Junior standing. This course explores the experiences of Chicanas and Latinas through the lens of contemporary research. Topics to be discussed: community formation and activism, Chicana/Latina feminism, sexuality, religion, health, family, immigration, migration, education, work, media, and artistic expressions. Readings emphasize the links between the structural inequalities of society, and the day-to-day lived experiences of Chicanas/Latinas. No student may earn credit for both 4633 and 5633. (Irreg.)
EDS 4960 Directed Readings in Education 1-4 Credit Hours 1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean. May be repeated; maximum credit four hours. Designed for upper-division students preparing to teach who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)
EDS 4970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: senior standing or permission of instructor. May be repeated with change of content; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)
EDS 4980 Practicum in Educational Studies
1-3 Credit Hours
1 to 3 hours. Prerequisite: nine hours of education courses. Provides fieldtype experience under faculty supervision and is designed to introduce the student to the practical application of theory within an environment in which professional practice takes place. (Irreg.)

EDS 4990 Special Problems in Education
1-4 Credit Hours
1 to 4 hours. Prerequisite: permission of instructor. May be repeated with change of title and subject. Variable as to subject and credit for areas of specialty and/or interest not otherwise provided in the standard offering of courses. (Irreg.)

EDS 5003 School and Society
3 Credit Hours
Prerequisite: graduate standing. Presents overview of education as a profession based upon historical, sociological, and philosophical principles, including a treatment of current problems and affairs with specific attention given to multicultural phenomena. (Sp)

EDS 5023 Linguistic and Conceptual Analysis 3 Credit Hours Prerequisite: Graduate standing. Study of the philosophical method, linguistic and conceptual analysis, as a means to achieve greater clarity and understanding of tactical and theoretical problems faced by educators. Students using philosophical analysis in their research may pursue the beginnings of that analysis in consultation with the instructor and other students in the course. (F, Sp)

EDS 5633 Latina Feminist Epistemologies
3 Credit Hours
(Slashlisted with EDS 4633; Crosslisted with WGS 5633) Prerequisite: Graduate standing. This course explores the experiences of Chicanas and Latinas through the lens of contemporary research. Topics to be discussed include community formation and activism, Chicana/Latina feminism, sexuality, religion, health, family, immigration, migration, education, work, media, and artistic expressions. Readings emphasize the links between the structural inequalities of society and the day-to-day lived experiences of Chicanas/Latinas. No student may earn credit for both 4633 and 5633. (Irreg.)

EDS 5703 Sociology of Education
3 Credit Hours
Prerequisite: eight hours of education or permission. Social structure in the community wherein the school must operate and the nature of human relations within the school; social processes and patterns involved in the educational system relative to other aspects of our society; and the effect of the school on the behavior and personality of its participants.

## EDS 5783 Classics in Educational Thought

3 Credit Hours
Prerequisite: graduate standing or permission of instructor. Close critical study of selected "classics" in educational thought by Plato, Rousseau, DuBois, Dewey, Woolf, or others of comparable historical significance for multicultural co-education throughout the human lifespan, in a context of social inequalities. Intensive written and oral practice in basic conceptual skills and informal logic will require independent inquiries on topics of special interest to students. (F)

## EDS 5823 Contemporary Critical Thought and Education

 Studies3 Credit Hours
Prerequisite: Graduate standing or permission of instructor. Close study of contemporary critical thought that has profoundly transformed recent theorizing about education and its various social, cultural, and economic contexts. Major texts selected from philosophical movements such as analysis, existentialism, Marxism, feminism, post-structuralism, and neopragmatism. Intensive oral and written practice in educational criticism and theory, developing case studies from primary sources. (Irreg.)

EDS 5833 Topics in Gender, Values, and Education 3 Credit Hours Prerequisite: Graduate standing or permission of instructor. May be repeated with change of content; maximum credit 6 hours. Topics vary each semester and are developed from philosophical studies in and about education, politics, ethics, aesthetics, law, and religion that address the issues of gender and sexuality. Intensive oral and written theoretical inquiry. (Irreg.)

5910 Practicum in Education--Master's
1-4 Credit Hours
1 to 4 hours. Prerequisite: graduate standing, permission of instructor and dean. May be repeated; maximum credit six hours. Variable as to title and subject profession. Provides field-type experience under faculty supervision and is designed to introduce the student to the practical application of theory within an environment in which professional practice takes place. Seminar experience is to be included. (Irreg.)

EDS 5913 Latinas/os and Education 3 Credit Hours
Prerequisite: Graduate standing. This class situates the Latina/o experience in U.S. schools within an understanding of the overall history of American Education by examining the complex educational, racial, and legal history of Latinas/os in the United States. Similarly, this course will examine current trends in the education of Latinas/os and the ways that educators (both researchers and practitioners) can better serve Latina/o students. (Irreg.)

EDS 5920 Internship in Education--Master's
1-6 Credit Hours
1 to 6 hours. Prerequisite: 5910, permission of instructor. May be repeated; maximum credit six hours. Variable as to title and subject profession. Available to master's degree programs specifically requiring an internship in addition to thirty-two hours of other coursework as part of the degree. Introduces the student to the profession under the supervision of a practitioner whose credentials are equal to those of the graduate faculty. (Irreg.)

## EDS 5933 Girls, Women, and Educational Studies 3 Credit Hours

 Prerequisite: graduate standing or permission of instructor. History, sociology, and/or philosophy of girls' and women's education in a multicultural context that includes family, work, and community life as well as coeducational public schooling and higher education in the U.S. Oral and written critical inquiry concerning selected primary sources will introduce students to the activity of interdisciplinary theorizing about gender and sexuality in education. (F)EDS 5940 Field Studies in Education
1-4 Credit Hours
1 to 4 hours. Prerequisite: twelve hours of education. May be repeated with change of subject matter; maximum credit eight hours. Practical problems in education as defined by members of the classes. Typical topics: defining educational objectives, relating school programs to established objectives, developing teaching-learning aids, organization for participation in developing and evaluating instructional programs, using community resources for learning, improving evaluation procedure. (Irreg.)
EDS 5943 History of Race and Education in Oklahoma 3 Credit Hours Prerequisite: graduate standing. Examines the history of race and education in Oklahoma, as well as the experiences of African Americans, Native Americans, and Latinas/os as they engaged in the creation and maintenance of schooling spaces, both prior to and proceeding from statehood. (F, Sp)

EDS 5960 Directed Readings
1-4 Credit Hours
1 to 4 hours. Prerequisite: twelve hours of education, approval of instructor, adviser and dean. May be repeated; maximum undergraduate credit eight hours; maximum graduate credit four hours. (Irreg.)

EDS 5970 Special Topics/Seminar 1-3 Credit Hours 1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

EDS 5980 Research for Master's Thesis
2-9 Credit Hours
Variable enrollment, two to nine hours; maximum credit applicable toward degree, four hours. (F, Sp, Su)

EDS 5990 Independent Study
1 to 4 hours. Prerequisite: graduate standing or permission by instructor. May be repeated with change of subject matter; maximum credit six hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/ or laboratory research and field projects. (Irreg.)
EDS 6010 Writing Educational Inquiry 1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing and enrollment in Educational Studies program. May be repeated with change of content; maximum credit 9 hours. Individual or group tutorial study of informal logic and rhetorical theory concerning academic writing as a social practice. Emphasis on contextually appropriate documentation practices, philosophical moves, and rhetorical devices, and development of clarity and grace in written formulations of educational concepts and values. Addresses various scholarly and professional situations. Aimed toward public presentation or publication. (F, Sp)

## EDS 6033 Inquiry Design

3 Credit Hours
Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit six hours. An individual or small group tutorial focused exclusively on preparation of the dissertation or prospectus for interdisciplinary critical or theoretical inquiry in Historical, Philosophical, and Social Foundations in Education. (F)

## EDS 6723 Race and Representation in Educational Research

3 Credit Hours
Prerequisite: Graduate standing. This course examines the major tenets of Critical Race Theory (CRT) and the ways to expand its use in educational research. Students will develop a research project utilizing methodologies utilized in CRT/LatCrit/TribalCrit research projects, e.g., testimonies and storytelling. (Sp)
EDS 6763 Issues in Contemporary American Education 3 Credit Hours Prerequisite: graduate standing. Backgrounds of the contemporary American social scene with such issues as extension of educational opportunity; interrelationships between church, state, and school; changing economic concepts in the age of technology; purposes of education to social policy; federal aid to education; academic freedom.
EDS 6793 History of U.S. Education 3 Credit Hours
Prerequisite: graduate standing. Development of schools in American society from colonial times to the present as set against the background of intellectual movements and changes from the colonial period to the present. Attention is given to the development of the organization, administration, finance and curriculum in the American public school system. Major concepts relating to the maintenance of a school in American society are considered; historical treatment of nativism, populism, empiricism, associationism, a person's relation to spiritual and national self, as these topics relate to the development of educational ideals and practices in American society. (Irreg.)
EDS 6910 Practicum in Education--Doctoral 1-6 Credit Hours 1 to 6 hours. Prerequisite: admission to doctoral program, permission of instructor. May be repeated; maximum credit six hours. Variable as to title and subject profession. An advanced practicum for post-master's level students only. The object is to provide professional experience under faculty supervision in fields requiring a high degree of professional skill. Seminar experience is to be included. (Irreg.)

EDS 6920 Internship in Education--Doctoral 2-6 Credit Hours 1 to 6 hours. Prerequisite: written permission of the instructor. May be repeated; maximum credit twelve hours. Variable as to title and subject profession. An advanced internship for post-master's level students only. The object of the internship is to cultivate within the student a high degree of proficiency and professional independence. Field supervision is by a practitioner whose credentials are equal to those of the graduate faculty. (Irreg.)
EDS 6930 Intensive Studies in Education
1-6 Credit Hours
1 to 6 hours. Prerequisite: twelve hours of education and permission of instructor. Repeatable with change of title and subject. Opportunity offered for professional educators and others interested in education, cooperatively, to seek solutions to educational problems. Organized groups work in curriculum, guidance, instruction, administration and supervision. Competent leadership and expert consultant service provided. (Irreg.)
EDS 6933 Naturalistic and Qualitative Research in Education

3 Credit Hours
Prerequisite: graduate standing. Designed to familiarize graduate students in education with naturalistic research and qualitative methodologies. (Irreg.)
EDS 6943 In-Depth Approaches to Qualitative Inquiry in Educational
Research
3 Credit Hours

Prerequisite: graduate standing. Students should have had some introduction to qualitative inquiry and research. Graduate students should produce a presentable conference paper and/or publishable article. In addition, students will teach their selected methodology while applying this methodology to their own study. Students will develop a deeper understanding of the philosophical congruence of students and other classmates' research projects. (F, Sp)
EDS 6960 Directed Readings 1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit six hours. Directed readings and/or literature review under the direction of a faculty member. (Irreg.)
EDS 6970 Post-Master's Seminar 2-4 Credit Hours 2 to 4 hours. Prerequisite: master's degree, 24 hours of education, permission of instructor. May be repeated with change of subject matter; maximum credit twelve hours. Enrollment limited to students who hold the master's degree. (F, Sp, Su)
EDS 6973 Historical Research Methods in Education 3 Credit Hours Prerequisite: Graduate standing. Examines problems and methods of narrative research in education. Use of primary and secondary sources, evidence, generalization, interpretation, documentation, citation, and oral history are discussed. (F)
EDS 6980 Research for Doctoral Dissertation 2-16 Credit Hours 2 to 16 hours. Prerequisite: Graduate standing and permission of instructor; may be repeated. Directed research culminating in the completion of the doctoral dissertation. Maximum of 15 hours credit for the Ed.D. and 30 hours for the Ph.D. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
EDS 6990 Individual Study in Education
1-4 Credit Hours
1 to 4 hours. Prerequisite: twelve hours of education, graduate standing and permission of the instructor. May be repeated with change of subject matter; maximum credit eight hours. For advanced graduate students who need to study some problem or area not adequately covered in the organized courses, under the direction of a staff member in whose area of specialization the problem lies. (Irreg.)

## EDSC-Science Education

EDSC 2960 Individual Study

1-4 Credit Hours
1 to 4 hours. Prerequisite: good standing in University; fewer than 62 total hours; approval of instructor and dean. May be repeated; maximum credit four hours. Designed to provide an introduction to the study of education through a rigorous program of readings under the direction of a member of the faculty. (Irreg.)

EDSC 3233 Environmental Issues in the Community 3 Credit Hours Prerequisite: 6 to 9 hours in the natural sciences and sophomore standing; Majors only. This course is designed for students to explore environmental problems and resulting issues in the surrounding community while actively engaging in scientific and engineering practices and applying crosscutting concepts to develop and deepen their understanding of core ideas in the sciences. (Irreg.)

EDSC 3440 Mentored Research Experience 3 Credit Hours
0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)
EDSC 3960 Honors Reading
1-3 Credit Hours
Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Provides students with the opportunity to develop an appropriate body of reading materials on topics not covered in detail in routine coursework. Students will be obliged to assume the primary initiative in selecting the topic, compiling the bibliography and completing the reading, and will report their progress in weekly sessions to their instructor. Credit will be given only after an intensive oral examination. (Irreg.)

## EDSC 3970 Honors Seminar <br> 1-3 Credit Hours

Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Covers variable subjects in education with in-depth studies of issues not covered in the standard course offerings. (Irreg.)

EDSC 3980 Honors Research 1-3 Credit Hours
Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Provides an opportunity for honors students to work on a special project under the guidance of a professor in the student's major area of study. (Irreg.)

## EDSC 3990 Independent Study

1-3 Credit Hours
1 to 3 hours. Prerequisite: one course in general area to be studied; permission of instructor and department. May be repeated; maximum credit six hours. Contracted independent study for topic not currently offered in regularly scheduled courses. (F, Sp)
EDSC 4093 Inquiry-Based Science Teaching 3 Credit Hours Prerequisite: majors only or admission to Teacher Education program. This course is designed to introduce students to the nature of science, scientific practices, and disciplinary concepts fundamental to science education at the PK-3 grade band including the goals of PK-12 science education. The course emphasizes understanding of science disciplinary core ideas and science and engineering practices. (F, Sp)

EDSC 4193 Teaching Science in Elementary Schools 3 Credit Hours Prerequisite: admission to Teacher Education program, EDSC 4093, EDEL 4101; corequisites: EDMA 4353, EDLT 4813, EDSS 4323, EDEL 4980 Experiences are provided, following the position that science is the quest for knowledge, and that this position is compatible with modern educational theory. (F, Sp)

EDSC 4513 Teaching Science in Secondary Schools 3 Credit Hours (Slashlisted with EDSC 5513) Prerequisite: EIPT 3473 and majors only. This course establishes a vision of secondary science instruction that promotes deep understanding of science concepts, practices, and the nature of science. Students will examine the aims and purposes of science education, explore how students learn science, and develop their understanding of the nature of science. No student may earn credit for both 4513 and 5513. (Sp)

EDSC 4533 Advanced Methods in Science Teaching 3 Credit Hours (Slashlisted with EDSC 5533) Prerequisite: EDSC 4513 and senior standing; corequisite: EDUC 4060. This course follows the position that science is the quest for knowledge. Experiences with advanced science content, technology, laboratory investigations, and modern educational theory are provided. This course will serve as the senior capstone. No student may earn credit for both EDSC 4533 and EDSC 5533. (Sp) V.

EDSC 4960 Directed Readings in Education
1-4 Credit Hours
1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean. May be repeated; maximum credit four hours. Designed for upper-division students preparing to teach who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)

EDSC 4970 Special Topics/Seminar 1-3 Credit Hours 1 to 3 hours. Prerequisite: senior standing or permission of instructor. May be repeated with change of content; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

## EDSC 4980 Practicum in Science Education 1-3 Credit Hours

 1 to 3 hours. Prerequisite: nine hours of education courses. Provides fieldtype experience under faculty supervision and is designed to introduce the student to the practical application of theory within an environment in which professional practice takes place. (Irreg.)
## EDSC 4990 Special Problems in Education 1-4 Credit Hours

1 to 4 hours. Prerequisite: permission of instructor. May be repeated with change of title and subject. Variable as to subject and credit for areas of specialty and/or interest not otherwise provided in the standard offering of courses. (Irreg.)

EDSC 5513 Teaching Science in Secondary Schools 3 Credit Hours (Slashlisted with EDSC 4513) Prerequisite: graduate standing with 9 hours of Education coursework or departmental permission. This course establishes a vision of secondary science instruction that promotes deep understanding of science concepts, practices, and the nature of science. Students will examine the aims and purposes of science education, explore how students learn science, and develop their understanding of the nature of science. No student may earn credit for both 4513 and 5513. (Sp)

EDSC 5523 Learning Theories and Their Implications for Teaching and Scholarship

3 Credit Hours
Prerequisite: Graduate standing and departmental permission. What does it mean to learn? The course examines the question from various perspectives (constructivist, cognitive, sociocultural, behavioral, and more). Implications across contents and grade levels will be explored for each perspective, and points of influence, coherence, and divergence will be identified. Students need a total of 12 hours from the following courses: EDSP 3055, EIPT 3043, EIPT 3473, EIPT (Irreg.)
EDSC 5533 Advanced Methods in Science Teaching 3 Credit Hours (Slashlisted with EDSC 4533) Prerequisite: EDSC 5513 and graduate standing; corequisite: EDUC 5920 or permission of instructor. This course follows the position that science is the quest for knowledge. Experiences with advanced science content, technology, laboratory investigations, and modern educational theory are provided. No student may earn credit for both EDSC 4533 and EDSC 5533. (Sp)
EDSC 5543 The Elementary School Science Curriculum 3 Credit Hours Prerequisite: twelve hours of education, graduate standing. Elementary school science curricula are examined from a theory-based perspective which includes: the nature of science, purpose of schools, developmental learning theory, and the teaching procedure known as the learning cycle. Students trace the development of American science education from 1700 to present. (Alt. F)
EDSC 5910 Practicum in Education--Master's 1-4 Credit Hours 1 to 4 hours. Prerequisite: graduate standing, permission of instructor and dean. May be repeated; maximum credit six hours. Variable as to title and subject profession. Provides field-type experience under faculty supervision and is designed to introduce the student to the practical application of theory within an environment in which professional practice takes place. Seminar experience is to be included. (Irreg.)
EDSC 5920 Internship in Education--Master's 1-6 Credit Hours 1 to 6 hours. Prerequisite: 5910, permission of instructor. May be repeated; maximum credit six hours. Variable as to title and subject profession. Available to master's degree programs specifically requiring an internship in addition to thirty-two hours of other coursework as part of the degree. Introduces the student to the profession under the supervision of a practitioner whose credentials are equal to those of the graduate faculty. (Irreg.)
EDSC 5940 Field Studies in Education 1-4 Credit Hours 1 to 4 hours. Prerequisite: 12 hours of education. May be repeated with change of subject matter; maximum credit eight hours. Practical problems in education as defined by members of the classes. Typical topics: defining educational objectives, relating school programs to established objectives, developing teaching-learning aids, organization for participation in developing and evaluating instructional programs, using community resources for learning, improving evaluation procedure. (Irreg.)

## EDSC 5960 Directed Readings

1-4 Credit Hours
1 to 4 hours. Prerequisite: 12 hours of education, approval of instructor, adviser and dean. May be repeated; maximum undergraduate credit eight hours; maximum graduate credit four hours. (Irreg.)

EDSC 5970 Special Topics/Seminar 1-3 Credit Hours 1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

EDSC 5980 Research for Master's Thesis
2-9 Credit Hours
Variable enrollment, two to nine hours; maximum credit applicable toward degree, four hours. (F, Sp, Su)
EDSC 5990 Independent Study
1-4 Credit Hours
1 to 4 hours. Prerequisite: graduate standing or permission by instructor. May be repeated with change of subject matter; maximum credit six hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/ or laboratory research and field projects. (Irreg.)
EDSC 6333 Research Paradigms For Scientific Investigations 3 Credit
Prerequisite: graduate standing. Current research paradigms in science education will be constructed through readings, discussions and presentations. In the context of these research paradigms, research designs and research methods will also be explored. A thorough review of the literature will include the use of professional journals, theses, and dissertations and be used to develop a sound understanding of the different approaches to research. (Irreg.)
EDSC 6910 Practicum in Education--Doctoral 1-6 Credit Hours 1 to 6 hours. Prerequisite: admission to doctoral program, permission of instructor. May be repeated; maximum credit six hours. Variable as to title and subject profession. An advanced practicum for post-master's level students only. The object is to provide professional experience under faculty supervision in fields requiring a high degree of professional skill. Seminar experience is to be included. (Irreg.)
EDSC 6920 Internship in Education--Doctoral 2-6 Credit Hours 1 to 6 hours. Prerequisite: written permission of the instructor. May be repeated; maximum credit 12 hours. Variable as to title and subject profession. An advanced internship for post-master's level students only. The object of the internship is to cultivate within the student a high degree of proficiency and professional independence. Field supervision is by a practitioner whose credentials are equal to those of the graduate faculty. (Irreg.)

## EDSC 6930 Intensive Studies in Education

1-6 Credit Hours
1 to 6 hours. Prerequisite: 12 hours of education and permission of instructor. Repeatable with change of title and subject. Opportunity offered for professional educators and others interested in education, cooperatively, to seek solutions to educational problems. Organized groups work in curriculum, guidance, instruction, administration and supervision. Competent leadership and expert consultant service provided. (Irreg.)

EDSC 6960 Directed Readings
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit six hours. Directed readings and/or literature review under the direction of a faculty member. (Irreg.)
EDSC 6970 Post-Master's Seminar 2-4 Credit Hours
2 to 4 hours. Prerequisite: master's degree, 24 hours of education, permission of instructor. May be repeated with change of subject matter; maximum credit twelve hours. Enrollment limited to students who hold the master's degree. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

EDSC 6980 Research for Doctoral Dissertation 2-16 Credit Hours 2 to 16 hours. Prerequisite: Graduate standing and permission of instructor; may be repeated. Directed research culminating in the completion of the doctoral dissertation. Maximum of 15 hours credit for the Ed.D. and 30 hours for the Ph.D. (F, Sp, Su)

EDSC 6990 Individual Study in Education
1-4 Credit Hours
1 to 4 hours. Prerequisite: 12 hours of education, graduate standing and permission of the instructor. May be repeated with change of subject matter; maximum credit eight hours. For advanced graduate students who need to study some problem or area not adequately covered in the organized courses, under the direction of a staff member in whose area of specialization the problem lies. (Irreg.)

## EDSE-Secondary Education

EDSE 3440 Mentored Research Experience
3 Credit Hours 0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)

EDSE 3960 Honors Reading 1-3 Credit Hours Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Provides students with the opportunity to develop an appropriate body of reading materials on topics not covered in detail in routine coursework. Students will be obliged to assume the primary initiative in selecting the topic, compiling the bibliography and completing the reading, and will report their progress in weekly sessions to their instructor. Credit will be given only after an intensive oral examination. (Irreg.)
EDSE 3970 Honors Seminar
1-3 Credit Hours
Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Covers variable subjects in education with in-depth studies of issues not covered in the standard course offerings. (Irreg.)

## EDSE 3980 Honors Research 1-3 Credit Hours

Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Provides an opportunity for honors students to work on a special project under the guidance of a professor in the student's major area of study. (Irreg.)
EDSE 3990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: one course in general area to be studied; permission of instructor and department. May be repeated; maximum credit six hours. Contracted independent study for topic not currently offered in regularly scheduled courses. (F, Sp)

EDSE 4960 Directed Readings in Education 1-4 Credit Hours 1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean. May be repeated; maximum credit four hours. Designed for upper-division students preparing to teach who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)

EDSE 4970 Special Topics/Seminar 1-3 Credit Hours 1 to 3 hours. Prerequisite: senior standing or permission of instructor. May be repeated with change of content; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)
EDSE 4980 Practicum in Secondary Education 1-3 Credit Hours 1 to 3 hours. Prerequisite: nine hours of education courses. Provides fieldtype experience under faculty supervision and is designed to introduce the student to the practical application of theory within an environment in which professional practice takes place. (Irreg.)

EDSE 5653 Problems of Teaching in Secondary Schools 3 Credit Hours Prerequisite: 12 hours of education, graduate standing. Place of the teacher with reference to teacher-pupil, teacher-teacher, teacheradministrator, and teacher-community relations. Problems of teaching related to criticisms of present-day secondary education; the task of secondary schools; the adolescent learner; planning for learning; appraising learning and growth; human relations; guidance; the teacher and school organization; trends in teaching. (Sp)
EDSE 5910 Practicum in Education--Master's 1-4 Credit Hours 1 to 4 hours. Prerequisite: graduate standing, permission of instructor and dean. May be repeated; maximum credit six hours. Variable as to title and subject profession. Provides field-type experience under faculty supervision and is designed to introduce the student to the practical application of theory within an environment in which professional practice takes place. Seminar experience is to be included. (Irreg.)
EDSE 5920 Internship in Education--Master's
1-6 Credit Hours
1 to 6 hours. Prerequisite: 5910, permission of instructor. May be repeated; maximum credit six hours. Variable as to title and subject profession. Available to master's degree programs specifically requiring an internship in addition to thirty-two hours of other coursework as part of the degree. Introduces the student to the profession under the supervision of a practitioner whose credentials are equal to those of the graduate faculty. (Irreg.)

EDSE 5940 Field Studies in Education 1-4 Credit Hours
1 to 4 hours. Prerequisite: 12 hours of education. May be repeated with change of subject matter; maximum credit eight hours. Practical problems in education as defined by members of the classes. Typical topics: defining educational objectives, relating school programs to established objectives, developing teaching-learning aids, organization for participation in developing and evaluating instructional programs, using community resources for learning, improving evaluation procedure. (Irreg.)
EDSE 5960 Directed Readings
1-4 Credit Hours
1 to 4 hours. Prerequisite: 12 hours of education, approval of instructor, adviser and dean. May be repeated; maximum undergraduate credit eight hours; maximum graduate credit four hours. (Irreg.)
EDSE 5970 Special Topics/Seminar 1-3 Credit Hours 1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

EDSE 5980 Research for Master's Thesis 2-9 Credit Hours Variable enrollment, two to nine hours; maximum credit applicable toward degree, four hours. (F, Sp, Su)

EDSE 5990 Independent Study
1-3 Credit Hours
1 to 4 hours. Prerequisite: graduate standing or permission by instructor. May be repeated with change of subject matter; maximum credit six hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/ or laboratory research and field projects. (Irreg.)

EDSE 6910 Practicum in Education--Doctoral
1-6 Credit Hours 1 to 6 hours. Prerequisite: admission to doctoral program, permission of instructor. May be repeated; maximum credit six hours. Variable as to title and subject profession. An advanced practicum for post-master's level students only. The object is to provide professional experience under faculty supervision in fields requiring a high degree of professional skill. Seminar experience is to be included. (Irreg.)

EDSE 6920 Internship in Education--Doctoral 2-6 Credit Hours
1 to 6 hours. Prerequisite: written permission of the instructor. May be repeated; maximum credit 12 hours. Variable as to title and subject profession. An advanced internship for post-master's level students only. The object of the internship is to cultivate within the student a high degree of proficiency and professional independence. Field supervision is by a practitioner whose credentials are equal to those of the graduate faculty. (Irreg.)
EDSE 6930 Intensive Studies in Education 1-6 Credit Hours 1 to 6 hours. Prerequisite: 12 hours of education and permission of instructor. Repeatable with change of title and subject. Opportunity offered for professional educators and others interested in education, cooperatively, to seek solutions to educational problems. Organized groups work in curriculum, guidance, instruction, administration and supervision. Competent leadership and expert consultant service provided. (Irreg.)
EDSE 6960 Directed Readings 1-3 Credit Hours 1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit six hours. Directed readings and/or literature review under the direction of a faculty member. (Irreg.)

EDSE 6970 Post-Master's Seminar 2-4 Credit Hours
2 to 4 hours. Prerequisite: master's degree, 24 hours of education, permission of instructor. May be repeated with change of subject matter; maximum credit twelve hours. Enrollment limited to students who hold the master's degree. (F, Sp, Su)
EDSE 6980 Research for Doctoral Dissertation 2-16 Credit Hours 2 to 16 hours. Prerequisite: Graduate standing and permission of instructor; may be repeated. Directed research culminating in the completion of the doctoral dissertation. Maximum of 15 hours credit for the Ed.D. and 30 hours for the Ph.D. (F, Sp, Su)

EDSE 6990 Individual Study in Education
1-4 Credit Hours
1 to 4 hours. Prerequisite: 12 hours of education, graduate standing and permission of the instructor. May be repeated with change of subject matter; maximum credit eight hours. For advanced graduate students who need to study some problem or area not adequately covered in the organized courses, under the direction of a staff member in whose area of specialization the problem lies. (Irreg.)

## EDSP-Special Education

EDSP 1115 American Sign Language I
5 Credit Hours
Prerequisite: permission of the department. An Introduction to American Sign Language (ASL) which includes the development of receptive and expressive skills in authentic situations and an introduction to Deaf Culture. (F, Sp, Su) [I-FL].
EDSP 1225 American Sign Language II
5 Credit Hours
Prerequisite: EDSP 1115 and permission of the department. Continuation of American Sign Language (ASL) I. This course further develops receptive and expressive skills in ASL in authentic situations and expands the study of Deaf Culture. (F, Sp) [I-FL].
EDSP 2113 American Sign Language III
3 Credit Hours
Prerequisite: EDSP 1115 , EDSP 1225, and permission of the department. Continuation of ASL II. This course emphasizes the receptive comprehension and expression of advanced ASL grammatical structures, and use of expanded knowledge of Deaf Cultural norms will be applied to engagement with the Deaf community. (F, Su) [I-FL].

EDSP 3053 Understanding and Accommodating Exceptional Learners

3 Credit Hours
Prerequisite: admission to Teacher Education program. Course provides foundation to legislation, policies and procedures for educating children/ youth with exceptionalities. Course focuses on primary recipients of special education services, procedures for providing special education to children and youth w/educationally-related problems, understanding responsibilities associated with the implementation of special education programs and services, and emerging skills needed to ensure successful educational experiences for children/youth with exceptionalities. (F, Sp, Su)
EDSP 3223 American Sign Language IV 3 Credit Hours Prerequisite: EDSP 1115, EDSP 1225, EDSP 2113, and permission of the department. Continuation of ASL III. The course emphasizes the receptive comprehension and expression of development with a more mature understanding of American Sign Language grammatical structures includes narratives and dialogues. Use of expanded knowledge of Deaf Cultural norms will be applied to engagement with the Deaf community. (Sp)

## EDSP 3960 Honors Reading

## 1-3 Credit Hours

1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Provides students with the opportunity to develop an appropriate body of reading materials on topics not covered in detail in routine coursework. Students will assume the primary initiative in selecting the topic, compiling the bibliography and completing the reading, and will report their progress in weekly sessions to their instructor. Credit will be given only after an intensive oral examination. (Irreg.)

EDSP 3970 Honors Seminar
1-3 Credit Hours
Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Covers variable subjects in education with in-depth studies of issues not covered in the standard course offerings. (Irreg.)
EDSP 3980 Honors Research
1-3 Credit Hours
Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Provides an opportunity for honors students to work on a special project under the guidance of a professor in the student's major area of study. (Irreg.)

EDSP 3990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: one course in general area to be studied;
permission of instructor and department. May be repeated; maximum credit six hours. Contracted independent study for topic not currently offered in regularly scheduled courses. (F, Sp)
EDSP 4013 Fundamental Academic Instructional Strategies 3 Credit Hours
Prerequisite: EDSP 3053. Instructional strategies and effective techniques for teaching students with mild to moderate disabilities in a variety of general and special education settings. Class objectives target remediation and progression of skills focused around an academic curriculum for students with mild/moderate disabilities. (Sp)
EDSP 4023 Assessment for Eligibility and Program
Planning
3 Credit Hours
Prerequisite: EDSP 3053 and EDSP 4013; corequisite: EDSP 4033.
Study of assessment instruments, interpretation and use in eligibility, placement and program planning for individuals with mild to moderate disabilities. Competencies addressed include: response to intervention, pre-referral, student assistance teams, administration of curriculumbased assessment and adaptive behavior scales, interpreting functional assessment results into IEPS and individual case studies. (F)

EDSP 4033 Intensifying Mathematics Interventions for Students with Disabilities

3 Credit Hours
Prerequisite: EDSP 3053 and EDSP 4013; Special Education majors only. Students will apply research-aligned mathematics practices for students with disabilities. Topics include literature on why students with disabilities struggle to learn mathematics, the use of assessment data to inform instructional decision making, and research-aligned mathematical instructional practices for students identified with disabilities. (F)
EDSP 4043 Classroom Management in Special Education 3 Credit Hours
Prerequisite: EDSP 3053 and EDSP 4013 and EDSP 4023 and EDSP 4033; corequisite: EDSP 4053 and EDSP 4063 and EDSP 4072. Philosophical perspectives supported by management strategies based on sound theoretical foundations and best practice. Preservice educators develop a personal plan for creating a well-managed classroom, identifying and documenting behavior concerns and developing intervention plans that remediate difficulties and increase appropriate behavior in general and special education environments. (Sp)
EDSP 4050 Internship in Special Education 6-10 Credit Hours 6 to 10 hours. Prerequisite: EDSP 3053, EDSP 4013, EDSP 4023, EDSP 4033, EDSP 4043, EDSP 4053, EDSP 4063, EDSP 4072, EDSP 4083, EDSP 4093, EDSP 4103, EDSP 4112, and departmental permission; Corequisite: EDSP 4123. The internship experience is the culminating experience for our pre-service special education teachers. Students will apply content and pedagogical knowledge acquired throughout their undergraduate preparation program. Emphasis is placed on developing their competencies in: (a) professionalism; (b) preparing, implementing, and evaluating instruction; and (c) improving student engagement and the classroom environment. ( $F, S p$ )
EDSP 4053 Language, Literacy, and Communication Strategies 3 Credit Hours
Prerequisite: EDSP 3053 and EDSP 4013 and EDSP 4023 and EDSP 4033; corequisite: EDSP 4043 and EDSP 4063 and EDSP 4072. Competencies developed include: understanding language and literacy development; 32 hours tutoring; formal/informal literacy assessments; implementation of guided reading lesson plans; data collection monitoring; phonics/ decoding; literal/inferential/prediction comprehension; fluency and written expression; research to practice; development of learning strategies enhancing content and literacy. (Sp)
EDSP 4063 Teaching Students with Significant Support and Educational Needs 3 Credit Hours Prerequisite: EDSP 3053 and EDSP 4013 and EDSP 4023 and EDSP 4033; corequisite: EDSP 4043 and EDSP 4053 and EDSP 4072. Examines how low-incidence physical and intellectual disabilities, including autism, traumatic brain injury, deafness, blindness, and other health impairments affect academic and job performance and outcomes. You will learn and demonstrate current research- based methods for teaching and training individuals with low-incidence disabilities. (Sp)
EDSP 4072 Introductory Practicum in Special Education 2 Credit Hours Prerequisite: EDSP 3053 and EDSP 4013 and EDSP 4023 and EDSP 4033; corequisite: EDSP 4043 and EDSP 4053 and EDSP 4063. Two hundred hours of special education field placement with supervision by master public school teachers and OU professionals. Weekly seminars based on reflections, discussion of course assignments implemented at school sites, competencies such as IEPS ecological assessments, parent interviews, and development of original lesson plans with articulated accommodations and modification. ( $F, S p$ )

EDSP G4083 Individual Behavior Supports 3 Credit Hours
Prerequisite: EDSP 3053 and EDSP 4013 and EDSP 4023 and EDSP 4033 and EDSP 4043 and EDSP 4053 and EDSP 4063 and EDSP 4072. Corequisite: EDSP 4093 and EDSP 4103 and EDSP 4112. Special techniques and materials used in the instruction and behavioral modification of students who have significant behavioral disorders. Content includes proactive classroom strategies, effective instruction, and planned behavior interventions. (F)
EDSP 4093 Transition and Self-Determination 3 Credit Hours Prerequisite: EDSP 3053, EDSP 4013, EDSP 4023, EDSP 4033, EDSP 4043, EDSP 4053, EDSP 4063, EDSP 4072; corequisite: EDSP 4083, EDSP 4103, EDSP 4112. This course will cover transition education practices, including assessment, and transition planning, to facilitate educational, employment, and independent living post-school outcomes for students with disabilities. Federal and state laws and regulations governing transition practices will be covered along with best-practice methodology. Assessment, goal writing, transition planning, self-determination instruction, multi-cultural issues, interagency collaboration, resources, among other topics will be discussed to ( $F$ )
EDSP 4103 IEP Development and Family Advocacy 3 Credit Hours Prerequisite: EDSP 3053, EDSP 4013, EIPT 3473; corequisite: EDSP 4033. In this course, students will extend their knowledge of the Individualized Education Program (IEP) process as outlined in federal legislation and case law. The course is designed to improve students' abilities developing compliant, high-quality IEPs by considering both legal and research evidence. In addition, the course will focus on how to build successful partnerships with families and strategies for improving (F)
EDSP 4112 Advanced Practicum in Special Education 2 Credit Hours Prerequisite: EDSP 3053, EDSP 4013, EDSP 4023, EDSP 4033, EDSP 4043, EDSP 4053, EDSP 4063, EDSP 4072; corequisite: EDSP 4093, EDSP 4103. Two hundred hours of supervised field experience with instruction and behavior management provided to students with disabilities. Weekly seminars focus on self-evaluations and reflections on evidence-based practice, development, and implementation of curriculum unit with modifications and accommodations, and discrepancy analysis of past and current IEPS. (F, Sp)
EDSP 4121 Applied Research in Special Education 1 Credit Hour Prerequisite: EDSP 3053, EDSP 4013, EDSP 4023, EDSP 4033, EDSP 4043, EDSP 4053, EDSP 4063, EDSP 4072, EDSP 4083, EDSP 4093, EDSP 4103, EDSP 4112. Corequisite: EDSP 4144 and EDSP 4134. Designed to enhance understanding of research related to the education of children and youth with disabilities. Students will demonstrate a comprehension of legal and ethical aspects of research in special education. Students will improve their ability to critically review research literature and conduct applied research projects. ( $F, S p$ ) [V].
EDSP 4123 Applied Research in Special Education 3 Credit Hours Prerequisite: Prerequisites: EDSP 3053, EDSP 4013, EDSP 4023, EDSP 4033, EDSP 4043, EDSP 4053, EDSP 4063, EDSP 4072, EDSP 4083, EDSP 4093, EDSP 4103, and EDSP 4112; Corequisite: EDSP 4050. This course serves as a capstone experience, requiring students to apply their foundational knowledge of the field and their professional ethical principles to inform their special education practice. In their assigned field placements, students will develop their abilities to select, adapt, and use a repertoire of evidence-based instructional strategies to advance learning of individuals with exceptionalities. (F, Sp)

EDSP 4134 Internship in Special Education I -
Elementary
4 Credit Hours
Prerequisite: EDSP 3053, EDSP 4013, EDSP 4023, EDSP 4033, EDSP 4043, EDSP 4053, EDSP 4063, EDSP 4072, EDSP 4083, EDSP 4093, EDSP 4103, EDSP 4112; corequisite: EDSP 4121, EDSP 4144. The Special Education Internship is designed to allow students to practice teaching under the supervision and guidance of master special educators and University clinical supervisors. Special education interns learn to apply the knowledge and skills they acquired throughout the program coursework and field experiences in an authentic, extended situation. ( $F, S p$ ) [V].

## EDSP 4144 Internship in Special Education II -

Secondary
4 Credit Hours
Prerequisite: EDSP 3053, EDSP 4013, EDSP 4023, EDSP 4033, EDSP 4043,
EDSP 4053, EDSP 4063, EDSP 4072, EDSP 4083, EDSP 4093, EDSP 4103,
EDSP 4112; corequisites: EDSP 4121, EDSP 4134. The Special Education Internship is designed to allow students to practice teaching under the supervision and guidance of master special educators and University clinical supervisors. Special education interns learn to apply the knowledge and skills they acquired throughout the program coursework and field experiences in an authentic, extended situation. ( $F, S p$ ) $[V]$.

## EDSP 4970 Special Topics/Seminar 1-3 Credit Hours

1 to 3 hours. Prerequisite: senior standing or permission of instructor. May be repeated with change of content; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)
EDSP 4980 Practicum in Special Education
1-3 Credit Hours
1 to 3 hours. Prerequisite: nine hours of education courses. Provides fieldtype experience under faculty supervision and is designed to introduce the student to the practical application of theory within an environment in which professional practice takes place. (Irreg.)

EDSP 4990 Special Problems in Education
1-4 Credit Hours
1 to 4 hours. Prerequisite: permission of instructor. May be repeated with change of title and subject. Variable as to subject and credit for areas of specialty and/or interest not otherwise provided in the standard offering of courses. (Irreg.)
EDSP 5013 Evidence-Based Practices for Mathematics Instruction for Students with Disabilities

3 Credit Hours
Prerequisite: Graduate standing. The focus of this course is on translating evidence-based instructional practices related to mathematics instruction for students with mathematical disabilities into guidelines for instruction, intervention, and assessment. This course will cover assessment procedures, instructional procedures, curriculum and instruction alternatives, and program planning for the mathematical development of students with disabilities. (F)

## EDSP 5063 Instructional Methods for Students with Significant

 Support Needs3 Credit Hours
Prerequisite: Graduate standing. Examines how particular types of low-incidence disabilities, including intellectual disabilities, autism, physical disabilities, traumatic brain injury, deafness, blindness, multiple disabilities, and other health impairments, affect academic and job performance. Students will learn and demonstrate current methods for teaching and training individuals with low-incidence disabilities. (Sp)

EDSP 5093 Transition and Self-Determination 3 Credit Hours
Prerequisite: Graduate standing. Transition education practices including theory, assessments, planning processes, and instructional methods to facilitate positive postschool outcomes for individuals with disabilities. Laws and regulations governing transition practices are covered along with best practice methodology. Assessment, transition planning, selfdetermination instruction, multi-cultural issues, interagency collaboration, resources, etc., will be discussed to facilitate a successful transition for students into further education, employment, and independent (F)
EDSP 5143 Individual Behavior Planning in the Classroom 3 Credit Hours
Prerequisite: Graduate standing. This course will teach how to effectively manage challenging and severe behavior problems in the classroom using proactive classroom strategies, effective instruction, and planned behavioral interventions. This course examines applied behavior analysis (ABA) principles and techniques, including observational analysis, databased instruction, and social validity to increase students' social and task- related behavior. (F)
EDSP 5163 Leadership \& Advocacy in Special Education 3 Credit Hours Prerequisite: Graduate standing in the College of Education. This course will provide students with a history of special education litigation and legislation. Students will gain a deep understanding of the Individuals with Disabilities Education Improvement Act, the major legislation governing the provision of special education services. Students learn about federal statutes and regulations concerning assessment and evaluation procedures, due process and mediation, discipline, and individual education plans (IEPs). (F, Su)
EDSP 5183 Advanced Assessment
3 Credit Hours
Prerequisite: Graduate standing. Focus will be on innovative approaches to assessment and education of students with mild to moderate learning and/or behavior problems. Techniques, methods, and materials will be presented within a career/ecological framework and will be researchbased. (F, Sp)
EDSP 5193 Post-Secondary Education and Employment 3 Credit Hours Prerequisite: graduate standing and EDSP 5093. Examines options for students with disabilities in terms of post-secondary education and postsecondary employment. Learning is focused on research-based best practices. (Sp)
EDSP 5213 Evidence-based Practices for Reading Instruction for Students with Disabilities

3 Credit Hours
Prerequisite: Graduate standing. This course focuses on translating evidence-based teaching methods related to literacy instruction for students with reading disabilities (e.g., dyslexia, language-based learning disabilities) into guidelines for instruction and intervention. The course will cover instructional procedures, curriculum and instruction alternatives, and program planning for the literacy development of students with reading and/or writing disabilities. (Sp)
EDSP 5243 Applied Behavior Analysis II
3 Credit Hours
Prerequisite: EDSP 5143. This course focuses on the basic principles, procedures and underlying philosophy of applied behavior analysis (ABA) (Sp)

## EDSP 5293 Transition-Based Assessment

3 Credit Hours
Prerequisite: graduate standing and EDSP 5093. Presents the threepart transition assessment model and the means to enable students to answer long and short term questions to assist in developing good annual transition goals. (F)

EDSP 5313 Multi-Tiered Systems of Support 3 Credit Hours
Prerequisite: Graduate standing and EDSP 5413. This course will provide an overview of the historical, legal, and theoretical foundations of multitiered systems of support; review the research and evidence base of a multi-tiered system of support approach in academics and behavior; and explore the advances and controversies resulting in the proliferation of multi-tiered systems of support. (Sp)

EDSP 5343 Applied Behavior Analysis III 3 Credit Hours Prerequisite: EDSP 5143 \& EDSP 5243 . This course focuses on the identification of factors that contribute to behavioral challenges and improved performance; and on procedures that minimize behavioral challenges, improve performance, teach new behaviors and increase probability of behaviors occurring under appropriate circumstances. (F)

EDSP 5393 Research and Practicum in Transition
Education
3 Credit Hours
Prerequisite: Graduate standing, EDSP 5093, EDSP 5193, and EDSP 5293.
Transition Practicum is part of the Transition Education course sequence. It is designed to work in conjunction with the first three courses in the sequence to solidify knowledge and skills in transition education. Foundation issues are interwoven into course expectations, including leadership, parent/professional partnerships, inclusion, multiculturalism, special education policies and procedures, and auxiliary service delivery. (Sp)

## EDSP 5413 Characteristics \& Methods in Teaching Students with Exceptionalities 3 Credit Hours

Prerequisite: Graduate standing and admission to a graduate program in the College of Education. The course provides foundation to legislation, policies and procedures for educating children/youth with exceptionalities. It focuses on primary recipients of special education services, procedures for providing special education to children and youth with educationally-related problems, understanding responsibilities associated with the implementation of special education programs and services, and emerging skills needed to ensure successful educational experiences for children/youth with exceptionalities. (F, Sp, Su)

EDSP 5443 Ethical \& Professional Conduct of Behavior
Analysts
3 Credit Hours
Prerequisite: EDSP 5143. This course will familiarize the student with ethical issues and responsibilities of special educators and behavior analysts. Informed consent, due process, protection of confidentiality, and selection of least intrusive and restrictive behavior change procedures will be discussed within the context of case method. Ethical decision-making processes and the relationship between ethics and law will be discussed. (Su)

EDSP 5603 Philosophical Assumptions of Behavior Analysis 3 Credit Hours
Prerequisite: Graduate standing. This course will provide fundamental knowledge and experiences for understanding Applied Behavior Analysis principles and techniques, including the dimensions of behavior analysis, the assumptions of science, and the philosophical foundations on which the science rests. Students learn the basis of methodological and radical behaviorism, Skinner's view on human behavior, and the philosophy behind the interventions making up behavior analytics principles. (F)

EDSP 5613 Principles and Concepts in Applied Behavior Analysis

3 Credit Hours
Prerequisite: Graduate standing and successful completion of EDSP 5603. This course, in combination with the other courses, will provide fundamental knowledge on the concepts and principles of $A B A$. This course is heavily based on understanding the definitions and seminal articles across a variety of fundamental concepts within ABA. Students learn the basis of respondent conditioning, verbal behavior, stimulus control, motivating operations, and the role of contingencies in behavior. ( Sp )

## EDSP 5623 Ethics in Applied Behavior Analysis 3 Credit Hours

Prerequisite: Graduate standing. This course will familiarize the student with ethical issues and responsibilities of special educators and behavior analysts by leading organizations in the fields of education and mental health. Informed consent, due process, protection of confidentiality, and selection of least intrusive, least restrictive behavior change procedures will be presented and discussed within the context of case method. (Su)

EDSP 5633 Organizational Behavior Management
3 Credit Hours
Prerequisite: Graduate standing in College of Education. This course is in a sequence of courses for the Applied Behavior Analysis Certificate Program at the University of Oklahoma. This course provides students with specific examples of effective supervision and how to create that experience when they oversee others. The course highlights behavior skills training and how to ensure they are upholding the ethical code across various supervisory relationships. (Su)

## EDSP 5643 Behavior Change in Applied Behavioral

 Analysis3 Credit Hours
Prerequisite: Graduate standing and permission of instructor. Behavior Change is offered toward the middle of the ABA program and provides a place for students to learn specific interventions they can implement with clients whose behavior is maladaptive. Students will learn strategies that work across a multiple of issues from social skills and eloping to compliance and transitioning. (F)

## EDSP 5653 Behavior Assessment in Applied Behavioral Analysis <br> 3 Credit Hours

Prerequisite: Graduate standing and permission of instructor. This course's purpose is to take the information learned across the first set of courses and apply it to both private behavior and the behavior of others through behavior assessment. Students will engage in record reviews of both real and fictional clients. Using this information, behaviors will be selected, measured, and targeted for change using a variety of assessment tools. (Sp)

EDSP 5910 Practicum in Education--Master's 1-4 Credit Hours 1 to 4 hours. Prerequisite: graduate standing, permission of instructor and dean. May be repeated; maximum credit six hours. Variable as to title and subject profession. Provides field-type experience under faculty supervision and is designed to introduce the student to the practical application of theory within an environment in which professional practice takes place. Seminar experience is to be included. (Irreg.)

EDSP 5920 Internship in Education--Master's 1-6 Credit Hours
1 to 6 hours. Prerequisite: 5910, permission of instructor. May be repeated; maximum credit six hours. Variable as to title and subject profession. Available to master's degree programs specifically requiring an internship in addition to thirty-two hours of other coursework as part of the degree. Introduces the student to the profession under the supervision of a practitioner whose credentials are equal to those of the graduate faculty. (Irreg.)

EDSP 5940 Field Studies in Education 1-4 Credit Hours
1 to 4 hours. Prerequisite: 12 hours of education. May be repeated with change of subject matter; maximum credit eight hours. Practical problems in education as defined by members of the classes. Typical topics: defining educational objectives, relating school programs to established objectives, developing teaching-learning aids, organization for participation in developing and evaluating instructional programs, using community resources for learning, improving evaluation procedure. (Irreg.)

## EDSP 5960 Directed Readings

4 Credit Hours
1 to 4 hours. Prerequisite: 12 hours of education, approval of instructor, adviser and dean. May be repeated; maximum undergraduate credit eight hours; maximum graduate credit four hours. (Irreg.)

EDSP 5970 Special Topics/Seminar 1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)
EDSP 5980 Research for Master's Thesis 2-9 Credit Hours Variable enrollment, two to nine hours; maximum credit applicable toward degree, four hours. (F, Sp, Su)
EDSP 5983 Directed Project in Special Education 3 Credit Hours Prerequisite: graduate standing and permission of instructor. Under the direct supervision of the student's adviser, the student conducts an applied project on a topic or challenge in special education related to the student's interest. (F, Sp, Su)
EDSP 5990 Independent Study
1-4 Credit Hours
1 to 4 hours. Prerequisite: graduate standing or permission by instructor. May be repeated with change of subject matter; maximum credit six hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/ or laboratory research and field projects. (Irreg.)
EDSP 6003 Critical Thinking in Special Education Research 3 Credit Hours
Prerequisite: Graduate standing. This course provides a critical analysis of research methodologies used in special education. Emphasis is placed on developing student skills in asking and answering sound research questions as well as the analysis and critique of research articles. This course is specifically designed for developing critical thinking skills in special education research. (Irreg.)
EDSP 6023 Single-Case Research Design 3 Credit Hours
Prerequisite: Graduate standing in the College of Education and successful completion of EDSP 5143 and EDSP 5243, or permission of instructor. This course provides a critical analysis of single-case research methodologies. Emphasis is on developing skills in asking and answering sound research questions and designing investigations to answer such questions. The course also explores the development and implementation of single-case research designs. (Sp)
EDSP 6113 Grant Writing 3 Credit Hours
Prerequisites: Admission to the Graduate College and the Special Education doctoral program D855. This core course in the special education doctoral sequence will prepare students to write competitive funding proposals and will provide opportunities to prepare funding proposals. Focus will be upon federal personnel preparation, demonstration proposal preparation and grant administration for funded proposals. (Sp)

EDSP 6123 Contemporary Issues/Research
3 Credit Hours
Prerequisite: 5173, graduate standing, and permission of instructor.
Examines critical issues influencing the field of special education and services for persons with disabilities. (Sp)
EDSP 6203 Professional Seminar 1
3 Credit Hours
Prerequisite: graduate standing or permission of instructor. Designed for post-master's student who has been accepted into the Ph.D. program. Covers review and synthesis of a current research area, professional writing and dissemination. (F)

## EDSP 6503 Professional Seminar III, Systematic Literature

 Reviews3 Credit Hours
Prerequisite: Graduate standing and EDSP 6203. Systematic reviews have a rich history of informing research, teaching, and policy. This course provides a step-by-step approach to conducting systematic reviews. Emphasis will be placed on consulting published standards to identify essential components of the methodology that will increase the internal and external validity of the project. (Sp)
EDSP 6523 Single Case Research Design II
3 Credit Hours
Prerequisite: Graduate standing and EDSP 6023. Provides the foundation for students to conduct independent research using single case research design. Provides students with an understanding of salient features of multi-element and complex designs as well as advantages and disadvantages of these research methodologies. Explores responsible research and ethics, open science principles, advanced multi-element designs, randomization, non-parametric procedures, and randomization concepts. (Sp)
EDSP 6910 Practicum in Education--Doctoral 1-6 Credit Hours 1 to 6 hours. Prerequisite: admission to doctoral program, permission of instructor. May be repeated; maximum credit six hours. Variable as to title and subject profession. An advanced practicum for post-master's level students only. The object is to provide professional experience under faculty supervision in fields requiring a high degree of professional skill. Seminar experience is to be included. (Irreg.)
EDSP 6920 Internship in Education--Doctoral 1-6 Credit Hours 1 to 6 hours. Prerequisite: must be a student in the Special Education Ph.D. program. May be repeated; maximum credit 12 hours. Variable as to title and subject profession. An advanced internship for post-master's level students only. The object of the internship is to cultivate within the student a high degree of proficiency and professional independence. Field supervision is by a practitioner whose credentials are equal to those of the graduate faculty. (Irreg.)
EDSP 6930 Intensive Studies in Education 1-6 Credit Hours 1 to 6 hours. Prerequisite: 12 hours of education and permission of instructor. Repeatable with change of title and subject. Opportunity offered for professional educators and others interested in education, cooperatively, to seek solutions to educational problems. Organized groups work in curriculum, guidance, instruction, administration and supervision. Competent leadership and expert consultant service provided. (Irreg.)
EDSP 6960 Directed Readings
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit six hours. Directed readings and/or literature review under the direction of a faculty member. (Irreg.)
EDSP 6970 Post-Master's Seminar 2-4 Credit Hours
2 to 4 hours. Prerequisite: master's degree, 24 hours of education, permission of instructor. May be repeated with change of subject matter; maximum credit twelve hours. Enrollment limited to students who hold the master's degree. (F, Sp, Su)

EDSP 6980 Research for Doctoral Dissertation 2-16 Credit Hours 2 to 16 hours. Prerequisite: Graduate standing and permission of instructor; may be repeated. Directed research culminating in the completion of the doctoral dissertation. Maximum of 15 hours credit for the Ed.D. and 30 hours for the Ph.D. (F, Sp, Su)

EDSP 6990 Individual Study in Education 1-4 Credit Hours 1 to 4 hours. Prerequisite: 12 hours of education, graduate standing and permission of the instructor. May be repeated with change of subject matter; maximum credit eight hours. For advanced graduate students who need to study some problem or area not adequately covered in the organized courses, under the direction of a staff member in whose area of specialization the problem lies. (Irreg.)

## EDSS-Social Studies Education

EDSS 2960 Individual Study
1-4 Credit Hours
1 to 4 hours. Prerequisite: good standing in University; fewer than 62 total hours; approval of instructor and dean. May be repeated; maximum credit four hours. Designed to provide an introduction to the study of education through a rigorous program of readings under the direction of a member of the faculty. (Irreg.)

EDSS 3440 Mentored Research Experience 3 Credit Hours 0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office Not for honors credit. (F, Sp, Su)

EDSS 3553 Foundations to Social Studies Education 3 Credit Hours Prerequisite: admission to Teacher Education program. Designed as a way to view social studies as an integrated body of knowledge while focusing on the various subject matter areas. (F, Sp)

EDSS 3960 Honors Reading 1-3 Credit Hours
Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Provides students with the opportunity to develop an appropriate body of reading materials on topics not covered in detail in routine coursework. Students will be obliged to assume the primary initiative in selecting the topic, compiling the bibliography and completing the reading, and will report their progress in weekly sessions to their instructor. Credit will be given only after an intensive oral examination (Irreg.)

EDSS 3970 Honors Seminar
-3 Credit Hours
Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Covers variable subjects in education with in-depth studies of issues not covered in the standard course offerings. (Irreg.)

EDSS 3980 Honors Research (HONORS) 1-3 Credit Hours
Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Provides an opportunity for honors students to work on a special project under the guidance of a professor in the student's major area of study. (Irreg.)

EDSS 3990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: one course in general area to be studied permission of instructor and department. May be repeated; maximum credit six hours. Contracted independent study for topic not currently offered in regularly scheduled courses. (F, Sp)

EDSS 4323 Teaching Social Studies in Elementary/Middle Schools

3 Credit Hours
Prerequisite: admission to Teacher Education program, EDEL 4101; corequisite: EDLT 4813, EDMA 4353, EDSC 4193, EDEL 4980. Promotes knowledge, skills, attitudes, and actions required for effective planning, implementation, and evaluation of social studies curriculum and instruction in elementary and middle schools. (F, Sp)

EDSS 4553 Foundations and Mentoring in Social Studies 3 Credit Hours Prerequisite: Full admission to the secondary social studies education program. Provides an opportunity to explore the main themes of the social sciences with limited teaching opportunities. (Sp)

EDSS G4563 Teaching Secondary School Social Studies 3 Credit Hours Prerequisite: EDSS 4553. Curriculum and instructional strategies for teaching secondary school social studies with a focus on (a) appropriate methodologies, and (b) matching these methods to content and learners. The students will study a variety of classroom techniques and the assessment of such techniques for social studies teaching. (F) [V].

EDSS 4960 Directed Readings in Education
1-4 Credit Hours
1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean. May be repeated; maximum credit four hours. Designed for upper-division students preparing to teach who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)

EDSS 4970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: senior standing or permission of instructor. May be repeated with change of content; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

EDSS 4980 Practicum in Education
1-3 Credit Hours
1 to 3 hours. Prerequisite: nine hours of education courses. Provides fieldtype experience under faculty supervision and is designed to introduce the student to the practical application of theory within an environment in which professional practice takes place. (Irreg.)

EDSS 4990 Special Problems in Education 1-4 Credit Hours 1 to 4 hours. Prerequisite: permission of instructor. May be repeated with change of title and subject. Variable as to subject and credit for areas of specialty and/or interest not otherwise provided in the standard offering of courses. (Irreg.)

EDSS 5043 Analysis of Teaching and Learning 3 Credit Hours Prerequisite: graduate standing; Corequisite: Must be enrolled in EDUC 5920, Internship. An understanding of how to analyze teaching and earning using a variety of reflective techniques including journals, oral inquiries, classroom/school studies, and theoretical analysis. (F, Sp)

EDSS 5333 Seminar in Social Studies
3 Credit Hours
Prerequisite: graduate standing. May be repeated; maximum credit 9 hours. Attend to special issues in social studies theory and practice. Focus on social studies/citizenship educational problems and possibilities in schools and society. (Irreg.)

EDSS 5343 Global Education 3 Credit Hours
Prerequisite: Graduate standing. Explores critical issues in global education across subject areas and teaching concepts. Implications for citizenship education are examined in depth. (Irreg.)

EDSS 5503 Social Studies Curriculum, Instruction, Technology and Assessment

3 Credit Hours
Prerequisite: Graduate standing. Analysis of $\mathrm{K}-12$ social studies curriculum, instruction, technology and assessment to achieve knowledge, skills, valuing, and action capabilities in the social studies curriculum. (Irreg.)

EDSS 5910 Practicum in Education--Master's 1-4 Credit Hours 1 to 4 hours. Prerequisite: graduate standing, permission of instructor and dean. May be repeated; maximum credit six hours. Variable as to title and subject profession. Provides field-type experience under faculty supervision and is designed to introduce the student to the practical application of theory within an environment in which professional practice takes place. Seminar experience is to be included. (Irreg.)

EDSS 5920 Internship in Education--Master's 1-6 Credit Hours
1 to 6 hours. Prerequisite: 5910, permission of instructor. May be repeated; maximum credit six hours. Variable as to title and subject profession. Available to master's degree programs specifically requiring an internship in addition to thirty-two hours of other coursework as part of the degree. Introduces the student to the profession under the supervision of a practitioner whose credentials are equal to those of the graduate faculty. (Irreg.)
EDSS 5940 Field Studies in Education
1-4 Credit Hours
1 to 4 hours. Prerequisite: 12 hours of education. May be repeated with change of subject matter; maximum credit eight hours. Practical problems in education as defined by members of the classes. Typical topics: defining educational objectives, relating school programs to established objectives, developing teaching-learning aids, organization for participation in developing and evaluating instructional programs, using community resources for learning, improving evaluation procedure. (Irreg.)
EDSS 5960 Directed Readings 1-4 Credit Hours
1 to 4 hours. Prerequisite: 12 hours of education, approval of instructor, adviser and dean. May be repeated; maximum undergraduate credit eight hours; maximum graduate credit four hours. (Irreg.)

EDSS 5970 Special Topics/Seminar 1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)
EDSS 5980 Research for Master's Thesis 2-9 Credit Hours Variable enrollment, two to nine hours; maximum credit applicable toward degree, four hours. (F, Sp, Su)
EDSS 5990 Independent Study
1-4 Credit Hours
1 to 4 hours. Prerequisite: graduate standing or permission by instructor. May be repeated with change of subject matter; maximum credit six hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/ or laboratory research and field projects. (Irreg.)
EDSS 6910 Practicum in Education--Doctoral 1-6 Credit Hours 1 to 6 hours. Prerequisite: admission to doctoral program, permission of instructor. May be repeated; maximum credit six hours. Variable as to title and subject profession. An advanced practicum for post-master's level students only. The object is to provide professional experience under faculty supervision in fields requiring a high degree of professional skill. Seminar experience is to be included. (Irreg.)

EDSS 6920 Internship in Education--Doctoral
2-6 Credit Hours
1 to 6 hours. Prerequisite: written permission of the instructor. May be repeated; maximum credit 12 hours. Variable as to title and subject profession. An advanced internship for post-master's level students only. The object of the internship is to cultivate within the student a high degree of proficiency and professional independence. Field supervision is by a practitioner whose credentials are equal to those of the graduate faculty. (Irreg.)
EDSS 6930 Intensive Studies in Education
1-6 Credit Hours
1 to 6 hours. Prerequisite: 12 hours of education and permission of instructor. Repeatable with change of title and subject. Opportunity offered for professional educators and others interested in education, cooperatively, to seek solutions to educational problems. Organized groups work in curriculum, guidance, instruction, administration and supervision. Competent leadership and expert consultant service provided. (Irreg.)
EDSS 6960 Directed Readings 1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit six hours. Directed readings and/or literature review under the direction of a faculty member. (Irreg.)

EDSS 6970 Post-Master's Seminar 2-4 Credit Hours 2 to 4 hours. Prerequisite: master's degree, 24 hours of education, permission of instructor. May be repeated with change of subject matter; maximum credit twelve hours. Enrollment limited to students who hold the master's degree. (F, Sp, Su)
EDSS 6980 Research for Doctoral Dissertation 2-16 Credit Hours 2 to 16 hours. Prerequisite: Graduate standing and permission of instructor; may be repeated. Directed research culminating in the completion of the doctoral dissertation. Maximum of 15 hours credit for the Ed.D. and 30 hours for the Ph.D. (F, Sp, Su)
EDSS 6990 Individual Study in Education 1-4 Credit Hours 1 to 4 hours. Prerequisite: 12 hours of education, graduate standing and permission of the instructor. May be repeated with change of subject matter; maximum credit eight hours. For advanced graduate students who need to study some problem or area not adequately covered in the organized courses, under the direction of a staff member in whose area of specialization the problem lies. (Irreg.)

## EDSW-Education Sooner Works

EDSW 1001 Person Centered Planning 1 Credit Hour Prerequisite: Permission of the Educational Psychology department. A semesterly reoccurring course in a sequence at the University of Oklahoma for Sooner Works participants. It is designed to work in conjunction with other Sooner Works courses to lay the foundations related to education, independent living, and career planning. This course is individualized to meet the needs and work on goals for each student. (F)

EDSW 1002 Sooner Works 101
2 Credit Hours Prerequisite: Permission of the Educational Psychology department. The beginning course in a sequence at the University of Oklahoma for Sooner Works participants. It is designed to work in conjunction with future courses to lay the foundations related to skills for independent living, education, and employment in adulthood. (F)

EDSW 1051 Self-Advocacy/Self-Determination 1 Credit Hour Prerequisite: EDSW 1002 and permission of the Educational Psychology department. Self-Advocacy/Self-Determination is a course in a sequence at the University of Oklahoma for Sooner Works participants. It is designed to work in conjunction with past and future courses to lay the foundations related to education, independent living, and career planning. (Sp)
EDSW 1052 Person Centered Planning 2 Credit Hours Prerequisite: EDSW 1001 and permission of the Educational Psychology department. A semesterly reoccurring course in a sequence at the University of Oklahoma for Sooner Works participants. It is designed to work in conjunction with other Sooner Works courses to lay the foundations related to education, independent living, and career planning. This course is individualized to meet the needs and work on goals for each student. (Sp)
EDSW 2001 Personal Financial Literacy
1 Credit Hour
Prerequisite: EDSW 1051 and permission of the Educational Psychology department. Personal Financial Literacy is a course in a sequence at the University of Oklahoma for Sooner Works participants. It is designed to work in conjunction with future courses to lay the foundations related to independent living for understanding financial concepts. (F)
EDSW 2002 Person Centered Planning
2 Credit Hours
Prerequisite: EDSW 1052 and permission of the Educational Psychology department. A semesterly reoccurring course in a sequence at the University of Oklahoma for Sooner Works participants. It is designed to work in conjunction with other Sooner Works courses to lay the foundations related to education, independent living, and career planning. This course is individualized to meet the needs and work on goals for each student. (F)
EDSW 2051 Healthy Adult Living Skills
1 Credit Hour
Prerequisite: EDSW 2001 and permission of the Educational Psychology department. Healthy Adult Living is a course in a sequence at the University of Oklahoma for Sooner Works participants. It is designed to work in conjunction with future courses to lay the foundations related to independent living for healthy adult living. (Sp)
EDSW 2052 Person Centered Planning 2 Credit Hours Prerequisite: EDSW 2002 and permission of the Educational Psychology department. A semesterly reoccurring course in a sequence at the University of Oklahoma for Sooner Works participants. It is designed to work in conjunction with other Sooner Works courses to lay the foundations related to education, independent living, and career planning. This course is individualized to meet the needs and work on goals for each student. (Sp)
EDSW 3001 Household Budgeting \& Paying Bills 1 Credit Hour Prerequisite: EDSW 2051 and permission of the Educational Psychology department. A course in a sequence at the University of Oklahoma for Sooner Works participants. It is designed to work in conjunction with future courses to lay the foundations related to independent living for household and daily budgeting. (F)
EDSW 3002 Person Centered Planning 2 Credit Hours
Prerequisite: EDSW 2052 and permission of the Educational Psychology department. A semesterly reoccurring course in a sequence at the University of Oklahoma for Sooner Works participants. It is designed to work in conjunction with other Sooner Works courses to lay the foundations related to education, independent living, and career planning. This course is individualized to meet the needs and work on goals for each student. (F)

EDSW 3051 Your Adult Rights
1 Credit Hour
Prerequisite: EDSW 3001 and permission of the Educational Psychology department. A course in a sequence at the University of Oklahoma for Sooner Works participants. It is designed to work in conjunction with future courses to lay the foundations related to employment and independent living regarding knowing and advocating for your adult rights. (Sp)
EDSW 3052 Person Centered Planning 2 Credit Hours
Prerequisite: EDSW 3002 and permission of the Educational Psychology department. A semesterly reoccurring course in a sequence at the University of Oklahoma for Sooner Works participants. It is designed to work in conjunction with other Sooner Works courses to lay the foundations related to education, independent living, and career planning. This course is individualized to meet the needs and work on goals for each student. (Sp)
EDSW 4001 Navigating the Job World
1 Credit Hour
Prerequisite: EDSW 3051 and permission of the Educational Psychology department. A course in a sequence at the University of Oklahoma for Sooner Works participants. It is designed to work in conjunction with future courses to lay the foundations related to employment and job related skills. (F)
EDSW 4002 Person Centered Planning 2 Credit Hours Prerequisite: EDSW 3052 and permission of the Educational Psychology department. A semesterly reoccurring course in a sequence at the University of Oklahoma for Sooner Works participants. It is designed to work in conjunction with other Sooner Works courses to lay the foundations related to education, independent living, and career planning. This course is individualized to meet the needs and work on goals for each student. (F)
EDSW 4051 Living Independently
1 Credit Hour
Prerequisite: EDSW 4001 and permission of the Educational Psychology department. A final course in a sequence at the University of Oklahoma for Sooner Works participants. It is designed to work in conjunction with past courses to lay the foundations related to independent living beyond college. (Sp)
EDSW 4052 Person Centered Planning
2 Credit Hours
Prerequisite: EDSW 4002 and permission of the Educational Psychology department. A semesterly reoccurring course in a sequence at the University of Oklahoma for Sooner Works participants. It is designed to work in conjunction with other Sooner Works courses to lay the foundations related to education, independent living, and career planning. This course is individualized to meet the needs and work on goals for each student. (Sp)

## EDUC-College of Education

## EDUC 1523 Growing through Education, Teaching, and

 Learning3 Credit Hours
You'll explore your educational past, present, and future while positioning it in the broader context of education's past, present, and future. You'll deepen your understanding of learners and learning, what's shaped education systems, and the role of communities and society in education. (F, Sp) [V-FYE].

EDUC 2400 Field Experiences in Education 1-3 Credit Hours 1 to 3 hours. (Also listed under Professional Studies in Education.) Introduction to education as a profession based upon assignment to public schools and other educational agencies. Students will be expected to observe the schools in action, interact with students and professionals and participate in the instructional process. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

EDUC 2960 Individual Study
1-4 Credit Hours
1 to 4 hours. Prerequisite: good standing in University; fewer than 62 total hours; approval of instructor and dean. May be repeated; maximum credit four hours. Designed to provide an introduction to the study of education through a rigorous program of readings under the direction of a member of the faculty. (Irreg.)

EDUC 2970 Special Topics/Seminar
1-3 Credit Hours
Special Topics. 1 to 3 hours. May be repeated; Maximum credit nine hours. Special topics course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research, and field projects. (Irreg.)
EDUC 3223 Introduction to Education
3 Credit Hours
Prerequisite: junior standing and majors only. The purpose of this course is to critically explore, question, and discuss issues in education. Questions to be explored include the following: What are teaching and learning? What are the relationships between the student, the school, and society? Emphasis will be reflective learning as an active, contextualized, act of creativity that involves construction of and reflection on knowledge. (F, Sp, Su)

EDUC 3233 Development, Motivation, and Learning 3 Credit Hours Prerequisite: junior standing and majors only. The course will examine our current understanding of various psychological processes and their relevance to teaching and learning in school settings. In other words, we'll be learning about psychology research, or how and why people think, feel, and behave, and how it relates to how adults working in education settings can most effectively engage their students. (F, Sp, Su)

## EDUC 3440 Mentored Research Experience

3 Credit Hours
0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)

## EDUC 3960 Honors Reading

1-3 Credit Hours
Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Provides students with the opportunity to develop an appropriate body of reading materials on topics not covered in detail in routine coursework. Students will assume the primary initiative in selecting the topic, compiling the bibliography and completing the reading, and will report their progress in weekly sessions to their instructor. Credit will be given only after an intensive oral examination. (Irreg.)

## EDUC 3970 Honors Seminar

1-3 Credit Hours
Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Covers variable subjects in education with in-depth studies of issues not covered in the standard course offerings. (Irreg.)

## EDUC 3980 Honors Research

1-3 Credit Hours
Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Provides an opportunity for honors students to work on a special project under the guidance of a professor in the student's major area of study. (Irreg.)
EDUC 3990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: one course in general area to be studied; permission of instructor and department. May be repeated; maximum credit six hours. Contracted independent study for topic not currently offered in regularly scheduled courses. (F, Sp)

EDUC 4023 Global Experience: Uganda
3 Credit Hours
(Slashlisted with EDUC 5023) Prerequisite: senior standing or permission of instructor. Designed to give real-world experience in global education through a multi-disciplinary service-learning program. Lecture component will take place on the OU Norman campus and experiential component in Gulu, Uganda. Students will learn about global education in developing countries, impact of conflict on women's educational trajectories, a postcolonial view of working with educators, and active teaching and learning in diverse settings. No student may earn credit for both 4023 and 5023. (Su)

## EDUC 4050 Teaching Experiences in the Elementary

## School

4-10 Credit Hours
4 to 10 hours. Prerequisite: EDMA 4353, EDLT 4713, EDSC 4193, EDSS 4323, EDUC 4980. Corequisite: EDEL 4063. Enrollment requires a signed recommendation form by the student's counselor. Laboratory activities under competent direction and supervision: orientation, observation, and classroom teaching experiences supported by seminars and conferences which focus upon the problems of teaching. Prospective teachers receive instruction, aid, and constructive supervision in classroom management, evaluation of pupil behavior, methods of teaching, selection of teaching materials and school-home-community relations. (F,Sp)

## EDUC 4060 Teaching Experiences in the Secondary

School
4-10 Credit Hours
4 to 10 hours. Prerequisite: permission of College of Education Undergraduate Academic Advising Office. Enrollment for fewer than eight hours requires special recommendation by the student's counselor. Correlation of theory and instructional practices in secondary education; supervised observation, teaching, classroom management, and evaluation; acquaintance with the administration of a school and the school program; selection and use of appropriate instructional materials; conferences with supervisors; seminar on problems of teaching; methodology, professional problems, and placement. (F, Sp)
EDUC 4123 Introduction to Instruction
3 Credit Hours
Prerequisite: junior standing and majors only. The purpose of this course is to critically explore, question, and discuss issues in education. Questions to be explored include the following: What are teaching and learning? What are the relationships between the student, the school, and society? Emphasis will be reflective learning as an active, contextualized, act of creativity that involves construction of and reflection on knowledge. (F, Sp, Su)
EDUC 4223 Learning Environments for Diverse Learners 3 Credit Hours Prerequisite: junior standing and majors only. There are two main purposes for this course. The first is to help students develop a better understanding of different cultures and the challenges and benefits of cultural diversity as it relates to educational contexts. The second is to provide students with the background knowledge, understandings, and techniques to work effectively with learners from diverse cultural and ethnic backgrounds. (F, Sp, Su)

## EDUC 4323 Scaffolded Instruction for All Learners 3 Credit Hours

 Prerequisite: junior standing and majors only. Students will develop an understanding of student characteristics and prior learning histories to implement scaffolded instruction in real-life settings among a wide range of learners and learning communities. Students will learn how to become keen observers and will acquire proficiency in selecting materials that will provide useful information to guide the design, implementation, and assessment appropriate for the learning community. (F, Sp, Su)EDUC 4960 Directed Readings in Education 1-4 Credit Hours
1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean. May be repeated; maximum credit four hours. Designed for upper-division students preparing to teach who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)

## EDUC 4970 Special Topics/Seminar <br> 1-3 Credit Hours

1 to 3 hours. Prerequisite: senior standing or permission of instructor. May be repeated with change of content; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

EDUC 4980 Practicum in Education 1-3 Credit Hours
1 to 3 hours. Prerequisite: nine hours of education courses. Provides fieldtype experience under faculty supervision and is designed to introduce the student to the practical application of theory within an environment in which professional practice takes place. (Irreg.)

## EDUC 4990 Special Problems in Education

1-4 Credit Hours
1 to 4 hours. Prerequisite: permission of instructor. May be repeated with change of title and subject. Variable as to subject and credit for areas of specialty and/or interest not otherwise provided in the standard offering of courses. (Irreg.)

## EDUC 5023 Global Experience: Uganda

3 Credit Hours
(Slashlisted with EDUC 4023) Prerequisite: graduate standing or permission of instructor. Designed to give real-world experience in global education through a multi-disciplinary service-learning program. Lecture component will take place on the OU Norman campus and experiential component in Gulu, Uganda. Students will learn about global education in developing countries, impact of conflict on women's educational trajectories, a postcolonial view of working with educators, and active teaching and learning in diverse settings. No student may earn credit for both 4023 and 5023. (Su)
EDUC 5910 Practicum in Education--Master's 1-4 Credit Hours 1 to 4 hours. Prerequisite: graduate standing, permission of instructor and dean. May be repeated; maximum credit six hours. Variable as to title and subject profession. Provides field-type experience under faculty supervision and is designed to introduce the student to the practical application of theory within an environment in which professional practice takes place. Seminar experience is to be included. (Irreg.)
EDUC 5920 Internship in Education--Master's 1-6 Credit Hours 1 to 6 hours. Prerequisite: permission of instructor. May be repeated; maximum credit six hours. Variable as to title and subject profession. Available to master's degree programs specifically requiring an internship in addition to thirty-two hours of other coursework as part of the degree. Introduces the student to the profession under the supervision of a practitioner whose credentials are equal to those of the graduate faculty. (Irreg.)

## EDUC 5940 Field Studies in Education <br> 1-4 Credit Hours

1 to 4 hours. Prerequisite: 12 hours of education. May be repeated with change of subject matter; maximum credit eight hours. Practical problems in education as defined by members of the classes. Typical topics: defining educational objectives, relating school programs to established objectives, developing teaching-learning aids, organization for participation in developing and evaluating instructional programs, using community resources for learning, improving evaluation procedure. (Irreg.)

EDUC 5960 Directed Readings
1-4 Credit Hours
1 to 4 hours. Prerequisite: 12 hours of education, approval of instructor, adviser and dean. May be repeated; maximum undergraduate credit eight hours; maximum graduate credit four hours. Directed readings and/or literature reviews under the direction of a faculty member. (Irreg.)

## EDUC 5970 Special Topics/Seminar

1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)
EDUC 5980 Research for Master's Thesis 2-9 Credit Hours
2 to 9 hours. Prerequisite: Graduate standing; maximum credit applicable toward degree, four hours. Research and writing of a thesis for completion of a graduate degree. (F, Sp, Su)
EDUC 5990 Independent Study
1-4 Credit Hours
1 to 4 hours. Prerequisite: graduate standing or permission by instructor. May be repeated with change of subject matter; maximum credit six hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/ or laboratory research and field projects. (Irreg.)
EDUC 6113 Theoretical Paradigms in Educational Research 3 Credit Hours
Prerequisite: Graduate standing. Designed to expose students to a variety of educational theories as well as how research uses and engages theory. In addition, a primary objective of this course is for students to understand prominent theories in educational research and how they may utilize theory to evaluate programs, design studies, and create learning environments that support students and educational institutions. ( $F, S p$, (F, Sp, Su)

EDUC 6222 Dissertation Development \& Advisory 2 Credit Hours Prerequisite: Graduate standing; May be repeated; maximum credit 12 hours. This course is designed to support doctoral students postprospectus defense, during data collection, analysis, and the writing of their dissertation. As such, the course is run as a seminar in which students develop and progress their individual research projects. Particular attention is spent on data analysis processes and how to move from analysis toward the written dissertation. (F, Sp, Su)

EDUC 6223 Dissertation Development \& Advisory 3 Credit Hours Prerequisite: Graduate standing; majors only; may be repeated with maximum credits of 12 hours. This course is designed to support doctoral students post-prospectus defense, during data collection, analysis, and the writing of their dissertation. As such, the course is run as a seminar in which students develop and progress their individual research projects. Particular attention is spent on data analysis processes and how to move from analysis toward the written dissertation. (F, Sp, Su)
EDUC 6910 Practicum in Education--Doctoral 1-6 Credit Hours 1 to 6 hours. Prerequisite: admission to doctoral program, permission of instructor. May be repeated; maximum credit six hours. Variable as to title and subject profession. An advanced practicum for post-master's level students only. The object is to provide professional experience under faculty supervision in fields requiring a high degree of professional skill. Seminar experience is to be included. (Irreg.)

EDUC 6920 Internship in Education--Doctoral 1-6 Credit Hours
1 to 6 hours. Prerequisite: written permission of the instructor. May be repeated; maximum credit 12 hours. Variable as to title and subject profession. An advanced internship for post-master's level students only. The object of the internship is to cultivate within the student a high degree of proficiency and professional independence. Field supervision is by a practitioner whose credentials are equal to those of the graduate faculty. (Irreg.)
EDUC 6930 Intensive Studies in Education 1-6 Credit Hours 1 to 6 hours. Prerequisite: 12 hours of education and permission of instructor. Repeatable with change of title and subject. Opportunity offered for professional educators and others interested in education, cooperatively, to seek solutions to educational problems. Organized groups work in curriculum, guidance, instruction, administration and supervision. Competent leadership and expert consultant service provided. (Irreg.)
EDUC 6960 Directed Readings 1-3 Credit Hours 1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit six hours. Directed readings and/or literature review under the direction of a faculty member. (Irreg.)

EDUC 6970 Post-Master'S Seminar 2-4 Credit Hours
2 to 4 hours. Prerequisite: master's degree, 24 hours of education, permission of instructor. May be repeated with change of subject matter; maximum credit twelve hours. Enrollment limited to students who hold the master's degree. (F, Sp, Su)
EDUC 6980 Research for Doctoral Dissertation 2-16 Credit Hours 2 to 16 hours. Prerequisite: Graduate standing and permission of instructor; may be repeated. Directed research culminating in the completion of the Doctoral dissertation. Maximum of 15 hours credit for the Ed.D. and 30 hours for the Ph.D. (F, Sp, Su)
EDUC 6990 Individual Study in Education
1-4 Credit Hours
1 to 4 hours. Prerequisite: 12 hours of education, graduate standing and permission of the instructor. May be repeated with change of subject matter; maximum credit eight hours. For advanced graduate students who need to study some problem or area not adequately covered in the organized courses, under the direction of a staff member in whose area of specialization the problem lies. (Irreg.)

## EDWL-World Language Education

EDWL 3003 World Languages in the Elementary School 3 Credit Hours Prerequisite: Proficiency in a Language other than English via evidence of one of the following: Passing Completion of a 2223 level of modern language course, OR self-identification as a Heritage/Native Speaker in a language other than English, OR an OPI score of intermediate high or above. Introduction to the teaching of World Languages and multilingual learners in the PreK-6 setting by providing practical experience and introducing the tenets of language acquisition theory and research. Addresses second language teaching and learning through a combination of classroom activities, experiential learning through service-learning projects, and opportunities to expand target language knowledge and develop critical thinking and reflection skills. (F)

EDWL 4023 Foundations and Theory for PreK-12 Second Language Acquisition

3 Credit Hours
(Slashlisted with EDWL 5023) Prerequisite: Admission to Teacher Education program. This course is a multidisciplinary approach to second language (L2) acquisition theory, application, and pedagogy. The course focuses on developing, enhancing and improving instructional expertise, pedagogical knowledge and advocacy for the role and value of languages and cultures for those planning or currently working with SLA students in a PreK-12 educational setting. No student may earn credit for both 4023 and 5023. (Irreg.)

## EDWL 4033 Methods for Teaching World Languages in PreK-12

 Settings3 Credit Hours
(Slashlisted with EDWL 5033) Prerequisite: EDWL 4023 and Admission to Teacher Education program; EIPT 3483 or concurrent enrollment. This course is a multidisciplinary approach to the teaching of World Languages in the PreK-12 setting. This course is designed to provide students with practical experience in the teaching of world languages and to introduce key issues in classroom language acquisition research and teaching methodology in the PreK-12 classroom. No student may earn credit for both 4033 and 5033. (Irreg.)
EDWL 4323 Foundations and Practice for Bi/Multilingual Learners PK-12 3 Credit Hours
Prerequisite: Education Majors or instructor permission. This course focuses on the theory, research, and policy foundations for effective instruction and practice with bi/multilingual learners. We will focus on the current issues, as well as techniques in instructing and assessing students at all stages of bilingual development. (F)
EDWL 4553 Second Language Literacy for Spanish-speaking ELLs

3 Credit Hours
(Slashlisted with EDWL 5553) Prerequisite: Education Major or instructor permission; EDWL 4023 is recommended, though not required. Course explores differences in literacy development of Spanish/English, and pedagogical approaches that leverage students' home language/literacy practices. Socio-cultural factors influencing literacy development are discussed. Home literacy, biliteracy, and culturally relevant practices are integral to the course framework. Equity/bias in classroom language practices and the multitude of relationships affecting Spanish-speaking families are examined. Taught bilingually in Spanish/English (dependent on student proficiency). No student may earn credit for both 4553 and 5553. (Su)

EDWL 4970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: senior standing or permission of instructor. May be repeated with change of content; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (lrreg.)

EDWL 5023 Foundations and Theory for PreK-12 Second Language Acquisition 3 Credit Hours
(Slashlisted with EDWL 4023) Prerequisite: graduate standing. This course is a multidisciplinary approach to second language (L2) acquisition theory, application, and pedagogy. It focuses on developing, enhancing, and improving instructional expertise, pedagogical knowledge, and advocacy for the role and value of languages and cultures for those planning or currently working with SLA students in a PreK-12 educational setting. No student may earn credit for both 4023 and 5023. (Irreg.)

EDWL 5033 Methods for Teaching World Languages in PreK-12 Settings 3 Credit Hours
(Slashlisted with EDWL 4033) Prerequisite: EDWL 5023 and graduate standing. This course is a multidisciplinary approach to the teaching of World Languages in the PreK-12 setting. This course is designed to provide students with practical experience in the teaching of world languages and to introduce key issues in classroom language acquisition research and teaching methodology in the PreK-12 classroom. No student may earn credit for both 4033 and 5033. (Irreg.)

## EDWL 5043 Theory and Practice in Bi/Multilingual

 Education3 Credit Hours
Prerequisite: Graduate standing. Application of theory, research, and guiding principles to providing high-quality instruction, assessment, and advocacy for bi/multilingual learners in K -12 education. This course includes a specific focus on preparing content area teachers to support the dynamic bilingualism of linguistically diverse children through effective language and literacy instruction. (Sp)
EDWL 5553 Second Language Literacy for Spanish-speaking ELLs

3 Credit Hours
(Slashlisted with EDWL 4553) Prerequisite: Graduate standing and Admission into the Teacher Preparation Program; EDWL 4023/5023 is recommended, though not required. Course explores differences in literacy development of Spanish/English, and pedagogical approaches that leverage students' home language/literacy practices. Sociocultural factors influencing literacy development are discussed. Home literacy, biliteracy, and culturally relevant practices are integral to the course framework. Equity/bias in classroom language practices and the multitude of relationships affecting Spanish-speaking families are examined. Taught bilingually in Spanish/English (dependent on student proficiency). No student may earn credit for both 4553 and 5553. (Su)
EDWL 5970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

## EIPT-Instructional Psychology \& Technology

EIPT 2960 Individual Study
1-4 Credit Hours
1 to 4 hours. Prerequisite: good standing in University; fewer than 62 total hours; approval of instructor and dean. May be repeated; maximum credit four hours. Designed to provide an introduction to the study of education through a rigorous program of readings under the direction of a member of the faculty. (Irreg.)
EIPT 3043 Learning with Educational Technologies 3 Credit Hours Prerequisite: EIPT 3473 or EDEC 3413; EDSP 3053 or concurrent enrollment. Designed to familiarize students with alternative instructional approaches using both cognitive and hardware technologies.
Development of practical skills for using technology to solve instructional problems and accomplish educational goals. (F, Sp, Su)
EIPT 3440 Mentored Research Experience 3 Credit Hours 0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)

EIPT 3473 Learning, Development, and Assessment for

## Teachers

3 Credit Hours
Prerequisite: Admission to Teacher Education program. Classroom implications from the study of cognition, learning, and development are presented. Topics include various perspectives on human development and learning, factors influencing individual variations in cognition, and an introduction to the assessment of educational outcomes. (F, Sp, Su)
EIPT 3483 Motivation and Classroom Management for

## Teachers

3 Credit Hours
Prerequisite: EIPT 3473 or EDEC 3413; Admission to Teacher Education program. Classroom implications from the study of motivation and classroom management are presented. Topics include various perspectives on motivation processes in achievement settings and holistic approaches to classroom management. (F, Sp)
EIPT 3960 Honors Reading
1-3 Credit Hours
Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Provides students with the opportunity to develop an appropriate body of reading materials on topics not covered in detail in routine coursework. Students will be obliged to assume the primary initiative in selecting the topic, compiling the bibliography and completing the reading, and will report their progress in weekly sessions to their instructor. Credit will be given only after an intensive oral examination. (Irreg.)

## EIPT 3970 Honors Seminar <br> 1-3 Credit Hours

Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Covers variable subjects in education with in-depth studies of issues not covered in the standard course offerings. (Irreg.)

EIPT 3980 Honors Research 1-3 Credit Hours
Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Provides an opportunity for honors students to work on a special project under the guidance of a professor in the student's major area of study. (Irreg.)
EIPT 3990 Independent Study 1-3 Credit Hours 1 to 3 hours. Prerequisite: one course in general area to be studied; permission of instructor and department. May be repeated; maximum credit six hours. Contracted independent study for topic not currently offered in regularly scheduled courses. (F, Sp)
EIPT 4960 Directed Readings in Education
1-4 Credit Hours
1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean. May be repeated; maximum credit four hours. Designed for upper-division students preparing to teach who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)

EIPT 4970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: senior standing or permission of instructor. May be repeated with change of content; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)
EIPT 4980 Practicum in Education 1-3 Credit Hours 1 to 3 hours. Prerequisite: nine hours of education courses. Provides fieldtype experience under faculty supervision and is designed to introduce the student to the practical application of theory within an environment in which professional practice takes place. (Irreg.)

EIPT 4990 Special Problems in Education
1-4 Credit Hours
1 to 4 hours. Prerequisite: permission of instructor. May be repeated with change of title and subject. Variable as to subject and credit for areas of specialty and/or interest not otherwise provided in the standard offering of courses. (Irreg.)
EIPT 5023 Analysis of Quantitative Data I
3 Credit Hours
Prerequisite: graduate standing in the College of Education, or permission of instructor. A brief review of descriptive statistics, introduction to basic inferential statistics, and analysis of variance. Topics covered include data screening and cleaning, correlation, simple regression, oneway ANOVA, factorial ANOVA, analysis of covariance, repeated-measures designs, and nonparametric techniques. Focus is on computer-based data analysis, and substantive conceptualization and interpretation of results. (F, Su)

## EIPT 5033 Introduction to Research and Evaluation in

## Education

3 Credit Hours
Prerequisite: graduate standing. An introduction to major methods of scholarship andresearch in education. The main goal of the class is to help students developthe knowledge and skills required for critical reading of research. (F,Su-Irreg.)
EIPT 5113 Educational Psychology of Human Development 3 Credit Hours
Prerequisite: graduate standing. An introductory survey of current theory and research as it applies to human development across the lifespan.
Emphases include cognitive and language development,self and social development, and contextual influences on development. (Sp)

## EIPT 5183 Learning and Motivation

3 Credit Hours
Prerequisite: Graduate standing. This course will examine our current understanding of various psychological phenomena and their relevance to teaching and learning in school or other educational settings. We will analyze, synthesize, and build upon current theories and research as we develop ways of understanding the processes involved in human learning, cognition, motivation, and emotion. (Irreg.)

## EIPT 5203 Assessment and Evaluation in Education and

## Counseling

3 Credit Hours
Prerequisite: graduate standing. An introduction to basic concepts of assessment, measurement, and evaluation in education and counseling, with a focus on the study of concepts and instruments, procedures, methods, and techniques that may be used to assess knowledge, strengths, limitations, and behaviors. Students will study basic principles of measurement and statistics. Scaling metrics, reliability, and validity are emphasized. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

## EIPT 5333 Introduction to Extended Reality (XR) for

## Education <br> 3 Credit Hours

Prerequisite: Graduate standing, EIPT 5533, EIPT 6143, and EIPT 6343, or permission of instructor. This course introduces students to extended reality (XR), which covers augmented reality (AR), virtual reality (VR), and mixed reality (MR). Students will acquire both conceptual understanding and hands-on experiences about XR for education and training,
specifically involving learning analysis and design and XR apps creation, implementation, and evaluation. (Irreg.)

## EIPT 5513 Teaching with Technology 3 Credit Hours

Prerequisite: graduate standing. Students will explore current technologies used in schools to assist learners of varying abilities succeed in educational settings. Relevant learning theory will be used to evaluate the ways in which technologies are being used with students. This course will assist students in meeting the ISTE National Educational Technology Standards for Teachers (NETS-T). (F)

EIPT 5533 Foundations of Learning Sciences
3 Credit Hours
(Crosslisted with LIS 5533) Prerequisite: Graduate standing or permission of instructor. Learning Sciences is an interdisciplinary approach to investigating, understanding, and supporting learning. It draws on diverse fields and methodologies. The goal of this class is to develop a critical orientation with regard to how we use them in integrated, meaningful, contextual, and ethical ways, in service to learners and society. (F)
EIPT 5613 Classroom Management in the 21st Century 3 Credit Hours Prerequisite: graduate standing and departmental permission. Classroom management is one of the most important skills for the success of a teacher. It is based on a keen understanding of fundamental educational psychology concepts including motivation theory, child/teen development, and human learning. This course will guide students in the exploration of these topics. (Sp)
EIPT 5683 Technology-Enhanced Problem-Based Learning 3 Credit Hours
Prerequisite: graduate standing and departmental permission. The goal of this course is two-fold: (1) to develop collaborative problem-solving skills through problem-based or project-based learning using advanced learning technologies as tools; and (2) to design a collaborative problembased /project-based learning environment supported with advanced learning technologies. Students in the course will learn important 21st century skills, including critical thinking, problem solving, communication, collaboration, self-regulation, and use of information and communication technology to support collaborative problem solving. (Sp)
EIPT 5693 Critical Literacy
3 Credit Hours
Prerequisite: Graduate standing. The impact and pervasiveness of media in its many forms - both in and out of formal education settings - requires development of critical awareness, discernment, and engagement by educators. This course explores the intersections of (a) media and its influences; (b) social and cross-cultural skills and perspectives; and (c) personal and pedagogical (and andragogical) responsibility. (Sp)
EIPT 5703 Building Capacity for STEM
3 Credit Hours
Prerequisite: graduate standing and departmental permission.
Science Technology Engineering and Math is an area of great need of development in the United States and the world. In this course students will explore the current status of STEM education and the STEM pipeline, the need for STEM development and current barriers that exist in education for all students from a variety of backgrounds that wish to pursue STEM careers. (Su)
EIPT 5712 School and Community Relations
2 Credit Hours
Prerequisite: graduate standing and departmental permission. The course is organized around concerns that are central to the development of a thoughtful and pragmatic community relations policy for the 21 st century. Particular foci include: a) public confidence in American schools; b) leadership, development, and key mediation of school mission and capacity; c) communication with external and internal publics; d) collaboration with multiple stakeholders e) understanding the challenge and impact of high quality community relations. (Su)
EIPT 5910 Practicum in Education--Master's 1-4 Credit Hours 1 to 4 hours. Prerequisite: graduate standing, permission of instructor and dean. May be repeated; maximum credit six hours. Variable as to title and subject profession. Provides field-type experience under faculty supervision and is designed to introduce the student to the practical application of theory within an environment in which professional practice takes place. Seminar experience is to be included. (Irreg.)

EIPT 5920 Internship in Education--Master's 1-6 Credit Hours
1 to 6 hours. Prerequisite: 5910, permission of instructor. May be repeated; maximum credit six hours. Variable as to title and subject profession. Available to master's degree programs specifically requiring an internship in addition to thirty-two hours of other coursework as part of the degree. Introduces the student to the profession under the supervision of a practitioner whose credentials are equal to those of the graduate faculty. (Irreg.)

## EIPT 5940 Field Studies in Education

1-4 Credit Hours
1 to 4 hours. Prerequisite: 12 hours of education. May be repeated with change of subject matter; maximum credit eight hours. Practical problems in education selected by the students and approved by the instructor. Typical topics: defining educational objectives, relating school programs to established objectives, developing teaching-learning aids, organization for participation in developing and evaluating instructional programs, using community resources for learning, improving evaluation procedure. (Irreg.)

## EIPT 5960 Directed Readings

1-4 Credit Hours
1 to 4 hours. Prerequisite: 12 hours of education, approval of instructor, adviser and dean. May be repeated; maximum undergraduate credit eight hours; maximum graduate credit four hours. (Irreg.)
EIPT 5970 Special Topics/Seminar 1-3 Credit Hours 1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

## EIPT 5980 Research for Master's Thesis

2-9 Credit Hours
Variable enrollment, two to nine hours; maximum credit applicable toward degree, four hours. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

## EIPT 5990 Independent Study

1-4 Credit Hours
1 to 4 hours. Prerequisite: graduate standing or permission by instructor. May be repeated with change of subject matter; maximum credit six hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/ or laboratory research and field projects. (Irreg.)
EIPT 6023 Analysis of Quantitative Data II 3 Credit Hours
Prerequisite: 5023. A continuation of 5023. Topics include power analysis, multiple linear regression, analysis of variance models, and an introduction to non-parametric statistics. (Sp)

EIPT 6033 Research Methods in Education 3 Credit Hours Prerequisite: Graduate standing; and EIPT 6043 and EIPT 6063. The purpose of this course is to assist doctoral students in the process of designing research. This course covers fundamental assumptions of quantitative and qualitative research, various research designs, and the underlying logic of each design. Emphasis will be given to understanding and justifying why certain research designs are appropriate for certain research questions/hypotheses and map out students' own studies. (Sp)
EIPT 6043 Qualitative Research Methods
3 Credit Hours
Prerequisite: Graduate standing. Topics include qualitative research
traditions, qualitative designs, data collection techniques, qualitative data analysis. Students design, conduct, and analyze their own qualitative study during the course. (F)

## EIPT 6063 Applied Multivariate Statistics in Educational

## Research

3 Credit Hours
Prerequisite:5023 and 6023, or equivalent. Covers selected multivariate techniques withan emphasis on detecting and correcting violations of assumptions, applications,and interpreting results from popular computer statistics packages. (Sp)

EIPT 6073 Program Evaluation
3 Credit Hours
Prerequisite: EIPT 5033, or an equivalent research course or instructor permission; one prior course in measurement or assessment is recommended. Designed to develop understanding and experience in systematically evaluating outcomes related to program goals and standards. Topics include: purposes and uses of evaluation; role of concepts and constructs; planning, standard setting, selecting methods, developing measures, analyzing and interpreting outcomes; reporting findings; ethics and organization; and utilization. (Sp)

## EIPT 6083 Qualitative Research Methods II

3 Credit Hours
Prerequisite: EIPT 6043 or permission of instructor. Topics include qualitative research design, data analysis, data interpretation, theory building, and write-up. Students should have qualitative data ready to analyze before enrolling in the course. (Sp)
EIPT 6101 Propaedeutic Seminar
1 Credit Hour
Prerequisite: admission to Instructional Psychology and Technology doctoral program. Summarizes the history of the field ofinstructional psychology and technology and introduce research typicalof field and specific to interests of program faculty. Also discusses expectationsfor scholarship in the program and field and how students meet those expectations.(F)
EIPT 6103 History and Philosophy of Educational Psychology and Research 3 Credit Hours
Prerequisite: Graduate standing. This course asks students to grapple with questions that will be foundational to their development as scholars in the field of education. Students will learn foundational theories of educational psychology and research. The course surveys the broad variety of philosophical and scholarly traditions in educational psychology theory and underlying educational research. (F)
EIPT 6143 Instructional Development
3 Credit Hours
Prerequisite: graduate standing. This course is designed to develop understanding and experience in systematically designing and developing instruction and instructional systems. Topics will include: task, context, and learner analysis, assessment design, principles of educational psychology, instructional design principles and strategies, development and production techniques, formative and summative evaluation methods, and flexibly adaptive approaches to implementation. (F)

EIPT 6153 Motivation and Emotion in Education 3 Credit Hours Prerequisite: graduate standing or permission of instructor. Survey and analysis of historically significant and current theories of motivation and emotion. This course examines basic and applied issues related to motivation and emotion from a general perspective as well as motivation to learn. (F)

EIPT 6163 Instructional Design
3 Credit Hours
Prerequisite: 6143. This course is designed to develop understanding and experience in systematically designing instruction, building on the principles, processes and skills of EIPT 6143. Topics will include: strategies of instruction for specific learning outcomes, formative and summative evaluation, learning assessment design, designing jobs aids and performance support systems, rapid application development and knowledge management. (Sp)

EIPT 6173 Management of Instructional Technology Programs Credit Hours
Prerequisite: graduate standing. This course is designed to introduce the core principles of project management, and then develop understanding of how those principles and practices are subject to adaptation. topics include: defining the field, contexts and influences, strategic analysis, managing risk, managing people, managing time, managing budget and other resources, managing evaluation, problem-solving, and project reporting. (F)
EIPT 6183 Cognition and Instruction 3 Credit Hours
Prerequisite: graduate standing. Examines the contributions of cognitive psychology to issues of instruction. Surveys basic issues in cognition and examines applied issues in greater depth.( Sp )

## EIPT 6203 Instrument Development 3 Credit Hours

Prerequisite: 5203 or permission of instructor. Students in this course will have the opportunity to design items for assessments, collect data, and develop them into items that will produce reliable and valid scores. Measures and procedures in affective (e.g., Likert-type, semantic differential) and cognitive (e.g., true/false, multiple choice) instrument development will be covered. Topics including scaling techniques, methods of obtaining score reliability, use of human participants, manuscript preparation, and current methodological advances will be discussed. (F)

## EIPT 6223 Mixed-Methods Research

3 Credit Hours
Prerequisite: EIPT 5023 and EIPT 6043, or equivalent courses approved by instructor. Topics include history, assumptions, and benefits of mixedmethods research along with practical implications such as design, implementation, and write-up of mixed-methods research. Students will design and write their own mixed-methods study during the course. (Sp)
EIPT 6233 Educational Design-based Research 3 Credit Hours Prerequisite: Prerequisite: Graduate standing; EIPT 6143, EIPT 6343, and EIPT 5033 (or other research equivalent course with permission of instructor). Introduces educational design-based research (EDR) as an alternative research method and tool to address rigor, validity, and practicality for educational research. Students develop understanding of EDR concepts, models, and procedures, and additional specific skills for developing assessment tools and evaluation plans and conducting EDR research. (Sp)

## EIPT 6313 Multimedia Design and Development for

## Learning

## 3 Credit Hours

Prerequisite: graduate standing. Students will go through multiple phases of instructional design to develop computer-based, interactive programs while developing their multimedia authoring skills. They will gain handson multimedia design experience by working on a real-world instructional project using advanced technologies. (F)

## EIPT 6323 Game-based learning: Design, Development, and Integration 3 Credit Hours

 Prerequisite: Graduate standing, EIPT 5533, EIPT 6143, and EIPT 6343, or permission of instructor. This course introduces digital game-based learning and its underlying theories and concepts, and engages students in hands-on projects of designing, developing, implementing, evaluating, and researching digital games for education. Issues related to identity development, social justice, equity and inclusiveness will be explored in game-based learning. (Irreg.)EIPT 6343 Design of Learning Environments
3 Credit Hours
Prerequisite: Graduate standing; EIPT 5533 and EIPT 6523, or permission of instructor. Examines cognitive and theoretical foundations underlying various instructional design theories and models for designing and developing effective learning environments to support various types of learning outcomes. Various pedagogical models, approaches, and scaffolding tools will be explored and applied in a real-world design and development project. (Sp)

## EIPT 6423 Digital Audio \& Video for Learning \&

Instruction 3 Credit Hours
Prerequisite: Graduate standing, EIPT 5533, EIPT 6143, and EIPT 6523, or permission of instructor. Designed to prepare students with theoretical understanding and practical skills for creating audio and video for learning and instruction purposes, including processes related to recording, editing, and disseminating, such as for podcasting and videocasting. (Irreg.)

## EIPT 6433 Theories, Pedagogy, and Tools for Online

## Learning

3 Credit Hours
Prerequisite; graduate standing. Focuses on theoretical understandings of building virtual learning communities; pedagogies for engaging learners in social, cognitive and reflective processes; and advanced technologies for mediating learning and enhancing online collaboration. (Sp)
EIPT 6503 Messaging \& Layout for Learning 3 Credit Hours
Prerequisite: Graduate standing, EIPT 5533, EIPT 6143, and EIPT 6523, or permission of instructor. Design and development of prose-heavy learning materials for print and digital use, including considerations of message design, readability, organization, signaling and structure, effective use of graphics, and designing for accessibility and inclusion in both printed and digital forms. (Irreg.)
EIPT 6523 Visual Literacy and Digital Development for

## Learning

3 Credit Hours
Prerequisite: Graduate standing; EIPT 5533 or permission of instructor. The course is for teachers, instructional designers and developers, and other professionals to increase understanding of visual communication principles and theories, and to develop skills and abilities to produce visuals for instructional communication via a variety of digital media. Topics include visual communication, and development and manipulation of graphics, sound, animation, and video. (Sp)

## EIPT 6533 Capstone - Development for Learning with Digital

 Technologies3 Credit Hours
Prerequisite: Graduate standing, EIPT 5533, EIPT 6143, and EIPT 6523, or permission of instructor. Terminal and capstone course for Learning Design \& Technology (LDT) Master's Program. Designbased development, evaluation and research of LDT products (e.g. digital instructional materials, scaffolding tools, tutoring systems) or technology-supported learning environments (e.g., games-based, mobile, augmented/virtual reality). (Sp)
EIPT 6613 Research Issues in Instructional Technology 3 Credit Hours Prerequisite: doctoral standing. May be repeated with change of content; maximum credit 12 hours. Examine specified research issues in the field of Instructional Technology. Students will read and critique existing research, as well as identify directions for new and continuing research. (Irreg.)

EIPT 6713 Research Issues in Instructional Psychology 3 Credit Hours Prerequisite: doctoral standing. May be repeated with change of content; maximum credit of 12 hours. Examine specified research issues in the field of instructional psychology. Students will read and critique existing research, as well as identify directions for new and continuing research. (Irreg.)
EIPT 6910 Practicum in Education--Doctoral 1-6 Credit Hours 1 to 6 hours. Prerequisite: admission to doctoral program, permission of instructor. May be repeated; maximum credit six hours. Variable as to title and subject profession. An advanced practicum for post-master's level students only. The object is to provide professional experience under faculty supervision in fields requiring a high degree of professional skill. Seminar experience is to be included. (Irreg.)

EIPT 6920 Internship in Education--Doctoral 2-6 Credit Hours 1 to 6 hours. Prerequisite: written permission of the instructor. May be repeated; maximum credit 12 hours. Variable as to title and subject profession. An advanced internship for post-master's level students only. The object of the internship is to cultivate within the student a high degree of proficiency and professional independence. Field supervision is by a practitioner whose credentials are equal to those of the graduate faculty. (Irreg.)
EIPT 6930 Intensive Studies in Education
1-6 Credit Hours
1 to 6 hours. Prerequisite: 12 hours of education and permission of instructor. Repeatable with change of title and subject. Opportunity offered for professional educators and others interested in education, cooperatively, to seek solutions to educational problems. Organized groups work in curriculum, guidance, instruction, administration and supervision. Competent leadership and expert consultant service provided. (Irreg.)

## EIPT 6960 Directed Readings

1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit six hours. Directed readings and/or literature review under the direction of a faculty member. (Irreg.)

## EIPT 6970 Post-Master's Seminar <br> 2-4 Credit Hours

2 to 4 hours. Prerequisite: master's degree, 24 hours of education, permission of instructor. May be repeated with change of subject matter; maximum credit twelve hours. Enrollment limited to students who hold the master's degree. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
EIPT 6980 Research for Doctoral Dissertation 2-16 Credit Hours 2 to 16 hours. Prerequisite: Graduate standing and permission of instructor; may be repeated. Directed research culminating in the completion of the doctoral dissertation. Maximum of 15 hours credit for the Ed.D. and 30 hours for the Ph.D. (F, Sp, Su)

EIPT 6990 Individual Study in Education
1-4 Credit Hours
1 to 4 hours. Prerequisite: 12 hours of education, graduate standing and permission of the instructor. May be repeated with change of subject matter; maximum credit eight hours. For advanced graduate students who need to study some problem or area not adequately covered in the organized courses, under the direction of a staff member in whose area of specialization the problem lies. (Irreg.)

# ELM-Engineering Leadership and Management 

ELM 5123 Strategic Communication for Engineering Leaders 3 Credit<br>Hours

Prerequisite: Graduate standing. The goal of this course is to impart effective communication abilities to engineers. The course will teach Engineers at all stages of their career skills for effective communication with teammates, clients, and employees and/or pursuing the next level of leadership opportunities. Students will learn to create and deliver powerful presentations and documents. (F, Sp, Su)

## ELM 5213 Data Science and Analytics for Engineering Management Decisions <br> 3 Credit Hours

Prerequisite: Graduate standing. It covers various tools that can be applied to data to extract the knowledge that can be applied for engineering management decision-making. The main objective is to understand the world of data science and analytics, including descriptive, predictive, and prescriptive analytics as a tool for informed decisionmaking. (F, Sp, Su)

ELM 5293 Cost Engineering
3 Credit Hours
(Crosslisted with ISE 5293) Prerequisite: Graduate Standing. This course will discuss the application of scientific principles and techniques to problems of cost estimating, cost control, business planning, profitability analysis, project management, and planning and scheduling. It will provide an understanding of both the tools and models that can be used throughout the design, development, and support phases, and examine the trade-offs between system performance and life-cycle cost. (Su)

## ELM 5313 Systems Thinking 3 Credit Hours

Prerequisite: Graduate standing. In this course, you will learn that engineering systems are made of complex interconnections of interrelated subsystems. You will learn how to recognize these subsystems and understand their relationships to build efficient engineering systems. You will learn to use and develop optimization models, understand systems engineering life-cycle, and model-based systems thinking. (F, Sp, Su)
ELM 5323 Leading Creative Teams
3 Credit Hours
Prerequisite: Graduate Standing. In this course, you will learn to assemble the skills, talents, and resources of individuals and groups in effective and efficient ways to best solve the engineering problem at hand. You will learn inter-personnel management skills and tools for creating positive and supportive team cultures and incorporating and supporting diversity in teams. (F, Sp, Su)
ELM 5423 Negotiating Skills for Technical Leaders 3 Credit Hours Prerequisite: Graduate Standing. In this course, you will learn the underlying principles of negotiation and influence skills that can be effectively employed with supervisors, peers, and team members in engineering environments. Concepts such as the zone of possible agreements, the best alternative to negotiated agreements, and sources of influence are put into practice. (F, Sp, Su)
ELM 5523 Capstone Project
3 Credit Hours
Prerequisite: Graduate Standing. In this capstone course, students work on a team-based multi-disciplinary project that addresses an industrybased engineering management problem. It is meant to integrate the many tools utilized by engineering managers as taught in the course work of the engineering management and leadership program. Students are required to produce a written report and give an oral presentation. ( $F, S p$, Su )

ELM 5543 Decision Analysis
(Crosslisted with ISE 5543) Prerequisite: Graduate standing. This course provides the fundamentals of decision analysis and explores how analyzing risk can be incorporated into good decision-making. Normative and prescriptive approaches to making decisions when uncertainty exists are central to this course. Topics covered include structuring decision problems, developing alternatives, single and multiple objectives, utility theory, risk tolerance, data-driven, and subjective probability, and psychological pitfalls, among others. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
ELM 5773 Systems Requirements and Architecting 3 Credit Hours (Crosslisted with ISE 5773) Prerequisite: Graduate Standing. This course provides the fundamentals of systems engineering by offering an overview of the discipline and then focusing on the management of system requirements and developing how a system will meet them. We will discuss the definition of systems, the system development life cycle, and the systems engineering method. Topics include Detail design, requirement analysis and decomposition, and system architecting. ( $\mathrm{F}, \mathrm{Sp}$, $\mathrm{Su})$

## EMAD-Executive MBA Aerospace \& Defense

EMAD 5302 Accounting in Aerospace and Defense 2 Credit Hours Prerequisite: Graduate standing, departmental permission, majors only, and admission to the Executive Management in Aerospace/Defense graduate certificate program. This course will create a foundation for understanding accounting and financial management in the Aerospace and Defense (A\&D) industry, including performance measurement and budgeting. This course is intended to provide students with a working knowledge of A\&D financial statements, including preparation and analysis. This course includes an in-person class at the Gene Rainbolt Graduate School of Business in Oklahoma City. (Irreg.)

## EMAD 5312 Information Technology and Cyber Security in Aerospace and Defense <br> 2 Credit Hours

Prerequisite: Graduate standing, departmental permission, and admission to the Executive Management in Aerospace/Defense graduate certificate program. Information technology and cyber security are crucial in managing a business in the aerospace and defense (A\&D) industry. This course will provide a basic understanding of the technical and management aspects of data communications, networking infrastructure, and cyber security concepts for A\&D. (Irreg.)

## EMAD 5322 Managing Supply Chain and Logistics in Aerospace and Defense 2 Credit Hours

 Prerequisite: Graduate standing, departmental permission, and admission to the Executive Management in Aerospace/Defense graduate certificate program. Supply chain and logistics are crucial in the aerospace and defense industry. A\&D firms are attempting to improve their competitive positions by managing the flow of raw materials, work-in-process inventories, and finished goods. This course covers managing the supply chain that plans, sources, makes, and delivers an A\&D organization's goods and/or services, from suppliers of raw materials to customer. (Irreg.)EMAD 5332 Legal Environment for Aerospace and Defense

## 2 Credit Hours

Prerequisite: Graduate standing, departmental permission, and admission to the Executive Management in Aerospace/Defense graduate certificate program. This course examines the A\&D industry contract vehicles, contract performance management, and regulation management and federal statutory law. Students will learn the legal and ethical environment of A\&D business. The course provides necessary background on traditional A\&D business law topics, including A\&D contracting. This course includes an in-person class at the Gene Rainbolt Graduate School of Business in Oklahoma City. (Irreg.)
EMAD 5342 Project Management for Aerospace and Defense

## 2 Credit Hours

Prerequisite: Graduate standing, departmental permission, and admission to the Executive Management in Aerospace/Defense graduate certificate program. This course develops the knowledge, skills, tools, and techniques to initiate, plan, execute, monitor, and control activities related to meeting A\&D project requirements. It focuses on the theoretical foundations and practical applications of project management along with the IT tools to support project planning, budgeting, scheduling, cost analysis, resource leveling/control, and human resource management in A\&D organizations. (Irreg.)
EMAD 5352 Global Aerospace and Defense Strategy 2 Credit Hours Prerequisite: Graduate standing, departmental permission, and admission to the Executive Management in Aerospace/Defense graduate certificate program. This course develops an innovative mindset to deal with global complexity, barriers to international trade, and human resource challenges. Students are provided with the evidence, concepts, and models for understanding company performance in a global world and the issues facing executives in the early 21 st century. (Irreg.)

## EMAD 5362 Field Project in Aerospace \& Defense

(Analysis)

## 2 Credit Hours

Prerequisite: Graduate standing, departmental permission, and admission to the Executive Management in Aerospace/Defense graduate certificate program. This course provides experiential learning in the aerospace and defense industry by having students apply knowledge from the classroom and work experience to analyzing problems facing A\&D organizations. Field projects will deal with scoping the problem under study, structured analysis of the problem including data collection from internal and external sources, and development of recommendations, solutions, and timeline for implementation. (Irreg.)
EMAD 5372 Field Project in Aerospace \& Defense

## (Implementation)

## 2 Credit Hours

Prerequisite: Graduate standing, departmental permission, admission to the Executive Management in Aerospace/Defense graduate certificate program, and B AD 5362. This course provides experiential learning in the aerospace and defense industry by having students apply their knowledge from the classroom and their work experience to implement solutions and recommendations developed in B AD 5362 or those provided by the client organization. They will also include the development of a prototype, a pilot implementation of the solutions, and outcome testing. (Irreg.)

## EMAD 5382 Quantitative Methods \& Models for Aerospace \& Defense <br> 2 Credit Hours

Prerequisite: Graduate standing and departmental permission, or admission into the Executive Master of Business Administration in Aerospace \& Defense program. This course focuses on understanding and applying quantitative methods and models in the context of Aerospace \& Defense (A\&D). The course content is organized around three modules: summarizing quantitative data, relating and comparing data, and predicting outcomes based on sample data. The topics covered in these modules include descriptive statistics, associative statistics, regression, multiple regression, and inferential statistics. (Irreg.)
EMAD 5392 Organizational Behavior in Aerospace \& Defense Organizations

2 Credit Hours
Prerequisite: Graduate standing and departmental permission, or admission to the Executive Master of Business Administration in Aerospace \& Defense program. This course deals with the need for managers to understand behavior in organizations and the challenges they face. It discusses individual differences, employee motivation, and effective job design, and how organizations should select, retain, and evaluate employees. The course discusses group dynamics, team management, effective communication, managing conflict, employee stress, and career management issues. (Irreg.)
EMAD 5402 Aerospace and Defense Marketing Fundamentals Credit
Prerequisite: Graduate standing and departmental permission, or admission into the Executive Master of Business Administration in Aerospace \& Defense program. The traditional role of marketing management is enlarged to include the development, implementation, and control of marketing strategies in the aerospace/defense organization. Emphasis is on the strategic marketing process in the dynamic aerospace/defense business environment. Strategic marketing decisions, analysis, and issues are integrated with the goal of achieving customer satisfaction to gain a sustainable competitive advantage within the aviation industry. (Irreg.)

## EMAD 5412 Innovation and Entrepreneurship in Aerospace \& Defense <br> 2 Credit Hours

Prerequisite: Graduate standing and departmental permission, or admission into the Executive Master of Business Administration in Aerospace \& Defense program. This course introduces skills and techniques that enable the development of innovative and entrepreneurial strategies in aerospace and defense. We also evaluate approaches to developing an innovative, entrepreneurial culture in environments where science- and technology-related activities are critical for effective operations. The course will analyze the challenges posed by complex organizations and highlight methods to deal with them. (Irreg.)

## EMAD 5422 Lean Six Sigma Tools for Aerospace \&

## Defense

2 Credit Hours
Prerequisite: Graduate standing and departmental permission, or admission to the Executive Master of Business Administration in Aerospace \& Defense program. The course introduces the fundamental Lean Six Sigma concepts within a business organization. It covers the basic concepts within Six Sigma and Lean techniques, and introduces tools for measurement and process improvement metrics in organizations through the DMAIC process. The course has a strategic foundation in which we review the strategic use of techniques, ensuring a positive result upon implementation. (Irreg.)

## EMAD 5432 Advanced Financial Management in Aerospace \& Defense <br> 2 Credit Hours

Prerequisite: Graduate standing, EMAD 5302 and departmental permission, or admission into the Executive Master of Business Administration in Aerospace \& Defense program. This is a comprehensive course in corporate financial management and analysis. The course builds on the main concepts of the core Accounting course (EMAD 5302). The primary objective is to develop the skills necessary to value firms and optimize a corporation's capital structure in the Aerospace and Defense Industry using varying finance methods. (Irreg.)

## EMAD 5442 Mergers and Acquisitions in Aerospace and Defense <br> 2 Credit Hours

Prerequisite: Graduate standing and departmental permission, or admission into the Executive Master of Business Administration in Aerospace \& Defense program. This course studies the design and valuation of deals to acquire or divest corporate assets. We study M\&A transactions, applying them to the aerospace and defense industry through case-based methods. We explore how the legal system, accounting rules, and tax incentives affect outcomes of M\&A transactions. We analyze types of M\&A transactions, their motivations, and their effects on corporate value. (Irreg.)

## EMAD 5452 Managing Aerospace \& Defense Government

## Contracts

2 Credit Hours
Prerequisite: Graduate standing and departmental permission, or admission into the Executive Master of Business Administration in Aerospace \& Defense program. This course introduces the procurement and contracting processes used in the aerospace and defense (A\&D) industry. Students will gain an understanding of best practices from both government and industry perspectives, including subcontracting. The course will navigate the highly complex federal acquisition process including governance and operational roles. The course emphasizes government contracting but also discusses private sector contracting in A\&D. (Irreg.)
EMAD 5472 Data Management and Security in Aerospace \& Defense 2 Credit Hours
Prerequisite: Graduate standing and departmental permission, or admission to the Executive Master of Business Administration in Aerospace \& Defense program. Every organization is concerned with data management. Data must be stored effectively and securely so it can be retrieved to support decision making. These issues are particularly relevant for the A\&D industry, an environment where extra measures must be taken in all aspects of security. The objective is to provide a basic understanding of data management and security. (Irreg.)
EMAD 5482 Data Analytics for Aerospace \& Defense 2 Credit Hours Prerequisite: Graduate standing and departmental permission, or admission to the Executive Master of Business Administration in Aerospace \& Defense program. Data analytics is becoming increasingly important for every industry, and it is especially important in the aerospace and defense (A\&D) industry. The objective of this course is to provide a basic understanding of data analytics in A\&D. (Irreg.)
EMAD 5602 The Future of Space
2 Credit Hours
Prerequisite: Graduate Standing and Departmental Permission. This course focuses on the future of a commercial space application, the history of manned and unmanned space flight, and recent commercial ventures in space along with new innovations in the realm of possibility as space travel and launches are becoming more accessible. The course will also look at political developments and the current business climate for space. (Irreg.)

EMAD 5622 Space and Small Business: Business Opportunities in the Space Economy

2 Credit Hours
Prerequisite: Graduate Standing, Majors Only, and Departmental Permission. This course examines the current status and evolving nature of business opportunities in the expanding commercial space sector. Once the domain of governments and large aerospace and communications corporations, the space economy is now ripe with opportunities for new entrants. The course will survey the large-scale trends and dynamics driving this renaissance. (Irreg.)
EMAD 5642 Private Equity and Investment in Space 2 Credit Hours Prerequisite: Graduate Standing and Departmental Permission. With the declining cost of sending payload into lower orbit, many new startups are forming around the concept of commercializing space. This course reviews the basics of setting up term sheets for new ventures and presents real opportunities to pitch their new venture to tap into this new market. (Irreg.)

## EMAD 5960 Directed Readings

1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing and permission of department. May be repeated; maximum credit twelve hours. Directed readings and/or literature reviews under the direction of a faculty member. (F, Sp, Su)

## EMBA-Executive Energy MBA

EMBA 5012 Energy Policy and Regulations 2 Credit Hours
Prerequisite: graduate standing, EMBA students only. Examines U.S. and global energy policy and regulatory development emphasizing: resource access, business-government relations, environmental protection, social responsibility, and sustainability. Topics explored from the perspectives of government, business, citizens and civil society stakeholder groups, emphasizing unique positions of entities in the various major energyproducing regions and energy users in the U.S. and worldwide. (Irreg.)

## EMBA 5021 Energy Technology and Innovation 1 Credit Hour

Prerequisite: Graduate standing and EMBA majors only. The energy sector is developing and deploying scalable innovative technologies to navigate the energy transition landscape by reducing greenhouse gas emissions, making a lower carbon future for hydrocarbons, improving energy security, and providing access to energy to communities that previously lacked it. This course provides a broad overview of such technologies and innovations. (Irreg.)
EMBA 5022 Introduction to Energy Accounting 2 Credit Hours Prerequisite: Graduate standing and EMBA majors only. This course uses concepts from financial accounting and managerial accounting and applies them to specific reporting issues in the energy industry as well as presentation of the information on the financial statements of an oil and gas company. Reviews the accounting cycle with an emphasis on the proper accounting treatment of energy-related activities, actions (e.g., acquisition of mineral interests). (Irreg.)
EMBA 5031 Organizational Behavior 1 Credit Hour
Prerequisite: graduate standing, EMBA students only. Designed for students who wish to occupy leadership and managing positions in the energy industry and increase their understanding of individual behavior in organizations. It explores theories and concepts of organizational behavior to address managerial problems. Topics include: management challenges; evidence-based management; managing diversity; motivating, evaluating, and rewarding employees; and creating a positive work environment and achieving personal well-being. (Irreg.)

EMBA 5042 Energy Economics
2 Credit Hours
Prerequisite: graduate standing, EMBA students only. Economic concepts and analysis used in managerial decision-making in energy companies with emphasis on demand, supply, market equilibrium, elasticities, perfect competition, external effects and public goods, market power and monopoly, natural monopolies, economic regulation, market dominance, merger clearance, cartels, collusion and antitrust, oligopolistic markets, GDP, unemployment, inflation, monetary and fiscal policies, and the interrelations among different sectors of the economy. (Irreg.)
EMBA 5052 Financial Markets and Securities
2 Credit Hours
Prerequisite: graduate standing, majors only. During this course, you'll obtain a strong foundation for an understanding of financial markets and the main types of securities traded in these markets. The course topics include trading structure, risk and return, portfolio theory, asset pricing models, market efficiency and an introduction to the nature and valuation of equities and bonds, and an overview of technical concepts. (Irreg.)

## EMBA 5062 Quantitative Methods and Models <br> 2 Credit Hours

Prerequisite: graduate standing, EMBA students only. The purpose of this course is to understand and apply quantitative methods and models in the context of energy management. This course is organized to develop the student's ability to: 1) summarize, 2) compare, and 3) predict outcomes based on sample quantitative data. The topics covered in course modules include descriptive statistics, associative statistics, inferential statistics, and multiple regression analysis. (Irreg.)

EMBA 5082 Strategic Management 2 Credit Hours
Prerequisites: graduate standing, EMBA students only. Examines management decisions and actions to improve an organization's competitiveness in global business environments. Uses a variety of pedagogies to integrate strategies, and students will develop skills to formulate, implement, and evaluate organizational strategies that play across the energy industry in rapidly changing environments. (Irreg.)

## EMBA 5091 Accounting II 1 Credit Hour

 Prerequisite: Graduate standing, EMBA 5022, and EMBA majors only. This course will cover Financial Accounting Standards Board (FASB), Generally Accepted Accounting Principles (GAAP), and Securities and Exchange Commission (SEC) financial statement disclosures specific to entities engaged in oil and gas producing activities (referred to as Upstream Entities), accounting for derivatives, and tax issues affecting the energy industry. (Irreg.)EMBA 5111 Management Information Systems 1 Credit Hour Prerequisites: graduate standing, EMBA students only. Managers in energy organization need to understand the pathways for improving performance through IT-enablement and to be active participants in decisions regarding investing in and implementing IT-enabled business solutions and supporting infrastructures. This course provides student with an awareness and understanding of the technologies and issues they are likely to confront in their roles as managers in an energy organization. (Irreg.)
EMBA 5112 Data, Analytics and Decision-Making 2 Credit Hours Prerequisite: Graduate standing and EMBA majors only. Develops skills in data analytics including managing data resources, techniques for analysis, visualization, security and privacy, and data-driven decision-making. Particular attention is paid to disruptive technologies, governance, and organizational issues in deepening analytics capabilities in the energy industry. (Irreg.)

EMBA 5131 Renewable Energy Resources 1 Credit Hour
Prerequisite: Graduate standing and EMBA majors only. Considers interest in renewable energy from the view that meeting global energy demand is "all of the above." Examines traditional energy firms possibly adding alternative energy to its offerings. Provides student with a broad overview of how renewable energy affects markets today, renewable energy technology, and its cost effectiveness compared to other energy sources and its future penetration rate projections. (Irreg.)
EMBA 5141 Supply Chain Management
1 Credit Hour
Prerequisite: Graduate standing, EMBA students only. Historically, energy supply chain mainly involved moving products from refineries to customers. Now it is expected to improve performance and manage supply and demand across areas such as strategic sourcing, platform construction, plant maintenance and reliability, storage, etc. This course explores hydrocarbon and renewable energy value chains and provides a foundational knowledge of the intersections of supply chain and energy. (Irreg.)
EMBA 5142 Derivatives and Energy Trading 2 Credit Hours
Prerequisite: Graduate standing and EMBA majors only. Provides a comprehensive review of the organization and structure of the market for energy assets and commodities. Topics include trading platforms, pricing issues, forecasting, role and linkage with associated futures, forwards and options contracts, "basis" and spreads, hedging strategies, the principles governing the valuation of these "derivative" securities, and the ways in which these securities can be used effectively. (Irreg.)
EMBA 5152 Derivative Securities and Markets 2 Credit Hours Prerequisites: graduate standing, EMBA students only. Develop an understanding, both intellectual and practical, of the organization and micro-structure of the markets for forward, futures, and options contracts, the principles governing the valuation of these "derivative" securities, and the ways in which these securities can be used effectively in investment banking, portfolio management, hedging, and risk management. Particular attention is paid to energy derivatives and the perspective of the energy sector. (Irreg.)
EMBA 5162 Energy Assets and Commodities Trading 2 Credit Hours Prerequisites: graduate standing, EMBA students only. Provides a comprehensive and in-depth review of the market for energy assets and commodities: including trading platforms, pricing issues, forecasting, role and linkage with associated futures, forwards and options contracts, study of "basis" and spreads, and hedging strategies. The course will be anchored solidly within a theoretical conceptual framework and be supported with relevant case studies. (Irreg.)

EMBA 5182 Enterprise Valuation, Mergers and Acquisitions, and Corporate Restructuring

2 Credit Hours
Prerequisite: graduate standing, EMBA students only. The course covers major aspects of M\&A and other corporate restructuring transactions; reasons that deals are done, the mechanics of the transactions, the valuation of the firms involved, various aspects of deal structure, the roles and incentives of the parties involved, and related issues. Brings together materials from previous finance courses and links financial decisionmaking with firm's overall business strategy. (Irreg.)

EMBA 5191 Marketing Strategy - Changing Energy Mix and New Markets 1 Credit Hour
Prerequisite: Graduate standing and EMBA students only. Covers the challenges faced by the energy industry in developing new markets for its products, and how to manage customer and client relations. Students will learn practical marketing tools and how they can be used to affect corporate strategy. Topics include the strategic marketing process, oil, gas and NGL valuation, market segmentation, supply chain and logistics, pricing mechanisms and hedging. (Irreg.)
EMBA 5201 Managing Change - Role of Leadership 1 Credit Hour Prerequisite: Graduate standing, EMBA students only. Provides a theoretical understanding and skill development necessary for being an effective leader and manage organizational change. Identify ways to become a more effective leader by applying theories of human behavior to solve day-to-day problems of organizational administration. Examines core decision-making challenges, complex change scenarios, and leadership approaches and strategies to manage change in the context of the energy industry. (Irreg.)
EMBA 5212 Valuation of Hydrocarbon Resources 2 Credit Hours
Prerequisite: Graduate standing, majors only. This course brings together concepts to make better economic decisions in projects and industry. It examines ways to evaluate the economic viability of an investment opportunity and develops skills to make these evaluations. The participants perform evaluations of field development projects and practice negotiation skills to create value for an acquisition/divestment. (Irreg.)
EMBA 5222 Corporate Energy Finance
2 Credit Hours
Prerequisite: Graduate standing, EMBA students only. Provides students with the analytical and conceptual skills required in the modern practice of corporate financial management in energy organizations. Will focus on three key areas: (1) optimal allocation of capital; (2) optimal choices for raising capital; (3) optimal management of risk in conjunction with (1) and (2), including measuring and managing risks in energy companies. (Irreg.)
EMBA 5232 Hydrocarbon Law and Regulations 2 Credit Hours
Prerequisite: Graduate standing, majors only. This course is an introduction to energy policy, law, and regulation, covering some basics in both contract and property law and how to critically read and brief cases. While hydrocarbon law is a major focus, other energy resources and how the multiple energy markets can affect each other are explored. Policies for balancing energy needs with environmental protection are examined. (Irreg.)
EMBA 5242 Reserve Valuation and Reporting 2 Credit Hours Prerequisites: graduate standing, EMBA students only. Key objectives are learning compliant methods of preparing reserves/resources estimates, learning to estimate and understand the composition of and variables to the estimates, understanding the impact of economics on those estimates, properly classifying those estimates using current industry accepted definitions, and understanding the use of reports. Will discuss utilizing a reserves report as the basis for company modeling projections. (Irreg.)
EMBA 5251 Electric, Gas \& Utility Fundamentals 1 Credit Hour
Prerequisite: Graduate standing and majors only. This course covers material on basic concepts, terms, and the integration of primary functions in electric utility systems, including an overview of the utility regulatory environment and markets, general business model of regulated and unregulated utilities, and electric generation options and economic dispatch. (Irreg.)

EMBA 5261 Energy and Environment 1 Credit Hour
Prerequisite: Graduate standing and EMBA majors only. An introduction to the global energy industry's past, present, and future, along with the history and current issues/challenges that different regions face. The course provides a broad look at the fundamentals (resources, politics, culture, regulatory, and legal framework, plus environmental issues) that impact world energy supply and demand. (Irreg.)
EMBA 5271 Energy and Environment II 1 Credit Hour Prerequisite: Graduate standing, EMBA 5261, and EMBA majors only. Introduces energy system from an environmental and human health perspective, and the industry's social license to operate. Examines energy supply and use, its environmental and human health impact and mitigating factors. Discusses energy system organization: how we got here, how it operates, feasible paths going forward, and how to leverage forces of change for a more sustainable energy future. (Irreg.)
EMBA 5281 Introduction to Energy Systems I 1 Credit Hour
Prerequisite: Graduate standing and EMBA in Renewables majors only. This course is designed to help understand the earth's energy system and the potential impact of human activity by providing a broad understanding of the current energy system, its challenges, particularly with respect to the environment, and possible paths to a sustainable energy future. (Irreg.)

## EMBA 5291 Electric Power Systems <br> 1 Credit Hour

Prerequisite: Graduate standing and EMBA in Renewables majors only. This course discusses power systems and environmental consequence, electric circuit theory, principles and practices of the electrical power industry. The course provides an understanding of how, in an electricity grid, power generation and power consumption are closely matched; integrating renewable energy resources into the grid; and the business model of regulated and unregulated utilities, generation options, and economic dispatch. (Irreg.)
EMBA 5301 Transportation and Residential, Commercial \& Industrial Energy Systems 1 Credit Hour Prerequisite: Graduate standing and EMBA in Renewables majors only. This course covers the technical and economic structure of energy consumption, and the drivers of energy demand in the transportation, residential, commercial and industrial sectors, which define the set of services that can be supplied by renewable sources in each sector. (Irreg.)
EMBA 5312 Introduction to Accounting for Renewable Energy

2 Credit Hours
Prerequisite: Graduate standing and EMBA in Renewables majors only. This course provides an understanding of the accounting cycle with emphasis on the proper accounting treatment of renewable energy activities; uses accounting concepts and applies them to specific reporting and decision-making issues in renewables; and discusses the analysis and presentation of financial statement information for renewable energy companies and cost systems analysis for product costing, decision making, and cost management. (Irreg.)
EMBA 5322 Managing Change in Renewables - Strategy and Leadership 2 Credit Hours
Prerequisite: Graduate standing and EMBA in Renewables majors only. This course provides an understanding of the implementation of major strategic organizational changes and the fundamental leadership theories and management practices associated with managing change within the energy industry, providing participants with the necessary framework and tools to effectively lead organizational changes, with attention placed on the human side of change and how to plan for and manage change accordingly. (Irreg.)

EMBA 5331 Accounting for Renewable Energy
1 Credit Hour
Prerequisite: Graduate standing and EMBA in Renewables majors only. This course will cover advanced financial topics for renewable energy companies, such as financial statement disclosures specific to entities engaged in renewable energy, depreciation and depreciation reserves, accounting for derivatives, and tax equity and tax benefits for renewable energy industry. (Irreg.)
EMBA 5341 Cyber-Physical Security and Resilience for Energy

1 Credit Hour
Prerequisite: Graduate standing and majors only. This course covers introductory topics in cyber-physical systems security, provides a layered perspective of the energy industry, and provides an overview of the interactions among system components and the interaction between external forces and the system, breaches and enforcement, standardization, best practices, policies, privacy, and legal issues. (Irreg.)
EMBA 5351 Renewable Energy Law and Regulations 1 Credit Hour Prerequisite: Graduate standing and majors only. The course will be an introduction to the legal framework governing renewable energy project development and operation, including regulatory and commercial issues facing various stakeholders. (Irreg.)
EMBA 5361 Introduction to Energy Systems II 1 Credit Hour Prerequisite: Graduate standing, EMBA 5281, and EMBA in Renewables majors only. This course provides a framework for thinking about why energy-related events are happening in the world, what they may mean for future energy use and by extension societal and environmental wellbeing, and how we might improve our current energy system moving forward. (Irreg.)

EMBA 5371 Data Analytics and Digitization 1 Credit Hour Prerequisite: Graduate standing and EMBA in Renewables majors only. This course provides a broad-based introduction to the use of data science for understanding sustainability problems and energy systems. Course materials will address developing a foundational understanding of terminology, methods, applications, and tools that are employed across all energy sectors, with emphasis on renewable energy. (Irreg.)
EMBA 5381 Renewable Energy Project Development: Forecasting 1 Credit Hour
Prerequisite: Graduate standing and majors only. All major stakeholders associated with a renewable energy project must rely on many different types of forecasting. Generating accurate forecasts is critical to reducing the uncertainty and risks associated with intermittent resources. This course will provide an overview on how different types of forecasts inform project decisions, both from a project development and operational perspective. (Irreg.)
EMBA 5391 Renewable Energy Project - Business Plan 1 Credit Hour Prerequisite: Graduate standing and EMBA in Renewables majors only. This course provides an overview of preparing a business plan for a renewable energy project and how to evaluate renewable energy project financing and investment opportunities, with particular emphasis on intermittent technologies like solar and wind. (Irreg.)

## EMBA 5402 Renewable Energy Project - Develop, Implement, and Manage <br> 2 Credit Hours

Prerequisite: Graduate standing and EMBA in Energy majors only. The course will follow the progression of the development of an energy project, from early-stage site and offtake development issues, through construction and project financing, through operation. Teams determine which renewable energy they want to focus on and develop business propositions accordingly. (Irreg.)

EMBA 5403 Renewable Energy Project (Capstone) 3 Credit Hours Prerequisite: Graduate standing and EMBA in Renewables majors only. The course will follow the progression of the development of an energy project, from early stage site and offtake development issues through construction and project financing through operation. Teams determine which renewable energy they want to focus on and develop business propositions accordingly. (Irreg.)
EMBA 5412 Carbon Management: Strategies and Steps 2 Credit Hours Prerequisite: Graduate standing and EMBA in Energy majors only. Carbon footprint is the amount of carbon dioxide, or Greenhouse Gas Emissions, that organizations contribute to the environment. This course is on developing and implementing a long-term carbon management plan to provide an organization with strategies and steps that will help prepare the organization for the physical and economic risks of climate change, remaining competitive in a low carbon economy. (Irreg.)
EMBA 5421 ESG and Sustainability 1 Credit Hour
Prerequisite: Graduate standing and EMBA in Energy majors only. Sustainability factors are part of the fundamentals needed to attain higher returns, organizational resilience, and stakeholder trust.
Environmental, social, and governance (ESG) risks have gained increasing attention, and organizations are seeking to proactively manage and report on their ESG risks. This course will provide an understanding of ESG and how to implement sustainable ESG requirements. (Irreg.)
EMBA 5431 Financing Hydrocarbon Projects
1 Credit Hour
Prerequisite: Graduate standing and majors only. This course is designed to teach students how to finance hydrocarbon projects and to provide an understanding of the steps involved in valuation, financing, structuring a deal, addressing carbon footprint issues, and packaging for presentation for securing investments. (Irreg.)
EMBA 5441 Renewable Energy Technology and Innovation1 Credit Hour Prerequisite: Graduate standing and EMBA in Energy majors only. Innovations in renewable energy encompass all new approaches that help to overcome barriers and result in accelerated deployment of renewables supporting the energy transition. Innovation powers the ongoing transformation of the global energy system. This course provides a broad overview about energy-related innovation and technology issues, and what they may mean for the future of energy and energy transition. (Irreg.)
EMBA 5451 Renewable Energy Project Valuation 1 Credit Hour Prerequisite: Graduate standing and EMBA in Energy majors only. This course introduces valuation concepts and the main factors affecting the valuation of a broad range of renewable energy assets, projects, and business enterprises. (Irreg.)
EMBA 5462 Introduction to Energy Systems 2 Credit Hours
Prerequisite: Graduate Standing and EMBA in Energy majors only. The course covers different forms of energy and their production/technology, distribution, and consumption, and evaluates current hydrocarbon and renewable energy systems to integrate them into a single energy system. This course also provides an overview of the hydrocarbon value chain as well as the function and organization of electric power systems, focusing on generation, transmission, distribution, and consumer segments. (Irreg.)

EMBA 5471 Path to Net Zero
1 Credit Hour
Prerequisite: Graduate Standing and EMBA in Energy majors only. In support of broader efforts to address climate change, companies are increasingly pledging to reach net-zero emissions as part of their business strategies. To reach their target, companies need to make changes. This course provides a framework for companies to drive transformational changes and strategically address the challenges to a net zero-world. (Irreg.)

## EMGT-Energy Management

EMGT 2001 Introduction to Energy Management 1 Credit Hour Prerequisite: Sophomore standing. Designed to give students interested in the energy industry an understanding of and appreciation for the history and dynamics of the OU Energy Management program and the energy industry, includes industry lecturers and on-site operation visits. ( $\mathrm{F}, \mathrm{Sp}$ )
EMGT 3113 Energy Production and Markets
3 Credit Hours
Prerequisite: Student must be approved for Degree Candidacy; Energy Management majors only; MATH1743, MATH1823 or MATH1914; ACCT2123 or concurrent enrollment. Survey of the energy landscape and introduction to local, regional, national and international energy issues from a management perspective. Provides comprehensive coverage of all facets of energy production and use. Introduces students to contemporary issues shaping the industry such as deregulation and emergence of new energy markets. ( $F, S p$ )
EMGT 3123 Introduction to Exploration and Production 3 Credit Hours Prerequisite: Student must be approved for Degree Candidacy; Energy Management majors only; MATH1743, MATH1823 or MATH1914; ACCT2123 or concurrent enrollment. Overview of hydrocarbons and world energy; exploration technology; drilling and completion methods; hydraulic fracturing; production systems; well completions and stimulation; common industry terminology and acronyms. (F,Sp)
EMGT 3440 Mentored Research Experience 3 Credit Hours 0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)
EMGT 3513 Sustainable Policy and Regulations 3 Credit Hours
Prerequisite: Student must be approved for degree candidacy by Price College or departmental permission for non-business majors in the Renewable Energy Management certificate program. The course will provide a comprehensive understanding of developing law and policy for renewable energy and its effects on energy policy for the US and the world. Course work will include a comparative understanding of existing energy policy and the effects on the environment. The course will include guest speakers addressing topical work in this fast-paced area of study. (F, Sp)
EMGT 3523 Natural Gas Marketing and Power Trading 3 Credit Hours Prerequisite: Student must be approved for Degree Candidacy by Price College or departmental permission for non-business majors in the Renewable Energy Management certificate program; Energy Management majors only; MATH1743, MATH1823 or MATH1914; ACCT2123 or concurrent enrollment. An overview of the supply \& demand of natural gas and electricity markets with an introduction to risk management techniques associated with the physical and financial aspects of the commodities. (F, Sp)

EMGT 3533 Commercial Applications in Power Markets 3 Credit Hours Prerequisite: Students must be approved for degree candidacy by Price College or departmental permission for non-business majors in the Renewable Energy Management certificate program. The course will provide a comprehensive understanding of all commercial applications around the electricity sector. Course work will include comprehensive understanding of all aspects of energy supply and electricity demand, the US power grids, financial and physical trading, and economic deal structures for business development. The course will include guest speakers addressing topical work in this fast-paced area of study. (F, Sp)

EMGT 3603 Energy Law I 3 Credit Hours
Prerequisite: Student must be approved for Degree Candidacy by Price College; majors only; EMGT 2001 or EMGT 3001 and L S 3323; MATH 1743 or MATH 1823 or MATH 1914; ACCT 2123 or concurrent enrollment. The format of this course has been designed to give students a fundamental understanding of the importance of law and regulation in the energy industry. The emphasis of the course will be oil and gas law and regulation. We will focus on ownership of minerals, the oil and gas lease, oil and gas contracts and certain environmental issues. ( $F, S p$ )
EMGT 3960 Honors Reading 1-3 Credit Hours
1 to 3 hours. Prerequisite: Admission to Honors Program. May be repeated; maximum credit six hours. Consists of topics designated by the instructor in keeping with the student's major program. The topics will cover materials not usually presented in the regular courses. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

## EMGT 3970 Honors Seminar <br> 1-3 Credit Hours

1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Subjects covered vary. Deals with concepts not usually treated in regular courses. (Irreg.)
EMGT 3980 Honors Research 1-3 Credit Hours
1 to 3 hours. Prerequisite: Admission to Honors Program. May be repeated; maximum credit six hours. Will provide an opportunity for the gifted Honors candidate to work at a special project in the student's field. (F, Sp, Su)
EMGT 3990 Independent Study 1-3 Credit Hours
1 to 3 hours. Prerequisite: permission of instructor and junior standing. May be repeated once with change of content. Independent study may be arranged to study a subject not available through regular course offerings. (F, Sp, Su)
EMGT 4960 Directed Readings
1-41 Credit Hours
1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean. May be repeated; maximum credit four hours. Designed for upper-division students who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)
EMGT 4970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: Senior standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)
EMGT 4990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: Senior standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)

# EN D-Environmental Design 

EN D 3440 Mentored Research Experience<br>3 Credit Hours

0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)
EN D 3893 Intro to Urban Real Estate Development 3 Credit Hours Prerequisite: Junior standing. This course will explore the formation of places through the study of real estate topics and guest lectures from related professions. Real estate development is a process by which the built environment is produced and modified over time. It results from the actions of many individuals and groups working within a context of natural environment, politics, culture, economics, and more. (F)
EN D 3993 Environmental Design Practicum 3 Credit Hours
Prerequisite: Junior standing. In-depth and on-site problem solving workshop focused on helping community stakeholders address real world challenges found in their local built environments. Emphasis is given to phasing proposed investments in the public and private realms. Subject matter varies and is reflective of a host of issues common to urban development. (Sp)
EN D 4893 Historic Preservation Planning 3 Credit Hours
Prerequisite: Junior standing. In this course, students will: understand and articulate the social and economic values associated with preservation; Gain exposure to and understanding of local, state and federal guidelines for delineation and regulation of historic districts and buildings; Develop case studies in economic feasibility and adaptive reuse, reconstruction and rehabilitation; Understand the role of the State Historic Preservation Office; etc. (F)

EN D 4960 Directed Readings
1-4 Credit Hours
1 to 4 hours. Prerequisite: senior standing and permission of instructor. May be repeated with change of subject; maximum credit 12 hours. Designed for upper-division students who need opportunity to study a specific problem in greater depth than formal course content permits. (F, $\mathrm{Sp}, \mathrm{Su}$ )

EN D 4990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: four courses in general area to be studied; permission of instructor and department. May be repeated; maximum credit six hours. Contracted independent study for topic not currently offered in regularly scheduled courses. ( $F, \mathrm{Sp}$ )
EN D 4993 Environmental Design Capstone
3 Credit Hours
Prerequisite: senior standing. Provides students a hands-on service/ learning opportunity, presenting real world challenges that require collaboration and the application of acquired expertise within the dynamic context of a community's social and built environment. (Sp)[V].

## ENGB-Energy for Business

ENGB 5131 Energy Upstream/Downstream 1 Credit Hour
Prerequisite: open to MBA students only. Students will gain an understanding of the operations and economics of the upstream sector in most of its aspects: reserves, players, investments, costs, benchmarking, etc. Understand the operations and the main economic characteristics of the refining and distribution. (F)

ENGB 5142 Introduction to Energy
2 Credit Hours ENGL-English
Prerequisite: Graduate standing in Price College of Business and departmental permission. Experiential learning course including video overview of oil and gas business. Site visits will include some or all of the following: drilling rig, oil and gas production and midstream facilities, power generation plant, and OU Well Construction Technology Center. Valuation project requires students to contact investor relations department and complete strategic analysis with financial model to analyze an energy company. (Irreg.)
ENGB 5152 Energy Accounting and Regulations 2 Credit Hours Prerequisite: Graduate standing in Price College of Business, ENGB 5142, and departmental permission. This course provides an overview of federal and state regulatory law in the US affecting natural gas and oil producers and developers, interstate and intrastate pipelines, gas and power marketing companies, and power generating and transmission companies. The major accounting and tax issues affecting the energy industry are also covered. (Irreg.)

ENGB 5162 Energy Corporate Finance 2 Credit Hours Prerequisite: graduate standing in Price College of Business, FIN 5312; FIN 5322; and ENGB 5142. Provides students specialized knowledge of the corporate finance of firms in the energy sector. Provides an integrated perspective on assessing and financing energy projects, corporate risk management in the energy industry, and issues pertaining to mergers, acquisitions and restructuring in energy firms. While the course will be rigorous and solidly grounded in theoretical concepts, it will provide a thoroughly applied perspective on topics covered by the use of case studies and other hands-on learning opportunities. (Sp)
ENGB 5172 Energy Assets and Commodities: Financial Instruments, Pricing and Trading 2 Credit Hours
Prerequisite: Graduate standing in Price College of Business; FIN 5322; and ENGB 5142. Provides a comprehensive and in-depth review of the market for energy assets and commodities: including trading platforms, pricing issues, forecasting, role and linkage with associated futures, forwards and options contracts, study of "basis" and spreads, and hedging strategies. The course will be anchored solidly within a theoretical conceptual framework and be supported with relevant case studies. (F)
ENGB 5182 Enterprise Valuation, Mergers and Acquisitions, and Corporate Restructuring 2 Credit Hours
Prerequisite: MBA majors only; ENGB 5162. Covers divestitures and the entire Mergers and Acquisitions continuum from valuation, through postmerger integration for energy companies. Provides tools, templates, and proven techniques managers need to efficiently combine different processes and organizations, and cultures. The course presents and examines the latest case studies and research findings in the energy industry. (F)

ENGB 5490 Readings in Energy for Business 1-3 Credit Hours 1 to 3 hours. Prerequisite: graduate standing and permission. May be repeated; maximum credit six hours. Preparation and submission of a research report on an assigned comprehensive topic relating to a topic in energy not offered in the current curriculum. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

## ENGB 5970 Special Topics/ Seminar in Energy for

 Business1-3 Credit Hours
Prerequisite: graduate standing, permission of instructor. May be repeated with change of topic; maximum credit six hours. Seminar in latest developments in research and theory from the energy field. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (F, Sp, Su)

## ENGL 0999 Remedial English

## 10 Credit Hours

ENGL 1013 English for Exchange Students 3 Credit Hours Designed to meet the needs of international students who are studying at OU for a semester or a year. Review all English skills including pronunciation, vocabulary, listening, writing, and grammar as well as expand students' knowledge of American cultures. (F, Sp)
ENGL 1023 English for Exchange Students II 3 Credit Hours
Prerequisite: ENGL 1013. Designed to build on students' experience in English 1013. Includes units that will 1) introduce new vocabulary, 2) provide opportunities for collaborating with fellow students, 3) explore relationships among American and other cultures, and 4) invite students to practice reading, writing, speaking, and listening in English. As in English 1013, focus will be on exploring writing processes as students compose and revise essays for each unit. Devotes increased attention to comprehension and analysis as well as more rigorous attention to each draft of student papers. Students will complete two essay exams and present them to the class for discussion. ( $\mathrm{F}, \mathrm{Sp}$ )
ENGL 1111 Principles of Composition I Stretch Corequisite 1 Credit Hour
Prerequisite: Placement according to University College placement testing guidelines: Accuplacer of <255 as prerequisite; Corequisite: ENGL 1113 with a 50 x section number. ENGL 1111 is designed as a corequisite supplement to ENGL 1113, Principles of Composition I. The course gives students time to work on assignments while also expanding on and providing opportunities to practice concepts from ENGL 1113, including inquiry, rhetoric, research, writing and revision. ( $F, S p$ )
ENGL 1113 Principles of English Composition 3 Credit Hours Systematic analysis of the components of effective writing, with regular practice and close individual assistance. Study of expository prose models. (F, Sp, Su) [l-ENGL].
ENGL 1213 Principles of English Composition 3 Credit Hours
Prerequisite: 1113. Systematic analysis of effective argumentative discourse with regular practice and close individual assistance. Study of argumentative prose models. Library research paper required. (F, Sp) [IENGL].
ENGL 1913 Writing for the Health Professions
3 Credit Hours
Prerequisite: 1213. Prepares pre-professionals in the health professions for writing they will do in later coursework and in practice. (F,Sp)
ENGL 2113 Intermediate Writing 3 Credit Hours
Prerequisite: 1213, application and departmental permission. Writing of non-fiction prose in a workshop setting. Reading and analysis of prose models for analysis. (Irreg.)
ENGL 2123 Creative Writing
3 Credit Hours
Prerequisite: ENGL/EXPO 1213 or EXPO 1223. Introduction to imaginative writing, especially short stories and poems; some analysis of literary models, but major emphasis is on student writing. ( $F, S p$ )
ENGL 2133 Autobiographical Writing 3 Credit Hours
Prerequisite: ENGL 1213 or EXPO 1213. Writing essays from personal experience. Reading and analysis of journals, diaries, letters and autobiographies as models for writing. (Irreg.)

ENGL 2143 Analyzing Digital Culture
3 Credit Hours
Prerequisite: ENGL 1213 or EXPO 1213. Introduces students to the cultural analysis of digital technology, including social media, virality, gaming, digital celebrity, and more. Students will build skills in rhetorical analysis and writing through experimentation with new forms of technology. (Irreg.)

ENGL 2213 Fiction 3 Credit Hours Introduces fiction as a historical genre in literature. Covered will be sub-genres such as the novel, short story, memoir, travel sketch, etc. Discussion will cover such topics as character, plot and myth in narrative. The emphasis will be on close reading in light of the possibilities of fiction as a genre. (Irreg.) [IV-AF].

## ENGL 2223 Poetry

3 Credit Hours
Gives an introduction to the elements and rhetoric of verse. The focus will be on the canon of American and British verse. (Irreg.) [IV-AF].

## ENGL 2233 Drama

3 Credit Hours
A study of major Western plays (from Aeschylus to contemporary playwrights) with emphasis on literary dimensions: design, language, characterization, individual forms (such as tragedy, comedy and pastoral). May include consideration of social and literary contexts as well as acting and theatrical conventions. (Irreg.) [IV-AF].

## ENGL 2243 Film Narrative

3 Credit Hours
Introduction to basic visual terminology, filmmaking concerns, film theory and aesthetics. Survey of different approaches to narrative filmmaking (for example, genre or auteur). Also discussion of film and society in regards to how one influences the other. (Irreg.) [IV-AF].
ENGL 2273 Literary and Cultural Analysis 3 Credit Hours
Prerequisite: ENGL 1213; majors only. This course offers an introduction to literary and cultural analysis focusing on textual explication, interpretation, and critique. Subjects may include poetic forms (including prosody and scansion, narrative techniques, introduction to genre, and a grounding in basic literary terms. The course emphasizes writing analytically about literature and culture. (F, Sp) [IV-AF].
ENGL 2283 Critical Methods: Texts/Contexts/Theories /Critics
Credit
Hours
Prerequisite: ENGL 1213 and ENGL 2273; majors only. This course examines literary and cultural texts in conjunction with texts of theory, criticism or history. The course explores how to read literary texts within relevant frameworks, whether they be historical or other contexts such as gender, race, or colonialism. (F, Sp)
ENGL 2413 Introduction to Literature 3 Credit Hours Concentrates on close readings of masterpieces in fiction, drama and poetry. The readings are drawn from periods ancient to modern and may be American, British or Continental. (Irreg.) [IV-AF].
ENGL 2433 World Literature to 1700
3 Credit Hours
A reading of literary works, by types, from classical antiquity to 1700. (F) [IV-WC].
ENGL 2443 World Literature, 1700 to Present 3 Credit Hours
Prerequisite: ENGL 1213/EXPO 1213. Masterpieces of world literature from 1700 to the modern period. Courses can either be a broad survey of world literature covering classics by authors such as Goethe, Dostoyevsky, Ghalib, Duras, Kawabata, Kafka, Djebar and Conde or focused around a specific theme, such as rewrites of colonial texts. (Sp)
ENGL 2543 English Literature from 1375 to $1700 \quad 3$ Credit Hours A survey of major writers and literary movements from Chaucer through Dryden. (F) [IV-WC].

ENGL 2653 English Literature from 1700 to the Present 3 Credit Hours A survey of major writers and literary movements from Pope to the present. (Sp) [IV-WC].

## ENGL 2713 Introduction to Black Literature in the United

## States

3 Credit Hours
Prerequisite: 1213 or equivalent. An introduction to Black writing
produced in the United States. Introduces students to important texts and their major concerns. Attention is given to the struggle between literature that criticizes racial injustice and literature that celebrates Black cultural identity. (Irreg.)

## ENGL 2733 American Indian Literature: Early and Traditional 3 Credit Hours

Prerequisite: 1113,1213 and one course in American literature, history or anthropology. A study of earliest forms of American Indian expression in the oral tradition and beginnings of its literature as written in English up to 1945. Special emphasis on understanding particular tribal world-views in order to appreciate the literature and problems inherent in translating from native languages. (Irreg.)

## ENGL 2743 American Indian Literature: Modern and

 Contemporary3 Credit Hours
Prerequisite: 1113,1213 and one course in American literature or history. Features the literature of American Indians written since 1945. Attention is directed to early writers such as Will Rogers and D'Arcy McNickle and to the recent renaissance of contemporary Indian writings by N . Scott Momaday, Leslie Marmon Silko, James Welch and others. (Irreg.)
ENGL 2773 American Literature I 3 Credit Hours
Prerequisite: ENGL 1213 or EXPO 1213. A survey of major American writers and literary movements from the colonial period to the Civil War. (F) [IV-WC].

ENGL 2883 American Literature II 3 Credit Hours Prerequisite: ENGL 1213 or EXPO 1213. A survey of major American writers and literary movements from the Civil War to present. (Sp) [IV-WC].
ENGL 2970 Special Topics
1-3 Credit Hours
1 to 3 hours. Prerequisite: May be repeated; Maximum credit nine hours. 1 to 3 hours. Special topics course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research, and field projects. (Irreg.)
ENGL 3013 Interdisciplinary Approaches to Literature 3 Credit Hours May be repeated with change of subject matter; maximum credit six hours. The study of two or more disciplines, focusing on a narrow historical period, a single major author and other discipline, or a circumscribed topic. (Irreg.)
ENGL 3023 Thematic Approaches to Literature II 3 Credit Hours May be repeated with change of subject matter; maximum credit six hours. Close study of a major theme or preoccupation of a literary period in important works of the period. Attention to the relationship of the theme to relevant philosophical, sociological, political, religious and/or scientific thought. (Irreg.)
ENGL 3053 Irish Literary Revival
3 Credit Hours
Prerequisite: ENGL 1213 or EXPO 1213. The Irish Literary Revival is a course designed to explore the cultural phenomena of modern Ireland and its effects on "modernist" literature and culture in the early the twentieth century. It will examine the historical context of literature and culture at the beginning of the century and follow both chronological and thematic developments throughout the century. (Irreg.)

ENGL 3063 Autobiographical Writing
3 Credit Hours
Prerequisite: ENGL 1213 or EXPO 1213. Introduction to autobiographical writing in a range of forms; analysis of literary models, but major emphasis is on student writing with attention to writing process, style, technique, revision, and contemporary developments in genre. (Irreg.)
ENGL 3073 Writing about Place
3 Credit Hours
Prerequisite: ENGL 1213 or EXPO1213. Intensive study and practice of place-based writing. Coursework includes reading published writing about place and examining such elements as history, geography, language, and culture. Students will consider and practice various literary and rhetorical techniques to convey a sense of place in their writing. (Irreg.)
ENGL 3103 Topics in Advanced Composition
3 Credit Hours
Prerequisite: ENGL 1213 or EXPO 1213. May be repeated with change of content; maximum credit nine hours. Advanced practice in writing; focus varies. (Irreg.)
ENGL 3113 Nature/Environment/Science Writing 3 Credit Hours Prerequisite: ENGL 1213 or EXPO 1213. Interdisciplinary advanced composition course offers students a chance to read and write about the natural world and the environment from a variety of angles. This is a designated writing course. (Irreg.) [IV-WC].
ENGL 3123 Fiction Writing
3 Credit Hours
Prerequisite: 2123, application and departmental permission. Intensive writing of short stories, with class attention to writing process, style, technique, revision and contemporary developments in the genre. (Irreg.)

## ENGL 3133 Poetry Writing <br> 3 Credit Hours

Prerequisite: 2123, application and departmental permission. Conducted in workshop format; emphasizes the preparation of a coherent, chapbook-length manuscript of poems. Students are also required to formulate a personal poetics and to complete selected exercises in translation or adaptation. (Irreg.)
ENGL 3143 Studies in Literacy and Rhetoric
3 Credit Hours
Prerequisite: ENGL 1213 or EXPO 1213. Introduces students to current and historical knowledge about literacy and its place in modern society. Students explore the forces (political, economic, racial, cultural) that shape the way literacy functions. (Irreg.) [IV-WC].
ENGL 3153 Technical Writing 3 Credit Hours
Prerequisite: 1213 and Engineering or hard science majors only. For students of the pure and applied sciences. Focuses on the forms of report writing most frequently encountered in research and industry. ( $F$, $\mathrm{Sp}, \mathrm{Su}$ )
ENGL 3163 Rhetoric and the Digital Humanities 3 Credit Hours
Prerequisite: ENGL 1213 or EXPO 1213. Advanced study and practice of digital humanities in the context of rhetoric studies. The course explores techniques that can be used to explore texts (in the broadest sense) using techniques developed in the digital humanities. (Irreg.)
ENGL 3173 Histories of Writing, Rhetoric and Technology 3 Credit Hours
Prerequisite: ENGL 1213 or EXPO1213. Investigates how computers and other digital technologies have changed the ways we write and think. How video and television have changes the ways we write and think; and how aspects of the history of written communication, visual rhetoric, and other forces change the ways we write and think. (Irreg.)
ENGL 3183 Digital Composing
3 Credit Hours
Prerequisite: ENGL 1213 or EXPO 1213. A composition course in which students analyze and compose digital media texts (short films, websites, podcasts, infographics, etc.) while studying complex forms and practices of textual production. (Irreg.)

ENGL 3193 Working with Writers
3 Credit Hours
Prerequisite: 1213 or EXPO 1213. Students will investigate how texts are produced, revised, and edited, with a focus on response and feedback strategies that help writers improve. Course will allow students to practice strategies to improve writing and learn how to work with other writers. (Irreg.)
ENGL 3203 Rhetoric and Sexuality
3 Credit Hours
(Crosslisted with WGS 3203) Prerequisite: ENGL 1213/EXPO 1213 or the equivalent. Investigates the intersections of rhetoric and sexuality as they function socially, politically, and personally. Development and application of research methods from the field of rhetoric and writing studies with a focus on writing, inquiry and revision. (Irreg.) [l-O].
ENGL 3213 Special Topics in Fiction
3 Credit Hours
May be repeated with change of subject matter; maximum credit six hours. Presents a fictional type or problem in fiction for extensive study within a specified historical period: works by a single author in a special genre (e.g., Henry James' fantastic stories), works by several authors in a genre (e.g., violence in post-World War II novels), topics such as myth in a period of fiction and the consideration of recent developments in novel writing. (Irreg.)
ENGL 3223 Oklahoma Writers/Writing Oklahoma 3 Credit Hours Prerequisite: 1213 or EXPO 1213, application and departmental permission. An introduction to regional writing about Oklahoma. Focus on Oklahoma culture as a source of literature, and the creative work of course participants. (Irreg.) [IV-WC].
ENGL 3243 Special Topics in Film
3 Credit Hours
May be repeated with change of subject matter; maximum credit six hours. Sophisticated concerns involving film: the works of specific directors (Bergmann, Fel- Lini, Kubrick, etc.); the relationship of film to literature; the writings of notable film theorists (Bazin, Eisenstein, etc.) or critics (Mast, Kael, Sarris). (Irreg.)
ENGL 3253 Special Topics in American Indian Literature 3 Credit Hours May be repeated twice with change in subject matter. Explores a major literary or cultural aspect of American Indian literature such as the Five Civilized Tribes, Eastern Tribes, the Literature of Massacre, autobiographical writing, fiction and poetry. (Irreg.)
ENGL 3343 The Literature of Empire
3 Credit Hours
Survey of literary and nonliterary discourse about and relating to European colonies since the Renaissance. Study of colonial and postcolonial fiction, poetry, drama and criticism from Asia, Africa, the Americas, Australasia and Europe, concentrating on English-language sources. (Irreg.)
ENGL 3353 American Indian Nonfiction Writing
3 Credit Hours
Examines the various forms of recorded oratory, nonfiction writing by American Indians. Includes autobiography, political and social writing, newspaper reportage, philosophy, anthropological and historical writings, humor and other kinds of writings by early and present-day American Indians. (Irreg.)
ENGL 3363 Films and Context
3 Credit Hours
Prerequisite: ENGL 1213 or EXPO 1213. Explores film within a particular period or milieu. Attention is given to production styles, prominent actors and studio influence within a definable setting such as American films in the 1930s. (Irreg.) [IV-WDC].
ENGL 3403 The Graphic Novel

## 3 Credit Hours

The graphic novel. study of the works of Spiegelman, Pekar, Moore/ Gibbons, Gaiman/Mckean, Crumb and other graphic novel authors. Comparison with prose fictions having a strong visual element and possibly with films. (Irreg.) [IV-AF].

ENGL 3423 Film and Other Expressive Forms 3 Credit Hours
Examines from practical and theoretical perspectives the relationship between film and another area of creative expression such as the novel, theatre, painting and photography. (Irreg.)
ENGL 3440 Mentored Research Experience
3 Credit Hours
0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)
ENGL 3453 Afro-Caribbean Lit/Cult Consciousness: from Alienation to Voice 3 Credit Hours
Prerequisite: 1213. Explores select Afro-Caribbean writings by male and female writers through the historical and cultural influences that have shaped the production of this literature. Attention will be given to the literary style of the writers who represent various aspects of Caribbean experience. (Irreg.)
ENGL 3463 American Fiction
3 Credit Hours
Prerequisite: 1213. Historical survey of major American fiction, both novels and shorter fictional forms, from the Federal period to the present. Special attention is given to the uniqueness and diversity of themes and forms during the nineteenth and twentieth centuries when fiction came to dominate American literary production and consumption. (Irreg.) [IV-WC].
ENGL 3483 Native American Writers
3 Credit Hours
Prerequisite: 1213. May be repeated once with change of content; maximum credit six hours. Investigates the ways native American writers reflect their cultural histories and thought systems through their writing. By focusing on the emergence of native literature over the past three decades or on native writers of Oklahoma, students will learn how native traditions have been translated into literature. (Irreg.) [IV-WDC].
ENGL 3513 Medieval English Literature
3 Credit Hours
Intensive study of some of the major literary works of medieval England with attention to the relation between the literature and its social, intellectual and cultural contexts. Readings in various genres will include such works as Gawain and the Green Knight, Everyman, Piers Plowman, Morte d'Arthur, and The Canterbury Tales. (Irreg.) [IV-WC].
ENGL 3523 Sixteenth-Century English Literature 3 Credit Hours Intensive study of some of the major literary works of sixteenth-century England with attention to the relation between the literature and its social, intellectual and cultural contexts. Readings will include works in various genres by such writers as Spenser, Sidney, Shakespeare, Marlowe, More. (Irreg.)
ENGL 3533 Seventeenth-Century English Literature 3 Credit Hours Prerequisite: ENGL 1213 or EXPO 1213. Intensive study of some of the major literary works of seventeenth-century England with attention to the relation between the literature and its social, intellectual and cultural contexts. Readings will include works in various genres by such writers as Donne, Herbert, Milton, Marvell, Bacon, Jonson and Webster. (Irreg.) [IV-WC].
ENGL 3573 Arthurian Legend and Literature 3 Credit Hours (Crosslisted with MLLL 3573) Examination of the legend of King Arthur in European literature. Concentrate on the historical Arthur, followed by major portion of semester on medieval and modern literary texts concerning Arthur and the Round Table. All texts read in English. (Irreg.) [IV-WC].

ENGL 3613 Nineteenth-Century British Literature and Culture 3 Credit Hours
Prerequisite: ENGL 1213/EXPO 1213. An introduction to notable works of Romantic and Victorian literature, with attention to issues such as imperialism, gender, race, sexuality, nation and capitalism. Readings will include writings in various genres by authors such as William Wordsworth, Jane Austen, Charles Dickens, Robert Browning, George Eliot, and Thomas Carlyle. (Irreg.)

## ENGL 3623 Twentieth-Century British Literature and Culture 3 Credit

 HoursPrerequisite: ENGL 1213/EXPO 1213. Intensive study of some of the major literary works of twentieth-century Britain with attention to the relation between the literature and its social, intellectual and cultural contexts. Individual courses can cover (among others) the Modernist period (writers like Conrad, Yeats, Woolf, Eliot), Post-War Literature (Osborne, Delaney, Sillitoe), Contemporary British Literature (Carter, Ishiguro, Rushdie) and/or Black British Literature (James, Selvon, Smith). (Irreg.)
ENGL 3643 Special Topics in Non-Western Literature and
Culture
3 Credit Hours
Prerequisite: 1213. Examines a broad range of potential topics, including particular practices in the context of global cultures and/or minority groups in the West. Course readings draw on a variety of critical or theoretical work regarding culture, discourse, history, or institutions. (Irreg.)
ENGL 3653 The Bible as Literature 3 Credit Hours Interpreting the Bible as literature. Although much class time will be spent developing readings of individual books, a number of critical issues that affect the ways to approach the project of understanding the Bible will also be considered. (Irreg.)
ENGL 3693 Literature and Medicine
3 Credit Hours
Prerequisite: English 1213 or Expo 1213. This course focuses on the ways that training in literary narrative can make healthcare workers more effective and satisfied in their work. The aim of the course is to instill definite skills in interacting with patient storytelling - skills in listening, in rapport, in balancing empathy and professionalism, etc. - in a clinical situation to widen the study of literature. (Irreg.)
ENGL 3823 Women's Rhetorics \& Writing Practices 3 Credit Hours Prerequisite: ENGL 1213 or EXPO 1213. Analysis of selected historical and current work by women according to histories and theories of written composition theory, rhetorical theory, and literacy practices. These issues are studied by analyzing how women interact with different forms of communication (e.g., speaking, print, film, video, computer graphics). (Irreg.)

ENGL 3960 Honors Reading
1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Will consist of topics designated by the instructor in keeping with the student's major program. The topics will cover materials not usually presented in the regular classes. (Irreg.)
ENGL 3970 Honors Seminar 1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. The projects covered will vary. The content will deal with concepts not usually presented in regular coursework. (Irreg.)

ENGL 3980 Honors Research
1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Will provide an opportunity for the gifted Honors candidate to work at a special project in the student's field. (Irreg.)

ENGL 3990 Independent Study 1-3 Credit Hours
1 to 3 hours. Prerequisite: permission of instructor and junior standing. May be repeated once with change of content. Independent study may be arranged to study a subject not available through regular course offerings. (F, Sp, Su)
ENGL 4003 Movements in World Literature 3 Credit Hours (Crosslisted with MLLL 4003) Prerequisite: junior standing. May be repeated with change of subject matter; maximum credit nine hours. Focuses on texts within a literary movement (literature other than canonical American or British). Also attention to critical and theoretical questions about concepts such as genre, nation, national building, national identity, etc. (Irreg.) [IV-WC].
ENGL 4013 Major Figure (With Subtitle)
3 Credit Hours
(Slashlisted with ENGL 5013) Prerequisite: ENGL 1213 or EXPO 1213. May be repeated with change of content; maximum credit 9 hours. This course will focus on a major figure in literature, criticism, rhetoric, or theory. No student may earn credit for both 4013 and 5013. (Irreg.)

ENGL G4023 Literary Movements
3 Credit Hours
May be repeated with change of subject matter; maximum credit six hours. A course on literary movements or groups of authors who are related through their particular interests in certain distinct or philosophical ideas: the Metaphysical Poets, the Fugitive Writers, etc. (Irreg.)
ENGL G4033 Indigenous Political Writing
3 Credit Hours
Prerequisite: 2733 or 2743 or permission of the instructor. Examines key issues of American Indian politics and literature, exploring how they continue to shape the American Indian world in the present. Also considers how North American Indian politics relate to broader discussions of indigenous peoples and literatures around the world. (Irreg.)

## ENGL 4053 Topics in Technical Writing

3 Credit Hours
Prerequisite: English 1213 or EXPO 1213; Repeatable for credit, maximum credit 6 hours. Advanced study of contemporary principles and practices in technical communication, technical editing, social media marketing, visual rhetoric, writing for the web, and design research. Topics vary. (Irreg.)

## ENGL 4113 Magazine Editing and Publishing in the

## Humanities <br> 3 Credit Hours

Prerequisite: 1213 or EXPO 1213. Introduction to magazine writing, editing, and publishing - scholarly and otherwise - in the humanities. (F)
ENGL G4133 History Of the English Language
3 Credit Hours
Traces the development of the English language from its Indo-European origins through its present state. Special attention will be paid to changes in grammar and vocabulary. (Irreg.)
ENGL 4203 Special Topics in Literary and Rhetorical Forms

3 Credit Hours
(Slashlisted with ENGL 5203) Prerequisite: ENGL 1213 or EXPO 1213.
May be repeated with change of content; maximum credit 9 hours. Genrebased approach to literary and rhetorical forms. No student may earn credit for both 4203 and 5203. (Irreg.)

ENGL G4233 Major Figures in Theory
3 Credit Hours
Intensive exploration of the work and influence of one or a small number of literary or cultural theorists. Texts typically will encompass primary reading in a theorist or group of theorists and ancillary readings in the work of writers or other theorists who show the theorist(s). (Irreg.)
ENGL 4273 Women Writers
3 Credit Hours
Prerequisite: ENGL/EXPO 1213. May be repeated twice with change of content; maximum credit 9 hours. A study of women's art and culture in British, American, Native American and/or African American contexts. Typically incorporating a feminist approach and raising questions about gender, race, and sexuality, the course engages the often forgotten or marginalized experiences of women as represented in literature, film and/ or other texts. (Irreg.)

ENGL G4283 Hip Hop as Poetry, Literature and Cultural

## Expression

3 Credit Hours
Prerequisite: 1213. Hip Hop will be examined from three different angles: the message, the history, and the performance. There are required film viewings. Students will analyze the lyrics of literary texts and music albums, and will be required to write, memorize and perform their own poetry. (Irreg.) [IV-AF].
ENGL 4303 Special Topics
3 Credit Hours
(Slashlisted with 5303) Prerequisite: ENGL 1213 or EXPO 1213. May be repeated with change of content; maximum credit 9 hours. Selected topics in literature, film, and rhetoric. No student may earn credit for both 4303 and 5303. (Irreg.)
ENGL G4323 The Harlem Renaissance
3 Credit Hours
Prerequisite: 1213. Examines the literature, culture, and politics of the Harlem renaissance. In addition to texts of the 1920s, the course considers the contexts out of which the movement emerged, as well as its effects in the U.S. and abroad. (Irreg.)
ENGL G4333 Black Arts/Black Power 3 Credit Hours
Prerequisite: 1213 or EXPO 1213. Examines the formation of the black arts and black power movements of the 1960s and 1970s in the united states. Focus on cultural exchanges and ideological engagements between local struggles for civil rights and larger global movements. Studies include a variety of literary and critical texts and genres, film and music. (Irreg.)
ENGL G4343 The Indian in American Popular Culture 3 Credit Hours Prerequisite: 1213 or equivalent. Explores the various appearances and roles, stereotyped or otherwise, American Indians have traditionally been pigeon-holed into throughout America's five centuries of recorded history. Covers Captain John Smith, Colonial era, Romantic period of Cooper and Longfellow, and modern writers Waters and Berger. (Irreg.) [IV-WDC].

ENGL G4373 Black Literary Form and Cultural Expression 3 Credit Hours
Prerequisite: 1213. Compare and contrast the relationship between literary form and cultural expression by analyzing Black literature produced in two different contexts: the United States and the Caribbean. Examine writing from the literary movements knows as the "Harlem Renaissance," "Negritude," and the "Black Arts." (Irreg.)

ENGL G4513 Chaucer
3 Credit Hours
Prerequisite: English 1213 or Expo 1213. Examines the poetry of The Canterbury Tales and one or two of Chaucer's earlier narrative poems. Special emphasis will be given to the social, literary and cultural backgrounds to Chaucer's work. (Irreg.)

ENGL G4523 Shakespeare Comedies
3 Credit Hours
Prerequisite: junior or senior standing. Close reading and analysis of Shakespeare's comedies and histories. Selected criticism, 1600 to the present. Historical background and Shakespeare's theatre. Dramatic traditions, movie interpretations, performance theory and acting. Emphases and reading lists vary from year to year. (Irreg.) [IV-WC].

ENGL G4533 Shakespeare Tragedies 3 Credit Hours
Prerequisite: junior or senior standing. Close reading and analysis of Shakespeare's tragedies and lyric poetry. Selected criticism, 1600 to the present. Historical background and Shakespeare's theatre. Dramatic traditions, movie interpretations, performance theory and acting. Emphases and reading lists vary from year to year. (Irreg.) [IV-WC].

## ENGL G4553 Milton

3 Credit Hours
Close reading and analysis of selected poetry and prose, with emphasis on Paradise Lost. Study of literary forms, cultural myths, theology, ethics. Themes of loss, guilt, free will, male-female relationships. (Irreg.)
ENGL G4593 Topics in Medieval Literature and Culture 3 Credit Hours Prerequisite: ENGL 1213; May be repeated with change of content; maximum credit six hours. Specialized study in selected topics in medieval literary culture. Students will be expected to be able to read middle English. (Irreg.)

## ENGL G4603 Topics in Early Modern Literature and

 Culture3 Credit Hours
Prerequisite: 1213. May be repeated with change of content; maximum credit six hours. Specialized study in selected topics in early modern literary culture. (Irreg.)
ENGL 4613 Nineteenth-Century British Novel 3 Credit Hours Prerequisite: ENGL 1213/EXPO 1213. An exploration of novels by authors such as Jane Austen, Charles Dickens, Charlotte Bronte, and Thomas Hardy, in relation to their social, intellectual, and cultural contexts, focusing on selected topics (such as industrialism), themes (such as the conflict between passion and convention), or types (such as "the novel of education"). (Irreg.)
ENGL 4623 British Romantic Literature and Culture 3 Credit Hours Prerequisite: ENGL 1213/EXPO 1213. The Romantic literary movement from the late eighteenth to the early nineteenth century, a time of revolution in politics, human rights, literature, sexuality, and more. The course may focus on major poets, such as Keats, on Gothic literature, and novelists such as Jane Austen. (Irreg.)

ENGL G4653 Twentieth-Century English Poetry 3 Credit Hours A survey with emphasis on Yeats, Pound, Eliot, Lawrence, Graves, Auden and Dylan Thomas. (Irreg.)

## ENGL G4713 Major Authors in Nineteenth-Century American

 Literature3 Credit Hours
Prerequisite: 1213. May be repeated with change of subject; maximum credit six hours. Intensive study of one or more major 19th century American authors such as James Fenimore Cooper, Catharine Maria Sedgwick, Frederick Douglass, Walt Whitman, Nathaniel Hawthorne, Ralph Waldo Emerson, Harriet Beecher Stowe, Emily Dickinson, or Mark Twain. (Irreg.)
ENGL G4733 American Naturalism and Realism 3 Credit Hours Major American novelists from the Civil War to the end of World War I, including Howells, James, Twain, Crane, Dreiser, Norris and Wharton. (Irreg.)
ENGL G4823 American Novel Since 1920
3 Credit Hours
Major authors and schools in American fiction including Fitzgerald, Hemingway, Faulkner, Steinbeck and others selected by the instructor. (Irreg.)

ENGL G4833 Twentieth-Century American Poetry 3 Credit Hours
A survey from Frost to the present with emphasis on major figures in each of three generations. (Irreg.)
ENGL 4853 The English Capstone Course 3 Credit Hours
Prerequisite: 1113, 1213, and 2433 and 2443 or 2543 and 2653 or 2773 and 2883, plus twelve hours. Combine English majors from diverse tracks to work on a topic involving major cultural issues, artifacts and texts. Projects include a significant amount of writing demonstrating the students' accomplishments in analyzing literature. (F, Sp) [V].
ENGL 4883 Puterbaugh/Neustadt International Literature 3 Credit Hours
(Slashlisted with ENGL 5883; Crosslisted with MLLL 4883) Prerequisite: ENGL 1213 and permission of department; May be repeated with a change of content, maximum credit nine hours. In-depth study of selected contemporary international writers/jurors who visit OU campus as part of the Neustadt and/or Puterbaugh symposia for World Literature Today. No student may earn credit for both 4883 and 5883. (Irreg.)
ENGL 4923 Advanced Fiction Writing
3 Credit Hours
(Slashlisted with 5923) Prerequisite: six hours of creative writing, application and departmental permission. May be repeated; maximum credit six hours. Work at an advanced level for qualified students. Intensive writing, peer criticism, revision, and reading in current markets with the goal of producing publishable work. No student may earn credit for both 4923 and 5923. (Irreg.)
ENGL G4933 Advanced Poetry Writing
3 Credit Hours
Prerequisite: ENGL 2123 and ENGL 3123, or departmental permission; May be repeated, maximum credit six hours. Intensive writing, peer criticism, revision, and reading in current markets with the goal of producing publishable work. (Irreg.)
ENGL 4943 Advanced Creative Nonfiction Writing 3 Credit Hours (Slashlisted with 5943) Prerequisite: six hours of 2000-3000-level writing courses, application and departmental permission. May be repeated; maximum credit six hours. Intensive writing, peer criticism, revision, and reading in current markets with the goal of producing publishable creative nonfiction. No student may earn credit for both 4943 and 5943. (Irreg.)
ENGL 4950 Special Topics in World Literature Today 1-3 Credit Hours 1 to 3 hours. Prerequisite: 1213 and permission of instructor. May be repeated with a change of topic, maximum credit six hours. In-depth study of selected contemporary international writers/jurors who visit campus as part of the Neustadt and/or Puterbaugh symposiums for World Literature Today. (Irreg.)
ENGL 4953 Special Topics in Advanced Creative Writing 3 Credit Hours (Slashlisted with 5953) Prerequisite: ENGL 2123; ENGL 3123 or ENGL 3133 or ENGL 3223. May be repeated with change of subject matter; maximum credit nine hours. In-depth writing in a variety of literary genres. Focus varies: practice in advanced creative writing with emphasis on style and strategies for creating work in specific genres such as historical fiction, indigenous-centered fiction and poetry, regional fiction, graphic novels, screenplays, literary translation, poetic forms. No student may earn credit for both 4953 and 5953. (Irreg.)
ENGL 4960 Directed Readings
1-4 Credit Hours
1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean. May be repeated; maximum credit four hours. Designed for upper-division students who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)

ENGL 4970 Special Topics in World Literature Today 1-3 Credit Hours 1 to 3 hours. Prerequisite: 1213 and permission of instructor. May be repeated with a change of topic; maximum credit six hours. In-depth study of selected contemporary international writers/jurors who visit campus as part of the Neustadt and/or Puterbaugh symposiums of World Literature Today. (Irreg.)

ENGL 4990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: three courses in general area to be studied; permission of instructor and department. May be repeated; maximum credit six hours. Contracted independent study for topics not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (F, Sp, Su)

ENGL 5003 Seminar--Special Topics in English, American or Comparative Lit

3 Credit Hours
Prerequisite: graduate standing and permission of department. May be repeated three times with change of subject matter; maximum credit 12 hours. Topics in theoretical and historical problems of English, American or comparative literature in different periods. (Irreg.)
ENGL 5013 Major Figure (With Subtitle)
3 Credit Hours
(Slashlisted with ENGL 4013) Prerequisite: Graduate standing. May be repeated with change of content; maximum credit 9 hours. This course will focus on a major figure in literature, criticism, rhetoric, or theory. No student may earn credit for both 4013 and 5013. (Irreg.)
ENGL 5113 Teaching College Composition 3 Credit Hours
Prerequisite: Graduate standing and departmental permission. In this proseminar, students will apply readings in the field of rhetoric and writing to the teaching of first-year composition. (F)
ENGL 5133 Teaching Technical Writing 3 Credit Hours
Prerequisite: graduate standing and permission of department. Introduction to the types of writing professional engineers and scientists are expected to do and methods of teaching these forms of writing. In addition, students will attend classes being taught by the professor and have the opportunity to design and teach some workshops as well as evaluate the undergraduates' work. (Irreg.)

## ENGL 5203 Special Topics in Literary and Rhetorical

## Forms

## 3 Credit Hours

(Slashlisted with ENGL 4203) Prerequisite: Graduate standing. May be repeated with change of content; maximum credit 9 hours. Generic approach to literary and rhetorical forms. No student may earn credit for both 4203 and 5203. (Irreg.)
ENGL 5223 Seminar--Film
3 Credit Hours
Prerequisite: graduate standing and permission of department. Will involve reading and analyzing the works of the more sophisticated film theorists and critics as well as studying approaches to the teaching of film (the auteur theory; film history; film genres; visual literacy; film and society; film as narrative; non-narrative forms). (Irreg.)

ENGL 5303 Special Topics 3 Credit Hours
(Slashlisted with ENGL 4303) Prerequisite: Graduate standing. May be repeated with change of content; maximum credit 9 hours. Selected topics in literature, film, and rhetoric. No student may earn credit for both 4303 and 5303. (Irreg.)
ENGL 5313 Literary Criticism
3 Credit Hours
Prerequisite: graduate standing and department permission. May be repeated with change of content; maximum credit nine hours. A comprehensive history of literary criticism, the study of a particular movement or related movements in literary criticism; or a study of a particular issue or related issues in literary criticism. (Sp)

ENGL 5343 Native American Fiction
3 Credit Hours
Prerequisite: graduate standing and permission of department. May be repeated twice with change of subject matter; maximum credit nine hours. Study of fiction written by Native American authors in the nineteenth and twentieth century. The course may include native authors from throughout the Americas and study the cultural contexts of Native American fiction. This course may also focus on particular themes and authors. (Irreg.)
ENGL 5353 Native American Poetry
3 Credit Hours
Prerequisite: graduate standing and permission of department. May be repeated twice with change of content; maximum credit nine hours. Study of poetry written by Native American authors in twentieth century. Course may include native authors from throughout the Americas (including poetry in indigenous languages) and study the cultural contexts of Native American poetry. This course may also focus on particular themes and authors. (Irreg.)

## ENGL 5373 Graduate Topics in Native American Literature 3 Credit

 HoursPrerequisite: graduate standing and permission of department. May be repeated up to three times with change of subject matter; maximum credit twelve hours. Special topics focusing on Native American cultures, including literature, drama, philosophy, and thematic approaches to the subject. Course may also focus on particular themes, movements, and authors. (Irreg.)

ENGL 5403 Introduction to Rhetoric and Writing Studies 3 Credit Hours Prerequisite: Graduate standing and permission of department. This proseminar introduces students to contemporary research and theory in rhetoric and writing studies. (Irreg.)
ENGL 5423 Classical Rhetorical Theory
3 Credit Hours
Prerequisite: graduate standing and permission of department.
Historicizing of rhetoric from ancient Egyptians to Greek sophists, Plato, Aristotle to Rome and Augustine. Includes examination of the ways "history" and cultural studies comprise the area. (Irreg.)

ENGL 5433 18th and 19th Century Rhetorical Theory 3 Credit Hours Prerequisite: graduate standing and permission of department. An introduction to the rhetorical thought of eighteenth and nineteenthcentury Britain and America, focusing on the development of rhetorical theories within the contexts of (1) eighteenth-century Scottish moral philosophy, (2)English romanticism, and (3) the emergence and development of higher education in nineteenth-century America. (Irreg.)

ENGL 5443 Twentieth-Century Rhetoric and Composition Theory 3 Credit Hours Prerequisite: graduate standing and permission of department. A survey of twentieth-century scholarship on rhetoric and composition theory, beginning with the rhetorical theories of Kenneth Burke, with emphasis on the mid-century revival of rhetoric and composition through current changes brought about by technology and feminism. (Irreg.)

ENGL 5453 Special Topics in Rhetoric, Composition, and Literacy 3 Credit Hours Prerequisite: graduate standing and permission of department. May be repeated two times with change of content; maximum credit nine hours. Addresses topical issues being debated within the profession. (Irreg.)

ENGL 5463 Rhetoric \& Technology 3 Credit Hours
Prerequisite: graduate standing and permission of department. May be repeated once with change of content; maximum credit six hours. A graduate seminar designed to explore the impact of computer technology on rhetorical theory. Examines electronic literacy in terms of the following themes: history and writing technologies; the politics of writing instruction in computer-mediated classrooms; rhetoric and issues of difference; and intellectual property in a computer age. (Irreg.)
ENGL 5473 Women's Rhetorics and Writing Practices 3 Credit Hours Prerequisite: graduate standing and permission of department. Analysis of selected historical and current work by women according to histories and theories of written composition theory, rhetorical theory, and literacy practices. These issues are studied by analyzing how women interact with different forms of communication (e.g., speaking, print, film, video, computer graphics). (Irreg.)
ENGL 5513 Major Medieval Authors
3 Credit Hours
Prerequisite: graduate standing and permission of department. May be repeated twice with a change of content; maximum credit nine hours.
Topics vary. Focus on an outstanding medieval author such as Geoffrey Chaucer, Margery Kempe, or Thomas Malory, read in his or her literary, historical, and social context. (Irreg.)
ENGL 5543 Topics in Early Modern Literature and Culture3 Credit Hours Prerequisite: graduate standing and permission of department. May be repeated twice with change of content; maximum credit nine hours. Topics vary. Special studies in major figures, genres, themes and movements of the early modern period. (Irreg.)

ENGL 5553 Post-Colonial Theory and Writing 3 Credit Hours Prerequisite: graduate standing and permission of department. Theories of postcolonialism as they have emerged from poststructuralist theory in the west, and from various political-literary movements in the nonWestern world. Also focuses on the literatures of postcolonial cultures in Asia, Africa, Latin American, the Caribbean, Australia, and North America. (Irreg.)

ENGL 5613 Seminar--Nineteenth Century English Literature 3 Credit Hours
Prerequisite: graduate standing and permission of department. May be repeated twice with change of subject matter; maximum credit nine hours. Special studies in the Romantic and Victorian periods designed to promote original research and criticism. (Irreg.)
ENGL 5703 Special Topics in American Literature 3 Credit Hours Prerequisite: graduate standing and permission of department. May be repeated two times with change of subject matter; maximum credit 9 hours. Intensive study of a major theme, issue, genre or figure in American literature and culture that is not limited to any single historical period. (Irreg.)
ENGL 5803 Seminar--Twentieth-Century American Literature 3 Credit
Prerequisite: graduate standing and permission of department. May be repeated twice with change of subject matter; maximum credit 9 hours. Topics vary. Special studies in American authors, ideas and literary types. (Irreg.)
ENGL 5813 Blackness, Coloniality, Gender 3 Credit Hours Prerequisite: graduate standing and permission of department. Taking an historical and cultural approach to Black U.S. and Caribbean female writing, explore the struggle between the "official" cultural contexts and the spaces of counter-cultural resistance. Analyze the terminology "colonial" and "postcolonial" and the current theoretical landscape in which these terms are used. (Irreg.)

ENGL 5883 Puterbaugh/Neustadt International Literature 3 Credit Hours
(Slashlisted with ENGL 4883; Crosslisted with MLLL 5883) Prerequisite: Graduate standing and permission of department; May be repeated with a change of content; maximum credit nine hours. In-depth study of selected contemporary international writers/jurors who visit OU campus as part of the Neustadt and/or Puterbaugh symposia for World Literature Today. No student may earn credit for both 4883 and 5883. (Irreg.)
ENGL 5923 Advanced Fiction Writing 3 Credit Hours
(Slashlisted with 4923) Prerequisite: graduate standing, six hours of creative writing, application and departmental permission. May be repeated; maximum credit six hours. Work at an advanced level for qualified students. Intensive writing, peer criticism, revision, and reading in current markets with the goal of producing publishable work. No student may earn credit for both 4923 and 5923. (Irreg.)
ENGL 5943 Advanced Creative Nonfiction Writing 3 Credit Hours
(Slashlisted with 4943) Prerequisite: graduate standing, six hours of 2000-3000-level writing courses, application and departmental permissions. May be repeated; maximum credit six hours. Intensive writing, peer criticism, revision, and reading in current markets with the goal of producing publishable creative nonfiction. No student may earn credit for both 4943 and 5943. (Irreg.)
ENGL 5953 Special Topics in Advanced Creative Writing 3 Credit Hours (Slashlisted with ENGL 4953) Prerequisite: Graduate standing and permission of instructor. May be repeated with change of subject matter; maximum credit nine hours. In-depth writing in a variety of literary genres. Focus varies: practice in advanced creative writing with emphasis on style and strategies for creating work in specific genres such as historical fiction, indigenous-centered fiction and poetry, regional fiction, graphic novels, screenplays, literary translation, poetic forms. No student may earn credit for both 4953 and 5953. (Irreg.)
ENGL 5963 Directed Readings in Research 3 Credit Hours Prerequisite: Graduate standing and departmental permission. May be repeated with change of content; maximum credit 9 hours. An individual intensive research course which may not duplicate regular course offerings. Area and problem to be determined by student and directing professor. (Irreg.)
ENGL 5970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing and permission of department. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)
ENGL 5980 Research for Master's Thesis 2-9 Credit Hours
Prerequisite: Graduate standing and permission of department. 2 to 9 hours. Variable enrollment; maximum credit applicable toward degree, six hours. (F, Sp, Su)
ENGL 6013 Research Seminars in Composition, Rhetoric or Literacy 3 Credit Hours Prerequisite: graduate standing and permission of department. Topics vary. Issues of the historical/philosophical in composition and rhetorical studies; issues of empirical research in composition/rhetorical studies; issues of literacy in composition/rhetorical studies. (Irreg.)
ENGL 6103 Research Methods in Rhetoric and Writing 3 Credit Hours Prerequisite: Graduate standing and departmental permission. A survey of research methods in rhetoric and writing studies. (Irreg.)

ENGL 6880 Research for PhD Exam
1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing and departmental permission. The doctoral candidate will take up to three credits in preparation for their qualifying exam. (Irreg.)
ENGL 6960 Directed Readings
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit six hours. Directed readings and/or literature review under the direction of a faculty member. (Irreg.)

## ENGL 6970 Special Topics/Seminar

1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit 12 hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or research and field projects. (Irreg.)
ENGL 6980 Research for Doctoral Dissertation 2-16 Credit Hours 2 to 16 hours. Prerequisite: Graduate standing and permission of instructor; may be repeated. Directed research culminating in the completion of the doctoral dissertation. (F, Sp, Su)

ENGL 6990 Independent Study 1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)

## ENGR-College of Engineering

ENGR 1401 Dean's Leadership Council
1 Credit Hour
Prerequisite: must have submitted an application and be approved by the college. This course is required of all DLC mentors and lead mentors. The purpose of the Dean's Leadership Council is to engage with new students pursuing a degree in the Gallogly College of Engineering. DLC mentors provide support to assist students with the transition to college life at OU, increase student involvement in the engineering community, and increase academic student success. (F, Sp)
ENGR 1411 Pathways to Engineering Thinking 1 Credit Hour Prerequisite: Freshman standing or departmental permission. Students investigate and practice what it means to engineer. Students are empowered through building awareness of the breadth of engineering in everyday life and how engineering is embedded in society. Students engage in team-based engineering design projects at multiple scales, considering local engineering challenges. Excitement is fostered through design and creation of solutions in authentic, student-centered product development challenges. ( $\mathrm{F}, \mathrm{Sp}$ )

ENGR 1413 Pathways to Engineering Thinking 3 Credit Hours Prerequisite: Freshman standing or departmental permission. Students investigate and practice what it means to engineer. They are empowered through engineering community building as they learn the impact and cultural connections of engineering in society. Students develop critical thinking and civil discourse skills in engineering design projects addressing authentic community-based engineering challenges, building excitement for their futures. Co-curricular engagements support students' transition to OU and GCoE. (F, Sp) [V-FYE].

ENGR 1421 Engineering Design in Action
1 Credit Hour
Prerequisite: ENGR 1411 and freshman standing, or departmental permission. Students apply engineering design under constraints addressing a relevant problem. Students address the needs of stakeholders as they design, build, test, and iterate solutions. The process requires developing relevant engineering or science knowledge and project management plans and applying ethical and societal considerations. The project and reflections will be documented in a comprehensive engineering design report and a design presentation. ( F , Sp )

ENGR 1501 Resources for Engineers in Mathematics 1 Credit Hour Prerequisite: Departmental Permission, GCoE majors only; Co-requisite: the MATH course aligned with the section of 1501. The course guides students to identify strategies and resources for independent studying and learning of mathematics as a novice engineer, to build transferable engineering problem-solving skills, and to work through engineering and computing applications tied to their mathematics course. May be repeated up to 3 hours in support of different math courses (i.e., MATH 1503, 1523, 1823, and/or 1914). (F, Sp, Su)
ENGR 1510 Selected Topics
3 Credit Hours
0 to 3 hours. Selected topics on current or special topics relating to engineering to be structured for students in engineering and other areas. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

ENGR 1552 Math Catalyst
2 Credit Hours
Prerequisite: Corequisite: ENGR 1652; departmental permission and majors only; may be repeated up to 6 hours. The course guides Engineering Catalyst Scholars to build transferable problem-solving skills while developing engineering competency and confidence through applications of mathematics fundamentals. May be repeated up to 6 hours in support of different math courses (i.e., MATH 1503, MATH 1523 , MATH 1823, MATH 2423). For Engineering Catalyst Scholars only. (F, Sp, Su)
ENGR 1652 Engineering Catalyst
2 Credit Hours
Prerequisite: Corequisite: ENGR 1552; departmental permission and majors only; may be repeated up to 6 hours. Prepares Engineering Catalyst Scholars to optimize their successful study of engineering. The course focuses on building academic success skills, engineering identity, and belonging in the Engineer Catalyst community and the OU Gallogly College of Engineering. May be repeated up to 6 hours. For Engineering Catalyst Scholars only. (F, Sp, Su)

## ENGR 1701 Broadening Engineering Impacts - First Year

 Seminar1 Credit Hour
Prerequisite: Freshman standing and permission of instructor. This seminar is aimed at introducing students to the various disciplines in the Gallogly College of Engineering and Mewbourne College of Earth and Energy at the University of Oklahoma. The ultimate goal of the seminar is to help students clarify and strengthen their commitment to success in engineering and STEM studies. ( $F, S p$ )

ENGR 2002 Professional Responsibilities and Skills of Engineers and Scientists 2 Credit Hours
Prerequisite: ENGR 1410 or ENGR 1411 or ENGR 1421; or ENGR 3511 or concurrent enrollment; ENGL 1213 or EXPO 1213, sophomore standing. This course will connect what you might have learned in humanities and social science classes to your education and professional career as an engineer. Serious and diverse professional responsibilities accompany the rights and privileges that engineers and scientists enjoy. This course guides you to start developing and practicing the non-technical aspects of engineering. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

## ENGR 2411 Applied Engineering Statics

1 Credit Hour
Prerequisites: Physics 2514 and Mathematics 2433 or concurrent enrollment in Mathematics 2433. Review of fundamentals of statics calculations and their applications to common engineering situations. (Sp)

## ENGR 2431 Electrical Circuits

1 Credit Hour
Prerequisite: MATH 2423 or 2924; and PHYS 2524 or concurrent enrollment. Introduction to basic principles of electrical circuits. Topics include DC circuits analysis, DC transients, static electrical fields, static magnetic fields, capacitors, inductors, and filters. (F, Sp)
ENGR 2461 Thermodynamics 1 Credit Hour
Prerequisite: MATH 2433 or 2934; and PHYS 2524 or concurrent enrollment. Introduction to basic principles of thermodynamics. Topics include density, pressure, and temperature, the first law of thermodynamics for a system, the first law of thermodynamics for a control volume, the second law of thermodynamics, and psychometrics. (F)

ENGR 2531 Electrical Circuits II
1 Credit Hour
Prerequisite: ENGR 2431 or concurrent enrollment. Introduction to intermediate principles of electrical circuits. Topics include amplifiers, filters, signal conditioning, A/D and D/A conversion, and common digital and analog circuits. (Sp)

## ENGR 2551 Intermediate Math Catalyst

1 Credit Hour
Prerequisite: ENGR 1552 Math Catalyst (4 credits); good standing in the Engineering Catalyst program; majors only; sophomore standing; departmental permission. This course guides Engineering Catalyst Scholars toward independence in their major-based learning. Students will continue to build transferable problem-solving skills in new engineering and science applications of mathematics content. Topics (through engineering learning contexts) include reading STEM-based texts, reviewing notes, studying for deep learning, dry labs, etc. May be repeated up to 4 hours in support of different math ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
ENGR 2652 Research Catalyst
2 Credit Hours
Prerequisite: ENGL 1213 or EXPO 1213; ENGR 1552; ENGR 1652; and departmental permission. This course guides student development of understanding of the research process through the design, research, collaborative authorship, and iterative review-based refinement of research ideas. Students will find and analyze primary literature, think creatively, author and communicate in a scholarly fashion, and work collaboratively to solve scientific and societal problems using technology, delegation, and productive team communication. (F)

ENGR 2970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: Permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

## ENGR 3051 Experiential Leadership

Prerequisite: Instructor permission and enrollment in Engineering Leadership Undergraduate Certificate. Participatory course with formal, extended activity that provides opportunity for leadership development. Includes written proposal describing the activity; creation of a personal leadership development plan (PLDP); periodic reflections regarding leadership learning and development; and coaching and/or mentoring. The leadership develop plan will align with the Leadership Capabilities espoused by the Jerry Holmes Leadership Program for Engineers and Scientists. (F, Sp)

ENGR 3401 Engineering Economics
1 Credit Hour
Prerequisite: MATH 1823 or 1914. Introduction to basic principles of engineering economics. Topics include value and interest, cash flow diagrams and patterns, equivalence of cash flow patterns, unusual cash flows and interest periods, evaluating alternatives (annual equivalent cost comparisons, present equivalent cost comparisons, incremental approach, rate of return comparisons, benefit/cost comparisons, MARR, replacement problems, always ignore the past, break-even analysis), income tax, depreciation, and inflation. (F, Sp)
ENGR 3431 Electromechanical Systems
1 Credit Hour
Prerequisite: ENGR 2431 or concurrent enrollment. Introduction to basic principles of electromechanical systems. Topics include physical principles of sensing and actuation, types of sensors and actuators, and interfacing and communication protocols. (F, Sp)
ENGR 3440 Mentored Research Experience 3 Credit Hours 0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)
ENGR 3441 Fluid Mechanics
1 Credit Hour
Prerequisite: Mathematics 2433 or 2934; and Physics 2524 or concurrent enrollment. Introduction to basic principles of fluid mechanics. Topics include fluid properties, fluid statics, dimensionless parameters and similitude, control volume equations, open channel flow, and external flow. (Sp)

## ENGR 3511 Engineering Orientation Experience for Transfer

## Students

1 Credit Hour
Prerequisite: sophomore standing. Required of all incoming transfer students with a declared major in Engineering. The lecture hours cover a variety of topics including: majors and minors; career planning; advising; and extra-curricular activities. Students also meet with mentors and work on multidisciplinary engineering projects. Also open to students with an interest in engineering. ( $\mathrm{F}, \mathrm{Sp}$ )

## ENGR 3611 Business Principles for Engineers and

 Scientists
## 1 Credit Hour

Prerequisite: Junior Standing and GCoE or MCEE major. This course will introduce engineering and science students to the basic business principles that they will encounter once they join the workforce. The aim is to expose students to the concepts and terminology of business to make them more effective immediately upon employment. This course will address leadership, change management, and organizational culture, business structure, capital and ethics. (F, Sp)

## ENGR 3621 Finance and Accounting for Engineers and

## Scientists

## 1 Credit Hour

Prerequisite: Junior Standing and GCoE or MCEE major. This course introduces students to workforce principles of finance and accounting. The course addresses accounting methods and the requirements to report financial performance in a consistent manner. More specifically, the course will address income statements, balance sheets, cash flow statements and financial statement analysis. In addition, this course will address both the budgeting and forecasting process. (F, Sp)

## ENGR 3631 Investment Decisions for Engineers and

## Scientists

1 Credit Hour
Prerequisite: Junior Standing and GCoE or MCEE major. This course introduces engineers to basic business workplace principles. This course covers macroeconomics of commodities including interactions between supply, demand and inventory and the related impact on price. Profit measures are introduced such as profit margins, break-even calculations and cost-volume profit analysis. This course also addresses microeconomics, investment metrics, and considerations of cost of capital. (F, Sp)

## ENGR 3960 Honors Reading

1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Consists of topics designated by the instructor in keeping with the student's major program. Cover materials not usually presented in the regular courses. (Sp)
ENGR 3970 Honors Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Projects covered will vary. Deal with concepts not usually presented in regular coursework. (Irreg.)

## ENGR 3980 Honors Research

1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Provides an opportunity for the gifted Honors candidate to work on a special project in the student's field. (F, Sp, Su)
ENGR 3990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: permission of instructor and junior standing. May be repeated once with change of content. Independent study may be arranged to study a subject not available through regular course offerings. (F, Sp, Su)

## ENGR 4003 Engineering Practice <br> 3 Credit Hours

Prerequisites: ENGR 2002 or 2003, junior or senior standing, and permission of the instructor. Focuses on real world application of the skills taught in major courses and the core course, professional development. Allows a student to earn credit toward degree requirements through the completion of an intense internship experience. A written report detailing the responsibilities and results of the experience is required upon completion along with an oral presentation. Other service experience learning may qualify. (F, Su)
ENGR G4013 Leadership and Management for Engineers 3 Credit Hours Prerequisites: junior standing or senior standing; or graduate standing; or instructor permission. This course will help prepare students for leadership and management positions in a global culture. The course emphasizes team building attributes in a multi-cultural organization, how to build commitment among team members, and how to organize to compete in the global marketplace. Students will gain a better understanding of themselves and their personal and professional goals. (F, Sp)
ENGR G4023 Disruptive and Innovative Technology Ideation 3 Credit Hours
Prerequisites: sophomore standing, junior standing, or senior standing; or graduate standing; at least one semester of calculus, a working knowledge of basic statistics, and departmental permission. Ideation is the process of conceiving or forming ideas. In the context of this class, the process of ideation will be investigated with regard to both disruptive and innovative commercial technologies. (F, Su)

ENGR 4051 Lincoln, Leadership \& Innovation
1 Credit Hour
Prerequisite: Junior standing or instructor permission. Students will learn from the example of Lincoln's leadership, his ability to be innovative and employ technology-driven solutions, and his methods of personal and professional development. Students will reflect on and develop their own personal leadership philosophy in response to Lincoln's example. The course will provide students the opportunity to delve into an area of Lincoln's leadership of personal interest. (Sp)
ENGR G4223 Fundamentals of Project Management 3 Credit Hours Prerequisite: Senior standing or permission of instructor. Foundational survey course that considers both technical and sociocultural aspects of project management across the full project life cycle. (F, Su)

ENGR G4510 Selected Topics
1-6 Credit Hours
1 to 6 hours. Prerequisite: upper-division or graduate standing. Selected topics on current or special topics relating to engineering. May be structured for students in other areas. (Sp)
ENGR G4513 Introduction to Sustainable Engineering 3 Credit Hours Prerequisite: upper-division or graduate standing in the College of Engineering or permission of the instructor. An introduction to the concepts of sustainable development, sustainable engineering, global resource reserves, and global environmental concerns. The main focus of the class will be application of life cycle assessment to minimize the adverse environmental impacts of products (e.g., a pencil) or processes (e.g., wastewater treatment). Tools for life cycle assessment will include public domain software and SimaPro. (Sp)
ENGR 4960 Directed Readings 1-4 Credit Hours
1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean. May be repeated; maximum credit four hours. Designed for upper-division students who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)
ENGR 4970 Special Topics/Seminar 1-3 Credit Hour
1 to 3 hours. Prerequisite: Senior standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

ENGR 4990 Independent Study 1-3 Credit Hours
1 to 3 hours. Prerequisite: Senior standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)
ENGR 5122 Entrepreneurship for Science and Technology 2 Credit Hours
(Crosslisted with ENT 5122) Prerequisite: Graduate standing and departmental permission. This course will introduce entrepreneurship from the science and technology perspective. We will start with ideas, analyze them, and see how they could grow into a business. The course will cover areas such as innovation, prototyping, competition, customer discovery, business model canvas, networking, funding, and legal issues, including patents and intellectual property. (F, Sp)

ENGR 5213 Foundations of Engineering Education 3 Credit Hours
Prerequisite: graduate standing in the College of Engineering or permission of instructor; undergraduate engineering students may take this course with permission of instructor. This course introduces the field of engineering education. It is designed for graduate students pursuing engineering education research and those in technical engineering disciplines who are interested in learning about engineering education. Topics include the history of engineering education, an overview of engineering education research methodologies, current issues, theoretical frameworks and applications of engineering education. (Irreg.)

ENGR 5223 Curriculum Design, Delivery and Assessment 3 Credit Hours Prerequisite: graduate standing or permission of the instructor. This course will cover curriculum design, delivery, and assessment practices in the field of engineering education. This course will enable graduate students to understand principles of student-centered teaching and learning; course design focused on student learning outcomes; active and collaborative learning strategies; use of technology for learning and design of assessment tools. (Irreg.)
ENGR 5900 Engineering Professional Practice 1-6 Credit Hours 1-6 hours. Prerequisite: Graduate standing and departmental permission. May be repeated; maximum credit six hours. Participation in a professional experience with an approved project sponsor and topic. A written report detailing the responsibilities and results of the experience is required upon completion along with an oral presentation. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
ENGR 5960 Directed Readings 1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing and permission of department. May be repeated; maximum credit twelve hours. Directed readings and/or literature reviews under the direction of a faculty member. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
ENGR 5970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)
ENGR 5980 Research for Master's Thesis
2-9 Credit Hours
Variable enrollment, two to nine hours; maximum credit applicable toward degree, four hours. (F, Sp, Su)

## ENGR 5990 Independent Study

1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)
ENGR 6960 Directed Readings
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit six hours. Directed readings and/or literature review under the direction of a faculty member. (Irreg.)
ENGR 6970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit 12 hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or research and field projects. (Irreg.)
ENGR 6980 Research for Doctoral Dissertation 2-16 Credit Hours 2 to 16 hours. Prerequisite: Graduate standing and permission of instructor; may be repeated. Directed research culminating in the completion of the doctoral dissertation. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

ENGR 6990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)

## ENST- Environmental Studies

ENST 1013 Consumption and the Environment
3 Credit Hours
An introduction to the interdisciplinary aspects of human consumption and the environment. Aspect of the production and consumption of food, energy, transportation, and housing are considered for their contributions to global climate change, air and water pollution, and habitat alteration, as well as other relevant topics regarding the environment. Students will learn how complex interactions between natural processes and human activities shape aspects of the global, regional and local environment. ( $F$, $\mathrm{Sp})$ [III-SS].
ENST 2003 Water Resources Advocacy
3 Credit Hours
Water is commonly considered the world's "new oil." Experts vow that water scarcity may ultimately lead to the next world war. This course will provide insight and understanding of challenges, decisions, and advocacy in ecologically and economically sustainable management of water resources, as well as the seriousness of what water scarcity means using national and global case studies. (F)
ENST 2023 American Environmental Perspectives 3 Credit Hours Prerequisite: sophomore standing or permission of instructor. Based on the relationships between people and the natural world, with a focus on natural, social, and institutional systems in the US, and our shared goals for sustainability, this course explores the role of nature in fulfilling human needs, as well as how American society influences and impacts nature at local, regional, national, and global scales. (F)
ENST 2203 Ecosystem Impacts of Climate Change 3 Credit Hours Rising temperatures, changing rainfall patterns, rising sea levels and increasing atmospheric carbon dioxide have direct effects on living creatures and the Earth's climate system, which also spawn many indirect changes in ecological systems. This non-majors course will cover the basic of why climate is changing, its effects on plant and animal physiology and behavior, and its impact on the ecosystem. (Su) [II-NS].
ENST 2623 Human-Wildlife Interactions 3 Credit Hours Prerequisite: sophomore standing or permission of instructor. Examines various aspects of human-wildlife interactions, including issues pertaining to habitat destruction, poaching, and forced sharing of space between humans and wildlife. Species will be studied through examination of case studies, evaluation of their efficacy, and development of additional solutions to these and similar problems arising in wildlife conservation, with particular emphasis on large African mammals. (Sp)
ENST 2813 Environmental Studies Cornerstone 3 Credit Hours Prerequisite: ENST majors and minors only; departmental permission required; Corequisite: ENST 3891. This course introduces students to the Environmental Studies program. It offers students an overview of environmental teaching and research at OU , and emphasizes the importance of integrating disciplinary perspectives on environmental topics. (F, Sp)

ENST 2970 Special Topics
1-3 Credit Hours
Special Topics. 1 to 3 hours. May be repeated; Maximum credit nine hours. Special topics course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research, and field projects. (Irreg.)

## ENST 3023 Environmental Psychology

3 Credit Hours
Prerequisite: junior standing or permission of instructor. Examines the interplay between human behavior and the environment, both natural and built. Topics include place identity and place attachment, the cognitive hierarchy and human behavior, the influence of design on behavior, biophilia and behavioral inheritance, the psychology of crowding, environment and health, and research applications. (Sp)

## ENST 3203 Sprawl and the Environment

3 Credit Hours
Prerequisite: junior standing or permission of instructor. The built environment, in particular our pattern of cities surrounded by suburbs, has impacts on the environment. These impacts are both direct and indirect. Direct effects include impact on water quality, habitat fragmentation, endangered species and the covering of natural habitat with impervious surfaces. Indirect impacts include increased reliance on automobiles and subsequent increases in air pollution and greenhouse gasses. Students will examine patterns in land use and their impacts and how different development patterns and practices can minimize environmental impacts. (Irreg.)

ENST 3213 Law and the Environment
3 Credit Hours
Prerequisite: junior standing or permission of instructor. Examines the general underlying foundations of the United States constitutional principles. Study of the constitutional and structural conflicts when environmental law is at issue. The focus of the class will shift to practical information and exercises regarding environmental law. Finally, the class will study the three sections of specialized law and their interrelationship with the environment. (Irreg.)

ENST 3223 Environmental Justice
3 Credit Hours
Prerequisite: junior standing or permission of instructor. Examines the impact of industrial societies on human beings, especially minority and low income populations. Students are introduced to evidence of disproportionate impact in certain populations, potential causes of the problems, theoretical concepts of environmental justice and how some of these concepts may be implemented to solve problems affecting the various communities. Additionally, students will review the legal and social implications, as well as potential methodology that is defining, refining, and shaping the environmental justice landscape. (Irreg.)

## ENST 3243 Introduction to Water Law

3 Credit Hours
Prerequisite: English 1213/Expository Writing 1213, junior standing or permission of instructor. Provides an understanding of the fundamental tenets of water allocation in the United States. Topics include the Clean Water Act and its effect on resolving complex pollution issues, competing uses of water, riparian doctrine, prior appropriation, the public trust doctrine, nonpoint source pollution, and oil spills and hydraulic fracturing. (Sp)

## ENST 3263 Ecotourism: Sustainable Wildlife and Nature

Tourism
3 Credit Hours
Prerequisite: ENST 1013 or ENST 2623, junior standing, or permission of instructor. Using case studies and small student group projects, this course explores ecotourism or sustainable wildlife and nature tourism across the broad array of beneficial features, such as protection for a species and income generation for local people, as well as some of ecotourism's less-sustainable and potentially harmful aspects. (F)

ENST 3303 Food, Agriculture, and the Environment 3 Credit Hours
Prerequisite: junior standing or permission of the instructor. Food production, both large scale and small scale, has impacts on the environment. From erosion to water pollution to intensive use of fossil fuels, these impacts affect a variety of environmental elements. Since most of us buy our food pre-packaged at the supermarket, we do not see these impacts, nor typically are these impacts reflected in the price we pay. Most of our food arrives from far away, transported over long distances, in many cases from the southern hemisphere. This class will examine the impact of our food production systems on all aspects of the environment including air, soil, and water, as well as its demands and impacts on energy production. (Irreg.)
ENST 3313 Gardening, Community, and the Environment 3 Credit Hours Prerequisite: junior standing or permission of instructor. Explores fundamental concepts and styles of gardening with an emphasis on edibles and organic methods. Class assignments help students connect gardening to environmental and community issues at the personal, local, regional, and global levels. A service learning component promotes handon experiences and responsibility to the community. (Irreg.)

## ENST 3423 Anthropogenic Contaminants and Environmental Health <br> 3 Credit Hours

Prerequisite: junior standing or permission of instructor. Human progress has allowed us to live comfortable, well-fed lives, free from many diseases and environmental fluctuations. This progress has degraded many of the ecosystem goods and services on which we depend. This course will examine human environmental impacts, with a focus on water pollution, and the consequences of human activities on ecosystem goods and services. (Su)

ENST 3440 Mentored Research Experience 3 Credit Hours 0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)

ENST 3463 Water and Ecological Sustainability 3 Credit Hours (Crosslisted with BIOL 3463) Prerequisite: junior standing and English 1213 or Expository Writing 1213, Biology 1114 or Biology 1124 or Biology 1134, or permission of instructor. Objective of the course is to allow students to examine and discuss important historical and current issues relating to the interactions between socio-economic use of water resources and ecosystem biodiversity, function, and sustainability. (F) [IINS].

## ENST 3503 Energy Use, Climate Change, and the

 Environment
## 3 Credit Hours

Prerequisite: junior standing or permission of instructor. The way we live in the modern industrialized world is extremely energy intensive. We will examine our energy use across all sectors, from the fuels used to generate the electricity to run our computers to the energy we are most familiar with, that which we use to fill our cars. (Irreg.)
ENST 3603 Global Perspectives of Wildlife Conservation 3 Credit Hours Prerequisite: junior standing or permission of instructor. A conservation biology course with primary attention aimed at wildlife. Explores the complex relationships that exist between humans and wildlife throughout the world. Group activities and detailed assessment of case studies will introduce students to finding solutions to threats that can provide wildlife conservation in a way that is also beneficial (or at least not harmful) to humans. (F)

ENST 3613 The Politics of Wildlife Conservation 3 Credit Hours
Prerequisite: junior standing or permission of instructor. Exploration of the politics of wildlife conservation from a variety of perspectives. Review the history of our own species' impact on the lives of free-ranging animals and examine the many ways that human-wildlife symbiotic relationships have influenced biodiversity loss and growth. Students will learn about the process of implementing national laws and international treaties aimed at conserving wildlife, while also practicing methods of working with local people and key decision makers. Through a series of problemsolving activities and assessment of several relevant case studies, we will focus on the more general "politics" of wildlife conservation. (Irreg.)
ENST 3633 Wilderness Philosophy 3 Credit Hours Prerequisite: junior standing or permission of instructor. Explores the concept of wilderness as a human construct. Provides an overview of the various Western perspectives of wilderness; from the early prehistoric and colonial American views of wilderness, through the inception and designation of federally recognized Wilderness, to the current debate regarding the role of wilderness in contemporary society. (Su)
ENST 3653 Community Conservation 3 Credit Hours Prerequisite: junior standing or permission of instructor. Community conservation involves local people, often working with conservation scientists, protecting and conserving their natural resources. The principles of community conservation are similar globally, but each community conservation project will differ depending on location, habitat type, and the status of wildlife species involved. Select case studies of successful programs will be examined as bases for hypothetical student community conservation projects. (Sp)
ENST 3663 Hot Topics in Wildlife Conservation 3 Credit Hours Prerequisite: ENST 2623 or ENST 3613 or permission of adviser or instructor. Examines the latest technologies used in the field of conservation, new advances in human-wildlife conflict mitigation, updates on political approaches to conservation, and other current conservation news, with emphasis on large African mammals. Provides an opportunity to learn more about how interested stakeholders come together to develop national wildlife policies and conservation action plans. (Su)

## ENST 3713 Nature in the City

3 Credit Hours
Prerequisite: junior standing or permission of instructor. Given that the vast majority of the Earth's land area has had some kind of human impact, this class will examine how we can maximize the potential of human-altered habitats to support native species, facilitate population exchange, and support wildlife conservation. Additionally, we'll examine how urban plant and animal populations affect people.
ENST 3723 Issues in Ecological Restoration 3 Credit Hours Prerequisite: ENGL 1213 or EXPO 1213, junior standing or permission of instructor. This introduction to the field of restoration ecology will cover philosophical, societal, and scientific aspects of restoring habitats and ecosystems. (Sp)
ENST 3743 Biological Invasions and Society
3 Credit Hours
Prerequisite: junior standing or permission of instructor. New species arrive on our shores daily; some of these species become so problematic that we label them "invasive." Explores some of our views of invasive species, what makes a species invasive, how they spread, what their impacts are on human and natural systems, whether or not all invasive species are bad, and what can be done to control them. (Sp)

ENST 3800 Environmental Internship
1-3 Credit Hours
1 to 3 hours. Prerequisite: junior standing and permission of IPE coordinator. Supervised work experience at a business, government or non-profit agency, dealing with an environmental issue. May require specific preparation, as appropriate. S/U grade based on completion of advance preparation, if any; evaluation by workplace supervisors; and coordinator's evaluation of a report on the issue dealt with during the internship. (F, Sp, Su)
ENST 3891 Environmental Studies Learning Community 1 Credit Hour Prerequisite: ENST 2813 (or concurrent enrollment); ENST majors and minors only; departmental permission required; may be repeated; maximum credit 3 hours. The Learning Community course gives Environmental Studies majors the opportunity to enrich their classroom experience, through a variety of activities including structured interactions with other students; presentations on academic and policy topics; workshops on career planning; and environmentally related service projects. (F, Sp)
ENST 3893 Environmental Studies Research Project 3 Credit Hours Prerequisite: ENST 2813; ENST majors and minors only; departmental permission required; Corequisite for majors: ENST 3891, if offered. An independent study into an environmental issue with one or more faculty researchers. This class provides experience with academic inquiry, and the integration of multiple disciplinary perspectives. ENST 2813 (Environmental Studies Cornerstone) is a prerequisite because in that class students will choose and plan research projects matching their own interests. (F, Sp, Su)
ENST 3913 Special Topics in Environmental Studies 3 Credit Hours Prerequisite: junior standing or permission of instructor. May be repeated with change of content; maximum credit nine hours. Designed to permit the study of specific and changing issues and problems in environmental studies. (Irreg.)
ENST 3950 Environmental Research Experiences for Students (ERES): Practical Research

1-3 Credit Hours
1 to 3 hours. Prerequisite: ENST 3940 or concurrent enrollment. A semester-long course in which a student works independently with a faculty researcher to gain experience and understanding in active research within a specific discipline. ( $F, S p, S u$ )

ENST 3960 Honors Reading 1-3 Credit Hours
Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Consists of topics designated by the instructor in keeping with the student's major program. The topics will cover materials not usually presented in regular course work. (Irreg.)

## ENST 3970 Honors Seminar

1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Subjects covered vary. Deals with concepts not usually treated in regular courses. (Irreg.)
ENST 3980 Honors Research
1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors program. May be repeated; maximum credit six hours. Provides an opportunity for the Honors candidate to work at a special project under the guidance of a professor on a specific environmental related issue. (Irreg.)
ENST 3990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: permission of instructor and junior standing. May be repeated once with change of content. Independent study may be arranged to study a subject not available through regular course offerings. (F, Sp, Su)

ENST 4883 Environmental Studies Seminar 3 Credit Hours ENT-Entrepreneurship
Prerequisite: ENST 2813, ENST 3893, ENGL 1213 or EXPO 1213, and
permission of department; Majors only; Repeatable with change of content; maximum credit 6 hours. Intensive study of interdisciplinary approaches to environmental issues, typically through close reading of major academic works that integrate multiple disciplines. Content will vary by instructor. (F)
ENST 4893 Environmental Studies Capstone 3 Credit Hours
Prerequisite: Majors only; ENST 4883. Students will work in interdisciplinary teams to propose a scientifically informed and ethically justified policy response to a local or regional environmental concern. Content will vary by semester. (Sp) [V].

## ENST 4960 Directed Readings

1-4 Credit Hours
1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean. May be repeated; maximum credit four hours. Designed for upper-division students who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)

## ENST 4970 Seminar

1-3 Credit Hours
Prerequisite: junior standing or permission of instructor. May be repeated with a change of content; maximum credit six hours. Interdisciplinary topics with regard to the environment; May include field work, special presentations, or other activities not covered in regularly scheduled courses. (Irreg.)
ENST 4990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: junior standing or permission of instructor. May be repeated; maximum credit six hours. Contracted independent study for a topic not currently offered in regularly scheduled coursework. May include library and/or research and field projects. (Irreg.)
ENST 5053 Advanced Environmental Studies 3 Credit Hours
Prerequisite: graduate standing. An interactive seminar featuring discussions of assigned readings, student presentations, and guest lectures. Topics covered will cross the environmental studies spectrum, from basic ecological principles and approaches to public and agency communication, and will include treatment of historical, policy, and legal perspectives of environmental issues. (Sp)

ENST 5960 Directed Readings
1-3 Credit Hours
1 to 3 hours. Prerequisites: graduate standing and permission of department. May be repeated; maximum credit twelve hours. Directed readings and/or literature reviews under the direction of a faculty member affiliated with the Environmental Studies program. (F, Sp, Su)
ENST 5980 Research for Master's Thesis 2-9 Credit Hours
Prerequisite: graduate standing. Variable enrollment, two to nine hours; maximum credit applicable toward degree, six hours. (F, Sp, Su)
ENST 5990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)

ENT 2113 Innovation \& Entrepreneurship
3 Credit Hours
Explore the basic concepts of innovation and entrepreneurship. The class will be a mix of lectures and discussions, presentations, experiential exercises and guest speakers. This course will not count towards the 9 hours of additional ENT coursework for ENT majors or the ENT elective for business majors pursuing the ENT minor. (F, Sp)
ENT 3103 Entrepreneurial Methods 3 Credit Hours
Prerequisite: ECON 1123, ENT 2113 or MGT 2013; Not available to Price College of Business majors; Required for non-business students who obtain a minor in entrepreneurship from the Price College of Business. Entrepreneurial Methods introduces non-business students to the practices associated with obtaining and managing the money and resources needed when launching a new venture. Students learn why understanding sources of income and funding, and the costs of doing business, is vital for entrepreneurial success. (F, Sp)
ENT 3113 New Venture Development I
3 Credit Hours
Prerequisite: Student must be approved for degree candidacy by Price College, Entrepreneurship majors and minors or permission; ACCT 2123 or concurrent enrollment. Focuses on developing a better understanding of the nature of entrepreneurial opportunities and how these opportunities relate to the external environment and to students' entrepreneurial careers. Topics in this course include understanding the opportunity environment, determining the feasibility of an opportunity, preparing for the launch, growth and harvesting of an entrepreneurial venture and planning for a career in entrepreneurship. (F, Sp)
ENT 3123 Corporate Innovation
3 Credit Hours
Prerequisite: Student must be approved for degree candidacy by Price College; ENT 3113 and ENT 3513 or concurrent enrollment. In today's hypercompetitive environment, corporate innovation is essential. This course is about understanding how some firms are able to achieve and maintain an entrepreneurial spirit and superior performance. ( $\mathrm{F}, \mathrm{Sp}$ )

## ENT 3133 Entrepreneurial Resources 3 Credit Hours

Prerequisite: Student must be approved for degree candidacy by Price College; ACCT 2123 or concurrent enrollment. A central facet of the entrepreneurial process is the attainment and management of key resources. The focus of this course is to offer a practical exploration of key resources available to entrepreneurs. Examples include angels and angel groups, venture capital, crowdfunding, accelerators/incubators, grant funding, among others. Students will learn about each resource, and why/when they might be utilized by entrepreneurs. (F, Sp)
ENT 3193 Social Entrepreneurship
3 Credit Hours
Prerequisite: Student must be approved for degree candidacy by Price College, ENT 3113, and ENT 3513 or concurrent enrollment. Introduction to social entrepreneurship in for-profit ventures, and practices to start and grow mission-driven ventures. Social ventures aim for a double or triple bottom line with meaningful social and/or environmental returns, and sustainable financial returns through their products, services or other business practices. ( $\mathrm{F}, \mathrm{Sp}$ )

ENT 3203 Entrepreneurial Process
3 Credit Hours
Prerequisite: student must be approved for degree candidacy by Price College. Course focuses on the early development of independent ventures as well as those within established organizations. Individual and organizational level issues will be addressed. Entrepreneurial thinking will explore the thought processes that challenge existing norms and pave the way for novel solutions to problems in any field. The venture life-cycle of opportunity, launch, growth, and harvest is highlighted. (Sp)

ENT 3213 Entrepreneurial Leadership
3 Credit Hours
Prerequisite: Student must be approved for degree candidacy by Price College. To lead ventures in new or established organizations, cultivating entrepreneurial leadership is essential. This requires leaders to expand their worldviews and continually learn to better lead themselves and others. Entrepreneurial leadership involves a mentality of coordinating resources by collaboratively turning problems into opportunities. Entrepreneurial leaders value character, relationships, curiosity, communication, action, and the processes by which impactful outcomes are achieved. (F, Sp)

ENT 3423 International Entrepreneurship
3 Credit Hours
Prerequisite: Student must be approved for degree candidacy by Price College; ACCT 2123 or concurrent enrollment. Designed to emerge the student in the European Union consumer experience. A practicum course that provides students with opportunities to apply concepts mastered in previous business courses. The class materials are two major assignments, three cases, and a book. Materials will also be supplemented with corporate visits that reinforce the concepts from the in-class materials. (Su)

## ENT 3433 Global Entrepreneurship

3 Credit Hours
Prerequisite: Student must be approved for degree candidacy by Price College. To launch and lead new ventures outside the United States, entrepreneurs must develop a global perspective and exercise crosscultural business and communication skills. In this course, students learn to assess and navigate global contexts for entrepreneurship. Students practice the entrepreneurship skills required to advance global ventures. Special attention is given to differing institutional settings and markets. ( $\mathrm{F}, \mathrm{Sp}$ )

ENT 3440 Mentored Research Experience
3 Credit Hours
0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)
ENT 3513 Venture Capitalization I
3 Credit Hours
Prerequisite: Student must be approved for degree candidacy by Price College, course is not open to Freshmen; ENT 3113, and FIN 2303 or FIN 3303 or concurrent enrollment in FIN 2303 or FIN 3303. Teaches students the functional tools to engage in the management of entrepreneurial capital in ventures from early stage to mature. ( $\mathrm{F}, \mathrm{Sp}$ )

## ENT 3603 New Venture Development II

3 Credit Hours
Prerequisite: student must be approved for degree candidacy by Price College, ENT 3113, and ENT 3513 or concurrent enrollment. Teaches student to conduct elaborate research relevant to the starting of a new venture. Focus is on researching and assessing the market, industry and customer context of a potential venture. Course forms the foundation for writing a solid business plan. (F, Sp)

## ENT 3613 Launching the New Venture

3 Credit Hours
Prerequisite: student must be approved for degree candidacy by Price College. This class covers issues an entrepreneur might face during the launch of their new venture or product. The case-based curriculum teaches the critical questions that must be addressed to turn products and ideas into sales and revenue. Issues to be covered are opportunity identification, manufacturing, pricing, market segmentation, advertising, promotions, public relations, branding, sales, negotiations, channels, franchising, competition and strategy. (F, Sp)

ENT 3710 Topics in Entrepreneurship
1-3 Credit Hours
1 to 3 hours. Prerequisite: student must be approved for degree candidacy in Price College of Business. May be repeated; maximum credit nine hours. Permits students to study topics in entrepreneurship not included in standard course offerings. Subject of course will vary. (F, $\mathrm{Sp}, \mathrm{Su}$ )

ENT 3880 Directed Reading

## 1-3 Credit Hours

Prerequisite: Student must be approved for degree candidacy by Price College, permission. Directed readings and problems under staff supervision for advanced students. A comprehensive report and/or examination is required. (Irreg.)
ENT 3913 Entrepreneurial Growth Strategies
3 Credit Hours
Prerequisite: student must be approved for degree candidacy by Price College, and MGT 3013 or concurrent enrollment. Focuses on growth processes and systems; attracting the right people; managing cash-flow; shareholder decision-making; financial and market-driven options for long-run competitiveness, organizational structures, and management team issues; strategic planning from a resource-based perspective; transition planning for the corporate entity, family dynamics and communication issues; and leadership empowerment. (F)
ENT 3960 Honors Reading
1-3 Credit Hours
1 to 3 hours. Prerequisite: Admission to Honors Program. May be repeated; maximum credit six hours. Consists of topics designated by the instructor in keeping with the student's major program. The topics will cover materials not usually presented in the regular courses. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
ENT 3970 Honors Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Subjects covered vary. Deals with concepts not usually treated in regular courses. (Irreg.)

ENT 3980 Honors Research 1-3 Credit Hours
Prerequisite: Admission to Honors College, and 3113 or concurrent enrollment. May be repeated, maximum credit six hours. Provides an opportunity for the gifted Honors candidate to work at a special project in the student's field. (Irreg.)
ENT 3990 Independent Study
1-3 Credit Hours
Prerequisite: Student must be approved for degree candidacy by Price College, all 3000-level business core courses, ENT 3113 or concurrent enrollment. Provides an opportunity for the student to work at a special project in the student's field. ( $F, S p, S u$ )
ENT 4503 Ronnie K. Irani Center for the Creation of Economic Wealth Internship

3 Credit Hours
Prerequisite: Student must be approved for degree candidacy by Price College, ENT 3113 or concurrent enrollment; students must apply for and be accepted in the Fall for a Spring internship, or in the Spring for a Fall internship, and must have selected to receive credit for their internship; department/Instructor approval required. I-CCEW provides OU with an enhanced mechanism to offer practical experience to promote the entrepreneurial spirit and assist in developing Oklahoma's economy. The Ronnie K. Irani Center for the Creation of Economic Wealth operates alongside the University's Office of Technology Development which is the primary source of the center's intellectual property. Through internship programs, I-CCEW participants engage in entrepreneurial outreach. (F, Sp)

ENT 4603 New Venture Development III 3 Credit Hours
Prerequisite: Business majors must be approved for degree candidacy by Price College; ENT 3603 and ENT 3513 for both ENT majors and ENT minor for business majors; or ENT 3603 and ENT 3103 for ENT minor for non-business majors. Teaches students the critical skills and processes associated with the commercialization of innovate ventures. The commercialization process involves building the resources and financial requirements for successfully launching a new venture. Success in this course requires application of prior learning the New Venture Development I and II. (F, Sp)
ENT 4710 Topics in Entrepreneurship
1-3 Credit Hours
1 to 3 hours. Prerequisite: Student must be approved for degree candidacy by Price College, ENT 3113 or concurrent enrollment. Topics in Entrepreneurship. May be repeated with change of topic; maximum credit six hours. (F, Sp, Su)
ENT 4813 Entrepreneurial Law
3 Credit Hours
Prerequisite: Students must be approved for degree candidacy by Price College, L S 3323. Designed to provide the would-be entrepreneur with a working knowledge of certain essential substantive areas of the law and the ability to work with and use lawyers effectively. The focus will be on the practical legal considerations in forming and sustaining an entrepreneurial enterprise, including entity organization, securities laws, employment benefits, operational liabilities, financing, mergers and acquisitions and intellectual property (Sp)

## ENT 4960 Directed Readings

1-4 Credit Hours
1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean. May be repeated; maximum credit four hours. Designed for upper-division students who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)
ENT 4970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: Senior standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)
ENT 4990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: Senior standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)

## ENT 5102 Entrepreneurship \& Innovation

2 Credit Hours Prerequisite: graduate standing and admitted to the MBA program or permission of instructor. Innovation \& Entrepreneurship offers MBA candidates the opportunity to understand how starting your own business can alter your life's path. The course offers an overview of the concepts and tools of entrepreneurship involving 1) finding or creating opportunities 2) critical success factors in the creation of new ventures and 3) the significance of entrepreneurship for economic development. (Irreg.)

## ENT 5111 Social Entrepreneurship

1 Credit Hour
Prerequisite: Graduate standing and departmental permission. The course will challenge students to look beyond traditional business practices by using entrepreneurial principles to create public good. The design of the course assumes that entrepreneurs are powerful agents of social and economic change who, if properly harnessed, can drive a sustainable economy and environment as well as improve the equity, health, and wellbeing of the population. (Irreg.)

ENT 5112 Corporate Entrepreneurship
2 Credit Hours
Prerequisite: Graduate standing and departmental permission. Corporate
Entrepreneurship is about understanding how and why some firms can maintain their entrepreneurial spirit, competitiveness, and growth, whereas others cannot. It is about creating work environments where innovation is the norm, where employees are encouraged to work entrepreneurially, where leadership is supportive (not controlling), and where firms are organized to take advantage of opportunities. (Irreg.)
ENT 5121 Entrepreneurial Family Business
1 Credit Hour
Prerequisite: Graduate standing and departmental permission. The course provides an overview of family businesses and the skills and knowledge needed to operate an entrepreneurial and sustainable family business. Topics include family business social and economic impact, strategy, performance, governance, succession, family business dynamics, and family business roles. (Irreg.)
ENT 5122 Entrepreneurship for Science and Technology 2 Credit Hours (Crosslisted with ENGR 5122) Prerequisite: Graduate standing and departmental permission. This course will introduce entrepreneurship from the science and technology perspective. We will start with ideas, analyze them, and see how they could grow into a business. The course will cover areas such as innovation, prototyping, competition, customer discovery, business model canvas, networking, funding, and legal issues, including patents and intellectual property. (F, Sp)
ENT 5131 Design Thinking for Entrepreneurship 1 Credit Hour Prerequisite: Graduate standing and departmental permission. This course introduces design thinking for budding business titans, policy makers, social innovators, and anyone else interested in learning an approach that can be applied to a variety of "wicked" problems, helping foster equity, and transforming product, services, and organizations. (Irreg.)
ENT 5132 Global Entrepreneurship
2 Credit Hours
Prerequisite: Graduate standing and departmental permission. This course will explore the basic concepts of global entrepreneurship. The class will be a mix of lectures, cases studies, discussions, experiential exercises, and guest speakers. (Irreg.)
ENT 5141 Entrepreneurial Law 1 Credit Hour Prerequisite: Graduate standing and departmental permission. This course will provide the entrepreneur with a working knowledge of certain essential substantive areas of the law and the ability to work with and use lawyers effectively. The focus will be on the practical legal considerations in forming and sustaining an entrepreneurial enterprise, including entity organization, securities law, operational liabilities, financing, mergers and acquisitions, and intellectual property law. (Irreg.)

## ENT 5142 Economics of Innovation

2 Credit Hours
Prerequisite: Graduate Standing and Departmental Permission. This is a graduate-level course on economics of innovation. The ultimate learning objective of this course is to improve students' analytical skills and critical thinking in topics that relate to the key determinants of innovative activities in modern economies and the implications of innovation for growth and development. (Irreg.)
ENT 5151 Entrepreneurial Resources
1 Credit Hour
Prerequisite: Graduate standing and departmental permission. A central facet of the entrepreneurial process is the attainment and management of key resources. The focus of this course is to offer a practical exploration of key resources available to entrepreneurs. Examples include angels and angel groups, venture capital, crowdfunding, accelerators/ incubators, and grant funding, among others. (Sp)

ENT 5152 Entrepreneurship Law
2 Credit Hours
Prerequisite: Graduate Standing and Departmental Permission. This course will provide the entrepreneur with a working knowledge of essential substantive areas of the law and the ability to work with lawyers effectively. The focus will be on the practical legal considerations in forming and sustaining an entrepreneurial enterprise, including entity organization; sources of funding; securities laws; employment benefits; operational liabilities; financing; mergers and acquisitions; and intellectual property. (Irreg.)
ENT 5161 Sustainable Entrepreneurship 1 Credit Hour
Prerequisite: Graduate Standing and Departmental Permission. Sustainable entrepreneurship uses the tools of entrepreneurship to address environmental challenges in for-profit and nonprofit contexts. The course will cover concepts such as systems thinking, life cycle assessments, and climate change as sources of opportunities for entrepreneurs. Understanding the underlying principles allows for improving the environment while maintaining financial viability. (Irreg.)
ENT 5162 Product Design \& Development
2 Credit Hours
Prerequisite: Graduate Standing and Departmental Permission. The focus of Product Design and Development is integration of the marketing, design, and manufacturing functions of the firm in creating a new product. It is expected that each student will prepare for and attend all of the class sessions and enhance class discussions. Participation in a team project is central to this course. (Irreg.)
ENT 5172 Innovation \& Change
2 Credit Hours
Prerequisite: Graduate Standing and Departmental Permission. The primary purpose of the course is developing an understanding of innovation and change management skills and processes (by focusing on the interrelated concepts of Innovation, Change, \& New Value Creation) and applying this knowledge to fostering the creation of new value. Students will also be exposed to real world entrepreneurial ecosystems which are designed to enable innovation and entrepreneurship. (Irreg.)
ENT 5182 Strategic New Venture Development 2 Credit Hours Prerequisite: Graduate Standing and Departmental Permission. This class provides hands-on learning on what it's like to start a company. Our goal is to create an entrepreneurial experience for you with all the pressures and demands of the real world in an early-stage startup. The class is designed to provide the experience of how to work as a team and turn an idea into a company. (Irreg.)
ENT 5902 Entrepreneurial Leadership 2 Credit Hours Prerequisite: Graduate standing and MGT 5702. To lead ventures in new or established organizations, cultivating entrepreneurial leadership is essential. This requires leaders to expand their worldviews and continually learn to better lead themselves and others. Entrepreneurial leadership involves a mentality of coordinating resources by collaboratively turning problems into opportunities. Entrepreneurial leaders value character, relationships, curiosity, communication, action, and the processes by which impactful outcomes are achieved. (Irreg.)

## ENT 5912 Capitalizing the New Venture <br> 2 Credit Hours

Prerequisite: graduate standing in Business. This course will cover various aspects of financing entrepreneurial ventures. Topics will include methods of financing, financials, techniques for valuing new businesses and financial structure. Funding sources examined will include commercial banks, small business investment companies SBIC, Business Angels, IPO, Series A \& B \& C financing, acquisitions, LBO, and venture capital companies. These processes are often referred to as sourcing, diligence and valuation. Concepts are illustrated through Harvard Business School, Babson College, and Stanford Cases, supplemented by notes and readings. (Irreg.)

ENT 5934 Strategic Venture Development
4 Credit Hours
Prerequisite: graduate standing in Price College of Business.
Entrepreneurship is about the identification and enactment of entrepreneurial opportunities. This class is about evaluation of technology and commercialization, opportunity feasibility analysis, initial industry and market analysis, designing and writing a quality business plan, full industry and market analysis, development of sales and distribution structures, resources and financial capital requirements, selling a venture concept to potential investors, oral presentation skills, and compete in business plan competitions. (Irreg.)

ENT 5942 Launching the New Venture
2 Credit Hours
Prerequisite: graduate standing in Business. This class deals with the issues entrepreneurs might face during the launch phase of their new venture and/or new product. The case-based curriculum teaches students the critical questions that must be answered in order to turn products and ideas into sales and revenue. Issues to be covered are opportunity identification, manufacturing, pricing, market segmentation, advertising, promotions, public relations, branding, sales, negotiations, channels, service, franchising, competition, and strategy. (Irreg.)
ENT 5960 Directed Readings 1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing and permission of department. May be repeated; maximum credit twelve hours. Directed readings and/or literature reviews under the direction of a faculty member. (F, Sp, Su)

ENT 5970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)
ENT 5990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)
ENT 5992 Entrepreneurial Growth Strategies
2 Credit Hours
Prerequisites: graduate standing, majors only. Focuses on growth processes and systems, attracting the right people, managing cash-flow, shareholder decision-making; financial and market-driven options for long-run competitiveness, organizational structures, and management team issues; strategic planning from a resource-based perspective; transition planning for the corporate entity, family dynamics and communication issues; and leadership empowerment. (F)

## ENT 6960 Directed Readings <br> 1-3 Credit Hours

1 to 3 hours. Prerequisite: graduate standing and permission of department. May be repeated; maximum credit six hours. Directed readings and /or literature reviews under the direction of a faculty member. (F, Sp, Su)
ENT 6970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit 12 hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or research and field projects. (Irreg.)
ENT 6980 Research for Doctoral Dissertation 2-16 Credit Hours
2 to 16 hours. Prerequisite: Graduate standing and permission of instructor; may be repeated. Directed research culminating in the completion of the doctoral dissertation. (F, Sp, Su)

# EPHY-Engineering Physics 

EPHY 3440 Mentored Research Experience<br>3 Credit Hours

0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)
EPHY 3960 Honors Reading 1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Consists of topics designated by the instructor in keeping with the student's major program. Cover materials not usually presented in the regular courses. (F, Sp, Su)
EPHY 3970 Honors Seminar 1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Projects covered will vary. Deal with concepts not usually presented in regular coursework. (F, Sp, Su)
EPHY 3980 Honors Research
1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Provides an opportunity for the gifted Honors candidate to work on a special project in the student's field. (F, Sp, Su)
EPHY 3990 Independent Study 1-3 Credit Hours
1 to 3 hours. Prerequisite: permission of instructor and junior standing. May be repeated once with change of content. Independent study may be arranged to study a subject not available through regular course offerings. (F, Sp, Su)
EPHY 4281 Engineering Co-Op Program 1 Credit Hour (Crosslisted with AME, CH E, CEES, C S, ECE, ISE and BME 4281) Prerequisite: Departmental permission and junior standing. May be repeated; maximum credit 6 hours. The Co-Op program provides students an opportunity to enhance their education via career exploration in related professional work experiences. Course assignments help students articulate their experiences by completing journals; mid-term paper; final paper and/or final presentation. Faculty receive an evaluation from the student's Co-Op supervisor who monitors performance. Faculty collaborate with the Co-Op supervisor to ensure student success. (F, Sp, Su )

## EPHY 4960 Directed Readings

1-4 Credit Hours
1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean. May be repeated; maximum credit four hours. Designed for upper-division students who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)
EPHY 4970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: Senior standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

## EPHY 4990 Special Studies

1-3 Credit Hours
1 to 3 hours. Prerequisite: Physics 2424 or 2524, integral calculus, permission. May be repeated with change of subject matter; maximum credit six hours. (F, Sp, Su)

EPHY 5960 Directed Readings
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing and permission of department. May be repeated; maximum credit twelve hours. Directed readings and/or literature reviews under the direction of a faculty member. (F, Sp, Su)
EPHY 5970 Special Topics/Seminar 1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)
EPHY 5980 Research for Master's Thesis 2-9 Credit Hours Variable enrollment, two to nine hours; maximum credit applicable toward degree, four hours. (F, Sp, Su)
EPHY 5990 Special Problems
1-10 Credit Hours
Prerequisite: permission. May be repeated with change of subject matter; maximum credit four hours for the master's degree, or 10 hours for the doctoral degree. (F, Sp, Su)
EPHY 6960 Directed Readings 1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor.
May be repeated; maximum credit six hours. Directed readings and/or literature review under the direction of a faculty member. (Irreg.)

## EPHY 6970 Seminar

1-3 Credit Hours
1 to 3 hours. Prerequisite: permission. May be repeated with change of subject matter; maximum credit four hours for the master's degree, or 10 hours for the doctoral degree. Seminar in Engineering Physics. (F, Sp)
EPHY 6980 Research for Doctoral Dissertation 2-16 Credit Hours 2 to 16 hours. Prerequisite: Graduate standing and permission of instructor; may be repeated. Directed research culminating in the completion of the doctoral dissertation. (F, Sp, Su)
EPHY 6990 Independent Study 1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)

## EUPH-Euphonium

## EUPH 2000 Freshman and/or Sophomore Secondary Euphonium 1 -2 Credit <br> \section*{Hours}

1 to 2 hours. Prerequisite: permission of adviser and instructor. May be repeated; maximum credit toward B.F.A., B.M.A., B.M.E., and B.M. degrees, eight hours. For freshman and sophomore music students studying in a secondary (or minor) performance area. (F, Sp, Su)
EUPH 2020 Euphonium for Music Majors: Freshman/ Sophomore

2-4 Credit Hours
2 to 4 hours. Prerequisite: Majors only. May be repeated; maximum credit 12 hours. Applied instrumental lessons for freshmen and sophomore music majors in a School of Music degree program. (F, Sp)
EUPH 3440 Mentored Research Experience 3 Credit Hours 0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)

EUPH 4000 Junior and/or Senior Secondary Euphonium 1-2 Credit Hours
1 to 2 hours. Prerequisite: permission of adviser and instructor. May be repeated; maximum credit toward B.F.A., B.M.A., B.M.E., and B.M. degrees, eight hours. For junior and senior music students studying in a secondary (or minor) performance area. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
EUPH 4020 Euphonium for Music Majors: Junior/
Senior
1-4 Credit Hours
1 to 4 hours. Prerequisite: Majors only; junior standing. May be repeated; maximum credit 20 hours. Applied instrumental lessons for junior and senior music majors in a School of Music degree program. (F, Sp)
EUPH 5000 Master's-Level Secondary Euphonium 1-2 Credit Hours 1 to 2 hours. Prerequisite: graduate standing in music; permission of adviser and instructor. May be repeated; maximum credit eight hours on a given instrument (including voice). For master's degree music students studying in a secondary (or minor) performance area. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
EUPH 5010 Master's-Level Euphonium for Non-Performance Music Majors

1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing in music; permission of adviser and instructor. May be repeated; maximum credit eight hours on a given instrument (including voice). For master's degree students other than performance majors in their major field. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

## EUPH 5020 Master's-Level Euphonium for Performance

Majors 2-4 Credit Hours
2 to 4 hours. Prerequisite: graduate standing in music; permission of adviser and instructor; 4020 and 4021 or equivalent. May be repeated; maximum credit toward an M.M. degree 10 hours. (F, Sp, Su)
EUPH 6000 Doctoral Secondary Euphonium 1-2 Credit Hours
1 to 2 hours. Prerequisite: graduate standing in music, permission of adviser or instructor. May be repeated; maximum credit eight hours on a given instrument (including voice). For doctoral degree music students studying in a secondary (or minor) performance area. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
EUPH 6010 Doctoral Euphonium for Non-Performance Music Majors

2-3 Credit Hours
2 to 3 hours. Prerequisite: graduate standing in music; permission of adviser and instructor. May be repeated. Doctoral-level study of applied music in the major performance area for students other than performance majors in their primary field. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
EUPH 6020 Doctoral Euphonium for Performance Majors 2-4 Credit

## Hours

2 to 4 hours. Prerequisite: graduate standing in music; 5042; permission of adviser and instructor. May be repeated; credit applicable toward applied music requirements for the Doctor of Musical Arts degree. Doctoral-level study of applied music for performance majors in their primary field. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

## EXPO-Expository Writing

EXPO 1113 Principles of Expository Writing
3 Credit Hours
Prerequisite: ACT English 19 or ACT English (CICS) 19 or Undergraduate level ENGL 0113 Minimum Grade of D or Compass English 085 or Compass Writing Placement C or SAT Verbal 450 or SAT Verbal (CICS) 450. An introduction to the basic genres and methodologies of academic writing, with an emphasis on argumentation and audience analysis. For descriptions of section topics go to http://www.ou.edu/expo.html. (F, Sp) [ [-ENGL].

EXPO 1213 Expository Writing
3 Credit Hours
Prerequisite: ENGL 1113, EXPO 1113 or faculty permission. Students will study and practice the craft of writing through four series of sequenced writing assignments that are attuned to selected readings in the particular topic of the course (http://www.ou.edu/expo.html). Freshmen exempted from the requirement of a 1200 -level writing course may sign up for EXPO 1223, which signifies that the student will receive lower division western civilization and culture credit. (F, Sp) [I-ENGL].
EXPO 1223 Expository Writing
3 Credit Hours
Prerequisite: ENGL 1113 or equivalent or faculty permission. Students will study and practice the craft of writing through four series of sequenced writing assignments that are attuned to selected readings in the topic around which the course is organized (http://www.ou.edu/expo.html). Freshmen exempted from the requirement of a 1200 -level writing course may sign up for EXPO 1223 which signifies that the student will receive lower-division western civilization credit. ( $\mathrm{F}, \mathrm{Sp}$ ) [IV-WC] .

## EXPO 3440 Mentored Research Experience 3 Credit Hours

 0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)EXPO 4980 Independent Research

## 1-3 Credit Hours

1 to 3 hours. Prerequisite: ENGL 1213, sophomore standing, and permission of department. May be repeated with change of content; maximum credit six hours. An upper-division course used by students to complete independent research projects of their own design under the guidance of Expository Writing faculty. (F, Sp)

## F A-College of Fine Arts

F A 1523 Weitzenhoffer Family College of Fine Arts
Perspectives
3 Credit Hours
An examination of Visual Arts, Dance, Drama, Music, and Musical Theatre regarding their relationship and impact on history, culture, and society. Students will gain an understanding of the value and impact fine arts can have on society. Geared towards Fine Arts majors, students will interact with fellow students and faculty from all disciplines within the College of Fine Arts. (F) [V-FYE].
F A 2970 Fine Arts Seminar
1-2 Credit Hours
May be repeated; maximum credit eight hours. Content varies.
Interdisciplinary seminar course for Fine Arts. Deals with concepts not usually presented in regular coursework and/or special creative situations, performance opportunities or projects. (Irreg.)

## F A 3440 Mentored Research Experience

3 Credit Hours
0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)

## F A 3960 Honors Reading

1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated with change of subject; maximum credit six hours. Will consist of either reading topics or independent study designated by the instructor in keeping with the student's major program. (F, Sp, Su)

FA $3970 \quad$ Honors Seminar
1 to 3 hours. Prerequisite: admission to Honors Program, junior or senior Fours FIN-Finance
1 to 3 hours. Prerequisite: admission to Honors Program, junior or senior standing. May be repeated with change of subject; maximum credit six hours. The projects covered will vary. The content will deal with concepts not usually presented in regular coursework. (Irreg.)
F A 3980 Honors Research 1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated with change of subject; maximum credit six hours. Will provide an opportunity for the gifted Honors candidate to work at a special project in the student's field. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
FA 3990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: permission of instructor and junior standing. May be repeated once with change of content. Independent study may be arranged to study a subject not available through regular course offerings. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

## FA 4960 Directed Readings

1-4 Credit Hours
1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean. May be repeated; maximum credit four hours. Designed for upper-division students who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)
F A 4970 Fine Arts Seminar 1-2 Credit Hours
(Slashlisted with 5970) 1 to 2 hours. Prerequisite: junior standing or permission of instructor. May be repeated; maximum credit eight hours. Content varies. Interdisciplinary seminar course for Fine Arts. Deals with concepts not usually presented in regular coursework and/or special creative situations, performance opportunities or projects. No student may earn credit for the same topic for both 4970 and 5970. (Irreg.)

## FA 4990 Independent Study

1-3 Credit Hours
1 to 3 hours. Prerequisite: Senior standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)

## F A 5960 Directed Readings

1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing and permission of department. May be repeated; maximum credit twelve hours. Directed readings and/or literature reviews under the direction of a faculty member. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

## FA5970 Fine Arts Seminar

1-2 Credit Hours
(Slashlisted with 4970) 1 to 2 hours. Prerequisite: graduate standing. May be repeated; maximum credit eight hours. Content varies. Interdisciplinary seminar course for Fine Arts. Deals with concepts not usually presented in regular coursework and/or special creative situations, performance opportunities or projects. No student may earn credit for the same topic for both 4970 and 5970. (Irreg.)

F A 5990 Independent Study 1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)

FIN 2303 Business Finance
3 Credit Hours
Prerequisite: ACCT 2113 and declared business major. The goal of this course is to provide students with a working knowledge of fundamental concepts in financial management and the ability to apply these concepts to real-world problems. In particular, the student should learn the following subjects: time value of money, interest rates, risk and return, stock and bond valuation, cash flow analysis, and capital budgeting. (F, $\mathrm{Sp}, \mathrm{Su}$ )
FIN 2970 Special Topics/Seminar 1-3 Credit Hours
Special Topics. 1 to 3 hours. May be repeated; Maximum credit nine hours. Special topics course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research, and field projects. (Irreg.)

## FIN 3013 Principles of Real Estate

3 Credit Hours
Prerequisite: Student must be approved for degree candidacy by Price College; Acct 2123 or concurrent enrollment, FIN 2303, and MATH 1743 or MATH 1823 or MATH 1914. An introductory course designed to cover the legal, financial, economic and marketing concepts related to real estate. Topics include property rights (contracts, deeds, mortgages, leases, liens); property ownership (titles, closing of settlement, insurance, taxes); financing (interest rates and mortgage types); brokerage; and property evaluation. This course serves as an introduction to the field of real estate. ( $F, S p$ )

FIN 3203 Principles of Insurance
3 Credit Hours
Prerequisite: student must be approved for degree candidacy by Price College. The course is built to introduce students to how individuals and organizations assess and manage risk with special focus on insurance. No previous knowledge of risk management is required. The course will cover principles of risk management, insurance companies and markets, underwriting and pricing, industry structure and regulation. ( $F, S p$ )

## FIN 3213 Estate Planning

3 Credit Hours
Prerequisite: Student must be approved for degree candidacy by
Price College; Acct 2123, FIN 2303, and MATH 1743 or MATH 1823 or MATH 1914. The course will provide students with the fundamentals of the general estate process in the United States. Furthermore, the class will explore the limitations of the financial planner in the estate process. The course will prepare students for estate planning topics that may be tested on the CFP exam. (Irreg.)
FIN 3223 Retirement Planning
3 Credit Hours
Prerequisite: Student must be approved for degree candidacy by Price College; ACCT 2123, FIN 2303, and MATH 1743 or MATH 1823 or MATH 1914. The course will teach the fundamentals of the general retirement process in the U.S. The class will discuss legal and financial topics involving both private and public sources of retirement income. Retirement needs and the advantages and disadvantages of various retirement plans will be explored. The course will prepare students for retirement planning topics on the CFP exam. (Irreg.)
FIN 3403 Financial Intermediaries and Markets
3 Credit Hours
Prerequisite: Economics 1113 and 1123. Investigates the determination of the level of domestic rates of interest and their implications for international currency markets. Describes the important financial institutions in U.S. financial markets. Details the structure of interest rates. Analyzes the behavior of fixed income prices. Discusses techniques of domestic and international institutions to immunize portfolios. (F, Sp, Su)

FIN 3440 Mentored Research Experience
3 Credit Hours
0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)
FIN 3453 Financial Modeling and Analysis in Excel 3 Credit Hours Prerequisite: Finance and Risk Management majors only; Price College degree candidacy; FIN 2303 or FIN 3303. The application of quantitative financial concepts through extensive use of Excel. Students will become proficient in the use of Excel, will have a working knowledge of quantitative concepts used in financial modeling, and will be able to apply these skills in building and solving financial models. (F, Sp)
FIN 3603 Advanced Corporate Finance
3 Credit Hours
Prerequisite: student must be approved for degree candidacy by Price College; junior standing; FIN 2303 or FIN 3303. Development of theory and applications of financial management of the firm with both domestic and international investment decisions, structure and cost of capital, working capital management, dividend policy, long term financial planning and forecasting. The course emphasizes the development of problem solving skills and the use of computerized financial modeling. ( $F$, Sp)

## FIN 3710 Topics in Finance

1-3 Credit Hours
1 to 3 hours. Prerequisite: student must be approved for degree candidacy in Price College of Business. May be repeated; maximum credit nine hours. Permits students to study topics in finance not included in standard course offerings. Subject of course will vary. (F, Sp, Su )
FIN 3960 Honors Reading 1-3 Credit Hours 1 to 3 hours. Prerequisite: admission to Honors Program and approval for Degree Candidacy by Price College. May be repeated; maximum credit three hours. Provides an opportunity for the gifted Honors candidate to study materials not usually presented in regular courses. (F, Sp, Su)
FIN 3970 Honors Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Subjects covered vary. Deals with concepts not usually treated in regular courses. (Irreg.)

## FIN 3980 Honors Research

1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program; junior standing. May be repeated; maximum credit six hours. Independent research on special projects. (F, Sp, Su)
FIN 3990 Independent Study 1-3 Credit Hours
1 to 3 hours. Prerequisite: permission of instructor and junior standing. May be repeated once with change of content. Independent study may be arranged to study a subject not available through regular course offerings. (F, Sp, Su)
FIN 4013 Real Estate Finance
3 Credit Hours
Prerequisite: Degree Candidacy and completed FIN 2303. The student should learn the following subjects: legal principles related to property, legal principles related to mortgages, time value of money as applied specifically to real estate finance, interest rates and their impact on real estate, risk and return, underwriting principles, and the institutional framework surrounding primary and secondary mortgage markets. (F, Sp)

FIN 4103 Investments
3 Credit Hours
(Slashlisted with FIN 5103) Prerequisite: Student must be approved for degree candidacy by Price College; ACCT 2123 or concurrent enrollment, FIN 2303, and FIN 3453 or concurrent enrollment. Topics covered include the structure and operation of securities markets, introduction to portfolio management and capital market theory, the valuation of common stocks and fundamental analysis, determinants of option prices, the determinants of future prices, portfolio performance measurement and risk management, international portfolio management and international investing. Computer exercises are required. No student may earn credit for both 4103 and 5103. (F, Sp, Su)
FIN 4113 Derivative Securities and Markets 3 Credit Hours (Slashlisted with 5113) Prerequisite: FIN 2303 or FIN 3303, student must be approved for degree candidacy by Price College. Uses of futures, option, and swap contracts in investments, banking, business finance, and foreign trade. Topics include valuation, trading mechanics and strategies, and applications. Hedging foreign currencies is included. The course is math and computer intensive. No student may earn credit for both 4113 and 5113. (F, Sp)
FIN 4133 International Financial Management 3 Credit Hours
Prerequisite: Student must be approved for degree candidacy by Price College; FIN 2303 or FIN 3303. Provides the student with the analytical tools needed to evaluate and provide solutions for problems that are commonly encountered in international financial management. Emphasizes basic theoretical models of exchange rate determination and hedging exchange rate risk, international financial transactions, the link between a nation's macroeconomic accounts and its balance of payments accounts, privatization of state-owned enterprises, and international banking. (Irreg.)
FIN 4143 Retirement Planning
3 Credit Hours
Prerequisite: Majors only; FIN 2303; MATH 1743, MATH 1823, or MATH 1914; ACCT 2123 or concurrent enrollment; Student must be approved for degree candidacy by Price College. The course will provide students with the fundamentals of the general retirement process in the United States and will discuss legal and financial topics involving both private and public sources of retirement income. Retirement needs and the advantages and disadvantages of various retirement plans will be explored. CFP exam topics that may be tested on (Retirement Planning) will be covered. (Sp)

## FIN 4153 Estate Planning

3 Credit Hours
Prerequisite: Majors only; FIN 2303; MATH 1743, MATH 1823, or MATH 1914; ACCT 2123 or concurrent enrollment; Student must be approved for degree candidacy by Price College. The course will provide students with the fundamentals of the general estate process in the United States. The class will discuss the various financial implications associated with death, including the pre-planning for the disposition of assets. Furthermore, the class will explore the limitations of the financial planner in the estate process and estate planning topics on the CFP exam. (Sp)
FIN 4213 Real Estate Investments
3 Credit Hours
Prerequisite: Student must be approved for degree candidacy by Price College; ACCT 2123, FIN 2303, FIN 4013, and MATH 1743 or MATH 1823 or MATH 1914. The class will introduce students to real estate investments and the evaluation of real estate investment opportunities. The class will cover the fundamentals of real estate cash flows, the analysis of various lease terms on those cash flows, the integration of real estate financing into the investment decision, and the evaluation of factors influencing the real estate investment decision. (Irreg.)

FIN 4223 Real Estate Modeling and Analysis 3 Credit Hours
Prerequisite: Student must be approved for degree candidacy by Price College; FIN 2303, FIN 4013, FIN 4213 or concurrent enrollment; ACCT 2123, AND MATH 1743 or MATH 1823 or MATH 1914. The class will provide students practical experience in real estate valuations using Excel and the ARGUS Enterprise ("AE") real estate valuation and asset management software. Students will apply concepts from pre- and corequisite real estate courses to build cases and evaluate investments in new and existing retail, office, and residential real estate. ( $F, S p$ )
FIN 4303 Advanced Corporate Finance
3 Credit Hours (Slashlisted with FIN 5303) Prerequisite: Student must be approved for degree candidacy by Price College; FIN 2303 or FIN 3303; ACCT 2123 or concurrent enrollment. Development of theory and applications of financial management of the firm with both domestic and international investment decisions, structure and cost of capital, working capital management, dividend policy, long term financial planning and forecasting. The course emphasizes the development of problem solving skills and the use of computerized financial modeling. No student may earn credit for both 4303 and 5303. (Irreg.)
FIN 4403 Advanced Topics in Investments
3 Credit Hours
Prerequisite: FIN 2303 or FIN 3303, FIN 3503; student must be approved for degree candidacy by Price College. An advanced course providing indepth analysis of portfolio management and strategic asset allocation; fund performance measurement; coverage of alternative investments (such as real estate, private equity and venture capital); analyzes activities of hedge funds, closely-held companies and inactively traded securities; discusses investing in financially distressed firms; and covers investing in commodities. (F, Sp)

## FIN G4413 Commercial Banking

3 Credit Hours
Prerequisite: FIN 2303, FIN 3403, and student must be approved for degree candidacy by Price College. Financial management of the banking firm, including analysis of bank financial performance, bond portfolio analysis, interest rate risk management, capital management, cost of funds, and loan administration. Regulation of the banking system is discussed as is competition from foreign banks. A computerized bank simulation game is used, and international aspects of financial markets are discussed. (F, Sp)
FIN 4423 Mergers \& Acquisitions
3 Credit Hours
Prerequisite: Student must be approved for degree candidacy by Price College; ACCT 2123, FIN 2303, FIN 3453, and MATH 1743 or MATH 1823 or MATH 1914. The objective of the course is to develop an understanding of mergers and acquisitions (M\&A), as well as other corporate restructuring transactions, from the perspective of the corporate executive. Discussing major elements of the acquisition process including the legal environment surrounding an acquisition, the valuation of the firms involved, financing decisions, transaction structures, restructuring options, takeover defenses, and post-acquisition integration. (F, Sp)
FIN 4433 Financial Technology and Applications 3 Credit Hours Prerequisite: Student must be approved for degree candidacy by Price College; FIN 2303, FIN 3503, and ACCT 2123. Introduction to financial technologies (FinTech) and how these technologies have disrupted traditional financial markets and institutions. Topics covered include the structure and functionality of blockchain technology and applications, cryptocurrencies, decentralized finance (DeFi) on blockchains, innovative credit-scoring and lending technologies, the evolution of crowdfunding and online banking, and the impact of FinTech on investing and investment advising. ( $\mathrm{F}, \mathrm{Sp}$ )

FIN 4443 Sustainable Finance
3 Credit Hours
Prerequisite: Student must be approved for degree candidacy by Price College; FIN 2303 or FIN 3303; ACCT 2123 or concurrent enrollment. This course aims to provide students with a fundamental grasp of key financial market issues concerning ESG, responsible business, and climate change. The course employs a blend of lectures, group presentations, and case studies. The curriculum is divided into two parts: Part 1 focuses on ESG, while Part 2 delves into climate change. ( $F, S p$ )
FIN 4453 Corporate Financial Planning \& Analysis 3 Credit Hours Prerequisite: Student must be approved for degree candidacy by Price College; FIN 2303 or FIN 3303; FIN 3453; ACCT 2123 or concurrent enrollment. The course will provide students with skills \& knowledge necessary to be successful in a corporate FP\&A role and/or be successful in executing the FP\&A related functions/duties that are commonly required in corporate finance roles. Students will learn how to use financial data to assess a company's financial health, develop financial plans \& budgets, track performance, and make informed decisions. ( $\mathrm{F}, \mathrm{Sp}$ )
FIN 4513 Financial Risk Management
3 Credit Hours
Prerequisite: FIN 2303 or FIN 3303, FIN 3503; Student must be approved for degree candidacy by Price College. Emphasizes financial and commodity derivative securities and their use as risk management tools. Emphasis on the commodity side is given to energy related products. A financial market simulator will be used to develop students' trading and valuation skills. (Sp)
FIN 4543 Financial Trading Strategies
3 Credit Hours
Prerequisite: FIN 2303 or FIN 3303, FIN 3503; student must be approved for degree candidacy by Price College. Focus is on practical application of theoretical models of pricing and valuation in finance. In addition to learning about trading in general (market structure, trading mechanics, and trading environment and regulation), students will also learn to trade based on their knowledge of various topics: asset allocation, equity valuation, mergers and acquisitions, fixed income valuation and risk, and derivative securities. ( $\mathrm{F}, \mathrm{Sp}$ )

FIN 4613 Student Investment Fund
3 Credit Hours
(Slashlisted with 5613) Prerequisite: FIN 2303 or FIN 3303; FIN 3503; Departmental Permission; student must be approved for degree candidacy by Price College. The management of a real dollar portfolio of common stocks using the value style approach. Emphasis is on the application of fundamental analysis. Frequent class presentations are required. No student may earn credit for both 4613 and 5613. ( $F, S$ Sp)

## FIN 4703 Internship in Finance

3 Credit Hours
Prerequisite: FIN 2303 or FIN 3303; departmental permission; student must be approved for degree candidacy by Price College. Academic projects in the business world applied to practical on-the-job situations. ( $\mathrm{F}, \mathrm{Su}$ )
FIN 4713 Fixed Income Securities and Markets 3 Credit Hours Prerequisite: FIN 2303 or FIN 3303 , FIN 3503; student must be approved for degree candidacy by Price College. Students are involved in the management of a fixed income (bond) portfolio. Emphasis is given to the analytics of fixed income security valuation, and the analysis of investment opportunities. (F)

FIN 4960 Directed Readings
1-4 Credit Hours
1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean. May be repeated; maximum credit four hours. Designed for upper-division students who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)

FIN 4970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: Degree candidacy, FIN 2303 or FIN 3303, and Finance majors or minors only. May be repeated, maximum credit 9 hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

## FIN G4990 Special Studies

## 1-3 Credit Hours

1 to 3 hours. Prerequisite: FIN 2303, departmental permission, and student must be approved for degree candidacy by Price College. May be repeated with change of subject; maximum credit 3 hours. Variable as to subject and credit for areas of specialty and/or interest not otherwise provided in the standard offering of courses. The only passing grade given is the neutral grade of S . $(\mathrm{F}, \mathrm{Sp}, \mathrm{Su})$

## FIN 5102 Financial Management

2 Credit Hours
Prerequisite: Graduate standing and departmental permission. The goal of this course is to provide a working knowledge of fundamental concepts in financial management and the ability to apply these concepts to real-world problems. The student should learn the following subjects: time value of money, interest rates, risk and return, stock and bond valuation, cash flow analysis, and capital budgeting. (Irreg.)

## FIN 5103 Investments

3 Credit Hours
(Slashlisted with FIN 4103) Prerequisite: Graduate standing, majors only, and Permission (Director, CBA Graduate Programs). Topics covered include the structure and operation of securities markets, introduction to portfolio management and capital market theory, the valuation of common stocks and fundamental analysis, determinants of option prices, the determinants of future prices, portfolio performance measurement and risk management, international portfolio management and international investing. Computer exercises are required. No student may earn credit for both 4103 and 5103. (F, Sp, Su)

## FIN 5112 Investments

2 Credit Hours
Prerequisite: Graduate standing and departmental permission. The purpose of this course is to provide the fundamentals of investment analysis. This course will place an emphasis on topics such as risk and return, asset pricing models, portfolio theory, hedge funds, behavioral finance, bond valuation, introduction to futures markets and options, and basics on financial instruments and trading of securities. (Irreg.)

## FIN 5113 Derivative Securities and Markets

3 Credit Hours
(Slashlisted with FIN 4113) Prerequisite: 5043 or Business Administration 5283. Uses of futures, option, and swap contracts in investments, banking, business finance, and foreign trade. Topics include valuation, trading mechanics and strategies, and applications. Hedging foreign currencies is included. The course is math and computer intensive. No student may earn credit for both 4113 and 5113. (Sp)

FIN 5132 Corporate Finance Strategy 2 Credit Hours
Prerequisite: Graduate standing and Permission of Instructor. Corporate Finance Strategy Seminar is a comprehensive course in corporate financial management. The course builds on the main concepts taught in the core finance and accounting courses. The objective is to develop your ability to make strategic decisions within a corporate setting. (Irreg.)

FIN 5302 Financial Markets and Securities

## 2 Credit Hours

Prerequisite: ACCT 5202 and graduate standing. The aim of this course is to provide a strong foundation for an understanding of financial markets and the main types of securities traded in these markets. The topics covered in the course include trading structure, present value calculations, risk and return, portfolio theory, asset pricing models, market efficiency and an introduction to the nature and valuation of equities, bonds, futures, and options. The course will strike a balance between the theoretical paradigms and the empirical literature, and the important links between theory and the real world. The emphasis will be both on principles and on problem solving. The lectures and examinations will focus both on quantitative and conceptual foundations. (Irreg.)
FIN 5303 Advanced Corporate Finance
3 Credit Hours
(Slashlisted with FIN 4303) Prerequisite: Graduate standing and permission of department. Development of theory and applications of financial management of the firm with both domestic and international investment decisions, structure and cost of capital, working capital management, dividend policy, and long term financial planning and forecasting. The course emphasizes the development of problem-solving skills and the use of computerized financial modeling. No student may earn credit for both 4303 and 5303. (Irreg.)
FIN 5312 Corporate Finance
2 Credit Hours
Prerequisite: graduate standing and 5302. This course aims to provide students with the basic analytical and conceptual skills required in the modern practice of corporate financial management. Students enrolled in this class will already have been exposed to the concepts of risk and return, the determination of financial security prices, and models useful in predicting the required returns demanded by investors. In addition, students enrolled in this class will already have been exposed to the fundamentals of financial statements and the analysis of such statements. The course will focus on three key areas of financial management: (1) the optimal allocation of capital; (2) the optimal choices for raising capital; (3) the optimal management of risk in conjunction with
(1) and (2). The course includes application of finance theory to solving real business problems, and emphasizes the importance of technology and globalization to the modern practice of finance. (Irreg.)

## FIN 5322 Financial Derivatives

2 Credit Hours
Prerequisite: Graduate standing; departmental permission; FIN 5112 and B AD 5122. This course is an introduction to derivative securities, markets in which they trade, and how they are used. Derivative securities are constantly changing with new types of derivative securities being developed and traded. The goal of this course is to introduce students to the most common types of derivative securities, though the principles can be applied to more general securities. (Irreg.)
FIN 5332 Risk Management
2 Credit Hours
Prerequisite: Graduate standing, FIN 5322, and departmental permission. This course focuses on defining, measuring, and managing risk in financial institutions as well as in non-financial corporations. Introduces different types of risk, including market, credit, liquidity, and operational risk. The risks are discussed in the general framework of Enterprise Risk Management. Covers several major tools of risk measurement and management with the emphasis on the use of derivatives. (Irreg.)

FIN 5342 Advanced Corporate Finance 2 Credit Hours
Prerequisite: Graduate standing and FIN 5102. This course is for students aspiring to careers in financial management in corporations, banks, and other financial institutions. It covers topics on the corporate financial management function, including advanced capital project evaluation, financing, dividends, corporate risk management, and mergers, acquisitions and corporate restructuring. The course provides the conceptual aspects of corporate finance and an applied perspective on the subject. (Irreg.)
FIN 5352 International Financial Management 2 Credit Hours Prerequisite: Graduate standing, Permission of Department, FIN 5102, and FIN 5112. This course develops the analytical framework required for understanding the interactions between exchange rates, crossborder trade and capital flows, inflation, interest rates, economic growth, and government policy. The course will then examine international financial markets and the opportunities they present for achieving risk management, financing, and investment objectives. The principal focus will be on financial instruments used for these purposes. (Irreg.)
FIN 5362 Fixed Income Securities and Markets 2 Credit Hours Prerequisite: Graduate standing and FIN 5112. The aim of this course is to develop an intellectual and practical understanding of the principles governing the valuation of fixed income securities and their derivatives, the main problems and issues relevant in the management of interest rate risk, and the organization and structure of debt markets, all from the perspective of fixed income fund management. (Irreg.)
FIN 5372 Mergers \& Acquisitions and Corporate Restructuring 2 Credit

Hours
Prerequisite: Graduate standing, departmental permission, and FIN 5102. The course deals with acquiring or disposing of corporate assets (taking into consideration legal issues, accounting, and tax and how they affect the outcome of M\&A transactions). Topics include valuation of assets being sold/purchased by corporations, economic motivations for mergers and acquisitions, structuring of the transactions, deal tactics/strategies, leveraged buyouts, and corporate restructuring. (Irreg.)

FIN 5382 Financial Modeling
2 Credit Hours
Prerequisite: Graduate standing and FIN 5112. The application of quantitative concepts in financial modeling using Excel. Students will become proficient in Excel and use it in building financial models. In addition, students will gain a working knowledge of quantitative concepts such as corporate valuation, portfolio theory, and Monte Carlo methods. (Irreg.)

## FIN 5392 Financial Intermediation and Banking

2 Credit Hours
Prerequisite: graduate standing, FIN 5302, and FIN 5322. This course will focus on the core economic reasoning behind commercial and investment banking and the modern management and valuation of financial intermediaries. Specific topics will include loan evaluation techniques, asset and liability management, risk management and Value-at-Risk, and managing within the confines of regulation. Exposure to modern econometric calculation systems such as Eviews, Stata, MATLAB, or similar. (Sp)
FIN 5402 Equity Fund Management
2 Credit Hours
Prerequisite: graduate standing, FIN 5302, FIN 5322, and B AD 5001. This course will focus on the modern practice of equity portfolio management including the estimation and evaluation of critical parameters, implementation of the Markowitz and Black-Litterman models, the implications of measurement error for assessing portfolio risk, Value-at-Risk, the application of simulation methods for assessing risk exposure, and the computational issues involved with management of portfolios containing many securities and work-arounds. (Sp)

FIN 5412 Advanced Topics in Investments
2 Credit Hours
Prerequisite: graduate standing and FIN 5302. The course will focus on advanced areas of the field of investments, including econometric and statistical techniques for the analysis and modeling of financial markets. Additional focus will be on modeling of volatility, estimation and utilization of modern asset pricing models, and computation of critical parameters for the valuation of derivative securities. (Sp)
FIN 5422 Alternative Investments
2 Credit Hours
Prerequisite: Graduate standing, FIN 5112, and departmental permission. This course provides an overview of alternative investments from the perspective of a portfolio manager. The course will provide a basic understanding of the types of alternative investments such as hedge funds, real assets, and private equity. The course will cover the investment process, construction, and management of portfolios with alternative investments. (Irreg.)
FIN 5432 Venture Capital \& Private Equity 2 Credit Hours
Prerequisite: Graduate standing and departmental permission. This course will explain the structure, funding methods, investment patterns, and financial performance of the private equity industry (venture capital and buyout funds) in the United States and examine how private equity practices developed here have spread worldwide. The course will be taught online--recorded lectures posted for students to download and view asynchronously--with weekly synchronous, live discussion sessions. (Irreg.)

FIN 5442 Real Estate Finance and Investments 2 Credit Hours Prerequisite: Graduate standing, departmental permission, and FIN 5102. The course introduces students to the fundamentals of real estate and real estate finance. The class reviews the time value of money, and explores in more depth quantitative computational principles, underwriting analysis, and the ultimate source of funds for real estate finance. Focus is on the legal, economic, quantitative, and strategic elements of the real estate finance and investing process. (Irreg.)
FIN 5452 Financial Statement Analysis for Financial
Decisions
2 Credit Hours
Prerequisite: Graduate Standing and Departmental Permission. The objective of this course is to provide necessary tools to analyze and interpret firms' financial statements for tasks such as credit analysis, fraud detection, estimating future performance, and conducting fundamental analysis. The emphasis is on integrating financials for more effective financial decision-making. Earnings management and mitigation is also addressed. (Irreg.)

FIN 5462 Economics for Finance
2 Credit Hours
Prerequisite: Graduate Standing and Departmental Permission. The purpose of this course is to cover microeconomic and macroeconomic principles that underlie financial decision-making. Supply and demand analysis, production and cost, optimal profit-maximizing behavior of firms, industrial structure, inflation, unemployment, fiscal and monetary policy are topics covered in the course. The objective is to incorporate economic principles for effective operational and investment decisions. (Irreg.)
FIN 5472 Financial Ethics
2 Credit Hours
Prerequisite: FIN 5102, graduate standing, and departmental permission. This course covers ethical dimensions of finance. Topics covered range from morality of market institutions to the ethical issues involved in the relations between finance professionals and their clients, employers and their employees, and firms and their shareholders. Moral theories philosophers are presented to explain and justify ethical judgments. CFA Institute Ethics and Standards of Practice are also covered. (Irreg.)

FIN 5482 Corporate Risk Management
2 Credit Hours
Prerequisite: Graduate standing and departmental permission; FIN 5102 and FIN 5112. This course will cover a broad range of topics pertaining to financial risk management, especially those related to operational and financial risk exposure faced by modern corporations, volatility of commodity prices, exchange rates, interest rates etc. Techniques covering how risk is assessed; whether it should be managed; and how it should be managed are included in the class. (Irreg.)
FIN 5492 Real Estate Modeling \& Analysis 2 Credit Hours Prerequisite: Graduate standing, departmental permission, and FIN 5442. The goal of this course is to build upon prior real estate finance coursework and provide students with the ability to analyze, model and evaluate investment opportunities in commercial real estate. Topics include: commercial real estate market analysis, lease terms, cash flow modeling and investment evaluation with extensive application of CoStar, ARGUS Enterprise, and Excel. (Irreg.)

## FIN 5502 Mortgage Backed Securities 2 Credit Hours

Prerequisite: FIN 5102 and FIN 5112, graduate standing, and departmental permission. This course is designed to provide students with opportunities to learn how the mortgage market operates, how structured products are packed, valued, and traded, and how the concepts of default and prepayment impact specific structures and individual packages. (Irreg.)

FIN 5613 Student Investment Fund
3 Credit Hours
(Slashlisted with FIN 4613) Prerequisite: graduate standing and by permission. The management of a real dollar portfolio of common stocks using the value style approach. Emphasis is on the application of fundamental analysis. Frequent class presentations are required. No student may earn credit for both 4613 and 5613. (F, Sp)
FIN 5960 Directed Readings 1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing and permission of department. May be repeated; maximum credit twelve hours. Directed readings and/or literature reviews under the direction of a faculty member. (F, Sp, Su)

FIN 5970 Special Topics in Finance
1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing and FIN 5312. May be repeated with change of content; maximum credit 6 hours. Special topics in finance of interest to students in the MBA program. (F, Sp, Su)
FIN 5980 Research for Master's Thesis 2-9 Credit Hours 2 to 9 hours. Prerequisite: graduate standing. Variable enrollment, two to nine hours; maximum credit applicable toward degree, four hours. (F, Sp, Su )
FIN 5990 Directed Readings in Finance 1-3 Credit Hours
Prerequisite: 5043 or Business Administration 5283. May be repeated; maximum credit six hours. Individual graduate study of a specific narrow topic not offered in the current curriculum. (F, Sp, Su)

FIN 6603 Introduction to Finance Theory 3 Credit Hours
Prerequisite: graduate standing and permission. Topics include decision making under uncertainty, portfolio theory, models of asset pricing, efficient markets, option pricing, capital structure and agency theory. (Irreg.)
FIN 6803 Corporate Finance Theory 3 Credit Hours
Prerequisite: 6603 and Economics 5213. Topics include complete and incomplete markets, capital structure theory, agency theory, property rights, dividend policy, signaling models, corporate control issues, mergers and acquisitions. (Irreg.)

FIN 6903 Financial Markets and Institutions
3 Credit Hours
Prerequisite: 6603 and Economics 5213. Topics include the term and risk structure of interest rates, debt pricing, financial contracting, information economics, duration and immunization, futures and options. (Irreg.)
FIN 6960 Directed Readings in Finance 1-3 Credit Hours
1 to 3 hours. Prerequisite: 12 hours in finance and/or specifically related subjects, graduate standing, and permission of instructor. May be repeated with change of topic; maximum credit nine hours. Directed readings in various lines of specialization in finance. Conducted on a conference basis by the staff. Scope of reading and credit to be arranged on entry into the course. (F, Sp, Su)
FIN 6970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit 12 hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or research and field projects. (Irreg.)

## FIN 6973 Seminar

3 Credit Hours
Prerequisite: 12 hours of finance and/or economics, graduate standing, permission. May be repeated with change of topic; maximum credit nine hours. Seminar in latest developments in research and theory from one of the following general areas of the finance field: business finance, capital markets, insurance, investments, money and banking, public finance, real estate. A specific topic is announced for each time of offering. (F, Sp)
FIN 6980 Research for Doctoral Dissertation 2-16 Credit Hours 2 to 16 hours. Prerequisite: Graduate standing and permission of instructor; may be repeated. Directed research culminating in the completion of the doctoral dissertation. (F, Sp, Su)
FIN 6990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)

## FLUT-Flute

FLUT 2000 Freshman and/or Sophomore Secondary Flute 1-2 Credit Hours
1 to 2 hours. Prerequisite: permission of adviser and instructor. May be repeated; maximum credit toward B.F.A., B.M.A., B.M.E., and B.M. degrees, eight hours. For freshman and sophomore music students studying in a secondary (or minor) performance area. (F, Sp, Su)
FLUT 2020 Flute for Music Majors: Freshman/Sophomore 2-4 Credit Hours
2 to 4 hours. Prerequisite: Majors only. May be repeated; maximum credit 12 hours. Applied instrumental lessons for freshmen and sophomore music majors in a School of Music degree program. (F, Sp)

FLUT 3440 Mentored Research Experience 3 Credit Hours 0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)

FLUT 4000 Junior and/or Senior Secondary Flute 1-2 Credit Hours 1 to 2 hours. Prerequisite: permission of adviser and instructor. May be repeated; maximum credit toward B.F.A., B.M.A., B.M.E., and B.M. degrees, eight hours. For junior and senior music students studying in a secondary (or minor) performance area. (F, Sp, Su)

FLUT 4020 Flute for Music Majors: Junior/Senior 1-4 Credit Hours 1 to 4 hours. Prerequisite: Majors only; junior standing. May be repeated; maximum credit 20 hours. Applied instrumental lessons for junior and senior music majors in a School of Music degree program. (F, Sp)

FLUT 5000 Master's-Level Secondary Flute 1-2 Credit Hours
1 to 2 hours. Prerequisite: graduate standing in music; permission of adviser and instructor. May be repeated; maximum credit eight hours on a given instrument (including voice). For master's degree music students studying in a secondary (or minor) performance area. (F, Sp, Su)

FLUT 5010 Master's-Level Flute for Non-Performance Music Majors 1-3 Credit Hours

1 to 3 hours. Prerequisite: graduate standing in music; permission of adviser and instructor. May be repeated; maximum credit eight hours on a given instrument (including voice). For master's degree students other than performance majors in their major field. (F, Sp, Su)
FLUT 5020 Master's-Level Flute for Performance Majors 2-4 Credit Hours
2 to 4 hours. Prerequisite: graduate standing in music; permission of adviser and instructor; 4020 and 4021 or equivalent. May be repeated; maximum credit toward an M.M. degree 10 hours. (F, Sp, Su)

## FLUT 6000 Doctoral Secondary Flute

-2 Credit Hours
1 to 2 hours. Prerequisite: graduate standing in music, permission of adviser or instructor. May be repeated; maximum credit eight hours on a given instrument (including voice). For doctoral degree music students studying in a secondary (or minor) performance area. (F, Sp, Su)

## FLUT 6010 Doctoral Flute for Non-Performance Music

Majors
2-3 Credit Hours
2 to 3 hours. Prerequisite: graduate standing in music; permission of adviser and instructor. May be repeated. Doctoral-level study of applied music in the major performance area for students other than performance majors in their primary field. (F, Sp, Su)

FLUT 6020 Doctoral Flute for Performance Majors 2-4 Credit Hours 2 to 4 hours. Prerequisite: graduate standing in music; 5042; permission of adviser and instructor. May be repeated; credit applicable toward applied music requirements for the Doctor of Musical Arts degree. Doctoral-level study of applied music for performance majors in their primary field. (F, Sp, Su)

## FMS-Film and Media Studies

FMS 1013 Introduction to Film and Media Studies 3 Credit Hours An examination of the history, role, impact, nature and delivery systems of film and media in the United States and the international community. (F, Sp, Su) [IV-AF]

FMS 1113 Introduction to New Media 3 Credit Hours Provides students with an overview of new media studies, focusing on digital culture and computerized technology. Focuses on issues including convergence, the blurring of producer and consumer, and social aspects of media. (F, Sp) [III-SS].

FMS 1123 History of Video Games
3 Credit Hours
Presents the history of video games as an expressive and artistic medium. Focuses on the technological, cultural, and economic factors that influence game production and reception. (F, Sp) [IV-AF].

FMS 1313 Narrative Production Basics
3 Credit Hours
Prerequisite: FMS 1013 or concurrent enrollment. Students will be introduced to common American strategies for fictional narrative digital cinema production from development and preproduction through distribution. Emphasis is placed on application of practical knowledge of production techniques, technologies, protocols and aesthetic conventions for narrative storytelling. (F)

FMS 2013 Film and Media History to 19603 Credit Hours Prerequisite: FMS 1013. Survey of world film and media history from the origins of cinema through 1960, including silent cinema, the transition to sound, classical Hollywood and important international film movements. Emphasizes an understanding of cinema in aesthetic, technological, economic and social terms. (F)

FMS 2023 Film and Media History: 1960 to Present 3 Credit Hours Prerequisite: FMS 1013. Survey of Hollywood, independent and world film and media since 1960, including various new cinema movements, New Hollywood, media conglomeration and globalization. Emphasizes an understanding of the aesthetic, economic and social dimensions of film and media at the end of the twentieth and the beginning of the twentyfirst centuries. (Sp)

FMS 2033 Writing About Film
3 Credit Hours
Prerequisite: 1013, English 1213 or Expository Writing 1213. This course teaches specialized writing skills for writing about film. Topics covered will include the vocabulary of film writing, basic cinema research skills and techniques to write for academic and general audiences. (F, Sp)

FMS 2970 Special Topics/Seminar 1-3 Credit Hours Special Topics. 1 to 3 hours. May be repeated; Maximum credit nine hours. Special topics course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research, and field projects. (Irreg.)

FMS 3023 Chinese Martial Arts Cinema
3 Credit Hours
Prerequisite: ENGL 1213 or EXPO 1213. This course examines the historical development of Chinese martial arts cinema and its influence on today's transnational film culture through attention to the aesthetics of the genre and recurrent themes/issues, including the chivalric code of xia, cultural nationalism, social uses and meanings of screen violence, changing representations of masculinity and femininity, and the interplay of the body with technology. (Irreg.) [IV-WDC].
FMS 3033 The Hollywood Musical
3 Credit Hours
Prerequisite: FMS 1013, ENGL 1213, or EXPO 1213. This course will examine the Hollywood musical as a genre that, while positioned as "escapist entertainment," remains a product of distinct cultural and institutional forces. We will study the film musical's distinct conventions (drawing on minstrel shows, vaudeville, and Broadway), its social and ideological meanings, as well as how it functions as entertainment. (Irreg.)

FMS 3043 Science Fiction and Cultural Modernity 3 Credit Hours Prerequisite: FMS 1013 or ENGL/EXPO 1213. Science Fiction addresses many issues central to the concept of "cultural modernity": utopian/ dystopian visions, technological developments/disasters, mass media/ mass culture, and encounters with the alien "other." In this course we will think and write critically about these and other key themes from a range of science-fiction films and television series. (Irreg.)

FMS 3123 Scorsese and the Coen Brothers 3 Credit Hours
Prerequisite: FMS 1013, ENGL 1213, or EXPO 1213. In this course we will study selected works, first from Martin Scorsese and then from the Coen Brothers, in relation to a range of topics, including American filmmaking since the 1960s; independent vs. mainstream American filmmaking; the concept of auteur filmmakers; and recurrent themes such as the problem of violence, masculinity in crisis, alienation and isolation, and genre revisionism. (Irreg.)

## FMS 3213 Media Theories \& Methodologies

3 Credit Hours
Prerequisite: 2013 or 2023. Familiarize students with classical film theory that evolved during the early days of cinema up through contemporary film and media theory, as a foundation for understanding and analyzing the way media shape and reflect culture. (F)
FMS 3223 Topics in Film Genre 3 Credit Hours
Prerequisite: 1013. May be repeated once with different genres; maximum credit six hours. Offers students a systematic in-depth study of one or two specific genres such as westerns, romantic comedy, horror, film noir, and melodrama. (Irreg.)
FMS 3233 Filmmakers up Close
3 Credit Hours
Prerequisite: 1013. May be repeated once with change of filmmakers; maximum credit six hours. An in-depth study of one or two filmmakers through the study of their films. Filmmakers include directors, screenwriters, actors, and others who have a significant role in making movies. (Irreg.)
FMS 3243 Hispanic Cinema
3 Credit Hours
Prerequisite: ENGL 1213 or EXPO 1213. Analytical study of exemplary motion pictures from the Hispanic world: Spain, Mexico, Cuba, Brazil, and Argentina. (Irreg.) [IV-AF] .
FMS 3313 Digital Cinema Production
3 Credit Hours
Prerequisite: FMS 1013. Film and media production with narrative structure. Students will learn to handle equipment and edit in-camera. (F, Sp )
FMS 3323 Editing: History, Theory, Practice 3 Credit Hours
Prerequisite: FMS 1013. Combines the history, theory, and practice of digital editing in a narrative context. Explores early experimentation in film editing, the evolution of equipment and techniques, major montage/ editing theories, and famous editors, while also providing hands-on shooting and editing experience. (Irreg.)

## FMS 3333 Advanced Narrative Production

3 Credit Hours
Prerequisite: FMS 1013 or FMS 1313. This course offers a workshop environment for the development and refinement of fictional narrative approaches and techniques for a single camera production. Assignments will refine and explore narrative strategy skills that relate to development, preproduction, production, and postproduction with audience, genre, and format in mind. (Irreg.)

## FMS 3343 Film Directing

3 Credit Hours
Prerequisite: FMS 1013 or FMS 1313. This course will explore practices of fictional narrative direction for a single camera approach. Students will be introduced to concepts that prepare students to discuss and apply practical strategies for directing actors, fiction narrative and a technical crew. Assignments will include script analysis, rehearsals, director's preparation, and on-set direction of fictional material. (Irreg.)

FMS 3440 Mentored Research Experience
3 Credit Hours
0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)
FMS 3443 East Asian Cinema
3 Credit Hours
Prerequisite: ENGL 1213 or EXPO 1213. An introduction to East Asian cinema, 1980 to present (Japan, South Korea, China, Taiwan, Hong Kong). Focuses on individual films and larger social, political, and cultural contexts of production and reception. Considers films' unique formal and stylistic characteristics and as cultural reflections of the historical experiences and perspectives of peoples within East Asian. (Irreg.) [IVWDC].

FMS 3453 Global Indigenous Media
3 Credit Hours
Prerequisite: ENGL 1213 or EXPO 1213. Traces historical and contemporary issues of Indigenous self-representation in film and media using theoretical frameworks to examine historical, regional, and digital productions including, but not limited to, Indigenous peoples of the Americas, Canada, Australia, Aotearoa, and Circumpolar Communities. Topics include Indigenous methodologies, political sovereignty, feminisms, futurisms, activism, as well as Indigenous experimentalism, animation, genre play, digital storytelling, and documentary forms. (Irreg.) [IV-WDC].

## FMS 3463 Classical Hollywood Cinema <br> 3 Credit Hours

Prerequisite: ENGL 1213 or EXPO 1213. This course will examine Classical Hollywood, a style and method associated with the studioera of filmmaking in the U.S., roughly the 1920's through the 1950's. Specific topics will include the industrial conditions and stylistic specifics of this era, Classical Hollywood genres and cycles, censorship and the Production Code, technological innovations, and the social impact of popular films. (Irreg.) [IV-AF].
FMS 3513 Cinemas of Childhood
3 Credit Hours
Prerequisite: ENGL 1213 or EXPO 1213. This course examines the figure of the child in world cinema. Specific topics will include the function of fairy tales and fantasy, representations of gender socialization and childhood sexuality, and how films represent children as political actors in stories of social change and environmental crises. (Irreg.)
FMS 3663 The History and Theory of Animation
3 Credit Hours
Prerequisite: ENGL 1213/EXPO 1213. This course will survey the history of animation, with attention to theoretical and critical discussions of authorship, style, technological developments, industrial and independent production, issues in representation, and reception. The focus will be on the development of animation within the Hollywood studio system, and on global trends including Indigenous animation, Japanese anime, and animation traditions in Africa, Europe, and elsewhere. (Irreg.)
FMS 3673 Anime: the World of Japanese Animation 3 Credit Hours (Crosslisted with MLLL 3673) Prerequisite: Junior standing. This course explores the history and development of Japanese animation, or "anime". It examines how animation was brought to Japan, and how it developed prior to the Second World War, and then further in the postwar decades. We will highlight how despite being influenced by foreign sources, Japanese animators create a uniquely Japanese mode of image-making. (Irreg.) [IV-WDC].

FMS 3683 Social Issues and Film
Prerequisite: 1013. Analytical study of films that engage one or more social issues such as race relations, gender roles, class conflict, nationalism and imperialism. Focus will be on their various aesthetic approaches such as social realism, anti-realist techniques, and satire. (Irreg.) [IV-AF].

## FMS 3693 Gender and Media

3 Credit Hours
Prerequisite: ENGL 1213 or EXPO 1213. Course Description: This course will use the tools and methodologies of the humanities to examine how film, television, and other contemporary entertainment media reflect and inform popular attitudes about sex and gender, primarily in a US context. Special attention will be given to how gender intersects with other key identity axes, including race, sexuality, class, and ethnicity. (Irreg.) [IV-WC].
FMS 3703 Topics in Film and Media Production 3 Credit Hours Prerequisite: FMS 1013. May be repeated once with change of content; maximum credit six hours. An in-depth critical and applied study of a particular type of production, with topics such as Advanced SingleCamera Production, Aesthetics and Practice of the Short Film, and Making the Feature Film. (Irreg.)
FMS 3713 Topics in Writing for the Screen 3 Credit Hours Prerequisite: FMS 1013. May be repeated once with change of content; maximum credit six hours. An in-depth critical and applied study of a particular screenwriting topic such as "Writing for Television," "Writing the Short Film," and "Advanced Screenwriting." (Irreg.)
FMS 3800 Internship 1-4 Credit Hours
1 to 4 hours. Prerequisite: FMS 1013, junior standing, and permission of instructor. May be repeated with change of internship; maximum credit four hours. Participation in supervised internship with submission of journals describing work performed, regular reports, on-site supervisor evaluation, assigned readings, and final assessment of experience. ( $\mathrm{F}, \mathrm{Sp}$, Su )
FMS 3801 Career Planning in Film and Media Studies 1 Credit Hour Prerequisite: FMS 1013. Designed to help students professionalize themselves by gaining general career skills (developing a resume, interviewing skills), information specific to careers in film and media (on-set etiquette and performance expectations), and introductions to industry professionals (through guest lectures and informational interviews with FMS alumni). (Irreg.)
FMS 3810 Variable Topics
1-3 Credit Hours
1 to 3 hours. Prerequisite: FMS 1013 or permission of instructor. May be repeated with change of content; maximum credit twelve hours. Varied projects concerning particular aspects of film and media history, genre, and methods of film or digital cinema production. (Irreg.)

FMS 3833 Masterpieces of World Cinema 3 Credit Hours Prerequisite: 1013. May be repeated with change of content; maximum credit six hours. Survey of world film and the principles underlying historical and critical approaches to the cinema, emphasizing an appreciation of international cinema as an aesthetic, economic, and social factor in the twentieth century. (Irreg.)
FMS 3843 Topics in National Cinema
3 Credit Hours
Prerequisite: 1013. May be repeated with change of content; maximum credit six hours. Analytical study of exemplary motion pictures in terms of major periods, themes, and formal parameters in relation to national cultural histories, such as the French New Wave, Film Noir or American silent film. (Irreg.)

FMS 3853 Feature Screenwriting
3 Credit Hours
Prerequisite: 1013 and permission of instructor. An introduction to writing for the screen, including a variety of assignments leading up to developing and writing a feature screenplay. (F,Sp)
FMS 3903 Topics in New Media
3 Credit Hours
Prerequisite: FMS 1113; May be repeated with change of content; maximum credit 6 hours. Analytical study of digital new media, focusing on a specific venue (YouTube, Twitch, Podcasting, FaceBook), genre (fashion vlogging, "let's play" videos, true crime podcasts), or analytical lens (political economy, critical studies, cultural studies, feminist critique, visual culture, aesthetics). (Irreg.)
FMS 3913 Video Game Analysis and Critique
3 Credit Hours
Prerequisite: FMS 2033 or FMS 1123. Analytical study of video games as media objects, whose formal and aesthetic aspects convey artistic, cultural, and symptomatic meanings. Focus will be on the numerous ways that video games convey meaning and the various ways that scholars, media theorists, and journalists explore meaningful video game content. (Irreg.)
FMS 3923 Video Games and Culture
3 Credit Hours
Prerequisite: FMS 1123. Analytical study of video games and their relationship to wider cultural norms and practices. Focus will be on the subcultures that congregate around video games (developers, fan communities) and the ways that wider cultural issues (gender, sexuality, violence) intersect with video games. (Irreg.)
FMS 3933 Media Controversies
3 Credit Hours
Prerequisite: FMS 1013 or FMS 1113. Analytical study of media (including film) that faced banning or censorship in some way, and the public discourse surrounding it. Focus will be on comparing the media's content and artistic meaning, using public discourse about it as a lens through which to examine wider culture. (Irreg.)
FMS 3960 Honors Reading (HONORS)
1-3 Credit Hours
1 to 3 hours. Prerequisite: FMS 1013, permission of the Honors Program.
May be repeated with change in content; maximum credit 6 hours. Independent study in film and media history, theory, and production for students enrolled in the Honors Program. In-depth analysis of specialized topics. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

## FMS 3970 Honors Seminar

1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Subjects covered vary. Deals with concepts not usually treated in regular courses. (Irreg.)
FMS 3980 Honors Research (HONORS)
1-3 Credit Hours
1 to 3 hours. Prerequisite: FMS 1013, permission of the Honors Program.
May be repeated with change of content; maximum credit 6 hours. Open only to students enrolled in the Honors Program. Individualized research with a Film and Media Studies faculty member leading toward work for the Honors thesis. In-depth research of specialized topic in film and media theory, history, or production. (F, Sp, Su)
FMS 3990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: permission of instructor and junior standing. May be repeated once with change of content. Independent study may be arranged to study a subject not available through regular course offerings. (F, Sp, Su)

FMS 4013 Capstone in Film and Media
3 Credit Hours
Prerequisite: Majors only; 24 hours of major credit; senior standing.
Special problems or topics in film and media studies selected by the instructor and indicated by its particular title. Emphasis will be on the individual preparation of a research paper and/or creative project in the topic area. (Sp) [V].

FMS 4960 Directed Readings 1-4 Credit Hours
1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean. May be repeated; maximum credit four hours. Designed for upper-division students who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)

FMS 4970 Special Topics/Seminar 1-3 Credit Hours
1 to 3 hours. Prerequisite: Senior standing or permission of instructor.
May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)
FMS 4990 Independent Study
1-4 Credit Hours
Prerequisite: 1013, permission of the instructor. Specialized study in film and media history, theory, and production, or other topic mutually agreed upon by the student and the instructor. The course enables the student to pursue in-depth analysis of special interest topics in Film and Media Studies. (F, Sp, Su)

## FR H-French Horn

FR H $2000 \quad$ Freshman and/or Sophomore Secondary French
Horn $\quad 1-2$ Credit Hours
1 to 2 hours. Prerequisite: permission of adviser and instructor. May
be repeated; maximum credit toward B.F.A., B.M.A., B.M.E., and B.M.
degrees, eight hours. For freshman and sophomore music students
studying in a secondary (or minor) performance area. (F, Sp, Su)
FR H $2020 \quad$ French Horn for Music Majors: Freshman/
Sophomore
2 to 4 hours. Prerequisite: Majors only. May be repeated; maximum credit Hours
12 hours. Applied instrumental lessons for freshmen and sophomore
music majors in a School of Music degree program. (F, Sp)

FR H 3440 Mentored Research Experience 3 Credit Hours
0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)

## FR H 4000 Junior and/or Senior Secondary French

Horn
1-2 Credit Hours
1 to 2 hours. Prerequisite: permission of adviser and instructor. May be repeated; maximum credit toward B.F.A., B.M.A., B.M.E., and B.M. degrees, eight hours. For junior and senior music students studying in a secondary (or minor) performance area. (F, Sp, Su)
FR H 4020 French Horn for Music Majors: Junior/
Senior 1-4 Credit Hours
1 to 4 hours. Prerequisite: Majors only; junior standing. May be repeated; maximum credit 20 hours. Applied instrumental lessons for junior and senior music majors in a School of Music degree program. (F, Sp)

FR H 5000 Master's-Level Secondary French Horn 1-2 Credit Hours 1 to 2 hours. Prerequisite: graduate standing in music; permission of adviser and instructor. May be repeated; maximum credit eight hours on a given instrument (including voice). For master's degree music students studying in a secondary (or minor) performance area. (F, Sp, Su)

FR H 5010 Master's-Level French Horn for Non-Performance Music Majors

1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing in music; permission of adviser and instructor. May be repeated; maximum credit eight hours on a given instrument (including voice). For master's degree students other than performance majors in their major field. (F, Sp, Su)

## FR H 5020 Master's-Level French Horn for Performance

Majors
2-4 Credit Hours
2 to 4 hours. Prerequisite: graduate standing in music; permission of adviser and instructor; 4020 and 4021 or equivalent. May be repeated; maximum credit toward an M.M. degree 10 hours. (F, Sp, Su)
FR H 6000 Doctoral Secondary French Horn 1-2 Credit Hours
1 to 2 hours. Prerequisite: graduate standing in music, permission of adviser or instructor. May be repeated; maximum credit eight hours on a given instrument (including voice). For doctoral degree music students studying in a secondary (or minor) performance area. (F, Sp, Su)
FR H 6010 Doctoral French Horn for Non-Performance Music Majors

2-3 Credit Hours
2 to 3 hours. Prerequisite: graduate standing in music; permission of adviser and instructor. May be repeated. Doctoral-level study of applied music in the major performance area for students other than performance majors in their primary field. (F, Sp, Su)
FR H 6020 Doctoral French Horn for Performance

## Majors

## 2-4 Credit Hours

2 to 4 hours. Prerequisite: graduate standing in music; 5042; permission of adviser and instructor. May be repeated; credit applicable toward applied music requirements for the Doctor of Musical Arts degree. Doctoral-level study of applied music for performance majors in their primary field. (F, Sp, Su)

## FR-French

FR 1115 Beginning French
5 Credit Hours
An elementary course in understanding, speaking, reading and writing French. Laboratory. This course does not count for major credit in the Department of Modern Languages, Literatures and Linguistics. (F, Sp, Su) [I-FL].
FR 1225 Beginning French (Continued) 5 Credit Hours
Prerequisite: 1115. An elementary course in understanding, speaking, reading and writing French. Laboratory. This course does not count for major credit in the Department of Modern Languages, Literatures and Linguistics. (F, Sp, Su) [I-FL].
FR 2113 Intermediate French
3 Credit Hours
Prerequisite: 1225. The systematic cultivation of increased depth and control in the basic skills of listening, speaking, reading and writing French. Laboratory (F, Sp, Su)

FR 2223 Intermediate French (Continued)
3 Credit Hours
Prerequisite: 2113. The systematic cultivation of increased depth and control in the basic skills of listening, speaking, reading and writing French. Laboratory (F, Sp, Su)
FR 2243 French Conversation and Literature 3 Credit Hours Prerequisite: 2113 or 2133. Conversation practice based on modern literary texts, with the objective of improving reading speed, vocabulary and comprehension, and increased oral fluency, while obtaining an expanded appreciation of French literary texts. (F, Sp, Su)

## FR 2253 Health, Medicine, and the Environment in French

## Culture

3 Credit Hours
Prerequisite: FR 2223 or concurrent enrollment, or FR 2243. This secondyear French class teaches about key issues in health, medicine, and the environment, so that students develop functional cultural and linguistic fluency about French-speaking populations in relation to the topics under study. Issues of global and personal health, medicine, and the human relationship with nature, ecology and the environment are essential topics for our era. ( $F, S p$ )

## FR 2970 Special Topics

1-3 Credit Hours
Special Topics. 1 to 3 hours. May be repeated; Maximum credit nine hours. Special topics course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research, and field projects. (Irreg.)
FR 3083 Advanced French Conversation and Phonetics 3 Credit Hours Prerequisite: 2243 or concurrent enrollment. Intensive practice in speaking French on topics of everyday life; development of specialized vocabularies; fundamentals of French phonetics. (F, Sp)
FR 3423 Advanced French Composition
3 Credit Hours
Prerequisite: FR 2133 or FR 2243 or FR 2263. The inculcation of proper writing habits, at an advanced level, toward the achievement of idiomatic French. (Sp, Su)

FR 3440 Mentored Research Experience
3 Credit Hours
0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)

## FR 3623 Business French

3 Credit Hours
Prerequisite: two years of college French or equivalent. Focuses on terms and expressions used in business settings. Designed to impart an awareness of the differences between French and American business cultures. (F)

FR 3723 French for the Professions
3 Credit Hours
Prerequisite: two years of college French or equivalent. Introduces students to vocabulary in sectors such as advertising, marketing, transportation, medicine, and law. French professional and business cultures are studied. Communication skills for professional and business settings will be practiced in this course. (Sp)
FR 3753 French Culture Through Film
3 Credit Hours
Prerequisite: 2243 or concurrent enrollment. This course deals with contemporary French culture through the medium of cinema. Topics examined include family, education, religion and societal issues, and ethnicity. As a course taught in French, it will also focus on regional accents and generational and ethnic speech. (F)
FR 3853 Introduction to Literary Analysis 3 Credit Hours Prerequisite: 2223. Designed to introduce students to the language and technique of literary analysis. Also serves to improve reading skills generally, as well as oral/aural and written skills. Representative works from the various literary genres will be studied. (Sp, Su)

## FR 3960 Honors Reading

1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Consists of topics designated by the instructor in keeping with the student's major program. Covers materials not usually presented in the regular courses. ( $F, \mathrm{Sp}$ )

FR 3970 Honors Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. The projects covered will vary. Will deal with concepts not usually presented in regular coursework. ( $\mathrm{F}, \mathrm{Sp}$, $\mathrm{Su})$

FR 3980 Honors Research
1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Will provide an opportunity for the gifted Honors candidate to work at a special project in the student's field. (F)

FR 3990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: one course in general area to be studied;
permission of instructor and department. May be repeated; maximum credit six hours. Contracted independent study for topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (F, Sp, Su)
FR G4153 Survey of French Literature to $1800 \quad 3$ Credit Hours
Reading and discussion of major French works and their background from the Middle Ages to the French Revolution. (F, Su)

FR G4163 Survey of French Literature (Continued) 3 Credit Hours Prerequisite: 4153 or permission. Reading and discussion of major French works and their background from 1800 to the present day. (Sp, Su)

## FR 4313 From Lascaux to la Terreur <br> 3 Credit Hours

Prerequisite: FR 3423; HIST 1223 or 1233. The political and social background of French literature from its beginning to the French revolution. (F, Su)
FR 4323 The Making of Modern French Culture
3 Credit Hours
Prerequisite: FR 3423; HIST 1223 or HIST 1233. The political and social background of French literature from the French revolution to the present day. (Sp)

FR 4960 Directed Readings
1-4 Credit Hours
1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean. May be repeated; maximum credit four hours. Designed for upper-division students who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)
FR 4970 Special Topics/Seminar 1-3 Credit Hours
1 to 3 hours. Prerequisite: Senior standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)
FR 4990 Independent Study 1-3 Credit Hours
1 to 3 hours. Prerequisite: three courses in general area to be studied; permission of instructor and department. May be repeated; maximum credit six hours. Contracted independent study for topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (F, Sp, Su)

FR 4993 Senior Capstone in French
3 Credit Hours
Prerequisite: graduating majors in French. Requires undergraduate French majors to synthesize their knowledge of French contributions to world civilization. They will be required, as part of this enterprise, to demonstrate their mastery of the four basic skills involved in learning a foreign language: reading, writing, speaking, and understanding. (Sp) [V].

## FR 5283 Twentieth-Century French Novel

3 Credit Hours
Prerequisite: graduate standing or permission of instructor. Course presents a survey of the major forms of French novel throughout the twentieth century. (Irreg.)

FR 5323 Old French Readings
3 Credit Hours
Prerequisite: 5313. Introduction to a literary understanding and appreciation of the Old French Canon as represented by such texts as the Alexis, the Roland, Chretien's romances, Beroul's Tristan, the Rose, theatre, chronicles and lyric poetry, including Rutebeuf and Villon. (Alt. Sp )

FR 5623 Seventeenth-Century Prose and Poetry 3 Credit Hours Prerequisite: 4153 . A survey of baroque, precieux and classical style, form and content as exemplified in the prose and poetry of the period. (Irreg.)
FR 5633 Eighteenth-Century French Philosophes 3 Credit Hours Prerequisite: graduate standing or permission. Presents the "philosophes" of the eighteenth century in France such as Montesquieu, Voltaire and Diderot. (Irreg.)
FR 5643 Eighteenth-Century French Narrative and Theatre 3 Credit Hours
Prerequisite: graduate standing or permission of instructor. The course will present an overview of eighteenth-century French narrative and theatre. (Irreg.)

FR 5653 The French Atlantic
3 Credit Hours
Prerequisite: graduate standing or permission of instructor. Examines the aesthetic, social, and political issues foregrounded in 20th- and 21 stcentury Caribbean and Sub-Saharan francophone literature as well as the various historical forces influencing the development of Francophone cultures on both sides of the Atlantic. (Irreg.)

FR 5910 Problems in Research 2-4 Credit Hours
2 to 4 hours. May be repeated with change of content; maximum credit nine hours. An individual course of intensive research with the area and problem to be determined by the student and directing instructor. (F, Sp, Su )
FR 5960 Directed Readings
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing and permission of department. May be repeated; maximum credit twelve hours. Directed readings and/or literature reviews under the direction of a faculty member. (F, Sp, Su)

FR 5963 Nineteenth-Century French Novel
3 Credit Hours
Prerequisite: graduate standing or permission of instructor. Course covers the major developments of the French novel throughout the nineteenth century. (Irreg.)

## FR 5970 Special Topics/Seminar

1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses.
May include library and/or laboratory research and field projects. (Irreg.)
FR 5973 Nineteenth-Century French Poetry and Theatre 3 Credit Hours Prerequisite: graduate standing or permission of instructor. Course surveys the major literary developments in French poetry and theatre throughout the nineteenth century. (Irreg.)

FR 5980 Research for Master's Thesis
2-9 Credit Hours
Variable enrollment, two to nine hours; maximum credit applicable toward degree, four hours. (F, Sp)

FR 5990 Independent Studies 1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing, permission of instructor. May be repeated; maximum credit 12 hours. Independent reading on one or more topics under the general direction of a faculty member. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

FR 6960 Directed Readings
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor.
May be repeated; maximum credit six hours. Directed readings and/or literature review under the direction of a faculty member. (Irreg.)
FR 6970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit 12 hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or research and field projects. (Irreg.)

## FR 6980 Research for Doctoral Dissertation 2-16 Credit Hours

2 to 16 hours. Prerequisite: Graduate standing and permission of instructor; may be repeated. Directed research culminating in the completion of the doctoral dissertation. (F, Sp)
FR 6990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)

## G E-Geological Engineering

GE 2013 Introduction to Energy Resources 3 Credit Hours Prerequisite: PHYS 2514; Co-requisite: PHYS 2524. Survey of energy sources including geothermal, fossil, solar, nuclear, wind, hydropower, and biomass. Addressing societal and environmental implications of different type of energy sources. ( $\mathrm{F}, \mathrm{Sp}$ )
GE 3212 Porous Media Characterization 2 Credit Hours Prerequisite: MATH 2934, PHYS 2524, GEOL 1114, and P E 2113; Co-requisite G E 3221. Properties of porous media and the physical processes that controls and alters these properties. How to measure, analyze and interpret porous media properties. (F, Sp)

GE 3213 Porous Media Characterization
3 Credit Hours
Prerequisite: MATH 2934, PHYS 2524, GEOL 1114, and P E 2113; Co-
Requisite: GE 3221. Properties of porous media and the physical processes that controls and alters these properties. How to measure, analyze and interpret porous media properties. (F, Sp)
GE 3220 GeoEnergy Engineering Internship 0 Credit Hours Prerequisite: G E 2013. Full time Career-related work experience of at least eight weeks in the energy industry. The internship may also involve research with faculty members. (F, Su)
GE 3221 Porous Media Characterization Lab
1 Credit Hour
Prerequisite: None; Co-requisite: G E 3212. Laboratory experiments to understand and characterize porous media. (F, Sp)
GE 3313 Drilling and Well Construction
3 Credit Hours
Prerequisite: P E 3223 or concurrent enrollment, G E 3343, and P E 2153.
Overview of well design and drilling engineering from surface to final depth, completion and abandonment for production and all six classes of injection wells. Topics include; casing design based on pore pressure and fracturing window, design cementing, selection of wellbore fluids for drilling and completion, and state of the art drilling equipment and processes. (F,Sp)
G E 3343 Applied Geomechanics
3 Credit Hours
Prerequisite: GE 3213, P E 2153, P E 3223, and GEOL 3003. Introduction to geomechanics. How to establish properties for rocks, subsurface stresses and pressures. Geomechanical analysis of subsurface energy applications. (F, Sp)

GE 3413 Production and Injection Systems 3 Credit Hours
Prerequisite: P E 3223, G E 3213, and P E 2153. Comprehension of well completion concepts leading to design for optimum well performance for injection and production wells. Applied understanding of the surface production systems and associated components. Included are flow assurance, surface facilities, separation, water and gas processing, pumps, compressors and flow meters. (F, Sp)
GE 3440 Mentored Research Experience 3 Credit Hours
0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)
GE 3513 Fluid Flow and Heat Transfer in Porous Media 3 Credit Hours Prerequisite: G E 3213, P E 3223, and GEOL 3003. The course covers fluid flow and heat transfer in porous media including constitutive equations and modelling methods of transport processes through porous media. ( $F$, Sp )

## GE 3712 Energy Resource Economics 2 Credit Hours

Prerequisite: G E 2013. Application of engineering principles and economics to the evaluation/completion of energy projects, results of which to be used by regulatory agency and investors to value corporations. (F, Sp)

## G E 3813 Formation Evaluation: Well Logs \& Remote Sensing Methods <br> 3 Credit Hours

Prerequisite: ENGR 2431, GEOL 3003, and G E 3213. Comprehension of various methods of formation evaluation. Application of logging tools, geophysical methods, and other sensing techniques to formation evaluation of sub-surface rocks. (F, Sp)
GE 3960 Honors Reading 1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Consists of topics designated by the instructor in keeping with the student's major program. Covers materials not usually presented in the regular courses. (F, Sp)

G E 3970 Honors Seminar 1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. The projects covered will vary. Deals with concepts not usually presented in regular coursework. (Irreg.)
G E 3980 Honors Research 1-3 Credit Hours 1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Provides an opportunity for the gifted Honors candidate to work on a special project in the student's field. (F, Sp)
G E 3990 Independent Study 1-3 Credit Hours
1 to 3 hours. Prerequisite: permission of instructor and junior standing. May be repeated once with change of content. Independent study may be arranged to study a subject not available through regular course offerings. (F, Sp, Su)
GE 4553 GeoEnergy Capstone Design 3 Credit Hours
Prerequisite: G E 3513 and G E 3712 and G E 3813, or concurrent enrollment. Team based open ended capstone project in geoenergy engineering. (F, Sp)

GE 4613 Carbon Capture, Utilization and Storage 3 Credit Hours Prerequisite: G E 3513. CO2 separation from syngas and flue gas for gasification and combustion processes. Transportation of CO2 in pipelines and sequestration in deep underground geological formations or enhanced oil recovery. Comparison of options for geological sequestration in oil and gas reservoirs, deep unmineable coal beds, and saline aquifers. (F, Sp)
G E 4623 Energy Conversion and Storage 3 Credit Hours Prerequisite: G E 2013 and P E 2213. Overview of thermal, mechanical, and hybrid chemical energy storage systems. Surface and subsurface storage technologies are addressed. (F, Sp)
G E 4633 Hydrogen Energy Systems
3 Credit Hours
Prerequisite: G E 2013, P E 2213, and P E 3223. Production of hydrogen from natural, hydrocarbon and renewable energy sources. Transportation, storage and utilization of hydrogen. (F, Sp)

G E 4713 Overview of Geothermal Energy
3 Credit Hours
Prerequisite: G E 2013, P E 2213, P E 3223, and GEOL 3003. Geothermal exploration, surface and downhole geothermal facilities. Overview of geothermal systems such as direct use and enhanced geothermal systems. (F, Sp)
G E 4960 Directed Readings
1-4 Credit Hours
1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean. May be repeated; maximum credit four hours. Designed for upper-division students who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)
G E 4970 Special Topics/Seminar 1-3 Credit Hours
1 to 3 hours. Prerequisite: Senior standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses.
May include library and/or laboratory research and field projects. (Irreg.)
G E 4990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: Senior standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)
G E 5233 Geothermal Technologies
3 Credit Hours
(Crosslisted with P E 5233) Prerequisite: Graduate standing or permission of instructor. This course provides an overview of geothermal resources, applications, systems, surface facilities, wellbore design and completion in geothermal wells, fracture design for EGS systems, drilling challenges of deep geothermal application, well construction challenges in geothermal, and new advancements in numerical and experimental investigation of geothermal. Risk and failure analysis and economic analysis of geothermal systems are incorporated. (F)

G E 5443 Formation Damage
3 Credit Hours
(Crosslisted with P E and GEOL 5443) Prerequisite: Graduate standing or permission of instructor. This course presents an overview of main mechanisms of formation damage (mechanical, chemical, thermal, and biological) occurring during subsurface applications, including but not limited to primary and enhanced hydrocarbon production, CO2 storage, and geothermal processes. Existing theories explaining the process and methods to mitigate the formation damage will be discussed. (Irreg.)

GE5960 Directed Readings
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing and permission of department. May be repeated; maximum credit twelve hours. Directed readings and/or literature reviews under the direction of a faculty member. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
G E 5970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)
G E 5980 Research for Master's Thesis 2-9 Credit Hours
Variable enrollment, 2 to 9 hours; maximum credit applicable toward degree, four hours. (F, Sp, Su)
G E 5990 Special Studies
1-4 Credit Hours
1 to 4 hours. Prerequisite: graduate standing in Geological Engineering. May be repeated with change of topic; maximum credit four hours. Supervised individual study or specialized research in geological engineering. (F, Sp)

G E 6273 Advanced Rock Mechanics II 3 Credit Hours
(Crosslisted with P E 6273) Prerequisite: Graduate standing and instructor permission. Advanced topics related to petroleum and geothermal reservoir rock properties, constitutive models, rock fracture, and coupled processes in rocks and rock masses. Influence of stress, fluid pressure, temperature, and chemistry on rock properties and deformation in the context of drilling, reservoir stimulation, and induced seismicity. (Irreg.)
GE 6960 Directed Readings
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit six hours. Directed readings and/or literature review under the direction of a faculty member. (Irreg.)

## G E 6970 Special Topics/Seminar <br> 1-3 Credit Hours

1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit 12 hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or research and field projects. (Irreg.)
G E 6980 Research for Doctoral Dissertation 2-16 Credit Hours
2 to 16 hours. Prerequisite: Graduate standing and permission of instructor; may be repeated. Directed research culminating in the completion of the doctoral dissertation. (F, Sp, Su)
G E 6990 Independent Study 1-3 Credit Hours 1 to 3 hours. Prerequisite: Graduate standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)

## GCRE-Grad Comp Recital

GCRE 5051 Graduate Composition Recital
1 Credit Hour
Prerequisite: Permission of instructor. A program of original compositions presented in partial fulfillment of the requirements of the Master of Music degree in Composition. $(\mathrm{F}, \mathrm{Sp}, \mathrm{Su})$

# GDMA-Graduate Recital DMA 

GDMA 6042 Graduate Recital-Doctor Of Musical Arts<br>Degree 2 Credit Hours

Prerequisite: Concurrent enrollment in 6020; permission of adviser and instructor. May be repeated; maximum credit four hours. May not be elected during first enrollment. The preparation and presentation of a public recital. (F, Sp, Su)

## GEOG-Geography

## GEOG 1103 Human Geography

3 Credit Hours
An introduction to the humanized Earth; specifically, to the geography of population, the global pattern of cultures and such affiliated elements as language, religion, technology, and political organization, and to the physical expression of those cultures in rural and urban settings. (F, Sp, Su) [IV-WC] .
GEOG 1113 The Language of Maps
3 Credit Hours
Introduction to reading, analyzing and interpreting graphic information symbolized on a wide variety of maps. Topics include: scale, projection, generalization, symbolization, statistical map techniques, coordinate systems, interpreting human and physical landscapes on topographic maps and web-based mapping services, controversies about place names, political gerrymandering, and cartographic innovations. (Sp) [I-O].

## GEOG 1114 Physical Geography

4 Credit Hours
A systematic introduction to the physical Earth; including Earth materials, landform processes and resultant landforms, Earth-sun relations, weather, climate, the water cycle, natural vegetation, and soil types. Emphasis is placed on the inter-relationships among these phenomena. (F, Sp, Su) [IINSL] .
GEOG 1123 Introduction to Geohumanities
3 Credit Hours Introduces students to the link between geography and the humanities, specifically the way we imagine, design, understand and represent the lands and lives of everyday places. Students learn how others have used words (e.g., literature, stories, blogs), pictures (e.g., art, photography, television, video, cinema), music, and maps to assign meaning to places. (F, Sp)
GEOG 1203 Global Environmental Issues 3 Credit Hours
This course is an "interactive" lecture/discussion course, and integrates environmental content with selected readings, hosts guest experts and connects students with real world applications. The myriad of environmental issues and concepts expressed by various media that impact us directly and indirectly will be academically explored. (F, Sp) [IIISS].
GEOG 1213 Economic Geography
3 Credit Hours
A survey of the contemporary global economy and of the analytical approaches developed by geographers studying it. Economic systems are examined at the household, urban, regional, national, and international levels. Special attention is given to changes in resource use, regional specialization, trade, industrial and retail location, and modernization. (F, Sp) [III-SS] .

GEOG 2021 Exploring DGES
Prerequisite: Majors only. An immersive course designed to introduce students to The Department of Geography \& Environmental Sustainability (DGES). Students investigate and practice what it means to be an environmental sustainability, geographic information science, or geography major. Provides foundational knowledge for researching, designing, and implementing each student's DGES degree for a successful collegiate experience and create a sense of belonging and community. (F)

## GEOG 2603 World Regional Geography

3 Credit Hours
A broad survey of the world's major culture regions emphasizing basic physical, cultural, economic, and political patterns, as well as the processes that have created those patterns. Emphasis on economic development, ethnic conflict, and environmental degradation, as well as on the changing role of the United States. (F, Sp, Su) [IV-WC] .
GEOG 2970 Special Topics/Seminar
1-3 Credit Hours
Special Topics. 1 to 3 hours. May be repeated; Maximum credit nine hours. Special topics course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research, and field projects. (Irreg.)

## GEOG 3003 Interpreting Planet Earth

3 Credit Hours
Prerequisite: junior standing or permission of instructor. This one semester, dynamic course integrates human and physical geography. Understanding our planet, its people, issues and global activities will involve "hot topic" discussions, case studies, a team project, plus two outside class field-based activities. (Sp) [III-SS].

GEOG 3023 Principles of Physical Geography 3 Credit Hours
Prerequisite: junior standing or permission of instructor. This course is designed to explain important physical geographical processes and phenomena, the interactions among these phenomena, and their relationship with various human activities. The course provides a solid foundation for upper level physical geography courses including biogeography, climatology, geomorphology, and hydrology. (Sp)

GEOG 3043 Living With Nature 3 Credit Hours
Prerequisite: Junior standing or department permission. Examine the forces of nature that cause disruptions and disasters which includes the process that produces storms, hurricanes, wildfires, droughts, etc. Each topic will include an examination of the causes of those events, where and how often they occur, and the risks they pose to people and society and what actions are needed to reduce or prevent impacts. (Sp) [II-NS].

## GEOG 3133 Geography of Beer, Wine and Spirits 3 Credit Hours

 Prerequisite: junior standing; students must be 21 years of age or older as of the first day of the semester; permission of department; Student must e-mail instructor for permission to enroll. This course introduces you to the cultural and historical landscapes that made/make beer, wine, and spirits possible. The course is a rapid introduction to help bring an appreciation to these these industries. Analysis of physical and cultural forces which shape the production, consumption and variety of these beverages. (F, Sp)GEOG 3213 Principles of Human Geography
3 Credit Hours
Prerequisite: upper-division standing or permission of instructor.
Introduction to the distribution of humans and their activities on the surface of the earth and the processes that generate these distributions. Special attention given to the influence of economy, culture, and politics in shaping the land and the spatial character and organization of human life. A key theme is the relationship of human diversity and places to the environment. (F)

GEOG 3233 Principles of Sustainability
3 Credit Hours
Prerequisite: junior standing or permission of instructor. Provides a broad introduction to the basic principles of sustainable development with an examination of its social, economic, and environmental dimensions. Students will learn about sustainability strategies and practices from a national and international perspective with attention paid to the ethical and cultural aspects integral to a transition to sustainability. (F)
GEOG 3243 Principles of Economic Geography 3 Credit Hours Prerequisite: junior standing or permission of instructor. An examination of the distribution of economic activities and the processes that generate them. Special attention is given to principles of economic location and their application to patterns of production, consumption, and exchange. Contemporary approaches to economic geography are critiqued, including relational economic geography, the creative economy, and environmental economic geography. (Sp)
GEOG 3253 Environmental Conservation
3 Credit Hours
Contemporary environmental issues and policies. Problems of population growth, food production, energy shortages, resource depletion and pollution impacts will be stressed. The social aspects of conservation management policies will be viewed at both global and national scales. (F) [III-SS] .

GEOG 3440 Mentored Research Experience
3 Credit Hours
0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)
GEOG 3443 Environment and Society
3 Credit Hours
Prerequisite: junior standing or permission of instructor. An introduction to the political, economic, and cultural factors that shape humanenvironmental relations around the world. Special attention is placed on how societies come to value the environment differently, how people struggle over access to and control of natural resources, and the social causes and consequences of environmental change. (F) [III-SS].
GEOG 3513 Political Geography
3 Credit Hours
Prerequisite: junior standing. A survey, stressing current geopolitical conflicts. Special topics include the nation-state, territoriality, the legacies of colonialism, spheres of political influence, regional conflicts, and geopolitics in such areas as Europe and the Pacific Rim, demographic and resource considerations in world politics, and emerging culturally based conflicts. (F, Sp, Su) [IV-WC] .
GEOG 3523 Managing for a Changing Climate
3 Credit Hours
(Crosslisted with METR 3523) Prerequisite: Junior or Senior standing. Provides an integrative understanding of the components of the climate system including the range of natural climate variability and external drivers of climate change, in addition to impacts of a changing climate on multiple sectors such as the economy, policy, ecosystems, and indigenous populations. (F) [II-NS].
GEOG 3773 Geography of the United States
3 Credit Hours
Prerequisite: Junior standing or permission of instructor. An introduction to the regional character of the United States, including its physical, social, and economic elements. (Irreg.)

GEOG 3843 Gender and Environment
3 Credit Hours
Prerequisite: junior standing or permission of instructor. Critically examines the concepts of environment and gender. Particular emphasis is placed on how and why environmental inquiry and academic advocacy intersect. Students will study the organizational practices, institutional policies, and cultural politics with which the concepts of gender and environment are composed, conveyed, and contested. (Sp) [III-SS].
GEOG 3890 Selected Studies in Geography 3 Credit Hours
1 to 3 hours. Prerequisite: junior standing. May be repeated with change of subject matter; maximum credit nine hours. To be used for special intersession courses and occasional (irregularly scheduled) courses of special concern and use for the undergraduate. ( $\mathrm{F}, \mathrm{Sp}$ )

## GEOG 3923 Quantitative Methods

3 Credit Hours
Prerequisite: junior standing and completion of a lower division general education math requirement. Introduces students to methods of collecting, organizing, and describing data, focusing specifically on environmental and geographical applications. Students also learn basic concepts of probability and statistical inference. The overall objective is to develop an understanding of statistical literacy as it is applied to geographical and sustainability related issues. (F, Sp)
GEOG 3930 Field Techniques for Geographers 1-4 Credit Hours 1 to 4 hours. Prerequisite: twelve hours of geography or permission of instructor. May be repeated with change of subject matter; maximum credit six hours. Basic methods of data acquisition: surveying, measuring, sampling, sketching, and mapping. Individual and group projects may be required. (Irreg.)

## GEOG 3960 Honors Reading

1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Consists of topics designated by the instructor in keeping with the student's major program. Covers materials not usually presented in the regular courses. ( $\mathrm{F}, \mathrm{Su}$ )
GEOG 3970 Honors Seminar 1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. The projects covered will vary. Deals with concepts not usually presented in regular coursework. (Irreg.)
GEOG 3980 Honors Research 1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Provides an opportunity for the gifted Honors candidate to work at a special project in the student's field. (F, Sp, Su)
GEOG 3990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: permission of instructor and junior standing. May be repeated once with change of content. Independent study may be arranged to study a subject not available through regular course offerings. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

GEOG 4003 The Global City and Planning Issues 3 Credit Hours (Crosslisted with RCPL 4003; Slashlisted with 5003) Prerequisite: English 1213 and junior standing. An introduction to the concept of globalization and its effects on cities, and the city planning issues related to those effects. Characteristics, theories, and strategies of city development are reviewed. Cities are observed from several perspectives: natural and built environment, governance, society, economics, and history. No student may earn credit for both 4003 and 5003. (Sp)

GEOG 4023 Geography of Health and Disease
3 Credit Hours
(Slashlisted with GEOG 5023) Prerequisite: Junior standing or department permission. This course offers a holistic view on "one health" by linking health and disease outcomes to the socio-cultural and physical environment, and the places that generate them. Lectures and discussion/lab sections will focus on basic concepts, principles, and methodologies in health studies, landscape epidemiology, global health under changing climate and environment, health disparities, healthcare and medical service planning. No student may earn credit for both 4023 and 5023.

GEOG 4033 Human Impact on the Earth 3 Credit Hours
(Slashlisted with GEOG 5033) Prerequisite: Junior Standing. The earth has been radically transformed by human action. This course explores the human-induced "why" and the extent of global environmental change. The need to explain, predict and prevent such change led to the development of transdisciplinary approaches examining complex humanenvironmental relationships. Course discusses the current, international global environmental science research agendas within the context of social and environmental justice. No student may earn credit for both 4033 and 5033. (Sp)
GEOG 4043 Urban Climatology
3 Credit Hours
(Slashlisted with GEOG 5043; Crosslisted with METR 4043) Prerequisite: Junior standing or departmental permission. This course provides an overview of urban climates based on a synthesis of modern scientific and applied research findings. The course covers a broad spectrum of topics such as urban airflow, radiation exchanges, urban energy balance, urban heat island, urban surface hydrology, air pollution, cities under global climate change, biometeorology, and sustainable urban design and planning. No student may earn credit for both 4043 and 5043. (Sp)
GEOG 4123 Cities and Society
3 Credit Hours
(Slashlisted with GEOG 5123) Prerequisite: Junior standing or permission of instructor. The course introduces students to the geography of cities-history of cities in human society, connections between urban policies and social outcomes, challenges in constructing a city that works for all. Key concepts include city planning, industrialization, housing, transportation, social/racial/environmental justice, gentrification, and the future of cities. No student may earn credit for both 4123 and 5123. (F)

## GEOG 4183 Patterns and Processes in Landscape

 Ecology
## 3 Credit Hours

(Slashlisted with GEOG 5183) Prerequisite: Junior standing. This course will identify and evaluate the central constructs and methods of landscape ecology, focusing on the role of humans in creating and affecting landscape patterns and processes. Topics covered include fundamentals/frameworks of landscape ecology; how spatial patterns influence ecosystem, management, and conservation; how to quantify spatial pattern; and how to identify general drivers of landscape pattern. No student may earn credit for both 4183 and 5183. (F)
GEOG 4200 Internship in Geography
1-6 Credit Hours 1 to 6 hours. Prerequisite: Permission of instructor and junior standing. May be repeated; maximum credit 6 hours. A student must secure their own internship that provides career training experience whereby students may apply geographical or environmental skills and develop further professional capabilities in a realistic setting. Students must complete internship hours and reflective coursework provided by faculty member to obtain credit. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

## GEOG 4273 Regional Climatology

3 Credit Hours
(Slashlisted with GEOG 5273) Prerequisite: junior standing or permission of instructor. Investigates the nature of the Earth's climate and provides an examination of ideas about atmospheric circulation. Topics include radiation, the hydrologic cycle, general circulation, local and regional climates, and global climate change. Specific attention is focused on the climatic water budget, its utility in evaluating local and regional climates, the role of climate models, and issues in applied climatology. No student may earn credit for both 4273 and 5273. (Irreg.) [II-NS].

## GEOG 4283 Biogeography

(Slashlisted with GEOG 5283) Prerequisite: junior or senior standing. Biogeography is the study of the spatial distribution, past and present, of plant and animal species and biodiversity. Course topics include factors affecting the distribution of species, the role of biogeography in biological conservation and understanding a changing world. No student may earn credit for both 4283 and 5283. (F)

## GEOG 4293 Hydrologic Science

3 Credit Hours
(Slashlisted with GEOG 5293) Prerequisite: Math 1823 or 1914 and either Physics 2414, 2514 or Chemistry 1315. Study of the processes which control the storage and movement of water at global, regional, and local scales. The emphasis is on the land portion of the hydrologic cycle, and includes the study of processes such as infiltration, soil water flow in the saturated and unsaturated zone, rainfall/runoff and evaporation. Lab sections include exercises on a computer in the field and in a soils lab. No student may earn credit for both 4293 and 5293. (Sp)
GEOG 4313 Interpreting Society and Environment: Qualitative Research Methods

3 Credit Hours
(Slashlisted with GEOG 5313) Prerequisites: junior standing. This class approaches qualitative research methods from the perspective of human geography. That makes it especially useful for students who want to investigate the intersections of social and environmental relationships: be they historical, contemporary, or future (as in planning). No student may earn credit for both 4313 and 5313. (F)
GEOG 4333 Corporate Environmental Strategy 3 Credit Hours (Slashlisted with GEOG 5333) Prerequisite: junior standing or permission of instructor. Examination of the importance of environmental science and technology for corporations seeking sustainability. Students attain an understanding of the private sector as a force for positive environmental change and the dimensions of the natural environment in the competitive market. Corporate case students are discussed to improve understanding of strategic decision making. No student may earn credit for both 4333 and 5333. (Sp)

## GEOG 4343 Climate, History, and Society

3 Credit Hours
(Slashlisted with GEOG 5343) Prerequisite: junior standing or permission of instructor. This course is an overview of the mutual interactions of climate and human activities, and examines historical examples of significant climatic impacts. The course includes investigation of the nature of earth's climate and a synthesis of contemporary scientific ideas about the climate and its environmental and societal impacts. No student may earn credit for both 4343 and 5343. (Irreg.) [II-NS] .
GEOG 4423 Environmental Justice 3 Credit Hours (Slashlisted with GEOG 5423) Prerequisite: Junior standing. This course will cover environmental injustices related to environmental hazards (e.g., air and water pollution, toxic and hazardous waste, industrial byproducts) as well as injustices related to environmental benefits (e.g., access to parks, greenery, and clean environments). Throughout the course, we will engage with environmental racism. No student may earn credit for both 4423 and 5423. (Sp) [III-SS].

GEOG 4513 Real-world Applications of Climate and Weather Information

3 Credit Hours
(Slashlisted with GEOG 5513) Prerequisite: MATH 1823 and PHYS 2514. The purpose of this class is to broaden the perspective of students to the use of climate information in agriculture, energy, water resources, public health, and other areas of society. Field trip. No student may earn credit for both 4513 and 5513. (Sp)
GEOG 4523 Life Cycle Analysis
3 Credit Hours
(Slashlisted with GEOG 5523) Prerequisite: junior standing or permission of instructor. This course provides students with an understanding of Life Cycle Analysis both with respect to its conceptual foundations as well as its applications across a variety of socially important sectors. No student may earn credit for both 4523 and 5523. (Sp)

GEOG 4563 American Indian Geographies
3 Credit Hours Prerequisite: upper-division standing. A survey of the geographical knowledge among Indians in North America. Historical and contemporary topics are covered in a cross-cultural perspective including land use, environmental perception, concepts of space and place, symbolic landscapes, sacred land, and the idea of resources. (Sp) [IV-WDC] .

GEOG 4583 Energy Systems and Sustainability 3 Credit Hours (Slashlisted with GEOG 5583) Prerequisite: Junior standing or permission of instructor. An understanding of interdisciplinary elements and perspectives associated with energy systems in the context of sustainability. It examines current and future energy supply, transmission, and demand management options. A critical focus on the economic, social, and environmental implications of energy system transitions will help identify energy technology and infrastructure solutions while understanding the institutional and organizational changes necessary for implementation. No student may earn credit for both 4583 and 5583. (F)

## GEOG 4653 Urban Sustainability: Nature, Justice, and the City <br> 3 Credit Hours

(Slashlisted with GEOG 5653) Prerequisite: Sophomore standing and ENGL/EXPO 1213, or instructor permission. This course explores the sustainability challenges our cities face and how we might address them from critical perspectives in urban studies, planning, and geography. Through guest speakers, films, field trips and reading discussions, we will learn about the historical, multi-spatial, political, and representational dimensions of urban sustainability, and analyze the implications of different approaches to urban sustainability. No student may earn credit for both 4653 and 5653. (F)
GEOG 4663 Water and Society
3 Credit Hours
(Slashlisted with GEOG 5663) Prerequisite: Sophomore standing and ENGL/EXPO 1213, or instructor permission. To examine assumptions and understanding of the accessibility, quality, and distribution of water, the forces driving social change related to water, and the likely course of water and society issues in the future. A major objective is to challenge students to critically think about policy, and how we might develop effective, equitable, and just water policy for the 21 st Century. No student may earn credit for both 4663 and 5663. (F)
GEOG 4713 Dynamic Modeling of Socio-Environmental Systems 3 Credit

Hours
(Slashlisted with GEOG 5713) Prerequisite: Senior standing or permission of instructor. This course is an overview of the use of modeling and simulation to document, analyze, and project the dynamic behavior of socio-environmental systems. The course covers an introduction of basic modeling and simulation terminology and three different approaches to modeling temporal and/or spatial dynamics: system dynamics modeling, agent-based modeling, and cellular automata. No student may earn credit for both 4713 and 5713. (Sp)

GEOG 4753 Transportation Geography and Planning 3 Credit Hours (Slashlisted with GEOG 5753; Crosslisted with RCPL 4753) Prerequisite: Junior standing. This course is intended to introduce students to the world of transportation planning and geography by explaining the importance of transportation from local to global and by engaging them in everyday transportation activities. Topics include, but not limited to, the history of transportation, the relationships between transportation and geography, transportation managements and policies, and urban transportation systems. No student may earn credit for both 4753 and 5753. (Sp)

GEOG 4863 Regional Geographies of Indigenous Media 3 Credit Hours (Slashlisted with GEOG 5863) Prerequisite: junior standing. Learn about the making, moving, and meanings of Indigenous media. Regional case studies feature scholarly readings that examine the geographically- and culturally-specific contexts from which particular forms of Indigenous media emerge. Ample video viewings allow us to explore the contents of media made by Indigenous artists/activists/intellectuals and their allies who live and/or work in a particular region. No student may earn credit for both 4863 and 5863. (Irreg.) [IV-WDC].
GEOG 4893 Research and Professional Development 3 Credit Hours Prerequisite: GIS 2023; GEOG 3923 or concurrent enrollment; senior standing; departmental permission. Synthesize and integrate students' previous course experiences through literature review, professional practices and discussion to create a capstone proposal. Students complete their proposals for research to be undertaken in the subsequent capstone course, GEOG 4953. The course will include professional development e.g resume writing, presentation, and interviewing skills. (F, Sp )

## GEOG 4943 Natural Hazards

3 Credit Hours
(Slashlisted with GEOG 5943) Prerequisite: junior or senior standing. Examines changes in patterns of a range of natural hazards and the impact they have on society. Examines general concepts of hazard mitigation and design and our perceptions of risk and how that affects preparedness and mitigation decisions. No student may earn credit for both 4943 and 5943. (F) [III-SS].

## GEOG 4953 Capstone

3 Credit Hours
Prerequisite: Department permission and GEOG 3924, GIS 2023, and C or better in GEOG 4893. Completion of research as proposed in GEOG 4893, including a formal presentation of results to faculty and students in the department and submission of a final research report reflecting a culminating experience in the student's degree program. (Sp) [V].

## GEOG 4960 Directed Readings 1-4 Credit Hours

1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean. May be repeated; maximum credit four hours. Designed for upper-division students who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)

## GEOG 4970 Special Topics/Seminar

1-3 Credit Hours
1 to 3 hours. Prerequisite: Senior standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

GEOG 5003 The Global City And Planning Issues 3 Credit Hours
(Crosslisted with RCPL 5003; Slashlisted with 4003) Prerequisite: graduate standing. An introduction to the concept of globalization and its effects on cities, and the city planning issues related to those effects. Characteristics, theories, and strategies of city development are reviewed. Cities are observed from several perspectives: natural and built environment, governance, society, economics, and history. No student may earn credit for both 4003 and 5003. (Sp)
GEOG 5023 Geography of Health and Disease 3 Credit Hours (Slashlisted with GEOG 4023) Prerequisite: Graduate standing or permission of instructor. This course offers a holistic view on "one health" (interconnectedness of human, animal, and environmental health) by linking health and disease outcomes to the socio-cultural and physical environment that generate them. Lectures and discussion/lab sections will focus on basic concepts, principles, and methodologies in health studies, landscape epidemiology, global health under changing climate, health disparities, healthcare and medical service planning. No student may earn credit for both 4023 and 5023. (Sp)

## GEOG 5033 Human Impact on the Earth

3 Credit Hours
(Slashlisted with GEOG 4033) Prerequisite: Graduate standing. The earth has been radically transformed by human action. This course explores the human-induced "why" and the extent of global environmental change. The need to explain, predict and prevent such change led to the development of transdisciplinary approaches examining complex humanenvironmental relationships. Course discusses the current, international global environmental science research agendas within the context of social and environmental justice. No student may earn credit for both 4033 and 5033. (Sp)

## GEOG 5043 Urban Climatology

3 Credit Hours
(Slashlisted with GEOG 4043; Crosslisted with METR 5043) Prerequisite: Graduate standing or departmental permission. This course provides an overview of urban climates based on a synthesis of modern scientific and applied research findings. The course covers a broad spectrum of topics such as urban airflow, radiation exchanges, urban energy balance, urban heat island, urban surface hydrology, air pollution, cities under global climate change, biometeorology, and sustainable urban design and planning. No student may earn credit for both 4043 and 5043. (Sp)

## GEOG 5113 Quantitative Methods in Geographic and Environmental

 Research3 Credit Hours
Prerequisite: Graduate standing. An introduction to quantitative research design and problem-solving research techniques useful for geographical and other environmental and social research. ( $F, S p$ )
GEOG 5123 Cities and Society
3 Credit Hours
(Slashlisted with GEOG 4123) Prerequisite: Graduate standing or permission of instructor. The course introduces students to the geography of cities--history of cities in human society, connections between urban policies and social outcomes, challenges in constructing a city that works for all. Key concepts include city planning, industrialization, housing, transportation, social/racial/environmental justice, gentrification, and the future of cities. No student may earn credit for both 4123 and 5123. No student may earn credit for both 4123 and 5123. (F)

GEOG 4990 Independent Study 1-3 Credit Hours
1 to 3 hours. Prerequisite: three courses in general area to be studied; permission of instructor and department. May be repeated; maximum credit six hours. Contracted independent study for topics not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (F, Sp, Su)

## GEOG 5183 Patterns and Processes in Landscape Ecology

3 Credit Hours
(Slashlisted with GEOG 4183) Prerequisite: Graduate standing. This course will identify and evaluate the central constructs and methods of landscape ecology, focusing on the role of humans in creating and affecting landscape patterns and processes. Topics covered include fundamentals/frameworks of landscape ecology; how spatial patterns influence ecosystem, management, and conservation; how to quantify spatial pattern; and how to identify general drivers of landscape pattern. No student may earn credit for both 4183 and 5183. (F)
GEOG 5200 Internship in Geography 1-3 Credit Hours Prerequisite: graduate standing. May be repeated; maximum credit six hours. Provides career training experience for students, allowing them to apply their skills and theoretical constructs in a real world setting in industry, business, government agencies or educational institutions. (F, Sp )

GEOG 5213 Principles and Practice of Urban Planning 3 Credit Hours (Crosslisted with RCPL 5213) Prerequisite: open to seniors in social science departments, architecture and civil engineering and to graduate students in regional and city planning. A lecture course which examines the physical, social, economic and public interest determinants of land use; the economic population and land use studies required to provide the basis for planning; space and location requirements and design characteristics for residential, commercial, industrial and public uses of land; and the study of urban traffic as a function of land use in terms of structure and systems of movement. ( $\mathrm{F}, \mathrm{Su}$ )
GEOG 5253 The Economics of Sustainability 3 Credit Hours Prerequisites: graduate standing or permission of instructor. This course critiques various approaches to understanding the economics of sustainability, including neoclassical economic perspectives, environmental economics, and ecological economics. Students will examine the links between the natural environment and the human economy. (Sp)
GEOG 5273 Regional Climatology
3 Credit Hours
(Slashlisted with GEOG 4273) Prerequisite: Graduate standing. Investigates the nature of the Earth's climate and provides an examination of ideas about atmospheric circulation. Topics include radiation, the hydrologic cycle, general circulation, local and regional climates, and global climate change. Specific attention is focused on the climatic water budget, its utility in evaluating local and regional climates, the role of climate models, and issues in applied climatology. No student may earn credit for both 4273 and 5273. (Irreg.)

## GEOG 5283 Biogeography 3 Credit Hours

(Slashlisted with GEOG 4283) Prerequisite: Graduate Standing.
Biogeography is the study of the spatial distribution, past and present, of plant and animal species and biodiversity. Course topics include factors affecting the distribution of species, the role of biogeography in biological conservation and understanding a changing world. No student may earn credit for both 4283 and 5283. (F)

GEOG 5293 Hydrologic Science
3 Credit Hours
(Slashlisted with GEOG 4293) Prerequisite: Math 1823 or 1914 and either Physics 2414, 2514 or Chemistry 1315, or the equivalents and graduate standing. Study of the processes which control the storage and movement of water at global, regional, and local scales. The emphasis is on the land portion of the hydrologic cycle, and includes the study of processes such as infiltration, soil water flow in the saturated and unsaturated zone, rainfall/runoff and evaporation. Lab sections include exercises on a computer in the field and in a soils lab. No student may earn credit for both 4293 and 5293. (Sp)

GEOG 5313 Interpreting Society and Environment: Qualitative Research Methods

3 Credit Hours
(Slashlisted with GEOG 4313) Prerequisites: graduate standing. This class approaches qualitative research methods from the perspective of human geography. That makes it especially useful for students who want to investigate the intersections of social and environmental relationships: be they historical, contemporary, or future (as in planning). No student may earn credit for both 4313 and 5313. (F)
GEOG 5333 Corporate Environmental Strategy
3 Credit Hours
(Slashlisted with GEOG 4333) Prerequisite: graduate standing or permission of instructor. Examination of the importance of environmental science and technology for corporations seeking sustainability. Students attain an understanding of the private sector as a force for positive environmental change and the dimensions of the natural environment in the competitive market. Corporate case students are discussed to improve understanding of strategic decision making. No student may earn credit for both 4333 and 5333. (Sp)

GEOG 5343 Climate, History, and Society
3 Credit Hours
(Slashlisted with 4343) Prerequisite: graduate standing or permission of instructor. This course is an overview of the mutual interactions of climate and human activities, and examines historical examples of significant climatic impacts. The course includes investigation of the nature of earth's climate and a synthesis of contemporary scientific ideas about the climate and its environmental and societal impacts. No student may earn credit for both 4343 and 5343. (Irreg.)
GEOG 5423 Environmental Justice
3 Credit Hours
(Slashlisted with GEOG 4423) Prerequisite: graduate standing. This course will cover environmental injustices related to environmental hazards (e.g., air and water pollution, toxic and hazardous waste, industrial byproducts) as well as injustices related to environmental benefits (e.g., access to parks, greenery, and clean environments). Throughout the course, we will engage with environmental racism. No student may earn credit for both 4423 and 5423. (Sp)
GEOG 5433 Sustainability: Theory and Practice
3 Credit Hours
Prerequisites: graduate standing or permission of instructor. This course examines the concept of sustainability from a human development perspective. A set of sustainability principles are critiqued to provide an understanding of the difficulty facing human systems to solve environmental, social and economic challenges. (Sp)
GEOG 5513 Real-world Applications of Climate and Weather Information

3 Credit Hours
(Slashlisted with GEOG 4513) Prerequisite: Graduate standing. The purpose of this class is to broaden the perspective of students to the use of climate information in agriculture, energy, water resources, public health, and other areas of society. Field trip. No student may earn credit for both 4513 and 5513. (Sp)
GEOG 5523 Life Cycle Analysis
3 Credit Hours
(Slashlisted with GEOG 4523) Prerequisite: Graduate Standing. This course provides graduate students with an understanding of Life Cycle Analysis both with respect to its conceptual foundations as well as its applications across a variety of socially important sectors. No student may earn credit for both 4523 and 5523. (Sp.)

GEOG 5583 Energy Systems and Sustainability 3 Credit Hours (Slashlisted with GEOG 4583) Prerequisite: Graduate standing or permission of instructor. An understanding of interdisciplinary elements and perspectives associated with energy systems in the context of sustainability. It examines current and future energy supply, transmission, and demand management options. A critical focus on the economic, social, and environmental implications of energy system transitions will help identify energy technology and infrastructure solutions while understanding the institutional and organizational changes necessary for implementation. No student may earn credit for both 4583 and 5583. (F)
GEOG 5653 Urban Sustainability: Nature, Justice, and the
City
3 Credit Hours
(Slashlisted with GEOG 4653) Prerequisite: Graduate standing. This course explores the sustainability challenges our cities face and how we might address them from critical perspectives in urban studies, planning, and geography. Through guest speakers, films, field trips and reading discussions, we will learn about the historical, multi-spatial, political, and representational dimensions of urban sustainability, and analyze the implications of different approaches to urban sustainability. No student may earn credit for both 4653 and 5653. (F)

## GEOG 5663 Water and Society

3 Credit Hours
(Slashlisted with GEOG 4663) Prerequisite: Graduate standing. To examine assumptions and understanding of the accessibility, quality, and distribution of water, the forces driving social change related to water, and the likely course of water and society issues in the future. A major objective is to challenge students to critically think about policy, and how we might develop effective, equitable, and just water policy for the 21 st century. No student may earn credit for both 4663 and 5663 . (F)

GEOG 5713 Dynamic Modeling of Socio-Environmental Systems 3 Credit

## Hours

(Slashlisted with GEOG 4713) Prerequisite: Graduate standing. This course is an overview of the use of modeling and simulation to document, analyze, and project the dynamic behavior of socio-environmental systems. The course covers an introduction of basic modeling and simulation terminology and three different approaches to modeling temporal and/or spatial dynamics: system dynamics modeling, agentbased modeling, and cellular automata. No student may earn credit for both 4713 and 5713. (Sp)
GEOG 5753 Transportation Geography and Planning 3 Credit Hours (Slashlisted with GEOG 4753; Crosslisted with RCPL 5753) Prerequisite: Graduate standing. This course is intended to introduce students to the world of transportation planning and geography by explaining the importance of transportation from local to global and by engaging them in everyday transportation activities. Topics include, but not limited to, the history of transportation, the relationships between transportation and geography, transportation managements and policies, and urban transportation systems. No student may earn credit for both 4753 and 5753. (Sp)

GEOG 5863 Regional Geographies of Indigenous Media 3 Credit Hours (Slashlisted with GEOG 4863) Prerequisite: Graduate standing. Learn about the making, moving, and meanings of Indigenous media. Regional case studies feature scholarly readings that examine the geographically- and culturally-specific contexts from which particular forms of Indigenous media emerge. Ample video viewings allow us to explore the contents of media made by Indigenous artists/activists/ intellectuals and their allies who live and/or work in a particular region. No student may earn credit for both 4863 and 5863. (Irreg.)

GEOG 5943 Natural Hazards
3 Credit Hours
(Slashlisted with GEOG 4943) Prerequisite: graduate standing. Examines changes in patterns of a range of natural hazards and the impact they have on society. The course will examine general concepts of hazard mitigation and design and our perceptions of risk and how that affects preparedness and mitigation decisions. No student may earn credit for both 4943 and 5943. (F)
GEOG 5960 Directed Readings
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing and permission of department. May be repeated; maximum credit twelve hours. Directed readings and/or literature reviews under the direction of a faculty member. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
GEOG 5970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)
GEOG 5980 Research for Master's Thesis 2-9 Credit Hours
Variable enrollment, two to nine hours; maximum credit applicable toward degree, four hours. Laboratory (F, Sp, Su)
GEOG 5990 Selected Studies in Geography
1-4 Credit Hours
1 to 4 hours. Prerequisite: teacher's certificate or bachelor's degree and permission. May be repeated with change of subject matter; maximum credit eight hours. Designed to afford either an intensive study of a systematic field or an extensive coverage of broad problem topics in geography. (F, Sp, Su)
GEOG 6220 Seminar in Human Geography
1-3 Credit Hours
1 to 3 hours. Prerequisite: twelve hours of geography or permission. May be repeated with change of subject matter; maximum credit fifteen hours. Directed studies in one of the major divisions of human geography. (Irreg.) Sec. 1 - Urban Geography Sec. 2 - Settlement Patterns Sec. 3 Historical Geography Sec. 4-Cultural Ecology Sec. 5-Cultural Geography Sec. 6 - Economic Development Sec. 7 - Political Geography Sec. 8 Social Geography Sec. 9 -Regional Geography Sec. 10 - Political Ecology .
GEOG 6230 Seminar in Economic Geography
1-3 Credit Hours 1 to 3 hours. Prerequisite: twelve hours of geography or permission. May be repeated with change of subject matter; maximum credit 15 hours. Directed studies in one of the major divisions of economic geography. (Irreg.)

## GEOG 6240 Seminar in Geography and Environmental

## Sustainability

1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing. May be repeated with change of subject matter; maximum credits 15 hours. Directed studies in one of the major aspects of geography and environmental sustainability. Possible topics include: coupled human-natural systems, energy resources, land use, sustainable development, water systems, geospatial technologies, and climate change. (Irreg.)
GEOG 6950 Research Problems in Geography 1-6 Credit Hours 1 to 6 hours. Prerequisite: graduate standing in geography, permission. May be repeated with change of subject matter; maximum credit 15 hours. Advanced independent research on any systematic or regional topic within the scope of geography appropriate to the library facilities or field study opportunities available to the student. (F, Sp, Su)

GEOG 6953 Research and Professional Development 3 Credit Hours Prerequisite: Graduate standing and majors in the Department of Geography and Environmental Sustainability, or permission of instructor. This course provides a comprehensive background on the practice of geographic and environmental research. Students learn about current issues while exploring employment opportunities in environmental and geographical fields and practicing formal research presentations. They also formulate a research proposal, including literature review, methodology, and consideration of ethics. (Sp)

GEOG 6960 Directed Readings 1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit six hours. Directed readings and/or literature review under the direction of a faculty member. (Irreg.)

GEOG 6970 Special Topics/Seminar 1-3 Credit Hours 1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit 12 hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or research and field projects. (Irreg.)
GEOG 6973 Thinking about Geography and Environmental Sustainability

3 Credit Hours
Prerequisite: Graduate standing. This course addresses the foundational concepts of geography and environmental sustainability, emphasizing the intersection of human and natural systems. Students explore the relevance of, and possibilities for, real world impacts of geographic and environmental research. (F)
GEOG 6980 Research for Doctoral Dissertation 2-16 Credit Hours
2 to 16 hours. Prerequisite: Graduate standing and permission of instructor; may be repeated. Directed research culminating in the completion of the doctoral dissertation. (F, Sp, Su)

## GEOG 6990 Independent Study

1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)

## GEOL-Geology

GEOL 1003 Volcanoes and Earthquakes
3 Credit Hours
Prerequisite: high school chemistry and algebra. Worldwide distribution of volcanic and earthquake activity; types of volcanic eruptions and associated landforms and rocks; causes of and techniques for location of earthquakes; prediction of volcanic eruptions and earthquakes; social consequences of predictions and actual volcanic and earthquake activity. (F, Sp) [II-NS] .
GEOL 1013 Global Environmental Change 3 Credit Hours Relationship between humanity and the environment from an intellectual and historical perspective. Principle of progress and the Industrial Revolution, the Enlightenment and Francis Bacon, the noble savage, conservation and land ethics. Malthusians and Cornucopians, the Gaia Hypothesis, risk analysis, global warming, fossil fuels and alternative energy sources. (Sp)
GEOL 1023 Geology of National Parks 3 Credit Hours The amazing landforms and geologic features within the National Parks have a story to tell about their geologic history and tectonic setting, and are important for illustrating and describing concepts related to Earth processes and geologic time. This course blends an introduction to geology with geologic concepts as they apply to selected National Parks. (F, Sp) [II-NS].

GEOL 1024 The History of the Earth and Life
4 Credit Hours
Origin of the Earth/solar system. Rocks and minerals; geologic time; plate tectonics/continental drift. The ocean-atmosphere system; climate change over time; biological evolution. Fossil record of early life; the "Cambrian Explosion" of life in the oceans; invertebrate animals and their geological history. Geological history of fishes; evolution of plants. No student may earn credit for both GEOL 1024 and GEOL 1124 (Sp) [II-NSL].
GEOL 1033 Earth, Energy, Environment
3 Credit Hours
Explores Earth and its energy resources. Introduces physical geology and the link to global energy resources: their origin, properties, abundance, distribution in and on Earth, and environmental challenges. Emphasizes the advantages, disadvantages, and misconceptions of each energy resource. Also explores hydrogen as an energy resource, critical minerals and metals for energy applications, and possible methods to capture and store CO2. (Sp) [II-NS].

## GEOL 1034 Native Science and Earth Systems of North

 America4 Credit Hours
0 to 4 hours. (Crosslisted with METR 1034) Examines Earth systems of North America using both indigenous and Western perspectives, and an Earth science approach. This team-taught course will utilize a combination of geology, geography, meteorology, and Native American sciences, as expressed through the use of art. (Sp) [II-NSL].

## GEOL 1104 The Dynamic Earth (Geology for non-Science Majors) <br> 4 Credit Hours

 Introduction to the fundamentals of geology and their application to landuse, groundwater, mineral use and fossil fuel problems facing society. Several guest lecturers from industry and state and federal surveys will contribute to the content of the course. Laboratory fee. Three hours lecture, two hours lab. Laboratory. (F, Sp) [II-NSL] .
## GEOL 1114 Physical Geology for Science and Engineering Majors <br> 4 Credit Hours

Prerequisite: equivalent knowledge of high school chemistry, algebra and trigonometry. Laboratory included. Plate tectonics, the makeup of continents and mountain building. Heat flow, magnetism, gravity, rock deformation, earthquakes and the earth's interior. Surface processes including weathering, erosion, transport and deposition. Landforms, rivers, groundwater, glaciers, ocean processes, and volcanoes. Minerals and rocks. Application of geology to land-use, groundwater, mineral and fossil fuel exploration. Laboratory. (F, Sp) [II-NSL] .
GEOL 1124 Earth History
4 Credit Hours
Prerequisite: none; 1114 helpful but not required. Laboratory included; field trip. Physical history of the earth from its origin as a planet through the Great Ice age. Origin and growth of continents and ocean basins. Systematic survey of the history of continents with emphasis on North America: growth and leveling of mountain chains, rift valleys, transgressions and regressions of seas; continental fragmentation, assembly and relative motions. Plate tectonics, particularly as it relates to continent history. Climate and evolutionary changes through geologic time. Principles and methods used to interpret earth history and date rocks. Geologic time. Laboratory includes historical studies of specific regions; study of maps and fossils. Laboratory (F, Sp)
GEOL 1203 The Age of Dinosaurs
3 Credit Hours
(Crosslisted with BIOL 1203) Introduction to basic principles and theories in biology (evolution, systematics, vertebrate morphology and relationships) and geology (geologic time, earth history, plate tectonics, sedimentation and stratigraphy), focusing on the evolutionary history of Dinosauria. May not be counted for major coursework in Biology or Geology. (F) [II-NS].

GEOL 2014 The Earth System
4 Credit Hours
An integrated overview of earth sciences emphasizing earth materials, the oceans and atmosphere, the solar system, and earth's evolution. The interrelationship among the different earth systems will be emphasized. Topics will be explored through a learning-cycle approach. The lab component includes both in-class experiments and one field-based research project. Laboratory (Sp) [II-NSL] .
GEOL 2224 Introduction to Mineral Sciences 4 Credit Hours Prerequisite: GEOL 1114, CHEM 1315, and MATH 1823/1914 or concurrent enrollment. Main topics include crystal chemistry, optical properties and identification of minerals utilizing the petrographic microscope, mineral stability, crystal symmetry, and an introduction to the rock-forming minerals and their environments of formation. Laboratory (F)

GEOL 2970 Special Topics
1-3 Credit Hours
1 to 3 hours. Prerequisite: May be repeated; Maximum credit nine hours. Special topics course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research, and field projects. (Irreg.)

## GEOL 3003 Structural Geology and Stratigraphy for Petroleum Engineers 3 Credit Hours

Prerequisite: 1114, Physics 2524 or concurrent enrollment. Treatment of structural and stratigraphic geology with an emphasis on aspects of importance to petroleum engineering. Includes an investigation of mechanical principles relating to the earth's crust, descriptive study of nomenclature, causes of tectonic deformation, sedimentary processes and environments, and stratigraphic principles. Laboratory. (Sp)
GEOL 3013 The Geology of Oklahoma 3 Credit Hours
Prerequisite: junior standing or permission of instructor. Provides an overview of geology emphasizing earth materials, surface processes, natural hazards, and the earth's evolution using Oklahoma as our natural laboratory. The course emphasizes problem solving and includes impact of anthropogenic changes and resources extraction. Required field trip. Grading based on exams, research paper and in-class exercises. (F) [IINS].

## GEOL 3023 The Geology of Natural Resources in Sub-Saharan Africa 3 Credit Hours

Prerequisite: Junior standing and one Natural Science General Education course 1000-level or higher, or instructor permission. Content will include the carbon cycle, rock/tectonic cycle, and water/climate cycle. Students will explore, through data analysis, processes that lead to the formation, distribution and variation of fossil fuels, mineral deposits, and lake and grassland ecosystems. These concepts will be highlighted through Oil/ Gas Development, Mineral Mining, Land-use and Climate Change. (Fall) (F) [II-NS].

GEOL 3033 Earth Resources and the Environment 3 Credit Hours Prerequisite: junior standing or permission of instructor. A geological perspective on Earth's water, energy, soil, and mineral resources, including their past, present, and potential future impact on society. By examining intersections between Earth resources and society, we will investigate the nature of science, role of science and scientists in society, evaluate scientific versus non-scientific sources of information, and communicate appropriately using scientific sources of information. (Sp) [II-NS].

GEOL 3063 Exploring Planetary Worlds
3 Credit Hours
Prerequisite: Six credits of introductory (1000 or 2000-level) natural science coursework; permission of instructor or department. Topics will include solar system and planet formation, planetary materials, and geologic processes that likely formed planetary features we observe today. Students will design a rover, lander, orbiter, or fly-by mission to gather data and test key hypotheses on a selected Planetary Body. Students will present on mission concept, including an outreach plan, in a written proposal and group presentation. (F) [II-NS].
GEOL 3114 Structural Geology
4 Credit Hours
Prerequisite: GEOL 2224 and PHYS 2514. An introduction to the fundamental concepts of structure and deformation in the lithosphere. It discusses recognition, interpretation, and mechanics (stress, strain) of faults, folds, structural features of igneous and metamorphic rocks, and introduces regional structural geology and tectonics. Laboratory includes techniques of structural analysis, recognition, and interpretation of structures on geologic maps, and construction of interpretive cross sections. (F)
GEOL 3123 Introductory Field Geology
3 Credit Hours
Prerequisite: 2224,3114 , and 3223 or 3233 , or permission (completed laboratory). Techniques of geologic fieldwork including: measuring stratigraphic sections, airphoto analysis, mapping, total station, writing reports. Course includes 10-12 field days in Oklahoma (during weekends) and a weekly laboratory. Students will be charged transportation costs. (Sp)
GEOL 3223 Igneous and Metamorphic Petrology 3 Credit Hours Prerequisite: 2224 or permission. Laboratory included. Field trip; students will be charged transportation costs. Generation, emplacement and crystallization of magma; phase chemistry; principles of igneous rock classification; the relationship of magma types to geologic setting. Principles of metamorphic petrology; phase chemistry and metamorphic reactions; concepts of metamorphic grade, P-T regimes and relationships to geologic environments; concepts of protoliths and provenance. Laboratory study of the textures, structures and mineral assemblages of igneous and metamorphic rocks utilizing hand specimens and thin sections. Laboratory. (Sp)
GEOL 3233 Sedimentary Petrology and Sedimentology 3 Credit Hours Prerequisite: 2224 or permission. Laboratory included. Field trip; students will be charged transportation costs. Origin, evolution and interpretation of sedimentary rocks with an emphasis on terrigenous systems; interpretation of mineralogy, textures and structures of terrigenous clastic and carbonate rocks in hand specimen and thin section. Laboratory. (Sp)
GEOL 3333 Geowriting
3 Credit Hours
Prerequisite: English 1113 and English 1213 or Expository Writing 1213.
Provides student with the information and skills needed to effectively communicate as professional geoscientists. Students will actively engage in writing and scientific communication exercises through in-class activities, weekly assignments, and semester-long projects. Substitutes for English 3153. (alt. F)
GEOL 3440 Mentored Research Experience 3 Credit Hours 0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)

GEOL 3513 Fundamentals of Invertebrate Paleontology 3 Credit Hours Prerequisite: GEOL 1114 or GEOL 1024 or BIOL 1114 or permission of instructor. Fossil preservation and bias in the fossil record. Ontogeny and growth of invertebrates. Interpretation of the life habits of fossil organisms, with case histories from invertebrates and vertebrates. Speciation and macroevolution. Paleoecology of marine communities. Mass extinctions in the fossil record. Biostratigraphy. Laboratory covers classification, morphology and ecology of the major invertebrate fossil groups. Laboratory (F)
GEOL 3633 Introduction to Oceanography 3 Credit Hours General survey of the scientific framework of the four specializations of the oceanographic study - biological, chemical, geological/geophysical and physical oceanography. Applications of ocean research to social and economic problems; interrelations between the ocean disciplines and other fields of study. (Sp) [II-NL].
GEOL 3960 Honors Reading
1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Consists of topics designated by the instructor in keeping with the student's major program. Covers topics not usually presented in the regular courses. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

GEOL 3970 Honors Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Subjects covered vary. Deals with concepts not usually treated in regular courses. (Irreg.)
GEOL 3980 Honors Research
1-3 Credit Hours
1 to 3 hours. Prerequisite: Admission to Honors Program. May be repeated; maximum credit six hours. Will provide an opportunity for the gifted Honors candidate to work at a special project in the student's field. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

GEOL 3990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: permission of instructor and junior standing. May be repeated once with change of content. Independent study may be arranged to study a subject not available through regular course offerings. (F, Sp, Su)
GEOL 4001 Colloquium Series
1 Credit Hour
Prerequisite: Departmental Permission. May be repeated for credit, maximum credit 9 hours. Departmental seminar series which will host a new guest lecturer, faculty member or student presenter each week. These lectures will provide greater exposure to scholarly work within the field of Geology and Geophysics, along with providing a platform for discussion and department interaction. All department scholarship students are required to enroll in this course each semester. ( $F, S p$ )
GEOL 4113 Depositional Systems and Stratigraphy 3 Credit Hours (Slashlisted with GEOL 5113) Prerequisite: GEOL 3233, and GEOL 3114 or concurrent enrollment. Basic stratigraphic principles as well as reconstruction of ancient depositional systems. The controls (climatic, tectonic, eustatic) on deposition of stratigraphic sequences, stratigraphic completeness, biostratigraphy, magnetostratigraphy, and sequence stratigraphy. Field trip; students will be charged transportation costs. Laboratory. No student may earn credit for both 4113 and 5113. (F)
GEOL 4133 Petroleum Geology for Geoscientists 3 Credit Hours Prerequisite: GEOL 3233 and GEOL 3114, majors only. Addresses the origin and distribution of conventional and unconventional petroleum resources, the petroleum system, source rocks, traps and seals, reservoir rock properties, and exploration and development methods. (F)

GEOL 4136 Field Geology
6 Credit Hours
Prerequisite: 3123; senior standing or permission. A six-week summer course held at the Oklahoma Geology Camp at Canon City, Colorado. Applications of field techniques, including use of aerial photographs, construction of geological maps and geophysical methods, to the recognition and interpretation of geologic phenomena. (Su) [V] .
GEOL 4143 Petroleum Geology for Business Majors 3 Credit Hours Prerequisite: 1104 or 1114. The integration of several fields of geology with geochemistry, geophysics, and engineering to provide an overview of the science and technology used in the exploration for and development of oil and natural gas fields. Briefly covers historical development of petroleum geology, amount and location of the world's major oil and gas reserves, and future potential for conventional and non-conventional hydrocarbon resources. (F)
GEOL 4204 Vertebrate Paleobiology
4 Credit Hours
(Slashlisted with GEOL 5204; Crosslisted with BIOL 4204) Prerequisite: BIOL 1114 and 1121, or 1124 , or 1134, or permission of instructor. Systematics, relationships, zoogeography and evolutionary morphology of the major groups of vertebrates. Field trips. Laboratory. No student may earn credit for both 4204 and 5204. (Sp)
GEOL 4223 Principles of Geochemistry (Slashlisted with 5223) 3 Credit Hours
Prerequisite: 2224, Chemistry 1315, and 1415. Experience with calculus recommended. Overview of major topics in geochemistry, emphasizing thermodynamics and kinetics within the context of natural systems. Additional topics will include nucleosynthesis and cosmochemistry, bulk Earth geochemistry, chemistry and bonding of natural materials, solutions and mineral solubility, redox processes, interfacial geochemistry, and isotope geochemistry. No student may earn credit for both 4223 and 5223. Laboratory (Alt. Sp)

GEOL G4233 Subsurface Methods
3 Credit Hours
Prerequisite: junior standing or permission of instructor/department. Concepts and methods of subsurface geoscience data analysis, modeling, and interpretation. Data integration (core, well logs, 3-D seismic, outcrops) to evaluate, map, model, and interpret subsurface geological characteristics and formation property heterogeneity. Application to subsurface reservoirs and aquifers related to energy (oil, gas, geothermal, hydrogen), water, and CO2 storage. (Fall) (F)
GEOL 4373 History of Geology
3 Credit Hours
Prerequisite: junior standing. History of science and the scientific method with an emphasis on geology. Greek science, scholasticism, Copernican revolution Francis Bacon, principle of uniformity, evolution, continental drift, climate, progress. Discussion of writings by Plato, Geike, Kuhn, Popper, Chamberlin, Gilbert, Hubbert and others. No student may earn credit for both 4373 and 5373. (F) [IV-WC].
GEOL 4513 Evolutionary Paleobiology 3 Credit Hours
(Slashlisted with GEOL 5513) Prerequisite: GEOL 3513; MATH 2423 or MATH 2924; or permission of instructor. Advanced course on biological evolution emphasizing mathematical and computational approaches to the fossil record. Biodiversity through time, origination and extinction dynamics; Models of trait evolution (Brownian motion, Ornstein Uhlenbeck processes, and beyond), Markov processes; Phylogeny inference, parsimony, likelihood, and Bayesian approaches; Paleobiological contributions to understanding major features of evolution and the history of life, punctuated equilibrium, levels of selection. No student may earn credit for both 4513 and 5513. (Irreg.)

GEOL 4533 Earth's Past Climate
3 Credit Hours
(Slashlisted with GEOL 5533; Crosslisted with METR 4533) Prerequisite: senior or graduate standing, or permission of instructor. Explores earth's climate system, controls on climate change, and evolution of climate history through geologic time as deciphered from climate proxies. No student may earn credit for both 4533 and 5533. (F)
GEOL 4613 Soil Genesis 3 Credit Hours
(Slashlisted with GEOL 5613) Prerequisite: GEOL 1114 or Instructor/ Department Permission. This course focuses on the formation and morphology of soils - otherwise known as the field of pedology. Pedologists research the processes that generate different soils across and within landscapes. We apply this knowledge to understand the development of landforms, biogeochemical reactions across space and time, and the distribution of plant and animal species in the biosphere. No student may earn credit for both 4613 and 5613. (F)
GEOL G4633 Hydrogeology
3 Credit Hours
Prerequisite: MATH 2924 or MATH 2443, PHYS 2524, senior standing in geology, or permission of instructor. Darcy's law, Hubbert's fluid potential, equations of groundwater flow. Physical properties of geologic materials and fluids. Free convection, compaction- and gravity-driven flow. Role of fluids in geologic phenomena, including mineralization, metamorphism, hydrocarbon migration, sedimentary diagenesis, faulting and earthquakes, paleomagnetism. Application of geologic and geophysical techniques to fluid flow problems. (F)
GEOL 4663 Biogeochemistry of the Critical Zone 3 Credit Hours (Slashlisted with GEOL 5663) Prerequisite: GEOL 1114 or Instructor/ Department Permission. This course serves as a survey of the field of biogeochemistry through the lens of critical zone science. Biogeochemistry is the study of the fluxes and transformations of energy, water, carbon, nutrients, and other elements within and through the biosphere; critical zone science encompasses integrative works that study the near-surface interactions between rock, soil, air, water, and biota. No student may earn credit for both 4663 and 5663. (F)

## GEOL 4923 Pegmatites

3 Credit Hours
(Slashlisted with GEOL 5923) Prerequisite: GEOL 3223, CHEM 1415, and permission of instructor. Granitic pegmatites are the most complex rocks on earth. Class instructs students in the use of scientific methods, including historical background, working hypotheses, analytical methods, experimental test, and theory as they are utilized in solving the origins of pegmatites. No student may earn credit for both 4923 and 5923. (Sp)
GEOL 4960 Directed Readings 1-4 Credit Hours
1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean. May be repeated; maximum credit four hours. Designed for upper-division students who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)
GEOL G4970 Seminar
3 Credit Hours
1 to 3 hours. Prerequisite: permission. May be repeated; maximum credit nine hours. ( $\mathrm{F}, \mathrm{Sp}$ )
GEOL 4983 Senior Thesis in Geology 3 Credit Hours Prerequisite: senior standing with a major in geology and permission. May not be repeated. Individual research of a geological topic selected by the student in consultation with the instructor. The project may involve fieldwork, theoretical analysis, computer modeling, and/or data analysis and interpretation, culminating in a written thesis. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

GEOL 4990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: three courses in general area to be studied; permission of instructor and department. May be repeated; maximum credit nine hours. Contracted independent study for topics not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (F, Sp, Su)
GEOL 5001 Topics in Geosciences
1 Credit Hour
Prerequisite: Graduate standing or departmental permission. This course is a broad survey of general concepts in the geosciences, delivered at an advanced level. Students will read the professional scientific literature, participate in class discussions, and complete short writings related to readings and their own research. (F)

## GEOL 5003 Diagenesis

## 3 Credit Hours

Prerequisite: 26 hours of geology or geophysics or permission. Origin and interpretation of diagenetic features of sedimentary rocks, including porosity, permeability, fluid flow, compaction and cementation. Geochemical approaches are stressed. Laboratory. (Irreg.)
GEOL 5010 Paleomagnetism/Diagenesis Seminar 1-2 Credit Hours Prerequisite: Senior or graduate standing; GPHY 5364 suggested. Seminar includes presentations by the professor on research topics as well as presentations by students on papers they read. In addition, each student will also make at least one presentation on their research. Also, students will work through a self-instruction lab with the microscopes.
Focuses on recognizing diagenetic features that are important for paleomagnetism. May be taken for a total of six credit hours. (F, Sp)
GEOL 5020 Sedimentology and Stratigraphy Seminar 1-3 Credit Hours Prerequisite: graduate standing. May be repeated with change of content; maximum credit twelve hours. Directed seminar on selected aspects of sedimentology and stratigraphy. (F, Sp)
GEOL 5041 Critical Geosciences Seminar
1 Credit Hour
Prerequisite: Graduate standing and permission of instructor. Directed seminar on knowledge and inquiry, profession and practice, and careers associated with 'Critical Geosciences', including but not limited to biogeochemistry and geophysics of planetary critical zones and critical mineral/energy resources. 1 hour/week. ( $F, S p$ )
GEOL 5061 Topics in Critical Zone Science
1 Credit Hour
Prerequisite: Graduate Standing or Department/Instructor Permission. In this seminar-style class we will explore recent advances in the field of critical zone science. Critical zone science integrates the earth sciences to study the near-surface interactions between rock, water, soil, air, and biota. Therefore, we will read and discuss research articles that use such a systems-based approach to answer questions related to an array of topics. (F, Sp.) (F, Sp)
GEOL 5113 Depositional Systems and Stratigraphy 3 Credit Hours (Slashlisted with GEOL 4113) Prerequisite: Graduate Standing, GEOL 3233, and GEOL 3114 or equivalent. Basic stratigraphic principles as well as reconstruction of ancient depositional systems. The controls (climatic, tectonic, eustatic) on deposition of stratigraphic sequences, stratigraphic completeness, biostratigraphy, magnetostratigraphy, and sequence stratigraphy. Field trip; students will be charged transportation costs. No student may earn credit for both 4113 and 5113. Laboratory. (F)
GEOL 5173 Clastic Facies 3 Credit Hours
Prerequisite: 3233 or 4113 or equivalent. Bedforms, sedimentary structures, flow regime, intrinsic versus extrinsic controls on sedimentation, ancient depositional environments and depositional models (alluvial fan, fluvial, deltaic, lacustrine, eolian, shelf, etc.). (F)

GEOL 5204 Vertebrate Paleobiology
4 Credit Hours
(Slashlisted with GEOL 4204) Prerequisite: graduate standing and permission of instructor. Systematics, relationships, zoogeography, and evolutionary morphology of the major groups of vertebrates. Field trips. Laboratory. No student may earn credit for both 4204 and 5204. (Sp)

GEOL 5223 Principles of Geochemistry (Slashlisted with
4223)

3 Credit Hours
Prerequisite: graduate standing or permission of instructor. Overview of major topics in geochemistry, emphasizing thermodynamics and kinetics within the context of natural systems. Additional topics will include nucleosynthesis and cosmochemistry, bulk Earth geochemistry, chemistry and bonding of natural materials, solutions and mineral solubility, redox processes, interfacial geochemistry, and isotope geochemistry. No student may earn credit for both 4223 and 5223. Laboratory (Alt. Sp)
GEOL 5343 Stable Isotope Geochemistry
3 Credit Hours
Prerequisite: Chemistry 1315,1415 ; senior or graduate standing. Focuses on the stable isotopes of light elements ( $\mathrm{C}, \mathrm{H}, \mathrm{O}, \mathrm{N}, \mathrm{S}$ ) in the various processes that have resulted in their redistribution over geologic time. (Alt. F)
GEOL 5353 Carbonates and Sequence Stratigraphy 3 Credit Hours Prerequisite: Senior undergraduate or graduate standing and permission of instructor. Sedimentology, sequence stratigraphy, paleo-climate, and reservoir attributes of Paleozoic carbonates (and associated eolian, fluvial and deep-water siliciclastics) of the classic Permian basin region. A highlight is a major field trip to world-class exposures in the Sacraments (NM) and Guadalupe (TX) mountains. (Irreg.)
GEOL 5363 Carbonate Geology 3 Credit Hours Prerequisite: 26 hours of geology and geophysics, or permission. Students will be charged field trip costs. Petrology and petrography of modern and ancient chemical rocks, the reconstruction of their physical/ chemical depositional and diagenetic environments in time and space; applied interpretation of cores, petrophysical logs, and seismic; five-day field trip to the Florida Keys. (Irreg.)

GEOL 5413 Paleobotany
3 Credit Hours
Prerequisite: permission of instructor. Introduction to the fossil record of terrestrial plants from algae to flowering plants. Lectures will address anatomy, morphology, taphonomy and paleoecology, including climate and plant-animal interactions. Laboratories will put lecture topics into practice using fossil plants from the Oklahoma Museum of Natural History collection and from fieldwork. Field trips. No student may earn credit for both 4413 and 5413. Laboratory. (Sp, even-numbered years)

## GEOL 5443 Formation Damage

3 Credit Hours
(Crosslisted with P E and G E 5443) Prerequisite: Graduate standing. This course presents an overview of main mechanisms of formation damage (mechanical, chemical, thermal, and biological) occurring during subsurface applications, including but not limited to primary and enhanced hydrocarbon production, CO2 storage, and geothermal processes. Existing theories explaining the process and methods to mitigate the formation damage will be discussed. (Irreg.)
GEOL 5503 Clay Mineralogy
3 Credit Hours
Prerequisite: Graduate Standing or Permission of Instructor. Theoretical fundamentals, methods of investigation, and applications of clay mineral structure and reactivity. Students are required to complete a hands-on original project applying methods and concepts from the course to their research.

GEOL 5513 Evolutionary Paleobiology 3 Credit Hours
(Slashlisted with GEOL 4513) Prerequisite: graduate standing or instructor permission. Advanced course on biological evolution emphasizing mathematical and computational approaches to the fossil record. Biodiversity through time, origination and extinction dynamics; Models of trait evolution (Brownian motion, Ornstein Uhlenbeck processes, and beyond), Markov processes; Phylogeny inference, parsimony, likelihood, and Bayesian approaches; Paleobiological contributions to understanding major features of evolution and the history of life, punctuated equilibrium, levels of selection. No student may earn credit for both 4513 and 5513. (Irreg.)
GEOL 5533 Earth's Past Climate
3 Credit Hours
(Slashlisted with GEOL 4533; Crosslisted with METR 5533) Prerequisite: senior or graduate standing, or permission of instructor. Explores earth's climate system, controls on climate change, and evolution of climate history through geologic time as deciphered from climate proxies. No student may earn credit for both 4533 and 5533. (F)

GEOL 5543 Minerals and the Environment
3 Credit Hours
Prerequisite: Graduate standing or permission of instructor. Explores the bonding and reactivity of common environmental minerals, as well as laboratory methods in environmental mineral analysis, including diffraction, microscopy, and spectroscopy. (F)
GEOL 5613 Soil Genesis 3 Credit Hours
(Slashlisted with GEOL 4613) Prerequisite: Graduate standing or Instructor/Department Permission. This course focuses on the formation and morphology of soils - otherwise known as the field of pedology. Pedologists research the processes that generate different soils across and within landscapes. We apply this knowledge to understand the development of landforms, biogeochemical reactions across space and time, and the distribution of plant and animal species in the biosphere. No student may earn credit for both 4613 and 5613. (F)
GEOL 5633 Field Methods in Hydrogeology
3 Credit Hours
Prerequisite: GEOL 4633 and senior standing or graduate standing in Geology, Civil Engineering, Geography \& Environmental Sustainability, or Environmental Science, or permission of instructor. This course provides students with a hands-on introduction to commonly used field methods in hydrogeology. Some aspects of surface hydrology will also be covered. Field-focused exercises in well installation, slug testing, aquifer testing, water sampling (organic and inorganic constituents), insitu measurement of water quality parameters, surface water discharge measurement techniques, and geophysical methods are covered. (F)
GEOL 5663 Biogeochemistry of the Critical Zone 3 Credit Hours (Slashlisted with GEOL 4663) Prerequisite: Graduate Standing or Instructor/Department Permission. This course serves as a survey of the field of biogeochemistry through the lens of critical zone science. Biogeochemistry is the study of the fluxes and transformations of energy, water, carbon, nutrients, and other elements within and through the biosphere; critical zone science encompasses integrative works that study the near-surface interactions between rock, soil, air, water, and biota. No student may earn credit for both 4663 and 5663. (F)
GEOL 5733 Sedimentation and Tectonics 3 Credit Hours Prerequisite: Graduate standing or permission of instructor. Provides a basic understanding of the coupling between tectonics and sedimentation, including how the composition, geometry, and stacking of sedimentary deposits are influenced by spatial and temporal changes in tectonics. Course content is delivered through a series of basic lectures outlining fundamental concepts, followed by discussion-based analyses of primary literature that highlights fundamental couplings between sedimentation and tectonics. (F)

GEOL 5813 Basin Analysis for Oil and Gas
3 Credit Hours
Prerequisite: permission. Development of exploration guidelines to oil and gas (origin, migration, accumulation) based on regional tectonic styles and related time and place associations of structure, sedimentation, heat history and fluid pressures. Laboratory. (F)

GEOL 5923 Pegmatites 3 Credit Hours (Slashlisted with GEOL 4923) Prerequisite: GEOL 3223, CHEM 1415, and permission of instructor. Granitic pegmatites are the most complex rocks on earth. Class instructs students in the use of scientific methods, including historical background, working hypotheses, analytical methods, experimental test, and theory as they are utilized in solving the origins of pegmatites. No student may earn credit for both 4923 and 5923. (Sp)

GEOL 5960 Directed Readings
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing and permission of department. May be repeated; maximum credit twelve hours. Directed readings and/or literature reviews under the direction of a faculty member. (F, Sp, Su)
GEOL 5970 Special Topics/Seminar
3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

GEOL 5980 Research for Master's Thesis
2-9 Credit Hours Variable enrollment, two to nine hours; maximum credit applicable toward degree, four hours. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

## GEOL 5990 Special Studies <br> 1-3 Credit Hours

1 to 3 hours. Prerequisite: permission. May be repeated; maximum credit nine hours. Advanced special studies in geological problems. May include directed reading in geology, fieldwork, laboratory research or preparation of reports. (F, Sp, Su)
GEOL 6103 Petroleum Geochemistry 3 Credit Hours
Prerequisite: graduate standing in geology or chemistry. An introduction to the basic concepts of petroleum geochemistry and their role in exploration. Includes the biomarker concept, pyrolysis techniques, isotopes in petroleum exploration, basin modeling and kinetic studies, organic petrography and detailed studies of a number of case histories. (Irreg.)
GEOL 6113 Organic Geochemistry 3 Credit Hours
Prerequisite: graduate standing or instructor permission. This course will introduce basic concepts, methods, and hot topics of Organic Geochemistry with a focus on lipid biomarkers, the molecular fossils that are commonly studied for tracing the metabolic activities of once living organisms and reconstructing past climates.
GEOL 6633 Aqueous Geochemical Modeling 3 Credit Hours Prerequisite: Graduate standing in geology, civil engineering, environmental science, or other program with permission of instructor, and GEOL 5223/4223. Provides an interactive platform to improve our understanding of complex biogeochemical reactions and processes in natural systems. Course will cover the mathematical and thermodynamic basis for widely used geochemical modeling programs including PHREEQC, Visual MINTEQ, and Geochemists Work Bench (GWB). Various types of modeling approaches will be explored using geochemical data representative of real work applications. (Sp)

GEOL 6950 Research
1-4 Credit Hours
1 to 4 hours. Prerequisite: graduate standing and permission of faculty supervisor. May be repeated with change of content; maximum credit twelve hours. Individual research in various areas of geology. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

GEOL 6960 Directed Readings
1-6 Credit Hours
1 to 6 hours. Prerequisite: graduate standing and permission of faculty supervisor. May be repeated; maximum credit six hours. Supervised reading at an advanced graduate level. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
GEOL 6970 Seminar
4 Credit Hours
1 to 4 hours. Prerequisite: graduate standing and permission of faculty supervisor. May be repeated with change of subject matter; maximum credit 20 hours. Directed seminar on selected aspects of geologic knowledge and inquiry. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

GEOL 6980 Research for Doctoral Dissertation 2-16 Credit Hours 2 to 16 hours. Prerequisite: Graduate standing and permission of instructor; may be repeated. Directed research culminating in the completion of the doctoral dissertation. (F, Sp, Su)
GEOL 6990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)

## GERM-German

GERM 1115 Beginning German
5 Credit Hours
An elementary course in understanding, speaking, reading and writing German. This course does not count for major credit in the Department of Modern Languages, Literatures and Linguistics. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ ) [I-FL].

GERM 1225 Beginning German (Continued) 5 Credit Hours (Continued) Prerequisite: 1115. An elementary course in understanding, speaking, reading and writing German. This course does not count for major credit in the Department of Modern Languages, Literatures and Linguistics. (F, Sp, Su) [l-FL].
GERM 2113 Intermediate German
3 Credit Hours
Prerequisite: 1225 . Develops reading skills and control of grammar. Emphasis on expansion of vocabulary and strong reinforcement of grammatical structures. Reading and discussion of texts of literary and cultural interest. Oral and written assignments. (F, Sp)

GERM 2223 Intermediate German (Continued) 3 Credit Hours (Continued) Prerequisite: 2113. (F, Sp)

GERM 2970 Special Topics/Seminar
1-3 Credit Hours
Special Topics. 1 to 3 hours. May be repeated; Maximum credit nine hours. Special topics course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research, and field projects. (Irreg.)
GERM 3333 Internship in a German-Speaking Country 3 Credit Hours Prerequisite: junior or senior standing or permission of instructor. May be repeated; maximum credit six hours. Supplements as well as enhances a work experience of at least four weeks in a Germanspeaking country (e.g., Federal Republic of Germany, Federal Republic of Austria, Switzerland, Liechtenstein, German-speaking northern Italy, German-speaking eastern Belgium) that is typically undertaken during the summer. The course involves research, reflection, and oral and written communication about the internship experience. (Su)

GERM 3423 Advanced German Composition 3 Credit Hours Prerequisite: GERM 2223. The inculcation of proper writing habits, at an advanced level, toward the achievement of idiomatic German. (Sp)

GERM 3440 Mentored Research Experience
3 Credit Hours
0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)
GERM 3523 Advanced Conversation
3 Credit Hours
Prerequisite: GERM 2223. Practice in conversational skills at an advanced level. (Sp)

GERM 3623 Business German 3 Credit Hours
Prerequisite: 2223. Introduces German business language as used in retail/wholesale, export/import, transport, and media. Will also familiarize the student with the European Union and cultural aspects of the German speaking business world. (F)
GERM 3723 German for the European Market 3 Credit Hours Prerequisite: 2223. German business language as used in banking transactions, marketing, business letters, and business firms such as corporations, general and limited partnerships, and trade unions. How to respond to claims by firms in European countries and how to establish subsidiaries in another European country. Prepares students to take the "Prufung Wirtschaftsdeutsch" (International Certificate in Business German). (Sp)
GERM 3853 Literature and Film
3 Credit Hours
Prerequisite: GERM 2223. Introduction to representative works of contemporary German literature and film. Within the context of reading and writing assignments and the viewing and discussion of films, the course is designed to improve language skills and knowledge of German culture. (F)

GERM 3960 Honors Reading 1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Will consist of topics designated by the instructor in keeping with the student's major program. The topics will cover materials not usually presented in the regular courses. (F, Sp)

GERM 3970 Honors Seminar 1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. The projects covered vary. The content deals with concepts not usually presented in regular coursework. (Irreg.)
GERM 3980 Honors Research 1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Provides an opportunity for the gifted Honors candidate to work at a special project in the student's field. (F, Sp)

GERM 3990 Independent Study 1-3 Credit Hours
1 to 3 hours. Prerequisite: one course in general area to be studied; permission of instructor and department. May be repeated; maximum credit six hours. Contracted independent study for topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (F, Sp)
GERM 4003 History of the German Language 3 Credit Hours (Slashlisted with 5003) Prerequisite: 3423, 3853. Linguistic, cultural, and social evolution of the German language from Indo-European times to the present. Additional emphasis is given to the place of German within the Germanic family of languages and to significant socio-linguistic issues in German-speaking countries as they enter the new millennium. No student may earn credit for both 4003 and 5003. (F)

GERM 4113 The Middle Ages
3 Credit Hours
(Slashlisted with 5113) Prerequisite: 3423, 3853. Secular and religious literature of medieval Germany, Austria, Switzerland, and the Netherlands discussed within the international cultural context of the European Middle Ages. No student may earn credit for both 4113 and 5113. (Alt. F)
GERM 4253 Goethe's Faust and the Problem of Evil
3 Credit Hours Prerequisite: 3423 and 3853. Intensive study of Faust I, Faust II, and the Urfaust. The social and cultural history of the Faust figure, up to Goethe's Faust, will also be explored. No student may earn credit for both 4253 and 5253. (Irreg.)

GERM G4313 Literature and Culture Pre-1700 3 Credit Hours Prerequisite: 3423 or 3853 . From the beginnings until the end of the seventeenth century. A survey of literature, art, religion, social relations, music and history. (Alt. F)
GERM G4323 Literature and Culture 1700-1890
3 Credit Hours
Prerequisite: 3423 or 3853 . Literature from 1700 to 1900. A survey of literature, art, philosophy, social relations, music and history. (Alt. F)
GERM G4333 Topics in the Twentieth Century German Literature and Culture

3 Credit Hours
Prerequisite: 3423 or 3853 . From 1900 to the present. A survey of literature, art, film, social relations, music and history. (Sp) [V].

GERM 4773 Post-1945 German Literature and Culture in Modern Europe

3 Credit Hours
(Slashlisted with 5773) Prerequisite: 3423, 3853. Study of selected prose, poetry, and drama written after World War II in Austria, East Germany, Switzerland and West Germany, within the context of cultural and economic changes. Also includes contemporary German films. No student may earn credit for both 4773 and 5773. (F) [IV-WC] .
GERM 4953 Literature, Art and Culture in Turn-of-the-Century Austria

3 Credit Hours
Prerequisite: 3423, 3853. Examines two antithetical impulses in the Habsburg fin de siecle: to revel in ornamental display and to reveal essences beneath the exterior. Examines the tension and interplay between the two tendencies in the fields of literature, art, architecture, and theory, and consider some representative figures of the period, such as Klimt, Freud, Rilke, and Kafka. No student may earn credit for both 4953 and 5953. (Irreg.)
GERM 4960 Directed Readings 1-4 Credit Hours
1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean. May be repeated; maximum credit four hours. Designed for upper-division students who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)
GERM 4970 Special Topics/Seminar 1-3 Credit Hours 1 to 3 hours. Prerequisite: Senior standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

## GERM 4990 Independent Study

1-3 Credit Hours
1 to 3 hours. Prerequisite: three courses in general area to be studied; permission of instructor and department. May be repeated; maximum credit six hours. Contracted independent study for topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (F, Sp)

GERM 5003 History of the German Language 3 Credit Hours
(Slashlisted with 4003) Prerequisite: graduate standing. Linguistic, cultural, and social evolution of the German language from Indo-European times to the present. Additional emphasis is given to the place of German within the Germanic family of languages and to significant sociolinguistic issues in German-speaking countries as they enter the new millennium. No student may earn credit for both 4003 and 5003. (F)
GERM 5113 The Middle Ages 3 Credit Hours (Slashlisted with 4113) Prerequisite: graduate standing. Secular and religious literature of medieval Germany, Austria, Switzerland, and the Netherlands discussed within the international cultural context of the European Middle Ages. No student may earn credit for both 4113 and 5113. (Alt. F)

GERM 5773 Post-1945 German Literature and Culture in Modern Europe

3 Credit Hours
(Slashlisted with 4773) Prerequisite: graduate standing. Study of selected prose, poetry, and drama written after World War II in Austria, East Germany, Switzerland and West Germany, within the context of cultural and economic changes. Also includes contemporary German films. No student may earn credit for both 4773 and 5773. (F)
GERM 5960 Directed Readings 1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing and permission of department. May be repeated; maximum credit twelve hours. Directed readings and/or literature reviews under the direction of a faculty member. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
GERM 5970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

## GERM 5980 Research for Master's Thesis

2-9 Credit Hours
Variable enrollment, two to nine hours; maximum credit applicable toward degree, four hours. (F, Sp)
GERM 5990 Independent Studies
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing, permission of instructor.
May be repeated; maximum credit 12 hours. Independent reading on one
or more topics under the general direction of a faculty member. (F, Sp, Su)

## GIS-Geographic Information Science

## GIS 1313 Computers and Programs for Environmental

## Professionals

3 Credit Hours
This course covers Microsoft Office software, various computer literacy skills, Python and briefly R programming languages that will help prepare students for future environmental and GIS course work and careers. Topics include data management techniques, logical file/ folder structures, Python programming tasks, safety procedures when downloading materials, geographical applications of programming, constructing "for" loops and conditional statements, and utilizing backup storage. (F)
GIS 2023 Introduction to Spatial Thinking and Computer

## Mapping

3 Credit Hours
Facilitates the effective communication of geographic information through sound cartographic principles and techniques. Introduces students to geographic information literacy, spatial perspectives on information management, and the use of maps as a communication tool. (Sp)

GIS 2970 Special Topics
1-3 Credit Hours
Special Topics. 1 to 3 hours. May be repeated; Maximum credit nine hours. Special topics course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research, and field projects. (Irreg.)

GIS 3003 Computer Cartography and Geovisualization 3 Credit Hours Prerequisite: ENGL 1213/EXPO 1213 and GIS 2023. This course is designed to help students learn the theory and the practical applications of map design, with a focus on current methods for visualizing spatial data and introduces the latest cutting-edge data visualization techniques. The course covers a variety of topics but focuses on both traditional map elements but also includes modern advancements in visualization. (F, Sp)

GIS 3440 Mentored Research Experience
3 Credit Hours
0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)

GIS 3960 Honors Reading
1-3 Credit Hours
1 to 3 hours. Prerequisite: Admission to Honors Program. May be repeated; maximum credit six hours. Consists of topics designated by the instructor in keeping with the student's major program. The topics will cover materials not usually presented in the regular courses. (F, Sp, Su)
GIS 3970 Honors Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Subjects covered vary. Deals with concepts not usually treated in regular courses. (Irreg.)

GIS 3980 Honors Research 1-3 Credit Hours
1 to 3 hours. Prerequisite: Admission to Honors Program. May be repeated; maximum credit six hours. Will provide an opportunity for the gifted Honors candidate to work at a special project in the student's field. (F, Sp, Su)
GIS 3990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: permission of instructor and junior standing. May be repeated once with change of content. Independent study may be arranged to study a subject not available through regular course offerings. (F, Sp, Su)

GIS 4013 Fundamentals of Geographic Information Systems 3 Credit Hours
(Slashlisted with GIS 5013) Prerequisite: GIS 2023. Designed to help students learn introductory to intermediate concepts of geographic information science (GIScience) and become proficient users of geographic information systems (GIS). The course covers a variety of topics but focuses on GIS data models, data structures, and spatial analysis. Teaching formats include lectures, in-class exercises and lab exercises. No student may earn credit for both 4013 and 5013. (F, Sp)
GIS 4133 Fundamentals of Remote Sensing 3 Credit Hours
(Slashlisted with GIS 5133) Prerequisite: Junior standing or permission of instructor. An introduction to the basic principles of remote sensing, image acquisition, image processing, image interpretation, and its geographic and environmental applications. Labs involve the processing of satellite, airborne, and other geospatial data in an open-source cloud computing platform to explore the concepts taught in lectures. No student may earn credit for both 4133 and 5133. (F)

GIS 4173 Drones and Remote Sensing 3 Credit Hours
(Slashlisted with GIS 5173) Prerequisite: GIS 4133; junior standing. This course will explore remote sensing fundamentals, drone technology, data acquisition, image processing, and integration of these technologies for environmental monitoring, disaster management, agricultural applications, urban planning, and more. Students will gain the skills necessary to operate drones, process remote sensing data, and apply these tools to real-world problem solving. No student may earn credit for both 4173 and 5173. (F)
GIS 4200 Internship in Geoinformatics
1-6 Credit Hours
1 to 6 hours. Prerequisite: junior standing and permission of instructor. May be repeated; maximum credit six hours. Provides career training experience whereby students may apply geoinformatics skills and further develop professional capabilities in a realistic setting. Students will be assigned to private industry, government agencies or educational institutions on an individual basis and report on their experience to the instructor. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

GIS 4233 Digital Image Processing
3 Credit Hours
(Slashlisted with 5233) Prerequisite: Grade of C or better in 4133 or permission of instructor. Theory and techniques for computer processing (digital image processing or DIP) of digital earth resources satellite imagery and incorporation into geographic information systems. No student may earn credit for both 4233 and 5233. (Sp)

## GIS 4243 Remote Sensing Applications

3 Credit Hours
(Slashlisted with GIS 5243) Prerequisite: GIS 4133; junior standing. This course is designed to build on the Fundamentals of Remote Sensing towards helping students develop a strong understanding of the tools and techniques used to display, process, and analyze remotely sensed data. Students will learn how to develop analytical workflows to derive products and extract information from remotely sensed data for a broad range of applications. No student may earn credit for both 4243 and 5243. (F, Sp)

## GIS 4253 GIS Applications

3 Credit Hours
(Slashlisted with GIS 5253) Prerequisite: GIS 4013. Designed to help students learn intermediate and advanced concepts of geographic information science related to a variety of socio-economic and environmental fields. Course topics may include: landscape ecology and metrics; suitability modeling; binary and ranking index models; routing and network analysis; and other topics applicable to social or environmental fields. Teaching formats include both lectures and lab exercises. No student may earn credit for both 4253 and 5253. (Sp)

## GIS 4453 Advanced GIS and Spatial Analysis

3 Credit Hours
(Slashlisted with GIS 5453) Prerequisite: GIS 2023 and GIS 4013 and GIS 4253, CS 1313 or CS 1323 or METR 1313 or MIS 3013, and upperdivision standing; or permission of instructor. Expands and solidifies the GIS knowledge acquired in introductory and applied GIS classes. Focuses on highly complex geographic questions which cannot be solved in simple steps but instead require advanced GIS analysis and sometimes automation. The course is intended to prepare the student for a professional GIS position in the government or business world, or a higher-level graduate position. No student may earn credit for both 4453 and 5453. (Sp)

GIS 4553 Advanced Remote Sensing 3 Credit Hours
(Slashlisted with GIS 5553) Prerequisite: GIS 4133; junior standing. This course will introduce students to advanced topics in digital remote sensing towards understanding the theoretical and conceptual underpinnings in both aerial and satellite remote sensing. Focus will be placed on advanced active and passive sensors characteristics, digital image analysis, and processing for advanced issues in remote sensing, including new frontiers in the discipline. No student may earn credit for both 4553 and 5553. (F, Sp)

GIS 4653 Spatial Programming and GIS
3 Credit Hours
(Slashlisted with GIS 5653) Prerequisite: GIS 4013, upper-division standing or permission of instructor. Introduces students to geocomputation concepts, spatial programming skills and computational approaches to spatial data services and spatial problem solving. No student can earn credit for both 4653 and 5653. (F)
GIS 4733 Environmental Remote Sensing
3 Credit Hours
(Slashlisted with GIS 5733; Crosslisted with PBIO 4733) Prerequisite: either a course or hands-on experience in remote sensing, GIS, statistical analysis, computer programming, or permission of the instructor and adviser. Course develops comprehensive knowledge and advanced skills of remote sensing, to apply to the study of the structure, composition, and functions of vegetation, landscapes, and the biosphere. Students will learn hyperspectral data acquisition and analysis; field survey methods; land cover classification from multiple sensors, time series data; and estimation of biophysical and biochemical parameters. Includes image processing software and algorithms. No student may earn credit for both 4733 and 5733. (Sp)
GIS 4833 Environmental Spatial Modeling
3 Credit Hours
(Slashlisted with GIS 5833) Prerequisite: Junior standing and GIS 2023. This course covers an introduction to decision-making techniques about land use allocation and planning. Lectures and lab/discussion sections will focus on addressing conflicts involving environmental concerns and multiple objectives. Examples include water resources development, corridor location (e.g., rights-of-way for transmissions, roads, etc.), preservation of endangered species, power plant siting, and others. No student may earn credit for both 4833 and 5833. (Sp)
GIS 4923 Spatial Statistics
3 Credit Hours
(Slashlisted with GIS 5923) Prerequisite: GEOG 3924, CS 1313 or CS 1323 or METR 1313 or MIS 3013, and upper-division standing; or permission of instructor. Explains and demonstrates methods and techniques in spatial sampling; spatial auto-correlation and spatial composition. It also delves into spatially adjusted regression, local statistics, and geo-statistics and related techniques. Theoretical explanations and derivations as well as practical applications making use of both ArcGIS and R. No student may earn credit for both 4923 and 5923. (Irreg.)
GIS 4960 Directed Readings 1-4 Credit Hours
1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean. May be repeated; maximum credit four hours. Designed for upper-division students who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)
GIS 4970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: Senior standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

GIS 4990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: Senior standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)

## GIS 5003 Spatial Data Management for GIS Professionals 3 Credit Hours

Prerequisite: Graduate standing. The goal of this course is to develop introductory computer science skills and information management literacy for GIS professionals finding work in industry. Students will learn how to capture, create, validate, and maintain spatial data for use in a professional GIS setting, and become familiar navigating federal, local, and private online GIS data repositories for future GIS work. (F, Sp)
GIS 5013 Fundamentals of Geographic Information Systems 3 Credit Hours
(Slashlisted with GIS 4013) Prerequisite: graduate standing. Designed to help students learn introductory to intermediate concepts of geographic information science (GIScience) and become proficient users of geographic information systems (GIS). The course covers a variety of topics but focuses on GIS data models, data structures, and spatial analysis. Teaching formats include lectures, in-class exercises and lab exercises. No student may earn credit for both 4013 and 5013. (F, Sp)

## GIS 5133 Fundamentals of Remote Sensing 3 Credit Hours

(Slashlisted with GIS 4133) Prerequisite: Graduate standing or permission of instructor. An introduction to the basic principles of remote sensing, image acquisition, image processing, image interpretation, and its geographic and environmental applications. Labs involve the processing of satellite, airborne, and other geospatial data in an open-source cloud computing platform to explore the concepts taught in lectures. No student may earn credit for both 4133 and 5133. (F)

GIS 5173 Drones and Remote Sensing 3 Credit Hours
(Slashlisted with GIS 4173) Prerequisite: GIS 4133 or GIS 5133; graduate standing or permission of instructor. This course will explore remote sensing fundamentals, drone technology, data acquisition, image processing, and integration of these technologies for environmental monitoring, disaster management, agricultural applications, urban planning, and more. Students will gain the skills necessary to operate drones, process remote sensing data, and apply these tools to real-world problem solving. No student may earn credit for both 4173 and 5173. (F)

## GIS 5233 Digital Image Processing

3 Credit Hours
(Slashlisted with 4233) Prerequisite: Graduate standing and a grade of C or better in GIS 4133 or GIS 5133 or permission of instructor. Theory and techniques for computer processing (digital image processing or DIP) of digital earth resources satellite imagery and incorporation into geographic information systems. No student may earn credit for both 4233 and 5233. (Sp)
GIS 5243 Remote Sensing Applications
3 Credit Hours
(Slashlisted with GIS 4243) Prerequisite: GIS 4133 or GIS 5133; graduate standing. This course is designed to build on the Fundamentals of Remote Sensing towards helping students develop a strong understanding of the tools and techniques used to display, process, and analyze remotely sensed data. Students will learn how to develop analytical workflows to derive products and extract information from remotely sensed data for a broad range of applications. No student may earn credit for both 4243 and 5243. (F, Sp)

GIS 5253 GIS Applications
3 Credit Hours
(Slashlisted with GIS 4253) Prerequisite: graduate standing, GIS 5013. Designed to help students learn intermediate and advanced concepts of geographic information science related to a variety of socio-economic and environmental fields. Course topics may include: landscape ecology and metrics; suitability modeling; binary and ranking index models; routing and network analysis; and other topics applicable to social or environmental fields. Teaching formats include both lectures and lab exercises. No student may earn credit for both 4253 and 5253. (Sp)
GIS 5453 Advanced GIS and Spatial Analysis
3 Credit Hours
(Slashlisted with GIS 4453). Prerequisite: GIS 5013 and GIS 5253, graduate standing. Expands and solidifies the GIS knowledge acquired in introductory and applied GIS classes. Focuses on highly complex geographic questions which cannot be solved in simple steps but instead require advanced GIS analysis and sometimes automation. The course is intended to prepare the student for a professional GIS position in the government or business world, or a higher-level graduate position. No student may earn credit for both 4453 and 5453. (Sp)
GIS 5553 Advanced Remote Sensing 3 Credit Hours (Slashlisted with GIS 4553) Prerequisite: GIS 5133; graduate standing. This course will introduce students to advanced topics in digital remote sensing towards understanding the theoretical and conceptual underpinnings in both aerial and satellite remote sensing. Focus will be placed on advanced active and passive sensors characteristics, digital image analysis, and processing for advanced issues in remote sensing, including new frontiers in the discipline. No student may earn credit for both 4553 and 5553. (F, Sp)
GIS 5653 Spatial Programming and GIS 3 Credit Hours
(Slashlisted with GIS 4653) Prerequisite: graduate standing and GIS 4013/GIS 5013. Introduces students to geocomputation concepts, spatial programming skills, and computational approaches to spatial data services and spatial problem solving. No student may earn credit for both 4653 and 5653. (F)
GIS 5733 Environmental Remote Sensing
3 Credit Hours
(Slashlisted with GIS 4733; Crosslisted with PBIO 5733) Prerequisite: graduate standing, and either a course or hands-on experience in remote sensing, GIS, statistical analysis, computer programming, or permission of the instructor and adviser. Course develops comprehensive knowledge and advanced skills of remote sensing, to apply to the study of the structure, composition, and functions of vegetation, landscapes, and the biosphere. Students will learn hyperspectral data acquisition and analysis; field survey methods; land cover classification from multiple sensors, time series data; and estimation of biophysical and biochemical parameters. Includes image processing software and algorithms. No student may earn credit for both 4733 and 5733. (Sp)
GIS 5833 Environmental Spatial Modeling
3 Credit Hours
(Slashlisted with GIS 4833) Prerequisite: Graduate standing. This course covers an introduction to decision-making techniques about land use allocation and planning. Lectures and lab/discussion sections will focus on addressing conflicts involving environmental concerns and multiple objectives. Examples include water resources development, corridor location (e.g., rights-of-way for transmissions, roads, etc.), preservation of endangered species, power plant siting, and others. No student may earn credit for both 4833 and 5833. (Sp)

GIS 5923 Spatial Statistics
3 Credit Hours
(Slashlisted with GIS 4923) Prerequisite: graduate standing; it is recommended that students have taken an introductory statistics course. Explains and demonstrates methods and techniques in spatial sampling, spatial auto-correlation, and spatial composition. It also delves into spatially-adjusted regression, local statistics, geo-statistics, and related techniques. Theoretical explanations and derivations as well as practical applications, making use of both ArcGIS and R. No student may earn credit for both 4923 and 5923. (Irreg.)

## GIS 5960 Directed Readings 1-3 Credit Hours

1 to 3 hours. Prerequisite: graduate standing and permission of department. May be repeated; maximum credit twelve hours. Directed readings and/or literature reviews under the direction of a faculty member. (F, Sp, Su)
GIS 5970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

## GIS 5980 Research for Master's Thesis

2-9 Credit Hours
Variable enrollment, two to nine hours; maximum credit applicable toward degree, six hours. (F, Sp, Su)

GIS 5990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)

GIS 6960 Directed Readings 1-3 Credit Hours 1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit six hours Directed readings and/or literature review under the direction of a faculty member. (Irreg.)

GIS 6970 Special Topics/Seminar 1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit 12 hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or research and field projects. (Irreg.)
GIS 6980 Research for Doctoral Dissertation 2-16 Credit Hours
2 to 16 hours. Prerequisite: Graduate standing and permission of instructor; may be repeated. Directed research culminating in the completion of the doctoral dissertation. (F, Sp, Su)

GIS 6990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)

## GPHY-Geophysics

## GPHY 1103 Adventures in Geophysics

3 Credit Hours
The field of applied near-surface geophysics will be introduced within the broader scope of the geophysical sciences. Key geophysical techniques and tools will be covered through exploration of existing case studies involving fields such as archaeology, law enforcement and ground water resources. There will also be opportunities for 'hands on' experience with high-tech geophysical tools. (Sp) [II-NS].

GPHY 2013 Frontiers of Geophysics
3 Credit Hours
Prerequisite: GEOL 1114 or co-enrollment. Introduction to the basic theories, methods, and modern applications of geophysics. This sampler course will address topics such as, but not limited to: seismology, deep earth geophysics, remote sensing, reflection seismology, computational geophysics, and machine learning. (Sp)

GPHY 3013 Data Analysis in Geoscience 3 Credit Hours Prerequisite: GEOL 1114, and MATH 2924 or MATH 2423. This course introduces theories and techniques in data analysis and their applications in the Earth and Environmental Sciences, with examples demonstrated in MatLab. Topics include data visualization, probability theory, linear models, periodicity detection, filtering, correlation, interpolation, approximations, and hypothesis testing. (Sp)
GPHY 3423 Introductory Petroleum Geology and Geophysics 3 Credit Hours
Prerequisite: GEOL 1114, MATH 2924 or MATH 2423, PHYS 2514, and GEOL 3003. Fundamentals of the utilization of geological and geophysical data in the exploration for and development of petroleum reserves. Fundamental principles, geological and geophysical data acquisition, processing and interpretation. (F)

GPHY 3440 Mentored Research Experience
3 Credit Hours
0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)

## GPHY 3960 Honors Reading

1-3 Credit Hours
1 to 3 hours. Prerequisite: Admission to Honors Program. May be repeated; maximum credit six hours. Consists of topics designated by the instructor in keeping with the student's major program. The topics will cover materials not usually presented in the regular courses. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

GPHY 3970 Honors Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Subjects covered vary. Deals with concepts not usually treated in regular courses. (Irreg.)

## GPHY 3980 Honors Research

1-3 Credit Hours
1 to 3 hours. Prerequisite: Admission to Honors Program. May be repeated; maximum credit six hours. Will provide an opportunity for the gifted Honors candidate to work at a special project in the student's field. (F, Sp, Su)
GPHY 3990 Independent Study 1-3 Credit Hours 1 to 3 hours. Prerequisite: permission of instructor and junior standing. May be repeated once with change of content. Independent study may be arranged to study a subject not available through regular course offerings. (F, Sp, Su)
GPHY 4133 Colorado Field Geophysics
3 Credit Hours
Prerequisite: 4113; Geology 3123; or permission of instructor. Students become familiar with field methods in geophysics and apply principles of geophysical methods to survey design, data acquisition, data processing, and interpretation. Students plan geophysical surveys, collect field geophysical data in small groups, interpret the acquired datasets in terms of earth structure, and learn about the tectonics and structure of the front range of the Rocky Mountains. Field course is taught at the OU field camp near Canon City, Colorado, and is predominantly field based. Three-week field experience required. (Su) [V].

GPHY 4153 Fractures, Faults, and Earthquakes 3 Credit Hours
(Slashlisted with GPHY 5153) Prerequisite: Junior Standing or permission of instructor. This course provides an introduction to the principles of fracturing, brittle faulting and earthquake mechanics. We will examine content including: brittle failure, fractures, fluid-flow and hydrothermal alteration, the state of stress in Earth's crust, borehole interpretation of fractures and faults, fault rocks and structures, the strength, rheology, and friction of faults, the seismic cycle, and scientific drilling. No student may earn credit for both 4153 and 5153. (Irreg.)

## GPHY 4413 Global Geophysics 3 Credit Hours

Prerequisite: GEOL 3114 or concurrent enrollment; MATH 2924 or 2423; PHYS 2524 or concurrent enrollment; or equivalent coursework or permission of instructor. Introduces students to geophysical methods, the structure and physical properties of earth's interior, active processes on earth, and the use of geophysical methods to study structure and processes. Laboratory (Alt. F)
GPHY G4553 Introduction to Seismology 3 Credit Hours
Prerequisite: MATH 2924 or 2423, and PHYS 2514; or permission of instructor. This course presents an overview of seismology to introduce students to the fundamentals of seismic wave, quantitative data analyses, and the utilization of seismic wave for the study of earthquakes and the Earth's interior structure. Students will gain hand-on experiences with real data analysis. Course is appropriate for upper-class undergraduates and graduate students. ( Sp )

## GPHY G4874 Seismic Exploration

4 Credit Hours
Prerequisite: PHYS 2524; MATH 2433 or MATH 2924 or concurrent enrollment. Lectures, projects, and laboratory/problem sessions covering theory and advanced methods of reflection seismic methods and applications to energy exploration, carbon capture, paleosedimentation and paleotectonics. (F)

## GPHY 4953 Senior Thesis in Geophysics

3 Credit Hours
Prerequisite: senior standing with a major in geophysics and permission. May not be repeated. Individual research of a geophysical topic selected by the student in consultation with the instructor. The project may involve fieldwork, theoretical analysis, computer modeling, and/or data analysis and interpretation, culminating in a written thesis. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ ) [V].
GPHY 4960 Directed Readings
1-4 Credit Hours
1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean. May be repeated; maximum credit four hours. Designed for upper-division students who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)

## GPHY G4970 Seminar

3 Credit Hours
1 to 3 hours. Prerequisite: permission of instructor. May be repeated with change of content; maximum credit nine hours. ( $\mathrm{F}, \mathrm{Sp}$ )
GPHY 4990 Independent Study 1-3 Credit Hours
1 to 3 hours. Prerequisite: three courses in general area to be studied; permission of instructor and department. May be repeated; maximum credit nine hours. Contracted independent study for topics not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (F, Sp, Su)
GPHY 5021 Geophysical Journal Seminar
1 Credit Hour
Prerequisite: Graduate Standing or Instructor Permission. This seminar course involves undergraduate and graduate students in selecting, reviewing, and discussing frontier research papers in geophysics about the solid Earth system and problems related to geo-hazards, energy, and the environment. Students will share research progress and discuss important topics for career development. (F, Sp)

GPHY 5023 Computational Geophysics
3 Credit Hours
Prerequisite: Graduate standing or permission of instructor. This course introduces concepts and practices in numerical modeling in geophysics, including the formulation of finite-difference and finite-element methods and their applications in problems of heat and fluid flow, deformation, and wave propagation. Students learn to program numerical methods in MATLAB or Python, use open-source software, and discuss topics about computational methods in seismology, geomechanics, and geodynamics. ( $\mathrm{F}, \mathrm{Sp}$ )
GPHY 5031 Near-Surface Geophysics Seminar 1 Credit Hour Prerequisite: Graduate Standing or Instructor Permission. In this course, we will discuss the latest scientific research and learn about new approaches for studying near-surface problems. We will also learn how to develop a proposal and how to review papers. At the end, students should be able to analyze and review scientific geophysical articles. Additionally, students should be able to prepare presentations based on the articles discussed. ( $\mathrm{F}, \mathrm{Sp}$ )
GPHY 5153 Fractures, Faults, and Earthquakes 3 Credit Hour
(Slashlisted with GPHY 4153) Prerequisite: Graduate Standing or permission of instructor. This course provides an introduction to the principles of fracturing, brittle faulting and earthquake mechanics. We will examine content including: brittle failure, fractures, fluid-flow and hydrothermal alteration, the state of stress in Earth's crust, borehole interpretation of fractures and faults, fault rocks and structures, the strength, rheology, and friction of faults, the seismic cycle, and scientific drilling. No student may earn credit for both 4153 and 5153. (Irreg.)
GPHY 5203 Near-Surface Geophysics
3 Credit Hours
Prerequisite: graduate Standing or instructor permission. Near-surface geophysics is a branch of geophysics that deals with a zone that spans within a few 100 s of meters of the Earth's surface. In near-surface geophysics, we use methods such as seismic refraction and electrical resistivity to address environmental, engineering (civil), forensic, archaeological and mineral exploration issues. There is a required Field Research project as part of this course.
GPHY 5303 Electrical Environmental Geophysics 3 Credit Hours Prerequisite: graduate Standing or permission of instructor. Introduction to "electrical-based" near-surface geophysical methods and the application of these techniques to environmental and engineering studies. Participation in problems set in class is expected. A minimum of time equivalent to one day of fieldwork will be organized for each student: participation in fieldwork is mandatory as it provides an opportunity to work with the different geophysical methods.

## GPHY 5364 Paleomagnetism

4 Credit Hours
Prerequisite: permission. Concerns the magnetic properties of minerals and rocks and the physical and chemical processes which produce them. Laboratory techniques used in investigations are discussed. (F)
GPHY 5413 Global Geophysics 3 Credit Hours Prerequisite: Graduate standing or permission of instructor. Introduces students to geophysical methods, the structure and physical properties of earth's interior, active processes on earth, and the use of geophysical methods to study structure and processes. Will be taught every other fall semester. Laboratory included. No student may earn credit for both 4413 and 5413. (Irreg.)

GPHY 5513 3-D Seismic Interpretation 3 Credit Hours
Prerequisite: graduate standing or permission of instructor. Principles of seismic stratigraphy, seismic geomorphology, structural geology, and rock physics to interpret seismic reflection data and associated attributes to delineate faults, fractures, folds, fluvial-deltaic complexes, turbidites, mass transport complexes, karst, and other structural and stratigraphic features of interest. Course is intended for graduate students in geophysics, geology, and petroleum engineering. Laboratory (F)

## GPHY 5523 3-D Seismic Processing

3 Credit Hours
Prerequisite: GPHY 4874 or equivalent and MATH 3333. Theory and application of seismic signal analysis to modern 3-D surface seismic surveys including sorting, statics, deconvolution, coherent noise suppression, velocity analysis and migration. At the end of the course, the student will be able to apply appropriate modern work flows to 3-D land data surveys resulting in prestack time migrated images amenable to AVO, attribute, and velocity anisotropy analysis. (Sp)
GPHY 5533 Quantitative Seismic Interpretation 3 Credit Hours Prerequisite: graduate standing, and GPHY 5513 or current research work in reservoir characterization or simulation. This course is the second part of a two-course sequence on seismic interpretation and will investigate the theoretical foundation and application of tools used in quantitative reservoir characterization. This course is intended for upper level graduate students in geophysics, geology, and petroleum engineering doing research in reservoir imaging, characterization, and simulation. (Sp-even yrs)
GPHY 5613 Introduction to Seismic Stratigraphy 3 Credit Hours Prerequisite: Physics 2524, Mathematics 3333, or permission. Introduction to the stratigraphic interpretation of reflection seismic data, emphasizing 2-D exploration seismic reflection group analysis. Topics covered include the theory and practice of borehole constrained interpretation, analysis, and mapping of seismic sequences, fault mechanical stratigraphy, chronostratigraphy, seismic facies, relative changes in sea level, and integrated geohistory analysis with emphasis upon providing a foundation for petroleum system analysis. Seismic sections for the analyses are taken from varying tectonic and depositional settings worldwide. (Alt. F)

## GPHY 5864 Gravimetric and Magnetic Exploration 4 Credit Hours

Prerequisite: Graduate standing, MATH 2924 or MATH 2433, PHYS 2524, or permission of instructor. Lectures and laboratory/ problem sessions covering theory and applications of gravimetric and magnetic exploration. Includes potential theory, filtering, modeling and interpretation. Emphasis is on exploration for minerals, oil and gas. Concepts of geodesy and isostasy are briefly considered. Laboratory (Sp)
GPHY 5960 Directed Readings
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing and permission of department. May be repeated; maximum credit twelve hours. Directed readings and/or literature reviews under the direction of a faculty member. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

GPHY 5970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

## GPHY 5980 Research for Master's Thesis

2-9 Credit Hours
Variable enrollment, two to nine hours; maximum applicable toward degree, four hours. (F, Sp, Su)

GPHY 5990 Special Studies
1-3 Credit Hours
1 to 3 hours. Prerequisite: permission. May be repeated; maximum credit nine hours. Advanced special studies in geophysical problems. May include directed reading in geophysics, fieldwork, laboratory research or preparation of reports. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

## GPHY 6873 Seismic Imaging

3 Credit Hours
Prerequisite: Graduate standing. Seismic imaging is a fundamental tool to understand Earth's structure. This class will focus on various migrations used in exploration geophysics including ray-based and wavefield-based methods. Also, it will cover velocity analyses of the structure such as travel-time tomography and full-waveform inversion. (Sp)

## GPHY 6950 <br> Research <br> 1-4 Credit Hours

1 to 4 hours. Prerequisite: graduate standing and permission of faculty supervisor. May be repeated with change of content; maximum credit 12 hours. Individual research in various areas of geophysics. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

## GPHY 6960 Directed Readings

1-6 Credit Hours
1 to 6 hours. Prerequisite: graduate standing and permission of faculty supervisor. May be repeated; maximum credit six hours. Supervised reading at an advanced graduate level. (F, Sp, Su)
GPHY 6970 Seminar 1-4 Credit Hours
1 to 4 hours. Prerequisite: graduate standing, permission. May be repeated with change of subject matter; maximum credit twenty hours. Directed seminar on selected aspects of geophysical knowledge and inquiry. (F, Sp)

## GPHY 6980 Research for Doctoral Dissertation 2-16 Credit Hours

 2 to 16 hours. Prerequisite: Graduate standing and permission of instructor; may be repeated. Directed research culminating in the completion of the doctoral dissertation. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )GPHY 6990 Independent Study 1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)

## GRAD-Graduate College

GRAD 5000 Concurrent Students at OUHSC
0 Credit Hours
Prerequisite: graduate standing. OU students concurrently enrolled at OUHSC. (F, Sp, Su)

## GRAD 5003 Oklahoma Scholar-Leadership Enrichment Program

 Graduate Seminar3 Credit Hours
Prerequisite: graduate standing. May be repeated with change of content; maximum credit 12 hours. An interdisciplinary seminar variable in content changing with each seminar. Seminars are led by prominent national and international scholars and leaders coordinated with a current faculty member in their area of expertise. Emphasis is on enrichment and exploration with scholars to investigate ideas and issues affecting the future of humanity. (F, Sp)

GRAD 5103 Interdisciplinary EOS3
3 Credit Hours
Prerequisite: Graduate Standing. Earth Observation Science for Society and Sustainability (EOS3) is an interdisciplinary certificate program consisting of a four-course certificate (Interdisciplinary EOS3, EOS3 Data Analytics, EOS3 Interface, and EOS3 Practicum) designed to provide students with advanced training in interdisciplinary communication, leadership, and data science skills. This course serves as the introduction to Interdisciplinary EOS3 and the processes by which effective science team are formed and become productive. Students will gain experience in working with interdisciplinary teams to leverage their disciplinary expertise and work with those with other expertise to address societal concerns. (F)
GRAD 5203 EOS3 Data Analytics
3 Credit Hours
Prerequisite: graduate standing. Focuses on using large, open-source civil Earth observation and other geospatial data. Introduces students to various open-source data tools for acquiring, managing, and analyzing large public data sets. Students will work in interdisciplinary teams to fuse disparate data and conduct analyses that meld ideas from natural and social science disciplines. The student teams will be comprised of members with varied skill sets to establish a culture of collaborative teaching and learning. (F)
GRAD 5303 EOS3 Interface 3 Credit Hours
Prerequisite: graduate standing. EOS3 Interface focuses on interdisciplinary communication, the application of group communication theories to team science, and the communication of science across societal and cultural gaps. Theory, scholarship, and applications of group and organizational communication will be discussed within this context. In addition, the course will cover how socio-cultural differences affect communication, with a focus on how those affect the communication of scientific and technical information across disciplines and to the lay public and policymakers. (Sp)

## GRAD 5403 EOS3 Practicum

3 Credit Hours
Prerequisite: graduate standing. The EOS3 practicum is the culminate of the certificate program and will allow students to apply what they have learned in their previous coursework while working as part of a collaborative and interdisciplinary team tasked with addressing real world research topics relating to the EOS3 theme. (Sp)
GRAD 5940 Professional Master's Practicum/Internship 1-5 Credit Hours
1 to 5 hours. Prerequisite: graduate standing and permission of instructor. May be repeated once; maximum credit five hours. Provides a practicum or internship experience for students in the professional master's degree program. The students will apply the knowledge from their core academic discipline (e.g. science, engineering, education, fine arts) in an appropriate supervised professional setting (e.g. business, public administration, international programs) to provide a valid experience related to the core discipline and career context of their professional masters degree. The internship/practicum will serve as the culminating experience for the degree. (F, Sp, Su)
GRAD 5980 Research for Master's Thesis 2-9 Credit Hours
Variable enrollment, two to nine hours; maximum credit applicable toward degree, four hours. (F, Sp, Su)
GRAD 5990 Graduate Special Topics 1-4 Credit Hours
1 to 4 hours. Prerequisite: graduate standing and permission of instructor. May be repeated with change of topic; maximum credit twelve hours. Selected topics in graduate areas not usually covered in traditional courses. For any particular section there may be additional prerequisites required. (F, Sp, Su.

GRAD 6980 Research for Doctoral Dissertation 2-12 Credit Hours
2 to 12 hours. Prerequisite: Graduate standing and permission of instructor or Graduate College; may be repeated. Directed research culminating in the completion of the doctoral dissertation. (F, Sp, Su)
GRAD 6990 Graduate Advanced Special Topics 1-4 Credit Hours
1 to 4 hours. Prerequisite: graduate standing and permission of instructor. May be repeated with change of content; maximum credit twelve hours. Selected advanced topics in graduate areas not usually covered in traditional courses. For any particular section there may be additional prerequisites required. (F, Sp, Su)

## GRK-Greek

GRK 1115 Beginning Greek
5 Credit Hours
Introductory study of the vocabulary and grammar of the Greek language. Some practice in the reading of simple Attic prose; usually excerpts from Xenophon's Anabasis. (F, Sp, Su) [I-FL].
GRK 1215 Beginning Greek
5 Credit Hours
Prerequisite: 1115, or first year Greek in high school. Introductory study of the vocabulary and grammar of the Greek language. Some practice in the reading of simple Attic prose; usually excerpts from Xenophon's Anabasis. (Sp) [I-FL].
GRK 2103 Intermediate Ancient Greek
3 Credit Hours
Prerequisite: GRK 1215 or equivalent, with a grade of $C$ of better; May be repeated with a change of content; maximum credit six hours. This course moves from basic grammatical principles to translating authentic, unaltered texts. Students will fine-tune their knowledge of Attic Greek prose and begin reading poetry and lonic texts. Authors will include, among others, Plato, Euripides, Thucydides, and Homer. (F, Sp)
GRK 2113 Biblical Greek
3 Credit Hours
Prerequisite: 1215 or equivalent, with a grade of $C$ of better. May be repeated with a change of content; maximum credit six hours. Reading designed mainly to increase the student's proficiency in rapid translation, in excerpts from the New Testament. (F)

## GRK 2213 Homer

3 Credit Hours
1215 or equivalent, with a grade of $C$ or better. May be repeated with change of content; maximum credit six hours. Reading selections from Homer; designed to improve the student's proficiency in translation and the understanding of Greek poetic techniques. (Sp)
GRK 2970 Special Topics/Seminar
1-3 Credit Hours
Special Topics. 1 to 3 hours. May be repeated; Maximum credit nine hours. Special topics course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research, and field projects. (Irreg.)
GRK 3113 Advanced Prose
3 Credit Hours
May be repeated with change of subject matter; maximum credit six hours. Readings in Plato: Crito and Apology; Lysias: Select Orations; Demosthenes: De Corona. (Sp)

## GRK 3213 Ancient Greek Drama

3 Credit Hours
Prerequisite: GRK 2103, or equivalent, with a grade of $C$ or better; May be repeated with change of subject matter; maximum credit six hours. Not only serving as the primary form of entertainment, the theater in ancient Greece was a diverse forum for exploring social morality, politics, and religion. By reading works from dramatists such as Aristophanes, Euripides, Menander, and Sophocles, students will observe the lasting influence of comedy and tragedy throughout history. (F, Sp)

GRK 3313 Ancient Greek Prose Composition
3 Credit Hours
Prerequisite: GRK 2103 or 2203 or the equivalent. In this course, students will fully revise all of Attic Greek grammar and syntax and translate sentences and connected prose passages into Greek. By the end of the course, students should have a better grasp of the Greek language, be able to use and identify proper Greek idiom, and appreciate the style and linguistic nuances of prose authors. (F, Sp)

## GRK 3413 Greek New Testament

3 Credit Hours
Prerequisite: GRK 2103, or equivalent, with a grade of C or better; May be repeated with change of subject matter; maximum credit six hours. This course will introduce students to Koine Greek through translating texts from the New Testament and works of Apostolic or Patristic Fathers. By translating a variety of impactful and controversial texts, students will observe the importance of reading these works in their original language and note that English translations often obscure or dilute meaning. ( $\mathrm{F}, \mathrm{Sp}$ )
GRK 3440 Mentored Research Experience
3 Credit Hours
0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)

## GRK 3513 Ancient Greek Philosophers

3 Credit Hours
Prerequisite: GRK 2103, or equivalent, with a grade of C or better; May be repeated with change of subject matter; maximum credit six hours. The works of Greek philosophers, primarily Plato and Socrates, are foundational to the intellectual tradition that applies rational thought to the discovery of knowledge in the natural world, ethical matters, and happiness. By reading a variety of works from Greek philosophers, students will develop a better understanding of the intricacies of Greek philosophical tenets and how they evolved throughout history. ( $F, \mathrm{Sp}$ )
GRK 3613 Greek Epic Poetry 3 Credit Hours
Prerequisite: GRK 2103 or equivalent, with a grade of $C$ or better; May be repeated with change of subject matter; maximum credit six hours. The tales of Greek gods and heroes come to life in the poetry of authors such as Homer, Hesiod, and Apollonius. By reading some of the most cherished texts from antiquity, students will marvel at the ability of these authors to entertain ancient and modern audiences while exploring concepts of heroism, love, morality, theology, and the afterlife. ( $\mathrm{F}, \mathrm{Sp}$ )
GRK 3960 Honors Reading
1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program and one intermediate Greek course. May be repeated; maximum credit six hours. Consists of topics designated by the instructor in keeping with the student's major program. The topics will cover materials not usually presented in the regular courses. (F, Sp, Su)

## GRK 3970 Honors Special Topics

1-3 Credit Hours
Prerequisite: 2113 or 2213 or the equivalent. May be repeated with change of content; Maximum credit six hours. A study of selected topics in Greek literature on subjects not offered in regularly scheduled courses. (Irreg.)

## GRK 3980 Honors Research

1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to the Honors Program and one intermediate Greek course. May be repeated; maximum credit six hours. Will provide an opportunity for the Honors candidate to work at a special project in the student's field. (F, Sp, Su)

GRK 3990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: one course in general area to be studied; permission of instructor and department. May be repeated; maximum credit six hours. Contracted independent study for topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (F, Sp, Su)

GRK 4113 Greek Historiography
3 Credit Hours
Prerequisite: GRK 2103 or equivalent, with a grade of $C$ or better; May be repeated with change of subject matter; maximum credit six hours. Inspired by epic poems from the past, Greek historians were at the forefront of exploring and defining the genre now simply known as "history". By reading various works from authors of Greek history, such as Herodotus, Thucydides, and Xenophon, and even Greek historians of the Roman empire, students will observe how the genre evolved throughout antiquity. (Irreg.)
GRK 4213 Greek Lyric \& Bucolic Poetry
3 Credit Hours
Prerequisite: GRK 2103 or equivalent, with a grade of $C$ or better; May be repeated with change of subject matter; maximum credit six hours. Ancient Greeks passionately consumed lyric and bucolic poetry as forms of entertainment and personal expression. Exploring themes of love, death, beauty, and the good life, these poets give modern audiences insight into ancient desires and dilemmas through beautifully constructed verse. By translating works from authors, such as Pindar, Sappho, and Theocritus, students will improve their understanding of the ancient Greeks. (F)
GRK 4313 Attic Oratory
3 Credit Hours
Prerequisite: GRK 2103, or equivalent, with a grade of C or better; May be repeated with change of subject matter; maximum credit six hours. Extensive reading from the masterpieces of classical oratory, chosen both to illustrate the types and styles of public discourse and to provide some familiarity with the social and political milieu of the age. Authors include among others, Demosthenes, Lysias, Andocides, Aeschines, Antiphon, and Isocrates. Supplementary studies in Greek legal procedure, and the theory of rhetoric and its importance in antiquity. ( $F, S p$ )
GRK 4960 Directed Readings 1-4 Credit Hours
1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean. May be repeated; maximum credit four hours. Designed for upper-division students who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)
GRK 4970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: Senior standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

## GRK 4990 Independent Study

1-3 Credit Hours
1 to 3 hours. Prerequisite: three courses in general area to be studied; permission of instructor and department. May be repeated; maximum credit six hours. Contracted independent study for topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

GRK 5960 Directed Readings 1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing and permission of department. May be repeated; maximum credit twelve hours. Directed readings and/or literature reviews under the direction of a faculty member. (F, Sp, Su)

GRK 5970 Special Topics/Seminar 1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)
GRK 5980 Research for Master's Thesis 2-9 Credit Hours 2 to 9 hours. Prerequisite: graduate standing. Variable enrollment, two to nine hours; maximum credit applicable toward degree, four hours.(F)

GRK 5990 Special Studies
1-4 Credit Hours
1 to 4 hours. May be repeated; maximum credit eight hours. Reading and research, arranged and directed in consultation with the instructor, in specified areas of Greek language and literature. (F, Sp)

## GRRE-Graduate Recital - MM

GRRE 5042 Graduate Recital-Master of Music Degree 2 Credit Hours Prerequisite: Concurrent enrollment in 5020, permission of adviser and instructor. Preparation and performance of a public recital. May not be elected during first enrollment. (F, Sp, Su)

## GTAR-Guitar

## GTAR 2000 Freshman and/or Sophomore Secondary Guitar 1-2 Credit <br> 1 to 2 hours. Prerequisite: permission of adviser and instructor. May be repeated; maximum credit toward B.F.A., B.M.A., B.M.E., and B.M. degrees, eight hours. For freshman and sophomore music students studying in a secondary (or minor) performance area. (F, Sp, Su) <br> GTAR 2020 Guitar for Music Majors: Freshman/Sophomore $\quad \mathbf{2 - 4}$ Credit <br> Hours

2 to 4 hours. Prerequisite: Majors only. May be repeated; maximum credit 12 hours. Applied instrumental lessons for freshmen and sophomore music majors in a School of Music degree program. (F, Sp)
GTAR 3440 Mentored Research Experience 3 Credit Hours 0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)
GTAR 4000 Junior and/or Senior Secondary Guitar 1-2 Credit Hours 1 to 2 hours. Prerequisite: permission of adviser and instructor. May be repeated; maximum credit toward B.F.A., B.M.A., B.M.E., and B.M. degrees, eight hours. For junior and senior music students studying in a secondary (or minor) performance area. (F, Sp, Su)
GTAR 4020 Guitar for Music Majors: Junior/Senior 1-4 Credit Hours 1 to 4 hours. Prerequisite: Majors only; junior standing. May be repeated; maximum credit 20 hours. Applied instrumental lessons for junior and senior music majors in a School of Music degree program. (F, Sp)
GTAR 5000 Master's-Level Secondary Guitar 1-2 Credit Hours 1 to 2 hours. Prerequisite: graduate standing in music; permission of adviser and instructor. May be repeated; maximum credit eight hours on a given instrument (including voice). For master's degree music students studying in a secondary (or minor) performance area. (F, Sp, Su)

GTAR 5010 Master's-Level Guitar for Non-Performance Music
Majors
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing in music; permission of adviser and instructor. May be repeated; maximum credit eight hours on a given instrument (including voice). For master's degree students other than performance majors in their major field. (F, Sp, Su)
GTAR 5020 Master's-Level Guitar for Performance Majors 2-4 Credit Hours
2 to 4 hours. Prerequisite: graduate standing in music; permission of adviser and instructor; 4020 and 4021 or equivalent. May be repeated; maximum credit toward an M.M. degree 10 hours. (F, Sp, Su)
GTAR 6000 Doctoral Secondary Guitar 1-2 Credit Hours
1 to 2 hours. Prerequisite: graduate standing in music, permission of adviser or instructor. May be repeated; maximum credit eight hours on a given instrument (including voice). For doctoral degree music students studying in a secondary (or minor) performance area. (F, Sp, Su)
GTAR 6010 Doctoral Guitar for Non-Performance Music Majors

2-3 Credit Hours
2 to 3 hours. Prerequisite: graduate standing in music; permission of adviser and instructor. May be repeated. Doctoral-level study of applied music in the major performance area for students other than performance majors in their primary field. (F, Sp, Su)
GTAR 6020 Doctoral Guitar for Performance Majors 2-4 Credit Hours 2 to 4 hours. Prerequisite: graduate standing in music; 5042; permission of adviser and instructor. May be repeated; credit applicable toward applied music requirements for the Doctor of Musical Arts degree. Doctoral-level study of applied music for performance majors in their primary field. (F, Sp, Su)

## H R-Human Relations

## HR1113 Human Relations and Community Engagement: Make an Impact <br> 3 Credit Hours

Through this interactive course, students will learn various concepts/ theories related to community engagement, social change, and inclusion. This course is taught with a human relations (HR) lens and we discuss topics as they relate to our values and concepts. Students will write critical reflection papers over course lectures, readings, and community involvement to develop a deeper understanding of community engagement. (F, Sp, Su)
H R 2013 Understanding American Social Problems 3 Credit Hours The course will introduce students to social problems in the United States and how they impact human relations and interactions. The course will discuss topics that polarize, unite, or make people indifferent to social problems and issues that impact their daily lives. Human Relations encourages social advocacy and being a change agent when dealing with social problems and issues. (F, Sp, Su)

HR 2443 Introduction to International Human Relations 3 Credit Hours The goal of this course will be to familiarize you with key international issues relevant to human relations. These include, but are not limited to, gender, nation of origin, culture, etc. (F, Sp)
H R 3003 Human Relations Theory
3 Credit Hours
Prerequisite: junior standing or permission of instructor. Emphasizes key ideas of theorists who have contributed to the interdisciplinary field of human relations. Students are introduced to selected primary readings by influential scholars with the goals of understanding and integrating the various perspectives, and of developing critical thinking skills. (Irreg.)

H R 3013 Introduction to Human Relations
3 Credit Hours
Prerequisite: Sophomore standing. Designed to introduce students to the breadth and depth of the field of human relations. Emphasis is on the processes of communication, problem solving, decision making, conflict and change as they occur in individuals, interpersonal, group and intergroup relations. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
H R 3033 Writing for Human Relations Professionals 3 Credit Hours
Prerequisite: junior standing or permission of instructor. Familiarizes students with the fundamental skills of professional writing and presentation. Student skill development emphasized in the course includes critical thinking, information gathering, comprehensive planning, precise writing, and effective presentations. (Irreg.)
H R 3043 Interpersonal Skills and Group Dynamics 3 Credit Hours Prerequisite: 3013 or permission of instructor. Students explore interpersonal dynamics that characterize effective communication in families, the workplace, community organizations, and social settings. Focuses on ways to improve relationships and emphasizes observation, analysis, and skill training in relationship development. (lrreg.)
HR 3203 Introduction to Organizational Studies 3 Credit Hours
Prerequiste:3013 or junior standing, or permission of instructor. This course surveys the basic concepts of organizational studies, including organizational behavior, motivation, leadership, teams, change and development, conflict, organizational structure and design, and innovation. (Irreg.)
H R 3233 Presentation Skills in Human Relations 3 Credit Hours Prerequisite: 3013 or junior standing, or permission of instructor. This course is designed to provide students with the skills, knowledge, and strategies to prepare and deliver effective presentations in human relations settings. In this course, students will receive opportunities to plan, develop, deliver and evaluate presentations. (Irreg.)

## H R 3253 Personality and Human Relations 3 Credit Hours

Prerequisite: H R 3013 or junior standing, or departmental permission.
This course will introduce students to theories of personality,
communication and how they intersect with human relations in both personal and professional relationships. (F)
H R 3303 Family Issues in Human Relations 3 Credit Hours Prerequisite: 3013 or junior standing, or permission of instructor. This course will focus on contemporary issues challenging families and couples. The text and instruction will explore the ideas of why humans seek intimacy, different forms of human coupling, variations of marriage and family life, parenting, and problems faced by families. (Irreg.)
H R 3313 Ethical Issues in Intercollegiate Athletics 3 Credit Hours Prerequisite: 3013 or junior standing, or permission of instructor. This course is designed to survey intercollegiate athletics in America and contemporary ethical issues related to major college sports and its place within higher education. Such topics as character development, criminal activity, gender equity, academic scandal, extra benefits, illegal inducements, and compensation of college athletes, etc., are explored in depth. (Irreg.)
H R 3403 History of Racism
3 Credit Hours
Prerequisite: 3013 or junior standing, or permission of instructor. Racism is the single most critical barrier to building effective coalitions for social change. Racism has been consciously and systematically erected, and it can be undone only if people understand what it is, where it comes from, how it functions, and why it is perpetuated. This course will examine history and culture to look at racism within the United States of America. (Irreg.)

H R 3413 Cultural Awareness in Human Relations

## 3 Credit Hours

Prerequisite: junior standing or permission of instructor. Course explores theory and applications of cross-cultural communication from both practical and academic viewpoints through scholarly internet and multimedia resources. The course will provide an understanding of the possible variations in language, culture, and communication styles that affect human relations work and life in general. (F, Sp)
H R 3960 Honors Reading 1-3 Credit Hours
1 to 3 hours. Prerequisite: Admission to Honors Program. May be repeated; maximum credit six hours. Consists of topics designated by the instructor in keeping with the student's major program. The topics will cover materials not usually presented in the regular courses. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

## H R 3970 Honors Seminar

1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Subjects covered vary. Deals with concepts not usually treated in regular courses. (Irreg.)
H R 3980 Honors Research 1-3 Credit Hours
1 to 3 hours. Prerequisite: Admission to Honors Program. May be repeated; maximum credit six hours. Will provide an opportunity for the gifted Honors candidate to work at a special project in the student's field. (F, Sp, Su)
HR 3990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: permission of instructor and junior standing. May be repeated once with change of content. Independent study may be arranged to study a subject not available through regular course offerings. (F, Sp, Su)
HR 4013 Social Change Process
3 Credit Hours
Prerequisite: 3013 or permission of instructor. Utilizing interdisciplinary behavioral sciences literatures, students will gain knowledge of selected laws and community programs that characterize social change activities. Through case studies, guest lectures, and field trips, the students will acquire the skills needed to design and carry out a community project that may positively impact the lives of a target population. (Irreg.)
H R G4113 Practicum in Human Relations 3 Credit Hours Prerequisite: junior standing, two courses in social sciences and permission of instructor. May be repeated with change of content; maximum credit nine hours. Practica are designed for undergraduate and graduate students who wish to acquire experiences in human resources agencies. While directly participating in the helping process, students will learn about the function of professionals in different disciplines, the nature of agencies, their relation to one another and to the community. ( $F$, Sp, Su)
H R 4123 Diversity in the Workplace
3 Credit Hours
Prerequisite: H R 3013 or junior standing, or departmental permission. Prepare students as professionals for the essential understanding, empathic communication skills, ethical practice, and professional competencies to engage in appropriate and positive diversity understanding. Focus on empowering future business leaders/owners/ managers to understand significance of inclusion and diversity in the workforce, addresses diversity in personal and global manners, assisting to reflect on complex paradigm shifts within workplaces. (F, Sp, Su)

HR 4143 Theories of The Oppressed 3 Credit Hours
Prerequisite: H R 3013 or junior standing, or departmental permission. Introduction and deeper exploration of cultural, racial, ethnic, gendered and sexual oppression throughout the US and globally. Explore the theoretical underpinnings of oppression from a critical cultural perspective and the themes of hegemony, unequal distribution of power, the role of activism/resistance to literal and symbolic oppression by marginalized people both political/personal in nature, exploring effects of oppression on marginalized/hegemonic communities. (F, Sp, Su)
HR 4153 Introduction to Counseling in Human Relations 3 Credit Hours Prerequisite: H R 3013 or junior standing, or departmental permission. Introduction to the field of Human Relations Counseling. Provides overview of the field and explores the struggles, uncertainties, demands, and stresses of the helping professions. Students will examine whether the helping professions are right for them, their values, and their belief systems and introduces the helping process, with special attention to the ethics/diversity/stress/burnout, and working in communities. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

## H R 4163 Making Men: Media, Violence and Misogyny 3 Credit Hours

 Prerequisite: H R 3013 or junior standing, or departmental permission. Introduce students to theories of misogyny, homophobia and violence through lens of developmental sociological/human relational perspective. Will take queer/feminist approach while looking at specific issues men face in the development of social, intrapersonal sexual and professional identities in the presence of negative and limited media, and societal messages about masculinity, boyhood and manhood while utilizing communication/human relation theories. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )HR 4170 Special Topics in Human Relations 1-3 Credit Hours 1 to 3 hours. Prerequisite: 3013 or junior standing, or permission of instructor. May be repeated with change of content; maximum credit nine hours. The course is designed to permit the study of topical human relations issues. (Irreg.)

## H R 4183 Criminal Justice in Human Relations 3 Credit Hours

Prerequisite: H R 3013 or junior standing, or departmental permission. Course focuses on three parts: policing, the courts system, and corrections. The general theme addresses the establishment of and the adaptation to the ever-changing balance between expectations of the community, in terms of safety, and the rights of the individual, in terms of civil liberties and looks at where the criminal justice system succeeds-and where it fails. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

## HR 4203 Social Issues in the Workplace

3 Credit Hours
Prerequisite: 3013 or junior standing, or permission of instructor. This course will provide students with an interdisciplinary examination of human relations, social issues, and the workplace. Historical social change will be examined as it is impacted by workplace dynamics. The course will employ a case study approach to explore social justice concerns and sociocultural dynamics in the American workplace. (Irreg.)
HR 4223 International Human Relations 3 Credit Hours Prerequisite: H R 3013 or junior standing, or departmental permission; course is not open to freshmen. Course familiarizes students with significant international issues relevant to human relations. Explores the meaning of being a Human Relations professional in an increasingly globalized world, including, but not limited to, the role of human relations in addressing issues such as warfare, terrorism, gender discrimination, international issues affecting children, and the protection of human rights.

H R 4303 Human Relations in Action
3 Credit Hours
Prerequisite: H R 3013 or sophomore standing. Course designed to provide an overview of how individuals, grassroots organizations, and structured groups orchestrate local/community/state/national/ international societal/political change. Class will review historical and current events and realities that have sparked both peaceful and violent uprisings with the demand and hope for better treatment and social justice. Focus on both famous and current grassroots movements throughout the US and abroad. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
HR 4313 Intercollegiate Athletic Administration
3 Credit Hours
Prerequisite: 3013 or junior standing, or permission of instructor. Intercollegiate athletics has many constituencies with differing perceptions about its value to higher education and the community. This course is designed to survey intercollegiate athletics in America and its place within higher education. The contributions of college athletics to higher education will be discussed in depth as well as its values to student-athletes. In addition, the organizational structure and roles of the college athletics department are explored in depth. (Irreg.)

## H R 4323 Sexism in Modern America

3 Credit Hours
Prerequisite: H R 3013 or Junior standing or departmental permission. This course is designed to take a critical look at sexism in the modern United States. We will examine feminist theories, intersectionality, and gender. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
H R 4413 Adolescent Issues in the African-American

## Community

## 3 Credit Hours

Prerequisite: 3013 or junior standing, or permission of instructor.
This course is designed to introduce students to adolescent issues facing African-Americans. The course will examine development of all adolescents, as well as critically analyze the major issues and challenges facing African-American youth. Students will also identify possible solutions to these issues. (Irreg.)
HR 4423 Women's Issues in Human Relations 3 Credit Hours Prerequisite: 3013 or junior standing, or permission of instructor. This course examines a perspective on women's development that accurately reflects women's experiences rather than society's traditional view of women. We will explore the effect on women of being silenced, sexualized, and subordinated in a patriarchal culture. Particular attention will be given to self-in-relation theory, a developmental theory proposing that women develop their sense of self through relationships, but eventually discover that this is not valued or required. Since so many of our attitudes are determined in early life, we will explore the construction of identity in adolescent female development. Views of women's experiences in different cultures will also be examined. (Irreg.)

## HR 4433 Gender and War

3 Credit Hours
Prerequisite: junior standing or permission of instructor. Course will cover theoretical issues relevant to gender and war as well as applied topics such as child soldiers, refugees, rape as a tool of war, and definitions of human rights. Where relevant, case studies will be used to illustrate the gendered dimensions of warfare. ( $F, S p$ )
HR 4503 Applied Research 3 Credit Hours
Prerequisite: COMM 2513 or ECON 2843 or P SC 3123 or PSY 2003 or PSY 2113 or S WK 2223 or SOC 3123. Introduces students to the theoretical and methodological skills necessary to conduct an applied research program. Methodological approaches are varied and emphasize a range of social science orientations. (Irreg.)

H R 4513 Service Learning
3 Credit Hours
Prerequisite: 3003, 3013, 3043, and 4013. Capstone course to be taken in the final semester. Students apply learning from other courses to a project of significant community need. Classes are held both on campus and on-site, and group work, evaluative discussion, and written reflection are integral parts of the course. (Irreg.) [V] .

H R 4523 Civil Rights Movement 3 Credit Hours
Prerequisite: Junior standing or departmental permission. This course will examine the United States civil rights movement in a broad context of twentieth-century social movements, in particular emphasis on how the African American freedom movement intersected with and influenced other social movements through analysis of the structure and dynamics of the civil rights movement from the viewpoints of history, sociology, and political science. (F, Sp, Su)
H R G4613 Human Relations in Law
3 Credit Hours
Prerequisite: Junior standing or departmental permission. Students learn central issues found when exploring principles of human relations as seen in various areas of law. Students will gain a general framework of law and guidance of human relations principles found within the framework exploring different areas of law where rich examples include constitutional, health, family, criminal, immigration and employment laws. (F, Sp, Su)

## H R 4723 Sexism and Homophobia

3 Credit Hours
(Slashlisted with H R 5723) Prerequisite: H R 3013 or junior standing, or departmental permission. Designed to introduce students to the intersection between homophobia, sexism, transphobia and gender/ sexual violence. Surveys important theories of gender, homophobia and misogyny and how these social phenomena effect those who they target and those who practice them. Will cover psychological/interpersonal and sociological/political exploration of the associated nature of each area. No student may earn credit for both 4723 and 5723. (F, Sp, Su)

## H R 4960 Directed Readings 1-3 Credit Hours

1 to 3 hours. Prerequisite: Junior standing and permission of instructor. May be repeated; Maximum credit 6 hours. Faculty supervised
exploration of an area of human relations not covered in regularly offered courses. (F, Sp, Su)
H R 4970 Special Topics/Seminar 1-3 Credit Hours
1 to 3 hours. Prerequisite: Senior standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

## H R 4973 Advanced Research and Writing for Human

## Relations

3 Credit Hours
Prerequisite: Majors only or departmental permission. Prepares students in Human Relations to produce clear, effective, and well-argued academic writing. Students will conduct online searches, evaluate sources, think critically about issues, and write various types of papers, including a literature review. Expressing clear thoughts in a way that reflects respect for gender, difference, and inclusion will be part of all written exercises. ( $F$, $\mathrm{Sp}, \mathrm{Su}$ )

## H R 4990 Independent Study 1-3 Credit Hours

1 to 3 hours. Prerequisite: three courses in general area to be studied; permission of instructor and department. May be repeated; maximum credit six hours. Contracted independent study for topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (F, Sp, Su)

H R 5003 Theoretical Foundations Of Human Relations 3 Credit Hours Prerequisite: admission to the degree program in human relations or permission of department. An analysis of human relations theories and concepts from the perspectives of the social sciences, the humanities and education. (F)

## H R 5013 Current Problems In Human Relations

3 Credit Hours
Prerequisite: admission to the degree program in human relations or permission of department. In-depth studies of outstanding problems facing social practitioners, including racism, sexism, poverty and human rights. Strategies for change and ethics of intervention also will be discussed. (F)
HR 5022 Research in Human Relations I-Quantitative 2 Credit Hours Prerequisite: Graduate standing and majors only. Designed to provide basic skills in statistical methods, data analysis and evaluation, introduction to the concepts of research design, methodology, sampling techniques, measurement, and internal/external validity. Special focus: designing/implementing a research project to HR. Methodological approaches are varied ranges of social science orientations. Emphasis on understanding of research methods, critical consumers of research, critical analysis of statistics and research methods. (F, Sp)

HR 5023 Research in Human Relations 3 Credit Hours
Prerequisite: admission to the degree program in human relations or permission of department. Special focus will be upon designing and implementing a research project related to the student's area of concentration in human relations. (Sp)

## HR 5033 Introduction to Inclusive Leadership in Organizations 3 Credit Hours

Prerequisite: Graduate standing or permission of instructor; Inclusive Leadership M.H.R. students only. Examines how leaders formulate complex and effective strategies for equitable policies, practices, and procedures. LO equips students with the framework to develop skills that will allow them to analyze and navigate current organizations, using past, current, and potential work experiences. The analytical frameworks will help students to understand leadership; the practical experience will help students put that understanding into action.
H R 5043 Seminar in Organizational Change and Development 3 Credit
Prerequisite: graduate standing or permission of instructor. Focus will be upon the change process and a survey of major approaches used to bring about organizational change, such as confrontation meetings, survey feedback, job enrichment, process consultation and third party intervention. (Sp)
H R 5053 Diversity and Justice in Organizations 3 Credit Hours Prerequisite: graduate standing or permission of instructor. Focuses on concepts of justice in organizations, and the changing demographics of our society, especially related to race and culture, gender, age, disability, and socio-economic status. The course emphasizes the implications of these factors for effective organizational management. (Irreg.)
H R 5063 Seminar in Strategies of Social Change 3 Credit Hours Prerequisite: graduate standing or permission of department. A study of techniques for bringing about individual, group or organizational changes. Special focus will be placed on philosophies and results of violent and nonviolent tactics. (F)

HR 5073 Creative Problem Solving 3 Credit Hours
Surveys the nature of creative thinking and creative problem solving. Topics to be covered include creative thinking obstacles, creativity, readiness, major stages of the creative problem-solving process (fact finding, problem finding, idea finding, solution finding and acceptance finding) and use of a variety of individual and group techniques for different stages in the process. (Sp)
H R 5083 Seminar in Group Dynamics 3 Credit Hours Prerequisite: graduate standing or permission of department and graduate dean. An intensive study and critical evaluation of socialpsychological concepts related to sensitivity training as a human relations technique. (CE)

## H R 5093 Introduction to Graduate Studies in Human

## Relations

3 Credit Hours
Prerequisite: admission to degree program in human relations or permission of instructor. Designed to acquaint graduate students with human relations theory and practice in various contexts. Emphasis is placed on the role of human relations professionals as agents of persistence and change at the interpersonal, group, organizational and societal levels of analysis. (F)

H R 5100 Advanced Theories in Human Relations 1-3 Credit Hours 1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated with change of content; maximum credit six hours. Additional in-depth studies of human relations theories and their implications for human relations practitioners will focus on topics such as, but not limited to: affirmative action and reverse discrimination; spiritual aspects of recovery in chemical dependency; conceptual models of violence and nonviolence as a basis for peace curriculum; human relations in the twenty-first century; human values in sexuality; and women and men in organizations. ( $F, S p$ )
H R 5110 Advanced Seminar in Current Problems 1-3 Credit Hours 1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated with change of content; maximum credit six hours. Additional in-depth studies of current social problems and strategies for intervention and change on topics such as, but not limited to: chemical dependency and society; ethnic and gender discrimination issues; disadvantaged children; domestic violence; sexual/physical abuse; physically and emotionally handicapped populations. ( $\mathrm{F}, \mathrm{Sp}$ )
HR 5113 Seminar in Local Issues in Human Relations 3 Credit Hours Prerequisite: graduate standing or permission of instructor. May be repeated with change of topic; maximum credit nine hours. Variable topics and content related to human relations problems and solutions. (F, $\mathrm{Sp}, \mathrm{Su}$ )
H R 5122 Research in Human Relations II - Qualitative 2 Credit Hours Prerequisite: Graduate standing and majors only. Course introduces students to the field of qualitative research and its multiple epistemological approaches that inform the understanding of human behavior, interaction, and structure. Qualitative research is a rigorous process of data collection and analysis that requires a unique skill set. The course will equip students to explore activities relevant to the conduction of qualitative methodology. ( $\mathrm{F}, \mathrm{Sp}$ )

H R 5133 Change, Challenge and Creativity in the Workplace

## 3 Credit Hours

Prerequisite: graduate standing or permission of instructor. This course examines ways to enhance creativity and the creative problem solving process within the context of a rapidly changing workplace. The major changes occurring in today's workplace and the management of change at both the personal and organizational level will also be considered. Particular emphasis will also be placed on examining the creative process, common barriers to creativity, and a variety of individual and group techniques that foster or facilitate the creative process. (Irreg.)

## H R 5143 Human Resources for the Human Relations

## Professional

3 Credit Hours
Prerequisite: graduate standing or permission of department. This course serves as an introduction to the Human Resource Management (HRM) discipline. Specifically, this course is designed to assist students in discovering what HRM is (and is not), recognizing its' multifaceted and ever evolving nature, and how HRM fits into the total organization. An awareness and understanding of the central HRM topics, competencies, terminology, and ethical issues is foundational to the course. In addition, the highly influential nature of federal and state law on HRM is highlighted. Additionally, this course will illuminate the many rewarding career opportunities available within the HRM discipline. (Irreg.)

## H R 5153 Human Emotions

3 Credit Hours
Prerequisite: graduate standing. Goal is to become familiar with some of the major conceptualizations of emotions and the evidence used to validate them; to examine a number of emotions such as attachment, love, loss and grief, depression, anxiety, joy, anger, fear, etc. Will be both didactic and experiential. Skills in self-disclosure, active listening, empathy, confrontation, etc. will be used to increase the understanding of emotions and to increase the ability to communicate emotional content. (Irreg.)

## H R 5163 Seminar in Nonverbal Behavior in Human

 Relations
## 3 Credit Hours

Prerequisite: graduate standing or permission of instructor. Topics include research methods, cross-cultural studies, proxemics, kinesics, vocalics, emotions, touch and human development, dress and appearance, attractiveness and social order. (F or Sp)

## HR 5183 Seminar in Issues in Human Relations Training 3 Credit Hours

 Prerequisite: 5083 or 5173 . Focuses on theory and research in group dynamics (group development, membership, goals, conformity, power, leadership, essentials in laboratory design); ethics, values and professionalism in human relations; and criticisms of human relations training. (CE)HR 5193 Intervention and Practice in Training 3 Credit Hours Prerequisite: $3013,5003,5013,5023,5083$ or 5173 . Specifically designed to enable advanced students to explore their skills in working with others from both a theoretical and pragmatic perspective. Students are required, through course content, to develop a clear picture of facilitation, leadership, consultant or teacher style. (Sp)
H R 5200 Internship In Human Relations 1-6 Credit Hours
1 to 6 hours. Prerequisite: admission to the degree program in human relations and permission of department. Field experience in and outside Oklahoma. Each student must have both types of experiences. Agency roles and responsibilities will be learned by on-the-job practice. (F)

## H R 5203 Graduate Research and Writing for Human

Relations 3 Credit Hours
Prerequisite: graduate standing, majors only, or permission of department. Prepares students in Human Relations to produce clear, effective, and well-argued graduate-level academic writing. Students will conduct online searches, evaluate sources, think critically about issues, and write various types of papers, including a literature review. Expressing clear thoughts in a way that reflects respect for gender, difference, and inclusion will be part of all written exercises. (Irreg.)
HR5213 Organizational Behavior for Leaders 3 Credit Hours Prerequisite: Graduate standing and departmental permission. Organizational behavior (OB) represents the behavioral approach to management. OB is concerned with human behavior at work and how various structures and work processes influence such behavior. This course will address several important organizational issues and processes, including organizational culture, group behavior and teamwork, and leadership. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

## H R 5223 Leadership for Systemic Change <br> 3 Credit Hours

Prerequisite: Graduate standing and departmental permission. Systemic change is the change that can impact policies, processes, structures, organizational culture, or other ways that an organization's system exists and functions. This course will explore the competencies needed for inclusive leaders to understand the overall alignment of the organization's system to plan, implement, and guide the process, and then assess the effectiveness of the outcomes. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
H R 5233 Strategic Leadership for Intercultural Awareness 3 Credit Hours
Prerequisite: Graduate Standing and Departmental Permission. Strategic Leadership (SL) requires a humanist touch and effective management of people. This course moves progressively through individual, community, organizational, and global leadership. SL will enhance your ability to comprehend, communicate, and construct innovative skill sets to become a successful leader in any field you choose. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

## H R 5243 Developing Inclusive Leaders in a Diverse <br> World <br> 3 Credit Hours

Prerequisite: Graduate standing and departmental permission. Inclusive leaders promote inclusionary principles and values at the individual, group, and broader organizational levels. In order for inclusion to become an embedded norm, leaders will need to develop cognitive competencies to effectively create, convey, implement, and sustain an inclusive environment. Students will learn to apply principles of inclusion as a lens to view relationships, processes, and interacting systems. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

## HR5253 International Conflict Resolution

3 Credit Hours
Prerequisite: Graduate standing or departmental permission. Course will explore key concepts, chart the development of the field, evaluate successes/failures, assess challenges/debates, discuss environmental conflict resolution in the arts and popular culture, and discuss conflict resolution in the media and the communications revolution. Macro view: integrate demographic factors of religion, politics, geography, history, and economics as conceptual frames of analyses. (F, Sp, Su)
HR 5263 International/Intercultural Awareness 3 Credit Hours Prerequisite: Graduate standing and departmental permission. Understand diverse cultures using a multidisciplinary approach of how cultures are different and what factors contribute to cultural distinctiveness. Use the tools of history, geography, economics, sociology, and other social/physical sciences for the whys behind cultural distinctiveness. Study how to adapt to cultural differences and work with people from other cultures, domestically and internationally. (Irreg.)

H R 5273 Athletics in Higher Education
3 Credit Hours
(Crosslisted with EDAH 5273) Prerequisite: Graduate Standing. Provide Students With An Understanding Of The History, Structure And Administration Of Intercollegiate Athletics, As Well As An Opportunity To Discuss A Wide Variety Of Related Contemporary Issues. (Irreg.)

## H R 5283 Clinical Practicum

3 Credit Hours
Prerequisite: Graduate standing, admission to the Master of Clinical Mental Health Counseling degree program, and departmental permission. This course includes supervised practical experience at approved practicum sites. Emphasis on counseling theory, practice skills, professional identity, and theory and technique integration. Weekly conferences on counseling issues, practice development, and professional identity. (F, Sp, Su)
H R 5293 Multicultural Issues in Human Relations 3 Credit Hours Prerequisite: Graduate standing or departmental permission. This course focuses on the historical, social, cultural, economic, and political situation of selected populations in the USA. It examines complex issues in workplace diversity, and skills, policies, and processes that foster a culture that affirms diversity in the workplace and scrutinizes potential barriers to culturally competent practices. (Irreg.)
H R 5303 Stress Management
3 Credit Hours
Prerequisite: Graduate standing or departmental permission. The course will teach human relations professionals various methods of stress management and prevention that can be used with clients, employees, co-workers, and family. It offers an examination of one's stressors and how to find a balance of mental, emotional, physical, and environmental stress management techniques for leading healthier and more productive lives. (Irreg.)
H R 5313 Leadership in the Legal Environment 3 Credit Hours Prerequisite: Graduate standing and departmental permission. Leaders should be highly competent in concepts relevant to discrimination and harassment law. In this course, students will explore federal constitutional and federal statutory legal protections related to discrimination, which supersede state and local protections. 14th Amendment equal protection as it is applied to laws via strict scrutiny for suspect classifications and related due process will be examined. (F, Sp, $\mathrm{Su})$
HR 5323 Organizational Behavior in Human Relations 3 Credit Hours Prerequisite: graduate standing. Organizational behavior (OB) represents the behavioral approach to management. OB is concerned with human behavior at work and how various structures and work processes influence such behavior. This course will address a number of important organizational issues and processes, including organizational culture, group behavior and teamwork, and leadership. (Su)

## HR5333 Mediation

## 3 Credit Hours

Prerequisite: graduate standing. Studies how the acceptable third party assists parties in resolving disputes. There will be considerable attention paid to the mediation process and the activities of mediators. Also focuses on negotiations because mediators help parties complete negotiations they are unable to settle on their own. (F)

## H R 5343 Conflict Resolution

3 Credit Hours
Prerequisite: graduate standing or permission of instructor. This course will explore the nature and origins of human conflict in modern life. It will emphasize an understanding of conflict and resolution methods useful in professional counseling and other HR settings such as organizational development and interpersonal facilitation. (Irreg.)

## H R 5353 Organizational Communication in Human Relations 3 Credit <br> Hours

Prerequisite: graduate standing or permission of instructor. This course will explore organizational communication concepts, theories, research, and practical applications for human relations professionals. (Irreg.)

## H R 5363 Program Training \& Development

3 Credit Hours
Prerequisite: Graduate standing and Departmental Permission. This course explores the process of program training and development with an emphasis on DEI and social justice. Specifically, this course examines the individual and organization strategies designed to foster inclusive and diverse environments using program training and examines the application of theoretical frameworks used in today's organization, as well as developing needs assessment, planning/budgeting, goal setting/ evaluation methods. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
H R 5373 Grant Writing 3 Credit Hours Prerequisite: graduate standing or permission of instructor. This course will explore fundraising as a dynamic process through which an organization or an individual becomes financially able to accomplish a specific goal by using writing skills, management skills, and solicitation. Students will acquire the skills needed to prepare grant proposals. (Irreg.)

## H R 5383 Public Policy for Human Relations Professionals 3 Credit Hours

Prerequisite: graduate standing or permission of instructor. This course examines how public policy is made at various levels of government and how these policies affect society. Particular emphasis will be given to public policy issues that affect human relations professionals, their clients, and the public and private agencies in which they work. (Irreg.)

## H R 5393 Team Building

3 Credit Hours
Prerequisite: Graduate standing or departmental permission. The course content is devoted to team success. It focuses upon three major areas for teamwork: basic team concepts, internal team dynamics, and external team dynamics. Learn concepts, ponder thought-provoking questions, participate in the class exercises, assess a case study involving a team experience, and write a critique of a journal article. (Irreg.)
HR 5403 Psycho-Social Development 3 Credit Hours
Prerequisite: graduate standing or permission of instructor. Covers human psycho-social development. Discussion of the expanding social realm of the developing individual. Theories and research in a variety of areas related to social development will include: attachment, aggression, sex typing, moral development, and parent-child interaction. (F, Sp)
HR5413 Addiction Counseling
3 Credit Hours
Prerequisite: HR 5533, HR 5453, HR 5463, Graduate standing and Departmental Permission; Clinical Mental Health Counseling students only. Explores how addiction affects physical, psychological, and social functioning in individuals and communities. The dynamics of addiction, treatment, and the recovery process are explored. Attention is given to the emotional, physical, psychological, and sociocultural aspects of addiction. (F)
H R 5423 Family Systems and Family Reconstruction 3 Credit Hours Prerequisite: permission of instructor. Teaches students how to impact family systems. Through didactic and experiential learning, students will learn how students function in systems and explore their own rules for living in systems. (CE)
HR 5433 Group Counseling in Human Relations 3 Credit Hours Prerequisite: graduate standing or permission of instructor. Examines a variety of group counseling models, types of groups (process, solutionfocused, action-oriented), the role of the group counselor, group members, and techniques and strategies for facilitating group work. (Irreg.)

H R 5443 Adolescent Issues in Human Relations 3 Credit Hours
Prerequisite: graduate standing or permission of instructor. Designed to acquaint human relations professionals with issues facing teens today. The pressures confronting youth along with various adaptive and maladaptive coping behaviors will be studied. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
H R 5453 Ethical Issues in H R Counseling
3 Credit Hours
Prerequisite: graduate standing or permission of instructor. Surveys ethical, legal, and professional issues facing human services workers. (F, $\mathrm{Sp}, \mathrm{Su}$ )
HR 5463 Counseling Skills in Human Relations 3 Credit Hours
Prerequisite: graduate standing or permission of instructor. Introduce students to the helping professions and provide them with a basic mastery of important counseling skills in human relations. (Irreg.)
H R 5473 Women and Mental Health 3 Credit Hours Prerequisite: graduate standing or permission of instructor. Examines psychological theory and practice as it pertains to women. This course will look at traditional theories and practice, new approaches to working with women, and topical issues. (Irreg.)
HR 5483 Diagnosis in Human Relations Counseling 3 Credit Hours Prerequisite: graduate standing or permission of instructor. Introduces students to the diagnostic systems of mental disorders outlined by the American Psychiatric Association and the World Health Organization. Also covers principles and techniques of interviewing which produce a correct diagnosis. (F, Sp)

HR 5493 Assessment and Evaluation in Human Relations 3 Credit Hours
Prerequisite: graduate standing or permission of instructor. Provides an overview of clinical and social assessment procedures used in counseling settings including career and life planning, personality, and mental health assessments. Emphasis is placed on a thorough examination of diagnostic classifications for mental disorders. Also develops a working knowledge of assessment skills along with a bias-free multicultural perspective, and ethical issues applicable to assessment. (F, Sp)
HR 5503 Research for Counseling
3 Credit Hours
Prerequisite: Graduate Standing and Departmental Permission; Clinical Mental Health Counseling students only. This course examines techniques involving quantitative, qualitative, and mixed methods methodology will be introduced and applied to clinical mental health counseling settings. Special attention will be given to program evaluation and techniques in applying research methods to clinical practice. ( $\mathrm{F}, \mathrm{Sp}$,

## $\mathrm{Su})$

HR5513 Couples and Family Counseling
3 Credit Hours
Prerequisite: HR 5533, HR 5453, HR 5463, Graduate standing and Departmental Permission; Clinical Mental Health Counseling students only. This course explores different methods and theoretical approaches for counseling with intimate interpersonal relationships and families. (F, $\mathrm{Sp}, \mathrm{Su}$ )
H R 5523 Counseling With Children, Adolescents, and

## Families

3 Credit Hours
Prerequisite: graduate standing or permission of instructor. This course will explore various theories, modalities and practices working with young children, adolescents and their families. Students will be introduced to theories of development; individual, group and family therapies, and a meta-theoretical framework of social construction. (Irreg.)

## H R 5533 Counseling Theories in Clinical Mental Health <br> Counseling

3 Credit Hours
Prerequisite: Graduate Standing and Clinical Mental Health Counseling students only, or Departmental Permission. This course emphasizes skills training in counseling approaches utilized by human relations practitioners. The skills training is organized according to basic counseling and psycho-therapy theories, including psychodynamic, behavioral, cognitive, existential-humanistic, multicultural, systemic and integrative approaches. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

## H R 5543 Counseling with Diverse Populations 3 Credit Hours

Prerequisite: graduate standing or permission of instructor. This course addresses four populations: women, persons of sexual/gender minority identification, persons with disabilities, and aging persons. Students will examine the special issues of each population and consider appropriate counseling approaches. (Irreg.)

## H R 5553 Marital and Family Assessment <br> 3 Credit Hours

Prerequisite: graduate standing or permission of instructor. This course will explore various approaches to conceptualizing assessment of couples and families. (Irreg.)

## H R 5563 Career Counseling

3 Credit Hours
Prerequisite: graduate standing or permission of instructor. Explores conceptual and functional tools for enhancing career development of children, youth and adults in both counseling and corporate human resource relationships. Class participants have the opportunity to experience a variety of career assessment tools including interest inventories, personality assessments and values clarification exercises. Career counseling strategies for a variety of life situations are discussed. (Irreg.)

## H R 5573 Personality and Personality Disorders 3 Credit Hours

Prerequisite: graduate standing or permission of instructor. This course will explore the historical and contemporary concepts of personality development, personality styles and personality disorders, as well as examine personality disorders and their treatment. (Irreg.)

## H R 5583 Social Justice Counseling

3 Credit Hours
Prerequisite: Graduate standing or permission of instructor. This course emphasizes theory and methods to promote social justice in human relations. The ethics of social justice in counseling will also be addressed. Various social justice and counseling theories will be explored, as well as strategies for integrating into human relations counseling. Concepts and skills will be studied through readings, discussion, case studies, exercise, videos, and class projects. (Irreg.)

## H R 5593 Multicultural Counseling <br> 3 Credit Hours

Prerequisite: Graduate standing or permission of instructor. The model of multicultural understanding followed in this course is intended to increase the understanding of culturally diverse groups. This class is both practice and theory oriented. Emphasis will be placed on providing a broader knowledge base and developing the skills to counsel individuals from various cultures. (Irreg.)

## H R 5603 Play Therapy with Children

3 Credit Hours
Prerequisite: graduate standing, majors only, or permission of department. Provides a basis for the use of play in assessing and intervention with children and their families. History, techniques, and issues in play therapy will be addressed in class reading and discussions. (Irreg.)

HR 5613 Assessment and Evaluation in Counseling 3 Credit Hours Prerequisite: Graduate Standing and Clinical Mental Health Counseling students only. An examination of the major individual, marital, and family assessment strategies and instruments. Students will receive training in the use of both testing and non-testing approaches to assessment and appraisal. Attention will be given to the relationship between assessment, diagnosis, and treatment planning. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

H R 5623 Post-Traumatic Stress Disorder 3 Credit Hours Prerequisite: graduate standing, majors only; or permission of department. Concentrates on what constitutes post-traumatic stress, its assessment, diagnosis, and therapeutic intervention. Covers different sources of post-traumatic stress, as well as different methods of evidence-based treatment modalities. Special populations are also addressed. (Irreg.)

## H R 5633 Advanced Counseling Skills <br> 3 Credit Hours

Prerequisite: graduate standing, majors only, or permission of department. An advanced study of various counseling approaches with opportunities for demonstration and evaluation of each student's counseling skills. Designed to provide the student with advanced exploration and analysis of current counseling practice. Students will be expected to demonstrate the ability to analyze, synthesize, critique, and discuss, in verbal and written form, the key concepts of traditional and contemporary counseling practice. (Irreg.)

H R 5643 Crisis Intervention and Trauma Counseling 3 Credit Hours Prerequisite: HR 5533, HR 5453, HR 5463, and graduate standing; Clinical Mental Health Counseling majors only. Designed to facilitate knowledge and skills related to crisis intervention and trauma counseling. Focuses on individuals, families, and groups facing mental, physical, developmental, occupational, residential, and environmental crises, as well as the methods of assessment and intervention. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

## H R 5653 Grief, Death and Dying

3 Credit Hours
Prerequisite: graduate standing, majors only or permission of department. Explores grief counseling throughout the human life cycle with particular attention paid to the aspects of death and dying. (Irreg.)

## H R 5663 Psychopathology 3 Credit Hours

Prerequisite: graduate standing, majors only, or permission of department. Provides an in-depth review of a broad spectrum of psychopathological conditions. The focus of the review will include the etiology, prevalence and incidence, signs and symptoms, and criteria for differential diagnoses. The emphasis of this review will be on comparing and contrasting different theoretical perspectives of each disorder.
(Irreg.)
H R 5673 LPC Clinical Supervision
3 Credit Hours
Prerequisite: graduate standing, majors only, or permission of department. Students will become familiar with models of counseling supervision; become familiar with the Oklahoma LPC Supervision requirements and become acquainted with the research in counselor training and supervision. (Irreg.)

## H R 5683 Working with Divorcing Families 3 Credit Hours

Prerequisite: graduate standing, majors only, or permission of department. Designed to prepare students for counseling with families experiencing separation, divorce and remarriage. Provides students with current information concerning divorce as well and options for helping children and adults cope with divorce in a constructive way. (Irreg.)

H R 5693 Issues in Aging 3 Credit Hours
Prerequisite: graduate standing, majors only, or permission of department. Designed to acquaint students with the interdisciplinary field of gerontology. Provides students with the opportunity to explore current topics associated with the aging process. Also examines contemporary issues that impact individuals, families and society during the later years. Finally, provides an overview of theory, policies and practices associated with aging and counseling with elderly clients. (Irreg.)
HR 5703 International Human Relations 3 Credit Hours
Prerequisite: graduate standing or permission of instructor. This course will examine ways to understand people of different cultures. It uses a multidisciplinary approach to look at the roots and explanations of differences between cultures and what these differences mean for working with people of different backgrounds. This course utilizes the tools of history, geography, economics, sociology, and other social and physical sciences to understand why people are different in order to identify strategies for building effective human relations. (Irreg.)

## H R 5713 Women, Work, and the Family

3 Credit Hours
Prerequisite: graduate standing or permission of instructor. A creative exploration of the dynamics of women's issues in both the family and in the workplace. It examines the societal conditioning creating the "Superwoman," mother-blaming, balancing roles, the time bind of home and work, discrimination in the workplace, relational practice at work, and companies that care for and about women and families. Exploration will include strategies for innovative planned change. (Irreg.)
H R 5723 Sexism and Homophobia 3 Credit Hours (Slashlisted with H R 4723) Prerequisite: graduate standing or permission of instructor. Designed to introduce students to the intersection between homophobia, sexism, transphobia and gender/sexual violence. Surveys important theories of gender, homophobia and misogyny and how these social phenomena effect those who they target and those who practice them. Will cover psychological/interpersonal and sociological/political exploration of the associated nature of each area. No student may earn credit for both 4723 and 5723. (Irreg.)

## HR 5733 Program Assessment and Evaluation 3 Credit Hours

Prerequisite: Graduate standing and departmental permission. Students will be introduced to the evaluation design process; learn how to engage stakeholders in crafting evaluation designs; study the fundamentals of designing exploratory, process, and outcome evaluations; and learn how to select an evaluation design that best meets a client's information needs. The focus of this course is on the contexts/purposes/techniques for assessing and evaluating social policy implications ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

## H R 5743 Violence Against Women and Children 3 Credit Hours

 Prerequisite: graduate standing or permission of instructor. The effects of violence on women, children and families will be presented within an academic and clinical framework for purposes of developing skills for assessment, intervention, and prevention. Students will discuss various strategies for crisis intervention, safety planning, and preferred counseling methods for abuse victims. Students will discuss the historical implications of violence against women and the effects on human relationships in contemporary society. (Irreg.)H R 5753 Advanced Theories: Diversity and Justice 3 Credit Hours Prerequisite: Graduate standing and departmental permission. This course is designed to make meaning of diversity and justice from a sociological perspective. Students will actively explore how categories of race, class, gender, sex, sexual orientation, political ideology, and disability (not exhaustive) shape the human experience and are critical to the formation of social structures, cultural understandings, group and organizational processes, and identities. (F, Sp, Su)

H R 5763 Human Sexuality
3 Credit Hours
Prerequisite: graduate standing, majors only, or permission of instructor. Examines sexuality in the context of current research, culture and opposing perspectives. The various definitions, experiences, and expressions of sexuality will be explored and debated in order for students to develop individual perspectives on human sexuality. Willingness to openly discuss topics of sexuality and relationship is critical for this course. (Irreg.)
H R 5773 Policy, Program, and Practice 3 Credit Hours
Prerequisite: Graduate standing and departmental permission. This course explores the relationship between policy, programs, and practices that support equity, inclusion, social justice, access, and diversity. Students will examine notable policy in the U.S. that was designed to address access and equity issues for marginalized and minoritized communities. Students will identify and discuss key programs that have been designed as a response to policy and transformative practices. ( $F$, Sp, Su)

## H R 5783 Advanced Theories: Strategies of Social

 Change
## 3 Credit Hours

Prerequisite: Graduate standing and departmental permission. Course is designed to expose students to contemporary strategies of social and political change and its impact on policies and relationships such as in civil rights movements. Strategies are traditionally argued in relation to violence or non-violence methodology and whether such methodology is isolated to reality and structural make-up. (F, Sp, Su)

## H R 5793 Social Change and the Law

3 Credit Hours
Prerequisite: Graduate standing and departmental permission. Explore social justice as seen in various areas of law to include general framework of law and guidance of human relations principals found within the framework. Explore different areas of law with examples of human relations and social justice, to include but not limited to: constitutional law, health law, family law, criminal law, immigration law, and employment law. (F, Sp, Su)

## H R 5803 Total Rewards: Compensations and Benefits for HR Management Professionals for the HR Prof <br> 3 Credit Hours

Prerequisite: H R 5143 or graduate standing or permission of the department. A core Human Resource Management competency, Total Rewards: Compensation and Benefits will provide students with an introduction to compensation and benefit programs. Specifically, students will explore the forms of direct (compensation) and indirect (benefits) compensation used to attract, reward, and retain employees. The design, administration, and evaluation of compensation systems and benefit programs are also examined. Further, students will also analyze the legal and regulatory factors affecting total rewards planning and delivery. Additionally, this course will illuminate the many rewarding career opportunities available in the Total Rewards discipline. (Irreg.)
HR 5813 Business Management and Strategic Planning 3 Credit Hours Prerequisite: H R 5143 or graduate standing or permission of department. Introduction to the overall strategic planning process of organizations. Students will explore organizational strategic planning processes to include but not limited to: development of mission, vision, values, goals and objectives; policy formation, enforcement, and evaluation. In addition, evaluation of organizational strategic planning is analyzed. Further, students will understand how employees contribute to the overall effectiveness of an organization by studying how organizations assess and deploy human capital. (Irreg.)

H R 5823 Workforce Planning \& Employment, A Component of Human Resource Management for the HR Prof

3 Credit Hours
Prerequisite: H R 5143 or graduate standing or permission of department. Workforce Planning and Employment is one of the courses applied to the area of Human Resource Management for the Human Relations Professional. Workforce Planning and Employment highlights the activities necessary to ensure the workforce's ability to achieve the organization's goals and objectives. Specific areas covered include: key laws and regulations (ADA, Title VII, Affirmative Action, etc.), organizational staffing requirements and methods, job analysis and documentation, recruitment, flexible staffing, selection and retention, organizational exit, and employee records and retention. (Irreg.)
H R 5833 Human Resource Development 3 Credit Hours Prerequisites: H R 5143 or graduate standing or permission of department. Learning and Development (L\&D) is a broad discipline utilized in a number of fields. Designated as a core course for the Human Resource certificate program, L\&D offers learners an examination of key legislation affecting L\&D activities, L\&D theory, role of technology in L\&D, and the intricacies of Human Resource L\&D. In addition, examines the analysis, development, design, implementation, and evaluation of learning and development programs. (Irreg.)

## H R 5853 Employee and Labor Relations for HR Management Professions in Human Relations <br> 3 Credit Hours

Prerequisites: H R 5143 or graduate standing or permission of department. Examines the employer/employee relationship. Introduces students to the key employment law, i.e., state, local, and federal laws and regulations that govern organizational structure and operations and help to maintain an ethical, healthy, and safe work environment. Among the ideas analyzed include: how workplace relationships are managed and maintained; how organizations balance employer/employee needs and rights while supporting organizational goals and objectives. A broad overview, students will become familiar with a plethora of employee relations issues such as termination, policy development, and interpretation of the most significant laws that affect HRM. (Irreg.)

## H R 5863 Human Resources for the HR Prof Fundamentals of Human Resource Information Systems <br> 3 Credit Hours

Prerequisites: H R 5143 or graduate standing or permission of department. This course examines the ever growing field that is Human Resource Information Systems (HRIS). Specifically, students will explore the metamorphosis of human resource technology; how it has gone from situational asset to mandatory strategic business partner across the Human Resource Management gamut. Designed to develop an awareness and appreciation of the nature and use of data and information systems in organizations, this course will introduce students to the various HRIS systems utilized by organizations and the associated analysis, design, and implementation of those systems. Additionally, this course will illuminate the many rewarding career opportunities available within the HRIS discipline. (Irreg.)

## HR5873 Organizational Ethics

3 Credit Hours
Prerequisite: Graduate standing or departmental permission. Course focuses on professional values, integrity, and ethical decision-making processes in organizations. Students will discover theoretical and practical ways to approach moral/ethical dilemmas in organizational life and improve skills in moral reasoning/ethical decision-making. A case study approach is used to analyze/resolve ethical dilemmas/situations from a practitioner, human relations perspective. Emphasis placed on ethical leadership in organizations' social justice outcomes. (F, Sp, Su)

H R 5880 Human Relations Capstone
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing and permission of department and instructor. May be repeated; maximum credit 3 hours. Human Relations capstone is designed as a culminating experience for students electing the non-thesis track. Students will develop, under the direction of their advisor or approved faculty, a capstone project centered in Human Relations. The project shall be specific to student's elected HR concentration. (F, Sp, Su)
HR 5883 Introduction to the Counseling Profession 3 Credit Hours Prerequisite: Graduate standing and departmental permission. This course introduces the graduate student to the practice of Licensed Professional Counselors (LPC), utilizing instructor(s) from the LPC field. This course covers the history, development, and implementation of licensed counselors. (F, Sp, Su)
HR 5893 Psychopharmacology
3 Credit Hours
Prerequisite: Graduate standing; departmental permission or permission of instructor. This course serves as an introduction to psychopharmacology for mental health counselors and the commonly prescribed psychotropic medications used to address mental health disorders as defined in the Diagnostic and Statistical Manual of Mental Disorders (DSM - 5). Emphasis will be placed on the use of medications from a biopsychosocial perspective and the therapeutic role of the counselor. (F, Sp, Su)
H R 5903 Counseling Internship I
3 Credit Hours
Prerequisite: HR 5883, HR 5533, HR 5453, HR 5463, HR 5483, HR 5433, HR 5593, HR 5613, Clinical Mental Health Counseling students only, Graduate standing and Departmental Permission. The internship is 300 total hours of direct and indirect on-site work experience at an agency, organization, business firm, institution or other professional or industry setting to fulfill the requirement for a Master of Clinical Mental Health Counseling. The Internship provides extensive supervised on-the-job experience in a setting within the counseling profession. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
H R 5913 Counseling Internship II
3 Credit Hours
Prerequisite: HR 5903, Clinical Mental Health Counseling students only, Graduate standing and Departmental Permission. The internship is 300 total hours of direct and indirect on-site work experience at an agency, organization, business firm, institution or other professional or industry setting to fulfill the requirement for a Master of Clinical Mental Health Counseling. The Internship provides extensive supervised on the job experience in a setting that is within the counseling profession.
H R 5923 Human Growth and Development 3 Credit Hours
Prerequisite: Graduate Standing and Clinical Mental Health Counseling students only. This course will explore development through the human life span from a psycho-social approach and will examine theoretical approaches from the mid-twentieth century to recent theoretical perspectives. In this context, the expanding social realm of the developing individual will be discussed along with research in a variety of areas related to social development including cognitive and social neurosciences. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
HR5960 Directed Readings in Human Relations 1-6 Credit Hours 1 to 6 hours. Prerequisite: graduate standing, permission of instructor. May be repeated; maximum credit six hours. Individual investigations and report of findings on selected problems in human relations education. (F, $\mathrm{Sp}, \mathrm{Su}$ )
H R 5963 Leadership in Organizations
3 Credit Hours
Prerequisite: Graduate standing and departmental permission. This graduate level course is designed to explore the conceptual, theoretical, and practical aspects of leadership in organizational settings. This course is useful for future as well as current managers. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

H R 5970 Special Topics/Seminar
1 to 3 hours. Prerequisite: Graduate standing or permission of instructor. May be repeated; maximum credit six hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

H R 5980 Research for Master's Thesis
2-9 Credit Hours
Prerequisite: admitted to candidacy for a Master of Human Relations.
Variable enrollment, two to nine hours; maximum credit applicable toward degree, four hours. Original paper in an area of concentration in human relations. (F, Sp, Su)
H R 5990 Independent Study 1-4 Credit Hours 1 to 4 hours. Prerequisite: 5023 or equivalent and permission of instructor. May be repeated; maximum credit six hours. Individual investigation of special research topics in human relations. (F, Sp, Su)
H R 6980 Research for Doctoral Dissertation 2-16 Credit Hours
2 to 16 hours. Prerequisite: Graduate standing and permission of instructor; may be repeated. Directed research culminating in the completion of the doctoral dissertation. (F, Sp, Su)

## HARP-Harp

HARP 2000 Freshman and/or Sophomore Secondary Harp 1-2 Credit Hours
1 to 2 hours. Prerequisite: permission of adviser and instructor. May be repeated; maximum credit toward B.F.A., B.M.A., B.M.E., and B.M. degrees, eight hours. For freshman and sophomore music students studying in a secondary (or minor) performance area. (F, Sp, Su)
HARP 2020 Harp for Music Majors: Freshman/Sophomore 2-4 Credit Hours
2 to 4 hours. Prerequisite: Majors only. May be repeated; maximum credit 12 hours. Applied instrumental lessons for freshmen and sophomore music majors in a School of Music degree program. (F, Sp)
HARP 3440 Mentored Research Experience 3 Credit Hours 0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)

HARP 4000 Junior and/or Senior Secondary Harp 1-2 Credit Hours 1 to 2 hours. Prerequisite: permission of adviser and instructor. May be repeated; maximum credit toward B.F.A., B.M.A., B.M.E., and B.M. degrees, eight hours. For junior and senior music students studying in a secondary (or minor) performance area. (F, Sp, Su)
HARP 4020 Harp for Music Majors: Junior/Senior 1-4 Credit Hours 1 to 4 hours. Prerequisite: Majors only; junior standing. May be repeated; maximum credit 20 hours. Applied instrumental lessons for junior and senior music majors in a School of Music degree program. (F, Sp)

HARP 5000 Master's-Level Secondary Harp 1-2 Credit Hours 1 to 2 hours. Prerequisite: graduate standing in music; permission of adviser and instructor. May be repeated; maximum credit eight hours on a given instrument (including voice). For master's degree music students studying in a secondary (or minor) performance area. (F, Sp, Su)

HARP 5020 Master's-Level Harp for Performance Majors 2-4 Credit Hours
2 to 4 hours. Prerequisite: graduate standing in music; permission of adviser and instructor; 4020 and 4021 or equivalent. May be repeated; maximum credit toward an M.M. degree 10 hours. ( $F$, Sp, Su)

HARP 6000 Doctoral Secondary Harp
1-2 Credit Hours
1 to 2 hours. Prerequisite: graduate standing in music, permission of adviser or instructor. May be repeated; maximum credit eight hours on a given instrument (including voice). For doctoral degree music students studying in a secondary (or minor) performance area. (F, Sp, Su)
HARP 6010 Doctoral Harp for Non-Performance Music
Majors
2-3 Credit Hours
2 to 3 hours. Prerequisite: graduate standing in music; permission of adviser and instructor. May be repeated. Doctoral-level study of applied music in the major performance area for students other than performance majors in their primary field. (F, Sp, Su)
HARP 6020 Doctoral Harp for Performance Majors 2-4 Credit Hours 2 to 4 hours. Prerequisite: graduate standing in music; 5042; permission of adviser and instructor. May be repeated; credit applicable toward applied music requirements for the Doctor of Musical Arts degree. Doctoral-level study of applied music for performance majors in their primary field. (F, Sp, Su)

## HCB-Health Care Business

HCB 3440 Mentored Research Experience 3 Credit Hours
0 to 3 hours. Prerequisite: ENGL 1113 or equivalent, and permission of instructor; ACCT 2123 or concurrent enrollment; Math 1743 or Math 1823 or MATH 1914; May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)
HCB 3613 Healthcare Marketing and Administration 3 Credit Hours (Crosslisted with MKT 3613) Prerequisite for Business Majors: Business Candidacy \& MKT 3013 Prerequisite for Non-business Majors: MKT 2013 or 3013. Healthcare organizations must be prepared to shift their strategies in order to meet the increasing demands in this dynamic market. The purpose of this course is to apply the systems of marketing and administration to the problems of health care organizations and provide an insight to the business problems healthcare organizations are likely to encounter. (F, Sp)
HCB 3633 Healthcare Finance
3 Credit Hours
Prerequisite: HCB 3613, student must be approved for degree candidacy by Price College, sophomore standing, ACCT 2123 or concurrent enrollment, and MATH 1743 or MATH 1823 or MATH 1914. This course will be organized into four separate modules designed to provide students with a background in finance within the healthcare industry. Students will be impacted with the necessary knowledge of tools utilized in accounting and finance, financial management strategy and principles in the Healthcare industry. $(\mathrm{F}, \mathrm{Sp})$

HCB 3643 Healthcare Planning, Budgeting \& Accounting 3 Credit Hours Prerequisite: HCB 3613; student must be approved for degree candidacy by Price College; ACCT 2123 or concurrent enrollment; MATH 1743 or MATH 1823 or MATH 1914. A budget is an organization's operating plan expressed in monetary terms. It defines goals, outlines how operations are conducted and sets performance standards. Budgets provide a framework to set and pursue goals and evaluate the organization's performances. This course is designed to give students knowledge of different types of budgeting procedures and how to apply them to the healthcare industry. (F, Sp)

## HCB 3653 Decision Modeling for Healthcare

3 Credit Hours
Prerequisite: HCB 3613; student must be approved for degree candidacy by Price College; ACCT 2123 or concurrent enrollment; MATH 1743 or MATH 1823 or MATH 1914. This course will provide an overview of analytical techniques used to model complex healthcare problems to address strategic, tactical, and operational issues. We will address how decisions relating to forecasting,, resource allocation, project management, healthcare supply chain can be improved through the use of analytical models. (F, Sp)
HCB 3703 Applied Project in the Business of Healthcare 3 Credit Hours Prerequisite: HCB 3613; student must be approved for degree candidacy by Price College; ACCT 2123 or concurrent enrollment; MATH 1743 or MATH 1823 or MATH 1914. The purpose of this course is to introduce the student to the various nuances of health care organizations and provide an insight to the business problems healthcare organizations are likely to encounter. (F, Sp)
HCB 3980 Honors Research
1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Provides an opportunity for the gifted Honors candidate to work at a special project in the student's field. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

HCB 3990 Independent Study 1-3 Credit Hours
1 to 3 hours. Prerequisite: permission of instructor and junior standing. May be repeated once with change of content. Independent study may be arranged to study a subject not available through regular course offerings. (F, Sp, Su)
HCB 4613 Ethical and Regulatory Issues in Healthcare 3 Credit Hours (Crosslisted with MKT 4613) Prerequisite: MKT 3013, HCB 3613 or MKT 3613, LS 3323 prerequisite or concurrent enrollment; student must be approved for degree candidacy by Price College. This course explores the complex moral, ethical and legal issues that continue to arise within the healthcare profession, providing an opportunity to apply concepts learned in previous course studies. Case studies and supplemental readings will augment the text in guiding the student to a better understanding of healthcare economics. ( $\mathrm{F}, \mathrm{Sp}$ )

HCB 4623 Competitive and Economic Environment of Healthcare

## 3 Credit Hours

(Crosslisted with MKT 4623) Prerequisite: for Business Majors: Business Candidacy, MKT/HCB 3613; for Non-business Majors: ECON 1123 and MKT/HCB 3613. A range of new governmental regulatory interventions in the healthcare arena and changes to the economic environment are linked to uncertainty in the structure of health insurance; the contractual arrangements and relationships that exist between patients, doctors, and hospitals. Explore these issues in detail and case studies that will guide the student to a better understanding of healthcare economics. ( $\mathrm{F}, \mathrm{Sp}$ )

HCB G4633 Healthcare Supply Chain Management 3 Credit Hours
(Crosslisted with SCM 4633) Prerequisite: MKT 3613 or HCB 3613;
student must be approved for degree candidacy by Price College;
ACCT 2123 or concurrent enrollment; MATH 1743 or MATH 1823 or MATH 1914. The healthcare supply chain is a critical core business component of the healthcare delivery system. The purpose of this course is to bring an overview of the healthcare supply chain through the elements of the supply chain, the operational aspects and the strategic aspects of the integration of the supply chain with the clinical delivery of care. (F, Sp)

HCB 4643 Lean Six-Sigma in Healthcare
3 Credit Hours
Prerequisite: Student must be approved for degree candidacy by Price College; Math 1743 or MATH 1823 or MATH 1914; ACCT 2123 or concurrent enrollment; MKT 3613 or HCB 3613. Lean Six Sigma in Healthcare is designed to provide a step-by-step guide to the DMAIC process, which will provide a valuable continuous improvement framework for students to address problems in the healthcare industry and other sectors of business. Students will be given a thorough overview of Lean Six Sigma. (Sp)
HCB 4970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: Senior standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

## HEBR-Hebrew

HEBR 1115 Beginning Hebrew
5 Credit Hours
An elementary course in modern and Biblical Hebrew. The course provides basic understanding, speaking, writing, and reading Hebrew, both modern and Biblical. Similarities and differences between modern and Biblical Hebrew are explored. (F, Sp) [I-FL].

HEBR 1225 Beginning Hebrew (continued) 5 Credit Hours Prerequisite: 1115. Focuses on all language skills: understanding, speaking, writing, reading of both modern and Biblical texts; including further exploration of similarities and differences between modern and Biblical Hebrew. By the end of this course, students are expected to write short dialogs. (F, Sp) [l-FL].

HEBR 2113 Intermediate Hebrew
3 Credit Hours
Prerequisite: 1225. Further training in understanding, speaking, writing, and reading Hebrew, both modern and Biblical. Emphasis is given to grammar as well as to exploring differences in style between various Biblical texts, such as Torah versus prophets. (F)
HEBR 2213 Intermediate Hebrew II
3 Credit Hours
Prerequisite: HEBR 2113. At the end of this course students will have acquired the ability to read longer texts, both modern and Biblical. They will be able to express themselves more sophisticatedly, and on more topics. (Sp)

HEBR 2970 Special Topics/Seminar
1-3 Credit Hours
Special Topics. 1 to 3 hours. May be repeated; Maximum credit nine hours. Special topics course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research, and field projects. (Irreg.)

HEBR 3113 Advanced Hebrew
3 Credit Hours
Prerequisite: 2113 and 2213. Continued training in understanding, speaking, writing, reading literary texts and newspaper articles, as well as Biblical texts, such as poetry. Emphasis is given to discussions on and writing about these texts. (F)

HEBR 3223 Advanced Hebrew II
Prerequisite: HEBR 3113. A continuation of Advanced Hebrew I. The aim is to continue promoting the four language skills; students should be able to sophisticatedly and intelligently express themselves both orally and in writing. (Sp)
HEBR 3440 Mentored Research Experience 3 Credit Hours 0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)
HEBR 3513 Biblical Hebrew 3 Credit Hours Prerequisite: HEBR 2113 or permission of instructor. Learn Biblical Hebrew and read from the Hebrew Bible (Old Testament) in the original language. (Irreg.)
HEBR 3960 Honors Reading 1-3 Credit Hours
1 to 3 hours. Prerequisite: Admission to Honors Program. May be repeated; maximum credit six hours. Consists of topics designated by the instructor in keeping with the student's major program. The topics will cover materials not usually presented in the regular courses. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

## HEBR 3970 Honors Seminar

1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Subjects covered vary. Deals with concepts not usually treated in regular courses. (Irreg.)
HEBR 3980 Honors Research 1-3 Credit Hours
1 to 3 hours. Prerequisite: Admission to Honors Program. May be repeated; maximum credit six hours. Will provide an opportunity for the gifted Honors candidate to work at a special project in the student's field. (F, Sp, Su)

HEBR 3990 Independent Study 1-3 Credit Hours
1 to 3 hours. Prerequisite: one course in general area to be studied; permission of instructor and department. May be repeated; maximum credit six hours. Contracted independent study for topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (F, Sp)
HEBR 4960 Directed Readings 1-4 Credit Hours
1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean. May be repeated; maximum credit four hours. Designed for upper-division students who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)
HEBR 4970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: 3223 or permission of instructor. May be repeated with change of content; maximum credit 9 hours. This course is designed to give intensive training in listening and speaking in Hebrew for students who have taken 3223. The course develops students' understanding of functional ability of listening and speaking Hebrew. Students will learn unique features of Hebrew language and culture. (Irreg.)

## HEBR 4990 Independent Study <br> 1-3 Credit Hours

1 to 3 hours. Prerequisite: three courses in general area to be studied; permission of instructor and department. May be repeated; maximum credit six hours. Contracted independent study for topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (F, Sp)

## HES-Health and Exercise Science

HES 1011 Indoor Cycling<br>1 Credit Hour

Designed to teach specific skills of indoor cycling and form. Indoor cycling is a form of exercise with classes focusing on cardiovascular endurance, strength, intervals, sprints, hills, lifts and recovery, and involves using a special stationary exercise bicycle. Individuals will learn the fundamentals of indoor cycling, skills and techniques, as well as accurate terms and etiquette. (F, Sp)
HES 1041 Yoga 1 Credit Hour
Yoga. Beginning Level Yoga Class Focusing On Basic Asanas (Poses), Breathing, Relaxation And Meditation. Students Will Improve Their Flexibility And Body Awareness. (F,Sp,Su).
HES 1121 Beginning Weight Training 1 Credit Hour
To learn basic skills of weight training, i.e., warm-up, lifting techniques, training programs, etc.; to condition and strengthen the body through a continuous weight training program; to learn and appreciate the ability of correct weight training to enhance personal fitness and the carry-over value into other sports and activities. (F, Sp, Su)
HES 1221 Individual Fitness
1 Credit Hour
May be repeated; maximum credit eight hours. Exercise designed to condition the body for maximum health and fitness; special emphasis on cardiovascular fitness. (F, Sp, Su)

HES 1321 Wall Climbing
1 Credit Hour
The purpose of this class is to learn and practice the basic techniques and safety concerns for rock climbing and bouldering. (F, Sp, Su)

HES 1331 Roller Skating
1 Credit Hour
The course is designed to develop a working knowledge of roller skating fundamentals and their application. Promotes knowledge and awareness of popular sports involving roller skating, and students will increase strength, stamina, balance and coordination. (F, Sp)
HES 1351 Recreational Activities 1 Credit Hour
May be repeated with change of subject matter; maximum credit three hours. (F, Sp, Su)
HES 1823 Scientific Principles of Health and Disease 3 Credit Hours Students will be exposed to the basic science-based principles needed to develop an interdisciplinary understanding of human health. The course is designed to assist students in the development of a basic understanding of the anatomical structures and physiological process that are critical to understanding the development of various diseased/ disorders. (F, Sp, Su) [II-NS].
HES 1921 Basketball 1 Credit Hour
Teach a basic understanding of the game of basketball; skills and analysis of skills, nature and rules of the game, and strategies for game situations. (F, Sp, Su)

HES 1941 Soccer
1 Credit Hour
Teach a basic understanding of the game of soccer; skills and analysis of skills, nature and rules of the game, and strategies in game situations. $(F$, Sp )
HES 1981 Volleyball 1 Credit Hour
Basic understanding of the game of volleyball; skills and analysis of
skills, nature and rules of the game, and strategies for game situations. (F, $\mathrm{Sp}, \mathrm{Su}$ )

HES 2131 Introduction to Health and Exercise Science 1 Credit Hour Designed to introduce major students to the fundamentals of HES, including curricular disciplines, basic terminology, career opportunities, and professional associations. Students will also learn basic library research skills and a working knowledge of the support services and technologies available at the University. ( $\mathrm{F}, \mathrm{Sp}$ )

## HES 2212 First Aid

2 Credit Hours
Includes the theory related to causes and prevention of accidents, as well as development of sufficient knowledge to determine the nature and extent of injuries. Training focuses on taking proper procedural steps at the proper times. Upon successful completion of the course and its specific requirements, students are awarded the American Red Cross Community First Aid and CPR Certificates. Lecture and laboratory combined. May include online components. (F, Sp, Su)
HES 2823 Introductory Nutrition 3 Credit Hours (Crosslisted with CLINICAL DIETETICS - AN HSC COURSE 2823)
Evaluation of basic composition of nutrients and accessory factors required for adequate human nutrition. Application of nutritional principles to the planning of normal and special dietary regimen. [II-NS].

## HES 2913 Personal Health

3 Credit Hours
Emphasizes the health knowledge and practices needed for effective living. The course has a holistic focus on personal health and provides both an informational and behavioral basis for health promotion and disease prevention. Topics include: mental health, stress management; fitness; nutrition; alcohol, tobacco, and other drug education; sexuality; and chronic/infectious disease. (F, Sp)

## HES 2970 Special Topics/Seminar

1-3 Credit Hours
1 to 3 hours. Prerequisite: May be repeated; Maximum credit nine hours. Special topics course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research, and field projects. (Irreg.)

## HES 3000 Special Topics in Health and Exercise

## Science

1-3 Credit Hours
1 to 3 hours. Prerequisite: junior standing or permission of instructor. May be repeated with change of content; maximum credit nine hours. Topics in health and exercise science not accommodated by the existing curriculum. Example: psychological factors in exercise adherence, i.e., personality traits of select exercise individuals, reinforcement procedures, personal goals as related to exercise needs, etc. (Irreg.)
HES 3021 Sports Officiating: Football and Volleyball 1 Credit Hour Prerequisite: ENGL 1213 or EXPO 1213. Standards and principles involved in the art of officiating with emphasis on football and volleyball. Laboratory experience required. (F)
HES 3031 Sports Officiating: Basketball, Softball, and

## Baseball

1 Credit Hour
Prerequisite: English 1213 or Expository Writing 1213. Standards and principles involved in the art of officiating with emphasis on basketball, softball, baseball, and track and field. (Sp)

## HES 3213 Principles and Practice of Sport Management for Non-HES Majors 3 Credit Hours

Prerequisite: Non-HES major and junior standing. Survey course covering fundamental management functions, structural components of sport organizations, management and leadership techniques commonly employed in effective sport organizations, human resource management strategies, and current trends in sport management. (F, Sp, Su)

HES 3430 Field Experiences in Health and Exercise
Science 1-4 Credit Hours
1 to 4 hours. Prerequisite: junior standing or permission of department. May be repeated with change of activity or advanced position; maximum credit four hours. Field study related to student's area of interest (athletic coaching, athletic training, exercise science, health promotion, sport management) as approved by the department's field supervisor of adviser. A contract is required prior to beginning the field experience. The contract will address: statement of purpose, process of submitting reports, on-site evaluations, and written evaluations by student and site supervisor. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
HES 3440 Mentored Research Experience 3 Credit Hours 0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)
HES 3502 Care and Prevention of Athletic Injuries 2 Credit Hours Prerequisite: HES 2212 or equivalent CPR/AED/First Aid certification; three hours of biological science and three credit hours of social science. Recognition, cause, prevention, treatment, rehabilitation of athletic injuries; taping methods, protective equipment, and doctor's recommendations; equipping the training room, conditioning the athlete, practice routines and the athlete's diet. Laboratory (F, Sp)
HES 3513 Health Promotion Program Planning 3 Credit Hours
Prerequisite: HES major or permission of instructor. Discussion of health promotion programming in disease prevention, risk reduction, and wellness. Understanding the theoretical issues related to the development and evaluation of health promotion programs and the behavioral dimensions of health promotion. (F,Sp)
HES 3523 Human Sexuality 3 Credit Hours Prerequisite: 2913, Psychology 1113. An introduction to biological, psychological, and sociological concepts which form the interdisciplinary foundation for studying human sexuality. Current research findings in all areas will be emphasized. Areas of emphasis will include: personal, social, sexual, and gender identity development across the lifespan, interaction and communication within social and intimate relationships, and reproductive and other health-related sexuality issues. (F, Sp)
HES 3543 Health and Wellness Coaching
3 Credit Hours
Prerequisite: junior standing and HES 2913. Encourages participants to successfully adopt healthier lifestyle behavior. Explores the development and efficacy of health and wellness coaching and develops the ability to implement basic coaching skills when working with patients and wellness clients. (Sp)
HES 3553 Wellness in Native Communities 3 Credit Hours Prerequisite: junior standing and HES 1823 or HES 2913. Designed to explore and understand the principles of individual and community wellness from the perspective of both mainstream society and from within the cultural frame of native beliefs and values. (F)

## HES 3563 Lifestyle Intervention

3 Credit Hours
Prerequisite: HES major or permission. Examines the relationship between individual behavior and the health status of a community. Current lifestyle intervention literature will be the focus. Application of intervention strategies will be presented for school, worksite, and community settings. (Irreg.)

HES 3573 Obesity and Weight Management 3 Credit Hours
Prerequisite: junior standing and HES 2913 and either HES 1823 or
BIOL 2124. Provides students with knowledge of the physiology and psychology of obesity and overweight. Designed to educate students not only on the scientific background of obesity but how to apply this knowledge to management of obesity in the general and specific populations they will be serving. (F)
HES 3583 Sociocultural Aspects of Health 3 Credit Hours Prerequisite: junior standing. Designed to offer a comprehensive approach to understanding social injustice and its impact on health. Particular attention will be given to research emphasizing social determinants as the underlying causes of ill health in the American society. ( $\mathrm{F}, \mathrm{Sp}$ )
HES 3813 Principles of Health and Fitness 3 Credit Hours Prerequisite: HES major or permission of instructor. Study of the underlying principles of life sciences that contribute to an understanding of the role of physical activity in health, fitness, and sports medicine. Specific reference to an overview of public health and disease, anatomy and biomechanics, exercise physiology, health appraisal and fitness testing and programming, human development and behavior, and program management. Laboratory ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

## HES 3823 Physiology of Exercise

3 Credit Hours
Prerequisite: 3813 and Health and Exercise Science major or permission of instructor. Introductory study of principles and concepts of exercise physiology. Theoretical and scientifically established mechanisms are explored that explain the body's response, adaptation, and concomitant regulation during acute and chronic exercise. Applications presented in the clinical, sport, occupational, and normal exercise settings. Focus is on an understanding of the body's function from the cellular to systemic level during exercise. An understanding of assessment and physical training principles to explain health and performance is emphasized. Specific factors that affect the physiological bases of human performance are investigated. (Irreg.)
HES 3843 Biomechanics 3 Credit Hours
Prerequisite: MATH 1523 or MATH 1743 or PHYS 2414, and BIOL 2255 or BIOL 2234, and junior standing. The integrated study of anatomy, physiology, and mechanics with emphasis on understanding the anatomical and functional aspects of human movement in the area of health and exercise science, such as in clinical, daily living, and sport applications. (F, Sp)
HES 3853 Exercise Testing and Prescription 3 Credit Hours
Prerequisite: HES 3813 and Health and Exercise Science major or permission of instructor. Introduces the exercise science student to the theoretical and functional techniques of graded exercise testing for functional and/or diagnostic assessment. Equal time will be spent between lecture and lab as students will be provided the theoretical background for all testing methods commonly used in both a health and fitness scenario as well as an introduction to how these methods can be used clinically. This course is designed to prepare exercise science students for the American College of Sports Medicine's Health/Fitness Instruction Certification. Laboratory (F, Sp)
HES 3873 Principles of Personal Training
3 Credit Hours
Prerequisite: junior standing. Designed to prepare individuals who are interested in becoming certified personal trainers (CPT) through the National Strength and Conditioning Association. Instruction is provided describing basic exercise physiology as well as the principles of developing a personal training regimen for a typical gym trainee. Course experiences will reinforce training principles and teach the basic skills necessary for certification. (F, Sp)

HES 3883 Principles of Endurance Training
3 Credit Hours
Prerequisite: BIOL 2124 and BIOL 2255 or 2234 with a grade of $C$ or better, and junior standing. Emphasis will be placed on understanding physiology related to endurance performance and principles of endurance training. Performance testing procedures for predicting endurance performance will be conducted throughout the semester. In addition, it will be required that an endurance training program utilizing the information covered in class will be designed. (F,Sp)
HES 3893 Facts and Fallacies of Exercise and Nutrition 3 Credit Hours Prerequisite: Non-majors only and English 1213 or Expository Writing 1213. Provides meaningful and practical guidelines on how to recognize and dispel many of today's popular myths regarding exercise and nutrition. Course concepts will emphasize the proper use of scientific evidence to either dispel current topics as fallacy or confirm as fact. Sample current topics may include fads, infomercial products, weight loss, aerobic exercise, resistance exercise, dietary supplements, and exercise/sport nutrition, along with the effect of media and advertising and marketing ploys on these topics. (Irreg.)
HES 3960 Honors Reading 1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Study of current research developments in health and sport sciences. An opportunity for the Honors' candidate to work with a faculty mentor on a research project of special interest to the student in the health and sport sciences. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

## HES 3970 Honors Seminar

1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. An opportunity for the Honors' candidate to work with a faculty mentor on a research project of special interest to the student. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
HES 3980 Honors Research
1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Will provide an opportunity for the gifted Honors candidate to work at a special project in the student's field. (F, Sp, Su)
HES 3990 Independent Study

## 1-3 Credit Hours

1 to 3 hours. Prerequisite: one course in general area to be studied; permission of instructor and department. May be repeated; maximum credit six hours. Contracted independent study for topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (F, Sp, Su)

HES 4213 Management in Health and Exercise Science 3 Credit Hours Prerequisite: junior standing. Concentration on the following course topics: defining facility types, management and employees, facility systems, equipment and maintenance, programming and targeting audience, for profit -- not for profit, marketing and sales, finance, budgeting and funding sources, legal responsibilities, safety and quality control. Class will regularly visit a wide range of health clubs, sports facilities, fitness, golf and recreational environments. (Irreg.)
HES 4273 Sport Finance
3 Credit Hours
Prerequisite: HES 3213 or ACCT 2113 or permission of instructor.
Discussion and study of methods and techniques for funding sport programs, professional and amateur sports. Topics include financial challenges faced by sport organizations and the garnering of resources from the public sector, external sources, and enterprise activity. Emphasis will be placed on present valuations, financial risk management, the capital budgeting process, and exercising sound financial decisionmaking. (Sp)

HES 4283 Sports Economics and Policy 3 Credit Hours Prerequisite: HES 3213 or ECON 1123. Analyzes the unique features of the sport industry relative to the principles of economics. Sport is one of the top twenty industries in the United States, with over eighty billion consumer dollars being spent on an annual basis. Students will review the basics of economic theory and apply these principles to the management decisions of modern and global sport organizations. Emphasis will also be placed on the economic aspects of public finance for sport facility construction and other forms of subsidization within the sports industry. In addition, important current economic issues will be discussed as they relate to the governance of professional sports leagues and intercollegiate athletics. ( $\mathrm{F}, \mathrm{Sp}$ )
HES 4430 Internship in Health and Exercise Science 1-4 Credit Hours 1 to 4 hours. Prerequisite: HES major and nine credit hours of HES major core, and departmental permission. May be repeated; maximum credit 4 hours. Practical experience in administration, techniques, organizational structure and appropriate materials used with health, fitness or sportrelated occupations. (F, Sp, Su)
HES 4503 Principles of Community Health 3 Credit Hours Prerequisite: Health and Exercise Science major or permission of instructor. Examines the importance of maintaining, protecting, and improving the health of people through organized community efforts. Basic concepts in community health and a review of the historical foundations of community health will be presented. ( $F, S p$ )
HES 4513 Public Policy Impact on Health Promotion 3 Credit Hours Prerequisite: junior standing and HES 1823 or HES 2913. As health promotion becomes more popular in the workplace, many organizations are struggling with existing and new regulations that help guide and ensure that compliant programs are being created. Examines existing policies and new policies that will have an impact on the delivery of health promotion programs. Topics include, but are not limited to, Healthy People 2020, CDC, State of Oklahoma Health Department, and Economic Theories on Wellness, Health Care Reform Impact and Tobacco Free Policies. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

HES 4523 Human Sexuality II
3 Credit Hours
Prerequisite: 3523 or permission. Indepth study of human sexuality from a biopsychosocial perspective which emphasizes the roles of biology, psychological factors, and social learning. Area studies will include sexual and gender development across the life span; interaction and communication within intimate relationships; reproductive and healthrelated sexuality topics; and a historical look at the evolution of mating and love relationships. In addition, students will examine the integration of human sexuality issues and education in health-related occupations. (Irreg.)

## HES 4543 Comprehensive Stress Management 3 Credit Hours

Prerequisite: BIOL 2234 or BIOL 2255 and BIOL 2124 and a course in Psychology. Helps students gain an awareness of stress and its effects, practice management techniques to reduce personal stress, and implement those techniques in their daily lives as well as the lives of others (school, community, corporation, etc.). Topics include: psychophysiology of stress, stress and disease, nutrition, personal planning and time management, cognitive restructuring, relaxation, and biofeedback. (Irreg.)

## HES 4573 Chronic Disease Intervention

3 Credit Hours
Prerequisite: Health and Exercise Science major or permission of instructor. Provides a basic understanding of disease process in selected chronic diseases and intervention strategies for risk reduction and chronic disease prevention. Basic principles of epidemiology and chronic disease surveillance will also be covered. (Irreg.)

HES 4823 Sport and Exercise Nutrition
3 Credit Hours
Prerequisite: junior standing, HES 2823 and CHEM 1315. Provides a basic understanding of the influence of nutrition on sport and exercise performance. Requires students to integrate their knowledge of nutritional physiology, biochemistry and intermediary metabolism with that of exercise physiology and to apply this knowledge to develop a critical understanding of the nutritional and practical dietary needs of individuals participating in sport and exercise. ( $\mathrm{F}, \mathrm{Sp}$ )
HES 4833 Physiology of Exercise Laboratory 3 Credit Hours
Prerequisite: HES Major and HES 3813 or permission of instructor. Laboratory experiments emphasizing the understanding of fundamental physiological mechanisms, regulating responses, and adaptation to exercise. Basic analytical methodologies pertaining to the energy, muscular and circulatorespiratory systems. Includes factors affecting physiological performance capacities and experimental basis of exercise assessment and training. Laboratory ( $F, S p$ )
HES 4863 Physical Activity and Aging
3 Credit Hours
Prerequisite: permission of instructor. Discussion of general concepts of aging and the issues related to dying, the expected changes related to aging in the various physiological systems, i.e., body composition, cardiovascular, bone, and skeletal muscle. In addition, exercise programming concerns for the aged as well as the possible benefits of exercise during aging will be discussed. (Irreg.)
HES 4883 Advanced Strength and Conditioning
3 Credit Hours
Prerequisite: BIOL 2124, and BIOL 2255 or 2234 with a grade of C or better, and junior standing. Advances knowledge of strength and conditioning concepts in an applied setting. Prepares students to confidently and specifically design strength and conditioning programs for all populations including athletes, elderly and children, as well as to successfully demonstrate and teach all lifts and conditioning drills. (F, Sp)

## HES 4933 Drug Education

3 Credit Hours
Prerequisite: 2913. Beneficial and harmful uses and effects of drugs.
Motivations behind drug abuse, especially among youth, and implications of this problem on the individual, school and society. Consideration given to legislative and educational efforts. Investigation of interpersonal skills and communication interaction techniques. The use of valuesclarification techniques. (Irreg.)
HES 4953 Senior Capstone
3 Credit Hours
Prerequisite: Health and Exercise Science major, senior standing and permission of instructor. An integration and synthesis of the major disciplines of study in the health and exercise science. Readings, discussions and research methods will focus on applications and problem solving approaches related to contemporary policy, economic, social and ethical issues. (F,Sp) [V] .

HES 4960 Directed Readings
1-4 Credit Hours
1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean. May be repeated; maximum credit four hours. Designed for upper-division students who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)
HES 4970 Special Topics/Seminar 1-3 Credit Hours
1 to 3 hours. Prerequisite: Senior standing or permission of instructor.
May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

HES 4973 Mediterranean Diet \& Culture
Prerequisite: Application and acceptance to this specific study abroad program through OU Education Abroad. Taught on the OU-Arezzo campus. Students will experience the culture of Tuscany, including the eating habits of people from the region. Students will tour farms and food production facilities for ham, cheese, olive oil, and wine. Cooking classes introduce students to making pasta and other traditional Tuscan foods. The culture is also experienced through visits to areas that surround Arezzo. (Su)
HES 4990 Independent Study 1-3 Credit Hours
1 to 3 hours. Prerequisite: three courses in general area to be studied; permission of instructor and department. May be repeated; maximum credit six hours. Contracted independent study for topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (F, Sp, Su)

## HES 5000 Issues and Procedures in Health and Exercise

## Science <br> 1-3 Credit Hours

1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated with change of content; maximum credit six hours. Current topics such as the following: exercise prescription for the elderly; adherence to physical activity, exercise/sport. (Irreg.)
HES 5283 Sports Financial and Market Analytics 3 Credit Hours Prerequisite: graduate standing and one of the following: HES 5953, MIT 5742, EIPT 6023, ECON 4233, PSY 5013, MATH 5773; or permission of instructor. The objective of this course is to analyze the unique features of the sports industry relative to principles of financial management and economics. Students will employ basic financial and econometric modeling to the management of sports organizations. Emphasis will be placed on labor markets, sports consumer demand, public finance for facilities/events, and other forms of subsidization of the sports industry. (F)
HES 5313 Athlete Tracking and Monitoring in Sports 3 Credit Hours Prerequisite: graduate standing and permission of instructor. The objective of this course is to analyze methodologies used to track/ monitor the loads imposed on athletes during training and competition. The validity, reliability, and efficacy of methodologies will be evaluated. Students will review performance testing, data acquisition, and data analysis and will develop data visualizations that relay the status of an athlete to the sports performance team. (F)
HES 5430 Internship in Health and Exercise Science 1-3 Credit Hours 1 to 3 hours. Prerequisite: graduate standing and successful completion of course requirements in HES area of study; student must have completed a minimum of 12 course hours, including all core requirements, before enrolling in internship. May be repeated; maximum credit six hours. Internship hours will be counted as elective hours towards the normal course requirement (i.e., 30-32 hours). Field experience in area of study. Participation in on-the-job experiences in a wide range of hosting agencies, businesses and institutions. (F, Sp, Su)

## HES 5513 Perspectives in Global Health <br> 3 Credit Hours

Prerequisite: graduate standing. Examines major global health challenges, programs and policies. Students will be introduced to the world's vast diversity of determinants of health and disease, and current and emerging global health priorities will be discussed, including: emerging infectious diseases, poverty, conflicts and emergencies, health inequity, health systems reforms, and major global initiatives for disease prevention and health promotion. (F, Sp)

HES 5523 Health Promotion Strategies
3 Credit Hours
Prerequisite: graduate standing. Will provide students with a basic introduction to the principles of health promotion. Specific topics will include risk appraisal and risk reduction, behavior change theories, program planning and management, holistic health/wellness, and others. (F)

HES 5553 Health Promotion Evaluation 3 Credit Hours
Prerequisite: graduate standing and permission of instructor.
Examination of the processes used to evaluate health promotion and health education programs. Includes: needs assessment, quality assurance evaluation, summarative evaluation, data analysis, and cost benefit analysis strategies. (Irreg.)

HES 5563 Health Behavior I: Individual and Group

## Influences

3 Credit Hours
Prerequisite: Graduate standing or permission of instructor. Focuses on behavioral theories and research which are pertinent to understanding factors/conditions that influence the development of and change processes related to health behavior in individuals or small groups such as family units. It is designed to provide a knowledge and theoretical base for integration of behavioral principles into research design and health promotion programming. (Sp)
HES 5823 Exercise Physiology
3 Credit Hours
(Crosslisted with I E 5823) Prerequisite: Industrial Engineering 4824;
Zoology 3104 or 3133 ; Physiology 5016 or 5019; or permission.
Advanced study of physiological responses, regulatory mechanisms and adaptations of human performance and health; factors affecting performance and health; and training and evaluative techniques. (F)

HES 5833 Advanced Exercise Physiology Laboratory 3 Credit Hours Prerequisite: 5823 or permission. Laboratory experiments of a theoretical and applied nature emphasizing advanced concepts of physiological mechanisms, regulating responses and adaptation to exercise. Analytical and prescriptive methodologies pertaining to the energy, muscular and cardiorespiratory systems, including body composition techniques. Laboratory (Sp)

HES 5853 Health Fitness: Theory and Application 3 Credit Hours Prerequisite: 3513 or 4513 and Zoology 3133, or equivalent; graduate standing. A multidisciplinary study of health-fitness theories and their applications in preventive health. Emphases are threefold: first, to understand the underlying theoretical framework of epidemiological, biological and behavioral concepts; second, to develop skills to implement programs emphasizing physical fitness assessment and prescription; third, to critically examine the role of physical activity and fitness strategies in preventive and therapeutic health settings.

## HES 5863 Physiology of Aging 3 Credit Hours

Prerequisite: Physiology 2124, 3104 or Zoology 3133, or permission of instructor. Discuss the various theories of aging as well as the age expected changes in the various physiological systems (cardiovascular, respiratory, muscle, bone, nerve and body composition). In addition, exercise programming concerns for the aged as well as the possible benefits of exercise during aging will be discussed. (F)

## HES 5883 Exercise Endocrinology

3 Credit Hours
Prerequisite: 5823 or permission of instructor. In-depth examination of the role of the endocrine system on regulating acute and chronic metabolic responses to exercise. Special endocrine issues related to exercise physiology (i.e., diabetes) will be studied. (Irreg.)

HES 5903 Sports Performance Analytics
3 Credit Hours
Prerequisite: graduate standing, and one or more of the following: HES 5953, MIT 5742, EIPT 6023, ECON 4233, PSY 5013, or MATH 5773; or permission of instructor. Sports analytics refers to the use of data and quantitative methods to measure performance and make decisions within a sports business. This course builds on statistics courses and is designed to help students develop and apply analytical skills using various sports contexts. The primary objective is to help students understand what data can and cannot do for sport organizations. (Sp)
HES 5940 Intensive Studies in Health and Exercise

## Science

1-6 Credit Hours
1 to 6 hours. Prerequisite: graduate standing or permission. Completion of research project under faculty supervision. Meets research requirement for non-thesis option. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
HES 5953 Research Methods in Health and Exercise

## Science

3 Credit Hours
Prerequisite: graduate standing. Methods and techniques used in the design and interpretation of health promotion and exercise science research. Emphasis on scientific writing and library use. (Sp)
HES 5960 Directed Readings in Health and Exercise

## Science

1-6 Credit Hours
1 to 6 hours. Prerequisite: graduate standing, permission. Designed for graduate students to provide them with an opportunity to investigate selected problems in the field. Thirty hours library and research work for each credit hour. Consultations with instructor required. Written report. Required for all students in a nonthesis program. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

HES 5963 Statistical Applications in Health and Exercise

## Science

3 Credit Hours
Prerequisite: graduate standing or permission of instructor. The application of techniques used to organize, analyze, and interpret statistical data unique to health and exercise science. Topics include measures of central tendency, measures of variability, percentiles, sampling, correlation, regression, standard scores, and tests of significance through repeated measures ANOVA and including parametric, non-parametric tests. (Irreg.)
HES 5970 Seminar in Health and Exercise Science 1-4 Credit Hours 1 to 4 hours. Prerequisite: graduate standing. May be repeated with change of subject matter; maximum credit six hours. Study of pertinent and current problems of research. Students may use seminars to identify and develop thesis projects. Required written paper and research. (Sp)

## HES 5980 Research for Master's Thesis

2-9 Credit Hours
Variable enrollment, two to nine hours; maximum credit applicable toward degree, four hours. Required of all students writing master's thesis.
Consultations with major professor required as thesis progresses. ( $\mathrm{F}, \mathrm{Sp}$, Su )

## HES 5990 Independent Study in Health and Exercise

Science
1-6 Credit Hours
1 to 6 hours. Prerequisite: graduate standing or permission. A study of selected problems under guidance of instructor. At least twenty-five hours of library and research time required for each hour of credit carried. Final paper required. (F, Sp, Su)
HES 6000 Variable Topics in Health and Exercise
Science
1-3 Credit Hours
Prerequisite: graduate standing or permission of instructor. Course will consist of variable topics in health and exercise science. (Irreg.)

HES 6513 Qualitative Research Methods in Health

## Promotion

## 3 Credit Hours

Prerequisite: graduate standing. Designed to provide students with a theoretical and skill base to apply basic qualitative research methods(observation,interviewing and focus groups)to a wide range of health promotion areas and to critically evaluate the application of qualitative skills to a community setting. Over the semester, a community-based qualitative research project will be conducted. Heavily emphasizes application of concepts and student participation in the learning process. (Irreg.)

HES 6523 Social Marketing in Health Promotion 3 Credit Hours Prerequisite: 5523 or permission of instructor. Focuses on the incorporation of basic marketing principles into strategies for behavioral and social change. Targeted outcomes include individual behaviors, group/population norms, environmental supports and policies pertinent to health promotion and/or public health issues. (Su)
HES 6553 Advanced Measurement and Evaluation
3 Credit Hours Prerequisite: HES 5553 or permission of instructor. Issues related to measurement and evaluation in health promotion will be discussed. Different measurement techniques and instruments used in health promotion will be examined and critiqued, and principles of instrument development will be addressed. Issues related to the evaluation of health promotion program outcomes will serve as a context for the course. (Irreg.)

## HES 6563 Health Behavior II: Community, Organizational and Population Influences 3 Credit Hours

Prerequisite: HES 5563 or permission of instructor and graduate standing. Focuses on examining new and emerging theories used in health promotion to conduct research in organizational/community/ individual change, and to improve health and quality of life. Emphasis on exploring the conceptual and methodological issues associated with theory-based research. (Sp)
HES 6583 Chronic Disease Assessment and Intervention 3 Credit Hours Prerequisite: graduate standing and permission of instructor. Provides basic understanding of selected chronic diseases including assessment, disease process, pharmacological and medical treatment and intervention strategies for reducing risk. (Irreg.)

HES 6823 Cardiorespiratory Exercise Physiology
3 Credit Hours
Prerequisite: 5823 or permission of instructor. This course covers a variety of topics in cardiorespiratory exercise physiology, including factors that regulate fatigue during endurance exercise, factors that limit maximal aerobic power, regulation of heart rate and blood flow during isometric and dynamic exercise, and cardiovascular adaptations to aerobic training programs. Assessment techniques for cardiorespiratory function will be discussed in depth. Laboratory (Irreg.)
HES 6833 Human Body Composition
3 Credit Hours
Prerequisite: 5823 or permission of instructor. Theoretical and applied aspects of body composition assessment. Topics include limitations and usefulness of laboratory and field methods for assessing body composition in research, clinical and health/fitness settings. Evaluation of body composition research and application to health and clinical populations. Laboratory (Irreg.)
HES 6843 Neuromuscular Physiology
3 Credit Hours
Prerequisite: 5823 or permission of instructor. This course examines the structure and function of the central and peripheral nervous systems and skeletal muscle. Emphasis will be placed on how the central nervous system and motor units respond to conditions such as fatigue, exercise training, vibration, stretching, injury and disease. Laboratory (Irreg.)

HES 6883 Endocrinology and Metabolism of Exercise 3 Credit Hours Prerequisite: 5823 or permission of instructor. Provide in-depth examination of the energy metabolism during exercise and the role of endocrine system in regulating acute and chronic metabolic responses to exercise. Special endocrine issues related to physiology (i.e. diabetes) will be studied. Laboratory (Irreg.)

## HES 6960 Directed Readings in Health and Exercise

Science

## 1-6 Credit Hours

Prerequisite: graduate standing and permission of instructor. May be repeated; maximum credit six hours. Special reading programs are designed to enable graduate students (1) to extend their study to fields that are not covered in other courses and/or (2) to provide an opportunity for more intensive study of subjects covered in other courses. (F, Sp, Su)
HES 6970 Seminar in Health and Exercise Science 1-4 Credit Hours 1 to 4 hours. Prerequisite: graduate standing in HES or permission of instructor. May be repeated with change of subject matter; maximum credit four hours. Study of pertinent and current problems of research. Students may use seminars to identify and develop area of dissertation research. (Irreg.)
HES 6980 Research for Doctoral Dissertation 2-12 Credit Hours 2 to 12 hours. Prerequisite: Graduate standing and permission of instructor; may be repeated. Directed research culminating in the completion of the doctoral dissertation. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
HES 6990 Independent Study in Health and Exercise
Science
1-3 Credit Hours
1 to 3 hours. Prerequisite: master's degree and permission of instructor. May be repeated; maximum credit 12 hours. Supervised research for advanced graduate students on major projects with a faculty member. (F, $\mathrm{Sp}, \mathrm{Su}$ )

## HIST-History

HIST 1113 History of Medieval Europe
3 Credit Hours History of Europe from the fall of Rome to the end of the 15th century. Emphasis on the development of social structures and culture forms, and the sociocultural background of political and religious developments. ( $F$, Sp )

HIST 1223 Europe, 1500 to 1815
3 Credit Hours
An introductory survey of Europe in the early modern period. Topics include the Reformation, development of the nation-state, the Enlightenment, and the French Revolution and Napoleon. (F, Sp) [IV-WC].
HIST 1233 Europe since $1815 \quad 3$ Credit Hours
An introductory survey of Europe from 1815 to the present. Examines the major political, economic, social and cultural trends in the major countries and European foreign affairs and overseas expansion. (F,Sp) [IV-WC].
HIST 1303 The History of Disease
3 Credit Hours
Prerequisite: English 1213/Expository Writing 1213 or permission of instructor. Examines contagious disease in the 20th century. It explores a time period-- following the discovery of antibiotics-- in which biomedicine seemed invincible. The course, as it moves later into the 20th century, when the AIDS virus and resistance to antibiotics turned contagion into a new, and thoroughly modern, threat. (Irreg.) [IV-WC].

## HIST 1483 United States to 1865

3 Credit Hours A general survey of United States history to the end of the Civil War, with emphasis upon national political, diplomatic, economic, constitutional, social and intellectual developments. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ ) [IV-US].

HIST 1493 United States, 1865 to the Present 3 Credit Hours A general survey of United States history from the Civil War to the present day, with emphasis upon national political, diplomatic, economic, constitutional, social and intellectual developments. (F, Sp, Su) [IV-US].
HIST 1543 Introduction to American Indian History 3 Credit Hours A history of American Indian people in North America and their role in shaping American history through the early 1970's. Emphasis will be on how cultural values influenced Indian-European interactions and how cultures change over time. (F, Sp) [IV-WDC].
HIST 1563 The Jews: From Abraham to Zionism 3 Credit Hours Introduces students to both the basics of Jewish history and the different disciplinary inquiries into the Jewish experience. The course covers biblical, rabbinic, medieval and modern Jewries in the ways in the ancestral homeland (e.g. Israel) and in the diaspora (e.g. other lands in which Jews settled). (Irreg.) [IV-WC].

## HIST 1573 The Artists' Bible - From Mosaics to Graphic Novels <br> 3 Credit Hours

The Artists' Bible presents major artistic movements. Students explore mosaics, paintings, architecture, sculpture, graphic novels that expand the Bible's compact language. We begin with Genesis and end with Revelation. We focus primarily on western art with Middle Eastern counterexamples. Female and male characters will be analyzed. Overviews the Bible and artistic tradition. Involves analysis of biblical passages that invited visualization. (F) [IV-AF].
HIST 1613 Western Civilization I
3 Credit Hours
History and culture of western civilization from origins of Greek society to end of religious wars in seventeenth century. (F) [IV-WC].
HIST 1623 Western Civilization II 3 Credit Hours
History and culture of western civilization between 1660 and the present.
Emphasis will be placed on western institutions and ideas, their evolution, and their influence elsewhere. (Sp) [IV-WC].
HIST 1723 East Asia to 1600
3 Credit Hours
A general survey of the histories of China and Japan with the history of Korea included as it bears upon the historyof Japan. The focus is on the political, social, economic, and intellectual aspects of China and Japan, and their points of contact. (Irreg.) [IV-WDC].
HIST 1733 East Asia Since 1600
3 Credit Hours
A general survey of the histories of China, Japan, and Korea from 1600 to the present. Focus is on the political, social, and economic systems of these countries, major historical events and intra-Asian interactions. (Irreg.) [IV-WDC].

HIST 1923 World Civilization 1600-Present
3 Credit Hours
Deals with the entire globe rather than with one country or region; deals with all peoples, not just with so-called Western or non-Western peoples. Focuses on historical forces or movements of worldwide influence. Comparative history. (Irreg.) [IV-WC].
HIST 2013 Ancient Near Eastern Civilizations 3 Credit Hours
A study of the major civilizations of the Ancient Near East from the last
Pluvial period (ca. 8400 B.C.) through the first millennium B.C., with particular emphasis on the historic periods (ca. 3000 B.C. onwards). (Irreg.) [IV-WDC].
HIST 2033 Introduction to Digital Humanities 3 Credit Hours (Crosslisted with LIS, WGS and HSTM 2033) This course introduces students to digital and/or computational methods in the humanities and addresses critical questions about the role of digital technology in society. This is a collaborative, hands-on, project-based course. (Sp) [IVWC].

HIST 2063 History of Activism
3 Credit Hours
This course explores the history of activism in the twentieth century, paying particular attention to the ways race, ethnicity, class, and gender have shaped political, economic, environmental and health injustices and community responses to them. (Irreg.) [IV-WC].
HIST 2103 Genocides in Modern History
3 Credit Hours
Globally comparative course introduces students to the types and causes of genocide in the modern era. Focus is on various case studies of exterminatory mass violence, in order to analyze evolutions and patterns in transnational historical contexts, as well as consider methods of resistance and prevention. (Irreg.)
HIST 2123 The Holocaust 3 Credit Hours
Discussion of the Holocaust, how it could happen and how it is remembered today in different European and non-European countries. (Irreg.) [IV-WC].
HIST 2333 The British Empire
3 Credit Hours
A survey of the development of the British Empire and Commonwealth to the present day. Emphasis upon the period after the American Revolution; includes extension of control in Asia and Africa, movements of independence, the emergence of the Commonwealth and mid-twentieth-century challenges to the Commonwealth. (Irreg.) [IV-WC].
HIST 2503 American Jews/Jewish Americans 3 Credit Hours
Through a case study of American Jewry, this class will ask: How to define a minority (religion, race, ethnicity)?. How does a group create lasting institutions? How does a group become American yet retain communal identity? How can a minority shape majority culture? What constitutes "success"? (Irreg.) [IV-WC].
HIST 2573 The History Sleuth 3 Credit Hours
Prerequisite: majors only or permission of department. Introduces students to the craft of history. Students will explore the many types of sources available to reconstruct the past and learn how historians collect, select, and evaluate historical evidence. ( $\mathrm{F}, \mathrm{Sp}$ )
HIST 2613 Colonial Hispanic American History, 1492-1810 3 Credit Hours
The founding and development of the Spanish and Portuguese empires in America with special attention to the conquest of native civilizations and to the political, economic, social and intellectual institutions of the colonial period. (F, Su) [IV-WC].
HIST 2623 Modern Latin America 1810-Present 3 Credit Hours
The emancipation and development of the Spanish-American nations (and of Brazil) with special attention to the movements for national independence, political unification, economic developments and social welfare. (Irreg.) [IV-WC].
HIST 2703 African Societies and Cultures 3 Credit Hours Explores the complexity and divergence of African societies and cultures, political organizations, social structures, traditions and artistic expressions created by Africans over time and introduces Africa's history after 1500, its cultural diversity, and political transformation. (Irreg.) [IVWDC].

## HIST 2713 Survey of African Civilization

## 3 Credit Hours

Survey of the social, economic, political and cultural development of subSaharan African peoples from the emergence of human society to the present. (F) [IV-WDC].

HIST 2723 History of South Asia
3 Credit Hours
The course examines South Asia, which refers to the vast geographical space stretching from the Himalayan mountain ranges in the north to the Indian Ocean in the south and from the valley of the Indus in the west to the plains of the Brahmaputra in the east. Students examine the histories, cultures and societies of these spaces. (Irreg.) [IV-WDC].

HIST 2803 Survey of Russia 3 Credit Hours An introduction to the history of Russia from its beginnings to the present day. Intended primarily for nonspecialists. (F) [IV-WC].
HIST 2970 Special Topics 3 Credit Hours
1 to 3 hours. Prerequisite: sophomore standing or permission of instructor. May be repeated; maximum credit six hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

HIST 3003 History of Sparta
3 Credit Hours
Traces the history of Sparta from its antecedents in the Heroic Age through the Dorian Invasion to the Roman conquest.(Sp) [IV-WC].

## HIST 3013 Indigenous Politics in Modern Latin American

 History 3 Credit HoursPrerequisite: ENGL 1213 or EXPO 1213. This course traces the history of Latin America's indigenous peoples during the 19th and 20th centuries, moving from the Andes to the Southern Cone to Brazil to Mexico and Central America. Considering indigenous people's experiences as well as policies and ideas that affected them, students read a variety of sources, from scholarly books to primary sources like letters and literature. (Irreg.) [IV-WDC].
HIST 3023 Classical Greece
3 Credit Hours
An examination of the history of ancient Greece during its "Classical" Period, the fifth and fourth centuries B.C., with emphasis upon Athens, Sparta and Alexander the Great (C. 500-300 B.C.). (Irreg.) [IV-WC].
HIST 3033 Black Britain in the Long Nineteenth Century 3 Credit Hours Prerequisite: HIST 1483 or HIST 1493 or junior standing, or permission of instructor. This course explores the history of Black people in Britain from the late eighteenth century to the end of the First World War. Through this, students uncover the ways those of African descent shaped British history and yet were excluded from its narratives. (Irreg.) [IV-WC].

## HIST 3053 Medieval Italy

3 Credit Hours
Prerequisite: 1113 or 1613 or junior standing. A survey of Italy from circa 400-1350 CE, emphasizing the mix of Roman, Christian, and barbarian traditions, relations between the church and empire, and the role of cities and commerce. (Sp) [IV-WC].
HIST 3063 The Ancient Art of War
3 Credit Hours
Traces the history of warfare from its origins through the ancient world to the beginning of the Middle Ages. (Sp) [IV-WC].

HIST 3073 The Renaissance 3 Credit Hours Prerequisite: HIST 1223 or HIST 1613 or junior standing or permission of instructor. Examines the European Renaissance, a time period that was crucial to the development of western European culture, intellectual thought, and state formation. By reviving classical antiquity, the Renaissance created both the classical canon of intellectual study and modern political units. (Irreg.) [IV-WC].
HIST 3083 The American Colonies
3 Credit Hours
A history of the British colonies in North America from the earliest discoveries and of the United States from the Second Continental Congress to the inauguration of Washington in 1789. (Irreg.) [IV-WC].

HIST 3093 The Revolutionary Era
3 Credit Hours
Prerequisite: HIST 1483 or HIST 1493 or junior standing or permission of instructor. The American Revolution and the development of political institutions under the Articles of Confederation and the Constitution; innovations of the Federalists; domestic and foreign affairs. (Irreg.) [IVWC].

HIST 3103 Slavery in World History 3 Credit Hours Prerequisite: ENGL 1213 or EXPO 1213. Examines slavery and unfree labor from the earliest times in Mesopotamia to the present and includes an analysis of slavery in the American South and Latin America. Also traces the history of the Abolition Movement. (Irreg.) [IV-WDC].

## HIST 3113 The Crusades

3 Credit Hours
Prerequisite: 1113 or 1613 or junior standing. Covers crusades to the Holy Land and Europe against Moors, pagans, heretics, and enemies of the Pope. Topics include crusade ideology, relations between Latins, Byzantines, Jews and Muslims, crusader states, techniques of warfare, and the experience of crusading. (F) [IV-WC].
HIST 3120 Topics in Modern European History 1-5 Credit Hours 1 to 5 hours. May be repeated for credit with change of content. Discussion of a selected special problem or problems in modern European history. (Irreg.)
HIST 3123 War in European History 3 Credit Hours
Prerequisite: ENGL/EXPO 1213 or junior standing or permission of instructor. A study of the impact of war on European history and the interaction of armies and society in the period from the fourteenth century to the present. (Irreg.) [IV-WC].
HIST 3133 Medieval Women 3 Credit Hours (Crosslisted with WGS 3133) Prerequisite: 1113 or 1613 or junior standing. Covers social history of women in western Europe from late Antiquity to the late Middle Ages. Topics include stages of life, marriage, families, occupation, law, power, health, religion, love, and education. (F) [IV-WC].
HIST 3143 The Era of the Reformation 3 Credit Hours An analysis of the forces leading to the religious upheaval in the sixteenth century and the spread of Protestantism in Northern European countries; the Catholic Reformation or Reaction; Thirty Years War; and the relation of the Reformation Era to medieval and modern civilization. (F) [IV-WC].
HIST 3153 The Great War, 1914-18
3 Credit Hours
Prerequisite: 1233 or 1623. Examines the causes, conduct, and consequences of World War I, with primary emphasis on its cultural impact. (F) [IV-WC].

## HIST 3163 Europe from the French Revolution to <br> Napoleon <br> 3 Credit Hours

A social, political, military and cultural treatment of Europe from 1789 to 1815. Appropriate attention will also be given to causes of the French Revolution. (Sp) [IV-WC].
HIST 3173 The Early U.S. Republic 3 Credit Hours Prerequisite: HIST 1483 or HIST 1493 or junior standing or permission of instructor. This course surveys the 35 years of U.S. history after the War of 1812. We will examine the rise of a modern political parties; the creation of an American empire; the expansion of slavery; the violence of Indian removal; the dramatic political battles of Jacksonian America; the far-reaching impact of evangelical Christianity; and the development and evolution of American prosperity. (Irreg.) [IV-WC].

HIST 3183 Italy: Making a Nation?
3 Credit Hours
Prerequisite: HIST 1233 or junior standing or permission of instructor. Course examines the creation of modern Italy from the late Renaissance, Enlightenment, nationalism, the unification movement, World War I and World War II. (Irreg.) [IV-WC].

HIST 3193 Modern France: Gender, Religion and Nation 3 Credit Hours Prerequisite: HIST 1623 or HIST 1233 or junior standing or permission of instructor. This course surveys key events and ideals that have shaped the modern nation of France. We will engage literature, history, film, and sociology to develop a more nuanced understanding of France and its place in the world. We will focus particularly on the roles played by gender and religious identities in constructing or complicating definitions of French citizenship. (F) [IV-WC].

HIST 3203 Transformation of Jews
3 Credit Hours
Prerequisite: Junior standing or permission of instructor. Introduces students to the era of emancipation in modern Europe and will discuss Jewish approaches to become integrated and assimilated in the different emerging nation states. (Irreg.) [IV-WC].
HIST 3213 Intellectual History of Nineteenth-Century Europe 3 Credit Hours
Examination of the impact on European social and political development of concepts such as Nationalism, Imperialism, Socialism and Darwinism. (Irreg.) [IV-WC].
HIST 3223 Intellectual History of Twentieth-Century Europe 3 Credit Hours
A general survey of the major intellectual developments in Western Europe since 1900, including the areas of social thought, religious thought, political philosophy, scientific thought, literature and drama. In each area the relationship of intellectual expression will be related to the historical context from which it emerged. (Irreg.) [IV-WC].
HIST 3233 Modern Spain 3 Credit Hours
Prerequisite: junior standing. Examines the political, economic, social, and cultural aspects of modern Spanish history (1808-present) and will attempt to place Spain within the context of European history, where it has often been ignored by European historians. (F, Su) [IV-WC].

HIST 3243 European Women \& Gender Relations 3 Credit Hours Prerequisite: HIST 1233 or HIST 1623 or junior standing or permission of the instructor. Explores the social, cultural, political, and economic history of European women and gender relations from the Scientific Revolution to the present. (Irreg.) [IV-WC].
HIST 3253 Germany: From Bismarck to Hitler 3 Credit Hours
Prerequisite: HIST 1233 or junior standing or permission of instructor. History of Germany during the 19th and 20th centuries, from the unification era to the rise of Hitler and the Nazi Party. Topics include the Congress of Vienna, German unification, World War I, the rise of Nazism, and World War II. (Irreg.) [IV-WC].
HIST 3263 History of Public Health 3 Credit Hours (Crosslisted with HSTM 3263) Prerequisite: Junior Standing or a lower division HSCI course or HIST 1733 or HIST 2723 or Permission of Instructor. Taking an historical perspective students explore and analyze the social, economic, political and scientific events and processes that have shaped modern public health. (F) [IV-WC].

HIST 3273 Of Acupuncture, Medicine Men \& Ayurveda: Indigenous \& Non-Western Medicine in Perspective 3 Credit Hours
(Crosslisted with HSTM 3273) Prerequisite: Junior standing or a lower division HSTM course or HIST 1733 or HIST 2723 or Permission of Instructor. Introduces histories of practices and systems of medicine and healing that are variously deemed "indigenous," "traditional", "nonwestern," "alternative," and "complementary" in historical context.
Students critique the historical and cultural meaning of these terms, as well as their attendant conceptions of health, disease, and the body. (Sp) [IV-WDC].

HIST 3283 History of Ireland, Part II
3 Credit Hours
Examines the history of Ireland from 1600 to the present day. Looks at the British conquest of Ireland, subsequent Anglo-lrish relations, events leading to Irish independence, and the origins and causes of present day sectarian violence. (Sp-alternate) [IV-WC].
HIST 3290 Topics in British History
1-5 Credit Hours
1 to 5 hours. May be repeated for credit with change of content.
Discussion of a selected special problem or problems in British history.
(Irreg.)

## HIST 3293 Antisemitism

3 Credit Hours
Prerequisite: HIST 1483 or HIST 1493 or junior standing or permission of instructor. Covers the world's oldest prejudice from ancient times to the present. Topics include Christian Antisemitism; medieval demonization of the Jews; Inquisition; Dreyfus case; pogroms; American Antisemitism; Nazism and Holocaust; Arab and Muslim Antisemitism; and African American Antisemitism. (Irreg.) [IV-WC].

## HIST 3303 Mexico and the United States

3 Credit Hours
Prerequisite: Junior standing or permission of instructor. Explores the long and complicated relationship between these two nations. Explores economic investment, war, immigration, bilingualism, and culture. (Irreg.) [IV-WC].
HIST 3313 Israeli Culture Through Film 3 Credit Hours
Prerequisite: ENGL 1213 or EXPO 1213. Introduces students to the Israeli culture in its modern day context of the young Jewish state. Focuses on the dynamic mosaic of this multi-faceted society which is still evolving. (Sp) [IV-WDC].

## HIST 3323 Tudor England

3 Credit Hours
A study of England from 1485 to 1603. Topics covered include the establishment of the Tudor dynasty, Tudor administrative and political development, the English Reformation, foreign and colonial relations, economic growth, and sixteenth-century social and cultural life. (F) [IVWC].

## HIST 3333 The Black West

3 Credit Hours
(Crosslisted with AFAM 3333) Prerequisite: Junior standing, or any 2000-level African and African American Studies class, or permission of instructor. Survey of Black history and experience in the American West. Students will learn about life in the region through primary documents, scholarly texts, literature, film, and popular culture. Emphasis on how identity, regionalism, and nationalism converge in North America. Particular attention will be paid to Oklahoma and the larger Great Plains. (Irreg.)
HIST 3343 Eighteenth-Century England 3 Credit Hours
A discussion of the domestic politics, society, economy, foreign affairs and constitutional and imperial development of England from the accession of the Hanoverians in 1714 to the passage of the First Reform Act of 1832. (Irreg.) [IV-WC].

HIST 3353 England Since 1832
3 Credit Hours
Topical analysis of major developments in British life since 1832, including growth of political democracy, adaptation to industrialism, social and cultural change, foreign affairs, imperialism, growth of the welfare state. Britain's changed role in the twentieth century. (Irreg.) [IVWC].
HIST 3363 Legal And Constitutional History Of England I 3 Credit Hours
The first part of a course of lectures on the development of the English constitution, and of legal concepts, institutions and procedures from the Anglo-Saxons to the present. (Irreg.) [IV-WC].
HIST 3373 The Long Civil Rights Movement in America 3 Credit Hours Prerequisite: HIST 1483 or HIST 1493 or junior standing, or permission of instructor. This course treats the Civil Rights Movement as a centurylong struggle. Using court cases as historical documents alongside other secondary and primary sources, it examines both the legal concept of civil rights as well as the activism of people who sought such rights. It concludes with an examination of the modern notions of civil rights. (Irreg.) [IV-WC].

## HIST 3383 The American West

3 Credit Hours
A survey of the economic, political, social and cultural development of the American West. Particular attention will be paid to the West as a frontier process and as a causative factor in historical change.(F) [IV-WC].

HIST 3393 History of Oklahoma 3 Credit Hours Meets the requirement in Oklahoma history for teacher's certificate. A survey of Oklahoma history from its beginning to the present, including its Indian background, formation into territories, achievement of statehood, and general cultural, economic and political development. (F, $\mathrm{Sp}, \mathrm{Su}$ )
HIST 3403 Modern Israel
3 Credit Hours
Prerequisite: HIST 1483 or HIST 1493 or junior standing or permission of instructor. Introduces students to the history of modern Israel. They will learn about the Israeli people, politics \& culture. The course will cover 100 years (1882-1982). (Irreg.)[IV-WDC].
HIST 3413 The History of Ancient Israel 3 Credit Hours A topical survey from 1400 B.C. to 425 A.D., dealing critically with the main institutions and their historical background from early tribal theocracy to the end of the Rabbinic Patriarchate under Rome. (Sp) [IVWC].
HIST 3423 War, Prosperity and Depression 3 Credit Hours Prerequisite: HIST 1483 or HIST 1493 or junior standing or permission of the instructor. Covers United States involvement in the two world wars; decline of socialism; youth culture; changing gender roles and relations; crisis of masculinity; transformation of work; consumerism; racism; antisemitism; depression and New Deal; and America's response to the Holocaust. (Irreg.) [IV-WC].
HIST 3430 Topics in United States History 1-5 Credit Hours 1 to 5 hours. May be repeated for credit with change of content. Discussion of a selected problem or problems in United States history. ( $F$, $\mathrm{Sp}, \mathrm{Su}$ )
HIST 3433 The United States in the Cold War Era,
1945-1980
3 Credit Hours
Prerequisite: HIST 1483 or HIST 1493 or junior standing or permission of instructor. Examines changes taking place in American life during the second half of the twentieth century. Topics include the Cold War, McCarthyism, the New Frontier, Civil Rights Movement, protest in the 60s, the Vietnam War, and adaptations to a global economy. (Irreg.) [IV-WC].

HIST 3440 Mentored Research Experience 3 Credit Hours
0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)
HIST 3443 Early North American West
3 Credit Hours
Prerequisite: HIST 1483. This course examines the early history (1200 CE to about 1850 CE) of North America. Topics include early indigenous societies, exploration and conquest, systems of slavery, and colonial and federal policies that led, finally, to the removal and relocation of indigenous nations from the early United States. The course concludes with an analysis of the west in the era sectionalism. (Irreg.) [IV-WC].

## HIST 3453 The Modern North American West <br> 3 Credit Hours

Prerequisite: HIST 1483 or HIST 1493. This course focuses upon the different peoples, resources, landscapes, and ideas that collided in the recent American West. Sometimes that contact was violent, sometimes loving, but always the the collision created an American story that has enormous influence today. This course concludes with an analysis of how the western past appears in the present. (Irreg.) [IV-WC].
HIST 3483 Gilded Age and Progressive Era, 1877-1917 3 Credit Hours Prerequisite: HIST 1483 or HIST 1493 or junior standing or permission of instructor. The period from 1877 to 1917 included the fastest and most extensive industrial revolution in world history, the worst economic depression in U.S. history, the most violent episodes of industrial violence, the most radical agrarian protests, the greatest racial violence in the nation's history, the acquisition of an overseas empire, and intervention in the First World War. (Irreg.) [IV-WC].
HIST 3493 American Environmental History 3 Credit Hours Examine American attitudes toward the environment since the founding of American colonies, evolution of natural resource policies, and lives of prominent figures in the "conservation" and "ecology" movements of the late nineteenth and twentieth centuries. (F) [IV-WC].
HIST 3500 Special Topics in History
1-6 Credit Hours
Prerequisite: junior standing. May be repeated with change of content; maximum credit six hours. Covers topics not covered in current course listings or specific geographic area topics courses. (F, Sp)
HIST 3503 The World War II Era, 1918-1945
3 Credit Hours
Prerequisite: HIST 1483 or HIST 1493 or junior standing or permission of instructor. Treats origins, conduct and outcome of World War II in global setting. Emphasis on roles of national interest, policy making, relations of states, and effects of war on societies involved. (F) [IV-WC].

## HIST 3523 History after the Internet: Exploring Digital

History 3 Credit Hours
(Crosslisted with HSTM 3523) Prerequisite: Junior Standing. Examines major themes, issues, and developments affecting the research, writing, analysis, preservation and presentation of history in the digital age. Includes hands-on engagement with and critical assessment of the use of digital tools for conducting historical inquiry, and exploration of the circulation of historical knowledge in such venues as social media, blogs, podcasts, digital archives, online collections and historically-themed gaming. (Sp) [IV-WC].

HIST 3533 The History of Early American Women 3 Credit Hours Prerequisite: 1483 or 1493 , or junior standing. Explores the history of American women from the seventeenth century to the mid-nineteenth century by focusing on women's lives from a wide variety of perspectives including demographic change, sexuality, work patterns, and political involvement. (F) [IV-WC].

## HIST 3543 The History of Modern American Women 3 Credit Hours

Prerequisite: 1483 or 1493 , or junior standing. Explores the history of American women from the mid-nineteenth century to the present by focusing on women's lives from a wide variety of perspectives including demographic change, family life, sexuality, work patterns, and political involvement. (Sp) [IV-WC].

## HIST 3553 Slavery and the Civil War Era

3 Credit Hours
Prerequisite: HIST 1483 or HIST 1493, or junior standing, or permission of instructor. A course of lectures on the social, economic, political, intellectual and military aspects of the Civil War era. (Irreg.) [IV-WC].

## HIST 3563 Jerusalem

3 Credit Hours
Prerequisite: HIST 1483 or HIST 1493 or junior standing or permission of instructor. Examines how Jerusalem has been shaped by subjects as different as King David, Jesus, and Muhammed to soccer hooligans, suicide bombers, artists, and refugees. Also examines the Middle East conflict; the relationships between Jews, Christians, and Muslims; and historical and contemporary Israel. (Irreg.) [IV-WDC].
HIST 3573 Special Topics Colloquium 3 Credit Hours
Prerequisite: History major and junior standing or permission of instructor. May be repeated with change of topic, maximum credit 15 hours. A writing-intensive, open topic, seminar designed to improve students' research and writing abilities and introduce them to basic methodological issues in history. While the course is specifically meant to prepare students for their senior capstone course, the emphasis on research and writing will enhance their preparation for all upper-division history course. This course must be completed prior to enrolling for the senior capstone. (F, Sp)

HIST 3583 History of Sport in America
3 Credit Hours
Prerequisite: ENGL 1213 or EXPO 1213 or junior standing or permission of instructor. Examines the role of sport in American society, and uses sport as a device to explore social, historical and political topics like the commercialization of leisure, changing conceptions of masculinity, violence, racism, labor relations, gender relations, and working-class culture. (Irreg.) [IV-WC].

HIST 3593 Women in the American West
3 Credit Hours
Prerequisite: 1483 or 1493. Nineteenth-century gender ideologies, multicultural interaction and exchange, work roles and community building, participation in politics, and reform movements of women in TransMississippi West. (Irreg.) [IV-WC].
HIST 3603 The Spiritual Conquest of Latin America 3 Credit Hours Prerequisite: ENGL 1213 or EXPO 1213. This course deals with orthodoxy and its discontents in the golden age of Catholic empire. The Church was central to the spread of the Spanish and Portuguese empires across the globe, and in the policing of their subject peoples. This course will explore church and popular religion in this time, as well as some of its rich documents. (Irreg.)

HIST 3613 Roman Religion
3 Credit Hours
(Crosslisted with RELS 3613) Prerequisite: junior standing or permission of instructor. The course examines religious practices and beliefs in the Roman world from the founding of the Roman Republic to Late Antiquity, including conceptions of the divine, ways of worshiping the gods, civic and private religion, conceptions of the afterlife, magic, the mystery religions and salvation, and philosophical religions, through a survey of literary and archaeological evidence. (Irreg.)

## HIST 3623 Conformity and Dissent in the 1950s and

## 1960s

3 Credit Hours
Examines conformity and dissent in the 1950s and 1960s. Topics include the consumer culture, suburbia, the impact of television, 'McCarthyism', the Beats and the 1960s counterculture, student protest, civil rights and black nationalism, and women's liberation. (Irreg.) [IV-WC].
HIST 3633 American Indian History to $1880 \quad 3$ Credit Hours Prerequisite: ENGL 1213 or EXPO 1213, or junior standing, or permission of instructor. Examines the ways in which native societies in North America responded to European invasions between 1492 and 1890. Emphasis will be placed on Indian culture, the way in which it changed, and the various governmental attempts to destroy it. (Irreg.) [IV-WDC] .
HIST 3643 American Indian History Since $1865 \quad 3$ Credit Hours Prerequisite: ENGL 1213 or EXPO 1213; or junior standing, or permission of instructor. Examines American Indian history since the 19th century reservation era. Major themes include life patterns, cultural survival patterns, pan-Indian movements, the Indian Reorganization Act, relocation and termination policies, and self-determination issues. (Irreg.) [IV-WC].

## HIST 3653 American Jewish History 3 Credit Hours

Prerequisite: HIST 1483 or HIST 1493 or junior standing or permission of instructor. The course examines American Jewish experiences from 1654 to the present, and the ways in which Jews adapted to American life, constructed American-Jewish identities, and contributed to American politics and culture. Topics include: immigration, assimilation, gender norms, antisemitism, McCarthyism, suburbanization, the Holocaust, Israel, the civil rights movement, and political behavior, among others. (Irreg.) [IV-WC].

## HIST 3663 The American Presidency \& the Presidents, WashingtonTrump <br> 3 Credit Hours

Prerequisite: HIST 1483 or HIST 1493 or junior standing or permission of instructor. Provides an examination of the most important presidents in US history. Topics include the limits of presidential power, the separation of powers, leadership in war and peace, and the changing role of political parties, the press, and campaign contributions in shaping the office and those who fill it. (Irreg.) [IV-WC].
HIST 3673 Arguing over America, 1917-2001
3 Credit Hours Prerequisite: HIST 1483 or HIST 1493 or junior standing or permission of instructor. Examines how Americans argued over the nature of contemporary American society and culture, especially as applied to minority groups, from World War I until 9/11. (Irreg.) [IV-WC].
HIST 3683 Capitalism and Socialism 3 Credit Hours
Prerequisite: ENGL/EXPO 1213 or junior standing or permission of instructor. This course will focus on the development of socialism and capitalism in Europe and the United States. We study ideas and practice-the vision and the reality-of the two systems, examining their implications for economic and political organization, class and family relationships, and culture broadly defined. (Irreg.)

HIST 3690 Topics in Latin American History
1-5 Credit Hours
1 to 5 hours. May be repeated for credit with change of content. Discussion of a selected special problem or problems in the history of Latin America. (F)
HIST 3693 Spanish Borderlands
3 Credit Hours
Prerequisite: ENGL 1213 or EXPO 1213. Examines the region made up roughly of what are now the states of California (Baja and Alta), Arizona, New Mexico, Texas, Chihuahua, Coahuila, and Sonora; the colonial period. The peoples of the Southwest have responded to the challenges of coexistence both through violence and creative mutual adaptation. Students will gain knowledge of the varieties of colonial experience in the region. (Irreg.) [IV-WDC].
HIST 3703 Native Peoples of Latin America
3 Credit Hours
Prerequisite: ENGL 1213 or EXPO 1213. Explores the history of Latin America's indigenous peasantry and the issue of ethnicity in the modern world. Focus is on the people of Mexico, Guatemala, Peru and Brazil. (Irreg.) [IV-WDC].
HIST 3713 History of Mexico, 1800-Present
3 Credit Hours
Explores the history of Mexico from independence to the present.
Particular attention is paid to the issues of statebuilding, dependency, revolution, and post-revolutionary change. (Irreg.) [IV-WC].
HIST 3723 Africa Since 1945
3 Credit Hours
Prerequisite: ENGL 1213 or EXPO 1213. Thematically and chronologically examines social, political, cultural and economic developments in Africa from the end of World War II to the contemporary period. The growth of millenarian religious movements, nationalism, decolonization, and the post-colonial nation states are among the topics examined. (Irreg.) [IVWDC].
HIST 3733 History of Heaven and Hell in Judaism and

## Christianity

## 3 Credit Hours

Prerequisite: junior standing or permission of instructor. Traces the evolution of the concept of the afterlife, eternal reward and punishment in Judaism and Christianity from late Antiquity to the high Middle Ages. (Irreg.) [IV-WC].
HIST 3743 African-American History to $1877 \quad 3$ Credit Hours
Prerequisite: HIST 1483 or HIST 1493 or junior standing or permission of instructor. Traces the history of African-Americans from their African origins to the end of the Reconstruction of the southern United States in 1877. (Irreg.) [IV-WC].

HIST 3753 African-American History Since $1877 \quad 3$ Credit Hours Prerequisite: HIST 1483 or HIST 1493 or junior standing or permission of instructor. Considers African-American history in its national and international contexts from the post-emancipation South until the twentieth century. Topics include the African-American political traditions and activism. (Irreg.) [IV-WC].
HIST 3763 Genesis Through Jewish Eyes
3 Credit Hours
Prerequisite: junior standing or permission of instructor. Through a close reading of Genesis and its Jewish interpreters, this class takes one mode of reading to ask: How a minority tradition understands key passages, terms \& theologies. It also addresses how deducing the Bible's message depends on one's own presuppositions, and how another tradition can enhance one's own reading of Scripture. (Irreg.) [IV-WC].

HIST 3773 Jews and Christians--Middle Ages 3 Credit Hours Prerequisite: HIST 1113 or HIST 1223 or HIST 1613 or junior standing or permission of instructor. Traces the development of the relationship between the Jewish minority and the Christian majority in medieval Europe, from the fifth century to the early modern period. Discusses how Jews and Christians dealt with and imagined each other. (Irreg.) [IV-WC].

HIST 3783 Slavery and the Atlantic World 3 Credit Hours
Prerequisite: HIST 1483 or HIST 1493 or equivalent. Exploring Atlantic slavery from the 15th to 19th centuries, and moving from Africa to the Caribbean to the colonies of the Americas, this course centers the lives and voices of the enslaved. We also explore the growth of the Atlantic slave trade, how early modern people thought about racial difference, anti-slavery activism, and the challenges of studying this history. (Irreg.)
HIST 3793 Imperial Russia 3 Credit Hours A study of the origins and growth of the Russian Empire, origins and development of autocracy and serfdom, Russia's emergence as a great power, its reforms and revolutions. (Sp, Su) [IV-WC].
HIST 3803 The Era of the Russian Revolutions 3 Credit Hours Deals specifically with the conditions and events of change in Russia between 1905 and 1921. Seeks to take into account the broad questions of industrialization and backwardness, the popular responses to these matters and the rise of radical groups. Beyond this setting, major attention will be placed on the dissolution of the old regime during World War I and the two revolutions of March and November 1917, as well as the civil wars and the NEP. (Sp)
HIST 3813 Twentieth-Century Russian History 3 Credit Hours Detailed study of political, social, cultural and economic developments in the Soviet Union in world affairs. (F) [IV-WC].

## HIST 3823 Law and Punishment

3 Credit Hours
Prerequisite: junior standing or permission of instructor. Examines how four ancient polities-classical Athens, imperial Rome, early China, and the Hebrew tribes, as represented in the Hebrew Bible--meted out, and justified, punishment. Where possible, we willprobe contemporary debates about punishment, but we will also closely scrutinize portions of the still extant codes and commandments from these polities relating to various criminal activities of interest. (Irreg.) [IV-WC].

## HIST 3833 Archaeology of the Lands of the Bible 3 Credit Hours

 (Crosslisted with RELS 3833) Prerequisite: junior standing. Examines the lands, cultures, and people associated with the Hebrew Bible and the New Testament through a chronological survey of archaeological evidence and investigates the relationship between archaeology and biblical texts. The course also investigates archaeological evidence for Jewish and Christian practices in late Roman Palestine as well as archaeological and architectural evidence for early Islamic Jerusalem. (Sp) [IV-WC].HIST 3843 Latin American Independence 1750-1880 3 Credit Hours (Crosslisted with IAS 3843) Prerequisite: HIST 2613 or HIST 2623 or junior standing or permission of instructor. Covers history of Latin America from the crisis and dissolution of the Iberian empires through the consolidation of independent republics, a period bridging the colonial and modern periods in the region's history. (Irreg.)
HIST 3853 Japan to $1850 \quad 3$ Credit Hours
Prerequisite: ENGL 1213 or EXPO 1213. Traces the history of Japan beginning with the earliest Jomon and Yayoi cultures and ending with the unraveling of the last feudal regime in the nineteenth century. (Irreg.) [IVWDC].
HIST 3863 Japan Since 1850
3 Credit Hours
Prerequisite: ENGL 1213 or EXPO 1213. Designed to introduce students to the history of Japan from the 1850's to the present. Will include the Meiji restoration, industrial development, imperial expansion, wartime mobilization, the U.S. occupation, economic recovery and high growth, and the changing political and popular culture of the 1980s and 1990s. (Irreg.) [IV-WDC].

HIST 3873 Early Imperial China
3 Credit Hours
Prerequisite: ENGL 1213 or EXPO 1213. The cultural, political, economic, and social transformations China underwent during the period from the Sui to the Song dynasties. (Alt. F) (Irreg.) [IV-WDC].
HIST 3883 Late Imperial China
3 Credit Hours
Prerequisite: ENGL 1213 or EXPO 1213. The cultural, political, economic, and social transformations China underwent during the rule of its later dynasties from the 13th-century Mongol conquest to the final struggles and collapse of China's existence as an empire with the Revolution of 1911. (Irreg.) [IV-WDC].

HIST 3893 Greek Religion
3 Credit Hours
(Crosslisted with RELS 3893) Prerequisite: junior standing or permission of instructor. Examines the religious rituals, beliefs, and sacred sites of the ancient Greeks. Considers such topics as the relationship between myths and ritual, sacred time and space, concepts of the afterlife, and the role of religion in the family and city-state. (Irreg.)
HIST 3913 Jews \& Hollywood
3 Credit Hours
Prerequisite: HIST 1483 or HIST 1493 or equivalent. This class examines how Jewish immigrants helped found the motion picture industry; the role of Jews in the industry as it evolved over the course of the 20th century; the representation (and invisibility) of Jews on film; how that representation has changed over time; and how Americans have interpreted the large presence of Jews in the American film industry. (Irreg.)
HIST 3923 China Since 1911
3 Credit Hours
Prerequisite: ENGL 1213 or EXPO 1213. An examination of Chinese history since the Revolution of 1911, including the development of Republican and Communist thought, warlord rule, China's tumultuous wartime period, and the rise of the People's Republic of China (PRC). Also covers the history of the PRC, China after Mao, Taiwan and China's changing position in the world. (Irreg.) [IV-WDC].
HIST 3933 U.S. Queer History 3 Credit Hours
(Crosslisted with WGS 3933) Prerequisite: Junior standing. The last 130 years have been a time of incredible change for LBGTQ people and the meanings of sexuality in the United States. We will trace LGBTQ experience and community formation, the policing of queer communities, and the constructions of queerness in pop culture, medicine, the law, and politics, as well as how these histories inform our own time. (Irreg.) [IVWC].
HIST 3943 Muslim Societies in Africa
3 Credit Hours
Prerequisite: ENGL 1213 or EXPO 1213. Explores the history, nature, and dynamics of Islam in Africa -- Early Islam; Muslin Societies/Groups; Islamic fundamentalism; Women and Islam; Religious practices/ education; prayers/rituals; Africanization of Islam. (Irreg.) [IV-WDC].
HIST 3950 Topics in Middle Eastern History 1-3 Credit Hours 1 to 3 hours. Prerequisite: junior standing. May be repeated with change of content; maximum credit nine hours. Discussion of a selected problem or problems in Middle Eastern history. (Irreg.)
HIST 3953 The Modern Middle East
3 Credit Hours
Prerequisite: ENGL 1213 or EXPO 1213. Explores the political and social history of the modern countries of Egypt, Iraq, Israel, Jordan, Lebanon, Saudi Arabia, Syria and Turkey and areas affected by them from 1500 to the present. (F) [IV-WDC].

HIST 3960 Honors Reading
1 to 3 hours. Prerequisite: admission to Honors Program and permission. May be repeated; maximum credit six hours. Will consist of topics designated by the instructor in keeping with the student's major program. The topics will cover materials not usually presented in the regular courses. (F, Sp, Su)

HIST 3963 From Zionism to Modern Israel
3 Credit Hours
Prerequisite: junior standing. Examines the historical evolution of the Zionist movement in the second half of the 19th century through the establishment of the State of Israel in the mid-20th century within the framework of Jewish modernization, antisemitism, and conflicting modern nationalisms. (Irreg.) [IV-WC].

## HIST 3970 Honors Seminar

1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. The projects covered will vary. The content will deal with concepts not usually presented in regular coursework. (Sp, Su)
HIST 3973 Judaism - A Religious History 3 Credit Hours
Prerequisite: ENGL 1213 or EXPO 1213. Introductory survey of Judaism from its earliest origins in the ancient Near East to the present. Development of ideas, forms of worship, and religious expression as well as sectarian trends and variations will be examined. (Irreg.) [IV-WDC].

## HIST 3980 Honors Research <br> 1-3 Credit Hours

1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Provides an opportunity for the gifted Honors candidate to work at a special project in the student's field. (F, Sp, Su)
HIST 3990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: permission of instructor and junior standing. May be repeated once with change of content. Independent study may be arranged to study a subject not available through regular course offerings. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

## HIST 3993 The Evolution of Martyrdom in the Judeo-Christian Civilization <br> 3 Credit Hours

Prerequisite: junior standing. Traces the historical development of martyrdom in Judaism and Christianity to understand what motivated individuals and communities to give up their lives for their convictions. Compare the evolution of the idea of martyrdom in Judaism and Christianity to identify differences and similarities between these two faiths. (Irreg.) [IV-WC].

## HIST 4003 Jews and Other Germans

3 Credit Hours
Prerequisite: Junior standing or permission of instructor. Discusses the history and culture of the Jews in Germany from 1750 until the Nazi period. Focuses on the internal dimension of the German-Jewish experience and analyze the contribution of Jews to the German culture. (Irreg.) [IV-WC].
HIST 4023 Inquisitions 3 Credit Hours Prerequisite: 1223 or 1233 or junior standing or permission of the instructor. Examines the historical roots of inquisitions in order to better understand how they have shaped modern conflicts. The mechanisms people used for disciplining themselves, for imposing control on others, and for evaluating who has the right to participate in society reveals people's fears, priorities, and weaknesses. (Irreg.) [IV-WC].

HIST 4073 Cultural Heritage Data and Social Engagement 3 Credit Hours
(Slashlisted with HIST 5073; Crosslisted with WGS, HSTM and LIS 4073) Prerequisite: Junior standing. This course uses methods from digital humanities, media studies, and data science to explore cultural heritage -- the histories, literature, art, and artifacts of our world's cultures. It particularly focuses on cultural heritage in digital public spaces: websites, social media, etc. No prior background in computer programming is necessary. No student may earn credit for both 4073 and 5073. (F)

HIST 4083 Museums, Monuments, Memory 3 Credit Hours
Prerequisite: HIST 1223 or HIST 1233 or HIST 1613 or HIST 1623 or HIST 1923 or junior standing or permission of instructor. Globally oriented course that explores how national and ethnic memory play a key role in the formation of social and cultural identities. Emphasis is placed on rituals, "sites of memory," monuments, museums and their publics. (Irreg.)

HIST 4203 Classical China
3 Credit Hours
Prerequisite: ENGL 1213 or EXPO 1213. Examines the roots of Chinese civilization, from its pre-historical origins through its emergence as a formidable empire to its devolution during a lengthy period of civil war after the end of the Han dynasty. (Irreg.) [IV-WDC].

HIST 4213 China's Art of War
3 Credit Hours
Prerequisite: ENGL 1213 or EXPO 1213. Scope of course is both the theory and practice of warfare in China's pre-modern eras; discussion of some of the most renowned texts on military strategy, and the theoretical issues that are involved in strategizing about and preparing for war. Study of the cause and effect of various wars from the earliest periods to just before the modern period. (Irreg.) [IV-WDC].
HIST 4313 American Foreign Policy, 1900-45 3 Credit Hours Prerequisite: HIST 1483 or HIST 1493 or junior standing or permission of instructor. Explores the globalization of American foreign relations, from the origins of late 19th century expansion to the diplomacy culminating in the creation of the United Nations at the end of World War II. (Irreg.)

## HIST 4343 The Vietnam War

3 Credit Hours
Prerequisites: 1483 or 1493 or junior standing or permission of instructor. This course explores the origins of the Vietnam War, how the United States waged the war, the impact of the war on American culture, and the meaning of the United States defeat in Vietnam. (Irreg.) [IV-WC].
HIST 4393 American Working Class
3 Credit Hours
Prerequisite: HIST 1483 or HIST 1493 or junior standing or permission of instructor. This course examines the working- and lower-class experience in America from the colonial period to the present. Topics include: social banditry and piracy, slavery, rise of the factory, scientific management, women and work, 19th and 20th century labor movement, radicalism, prostitution, and working-class masculinity. (Irreg.) [IV-WC].
HIST 4403 Mussolini, Fascism, \& America 3 Credit Hours
Prerequisite: HIST 1483 or HIST 1493, or junior standing, or permission of instructor. Explores the nature of fascism \& Mussolini's rule from 1922 until his death in 1945, including the cult of II Duce, fascist architecture and the fascist aesthetic in general, fascism and youth, fascism and conquest, and the American response to Italian fascism in the 1920s and 1930s. (Irreg.) \{IV-WC\}

HIST 4453 American Military History 1860-Present 3 Credit Hours
Prerequisite: HIST 1483 or HIST 1493 or junior standing or permission of instructor. Explores United States military history from the Civil War through the modern age. With a special emphasis on politics, culture, and rapidly changing technology, this class focuses on the evolution of the American way of war as well as the transformative nature of war on the nation. (Irreg.)
HIST 4493 Africa and the Atlantic Slave Trade 3 Credit Hours (Crosslisted with AFAM 4493) Prerequisite: ENGL 1213 or EXPO 1213. About the changing nature of slavery in and the impact of slave trading on Africans in their homelands and in the diaspora. Origins in Africa; rise of the Atlantic trade; impact of the trade; middle passage, etc. (Irreg.) [IVWDC].
HIST 4503 Brazil, 1500-2000

## 3 Credit Hours

Prerequisite: 2613 or 2623 or junior standing or permission of instructor. Surveys the history of Brazil from contact to 2000. Touches on the preColumbian period, but focuses on the social, cultural, economic and political transformation of the region under Portuguese and Brazilian rule. (Irreg.) [IV-WC].

HIST 4513 Intellectuals \& Artists in Modern Latin

## America

## 3 Credit Hours

(Crosslisted with IAS 4513) Prerequisite: 2613 or 2623 or junior standing or permission of instructor. Examines both the history of ideas in modern Latin America as well as the history of intellectuals as a social group. We will consider intellectuals in the process of independence and the consolidation of nation states, the role of "race" in Latin American thought, and the relationship between European and Latin American thought. (Irreg.) [IV-WC].

## HIST 4523 Latin American Left

3 Credit Hours
(Crosslisted with IAS 4523) Prerequisite: 2613 or 2623 or junior standing or permission of instructor. This course examines the shifting political tactics and theoretical positions of a variety of leftist movements in Latin America since the early 20th century. We will examine leftist thought on the nature of Latin American development, approaches to commercial culture, and labor organizing, among other topics. (Irreg.) [IV-WC].
HIST 4533 Populism in 20th-Century South America 3 Credit Hours (Crosslisted with IAS 4533) Prerequisite: 2613 or 2623 or junior standing or permission of instructor. This course examines the phenomenon of Latin American "populism," a set of political movements that held a central place in 20th-century Latin American history. We will focus on three cases as they relate to the broader economic and social processes in the region as a whole: Brazil; Argentina; and Chile. (Irreg.) [IV-WC].

## HIST 4543 Latin America in the Age of the Cuban

## Revolution 3 Credit Hours

(Crosslisted with IAS 4543) Prerequisite: 2613 or 2623 or junior standing or permission of instructor. This course is an in-depth examination of Latin American history of the period 1955-1973. We cover changes in politics, economics, literature, film, music, and theology in what many Latin Americans called the "revolutionary process" of the period. (Irreg.) [IV-WC].

## HIST 4553 Environmental History of Latin America 3 Credit Hours

 Prerequisite: ENGL 1213 or EXPO 1213. Serves as a broad-based study of the environmental history of Latin America. We will examine the history of human interactions with the natural world in this region from pre-Colombian and colonial eras through contemporary times. Heavy emphasis will be placed on comparing native life-ways with the changes wrought by European colonization and the results on the land (Irreg.) [IVWDC].HIST 4563 History of India
3 Credit Hours
Prerequisite: HIST 2723 or junior standing or permission of instructor. This course will survey the social, cultural, political and colonial histories of India beginning with the emergence of one of the earliest human civilizations in the Indus valley. Topics include: politics and culture before, during and after colonization; religion; and economic and social history. (Irreg.) [IV-WDC].
HIST 4950 History Internship
1-3 Credit Hours
1 to 3 hours. Prerequisite: History major and junior standing, and permission of instructor. May be repeated; maximum credit six hours. Allows history majors to receive credit for qualifying internships appropriate to the subject. Students who complete the course engage in service learning that focuses on historical content. (F, Sp, Su)

## HIST 4960 Directed Readings

1-4 Credit Hours
1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean. May be repeated; maximum credit four hours. Designed for upper-division students who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)

HIST 4970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: Senior standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)
HIST 4973 Undergraduate Seminar in History 3 Credit Hours Prerequisite: History majors may enroll only after completing 75 credit hours of undergraduate coursework, 24 hours of which must be history. Non-majors may enroll with permission of instructor. May be repeated with change of content; maximum credit nine hours. Extensive research in historical sources and literature relating to a special problem or topic selected by the instructor. Emphasis will be on the individual preparation of research papers. (F, Sp, Su) [V].
HIST 4990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: three courses in general area to be studied; permission of instructor and department. May be repeated; maximum credit six hours. Contracted independent study for topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (F, Sp, Su)
HIST 5001 Navigating The History Profession 1 Credit Hour Prerequisite: graduate standing or permission of instructor. Introduction to the various fields of historical inquiry, resources for historical research, and how to navigate the history profession -- conferences, grants, the job market --and the OU graduate programs, M.A. and Ph.D. (F)

HIST 5050 Directed Readings in History
1-4 Credit Hours
Prerequisite: graduate standing. Graduate-level independent study for master's candidates only. (Irreg.)
HIST 5073 Cultural Heritage Data and Social Engagement 3 Credit Hours
(Slashlisted with HIST 4073; Crosslisted with WGS, LIS and HSTM 5073) Prerequisite: Graduate standing. This course uses methods from digital humanities, media studies, and data science to explore cultural heritage -- the histories, literature, art, and artifacts of our world's cultures. It particularly focuses on cultural heritage in digital public spaces: websites, social media, etc. No prior background in computer programming is necessary. No student may earn credit for both 4073 and 5073. (F)

HIST 5110 Independent Studies in European History 1-4 Credit Hours 1 to 4 hours. Prerequisite: permission of instructor. May be repeated with change of content; maximum credit 15 hours. Independent study, arranged between the professor and student, in the history of Europe. (F, Sp, Su)

HIST 5210 Independent Studies in American History 1-4 Credit Hours 1 to 4 hours. Prerequisite: permission of instructor. May be repeated with change of content, maximum credit 15 hours. Independent study, arranged between the professor and student, in the history of America. ( F Sp, Su)
HIST 5310 Independent Studies in Latin American

## History <br> 1-4 Credit Hours

1 to 4 hours. Prerequisite: permission of instructor. May be repeated with change of content, maximum credit 15 hours. Independent study, arranged between the professor and student, in the history of Latin America. (F, Sp, Su)

HIST 5410 Independent Studies in African History 1-4 Credit Hours 1 to 4 hours. Prerequisite: permission of instructor. May be repeated with change of content; maximum credit 15 hours. Independent study, arranged between the professor and student, in the history of Africa. (F, Sp, Su)

HIST 5510 Independent Studies in Asian History 1-4 Credit Hours 1 to 4 hours. Prerequisite: permission of instructor. May be repeated with change of content; maximum credit 15 hours. Independent study, arranged between the professor and student, in the history of Asia. (F, Sp)

## HIST 5960 Directed Readings

1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing and permission of department. May be repeated; maximum credit twelve hours. Directed readings and/or literature reviews under the direction of a faculty member. (F, Sp, Su)

HIST 5970 Special Topics
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or research and field projects. (Irreg.)

HIST 5980 Research for Master's Thesis 2-9 Credit Hours
Variable enrollment, two to nine hours; maximum credit applicable toward degree, four hours. (F, Sp, Su)

HIST 5990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)

HIST 6050 Research Problems 2-5 Credit Hours 2 to 5 hours. Prerequisite: 12 hours of history and permission. May be repeated with change of content; maximum credit 15 hours. An individual course of intensive research with the area and problem to be determined by the student and directing instructor. (F, Sp, Su)

HIST 6160 Advanced Readings in European History 1-4 Credit Hours 1 to 4 hours. Prerequisite: permission of instructor; student must be at Ph.D. level. May be repeated with change of content; maximum credit 15 hours. Independent study in the history of Europe; designed to give students the opportunity to do intensive readings in his/her major fields of study under direct guidance of his/her advisory committee. (F, Sp, Su)

HIST 6200 Seminar in European History
2-4 Credit Hours
2 to 4 hours. Prerequisite: Graduate standing with permission; May be repeated with change of content, maximum credit 18 hours. Training in historical research, bibliography and historiography, featuring reports and criticism. (F, Sp)

## HIST 6230 Advanced Directed Readings in Medieval

 History1-5 Credit Hours
1 to 5 hours. Prerequisite: master's degree or equivalent in history, reading knowledge of French and German and permission of instructor. May be repeated with change of content and permission; maximum credit 18 hours. A supervised program of readings on a selected special problem in medieval history. (F)

HIST 6260 Advanced Readings in American History 1-4 Credit Hours 1 to 4 hours. Prerequisite: permission of instructor; student must be at Ph.D. level. May be repeated with change of content; maximum credit 15 hours. Independent study in American history; designed to give students the opportunity to do intensive readings in his/her major fields of study under direct guidance of his/her advisory committee. (F, Sp)

HIST 6300 Seminar in Latin American History 1-4 Credit Hours
1 to 4 hours. Prerequisite: Graduate standing and permission; May be repeated with change of content, maximum credit 18 hours. Training in historical research, bibliography and historiography. Features reports and criticism. (Irreg.)

HIST 6360 Advanced Readings in Latin American History 1-4 Credit Hours
1 to 4 hours. Prerequisite: permission of instructor; student must be at Ph.D. level. May be repeated with change of content; maximum credit 15 hours. Independent study in Latin American history; designed to give students the opportunity to do intensive readings in his/her major fields of study under direct guidance of his/her advisory committee. (F, Sp)

HIST 6400 Seminar in American History 1-4 Credit Hours 1 to 4 hours. Prerequisite: Graduate standing with permission; May be repeated with change of content, maximum credit 24 hours. Training in historical research, bibliography and historiography. Features reports and criticism. (F, Sp)

HIST 6460 Advanced Readings in African History 1-4 Credit Hours 1 to 4 hours. Prerequisite: permission of instructor; student must be at Ph.D. level. May be repeated with change of content; maximum credit 15 hours. Independent study in African history; designed to give students the opportunity to do intensive readings in his/her major fields of study under direct guidance of his/her advisory committee. (F, Sp)

HIST 6500 Seminar in Transnational Women's and Gender History

1-4 Credit Hours
1 to 4 hours. Prerequisite: Graduate standing; May be repeated with change of content; maximum credits 8 hours. The course introduces students to the theoretical foundations and research methods in transnational women's and gender history. Students will develop competency in feminist theories and build expertise in the historiographies of women and gender in their subfields. (Irreg.)

HIST 6560 Advanced Readings in Asian History 1-4 Credit Hours 1 to 4 hours. Prerequisite: permission of instructor; student must be at Ph.D. level. May be repeated with change of content; maximum credit 15 hours. Independent study in Asian history; designed to give students the opportunity to do intensive readings in his/her major fields of study under direct guidance of his/her advisory committee. (F, Sp, Su)

HIST 6600 Seminar in Middle Eastern History 1-4 Credit Hours 1 to 4 hours. Prerequisite: graduate standing with permission. May be repeated with change of content; maximum credit 12 hours. Training in historical research, bibliography and historiography. Features reports and criticism. (Irreg.)
HIST 6700 Seminar in Transnational History 1-4 Credit Hours 1 to 4 hours. Prerequisite: graduate standing. May be repeated with change of content; maximum credit nine hours. The course aims to engage the histories and legacies of nationalism, colonialism, and other transnational historical phenomena. Particular emphasis will be given to discussing national, transnational, and colonial systems and how those systems shaped identities, race, ethnicities, national and transnational dynamics, and created transnational subjectivities. (Irreg.)
HIST 6800 Seminar in Modern Japanese History 1-4 Credit Hours 1 to 4 hours. Prerequisite: graduate standing with permission. May be repeated with change of content; maximum credit 12 hours. Training in historical research, bibliography, and historiography. Features reports and criticism. (Irreg.)
HIST 6880 Readings and Research in Public History 1-4 Credit Hours 1 to 4 hours. Prerequisite: Graduate standing; May be repeated with change of content; maximum credits 8 hours. This course introduces the practice of public history. Students will meet with practicing public historians; have a reasonable writing component with relatively brief individual assignments across the semester; and work in teams with a client and produce a final product that addresses the client's needs and a final report that summarizes the team's objectives, research strategies, challenges, and conclusions. (Irreg.)

HIST 6960 Directed Readings
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit six hours. Directed readings and/or literature review under the direction of a faculty member. (Irreg.)

## HIST 6970 Special Topics

1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit 12 hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or research and field projects. (Irreg.)

HIST 6980 Research for Doctoral Dissertation 2-16 Credit Hours 2 to 16 hours. Prerequisite: Graduate standing and permission of instructor; may be repeated. Directed research culminating in the completion of the doctoral dissertation. (F, Sp, Su)
HIST 6990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)

## HMS-Health, Medicine, and Society

HMS 1113 Introduction to Health, Medicine and Society 3 Credit Hours Class explores health and disease in different cultural and historical contexts. In the first half of the class we focus on the ways individuals experience disease, examining how gender, race, ethnicity, class and sexuality shape medical knowledge about disease, individuals' lived experience, and social perceptions of sufferers. In the second half, we focus on epidemic diseases. (F, Sp) [IV-WC].

HMS 3980 Honors Research
1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Provides an opportunity for the gifted Honors candidate to work at a special project in the student's field. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

HMS 4430 Health, Medicine, and Society Internship 1-4 Credit Hours 1 to 4 hours. Prerequisite: Student must be HMS major with Junior standing; have a minimum 2.5 GPA; and have permission of HMS internship liaison, supervising faculty, and internship granting agency. The purpose of the HMS Internship Program is to provide a planned experience in the community that is relevant to the student's major program of study. This can be work in a facility or with an organisation that is engaged in the delivery of health care to the community, or another relevant aspect of service learning. (Irreg.)
HMS 4993 Health, Medicine and Society Capstone 3 Credit Hours Prerequisite: Senior standing. This is the senior capstone for the Health, Medicine and Society Major. We will discuss important works in the history, anthropology and sociology of medicine. You will develop a research project on a topic of your choosing and work on it throughout the course. (F) [V].

## HON-Honors College

HON 2963 Perspectives on the Global Experience 3 Credit Hours Prerequisite: Admission to Honors College; May be repeated with change of content, maximum 6 hours. Perspectives courses explore a broad subject from multiple perspectives. 2963 is an interdisciplinary investigation of the social, economic, and political realities of life and culture in non-Western geographic areas, such as Asia, Africa, Oceania, and Latin America. Geographic focus and topic vary by course title and instructor; see Honors College website for current offerings. This course is writing intensive. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
HON 2970 Honors Seminar
3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors College Curriculum. May be repeated; maximum credit six hours. ( $F, S p$ )
HON 2973 Perspectives on the American Experience 3 Credit Hours Prerequisite: Permission of Honors College; May be repeated; maximum credit six hours. Perspectives courses explore a broad subject from multiple perspectives. 2973 is an interdisciplinary investigation of the social, economic, and political realities of North American life and culture from the late nineteenth century to the present. Specific topics vary by course title and instructor; see Honors College website for current offerings. This course is writing intensive. (Sp)

## HON 3440 Mentored Research Experience <br> 3 Credit Hours

0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)

## HON 3960 Honors Reading

1-3 Credit Hours
1 to 3 hours. Prerequisite: Admission to Honors College; departmental permission; May be repeated; maximum credit six hours. Will consist of topics designated by the instructor. The content will emphasize work not presented in other courses. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

HON 3970 Honors Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: member of Honors College Curriculum in good standing. May be repeated; maximum credit six hours. An upper-division Honors College course to be used by departments and by the Honors College. (F, Sp, Su)

HON 3980 Honors Research 1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated with change of content; maximum credit six hours. Will provide an opportunity for the gifted Honors candidate to work at a special project under the guidance of a professor in the student's field. (F, Sp, Su)

HON 3990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: permission of instructor and junior standing.
May be repeated once with change of content. Independent study may be arranged to study a subject not available through regular course offerings. (F, Sp, Su)

HON 3993 Honors Colloquium
3 Credit Hours
Prerequisite: admission to and good standing in Honors College Curriculum. May be repeated with change in course topic. An interdepartmental course involving two or more instructors from different departments. (Sp)

## HPCD-Harpsichord

HPCD 2000 Freshman and/or Sophomore Secondary Harpsichord 1-2 Credit Hours
1 to 2 hours. Prerequisite: Majors only; departmental permission; may be repeated; maximum credit 8 hours. B.M.A., B.M.E., and B.M. degrees, eight hours. For freshman and sophomore music students studying in a secondary (or minor) performance area. (F, Sp)

HPCD 3440 Mentored Research Experience 3 Credit Hours 0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)

HPCD 4000 Junior and/or Senior Secondary Harpsichord 1-2 Credit Hours
1 to 2 hours. Prerequisite: Junior standing, majors only, and HPCD 2000; may be repeated; maximum credit 8 hours. B.M.A., B.M.E., and B.M. degrees, eight hours. For junior and senior music students studying in a secondary (or minor) performance area. (F, Sp)

# HSTM-History of Science, Technology, and Medicine 

HSTM 1113 Science, Nature and Society: Historical Perspectives

3 Credit Hours
An introduction to the study of science, technology, and medicine in light of historical, philosophical, and cultural analysis. Focusing on the relationships between science, nature, and society, this class introduces some of the big questions about who we are, who we have been, and who we might become. (Irreg.) [IV-WC] .

HSTM 1313 Disasters
3 Credit Hours
How have technologies both increased and mitigated risks from natural disasters? How have human societies responded to human-made disasters and assessed the potential risks raised by new technologies? Taking a global perspective, we will examine responses to both natural and human disasters and consider the challenges to formulating fair and effective policies that minimize the risks posed by emerging technology. (Sp) [IV-WC].

HSTM 2033 Introduction to Digital Humanities
3 Credit Hours
(Crosslisted with LIS, WGS and HIST 2033) This course introduces students to digital and/or computational methods in the humanities and addresses critical questions about the role of digital technology in society. This is a collaborative, hands-on, project-based course. (Sp) [IVWC].

HSTM 2133 Science and Popular Culture
3 Credit Hours
Draws on interdisciplinary perspectives to examine the interplay between science and popular culture from the Scientific Revolution to the present. Topics include representations of science, scientists, and nature in popular literature, television, films, and documentaries; the development of zoos and science museums; children and science, and science journalism. (Sp) [IV-WC].

HSTM 2213 The Darwinian Revolution
3 Credit Hours
The "Darwinian Revolution" was a revolution in culture as well as biology. We consider the history of the social, political, and theological issues associated with the development of evolutionary thought from the early nineteenth century to the present. (Irreg.) [IV-WC].

HSTM 2423 Social and Ethical Issues in Science, Technology, Environment and Medicine 3 Credit Hours
An introduction to a range of social and ethical issues in the history of science, technology, environment and medicine. Including the social, political and ethical implications of technology and scientific knowledge, and the role they play in shaping our environment and our selves. (Irreg.) [IV-WC].

HSTM 2970 Special Topics/Seminar 1-3 Credit Hours 1 to 3 hours. Prerequisite: May be repeated; Maximum credit nine hours. Special Topics. 1 to 3 hours. Special topics course for content not currently offered in regularly scheduled courses. May include library and/ or laboratory research, and field projects. (Irreg.)

HSTM 3013 History of Science to the Age of Newton 3 Credit Hours Prerequisite: junior standing, or completion of one History of Science lower-division course, or permission of instructor. A survey of Western people's efforts to understand the natural world, from earliest historical times to the seventeenth century. (F, Sp, Su) [IV-WC].

## HSTM 3023 History of Science Since the Seventeenth

Century 3 Credit Hours
Prerequisite: junior standing, or completion of one History of Science lower-division course, or permission of instructor. A survey of the historical and intellectual development of modern science. (F, Sp, Su) [IVWC].

HSTM 3223 Gender Issues in Science, Technology and
Medicine 3 Credit Hours
Prerequisite: junior standing, or completion of one History of Science lower-division course, or permission of instructor. Historical analysis of gender issues in science, technology and medicine, and in comparison with current practices. Topics will include questions in scientific method, particularly the concept of "objectivity," bio-social theories of gender; gender issues in scientific inquiry, in the development of and engagement with technologies, and in medical thought and practice; media images; and feminist science fiction. (Irreg.) [IV-WC].

HSTM 3243 Women and Medicine
3 Credit Hours
Prerequisite: junior standing, or completion of one History of Science lower-division course, or permission of instructor. Surveys the relationship between women and medicine in the modern period (roughly between 1750 and the present). Examines the interrelated histories of women as medical practitioners, patients and objects of medical knowledge. Also includes discussion on how women experienced illness in the past and the expectations and norms that shaped their illness experiences. Finally, a look at medical knowledge about (Sp) [IV-WC].
HSTM 3253 Race and Science
3 Credit Hours
Prerequisite: junior standing or completion of one History of Science course or permission of instructor. Examines the rise and fall of scientific conceptions of race from 1800 to the present, paying particular attention to its connections to 19th Century evolutionary theory, eugenics, the modern evolutionary synthesis, and recent genetics and genomics. Also looks at the role of cultural values associated with race in science more broadly. Course materials include films and novels as well as (F, Sp) [IVWC].

HSTM 3263 History of Public Health
3 Credit Hours
(Crosslisted with HIST 3263) Prerequisite: Junior Standing or a lower division HSTM course or HIST 1733 or HIST 2723 or Permission of Instructor. Taking an historical perspective students explore and analyze the social, economic, political and scientific events and processes that have shaped modern public health. (F) [IV-WC].

## HSTM 3273 Of Acupuncture, Medicine Men \& Ayurveda: Indigenous \&

 Non-Western Medicine in Perspective 3 Credit Hours(Crosslisted with HIST 3273) Prerequisite: Junior Standing or a lower division HSTM course or HIST 1733 or HIST 2723 or Permission of Instructor. Introduces histories of practices and systems of medicine and healing that are variously deemed 'indigenous', traditional', 'nonwestern,' 'alternative' and 'complementary' in historical context. Students critique the historical and cultural meaning of these terms, as well as their attendant conceptions of health, disease and the body. (F) [IV-WDC].
HSTM 3283 Introduction to Disability Studies 3 Credit Hours
Prerequisite: junior standing or permission of instructor or completion of one lower-division History of Science course. Students engage text, audio and video sources to examine the social and cultural experience of disability in different times and cultures to critically assess how culture (mis)represents disability and corporeal difference. (F) [IV-WC].

## HSTM 3293 Environment and Health

3 Credit Hours
Prerequisite: Junior standing or permission of instructor. This course explores the complex and changing relationship between the environment and health over the past 500 years, blending environmental history, the history of ecological science, and the history of environmental movements. Because the human-made environmental changes of the twentieth century could spell our own extinction, understanding the connections between environment and health is ever more urgent. (Sp) [IV-WC].

HSTM 3313 Science and Technology in Asian History 3 Credit Hours Prerequisite: junior standing, or completion of one History of Science lower-division course, or permission of instructor. Examines science and technology in east, south, and southeast Asia from 1000 A.D. to the present. We examine the influence and interaction of knowledge traditions (especially Chinese, south Asian and Islamic), how they circulate around and beyond Asia, and interactions with European knowledge traditions, culminating in examinations of political and ethical dimensions of science and technology in contemporary Asia. (Irreg.) [IVWDC].

HSTM 3333 Technology and Society in World History 3 Credit Hours Prerequisite: junior standing, or completion of one History of Science lower-division course, or permission of instructor. A survey of the history of technology since 1500. Emphasizes historical contexts and cultural meanings, not technical details, as it explores the key steps in the construction of our modern technological world. Materials include literature and film as well as non-fiction. (Sp) [IV-WC].

HSTM 3343 Revolution in Power. the Evolution of Energy Systems from Fossil Fuels to Renewables 3 Credit Hours
(Crosslisted with P E 3343) Prerequisite: Junior standing, or completion of one History of Science lower-division course, or permission of instructor. This course provides an interdisciplinary perspective on energy systems in both their technical and human contexts, from fossil fuels to renewables, with particular focus on their social, culture, and environmental implications for Western society and the world. The history and evolution of the associated technologies will be discussed, with attention to non-western and indigenous perspectives on these global technological systems. (F) [IV-WC].

HSTM 3353 Science and Empire
3 Credit Hours
Prerequisite: junior standing or one previous HSCl course or permission of instructor. Examines the contested history of science and empire from both western and non-western perspectives, learning about colonial and post-colonial encounters in science, both imagined and lived. Materials include travelers' tales, explorers' accounts, fiction, and films as well as nonfiction. (Sp) [IV-WC].

HSTM 3413 Biomedical Ethics
3 Credit Hours
Prerequisite: Junior standing, or completion of one History of Science lower-division course, or permission of instructor. Introduces key concepts in biomedical ethics. Topics may include: the doctor/patient relationship; medical research on humans and animals; reproductive rights and technologies; medical decisions at the end of life; and the allocation of scarce resources. (Irreg.) [IV-WC].

HSTM 3423 Modern Medicine - A Historical Introduction 3 Credit Hours Prerequisite: junior standing, or completion of one History of Science lower-division course, or permission of instructor. Examines the history of modern medicine in Europe and America. Aims to connect medical ideas and practices to the broader social and cultural contexts in which they were developed. (Irreg.) [IV-WC].

HSTM 3440 Mentored Research Experience
3 Credit Hours 0 to 3 hours. Prerequisite: ENGL 1113 or equivalent, and permission of instructor; May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)

HSTM 3443 Science in a Religious World 3 Credit Hours
Prerequisite: junior standing, or completion of one History of Science lower-division course, or permission of instructor. An overview of major events in the intersection of science and religion from the Middle Ages to the present. A detailed look at the historical record and exploration of the background of the people involved, the social and political context, and the reasons why certain issues mattered so much. ( Sp ) [IV-WC].
HSTM 3453 Science and Civilization in Islam 3 Credit Hours Prerequisite: junior standing or permission. History of scientific traditions and ideas in Islamic civilization, from the origins of Islam to the early modern period. Emphasis is on the derivation, development and transmission of Islamic science, as well as on the assimilation and influence of science within Islamic culture. (Sp) [IV-WDC].
HSTM 3463 Cold War Science 3 Credit Hours
Prerequisite: junior standing or permission. Science and technology during the Cold War, including strategic weapons and SDI, medical experiments, the space race, science in popular culture, and science and foreign policy. (Irreg.) [IV-WC].
HSTM 3473 History of Ecology and Environmentalism 3 Credit Hours Prerequisite: junior standing, or completion of one History of Science lower-division course, or permission of instructor. Explores the historical development of ecology as a science and as a political stance, from the eighteenth through the twentieth century. Topics may include: climate change, population control, deforestation, globalization, resource management, and environmental ethics. (Irreg.) [IV-WC].
HSTM 3483 Technology, Politics, and International Development 3 Credit Hours
Prerequisite: Junior standing, or completion of one History of Science lower-division course, or permission of instructor. Explores the interactions between politics and technology that have informed efforts to produce "developed" industrial societies around the world. Examines the emergence of development thinking and practice in Japan and the colonized world, international development and the technopolitics of decolonization, and contemporary issues in technology and development. (Irreg.) [IV-WDC].

## HSTM 3493 The History of Media

3 Credit Hours
Prerequisite: junior standing, or completion of one History of Science lower-division course, or permission of instructor. An introduction to the history of informational technologies and communications media from the printing press to the internet. Topics will include the print revolution, the advent of electronic communications, the growth of broadcast media, the development of the digital computer, and the internet boom. Course materials include novels and films as well as non-fiction. (Irreg.) [IV-WC].

## HSTM 3523 History After the Internet: Exploring Digital History <br> 3 Credit Hours

(Crosslisted with HIST 3523) Prerequisite: Junior Standing. Examines major themes, issues, and developments affecting the research, writing, analysis, preservation, and presentation of history in the digital age. Includes hands-on engagement with, and critical assessment of, the use of digital tools for conducting historical inquiry, and exploration of the circulation of historical knowledge in such venues as social media, blogs, podcasts, digital archives, online collections, and historically-themed gaming. (Sp) [IV-WC].

HSTM 3533 Science and Global Politics in the Modern Era: CrossCultural Perspectives

3 Credit Hours
Prerequisite: Junior standing. Focuses on interactions between professional scientists, corporate entities, advocacy groups, NGOs, the public, and the state, with case studies drawn from different national contexts in order to make cross-cultural comparisons. Students will develop an international perspective on this topic by focusing on both western and non-western national contexts. Topics may include such issues as public health; biotechnology; bioprospecting; organ trafficking; (Irreg.) [IV-WC].
HSTM 3543 Balloons, Barometers, and Ice Cores: History of Weather and Climate Science

3 Credit Hours
(Crosslisted with METR 3543) Prerequisite: Junior standing or completion of one other course in HSTM or permission of instructor. This course explores the history of meteorology and climate sciences from 1500 to the present. We investigate the role of science in humanity's relationship with weather and climate, the social and political contexts of weather sciences as they have changed over time, and contributions of these sciences to sustainability and survival on a rapidly warming planet. No science background required. (F)
HSTM 3813 Science in the Ancient World
3 Credit Hours
Prerequisite: junior standing, or completion of one History of Science lower-division course, or permission. An examination of science in antiquity. Topics include the origins of ancient science, the transmission and interaction of various scientific traditions, the relation between science and philosophy, the development of a concept of science, and the place of science within the cultures of the period. (Irreg.) [IV-WC].
HSTM 3823 Science in Medieval Culture 3 Credit Hours
Prerequisite: junior standing, or completion of one History of Science lower-division course, or permission. A survey of the historical development of medieval scientific, mathematical, medical, and philosophical thought. (Irreg.) [IV-WC].
HSTM 3833 The Scientific Revolution
3 Credit Hours
Prerequisite: junior standing, or completion of one History of Science lower-division course, or permission of instructor. Explores the history of the "scientific revolution" of the sixteenth and seventeenth centuries. Study includes understanding debates not just about what happened in the past but about how we today define science and how we understand the place of science in the modern world. (Irreg.) [IV-WC].
HSTM 3960 Honors Reading 1-3 Credit Hours 1 to 3 hours. Prerequisite: admission to Honors Program; May be repeated; maximum credit six hours. Will consist of topics designated by the instructor. The topics will cover materials not usually presented in regular coursework. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

## HSTM 3970 Honors Seminar

1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program; May be repeated; maximum credit six hours. The projects covered will vary. The content will deal with concepts not usually presented in regular coursework. (Irreg.)
HSTM 3980 Honors Research 1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program; May be repeated; maximum credit six hours. Will provide an opportunity for the gifted Honors candidate to work at a special project. (Irreg.)
HSTM 3990 Independent Study 1-3 Credit Hours
1 to 3 hours. Prerequisite: permission of instructor and junior standing. May be repeated once with change of content; Maximum credit 6 hours. Independent study may be arranged to study a subject not available through regular course offerings. (F, Sp, Su)

HSTM 3993 Junior Seminar
3 Credit Hours
Prerequisite: 9 hours of history of science classes and permission of instructor; if repeating course, permission of undergraduate academic adviser; May be repeated with change of content; maximum credit 6 hours. Offers students the chance to work on an extended research topic in the history of science, technology, environment and medicine. The themed seminar format will allow for small group discussion and close supervision of student projects. Students will be introduced to the methods and tools of advanced research. Seminar themes will vary. (Sp)

## HSTM 4053 History of Magic

3 Credit Hours
(Crosslisted with RELS 4053) Prerequisite: Junior standing or permission of instructor. This course is an investigation of the category of magic, magical practices, and the place of magic in society from antiquity to the modern world. (Irreg.) [IV-WC].

## HSTM 4073 Cultural Heritage Data and Social Engagement 3 Credit Hours

(Slashlisted with HSTM 5073; Crosslisted with WGS, HIST and LIS 4073) Prerequisite: Junior standing. This course uses methods from digital humanities, media studies, and data science to explore cultural heritage -- the histories, literature, art, and artifacts of our world's cultures. It particularly focuses on cultural heritage in digital public spaces: websites, social media, etc. No prior background in computer programming is necessary. No student may earn credit for both 4073 and 5073. (F)

## HSTM 4133 Science and Literature 3 Credit Hours

(Slashlisted with HSTM 5133) Prerequisite: ENGL 1213 or EXPO 1213 or HSCI 1113, or another HSCI course, junior standing and permission of instructor; May be repeated with change of content; maximum credit 6 hours. Explore the relationship between science and literature in the Victorian period from historical and literary perspectives. Students read and contextualize select historical works of fiction and of science in order to better understand the historical relationship between science and society, and between contemporary scientific and literary cultures. No student may earn credit for both 4133 and 5133. (Irreg.) [IV-WC].

## HSTM 4430 History of Science, Technology, \& Medicine <br> Internship <br> 1-4 Credit Hours

1 to 4 hours. Prerequisite: Student must be HSCI major with Junior standing; have a minimum 2.5 GPA ; and have permission of departmental internship liaison, supervising faculty, and internship granting agency. The HSCI Internship Program is to provide a planned experience in the community that is relevant to the student's major program of study. This can be work in a facility or with an organization, a library or archive, which is engaged in the provision of products or services that relate to the student's academic field of study. (Irreg.)
HSTM 4960 Directed Readings
1-4 Credit Hours
1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean; May be repeated, maximum credit four hours. Designed for upper-division students who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)

HSTM 4970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: Senior standing or permission of instructor; May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

HSTM 4990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: three courses in general area to be studied; permission of instructor and department; May be repeated; maximum credit six hours. Contracted independent study for topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (F, Sp, Su)

## HSTM 4993 Capstone in History of Science, Technology, and

 Medicine 3 Credit HoursPrerequisite: junior standing and permission of instructor. This course fulfills the capstone requirement for a major in the history of science, technology and medicine. The goal of this seminar-format course is to provide students with the opportunity to further develop their skills in research, writing, and critical analysis with respect to the historical study of science. The course provides the opportunity for in-depth individualized research within the (F) [V].
HSTM 5073 Cultural Heritage Data and Social Engagement 3 Credit Hours
(Slashlisted with HSTM 4073; Crosslisted with WGS, HIST and LIS 5073)
Prerequisite: Graduate standing. This course uses methods from digital humanities, media studies, and data science to explore cultural heritage -- the histories, literature, art, and artifacts of our world's cultures. It particularly focuses on cultural heritage in digital public spaces: websites, social media, etc. No prior background in computer programming is necessary. No student may earn credit for both 4073 and 5073. (F)

HSTM 5133 Science and Literature
3 Credit Hours
(Slashlisted with HSTM 4133) Prerequisite: Graduate standing and permission of instructor; May be repeated with change of content; maximum credit 6 hours. Explores the relationship between science and literature in the Victorian period from historical and literary perspectives. Students read and contextualize select historical works of fiction and of science in order to better understand the historical relationship between science and society, and between contemporary scientific and literary cultures. No student may earn credit for both 4133 and 5133. (Irreg.)

## HSTM 5513 Advanced Studies in the History of Ancient and Medieval

 Science3 Credit Hours
Prerequisite: HSTM 3013 or equivalent, or permission of instructor.
May be repeated with change of content; maximum credit 12 hours. Thematic historical analyses of ancient and/or medieval foundations of science, focusing on the development of particular disciplines or scientific institutions, the relationship between science and religion, or transmission of science. Includes examination of sources and critical assessment of scholarly interpretations. (Irreg.)

## HSTM 5523 Adv. Stds. In The History Of Renaissance \& Early Modern

 Sci.3 Credit Hours
Prerequisite: 3013 Or 3023, Or Equivalent; Or Permission Of Instructor. Advanced Studies In The History Of Renaissance And Early Modern Science.May Be Repeated With Change Of Content; Maximum Credit 12 Hours. Thematic Historical Analyses Of Scientific Ideas And Practices In The Scientific Revolution And The Enlightenment, 16th-18th Cen- Turies. Includes Examination Of Sources And Critical Assessment Of Scholarly Interpretations. (Irreg.)

## HSTM 5533 Advanced Studies In The History Of Modern

## Science

3 Credit Hours
Prerequisite: 3023, Or Equivalent Or Permission Of Instructor. Advanced Studies In The History Of Modern Science.May Be Repeated With Change Of Content; Maximum Credit 12 Hours. Thematic Historical Analyses Of Modern Science And Culture Focus- Ing On The European And American Development And Professional- Ization Of Scientific Disciplines, Interdisciplinary Relationships Among The Sciences, And Intersections Between Scientific And Pub- Lic Culture. Includes Examination Of Sources And Critical Assess- (Irreg.)

HSTM 5550 Topics In The History Of Science 1-3 Credit Hours 1 to 3 hours. Prerequisite: Graduate Standing Or Permission Of Instructor. Topics In The History Of Science. 1 To 3 Hours.May Be Repeated With Change Of Content; Maximum Credit Twelve Hours. Topics Of Scholarly Interest In The History Of Science.

## HSTM 5613 Issues and Methods in the Digital <br> Humanities <br> 3 Credit Hours

Prerequisite: Graduate standing or permission of instructor. Provides a graduate-level introduction to the central issues, methods, and tools in the emerging field of the digital humanities. Digital humanities is an interdisciplinary set of methods, concepts, values, and practices that enable scholars to create and apply new technologies to answer social, cultural, and historical questions. (Irreg.)

HSTM 5623 Practicum/Internship in the Digital Humanities 3 Credit Hours
Prerequisite: Graduate standing or permission of instructor. May be repeated; maximum credit 9 hours. A practical, project-based internship, focused on the design and development of a project in the digital humanities under the close supervision of a faculty member. (F, Sp)

## HSTM 5713 History of Medicine Seminar

3 Credit Hours
Prerequisite: Graduate standing. This seminar is a graduate-level introduction to the history of medicine. We will begin with an examination of the origins and development of the history of medicine as an academic discipline, then delve into some of the big themes and questions that have shaped the field. (Irreg.)
HSTM 5723 History of Technology Seminar 3 Credit Hours Prerequisite: Graduate standing. This course introduces graduate students to the study of technology in its historical contexts. Based in the history of technology, it also introduces students to tools and concepts from cognate fields, such as environmental history, urban studies, mobility studies, and more. (Irreg.)

## HSTM 5960 Directed Readings in the History of

Science 1-4 Credit Hours
1 to 4 hours. Prerequisite: graduate standing and permission of instructor. May be repeated with change of content; maximum credit six hours toward M.A. degree, 12 hours toward Ph.D. degree. Intensive readings in a selected area of the history of science, under the direction of a graduate faculty member. (F, Sp, Su)
HSTM 5970 Seminar: Research, Criticism and Analysis 2-3 Credit Hours 2 to 3 hours. Prerequisite: permission of instructor. May be repeated with change of content; maximum credit 15 hours. Fundamentals of investigation and exposition in the history of science. (F, Sp)
HSTM 5980 Research for Master's Thesis 2-9 Credit Hours 2 to 9 hours. Variable enrollment, two to nine hours; maximum credit applicable toward degree, four hours. (F, Sp, Su)

HSTM 5990 Special Studies
3-5 Credit Hours
3 to 5 hours. Prerequisite: permission of instructor; May be repeated with change of content; maximum credit nine hours. Specialized studies in the history of science. Individual research culminating in the preparation of a research paper. (F, Sp, Su)

## HSTM 6960 Directed Readings 1-3 Credit Hours

1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit six hours. Directed readings and/or literature review under the direction of a faculty member. (Irreg.)

HSTM 6970 Seminar in the History of Science 2-3 Credit Hours 2 to 3 hours. Prerequisite: permission of instructor; May be repeated with change of content; maximum credit 15 hours. Advanced study and historical criticism in specialized areas. (F, Sp)

HSTM 6980 Research for Doctoral Dissertation 2-16 Credit Hours 2 to 16 hours. Prerequisite: Graduate standing and permission of instructor; may be repeated. Directed research culminating in the completion of the doctoral dissertation. (F, Sp, Su)

HSTM 6990 Independent Study 1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)

## I D-Interior Design

ID 1134 Interior Design Communication Studio I 4 Credit Hours Prerequisite: Majors only; Corequisite: ID 1164. The course is an introduction to the fundamentals of sketching, technical drawing, and rendering techniques, and their relationships to one another. Communication of design ideas is explored through the application of drafting and sketching techniques, including traditional media and digital tools such as the iPad. (F)

I D 1164 Interior Design Studio I
4 Credit Hours
Prerequisite: Majors only; corequisite: I D 1134. This studio course challenges students with the exploration of 2D and 3D design elements and principles. (F)

I D 1173 Foundations of Interior Design
3 Credit Hours Contemporary exploration of the interior design profession as both a creative and problem-solving process. Emphasis on the elements and principles that define interior spaces, the design process and technical aspects of the interior design profession. Types of practices, professional registration, certifications, professional organizations and the integration of interior design with allied disciplines will be provide through project exploration. (F)
ID 1234 Interior Design Communication Studio II 4 Credit Hours Prerequisite: ID 1134 and ID 1164; Corequisite: ID 1264; majors only. Introduction of computer applications in the professional practice of interior design. Software use for graphic communication of design and problem-solving solutions in two and three-dimensional representations. (Sp)
I D 1264 Interior Design Studio II
4 Credit Hours
Prerequisite: I D 1134 and I D 1164; corequisite: I D 1234; majors only. This studio course challenges students through the design of small-scale single and multi-family residential projects. (Sp)

I D 2223 Human-Centered Design
3 Credit Hours
The Human-centered design (HCD) course introduces an interdisciplinary approach that places human experience at the forefront of design processes. Human-centered design thinking and its empathetic mindset promote innovative, creative problem-solving. These are foundational skills that are highly valued in diverse disciplines, including but not limited to design, business, engineering, healthcare, education, computer science, etc. (F) [III-SS].
ID 2334 Interior Design Communication Studio III 4 Credit Hours Prerequisite: ID 1234 and ID 1264; co-requisite: ID 2364; majors only. Advanced computer applications used in the professional practice of interior design for construction drawings and presentation drawings. The use of software applications in project delivery methods and integrated design practice. (F)
I D 2364 Interior Design Studio III
4 Credit Hours
Prerequisite: ID 1234 and ID 1264; co-requisite: I D 2334; majors only; sophomore standing. This studio course challenges students to design small commercial project types including but not restricted to retail or restaurant/cafe. Project size varies up to approximately 4,000 square feet. (F)

## I D 2464 Interior Design Studio IV

4 Credit Hours
Prerequisite: I D 2334 and I D 2364 I; majors only; sophomore standing. This studio course focuses on institutional building design and may include, but is not limited to, educational facilities (early childhood higher education), libraries, and museums. Project size varies up to approximately 8000 square feet. (Sp)

## ID 2773 Interior Construction

3 Credit Hours
Prerequisite: ID 1234 and ID 1264; majors only. Introduction to the building and finish materials used in the design of non-loadbearing interior construction. Development of accurate selection and detailing of materials and assemblies in construction drawings. Additional topics include mechanical and electrical systems, building codes, and planning standards. (F)
ID 3433 Interior Design Portfolio I
3 Credit Hours
Prerequisite: ID 2364; majors only; sophomore standing. The course serves as an introduction to methods and formats of preparing a professional portfolio, with an emphasis on portfolio design, personal branding, and delivery methods. Each student will exhibit their design skills and achievements as part of the Interior Design Sophomore Portfolio Review. (Sp)

## I D 3440 Mentored Research Experience

3 Credit Hours
0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)

## I D 3473 History of Interior Design

## 3 Credit Hours

Prerequisite: ARCH 2343; majors only; junior standing; or permission of the instructor. Historical survey of interior design, decorative arts, and product design from ancient to contemporary times. Emphasis is given to the history of interior design from the late 19th century to the contemporary. (Sp)

ID 3564 Interior Design Studio V
4 Credit Hours
Prerequisite: I D 2464; corequisite: I D 4573; acceptance into the Interior Design program; junior standing; Majors only. This studio course focuses on health and wellness projects which may include medical specialties, clinics, ambulatory care facilities, fitness/ rehabilitation centers, or community engagement spaces. Project size varies up to approximately 12,000 square feet. (F)
ID 3573 Interior Materials and Specifications 3 Credit Hours Prerequisite: ID 2364 and I D 2773; majors only; sophomore standing. The course involves a study of the basic characteristics and installation of materials and finishes used in the design of the built environment, with an emphasis on building codes, fire safety, sustainability, and regulations for accessibility. The course also provides an introduction to writing specifications for materials, equipment, and non-load bearing construction. (Sp)
I D 3664 Interior Design Studio VI
4 Credit Hours
Prerequisite: ID 3564 and I D 4573; majors only; junior standing. The studio course challenges students with the design of corporate office projects that include workplace environments with secondary hospitality components. Project size varies up to approximately 18,000 square feet. (Sp)
I D 3960 Honors Reading
1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Will consist of topics in keeping with student's major program. Topics will cover materials not usually presented in the regular courses. (F, Sp, Su)

## I D 3970 Honors Seminar

1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Content deals with concepts not usually presented in regular coursework. (Irreg.)
I D 3980 Honors Research 1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Will provide an opportunity for work on special projects under the guidance of a faculty member. (F, Sp, Su)
ID 3990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: permission of instructor and junior standing. May be repeated once with change of content. Independent study may be arranged to study a subject not available through regular course offerings. (F, Sp, Su)

## ID 4123 Environment and Human Behavior

3 Credit Hours
(Slashlisted with I D 5123) Prerequisite: Majors only; junior standing, or permission of instructor. The course introduces students to a range of fundamental readings on theories and practices relevant to EnvironmentBehavior ( $\mathrm{E}-\mathrm{B}$ ) relationships (people and their environment). The course also introduces students to environmental psychology for design and illustrates situations they will likely encounter. No student may earn credit for both 4123 and 5123. (F)

## I D 4253 Taliesin Studio in Residence

3 Credit Hours
(Slashlisted with I D 5253) Prerequisite: Majors in the Gibbs College of Architecture with sophomore standing or by approval of the professor leading the program. This intensive six-day immersive program provides students with an in-depth, studio-based experience at Taliesin East in Wisconsin. It includes tours and individual exploration of the house, and campus. This course will also provide educational lectures and discussions, and studio exercises crafted to deepen students' understanding of Frank Lloyd Wright's design and its influence on Bruce Goff. No student may earn credit for both 4253 and 5253. (Su)

I D 4263 Fallingwater Studio in Residence
(Slashlisted with I D 5263) Prerequisite: Majors in the Gibbs College of Architecture with sophomore standing or by approval of the professor leading the program. This intensive seven-day immersive program provides students with an in-depth, studio-based experience at Fallingwater in Pennsylvania. It includes tours and individual exploration of the house, educational lectures and discussions, and studio exercises crafted to deepen students' understanding of Frank Lloyd Wright's design and its influence on Bruce Goff. No student may earn credit for both 4263 and 5263. (Su)

## I D 4273 Taliesin West Studio in Residence

3 Credit Hours (Slashlisted with I D 5273) Prerequisite: Majors in the Gibbs College of Architecture with sophomore standing or by approval of the professor leading the program. This intensive six-day immersive program provides students with an in-depth, studio-based experience at Taliesin West in Arizona. It includes tours and individual exploration of the house, and campus. This course will also provide educational lectures and discussions, and studio exercises crafted to deepen students' understanding of Frank Lloyd Wright's design and its influence on Bruce Goff. No student may earn credit for both 4273 and 5273. (Su)
I D 4343 Indoor Environmental Quality
3 Credit Hours
(Slashlisted with I D 5343) Prerequisite: Majors only, junior standing, or permission of instructor. The course focuses on the examination of factors that contribute to indoor environmental quality and the design practices and techniques for improving indoor environmental quality. Specific topics include daylight, views, acoustic control, lighting, thermal comfort and air quality. No student may earn credit for both 4343 and 5343. (F)

## I D 4413 Indoor Controls and Technology

3 Credit Hours
(Slashlisted with I D 5413) Prerequisite: I D 4573, majors only, junior standing, or permission of instructor. The course introduces and analyzes the technology of luminaries and control systems, including solid systems, dimming control, and other building management systems. It then invites students to apply their understanding through the design of a prescribed space. Students will be taught how to design and coordinate lighting control for energy effectiveness, flexibility of space, and increased occupant satisfaction. No student may earn credit for both 4413 and 5413. (Sp)
I D 4463 Interior Design Office Professional Practice 3 Credit Hours (Slashlisted with I D 5463) Prerequisite: ID 3573; majors only; junior standing. Review of business and professional issues relating to interior design practice including organizational structures, marketing, contracts, professional registration, trade professions, fee structures, and project management. Overview of legal, financial, management, and administrative issues, establishing a practice, managing a project progress, business development, business ethics, project compensation and agreements, issues and procedures for both commercial and residential design firms. No student may earn credit for both 4463 and 5463. (Sp)

I D 4573 Interior Lighting
3 Credit Hours
(Slashlisted with I D 5573) Prerequisite: I D 2464; co-requisite I D 3564; majors only; junior standing. This course introduces the use of lighting to define and enhance interior environments through the interaction between light, vision, and psychology. Lectures cover topics such as the relationship between light and materials, color rendering and appearance, lighting control systems, building codes and standards, and sustainability and energy conservation. No student may earn credit for both 4573 and 5573. (F)

I D 4633 Interior Design Portfolio II
3 Credit Hours
(Slashlisted with ID 5633) Prerequisite: ID 3433; junior standing; majors only. The course offers preparation and presentation of an advanced portfolio to be assessed by industry professionals and educators. Emphasis is on the design of the portfolio, resume and marketing collateral and their organization and delivery methods including software applications necessary for creating printed and web-based portfolios. Will assist students in the transition to professional practice or graduate school. No student may earn credit for both 4633 and 5633. (Sp)
I D 4764 Furniture Design Build Studio
4 Credit Hours
Prerequisite: I D 3664; Corequisite: I D 4784; senior standing; majors only or permission of instructor. This course explores the design of furniture through the complete creative process from concept to finished product. Emphasizing an iterative design process, the course progresses through sketching, models, material selection, joinery methods, and construction techniques, enabling students to develop skills in both design ideation and fabrication craftsmanship. The course culminates in the fabrication of full-scale furniture projects. (F)

ID 4784 Interior Design Capstone: Pre-Design Phase 4 Credit Hours Prerequisite: I D 3664 and I D 4573; co-requisite: I D 4764; senior standing; majors only. This is the first of a two-part studio course where students complete a professional interior design project utilizing the comprehensive knowledge and skills of the major. Students will complete research and program development, site analysis, building codes and regulations analysis, and concept development for an interior design project of significant scale and complexity. (F)
ID 4823 Design for Independent Living
3 Credit Hours
(Slashlisted with I D 5823) Prerequisite: Senior standing. Students will be introduced to aging in place design and universal design that supports safe, comfortable and independent living for users as they age in their residential setting. The course will focus on design determinants, design implications of spatial relationships, scale and function, residential building codes, and design programming as they relate to aging in place homes. No student may earn credit for both 4823 and 5823. (Sp)

I D 4865 Interior Design Capstone: Design Phase
5 Credit Hours
Prerequisite: I D 4784 and I D 4764; senior standing; majors only. This is the second of a two-part studio course where students complete a professional interior design project utilizing the comprehensive knowledge and skills of the major. Students will complete schematic design, design development, presentation documents, and contract documents, including construction drawings and specifications, for an interior design project of significant scale and complexity. (Sp) [V].
I D 4940 Field Work
1-3 Credit Hours
1 to 3 hours. Prerequisite: permission of instructor. Field study related to the student's major in a position approved by the instructor. One hour credit per 120 hours of field work or equivalent. Documentation and evaluation is required. (F, Sp, Su)
ID 4960 Directed Readings
1-4 Credit Hours
1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean. May be repeated; maximum credit four hours. Designed for upper-division students who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)
I D 4970 General Departmental Seminar
1-6 Credit Hours
1 to 6 hours. Prerequisite: junior standing or permission of instructor. May be repeated with change in content; maximum credit twelve hours. Special topics in interior design. (F, Sp, Su)

## I D 4990 Independent Study

1-3 Credit Hours
1 to 3 hours. Prerequisite: permission of instructor and director. May be repeated; maximum credit six hours. Contracted independent study for topic not currently offered in scheduled courses. Study may include research and/or field projects. (F, Sp, Su)

## I D 5123 Environment and Human Behavior

3 Credit Hours
(Slashlisted with I D 4123) Prerequisite: Graduate standing in the College of Architecture, and I D 5133 or RCPL 5113; or permission of instructor. The course introduces students to a range of fundamental readings on theories and practices relevant to Environment-Behavior (E-B) relationships (people and their environment). The course also introduces students to environmental psychology for design and illustrates situations that they will likely encounter. No student may earn credit for both 4123 and 5123. (F)

## ID 5133 Research Methods

3 Credit Hours
Prerequisite: Graduate standing in College of Architecture or permission of instructor. Introduction to research methods with emphasis on the built environment. Topics will include interpretive-historical research, qualitative research, co-relational research, logical argumentation and case study/mixed methods. (Sp)

## I D 5143 Design Theory Analysis and Evaluation 3 Credit Hours

Prerequisite: Graduate standing in the College of Architecture, and I D 5133 or RCPL 5113; or permission of instructor. The course examines the ways in which designers and theorists express and conceptualize interiors. Readings from significant works detailing the history of interior design and its role in the future are included. Through discussion, research papers, and independent analysis, students are expected to develop skills in analyzing and conceptualizing interior design principles. (F)

ID 5163 Design Computation Visualization and Analysis 3 Credit Hours Prerequisite: Graduate standing in College of Architecture or permission of instructor. Focus is on the software used to introduce basic functions of (Building Information Modeling) BIM. Topics concentrate on techniques and methods for creating building parts, the production of construction documents, and renderings. Tools are also introduced for material and construction analysis as well as costing and scheduling data. (F)

## I D 5223 Advanced Materials and Methods

3 Credit Hours
Prerequisite: Graduate standing in College of Architecture or permission of instructor. The study and use of building materials specified during the design and construction process. Coursework will emphasize the analysis of current practices and applications involving material types and construction methods. (F)

## I D 5253 Taliesin Studio in Residence

3 Credit Hours
(Slashlisted with I D 4253) Prerequisite: Graduate standing in the Gibbs College of Architecture or by approval of the professor leading the program. This intensive six-day immersive program provides students with an in-depth, studio-based experience at Taliesin East in Wisconsin. It includes tours and individual exploration of the house and campus. The course will also provide educational lectures and discussions, and studio exercises crafted to deepen students' understanding of Frank Lloyd Wright's design and its influence on Bruce Goff. No student may earn credit for both 4253 and 5253. (Su)

I D 5263 Fallingwater Studio in Residence
(Slashlisted with I D 4263) Prerequisite: Graduate standing in the Gibbs College of Architecture or by approval of the professor leading the program. This intensive seven-day immersive program provides students with an in-depth, studio-based experience at Fallingwater in Pennsylvania. It includes tours and individual exploration of the house, educational lectures and discussions, and studio exercises crafted to deepen students' understanding of Frank Lloyd Wright's design and its influence on Bruce Goff. No student may earn credit for both 4263 and 5263. (Su)

## I D 5273 Taliesin West Studio in Residence 3 Credit Hours

(Slashlisted with I D 4273) Prerequisite: Graduate standing in the Gibbs College of Architecture or by approval of the professor leading the program. This intensive six-day immersive program provides students with an in-depth, studio-based experience at Taliesin West In Arizona. It includes tours and individual exploration of the house and campus. This course will also provide educational lectures and discussions, and studio exercises crafted to deepen students' understanding of Frank Lloyd Wright's design and its influence on Bruce Goff. No student may earn credit for both 4273 and 5273. (Su)
I D 5343 Indoor Environmental Quality
3 Credit Hours
(Slashlisted with I D 4343) Prerequisite: Graduate standing in the College of Architecture, and I D 5133 or RCPL 5113; or permission of instructor. This course focuses on the examination of factors that contribute to indoor environmental quality and the design practices and techniques for improving indoor environmental quality. Specific topics include daylight, views, acoustic control, lighting, thermal comfort, and air quality. No student may earn credit for both 4343 and 5343. (F)

I D 5413 Indoor Controls and Technology
3 Credit Hours
(Slashlisted with ID 4413) Prerequisite: Graduate standing in the College of Architecture, I D 5343, and I D 5133 or RCPL 5113; or permission of instructor. The course introduces and analyzes the technology of luminaries and control systems, including solid systems, dimming control, and other building management systems. It then invites students to apply their understanding through the design of a prescribed space. Students will be taught how to design and coordinate lighting control for energy effectiveness, flexibility of space, and increased occupant satisfaction. No student may earn credit for both 4413 and 5413. (Sp)
ID 5463 Interior Design Office Professional Practice 3 Credit Hours (Slashlisted with ID 4463) Prerequisite: Graduate standing in the College of Architecture or permission of instructor. Review of business and professional issues relating to interior design practice, including organizational structures, marketing, contracts, professional registration, trade professions, fee structures, and project management. Overview of legal, financial, management, and administrative issues, establishing a practice, managing project progress, business development, business ethics, project compensation and agreements, and issues and procedures for both commercial and residential design firms. No student may earn credit for both 4463 and 5463. (Sp)
I D 5523 Graduate Studio I
3 Credit Hours
Prerequisite: Graduate standing and permission of Graduate Liaison. Introduction to fundamental design and visual communication skills through material, formal, and spatial properties of design. Graphic techniques will be employed through a range of phases, from communicating initial design proposals to detailed drawings that can fully convey information necessary for construction. Students will construct architectural study models to use as spatial analysis during the design process. (F)

I D 5533 Graduate Studio II
Prerequisite: Graduate standing and I D 5523, with I D 5763 a co-requisite, or permission of Graduate Liaison. An introduction to space planning strategies, interior architectural components, accessibility guidelines, design programming, residential codes, and the design process as they relate to small scale residential projects, with an emphasis on issues of form, function, space, light, materials, color, texture, and ergonomics. (Sp)

## I D 5534 Graduate Studio III

4 Credit Hours
Prerequisite: Graduate standing, I D 5533, and I D 5763, with I D 5163 as a co-requisite; or permission of Graduate Liaison. Introduction to advanced space planning, human factors, universal design, building codes as they relate to multi-family and small commercial projects, including but not restricted to retail, businesses, restaurants, cafes, coffee shops, and galleries up to 3,000 square feet; emphasis on the influence of space planning strategies and human factors on interior architectural components, design programming, and design development. (F)

## I D 5544 Graduate Studio IV

Prerequisite: Graduate standing, I D 5534, and I D 5163; or permission of Graduate Liaison. Introduction to human needs and activities as design determinants, design implications of spatial relationships, scale and function, building codes, and design programming as they relate to institutional building design, including but not limited to educational facilities, libraries, higher ed, K-12, or museums up to 5000 sq ft ; emphasis on influence of human factor on furniture, fixture, and equipment specifications. (Sp)
I D 5564 Graduate Studio V
4 Credit Hours
Prerequisite: Graduate standing and I D 5544, with I D 5573 as a corequisite; or permission of Graduate Liaison. Introduction to the space planning processes and application of design principles as they pertain to mid-size commercial projects up to 8,000 square feet, with an emphasis on health and wellness. Projects may include clinics, medical office buildings, fitness/rehabilitation centers, and community engagement spaces; emphasis on the importance of evidence-based design research. (F)

## I D 5573 Interior Lighting

3 Credit Hours
(Slashlisted with I D 4573) Prerequisite: Graduate standing in the College of Architecture or permission of instructor. This course introduces the use of lighting to define and enhance interior environments through the interaction of light, vision, and psychology. Lectures cover topics such as the relationship between light and materials, color rendering and appearance, lighting control systems, building codes and standards, sustainability, and energy conservation. No student may earn credit for both 4573 and 5573. (F)
ID 5633 Interior Design Portfolio II 3 Credit Hours (Slashlisted with ID 4633) Prerequisite: Graduate standing and departmental permission. The course offers preparation and presentation of an advanced portfolio to be assessed by industry professionals and educators. Emphasis is on the design of the portfolio, resume and marketing collateral, and their organization and delivery methods, including software applications necessary for creating printed and webbased portfolios. This course will assist students in the transition to professional practice or graduate school. No student may earn credit for both 4633 and 5633. (Sp)

## I D 5713 Commercial Design

3 Credit Hours
Prerequisite: Graduate standing and permission of Graduate Liaison. Introduction to planning processes and the application of design principles to commercial design projects. Space planning process, design philosophy, specifications and oral presentations will be expected on each project. (Sp)

I D 5723 Lighting Design
3 Credit Hours
Prerequisite: Graduate standing or permission of Graduate Liaison.
Introduction to lighting design of interiors. Studio/lecture presentations; focus on design principles in lighting, lighting quality, lighting quantification codes, and energy conservation. Emphasis is on integration of lighting with interior spaces, techniques in lighting design, fixture design, and exploration of computer visualization. (F)

## I D 5753 History of Interior Design

3 Credit Hours
(Slashlisted with I D 4753) Prerequisite: Graduate standing and permission of Graduate Liaison. Historical survey of architectural interiors and of the decorative arts. Cultural and socioeconomic factors which influenced interior spaces and furnishings will be an emphasis in addition to readings, lectures and discussion about the art, composition and aesthetic theories that give value to historical interiors. Students may not earn credit for both 4753 and 5753. (Sp)
ID 5763 Graduate Interior Design Computer Application 3 Credit Hours Prerequisite: Graduate standing and permission of Graduate Liaison. Use of computer-aided design (AutoCAD Architecture, SketchUp, Photoshop and InDesign) and its role in interior design professional practice. Applications to demonstrate design process and problem-solving solutions in two- and three-dimensional representation and modeling. Analysis of the applications of computer-aided design in the interior design industry. (F)

I D 5773 Graduate Interior Construction
3 Credit Hours
Prerequisite: Graduate standing and permission of Graduate Liaison. Introduction to the construction materials and methods, building and finish materials used in the design of non-loadbearing interior construction. Intended to develop an accurate and efficient expression of selection and detailing of materials and assemblies in construction drawings. Additional topics include mechanical and electrical systems, building codes, and planning standards. (Sp)

## I D 5793 Interior Materials and Specifications

3 Credit Hours
Prerequisite: Graduate standing and permission of Graduate Liaison. Study of the basic characteristics and installation of materials and finishes used in the design of interiors, building codes, fire safety, and regulations for accessibility. Emphasis on writing specifications for FF\&E and non-loadbearing construction. (F)
I D 5823 Design for Independent Living
3 Credit Hours
(Slashlisted with ID 4823) Prerequisite: Graduate standing. Students will be introduced to aging in place design and universal design that supports safe, comfortable and independent living for users as they age in their residential setting. The course will focus on design determinants, design implications of spatial relationships, scale and function, residential building codes, and design programming as they relate to aging in place homes. No student may earn credit for both 4823 and 5823. (Sp)

## I D 5940 Field Work

3 Credit Hours
Prerequisite: Graduate standing in College of Architecture or permission of instructor. Field study related to the student's interest in architectural lighting approved by graduate liaison. One credit hour per 120 hours of fieldwork or equivalent. Documentation and evaluation required. (F, Sp, $\mathrm{Su})$

ID 5950 Masters of Science in Interior Design Project 2-6 Credit Hours 2 to 6 hours. Prerequisite: Permission of director/graduate coordinator. May be repeated with change of content; maximum credit six hours. Professional project of significant scale and complexity in the student's area of concentration. (F, Sp)

I D 5960 Directed Readings
1-4 Credit Hours
1 to 4 hours. Prerequisite: graduate standing; permission of instructor, adviser and dean. May be repeated; maximum credit six hours. (F, Sp)

## I D 5970 Special Topics/Seminar

1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

## I D 5980 Research for Master's Thesis

2-6 Credit Hours
2 to 6 hours. Prerequisite: Permission of director/graduate coordinator. Variable enrollment, two to six hours; maximum credit applicable toward degree, 6 hours. (F, Sp)

## I D 5990 Special Studies

1-6 Credit Hours
1 to 6 hours. Prerequisite: permission of instructor, adviser and dean. The opportunity is provided for students with above-average grades to do individual library or laboratory work on special problems not included in present courses. (F, Sp)

## IAS-International \& Area Studies

IAS 1223 Introduction to Asian Philosophy
3 Credit Hours
(Crosslisted with PHIL 1223) Survey of the major figures and schools of philosophy in Asia. Includes study of Hinduism, Buddhism, Confucianism, and Daoism. (Irreg.) [IV-WDC].

## IAS 1533 Global Perspectives

3 Credit Hours
This course promotes an intercultural awareness that will allow students to interact more effectively with others. It will teach core cultural fluency competencies, including an understanding of different cultural norms and practices, cross-cultural communication, as well as critical thinking and problem-solving, drawing upon diverse experiences and perspectives. ( $F$, Sp, Su) [V-FYE].
IAS 2003 Understanding the Global Community 3 Credit Hours The world today is an interdependent global community that requires an awareness of international politics and economics. This course seeks to enhance our understanding of the global community because of the impact of international relations on our lives and the lives of others around the world. (F, Sp) [III-SS] .

## IAS 2123 China Today

3 Credit Hours
China has the largest population and standing army in the world with a GDP of over $\$ 7$ trillion. Long-term economic development of every country depends on China, and China's rapid modernization is changing the face of global politics and culture. Students will be exposed to the diversity and complexity of modern China. (F,Sp) [IV-WDC].
IAS 2133 International Sports 3 Credit Hours
This course examines the social, political, economic, and cultural effects of sports on the global stage. In addition to surveying the history of international sport, it analyzes the relationship between sports and national identity, economic development, and global governance, among other topics, by drawing on cases from Asia, Africa, and Latin America. (Irreg.) [IV-WC].
IAS 2970 Special Topics/Seminar
1-3 Credit Hours
Special Topics. 1 to 3 hours. May be repeated; Maximum credit nine hours. Special topics course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research, and field projects. (Irreg.)

IAS 3000 Special Topics in International and Area
Studies
1-4 Credit Hours
Prerequisite: junior standing or permission of instructor. May be repeated with change of content; maximum credit 12 hours. Special topics are courses of variable credit that examine international or global issues. (Irreg.)

IAS 3003 Topics in International and Area Studies 3 Credit Hours Prerequisite: ENGL 1213 or EXPO 1213; May be repeated with change of content; maximum credit 15 hours. A maximum of 12 hours may be applied to the major. An examination of several selected topics in international and area studies. (Irreg.)
IAS 3013 International Law
3 Credit Hours
Prerequisite: ENGL 1213 or EXPO 1213. Examines international law. Broad issues include the different sources of international law, the relationship between international law and states, individuals and other international actors, the content of international law as it pertains to different issues areas, and how these bodies of law generally affect international relations. (Irreg.) [IV-WC].

IAS 3033 International Human Rights
3 Credit Hours
Prerequisite: ENGL 1213 or EXPO 1213. Examines the increasingly complex body of substantive law and political practices related to the protection and promotion of human rights and fundamental freedoms in international law and politics. Explores major international and regional systems of enforcement, and the growing role of human rights in domestic politics and international relations. (Irreg.)
IAS 3043 Global Security
3 Credit Hours
Prerequisite: ENGL 1213 or EXPO 1213. Examines some of the major security challenges confronting the United States and the international community in the 21 st century, and how these challenges differ from our expectations of conflict -- major, minor, inter-state, and intra-state -- in recent decades. (Irreg.) [IV-WC].
IAS 3053 Globalization: The Politics of Global Governance 3 Credit Hours
Prerequisite: ENGL 1213 or EXPO 1213. This course covers the actors, institutions and processes by which international cooperation and coordination are created and maintained. It emphasizes major themes including power and authority, change in institutions over time, and roles for public and private actors. Students apply theoretical and thematic knowledge to key issues like humanitarian intervention, cybersecurity, the global economy and the environment. (Irreg.) [IV-WC].

IAS 3073 Global Economic Relations 3 Credit Hours Prerequisite: ENGL 1213 or EXPO 1213; ECON 1113 or ECON 1123 recommended but not required. Examines relations among states from the perspective of economic competition and cooperation. Explores political conflicts that have risen over trade, capital flows, and other international economic exchanges. The primary focus is on the role of states and international organizations in shaping the global economy. (Irreg.) [III-SS] .
IAS 3083 International Activism 3 Credit Hours
Prerequisite: ENGL 1213 or EXPO 1213. Examines the role that nongovernmental actors play in international relations as they work independently and in concert to advocate for various transnational causes. Specifically, explores the concept of transnational advocacy and the ways in which individual and group activists affect change around the world. (Irreg.) [IV-WC].

## IAS 3093 Global Health Perspectives

3 Credit Hours
Prerequisite: Junior standing or permission of instructor. This course provides an anthropological approach to global health. It examines how health conditions change over time as economic and social culture changes. Students will meet with health professionals and researchers in the field of health and nutrition and explore how health care is intertwined with cultural and social elements, such as the environment, the economy, religion, politics and development. (Irreg.)

## IAS 3103 Activism, Art \& Leadership

3 Credit Hours
Prerequisite: Departmental permission. This course is taught on-site in Arezzo, Italy, and is for President's Leadership Class students only This course examines the leadership role that governmental actors and individual activists play in international relations and various other sectors as they work independently and collectively to advocate for certain local, regional, national and transnational causes. Specifically, the class explores the concept of international advocacy and the ways in which individual and group activists frame and promote issues of concern in an effort to affect change around the world. The goal of this course is to raise our awareness about and enhance our understanding of the multitude of actors - from individual political leaders, to nongovernmental organizations, to artists - that work to address issues of concern. (Irreg).
IAS 3123 Arab Visual Cultures
3 Credit Hours
Prerequisite: ENGL 1213 or EXPO 1213. This course introduces students to the visual cultures that shape the Arab World, ranging from traditional Islamic calligraphy to contemporary forms of visual media, including film, political cartoons, comics, fashion, art, and social media. Students will examine how visual culture shapes and reflects Arab identities, values, and experiences, and how it challenges dominant narratives, amplifies under-represented voices, and drives change. (Irreg.) [IV-WDC] .

## IAS 3143 Chinese Politics <br> 3 Credit Hours

Prerequisite: ENGL 1213 or EXPO 1213. This course provides a systematic investigation into how the political system works in contemporary China. Specifically, it will examine how the Chinese state structures and adjusts the country's political system, governs the Chinese society, performs the fundamental functions of a modern state, coordinates interests, builds system resilience, and manages political developments at home and abroad in the 21 st century. (Irreg.) [IV-WDC] .

## IAS 3153 Chinese Foreign Policy

3 Credit Hours
Prerequisite: junior standing or permission of instructor. Provides a comprehensive introduction to Chinese foreign policy. Examines several key issues and concepts, including China's external relations prior to "Liberation" in 1949, international relations theory, the history of the PRC's foreign relations, and vital foreign policy issues confronting China in the 21 st century. (Irreg.)

IAS 3173 Work, Family, and Religion in Rural China 3 Credit Hours Prerequisite: ENGL 1213 or EXPO 1213. Examines changes over the last century in work patterns, family life, and religion in rural China. It particularly focuses on issues causing instability and transformation both in China and the developing world, including sexuality, gender, and family dynamics; the rural-urban divide; internal migration; religious conflict and repression; and the agency of marginalized populations. (Irreg.) [IV-WDC].

IAS 3193 Environment and Disease Crises in China 3 Credit Hours Prerequisite: ENGL 1213 or EXPO 1213. Explores the intertwined relationship of environment, agriculture, economic development, pollution, disease, patriotism, domestic security, and international conflict in China and how it deals with environmental issues and disease crises. Of particular concern are China's devastating water shortage that threatens to leave much of northern China without water in the next twenty years, major epidemics, and China's aging, rural population. (Irreg.) [IV-WDC]

IAS 3203 The Middle East Since World War I
3 Credit Hours
Prerequisite: ENGL 1213 or EXPO 1213. Examines major religions and ethnic groups of the Middle East; also explores how the largest ethnic groups have decided to define their national identities: Arabs, Jews, Turks, Iranians and Kurds. Topics include the Arab-Israeli conflict and possibilities of peace, and the Gulf regions where Iran, Saudi Arabia and Iraq have fought for supremacy and control of oil and the Gulf. (Irreg.) [IVWDC].

IAS 3223 Modern Iran: Islam \& Revolution
3 Credit Hours Prerequisite: ENGL 1213 or EXPO 1213. Surveys the history of Iran from the 16th century to the present. Topics include the rise of the Safavid dynasty in the sixteenth century, the establishment of Shi'ism, reform in the nineteenth century, great power politics, Western cultural and intellectual influence, nationalism, the Islamic revolution of 1979, and Iran since the revolution. (Irreg.) [IV-WDC].

IAS 3233 Nationalism and the Middle East
3 Credit Hours Prerequisite: ENGL 1213 or EXPO 1213. Survey of the history of the Middle East from 1800 to the present. Analyzes the origins of politics of national identity in the region as a result of transformations rooted in the nineteenth century, its rise to dominance as a form of politics and ideology during the twentieth century, as well as countervailing trends that today challenge its continued dominance. (Irreg.) [IV-WDC].

IAS 3273 The European Union
3 Credit Hours
Prerequisite: ENGL 1213 or EXPO 1213. Is EU an economic superpower?
Can the EU reach the objective of rivaling the U.S. diplomatically shared by many political leaders in Europe? This course will help students understand contemporary debates about the nature of the European Union, its place in the world, and its current economic and political challenges. (Irreg.)

IAS 3283 Culture, Power, and Global Environment 3 Credit Hours Prerequisite: Junior standing or permission of instructor. This course surveys some of the diverse ways in which human populations adapt to, understand, and transform their environments. It explores how social and cultural differences within and among human populations complicate efforts to address the myriad environmental problems we face - from neighborhoods struggling with contaminated soil, to regional ecosystem restoration and wildlife management, to transnational climate-change mitigation efforts. (Irreg.) [IV-WDC].
IAS 3303 National Security Policy
3 Credit Hours
Prerequisite: ENGL 1213 or EXPO 1213. This course provides students with an interdisciplinary overview of issues in U.S. national security. It introduces students to the various national security agencies, bureaucracies, advisors, and organizations to understand their respective origins and evolutions. Students will analyze in-depth historical case studies of consequential geopolitical events to see the national security in action and its implications for contemporary U.S. policy. (Irreg.)

IAS 3313 Latin American International Relations 3 Credit Hours Prerequisite: ENGL 1213 or EXPO 1213. Examines international relations of Latin America in an interdisciplinary fashion. International relations is broadly defined in this course, and includes economic and cultural aspects as well. (Irreg.) [IV-WC] .

IAS 3323 The Political Economy of Development 3 Credit Hours Prerequisite: ENGL 1213 or EXPO 1213. Examines the relationship between politics and economics in less developed countries. Reviews the history of economic theories of development and also examines the economic effects of inward looking trade policies and political stability in Latin America and India, as well as the political economy of recent reforms in both areas. (Irreg.)
IAS 3343 Chinese Philosophy 3 Credit Hours
(Crosslisted with PHIL 3343) Prerequisite: six hours of philosophy or junior standing. Survey and analysis of the major texts and schools of philosophy in China, from the ancient world to the contemporary era. (Irreg.) [IV-WDC].

## IAS 3353 Modern Brazil

3 Credit Hours
Prerequisite: ENGL 1213 or EXPO 1213. Introduction to contemporary Brazilian history and culture. Broad overview of Brazil's colonial history and emergence as a modern nation, and an exploration of the country's incredible cultural and regional diversity, as well as some of the challenges it currently faces. Course material includes exploration of indigenous realities, the rural landless movement, poverty and crime, gender, family, race, contemporary religion, etc. (Irreg.) [IV-WC].
IAS 3383 The United Nations \& World Politics 3 Credit Hours Prerequisite: ENGL 1213 or EXPO 1213. The focus of this course will be on understanding the roles played by the UN and related intergovernmental organizations in world politics pertaining to four broad issue areas: international peace and security, human rights and humanitarian affairs, the global environment, and global trade and development. (Irreg.) [IV-WC].
IAS 3393 Iranian Society through Cinema
3 Credit Hours
Prerequisite: ENGL 1213 or EXPO 1213. This course attempts to understand Iranian society and culture through the lens of Iran's postrevolutionary cinema. In moving beyond stereotypical images presented by mass media, modern Iranian cinema provides a medium to study issues such as religion, gender, class, and politics of Iran today. (Irreg). (Irreg.) [IV-WDC].

## IAS 3403 US-Iranian Relations: History, Politics, and the Road to Confrontation 3 Credit Hours

Prerequisite: ENGL 1213 or EXPO 1213. Since the revolution of 1979, Iran and the United States have been engaged in a political, diplomatic, and ideological "cold war". This course is designed to place the recent politics of US - Iranian relations within a larger historical narrative of US-Iranian contact, cooperation, and conflict. (Irreg.)
IAS 3413 Iran and Islam in Global History 3 Credit Hours Prerequisite: ENGL 1213 or EXPO 1213. Surveys the role of Iran within Middle Eastern history, culture, and society from antiquity to eve of modern period. Topics include: Iranian empires in ancient period, history of Zoroastrianism, advent of Islam and Arab conquest of Iran; emergence of Persian literary tradition in Islamic culture; emergence of the TurkoPersian Safavid state in 16th century and formation of Shi'ite-Iranian culture. (Irreg.) [IV-WDC].

IAS 3423 Middle East Through Film
3 Credit Hours
Prerequisite: ENGL 1213 or EXPO 1213. This course provides a survey of Middle Eastern history and politics through film. Emphasis will be on how the history and politics of the Middle East has been portrayed through the medium of cinema, with special focus on cultural representation and the role of film in determining contested historical and political understandings of the region. (Irreg.) [IV-WDC].
IAS 3433 International Relations in the Middle East 3 Credit Hours Prerequisite: ENGL 1213 or EXPO 1213. Examines the major wars of the region from the First World War and ending with the US invasion of Iraq. Covers the Arab-Israeli conflict, the cold war, and the contest for control of the Persian gulf and oil markets. Investigates the role of the great powers and the major Middle Eastern states in shaping international relations in the region. (Irreg.) [IV-WDC] .
IAS 3440 Mentored Research Experience 3 Credit Hours 0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)
IAS 3443 Political Islam
3 Credit Hours
Prerequisite: ENGL 1213 or EXPO 1213. Examines the Muslim brotherhood since its founding in 1928, its radicalization under Sayyid Qutb, and the many groups that look to it for inspiration. Covers Al-Qaida, Hizbullah, and Hamas, the tensions between Shiites and Sunnis, and how some Middle Eastern countries have dealt with the growth of radical Islamic groups. (Irreg.) [IV-WDC].
IAS 3473 The Arab-Israeli Conflict
3 Credit Hours
Prerequisite: ENGL 1213 or EXPO 1213. A survey of the history of the conflict around Eretz Israel/Palestine, with the aim of providing a better understanding of its roots and recent developments. The course looks at both sides of the conflict at various moments throughout its history and will present two very different historical narratives: the Israeli/Jewish and the Palestinian/Arab. (Irreg.)
IAS 3503 The United States and the Middle East: 1945-

## Present

3 Credit Hours
Prerequisite: ENGL 1213 or EXPO 1213. This course is an introduction to the historical and contemporary relationship between the United States and the Middle East from the nineteenth century until the present, with a concentration on the period since 1945. The course will focus on the political and economic aspects of US-Middle East relations but will also consider the cultural and social dimensions of this interaction. (Irreg.)

## IAS 3523 Women and Gender in South Asia

3 Credit Hours
Prerequisite: junior standing or permission of instructor. Considers how women/gender have been thought from 19th century articulation of "The Women's Question" and Women's Reform to present day rethinking of state based rights strategies and normative gender constructions in the Indian Subcontinent. Scholarly articles, primary sources, fiction, and film interrogate questions about women's place in society, women and the state, gendering work, and women's lives in South Asia. (Irreg.) [IV-WDC].

IAS 3533 Political Violence in Comparative Perspective 3 Credit Hours Prerequisite: ENGL 1213 or EXPO 1213. This course examines the major topics within the study of political violence, including civil war, terrorism, genocide, organized criminal violence, and electoral violence. It focuses on the diverse drivers of violence as well as its social, political, and economic consequences for individuals and communities within North and South America, Europe, Sub-Saharan Africa, the Middle East, and Southeast Asia. (Irreg.)
IAS 3543 International Peacebuilding
3 Credit Hours
Prerequisite: ENGL 1213 or EXPO 1213. This course examines how countries put an end to war and the role of international actors in this process. It also analyzes the pursuit of justice and accountability following conflict and human rights violations and efforts to achieve sustainable peace and stability in the longer-term, with particular emphasis on social and economic development, statebuilding, political inclusion, and democratization. (Irreg.)

## IAS 3583 Managing US-China Relations

3 Credit Hours
Prerequisite: ENGL 1213 or EXPO 1213. Provides comprehensive and systematic assessment of the bilateral relationship between a rising power aiming to return to its historical prestige and a currently dominant power searching to augment its over-stretched power resources. Indepth examination of the historical context of how the two countries have engaged with each other at the global, regional, and bilateral levels primarily since 1949. (Irreg.) [IV-WDC].
IAS 3603 Energy, Environment \& Climate Change in
China

## 3 Credit Hours

Prerequisite: ENGL 1213 or EXPO 1213. Examines how China confronts the challenges of energy security, environmental pollution, and climate change. It explores not only how the country addresses each of the three challenges individually, but also identifies areas where policy coordination can be enhanced so as to promote a holistic approach to three interconnected challenges simultaneously. (Irreg.) [IV-WDC].

## IAS 3643 Illicit Trafficking

3 Credit Hours
Prerequisite: ENGL 1213 or EXPO 1213. Focuses on some of today's most troubling security issues - the persistent and growing problems associated with the trafficking and smuggling of drugs, money, humans, guns, and commodities of all sorts. Closely examines the issue of trafficking in a global context, providing case studies of trafficking in women, illegal workers, drugs, weapons, and even butterflies. (Irreg.)
IAS 3653 Energy, Climate, and Security 3 Credit Hours Prerequisite: ENGL 1213 or EXPO 1213. This course provides a systematic treatment of how energy and climate change intersect with growth, development, security, and the trajectory of human civilization. It examines the politics of energy from a variety of perspectives; explores the causes and efforts to address climate change, and looks at ways forward for the transition beyond fossil fuels. (Irreg.)
IAS 3663 Comparative Politics of the Middle East 3 Credit Hours Prerequisite: ENGL or EXPO 1213. This course examines major themes in Middle East and North African politics (MENA). Topics and themes to be discussed include: states and state formation in the Middle East; the persistence and dynamics of authoritarianism; political liberalization and democratization; civil society; nationalism and identity; oil wealth; Islam and politics; the 2011 Arab uprisings. (Irreg.)

IAS 3683 Poverty and Inequality in the Middle East 3 Credit Hours Prerequisite: ENGL 1213 or EXPO 1213. An introduction to poverty and inequality in the Middle East which will give students an overview of how poverty has been defined, represented and contested in international development discourse. The course will examine causes of economic underdevelopment, inequality and poverty, including regional politics, urbanization and the Middle East's legacy of colonialism. (Irreg.)
IAS 3693 Military, State \& Society
3 Credit Hours
Prerequisite: ENGL 1213 or EXPO 1213. This course is concerned with some of the key problems and puzzles of civil-military relations such as military intervention in politics and the role militaries play in social revolutions. This course will examine different political contexts across the world, including the U.S., Europe, Latin America, China/Asia, Africa and the Middle East. (Irreg.)
IAS 3703 South Asian Security
3 Credit Hours
Prerequisite: Junior standing or permission of instructor. This course introduces students to security and conflict in South Asia. South Asian security has significant ramifications for global order and security. Topics covered include Hindu nationalism in India, military domination in Pakistan, India's economic ascendance, the Kashmir conflict, nuclear deterrence, terrorism \& counterterrorism, the rise of the Taliban in Afghanistan, and the China-Pakistan axis. (Irreg.)
IAS 3723 Sexuality \& Identity in the Islamic World 3 Credit Hours Prerequisite: Junior standing or permission of instructor. This course explores expressions of sexuality and sexual identity across a broad range of time and throughout a variety of Muslim-majority regions in the Middle East, Africa, and South Asia. (Irreg.) [IV-WDC].

IAS 3742 Model UN
2 Credit Hours
Prerequisite: Junior standing or permission of instructor. Provides students with a fundamental understanding of the institutions and activities of the United Nations. Issues of current interest in the UN will also be discussed. Students will acquire skills to not only prepare them to participate in a Model United Nations conference, but also prepare them to develop, implement and manage such a conference. (Irreg.)
IAS 3743 The Politics of the International System 3 Credit Hours Prerequisite: ENGL 1213 or EXPO 1213. This course introduces students to the international system. This interconnected set of institutions establishes the rules of the game for world politics, and shapes world order. The course takes a hands-on approach, providing students the chance to study historical variants of international systems, as well as the opportunity to study the origins and evolution of the current international system. (Irreg.)
IAS 3753 Youth Culture in Contemporary Iran 3 Credit Hours Prerequisite: ENGL 1213 or EXPO 1213. This course seeks to better understand strategies that Iran's third generation is deploying in order to navigate Iran's maze of structural constraints and opportunities. This course will also serve as an introduction to Iran's post-Revolution history, and examine how Iran's youngest citizens have engaged in this history. (Irreg.) [IV-WDC].
IAS 3763 Women and Gender in the Middle East 3 Credit Hours Prerequisite: ENGL 1213 or EXPO 1213. Introduction to study of women and gender in contemporary Middle East. Examines how depictions of Muslim, Middle Eastern women and debates surrounding gender have shaped and been shaped by wider local and global forces over time. Topics include debates on women and gender in the Middle East; the rise of women's movements; and ways Muslim women conceptualize themselves. (Irreg.) [IV-WDC].

IAS 3773 State \& Society in Pakistan
3 Credit Hours
Prerequisite: Junior standing or permission of instructor. Examine the history, politics, and important social issues of Pakistan. Drawing on materials from a variety of social science disciplines, topics of discussion will include: nation-state building, ethnic conflict, political Islam, terrorism, civil-military relations, democratization, civil society, and gender politics. (Irreg) [IV-WDC].

## IAS 3783 US-Arab Cultural Encounters

3 Credit Hours
Prerequisite: ENGL 1213 or EXPO 1213. In this course, students will gain insight into complex Arab thoughts and perspectives of the United States with respect to issues such as the American dream, globalization, identity politics, cultural imperialism, democracy, human rights, and power dynamics. (Irreg.) [IV-WDC].

IAS 3793 African Politics \& Society
3 Credit Hours
Prerequisite: ENGL 1213 or EXPO 1213. This course introduces students to the politics, history and social processes of sub-Saharan Africa, as well as the precolonial, colonial and postcolonial history of the continent. Other topics of discussion include contemporary issues, such as identity, customary authority, economics, violence, civil war, elections, democracy and authoritarianism. (Irreg.) [IV-WDC].
IAS 3803 International Cooperation \& Development 3 Credit Hours Prerequisite: ENGL 1213 or EXPO 1213. This course examines the fundamental idea of mobilizing global resources with the purpose of changing the realities of those countries that have been considered impoverished or less developed. The course opens the debate on what development means and what it has meant historically and in theory. It also presents the myriad of actors that participate in the international aid industry. (Irreg.) [IV-WDC].

## IAS 3810 Journey to Africa

1-6 Credit Hours
1 to 6 hours. Prerequisite: sophomore standing and completion of ENGL 1213, or permission of instructor. May be repeated; maximum credit 12 hours. Journey to Africa is a summer study abroad program designed for OU students. Students will travel with an OU faculty member and other OU students throughout an African country or region, and learn about various cultural, historical, political, social, economic or linguistic issues relevant for an understanding of one or more African countries. Academic instruction for this program takes place in English. (Su)

## IAS 3813 Development Practice <br> 3 Credit Hours

Prerequisite: ENGL 1213 or EXPO 1213. This course examines the knowledge and skills required by individuals who work for international organizations, bilateral agencies, private foundations, or nongovernmental organizations in the field of international development. Participants will familiarize themselves with the mission of those development actors, as well as with their main documents, procedures and working methods. (Irreg.)

## IAS 3823 Technology \& War

3 Credit Hours
Prerequisite: ENGL 1213 or EXPO 1213. This course discusses the relationship between technology and war, the context in which different weapons develop, and how different war strategies have changed international politics. The development and effects of weapons including gunpowder, tanks, submarines, nuclear weapons, and drones is also considered. (Irreg.)

IAS 3833 Democratic Decline in Global Perspective 3 Credit Hours Prerequisite: ENGL 1213 or EXPO 1213. This course examines the theory and practice of how liberal democracies develop, live, and die. (Irreg.) [IVWC] .

IAS 3843 Latin American Independence 1750-1880 3 Credit Hours (Crosslisted with HIST 3843) Prerequisite: HIST 2613 or HIST 2623; junior standing, or permission of instructor. Covers history of Latin America from the crisis and dissolution of the Iberian empires through the consolidation of independent republics, a period bridging the colonial and modern periods in the region's history. (Irreg.)

IAS 3853 Russian Foreign Policy

## 3 Credit Hours

Prerequisite: ENGL 1213 or EXPO 1213. This course provides a broad overview of fundamental issues and relationships in Russian foreign policy. It examines the driving forces of Russian foreign policy and the tools that Russia has to influence international politics. Examples of major contemporary issues and vectors of Russian foreign policy will also be discussed. (Irreg.)
IAS 3863 Global Environment
3 Credit Hours
Prerequisite: ENGL 1213 or EXPO 1213. This course examines the relationship between space, power, and the environment. It explores the spatialities and multi-scalar dimensions of environmental policy, governance and politics, with a focus on dimensions of social and environmental justice. (Irreg.) [III-SS].
IAS 3873 Global Cybersecurity Issues
3 Credit Hours
Prerequisite: Junior standing or permission of instructor. This course introduces students to contemporary global cybersecurity challenges and to the policy tools available to cope with them. (Irreg.)
IAS 3883 Italy Through Italian Film
3 Credit Hours
Prerequisite: Junior standing or permission of instructor. This course offers a basic survey of the social, political and cultural history of Italy over the last 40 years through the screening and discussion of Italian films which are illustrative of Italy's main cultural and historical aspects. ( $\mathrm{F}, \mathrm{Sp}$ )
IAS 3893 Law \& Globalization
3 Credit Hours
Prerequisite: ENGL 1213 or EXPO 1213. This course will explore the origins and characteristics of globalization, the relationship between globalization and "the law", and will also look at more recent developments in globalization and speculate about what they mean for law and regulation. (Irreg.)
IAS 3910 International Studies Internship 2-3 Credit Hours Prerequisite: 45 completed hours and a minimum of a 2.75 overall GPA. May be repeated; Maximum credit six hours. This course allows students to receive academic credit for internship work with an internationally oriented public or private organization. The award of academic credit for the internship requires an element of reflection, research, and writing about the work undertaken. This academic component can strongly enhance what is gained from the internship opportunity and improve a student's ability to articulate knowledgeably the requirements, benefits and lessons of work in the public or non-profit sector. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
IAS 3913 The Practice of Diplomacy 3 Credit Hours
Prerequisite: ENGL 1213 or EXPO 1213. This course is designed to provide an understanding of how day-to-day diplomacy is conducted by the U.S. Department of State and other entities. The class will review the structure of the U.S. Department of State as well as a U.S. Embassy, major recent diplomatic challenges, and provide the case for renewal of American Diplomacy. (Irreg.)

IAS 3920 Journey to Italy
1-6 Credit Hours
1 to 6 hours. Prerequisite: sophomore standing and completion of ENGL 1213, or permission of instructor. May be repeated; maximum credit 12 hours. Journey to Italy is a program designed for OU students in collaboration with the University of Siena, an OU partner university in Arezzo. Students will travel with an OU faculty member and other OU students throughout Italy, and learn about various cultural, historical, political, social, economic or linguistic issues relevant for an understanding of contemporary Italy. Academic instruction for this program takes place in English. (Su)

IAS 3923 World Happiness
3 Credit Hours
(Crosslisted with P SC 3923) Prerequisite: Junior standing or permission of instructor. This course explores and compares, in detail, the breadth and expression of global happiness philosophical concepts in the east and west leading to modern global and societal well-being measures and well-being policies in nations around the world. (Irreg.)

## IAS 3930 Journey to China

1-6 Credit Hours
1 to 6 hours. Prerequisite: sophomore standing and completion of ENGL 1213, or permission of instructor; May be repeated; maximum credit 12 hours. Journey to China is a summer study abroad program designed for OU students, who will be hosted by OU partner universities in cities across China. Students will travel with an OU faculty member and other OU students throughout China, and learn about various cultural, historical, political, social, economic or linguistic issues relevant for an understanding of contemporary China. (Su)
IAS 3933 Intelligence \& National Security 3 Credit Hours Prerequisite: ENGL 1213 or EXPO 1213. This course provides a survey of the historical origins and continued development of US intelligence capabilities. Students will learn about intelligence processes, and the roles, missions, and structure of the organizations which comprise the US Intelligence Community. Other topics of discussion include ethical and moral issues associated with intelligence operations, foreign intelligence services, their targets, and operational successes and failures. (lrreg.)
IAS 3940 Journey to Latin America
1-6 Credit Hours
1 to 6 hours. Prerequisite: sophomore standing and completion of ENGL 1213, or permission of instructor. May be repeated; maximum credit 12 hours. Journey to Latin America is a summer study abroad program designed for OU students. Students will travel with an OU faculty member and other OU students throughout a Latin American country or region, and learn about various cultural, historical, political, social, economic or linguistic issues relevant for an understanding of one or more Latin American countries. Academic instruction for this program takes place in English. (Su)[IV-NW].

## IAS 3943 Global Intelligence Challenges

3 Credit Hours
Prerequisite: ENGL 1213 or EXPO 1213. This course provides an overview of current and future global security challenges. Students will explore key, contemporary security issues in Europe, Asia, and the Middle East. Topics of discussion include transnational security issues, collective security/ alliances, inter-state conflict, ethnic conflict, WMD proliferation, nuclear strategy, deterrence, arms control, cyber security, and terrorism. (Irreg.)
IAS 3960 Honors Reading
1-6 Credit Hours
1 to 6 hours. Prerequisite: admission to Honors Program, permission of instructor and junior standing. May be repeated once with change of content. Independent study in international and area studies for students enrolled in the Honors Program. Will consist of topics not usually presented in regular courses. (F, Sp, Su)

IAS 3963 US-Russia Relations
3 Credit Hours
Prerequisite: ENGL 1213 or EXPO 1213. An overview of US-Russia relations over the past 200 years with an emphasis on Cold War tensions and the contentious relationship since the "re-emergence" of Russia from the post-Soviet morass in the Putin era. Students will examine various attempts to "reset" the relationship under different Administrations and will explore potential areas of cooperation including space, climate change, and humanitarian assistance. (Irreg.)
IAS 3970 Honors Seminar
3-6 Credit Hours
3 to 6 hours. Prerequisite: admission to Honors Program. May be repeated once with change of content. Small group seminar on topics not covered by normal coursework. Restricted to students in the Honors Program. (Irreg.)

IAS 3973 Cultural Diplomacy
3 Credit Hours
Prerequisite: ENGL 1213 or EXPO 1213. Examines the role of cultural diplomacy in the process of diplomatic interaction. Areas of study include the European Union, the Middle East and East Asia; the Cold War and the role of cultural diplomacy in foreign policy of the Soviet Union and the US; Juxtapositions of cultural diplomacies and institutional organizations of France, Great Britain, Germany, Russia and Canada. (Irreg.)

IAS 3980 Honors Research
1-6 Credit Hours
1 to 6 hours. Prerequisite: admission to Honors Program, permission of instructor and junior standing. May be repeated once with change of content. Provide international and area studies students an opportunity to work on an international research project. (F, Sp, Su)
IAS 3983 Anti-Muslim Racism
3 Credit Hours
Prerequisite: ENGL 1213 or EXPO 1213. This course will examine antiMuslim racism in the United States while simultaneously understanding anti-Muslim racism as a global project. We will further investigate how anti-Muslim racism is implicated in imperialist projects in the Middle East. Examining anti-Muslim sentiment through the lens of racism will show how both race and religion come together to inform present day structural inequality and violence. (Irreg.) [IV-WC].

IAS 3990 Independent Study
1-6 Credit Hours
1 to 6 hours. Prerequisite: permission of instructor and junior standing. May be repeated once with change of content. Independent study may be arranged to study a subject not available through regular course offerings. (F, Sp, Su)

IAS 3993 Global Communism
3 Credit Hours
Prerequisite: ENGL 1213 or EXPO 1213. This course introduces both theoretical bases and actual applications of Marxism and other forms of communism from the late 19th century to the present. After engaging the principles of Marxism through foundational texts, students study later adaptations of Marxism, including Maoism, and the manifestations of communist party rule from the Soviet Union to Southeast Asia to the Horn of Africa. (Irreg.)

## IAS 4013 Senior Capstone Seminar in International and Area Studies <br> 3 Credit Hours

Prerequisite: international and area studies major, senior standing, and permission of the department. May be repeated with change of content; maximum credit 6 hours. Devoted to analysis, research, writing, and synthesizing on one of several selected interdisciplinary topics in international and area studies. (F, Sp) [V].
IAS 4343 Early Chinese Philosophy
3 Credit Hours
(Crosslisted with PHIL 4343) Prerequisite: Permission of the instructor. Survey of pre-Qin Chinese philosophy, including the major texts and figures of Confucianism, Daoism, and other notable schools. No student may earn credit for both 4343 and 5343. (Irreg.)

IAS 4513 Intellectuals \& Artists in Modern Latin America 3 Credit Hours (Crosslisted with HIST 4513) Prerequisites: History 2613 or 2623 or junior standing or permission of instructor. Examines both the history of ideas in modern Latin America as well as the history of intellectuals as a social group. We will consider intellectuals in the process of independence and the consolidation of nation states, the role of "race" in Latin American thought, and the relationship between European and Latin American thought. (Irreg.) [IV-WC].
IAS 4523 Latin American Left
3 Credit Hours
(Crosslisted with HIST 4523) Prerequisite: History 2613 or 2623 or junior standing or permission of instructor. This course examines the shifting political tactics and theoretical positions of a variety of leftist movements in Latin America since the early 20th century. We will exam leftist thought on the nature of Latin American development, approaches to commercial culture, and labor organizing, among other topics. (Irreg.) [IV-WC].
IAS 4533 Populism in 20th-Century South America 3 Credit Hours (Crosslisted with HIST 4533) Prerequisites: History 2613 or 2623 or junior standing or permission of instructor. This course will examine the phenomenon of Latin American "populism," a set of political movements that held a central place in 20th century Latin American history. We will focus on three cases as they relate to the broader economic and social processes in the region as a whole: Brazil; Argentina; and Chile. (Irreg.) [IV-WC].

## IAS 4543 Latin America in the Age of the Cuban

## Revolution

3 Credit Hours
(Crosslisted with HIST 4543) Prerequisites: History 2613 or 2623 or junior standing or permission of instructor. This course is an in-depth examination of Latin American history of the period 1955-1973. We cover changes in politics, economics, literature, film, music, and theology in what many Latin Americans called the "revolutionary process" of the period. (Irreg.) [IV-WC].

IAS 4813 Africa in Context
3 Credit Hours
(Slashlisted with IAS 5813) Prerequisite: Sophomore standing and ENGL 1213, or permission of instructor. Explores topics related to the historical analysis of Africa including cultural, economic, and development issues. Through a primary focus on Uganda, students will examine the lasting effects of conflict, the emergence of civic, religious and international groups and their related work, and gain a deeper appreciation of Ugandan culture and communities. No student may earn credit for both 4813 and 5813. (Su) [IV-WDC].
IAS 4960 Directed Readings
1-4 Credit Hours
1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean. May be repeated; maximum credit four hours. Designed for upper-division students who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)

## IAS 4970 Special Topics/Seminar

1-3 Credit Hours
1 to 3 hours. Prerequisite: Senior standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

## IAS 4990 Independent Study

1-3 Credit Hours
1 to 3 hours. Prerequisite: Senior standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)

IAS 5003 U.S. Foreign Relations
3 Credit Hours
Prerequisite: graduate standing or permission of instructor. Examines current events and the historical and economic aspects of American foreign policy. Gives students an understanding of the main theories, actors, and debates in the field. (Irreg.)

IAS 5013 International Law
3 Credit Hours
Prerequisite: graduate standing or permission of instructor. Examines different sources of international law; the relationship between international law and states, individuals and other international actors; the content of international law as it pertains to different issue areas (e.g. the use of force, human rights, the environment); and how these bodies of law affect international relations more generally. (Irreg.)

IAS 5023 The Practice of Diplomacy
3 Credit Hours
Prerequisite: Graduate standing or permission of instructor. This course is designed to provide an understanding of how day-to-day diplomacy is conducted by the U.S. Department of State and other entities. The class will review the structure of the U.S. Department of State as well as a U.S. Embassy, major recent diplomatic challenges, and provide the case for renewal of American Diplomacy. (Irreg.)

IAS 5043 Global Security
3 Credit Hours
Prerequisite: graduate standing or permission of instructor. Examines some of the major theoretical and practical approaches to the study of global security, and focuses on the causes of war, the impact of various actors, technologies, resources and other transnational problems on violent conflict, and the different approaches to and dimensions of security solutions. (Irreg.)

IAS 5053 Global History
3 Credit Hours
Prerequisite: graduate standing or permission of instructor. Defines global history not only as the history of globalization or the history of state-to-state relations, but also more broadly as the evolution of events, forces, ideas, and processes that were common to several areas of the globe and that led to the shaping of the modern world. Considers a wide range of ways of being global through the centuries. (Irreg.)

IAS 5063 Civil Military Relations
3 Credit Hours
Prerequisite: Graduate standing or permission of instructor. This course focuses on the key questions about civil-military relations: What is the proper relationship between the politician and the soldier? How does professionalism affect the military's political behavior? Should military organizational ethos reflect societal values? Why are some and not other societies prone to coups? How do new democracies exert control over militaries? (Irreg.)

IAS 5073 International Terrorism
3 Credit Hours
Prerequisite: Graduate standing or permission of instructor. This course will cover how terrorist organizations have spread and how their goals have been taken up by like-minded organizations. How has terrorism changed? What effect does the psychology of terrorism have on the free societies? The course will attempt to answer these questions and develop an understanding of the fundamental reasons that terrorism has been at times effective. (Irreg.)

IAS 5083 International Activism
3 Credit Hours
Prerequisite: Graduate standing or permission of instructor. This course examines the role that nongovernmental actors play as they work independently and in concert to raise awareness about various international issues and to advocate for change on behalf of others. The course will explore the history of the study of activism, the evolution of theory on social movements, and the marketing tools employed by activism organizations. (Irreg.)

## IAS 5093 U.S. Intelligence Community 3 Credit Hours

Prerequisite: Graduate standing or permission of instructor. This course will provide a survey of the origins of US intelligence capabilities, including collection disciplines and analytic techniques the US Intelligence Community (IC) uses, examine how the US IC supports national security decision making, review the ethical and moral issues associated with intelligence operations, and study contemporary issues facing the US IC. (Irreg.)
IAS 5123 African Peacekeeping and Peace Enforcement 3 Credit Hours Prerequisite: Graduate standing or permission of instructor. This course is designed for the MA in International Relations degree through OU's Advanced Programs. The course covers peacekeeping and peace enforcement operations in Africa. These missions combine the efforts of governmental, intergovernmental, and nongovernmental actors. The class will examine nation building, stabilization, reconstruction, and transition across the spectrum of peace operations with emphasis on peacekeeping and peace enforcement. (Irreg)

## IAS 5203 Post-Brexit Ireland

3 Credit Hours
Prerequisite: Graduate standing or permission of instructor. This course will examine the impact of British exit from the EU on Ireland in a broad context. This includes the history of British repression in Ireland and the struggle for independence, the border with Northern Ireland, and Ireland's economic standing. (Irreg.)

## IAS 5213 Politics of the European Union

3 Credit Hours
Prerequisite: graduate standing or permission of instructor. Examines the historical process of European integration. Topics include the structure of the EU institution, the process of law making in the EU, the international role of the EU, the trans-Atlantic relationship. (F)
IAS 5243 Nations and Nation States in Europe 3 Credit Hours Prerequisite: Graduate standing or permission of instructor. In this class, we will study and discuss nation and nation states in Europe since 1789 until 1939. Our key nations and nation states will be France, Germany, and Poland. Ultimately, nationalism resulted in the complete destruction of four Empires in Europe (and Asia) during World War I, a legacy that is still felt in Europe today. (Irreg.)

## IAS 5253 US-Russia Relations

3 Credit Hours
Prerequisite: Graduate standing or permission of instructor. This course will provide an overview of United States (US)-Russia relations over the past 200+ years with an in-depth look at Cold War tensions and the contentious relationship since the "re-emergence" of Russia from the post-Soviet morass in the Putin era. (Irreg.)

## IAS 5263 Russian Foreign Policy

3 Credit Hours
Prerequisite: Graduate standing or permission of instructor. Explores Russian foreign policy in the contemporary world, with an eye on the deep historical context that informs the relationships between Russia and the rest of the world. What drives Russian foreign policy? What tools does Russia have to influence international politics? What are the major contemporary issues in Russian foreign policy? What are the vectors of Russian foreign policy? (Irreg.)
IAS 5283 Europe Since 19893 Credit Hours
Prerequisite: Graduate standing or permission of instructor. Studies major events that have transformed Europe since 1989: the collapse of Communist rule in Eastern Europe and the fall of the Berlin Wall, the end of the Cold War, the role of an expanding EU, different forms of immigration to Europe and its perception, historical memory, and Russia's role in Europe. (Irreg.)

IAS 5323 The Political Economy of Development 3 Credit Hours Prerequisite: graduate standing or permission of instructor. Studies the relationship between politics and economics in less developed countries. Reviews the history of economic theories of development and examines the economic effects of different trade strategies in Latin America, India, and East Asia. (Irreg.)

IAS 5353 Latin American International Relations 3 Credit Hours Prerequisite: graduate standing or permission of instructor. Surveys the hemisphere's international relations with emphasis on U.S.-Latin American relations. Focuses on post-Cold War issues in hemispheric affairs, and gives students a skill set appropriate for internationally related careers. (Irreg.)

## IAS 5383 Political Economy of the Underworld: Organized Crime and Conflict

 3 Credit HoursPrerequisite: Graduate standing or permission of instructor. Organized crime is a global presence that fuels instability, corruption, and violent extremism. Many conflicts cannot be fully understood without assessing the presence of organized crime groups as agents of instability, arms trafficking, resource extraction, and informal governance. This class will cover the origins of organized crime, organized crime in post-Soviet conflict, organized crime and globalization, and interdisciplinary research methods. (Irreg.)
IAS 5403 Humanitarianism and Africa
3 Credit Hours
Prerequisite: Graduate standing or permission of instructor. The course explores the longstanding need of Westerners to "help" Africans, examines the historical basis of this particular mode of thought and how it has changed over time, and seeks to understand how Western humanitarian intervention shaped and, perhaps more important, was shaped by Africans. (Irreg.)
IAS 5413 Global Migration \& Media
3 Credit Hours
Prerequisite: Graduate standing and permission of instructor. This course will expose students to key topics related to immigration in various regions around the world. Students will seek out and interpret the ways that media portrayals impact immigration and how immigration patterns influence that very media framing. This course seeks to break down stereotypes and create new perspectives on the global movement of people. (Irreg.)

IAS 5423 Media and the Global World
3 Credit Hours
Prerequisite: Graduate standing or permission of instructor. This course will investigate the media to see connections between the media and the democratization process, media and change, and media and conflict. We will see how traditional, online, and social media can influence politics, economics, and society. We will also examine the connection between media, trust and transparency, and its implications in the global world. (Irreg.)

IAS 5433 International Relations in the Middle East 3 Credit Hours Prerequisite: graduate standing or permission of instructor. Surveys how the modern states of the region were constructed by the European powers and local authorities following the destruction of the Ottoman and Persian empires in WWI. Concentrates on two regional conflicts, the Arab-Israeli conflict and the Gulf conflict, and discusses how policy could have been improved and what the U.S. should be doing in the Middle East today. (Irreg.)
IAS 5453 Politics and Policy of the Middle East 3 Credit Hours Prerequisite: graduate standing or permission of instructor. Focuses on the historical issues of state formation and emergence of the modern Middle East; the contemporary question or persistent authoritarianism from social, economic, and political perspectives; and aspects of the U.S. involvement in the Middle East. (Irreg.)

IAS 5463 Comparative Politics of the Middle East 3 Credit Hours Prerequisite: Graduate standing or permission of instructor. This course examines themes in Arab and Middle East politics. This includes states and state formation; identity, nationalism, and politics; political economy; the persistence and dynamics of authoritarianism; oil wealth, Gulf politics, and its impact on domestic politics; Islam and politics; the 2011 Arab uprisings; sectarianism; regional politics, and the current state of the Middle East. (Irreg.)
IAS 5473 Arab-Israeli Conflict
3 Credit Hours
Prerequisite: Graduate standing or permission of instructor. The ArabIsraeli conflict attracts a disproportionate amount of attention in the news media, international politics and law, and the socio-cultural sphere. This course examines the origins of the Arab-Israeli conflict in an attempt to place it in its historical context, while tracing its developments from multiple angles, in order to provide understanding of the dynamic that constitutes 'the conflict'. (Irreg.)

## IAS 5483 Minorities in the Middle East

3 Credit Hours
Prerequisite: Graduate standing or permission of instructor. This course will discover the Middle East's heterogeneity by examining the experiences and changing positions of minorities since the rise of Islam. Specific topics will include the non-Muslims in classical Islamic and Ottoman societies, the rise of nationalism, Kurds and other Muslim ethnic minorities, Jews, Druzis and other heterodox Muslim minorities, Middle Eastern Christians, and the Baha'is. (Irreg.)

## IAS 5493 Global Islamophobia

3 Credit Hours
Prerequisite: Graduate standing or permission of instructor. What is Islamophobia and what are the strengths and limitations of the term in capturing the global complexity of Muslim experiences? This course will study the theoretical and practical iterations of Islamophobia on a global scale and examine the concept through specific sites of contemporary anti-Muslim sentiments in the United States, Europe, Asia, and the Middle East. (Irreg.)
IAS 5503 Theory and Practice of International Politics 3 Credit Hours Prerequisite; graduate standing or permission of instructor. Focuses on political relations among states, the role and function of non-state actors, the nature of the international system, factors that affect state behavior, analytical and practical tools relevant for foreign policy decision-making, and various policy relevant issues in the international arena. (Irreg.)

## IAS 5513 US Diplomatic History 3 Credit Hours

Prerequisite: Graduate standing or permission of instructor. This course focuses on the establishment and evolution of U.S. foreign policy from 1776 to the present. It introduces key events and the roles of key players, including the President, National Security Council, State Department, and Congress, in the development of U.S. foreign policy. (Irreg.)
IAS 5523 Global Political Economy 3 Credit Hours
Prerequisite: graduate standing or permission of instructor. Examines economic relations, cooperation, and competition among states and non-state actors. Students in this course can gain a familiarity with the principles of international trade and finance, understand the functions and power of international economic institutions and how these have evolved and changed, and understand different theories that have been offered to explain international political economy. (Irreg.)
IAS 5533 Modern Statecraft 3 Credit Hours
Prerequisite: Graduate standing or permission of instructor. Geopolitics has its basis in statecraft, the application of the power of the state toward other states, organizations, and peoples. The key to managing international relationships to further one's prosperity and security is embodied by statecraft and the multi-faceted aspects of state power. (Irreg.)

IAS 5543 International Organizations
3 Credit Hours
Prerequisite: Graduate standing or permission of instructor. This course will give participants the opportunity to critically reflect on the reasons why sovereign states have collectively decided to create International Organizations (IOs). The course will also provide a survey of some of the main IOs in existence as well as their current political and institutional challenges. Finally, this course will discuss challenges to global governance. (Irreg.)

## IAS 5553 Global Cybersecurity Issues

3 Credit Hours
Prerequisite: Graduate standing or permission of instructor. Virtually every area of political, economic, and social life is increasingly dependent on networked computing and related information and communications technologies (ICTs). As a result, states and societies now face an array of pressing cybersecurity challenges. This course will introduce students to contemporary global cybersecurity challenges and to the policy tools available to cope with them. (Irreg.)
IAS 5563 Illicit Trafficking
3 Credit Hours
Prerequisite: Graduate standing or permission of instructor. This course focuses on some of today's most troubling security issues - the persistent and growing problems associated with the trafficking and smuggling of drugs, money, humans, guns, and commodities of all sorts. The course will demonstrate the very broad and encompassing nature of illicit trafficking and how this activity has an impact on global security and underdevelopment. (Irreg.)
IAS 5573 Nationalism and the Modern Middle East 3 Credit Hours Prerequisite: Graduate standing or permission of instructor. A survey of Middle East history from 1800-present with an emphasis on the emergence of "nationalism" as a new form of political identity in the region. Focused on ethnic, linguistic, racial, sectarian, secessionist, and confessional identities that have become one of the main sources of political contestation in the region. (Irreg.)

IAS 5583 African Politics and Society
Prerequisite: Graduate standing or permission of instructor. This course is designed to introduce students to the history, politics and social processes of sub-Saharan Africa. In addition to learning about the histories and trajectories of individual countries, the course will also focus on sub-regional and cross-national similarities and differences, as well as contextualize African politics in a larger global history. (Irreg.)

IAS 5623 Inequality Around the World 3 Credit Hours Prerequisite: Graduate standing or permission of instructor. This course will derive coherence from a focus on economic inequality, specifically on the social and political consequences of economic inequality. Material will address such questions as: what is the scope of economic inequality in modern societies? Why does inequality matter? Do societies necessarily become more unequal as they grow more prosperous? Might inequality at some level harm economic growth? (Irreg.)
IAS 5633 Political Development
3 Credit Hours
Prerequisite: Graduate standing or permission of instructor. This course will discuss different approaches to international development. At the end of the course, participants will have a comprehensive view of how development has evolved historically, how it has been disputed by different scholars, and how various stakeholders have worked for the promotion of development at the international level. (Irreg.)

IAS 5643 Global Perspectives on Gender 3 Credit Hours
Prerequisite: Graduate standing or permission of instructor. From this course, students will be able to understand critiques of Western feminism, analyze the lived experiences of non-western women and communities of color, be conversant with critical epistemologies and anti-oppressive research methodologies, and discuss and apply intersectionality in a way that is historically and contextually accurate. (Irreg.)
IAS 5653 Global Environmental Politics 3 Credit Hours
Prerequisite: Graduate standing or permission of instructor. A comprehensive introduction to key themes relating to global environmental politics. The course is divided into three core sections: (1) global environmental governance; (2) global political economy as it relates to the environment and natural resources; and (3) contemporary, global challenges in global environmental politics. Students will also evaluate documents prepared by government agencies, think tanks, nonprofits, and global institutions. (Irreg.)

IAS 5683 US-China Relations 3 Credit Hours
Prerequisite: Graduate standing or permission of instructor. Provides a systematic examination of contemporary U.S.-China relations, one of the most important bilateral relationships in the world, from the U.S. perspective through relevant theoretical debates, historical analysis and case studies. Also includes an exploration of the future trajectories of U.S.-China relations. (Irreg.)

## IAS 5693 Political Economy of China

3 Credit Hours
Prerequisite: graduate standing or permission of instructor. Explores debates over the political economy of China. Examines theories of institutional change and economic performance, state capacity and political development, rent-seeking and corruption, and class formation and collective action. How do China's reforms over the past three decades confirm or challenge the assumptions and propositions central to these established social science theories? How have recent studies of political economy in China advanced our understanding of these theories or suggested new approaches to the study of comparative political economy? These and other core questions will be covered including topics such as popular protest, global capitalism, corruption, and the nature of one-party rule in China. (Irreg.)
IAS 5703 International Studies Colloquium
3 Credit Hours
Prerequisite: Graduate standing or permission of instructor. This class will introduce the broad, multi-disciplinary field of International Studies. Students will practice analytical writing, reading, and public speaking, and become familiar with IAS faculty members and their areas of expertise. The culminating assignment will require each student to present the work they completed to members of the IAS faculty and graduate program. (F)

## IAS 5713 Policy Analysis and Writing <br> 3 Credit Hours

Prerequisite: Graduate standing or permission of instructor. This course will prepare students for policy-oriented careers. Students will develop an understanding of the policy value chain, from policy making to policy implementation and from diffusion to evaluation, and how associated feedback loops shape the policy trajectories. Building on an understanding of the policy cycle, it will give students an opportunity to engage in policy analysis. (Irreg.)

IAS 5723 Global Policy Workshop
3 Credit Hours
Prerequisite: Graduate standing or permission of instructor. This course serves as a culminating experience for the MAIS program. It is intended for students to integrate the knowledge and skills they have gained in their program and to apply them in a practical and/or experiential manner to contemporary global policy issues. The applied component will typically involve an extended simulation exercise or a project for a realworld organization. (Sp)
IAS 5793 Graduate Studies in International Relations 3 Credit Hours Prerequisite: Graduate standing or permission of instructor. Designed to provide students with a foundation for success in coursework for the MA degree in International Relations. The course begins with a focus on effective analytical writing in the field of international relations. The remaining sections of the course concentrate on essential building blocks in the field of international relations, with a particular emphasis on the relationship between domestic and international levels of explanation of international phenomena, from treaties/international agreements to economic sanctions to war. (Irreg)
IAS 5803 Global Affairs Practicum
3 Credit Hours
Prerequisite: Graduate standing or permission of instructor. All students are expected to engage in a research project resulting in a written document that examines a specific government or international policy. The paper should ultimately propose specific policy recommendations that are intended to be an improvement upon the current policy. The project may be conducted under the auspices of the Diplomacy Lab. (Irreg.)
IAS 5810 Field Studies in Africa
1-6 Credit Hours
1 to 6 hours. Prerequisite: graduate standing. May be repeated; maximum credit 12 hours. The Field Studies in Africa course is a summer program designed exclusively for OU students. Participants travel with an OU faculty member for up to one month throughout one or more countries in Africa. Academic instruction for this program takes place in English, but some foreign language training may be included in the program. Experiential activities, cultural events and lectures from host nationals add to expert OU faculty lectures to give Field Studies in Africa participants a comprehensive understanding of the historical context and contemporary issues facing the countries of study and the African continent today. All accepted applicants receive a travel fellowship to offset the cost of international airfare. (Su)

IAS 5813 Africa in Context
3 Credit Hours
(Slashlisted with IAS 4813) Prerequisite: Graduate standing or permission of instructor. Explores topics related to the historical analysis of Africa including cultural, economic, and development issues. Through a primary focus on Uganda, students will examine the lasting effects of conflict, the emergence of civic, religious and international groups and their related work, and gain a deeper appreciation of Ugandan culture and communities. No student may earn credit for both 4813 and 5813. (Su)

## IAS 5820 Field Studies in Italy

1-6 Credit Hours
1 to 6 hours. Prerequisite: graduate standing. May be repeated; maximum credit 12 hours. The Field Studies in Italy course is a summer program designed exclusively for OU students. Participants travel with an OU faculty member for up to one month throughout the country of Italy. Academic instruction for this program takes place in English, but some foreign language training may be included in the program. Experiential activities, cultural events and lectures from host nationals add to expert OU faculty lectures to give Field Studies in Italy participants a comprehensive understanding of the historical context and contemporary issues facing Italy and the continent of Europe today. All accepted applicants receive a travel fellowship to offset the cost of international airfare. (Su)

IAS 5830 Field Studies in China
1-6 Credit Hours
1 to 6 hours. Prerequisite: graduate standing. May be repeated; maximum credit 12 hours. The Field Studies in China course is a summer program designed exclusively for OU students. Participants travel with an OU faculty member for up to one month throughout the country of China. Academic instruction for this program takes place in English, but some foreign language training may be included in the program. Experiential activities, cultural events and lectures from host nationals add to expert OU faculty lectures to give Field Studies in China participants a comprehensive understanding of the historical context and contemporary issues facing China and the Asian region today. All accepted applicants receive a travel fellowship to offset the cost of international airfare. (Su)

## IAS 5840 Field Studies in Latin America

1-6 Credit Hours
1 to 6 hours. Prerequisite: graduate standing. May be repeated; maximum credit 12 hours. The Field Studies in Latin America course is a summer program designed exclusively for OU students. Participants travel with an OU faculty member for up to one month throughout the one or more Latin American countries. Academic instruction for this program takes place in English, but some foreign language training may be included in the program. Experiential activities, cultural events and lectures from host nationals add to expert OU faculty lectures to give Field Studies in Latin America participants a comprehensive understanding of the historical context and contemporary issues facing Latin American countries and the entire region today. All accepted applicants receive a travel fellowship to offset the cost of international airfare. (Su)

## IAS 5850 Field Studies in Turkey 1-6 Credit Hours

1 to 6 hours. Prerequisite: graduate standing. May be repeated; maximum credit 12 hours. The Field Studies in Turkey course is a summer program designed exclusively for OU students. Participants travel with an OU faculty member for up to one month throughout the country of Turkey. Academic instruction for this program takes place in English, but some foreign language training may be included in the program. Experiential activities, cultural events and lectures from host nationals add to expert OU faculty lectures to give Field Studies in Turkey participants a comprehensive understanding of the historical context and contemporary issues facing Turkey and the Middle Eastern region today. All accepted applicants receive a travel fellowship to offset the cost of international airfare. (Su)

## IAS 5902 Global Political Turbulence

2 Credit Hours
Prerequisite: Graduate standing or permission of instructor. This is one of three core courses in the MAGA program focused on aspects of global turbulence. The Global Political Turbulence course explores the sources, consequences and implications of turbulence in the international political system. It will examine political turbulence in a global context, as well as turbulent affairs in each region of the world. We will concentrate on the political turbulence that characterizes global affairs today and will highlight turbulent relations in each region of the world. (Irreg)

## IAS 5912 Global Economic Turbulence

2 Credit Hours
Prerequisite: Graduate standing or permission of instructor. This is one of three core courses in the MAGA program focused on aspects of global turbulence. This course explores sources of turbulence in the global economy and their consequences - from the increasing global diffusion of economic power, to the volatility produced by free movement of large amounts of capital around the world. We will begin by examining shifts in the global distribution of economic power. We also will consider the 2008-9 global financial crisis, the aftermath of which continues to have dramatic consequences across governments and international organizations worldwide. (Irreg)

IAS 5913 International Studies Internship 3 Credit Hours Prerequisite: graduate standing or permission of instructor. Students receive academic credit for internship work with an internationally oriented public or private organization. Internship credit requires an element of reflection, research, and writing about the work undertaken, and can strongly enhance the internship opportunity and improve a student's ability to articulate knowledgeably the requirements, benefits and lessons of work in the public or non-profit sector. (Irreg.)
IAS 5922 Global Social Turbulence
2 Credit Hours
Prerequisite: Graduate standing or permission of instructor. This is one of three core courses in the MAGA program focused on aspects of global turbulence. This course examines the layered causes and consequences of social turbulence around the world. It explores how peoples interact with each other and the world around them. Additionally, students will address how people react to societal and environmental changes. At the end of this course, students should have a firmer grasp on societal interaction and reaction along a number of important areas. (Irreg)
IAS 5923 International Studies Policy Exercise 3 Credit Hours Prerequisite: graduate standing or permission of instructor. Policy exercise offers students the option of a Capstone project that demands the integration of skills developed in the MAIS program core. Each semester the faculty will develop a policy exercise based on a contemporary global problem. Students will be responsible for gathering extensive evidence and analyses bearing on the problem at hand from a variety of perspectives. (Irreg.)

## IAS 5940 Topics in International Studies

1-4 Credit Hours
1 to 4 hours. Prerequisite: graduate standing or permission of instructor. May be repeated with change of content; maximum credit nine hours. Analysis of one or several selected topics in international studies, international development, and/or international management. (Irreg.)

## IAS 5950 Research Problems

2-5 Credit Hours
2 to 5 hours. Prerequisite: graduate standing. May be repeated with change of content; maximum credit six hours. Directed research and writing on selected topics in international relations, international development, and international management. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
IAS 5960 Directed Readings
1-3 Credit Hours
1 to 3 hours. Prerequisite: permission of instructor and graduate standing. May be repeated; maximum credit six hours. Directed individual readings on selected topics in international relations; international development, and international management. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
IAS 5970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

## IAS 5980 Research for Master's Thesis

2-6 Credit Hours
2 to 6 hours. Prerequisite: permission of instructor and admission to M.A. in International Relations. May be repeated; maximum credit four hours. Directed individual research and writing on master's thesis. Student must be admitted to the M.A. in International Relations program. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

IAS 5990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: permission of instructor and graduate standing. May be repeated; maximum credit six hours. Directed individual work on topics in international relations, international development, and/ or international management. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

# ILAC-Instructional Leadership \& Academic Curriculum 

ILAC 2960 Individual Study<br>1-4 Credit Hours

1 to 4 hours. Prerequisite: good standing in University; fewer than 62 total hours; approval of instructor and dean. May be repeated; maximum credit four hours. Designed to provide an introduction to the study of education through a rigorous program of readings under the direction of a member of the faculty. (Irreg.)

## ILAC 3960 Honors Reading

1-3 Credit Hours
Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Provides students with the opportunity to develop an appropriate body of reading materials on topics not covered in detail in routine coursework. Students will be obliged to assume the primary initiative in selecting the topic, compiling the bibliography and completing the reading, and will report their progress in weekly sessions to their instructor. Credit will be given only after an intensive oral examination. (Irreg.)

## ILAC 3970 Honors Seminar 1-3 Credit Hours

Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Covers variable subjects in education with in-depth studies of issues not covered in the standard course offerings. (Irreg.)

## ILAC 3980 Honors Research

1-3 Credit Hours
Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Provides an opportunity for honors students to work on a special project under the guidance of a professor in the student's major area of study. (Irreg.)

## ILAC 3990 Independent Study

1-3 Credit Hours
1 to 3 hours. Prerequisite: one course in general area to be studied; permission of instructor and department. May be repeated; maximum credit six hours. Contracted independent study for topic not currently offered in regularly scheduled courses. (F, Sp)

## ILAC 4003 Partnerships: Working With Parents and

 Community
## 3 Credit Hours

Prerequisite: admission to Teacher Education program. Approaches for working with students, parents, guardians, and the community (both locally and globally) will be addressed. Primary content for the course includes: student, parental and community involvement in schools, interaction/communication skills, diversity of families, available resources, and emerging trends. Community involvement and nontraditional field experiences will also be an integral part of the course. (F, Sp )

## ILAC 4243 Student Teaching Seminar

3 Credit Hours
(Slashlisted with ILAC 5243) Prerequisite: Admission to Teacher Education Program; corequisite EDUC 4060. This course is designed to help students evaluate their own practice and develop educational research habits of mind. Specifically, as a result of the course students will better understand: a.) reflective practice and b.) the value of educational research. No student may earn credit for both 4243 and 5243. (Irreg.)

ILAC 4960 Directed Readings in Education 1-4 Credit Hours 1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean. May be repeated; maximum credit four hours. Designed for upper-division students preparing to teach who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)

ILAC 4970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: senior standing or permission of instructor. May be repeated with change of content; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

ILAC 4980 Practicum in Education
1-3 Credit Hours
1 to 3 hours. Prerequisite: nine hours of education courses. Provides fieldtype experience under faculty supervision and is designed to introduce the student to the practical application of theory within an environment in which professional practice takes place. (Irreg.)
ILAC 4990 Special Problems in Education 1-4 Credit Hours
1 to 4 hours. Prerequisite: permission of instructor. May be repeated with change of title and subject. Variable as to subject and credit for areas of specialty and/or interest not otherwise provided in the standard offering of courses. (Irreg.)

## ILAC 5003 Models of Instruction <br> 3 Credit Hours

Prerequisite: completion of undergraduate teacher education. Students will study teaching models and their strategies intended to improve abilities to analyze student-teacher interactions and to increase teacher effectiveness as instructor and manager in a variety of educational situations. (F, Sp)
ILAC 5133 Multicultural Art Education
3 Credit Hours
Prerequisite: Graduate standing. Creative expression explores the arts as means of social critique, self expression, and identity development. We consider implications both for teaching and learning. (Sp)
ILAC 5143 Theory and Research in Education 3 Credit Hours Prerequisite: graduate standing or permission of instructor. An introduction to the processes and products of educational research, such as stages in designing a study, introduction to research methods, and identification of the components of a research-based article. Develops critical consumers of educational research. (F, Sp, Su)

ILAC 5233 Understanding Different Cultures
3 Credit Hours
Prerequisite: graduate standing or permission of instructor. Provides information on cultural styles and characteristics of various ethnic and economic groups with emphasis on how teachers can understand and honor differences and similarities and adjust their teaching in order to be effective with a variety of students and families. (F)
ILAC 5243 Student Teaching Seminar
3 Credit Hours
(Slashlisted with 4243) Prerequisite: Graduate standing. This course is designed to help students evaluate their own practice and develop educational research habits of mind. As a result of the course, students will better understand reflective practice and the value of educational research. No student may earn credit for both 4243 and 5243. (Irreg.)
ILAC 5910 Practicum in ILAC--Master's 1-4 Credit Hours
1 to 4 hours. Prerequisite: graduate standing, permission of instructor and dean. May be repeated; maximum credit six hours. Variable as to title and subject profession. Provides field-type experience under faculty supervision and is designed to introduce the student to the practical application of theory within an environment in which professional practice takes place. Seminar experience is to be included. (Irreg.)

ILAC 5920 Internship in Education--Master's 1-6 Credit Hours
1 to 6 hours. Prerequisite: 5910, permission of instructor. May be repeated; maximum credit six hours. Variable as to title and subject profession. Available to master's degree programs specifically requiring an internship in addition to thirty-two hours of other coursework as part of the degree. Introduces the student to the profession under the supervision of a practitioner whose credentials are equal to those of the graduate faculty. (Irreg.)

## ILAC 5940 Field Studies in ILAC

1-4 Credit Hours
1 to 4 hours. Prerequisite: 12 hours of education. May be repeated with change of subject matter; maximum credit eight hours. Practical problems in education as defined by members of the classes. Typical topics: defining educational objectives, relating school programs to established objectives, developing teaching-learning aids, organization for participation in developing and evaluating instructional programs, using community resources for learning, improving evaluation procedure. (Irreg.)

## ILAC 5960 Directed Readings

1-4 Credit Hours
1 to 4 hours. Prerequisite: 12 hours of education, approval of instructor, adviser and dean. May be repeated; maximum undergraduate credit eight hours; maximum graduate credit four hours. (Irreg.)
ILAC 5970 Special Topics/Seminar 1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

## ILAC 5980 Research for Master's Thesis 2-9 Credit Hours

Variable enrollment, two to nine hours; maximum credit applicable toward degree, four hours. (F, Sp, Su)

## ILAC 5990 Independent Study <br> 1-4 Credit Hours

1 to 4 hours. Prerequisite: graduate standing or permission by instructor. May be repeated with change of subject matter; maximum credit six hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/ or laboratory research and field projects. (Irreg.)

## ILAC 6003 Curriculum Theory 3 Credit Hours

Prerequisite: admittance to Instructional Leadership \& Academic Curriculum doctoral program. Supports five core themes: scholarly discourse; philosophical thinking/intellectual curiosity; the praxis of curriculum and instruction; democracy, diversity, and community; research knowledge, skills, and attitudes. (F)

## ILAC 6013 Proseminar in Instructional Leadership and Academic Curriculum 3 Credit Hours

Prerequisite: admittance to Instructional Leadership \& Academic
Curriculum doctoral program. Required for new doctoral students, to be taken in sequence with 6023. Intended to introduce students to interdisciplinary, cross-disciplinary, and specialization studies in the field; university educators and fellow students; and the ethos of doctoral study and the academy. ( $F$ )

ILAC 6023 Theoretical Issues in Instructional Leadership 3 Credit Hours Prerequisite: admittance to Instructional Leadership \& Academic Curriculum doctoral program. Required for new ILAC doctoral students, to be taken in sequence with 6013. Focus on important theoretical issues which impact the research, curriculum, and practice of schools and other educational agencies. (Sp)

ILAC 6033 Critical Research Paradigms
3 Credit Hours
Prerequisite: admission to Ph.D. program or permission of instructor. Compares research paradigms and epistemologies and examines critical and transformative research approaches. (Irreg.)

## ILAC 6043 Multilevel Modeling Applications for the Social Sciences <br> 3 Credit Hours

Prerequisite: Graduate standing, EACS 6023 or ODYN 5163, and EACS 6673; Students must have experience with the statistical software STATA (at the level of EACS 6023 and EACS 6673). This is an advanced quantitative methods course to understand fundamental concepts and assumptions of statistics and learn applicable advanced methodologies in early childhood research. This class will provide sophisticated statistical techniques to formulate and test research hypotheses, examine rigorous research models, interpret results, and report and discuss the results. (Su)
ILAC 6233 Implications of Diversity
3 Credit Hours
Prerequisite: Doctoral-level standing. This course helps students develop a critical understanding of underlying issues related to diversity in school settings, develop a deep understanding of the complexity of different cultures, engage in scholarly and intellectual discourse related to diversity in American schools and society, develop an understanding of the implications of policy and advocacy, and understand the implications for curriculum, pedagogy, and research. (Irreg.)
ILAC 6910 Practicum in Educ--Doctoral 1-6 Credit Hours 1 to 6 hours. Prerequisite: admission to doctoral program, permission of instructor. May be repeated; maximum credit six hours. Variable as to title and subject profession. An advanced practicum for post-master's level students only. The object is to provide professional experience under faculty supervision in fields requiring a high degree of professional skill. Seminar experience is to be included. (Irreg.)

ILAC 6920 Internship in Education--Doctoral 2-6 Credit Hours 1 to 6 hours. Prerequisite: written permission of the instructor. May be repeated; maximum credit 12 hours. Variable as to title and subject profession. An advanced internship for post-master's level students only. The object of the internship is to cultivate within the student a high degree of proficiency and professional independence. Field supervision is by a practitioner whose credentials are equal to those of the graduate faculty. (Irreg.)
ILAC 6930 Intensive Studies in Education

## 1-6 Credit Hours

1 to 6 hours. Prerequisite: 12 hours of education and permission of instructor. Repeatable with change of title and subject. Opportunity offered for professional educators and others interested in education, cooperatively, to seek solutions to educational problems. Organized groups work in curriculum, guidance, instruction, administration and supervision. Competent leadership and expert consultant service provided. (Irreg.)
ILAC 6960 Directed Readings
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit six hours. Directed readings and/or literature review under the direction of a faculty member. (Irreg.)

## ILAC 6970 Post-Master's Seminar 2-4 Credit Hours

2 to 4 hours. Prerequisite: master's degree, 24 hours of education, permission of instructor. May be repeated with change of subject matter; maximum credit twelve hours. Enrollment limited to students who hold the master's degree. (F, Sp, Su)

ILAC 6980 Research for Doctoral Dissertation
2-16 Credit Hours
2 to 16 hours. Prerequisite: Graduate standing and permission of instructor; may be repeated. Directed research culminating in the completion of the doctoral dissertation. Maximum of 15 hours credit for the Ed.D. and 30 hours for the Ph.D. (F, Sp, Su)

ILAC 6990 Individual Study in Education 1-4 Credit Hours 1 to 4 hours. Prerequisite: 12 hours of education, graduate standing and permission of the instructor. May be repeated with change of subject matter; maximum credit eight hours. For advanced graduate students who need to study some problem or area not adequately covered in the organized courses, under the direction of a staff member in whose area of specialization the problem lies. (Irreg.)

## ILAW-International Law

ILAW 5000 Law Study Abroad
1-15 Credit Hours
Prerequisite: permission of the College of Law. Course is designed to facilitate student participation in law study abroad and reciprocal exchange programs. (Irreg.)
ILAW 6000 Law Study Abroad
1-15 Credit Hours
Prerequisite: permission of the College of Law. Course is designed to facilitate student participation in law study abroad and reciprocal exchange programs. (Irreg.)

## INTL-International Courses

INTL 1000 Study Abroad<br>15 Credit Hours

1 to 15 hours. Designed to facilitate student participation in study abroad and reciprocal exchange programs. (F, Sp, Su)
INTL 2000 Study Abroad
1-19 Credit Hours
1 to 15 hours. Designed to facilitate student participation in study abroad and reciprocal exchange programs. (F, Sp, Su)
INTL 2970 Special Topics
1-16 Credit Hours
1 to 15 hours. Designed to facilitate student participation in study abroad and reciprocal exchange programs. (F, Sp, Su)

INTL 3000 Study Abroad 1-15 Credit Hours
1 to 15 hours. Designed to facilitate student participation in study abroad and reciprocal exchange programs. (F, Sp, Su)

INTL 4000 Study Abroad 1-15 Credit Hours
1 to 15 hours. Designed to facilitate student participation in study abroad and reciprocal exchange programs. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

INTL 4970 Special Topics 1-15 Credit Hours
1 to 15 hours. Designed to facilitate student participation in study abroad and reciprocal exchange programs. (F, Sp, Su)

INTL 5000 Study Abroad 1-15 Credit Hours
1 to 15 hours. Prerequisite: permission of the graduate dean and the student's major department before enrollment. Designed to facilitate student participation in study abroad and reciprocal exchange programs. (F, Sp, Su)
INTL 5940 Topics In International Relations 1-4 Credit Hours Topics In International Relations. 1 To 4 Hours. Prerequisite: Graduate Standing Or Permission Of Instructor. May Be Repeated With Change Of Content; Maximum Credit 9 Hours. Analysis Of One Or Several Selected Topics In International Relations, International Development, And/Or International Management. (Irreg.)

INTL 6000 Study Abroad
1-15 Credit Hours
1 to 15 hours. Prerequisite: permission of the graduate dean and the student's major department before enrollment. Designed to facilitate student participation in study abroad and reciprocal exchange programs. (F, Sp, Su)

## ISE-Industrial and Systems Engineering

ISE 2303 Design and Manufacturing Process
3 Credit Hours
(Crosslisted with AME 2303) Prerequisite: AME 2113 or CEES 2113 or ENGR 2113. Mechanical and physical properties of engineering materials. Introduction to design concepts, manufacturing processes and equipment used in engineering. (Sp)

## ISE 2311 Computer Aided Design and Graphics Laboratory for Industrial Engineers 1 Credit Hour

Corequisite: 2303. Provides students with a basic understanding of technical graphics communication and computer-aided design for industrial engineering applications. By using computer-aided design/ drafting software, SolidWorks/autoCAD, students will learn basic principles of engineering graphics and geometric modeling to assist in design problem visualization and planning. (Sp)

ISE 2823 Enterprise Engineering
3 Credit Hours
Introduction to the industrial engineering role as enterprise system integrator. Systems concepts, modeling and analysis; integrated product/service and operational process design; productivity and quality improvement; computer technology insertion; project, operations, and global supply chain management. (F)
ISE 2913 Introduction to Python for Analytics and Engineering

## 3 Credit Hours

Prerequisite: CS 1323 or equivalent, or special permission. This course serves as a fundamental introduction to programming using Python, with a particular focus on applications in the fields of analytics and engineering. Python has become cornerstone language in these disciplines due to its versatility, simplicity, and extensive library support. Students will learn the essential of Python programming, laying a strong foundation for more advance topics in data analytics. (Sp)
ISE 2960 Directed Reading
1-3 Credit Hours
Directed Reading. 1 To 3 Hours. Prerequisite: Engineering 1112;
Permission Of The Department; Special Permission Card Required. May
Be Repeated; Maximum Credit Three Hours. Individual Project Studies For University College Students In Industrial Engineering. (F)

ISE 3293 Applied Engineering Statistics
3 Credit Hours
Prerequisite: MATH 2433 or MATH 2924. Introduction to probability, one and higher dimensional random variates, function of random variables, expectation, discrete and continuous distributions, sampling and descriptive statistics, parameter estimation, use of statistical packages. (F, Sp)
ISE 3304 Design and Manufacturing II 4 Credit Hours
Prerequisite: 2303, 2311, Civil Engineering and Environmental Science 2153 (or concurrent enrollment) Or Aerospace and Mechanical Engineering 3143 (or concurrent enrollment). Dimensioning and tolerancing; tolerances-type, design and specification; assembly and fit design; tolerance standards, process planning-precedence representation in machining, operation and machine sequencing; jigs and fixturesdesign and analysis; time and cost estimation for machining; automation; process/system integration. Laboratory (F)

ISE 3440 Mentored Research Experience
3 Credit Hours
0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)
ISE 3813 Statistical Computing
3 Credit Hours
Prerequisite: ISE 2913 and Math 3333. This course provides an introduction to statistical computing using the R programming language. $R$ is a powerful tool for statistical analysis, data visualization, and data manipulation. Students will learn how to perform statistical computations and data analysis using R, making it a valuable skill for careers in analytics and engineering. (F)

## ISE 3913 Introduction to Machine Learning and Data Analytics <br> 3 Credit Hours

Prerequisite: ISE 2913 or C S 1323 or special permission. This course provides a foundational understanding of machine learning and data analytics within the context of engineering and complex systems. Students will learn key concepts and techniques, including data preprocessing, anomaly detection, regression, classification, and time series analysis. The course emphasizes practical applications of machine learning and analytics and their significance in various industries. (Sp)

## ISE 3960 Honors Reading (HONORS) <br> 1-3 Credit Hours

1 to 3 Hours. Prerequisite: Admission to Honors Program. May be repeated; maximum credit six hours. Consists of topics designated by the instructor in keeping with the Student's major program. Covers materials not usually presented in the regular courses. (F, Sp, Su)
ISE 3970 Honors Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors program. May be repeated; maximum credit six hours. Projects covered will vary. Deals with concepts not usually presented in regular coursework. (Irreg.)

## ISE 3980 Honors Research (HONORS)

1-3 Credit Hours
1 to 3 hours. Prerequisite: Admission to Honors Program. May be repeated; maximum credit six hours. Will provide an opportunity for the gifted Honors candidate to work at a special project in the student's field. (F, Sp, Su)
ISE 3990 Special Topics 1-3 Credit Hours
1 to 3 hours. Directed study for undergraduates. (F, Sp, Su)
ISE 4113 Spreadsheet Dec Support Sys 3 Credit Hours Prerequisite: I E/ISE 4623 or concurrent enrollment, and CS 1313 or CS 1321 or CS 1323 or CS 1324, or permission of instructor. Covers all aspects of spreadsheet-based software functionality that are relevant to decision-making. Microsoft Excel is used as the subject tool. Students will learn advanced functions of Excel that are available through the spreadsheet interface, the Visual Basic language and its integration with the spreadsheet environment, principles of decision-support systems studied in a variety of applications, including facility layout, and warehousing. (F)

ISE G4223 Fundamentals of Engineering Economy 3 Credit Hours Prerequisite: MATH 2423 or 2924 or permission of the department. Development and use of time value of money interest formulas. Inflation considerations and bond problems. Bases for comparison of alternatives, present worth, annual worth, rate of return and savings-investment ratio methods. Decision-making among independent, dependent, capitalconstrained and un-equal lived projects. Depreciation methods and their effect on corporate income taxes, leading to after-tax cash flow analysis. Benefit-cost and cost effectiveness analysis. (Sp)
ISE 4281 Engineering Co-Op Program
1 Credit Hour
(Crosslisted with AME, CH E, CEES, C S, EPHY, ECE and BME 4281) Prerequisite: Departmental permission and junior standing. May be repeated; maximum credit 6 hours. The Co-Op program provides students an opportunity to enhance their education via career exploration in related professional work experiences. Course assignments help students articulate their experiences by completing journals; mid-term paper; final paper and/or final presentation. Faculty receive an evaluation from the student's Co-Op supervisor who monitors performance. Faculty collaborate with the Co-Op supervisor to ensure student success. (F, Sp, Su )

## ISE 4302 Systems Thinking

2 Credit Hours
Systems thinking is a way of making sense of the world's complexity by studying whole systems and studying the relationships both among systems and among the integral part of the system. As systems engineering problems are typically complex and often embedded in complex contexts, determining effective solutions can be difficult. Systems thinking is based on systems theory and systems sciences. (Sp)

## ISE G4333 Production Systems/Operations

3 Credit Hours
Prerequisite: ISE 2823 and ISE 4623, or permission of instructor. Operations-oriented topics for production systems. Supply chain process (tactical planning, operational scheduling and sequencing, management and planning, and demand promising). Customer service process; E-Business and information technology applications for production systems. (F)

ISE 4383 Systems Evaluation 3 Credit Hours
(Slashlisted with ISE 5383) Prerequisite: ISE 4223, ISE 4563, and ISE 4633. Focuses on the development and evaluation of alternate system and process designs. Development of system goals, requirements, and performance measures; ranking of alternatives and decision analysis techniques. Review and development of trade studies. Applications in facility layout, maintenance, supply chain, and other contexts. No student may earn credit for both 4383 and 5383. (F)

## ISE 4393 Capstone Design Project

 3 Credit HoursPrerequisite: ISE 4333 or ISE 3913, ISE 4383, ISE 4663, and ISE 4853. Restricted to graduating Industrial \& Systems Engineering students; to be taken in the last semester. Current problems drawn from production and service organizations will be presented by personnel from these organizations. Students will solve these problems under the guidance of their instructor, using industrial engineering methodology. (F, Sp) [V].

ISE 4553 Data-Driven Decision Making I 3 Credit Hours (Slashlisted with ISE 5553) Prerequisite: ISE 3293. Fundamentals of statistical models for describing engineering systems and processes. Analysis of variance, multiple regression, logistic regression, time series, clustering. Emphasis is placed on decision making. No student may earn credit for both 4553 And 5553. (F)

ISE 4563 Quality \& Reliability Engineering
3 Credit Hours
(Slashlisted with ISE 5563) Prerequisite: ISE 3293 and ISE 4553. The use of statistical methods for quality control and improvement in product and process environments, as well as introductory applied probability for component and system reliability. Topics include philosophies of quality management, control chart theory and application, process capability, and performance metrics of reliability. Focus is given to decision making in engineering systems. No student may earn credit for both 4563 and 5563. (Sp)

ISE 4623 Deterministic Systems Models 3 Credit Hours Prerequisite: I E/ISE 2823. Problem solving using analytical models: theory, methodology, and application. Topics include linear programming, simplex algorithm and sensitivity analysis, integer programming, and dynamic programming. Practical applications in transportation networks, project management and scheduling, deterministic inventory models, decision making, and systems integration. Solution methods using computer software. (F)

ISE 4633 Probabilistic Systems Models 3 Credit Hours
Prerequisite: I E 3293 or ISE 3293 AND I E 4623 or ISE 4623. Problem solving using stochastic models: theory, methodology, and application. Topics include probability distributions, Poisson processes, Markov chains and Markov decision processes, queuing theory, and Monte Carlo simulation. Practical applications in probabilistic inventory models, maintenance activities, decision making, and systems integration. Solution methods using computer software. (Sp)
ISE 4663 Systems Analysis Using Simulation 3 Credit Hours (Slashlisted with ISE 5663) Prerequisite: ISE 3293 or ISE 5013 or DSA 5013. Implements the science of systems analysis through the use of simulation modeling and statistical analysis; inclusive of time study analysis for performing input modeling tasks. Laboratory. No student may earn credit for both 4663 and 5663. (F)

ISE G4804 Ergonomics in Systems Design 4 Credit Hours Prerequisite: junior standing or permission of instructor. Humansystems integration, considering the impacts of the physical structure, the information flow, and the environmental conditions on human performance. Students learn how to design, evaluate and improve systems from the perspective of the human(s) working in and impacted by the system. (Sp)

ISE 4853 Data-Driven Decision Making II
3 Credit Hours
(Slashlisted with ISE 5853) Prerequisite: ISE 4553 and ISE 4804 or ISE 3913. Experimental methodology for empirical decision making. Includes the development of empirical hypotheses, designs, performance criteria, and analyses. Techniques for empirical reporting. The measurement of human performance is typically the vehicle used for students in this course. No student may earn credit for both 4853 and 5853. (F)

ISE 4913 Advanced Machine Learning and Data Analytics 3 Credit Hours
Prerequisite: ISE 3913. This advanced course builds upon the foundation established in the introductory course, delving deeper into machine learning and data analytics. Students will explore advanced machine learning algorithms, deep learning, natural language processing, reinforcement learning, big data analytics, and specialized topics like Generative Adversarial Networks (GANs). Ethical considerations, societal implications, and future trends are integral components of the course. (F)

ISE 4960 Directed Readings
1-4 Credit Hours
1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean. May be repeated; maximum credit four hours. Designed for upper-division students who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)

ISE 4970 Special Topics/Seminar

## 1-3 Credit Hours

1 to 3 hours. Prerequisite: permission of instructor. May be repeated with change of content; maximum credit twelve hours. Special topics in the various fields of industrial engineering -- data analysis, engineering financial analysis, human factors, manufacturing, operations research, production, simulation, sustainability, systems. (Irreg.)

ISE 4990 Special Studies
1-3 Credit Hours
1 to 3 hours. Prerequisite: senior standing. May be repeated once; maximum credit six hours. Directed study for undergraduates. (F, Sp, Su)
ISE 5013 Fundamentals of Engineering Statistical Analysis 3 Credit Hours
(Crosslisted with DSA 5013) Prerequisite: graduate standing. Introduction to probability, expectation, discrete and continuous distributions, sampling and descriptive statistics, parameter estimation, and statistical tests to aid decision making. The student will learn analysis techniques for verification of systems parameters. (F, Sp)

ISE 5023 Systems Optimization
3 Credit Hours
Prerequisite: graduate standing. Introduction to basic systems models and their solution with modern computer packages. Emphasis on modeling, computer solution, and sensitivity analysis with limited reference to model theory and development of algorithmic methods. (F)
ISE 5033 Systems Engineering
3 Credit Hours
Prerequisite: graduate standing. The complexities of systems, design, sustainment, and modernization in the context of systems engineering. (Irreg.)

ISE 5103 Intelligent Data Analytics
3 Credit Hours
(Crosslisted with DSA 5103) Prerequisite: graduate standing or permission of instructor; ISE 3293 or ISE 5013; CS 1313 or CS 1323. In our society, data is rapidly increasing in volume, velocity, and variety. At the same time computing power and the sophistication of data analysis techniques are increasing. However, even with the expanding capabilities, businesses and organizations often find themselves "data rich, but information poor." Intelligent Data Analysis is a holistic approach to addressing real-world data intensive problems that integrates human intuition with data analysis tools to best draw out meaningful insights. To this end, the course has four underlying themes: defining the Problem, understanding and coping with Data, selecting and using appropriate Analytical Tools, and discovering and communicating the Insight. Techniques covered include data cleansing and pre-processing, exploratory analysis and visualization, dimension reduction, linear and logistic regression, decision trees, and clustering. This course will introduce students to a powerful open source statistical programming language (R) and include extensive hands-on data analysis and team projects. (F)
ISE 5113 Advanced Analytics and Metaheuristics 3 Credit Hours (Crosslisted with DSA 5113) Prerequisite: ISE 5013, graduate standing or permission of Instructor. Explores advanced techniques for addressing complex optimization problems. Focus is on formulating mathematical models and developing problem solving strategies using methods in the context of Data Science and Analytics. Topics include continuous and combinatorial optimization with an emphasis on both traditional and modern heuristic techniques. (Sp)

ISE 5123 Software Tools-Dec Support
3 Credit Hours
Prerequisite: Computer Science 1313 or 1323 , or permission of instructor. Covers an integrated set of software tools that is used in development of a wide variety of decision models and support systems. Students will learn Python programming language and several of its major libraries. Applications will be developed in data extraction and processing, and development of statistical, simulation, and optimization models. (Irreg.)
ISE 5133 Energy Analytics
3 Credit Hours
(Crosslisted with DSA 5133) Prerequisite: Graduate standing or permission of instructor. In today's data-driven world, the ability to extract knowledge and create successful future energy projections is critical for the energy sectors. In this regard, data science body of knowledge promises a strong set of analytical tools that can be used for demand/ supply forecasting and price prediction. This course aims at teaching the students the fundamentals of data analysis and interpretation. (F)
ISE 5293 Cost Engineering
3 Credit Hours
(Crosslisted with ELM 5293) Prerequisite: Graduate standing. This course will discuss the application of scientific principles and techniques to problems of cost estimating, cost control, business planning, profitability analysis, project management, and planning and scheduling. It will provide an understanding of both the tools and models that can be used throughout the design, development, and support phases, and examine the trade-offs between system performance and life-cycle cost. (Su)
ISE 5373 Intro to Additive Manufacturing
3 Credit Hours
Prerequisite: Graduate standing or permission of instructor. Students will be exposed to Additive Manufacturing (AM, also 3D Printing, Rapid Prototyping, and Direct Digital Manufacturing) in a holistic but highly technical manner. Topics include an overview of relevant AM technologies and their importance in many branches of industry (i.e., medical, aerospace, automotive, etc.), as well as the field's origins, growth, and future directions. (Sp)

## ISE 5383 Systems Evaluation

3 Credit Hours
(Slashlisted with ISE 4383) Prerequisite: permission of department. Focuses on the development and evaluation of alternate system and process designs. Development of system goals, requirements, and performance measures; ranking of alternatives and decision analysis techniques. Review and development of trade studies. Applications in facility layout, maintenance, supply chain, and other contexts. (F) No student may earn credit for both 4383 and 5383.
ISE 5503 Healthcare Analytics 3 Credit Hours (Crosslisted with DSA 5503) Prerequisite: Graduate Standing and ISE 3293 or DSA/ISE 5013. This course gives an overview of the primary concepts and methods towards developing artificial intelligence (AI)enabled healthcare systems. We will focus on foundational methods in machine learning and data analytics for prediction and pattern recognition, and apply them to specific areas in medicine and healthcare including, but not limited to, disease diagnosis, patient treatments and their outcomes prediction. (Sp)

## ISE 5543 Decision Analysis

3 Credit Hours
(Crosslisted with ELM 5543) Prerequisite: Graduate standing. This course provides the fundamentals of decision analysis and explores how analyzing risk can be incorporated into good decision making. Normative approaches to making decisions when uncertainty exists are central to this course. Topics covered include structuring decision problems, developing alternatives, single and multiple objectives, utility theory, risk tolerance, data-driven and subjective probability, and psychological pitfalls. (F)

ISE 5553 Data-Driven Decision Making I 3 Credit Hours
(Slashlisted with ISE 4553) Prerequisite: ISE 3293 or ISE 5013.
Fundamentals of statistical models for describing engineering systems and processes. Analysis of variance, multiple regression, logistic regression, time series, clustering. Emphasis is placed on decision making. No student may earn credit for both 4553 and 5553. (F)

## ISE 5563 Quality \& Reliability Engineering

3 Credit Hours
(Slashlisted with ISE 4563) Prerequisite: ISE 3293 or ISE 5013 and ISE 4553 or ISE 5553. The use of statistical methods for quality control and improvement in product and process environments, as well as introductory applied probability for component and system reliability. Topics include philosophies of quality management, control chart theory and application, process capability, and performance metrics of reliability. Focus is given to decision making in engineering systems. No student may earn credit for both 4563 and 5563. (Sp)
ISE 5613 Multicriteria Optimization
3 Credit Hours
Prerequisite: 4623 . Survey of developments and applications of theory and methods pertinent to decision making under conflicting criteria. Goal programming and interactive methods for multicriteria mathematical programming will be emphasized with applications. (Irreg.)

ISE 5633 Supply Chain Mgt \& Transport 3 Credit Hours Prerequisite: graduate standing or by permission. Introduces transportation and supply chain concepts along with the important issues in supply chain system design and operation. Students learn how to formulate and analyze systems models for supply chain systems using information technology skills and decision support systems. (Irreg.)

## ISE 5643 Engineering Optimization

3 Credit Hours
Prerequisite: ISE 4623 or permission. Basic computational tools for solving nonlinear unconstrained and constrained optimization problems arising in engineering practice. Emphasis is on models and methods applicable to problems in engineering design, process operations, control, production planning, manufacturing and management. (Irreg.)
ISE 5663 Systems Analysis Using Simulation
3 Credit Hours
(Slashlisted with ISE 4663) Prerequisite: Graduate standing, and ISE 3293 or ISE 5013 or DSA 5013. Implements the science of systems analysis through the use of simulation modeling and statistical analysis, including time study analysis for performing input modeling tasks. No student may earn credit for both 4663 and 5663. (F)

## ISE 5693 Simulation Modeling and Analysis

3 Credit Hours
Prerequisite: Graduate standing; ISE 3293 or ISE 5013. This course is an advanced study of simulation methodology. Emphasis will be given to modeling of discrete event systems. Provides theoretical and practical experience in building and running computer simulation models of industrial systems. Teaches statistical methods for analyzing the output from a simulation. (Sp)
ISE 5713 Engineering Project Management
3 Credit Hours
Prerequisite: ISE 3293 or ISE 5013 or permission of instructor. Review of the various technical and managerial aspects of project management. Introduction to extensions of CPM and PERT. Specific topics include network development and analysis, precedence constraints, resource allocation, time-cost trade-off, heuristics, criticality index, computer applications, design and analysis of engineering projects, and optimization techniques for project scheduling. (Irreg.)

ISE 5743 Mgt of Engineering Function
3 Credit Hours
Prerequisite: 2823 or graduate standing. Explores major concepts of engineering management and how to apply these concepts in managing the engineering function in an enterprise. Intensive analysis of the specialized problems of engineering organizations which include technical human power. Procedures and design for the control of engineering projects. Specific examples and cases of management problems and experiences are used. A research project is required that involves at least one of the functions of engineering management. (Irreg.)

ISE 5753 Organization Systems
3 Credit Hours
Prerequisite: graduate standing or permission. The organization is examined as a complex of subsystems to accomplish production or service objectives. Individuals as members of the subsystems are examined as human factor elements in contributing to the analysis of effectiveness and efficiency of systems. Organizations are viewed from a macro standpoint with emphasis on engineering organizations. Current trends and cases are reviewed with case presentations required. A research project evaluating and organization is required from an engineering management viewpoint. (Irreg.)
ISE 5763 Project Management Methods
3 Credit Hours
Prerequisite: Graduate standing and ISE 3293 or ISE 5013. This course provides the fundamentals of project management. Projects are temporary, unique endeavors that produce a product, service, or result. Organizations in both the public and private sectors use projects to achieve strategic objectives. Projects have distinct start and end dates, and so have a life cycle. We will examine life cycle through project selection, team organization, execution, and closure. (Su)

ISE 5773 Systems Requirements and Architecting 3 Credit Hours (Crosslisted with ELM 5773) Prerequisite: Graduate standing. This course provides the fundamentals of systems engineering by offering an overview of the discipline and then focusing on the management of system requirements and developing how a system will meet them. We will discuss the definition of systems, the system development life cycle, and the systems engineering method. Topics include Detail design, requirement analysis and decomposition, and system architecting. (F)

## ISE 5783 Project Leadership <br> 3 Credit Hours

Prerequisite: Graduate standing in ISE or DSA. This course is designed to help everyone improve their ability to lead when in formal leadership roles and when in roles where influence is needed to achieve high-performing teams. This course is to prepare students to exercise leadership as influencers when in not in formal leadership roles, and to be able to excel as leaders. (F)

ISE 5813 Advanced Human Factors and Ergonomics 3 Credit Hours Prerequisite: ISE 4804 and graduate standing. Analysis, design, and evaluation of human behaviors and decision-making processes in simple and complex systems. Integration of human factors, human computer interaction, and systems engineering. (Sp)

ISE 5823 Exercise Physiology
3 Credit Hours
(Crosslisted with HES 5823) Prerequisite: 4824; Zoology 3104 or 3133; Physiology 5016 or 5019; or permission. Advanced study of physiological responses, regulatory mechanisms and adaptations of human performance and health; factors affecting performance and health; and training and evaluative techniques. (F)

SE 5853 Data-Driven Decision Making II
3 Credit Hours
(Slashlisted with 4853) Prerequisite: 4553 and 4804. Experimental methodology for empirical investigation. Includes the development and measurement of empirical hypotheses, designs, performance criteria, and analyses. Techniques for empirical reporting. The measurement of human performance is typically the vehicle used for students in this course. No student may earn credit for both 4853 and 5853. (F)

## ISE 5893 Models Based Systems Engineering <br> 3 Credit Hours

 Prerequisite: graduate standing. Models Based System Engineering (MBSE) is concerned with the application of modeling and simulation techniques to the design, analysis, verification, and validation of complex systems throughout their lifecycle. Students will be exposed to principles, processes and tools necessary to develop and manage model-based representations of complex systems, enabling a holistic and integrated approach to systems engineering. (Sp)ISE 5960 Directed Readings 1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing and permission of department. May be repeated; maximum credit twelve hours. Directed readings and/or literature reviews under the direction of a faculty member. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

ISE 5970 Seminar-Industrial Engineering 1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission. May be repeated with change of content; maximum credit 12 hours. Special topics in the various fields of industrial engineering, engineering, economy, operations research, ergonomics, production, manufacturing, simulation, engineering statistics and computer systems. (Irreg.)

ISE 5980 Research for Master's Thesis
2-9 Credit Hours
Variable enrollment, two to nine hours; maximum credit applicable toward degree, six hours. (F, Sp, Su)

ISE 5990 Special Studies
1-4 Credit Hours
1 to 4 hours. Prerequisite: senior standing, permission. May be repeated; maximum credit six hours. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

ISE 6623 Nonlinear Programming
3 Credit Hours
Prerequisite: Graduate standing and ISE 4623. Theory and computational aspects of nonlinear optimization problems. Topics include: applications and problem formulation, convexity, Kuhn-Tucker conditions, duality, quadratic programming, unconstrained optimization techniques, direct search method, penalty function, optimization methods, feasible direction methods, separable programming, geometric programming. (Irreg.)

ISE 6960 Directed Readings
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit six hours. Directed readings and/or literature review under the direction of a faculty member. (Irreg.)
ISE 6970 Special Topics/Seminar 1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit 12 hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or research and field projects. (Irreg.)

## ISE 6980 Research for Doctoral Dissertation <br> 2-16 Credit Hours

2 to 16 hours. Prerequisite: Graduate standing and permission of instructor; may be repeated. Directed research culminating in the completion of the doctoral dissertation. (F, Sp, Su)

ISE 6990 Special Studies
1-9 Credit Hours
1 to 9 hours. Prerequisite: Graduate standing. May be repeated with change of content; maximum credit 9 hours. Special problems in the various fields of industrial and systems engineering. Special studies in data analytics, systems modeling and design, computational optimization, logistics and supply chain management, human-system integration, engineering education, advanced manufacturing, or biomedical manufacturing. In addition, students may need information relating to problem-specific disciplines such as weather, energy, sustainability, and psychology. (F, Sp, Su)

## ITAL-Italian

ITAL 1115 Beginning Italian I
5 Credit Hours
An elementary course in understanding, speaking, reading and writing Italian. Laboratory. This course does not count for major credit in the Department of Modern Languages, Literatures and Linguistics. (F, Sp) [IFL].

ITAL 1225 Beginning Italian II 5 Credit Hours
Prerequisite: 1115. Fundamentals of Italian continued. Laboratory. This course does not count for major credit in the Department of Modern Languages, Literatures and Linguistics. (F, Sp) [I-FL].
ITAL 2113 Intermediate Italian 3 Credit Hours Prerequisite: 1115. Fundamentals of Italian continued. Laboratory. This course does not count for major credit in the Department of Modern Languages, Literatures and Linguistics. (F, Sp) [I-FL].
ITAL 2223 Intermediate Italian Continued 3 Credit Hours
Prerequisite: 2113. Emphasizes advanced reading skills and mastery of grammar. Emphasis on sophisticated vocabulary and understanding of grammatical structures. Literary and cultural texts discussed in oral and essay form. (Sp)
ITAL 2970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: May be repeated; Maximum credit nine hours. Special topics course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research, and field projects. (Irreg.)
ITAL 3073 Italian Conversation \& Culture 3 Credit Hours Prerequisite: ITAL 2223. Intensive practice in speaking Italian on topics of everyday life. (Sp)

ITAL 3423 In Altre Parole: Writing in Italian
3 Credit Hours
Prerequisite: ITAL 2223. The inculcation of proper writing habits, at an advanced level, toward the achievement of idiomatic Italian. (F)

## ITAL 3440 Mentored Research Experience

3 Credit Hours
0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)
ITAL 3553 Authors and Ideas: From Dante to our Time 3 Credit Hours Prerequisite: ITAL 2223 or permission. Survey of Italian literature from the Middle Ages to the present day through major works of literature and the visual arts--invoking names such as Dante, Machiavelli, Michelangelo, Galileo and Calvino. (F)

ITAL 3663 Italian Cinema, Theater and Media
3 Credit Hours
Prerequisite: ITAL 2223 or permission. This course will focus on theater, cinema and television, often reading literary works alongside their cinematic or TV adaptations. It offers an interdisciplinary look at Italian cultural history from the beginning of the twentieth century to the present day. (Sp)

ITAL 3853 Readings in Italian Literature \& Culture 3 Credit Hours Prerequisite: ITAL 2223. Designed to improve reading comprehension and to introduce the techniques of literary analysis. Representative works from the various literary genres will be studied. (Sp)
ITAL 3960 Honors Reading 1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors program. May be repeated; maximum credit six hours. Will consist of topics designated by the instructor in keeping with the student's major program. The topics will cover materials not usually presented in the regular courses. (F, Sp)
ITAL 3970 Honors Seminar 1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Subjects covered vary. Deals with concepts not usually treated in regular courses. (Irreg.)
ITAL 3980 Honors Research 1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors program. May be repeated; maximum credit six hours. Provides an opportunity for the Honors candidate to work on a special project in the student's field. (F, $\mathrm{Sp})$
ITAL 3990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: one course in general area to be studied; permission of instructor and department. May be repeated; maximum credit six hours. Contracted independent study for topic not currently offered in regularly scheduled courses. (F, Sp)
ITAL 4513 Topics in Medieval and Renaissance Italian Literature and Culture

3 Credit Hours
Prerequisite: 3073 or 3423 . May be repeated with change of content; Maximum credit nine hours. This course will focus on a particular author, genre, or theme from the origins of Italian literature (1225) through 1550. Students will read primary texts in ;the original language with an emphasis on understanding the texts through close textual analysis. (Sp)

## ITAL 4563 Topics in Modern Italian Literature and

Culture
3 Credit Hours
Prerequisite: 3073 or 3423 . May be repeated with change of content; maximum credit nine hours. This course will focus on an author, genre, or theme present in contemporary Italian literature (1700-Present). Students will read primary sources in the original language with an emphasis on understanding the text through close textual analysis. (F)
ITAL 4630 Internship
1-3 Credit Hours Prerequisite:permission of instructor and junior standing. 1 to 3 hours. May be repeated; maximum credit three hours. For advanced language students studying in Italy as part of the OU in Arezzo program. Students enrolling in this variable credit course will enter into internships with area businesses, local, regional, and national government offices, nonprofit organizations, and other local entities. Although the nature of the internships will vary depending on the partners, all internships will have the following requirements: the activities will be performed entirely in Italian; translation from English to Italian will not be the primary role of the intern; the sponsoring partner will provide at least weekly feedback; an OU faculty member will oversee the internship; at minimum students will complete an entrance, mid-term, final interview with the instructor; and a written final report. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

ITAL 4960 Directed Readings
-4 Credit Hours
1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean. May be repeated; maximum credit four hours. Designed for upper-division students who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)

ITAL 4970 Special Topics/Seminar 1-3 Credit Hours 1 to 3 hours. Prerequisite: Senior standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

ITAL 4990 Independent Study 1-3 Credit Hours
1 to 3 hours. Prerequisite: one course in general area to be studied; permission of instructor and department. May be repeated; maximum credit six hours. Contracted independent study for topic not currently offered in regularly scheduled courses. (F, Sp)

## ITAL 4993 Capstone: Special Topics in Italian 3 Credit Hours

Prerequisite: ITAL 3073, ITAL 3423, and one of the following: ITAL 3553 or ITAL 3663 or ITAL 4513 or ITAL 4563. Capstone course. Requires undergraduate Italian majors to synthesize their knowledge of Italian contributions to world civilization. They will be required, as part of this enterprise, to demonstrate their mastery of the four basic skills involved in learning a foreign language: reading, writing, speaking, and understanding. (Sp) [V].

## JAPN-Japanese

## JAPN 1115 Beginning Japanese

5 Credit Hours
An elementary course in understanding, speaking, reading and writing Japanese. Laboratory. This course does not count for major credit in the Department of Modern Languages, Literatures and Linguistics. (F) [I-FL].
JAPN 1225 Beginning Japanese (Continued) 5 Credit Hours
(Continued) Prerequisite: 1115. An elementary course in understanding, speaking, reading and writing Japanese. Laboratory. This course does not count for major credit in the Department of Modern Languages, Literatures and Linguistics. (Sp) [l-FL] .

## JAPN 2013 Intermediate Japanese Listening and Speaking 3 Credit Hours <br> Prerequisite: JAPN 2113 or concurrent enrollment with JAPN 2113. Provides intensive training in listening and speaking in Japanese for students who have taken first year Japanese. Through a systematic review of grammar and vocabulary taught in 1000-level Japanese coursework, develops students' understanding of functional ability to understand and speak Japanese and introduces unique features of Japanese language and culture, including formal and casual speech levels in Japanese. (F, Sp)

## JAPN 2113 Intermediate Japanese

3 Credit Hours
Prerequisite: 1225. Combination of basic Japanese grammar and vocabulary and their application to spoken and written Japanese. Laboratory (F)

JAPN 2223 Intermediate Japanese (Continued) 3 Credit Hours
(Continued) Prerequisite: 2113. Develops control of the grammar, vocabulary and idioms of spoken Japanese and provides a thorough introduction to the Japanese writing system as well as some grammatical structures peculiar to written Japanese. Laboratory (Sp)

JAPN 2970 Special Topics/Seminar
1-3 Credit Hours
Special Topics. 1 to 3 hours. May be repeated; Maximum credit nine hours. Special topics course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research, and field projects. (Irreg.)

JAPN 3013 Advanced Japanese Listening and Speaking 3 Credit Hours Prerequisite: JAPN 2223 or concurrent enrollment in JAPN 2223. Designed to give intensive training in listening and speaking in Japanese for students who have successfully completed Japanese 2113. Develops students' understanding of functional ability of listening and speaking Japanese. Unique features of Japanese language and culture will be learned, including casual/polite speech, honorifics, giving-receiving verbs, a variety of new forms, such as transitive/intransitive, causative, passive, causative-passive forms. (F, Sp)

JAPN 3113 Advanced Japanese I
3 Credit Hours
Prerequisite: JAPN 2223. Trains students in advanced Japanese language skills of speaking, listening, reading, and writing and introduces new grammatical forms, vocabularies and expressions. Prepares students to understand Japanese society. (F, Sp)

JAPN 3223 Advanced Japanese II 3 Credit Hours
Prerequisite: JAPN 3113 or equivalent. An advanced course in conversation and composition covering cultural topics. Develops listening and speaking skills to communicate orally in authentic Japanese and expands spoken and written vocabulary knowledge. Presenting ideas in speech and composition effectively will be practiced.
(Sp)
JAPN 3440 Mentored Research Experience 3 Credit Hours 0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)

JAPN 3960 Honors Reading
1-3 Credit Hours
1 to 3 hours. Prerequisite: Admission to Honors Program. May be repeated; maximum credit six hours. Consists of topics designated by the instructor in keeping with the student's major program. The topics will cover materials not usually presented in the regular courses. (F, Sp, Su)

JAPN 3970 Honors Seminar 1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Subjects covered vary. Deals with concepts not usually treated in regular courses. (Irreg.)

JAPN 3980 Honors Research 1-3 Credit Hours 1 to 3 hours. Prerequisite: Admission to Honors Program. May be repeated; maximum credit six hours. Will provide an opportunity for the gifted Honors candidate to work at a special project in the student's field. (F, Sp, Su)
JAPN 3990 Independent Study 1-3 Credit Hours
1 to 3 hours. Prerequisite: 2223. May be repeated; maximum credit 12 hours. Contracted independent study for topic not currently offered in regularly scheduled courses. (F, Sp)

JAPN 4113 Japanese Language and Society I 3 Credit Hours Prerequisite: JAPN 3223 or JAPN 4543. May be repeated with change of content; maximum credit six hours. Designed to develop the advancedlevel proficiency in reading and writing. Authentic reading materials on various topics will be used in combination with discussions, and oral and written reports. Emphasis is placed on strengthening correct usage of grammar and increasing knowledge of Kanji and compound terms using expressions and idioms in Japanese. (F)
JAPN 4543 Introduction to Classical Japanese 3 Credit Hours
Prerequisite: JAPN 3223. Students will learn classical Japanese grammar, major Japanese literary texts, as well as Japanese customs in ancient Japan. (Sp)
JAPN 4960 Directed Readings 1-4 Credit Hours
1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean. May be repeated; maximum credit four hours. Designed for upper-division students who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)
JAPN 4970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: Senior standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

## JAPN 4990 Independent Study

1-3 Credit Hours
Prerequisite: junior standing and permission of instructor. May be repeated with change of content; maximum credit six hours. Contracted independent study on one or more topics not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. ( $F, \mathrm{Sp}, \mathrm{Su}$ )

JAPN 4993 Senior Capstone in Japanese 3 Credit Hours
Prerequisite: JAPN 4113. Examines Japanese modern literature with a focus on the questions of Japanese modernity, post-modernity, nationalism, and cultural identity. (Sp)[V].
JAPN 5960 Directed Readings
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing and permission of department. May be repeated; maximum credit twelve hours. Directed readings and/or literature reviews under the direction of a faculty member. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
JAPN 5970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)
JAPN 5990 Independent Study
1-3 Credit Hours
Prerequisite: Graduate standing and permission of instructor. May be repeated with change of content; maximum credit 12 hours. Contracted independent study on one or more topics not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory and field projects. (F, Sp, Su)

# JMC-Journalism \& Mass Communication 

JMC 0123 Fundamentals of Writing for the Media 3 Credit Hours

Students review the fundamentals of writing and English grammar to strengthen their understanding of proper structure. Examples of language conventions for the media field are introduced. This course primarily consists of lectures and hands-on practice during class. Course offers preparatory materials for the Language Skills Test. Students will complete assignments \& quizzes to test understanding of the grammar rules. (F, Sp)
JMC 1013 Introduction to Media
3 Credit Hours
Development, scope, functions and information resources of mass media, emphasizing the role of professionals in solving contemporary problems in the mass media. ( $F, S p$ ) [V-FYE].

## JMC 1021 Introduction to Creative Media Prod 1 Credit Hour

 Prerequisite: JMC 1013; Majors only. An overview of the Creative Media Production for new majors. Students will be introduced to the various opportunities and sequences in the Creative Media Production major. (F, Sp )JMC 1031 Principles of American Journalism 1 Credit Hour
Prerequisite: Majors only, departmental permission, and JMC 1013. A survey of the normative roles and functions of journalism in the U.S. It explores the meaning of a free press, journalism's democratic functions, and how those functions are achieved (or not). Journalistic values of freedom, inclusivity, independence, public service, truth and social responsibility are studied in relation to journalism history and changes in the digital age. (F, Sp, Su)
JMC 1041 Visual Literacy
1 Credit Hour
Prerequisite: Majors only, departmental permission, and JMC 1013.
Visual theories underpin all visual communication and production. Students will understand how these theories work both at the conceptual and the practical level. Understanding of how visuals communicate \& are powerful conveyers of "proof", how images can be manipulated for strategic purposes as proof \& reinforcement of stereotypes. Students will learn \& apply photography \& design principles through class projects. (F, $\mathrm{Sp}, \mathrm{Su}$ )
JMC 1051 Digital Literacy 1 Credit Hour Prerequisite: Majors only, departmental permission, and JMC 1013. Students will be introduced to the social psychology theories that underpin collective behavior online, understand how media organizations either restrict or afford that behavior via the code(algorithms) they develop and learn how to engage in networked communities. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
JMC 1061 Journalism Writing \& Editing 1 Credit Hour
Prerequisite: Majors only, departmental permission, and JMC 1013. Introduction to journalistic writing and professional standards of news writing across all distribution platforms (broadcast, newspaper, online). Students will practice crafting and editing stories that provide accurate, objective, unbiased news and information across legacy and emerging media platforms. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

## JMC 1071 News Judgment \& Interviewing

1 Credit Hour
Prerequisite: Majors only, departmental permission, and JMC 1013. Building students' abilities to recognize a news story, identify the elements needed to tell that story, and prepare for and conduct interviews with sources. Course will introduce interviewing strategies, the difference between quotes and soundbites, how to cultivate sources and persist in asking questions under difficult circumstances. (F, Sp, Su)

JMC 1081 Reporting with Numbers 1 Credit Hour
Prerequisite: Majors only, departmental permission, and JMC 1013. This course will introduce students to the basic concepts and skills necessary to use numerical, statistical, geographical and survey data as a way of telling compelling fact-based stories. Content covered includes reporting statistical findings, finding trends in data, basic understanding of financial reporting, and reporting with public data sources. Ethics and issues of diversity included and graphical representation of data. ( $\mathrm{F}, \mathrm{Sp}$, Su )
JMC 2033 Media Writing \& Storytelling
3 Credit Hours
Prerequisite: 1013 or concurrent enrollment; passage of the school's writing skills test, and permission of instructor. Introduction to journalistic writing: the expository and persuasive formats; supervised practice in writing for the print, broadcast and photographic media; study of professional demands of organizing and presenting information in the various media. Laboratory ( $\mathrm{F}, \mathrm{Sp}$ )

## JMC 2643 Sound, Light, and Motion

3 Credit Hours
Prerequisite: JMC 1013; Majors only. Understand and demonstrate the basic skills of preproduction, sound recording/mixing, single-camera digital video production, and non-linear editing. (F, Sp)

## JMC 2683 Survey of Electronic Media

3 Credit Hours
Prerequisite: 1013. Conceptual overview of electronic media in both the national and international contexts. Course will cover technology, history, ethics, regulation, programming, diversity, advertising, management and production. (F, Sp)

## JMC 2970 Special Topics

1-3 Credit Hours
1 to 3 hours. Prerequisite: sophomore standing. May be repeated with change of content; maximum credit nine hours. Deals with content and concepts not usually offered in regular coursework and/or special creative situations or projects. (Irreg.)

## JMC 3003 Multimedia Journalism

3 Credit Hours Prerequisite: 2033. Introduces concepts and practices necessary for working in a multi-platform media environment. Provides instruction in the use of photographs, graphics, audio, video and the written word to create stories and content for print, broadcast and online media. ( $F, \mathrm{Sp}$, $\mathrm{Su})$

## JMC 3011 Practicum

1 Credit Hour
Prerequisite: permission of instructor. May be repeated; maximum credit three hours, two hours may be in the same area. Sections include The Wire, tv programming and operations, Oklahoma Daily, radio station KGOU, OUNightly News, the Sooner Yearbook student staff members, and other JMC major co-curricular opportunities. Discussion and analysis of current problems. (F, Sp, Su)
JMC 3013 Intermediate Cross-Platform Reporting 3 Credit Hours Prerequisite: Majors only, departmental permission, JMC 1013, JMC 1031, JMC 1041, JMC 1051, JMC 1061, JMC 1071, JMC 1081, and JMC 2033. A rigorous exploration of storytelling using social media and other digital tools to promote information but also gather information and sources in order to develop story ideas, judge news value, conduct research and interviews, develop sources and produce news content for print, broadcast and online media. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
JMC 3023 Long Form Storytelling
3 Credit Hours
Prerequisite: Majors only, departmental permission, JMC 1013, JMC 1031, JMC 1041, JMC 1051, JMC 1061, JMC 1071, JMC 1081, JMC 2033, and JMC 3013. This course will teach students the craft of writing in-depth works of narrative nonfiction, which includes conceptualizing story ideas, in-depth research, interviewing, navigating various long-form structures, editing and revisions, pitching and publication. ( $\mathrm{F}, \mathrm{Sp}$ )

JMC 3043 Community Journalism
3 Credit Hours
Prerequisite: 2033. The meaning of community is evolving with the importance of new media in the cultural mix. While geographical communities continue to define media consumers, so do online communities, ethnic and racial communities, gender communities and other ways of grouping together to find and exchange relevant information through the media. Explores a variety of forms of community journalism from its roots in the small town newspapers that have provided a verbal/visual town square for centuries to current redefinitions of the concept of community and the media manifestations of those redefinitions. (F, Sp)
JMC 3063 Introduction to Broadcast Journalism 3 Credit Hours Prerequisite: 2033 and 3003, or concurrent enrollment or permission. Introduction to the professional standards, vocabulary, processes, and newsroom organization of broadcast news. Focus is on learning how a broadcast newsroom functions and the collaboration needed to create a productive and efficient newsroom environment. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
JMC 3083 Business of Media
3 Credit Hours
Prerequisite: 2033 and completion of OU Math requirement. Explores the dual purpose of news and information media - the public service ethic rooted in journalism values and the financial interest rooted in business and how the values of journalism co-exist and conflict with the values of business. (F, Sp)
JMC 3103 News Editing
3 Credit Hours
Prerequisite: 2033, 3003. Work on newspapers, including correction of errors of fact and expression. The factors considered in selection of news. Good taste in editing copy; avoidance of libel; headline writing; techniques of copy control; newspaper makeup and arrangement. Laboratory (F, Sp)
JMC 3143 Photojournalism
3 Credit Hours
Prerequisite: JMC 1013 and JMC 2033, or permission from instructor. Course will sharpen your skills as a professional creator of photographic content. Learn to operate DSLR cameras. Learn how to deliver visual content on mobile \& social media platforms along with basic video storytelling. (F)
JMC 3163 Intro to Sports Journalism
3 Credit Hours
Prerequisite: JMC 1013, JMC 2033, or permission of instructor. Focus will be on the art of sports interviewing and sports writing. Course will contain all phases of the media -- print, radio, TV, \& online. Emphases on asking pertinent questions \& then building a story line. Students will be expected to create editorials \& features as they pertain to different media groups. (F)
JMC 3173 Play by Play
3 Credit Hours
Prerequisite: JMC 1013, JMC 2033, JMC 3003 or permission of instructor. Learn what is like to be behind the mic in addition to the complete structure of a television production. Will focus on live sports television production including an in-depth look at all crew positions, production techniques, game formats and emerging technology. Also will examine radio and television play-by-play techniques. ( $F, \mathrm{Sp}$ )
JMC 3303 Introduction to Advertising 3 Credit Hours
Prerequisite: 1013, 2033 or permission. Survey of the field of advertising and career areas within the field with emphasis on the relationship between marketing and advertising and the media which serve as channels of advertising communication. (F)

JMC 3333 Advertising Research
3 Credit Hours
Prerequisite: 1013, 2033, 3303. Introduction to concepts of research. Survey and use of secondary and primary data sources as basis for formulating basic advertising plans, including advertising and communications goals and objectives. (Sp)
JMC 3343 Advertising Design \& Visual Storytelling 3 Credit Hours Prerequisite: JMC 1013, JMC 2033, JMC 3303 or permission; majors only. Designed to give the advertising student an overall understanding of the development of the visual elements of advertising messages, strategies and executions. Emphasis on the technical aspects of creating advertising layouts using Adobe InDesign, PhotoShop, \& Illustrator, \& other selected programs along with effective communication using layout, typography \& imagery. (F, Sp)
JMC 3353 Advertising Storytelling 3 Credit Hours Prerequisite: JMC 1013, JMC 2033, JMC 3303; majors only; or permission. Overall understanding of the development of message strategy and written executions. Emphasis on creativity, concept development, idea generation \& principles of effective communication using words, pictures in a variety of print, social, digital and broadcast media. (Sp)

## JMC 3363 Advertising Media

3 Credit Hours
Prerequisite: 1013, 2033, 3303. Characteristics of the major advertising media. Problems of rates, coverage and costs of using various media mixes. Emphasis on the planning of the media schedule and its relationship to the creative strategy. (F)
JMC 3383 Digital Design I 3 Credit Hours
Prerequisite: JMC 3433, and JMC 3423 or JMC 3353, or permission from instructor. This will be a foundational course for the primary Adobe design programs: InDesign, Illustrator and Photoshop with specific focus on Illustrator and the creation and manipulation of vector graphics. Through learning and application, you will also be exposed to basic principles of good design. (F, Sp)
JMC 3393 Advanced Copywriting
3 Credit Hours
Prerequisite: JMC 1013, 2033, 3303, 3333, 3353. Extended practice in application of creative copy principles for major advertising media including newspapers, magazines, radio and television. (Irreg.)
JMC 3413 Public Relations Principles, Origins \& Practice3 Credit Hours Prerequisite: JMC 1013 and JMC 2033; Majors only. Will examine the nature and role of the field of public relations, history and developments of the profession over the years, activities of public relations professionals, their responsibilities, functions and practices in a variety of organizations, and significant issues, trends and ethical concerns that shape and will continue to influence the practice of public relations in the future. ( $\mathrm{F}, \mathrm{Sp}$ )

## JMC 3423 Public Relations Writing

3 Credit Hours
Prerequisite: 1013, 2033, 3413. Fundamentals and practice in preparation of public relations copy for various media and channels, including news and feature stories, photo captions, public service broadcasts and telecasts, viewbooks, annual reports, plans-programs memos, speeches, letters and direct mail materials. Techniques in dealing with management and various publics, including the news media. Laboratory (Sp)
JMC 3433 Public Relations Design
3 Credit Hours
Prerequisite: JMC 1013, 2033, 3413, and 3423; Majors only. This course strives to train students to recognize and apply good publication design techniques in a public relations setting. In addition, we will learn the importance of structuring visual communications. The major goal of this course, however, is to give students the ability to translate a concept of visual communication into an actual publication. (F)

JMC 3440 Mentored Research Experience
3 Credit Hours
0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)
JMC 3443 Event Planning
3 Credit Hours
Prerequisite: JMC 1013, JMC 2033, JMC 3413 or permission from instructor. This course explains how the event planning business works and what event planners do - from small parties to big corporate events. Elements covered include design, project management, site selection and development, safety and security, food and beverage service, and entertainment. (F)
JMC 3453 Public Relations \& Society
3 Credit Hours
Prerequisite: JMC 1013, 2033, and 3413; Majors only. This course is designed to introduce students to ethical principles relevant to public relations and to discuss core concepts surrounding ethical and professional public relations practice in organizations. Using case study, case scenarios, and class discussion, the course will cover and discuss ethics among a variety of topics such as corporate social responsibility, social media influencer, international/cross-cultural ethics. (F, Sp)
JMC 3463 Cross Cultural Issues in Media \& Society 3 Credit Hours Prerequisite: JMC 1013 and JMC 2033 or permission of instructor; Majors only. Cross-Cultural Issues in Media and Society highlights key areas of diverse ethnic, gender, ability and ideological groups inside and outside the United States in order to help PR/communications professionals begin to consider how culture may affect future projects. The critical role of diverse voices in a democracy will be discussed. (F, Sp)
JMC 3473 Art Direction \& Design
3 Credit Hours
Prerequisite: JMC 1013, JMC 2033, and JMC 3303 or permission of instructor. This course includes advanced development of art direction and design skills, and the execution of new work created in Adobe Photoshop, Illustrator, InDesign, and XD. Demonstrating mastery of design, craft, organization and presentation is the goal of this advanced course. ( $\mathrm{F}, \mathrm{Sp}$ )
JMC 3483 Preparing for Life After Gaylord
3 Credit Hours
Prerequisite: JMC 1013, 2033 \& 3303 or permission from instructor. Successfully navigating the communications field can be tricky, as there are no textbooks or step-by-step guides explaining how to land the right job, negotiate salaries, manage a team, and many other aspects of the working world. Understanding of how to combine your individual academic and emotional intelligence to artfully navigate the practitioner world, to achieve your potential and goals. (F, Sp)
JMC 3493 National Student Advertising Competition 3 Credit Hours Prerequisite: Junior Standing or special permission from instructor. The National Student Advertising Competition is the premier college advertising competition that provides more than 2,000 college students with the real-world experience of creating a strategic advertising/ marketing/media campaign for a corporate client. (Sp)
JMC 3504 Introduction to Professional Writing
4 Credit Hours
Prerequisite: JMC 1013, JMC 2033, JMC 3011 or concurrent enrollment in JMC 3011, and instructor permission. Basic theory, orientation and fundamental techniques of fiction writing. (F, Sp)

JMC 3613 Single Camera Production 3 Credit Hours
Prerequisite: 1013, 2033 or concurrent enrollment; Majors only. Understand and demonstrate the intermediate skills of preproduction, sound recording/mixing, single-camera digital video production, and nonlinear editing in the storytelling process. ( $F, S p$ )

JMC 3623 Electronic Media Writing 3 Credit Hours Prerequisite: JMC 1013, 2033; Majors only. Understand and demonstrate the basic skills of appropriate script formats, treatments, and writing for a wide variety of media genres. ( $\mathrm{F}, \mathrm{Sp}$ )

JMC 3633 Audio Production
3 Credit Hours Prerequisite: 1013, 2033. Studies in audio technology, recording techniques and technology, audio for television, film, radio and other distribution technologies. The study of processes including foley, synchronization, live mixing, talent microphone techniques, and audio engineering. Production of multiple audio elements for a variety of applications including news, advertising, promotion and others. (F, Sp)

## JMC 3643 Media Relations

3 Credit Hours
Prerequisite: JMC 1013, JMC 2033, JMC 3413, and JMC 3423. Media Relations is most important skills a PR Practitioner can posse. The course is designed to take an in-depth look at the tactics \& techniques PR students and other who might engage the media can use to achieve excellent relations with the media. (F, Sp)

## JMC 3653 Radio News

3 Credit Hours
Prerequisite: JMC 2033 and JMC 3003 or JMC 3623; Majors only. Study and practice of writing, editing and preparation of radio newscasts. (F)

JMC 3663 Visual Reporting 3 Credit Hours
Prerequisite: Majors only, departmental permission, JMC 1013, JMC 1031,
JMC 1041, JMC 1051, JMC 1061, JMC 1071, JMC 1081, JMC 2033, and JMC 3013. Basic visual news gathering skills, including production of strong visual story ideas, shooting and editing with digital equipment and application of news ethics. (F, Sp)
JMC 3683 Digital Reporting 3 Credit Hours
Prerequisite: Majors only, departmental, JMC 1013, JMC 1031, JMC 1041, JMC 1051, JMC 1061, JMC 1071, JMC 1081, and JMC 2033. An overview of the Creative Media Production for new majors. Students will be introduced to the various opportunities and sequences in the Creative Media Production major. (F, Sp)

## JMC 3703 Backpack Reporting <br> 3 Credit Hours

Prerequisite: Majors only; JMC 1013, JMC 2033, JMC 3003 or permission of instructor. Learn to produce video stories with compelling sound, images and to do so by themselves and with efficiency, thus "backpack journalism". Content produced may be for a legacy media organization, for commercial or non-profit groups or for documentary work. (Irreg.)
JMC 3713 History of Motion Media 3 Credit Hours
Prerequisite: JMC 2683 and JMC 3623, majors only; or permission of instructor. History and development of film, television and emerging media as a communication medium. Varied critical perspectives are offered; exemplary media presented, preceded by lectures on history and technique, followed by discussion periods. (Irreg.)
JMC 3723 Introduction to Documentary 3 Credit Hours Prerequisite: JMC 1013 and JMC 3623; majors only; or permission of instructor. History and development of the documentary medium. Varied perspectives are offered; exemplary films and videos are presented, preceded by lectures on history and technique. Includes discussion periods and practice. (Irreg.)

JMC 3753 Electronic Media Criticism
3 Credit Hours
Prerequisite: 1013, 2033. Offers basic skills to interpret the role that internet, video, film and audio play as a cultural force in society. Students will learn to become critical analysts of media texts. (Sp)
JMC 3763 Narrative Screenwriting
3 Credit Hours
Prerequisite: JMC 2033, JMC 2643 \& JMC 3623 or concurrent enrollment; Majors only. Understand and demonstrate the intermediate skill of narrative script writing. (F, Sp)

JMC 3773 Television News
3 Credit Hours
Prerequisite: 3003, 3013, 3063 and 3663 . Television news principles and practice in use of ENG (electronic news gathering), editing of video tape stories and preparation of television news programs. Laboratory (F, Sp)
JMC 3800 Internship 1-3 Credit Hours 1 to 3 hours. Prerequisite: 3.00 grade point average required with a total of 75 semester hours completed of which 15 semester hours are required in JMC; Permission of instructor; May be repeated; maximum 6 credit hours. Participation in supervised intern experience; grade of S or U based on work performance, regular reports, on-site supervisor evaluation. (F, Sp, Su)
JMC 3960 Honors Reading
1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated with change of content; maximum credit six hours. Consists of topics designated by the instructor in keeping with the student's major program; covers materials not usually presented in regular courses. ( $F$, Sp, Su)
JMC 3970 Honors Seminar 1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated with change of content; maximum credit six hours. Projects vary; deal with concepts no usually presented in regular coursework. (F, Sp, Su)
JMC 3980 Honors Research 1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated with change of content; maximum credit six hours. Provides an opportunity for the gifted Honors candidate to work at a special project in the student's field. (F, Sp, Su)

JMC 3990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: permission of instructor and junior standing. May be repeated once with change of content; maximum credit six hours. Independent study may be arranged to study a subject not available through regular course offerings. (F, Sp, Su)

## JMC 4013 Essential Reporting

3 Credit Hours
Prerequisite: Majors only, departmental permission, JMC 1013, JMC 1031, JMC 1041, JMC 1051, JMC 1061, JMC 1071, JMC 1081, and JMC 2033. Students will learn to navigate county, city and school government from the basics of court procedure to following a paper trail through the court system and government. (F, Sp)

## JMC 4033 Advancing Cultural Proficiency in Media <br> Leadership <br> 3 Credit Hours

Prerequisite: Majors only, departmental permission, JMC 1013, JMC 1031,
JMC 1041, JMC 1051, JMC 1061, JMC 1071, JMC 1081, JMC 2033, and JMC 3013. The study of diversity and leadership from both a theoretical and a practical perspective. (F, Sp)

JMC 4043 TV News Producing
3 Credit Hours
(Slashlisted with JMC 5043) Prerequisite: JMC 3063, 3663, and JMC 3003; or with permission of instructor. This course will focus on television news producing in its various forms, such as line producing, field producing, content producing, and preditor (producer/editor). Students will experience hands-on how to produce a full-length newscast, field produce an individual story, and learn the responsibilities of content producing and preditor positions in a digital newsroom. No student may earn credit for both 4043 and 5043. (F, Sp)

## JMC 4143 Reporting in Washington 3 Credit Hours

Prerequisite: JMC 1013, JMC 2033, JMC 3003, and JMC 3013; or permission of instructor. Students will be generating stories about activities of the Oklahoma's congressional delegation and federal issues impacting Oklahomans for Oklahoma media. Course will take place in Washington DC. The course will explore how reporters gain access to events that only a handful of reporters are allowed to attend as well as generating stories on deadline. ( $\mathrm{F}, \mathrm{Sp}$ )
JMC 4153 Public Relations for Causes and Issues 3 Credit Hours (Slashlisted with JMC 5153) Prerequisite: JMC 1013, JMC 2033, JMC 3413, and JMC 3423. Course takes a hands-on approach to causes and issues in public relations. Examines research and theory-based approaches for communication strategies that target key stakeholders. Provides students with essential information on how to develop, implement, and evaluate a comprehensive communications campaign for different types of organizations such as nonprofits, advocacy groups, and philanthropic organizations. No student may earn credit for both 4153 and 5153. (F, Sp)
JMC 4163 Public Relations for Consumer Culture 3 Credit Hours (Slashlisted with JMC 5163) Prerequisite: JMC 1013, JMC 2033, JMC 341, and JMC 3423. Comprehensive introduction to the major theories and empirical studies of consumer culture with emphasis upon the motivations and cultural aspects of consumption in America; substantive focus upon diverse topics such as fashion, celebrity influences, food, tourism, physical attractiveness, children, and race/ethnicity. No student may earn credit for both 4163 and 5163. ( $\mathrm{F}, \mathrm{Sp}$ )

## JMC 4173 Public Relations for Public vs. Private

## Organizations

3 Credit Hours
(Slashlisted with JMC 5173) Prerequisite: JMC 1013, JMC 2033, and JMC 3413 . Students will examine how identity influences the ways in which organizations represent themselves to the various constituencies, and how identity is influenced by interactions with the groups. The course also examines the distinct challenges, considerations, and communication strategies in shaping and safeguarding the reputation of entities operating in the public and private sectors. No student may earn credit for both 4173 and 5173. ( $\mathrm{F}, \mathrm{Sp}$ )
JMC 4183 Advanced Cross-Platform Reporting 3 Credit Hours Prerequisite: Majors only, departmental permission, JMC 1013, JMC 1031, JMC 1041, JMC 1051, JMC 1061, JMC 1071, JMC 1081, JMC 2033, and JMC 3013. Develop tools to become proficient at creating professional news stories, develop advanced content for media outlets in Oklahoma, and increase understanding of importance of diversity in our reporting and inside our own newsroom. (F, Sp)

JMC 4193 Principles of Media Entrepreneurship 3 Credit Hours (Slashlisted with JMC 5193) Prerequisite: JMC 1013 and JMC 2033. An in-depth examination of media entrepreneurship and distribution in the digital age. Students will learn how to create their own company, design a business plan, create budgets, and find financial backers and sponsors. Current approaches to marketing and distributing media products of various forms to the media industry will also be explored. No student may receive credit for both 4193 and 5193. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
JMC 4213 Innovators in Journalism 3 Credit Hours Prerequisite: JMC 1013, JMC 2033, JMC 3003, and JMC 3013; or permission of instructor. The nation's capital has long been the nexus for journalists aspiring to be leaders in the profession. As a result, many of the innovative changes being utilized to cover the federal government have been developed here. This course will explore some of those developments and result in meetings with many of the journalists behind those advances. ( $F, S p$ )
JMC 4223 Digital Advertising
3 Credit Hours
(Slashlisted with JMC 5223) Prerequisite: JMC 1013, JMC 2033 and JMC 3303. Recognizing the growing importance of newly emerging forms of advertising/promotions using non-traditional or alternative media, this course is designed to explore a new view of advertising in the current marketing/media environments. Along with learning the traditional advertising theories, students will understand how to effectively measure the use of interactive advertising media. No student may earn credit for both 4223 and 5223. (Irreg.)
JMC 4233 Advertising Portfolio
3 Credit Hours
(Slashlisted with JMC 5233) Prerequisite: JMC 1013, JMC 2033,
JMC 3303, and JMC 3343. This course includes revision of existing pieces to professional standards, and the execution of new work to complete the professional portfolio. Demonstrating mastery of design, craft, organization and presentation is the goal of this Portfolio course. Topics covered related to the business of art direction, graphic design, copy writing, business correspondence, interviewing \& self promotional skills, \& job promotional skills. No student may earn credit for both 4233 and 5233. (F, Sp)
JMC 4243 Strategic Fashion Communication
3 Credit Hours
(Slashlisted with JMC 5243) Prerequisite: 1013, 2033, 3303, 3413. Offers both a critical and practical exploration of the fashion communication business covering the complete cycle of the fashion industry from the concept and production stages to marketing campaigns, product sales, and events planning. Focusing on the lifecycle of the fashion brand. No student may earn credit for both 4243 and 5243. (Irreg.)

## JMC 4253 British Media Studies

3 Credit Hours
Prerequisite: JMC 1013, JMC 2033, and permission of instructor. Critical analysis of the products of the media and the impact that the British media have upon their and our culture. Students will gain the ability to understand similarities and differences in British and American media cultures. (Irreg.)
JMC 4263 British News Media Systems
3 Credit Hours
Prerequisite: junior standing and permission of instructor. Examines the structure, role, history and future of the news media in the U.K. and Europe. Covers print, broadcast, and web-based news media, with particular emphasis on broadcast/journalism and the current challenges it faces. There will be site visits to advertising and public relations agencies. Students will learn about the role of public service media in the U.K. (Irreg.)

## JMC 4273 Communicating Culture Tourism Media: Concepts and Theory <br> 3 Credit Hours

(Slashlisted with JMC 5273) Prerequisite: JMC 1013, JMC 2033 \&
JMC 3413 \& permission from instructor; corequisite JMC 4283. Through
an immersion experience in an international location, students will
analyze the cultural traditions and history of modern travel media.
Studies include the major contexts and motives of tourism, as well as the foundations of contemporary forms of travel media. No student may earn credit for both 4273 and 5273. (Irreg.)

## JMC 4283 Communicating Culture Tourism Media: Travel

## Genres

3 Credit Hours
(Slashlisted with JMC 5283) Prerequisite: JMC 1013, JMC 2033, JMC 3413 \& permission of instructor; corequisite JMC 4273. Through an immersion experience in an international location, this course will teach students the elements of narrative storytelling for media, and give them opportunities to hone and develop their individual writing styles through applied assignments. Students will gain the strategic and applied skills for feature-style writing that will allow them to produce media that meet professional standards. No student may earn credit for both 4283 and 5283. (Irreg.)

JMC 4293 Advanced Copywriting
3 Credit Hours
Prerequisite: JMC 1013, JMC 2033, JMC 3303, and JMC 3353; or permission of instructor. Primary emphasis will be on the creation of multiple strategic, compelling, and effective advertising campaigns. Students will leverage the tools of concept development (the Big Idea), idea generation and the execution of digital, social, experiential, and traditional (print and broadcast) advertising as well as peer workshop criticism to refine work to include in a professional portfolio. ( $\mathrm{F}, \mathrm{Sp}$ )

## JMC 4303 International Advertising 3 Credit Hours

(Slashlisted with JMC 5303; Crosslisted with MKT 4303) Prerequisite: JMC 3303 or special permission from instructor. May be repeated with change of subject matter; maximum credit six hours. Designed to provide basic understanding of advertising and culture that applies to advertising in non-American locations. No student may earn credit for both 4303 and 5303. (Irreg.)

JMC 4323 Advertising Account Planning 3 Credit Hours
(Slashlisted with 5323) Prerequisite: 3303. Discussion and practice of the advertising agency function of representing the target audience. Emphasis on learning to think like a consumer. Incorporates creativity, market research, consumer behavior and critical thinking to help in understanding target audiences. No student may earn credit for both 4323 and 5323. (F)
JMC G4333 Contemporary Problems in Advertising 3 Credit Hours (Slashlisted with 5333) Prerequisite: 1013, 2033, 3303, 3333. Survey of contemporary problems in advertising, including current social and economic criticisms, legal and self-regulation problems, and agency and media-related problems. No student may earn credit for both 4333 and 5333. (F)

JMC 4343 Advertising Campaigns
3 Credit Hours
Prerequisite: $1013,2033,3303,3333,3353,3363$ and senior standing. This is the senior capstone course for the advertising sequence. Working as members of competitive advertising agency teams, students research, plan, develop marketing, creative and media strategy and make formal presentations to a major client for a complete advertising campaign. Laboratory (F, Sp) [V] .

JMC 4353 Cinematography
3 Credit Hours
(Slashlisted with JMC 5353) Prerequisite: JMC 1013, JMC 2033 and JMC 2643; Majors only. Understand and demonstrate the advanced skills of scriptwriting, preproduction, sound recording/mixing, single-camera digital video production and non-linear editing in the narrative storytelling process. No student may earn credit for both 4353 and 5353. (Sp)

JMC 4363 Data Journalism
3 Credit Hours
(Slashlisted with JMC 5363) Prerequisite: JMC 1013 and JMC 2033 or permission from instructor. Introduction to the basic concepts and skills necessary to use numerical, statistical, geographical and survey data as a way of telling compelling fact-based stories. Stories may be used as news, strategic or narrative products. Data can be used in all of Gaylord fields from journalism to professional writing. Class builds skills in finding, cleaning, analyzing, interpreting and then using data. No student may earn credit for both 4363 and 5363. (F, Sp)
JMC 4373 Media Psychology
3 Credit Hours
(Slashlisted with JMC 5373) Prerequisite: JMC 1013 and JMC 2033 or Instructor permission. Focus on cognitive and emotional processing of media. Topics cover: how do media impact our thoughts, feelings and behaviors, how and when we change our attitudes, what the media teach us about the world, how we pay attention to television, print media, and the Internet, how we respond emotionally, and how we decide what is real. Psychological theories reviewed. No student may earn credit for both 4373 and 5373. (F, Sp)

JMC 4383 Digital Design II
3 Credit Hours
Prerequisite: JMC 3383 or permission from instructor. Utilizing the adobe creative suite, students will advance design capabilities. Students will be provided opportunities to explore new and innovative concepts relevant to graphic design in order to further develop their creativity and personal design aesthetic. Class collaboration along with instructor feedback will learn to complete work in a timely \& professional manner. (F, Sp)

JMC 4393 Advanced PR Writing
3 Credit Hours
Prerequisite: JMC 1013, JMC 2033, JMC 3413, and JMC 3423; permission of instructor. Hiring managers need PR practitioners who can write strategically and persuasively, who can take complex ideas and communicate them effectively to various targeted audiences. Advanced PR Writing is designed to take your communications skills to a higher level, focusing on writing for audio/visual and social media platforms, writing for business and writing for executives. Reinforce AP style writing. (F, Sp)
JMC 4403 Public Relations Campaigns
3 Credit Hours
Prerequisite: JMC 1013, 2033, 3413, 3423, and 4453; Majors only. This course covers the application of theory, research data, and problemsolving techniques in the development of a comprehensive public relations campaign. (F, Sp)

## JMC 4413 Crisis Communication

3 Credit Hours
Prerequisite: 3413 or instructor permission. Examine strategic communication practices throughout the three stages of a crisis event. Special emphasis is placed on crisis planning, media relationships, image restoration, ethical responses, and organizational learning. No student may earn credit for both 4413 and 5413. (F, Sp)

## JMC 4423 Contemporary Problems in Public Relations

## Capstone

3 Credit Hours
Prerequisite: JMC 1013, 2033, 3413, 3423, 3443, 4453 and 4403; Majors
only. Through the analysis of real-life cases, students will discuss,
critique, and apply public relations models and theories, standards, ethics, and values. Students will also apply and master research skills, sharpen critical thinking skills, and understand concepts from multiple points of view. (F, Sp)

JMC 4433 Sports Public Relations 3 Credit Hours
(Slashlisted with 5433) Prerequisite: 1013, 2033,3413. A study of public relations as it is practiced in the sports industry featuring guest and video presenters representing various sports publicity, promotion and public relations positions. Includes representatives of newspaper, television, and radio sports departments. No student may earn credit for both 4433 and 5433. (Irreg.)

JMC 4443 Public Relations Management 3 Credit Hours (Slashlisted with JMC 5443) Prerequisite: Majors only; JMC 2033, JMC 3413, JMC 3423 or permission of instructor. This course will introduce you to the field of public relations and give you an overview of the historical development and current status of public relations. You will understand the study of public relations as the strategic behavioral management function that applies communication and organizational theory to the research, planning, implementation, and evaluation of the communication programs of organizations. No student may earn credit for both 4443 and 5443. (Irreg.)

## JMC 4453 Public Relations Research <br> 3 Credit Hours

(Slashlisted with 5453) Prerequisite: 3413. To build skills in the use of various public relations research methodologies available for exploratory, evaluation, and management assessment of programs. No student may earn credit for both 4453 and 5453. (Sp)
JMC 4473 Social Media Marketing
3 Credit Hours
(Slashlisted with JMC 5473) Prerequisite: junior standing; majors only; JMC 1013, JMC 2033 and JMC 3413. Social Media Marketing explores the most effective marketing strategies and tactics used by brands to engage with consumers on each social media platform. You'll study best practices in social media marketing and apply them to the eight-step social media-planning model to construct an extensive real world social media marketing plan for a client. No student may receive credit for both 4473 and 5473. (F, Sp, Su)

JMC 4483 Global and International Public Relations 3 Credit Hours (Slashlisted with JMC 5483). Prerequisite: JMC 1013, JMC 2033 and JMC 3413. Investigate current issues in global public relations practice. Students will examine how political, socio-economic, cultural, and historical particularities, together with pop culture, influence modern public relations practice. Students will also learn what role the social media plays in shaping global public relations strategies, as well as what role globalization plays in shaping strategic communication messages on international markets. No student may receive credit for both 4483 and 5483. (F, Sp, Su)

JMC 4493 Social Media Strategies
3 Credit Hours
(Slashlisted with JMC 5493) Prerequisite: Permission of Instructor; JMC 1013, JMC 2033, and JMC 3413. Student will understand the mass communication industry by discussion and using assignments to focus on social media post writing, publishing, management, and measurement. Students will complete a social media audit, social media calendar, social media monitoring and evaluation plan, target public personas, as well as several social media platform certifications. No student may earn credit for both 4493 and 5493. (F, Sp)

## JMC 4503 Tutorial in Writing

3 Credit Hours
Prerequisite: 1013, 2033, 3504, 3514 and permission. May be repeated once for credit; maximum credit six hours. May accompany 3514 with permission. Individual conferences devoted entirely to preparation, criticism, editing and preparation for marketing of the student's original manuscript, both fiction and nonfiction. (F, Sp)

JMC 4514 Writing the Novel
4 Credit Hours
Prerequisite: 1013, 2033, 3504 and 3514; or permission. May be repeated; maximum credit eight hours. Analysis of the practical creative problems involved in writing novels. Instruction in specific approaches and techniques useful in plotting, characterization, setting, scene, etc. Supervised writing of a novel by each student. (F, Sp)

JMC 4523 Theories of Public Relations 3 Credit Hours (Slashlisted with JMC 5523) Prerequisite: JMC 1013, JMC 2033, JMC 3413, JMC 3423, JMC 3453. Students will have a unique opportunity to meet and network with some of the leading public relations academic and practitioner experts and to learn more about the public relations and strategic communications field. No student may earn credit for both 4523 and 5523. (F, Sp)

## JMC 4524 Writing the Short Story

4 Credit Hours
(Slashlisted with JMC 5524) Prerequisite: majors only; JMC 1013,
JMC 2033, JMC 3504 and permission of instructor or department.
Techniques and theory of fiction writing and plots, with emphasis on current American short stories. No student may earn credit for both 4524 and 5524. (F, Sp)
JMC 4533 Mystery Writing
3 Credit Hours
(Slashlisted with JMC 5533) Prerequisite: JMC 3504. A survey and discussion of the various popular forms that are used in the creation of commercial crime stories in fiction and film. This look at the most popular forms of crime writing and their rationales has the intention of allowing students to develop their own crime writing projects to better fit the prevailing markets. No student may earn credit for both 4533 and 5533. (F, Sp)

## JMC 4543 Sci-Fi \& Fantasy Writing

3 Credit Hours
(Slashlisted with JMC 5543) Prerequisite: JMC 3504. Although most people lump science fiction and fantasy stories together, these two genres are worlds apart. This course will help you expand your understanding of the two areas by focusing on world building, tech, and magic as well as potential societal differences. Sci-Fi \& Fantasy Writing allows participants to dig more deeply into genres they wish to explore. No student may earn credit for both 4543 and 5543. (F, Sp)
JMC 4553 Advanced Novel Writing
3 Credit Hours
Prerequisite: JMC 1013, JMC 2033, JMC 3504, and JMC 4514 or permission of instructor; May be repeated; maximum credit six hours. Designed to follow WRITING THE NOVEL (JMC 4514), this course will guide students through completion of the second half of a novel as well as a supervised revision, breaking down the process into a series of milestones and weekly deadlines, with personalized feedback, guidance, encouragement, and one-on-one conferences with the instructor. (F, Sp)

## JMC G4563 Category Fiction <br> 3 Credit Hours

(Slashlisted with 5563) Prerequisite: 3504 and 3514, or permission of instructor. May be repeated once with change of content; maximum credit six hours. In-depth study of current popular fiction genres and techniques used by category authors. Discussion of books in terms of fiction devices and application of such techniques to student's own work. No student may earn credit for both 4563 and 5563. (F)
JMC 4573 Theories of Professional Writing 3 Credit Hours (Slashlisted with JMC 5573) Prerequisite: majors only; JMC 3504. Study of significant theories of the writing process, the motivation to write, and intended effects of writing. Students will address aesthetics, philosophy and values relating to careers in writing. No student may earn credit for both 4573 and 5573. (F, Sp)

JMC 4593 Young Adult Fiction Writing
3 Credit Hours
(Slashlisted with JMC 5593) Prerequisite: JMC 3504. Young adult fiction is a thriving sector of the book industry. This class deconstructs the state of the young adult market and uses current award winners and bestsellers as models of aspects of story such as characterization, worldbuilding, plotting and voice. Students learn how to position their work in a booming market and discover how writing young adult fiction is similar to and different from writing for adults. No student may earn credit for both 4593 and 5593. (F, Sp)
JMC 4603 Business of Professional Writing
3 Credit Hours
Prerequisite: JMC 4573 \& Senior Standing. The capstone course should reflect the culmination of the student's training in writing technique and craftsmanship and demonstrate the student's ability to apply such knowledge in his or her own writing. Furthermore, the student should show awareness of the marketplace and what constitutes work that is commercial, professional, and saleable. ( $\mathrm{F}, \mathrm{Sp}$ ) [V].

## JMC 4623 Multi-Camera Production

3 Credit Hours
(Slashlisted with JMC 5623) Prerequisite: JMC 2643; Majors only. Understand and demonstrate the skills of scriptwriting, preproduction, sound recording/mixing, multi-camera video production and non-linear editing in the storytelling process. No student may earn credit for both 4623 and 5623. (F)
JMC 4633 Advanced Single Camera Production
3 Credit Hours
(Slashlisted with JMC 5633) Prerequisite: JMC 2033, JMC 3613; Majors only. Understand and demonstrate the advanced skills of scriptwriting, sound recording/mixing, single-camera digital video production and nonlinear editing in the storytelling process. No student may earn credit for both 4633 and 5633. (F, Sp)
JMC 4643 Advanced Audio Production 3 Credit Hours (Slashlisted with JMC 5643) Prerequisite: 2623, 3633. Advanced study of the technology, capabilities and utilization of audio media. Units on advanced audio techniques for radio, television and film. Intensive practice and skill development in audio production techniques. No student may earn credit for both 4643 and 5643. (Irreg.)

## JMC 4651 Portfolio -CMP <br> 1 Credit Hour

Prerequisite: JMC 4653 or concurrent enrollment; senior standing; Majors only. Career development course where students develop a demo reel, website, resume and other materials to assess students work and begin their professional careers. $(\mathrm{F}, \mathrm{Sp})$
JMC 4653 Issues And Ethics In Electronic Media 3 Credit Hours Prerequisite: 90 hours including twelve hours of Journalism and Mass Communications courses. Capstone course for Broadcasting and Electronic Media. Identification, examination, and analysis of current and ethical issues affecting media and media industries. Course content varies. (Sp) [V].
JMC 4673 Advanced Broadcast News
3 Credit Hours
(Slashlisted with 5673) Prerequisite: 3013 and 3773 . Study of current requirements for and practice of public affairs programming, including news. Evolution of broadcast documentary form; writing, filming, editing techniques; budgeting and scheduling; actual preparation of public affairs programs of various types with emphasis on the extended-length news documentary. No student may earn credit for both 4673 and 5673. Laboratory (Sp)

JMC 4683 Multimedia Content Management
3 Credit Hours
(Slashlisted with 5683) Prerequisite: 3013 and 3683. Examines working with media content in a variety of formats such as text, audio, video, photography and graphics, for online media. Instruction and practice in editing designing, presenting, and managing news and information content for online media. No student may earn credit for both 4683 and 5683. (F, Sp) [V] .

JMC 4693 Podcasting
3 Credit Hours
(Slashlisted with JMC 5693) Prerequisite: Junior standing; JMC 1013 and JMC 2033 or permission of instructor. Podcasting is a newer media form built on older media forms, made possible by digital technologies. It is transforming our media experience of who gets to tell stories, what stories are being told, and how we interact at large and small scales. Understanding media in the current era requires understanding podcasting. No student may earn credit for both 4693 and 5693. (F, Sp)
JMC 4723 Horror Writing
3 Credit Hours
(Slashlisted with JMC 5723) Prerequisite: Junior standing; JMC 1013 and JMC 2033 or permission of instructor. Students are expected to gain proficiency with writing and understanding horror in prose, script, and voice acting/acting through analysis of published articles, reviews, and blogs, in-class technique drills, individualized coaching from the professor, and writing original pieces of their own. Learn how to submit their work in the horror field and get published pieces to put into their resumes. No student may earn credit for both 4723 and 5723. (F, Sp)

## JMC 4733 Advanced Narrative Screenwriting 3 Credit Hours

Prerequisite: JMC 2033, JMC 3763; Majors only. Understand and demonstrate the advanced skills of narrative scriptwriting. (Sp)
JMC 4753 Documentary Research and Writing 3 Credit Hours (Slashlisted with JMC 5753) Prerequisite: JMC 3623, and JMC 3723 or concurrent enrollment; majors only; or permission of instructor. Covers the preparation of a documentary from both practical and critical/ theoretical directions. Focuses on research, writing and submission of documentary proposals, and practical writing exercises. No student may earn credit for both 4753 and 5753. (F)

## JMC 4763 Documentary Production

3 Credit Hours (Slashlisted with JMC 5763) Prerequisite: JMC 3613, JMC 3723; Majors only. Understand and demonstrate the advanced skills of research, preproduction, scriptwriting, sound recording/mixing, single-camera digital video production and non-linear editing in the documentary storytelling. No student may earn credit for both 4763 and 5763. (Sp)
JMC 4773 After Effects
3 Credit Hours
(Slashlisted with JMC 5773) Prerequisite: Majors only; JMC 3613. Practice and understanding of graphic design, motion graphics, compositing, color correction, VFX and puppet animations using After Effects. No student may earn credit for both 4773 and 5773. (F)
JMC 4793 Broadcast Advertising Production
3 Credit Hours
(Slashlisted with 5793) Prerequisite: 2623 and 3613 , or permission of instructor. Addresses all the major stages of creating broadcast advertising messages from research and development of scripts through production, post production and final presentation. Emphasis will be placed on working in teams to create commercial messages. No student may earn credit for both 4793 and 5793. (Irreg.)

## JMC 4803 History of Media

3 Credit Hours
Prerequisite: Junior standing and twelve hours of Journalism credit; Majors only. Historical contributions and influences related to broad, relevant elements of media. Historical relationship of media and culture, development of freedom of expression. Relationship between interpretive nature of historiography and diversity of groups in a global society. Role of individuals, institutions, professional influences, and events historically shaping communications through media. ( $\mathrm{F}, \mathrm{Sp}$ )

## JMC 4813 Media Law

3 Credit Hours
Prerequisite: ninety hours, including thirteen hours of journalism and mass communication. Capstone course for the Journalism sequence. Examines the principles by which the media exercise their public functions and fulfill the mission of the First Amendment. Areas studied include: the right to know, truth and fairness, responsibility, libel, privilege, fair comment, privacy, contempt, copyright, regulation of advertising and the rules, regulations and industry codes which affect the broadcast media. ( $F, S p$ ) [V].

## JMC 4833 Journalism Ethics

3 Credit Hours
(Slashlisted with 5833) Prerequisite: junior standing and twelve hours of journalism and mass communication courses. Press criticism; organizational performance; reportorial performance; print/broadcast distinctions. No student may earn credit for both 4833 and 5833. (F, Sp)

## JMC 4843 Sports Promotion <br> 3 Credit Hours

(Slashlisted with JMC 5843) Prerequisite: JMC 1013, JMC 2033, and JMC 3413 or permission of instructor. This course overviews the various types of sports industry positions that utilize strategic communication skills under the overarching umbrella of "sports promotion." The goal of this course is to help students fully understand the myriad of different ways public relations, advertising, sales and marketing techniques can be used in sports promotion. No student may earn credit for both 4843 and 5843. (F, Sp)

JMC 4853 Race, Gender, Class and the Media 3 Credit Hours (Slashlisted with JMC 5853) Prerequisite: Majors only; junior standing and twelve Journalism and Mass Communication credit hours. Survey of past and present relationships between women and racial and ethnic minorities in the U.S. and the media. Media portrayal, employment, ownership and access will be studied. No student may earn credit for both 4853 and 5853. (F, Sp)

## JMC 4863 Journalism, Ethics and Democracy 3 Credit Hours

Prerequisite: 90 hours, including 24 hours in Journalism. Journalism Capstone course that immerses majors in a conceptual examination of the crucial role of news professionals in a participatory democracy. Emphasizes freedom of speech and press, ethical principles, the watchdog function of journalism, and social and professional responsibilities of journalists in an age of rapidly changing media forms. ( $\mathrm{F}, \mathrm{Sp}$ ) [V].
JMC 4903 Production for Clients
3 Credit Hours
(Slashlisted with JMC 5903) Prerequisite: JMC 4633 or permission of instructor. Students work on actual client projects. The class simulates a production house operation. Working in teams, students are responsible for budgeting, working with clients, scripting, shooting, editing, and follow-through on the project. No student may earn credit for both 4903 and 5903. (F, Sp)

JMC 4913 Narrative Production
3 Credit Hours
(Slashlisted with JMC 5913) Prerequisite: JMC 3613, JMC 3763; Majors only. Understand and demonstrate the advanced skills of scriptwriting, preproduction, sound recording/mixing, single-camera digital video production and non-linear editing in the narrative storytelling process. No student may earn credit for both JMC 4913 and 5913. No student may earn credit for both 4913 and 5913. (F, Sp)
JMC 4933 Gaylord 360: Storytelling Without Walls 3 Credit Hours Prerequisite: Departmental permission; JMC 1013, JMC 2033, and JMC 3303. Gaylord 360: Storytelling Without Walls is a unique learning experience that gives advertising, creative media production, journalism, professional writing, and public relations majors the opportunity to work together to create and implement storytelling in a holistic, real-world 360degree environment from beyond the OU campus community. Gaylord 360 will work in Arezzo, Italy with client to gain hands-on experience. (Su)
JMC 4943 Food Writing and Social Media 3 Credit Hours
Prerequisite: Departmental permission; JMC 1013, JMC 2033, and
JMC 3303. Designed for Gaylord College students in Arezzo and combines the history and customs of food, olive oil, and wine in Arezzo and the surrounding region with food writing and blogging. The class will explore a small portion of the history of Italian food \& wine. Students will become educated, informed, and discerning food writers and publishers.
(Su)
JMC 4960 Directed Readings
1-4 Credit Hours
1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean. May be repeated; maximum credit four hours. Designed for upper-division students who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)

## JMC 4970 Special Topics

1-3 Credit Hours
1 to 3 hours. Prerequisite: permission of instructor. May be repeated with change of subject matter; maximum credit nine hours. Varied projects with experimental, innovative and creative approaches, to communicating through the mass media. (Irreg.)
JMC 4990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: three courses in general area to be studied; permission of instructor and department; 3.00 grade point average on all college work. May be repeated; maximum credit six hours. Contracted independent study for topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
JMC 5001 Professional Practices
1 Credit Hour
Prerequisite: graduate standing and permission. May be repeated with change of content; maximum credit six hours. Discussion and practice in specialized skills related to news and information, strategic communication, or media arts. ( $\mathrm{F}, \mathrm{Sp}$ )

## JMC 5043 TV News Producing

3 Credit Hours
(Slashlisted with JMC 4043) Prerequisite: Graduate standing and permission of instructor. This course will focus on television news producing in its various forms, such as line producing, field producing, content producing, and preditor (producer/editor). Students will experience hands-on how to produce a full-length newscast, field produce an individual story, and learn the responsibilities of content producing and preditor positions in a digital newsroom. No student may earn credit for both 4043 and 5043. (F, Sp)

## JMC 5063 Readings in Mass Communication

3 Credit Hours Prerequisite: graduate standing and permission. Exploration of key works defining the field of mediated communication. Students will examine an area of inquiry of interest to them in depth through readings, discussion, and writing. Includes an examination of online resources, bibliographies, histories, theoretical concepts and issues, and critical biographies of key figures. (Sp)

## JMC 5073 Conceptual Issues in Graduate Study in Journalism and Mass Comm <br> 3 Credit Hours

Prerequisite: graduate standing. Introduction to key study areas in journalism and mass communication. Historical foundations, theoretical development and research trends will be outlined. Students will meet graduate faculty members and discuss major ideas and issues in the field. (F)
JMC 5083 Mass Communication Theory
3 Credit Hours
Prerequisite: graduate standing or permission. Theoretical perspectives and issues in mass communication. Emphasis on processes and effects that affect mass communication practices and media. Exploration of contemporary research and its contribution to the growing body of knowledge about mass communication. (F)

## JMC 5091 Thesis/Project Seminar

1 Credit Hour
Prerequisite: graduate standing. Choice and development of appropriate research topics and proposals for thesis and professional projects. Discussion of the rigor and expectations for this research. (Sp)

## JMC 5093 Introduction to Research Methods in Mass

## Communication

3 Credit Hours
Prerequisite: graduate standing. Introduction to research methods used in the study and practice of mass communication. Addresses how to formulate research problems and choose appropriate methods to study them, including both quantitative and qualitative approaches. (F)

## JMC 5113 Qualitative Research Methods <br> 3 Credit Hours

Prerequisite: graduate standing. Surveys a range of conceptual and methodological approaches appropriate for qualitative research in mass communication. Topics include conceptualization of research problems, framing research questions, the nature and sources of evidence, modes of interpretation, and conceptual framework from which evidence is analyzed in qualitative studies. (Sp)

## JMC 5133 Quantitative Research Methods 3 Credit Hours

Prerequisite: graduate standing. Quantitative research methods commonly used in the study of the process and effects of mass communication and the application of the scientific method to such inquiry. (Sp)

JMC 5153 Public Relations for Causes and Issues 3 Credit Hours (Slashlisted with JMC 4153) Prerequisite: Graduate standing and departmental permission. Course takes a hands-on approach to causes and issues in public relations. Examines research and theory-based approaches for communication strategies that target key stakeholders. Provides students with essential information on how to develop, implement, and evaluate a comprehensive communications campaign for different types of organizations such as nonprofits, advocacy groups, and philanthropic organizations. No student may earn credit for both 4153 and 5153. (F, Sp)

JMC 5163 Public Relations for Consumer Culture 3 Credit Hours (Slashlisted with JMC 4163) Prerequisite: Graduate standing and departmental permission. Comprehensive introduction to the major theories and empirical studies of consumer culture with emphasis upon the motivations and cultural aspects of consumption in America; substantive focus upon diverse topics such as fashion, celebrity influences, food, tourism, physical attractiveness, children, and race/ ethnicity. No student may earn credit for both 4163 and 5163. (F, Sp)

## JMC 5173 Public Relations for Public vs Private

## Organizations

## 3 Credit Hours

(Slashlisted with JMC 4173) Prerequisite: Graduate standing and departmental permission. Students will examine how identity influences the ways in which organizations represent themselves to the various constituencies, and how identity is influenced by interactions with the groups. The course also examines the distinct challenges, considerations, and communication strategies in shaping and safeguarding the reputation of entities operating in the public and private sectors. No student may earn credit for both 4173 and 5173. (F, Sp)
JMC 5183 Advanced Multimedia Journalism 3 Credit Hours Prerequisite: graduate standing and permission of instructor. Advanced instruction in multimedia journalism, with a focus on producing news and information content using text, photography, audio and video for a webbased product. No student may earn credit for 4183 and 5183. (F, Sp)
JMC 5193 Principles of Media Entrepreneurship 3 Credit Hours (Slashlisted with JMC 4193) Prerequisite: JMC 1013 \& 2033 and graduate standing. An in-depth examination of media entrepreneurship and distribution in the digital age. Students will learn how to create their own company, design a business plan, create budgets, and find financial backers and sponsors. Current approaches to marketing and distributing media products of various forms to the media industry will also be explored. No student may receive credit for both 4193 and 5193 . ( $F, \mathrm{Sp}$, Su )
JMC 5223 Digital Advertising
3 Credit Hours
(Slashlisted with JMC 4223) Prerequisite: graduate standing in Journalism. Recognizing the growing importance of newly emerging forms of advertising/promotions using non-traditional or alternative media, this course is designed to explore a new view of advertising in the current marketing/media environments. Along with learning the traditional advertising theories, students will understand how to effectively measure the use of interactive advertising media. No student may earn credit for both 4223 and 5223. (Irreg.)
JMC 5233 Advertising Portfolio
3 Credit Hours
(Slashlisted with JMC 4233) Prerequisite: Graduate standing in Journalism. This course includes revision of existing pieces to professional standards, and the execution of new work to complete the professional portfolio. Demonstrating mastery of design, craft, organization, and presentation is the goal of this portfolio course. Topics covered relate to the business of art direction, graphic design, copy writing, business correspondence, interviewing and self-promotional skills, and job-promotional skills. No student may earn credit for both 4233 and 5233. (F, Sp)
JMC 5243 Strategic Fashion Communication 3 Credit Hours
(Slashlisted with JMC 4243) Prerequisite: graduate standing in Journalism. Offers both a critical and practical exploration of the fashion communication business covering the complete cycle of the fashion industry from the concept and production stages to marketing campaigns, product sales, and events planning. Focusing on the lifecycle of the fashion brand. No student may earn credit for both 4243 and 5243. (Irreg.)

## JMC 5273 Communicating Culture Tourism: Concepts and

## Theory

3 Credit Hours
(Slashlisted with JMC 4273) Prerequisite: graduate standing and permission of instructor; corequisite JMC 5283. Through an immersion experience in an international location, students will analyze the cultural traditions and history of modern travel media. Studies include the major contexts and motives of tourism, as well as the foundations of contemporary forms of travel media. No student may earn credit for both 4273 and 5273. (Irreg.)

## JMC 5283 Communicating Culture Tourism Media: Travel

## Genres

3 Credit Hours
(Slashlisted with JMC 4283) Prerequisite: graduate standing and permission from instructor; corequisite JMC 5273. Through an immersion experience in an international location, this course will teach students the elements of narrative storytelling for media, and give them opportunities to hone and develop their individual writing styles through applied assignments. Students will gain the strategic and applied skills for feature-style writing that will allow them to produce media that meet professional standards. No student may earn credit for both 4283 and 5283. (Irreg.)

| JMC 5293 | Professional Seminar in Strategic Communication | 3 |
| :--- | :--- | :--- |
| Credit |  | Hours |

Prerequisite: Graduate standing; MA in Journalism \& Mass Communication/Strategic Communication and Digital Strategy majors only. Digital media bring new opportunities and challenges for strategic communicators that require new ways of thinking and responding. This course explores current, fast-changing industry topics and issues, including social and cultural issues, legal and regulatory issues, economic issues, and new technology issues, to help students understand and craft solutions to advance their organization's strategic needs. (F, Sp, Su)
JMC 5303 International Advertising
3 Credit Hours
(Slashlisted with 4303) Prerequisite: graduate standing. May be repeated with change of subject matter; maximum credit six hours. Designed to provide basic understanding of advertising and culture that applies to advertising in non-American locations. No student may earn credit for both 4303 and 5303. (Irreg.)
JMC 5323 Advertising Account Planning
3 Credit Hours
(Slashlisted with 4323) Prerequisite: 3303. Discussion and practice of the advertising agency function of representing the target audience. Emphasis on learning to think like a consumer. Incorporates creativity, market research, consumer behavior and critical thinking to help in understanding target audiences. No student may earn credit for both 4323 and 5323. (F)
JMC 5333 Contemporary Problems in Advertising 3 Credit Hours
(Slashlisted with 4333) Prerequisite: graduate standing and permission. Survey of contemporary problems in advertising; including current social and economic criticisms, legal and self-regulation problems, and agency and media-related problems. No student may earn credit for both 4333 and 5333. (F)
JMC 5343 Digital Strategic Communication 3 Credit Hours
Prerequisite: Graduate standing; MA in Journalism \& Mass
Communication/Strategic Communication and Digital Strategy majors only. These days, the shift of media environments occurs more rapidly than ever, which influences our daily lives and requires practitioners in advertising and public relations (PR) to follow the media dynamics. This course is designed to provide a basic understanding of digital media environments and to explore how the digital media is integrated into strategic communication. (F, Sp, Su)

JMC 5353 Cinematography
3 Credit Hours
(Slashlisted with JMC 4353) Prerequisite: Graduate standing, majors only, and permission of instructor. Understand and demonstrate the advanced skills of scriptwriting, preproduction, sound recording/mixing, singlecamera digital video production and non-linear editing in the narrative storytelling process. No student may earn credit for both 4353 and 5353. (Sp)
JMC 5363 Data Journalism
3 Credit Hours
(Slashlisted with JMC 4363) Prerequisite: Graduate standing.
Introduction to the basic concepts and skills necessary to use numerical, statistical, geographical, and survey data as a way of telling compelling fact-based stories. Stories may be used as news and strategic or narrative products. Data can be used in all Gaylord fields from journalism to professional writing. Class builds skills in finding, cleaning, analyzing, interpreting, and then using data. No student may earn credit for both 4363 and 5363. (F, Sp)
JMC 5373 Media Psychology
3 Credit Hours
(Slashlisted with JMC 4373) Prerequisite: Graduate standing. Focus on cognitive and emotional processing of media. Topics cover. how do media impact our thoughts, feelings and behaviors, how and when we change our attitudes, what the media teach us about the world, how we pay attention to television, print media, and the Internet, how we respond emotionally, and how we decide what is real. Psychological theories reviewed. No student may earn credit for both 4373 and 5373. (F, Sp)

## JMC 5383 Media Management

3 Credit Hours
Prerequisite: Graduate standing. The aim of this course is to provide you with an overview of the principles underlying management and how those fit into the media management environment of the 21 st century. This will be done by developing your knowledge of relevant literature, research, and theory, as well as methods of inquiry in the field of media management and economics. (F, Sp)
JMC 5391 Grant Writing

## 1 Credit Hour

 Prerequisite: Graduate Standing. Learn to develop grant writing and project development skills, which are highly applicable in academic and non-academic environments. Be able to identify funding opportunities, to conceptualize a grant proposal in response to RFA, and develop standard proposal components, including project synopsis, project description, logic model, approach and budget. (F, Sp)JMC 5413 Crisis Communication
3 Credit Hours
Prerequisite: graduate standing and instructor permission. Examine strategic communication practices throughout the three stages of a crisis event. Special emphasis is placed on crisis planning, media relationships, image restoration, ethical responses, and organizational learning. No student may earn credit for both 4413 and 5413. (F, Sp)

## JMC 5433 Sports Public Relations

3 Credit Hours
(Slashlisted with 4433) Prerequisite: graduate standing. A study of public relations as it is practiced in the sports industry featuring guest and video presenters representing various sports publicity, promotion and public relations positions. Includes representatives of newspaper, television, and radio sports departments. No student may earn credit for both 4433 and 5433. (Irreg.)

## JMC 5443 Public Relations Management <br> 3 Credit Hours

(Slashlisted with JMC 4443) Prerequisite: Graduate standing and departmental permission. This course will introduce you to the field of public relations and give you an overview of the historical development and current status of public relations. You will understand the study of public relations as the strategic behavioral management function that applies communication and organizational theory to the research, planning, implementation, and evaluation of the communication programs of organizations. No student may earn credit for both 4443 and 5443. (Irreg.)

JMC 5453 Public Relations Research 3 Credit Hours (Slashlisted with 4453) Prerequisite: graduate standing and permission. To build skills in the use of various public relations research methodologies available for exploratory, evaluation and management assessment of programs. No student may earn credit for both 4453 and 5453. (Sp)

## JMC 5463 Conceptualization

3 Credit Hours
Prerequisite: Graduate Standing. Discuss the meaning, value, and logic of social inquiry from a range of perspectives. Scholarly research is built from careful and comprehensive thinking, theorizing, conceptualizing, and operationalizing. While there is no universally best way to do research, you should leave the course with a clear understanding of how to design research that makes a contribution to theoretical knowledge. (F,Sp)

## JMC 5473 Social Media Marketing

3 Credit Hours
(Slashlisted with JMC 4473) Prerequisite: graduate standing. Social Media Marketing explores the most effective marketing strategies and tactics used by brands to engage with consumers on each social media platform. You'll study best practices in social media marketing and apply them to the eight-step social media-planning model to construct an extensive real world social media marketing plan for a client. No student may receive credit for both 4473 and 5473. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
JMC 5483 Global and International Public Relations 3 Credit Hours (Slashlisted with JMC 4483) Prerequisite: graduate standing. Investigate current issues in global public relations practice. Students will examine how political, socio-economic, cultural, and historical particularities, together with pop culture, influence modern public relations practice. Students will also learn what role the social media plays in shaping global public relations strategies, as well as what role globalization plays in shaping strategic communication messages on international markets. No student may receive credit for both 4483 and 5483. (F, Sp, Su).
JMC 5493 Social Media Strategies
3 Credit Hours
(Slashlisted with JMC 4493) Prerequisite: Graduate standing or JMC 1013, JMC 2033 \& JMC 3413. Student will understand the mass communication industry by discussion and using assignment to focus on social media post writing, publishing, management and measurement. Students will complete a social media audit, social media calendar social media monitoring and evaluation plan, target public personas, as well as social media platform certifications. No student may earn credit for both 4493 and 5493. (F, Sp)

JMC 5503 Graduate Tutorial in Writing
3 Credit Hours
Prerequisite: graduate standing and permission. May be repeated once; maximum credit six hours. Individual conferences devoted entirely to preparation, criticism, editing and preparation for marketing of the student's original manuscript, both fiction and non-fiction. (F, Sp)

JMC 5513 Media Management \& Transformation 3 Credit Hours
Prerequisite: Graduate standing. The aim of this course is to provide you with an overview of the principles underlying management and how those fit into the media management environment of the 21 st century. This will be done by developing your knowledge of relevant literature, research and theory, as well as methods of inquiry in the field of media management and economics. (F, Sp)

## JMC 5514 Writing the Novel-Graduate

4 Credit Hours
Prerequisite: graduate standing and permission. May be repeated; maximum credit eight hours. Analysis of the concepts, principles and practical creative problems involved in writing novels. Instruction in specific approaches and techniques useful in plotting, characterization, setting, scene, etc. Supervised writing of a novel by each student. ( $F, S p$ )

## JMC 5523 Theories of Public Relations 3 Credit Hours

(Slashlisted with JMC 4523) Prerequisite: Graduate standing or permission of instructor. Students will have a unique opportunity to meet and network with some of the leading public relations academic and practitioner experts and to learn more about the public relations and strategic communications field. No student may earn credit for both 4523 and 5523. ( $\mathrm{F}, \mathrm{Sp}$ )

JMC 5524 Writing the Short Story

## 4 Credit Hours

(Slashlisted with JMC 4524) Prerequisite: JMC 1013, JMC 2033, JMC 3504 and permission of instructor or department. Techniques and theory of fiction writing and plots, with emphasis on current American short stories. No student may earn credit for both 4524 and 5524. (F, Sp)
JMC 5533 Mystery Writing
3 Credit Hours
(Slashlisted with JMC 4533) Prerequisite: JMC 3504 or graduate standing and permission. A survey and discussion of the various popular forms that are used in the creation of commercial crime stories in fiction and film. This look at the most popular forms of crime writing and their rationales has the intention of allowing students to develop their own crime writing projects to better fit the prevailing markets. No student may earn credit for both 4533 and 5533. ( $F$, Sp)

JMC 5543 Sci-Fi \& Fantasy Writing
3 Credit Hours
(Slashlisted with JMC 4543) Prerequisite: JMC 3504 and graduate standing. Although most people lump science fiction and fantasy stories together, these two genres are worlds apart. This course will help you expand your understanding of the two areas by focusing on world building, tech, and magic as well as potential societal differences. Sci-Fi \& Fantasy Writing allows participants to dig more deeply into genres they wish to explore. No student may earn credit for both 4543 and 5543. (F, Sp)
JMC 5563 Category Fiction
3 Credit Hours
(Slashlisted with 4563) Prerequisite: graduate standing and permission.
May be repeated once with change of content; maximum credit six hours. In -depth study of current popular fiction genres and techniques used by category authors. Discussion of books in terms of fiction devices and application of such techniques to student's own work. No student may earn credit for both 4563 and 5563. (F)
JMC 5573 Theories of Professional Writing 3 Credit Hours (Slashlisted with JMC 4573) Prerequisite: JMC 3504 and graduate standing. Study of significant theories of the writing process, the motivation to write, and intended effects of writing. Students will address aesthetics, philosophy and values relating to careers in writing. No student may earn credit for both 4573 and 5573. ( $\mathrm{F}, \mathrm{Sp}$ )

JMC 5593 Young Adult Fiction Writing
3 Credit Hours
(Slashlisted with JMC 4593) Prerequisite: JMC 3504 or graduate standing and permission. Young adult fiction is a thriving sector of the book industry. This class deconstructs the state of the young adult market and uses current award winners and bestsellers as models of aspects of story such as characterization, world-building, plotting and voice. Students learn how to position their work in a booming market and discover how writing young adult fiction is similar to and different from writing for adults. No student may earn credit for both 4593 and 5593. (F, Sp)
JMC 5594 Writing the Commercial Nonfiction Book 4 Credit Hours Prerequisite: graduate standing and permission. May be repeated; maximum credit eight hours. Techniques, structure and elements of writing commercial nonfiction. Each student will work on an original book project and create a submittable book proposal with a list of suitable markets. No student may earn credit for both 4594 and 5594. (F)
JMC 5623 Multi-Camera Production
3 Credit Hours
(Slashlisted with JMC 4623) Prerequisite: Graduate standing, majors only, and permission of instructor. Understand and demonstrate the skills of scriptwriting, preproduction, sound recording/mixing, multi-camera video production and non-linear editing in the storytelling process. No student may earn credit for both 4623 and 5623. (F)
JMC 5633 Advanced Single-Camera Production 3 Credit Hours (Slashlisted with JMC 4633) Prerequisite: Graduate standing, majors only, and permission of instructor. Understand and demonstrate the advanced skills of scriptwriting, sound recording/mixing, single-camera digital video production and non-linear editing in the storytelling process. No student may earn credit for both 4633 and 5633. (F, Sp)
JMC 5643 Advanced Audio Production
3 Credit Hours
(Slashlisted with JMC 4643) Prerequisite: graduate standing and permission of instructor. Advanced study of the technology, capabilities and utilization of audio media. Units on advanced audio techniques for radio, television and film. Intensive practice and skill development in audio production techniques. No student may earn credit for both 4643 and 5643. (Irreg.)

## JMC 5653 Prac: Research Proposal \& Design <br> 3 Credit Hours

Prerequisite: Graduate Standing. Focusing on research design should help you learn how to transform everyday questions about media and communication processes into testable research questions and substantiative research designs. (F, Sp)
JMC 5673 Advanced Broadcast News
3 Credit Hours
(Slashlisted with 4673) Prerequisite: graduate standing and permission. Study of current requirements for and practice of public affairs programming, including news. Evolution of broadcast documentary form; writing, filming, editing techniques; budgeting and scheduling; actual preparation of public affairs programs of various types with emphasis on the extended-length news documentary. No student may earn credit for both 4673 and 5673. Laboratory (Sp)

## JMC 5683 Multimedia Content Management

3 Credit Hours (Slashlisted with 4683) Prerequisite: graduate standing and permission of instructor. Examines working with media content in a variety of formats such as text, audio, video, photography and graphics, for online media. Instruction and practice in editing designing, presenting, and managing news and information content for online media. No student may earn credit for both 4683 and 5683. (F, Sp)

JMC 5693 Podcasting
3 Credit Hours
(Slashlisted with JMC 4693) Prerequisite: Graduate standing and departmental permission. Podcasting is a newer media form built on older media forms, made possible by digital technologies. It is transforming our media experience of who gets to tell stories, what stories are being told, and how we interact at large and small scales. Understanding media in the current era requires understanding podcasting. No student may earn credit for both 4693 and 5693. (F, Sp)

## JMC 5723 Horror Writing

3 Credit Hours
(Slashlisted with JMC 4723) Prerequisite: Graduate standing and departmental permission. Students are expected to gain proficiency with writing and understanding horror in prose, script, and voice acting/ acting through analysis of published articles, reviews, and blogs, in-class technique drills, individualized coaching from the professor, and writing original pieces of their own. Will learn how to submit their work in the horror field and get published pieces to put into their resumes. No student may earn credit for both 4723 and 5723. (F, Sp)
JMC 5734 Writing the Screenplay
4 Credit Hours
Prerequisite: graduate standing and permission. May be repeated; maximum credit eight hours. Analysis of the form and structure of the narrative screenplay. Specific approaches and techniques useful in developing plotting, characterization, setting, scene, etc. Supervised writing of feature-length screenplay by each student. (Sp)

JMC 5753 Documentary Research and Writing
3 Credit Hours (Slashlisted with 4753) Prerequisite: graduate standing and permission of instructor. Covers the preparation of a documentary from both practical and critical/theoretical directions. Focuses on research, writing and submission of documentary proposals, and practical writing exercises. No student may earn credit for both 4753 and 5753. (F)
JMC 5763 Documentary Production 3 Credit Hours (Slashlisted with JMC 4763) Prerequisite: Graduate standing, majors only, and permission of instructor. Understand and demonstrate the advanced skills of research, preproduction, scriptwriting, sound recording/mixing, single-camera digital video production and non-linear editing in the documentary storytelling process. No student may earn credit for both 4763 and 5763. (Sp)
JMC 5773 After Effects
3 Credit Hours
(Slashlisted with JMC 4773) Prerequisite: Graduate standing and permission of instructor. Practice and understanding of graphic design, motion graphics, compositing, color correction, VFX and puppet animations using After Effects. No student may earn credit for both 4773 and 5773. (F)
JMC 5793 Broadcast Advertising Production 3 Credit Hours (Slashlisted with 4793) Prerequisite: graduate standing and permission of instructor. Addresses all the major stages of creating broadcast advertising messages from research and development of scripts through production, post production and final presentation. Emphasis will be placed on working in teams to create commercial messages. No student may earn credit for both 4793 and 5793. (Irreg.)
JMC 5800 Graduate Internship
1-3 Credit Hours
Prerequisite: graduate standing and permission. May be repeated with change of content; maximum credit six hours. Professional work experience in mass communication with associated readings, analysis, and critical research. (F, Sp, Su)

JMC 5813 Ethics of Strategic Communication 3 Credit Hours
Prerequisite: Graduate standing; MA in Journalism \& Mass Communication/Strategic Communication and Digital Strategy majors only. The course will cover ethics among a variety of topics through cases such as corporate social responsibility, digital ethics, and global ethics. Students will explore the real-world and industry application of the ethical frameworks and conducts. Students will be able to apply different philosophical approaches and critical thinking skills to analyze and navigate contemporary strategic communication challenges. ( $\mathrm{F}, \mathrm{Sp}$, Su )

JMC 5823 Cross-Cultural Communication 3 Credit Hours
Prerequisite: Graduate standing; MA in Journalism \& Mass
Communication/Strategic Communication and Digital Strategy majors only. This course strives to advance understanding and appreciation of the roles of culture in shaping society, our senses of reality, and media. The course uses research, analyses, and critical observations of media performances to focus on understanding media and culture, analyzing the power of mediated symbols to create public perceptions that misrepresent social/cultural groups, and developing cross-cultural awareness and sensitivity. (F, Sp, Su)
JMC 5833 Journalism Ethics
3 Credit Hours
(Slashlisted with 4833) Prerequisite: graduate standing and permission. Press criticism; organizational performance; reportorial performance; print/broadcast distinctions. No student may earn credit for both 4833 and 5833.(F)
JMC 5843 Sports Promotion
3 Credit Hours
(Slashlisted with JMC 4843) Prerequisite: Graduate standing. This course overviews the various types of sports industry positions that utilize strategic communication skills under the overarching umbrella of "sports promotion." The goal of this course is to help students fully understand the myriad of different ways public relations, advertising, sales and marketing techniques can be used in sports promotion. No student may earn credit for both 4843 and 5843. (F, Sp)
JMC 5853 Race, Gender, Class and the Media 3 Credit Hours (Slashlisted with JMC 4853) Prerequisite: Graduate standing and departmental permission. Survey of past and present relationships between women and racial and ethnic minorities in the U.S. and the media. Media portrayal, employment, ownership, and access will be studied. No student may earn credit for both 4853 and 5853. (F, Sp)
JMC 5863 Marketing \& Media Analytics 3 Credit Hours
Prerequisite: Graduate standing; MA in Journalism \& Mass
Communication/Strategic Communication and Digital Strategy majors only. This course will explore the many ways that data analysis informs strategic communication by using real-world examples of customer and media metrics, common analytic techniques, and key foundational concepts. Marketers need to know what data they should expect to see, what data they should ask for, and how to understand data to translate it into strategy and action. (F, Sp, Su)
JMC 5873 Strategic Planning \& Brand Strategy 3 Credit Hours Prerequisite: Graduate standing; MA in Journalism \& Mass Communication/Strategic Communication and Digital Strategy majors only. This course will prepare students to identify and manage how change impacts their organization and how to strategically adapt to change. In addition, this course will explore the role of brand management and the brand planning process as an integral part of an organization's strategic planning process and how it can impact corporate brand value. (F, Sp, Su)

JMC 5880 Graduate Project
2-4 Credit Hours
2 to 4 hours. Prerequisite: graduate standing in journalism and mass communication. For students electing the project track (nonthesis track). Students will develop, under their project committee's direction, a creative or professional project, such as a novel, a film, an advertising or public relations campaign, or a management plan for a media-related organization. (F, Sp, Su)
JMC 5883 Digital Behavior
3 Credit Hours
Prerequisite: Graduate standing; MA in Journalism \& Mass
Communication/Strategic Communication and Digital Strategy majors only. This course covers the methods to understand the audience through data analytics. Several psychology theories will be introduced to understand the digital audience's pattern. Students will develop more effective communication strategies to engage digital audiences. (F, Sp, $\mathrm{Su})$
JMC 5893 Management \& Leadership
3 Credit Hours
Prerequisite: Graduate standing; MA in Journalism \& Mass
Communication/Strategic Communication and Digital Strategy majors only. This course focuses on the management of organizations - how to build effective systems, motivate employees, and create innovative organizational cultures. Through scholarly and professional writings, students explore management roles and functions, leadership of people toward common goals, and processes of organizational development and change. (F, Sp, Su)

JMC 5903 Production for Clients
3 Credit Hours
(Slashlisted with JMC 4903) Prerequisite: graduate standing and permission of instructor. Students work on actual client projects. The class simulates a production house operation. Working in teams, students are responsible for budgeting, working with clients, scripting, shooting, editing, and follow-through on the project. No student may earn credit for both 4903 and 5903. ( $F, S p$ )

JMC 5913 Narrative Production
3 Credit Hours
(Slashlisted with JMC 4913) Prerequisite: Graduate standing, majors only, and permission of instructor. Understand and demonstrate the advanced skills of scriptwriting, preproduction, sound recording/mixing, singlecamera digital video production and non-linear editing in the narrative storytelling process. No student may earn credit for both 4913 and 5913. (F, Sp)

JMC 5960 Directed Readings

## 1-3 Credit Hours

1 to 3 hours. Prerequisite: graduate standing and permission of department. May be repeated; maximum credit twelve hours. Directed readings and/or literature reviews under the direction of a faculty member. (F, Sp, Su)
JMC 5970 Seminar
1-3 Credit Hours
1 to 3 hours. May be repeated with change of subject matter; maximum credit 12 hours. Methods of research. Selection, evaluation and development of research problems. (Irreg.)

JMC 5980 Research for Master's Thesis
2-9 Credit Hours
Variable enrollment, two to nine hours; maximum credit applicable toward degree, four hours. (F, Sp, Su)

JMC 5990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing; permission of instructor. May be repeated with change of subject matter; maximum credit six hours. (F, Sp, Su)

JMC 6091 Ph.D. Seminar
1 Credit Hour
Prerequisite: graduate standing and permission. May be repeated with change of content; maximum credit six hours. Discussion and presentation of research by doctoral students, faculty and visiting scholars. Designed to enhance faculty-student interaction and collaboration on research, and to provide preliminary feedback toward development of dissertation proposals. (F, Sp)

JMC 6153 Advanced Topics in Media Arts 3 Credit Hours Prerequisite: graduate standing and permission. May be repeated with change of content; maximum credit twelve hours. Advanced investigation and analysis of a problem relating to such subjects as a significant trend, practice, medium, idea, critical principle, or significant person in television, film, book, and other artistic or entertainment media. (Irreg.)

## JMC 6163 Advanced Topics in Journalism \& Media Studies

3 Credit Hours
Prerequisite: Graduate standing and departmental permission; May be repeated with change of content; maximum credit twelve hours. Advanced investigation and analysis of problems relating to such subjects as a significant trend, practice, medium, idea, critical principle, or significant person in journalism, news, and information fields. (Irreg.)

JMC 6173 Advanced Topics in Strategic Communication 3 Credit Hours Prerequisite: graduate standing and permission. May be repeated with change of content; maximum credit twelve hours. Advanced investigation and analysis of a problem relating to such subjects as a significant trend, practice, medium, idea, critical principle, or significant person in advertising, public relations and strategic communication fields. (Irreg.)

JMC 6183 Approaches to Teaching in Mass Communication 3 Credit Hours
Prerequisite: graduate standing and permission. An overview of pedagogy related to teaching college classes, specifically in journalism and mass communication programs. Immediately helpful to graduate students with teaching assistantships, and ultimately helpful for all students interested in teaching careers. (F)

## JMC 6393 Advanced Grant Writing

3 Credit Hours
Prerequisite: Graduate Standing. Learn to develop grant writing and project development skills, which are highly applicable in academic and non-academic environments. Be able to identify funding opportunities, to conceptualize a grant proposal in response to RFA, and develop standard proposal components, including project synopsis, project description, logic model, approach and budget. (F, Sp)

## JMC 6463 Advanced Conceptualization

3 Credit Hours
Prerequisite: Graduate Standing. Discuss the meaning, value, and logic of social inquiry from a range of perspectives. Scholarly research is built from careful and comprehensive thinking, theorizing, conceptualizing, and operationalizing. While there is no universally best way to do research, you should leave the course with a clear understanding of how to design research that makes a contribution to theoretical knowledge. (F, Sp)

## JMC 6653 Prac: Advanced Research Proposal and Design

3 Credit Hours
Prerequisite: Graduate Standing. Focusing on research design should help you learn how to transform everyday questions about media and communication processes into testable research questions and substantiative research designs. (F, Sp)

JMC 6960 Directed Readings 1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit six hours. Directed readings and/or literature review under the direction of a faculty member. (Irreg.)

JMC 6970 Special Topics/Seminar
-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor
May be repeated; maximum credit 12 hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or research and field projects. (Irreg.)

JMC 6980 Research for Doctoral Dissertation 2-12 Credit Hours
2 to 12 hours. Prerequisite: Graduate standing and permission of instructor; may be repeated. Directed research culminating in the completion of the doctoral dissertation. (F, Sp, Su)

JMC 6990 Independent Study
1-4 Credit Hours
Prerequisite: Graduate standing and permission. May be repeated with change of content; maximum credit eight hours. An individual course of intensive study with the area and problem to be determined by the student and the instructor responsible for supervising the study. (F, Sp, Su )

## JRRE-Music Recitals

## JRRE 3020 Junior Recital 0 Credit Hours

Prerequisite: Majors only; concurrent enrollment in applied study at (4020) during the junior year, permission of adviser and instructor. Preparation and performance of a public recital by students in the B.M. degree program. (F, Sp)

JRRE 3021 Junior Recital 1 Credit Hour
Prerequisite: concurrent enrollment in 4020, during the junior year, permission of adviser and instructor. Preparation and performance of a public recital by students in the B.M. degree program. (F, Sp, Su)

## KIOW-Kiowa

KIOW 1715 Beginning Kiowa
5 Credit Hours
Introduction to the structure of the Kiowa language with special attention to its phonology, morphology, and syntax. Conversational practice, vocabulary-building, and the history and culture of the native speech community also are emphasized. (F, Sp)[I-FL].

KIOW 1725 Beginning Kiowa Continued
5 Credit Hours
Prerequisite: KIOW 1715 or permission of the department or instructor. A continuation of KIOW 1715. The students will build upon their prior knowledge of symbols, diacritic marks, sounds and tones necessary to read, write, speak and comprehend Beginning Kiowa with a predetermined set of vocabulary, sentences, and basic conversation. (F, $\mathrm{Sp})[1-\mathrm{FL}]$.

KIOW 2733 Intermediate Kiowa 3 Credit Hours
Prerequisite: 1723. A systematic review of the structure of the Kiowa language. Syntactic control and vocabulary expansion are emphasized. Conversational practice and traditional oral texts are used to develop proficiency. (F)

## KIOW 3440 Mentored Research Experience 3 Credit Hours

0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)

# L A-Landscape Architecture 

L A 2970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: May be repeated; Maximum credit nine hours. Special topics course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research, and field projects. (Irreg.)

## L A 3440 Mentored Research Experience 3 Credit Hours

0 to 3 hours. Prerequisite: ENGL 1113 or equivalent, and permission of instructor; May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)

LA 4103 Introduction to Landscape Architecture 3 Credit Hours (Slashlisted with LA 5103) Prerequisite: junior standing and permission of instructor. Introduction to the multidisciplinary design profession of landscape architecture. This course will highlight the profession of landscape architecture as a leader in today's sustainable construction and design industry. No student may earn credit for both 4103 and 5103. (F) [IV-AF].

L A 4423 Human Experience of the Environment 3 Credit Hours (Slashlisted with L A 5423) Prerequisites: Junior standing. An introduction to the understanding of how people interact with the world around them. We will explore the many ways in which environments have shaped us, how we perceive and interact with the world, what tools researchers use, how places are designed to accommodate particular human behaviors, and how designers can create healthy environments. No student may earn credit for both 4423 and 5423. (F, Sp, Su)[III-SS].
LA 4613 Landscape Architecture Computer Applications 3 Credit Hours (Slashlisted with L A 5613) Prerequisite: Junior standing or permission of instructor. A survey of computer applications common to the profession of landscape architecture including word processing, desktop publishing, computer image manipulation, computer-aided drafting, spreadsheets and databases with particular emphasis on computer image manipulation and computer-aided drafting. No student may earn credit for both 4613 and 5613. (F)

L A 4743 Garden History from Ancient to Contemporary 3 Credit Hours Prerequisite: junior standing. This course examines the history of human design and use of land through an examination of the gardens different civilizations built. Gardens from pre-history to twenty-first history in Asia, Latin/South America, Europe and the United States will be studied as products of conscious design. Understand the social, cultural and economic contexts within which historic garden styles emerged. (F, Sp)

LA 4943 History and Theory of Landscape Architecture 3 Credit Hours (Slashlisted with L A 5943) Prerequisite: Junior standing or permission of instructor. A survey of American landscape architecture trends and personalities. Includes an overview of European and Asian landscape and garden design precedents. The framework of modern architecture, modern art, and public art which provide a context for and influence upon landscape architecture will be discussed in historical and theoretical terms. No student may earn credit for both 4943 and 5943. (Sp)

L A 4970 Special Topics/Seminar 1-3 Credit Hours 1 to 3 hours. Prerequisite: junior standing or permission of instructor; May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

## L A 5052 Professional Practice

2 Credit Hours
Prerequisite: 5043 or permission of instructor. Survey of career options, internship, registration, firm organization, office management, professional conduct and ethics within the practice of architecture. (F, Sp)
L A 5103 Introduction to Landscape Architecture
3 Credit Hours
(Slashlisted with LA 4103) Prerequisites: graduate standing, permission of instructor. Introduction to the multidisciplinary design profession of landscape architecture. This course will highlight the profession of landscape architecture as a leader in today's sustainable construction and design industry. No student may earn credit for both 4103 and 5103. (F)

## L A 5243 Landscape Architecture Technology: Materials and Construction <br> 3 Credit Hours

Prerequisite: Graduate Standing. Technical requirements and design characteristics of landscape construction materials. Brick, concrete, asphalt, stone, wood, paving curbs, walls, steps, small structures, site furnishings, lighting, and basic construction documentation. (F)
L A 5343 Landscape Architecture Technology: Site Issues 3 Credit Hours
Prerequisite: Graduate Standing. Technical aspects of land and water interactions in site planning and landscape engineering. Introduction to contours, grading and earthwork; watershed and site drainage; horizontal and vertical curves; erosion control, and sedimentation. (Sp)
L A 5402 Res Methods Landscape Arch 2 Credit Hours
Prerequisite: graduate standing or permission of instructor. Introduces basic research methods applicable to landscape architecture. (F)
L A 5423 Human Experience of the Environment 3 Credit Hours (Slashlisted with LA 4423) Prerequisite: Graduate standing. An introduction to the understanding of how people interact with the world around them. We will explore the many ways in which environments have shaped us, how we perceive and interact with the world, what tools researchers use, how places are designed to accommodate particular human behaviors, and how designers can create healthy environments. No student may earn credit for both 4423 and 5423. (F, Sp, Su)
LA 5513 Landscape Architecture Drawing and Graphics 3 Credit Hours Prerequisite: Graduate Standing. Basic techniques for visual thinking/ seeing and basic graphic techniques for two- and three-dimensional representation. Different methods of communication such as sketching, diagramming, plan, section and elevation drawing, rendering, one and two point perspective, and axonometric drawing for layout and composition.
(F)

## L A 5515 Landscape Architecture Introductory Graduate Studio

 I5 Credit Hours
Prerequisite: Graduate standing and departmental permission. Smallscale problems in landscape architecture with particular emphasis on principles and elements of design, design of individual sites, design as a process including communication of site analysis, design, development and final design proposals. (F)

[^59]
## L A 5535 Landscape Architecture Intermediate Graduate Studio

## III

5 Credit Hours
Prerequisite: Graduate standing and L A 5525. Studio work concerned with park, recreation, and open space issues pertinent to contemporary needs. Subject matter may include park typologies and their design, recreation typologies, public education, greenways, scenic byways, ecotourism, schools, art in the landscape, and community gardens. (F)

## L A 5545 Landscape Architecture Intermediate Graduate Studio

 IV5 Credit Hours
Prerequisite: Graduate standing and L A 5535. Focus on housing and community planning as related to site planning and site design with particular emphasis on urban environments, housing typologies, community participation, community facilities, and the landscape architect's approach to integration of proposed developments within natural and human contexts. (Sp)
LA 5613 Landscape Architecture Computer Applications 3 Credit Hours (Slashlisted with L A 4613) Prerequisite: Graduate Standing. A survey of computer applications common to the profession of landscape architecture including word processing, desktop publishing, computer image manipulation, computer-aided drafting, spreadsheets and databases with particular emphasis on computer image manipulation and computer-aided drafting. No student may earn credit for both 4613 and 5613. (F)
L A 5713 Plant Material and Technology
3 Credit Hours
Prerequisite: Graduate standing. Identification and classification of native and ornamental woody evergreen and deciduous trees, shrubs, vines, and ground covers. Study of their morphology, cultural characteristics, landscape uses, pruning maintenance, planting and establishment. Includes basic horticultural principles, plant processes, and factors affecting plant growth. (F, Sp)

## L A 5923 Planting Design

3 Credit Hours
Prerequisite: LA 5713, graduate standing. An intensive lecture course emphasizing the use of plants in landscape architecture design. (F)
L A 5940 Field Work 1-4 Credit Hours

1 to 4 hours. Prerequisite: 4515 and permission of instructor. Studies in landscape architecture not suited to the conventional classroom setting. (F, Sp)
L A 5943 History and Theory of Landscape Architecture 3 Credit Hours (Slashlisted with L A 4943) Prerequisite: Graduate Standing. A survey of American landscape architecture trends and personalities. Includes an overview of European and Asian landscape and garden design precedents. The framework of modern architecture, modern art, and public art which provide a context for and influence upon landscape architecture will be discussed in historical and theoretical terms. Students may not earn credit for 4943 and 5943. No student may earn credit for both 4943 and 5943. (Sp)
L A 5950 Graduate Project Proposal 2-4 Credit Hours
2 to 4 hours. Prerequisite: graduate standing and permission of instructor. Proposal development for terminal graduate project in landscape architecture. ( $\mathrm{F}, \mathrm{Sp}$ )

L A 5960 Directed Readings
1-4 Credit Hours
1 to 4 hours. Prerequisite: permission of instructor; May be repeated with change of content; maximum credit nine hours. Selected readings in landscape architecture. (F, Sp, Su)

LA 5970 General Department Seminar 1-4 Credit Hours
1 to 4 hours. Prerequisite: graduate standing and permission of instructor; May be repeated with change of topic; maximum credit nine hours. Advanced professional topics in landscape architecture and experimental course offerings. (Sp)

LA 5990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing and permission of instructor; May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)
L A $6595 \quad 5$ Credit Hours
Prerequisite: 6950 or permission of instructor. An approved individual project or thesis exploiting or integrating the student's specialization with landscape architecture. Laboratory (Sp)

L A 6643 Urban Design Theory
3 Credit Hours
(Crosslisted with ARCH 6643 and RCPL 6643) Prerequisite: graduate standing. A survey of theory relevant to the urban design process, including social and behavioral concepts, visual and aesthetic theory, spatial and geographic factors of urban form. (Sp)
L A 6950 Applied Research in Landscape Architecture 1-4 Credit Hours 1 to 4 hours. Prerequisite: 6013 and permission of instructor. Approved individual research in landscape architecture coordinated with electives in preparation for the graduate project. (F)
L A 6960 Directed Readings 1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor; May be repeated; maximum credit six hours. Directed readings and/or literature review under the direction of a faculty member. (Irreg.)

L A 6970 Special Topics/Seminar 1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor; May be repeated; maximum credit 12 hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or research and field projects. (Irreg.)
L A 6990 Graduate Special Studies 1-6 Credit Hours
1 to 6 hours. Prerequisite: graduate standing and permission of instructor; May be repeated with change of content; maximum credit 12 hours. Selected topics in landscape architecture. (F, Sp, Su)

## L S-Legal Studies

L S 2970 Special Topics
1-3 Credit Hours
Special Topics. 1 to 3 hours. May be repeated; Maximum credit nine hours. Special topics course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research, and field projects. (Irreg.)

L S 3323 Legal Environment of Business
3 Credit Hours
Prerequisite: Student must be approved for degree candidacy by
Price College; ACCT 2123 or concurrent enrollment; MATH 1743 or MATH 1823 or MATH 1914 prerequisite. The legal environment of business organizations with ethical considerations and the social and political influences affecting such environments. (F, Sp, Su)

L S 3423 Legal Environment of Business II 3 Credit Hours
Prerequisite: LS 3323, and student must be approved for degree candidacy by Price College. A thorough knowledge of the legal and regulatory environment in which businesses operate is essential. This course provides an overview of the legal and regulatory environment in the United States and is designed as an enhancement to your LS3323 Legal Environment of Business course. Topics include forms of business organization, sales contracts, intellectual property, business crimes, environmental law, and antitrust. (F, Sp)

## L S 3440 Mentored Research Experience

3 Credit Hours
0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)

L S 3960 Honors Reading 1-3 Credit Hours
1 to 3 hours. Prerequisite: Admission to Honors Program. May be repeated; maximum credit six hours. Consists of topics designated by the instructor in keeping with the student's major program. The topics will cover materials not usually presented in the regular courses. (F, Sp, Su)

L S G4613 Real Property Law
3 Credit Hours
Prerequisite: Student must be approved for degree candidacy by Price College; and L S 3323; and ACCT 2123 or concurrent enrollment; and MATH 1743 or MATH 1823 or MATH 1914. General law of real property; historical development, acquisition of title to personal property, estates in land, landlord and tenant relations, easements, deeds, mortgages, adverse possession, wills and trusts. (F, Sp)
LS G4713 The Law of International Business Transactions 3 Credit Hours
Prerequisite: Student must be approved for degree candidacy by Price College; LS 3323; ACCT 2123 or concurrent enrollment; MATH 1743 or MATH 1823 or MATH 1914. Examines the legal and ethical environment of international business. Topics include international treaties and conventions, comparative legal systems, extraterritoriality of U.S. and foreign laws, the Act of State Doctrine and the resolution of international business disputes. (Sp)

## LS 4960 Directed Readings 1-4 Credit Hours

1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean. May be repeated; maximum credit four hours. Designed for upper-division students who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)

## L S 3970 Honors Seminar <br> 1-3 Credit Hours

1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Subjects covered vary. Deals with concepts not usually treated in regular courses. (Irreg.)

## L S 3980 Honors Research 1-3 Credit Hours

1 to 3 hours. Prerequisite: Admission to Honors Program. May be repeated; maximum credit six hours. Will provide an opportunity for the gifted Honors candidate to work at a special project in the student's field. (F, Sp, Su)

## LS 3990 Independent Study

1-3 Credit Hours
1 to 3 hours. Prerequisite: permission of instructor and junior standing. May be repeated once with change of content. Independent study may be arranged to study a subject not available through regular course offerings. (F, Sp, Su)

## L S 4413 The Law of Business Organization <br> 3 Credit Hours

Prerequisite: Student must be approved for degree candidacy by Price College; LS 3323; ACCT 2123 or concurrent enrollment; MATH 1743 or MATH 1823 or MATH 1914. Course will trace the law and ethics of agency, agency problem and various types of business organizations.
Each form of business ownership has advantages and disadvantages and presents peculiar ethical and legal issues associated with governance. ( $F$, Sp)
LS 4523 The Law of Commercial Transactions 3 Credit Hours
(Slashlisted with L S 5523) Prerequisite: LS 3323 and ACCT 2123 or concurrent enrollment; MATH 1743 or MATH 1823 or MATH 1914; student must be approved for degree candidacy by Price College. A comprehensive survey of commercial transactions, including the law of sales, warranties, risk of loss, negotiable instruments, bank collections and deposits, electronic fund transfers, secured transactions and bankruptcy. No student may earn credit for both 4523 and 5523. (F, Sp)

L S 4970 Special Topics/Seminar 1-3 Credit Hours
1 to 3 hours. Prerequisite: Senior standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

## LS 4990 Independent Study

1-3 Credit Hours
1 to 3 hours. Prerequisite: Senior standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)

L S 5523 The Law of Commercial Transactions 3 Credit Hours (Slashlisted with L S 4523) Prerequisite: L S 3323, graduate standing and permission of instructor. A comprehensive survey of commercial transactions, including the law of sales, warranties, risk of loss, negotiable instruments, bank collections and deposits, electronic fund transfers, secured transactions and bankruptcy. No student may earn credit for both 4523 and 5523. (Irreg.)

## L S 5612 Employment Law

2 Credit Hours
Prerequisites: Departmental permission; graduate standing; admission into Price College graduate program. Employment law affects not only the employee/employer relationship, but can also affect the bottom line. This course is designed to explore the most common employment laws along with the ramifications of non-compliance of federal and state laws. Students will get an overview of federal discrimination laws and how they can impact the employment environment. (Su)

L S 5802 Business Ethics/Legal
2 Credit Hours
Prerequisites: graduate standing; departmental permission. Review of the American legal process and ethical frameworks for gauging business decisions. (Irreg.)
L S 5960 Directed Readings
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor.
May be repeated; maximum credit six hours. Directed readings and/or literature review under the direction of a faculty member. (Irreg.)

L S 5970 Topics in Legal Studies
1-6 Credit Hours
1 to 6 hours. Prerequisite: 5323 or permission. May be repeated with change of subject matter. (Irreg.)
L S 5990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)

## LAT-Latin

LAT 1115 Beginning Latin
5 Credit Hours
Introductory study of the vocabulary and grammar of the Latin language, with practice in the reading of sentences and connected prose from selected Latin authors. (F, Sp) [I-FL] .

## LAT 1215 Beginning Latin

5 Credit Hours
Prerequisite: 1115, or the equivalent, with a grade of C or better.
Introductory study of the vocabulary and grammar of the Latin language, with practice in the reading of sentences and connected prose from selected Latin authors. (F, Sp) [I-FL] .

## LAT 1315 Intensive Introductory Latin

5 Credit Hours
Prerequisite: permission of Honors Program. Alternative to the Latin 1115 and 1215 introductory sequence. Covers in one semester the essentials of the material in Latin 1115 and 1215. Students who have completed 1115 and 1215 may not enroll in 1315. (F) [l-FL] .

## LAT 2113 Intermediate Latin Prose 3 Credit Hours

Prerequisite: LAT 1215 or equivalent, with a grade of $C$ or better; May be repeated with change of content; maximum credit six hours. This course moves from basic grammatical principles to translating authentic, unaltered texts. Students will hone their knowledge of Latin prose and compare stylistic differences between authors. With the assistance of supplementary commentaries, students will translate works from authors such as Caesar, Livy, Cicero, and Cornelius Nepos. (F, Sp, Su)

## LAT 2213 Intermediate Latin Poetry

3 Credit Hours
Prerequisite: LAT 1215 or LAT 1315 , or equivalent, with a grade of $C$ or better; May be repeated with change of content; maximum credit six hours. Reading selections from the works of Latin poets, including Catullus, Horace, and Ovid; designed to improve the student's proficiency in translation and understanding of the Latin poetic technique. ( $\mathrm{F}, \mathrm{Sp}$ )

## LAT 3113 Advanced Prose: Cicero, Pliny the Elder, Pliny the

 Younger3 Credit Hours
Prerequisite: 2113 and 2213. May be repeated with change of subject matter; maximum credit six hours. Readings from the works of Cicero or Pliny, representing the height of prose style in the Republican and Imperial periods, respectively. (Irreg.)
LAT 3313 Latin Prose Composition 3 Credit Hours Prerequisite: LAT 2113 or LAT 2213 or equivalent. In the tradition of classical education, one of the culminating emphases was the ability to compose elegant, stylistic prose in the ancient language of study. In this course, students will set off toward this pinnacle and learn to compose sentences and continuous passages in Latin. This will be accompanied by a thorough review of Latin grammar and syntax. (F, Sp)

LAT 3413 Early Christian Authors 3 Credit Hours
Prerequisite: ENGL 1213 or EXPO 1213; LAT 2113 or LAT 2213 with a grade of $C$ or better; May be repeated with change of subject matter; maximum credit six hours. Leaders of the early Christian church were tasked with chronicling Jesus' life, defining the biblical canon, providing exegetical explanations for theological tenets, battling heresies, and defending their beliefs against persecution. By reading selections from the Vulgate and authors such as Tertullian, Jerome, Ambrose, and Augustine, students will improve their Latin fluency and understanding of how these works shaped Christian doctrine. (F, Sp)

## LAT 3440 Mentored Research Experience

3 Credit Hours
0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)
LAT 3513 Roman Philosophers
3 Credit Hours
Prerequisite: LAT 2113 or LAT 2213 with a grade of C or better; May be repeated with change of subject matter; maximum credit six hours. Roman philosophers, driven to respond to the ideas of their Greek predecessors, molded prevailing philosophical concepts to fit the ethical, moral, and cultural identity of Rome. By reading a variety of works from Cicero, Lucretius, and Seneca, students will develop a better understanding of Roman philosophy and its the reception throughout history. (F, Sp)

LAT 3613 Latin Epic Poetry
3 Credit Hours
Prerequisite: LAT 2113 or LAT 2213 with a grade of C or better; May be repeated with change of subject matter; maximum credit six hours. In this course, students will focus on selected readings from Latin epic poetry. Texts may include, among others, Vergil's Aeneid, Ovid's Metamorphoses, Lucan's Pharsalia, and Statius' Thebaid. At the end of the course, students will also appreciate the generic conventions of epic and its place in Roman society. (Irreg.)

LAT 3960 Honors Reading
1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Consists of topics designated by the instructor in keeping with the student's major program. Covers materials not usually presented in the regular courses. (F, Sp, Su)
LAT 3980 Honors Research 1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Provides an opportunity for the gifted Honors candidate to work at a special project in the student's field. (F, Sp)
LAT 3990 Independent Study

## 1-3 Credit Hours

1 to 3 hours. Prerequisite: one course in general area to be studied; permission of instructor and department. May be repeated; maximum credit six hours. Contracted independent study for topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (F, Sp, Su)

LAT 4113 Roman Historiography 3 Credit Hours
Prerequisite: LAT 2113 or LAT 2213 with a grade of $C$ or better; May be repeated with change of subject matter; maximum credit six hours. Indebted to the great historians of ancient Greece, the Romans built their historiographical tradition on more than just reporting the facts. By reading various works from Sallust, Livy, Suetonius, Pliny, and Tacitus in their original language, students will develop an understanding of how history was often used as propaganda to curb morality, educate children, and increase national pride. (Irreg.)

## LAT 4213 Latin Lyric \& Bucolic Poetry

3 Credit Hours
Prerequisite: LAT 2113 or LAT 2213 with a grade of C or better; sophomore standing; May be repeated with change of subject matter; maximum credit six hours. In contrast to the dense social and moral themes explored in epic poetry, lyric and bucolic poetry traditionally served as a medium for Roman poets to express intimate and personal notions. By translating works from authors such as Horace, Catullus, and Vergil, students will discover a diversity of themes and constructions expressed in these genres. (Irreg.)

## LAT 4313 Roman Oratory

3 Credit Hours
Prerequisite: LAT 2113 or LAT 2213 with a grade of C or better; May be repeated with change of subject matter; maximum credit six hours. In Rome, matters of war and peace, praise and blame, and life and death all depended upon the persuasive power of the Roman orator. In this course, students will not only read the greatest examples of Roman oratory but also understand the rhetorical secrets they conceal. Authors include Cicero, fragmentary Roman orators, Quintilian and the anonymous Rhetorica ad Herennium. (F, Sp)

## LAT 4413 Roman Comedy and Satire

3 Credit Hours
Prerequisite: LAT 2113 or LAT 2213 with a grade of C or better; May be repeated with change of subject matter; maximum credit six hours. Romans valued humor as a method of expressing social criticism. From the Greeks, they inherited the ribald and implausible conventions of comedy, but satire, the Romans claimed, was a genre of their own invention. By translating authors such as Horace, Juvenal, Plautus, and Terence, students will gain insight into the social concerns and preoccupations of ancient Romans. (Irreg.)
LAT 4613 Foundations of the Latin Language 3 Credit Hours Prerequisite: Course is not open to freshman, ENGL 1213 or EXPO 1213, and LAT 2113 or LAT 2213 with a grade of $C$ or better. Once widely spoken, Latin has long been considered a "dead" language. By first considering why Latin is still taught, students will investigate the evolution of Latin pedagogy, including objectives and methodology. Through this inquiry into how Latin is taught, students will reinforce and bolster their knowledge of the most complex aspects of Latin syntax. (F, Sp)

## LAT 4960 Directed Readings

1-4 Credit Hours
1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean. May be repeated; maximum credit four hours. Designed for upper-division students who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)

## LAT 4970 Special Topics/Seminar

1-3 Credit Hours
1 to 3 hours. Prerequisite: Senior standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

LAT 4990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: three courses in general area to be studied; permission of instructor and department. May be repeated; maximum credit six hours. Contracted independent study for topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (F, Sp, Su)

LAT 5960 Directed Readings 1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing and permission of department. May be repeated; maximum credit twelve hours. Directed readings and/or literature reviews under the direction of a faculty member. (F, Sp, Su)
LAT 5970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

## LAT 5980 Research for Master's Thesis

2-9 Credit Hours
2 to 9 hours. Prerequisite: graduate standing. Variable enrollment two to nine hours; maximum credit applicable toward degree, four hours. (F, Sp, Su )
LAT 5990 Special Studies
1-4 Credit Hours
1 to 4 hours. May be repeated; maximum credit eight hours. Reading and research, arranged and directed in consultation with the instructor, in specified areas of Classical philology. (F, Sp)

## LAW-Law

LAW 5000 Professional Writing for Litigators
2-3 Credit Hours
Prerequisite: Legal Research \& Writing I and II (LAW 5123 and LAW 5202). Provides students with the tools necessary to evaluate, modify, and design litigation documents (excluding substantive motions and briefs). The focus is on learning the processes necessary for effective written communication with clients and other professionals and for production of litigation-related documents. Completion of this course is required for the Litigation Certificate and does not satisfy any credit hour requirements for the J.D. (F, Sp)
LAW 5003 Argumentation and Public Speaking for

## Lawyers

## 3 Credit Hours

Prerequisite: admission to the College of Law. Explores the art of public speaking and argumentation to audiences typically encountered by lawyers. The course will focus on strategies and theories of communication that outline how to construct and deliver effective arguments, enabling students to hone their skills through practical applications. Completion of this course is required for the Litigation Certificate and does not satisfy any credit hour requirements for the J.D. (F, Sp)

## LAW 5010 International Student Private Law Firm

 Internship0 Credit Hours
Prerequisite: Admission to College of Law; Acceptance into a summer Internship; Must be an International student here on an F-1 Visa. This course allows international juris doctor students with F-1 Visas to work in a private law firm internship. During the internship, students gain substantive legal experience while learning about a variety of legal concepts. The students will gain real-world experience so that they graduate from law school with practical legal experiences and a wellrounded skill set. (Su)

LAW 5103 Civil Procedure I
3 Credit Hours
Civil procedure in state and federal courts; introductory survey of procedures by which questions of substantive law commonly are raised and determined; procedural and remedial background; law governing controversies in federal courts; details of procedure in a lawsuit, including forum selection, pleading, joinder of claims and parties, discovery, the pretrial conference, disposition without trial, trial before a judge or jury, post-trial motions and appeals; issue and claim preclusion. (F)
LAW 5114 Contracts
4 Credit Hours
Prerequisite: admission to College of Law. Basic first-year survey course which explores the nature and enforceability of promises. Subjects include contract formation, performance, termination of contracts, material breach, remedies for breach of contract, mistake and excuse for nonperformance, statute of frauds, interpretation of contract language, conditions, assignment and delegation, and third party beneficiaries. (F)
LAW 5123 Legal Research, Writing \& Analysis I 3 Credit Hours
Prerequisite: admission to the College of Law. Focuses on the legal research, writing, and communication skills necessary for a lawyer to identify a client's legal issue; research and understand the relevant law; and precisely and objectively analyze how the law applies to the client's situation, so the lawyer can advise the client or decide how to best meet the client's goals. (F)

## LAW 5130 Lincoln, the Constitution and the Crisis of the Union 2-3 Credit Hours

2 to 3 hours. Prerequisite: LAW 5134. Study of: 1) the constitutional debate about the character of a 'more perfect union' and federalism prior to 1861 ; 2) the limited commitment to human rights in the pre-1868 Constitution, and the antebellum inspirations for the Reconstruction constitutional amendments; 3) the national government's powers to preserve the Union, and the South's claim of a constitutional right to secede. ( $\mathrm{F}, \mathrm{Sp}$ )

LAW 5134 Constitutional Law
4 Credit Hours
Selected issues, including: judicial review; the judicial process in construing and applying the United States Constitution; federal and state powers, federalism and separation of powers; an introduction to the concepts of equal protection and due process. (Sp)

## LAW 5144 Torts

4 Credit Hours
Prerequisite: admission to the College of Law. Introduction to basic principles of civil liability, with study of selected issues, which may include intentional wrongs, negligence, strict liability, vicarious liability, defenses and immunities, comparative fault, assessment of damages, nuisance, products liability, misrepresentation, injuries to reputation, and alternative compensation systems. (F, Sp)

## LAW 5153 Supreme Court Theory and Practice 3 Credit Hours

Prerequisite: LAW 5134. In this course on the decision-making processes and practices before and behind-the-scenes at the Supreme Court, students act as law clerks assisting in the review of pending certiorari petitions; lawyers arguing pending cases; justices voting on those cases and drafting judicial opinions deciding them; and scholars studying the Court's role as a key and controversial institution in our constitutional democracy. (F, Sp)

## LAW 5201 Introduction to Brief Writing

1 Credit Hour
Prerequisite: Admission to the College of Law and LAW 5123.
Introduction to the principles and practice of written advocacy. Students complete a trial-level motion brief and appellate brief. While building on the analytical, writing, and research skills learned in LRWA I, this course focuses on the lawyer's need to become self-directed and reflective while engaging in increasingly complex research, legal analysis, writing, and editing for persuasion. (Sp)

LAW 5202 Legal Research, Writing \& Advocacy II

## 2 Credit Hours

 Introduction to oral advocacy and brief writing. (Sp)LAW 5203 Civil Procedure II

## 3 Credit Hours

Civil procedure in state and federal courts; introductory survey of procedures by which questions of substantive law commonly are raised and determined; procedural and remedial background; law governing controversies in federal courts; details of procedure in a lawsuit, including forum selection, pleading, joinder or claims and parties, discovery, the pretrial conference, disposition without trial, trial before a judge or jury, post-trial motions and appeals; issue and claim preclusion. (F)
LAW 5223 Criminal Law
3 Credit Hours
General principles of criminal responsibility and the elements of common law, statutory crimes, and defenses. Emphasis is placed on the subject of criminal intent. (Sp)
LAW 5234 Property
4 Credit Hours
Introduction to basic property concepts, including: adverse possession; estates in land; landlord and tenant; concurrent estates; nonpossessory interests (including easements, licenses, covenants and equitable servitudes); and real estate transactions. (Sp)
LAW 5301 Oral Advocacy 1 Credit Hour
Prerequisite: Admission to the College of Law and LAW 5201. Using appellate briefs written in Introduction to Brief Writing, students will study principles of oral advocacy and learn to effectively organize and make affirmative oral arguments and respond to questions and concerns in a simulated courtroom setting. The course culminates in three mock appellate-level oral arguments before panels of student judges, professors, practitioners, and judges. (Sp)
LAW 5303 Criminal Procedure: Investigation
3 Credit Hours
Prerequisite: LAW 5223. Examines the constitutional criminal procedure of police investigations, including the Fourth Amendment's protection against unreasonable search and seizure, the Fifth Amendment's guarantee of due process and privilege against compulsory selfincrimination, and the Sixth Amendment's right to counsel. (F, Sp)

## LAW 5314 Evidence

## 4 Credit Hours

Presentation of evidence; judicial control and legal reasoning in the determination of issues of fact; topics relating to the admissibility of evidence, including relevancy, testimonial and real evidence; the original writing rule; and topics relating to the exclusion of evidence, including hearsay, the right of confrontation and privileged communications. (F, Sp)
LAW 5323 Professional Responsibility
3 Credit Hours
The nature of law as a profession; problems facing the profession and the individual lawyer. Fundamentals of legal ethics and responsibilities, with emphasis on the Model Rules of Professional Conduct of the American Bar Association. (F, Sp, Su)
LAW 5403 Administrative Law
3 Credit Hours
Basic considerations relating to administrative agencies, including nondelegation doctrine, fact versus law distinction, agency rule making, adjudication, due process requirements, information gathering, and judicial review. (F, Sp, Su)

LAW 5410 Bankruptcy

## 3-4 Credit Hours

3 to 4 hours. Rights and remedies of debtors and creditors; bankruptcy including liquidation, reorganization, and wage earner plans; attachment, judgment execution; garnishment, fraudulent conveyances, bulk sales and collection remedies including compositions and assignments. (F, Sp)

## LAW 5433 Corporations

3 Credit Hours
Formation of corporations; duties and powers of corporate management; corporate control; shareholder rights, shares, dividends; derivative suits, fundamental changes and dissolution. ( $F, S p$ )

## LAW 5434 Business Associations

4 Credit Hours
Prerequisite: admission to the College of Law. Introduction to the law of business associations with a focus on the modern corporation. Particular attention is directed to organizational structuring and the allocation of control among stockholders, directors, and officers. Federal securities law is introduced, but not covered in a substantial manner. Limited attention will also be given to the basic principles of agency, partnerships, LPs, and LLCs. (F, Sp)

## LAW 5443 Family Law

3 Credit Hours
The rights, obligations, and liabilities arising from marital and nonmarital relations; divorce; marital property alimony, child support. (F, Sp, Su)

## LAW 5450 The First Amendment

2-3 Credit Hours
2 to 3 hours. Prerequisite: 5214. The First Amendment: Individual rights of expression, assembly, association and religion. Permissible government restrictions and regulations in relation to activities protected by the First Amendment. (Irreg.)

## LAW 5463 Income Taxation of Individuals

3 Credit Hours
Structure of the federal income tax with emphasis on operation of the system through use of concepts such as income, basis, gains and losses, realization and recognition, exclusions and deductions. (F, Sp)

## LAW 5470 Wills and Trusts

3-4 Credit Hours
3 to 4 hours. Intestate succession, execution, interpretation, amendment, revocation and contest of wills, rights of decedent's family, will substitutes and the avoidance of probate; creation, validity, funding, amendment and termination of trusts and the fiduciary obligation. ( $\mathrm{F}, \mathrm{Sp}$ )

## LAW 5520 Alternative Dispute Resolution

2-3 Credit Hours
2 to 3 hours. Negotiation, mediation and arbitration; includes courtordered arbitration, mini-trials, summary jury trials and other formal and informal means of resolving disputes short of formal court adjudication. (Irreg.)

## LAW 5530 Civil Pretrial Litigation

2-3 Credit Hours
2 to 3 hours. The study of litigation tactics and techniques prior to trial. Included are discovery, motion practice, witness preparation, settlement, alternate dispute resolution, pretrial conferences, mini-trials, summary jury trials, and other related areas. (F, Sp)

## LAW 5533 Conflict of Law

3 Credit Hours
The law relating to transactions with elements in more than one state or nation, jurisdiction of courts and enforcement of foreign judgments, choice of law problems, constitutional issues, and the theoretical basis of choice of law, including an introduction to the problems of renvoi and characterization. (Irreg.)

## LAW 5543 Federal Courts

3 Credit Hours
Examines concepts of case or controversy, federal subject matter jurisdiction; supplemental jurisdiction; venue; removal; substantive law applied in federal courts; and the relationship of the state and federal courts. (Irreg.)

## LAW 5553 Remedies

3 Credit Hours
A study of remedies available in court actions, including specific performance, injunctions, and other equitable remedies. (F, Sp)

## LAW 5602 Comparative Indigenous Peoples' Law Seminar 2-2 Credit

 HoursPrerequisite: admission to College of Law. Seminar will examine the differences and similarities between Canadian, United States, Australian and New Zealand laws affecting native peoples. Participants in the seminar will include students from law schools at University of Ottawa, University of Saskatchewan, Auckland University, and Monash University attending via television. Federal Indian law is not a prerequisite, but strongly recommended. (Sp)

LAW 5603 Native American Natural Resources-MLS 3 Credit Hours
Prerequisite: admission to Masters of Legal Studies Program. Provides an overview of the history of U.S. native policy and the basic doctrines of Indian law, then covers a variety of issues relating to tribal interests in and jurisdiction over environmental resources. Topics includes tribal rights to land; land use and environmental protection in Indian country; economic and natural resource development issues (including grazing, minerals, timber, and taxation); hunting and fishing rights; as well as international perspectives on indigenous resources. Throughout the course, students will consider the roles of the tribal, federal, and state governments in resource regulation and use. (F, Sp)

## LAW 5610 Federal Indian Law <br> 2-3 Credit Hours

2 or 3 hours. The history of federal Indian policy and its impact on modern Indian problems; the Bureau of Indian Affairs; the federal government-Indian relationship and policy; tribal sovereignty; states' rights; criminal, civil, and taxing jurisdiction in Indian country; rights of individual Indians; tribal self-government; property rights; water rights; andhunting and fishing rights. (F).

LAW 5623 Religion, Culture \& Indian Law-MLS 3 Credit Hours
Prerequisite: admission to online Masters of Legal Studies Program.
Examines the roles of law and policy on Native American religious and cultural practice. Explores issues relating to tribal interests and jurisdiction over Native religion and culture including information concerning preservation, restoration, and destruction of sacred sites and indigenous remains, the laws and practices pertaining to species protection and sacred species, institutionalized persons, as well as entheogens, protection of cultural and intellectual resources. International law as related to indigenous religions and culture is also explored. (F, Sp)

LAW 5633 Native American Natural Resources
3-3 Credit Hours
Prerequisite: admission to College of Law. Covers a variety of issues relating to tribal interests in and jurisdiction over environmental resources. Course coverage includes tribal rights to land; land use and environmental protection in Indian country; economic and natural resource development issues (including grazing, minerals, timber and taxation), water rights, and hunting and fishing rights. (F, Sp)

LAW 5642 Indigenous Peacemaking
2 Credit Hours
Prerequisite: admission to the College of Law. Students will compare and contrast Tribal Justice and the American Justice system, and the history of dispute resolution of Tribal Nations. Students will examine peacemaking through case studies demonstrating healing through justice. Peacemaking designs to restore harmony while developing the wisdom of consensus outcomes. Students will learn through study and participation the structure of the peacemaking circle and community development. (F, Sp)

## LAW 5663 Federal Indian Water Law-MLS

3 Credit Hours
Prerequisite: admission to Masters of Legal Studies Program. Explores the context, decisional and statutory law, and overarching polices that shape water law. Examines foundations in both federal Indian law and basic principles of water law, including relevant substantive and procedural law, and mechanics and social issues relating to water resource management. Also, explores state and federal powers and roles in relation to American Indian tribes and water resources; intergovernmental/ intercommunity conflict, as well as methods of management and resolution. (F, Sp)

LAW 5673 Indian Gaming Laws \& Regulations-MLS 3 Credit Hours Prerequisite: admission to Masters of Legal Studies Program. Examines litigation and history of tribal gaming, along with critical decisions rulings on tribal/state compacting and scope of gaming conflicts. Explores tribal compacting experiences around the country with focus on Oklahoma tribes and the Oklahoma Model Gaming Compact of 2004. Distinguishes the regulatory roles of tribes, states and the feds and explores differences in Class II and Class III gaming, regulations and disputes. Explains creative approaches to financing and development of tribal gaming facilities. ( $F, S p$ )

## LAW 5703 Antitrust Law

3 Credit Hours
Federal and state antitrust laws approached on the basis of type of conduct, i.e., monopolies, mergers, price control by private business, exclusive dealing contracts, fair trade pricing, agreements not to compete; discrimination in distribution and refusals to deal; and unfair trade practices. (F)

## LAW 5712 Corporate Drafting

2 Credit Hours
Prerequisite: LAW 5433 or LAW 5434. Will cover transactional drafting skills as well as business planning and counseling in the corporate setting. Students will draft a variety of corporate and transactional provisions and documents such as certificates of incorporation, bylaws, board resolutions, and proxy statements. (F, Sp)

## LAW 5713 Transactional Law Practicum I: Business Combinations <br> 3 Credit Hours

Prerequisite: LAW 5433 or LAW 5434. This course offers the opportunity to learn about transactional law practice by completing a simulated public company corporate transaction. (F)

## LAW 5733 Unincorporated Business Entities

## 3 Credit Hours

Prerequisite: admission to the College of Law.Deals with the legal principles concerning association in business by agency, partnership, and other unincorporated forms. The agency relationship and its consequences are covered in detail. Unincorporated business organizations such as the general partnership, LP, and LLC are covered, focusing on topics such as formation, liability, fiduciary obligations, and dissolution. If time permits LLP and closely-held corporations will be included. (F, Sp)

## LAW 5740 Payment Systems <br> 2-3 Credit Hours

2 to 3 hours. Course will cover the checking system, the credit and debit card system, electronic funds transfer, letters of credit, interest payments, negotiable instruments and the securities trading and settlement system. Substantive law would be Articles 3, 4, 4A, 5 and 8 of the UCC as well as the Expedited Funds Availability Act, parts of the Truth in Lending Act and the Electronic Funds Transfer Act (and implementing regulations.) (F, Sp)
LAW 5743 Transactional Law Practicum II: Law of 3 Credit Hours
Innovation Prerequisite: LAW 5433 or LAW 5434. This course offers the opportunity to learn and experience the law of innovation by advising in a start-up context in a simulation. (Sp)

## LAW 5750 Secured Transactions

3-4 Credit Hours
3 to 4 hours. Prerequisite: admission to the College of Law. This course covers Article 9 of the Uniform Commercial Code. Topics include the establishment and perfection of security interests pursuant to credit sales contracts, problems of focusing on the interface between Article 9 and federal bankruptcy law, priority disputes among collateral claimants, default, and rights after default. Emphasis is placed on developing an understanding of the code's statutory scheme. (F, Sp)

LAW 5753 Federal Securities Regulation 3 Credit Hours
Federal securities laws and the activities and industry they govern; the meaning of "security"; regulation of the issuance, sale, resale, and purchase of securities; disclosure requirements, generated by registration; anti-fraud provisions; and civil liability. (F, Sp)

## LAW 5763 Mergers and Acquisitions

3 Credit Hours
Prerequisite: prior or concurrent enrollment in 5433. Provides an understanding of the issues arising in business acquisition (and divestiture) transactions. Coverage is given to theories underlying acquisitions, alternative acquisition techniques and planning considerations that bear on the choice among those techniques. (Sp)

## LAW 5773 Consumer Finance Law

3 Credit Hours
Prerequisite: Admission to College of Law. This course covers the law and finance of household lending. The course will go over basic financial principles and household lending laws to give students a background in these topics that will help them represent clients as well navigate their own personal financial lives. (F, Sp)
LAW 5830 Criminal Procedure: Adjudication
2-3 Credit Hours
2 to 3 hours. Prerequisite: LAW 5223. Examines the adjudicatory phase of our criminal procedure, beginning after arrest and continuing through to post-conviction matters. We consider federal constitutional provisions and rules of procedure, the policies underlying those requirements, and their impact on the roles of prosecution and defense counsel. ( $F, \mathrm{Sp}$ )
LAW 5913 American Legal History 3 Credit Hours
Prerequisite: admission to College of Law. The development and characteristics of American legal institutions and basic themes in American law and legal philosophy. (Sp)
LAW 5920 Complex Litigation
2-3 Credit Hours
2 to 3 hours. Examines the procedure for preparation and trial of mass tort and other complex cases in federal court including: jurisdiction, joinder, intervention, consolidation, transfer, discovery, preclusion, class action, and trial procedures. (Irreg.)

LAW 5980 Research for Master's Thesis

## 2-9 Credit Hours

LAW 6020 Comparative Law 2-3 Credit Hours
2 or 3 hours. A comparison of the corresponding features of the American system of law and the systems of law of other nations. (F)
LAW 6040 International Business Transactions 2-3 Credit Hours 2 or 3 hours. Legal issues in international trade, licensing, and investment; limitations affecting movement of goods and flow of capital; organization, financing, and protection of international business; contract negotiation and dispute resolution and foreign investment. (F)
LAW 6050 International Human Rights 2-3 Credit Hours
2 to 3 hours. The sources, norms, institutions, and process of international human rights law; the incorporation of human rights law into domestic legal systems, particularly the United States. (Irreg.)

## LAW 6060 International Law Foundations

2-3 Credit Hours
2 to 3 hours. An introduction to the international legal system: its
structure, rules, and process; the incorporation of international law into domestic legal system, particularly in the United States; in current issues including dispute resolution, jurisdiction, environmental protection, human rights, and use of force. The course is not international business transactions or comparative law. (Sp)
LAW 6100 Selected Legal Problems
1-4 Credit Hours
1 to 4 hours. Involved current legal problems. Subject matter and course credit will be included with the enrollment instructions. (F, Sp)

## LAW 6110 Bioethics and the Law

-3 Credit Hours
2 to 3 hours. Legal, ethical, and economic analysis of problems posed by advances in biomedical technologies. Includes problems raised by behavior control through direct organic intervention, genetic engineering; extension of human powers and faculties by artificial means, human reproduction and death control; and regulation of experimentation involving human subjects. (Irreg.)

LAW 6190 Health Law 2-3 Credit Hours 2 or 3 hours. The legal aspects of medicine; civil liability of medical professionals and health care providers; organization and regulation of the medical profession; uses of medical science in litigation; selected health sciences and public policy issues such as human reproduction, the right to treatment, and mental health problems. (F, Sp)

LAW 6210 Immigration Law 2-3 Credit Hours
2 to 3 hours. Constitutional, statutory, and regulatory framework for the admission, exclusion, and deportation of non-citizens who seek immigrant and non-immigrant status in the United States; refugee and asylum law and policy, and citizenship acquisition. (F, Sp)

LAW 6213 Intellectual Property Survey
3 Credit Hours
Prerequisite: admission to the College of Law. Provides a high-level introduction to U.S. IP law. Specific areas of coverage include patents, trade secrets, trademarks, and copyright. This course is designed for students who plan to specialize in IP and would like a high-level overview, students who are not sure if they'd like to specialize IP, and students who plan to work in any commercial setting. (F, Sp)

LAW 6223 Trademarks \& Unfair Competition
3 Credit Hours
Prerequisite: admission to the College of Law. This course provides an in-depth survey of U.S. law related to the law, theory, and institutions governing trademarks and unfair competition. Specific areas of coverage will include trademark registration, the scope and nature of trademark rights, rights of publicity, domain name disputes and the law of false advertising. (F, Sp)

LAW 6311 American Indian Law Review
1 Credit Hour
Production of a written note or comment for the Review or other approved activities associated with production of the Review. (F, Sp, Su)

LAW 6313 Child Abuse Clinic
3 Credit Hours
Prerequisite: 5443, 6113. Each student enrolls for an entire academic year for three hours each semester. (F, Sp, Su)

LAW 6320 Directed Legal Research 1-2 Credit Hours
1 to 2 hours. Legal research and writing under the supervision of a faculty member. The student must write a paper of sufficient quality to be considered for publication in a law review or other publication. A student may enroll in one or two credit hours with supervising faculty member's permission. (F, Sp, Su)

## LAW 6321 Competitions

1 Credit Hour
Students who participate on a trial or appellate advocacy competition team sponsored by the College of Law and directly supervised by a faculty member may enroll in this course. (F, Sp)

## LAW 6323 Criminal Defense Clinic <br> 3 Credit Hours

Prerequisites: 5104, 5314, 5323, and legal intern license. Clinical experience providing students the opportunity to represent indigent defendants charged with municipal, misdemeanor and felony offenses in Cleveland and McClain Counties. Students handle every aspect of the defense of a criminal case, including interviewing, investigating, negotiating, litigating motions and conducting the trial. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

LAW 6331 Oil \& Gas, Natural Resources, and Energy Journal

1 Credit Hour
Prerequisite: admission to College of Law and ONE J membership. Production of case summaries of recently released court decisions on matters relating to oil and gas, natural resources, and/or energy. ( $\mathrm{F}, \mathrm{Sp}$ )

LAW 6341 Appellate Advocacy Competitions
1 Credit Hour
Prerequisite: Must be chosen for a competition team. Students will receive instruction on research, writing, and oral advocacy skills. Students participate in groups (teams) to research and write an appellate advocacy brief, and practice oral arguments. Students will compete in regional and national competitions. (F, Sp)

LAW 6342 Advanced Persuasive Writing
2 Credit Hours
Prerequisite: LAW 5123 and LAW 5202. We will approach persuasive writing from different practical and theoretical perspectives as we investigate why some writing is more persuasive than others and the specific steps we can take to make our legal writing more effective. Students continually critique contemporary examples, write, edit, and receive critique, having repeated opportunities to gain new insights and put them to use. (F, Sp)

LAW 6360 Interviewing, Counseling and Negotiation 2-3 Credit Hours 3 to 4 hours. Theoretical and practical aspects of interviewing, counseling and negotiation, including simulation of situations calling for these skills, taught in a lecture-workshop format with a lecture and demonstration on a particular topic each week, followed by small workshops in which students simulate the lawyer's role. (F, Sp)

LAW 6363 Civil Clinic
3 Credit Hours
Prerequisites: 5104, 5314, 5323 and intern license. Student interns, working from an office operated by the Law Center, participate in actual representation of low-income clients in civil trials and transactions. Experience is acquired through court appearances, jury and non-jury trials, interviewing, discovery, drafting of pleadings, negotiation and counseling under the supervision of the clinical legal education staff. Students maintain an active caseload and office hours. (F, Sp, Su)

## LAW 6382 Intermediate Legal Writing: Introduction to Non-litigation Drafting <br> 2 Credit Hours

Prerequisite: LAW 5123 and LAW 5202. Course will provide you with the tools necessary to design, evaluate, and modify non-litigation documents, including contracts, wills, client letters, and legislation. Students will dentify document users, determine competing objectives and interests, choose among drafting alternatives consistent with the relevant law, and test the content and organization of documents for intended and unintended consequences. (Sp)

LAW 6391 Oklahoma Law Review
1 Credit Hour
Prerequisite: Oklahoma Law Review membership. Production of a written note or comment for the Review or other approved activities associated with production of the Review. (F, Sp, Su)

LAW 6392 Advanced Legal Research
2 Credit Hours
Prerequisite: LAW 5123 and LAW 5202. The ability to "find the law" is an important practical skill for attorneys. The goal of the course is to further develop a student's ability to find solutions to legal problems by formulating efficient and effective legal research strategies. This course emphasizes advanced online search techniques and explores how technology is impacting the delivery of legal information. (Sp)

LAW 6400 Selected Legal Problems of Applied Nature 1-4 Credit Hours 1 to 4 hours. Subject matter and course credit will be announced. (F, Sp)

## LAW 6410 Trial Techniques

2-3 Credit Hours
2 to 3 hours. Prerequisite: 5314. An introduction to basic trial techniques under simulated trial situations. Students will conduct opening statements, direct and cross examination of witnesses, introduce and use exhibits, impeachment, expert examination, jury selection, closing arguments and a final trial. (F, Sp, Su)

## LAW 6412 Representing the Criminally Accused 2 Credit Hours

Prerequisite: admission to the College of Law; LAW 5314 recommended. Focuses on the practical aspects of criminal defense, from the business end of private practice to practical considerations such as whether to litigate and how to negotiate better deals. Students select a fact pattern then draft and argue bond hearings, conduct a preliminary hearing and argue a pre-trial motion. Relevant handouts are provided and students will conduct legal research. (F)

## LAW 6422 Bar Exam Preparation I: Strategies and Tactics for Success <br> 2 Credit Hours

Prerequisite: admission to the College of Law. Designed to help get a jump on preparations to pass the bar, but IS NOT a substitute for commercial bar exam preparation courses. Students will review substantive law in at least three areas heavily tested on the bar exam as they learn and practice skills necessary to maximize scores on both the multiple choice and essay portions of the exam. (F, Sp)

## LAW 6501 Introduction to Petroleum Engineering and Geo-Sciences-

 MLS1 Credit Hour
Prerequisite: admission to Masters of Legal Studies Program. Presents an overview of the production life cycle from discovery to development and production of oil and gas. The course examines the different roles of the key players in each stage of this process. (F, Sp)
LAW 6510 Energy and Natural Resources 2-3 Credit Hours 2 to 3 hours. Regulation of natural resources capable of energy fuels production; environmental technological and economic impacts of coal, water, oil, gas, uranium, and solar energy sources through exploration, development, production, transportation, and end use; legal context of natural resource conservation, allocation, and distribution. (Irreg.)
LAW 6523 Environmental Law 3 Credit Hours Common law and statutory approaches to environmental, economic, and technological impacts on society; jurisprudential underpinnings of environmental law; environmental administrative process and scope of judicial review; quality standards for land, air, and water, including minimal standards for preventing degradation or exhaustion of human and natural environments. (F, Sp)
LAW 6540 Oil and Gas 3-4 Credit Hours
3 to 4 hours. Nature of property interests in oil and gas; conveyancing of interests in oil and gas; legal interests created by oil and gas leases; the validity of leases; the habendum, drilling, and rental clauses; assignment of interests of lessor and lessee; rents and royalties; and the conservation of oil and gas. (F, Sp)

LAW 6543 Copyright 3 Credit Hours
Prerequisite: admission to the College of Law. Provides an in-depth survey of U.S. copyright law, theory, and policy. Topics will include the basic requirements for copyright protection, the nature and scope of the rights granted by the Copyright Act, and the normative foundations of copyright law. No technical background is required. (F)

LAW 6550 Oil and Gas Contracts
2-3 Credit Hours
2 to 3 hours. Examination of contracts used in the oil and gas industry for exploration, production and development of oil and gas properties and for investment; the nature of the relationships created by such contracts, the rights and duties of the parties, income tax consequences and governmental regulation of such contracts. (Sp)

## LAW 6552 International Petroleum Transactions 2 Credit Hours

This course will study the international oil and gas business, a business that must be uniquely concerned with both public and private international law, as well as domestic law of the business entity's home state, the host government, and oftentimes, a third country. Students will study the sovereign rights to minerals, including disputes that arise between neighboring countries regarding boundary disputes. Students will look at how crude oil is bought and sold on the world market. Students will study the various types of host government contracts used by various countries to assign development rights to private companies, including how such rights are acquired, and study how disputes between a private company and host government are resolved. Students will also look at contracts between private companies engaged in exploration and production operations. (Sp)
LAW 6560 Title Examination and Assurance 2-3 Credit Hours 2 to 3 hours. A study of conveyancing, with emphasis on the examination of abstracts of title to real property. (F, Sp)

LAW 6570 Real Estate Transactions
2-3 Credit Hours
2 to 3 hours. The first two-thirds of the course covers the terms and legal issues involved in drafting, executing, and enforcing residential real estate contracts, including obtaining and evaluating title evidence prior to closing and recovery for breach of title guarantees. The last third of the course will introduce certain basic commercial real estate transactions, including processes and issues involved in housing subdivisions, condominiums, shopping centers, and commercial leases. (Irreg.)

## LAW 6580 Water Law <br> 2-3 Credit Hours

2 to 3 hours. The system of water rights; riparian, appropriation, and prescriptive rights; stream, surface, and ground water; transfer and termination of rights; injuries caused by water; development of water supplies; federal-state, interstate, and intrastate conflicts; water pollution control; federal and Indian rights and federal water resource problems. (F, Sp )

## LAW 6662 Employment Law Seminar

2 Credit Hours
The law of employment, including personnel practices, employment contracts, employee rights and federal-state regulation of employeremployee relationships. (Irreg.)
LAW 6680 Family and Law of Torts Seminar
1-2 Credit Hours
1 to 2 hours. Tort liability within the family, family tort liability to third parties, injuries to family members, interference with family relationships, wrongful birth, and related topics. (Sp)
LAW 6682 Law and Literature Seminar
2 Credit Hours
Prerequisite: Admission to the College of Law. The format of the seminar will involve reading and discussion of selected classical and contemporary works which have a legal theme or influence. The grade will be based on a composite of class participation, short papers, and a group presentation on one of the assigned readings. (F, Sp)

## LAW 6692 Environmental Law Seminar 2 Credit Hours

Prerequisite: Admission to the College of Law. The format of the seminar will involve reading and discussion of selected classical and contemporary scientific and legal works which have an environmental theme or influence. The grade will be based on a composite of class participation, short papers, and a group presentation on one of the assigned readings. (F, Sp)
LAW 6700 Selected Legal Problems Seminar 1-4 Credit Hours 1 to 4 hours. May be repeated twice with change of content. Involves current legal problems. Subject matter and course credit will be included with the enrollment instructions. (F, Sp)

## LAW 6732 War Crimes Tribunals Seminar

2 Credit Hours
Prerequisite: admission to the College of Law. Examines various judicial institutions established outside the control of national legal systems for the prosecution of certain international atrocity crimes, including the International Criminal Tribunals for Yugoslavia and Rwanda, the Extraordinary Chambers of the Cambodian Courts and the Special Court of Sierra Leone. Attention will be paid to the background, jurisdiction, procedures, substantive law and daily operations of such institutions. ( $F$, Sp )
LAW 6742 The International Criminal Court Seminar 2 Credit Hours Prerequisite: admission to the College of Law. Examines the International Criminal Court, the first permanent institution to prosecute atrocity crimes. Beginning with the creation of the ICC, the course will address the ICC's jurisdiction, substantive crimes, trial, appeal and punishment, while exploring situations and cases before the ICC. Discussions will include the future of the court, its emerging jurisprudence and the United States' evolving perspective and involvement. (F, Sp)

## LAW 6752 Comparative Responses to Terrorism and Political Violence Seminar <br> 2 Credit Hours

Prerequisite: admission to the College of Law. Examination of a wide range of legal issues related to terrorism and governmental responses. Topics include the framework of separate branches of government with shared national security power; fighting terrorists and international criminals; and protecting national security information in a democratic society. (F, Sp)
LAW 6762 Comparative Criminal Law Seminar 2 Credit Hours
Prerequisite: admission to the College of Law. Review and comparison of select criminal law issues in various national legal systems. Issues include the purpose and benefits of studying comparative law generally while covering specific topics including, among others, police powers and investigations, the role of the judiciary, role of the jury, due process concerns and the objectives of punishment. (F, Sp)
LAW 6772 Federal Sentencing Seminar 2 Credit Hours
Prerequisite: admission to College of Law. Examines aspects of sentencing unique to the federal court system, including application of complex sentencing guidelines. Federal sentencing provides one of the last frontiers for pure legal advocacy, as litigants seek departures or variances to fit the circumstances of the case while providing insight into the victims and/or defendants. Both critical guideline analysis and creative argument are reviewed and applied. (F, Sp)

## LAW 6782 Perspectives on Governmental Law 2 Credit Hours

Prerequisite: admission to the College of Law. Seminar designed around three vantage points or "perspectives" of Governmental legal practice -- Federal, State, and Tribal. Each perspective highlights the unique legal issues of governmental practice. Perspectives will be taught in a mentoring style. Topics will include: the duty to serve the public interest, open government, policy making, and the role of the lawyer advisor. (F)

LAW 6820 Business Tax

## 3-4 Credit Hours

3 to 4 hours. Prerequisite: LAW 5463. This course surveys the federal income tax laws on organizing and running businesses as corporations, partnerships, S corporations, and LLCs. Also, the course looks at the taxation of oil and gas operations including exploration, development, production, and abandonment. No technical background is required. (F, Sp )
LAW 6830 Pensions and Employee Benefit Plans 2-3 Credit Hours 2 to 3 hours. Planning, establishment, and administration of pension, health care and other employee benefit plans under the tax and labor laws. (Irreg.)
LAW 6832 Partnership Tax
2 Credit Hours
Prerequisite: 5463. Subchapter K of the Internal Revenue Code, involving taxation of partnerships and partners. (F)
LAW 6840 Tax Procedure 2-3 Credit Hours
2 to 3 hours. Prerequisite: 5463. Federal tax procedure and conflict resolution, including administrative practice, trial and appellate review. (Irreg.)

## LDMA-Music Recitals

## LDMA 6052 Graduate Lecture/Chamber Recital--Doctor Of Musical Arts Degree <br> 2 Credit Hours <br> Prerequisite: concurrent enrollment in 6020; permission of adviser and instructor. May not be elected during first enrollment. The preparation and presentation of a public lecture or chamber music recital. Requires the submission of a related written document. (F, Sp, Su)

## LGBT-LGBTQ Studies

LGBT 1003 Introduction to LGBTQ Studies 3 Credit Hours
Covers expansive fields of Lesbian, Gay, Bisexual, Trans*, and Queer studies. Includes issues related to lesbian, gay, bisexual, transgender, and queer communities, organizing, and theorizing. Emphasizes different aspects of LGBTQ studies including history, queer theory, popular culture, media, and literature. Examines its relationship with historical and contemporary movements as well as its productive, yet sometimes tenuous, relationship with feminist studies. ( $\mathrm{F}, \mathrm{Sp}$ ) [IV-WC].
LGBT 3263 LGBTQ Movements
3 Credit Hours
(Crosslisted with WGS 3263) Prerequisite: WGS 1003 or junior standing.
This course will focus on the mainstream gay and lesbian movement in US history, and how that movement shifted from radical to mainstream and the important debates therein. The course will also consider the impact of systems of oppression from colonialism to the US justice system on LGBTQ identity. (Irreg.)

## LGBT 3273 Queer Theory

3 Credit Hours
(Crosslisted with WGS 3273) Prerequisite: WGS 1003 or junior standing. This interdisciplinary course is an introduction to the academic fields and debates within queer theory, specifically, normalization, resistance, and the practice of queering. The central focus is to examine, challenge, critique, and destabilize normative conceptions and representations of not just gender and sexuality but of other categories of being as well.
(Irreg.)

LGBT 3823 Queer Religion
3 Credit Hours
(Crosslisted with RELS and WGS 3823) Prerequisite: Junior standing or permission of instructor. This interdisciplinary seminar engages a range of methods and theoretical approaches to queer studies and religion. The course explores questions including: What is the relationship between queer life and religious life? Is religion ever queer? Is queerness ever religious? What do scholars mean when they label religion (or other objects of study) as queer or queer-able? (Irreg.) [IV-WC].
LGBT 4623 Gender and Children's Culture 3 Credit Hours (Crosslisted with WGS 4623) Prerequisite: WGS 1003 or LGBT 1003. Children's culture shapes our identities and environments. This course explores children's culture contexts through feminist and queer frameworks. Key content includes analyzing children's media, video games, books, toys, the environment, academics, and digital cultures while examining how childhood is a context for cultural history and leveraging power. It focuses on children's engagement in world building and knowledge production. (F)

LGBT 4970 Special Topics/Seminar
1-3 Credit Hours 1 to 3 hours. Prerequisite: Senior standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

## LING-Linguistics

LING 1203 Language Across Cultures 3 Credit Hours
(Crosslisted with ANTH 1203) Theories of language family origins and their relationship to human migration; types of human languages; linguistic concept of genetic relatedness; writing systems development; non-Western sociolinguistic and usage phenomena; cultural and scientific importance of endangered languages; how languages become endangered; factors involved in preservation. This course may not count for major credit. (Sp) [IV-WDC].
LING 2303 General Linguistics
3 Credit Hours
(Crosslisted with ANTH 2303) Humanistic and formal study of natural languages: how they are similar to, and different from, one anther in their use of speech sounds, logical structures and mechanisms that integrate events, objects and speakers in spatio-temporal contexts. The relationship between language and culture; language acquisition and language change. (F, Sp) [l-O].

## LING 2970 Special Topics

1-3 Credit Hours
1 to 3 hours. Prerequisite: May be repeated; maximum credit nine hours. Special topics course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research, and field projects. (Irreg.)
LING 3033 Phonetic Description 3 Credit Hours
Prerequisite: LING 2303. Study of the basic principles in forming the phonetic description of human speech. (Sp)

## LING 3043 Linguistic Semantics

3 Credit Hours
Prerequisite: 2303. An introduction to basic ideas and concepts in the field of linguistic semantics. Includes discussion of current issues and representative theoretical approaches. (F)
LING 3053 Phonology 3 Credit Hours
Prerequisite: LING 3033. Phonology is the study of sound patterns
found in human language. Provides a grounding in phonological theory by examining data from several of the world's languages. Covers the phoneme-allophone distinction, distinctive features, feature re-write rules, and a broad sampling of phonological phenomena. (F)

LING 3133 Phonetic Field Methods
3 Credit Hours
Prerequisite: 3033 or Anthropology 3033. This course covers techniques used to collect phonetic data, methodological concerns, the acoustic basis of speech sounds, how to record speech for linguistic analysis, and both acoustic and articulatory techniques for documenting the phonetic properties of speech. (Irreg.)

LING 3173 Lesser Studied Languages 3 Credit Hours Prerequisite LING/Anthropology 2303. Learning and discussing some of the core properties of a few languages that are not often taught in the language classroom. Develops the students' ability to discuss the properties of languages in a precise and careful way. (F, Sp)
LING 3353 Syntax
3 Credit Hours
Prerequisite: LING 2303. An introduction to the fundamental concepts of Chomskyan syntax. Includes theory of categories and constituents, basic syntactic relations, case theory, and binding theory. (F)

LING 3440 Mentored Research Experience
3 Credit Hours
0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)
LING 3813 Sociolinguistics
3 Credit Hours
Prerequisite: LING/ANTH 2303. The study of the many ways human beings speak as a function of their being members of communities and societies. Included are multilingualism, creole languages, social and regional dialects, registers, gender, class, ethnic varieties, and language valuation. Includes an introduction to statistical methods. (F, Sp)

LING 3960 Honors Reading 1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Consists of topics designated by the instructor in keeping with the student's major program and will cover materials not usually presented in regular coursework. (F, Sp)
LING 3970 Honors Seminar 1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Subjects covered vary. Deals with concepts not usually treated in regular courses. (Irreg.)

LING 3980 Honors Research 1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Provides an opportunity for the gifted Honors candidate to work on a special project in his/her field. (F, Sp)
LING 3990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: permission of instructor and junior standing. May be repeated once with change of content. Independent study may be arranged to study a subject not available through regular course offerings. (F, Sp, Su)

LING 4023 Second Language Acquisition Theory 3 Credit Hours (Slashlisted with 5023) Prerequisite: 2303 or four semesters foreign language. Multidisciplinary approach to second language acquisition. Treats child language, interlanguage, universal grammar, input, interaction, output, non-language influences and formal instruction. No student may earn credit for both 4023 and 5023. (F)

## LING 4053 Morphology

3 Credit Hours
(Crosslisted with ANTH 4053) Prerequisite: 3053 and 3353. Introduces and develops theories and concepts of morphology including word formation, derivation, inflection, non-concatenative morphs, covert categories, prosodic phenomena, morphosyntactic categories and clitics. Data from non-Western languages will be prominent. (Irreg.)

LING 4173 Typology 3 Credit Hours
Prerequisite: LING 3053 and LING 3353. An introduction to the major results of morphosyntactic typology. Focuses on morphological typology (case marking/agreement) and on syntactic typology (the relation between case marking and grammatical relations, word order, and of three major constructions: passives, causatives, and relative clauses). (F, Sp )
LING 4313 Techniques of Historical Linguistics 3 Credit Hours Prerequisite: 3053 or Anthropology 3053, or permission. Brief survey of the development of historical linguistics, the comparative method, internal reconstruction, types of linguistic change, relationships between linguistic and cultural change, new developments in the field of historical linguistics. No student may earn credit for both 4313 and 5313. (Irreg.)

## LING 4330 Topics in Linguistics

1-4 Credit Hours
1 to 4 hours. Prerequisite: nine hours of linguistics; May be repeated with change of content; maximum credit nine hours. Topic areas will vary across theoretical and applied areas of linguistics. Some topics that are appropriate include socio-linguistics, psycho-linguistics, language acquisition, advanced syntax, advanced phonology, field phonetics, pragmatics, and comparative readings of twentieth-century theorists. (Irreg.)
LING 4363 Linguistic Field Methods 3 Credit Hours (Slashlisted with 5363) Prerequisite: 2303, 3053, and 3353. An introduction to all phases of linguistic field techniques, including training in the selection of informants, the use of recording devices, and most important, the actual collection and analysis of linguistic materials. Students may not earn credit for both 4363 and 5363 . (Irreg.)

## LING 4960 Directed Readings

1-4 Credit Hours
1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean. May be repeated; maximum credit four hours. Designed for upper-division students who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)

## LING 4970 Special Topics/Seminar

1-3 Credit Hours
1 to 3 hours. Prerequisite: Senior standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)
LING 4983 Senior Essay
3 Credit Hours
Prerequisite: LING 3053 and 3353 and senior standing. Development of a research paper which relates the linguistics major coursework to general knowledge. ( $\mathrm{F}, \mathrm{Sp}$ ) [V].
LING 4990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: three courses in general area to be studied; permission of instructor and department. May be repeated; maximum credit six hours. Contracted independent study for topic not currently offered in regularly scheduled courses. Independent study may include library and/or research and field projects. (F,Sp)

LING 5023 Second Language Acquisition Theory 3 Credit Hours
(Slashlisted with 4023) Prerequisite: 2303 or four semesters foreign language. Multidisciplinary approach to second language acquisition. Treats child language, interlanguage, universal grammar, input, interaction, output, non-language influences and formal instruction. No student may earn credit for both 4023 and 5023. (F)
LING 5313 Techniques of Historical Linguistics 3 Credit Hours Prerequisite: 3053 or Anthropology 3053 or permission. Brief survey of the development of historical linguistics, the comparative method, internal reconstruction, types of linguistic change, relationships between linguistic and cultural change, new developments in the field of historical linguistics. No student may earn credit for both 4313 and 5313. (Irreg.)

## LING 5363 Linguistic Field Methods

3 Credit Hours
(Slashlisted with 4363) Prerequisite: graduate standing or permission of instructor. An introduction to all phases of linguistic field techniques, including training in the selection of informants, the use of recording devices, and most important, the actual collection and analysis of linguistic materials. No student may earn credit for both 4363 and 5363. (Irreg.)
LING 5960 Directed Readings
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing and permission of department. May be repeated; maximum credit twelve hours. Directed readings and/or literature reviews under the direction of a faculty member. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
LING 5970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)
LING 5980 Research for Master's Thesis
2-9 Credit Hours
Variable enrollment, two to nine hours; maximum credit applicable toward degree, nine hours. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
LING 5990 Independent Study
1-3 Credit Hours 1 to 3 hours. Prerequisite: graduate standing, permission of instructor. May be repeated; maximum credit twelve hours. Independent reading on one or more topics under the general direction of a faculty member. ( $F$, Sp )
LING 6960 Directed Readings
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit six hours. Directed readings and/or literature review under the direction of a faculty member. (Irreg.)

## LING 6970 Special Topics/Seminar 1-3 Credit Hours

1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit 12 hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or research and field projects. (Irreg.)
LING 6990 Independent Study 1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)

## LIS-Library and Information Studies

LIS 1013 Information and Digital Literacy 3 Credit Hours
In this era of "alternative facts" and "fake news" information literacy can help students learn to identify information from disinformation. This course is intended to make students more knowledgeable consumers of information, particularly when using internet resources and social media. Exercises in the use and evaluation of information resources, online searching, information ethics, visual literacy, and copyright/fair use are emphasized. (F, Sp) [I-O].

LIS 2003 Introduction to Information Science 3 Credit Hours
Explores the definition, impact, and history of information and information transmission. Introduces technology used to create, read, store, retrieve and transmit information. Analyzes societal institutions, techniques, and processes for the creation, distribution and management of information. Assesses the role of the information professions and information systems in culture and society. (F, Sp) [III-SS].

LIS 2033 Introduction to Digital Humanities
3 Credit Hours
(Crosslisted with HIST, WGS and HSTM 2033) This course introduces students to digital and/or computational methods in the humanities and addresses critical questions about the role of digital technology in society. This is a collaborative, hands-on, project-based course. (Sp) [IVWC].
LIS 3063 Essentials of IT \& Informatics
3 Credit Hours
Prerequisite: sophomore standing. Students will learn the fundamentals of information technology concepts and applications, understand and utilize emerging technologies to meet society's rapidly changing information needs, and apply these in solving various information problems. (F, Sp)
LIS 3440 Mentored Research Experience
3 Credit Hours
0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)
LIS 3960 Honors Reading
1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Consists of topics designated by the instructor in keeping with the student's major or program. The topics will cover materials not usually presented in the regular courses. (F, Sp, Su)

## LIS 3970 Honors Seminar

1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Subjects covered vary. Deals with concepts not usually treated in regular courses. (Irreg.)
LIS 3980 Honors Research
1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to the Honors Program. May be repeated; maximum credit six hours. Will provide an opportunity for the gifted Honors candidate to work at a special project in the student's field of study. (F, Sp, Su)

## LIS 3990 Independent Study

1-3 Credit Hours
1 to 3 hours. Prerequisite: permission of instructor and junior standing. May be repeated once with change of content. Independent study may be arranged to study a subject not available through regular course offerings. (F, Sp, Su)

LIS 4073 Cultural Heritage Data and Social Engagement 3 Credit Hours (Slashlisted with LIS 5073; Crosslisted with WGS, HIST and HSTM 4073) Prerequisite: Junior standing. This course uses methods from digital humanities, media studies, and data science to explore cultural heritage -- the histories, literature, art, and artifacts of our world's cultures. It particularly focuses on cultural heritage in digital public spaces: websites, social media, etc. No prior background in computer programming is necessary. No student may earn credit for both 4073 and 5073. (F)

LIS 4143 Government Information
3 Credit Hours
(Slashlisted with LIS 5143) Prerequisite: junior standing. Introduces students to current policy, technology, and social factors that drive government resource and information production, distribution, and access. Topics include transformation of government information; information discovery skill sets, models, and techniques; evaluation of information use and value; and government information issues (e.g. access, authentication, privatization, preservation). No student may earn credit for both 4143 and 5143. (F)
LIS 4213 Social Informatics
3 Credit Hours
(Slashlisted with LIS 5213) Prerequisite: LIS 2003. Social Informatics analyzes interactions among people and information/communication technologies (ICTs). Issues covered include basic concepts of social systems, ICTs, and their interactions; uses of mobile information technology devices; online interaction and virtual community; information technology and work; and laws and policies related to information technologies. No student may earn credit for both 4213 and 5213. (Sp)
LIS 4223 Project Planning and Management
3 Credit Hours
(Slashlisted with LIS 5223) Prerequisite: LIS 3063 or permission of instructor. Fundamentals of planning, designing, and managing information technology solutions; market and trend analysis; planning and assessment techniques and tolls; human factors in technology management. No student may earn credit for both 4223 and 5223. (Su)
LIS 4303 Children's Literature 3 Credit Hours
Prerequisite: junior standing. Survey, evaluation and selection of materials for children; interests and needs of various age groups; methods of stimulating reading and listening. Reading of books for children is emphasized. (Correspondence)

LIS 4453 Digital Collections
3 Credit Hours
(Slashlisted with LIS 5453) Prerequisite: junior standing. Introduction to the creation and development of digital collections and to the technical requirements for storage and dissemination of digital materials. Topics will include creation, development, organization, maintenance, and use of digital collections. Students will explore a variety of techniques and technologies for digitizing materials; evaluate the strengths and limitations of current efforts in creating, collecting and organizing digital materials; and explore the different opportunities and challenges of digital libraries, repositories, and archives. No student may earn credit for both 4453 and 5453. (Sp)
LIS 4483 Introduction to Health Informatics
3 Credit Hours
(Slashlisted with LIS 5483) Prerequisite: Majors only; repeatable for credit, maximum credit 6 hours. Introduction to healthcare industry, data management in healthcare, foundation concepts in health informatics, and information search in healthcare. The student will gain a solid understanding of the fundamentals of health informatics to maximize the use of information, the source of health information, and the retrieval of health information in the delivery of efficient health information services to the users. No student may earn credit for both 4483 and 5483. (Sp)

LIS 4493 Data Stewardship
(Slashlisted with LIS 5493) Prerequisite: Junior standing or permission of instructor. Data is being produced at an unprecedented rate in many forms and within many contexts. Information professionals play a vital role as ethical data stewards by organizing, curating, preserving, storing, proving access to, and repurposing data for varying purposes. Understanding the complex issues associated with ethical data stewardship is increasingly important in today's data saturated world. No student may earn credit for both 4493 and 5493. (F)

LIS 4523 Online Information Retrieval
3 Credit Hours
(Slashlisted with LIS 5523) Prerequisite: junior standing. Structure, content, and application of online databases for education, research, business, and public use. Principles and techniques for the evaluation of online databases and services. Document representation, information need specification and query formulation for online information retrieval. No student may earn credit for both 4523 and 5523. (F)

## LIS 4613 Dynamic Web Development

3 Credit Hours
(Slashlisted with LIS 5613) Prerequisite: LIS 3063 and junior standing. The interactive web design server interaction with special emphasis on database connectivity and application development on the internet. No student may earn credit for both 4613 and 5613. (F)

## LIS 4623 Advanced Data Analytics

3 Credit Hours
(Slashlisted with LIS 5623) Prerequisite: LIS 4643. Application of data analytic theories and models to solve real world problems using various unsupervised and supervised models. Topics include cluster analysis, association rule mining, random forest classifier, neural networks, and naive Bayesian classifiers. No student may earn credit for both 4623 and 5623. (F)

LIS 4633 Web Design and Implementation 3 Credit Hours (Slashlisted with LIS 5633) Prerequisite: junior standing. Students will learn how to design contemporary websites and web pages using current design thinking, techniques and best practices, and how to implement the websites using front-end programming languages including HTML, CSS, and Javascript. No student may earn credit for both 4633 and 5633. (F)
LIS 4643 Introduction to Data Analytics
3 Credit Hours
(Slashlisted with LIS 5643) Prerequisite: LIS 2003. Introduces foundational concepts for data analytics. Topics include basic computer programming, statistical understanding and application, data structure, data types, data retrieval from various sources and forms, data cleaning/ processing, data visualization, and group manipulations. No student may earn credit for both 4643 and 5643. (F)

LIS 4663 Information Studies Capstone
3 Credit Hours
Prerequisite: 2003, 3003, 4003, 4103, and senior standing. Capstone course for the Bachelor of Arts in Information Studies; design and development of an operational prototype information system in a selected organizational setting. Introduces project management terms, techniques, and effect on the success of information technology projects. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ ) [V] .

LIS 4673 Introduction to Information Visualization 3 Credit Hours (Slashlisted with LIS 5673) Prerequisite: junior or senior standing. Information visualization is becoming key to LIS, due to the growing need for visual literacy and to the growing demand for data resources in almost all disciplines. Covers basics of developing and evaluating information visualizations and the importance of data accuracy. No student may earn credit for both 4673 and 5673. (F)

LIS 4683 Database Design for Information Organizations 3 Credit Hours (Slashlisted with LIS 5683) Prerequisite: LIS 3063. This course has two major components: (1) conceptual foundations of database design and theory and (2) practical applications of design and theory to real-world database designs. For the conceptual and theoretical design component, this class covers data definition and type, entity relationship diagram (ERD) and data normalization. The practical application uses emerging database tools to cover industry critical functions. No student may earn credit for both 4683 and 5683. (Sp)

LIS 4693 Information Retrieval and Text Mining 3 Credit Hours
(Slashlisted with LIS 5693) Prerequisite: LIS 3063 and LIS 4643, or instructor or advisor permission. Identify various sources of textual information in the society and learn different textual data collection methods, understand text analytic processes, understand textual information retrieval models and different text analytic methods to analyze textual information and interpret text analysis results for users' information needs. No student may earn credit for both 4693 and 5693. (Sp)
LIS 4723 Cybersecurity Essentials
3 Credit Hours
(Slashlisted with LIS 5723) Prerequisite: Junior standing and majors only.
Covers the developments in cybersecurity by discussing and analyzing problems that security designers and security administrators address. Students will be provided hands-on experience with common tools and techniques used by security analysts and white/black hat hackers today. Students will be able to identify threats, assess the relative risk of the threats and develop cost effective countermeasures. No student may earn credit for both 4723 and 5723. (Sp)
LIS 4823 Internship in Information Studies 3 Credit Hours
Prerequisite: LIS 3063, LIS 4643, LIS 4143, LIS 4223, LIS 4633 or permission of instructor and adviser. Provides an opportunity for student synthesis of principles and theories acquired in coursework and application of these principles and theories in a working environment. Under professional supervision, the student will complete 135 hours emphasizing general understanding of the specific assignment and completion of a focused project. (F, Sp)

LIS 4920 Directed Research
1-3 Credit Hours
1 to 3 hours. Prerequisite: LIS 3063, LIS 4643, LIS 4143, LIS 4223, LIS 4633, or permission of instructor and adviser. May be repeated; maximum credit three hours. Faculty supervised research; requires written report. (Irreg.)
LIS 4940 Directed Project
1-3 Credit Hours
1 to 3 hours. Prerequisite: LIS 3063, LIS 4643, LIS 4143, LIS 4223, and LIS 4633 and senior standing, or permission of instructor and adviser; May be repeated; maximum credit three hours. Faculty supervised design and implementation of an information project that applies principles and theories acquired in coursework to solution of information problems in practical settings. Requires a project prospectus and written report. (Irreg.)
LIS 4960 Directed Readings
1-3 Credit Hours
1 to 3 hours. Prerequisite: Junior standing and permission of instructor. May be repeated; maximum credit three hours. Faculty supervised exploration of an area of information studies not covered in regularly offered courses. (Irreg.)
LIS 4970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: Senior standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

LIS 4990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: junior standing and permission of instructor. May be repeated; maximum credit nine hours. Examination and discussion of current problems in information studies. (F, Sp, Su)
LIS 5023 Management in Information Organizations 3 Credit Hours Prerequisite: Graduate standing, and LIS 5033 or concurrent enrollment. Introduction to managerial principles and practices for information organizations such as libraries and archives, emphasizing financial administration, legal and ethical practices, organizational communication, operational efficiencies, personnel development, and planning processes. (F, Sp)
LIS 5033 Information and Society
3 Credit Hours
Prerequisite: Graduate standing or permission of instructor. Introduction to conceptual foundations of the information society, including the nature of data, information, and knowledge; the evolution of national and global organizational information infrastructures; and ethical, legal, and social considerations for LIS professionals. (F, Sp)

## LIS 5043 Organization of Information

3 Credit Hours
Prerequisite: Graduate standing, and LIS 5033 or concurrent enrollment. Introduction to the organization of internal and external sources of information, information services and tools, basic concepts of information storage and retrieval systems, and design and structure of information systems. Students will become familiar with organization methods such as classification, cataloging, taxonomies and metadata, and how the organization of information is connected to information retrieval. ( $F, S p$ )

## LIS 5053 Information Seeking and Use

3 Credit Hours
Prerequisite: Graduate standing, and LIS 5033 or concurrent enrollment. The course teaches information seeking and use by people in various roles, situations, and contexts, individually and in groups. The course examines information behavior through psychological, sociological, and political perspectives, examining theory and applying it to practical, reallife information environments. ( $F, S p$ )

LIS 5063 Fundamentals of Information Technology 3 Credit Hours Prerequisite: Graduate standing, and LIS 5033 or concurrent enrollment. Students will learn the fundamentals of information technology concepts and applications, understand and utilize emerging technologies to meet society's rapidly changing information needs, and apply these in solving various information problems. No student may earn credit for both 4063 and 5063. (F, Sp)

LIS 5073 Cultural Heritage Data and Social Engagement 3 Credit Hours (Slashlisted with LIS 4073; Crosslisted with WGS, HIST and HSTM 5073) Prerequisite: Graduate standing. This course uses methods from digital humanities, media studies, and data science to explore cultural heritage -- the histories, literature, art, and artifacts of our world's cultures. It particularly focuses on cultural heritage in digital public spaces: websites, social media, etc. No prior background in computer programming is necessary. No student may earn credit for both 4073 and 5073. (F)

## LIS 5123 Literature and Methods For Readers' Advisory

## Services

3 Credit Hours
Prerequisites: 5033 and 5053. Examination of value and role of leisure reading in U.S. public libraries; interview techniques, support processes, and bibliographic resources for providing services to adults and older adolescent readers. (Irreg.)

LIS 5133 Biomedical Bibliography and Reference Materials 3 Credit Hours
Prerequisite: LIS 5033 or permission of instructor. Provides an indepth study of the organization of medical reference departments; reference sources in the health sciences; and the major textbooks in the basic sciences, clinical sciences, and related specialties. Medical audiovisuals, periodicals, indexes and abstracts are included as is automated searching of medical literature. Basic medical terminology is an integral part of the course and given special consideration. (F)

## LIS 5143 Government Information

 3 Credit Hours(Slashlisted with LIS 4143) Prerequisite: LIS 5033 or permission of instructor. Introduces students to current policy, technology, and social factors that drive government resource and information production, distribution, and access. Topics include transformation of government information; information discovery skill sets, models, and techniques; evaluation of information use and value; and government information issues (e.g. access, authentication, privatization, preservation). No student may earn credit for both 4143 and 5143. (F)

## LIS 5163 Biomedical Databases

3 Credit Hours
Prerequisite: LIS 5133 or permission of instructor. An in-depth approach to the on-line databases supplied by the National Library of Medicine and to the biomedical databases supplied by commercial companies. Deals with all aspects of searching, including the development of effective policies and procedures. Differences and similarities among the databases are emphasized. (F)
LIS 5173 Diversity Fundamentals in LIS
3 Credit Hours
Prerequisite: LIS 5033. Awareness of, and sensitivity to, diverse groups and multicultural heritages; information needs of multiethnic and diverse populations; information needs assessment and analysis; program and service planning. (Su)

LIS 5183 Information Resources and Services for Children 3 Credit

## Hours

Prerequisite: LIS 5033. Course covers childhood development and information needs of children; children's information behavior, learning, and reading; contemporary children's literature; digital media and technology; early literacy, information literacy, and 21 st-century skills; selection/evaluation of information resources; information services for children; and 21 st-century trends in children's services. (F)

## LIS 5193 Information Resources and Services for Young

 Adults3 Credit Hours
Prerequisite: LIS 5033. Covers developmental characteristics and information needs of young adults; young adults' information behavior, learning, and reading; contemporary young adult literature; digital media and technology; information literacy and 21 st-century skills; selection/ evaluation of information resources; information services for young adults; and 21 st-century trends in youth services. (Sp)
LIS 5203 Leadership in Information Organizations 3 Credit Hours Prerequisite: Graduate standing, and LIS 5023, LIS 5033 or concurrent enrollment; or permission of instructor. Advanced leadership skills for information organizations such as libraries and archives, emphasizing organizational analysis, planning, and assessment, as well as the development of appropriate organizational leadership styles. (F, Sp)

LIS 5213 Social Informatics
(Slashlisted with LIS 4213) Prerequisite: graduate standing. Social Informatics analyzes interactions among people and information/ communication technologies (ICTs). Issues covered include basic concepts of social systems, ICTs, and their interactions; uses of mobile information technology devices; online interaction and virtual community; information technology and work; and laws and policies related to information technologies. No student may earn credit for both 4213 and 5213. (Sp)

LIS 5223 Project Planning and Management 3 Credit Hours
(Slashlisted with LIS 4223) Prerequisite: Graduate standing, LIS 5033, and LIS 5063; or permission of instructor. Fundamentals of planning, designing, implementing, and managing information technology solutions; market and trend analysis; planning and assessment techniques and tools; human factors in technology management. No student may earn credit for both 4223 and 5223. (Su)
LIS 5233 Oklahoma Information Environment 3 Credit Hours
Prerequisite: LIS 5033 or permission of school. Interaction between information and culture in the state of Oklahoma with emphasis on information needs, resources, and challenges; research collections; public libraries; tribal libraries and tribal colleges; digital technologies; in-depth exploration of library, museum, archival, and other information services and resources for Oklahomans. (Su)

## LIS 5243 Comics and Graphic Novels

3 Credit Hours
Prerequisite: Graduate standing and majors only. The course has 3 major components. History \& Language of Comics with focus on the period of the Golden Age to the modern day; Comics \& the Community, which will examine the relationships between comic book fans and the medium; and Libraries \& the Role of Comics, which will focus on the relationship libraries have with comics \& graphic novels. (Sp)
LIS 5253 Community Relations and Advocacy 3 Credit Hours Prerequisite: LIS 5023, LIS 5033. Examination of the communication process by which the library/information center personnel satisfy user needs and provide/transmit information about the program objectives and functions to develop public awareness and support. Involves as audiences: the users, the library/information center staff, general public, governance entities, political representatives, educational and service agencies, and professional organizations. (F)

## LIS 5283 School Library Administration

3 Credit Hours
Prerequisite: LIS 5023 and LIS 5033. History and role of school libraries in the educational program; planning, organizing and administering library programs in the elementary and secondary schools. (Sp)
LIS 5343 Archival Concepts and Traditions 3 Credit Hours
Prerequisite: LIS 5033. Introduction to the principles and practice of collecting, servicing, and arranging archival holdings. Includes appraisal, acquisition, arrangement and description, preservation, and administration of institutional archives. Attention to issues of preservation, intellectual property, and service in both physical and digital environments. (Sp alternating semesters)
LIS 5403 Cataloging and Classification
3 Credit Hours
Prerequisite: 5033, 5043. Detailed study of principles and practices of cataloging and classification according to current standards. Instruction covers original descriptive cataloging, subject analysis and classification. (alt. F, irreg. Su)

LIS 5443 Collection Development and Management 3 Credit Hours Prerequisite: LIS 5033 and LIS 5043. Examination of the acquisition and evaluation processes used for building and maintaining collections in all formats. Formulation and implementation of collection development policies, identification of user needs, selection methods and tools, storage alternatives, publishing and intellectual freedom, administrative and legal issues including licensing and contract negotiation. (F)
LIS 5453 Digital Collections 3 Credit Hours (Slashlisted with LIS 4453) Prerequisite: LIS 5033, LIS 5043, LIS 5063. Introduction to the creation and development of digital collections and to the technical requirements for storage and dissemination of digital materials. Topics will include creation, development, organization, maintenance, and use of digital collections. Students will explore a variety of techniques and technologies for digitizing materials; evaluate the strengths and limitations of current efforts in creating, collecting and organizing digital materials; and explore the different opportunities and challenges of digital libraries, repositories, and archives. No student may earn credit for both 4453 and 5453. (Sp)
LIS 5463 Archival Representation and Use
3 Credit Hours
Prerequisite: LIS 5033 or permission of instructor. Introduction to the principles and practices of collecting, servicing, and arranging archival holdings. Includes elements of appraisal, acquisition, and preservation with significant focus on archival arrangement, description, and administration of institutional archives. (Sp)
LIS 5473 Document and Records Management
3 Credit Hours Prerequisite: graduate standing, LIS 5033 and LIS 5043. The systematic capture, acquisition, and processing, storage, and control of documents in all formats, including their management as records throughout the life cycle from creation to final disposition. Introduction to principles, methodologies, administration, tools, and techniques in various settings. (Irreg.)
LIS 5483 Introduction to Health Informatics
3 Credit Hours
(Slashlisted with LIS 4483 ) Prerequisite: Graduate standing, majors only; repeatable for credit, maximum credit 6 hours. Introduction to healthcare industry, data management in healthcare, foundation concepts in health informatics, and information search in healthcare. The student will gain a solid understanding of the fundamentals of health informatics to maximize the use of information, the source of health information, and the retrieval of health information in the delivery of efficient health information services to the users. No student may earn credit for both 4483 and 5483. (Sp)

## LIS 5493 Data Stewardship

3 Credit Hours
(Slashlisted with LIS 4493) Prerequisite: Graduate standing. Data is being produced at an unprecedented rate in many forms and within many contexts. Information professionals play a vital role as ethical data stewards by organizing, curating, preserving, storing, providing access to, and repurposing data for varying purposes. Understanding the complex issues associated with ethical data stewardship is increasingly important in today's data saturated world. No student may earn credit for both 4493 and 5493. (F)
LIS 5503 Information Literacy and Instruction 3 Credit Hours Prerequisites: 5033 and 5053. Instructional methods and materials for the acquisition and development of information literacy skills; theories of instruction and current trends in information literacy instruction. (Irreg.)
LIS 5513 Information Sources and Services
3 Credit Hours
Prerequisite: 5033, 5053. Characteristics and use of information sources and systems; policies and procedures for the provision of user-centered service in libraries and other information agencies. Introduction to basic reference tools in both print and electronic formats. (F, Sp, irreg. Su)

LIS 5523 Online Information Retrieval 3 Credit Hours (Slashlisted with LIS 4523) Prerequisite: LIS 5033 and LIS 5053. Structure, content, and application of online databases for education, research, business, and public use. Principles and techniques for the evaluation of online databases and services. Document representation, information need specification and query formulation for online information retrieval. No student may earn credit for both 4523 and 5523. (F)

LIS 5533 Foundations of Learning Sciences 3 Credit Hours
(Crosslisted with EIPT 5533) Prerequisite: Graduate standing or permission of instructor. Learning Sciences is an interdisciplinary approach to investigating, understanding, and supporting learning. It draws on diverse fields and methodologies. The goal of this class is to develop a critical orientation with regard to how we use them in integrated, meaningful, contextual, and ethical ways, in service to learners and society. (F)
LIS 5563 Archival Appraisal
3 Credit Hours
Prerequisite: LIS 5033. Evaluation and examination of contributions of key figures in development of archival appraisal theory; identification and evaluation of distinct movements in archival appraisal; identification of cultural, political, sociological, and technological movements that can have impact on appraisal methodologies; and development of effective appraisal strategies for a variety of communities. (F even-numbered years)

## LIS 5573 Makerspaces: Theory and Practice

3 Credit Hours
Prerequisite: Graduate standing and permission of instructor; Repeatable for credit, maximum credit 6 hours. An overview of theories and practice of makerspaces in libraries and museums. Students will learn theories behind the maker movement, hands-on tools and technologies, and issues on the design and implementation of a makerspace, such as assessing the needs of community, managing a space, facilitating making and learning, and evaluating the impact. (F)
LIS 5613 Dynamic Web Development
3 Credit Hours
(Slashlisted with LIS 4613) Prerequisite: Graduate standing, and LIS 4063 or LIS 5063. The interactive web design server interaction with special emphasis on database connectivity and application development on the internet. No student may earn credit for both 4613 and 5613. (F)

## LIS 5623 Advanced Data Analytics

3 Credit Hours
(Slashlisted with LIS 4623) Prerequisite: Graduate standing and LIS 5643. Application of data analytic theories and models to solve real world problems using various unsupervised and supervised models. Topics include cluster analysis, association rule mining, random forest classifier, neural networks, and naive Bayesian classifiers. No student may earn credit for both 4623 and 5623. (F)
LIS 5633 Web Design and Implementation
3 Credit Hours
(Slashlisted with LIS 4633) Prerequisite: LIS 5033. Students will learn how to design contemporary websites and web pages using current design thinking, techniques and best practices, and how to implement the websites using front-end programming languages including HTML, CSS, and JavaScript. No student may earn credit for both 4633 and 5633. (F)
LIS 5643 Introduction to Data Analytics
3 Credit Hours
(Slashlisted with LIS 4643) Prerequisite: LIS 5033. Introduces
foundational concepts for data analytics. Topics include basic computer programming, statistical understanding and application, data structure, data types, data retrieval from various sources and forms, data cleaning/ processing, data visualization, and group manipulations. No student may earn credit for both 4643 and 5643. (F)

LIS 5653 Preservation of Information Materials
3 Credit Hours
Prerequisite: graduate standing and LIS 5033. Theory and practice of the preservation and conservation of intellectual content and physical artifacts, including paper, microform, and digital records. Emphasis on planning and administering disaster prevention and recovery, preservation, and digitization programs. (Alt. Sp, Irreg. Su)
LIS 5673 Introduction to Information Visualization 3 Credit Hours (Slashlisted with LIS 4673) Prerequisite: graduate standing and LIS 5033. Information visualization is becoming key to LIS, due to the growing need for visual literacy and to the growing demand for data resources in almost all disciplines. Covers the basics of developing and evaluating information visualizations and the importance of data accuracy. (F)
LIS 5683 Database Design for Information Organizations 3 Credit Hours (Slashlisted with LIS 4683) Prerequisite: graduate standing and LIS 5033. This course has two major components: (1) conceptual foundations of database design and theory and (2) practical applications of design and theory to real-world database designs. For the conceptual and theoretical design component, this class covers data definition and type, entity relationship diagram (ERD) and data normalization. The practical application uses emerging database tools to cover industry critical functions. No student may earn credit for both 4683 and 5683. (Sp)
LIS 5693 Information Retrieval and Text Mining 3 Credit Hours (Slashlisted with LIS 4693) Prerequisite: Graduate standing; LIS 5063 and LIS 5643, or permission of instructor. Identify various sources of textual information in the society and learn different textual data collection methods. Understand text analytic processes, textual information retrieval models, and different text analytic methods to analyze textual information and interpret text analysis results for users' information needs. No student may earn credit for both 4693 and 5693. (Sp)
LIS 5713 Research and Evaluation Methods
3 Credit Hours
Prerequisites: LIS 5033. Methods of investigating library and information (LIS) problems; use of evaluation in planning for continuous quality assessment and improvement of LIS policies, processes, and procedures; development of original research designs; evaluation of research studies in LIS. (F, Sp)
LIS 5723 Cybersecurity Essentials 3 Credit Hours (Slashlisted with LIS 4723) Prerequisite: Graduate standing. Covers the developments in cybersecurity by discussing and analyzing problems that security designers and security administrators address. Students will be provided hands-on experience with common tools and techniques used by security analysts and white/black hat hackers today. Students will be able to identify threats, assess the relative risk of the threats, and develop cost effective countermeasures. No student may earn credit for both 4723 and 5723. (Sp)
LIS 5743 Digital Curation
3 Credit Hours
Prerequisite: Graduate standing. This course provides an introduction to the appraisal, processing, storage, maintenance, and use of born-digital collections and the technical requirements for their storage, preservation, and dissemination. Students will gain an in-depth look into archival practices focused on best practices for creation, selection, storage, and long-term discoverability of digital objects and policy development. (Irreg.)

LIS 5753 Archives in the Museum Setting
3 Credit Hours
Prerequisite: Graduate standing. This course teaches students to analyze and evaluate the range of recordkeeping systems, policies, and practical workflows which have been used by various institutions to document their collections, and the physical and intellectual environment in which records are created, used, and maintained. The course will focus on the records of natural history museums, Native American museums, and history museums. (Irreg.)
LIS 5823 Internship in Library/Information Centers 3 Credit Hours Prerequisite: 18 hours of LIS coursework, including one-half of the required courses, permission of the supervising instructor. Provides an opportunity for student synthesis of principles and theories acquired in coursework and application of these principles and theories in an outstanding library/information center. Under professional supervision, the student will complete 135 hours. (F, Sp, Su)
LIS 5920 Directed Research
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing and LIS 5713, permission of instructor and adviser. May be repeated; maximum credit six hours. Research under faculty supervision; requires a written report. (F, Sp, Su)

## LIS 5940 Directed Project

1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing and 24 hours of LIS coursework and permission of instructor and adviser. May be repeated; maximum credit three hours. Design and implementation of a professional project that applies principles and theories acquired in coursework to the solution of professional problems in practical settings. Requires a project prospectus and a written report at conclusion of the project. Conducted under faculty supervision. May not be taken for credit toward the MLIS degree by students electing thesis option. (Irreg.)

## LIS 5960 Directed Readings

1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing and 15 hours of LIS coursework and permission of instructor and adviser. May be repeated; maximum credit six hours. Exploration of an area of library and information studies not covered in regularly offered course. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

## LIS 5970 Special Topics/Seminar

1-3 Credit Hours
Prerequisite: 1 to 3 hours. Prerequisite: Graduate standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg).

## LIS 5980 Research for Master's Thesis <br> 2-9 Credit Hours

Prerequisite: graduate standing and permission of instructor. Variable enrollment, two to nine hours; maximum credit applicable toward degree, six hours. (F, Sp, Su)
LIS 5990 Special Problems
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing and permission of instructor. May be repeated; maximum credit nine hours. Examination and discussion of current problems in librarianship. (Irreg.)
LIS 6033 Intellectual Traditions in Information Studies 3 Credit Hours Prerequisite: graduate standing and permission of school. Introduces students to the main philosophical traditions of research and scholarship that currently inform inquiry in Information Studies. (F)

LIS 6503 Information Behavior
3 Credit Hours
Prerequisite: graduate standing and permission of school. Information use by individuals and groups in various roles, situations, and contexts. Influences of learning and cognitive processes; value systems; and situational, psychological, sociological, and political perspectives on information behavior. Application of user studies to textual, graphical, and visual representation of information. Study of theoretical models and practical methodologies in information systems. (Sp)
LIS 6543 Social and Community Informatics 3 Credit Hours
Prerequisite: graduate standing and permission of school. Analysis of interactions among people, information/communication technologies (ICTs), and local social settings. Effects of social and technical contexts on the design, implementation, and evaluation of ICTs. Social systems and community contexts, ICTs, and their interactions; uses of mobile information technologies; online interaction and virtual community; information technology and work; and, organizational/institutional information technologies laws and policies. (F)

LIS 6553 Critical Information Studies 3 Credit Hours
Prerequisite: graduate standing and permission of school. Introduces students to Critical Theory. It examines the idea of immanent critique developed within the Frankfurt School and how critical theory informs inquiry in Information Studies. (Sp)

## LIS 6713 Research Methods and Design in Information

## Studies

3 Credit Hours
Prerequisite: graduate standing and permission of school. A survey of quantitative, qualitative, and historical research designs. Topics covered include ethical issues; conceptualization and measurement; sampling; surveys; and data analysis. (Sp)
LIS 6920 Directed Research
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing and permission of school. May be repeated; maximum credit 12 hours. Students will prepare a proposal and have it approved by the SLIS faculty member who will direct the study and their SLIS faculty adviser prior to registration. ( $\mathrm{F}, \mathrm{Sp}$ )

LIS 6962 Doctoral Seminar 2 Credit Hours
Prerequisite: Graduate standing, majors only, and departmental permission. May be repeated with change of content; maximum credit 8 hours. Serves as a venue for the development of a variety of skills and capacities to succeed as a scholar. Offers a mix of sessions on progression through the Ph.D. degree program, the research process, guidance on the academic profession, and written and oral presentation of scholarly research. (F, Sp)

## LIS 6970 Special Topics in the Theory of Information

Studies 1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing and permission of school. May be repeated with change of subject matter; maximum credit six hours. Topics in information studies for content not currently offered in regularly scheduled courses. May include library and/or research and field projects. (F)
LIS 6980 Research for Doctoral Dissertation 2-16 Credit Hours 2 to 16 hours. Prerequisite: Graduate standing and permission of instructor; may be repeated. Directed research culminating in the completion of the doctoral dissertation. (F, Sp, Su)

# LSG-Legal Studies (General) 


#### Abstract

LSG 5001 Legal Research \& Sources of Law 1 Credit Hour Prerequisite: Admission to the Master of Legal Studies and/or Master of Laws Programs. Designed to provide you with the tools necessary to perform thorough and efficient legal research using resources from commercial databases, print publications, and relevant websites; understand the importance of using citators, key numbers, annotations, and other techniques in the research process; and use proper legal citation to show support for your legal analysis. (F, Sp, Su)


LSG 5013 Business Organizational Structures \& Governance 3 Credit Hours
Prerequisite: Admission to the Master of Legal Studies and/or Master of Laws Programs. Designed to provide the tools necessary to understand the purposes, risks, and benefits of various business organizational structures and the laws governing their formation, operation, and dissolution. Students will apply information to evaluate risks, benefits, and ethical considerations relevant to organizational structure and governance. (F, Sp, Su)
LSG 5023 Regulatory and Administrative Law 3 Credit Hours Prerequisite: Admission to the Master of Legal Studies and/or Master of Laws Programs. Administrative agency law dominates the modern legal system. This course focuses on understanding the intersection between legislative and administrative regulations, administrative rulemaking, the roles of state and federal agencies in interpreting statutes and regulations, and judicial review of agency decision making. (F, Sp, Su)
LSG 5033 Contract Law 3 Credit Hours Prerequisite: Admission to the Master of Legal Studies and/or Master of Laws Programs. Introduces students to contract formation and the legal significance of contracts. Specific topics include the requirements for formation of a contract (such as offer and acceptance), justifications for enforcing promises (such as consideration or detrimental reliance), justifications for denying or limiting enforcement (such as unconscionability or mistake), interpretation of contract terms, and remedies for breach of contract. (F, Sp, Su)
LSG 5043 Processes in Dispute Resolution 3 Credit Hours Prerequisite: Admission to the Master of Legal Studies and/or Master of Laws Programs. Formal dispute resolution of legal disputes in the civil context includes the following: (1) Arbitration; (2) Mediation; or (3) Litigation. Students will learn the costs, benefits, and risks of each; finality of decisions; the legal requirements and ethical standards governing the various processes; and considerations of time and intangible personal costs. (F, Sp, Su)
LSG 5222 Foundations of the U.S. Legal System 2 Credit Hours Prerequisite: Admission to the Master of Legal Studies and/or Master of Laws Programs. An introduction to the study of law. Students will learn the vocabulary of the law; understand the intersections and hierarchy of federal and state constitutions, statutes, cases, and administrative rules; and enhance critical thinking skills through the analysis of a broad array of legal materials. (F, Sp, Su)
LSG 5233 Written \& Oral Communication 3 Credit Hours Prerequisite: Admission to the Master of Legal Studies and/or Master of Laws Programs. Focuses on effective, clear, and concise writing and communication for a legal audience. Students will learn best practices in predictive and persuasive communication and document drafting while applying legal authorities in a factual context. (F, Sp, Su)

## LSH-Legal Studies Healthcare Law

LSH 5902 Introduction to the American Legal System 2 Credit Hours Prerequisite: Admission to the Master of Legal Studies and/or Master of Laws Program. Examines the United States court system, the role of the Constitution, and other foundations in US law and their relation to the healthcare system. Introduces students to fundamental principles in US law. Explains how law functions with our society and how it plays a role in conflict resolution, civil liberties, equality, in contracts, and interacts with the U.S. healthcare system. (F, Sp)
LSH 6102 Structure of Health Care Enterprises: Legal Forms,
Governance, and Relationships
2 Credit Hours Prerequisite: Admission to the Master of Legal Studies and/or Master of Laws Programs. The course will cover the different legal forms a healthcare enterprise can take, including; Non-profits, physician owned, government owned, and Hospital systems. This course will also familiarize students with the contents and role of organizational documents, Governance issues, fiduciary duties, issues for tax exempt organizations, and relationships between Physicians and tax-exempt entities. (F, Sp, Su)
LSH 6112 Sources and Types of Liability of Healthcare Institutions and Professionals

2 Credit Hours
Prerequisite: Admission to the Master of Legal Studies and/or Master of Laws Programs. Will discuss how the healthcare providers and institutions can be held liable as well as the consequences of agency and contractor status. In addition, this course will cover the elements of negligence in cases involving healthcare professionals. (F, Sp, Su)
LSH 6123 Regulation of Private Health Insurance, Managed Care

3 Credit Hours
Prerequisite: Admission to the Master of Legal Studies and/or Master of Laws Programs. This course will cover the regulation of health insurance companies with a focus on changes brought about by the Affordable Care Act (ACA). Students will become familiar with managed care concepts and analyze key components of health care plans. (F, Sp, Su)
LSH 6132 Quality Control: Licensing, Accreditation, and Quality Regulation 2 Credit Hours
Prerequisite: Admission to the Master of Legal Studies and/or Master of Laws Programs. Designed to introduce students to the laws, agencies, and other bodies that license, regulate and discipline physicians. Topics covered will include licensing proceedings and hearings and health care entity policies addressing these issues. (F, Sp, Su)

## LSH 6142 Professional Relationships in Health Care

## Enterprises

## 2 Credit Hours

Prerequisite: Admission to the Master of Legal Studies and/or Master of Laws Programs. Covers professional relationships between and among healthcare enterprises and the differences and between direct employment and independent practitioners with privileges when looking at; credentialing, disciplinary issues, and the Healthcare Quality Improvement Act. (F, Sp, Su)
LSH 6152 HIPAA/Patient Privacy
2 Credit Hours
Prerequisite: Admission to the Master of Legal Studies and/or Master of Laws Programs. Explores the federal regulatory scheme designed to protect the privacy and security of health information. Topics covered include; Entities and information to which the Health Insurance Portability and Accountability Act of 1996 HIPAA) applies, HIPAA compliance and enforcement, American Recovery and Reinvestment Act (ARRA), and the Health Information Technology for Economic and Clinical Health (HITECH) Act. (F, Sp, Su)

LSH 6153 Overview of Public Health Care Programs 3 Credit Hours Prerequisite: Admission to the Master of Legal Studies and/or Master of Laws Programs. Will cover public health insurance (including Medicare, Medicaid, government hospitals, and other government-financed health programs). In addition, this course will cover what treatment is required of anyone coming into an Emergency department by the Emergency Medical Treatment and Labor Act (EMTALA). (F, Sp, Su)
LSH 6162 Health Information Management 2 Credit Hours Prerequisite: Admission to the Master of Legal Studies and/or Master of Laws Programs. Will cover health information law and policy as it pertains to data security and privacy of electronic health records in the United States. Students will examine how individual health information is collected, maintained, and transferred in this electronic information age, and the ramifications when such information is improperly protected, stolen, and misused. (F, Sp, Su)
LSH 6172 Health Care Transactions and Contracts 2 Credit Hours Prerequisite: Admission to the Master of Legal Studies and/or Master of Laws Programs. This course covers the business, regulatory, and legal issues that arise in healthcare business transactions: asset sales, mergers, joint ventures, procurement contracts, and the application of tax laws to transactions. In addition, this course will cover the fundamental principles of contract law and the role of valuations in healthcare transactions. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

## LSH 6173 Fraud and Abuse Claims

3 Credit Hours
Prerequisite: Admission to the Master of Legal Studies and/or Master of Laws Programs. Will cover federal physician self-referral law, fraud and abuse law. Students will learn the statutes, regulations, and advisory opinions that define the parameters of physician referrals and antikickback laws, analyzing case studies for those issues. Students will familiarize themselves with the False Claims Act and other laws, regulations, and government regulatory actions designed to combat false claims and fraudulent activities. (F, Sp, Su)

## LSH 6182 Coding and Billing

2 Credit Hours
Prerequisite: Admission to the Master of Legal Studies and/or Master of Laws Programs. Provides students with working knowledge of the business side of medicine: medical record documentation, coding and billing. This course will provide students with an in-depth knowledge of the legal role of the medical record, specifically in the context of obligations for the organization of the medical record and its support for reimbursement of services. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
LSH 6183 Experiencing a Simulated Investigation 3 Credit Hours Prerequisite: Admission to the Master of Legal Studies and/or Master of Laws Programs. Prepares students for experiencing an investigation including how to prepare for potential investigation and how to respond to and cooperate with an investigation. A portion of the course will involve live simulation exercises. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
LSH 6192 Anti-Trust Issues in Healthcare Delivery 2 Credit Hours Prerequisite: Admission to the Master of Legal Studies and/or Master of Laws Program. Focuses on antitrust issues relevant to health care providers: hospital and physician mergers, virtual mergers and joint ventures; exclusive contracts and other medical staff exclusion issues; covenants not to compete; managed care plans; antitrust defenses such as state action, nonprofit, learned profession, efficiencies, failing business, etc.; and federal and state healthcare antitrust regulatory efforts, including healthcare collaborative guidelines. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

# LSHA-Human \& Health Services Administration 

LSHA 5113 Strategic Planning and Evaluation in HHSA 3 Credit Hours Prerequisite: graduate standing. An interdisciplinary inquiry into the concepts of strategic planning and evaluation in the human and health services organizational settings. Study of strategic planning, implementation skills, and the evaluation process. Study of various models and approaches to designing and conducting strategic planning, including specific techniques for conducting environmental scans, swot analysis (strengths, weaknesses, opportunities and threats), strategic issue identification, and strategy formulation. (F, Sp, Su)
LSHA 5133 Cultural, Social and Diversity Issues in HHSA 3 Credit Hours Prerequisite: graduate standing. An interdisciplinary inquiry into cultural, social and other diversity issues that human and health services professionals will encounter in the process of providing services to their client/patients. Exploration of how one's cultural and social environment impacts one's belief system. Successful delivery of service will depend upon the depth of understanding by personnel with regard to various belief systems. (F, Sp, Su)

## LSHA 5153 Ethics in Human and Health Services

## Administration

3 Credit Hours
Prerequisite: 5003 or permission. An interdisciplinary inquiry into the nature of ethics, especially in the context of multicultural healthcare; the kinds of moral problems within this landscape and how rational thinking can guide ethical thought in ways that address the challenges in healthcare policy and reform. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
LSHA 5313 Cross-Cultural Health Issues in Human and Health Services Administration 3 Credit Hours
Prerequisite: graduate standing, LSTD 5003 and LSHA 5113; or permission of dean. Explores multiple issues in the field of international health using a multidisciplinary perspective while including particular countries as examples. Students are exposed to the perspective that human lives are affected by larger, societal influences that often are beyond our immediate individual control. Explores the ways in which structural level variables influence human health, including economic, historical, cultural, political and psychosocial factors. (F, Sp, Su)

LSHA 5403 Geriatric Issues in Human and Health Services Administration

## 3 Credit Hours

Prerequisite: graduate standing, LSTD 5003 and LSHA 5113; or permission of dean. Introduces health and developmental issues pertaining to human geriatric populations, provides specific challenge areas for focusing on both problems and potential solutions, and highlights positive, recreational and self-actualizing activities and pursuits available to geriatric populations. (F, Sp, Su)
LSHA 5513 Psychosocial Aspects of Disabilities in HHSA3 Credit Hours Prerequisite: graduate standing, LSTD 5003 and LSHA 5113; or permission of dean. Examines the struggles in which persons with disabilities have been engaged and the barriers they have had to overcome, as well as the barriers they continue to face in their quest to obtain the freedoms that persons without disabilities so freely enjoy. The following areas will be examined in some detail: disenfranchisement of persons with disabilities; attitudes toward persons with disabilities, Americans with Disabilities Act (ADA), and other legislative disability rights movement; self concept and self esteem, role of family; and intervention strategies. (F, Sp, Su)

LSHA 5700 Advanced Topics in Human and Health Services Administration

2-9 Credit Hours
2 to 9 hours. Prerequisite: graduate standing. May be repeated; maximum credit 12 hours. Advanced studies in various HHSA topics, offered under stated titles determined each semester by the instructor involved. (F, Sp, Su )

LSHA 5920 Internship in Human and Health Services
Administration
2-6 Credit Hours
2-6 hours. Prerequisite: graduate standing, LSTD 5003, and permission of dean. May be repeated; maximum credit six hours. Field experience directly related to study focus in the HHSA program. Requirements include some combination of journal, progress reports, written summary of experiences, or academic paper, and a possible comprehensive examination over these materials. (F, Sp, Su)
LSHA 5960 Directed Readings in Health Admininstration 2-9 Credit Hours
2 to 9 hours. Prerequisite: graduate standing, LSTD 5003, and completion of first concentration course; or permission of dean. May be repeated with change of content; maximum credit 9 hours. In-depth study of literature on a topic related to the student's program of study; variable content. (F, Sp, Su)
LSHA 5970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing, LSTD 5003, and completion of first concentration course; or permission of dean. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)
LSHA 5980 Research for Master's Thesis 2-9 Credit Hours 2 to 9 hours. Prerequisite: graduate standing, LSTD 5003, LSTD 5013, and completion of first concentration course; or permission of dean. May be repeated; maximum credit six hours. Research and writing of a thesis for completion of PACS graduate degrees. (F, Sp, Su)

## LSHA 5990 Independent Study 1-3 Credit Hours

1 to 3 hours. Prerequisite: graduate standing, LSTD 5003, and completion of first concentration course; or permission of dean. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)

## LSI-Legal Studies Indigenous Peoples Law

LSI 5101 Introduction to Legal Research
1 Credit Hour
Prerequisite: Admission to the Master of Legal Studies and/or Master of Laws Programs. Provides students with an understanding of the most efficient and cost-effective tools and methods for researching U.S. and tribal law. It includes lecture sessions, hands-on research training, and practical exercises across a range of subject areas for both print and electronic sources. (F, Sp, Su)

## LSI 5603 Native American Natural Resources <br> 3 Credit Hours

Prerequisite: Admission to the Master of Legal Studies and/or
Master of Laws Programs. Covers basic doctrines of Indian law and a variety of issues relating to tribal interests in and jurisdiction over environmental resources. Topics includes tribal rights to land; land use and environmental protection in Indian country; economic and natural resource development issues; hunting and fishing rights; and international perspectives on indigenous resources. Consider the roles of tribal, federal, and state governments. (F, Sp, Su)

LSI 5613 Criminal Jurisdiction in Indian Country 3 Credit Hours Prerequisite: Admission to the Master of Legal Studies and/or Master of Laws Programs. Traces the development the rules governing the exercise of criminal jurisdiction in Indian Country by three sovereigns: federal government, state government, and tribal government. Materials examined include historical treaties, major federal statutes, and U.S. Supreme Court decisions. Students should finish the course with the ability to understand, analyze and contribute meaningfully to discussions regarding criminal jurisdiction problems in Indian Country. (F, Sp, Su)
LSI 5622 History of Federal Indian Law and Policy I 2 Credit Hours Prerequisite: Admission to the Master of Legal Studies and/or Master of Laws Programs. Traces the development of British colonial and United States policy towards indigenous peoples in North America from the Seventeenth Century through the major policy initiatives of the Nineteenth Century. (F, Sp, Su)
LSI 5623 Religion, Culture \& Indian Law 3 Credit Hours
Prerequisite: Admission to the Master of Legal Studies and/or Master of Laws Programs. Examines the roles of law and policy on Native American religious and cultural practice. Explores issues relating to tribal interests and jurisdiction over Native religion and culture including information concerning preservation, restoration, and destruction of sacred sites and indigenous remains, laws and practices pertaining to species protection and sacred species, institutionalized persons, entheogens, protection of cultural and intellectual resources. (F, Sp, Su)

LSI 5632 History of Federal Indian Law and Policy II 2 Credit Hours Prerequisite: Admission to the Master of Legal Studies and/or Master of Laws Programs. Traces the development of British colonial and United States policy towards indigenous peoples in North America from the major policy initiatives of the Nineteenth Century to the present day. (F, $\mathrm{Sp}, \mathrm{Su}$ )

LSI 5643 International Indigenous Peoples Law 3 Credit Hours (Crosslisted with LSIB 5643) Prerequisite: Admission to the Master of Legal Studies and/or Master of Laws Programs. Explores the development of international law rules relating to the rights of indigenous peoples from the early 20th Century through the present, focusing on modern international institutions and instruments including the UN Declaration on the Rights of Indigenous Peoples. (F, Sp, Su)

LSI 5653 Civil Jurisdiction in Indian Country 3 Credit Hours Prerequisite: Admission to the Master of Legal Studies and/or Master of Laws Programs. Addresses regulatory and adjudicatory authority, including the history of Federal-Tribal relations, tribal recognition, the scope of Indian Country, and tribal sovereignty as it relates to civil jurisdiction. State-Tribal struggles over jurisdiction, recent Supreme Court diminishment of tribal authority, environmental regulations and the tribal role within the system of cooperative federalism are also examined. ( F , Sp, Su)

LSI 5663 Federal Indian Water Law
3 Credit Hours
Prerequisite: Admission to the Master of Legal Studies and/or Master of Laws Programs. Explores the context, decisional and statutory law, and overarching polices that shape water law. Examines foundations in both federal Indian law and basic principles of water law, including relevant substantive and procedural law, and mechanics and social issues relating to water resource management. Also, explores state and federal powers and roles in relation to American Indian tribes and water resources. (F, Sp, Su )

LSI 5673 Indian Gaming Laws \& Regulations 3 Credit Hours
Prerequisite: Admission to the Master of Legal Studies and/or Master of Laws Programs. Examines litigation, history of tribal gaming, critical rulings on tribal/state compacting, and scope of gaming conflicts. Explores tribal compacting experiences around country focusing on Oklahoma tribes and Oklahoma Model Gaming Compact of 2004. Distinguishes regulatory roles of tribes, states, and feds. Explores differences in Class II and III gaming, regulations and disputes. Explains financing and development of tribal gaming facilities. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
LSI 5693 The Indian Child Welfare Act \& Family Law in Indian

## Country

3 Credit Hours
Prerequisite: Admission to the Master of Legal Studies and/or Master of Laws Programs. Indian Child Welfare Act, passed by Congress (1978), grants tribes and parents of Indian children special rights within state court systems. ICWA raises significant issues for courts, and often serve as the flashpoint of tribal/state disputes. Student will understand the clash of sovereigns and the state laws involving children. Covers requirements of ICWA and varying ways states have interpreted them. ( $F$, Sp, Su)
LSI 5723 Tribal Courts in Indian Country
3 Credit Hours
Prerequisite: Admission to the Master of Legal Studies and/or Master of Laws Programs. This course examines the relationship between Tribal Nations and the three main sovereigns: Federal government, state governments, and tribal governments. Students will understand, analyze and discuss the importance of tribal court to tribal sovereignty, the tribal people, and to specific tribal cultures. (F, Sp, Su)
LSI 5911 Introduction to the American Legal System 1 Credit Hour Prerequisite: Admission to the Master of Legal Studies and/or Master of Laws Programs. Examines U.S. courts, role of Constitution in U.S., and foundations of United States law. The goal is to introduce students to distinctive aspects and/or fundamental principles in U.S. law. This course explains how law functions with various aspects of our society and how it plays an increasingly significant role in conflict resolution, civil liberties and equality, contracts, and property agreements. (F, Sp, Su)

## LSIB-Legal Studies International Business <br> Law

LSIB 5002 Sources of International Law-MLS 2 Credit Hours
Prerequisite: admission to Masters of Legal Studies in International Business Law Program. Teaches students the core skills of finding and using various sources of international and transnational business law including bilateral and multinational treaties, uniform international rules and principles, decisions of international and transnational adjudicatory organizations, and European Union directives and decisions. (F, Sp, Su)
LSIB 5012 Introduction to Legal Studies 2 Credit Hours Prerequisite: Admission to the Master of Legal Studies and/or Master of Laws Programs. A general introduction to the nature and structure of national, international, and transnational legal systems. It introduces the students to the common law and civil law legal systems as well as the international and transnational organizations and structures of international and transnational business law such as the European Union, NAFTA, the WTO, UNCITRAL. (F, Sp, Su)

LSIB 5013 Business Organizational Structures \& Governance Credit
Prerequisite: Admission to the Master of Legal Studies and/or Master of Laws Programs. Designed to provide the tools necessary to understand the purposes, risks, and benefits of various business organizational structures and the laws governing their formation, operation, and dissolution. Students will apply information to evaluate risks, benefits, and ethical considerations relevant to organizational structure and governance. (F, Sp, Su)
LSIB 5023 Regulatory and Administrative Law
3 Credit Hours
Prerequisite: Admission to the Master of Legal Studies and/or Master of Laws Programs. Administrative agency law dominates the modern legal system. This course focuses on understanding the intersection between legislative and administrative regulations, administrative rulemaking, the roles of state and federal agencies in interpreting statutes and regulations, and judicial review of agency decision making. ( $F, \mathrm{Sp}, \mathrm{Su}$ )

## LSIB 5033 Contract Law

3 Credit Hours
Prerequisite: Admission to the Master of Legal Studies and/or Master of Laws Programs. Introduces students to contract formation and the legal significance of contracts. Specific topics include the requirements for formation of a contract (such as offer and acceptance), justifications for enforcing promises (such as consideration or detrimental reliance), justifications for denying or limiting enforcement (such as unconscionability or mistake), interpretation of contract terms, and remedies for breach of contract. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
LSIB 5043 Processes in Dispute Resolution
3 Credit Hours
Prerequisite: Admission to the Master of Legal Studies and/or Master of Laws Programs. Formal dispute resolution of legal disputes in the civil context includes the following: (1) Arbitration; (2) Mediation; or (3) Litigation. Students will learn the costs, benefits, and risks of each; finality of decisions; the legal requirements and ethical standards governing the various processes; and considerations of time and intangible personal costs. (F, Sp, Su)
LSIB 5112 International Payment Systems
2 Credit Hours
Prerequisite: Admission to the Master of Legal Studies and/or Master of Laws Programs. Students will examine some of the key international payment systems: Letters of Credit, wire transfers, international netting, and the SWIFT system. The main themes will include risks associated with fraudulent transactions and the allocation of credit risk throughout the payment systems. (F, Sp, Su)
LSIB 5113 Comparative Corporate Law
3 Credit Hours
Prerequisite: Admission to the Master of Legal Studies and/or Master of Laws Programs. Examines the differences between corporate law in civil law countries and corporate law in the Anglo-American world. Aspects of corporate law to be compared include: the formation process, capital requirements and distributions, duties and liabilities of management, the powers of the general meeting vis-a-vis the powers of the management bodies, minority shareholders' protection, and creditor protection. (F, Sp, $\mathrm{Su})$

LSIB 5122 Combating International Corruption 2 Credit Hours Prerequisite: Admission to the Master of Legal Studies and/or Master of Laws Programs. Introduction to the principles of US Foreign Corrupt Practices Act (FCPA) and the OECD Convention on Combatting Bribery of Foreign Public Officials in International Business Transactions other transparency initiatives, which is important for any business with an overseas presence. It is practically focused on the need for compliance planning and transaction screening and reporting to prevent violating the FCPA provisions. (F, Sp, Su)

## LSIB 5123 European Union Business and Competition

Law

## 3 Credit Hours

Prerequisite: Admission to the Master of Legal Studies and/or Master of Laws Programs. Provides an introduction to the subject of European Law. Students will learn the unique structure of the EU and the Common Market including how directives are made and implemented. It will then focus on a few specific areas of law including: free movement of goods, employment, taxation, and competition law. (F, Sp, Su)
LSIB 5132 International Sanctions Regimes 2 Credit Hours
Prerequisite: Admission to the Master of Legal Studies and/or Master of Laws Programs. Provides an overview of the international sanctions regimes. It explores the processes by which UN, other multilateral, and unilateral sanctions are imposed and how sanctions impact the way business is conducted. A few country specific sanctions provisions will be explored. (F, Sp, Su)

## LSIB 5133 International Sales and other Business

## Transactions

## 3 Credit Hours

Prerequisite: Admission to the Master of Legal Studies and/or Master of Laws Programs. Focuses on the legal aspects of commercial activity that takes place in two or more countries. It will examine the sale of goods and services across national boundaries, licensing of intellectual property, foreign investment, and the core principles of international taxation and antitrust law. (F, Sp, Su)

## LSIB 5143 International Commercial and Investment Arbitration 3 Credit Hours

 Prerequisite: Admission to the Master of Legal Studies and/or Master of Laws Programs. Examines international arbitration as a system of private justice, focusing on the five building blocks of international arbitration - the agreement to arbitrate, arbitral rules of procedure, international conventions on the enforcement of arbitration agreements, national arbitration laws, and relevant decisions of national courts - and comparing arbitration with other forms of dispute resolution. (F, Sp, Su)LSIB 5153 International Business, Human Rights, and Corporate Responsibility

3 Credit Hours
Prerequisite: Admission to the Master of Legal Studies and/or Master of Laws Programs. Looks at the appropriate role and responsibilities of multinational corporations with respect to human rights. Will examine the United Nations (UN) and Organization for Economic Cooperation and Development (OECD) guidelines for business and human rights as well as the UN's decision to draft a treaty on this topic as well as national regulations and potential litigation risks. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

## LSIB 5233 Written \& Oral Communication <br> 3 Credit Hours

Prerequisite: Admission to the Master of Legal Studies and/or Master of Laws Programs. Focuses on effective, clear, and concise writing and communication for a legal audience. Students will learn best practices in predictive and persuasive communication and document drafting while applying legal authorities in a factual context. (F, Sp, Su)
LSIB 5643 International Indigenous Peoples Law 3 Credit Hours (Crosslisted with LSI 5643) Prerequisite: Admission to the Master of Legal Studies and/or Master of Laws Programs. Explores the development of international law rules relating to the rights of indigenous peoples from the early 20th Century through the present, focusing on modern international institutions and instruments including the UN Declaration on the Rights of Indigenous Peoples. (F, Sp, Su)
LSIB 6100 Selected Legal Problems
1-4 Credit Hours
1 to 4 hours. Involved current legal problems. Subject matter and course credit will be included with the enrollment instructions. (F, Sp)

LSIB 6112 International Finance: Capital Markets 2 Credit Hours Prerequisite: Admission to the Master of Legal Studies and/or Master of Laws Programs. Examines laws and institutions governing global capital markets, as well as the applicability of US Securities regulation abroad. The major markets and exchanges covered include London, Europe, and Hong Kong. It will examine attempts at and challenges to international harmonization. In addition to primary capital market transactions, it will also consider cross boarder public merger and takeover regulations and practices. (F, Sp, Su)
LSIB 6113 International Trade and Investment
3 Credit Hours
Prerequisite: Admission to the Master of Legal Studies and/or Master of Laws Programs. Examines regulation of trans-border trade on a global level. Explores laws and institutions which regulate the flow of international trade and foreign investment. Major institutions covered include World Trade Organization, International Monetary Fund, International Bank for Reconstruction and Development (World Bank), European Union, North American Free Trade Agreement, and Asian regional institutions. (F, Sp, Su)
LSIB 6122 International Finance: Banking and Structured
Finance
2 Credit Hours
Prerequisite: Admission to the Master of Legal Studies and/or Master of Laws Programs. Covers the international regulation of the market for bank financing. Principles of capital adequacy, safety and soundness, and systemic risk will be introduced. The process of syndication and global structured finance will also be explored. Finally, the course will introduce the topic of anti-money laundering regulation. (F, Sp, Su)
LSIB 6132 International Energy
2 Credit Hours
Prerequisite: Admission to the Master of Legal Studies and/or Master of Laws Programs. Provides a broad review of international energy resources and production. It covers energy sources and distribution, including hydrocarbons and renewables; administrative organization and applicable legislative/regulatory framework; in addition to an overview of climate change and related international goals, and the effect of energy on indigenous populations, human rights, and environment. (F, Sp, Su)

## LSO-Legal Studies Oil, Gas, \& Energy Law

## LSO 5112 Foundations of Contract Law for the Energy

## Industry

2 Credit Hours
Prerequisite: Admission to Masters of Legal Studies and/or Master of Laws Programs. Explores the formation, drafting, interpretation and enforceability of contractual promises. Subjects include contract formation, performance, termination of contracts, material breach, remedies for breach of contract, mistake and excuse for nonperformance, statute of frauds, interpretation of contract language, conditions, assignment and delegation, and third party beneficiaries. (F, Sp)

LSO 5232 Introduction to Property Law and Natural Resources

2 Credit Hours
Prerequisite: Admission to Masters of Legal Studies and/or Master of Laws Programs. Provides an introduction to basic property concepts relevant for the oil and gas and energy industries, including: adverse possession; estates in land; mineral title, surface title, co-ownership, nonpossessory interests (including easements, real covenants and equitable servitudes). (F, Sp)

## LSO 5970 Special Topics/Seminar

1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

LSO 6352 Negotiations, Communication, and Ethics 2 Credit Hours Prerequisite: Admission to Masters of Legal Studies and/or Master of Laws Programs. Teaches effective negotiation and communication skills through a series of mock negotiation exercises. In addition, this course will discuss ethical dilemmas raised in the oil and gas industry. ( $\mathrm{F}, \mathrm{Sp}$ )

LSO 6501 Introduction to Petroleum Engineering and Geo-
Sciences
1 Credit Hour
Prerequisite: Admission to Masters of Legal Studies and/or Master of Laws Programs. Presents an overview of the production life cycle from discovery to development and production of oil and gas. The course examines the different roles of the key players in each stage of this process. ( $\mathrm{F}, \mathrm{Sp}$ )

LSO 6502 Project Economics and Finance
2 Credit Hours
Prerequisite: Admission to Masters of Legal Studies and/or Master of Laws Programs. Introduces the economics and finance of capitalintensive projects, especially those involving power generation, public infrastructure, and extractive industries. Students will receive a broad overview of the project finance market, showing a typical project finance deal and the main players involved. The costs, benefits, and risks associated with project finance are also described. (F, Sp)

LSO 6511 Midstream Oil and Gas Law
1 Credit Hour
Prerequisite: Admission to Masters of Legal Studies and/or Master of Laws Programs. Provides an overview and an examination of the legal issues facing the midstream oil and gas industry. The midstream industry provides the infrastructure necessary to gather, process, transport, store and market crude oil, natural gas, natural gas liquids, and refined products. (F, Sp)

LSO 6512 Oil and Gas Law 2 Credit Hours Prerequisite: Admission to Masters of Legal Studies and/or Master of Laws Programs. Nature of property interests in oil and gas; conveyancing of interests in oil and gas; legal interests created by oil and gas leases; validity of leases; habendum, drilling, and rental clauses; assignment of interests of lessor and lessee; rents and royalties; and conservation of oil and gas. ( $\mathrm{F}, \mathrm{Sp}$ )

LSO 6513 Oil and Gas Regulatory Practice 3 Credit Hours
Prerequisite: Admission to Masters of Legal Studies and/or Master of Laws Programs. Offers a practical skills approach to oil and gas practice. This course will examine the regulation of oil and gas exploration, development, and production, including conservation law designed to prevent waste and protect correlative rights. The class will address securing a drilling permit, settling surface damages, well spacing and density. (F, Sp)

## LSO 6522 Legal Drafting

2 Credit Hours
Prerequisite: Admission to Masters of Legal Studies and/or Master of Laws Programs. How does one discover a client's objectives and then translate them into legal text (contracts, etc.) that has the best chance of accomplishing what the client wants? This skills course considers many different forms of legal drafting, focusing primarily on legal work intended for oil and gas contracts and surface-related agreement drafting. (F, Sp)

LSO 6531 Legal Research for the Energy Industry 1 Credit Hour Prerequisite: Admission to Masters of Legal Studies and/or Master of Laws Programs. Students will be instructed on how to conduct energyrelated research using a variety of sources, but especially using online resources. (F, Sp)

LSO 6553 Oil and Gas Contracts
3 Credit Hours
Prerequisite: Admission to Masters of Legal Studies and/or Master of Laws Programs. Examination of specific provisions in contracts prevalent in the oil and gas industry for exploration, production, and development of oil and gas properties and for investment; the nature of the relationships created by such contracts; the rights and duties of the parties; income tax consequences of particular contracts. (F, Sp)

LSO 6563 Mineral Title Examination 3 Credit Hours Prerequisite: Admission to Masters of Legal Studies and/or Master of Laws Programs. Examines the study of the relevant law relating to and the preparation of a drilling title opinion and a division order title opinion in Oklahoma, Texas, and other states. (F, Sp)

LSO 6572 Real Estate Transactions 2 Credit Hours
Prerequisite: Admission to Masters of Legal Studies and/or Master of Laws Programs. A study of the terms and legal issues involved in drafting, executing, enforcing, and recording real estate contracts, including obtaining and evaluating title evidence, different types of deeds and basic financing. (F, Sp)

LSO 6573 Oil \& Gas Development of Public Lands 3 Credit Hours Prerequisite: Admission to the Master of Legal Studies and/or Master of Laws Programs. Examines the oil and gas leasing and development of onshore federal, state, and Indian lands. Explores the leasing of railroad rights of way and lands belonging to local governments. (F, Sp)

LSO 6581 Water Law for the Energy Industry 1 Credit Hour Prerequisite: Admission to Masters of Legal Studies and/or Master of Laws Programs. The system of water rights as related for energy extraction and development, including riparian, appropriation, and prescriptive rights; stream, surface, and ground water; transfer and termination of rights; injuries caused by water; development of water supplies; federal-state, interstate, and intrastate conflicts; water pollution control; federal and Indian rights; and federal water resource problems. (F, Sp)

LSO 6592 Oil and Gas Environmental Law 2 Credit Hours Prerequisite: Admission to Masters of Legal Studies and/or Master of Laws Programs. Examines federal and state environmental laws that affect oil and gas lease transactions, drilling and completion operations, and production activities. (F, Sp)

## LTRS-Letters

LTRS 1113 Introduction to Letters
3 Credit Hours
Introduction to Letters major, OU's interdisciplinary humanities degree which provides a traditional liberal arts education. Modeled around a "Great-Books" approach that there is a canon of texts that has transcendent value because certain works are able to speak to the human condition across time and space. The curriculum is distinct through its insistence on combining history, philosophy, and literature as ways of asking the same fundamental questions through the record of actual human experience. A sequence of topics address perennial human concerns: reason and passion, love, death, work, God, freedom, time, and so on. (F, Sp) [IV-WC].

LTRS 1123 Word Power
3 Credit Hours
We use words every day, but what can we discover about the origins of our language and how it can empower us? This course presents an introductory survey of the history and usage of English, including the significant influence other languages have had. The course also entails analysis of developments in repositories of knowledge, including libraries, encyclopedias, and dictionaries. (Sp) [IV-WC].

LTRS 1203 Horror Literature 3 Credit Hours
Vampires, ghosts, monstrous women, haunted houses and murderous video tapes--Gothic horror has terrified us for two centuries. This course studies horror literature from across the world from the nineteenthcentury to the present. (Sp) [IV-AF].
LTRS 2003 Fantasy Literature
3 Credit Hours
This class focuses on a movement or writer within the literary subgenre of fantasy fiction. Subjects could include prominent authors such as Tolkien, Lewis, Rowling or Martin, but also hybrid or experimental writers, nineteenth-century figures such as Lewis Carroll or William Morris, or authors working outside the English-speaking world. (Irreg.)
LTRS 2103 Introduction to Constitutional Studies 3 Credit Hours Provides a broad introduction to the theory and history of constitutional governance. Includes the classical roots of constitutional thought, the contribution of the English common law tradition, the origins and structure of the U.S. Constitution, along with a sense of the constitutional basis of contemporary political controversies. (F, Sp) [IV-WC].

## LTRS 2203 World Epic

3 Credit Hours
This course studies world epics from many time periods and places. We will study the religious, mythical, political and social themes in these texts and the formal aspects of epic. (Irreg.)
LTRS 2213 Crime and Detective Fiction 3 Credit Hours
This course studies the forms, contexts, and themes of the Crime and Detective Fiction genre. (Irreg.)
LTRS 2223 Jane Austen in the World
3 Credit Hours
In this course we will read three of Jane Austen's most beloved novels together with several adaptations of her work from across the world. Austen's novels have inspired countless adaptations. Her novels have been reimagined with Muslim characters living in Canada today or with Haitian characters in Brooklyn or with marriage plots set in India and Pakistan. (Irreg.) [IV-WC].
LTRS 2970 Special Topics 1-3 Credit Hours
Prerequisite: none. May be repeated with change of content; maximum credit six hours. Special topics course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)
LTRS 3013 Sacred Texts as Literature
3 Credit Hours
Prerequisite: English 1213 or Expository Writing 1213. This course will take a literary approach one or more of the sacred texts from major world religions, examining such issues as narrative and poetic structure, character or the use of imagery or figurative language. It may also incorporate poets, novelists or dramatists whose work draws upon or investigates the sacred texts in question. ( $\mathrm{F}, \mathrm{Sp}$ )
LTRS 3043 Poetry, Society, Politics
3 Credit Hours
Prerequisite: ENGL 1213 or EXPO 1213. A study of movements in poetry, with a special emphasis on political and socio-cultural issues. May be focused on a historical period or organized thematically, and may include authors outside of the European tradition. (Irreg.)

LTRS 3113 The Examined Life I: Antiquity
3 Credit Hours
Prerequisite: junior standing or permission of instructor. Survey of the great books of Greece and Rome, with emphasis on understanding the impact of classical texts on modern day thought. Can be applied to the Letters major's requirement in history, literature, or philosophy. (F) [IV$\mathrm{WC}]$.

LTRS 3123 The Examined Life II: Middle Ages and Renaissance

3 Credit Hours
Prerequisite: junior standing or permission of instructor. Survey of the great books of the Middle Ages and Renaissance, with emphasis on the impact of these texts on modern thought. Can be applied toward the Letters major's requirement in history, literature, or philosophy. (Sp) IVWC].
LTRS 3133 Examined Life III: Enlightenment 3 Credit Hours
Prerequisite: junior standing or permission of instructor. Survey of the great books of The Enlightenment, with emphasis on understanding the impact of these texts on modern thought. Can be applied toward the Letters Major's requirement in history, literature, or philosophy. (F) [IVWC].
LTRS 3153 Challenging Leadership 3 Credit Hours
Prerequisite: Prerequisite: ENGL 1213 or EXPO 1213. This course examines historical figures who had a marked impact on the western world. Each unit introduces students to some of the problems faced by the society in which these influential individuals lived. Students explore how these seminal figures proposed solutions. (Sp) [IV-WC].
LTRS 3163 The History and Philosophy of Philanthropy 3 Credit Hours Prerequisite: ENGL/EXPO 1213 and Junior standing, or permission of instructor; Repeatable with change of content, maximum credit 6 hours. This course examines ideologies, historical events, and literary descriptions related to philanthropic and charitable endeavors. Students will gain a broader understanding of how modern organizations have evolved and consider what counts as "best practices" in philanthropy. The class can be applied toward the Letters major's requirement in history, literature, or philosophy. (Sp) [IV-WC].
LTRS 3213 Monsters \& Modernity: The Gothic Genre 3 Credit Hours Prerequisite: English 1213 or Expository Writing 1213. It is a strange fact of literary history that the "Age of Reason" becomes obsessed with monsters. The Gothic becomes a genre in its own right and the supernatural, the monstrous, and the magical permeate the modern imagination. The course considers works from various national literary traditions and periods. (F, Sp) [IV-WC].
LTRS 3223 Revolutions
3 Credit Hours
Prerequisite: ENGL 1213 or EXPO 1213. This course studies the "Age of Revolutions" and focuses on different revolutionary traditions which may include, for example, the French, Haitian, American and English Revolutions from C 17 to C 19. Readings will cover the work of historians, philosophers, and literary writers as well as speeches and writings of important historical figures. (F, Sp) [IV-WC].
LTRS 3233 The Novel: Comedy, Romance and Realism 3 Credit Hours Prerequisite: ENGL 1213 or EXPO 1213. This course studies prose fictions and theories of the novel. It will cover a variety of genres such as realism, romance and science fiction; a variety of forms such as narrative structure and characterization; as well as a variety of periods and literary traditions such as American, African American, and European. (F, Sp) [IVAF].
LTRS 3243 Women and Literature
3 Credit Hours
Prerequisite: ENGL 1213/EXPO 1213. In this course we will encounter extraordinary female characters from queens to chivalric ladies, to Gothic heroines and young women coming out into society. We will follow their adventures in a variety of literary traditions from antiquity to the present. (F, Sp) [IV-WC].

LTRS 3263 Drama, Society, Politics 3 Credit Hours
Prerequisite: ENGL 1213 or EXPO 1213. This is a genre course focused on the forms of drama as well as on how drama represents major social and political questions about the state, the nation, the family, colonialism, empire, and capitalism. (Irreg.) [IV-AF].
LTRS 3273 The Sublime: Literature and Philosophy 3 Credit Hours Prerequisite: ENGL 1213 or EXPO 1213. The course studies the concept of the sublime in literature and philosophy from antiquity to the present. (Irreg.)
LTRS 3303 Origins of Rights in Early America 3 Credit Hours Prerequisite: ENGL 1213 or EXPO 1213. Explores the historical, rather than the philosophical, origins of ideas of individual and group rights in the European settlement of the New World. (F) [IV-WC].
LTRS 3323 Violence: Political Theory, Film, Literature 3 Credit Hours Prerequisite: ENGL 1213 or EXPO 1213. This course studies political and social theories of violence together with filmic and literary representations of various forms of violence in a variety of historical periods and artistic traditions. The course examines the work of theorists who consider the causes and forms of violence in relation to several major topics such as empire and revolution. (Irreg.) [IV-WC].
LTRS 3353 Interpreting the American Founding 3 Credit Hours Prerequisite: ENGL 1213 or EXPO 1213. Examines the various ways that scholars have interpreted the Founding over the past two hundred years. It is a study, then, of the historiographic interpretations of the events of the American Founding era rather than a study of the events and historical figures themselves. (F) [IV-WC].
LTRS 3440 Mentored Research Experience

## 3 Credit Hours

0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)
LTRS 3510 Topics in Letters
2-3 Credit Hours
Prerequisite: Junior standing. May be repeated with change of content; maximum credit nine hours. Discussion of selected interdisciplinary topics in letters. (Irreg.)

LTRS 3603 Debating Constitutional Controversies 3 Credit Hours Prerequisite: English 1213 or Expository Writing 1213. This course transforms the classroom into a courtroom. Students become lawyers and judges, arguing and deciding cases that hinge on our most important Constitutional controversies. Working in teams, students grapple with these contentious issues in the context of the Constitution, the common law, and legal theory. (F, Sp)

## LTRS 3613 Constitutional Narratives

3 Credit Hours
Prerequisite: ENGL 1213/EXPO 1213. This course will explore the many ways that the art of narrative intersects with constitutional history. Students will fashion their own narratives about major constitutional episodes or figures of their choosing. (F)

## LTRS 3623 First Freedoms

3 Credit Hours
Prerequisite: English 1213/Expo 1213. The First Amendment enshrines freedoms of the highest order--of religion, of speech, of the press, among others. This course delves into the history and current state of First Amendment law in America. ( $F, S p$ )

LTRS 3633 Famous Trials
3 Credit Hours
Prerequisite: English 1213/Expo 1213. From the Salem Witch Trials to our modern moment, the spectacle of a public tribunal determining questions of life and liberty has long captured the imagination of the country. Students will revisit the evidentiary records from iconic trials in American history and relitigate closing arguments. (F, Sp)

LTRS 3703 Law and Social Movements 3 Credit Hours
Prerequisite: English/Expository Writing 1213. Examines the history of the interaction between the law and social movements in the United States from the Civil War to the present day. Topics include the struggles for racial and gender equality and the histories of immigrant and gay rights movements. (F, Sp)

## LTRS 3713 Gender and the Constitution

3 Credit Hours
Prerequisite: English/Expository Writing 1213. Examines how ideas about gender, sexuality, and the family have shaped the privileges and obligations of American citizenship. Topics covered in this class include feminism, masculinity, women's suffrage, interracial marriage, affirmative action, and sexual orientation. In addition, it will examine how women have shaped the law as plaintiffs, lawyers, and judges. (F, Sp)

LTRS 3803 Fate \& The Individual in European Literature I 3 Credit Hours Prerequisite: English 1213 or Expository Writing 1213. Based on a course designed by W.H. Auden, this is part one of an intensive examination of classic texts of western literature, exploring questions of freedom, fate, and human responsibility. Texts introduce students to an ongoing conversation about what it means to be human. Begins in ancient Greece and ends in the seventeenth century. (F) [IV-WC].

LTRS 3813 Fate \& The Individual in European Literature II3 Credit Hours Prerequisite: English 1213 or Expository Writing 1213. Based on a course designed by W.H. Auden, this is part two of an intensive examination of classic texts of western literature, exploring questions of freedom, fate, and human responsibility. Texts introduce students to an ongoing conversation about what it means to be human. Texts cover the early modern period to the twentieth century. (Sp) [IV-WC].

## LTRS 3960 Honors Reading 1-3 Credit Hours

1 to 3 hours. Prerequisite: Admission to Honors Program. May be repeated; maximum credit six hours. Consists of topics designated by the instructor in keeping with the student's major program. The topics will cover materials not usually presented in the regular courses. (F, Sp, Su)

LTRS 3970 Honors Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Subjects covered vary. Deals with concepts not usually treated in regular courses. (Irreg.)

LTRS 3980 Honors Research 1-3 Credit Hours
1 to 3 hours. Prerequisite: Admission to Honors Program. May be repeated; maximum credit six hours. Will provide an opportunity for the gifted Honors candidate to work at a special project in the student's field. (F, Sp, Su)

LTRS 3990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: permission of instructor and junior standing. May be repeated once with change of content. Independent study may be arranged to study a subject not available through regular course offerings. (F, Sp, Su)

LTRS 4503 Letters Capstone Course
3 Credit Hours
Prerequisite: senior standing in major. May be repeated with change of content; maximum credit six hours. Students will write a senior paper on a topic chosen in consultation with the instructor. Papers will demonstrate students' abilities to synthesize material drawn from among two or more of the areas included in the Letters program. (F, Sp) [V].

LTRS 4960 Directed Readings
1-4 Credit Hours
1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean. May be repeated; maximum credit four hours. Designed for upper-division students who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)

## LTRS 4970 Special Topics/Seminar

2-3 Credit Hours
1 to 3 hours. Prerequisite: Senior standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)
LTRS 4990 Independent Study 1-3 Credit Hours
Prerequisite: junior standing or permission of instructor or department. May be repeated; Maximum credit six hours. Contracted independent study for topic not currently offered in regularly scheduled courses. (F, Sp )

## LTRS 5960 Directed Readings

1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing and permission of department. May be repeated; maximum credit twelve hours. Directed readings and/or literature reviews under the direction of a faculty member. (F, Sp, Su)
LTRS 5970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

## LTRS 5990 Independent Study

1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing and permission of instructor. May be repeated; maximum credit six hours. Reading and research arranged and directed in consultation with the instructor, in specified areas of classical civilization and culture. (F, Sp, Su)

## M S-Military Science - Army

M S 1011 Military Conditioning 1 Credit Hour A physical conditioning course using exercises developed for use by the US Army and classroom instruction. This is a progressive program of exercise that promotes muscular strength and endurance, cardiorespiratory endurance, flexibility, and a healthy body fat content. Classroom instruction includes nutrition and the aspects of physical fitness in accordance with military service. (F, Sp, Su)
M S 1113 Introduction to Leadership I 3 Credit Hours Introduction to the organization of the US Army and the ROTC program. Overview of leadership principles, problem solving, military fitness, and effective communication. Introduces small unit tactics, map reading, land navigation, and the principles of officership. Laboratory (F)
$\begin{array}{lll}\text { M S } 1213 & \text { Adaptive Leadership and Professional Competence } & 3 \\ \text { Credit } & \text { Hours }\end{array}$
Prerequisite: MS 1113 or department permission. Introduces students to the personal challenges and competencies that are critical for adaptive leadership. Students learn the basics of the communications process and the importance for leaders to develop the essential skills to effectively communicate in the Army. Students will examine the Army Profession and what it means to be a professional in the U.S. Army. Laboratory. (Sp)

M S 2323 Foundations of Leadership I
3 Credit Hours
Prerequisite: M S 1113 and M S 1213; or permission of the department. Examines the challenges of leading tactical teams in the complex Contemporary Operating Environment. Highlights dimensions of terrain analysis, patrolling, and operation orders. Further study of the theoretical basis of the Army leadership framework. Covers troop leading procedures, Army problem solving, land navigation, squad organization, fundamentals of the offense and defense, and battle drills. Laboratory (F)
M S 2423 Foundations of Leadership II
3 Credit Hours
Prerequisite: M S 2323, or permission of department. Develops knowledge, understanding and skill in land navigation, military operations, leadership and basic tactics. Instruction focuses on applying leadership and management theory to the area of organization effectiveness. Laboratory (Sp)
M S 3123 Adaptive Team Leadership
3 Credit Hours
Prerequisite: M S 2423. Uses increasingly intense situational leadership challenges to build skill in leading tactical operations. Exercises focus on platoon level tactics in combat, stability, and support operations. Students conduct military briefings and develop proficiency in preparing orders, decision making, and building effective teams. Laboratory (F)

## M S 3223 Applied Team Leadership 3 Credit Hours

Prerequisite: M S 3123. Theory, methods and principles for understanding leadership and behavior in groups. Analysis of the leader's role in directing and coordinating the efforts of individuals and small units in the execution of offensive and defensive tactical missions, to include communication systems, internal defense/development and the military team; intelligence gathering, and the role of the various branches of the Army. Laboratory (Sp)
M S 3413 United States Military History and Heritage: 1607Present 3 Credit Hours
Prerequisite: M S 1113, M S 1213, and ENGL/EXPO 1213; or Departmental Permission. This course will develop a student's awareness of the relationship of the U.S. military to American society. It will cover the evolution of war and strategy, the progression of military professionalism, the history and purpose of joint operations, as well as the role of history and heritage in understanding the US Army as a profession. Commissioning requirement for Army ROTC. (F, Sp)

M S 3440 Mentored Research Experience
3 Credit Hours
0 to 3 hours. Prerequisite: ENGL 1113 or equivalent, and permission of instructor; May be repeated, maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)

M S 3980 Honors Research
1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program; May be repeated, maximum credit six hours. Provides an opportunity for the gifted Honors candidate to work at a special project in the student's field. (F, Sp, Su)
M S 4213 Seminar in Leadership and Management 3 Credit Hours Prerequisite: advanced standing in military science. Analysis of selected leadership and management problems involved in staff organization and function, and military justice. Application of leadership principles, stressing responsibilities of the leader, and affording experience through practical exercises. Obligations and responsibilities of an officer on active duty; chain of command; and officer-enlisted relationships. Laboratory (Sp)

M S 4223 Mission Command and the Company Grade
Officer 3 Credit Hours
Prerequisite: M S 4123. Introduces students to the challenges of mission command and gaining an understanding of the Army Profession.
Students learn the basics of what mission command is and how it is used in Army operations. Students will examine the Army Profession and what it means to be a professional in the U.S. Army. (Sp)

M S 4510 Seminar in Military Leadership 1-3 Credit Hours
1 to 3 hours. Prerequisite: junior standing and permission of department. May be repeated with change of content; maximum credit nine hours. Students will learn various theories of leadership and organizational culture and gain practical experience in the application of those theories within a peer leadership setting. Additionally, the course may include elements of military history, social theory, ethics, and military law. (Irreg.)
M S 4610 Comparative Military History
1-3 Credit Hours
1 to 3 hours. Prerequisite: 3610 or permission of department chair. May be repeated; maximum credit three hours. Students will examine events leading to national and world crisis. Focus points will be socio-economic as well as goals and personalities of political and military leaders. ( $F, S p$ )

## MATH-Mathematics

MATH 0999 Remedial Transfer Credit
10 Credit Hours
This is not a course offered at the University of Oklahoma. It is used to denote remedial transfer credit for which there is no OU equivalent course.
MATH 1471 Mathematics for Critical Thinking Corequisite 1 Credit Hour Prerequisite: A satisfactory score on the math placement examination; Corequisite: MATH 1473. This course is designed as a corequisite supplement to MATH 1473 (Math for Critical Thinking). It covers material that supports the learning of key arithmetic, algebra topics, and terminology needed to address common contextualized scenarios involving quantities and numeration (e.g., personal financial mathematics and interpretation of data representations found in media). The course also further emphasizes topics from MATH 1473. (F, Sp, Su)
MATH 1473 Mathematics for Critical Thinking 3 Credit Hours Prerequisite: "C" or better in DMAT 0123 at OU, or satisfactory score on the math assessment. A study of the mathematics needed for the critical evaluation of quantitative information and arguments including logic, critical appraisal of graphs and tables; use of simple mathematical models and an introduction to elementary statistics. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ ) [l-M].

MATH 1501 College Algebra Corequisite
1 Credit Hour
Prerequisite: A satisfactory score on the math placement examination; Corequisite: MATH 1503. This course is a corequisite supplement to MATH 1503 (College Algebra), which is designed for students in preparation for engineering calculus. MATH 1501 supports the learning of key algebra topics, including expanding and simplifying algebraic expressions (linear, quadratic, polynomial, rational, radical, exponential, and logarithmic); factoring techniques; and representations of mathematical information. The course also further emphasizes topics from MATH 1503. (F, Sp, Su)

## MATH 1503 College Algebra

3 Credit Hours
Prerequisite: "C" or better in DMAT 0123, or satisfactory score on the math assessment. Study of equations, inequalities, functions (linear, absolute value, quadratic, polynomial, rational, radical, exponential, logarithmic). Includes systems of equations; recognizing, utilizing, creating, and converting between symbols, tables, graphs, models. Prerequisite for MATH 1523. A student may not receive credit for this course and MATH 1643. (F, Sp, Su) [l-M].

MATH 1523 Precalculus and Trigonometry
3 Credit Hours
Prerequisite: MATH 1503 or satisfactory score on the math assessment. Primarily concentrates on trigonometric functions and their inverses, trigonometric identities, solutions of triangles, and applications. In addition, limits, vectors and some vector operations, polar coordinates and continuity are introduced. Suitable for students planning to take calculus; intended as prerequisite for MATH 1823. (F, Sp, Su) [l-M].
MATH 1641 Functions and Modeling Corequisite 1 Credit Hour Prerequisite: A satisfactory score on the math placement examination; Corequisite: MATH 1643. This course is a corequisite supplement to MATH 1643 (Functions \& Modeling), which is designed to prepare students for business calculus, as well as other business, life, and social science courses. The 1641 course focuses on key algebra skills and improvement of academic study skills necessary for success in MATH 1643. It also further emphasizes topics covered in MATH 1643. (F, $\mathrm{Sp}, \mathrm{Su}$ )

## MATH 1643 Functions and Modeling for Business, Life and Social Sciences <br> 3 Credit Hours

Prerequisite: "C" or better in DMAT 0123 at OU, or satisfactory score on the math assessment. Study of equations and functions (linear, polynomial, rational, exponential, logarithmic) from various perspectives (symbolic, verbal, numerical, graphical); digital techniques for graphing functions, solving equations, and modeling data using regressions. This course is designed for students in agricultural, business, life/health sciences, or social science majors. A student may not receive credit for this course and MATH 1503. (F, Sp, Su) [I-M].

## MATH 1743 Calculus I for Business, Life and Social

 Sciences3 Credit Hours
Prerequisite: MATH 1523, MATH 1643, or satisfactory score on the math assessment. Topics in differentiation of polynomial, exponential and logarithmic functions. Applications to the business, life and social sciences, including optimization. A student may not receive credit for this course and MATH 1823. (F, Sp, Su) [I-M].
MATH 1823 Calculus and Analytic Geometry I 3 Credit Hours
Prerequisite: MATH 1523 or satisfactory score on the math assessment. Topics include functions, limits, and continuity; differentiation; and applications of differentiation including related rates, maximum-minimum theory, curve sketching, and optimization. A student may not receive credit for this course and MATH 1743; duplicates 3 hours of MATH 1914. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ ) [l-M].
MATH 1914 Differential and Integral Calculus I 4 Credit Hours Prerequisite: Satisfactory score on math assessment. Topics include limits and continuity; differentiation; applications of differentiation including related rates, maximum-minimum theory, curve sketching, and optimization; Fundamental Theorem of Calculus; substitution rule; and applications of integration to computation of areas and volumes. Duplicates three hours of MATH 1823 and one hour of MATH 2423. (F, Sp, Su) [l-M].
MATH 2123 Calculus II for Business, Life and Social Sciences

## 3 Credit Hours

Prerequisite: MATH 1743. Integration of polynomial, exponential and logarithmic functions, including u-substitution. Applications of integrals to the business, life and social sciences, including probability. Partial derivatives including multivariable optimization, Lagrange multipliers, and least squares. A student cannot receive credit for this course and MATH 2423. (Sp) [l-M].

MATH 2213 Mathematical Systems 3 Credit Hours
Prerequisite: plane geometry, intermediate algebra, enrollment in an appropriate elementary teachers' program. A systematic analysis of arithmetic and a presentation of intuitive algebra and geometry. Not open to students in the University College. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

MATH 2223 Data Analysis and Geometric Systems
3 Credit Hours Prerequisite: 0123 at OU or satisfactory score on math placement test and admission to 0802A, 0808A, or 0823A degree programs. Algebra and the structure of number systems, functional relationships, informal geometry. Course is not open to students in University College. ( $\mathrm{F}, \mathrm{Sp}$ )
MATH 2423 Calculus and Analytic Geometry II 3 Credit Hours Prerequisite: MATH 1823 or MATH 1914. Topics include integration and its applications; calculus of transcendental functions; indeterminate forms; techniques of integration; and improper integrals. A student may not receive credit for this course and MATH 2123; duplicates one hour of MATH 1914 and two hours of MATH 2924. (F, Sp, Su) [l-M].
MATH 2433 Calculus and Analytic Geometry III 3 Credit Hours
Prerequisite: MATH 2423 or MATH 2924. Polar coordinates, parametric equations, sequences, infinite series, vector analysis. (F, Sp, Su)
MATH 2443 Calculus and Analytic Geometry IV 3 Credit Hours Prerequisite: 2433. Vector calculus; functions of several variables; partial derivatives; gradients, extreme values and differentials of multivariate functions; multiple integrals; line and surface integrals. (F, Sp, Su)
MATH 2513 Discrete Mathematical Structures 3 Credit Hours Prerequisite: MATH 2423 or MATH 2924 or concurrent enrollment. A course for math majors or prospective math majors. Provides an introduction to discrete concepts such as finite sets and structures, and their properties and applications. Also exposes students to the basic procedures and styles of mathematical proof. Topics include basic set theory, functions, integers, symbolic logic, predicate calculus, induction, counting techniques, graphs and trees. Other topics from combinatorics, probability, relations, Boolean algebras or automata theory may be covered as time permits. (F, Sp, Su)
MATH 2924 Differential and Integral Calculus II 4 Credit Hours Prerequisite: MATH 1914 with a grade of C or better. Topics include calculus of transcendental functions; indeterminate forms; techniques of integration; improper integrals, parametric curves; polar coordinates, infinite sequences and series, vectors in two and three dimensions. Duplicates two hours of MATH 2423 and two hours of MATH 2433. (F, Sp, Su )
MATH 2934 Differential and Integral Calculus III 4 Credit Hours Prerequisite: 2924 with grade of $C$ or better. Vectors and vector functions, functions of several variables, partial differentiation and gradients, multiple integration, line and surface integrals, Green-Stokes-Gauss theorems. Duplicates one hour of 2433 and three hours of 2443. ( $F, \mathrm{Sp}$, Su )

MATH 2970 Special Topics/Seminar 1-3 Credit Hours 1 to 3 hours. Prerequisite: Permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)
MATH 3113 Introduction to Ordinary Differential Equations 3 Credit Hours
Prerequisite: MATH 2423 or MATH 2924. First order ordinary differential equations, linear differential equations with constant coefficients, two-bytwo linear systems, Laplace transformations, phase planes and stability. Duplicates two hours of MATH 3413. (F, Sp, Su)

MATH 3333 Linear Algebra I 3 Credit Hours
Prerequisite: MATH 2123 or MATH 1823 or MATH 1914 or permission of instructor. Systems of linear equations, determinants, finite dimensional vector spaces, linear transformations and matrices, characteristic values and vectors. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
MATH 3401 Numerical Methods With Matlab
1 Credit Hour
Prerequisite: 3413 or concurrent enrollment. Programming with MATLAB. Numerical solution of nonlinear equations. Matrices and linear algebraic equations, regression, interpolation, splines. Numerical integration. Numerical solution of systems of ordinary differential equations. Numerical solution of partial differential equation. Laboratory ( $\mathrm{F}, \mathrm{Sp}$ )
MATH 3413 Physical Mathematics I
3 Credit Hours
Prerequisite: MATH 2443 or MATH 2934 or concurrent enrollment. Complex numbers and functions. Fourier series, solution methods for ordinary differential equations and partial differential equations, Laplace transforms, series solutions, Legendre's equation. Duplicates two hours of MATH 3113. (F, Sp)
MATH 3423 Physical Mathematics II
3 Credit Hours
Prerequisite: MATH 2443 or MATH 2934, MATH 3413. The Fourier transform and applications, a survey of complex variable theory, linear and nonlinear coordinate transformations, tensors, elements of the calculus of variations. (F)

MATH 3440 Mentored Research Experience 3 Credit Hours 0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)
MATH 3960 Honors Reading
1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Consists of topics designated by the instructor in keeping with the student's major program. Covers materials not usually presented in the regular courses. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
MATH 3970 Honors Seminar 1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Projects covered will vary. The content will deal with concepts not usually presented in regular coursework. (F, Sp)
MATH 3980 Honors Research 1-3 Credit Hours 1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Will provide an opportunity for the gifted Honors candidate to work at a special project in the student's field. (F, Sp, Su)

MATH 3990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: one course in general area to be studied; permission of instructor and department. Overall grade point average of 2.50 or better. May be repeated; maximum credit six hours. Contracted independent study for topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

MATH G4073 Numerical Analysis I
3 Credit Hours
Prerequisite: 3113 or 3413 . Solution of linear and nonlinear equations, approximation of functions, numerical integration and differentiation, introduction to analysis of convergence and errors, pitfalls in automatic computation, one-step methods in the solutions of ordinary differential equations. (F)

MATH 4093 Applied Numerical Methods 3 Credit Hours (Slashlisted with MATH 5093) Prerequisite: MATH 2443 or MATH 2934, MATH 3113 or MATH 3413, MATH 3333 or MATH 4373, or permission of instructor. Numerical treatment of ordinary differential equations, numerical linear algebra and applications, basic numerical methods for partial differential equations. No student may earn credit for both 4093 and 5093. (Alt. Sp.)
MATH G4103 Introduction to Functions of a Complex
Variable 3 Credit Hours
Prerequisite: 3113. Complex analytic functions, conformal mappings, complex integrals. Taylor and Laurent series, integration by the method of residues, complex analytic functions and potential theory. (Sp)

## MATH 4123 Fourier Transforms

3 Credit Hours
(Slashlisted with MATH 5123) Prerequisite: MATH 2443 or MATH 2934, MATH 3113 or MATH 3413, MATH 3333, or permission of instructor. Fourier series, classical Fourier transform, discrete Fourier transform, distributions and Fourier transforms. Sampling and Shannon's Theorem. No student may earn credit for both 4123 and 5123. (F)
MATH G4163 Introduction to Partial Differential Equations 3 Credit Hours
Prerequisite: MATH 2443 or MATH 2934, MATH 3113 or MATH 3413.
Physical models, classification of equations, Fourier series and boundary value problems, integral transforms, the method of characteristics. (F, Sp, Su )
MATH 4193 Introductory Mathematical Modeling 3 Credit Hours Prerequisite: MATH 3113 or MATH 3413 , MATH 3333, MATH 4733 or MATH 4753, or permission of instructor. Mathematics models are formulated for problems arising in various areas where mathematics is applied. Techniques are developed for analyzing the problem and testing validity of proposed model. (Sp)

## MATH G4313 Introduction to Number Theory 3 Credit Hours

Prerequisite: 2513 and 3333 or permission of instructor. Topics include factorization and prime numbers, congruence, quadratic residues and reciprocity, continued fractions and approximations, Diophantine equations, arithmetic functions, and selected applications. (Irreg.)
MATH G4323 Introduction to Abstract Algebra I 3 Credit Hours Prerequisite: MATH 3333 and MATH 2513, or permission of instructor. Concepts from set theory; the system of natural numbers, extension from the natural numbers to the integers; semigroups and groups; rings, integral domain and fields. (F, Sp)
MATH G4333 Introduction to Abstract Algebra II 3 Credit Hours Prerequisite: 4323. Extensions of rings and fields, elementary factorization theory; groups with operators; modules and ideals; lattices. (Sp)
MATH 4373 Abstract Linear Algebra
3 Credit Hours
(Slashlisted with 5373) Prerequisite: 3333. Vector spaces over arbitrary fields, bases, dimension, linear transformations and matrices, similarity and its canonical forms (rational, Jordan), spectral theorem and diagonalization of quadratic forms. No student may earn credit for both 4373 or 5373 . (F, Sp)
MATH 4383 Applied Modern Algebra 3 Credit Hours (Slashlisted with 5383) Prerequisite: 3333. Topics from the theory of error correcting codes, including Shannon's theorem, finite fields, families of linear codes such as Hamming, Golay, BCH, and Reed-Solomon codes. Other topics such as Goppa codes, group codes, and cryptography as time permits. No student may earn credit for both 4383 and 5383. (Sp)

MATH G4433 Introduction to Analysis I
3 Credit Hours
Prerequisite: MATH 2433 or MATH 2924, and MATH 2513 or permission of instructor. Review of real number system. Sequences of real numbers. Topology of the real line. Continuity and differentiation of functions of a single variable. (F, Sp, Su)

MATH 4443 Introduction to Analysis II
3 Credit Hours
(Slashlisted with 5443) Prerequisite: 4433. Integration of functions of a single variable. Series of real numbers. Series of functions. Differentiation of functions of more than one variable. No student may earn credit for both 4443 and 5443. (Sp)
MATH 4513 Senior Mathematics Seminar 3 Credit Hours Prerequisite: MATH 2443 or MATH 2934; MATH 2513; MATH 3113 or MATH 3413; MATH 3333; and senior standing. Capstone course which synthesizes ideas from different areas of mathematics with emphasis on current topics of interest. The course will involve student presentations, written projects and problem solving. ( $\mathrm{F}, \mathrm{Sp}$ ) $[\mathrm{V}]$.

MATH G4643 Topics in Geometry and Combinatorics 3 Credit Hours Prerequisite: 3333. May be repeated with permission of instructor; maximum credit six hours. Topics may include convexity (convex sets, combinatorial theorems in finite dimensional Euclidean space), graph theory, finite geometries, foundations of geometry. (F, Sp)
MATH 4653 Introduction To Differential Geometry I 3 Credit Hours (Slashlisted with MATH 5653) Prerequisite: MATH 2443 or MATH 2934, and MATH 3333, or permission of instructor. Elementary theory of curves and surfaces in three-dimensional Euclidean space, differentiable manifolds, Riemannian geometry of two dimensions, Gauss Theorem Egregium. No student may earn credit for both 4653 and 5653. (F)
MATH 4673 Graph Theory I
3 Credit Hours
(Slashlisted with 5673) Prerequisite: 2513 or permission of instructor. An introduction to the theory of graphs. Topics include basic definitions, cutpoints, blocks, trees, connectivity and Menger's theorem. No student may earn credit for both 4673 and 5673. (F)

MATH G4733 Mathematical Theory of Probability 3 Credit Hours Prerequisite: MATH 2443 or MATH 2934 or concurrent enrollment. Probability spaces, counting techniques, random variables, moments, special distributions, limit theorems. (F)
MATH 4743 Introduction to Mathematical Statistics 3 Credit Hours (Slashlisted with 5743) Prerequisite: 4733. Mathematical development of basic concepts in statistics: estimation, hypothesis testing, sampling from normal and other populations, regression, goodness-of-fit. No student may earn credit for both 4743 and 5743. (Sp)

MATH G4753 Applied Statistical Methods
3 Credit Hours Prerequisite: MATH 2123 or MATH 2423 or MATH 2924 or permission of instructor. Estimation, hypothesis testing, analysis of variance, regression and correlation, goodness-of-fit, other topics as time permits. Emphasis on applications of statistical methods. (F, Sp, Su)
MATH 4773 Applied Regression Analysis 3 Credit Hours (Slashlisted with 5773) Prerequisite: 3333,4733 or 4753 or any statistical probability course at an equivalent level. The general regression problem of fitting an equation involving a single dependent variable and several independent variables, estimation and tests of regression parameters, residual analysis, selecting the "best" regression equation. No student may earn credit for both 4773 and 5773. (Alt. F)

MATH 4793 Advanced Applied Statistics
(Slashlisted with 5793) Prerequisite: 4743 or 4753 or equivalent. Survey of advanced applied statistical methods other than applied regression, including exploratory data analysis, analysis of multivariate data (principal components: analysis, multiple analysis of variance, cluster analysis, etc.), and introduction to non-parametric methods. No student may earn credit for both 4793 and 5793. (Alt. F)
MATH 4803 Topics in Mathematics 3 Credit Hours Prerequisite: permission of instructor. May be repeated with change of content; maximum credit nine hours. Topics may include any area of mathematics; these will be substantial and fundamental subjects not offered in regular courses. (F, Sp, Su)

## MATH G4853 Introduction to Topology

3 Credit Hours
Prerequisite: MATH 2433 or MATH 2924; and MATH 2513; or permission of instructor. Metric spaces and topological spaces, continuity, connectedness, compactness and related topics. (Sp)

## MATH 4960 Directed Readings

1-4 Credit Hours
1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean. May be repeated; maximum credit four hours. Designed for upper-division students who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)

## MATH 4970 Special Topics/Seminar <br> 1-3 Credit Hours

1 to 3 hours. Prerequisite: Senior standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)
MATH 4990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: three courses in general area to be studied, permission of instructor and department. May be repeated; maximum credit six hours. Contracted independent study for topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Sp)
MATH 5093 Applied Numerical Methods 3 Credit Hours (Slashlisted with MATH 4093) Prerequisite: graduate standing and MATH 2443 or MATH 2934, MATH 3113 or MATH 3413, MATH 3333 or MATH 4373, or permission of instructor. Numerical treatment of ordinary differential equations, numerical linear algebra and applications, basic numerical methods for partial differential equations. No student may earn credit for both MATH 4093 and MATH 5093. (Alt. Sp.)
MATH 5103 Mathematical Models 3 Credit Hours
Prerequisite: permission of instructor or admission to the M.S. program. May be repeated with change of content; maximum credit six hours. Mathematical models are formulated for problems arising in various areas in which mathematics has been applied. In each case, techniques are developed for analyzing the resulting mathematical problem, and this analysis is used to test the validity of the model. (Sp)
MATH 5123 Fourier Transforms 3 Credit Hours (Slashlisted with MATH 4123) Prerequisite: graduate standing and MATH 2443 or 2934, MATH 3113 or MATH 3413, MATH 3333, or permission of the instructor. Fourier series, classical Fourier transform, discrete Fourier transform, distributions and Fourier transforms. Sampling and Shannon's Theorem. No student may earn credit for both 4123 and 5123. (F)
MATH 5163 Partial Differential Equations 3 Credit Hours Prerequisite: 4163 or permission of instructor. First order equations, Cauchy problem for higher order equations, second order equations with constant coefficients, linear hyperbolic equations. (Sp)

MATH 5173 Advanced Numerical Analysis I 3 Credit Hours
Prerequisite: 4433, 4443 or permission of instructor. Topics may include: error analysis of numerical methods for optimization and initial value problems, numerical approximation of aspects of control problems. (Alt. F)

MATH 5183 Advanced Numerical Analysis II
3 Credit Hours
Prerequisite: 4433, 4443 or permission of instructor. Topics may include: analysis of spline approximations as a basis of the finite element method, error analysis for finite element approximation of elliptic and parabolic boundary value problems. (Alt. Sp)
MATH 5253 Introduction to Mathematics Pedagogy Research 3
Credit
Hours
Prerequisite: Graduate standing in mathematics or permission of the instructor. This course is intended for students who will be consumers of mathematics education research as well as those who will be producers of this research. The course offers an overview of the mathematics pedagogy research process and a detailed survey of selected aspects of this process. Particular topics including reviewing existing mathematics teaching research literature, designing research studies, gathering research data, analyzing research data, and reporting pedagogical research. (F)
MATH 5263 Issues and Problems in Mathematics

## Pedagogy

3 Credit Hours
Prerequisite: graduate standing in mathematics or permission of instructor. May be repeated with change of content; maximum credit 12 hours. Considers current issues and perennial problems in undergraduate mathematics teaching. Potential topics include, but are not limited to, use of technology in mathematics instruction, use of group work and other instructional strategies actively engaging students in Mathematics learning, the nature of mathematics learning, research-based practices in teaching undergraduate mathematics, issues of gender and diversity in undergraduate mathematics, the nature of the undergraduate mathematics curriculum. (Sp)
MATH 5303 Topics in Group Theory
3 Credit Hours
Prerequisite: 4323 or permission of instructor. May be repeated with change of content; Maximum credit 15 hours. Topics may include permutation groups, invariant subgroups, prime power groups, abelian groups, generators and relations, free groups, solvable and nilpotent groups, semi-direct products and extensions, automorphism groups, reflection groups, coxeter groups, crystallographic groups, matrix groups and representation group actions. (Irreg.)
MATH 5333 Topics in Number Theory
3 Credit Hours
Prerequisite: at least one mathematics course numbered above 3000, other than 4232. May be repeated with change of content; maximum credit nine hours. Topics may include congruencies, arithmetic functions, quadratic reciprocity, continued fractions, diophantine equations, primality testing, factorization methods, cryptography, quadratic forms and quadratic fields, computational number theory, additive number theory, coding theory, p-adic numbers. (Irreg.)
MATH 5353 Abstract Algebra I
3 Credit Hours
Prerequisite: 4323, permission of instructor. Groups, Sylow theorems, group actions, group presentations. Rings, ideals, polynomial rings, unique factorization. Fields, algebraic and transcendental extensions. (F)
MATH 5363 Abstract Algebra II
3 Credit Hours
Prerequisite: 5353. Galois theory, solvability. Modules over a principal ideal domain. Noetherian ideal theory. Group representations, semisimple rings. Classical groups. (Sp)

MATH 5373 Abstract Linear Algebra 3 Credit Hours
(Slashlisted with 4373) Prerequisite: 3333. Vector spaces over arbitrary fields, bases, dimension, linear transformations and matrices, similarity and its canonical forms (rational, Jordan), spectral theorem and diagonalization of quadratic forms. No student may earn credit for both 4373 and 5373. (F, Sp)
MATH 5383 Applied Modern Algebra 3 Credit Hours (Slashlisted with MATH 4383) Prerequisite: MATH 3333. Topics from the theory of error correcting codes, including Shannon's theorem, finite fields, families of linear codes such as Hamming, Golay, BCH, and ReedSolomon codes. Other topics such as Goppa codes, group codes, and cryptography as time permits. No student may earn credit for both 4383 and 5383. (Sp)
MATH 5403 Calculus of Variations
3 Credit Hours
Prerequisite: 4433 or 3423 or 4163 . Linear spaces, global and local theories of optimization, necessary conditions for relative extrema of integrals. (Irreg.)

## MATH 5423 Complex Analysis I

3 Credit Hours
Prerequisite: 4433. The complex numbers, topologies of the extended plane and related sphere, elementary functions, power series, properties of general holomorphic functions. The integral of a complex-valued function over an oriented rectifiable curve, the classical theorems on integrals, Taylor and Laurent expansions, analytic continuation, introduction to Riemann surfaces. (Alt. F)
MATH 5443 Introduction To Analysis II
3 Credit Hours
(Slashlisted with 4443) Prerequisite: 4433. Integration of functions of a single variable. Series of real numbers. Series of functions. Differentiation of functions of more than one variable. No student may earn credit for both 4443 and 5443. (Sp)

MATH 5453 Real Analysis I
3 Credit Hours
Prerequisite: 4433 or permission of instructor. Lebesgue measure and integration theory, absolutely continuous functions, metric spaces. (F)

## MATH 5463 Real Analysis II 3 Credit Hours

Prerequisite: 5453. General measure and integration theory, Banach spaces, topics from related areas. (Sp)

MATH 5653 Introduction To Differential Geometry I 3 Credit Hours (Slashlisted with MATH 4653) Prerequisite: graduate standing and MATH 2443 or MATH 2934, and MATH 3333, or permission of instructor. Elementary theory of curves and surfaces in three-dimensional Euclidean space, differentiable manifolds, Riemannian geometry of two dimensions, Gauss Theorem Egregium. No student may earn credit for both 4653 and 5653. (F)

MATH 5673 Graph Theory I 3 Credit Hours
(Slashlisted with 4673) Prerequisite: 2513 or permission of instructor. An introduction to the theory of graphs. Topics include basic definitions, cutpoints, blocks, trees, connectivity and Menger's theorem. No student may earn credit for both 4673 and 5673. (F)
MATH 5693 Topics in Geometry and Combinatorics I 3 Credit Hours Prerequisite: permission of instructor. May be repeated with permission of instructor; maximum credit 12 hours. Topics may include convexity, combinatorial geometry, graph theory, or Riemannian geometry. (F, Sp, Su)
MATH 5743 Introduction to Mathematical Statistics 3 Credit Hours (Slashlisted with 4743) Prerequisite: 4733. Mathematical development of basic concepts in statistics: estimation, hypothesis testing, sampling from normal and other populations; regression, goodness of fit. No student may earn credit for both 4743 and 5743. (Sp)

MATH 5763 Introduction to Stochastic Processes 3 Credit Hours
Prerequisite: 4733 or permission of instructor. Stochastic processes in discrete time including random walks, recurrent events, Markov chains and branching processes. Processes in continuous time including linear and nonlinear birth-death processes and diffusions. Applications taken from economics, engineering, operations research. (Irreg.)
MATH 5773 Applied Regression Analysis 3 Credit Hours
(Slashlisted with 4773) Prerequisite: 3333, 4733 or 4753 or any statistical probability course at an equivalent level. The general regression problem of fitting an equation involving a single dependent variable and several independent variables, estimation and tests of regression parameters, residual analysis, selecting the "best" regression equation. No student may earn credit for both 4773 and 5773. (Alt. F)
MATH 5793 Advanced Applied Statistics 3 Credit Hours (Slashlisted with 4793) Prerequisite: 4743 or 4753 or equivalent. Survey of advanced applied statistical methods other than applied regression, including exploratory data analysis, analysis of multivariate data (principal components: analysis, multiple analysis of variance, cluster analysis, etc.), and introduction to non-parametric methods. No student may earn credit for both 4793 and 5793. (Alt. F)
MATH 5803 Topics in Mathematics 3 Credit Hours
Prerequisite: permission of instructor. May be repeated with change of content; maximum credit fifteen hours. Topics may include any area of mathematics; these will be substantial and fundamental subjects not offered in regular courses. (F, Sp, Su)
MATH 5853 Topology I
3 Credit Hours
Prerequisite: 2433 and 2513. Set theory, separation axioms, connectedness, compactness, continuity, metric spaces, nets and sequences. (F)

MATH 5863 Topology II
3 Credit Hours
Prerequisite: 5853. Metrization, product and quotient spaces, function spaces, dimension theory, Hilbert spaces, homotopy, simplicial complexes, continua. (Sp)
MATH 5900 Graduate Mathematics Readings 1-3 Credit Hours
1 to 3 hours. Prerequisite: six-hour mathematics sequence at the 5000+ level. May be repeated with change of content; maximum credit fifteen hours. Special background readings in advanced mathematical topics as preparation for later dissertation work. (F, Sp, Su)

MATH 5920 Seminar--Algebra and Theory of Numbers 1-2 Credit Hours 1 to 2 hours. Prerequisite: permission of instructor. May be repeated with change of content; maximum credit 12 hours. (F, Sp)

MATH 5930 Seminar--Geometry and Topology 1-2 Credit Hours
1 to 2 hours. Prerequisite: permission of instructor. May be repeated with change of content; maximum credit 12 hours. (F, Sp)

MATH 5950 Seminar-Undergraduate Mathematics Curriculum \& Pedagogy 1-2 Credit Hours
1 to 2 hours. May be repeated with change of content; maximum credit 12 hours. This seminar will explore the current research literature on undergraduate mathematics curriculum and pedagogy. (F, Sp)
MATH 5960 Directed Readings 1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing and permission of department. May be repeated; maximum credit twelve hours. Directed readings and/or literature reviews under the direction of a faculty member. (F, Sp, Su)

MATH 5970 Special Topics/Seminar 1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

## MATH 5980 Research for Master's Thesis

2-9 Credit Hours
Variable enrollment, two to nine hours; maximum credit applicable toward degree, four hours. (F, Sp)
MATH 5990 Special Problems in Mathematics $\quad \mathbf{1 - 2}$ Credit Hours 1 to 2 hours. An option for all candidates for the master's degree who do not present theses. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
MATH 6303 Literacy in Algebra 3 Credit Hours
Prerequisite: Graduate standing and MATH 5363; May be repeated with change of content; maximum credit 15 hours. This course will cover three independent advanced topics in the general area of Algebra. Some past topics have included: plane curves and singularities; introduction to buildings; invariant theory; representation stability; Morita theorems and Tannaka duality; computational commutative algebra; quiver representations; friezes; p-adic and motivic integration; introduction to algebraic analysis. (Irreg.)

## MATH 6333 Lie Theory I

3 Credit Hours
Prerequisites: 5363 and 5863 or permission of the instructor. Basic properties of Lie algebras, nilpotent and solvable Lie algebras, semisimple Lie algebras, root systems and classification theorems. (Irreg.)

## MATH 6343 Lie Theory II

3 Credit Hours
Prerequisite: 6333 or permission of the instructor. Representation theory of semi-simple Lie algebras, Lie groups, connections between Lie groups and Lie algebras, structure theory and representation theory of compact Lie groups. (Irreg.)

## MATH 6373 Commutative Algebra

3 Credit Hours
Prerequisite: 4323, 4333, 5333 or permission of instructor. Commutative rings and their modelus, ideals, prime ideals, Noetherian modules and rings, localization, principal and factorial rings, discrete valuation domains, Dedekind domains, integral ring extensions, dimension theory, tensor products, flat modules, the homofunctor, injective and projective modules, regular rings, Cohen-Macauley rings. (Irreg.)
MATH 6383 Algebraic Geometry 3 Credit Hours Prerequisite: 6373. Hilbert's Nullstellensatz, the correspondence between ideals and algebraic sets, Zariski topology, irreducible algebraic sets, ringed spaces, morphisms, affine varieties, algebraic varieties, regular maps, sub-varieties and products, bi-rational equivalence, local rings and tangent spaces, differentials, non-singular points. (Irreg.)
MATH 6393 Topics in Algebra 3 Credit Hours
Prerequisite: 5353 or permission of instructor. May be repeated with change of content; maximum credit 15 hours. Topics of modern research interest in algebra. (Irreg.)
MATH 6403 Literacy in Analysis 3 Credit Hours
Prerequisite: Graduate standing and MATH 5463; May be repeated with change of content; maximum credit 15 hours. This course will cover three independent advanced topics in the general area of Analysis. Some past topics have included: Sobolev spaces; $\mathrm{C}^{\star}$-algebras; analysis of partial differential operators; distributions; holomorphic functional calculus; interpolation spaces; symbolic dynamics; Hardy spaces; perturbation theory and fixed point theorems; regularity theory for elliptic PDE. (Irreg.)

MATH 6473 Functional Analysis I
3 Credit Hours
Prerequisite: 5463 or permission of instructor. Vector spaces with topology or norm, dual space, theorems on linear operators, spectral theory in Hilbert space, spectral decomposition of operators, convex sets and weak topologies, fixed point theorems. (Alt. F)
MATH 6483 Functional Analysis II
3 Credit Hours
Prerequisite: 6473. Banach algebras and harmonic analysis, representations of symmetric rings, unitary representations of a group, rings of operators in Hilbert space, decomposition of ring operators. Introduction to the theory of distributions. (Alt. Sp)
MATH 6493 Topics in Analysis
3 Credit Hours
Prerequisite: 5453 or permission of instructor. May be repeated with change of course content; maximum credit 15 hours. Topics of modern research interest in analysis. ( $\mathrm{F}, \mathrm{Sp}$ )
MATH 6673 Differential Geometry I
3 Credit Hours
Prerequisite: 5853 or permission of instructor. Multilinear algebra, differential manifolds, exterior differential forms, affine connections, Riemannian manifolds. (F)

MATH 6683 Differential Geometry II
3 Credit Hours
Prerequisite: 6673. Riemannian manifolds, theory of connections, bundles with classical groups as structure groups, curvature and Betti numbers, complex manifolds. (Sp)
MATH 6803 Literacy in Topology
3 Credit Hours
Prerequisite: Graduate standing and MATH 5863; May be repeated with change of content; maximum credit 15 hours. This course will cover three independent advanced topics in the general area of Topology. Some past topics have included: Mostow rigidity; group cohomology; curvature and topology; Morse theory; ergodicity of geodesic flow; Bass-Serre theory; deRham cohomology; introduction to mapping class groups; K-theory; geometry of metric spaces; the homeomorphism group of the circle; topology of 3-manifolds. (Irreg.)
MATH 6813 Algebraic Topology I
3 Credit Hours
Prerequisite: 5863. Introduction to homology theory of spaces,
fundamental group and covering spaces, higher homotopy groups, CWcomplexes and cellular homology, Whitehead and Hurewicz theorems, Eilenberg-Steenrod axioms. (F)
MATH 6823 Algebraic Topology II
3 Credit Hours
Prerequisite: 6813. Topics in cohomology and homology theory, universal coefficient theorems, orientation and duality on manifolds. Further topics may include: obstruction theory, cohomology operations, fibre bundles and characteristic classes, theory of sheaves, Eilenberg-MacLane spaces and Postnikov systems, spectral sequences. (Sp)
MATH 6833 Topics in Topology I
3 Credit Hours
Prerequisite: 5863. May be repeated with permission of instructor; maximum credit 15 hours. Topics may include algebraic topology, combinatorial topology, linear topological spaces, dimension theory, metrization, continua, decomposition spaces, topology of flat spaces. (F, Sp )
MATH 6910 Seminar--Analysis
1-2 Credit Hours
1 to 2 hours. Prerequisite: permission of the instructor. May be repeated with change of content; maximum credit 15 hours. Seminar on analysis and applied mathematics topics. (F, Sp)
MATH 6930 Seminar--Geometry and Topology 1-2 Credit Hours 1 to 2 hours. Prerequisite: permission of the instructor. May be repeated with change of content; maximum credit 12 hours. (F, Sp)

MATH 6960 Directed Readings
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit six hours. Directed readings and/or literature review under the direction of a faculty member. (Irreg.)
MATH 6970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit 12 hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or research and field projects. (Irreg.)

MATH 6980 Research for Doctoral Dissertation 2-16 Credit Hours 2 to 16 hours. Prerequisite: Graduate standing and permission of instructor; may be repeated. Directed research culminating in the completion of the doctoral dissertation. (F, Sp, Su)
MATH 6990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)

## MBIO-Microbiology

MBIO 2124 Cornerstone Research Experience
4 Credit Hours
Prerequisite: permission of instructor. Hands-on course targeted toward freshmen and sophomores; therefore there are no prerequisite courses required. The goal is to provide students with an authentic laboratory research experience building and experimentally testing hypotheses, collection and processing of data, and oral and written presentation of research results. The skills learned in this course will be beneficial during and beyond an undergraduate career. (F, Sp) [II-NS].

MBIO 2815 Introduction to Microbiology 5 Credit Hours
Prerequisite: one course in college chemistry. Introduction to microorganisms as biological entities. Survey of the roles of microorganisms in the ecosystem. Application of microorganisms to industrial and environmental problems. Discussion of microorganisms as causes of human disease and response of hosts to microbial invasion. This course does not count for major credit in Microbiology or Botany. Laboratory (F, Sp, Su) [II-NSL] .
MBIO 2970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: Permission of instructor; May be repeated, maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

## MBIO 3113 Cell Biology

3 Credit Hours
(Crosslisted with BOT and BIOL 3113) Prerequisite: Botany 1114, or Biology 1134, or Biology 1114 and 1121, or Biology 1124; and Chemistry 3053. Introduction to the cell as a unit of life. A chemical and physical comparison of procaryotic and eucaryotic cells to include a discussion of cell metabolism, types of metabolic regulation and an analysis of ultrastructure. Emphasis will be placed on the dynamic changes in metabolism and ultrastructure which occur during the life of a cell. ( $\mathrm{F}, \mathrm{Sp}$ )

MBIO 3440 Mentored Research Experience
3 Credit Hours
0 to 3 hours. Prerequisite: ENGL 1113 or equivalent, and permission of instructor; May be repeated, maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)

MBIO 3673 Practical Bioinformatics 3 Credit Hours
(Crosslisted with PBIO 3673) Prerequisite: MBIO 2815, or MBIO 3813, or PBIO 1114, or BIOL 1005, or BIOL 1114, or equivalent introductory biology course, and junior standing, or instructor permission. Study of the use of computers to analyze and interpret various types of biological data. Topics covered will include accessing genomics databases, aligning DNA and protein sequences, searching genomic databases for similar sequences, analyzing protein structure, and building molecular phylogenies. Classes will emphasize group work and in-class computer exercises in a highly interactive environment. (Sp)

MBIO 3812 Fundamentals of Microbiology Laboratory 2 Credit Hours Prerequisite: credit or concurrent enrollment in 3813. Fundamental microbiological methods: aseptic technique, culture methods, microscopy, metabolic and physiological tests, bacterial isolation and identification, environmental microbiology. Laboratory (F, Sp, Su)
MBIO 3813 Fundamentals of Microbiology 3 Credit Hours
Prerequisite: BIOL 1005 or BIOL 1114 or BIOL 1124 or BIOL 1134 or PBIO 1114; and CHEM 1315 and CHEM 1415, or CHEM 1335 and CHEM 1435. Cell structure and phylogeny of bacteria, archaea, and eukaryotic microorganisms; growth, metabolism and ecological roles; symbiotic relationships; gene expression, genetic exchange, genomics. (F, Sp, Su)
MBIO 3960 Honors Reading
1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program; May be repeated, maximum credit six hours. Consists of topics designated by the instructor in keeping with the student's major program. The topics will cover materials not usually presented in the regular courses. (F, Sp, Su)

MBIO 3970 Honors Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program; May be repeated, maximum credit six hours. Projects covered will vary. Deals with concepts not usually presented in regular coursework. (F, Sp, Su)
MBIO 3980 Honors Research 1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program and departmental permission; May be repeated, maximum credit six hours. (F, $\mathrm{Sp}, \mathrm{Su}$ )

MBIO 3990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: one course in general area to be studied and permission of instructor and department; May be repeated, maximum credit six hours. Contracted independent study for topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (F, Sp, Su)

MBIO 4313 Biotechnology Applications
3 Credit Hours
(Crosslisted with PBIO 4313) Prerequisite: PBIO/BIOL 3113, or PBIO/ BIOL 3333, or PBIO/BIOL/MBIO 4843, or PBIO/MBIO 4873, or CHEM 3653, or permission of instructor. For students who possess a working knowledge of molecular biology. Focus on developing familiarity with methods used in biotechnology to address societal challenges. Students will put into practice central methods of biotechnology, gaining practical skills for use in future careers in laboratory science, particularly methods relevant to pharmaceutical production, agricultural improvement, bio-fuel production, and medical and forensic diagnostics, among others. (Sp)

MBIO 4630 MBIO Internship
1-6 Credit Hours
1 to 6 hours. (Crosslisted with PBIO 4630) Prerequisite: MBIO major; must have completed at least 30 hours; permission of instructor. This course is a planned hands-on work experience that will provide students with the opportunity to earn college credit while engaging in a valuable learning opportunity within the field of microbiology. Through an internship, students can explore microbiology-related career paths prior to graduation and apply the knowledge obtained from their MBIO coursework. (F, Sp, Su)
MBIO 4693 Environmental Sampling Methods
3 Credit Hours
(Slashlisted with MBIO 5693; Crosslisted with METR and PBIO 4693) Prerequisite: diverse STEM background; permission of instructor; senior standing. The course gives students from diverse STEM backgrounds experience and knowledge of environmental sampling techniques, analysis of data generated, and interpretation of results in a scientific field outside their primary area of study. The multi-disciplinary structure helps students develop an understanding of different sampling techniques based on assumptions and perspectives on the environment at different spatial scales. No student may earn credit for both 4693 and 5693. (Sp)

## MBIO 4783 Introduction to Python Programming for Data <br> Analytics <br> 3 Credit Hours

(Slashlisted with MBIO 5783; Crosslisted with PBIO 4783) Prerequisite: Senior standing. This course will introduce students, who have no prior programming experience, to Python programming. It will cover data analysis and visualization methods in Python. Real-world examples will be used to teach general concepts in data analytics and practical coding skills in Python. No student may earn credit for both 4783 and 5783. (F)

## MBIO 4810 Special Topics

3 Credit Hours
0 to 3 hours. (Slashlisted with MBIO 5810) Prerequisite: two courses in Microbiology and permission of instructor; May be repeated with change of content, maximum credit three hours per semester, nine hours total. Topics will include newly developing areas of the discipline. Taught at an upper-division level based on previous course background. No student may earn credit for both 4810 and 5810. (Irreg.)

MBIO G4813 Pathogenic Microbiology Laboratory 3 Credit Hours
MBIO G4823 Pathogenic Microbiology and Infectious Disease 3

## Credit

Hours
Prerequisite: MBIO 3812 and MBIO 3813. Introduces the basic methods for pathogenic microbiology and infectious disease epidemiology. Topics covered include definitions and nomenclature, outbreak investigations, disease surveillance, case-studies, laboratory diagnosis, immunology, molecular epidemiology, dynamics of transmission, and vaccine effectiveness. Emerging pathogens, their effects on society and the health care services will also be addressed. (F)

MBIO 4833 Basic Immunology 3 Credit Hours
Prerequisite: one semester of organic chemistry, and an introductory biology course, plus one of the following: 3813 and 3812 , Zoology $2124,3113,3204,3333$ or biochemistry or graduate standing and permission. Fundamentals of immunochemistry, cellular immunology, immunogenetics and clinical immunology. (Sp)

MBIO 4843 Molecular Biology
3 Credit Hours
(Slashlisted with MBIO 5843; Crosslisted with PBIO and BIOL 4843)
Prerequisite: MBIO 3812 and MBIO 3813, or Plant Biology 1114, or Biology 1114, or Biology 1124, or Biology 1134, and one course in organic chemistry. Introduction to the characteristics and biological functions of nucleic acids and proteins in living cells with emphasis on nucleic acid replication, transcription, translation and regulation; also emphasis on the molecular aspects of microbial genetics transformation, transduction and conjugation; and emphasis on molecular immunology and genetic engineering/recombinant DNA technology. No student may earn credit for both 4843 and 5843. (F, Sp)
MBIO G4853 Physiology of Microorganisms 3 Credit Hours Prerequisite: MBIO 3813, MBIO 3812 and a course in organic chemistry, or graduate standing. Diversity, metabolism, energetics and physiology of microorganisms. (Sp)
MBIO 4864 Geomicrobiology
4 Credit Hours
(Slashlisted with MBIO 5864) Prerequisite: 3813 or permission of instructor. Life below the earth's surface. Bacterial degradation of pollutants. Petroleum microbiology. Role of microorganisms in geochemical cycling of carbon, sulfur, and metals. No student may earn credit for both 4864 and 5864. (F) [II-NS] .

## MBIO 4873 Microbial Physiology and Molecular Biology

## Laboratory

3 Credit Hours
Prerequisite: MBIO 3812 and MBIO 3813. Current techniques to explore molecular aspects of gene expression and regulation. Experiments include: plasmid and phage propagation, nucleic acid purification, DNA and protein manipulation, and gene analysis. (F, Sp) [II-NSL].

## MBIO G4883 Water Microbiology Laboratory

3 Credit Hours
Prerequisite: MBIO 3812 and MBIO 3813. Focuses on the causes and prevention of waterborne microbial diseases and the use of microorganisms to improve water quality. Topics include: waterborne diseases, detection of waterborne pathogens, epidemiology, indicator organisms, water quality standards, treatment of drinking water and sewage, and groundwater contamination. The laboratory provides training in the standard methods used to detect microbial contamination. (F)

MBIO 4893 Capstone in Microbiology
3 Credit Hours
Prerequisite: three hours of calculus; 3813,3812 and corequisite or prerequisite 4843 . Combines laboratory research experiences, primarily in the areas of microbial diversity, physiology, and genetics, with an introduction to how research in microbiology is carried out. Laboratory ( F , Sp) [V] .
MBIO 4950 Senior Thesis - Capstone
1-6 Credit Hours
1 to 6 hours. Prerequisite: MBIO 3813 and permission of instructor; May be repeated for credit; maximum credit six hours. A minimum of six hours is required. This is a capstone course allowing students to carry out individual research projects under a faculty mentor. Students will present research results orally in a poster session, and by writing a senior thesis. Honors research credit may substitute for some or all of the senior thesis credit hours. (F, Sp, Su) [V].

## MBIO 4960 Directed Readings 1-4 Credit Hours

1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean; May be repeated, maximum credit four hours. Designed for upper-division students who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)

MBIO 4970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: Senior standing or permission of instructor; May be repeated, maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

## MBIO 4990 Independent Study

1-3 Credit Hours
1 to 3 hours. Prerequisite: three courses in general area to be studied and permission of instructor and department; May be repeated, maximum credit six hours. Contracted independent study for topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (F, Sp, Su)

MBIO 5364 Transmission Electron Microscopy
4 Credit Hours (Crosslisted with PBIO and BIOL 5364) Prerequisite: permission. Introduction to the theory of transmission electron microscopy and practical instruction in specimen preparation, ultramicrotomy, instrument operation, photography and quantitative methods. Laboratory (F)

MBIO 5374 Scanning Electron Microscopy 4 Credit Hours (Crosslisted with PBIO and BIOL 5374) Prerequisite: basic chemistry; basic physics; demonstrated need; graduate standing and permission of instructor. Principles of scanning electron microscopy combined with training in the operation of the SEM and ancillary equipment. Students will be certified in the operation of all equipment. Sample preparation on a variety of samples and darkroom procedures will be performed. Independent project with oral report and poster required. Laboratory .
MBIO 5394 Advanced Light Microscopy
4 Credit Hours
(Crosslisted with BIOL and PBIO 5394) Prerequisite: permission of instructor and graduate standing; Corequisite: Lab section. Focuses on theory and techniques in light microscopy covering principles including confocal laser scanning microscopy, multiple photon imaging, FLIM/ FCS, FRET, fluorescence microscopy, phase contrast, DIC, 3D rendering, and other advanced optical technologies. Also includes a lab section where students will learn to use advanced epifluorescence and confocal microscopes. (F)

MBIO 5471 Seminar in Ecology \& Evolutionary Biology 1 Credit Hour (Crosslisted with PBIO and BIOL 5471) Prerequisite: graduate standing; May be repeated, maximum credit 2 hours. Two semesters of enrollment are required for students in the ecology and evolutionary biology doctoral program. An intensive, student-based seminar in which students present both proposals and ongoing progress reports on doctoral level research projects in ecology and evolutionary biology. (F, Sp)

MBIO 5620 Investigations in Microbiology 1-6 Credit Hours 1 to 6 hours. Prerequisite: 15 hours of microbiology or permission of instructor; May be repeated with change of subject matter, maximum nine hours for a Masters student and twelve hours for a Ph.D. student Maximum of six hours allowed with one professor, unless approved by Department Chair by petition. Fields of study: environmental microbiology, immunology, industrial microbiology, medical microbiology, medical mycology, microbial ecology, microbial genetics, microbial physiology, ultra-structural morphology, virology and molecular biology. (F, Sp, Su)

MBIO 5693 Environmental Sampling Methods
3 Credit Hours
(Slashlisted with MBIO 4693; Crosslisted with METR and PBIO 5693) Prerequisite: Graduate standing and permission of instructor. The course gives students from diverse STEM backgrounds experience and knowledge of environmental sampling techniques, analysis of data generated, and interpretation of results in a scientific field outside their primary area of study. The multi-disciplinary structure helps students develop an understanding of different sampling techniques based on assumptions and perspectives on the environment at different spatial scales. No student may earn credit for both 4693 and 5693. (Sp)

MBIO 5821 Graduate Professional Development Seminar 1 Credit Hour (Crosslisted with PBIO 5821) Prerequisite: Graduate standing and permission of instructor. This course will cover various topics and involve activities that are targeted at helping graduate students succeed in their first year of study, while also providing an opportunity to build a sense of community with other incoming students. (F)

MBIO 5864 Geomicrobiology
4 Credit Hours
(Slashlisted with MBIO 4864) Prerequisite: 3813 or permission of instructor. Life below the earth's surface. Bacterial degradation of pollutants. Petroleum microbiology. Role of microorganisms in geochemical cycling of carbon, sulfur, and metals. No student may earn credit for both 4864 and 5864. (F)

MBIO 5953 BioWriting 3 Credit Hours
(Slashlisted with MBIO 4953; Crosslisted with BIOL and PBIO 5953) Prerequisite: permission of instructor. This course provides students engaged in research with the information and skills needed to effectively communicate as professional biologists. Students will learn to report the results of their own research in the format of a journal article, conferencestyle presentation, and poster. Graduate students have additional assignments beyond those completed by undergraduates. No student may earn credit for both 4953 and 5953. (Irreg.)

MBIO 5960 Directed Readings
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing and permission of department. May be repeated; maximum credit twelve hours. Directed readings and/or literature reviews under the direction of a faculty member. (F, Sp, Su)

MBIO 5970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor; May be repeated, maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

MBIO 5971 Seminar in Microbiology
1 Credit Hour
(Crosslisted with PBIO 5971) Prerequisite: graduate standing, permission of instructor. Required of all graduate students in microbiology. May be repeated; maximum credit two hours for the master's degree, three hours for the doctor's degree. Topics are selected from various areas of microbiology, and each student is called upon for discussion or formal presentations. No laboratory. (F, Sp)
MBIO 5980 Research for Master's Thesis
2-9 Credit Hours
2 to 9 hours. Variable enrollment, two to nine hours; maximum credit applicable toward degree, six hours. (F, Sp, Su)

MBIO 5990 Special Studies in Microbiology
1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing, 15 hours of microbiology, permission of instructor; May be repeated, Maximum credit of six hours with one professor, unless approved by Department Chair by petition. The student selects an area in which the student desires to read intensively, selects a staff member who is an authority in that field, and together they plan a program for investigation of the literature. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
MBIO 6960 Directed Readings
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor; May be repeated, maximum credit six hours. Directed readings and/or literature review under the direction of a faculty member. (Irreg.)

## MBIO 6970 Special Topics/Seminar 1-3 Credit Hours

1 to 3 hours. Prerequisite: graduate standing or permission of instructor; May be repeated, maximum credit 12 hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or research and field projects. (Irreg.)

MBIO 6980 Research for Doctoral Dissertation 2-16 Credit Hours
2 to 16 hours. Prerequisite: Graduate standing and permission of instructor; may be repeated. Directed research culminating in the completion of the doctoral dissertation. (F, Sp, Su)
MBIO 6990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing and permission of instructor; May be repeated, maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)

## METR-Meteorology

METR 1003 Introduction to the Atmospheric Sciences 3 Credit Hours Prerequisite: Math 1523 or higher or concurrent enrollment in Math 1823 or concurrent enrollment in Math 1914. An introduction to the field of atmospheric science, with a focus on concepts that can be understood using algebra. Periodic presentations from different professional atmospheric scientists introduce career options, challenges, and opportunities in the atmospheric sciences. Required of all meteorology majors during their first year of residence. (F)
METR 1014 Introduction to Weather and Climate 4 Credit Hours For non-science majors. A descriptive study of both short-term and longterm atmospheric phenomena, evenly divided between: (1) the structure and processes in the atmosphere that affect our every-day weather; and
(2) climate and causes of climate change. This course does not count for major credit in the School of Meteorology. Laboratory (F, Sp) [II-NSL].

## METR 1034 Native Science and Earth Systems of North

## America

4 Credit Hours
(Crosslisted with GEOL 1034) Examines Earth systems of North America using both indigenous and Western perspectives, and an Earth science approach. This team-taught course will utilize a combination of geology, geography, meteorology, and Native American sciences, as expressed through the use of art. (Sp) [II-NSL].
METR 1111 Orientation to Professional Meteorology 1 Credit Hour Prerequisite: Mathematics 1503 or higher. Required of all Meteorology majors during their first year of residence. Introduction to the School of Meteorology and its curriculum, faculty and staff. Presentations from different professional meteorologists introduce career options, challenges and opportunities in meteorology. (F)
METR 1313 Introduction to Programming for Meteorology 3 Credit Hours
Prerequisite: Math 1523 or equivalent, or concurrent enrollment. Introduction to the design and implementation of computer programs using the Python programming language. Emphasis on working with simple data sets. (F, Sp, Su)

## METR 2004 Atmospheric Circulations

4 Credit Hours
Prerequisite: Grade of C or better in MATH 1914 (or MATH 2423), PHYS 2514, METR 1003, CHEM 1315, and METR 1313 (or CS 1321, 1323, or 1324). Co-requisites: MATH 2924 (or MATH 2433), PHYS 2524. Introduction to the application of mathematical techniques and physical principals to key atmospheric processes and phenomena, with a focus on stability, moisture, synoptic-scale flows, convection, boundary layer meteorology, and climate change. The course seeks to create a foundation of critical thinking and problem solving for subsequent classes in meteorology. Required of all meteorology majors during their second year of residence. (F)

METR 2011 Introduction to Meteorology I Laboratory 1 Credit Hour Prerequisite: Grade of C or better in Math 1823 or 1914; corequisite: METR 2013, Math 2423 or 2924 and Physics 2514 or 1205. Reinforces the theoretical concepts provided in the counterpart lecture course Meteorology 2013, which introduces students to important phenomena and physical processes that occur in the earth's atmosphere. Through a series of laboratory exercises, students will learn the basic concepts and tools that are used to study atmospheric problems. Special emphasis will be placed on developing information technology and computational skills. (F, Sp) [II-NSL].

METR 2013 Introduction to Meteorology I 3 Credit Hours Prerequisite: Grade of C or better in Math 1823 or 1914; corequisite: METR 2011 , Math 2423 or 2924, Physics 2514 or 1205. Introduces students to important phenomena and physical processes that occur in earth's atmosphere, as well as to the basic concepts and instruments used to study atmospheric problems. Focuses on atmospheric radiation, thermodynamics, moisture, stability, clouds, and precipitation. (F, Sp) [IINS].
METR 2021 Introduction to Meteorology II Laboratory 1 Credit Hour Prerequisite: Grade of C or better in METR 2011 or 2014, 2013,
MATH 2423 or 2924, and PHYS 2514 or 1205; corequisite: METR 2023, MATH 2433 or 2934, and PHYS 2524 or 1215. Reinforces the theoretical concepts provided in the counterpart lecture course Meteorology 2023, which introduces students to important phenomena and physical processes that occur in the earth's atmosphere. Through a series of laboratory exercises, students will learn the basic concepts and tools that are used to study atmospheric problems. Special emphasis will be placed on developing information technology and computational skills. The laboratory exercises target the topics covered in the lecture component. (Sp, Su)
METR 2023 Introduction to Meteorology II 3 Credit Hours
Prerequisite: Grade of C or better in METR 2013, 2011 or 2014, MATH 2423 or 2924, and PHYS 2514 or 1205; corequisite: METR 2021, MATH 2433 or 2934, and PHYS 2524 or 1215. Introduces students to important phenomena and physical processes that occur in earth's atmosphere. Students will learn the basic concepts and instruments used to study atmospoheric problems. Part II of the introduction to meteorology sequence focuses on atmospheric dynamics, wind systems of different origin and scale, and thunderstorms. It also addresses boundary layer meteorology, air pollution, forecasting and climate change. (Sp, Su)
METR 2213 Physical Meteorology I:Thermodynamics 3 Credit Hours Prerequisite: C or better in PHYS 2524, MATH 2924 or MATH 2433, and METR 2004; Corequisite: MATH 2443 or MATH 2934; majors only. This course introduces the physical processes associated with atmospheric composition, basic radiation and energy concepts, the equation of state, the zeroth, first, and second law of thermodynamics, the thermodynamics of dry and moist atmospheres, thermodynamic diagrams, statics, and atmospheric stability. (F, Sp)
METR 2603 Severe and Unusual Weather 3 Credit Hours
Provide non-majors and majors a detailed descriptive account of the physical processes important in the formation of various severe and unusual weather phenomena including: thunderstorms, tornadoes, hail storms, lightning, hurricanes, midlatitude snowstorms, lake effect snows, atmospheric optical effects, and global climate change. This course does not count for major credit in the School of Meteorology. (Irreg.) [II-NS].

## METR 2613 Atmospheric In-Situ \& Surface-Based Measurements 3 Credit Hours

Prerequisite: Grade of C or better in METR 1313 or CS 1321 or CS 1323 or CS 1324, METR 2004, MATH 2924 or MATH 2433, PHYS 2524 and PHYS 1311; Co-requisite: MATH 2443 or 2934; majors only. Regardless of which area of atmospheric science you are interested in, measurements of atmospheric variables will undoubtedly influence your work. In any area of science, it is observations of nature that lead to new theories and new understanding. In meteorology, we cannot hope to predict weather accurately unless we have sufficient knowledge of the current state of the atmosphere. (F, Sp)
METR 2970 Special Topics/Seminar
1-3 Credit Hours
Special Topics. 1 to 3 hours. May be repeated; maximum credit nine hours. Special topics course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research, and field projects. (Irreg.)

## METR 3011 Practicum on Broadcast Software

1 Credit Hour
Prerequisite: sophomore standing. May be repeated; maximum credit three hours. In this course students will learn how to use and manage the VIPIR and OMNI systems made by Baron Services. This will be accomplished via forecasting exercises and other various assignments. ( $\mathrm{F}, \mathrm{Sp}$ )
METR 3113 Atmospheric Dynamics I: Intro to Atmospheric Kinematics/ Dynamics

3 Credit Hours
Prerequisite: Grade of C or better in METR 2004, MATH 2443 or 2934,
PHYS 2524, and METR 1313 (or CS 1321, 1323, or 1324). Characterization of the atmosphere mathematically, the study of forces acting upon it, and approximations used. Topics include Newton's laws of motion; energy, equilibrium and stability; coordinate systems and forces; the equations of motion and simple force balances; and mass and energy conservation. (F)

METR 3123 Atmospheric Dynamics II: Theory of Atmospheric

## Flows

3 Credit Hours
Prerequisite: Grade of C or better in METR 3113 and MATH 3413.
Continuation of the study of atmospheric dynamics and kinematics begun in Dynamics I. Topics include: natural coordinates, geostrophic wind, inertial flow, cyclostrophic flow, gradient wind, thermal wind, kinematics and dynamics of circulation and vorticity, viscosity, and stress; turbulence, structure, and dynamics of the atmospheric boundary line. (Sp)
METR 3213 Physical Meteorology I: Thermodynamics 3 Credit Hours Prerequisite: grade of C or better in METR 2023 and 2021, MATH 2433, 2443 or 2934 , PHYS 1215 or 2524 , and METR 1313 or CS 1313 or CS 1323. This course introduces the physical processes associated with atmospheric composition, basic radiation and energy concepts, the equation of state, the zeroth, first and second law of thermodynamics for dry and moist atmospheres, thermodynamic diagrams, statics, and atmospheric stability. (F)
METR 3223 Physical Meteorology II: Cloud Physics, Atmos Electricity/ Optics 3 Credit Hours
Prerequisite: Grade of C or better in METR 2213, METR 3513, MATH 3413. Cloud and precipitation processes including the role of aerosols in cloud droplet and ice nucleation, growth of cloud particles into rain, snow, and hail by diffusion, coalescence, and cloud aggregation; the ClausiusClapeyron equation; application of cloud physics in cloud electrification and optical phenomena in the atmosphere; concepts of weather radar. (Sp)

METR 3334 Principles of Research \& Communication in Meteorology

4 Credit Hours
Prerequisite: Grade of C or better in METR 1313, METR 2213, METR 2613, and MATH 2934 (or MATH 2443). An introduction to and/or development of topical skills in computing, writing, and speaking. The course will be composed of short thematic projects on topics relevant to meteorology and the atmospheric sciences. The professional skills gained reflect those needed by meteorologists in government, academia and the private sector. Required of all meteorology majors during their third year of residence. (Sp)

METR 3440 Mentored Research Experience 3 Credit Hour 0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)
METR 3513 Atmospheric Chemistry in Weather and Climate

3 Credit Hours
Prerequisite: Grade of C or better in METR 2213. Advanced survey of atmospheric structure and composition, and introduction to chemical processes in the atmosphere. Groups of relevant trace species and their role in the atmosphere are identified. Additional topics include importance of and chemical processes associated with aerosols, and direct and indirect linkages between chemistry, weather, and climate. Required of all meteorology majors during their third year of residence. (F)

METR 3523 Managing for a Changing Climate 3 Credit Hour (Crosslisted with GEOG 3523) Prerequisite: Junior or Senior standing. Provides an integrative understanding of the components of the climate system including the range of natural climate variability and external drivers of climate change, in addition to impacts of a changing climate on multiple sectors such as the economy, policy, ecosystems, and indigenous populations. (F) [II-NS].

METR 3543 Balloons, Barometers, and Ice Cores: History of Weather and Climate Science 3 Credit Hours
(Crosslisted with HSTM 3543) Prerequisite: Junior standing or completion of one other course in HSTM or permission of instructor. This course explores the history of meteorology and climate sciences from 1500 to the present. We investigate the role of science in humanity's relationship with weather and climate, the social and political contexts of weather sciences as they have changed over time, and contributions of these sciences to sustainability and survival on a rapidly warming planet. No science background required. (F)

METR 3613 Meteorological Measurement Systems 3 Credit Hours Prerequisite: Grade of C or better in METR 2023 and 2021, MATH 2433, 2443 or 2934 , PHYS 1215 or 2524 , and METR 1313 or CS 1313 or CS 1323. Introduces the physical principles of meteorological instruments, discusses static and dynamic sensor performance, and explores the concepts of meteorological instruments, and to identify sensor limitations and major error sources. Furthermore, basic procedures of data analysis will be discussed. Laboratory (F)

METR 3890 Meteorology Internship
1-3 Credit Hours
1 to 3 hours. Prerequisite: METR 1111 and permission of instructor. 1-3 hours. May be repeated; maximum credit 12 hours. This course provides a mechanism for students to receive credit for their internship experiences with the National Weather Service, TV stations, the private sector or any other kind of agency or institution which provides internship opportunities for Meteorology Majors. (F, Sp, Su)
METR 3960 Honors Reading 1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Consists of topics designated by the instructor in keeping with the student's major program. Covers materials not usually presented in the regular courses. (F, Sp, Su)

## METR 3970 Honors Seminar 1-3 Credit Hours

1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Projects covered vary. Deals with concepts not usually presented in regular coursework. (Irreg.)
METR 3980 Honors Research 1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Provides an opportunity for the gifted Honors candidate to work at a special project in the student's field. (F, Sp, Su)
METR 3990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: permission of instructor and junior standing. May be repeated once with change of content. Independent study may be arranged to study a subject not available through regular course offerings. (F, Sp, Su)
METR 4013 Science at the Tropopause: Physics, Dynamics, \& Chemistry of the Upper Troposphere/Lower Stratospher 3 Credit Hours (Slashlisted with METR 5013) Prerequisite: Grade of C or better in both METR 2213 and METR 3113, or permission of instructor; Not open to Freshmen. A survey of the dynamics, physics, and chemistry of the UTLS. Topics will include basic characteristics of the UTLS, definition of the tropopause, dynamic principals of and theory used for the UTLS, stratosphere-troposphere exchange, and common analysis techniques for UTLS studies. Will gradually increase focus on processlevel understanding and review key dynamic and physical features/ phenomena that impact the UTLS. No student may earn credit for both 4013 and 5013. (Sp)

## METR 4023 Polar Meteorology

3 Credit Hours
(Slashlisted with METR 5023) Prerequisite: grade of $C$ or better in MATH 3113 or MATH 3413, or permission by instructor. This course provides an introduction and overview to weather and climate of the Earth's polar regions. This includes the climatology, dynamics, and thermodynamics of Arctic and Antarctic atmospheres. Special topics of significance will include the polar boundary layer, sea ice, polar vortices, polar lows, and oceanic circulations. This course will develop and strengthen skills in teaching, research, and service. No student may earn credit for both 4023 and 5023. (Irreg.)

## METR 4043 Urban Climatology

3 Credit Hours
(Slashlisted with METR 5043; Crosslisted with GEOG 4043) Prerequisite: Junior standing or departmental permission. This course provides an overview of urban climates based on a synthesis of modern scientific and applied research findings. The course covers a broad spectrum of topics such as urban airflow, radiation exchanges, urban energy balance, urban heat island, urban surface hydrology, air pollution, cities under global climate change, biometeorology, and sustainable urban design and planning. No student may earn credit for both 4043 and 5043. (Sp)

METR 4083 Developing Ethical and Responsible AI for Earth Sciences

3 Credit Hours
(Slashlisted with METR 5083) Prerequisite: grade of $C$ or better in C S 4013/5013 or C S 4033/5033 or C S 5043; or permission of instructor. Ethics of developing Artificial Intelligence (AI) for Earth and environmental sciences (ES). Topics will include responsible conduct of research, ethical scientific conduct, ownership of ideas, algorithms and data, and ethics of developing AI for ES applications. Learning activities include active discussions and debates, writing, and projects. No student may earn credit for both 4083 and 5083. (Sp)

## METR G4133 Atmospheric Dynamics III: Mid-Latitude Synoptic-Scale Dynamics 3 Credit Hours

Prerequisite: Grade of C or better in 3123 and 3223. Concepts from kinematics, dynamics and thermodynamics used to characterize synoptic-scale atmosphere, emphasis on quasi-geo strophic and baroclinic instability theory as basis for understanding extra-tropical weather systems including cyclones, fronts and jets. Linear theory is used to describe a variety of atmospheric waves and their role in synoptic-scale meteorology. (F)

## METR G4233 Physical Meteorology III: Radiation and Remote Sensing <br> 3 Credit Hours

Prerequisite: Graduate standing, or grade of C or better in METR 3123 and METR 3223. Fundamental principles of radiation; absorption and emission of radiation; solar and terrestrial radiation; radiative transfer and heating rates; surface and global energy balances; atmospheric general circulation; natural climate variations; greenhouse climate change; stratospheric ozone depletion. (F)

METR 4313 Statistical Meteorology
3 Credit Hours
(Slashlisted with METR 5313) Prerequisite: METR 1313 or CS 1313 or CS 1321 or CS 1323 or CS 1324; and MATH 2423 or MATH 2924; with grade of $C$ or better; or permission of instructor. The role of probability and statistics in meteorology and climate: decision making, sampling, graphical presentation of data, resampling techniques, autocorrelation, confidence intervals, statistical power, and various regression models. Computational aspects using meteorology and climate data will be emphasized. No student may earn credit for both 4313 and 5313. (F)
METR 4323 Weather Simulation With Computers 3 Credit Hours Prerequisite: METR 1313. The basics principles of computer programming for simulating and predicting fluid motion with computers. Applications range from idealized baroclinic instability to idealized tornado vortices. The FORTRAN and Python programming languages will be used. Prior programming experience is required, but not necessarily with these languages. (Irreg.)
METR 4330 Information Technology Skills for Meteorology 1-3 Credit

Hours
(Slashlisted with 5330) Prerequisite: grade of C or better in CS 1313 or permission of instructor. May be repeated; maximum credit three hours. The use of computers and networks to process the information of meteorology. Workstation skills, computer operating systems, programming languages, the internet, computer graphics, analysis and display of meteorological data. No student may credit for both 4330 and 5330. (Irreg.)

## METR 4403 Application of Meteorological Theory to SevereThunderstorm Forecasting <br> 3 Credit Hours

 (Slashlisted with METR 5403) Prerequisite: majors only; METR 4424 with a grade of $B$ or better or permission of instructor. This course provides an opportunity to bridge the academia and operational forecasting realms and provide an opportunity for students to learn from experienced meteorologist-forecasters who have performed research on a variety of topics. No student may earn credit for both 4403 and 5403. (Sp)METR G4424 Synoptic Meteorology Laboratory 4 Credit Hours
Prerequisite: Grade of $C$ or better in 3123 and 3223 . This course is a lecture/laboratory course designed to provide students a physical understanding of atmospheric principles. Students are challenged to explain theoretical concepts and to demonstrate a mastery in understanding various physical processes including the theory and practice of weather analysis and forecasting, surface and upper air analysis, fronts and wave cyclones, satellite meteorology, sounding analysis, thermodynamic diagram, cross sections, forecasting, NMC models, MOS, radar meteorology, and severe weather. Communications skills are emphasized. (F)

## METR G4433 Mesoscale Meteorology

3 Credit Hours
Prerequisite: Grade of C or better in 4133, 4424. Structure and dynamics of convective and mesoscale phenomena including: mesoscale convective systems, severe thunderstorms, tornadoes, low-level jets, mountain waves and hurricanes. Discussion of the general behavior, characteristics, and dynamics of the formation and development of these phenomena, and the types of weather and hazards they produce. (Sp)
METR 4443 Introduction to Tropical Meteorology 3 Credit Hours (Slashlisted with 5443) Prerequisite: senior standing in Meteorology or permission of instructor. Introduces students to the weather and climate of the tropics. Material presented will include an overview of tropical weather, basic physics of air-sea interaction and the attendant effects on tropical weather. No student may earn credit for both 4443 and 5443. (Irreg.)
METR 4523 Climate and the General Circulation 3 Credit Hours
Prerequisite: Grade of C or better in MATH 2443, MATH 3413, PHYS 2524, and METR 4233. Characterizes the climate of the Earth's atmosphere qualitatively and quantitatively, with a focus on large-scale dynamics and the general circulation. Applies the gained knowledge of the climate system and climate modeling to understand global climate change and climate variability in the past, present, and future. Required of all meteorology majors during their fourth year of residence. (Sp)

## METR 4533 Earth's Past Climate

3 Credit Hours
(Slashlisted with METR 5533; Crosslisted with GEOL 4533) Prerequisite: senior or graduate standing, or permission of instructor. Explores earth's climate system, controls on climate change, and evolution of climate history through geologic time as deciphered from climate proxies. No student may earn credit for both 4533 and 5533. (F)
METR 4543 Global Climate Change
3 Credit Hours
(Slashlisted with METR 5543) Prerequisite: One of the following: METR 1014, METR 2013, METR 2603, METR 2903, CEES 1112, GEOG 1114, GEOG 1203, GEOG 3023, GEOL 1034, GEOL 1104 , GEOL 1114 , GEOL 2014, or permission or instructor. The Intergovernmental Panel on Climate Change assesses the scientific and socio-economic information relevant for understanding the risk of human-induced climate change. This interdisciplinary class will use readings, student-led presentations and roundtable discussions of the in-situ observations, as well as modeling of the atmosphere, oceans, ice, carbon, clouds and radiative forcing to understand the next 100-years of climate change. No student may earn credit for both 4543 and 5543. (Sp)

METR 4553 Climate and Renewable Energy 3 Credit Hours (Slashlisted with METR 5553) Prerequisite: junior standing. Examines the science and technical aspects of solar, wind, hydro, and biomass power systems. Targets students interested in environmental science. Emphasis is on the key role of climate in determining where each of these systems is most likely to provide feasible alternatives to energy generated by fossil fuels. No student may earn credit for both 4553 and 5553. (Sp)

## METR 4603 Advanced Observations for Lower Atmospheric

Research
3 Credit Hours
(Slashlisted with METR 5603) Prerequisite: METR 2213 and METR 2613, or instructor permission. This course will examine the observation and operation principles behind a variety of research-grade instruments and the data they provide. Taught as a mix of lectures, instrument demonstrations, and data-focused projects, material presented focuses on modern, state-of-the-art instruments applied to current research problems emphasizing lower-atmospheric observations. Students use Python for processing, analysis, and visualization of real observed datasets. No student may earn credit for both 4603 and 5603. (F)
METR 4623 Radar Meteorology
3 Credit Hours
Prerequisite: grade of C or better in METR 2613 or METR 3613, Math 2433 or Math 2934. Principles of weather radar and storm observations including: radar system design, em wave propagation, radar equation for point and distributed targets, Rayleigh/Mie/Gan scattering, power spectrum, I\&Q, moments of the power spectrum, ground clutter, attenuation, rainfall measurements using radar reflectivity and using polarization diversity radars, Doppler interpretation and analysis, polarimetric theory and applications, kinematics of of convective storms. (Sp)
METR G4633 Hydrometeorology
3 Credit Hours
(Slashlisted with METR 5633) Prerequisite: Grade of $C$ or better in METR 3123, METR 3223 or permission of instructor. Interdisciplinary emphasis on mesoscale precipitation processes, applications of new hydrometeorological observing systems, and on the interactions between meteorology and hydrology during flood events. No student may earn credit for both 4633 and 5633. (Irreg.)
METR 4663 Radar Engineering
3 Credit Hours
(Crosslisted with ECE 4663; Slashlisted with 5663) Prerequisite: grade of C or better in Electrical and Computer Engineering 3613, or permission. Introduction to radar system designs and applications with emphasis on weather radar. Radar system architecture and their functionalities and limitations of subsystems are discussed. Theories of radar detection and estimation in a noisy and cluttered environment; existing technologies and advanced techniques to improve radar performance. No student may earn credit in both 4663 and 5663. (F)
METR 4693 Environmental Sampling Methods
3 Credit Hours
(Slashlisted with METR 5693; Crosslisted with PBIO and MBIO 4693) Prerequisite: diverse STEM background; permission of instructor; senior standing. The course gives students from diverse STEM backgrounds experience and knowledge of environmental sampling techniques, analysis of data generated, and interpretation of results in a scientific field outside their primary area of study. The multi-disciplinary structure helps students develop an understanding of different sampling techniques based on assumptions and perspectives on the environment at different spatial scales. No student may earn credit for both 4693 and 5693. (Sp)

METR 4713 Private Sector Meteorology 3 Credit Hours
Prerequisite: senior standing in Meteorology. An overview of private sector meteorology in the United States. Designed to build background knowledge, foster the use of higher-order analytical skills, and further develop communication and presentation skills. The course includes lectures, directed readings, visiting local private sector companies, interviews with practicing meteorologists, and the development of a portfolio about a private sector meteorological company. Students gain experience in applying their meteorological knowledge to a practical problem as might be encountered in professional practice. No student may earn credit for both 4713 and 5713. (Irreg.)
METR 4743 Applications of Weather Forecasting 3 Credit Hours Prerequisite: METR 2013 or instructor permission. The course will focus on introducing students to various types of weather forecasts, and how those weather forecasts are created. ( $F, S p$ )
METR 4753 Forecast and Warning Communication 3 Credit Hours (Slashlisted with METR 5753) Prerequisite: Junior or Senior Standing. This course explores the fundamental theories related to the communication of weather and climate information. We will explore effective risk communication, including characteristics of the forecast, the audience, and the message that most effectively convey the information to multiple audiences. Guest speakers will share their expertise so students see the range of jobs that exist in the weather/ climate information sphere. No student may earn credit for both 4753 and 5753. (Irreg.)

METR G4803 Selected Topics in Meteorology 3 Credit Hours
Prerequisite: permission of instructor. May be repeated with change of subject matter; maximum credit 12 hours. Topics may include aspects of atmospheric dynamics and severe-storm forecasting, experimental design, economic meteorology, weather modification, climate, radiation, aviation weather, etc. (Irreg.)
METR 4911 Senior Seminar (Capstone) 1 Credit Hour Prerequisite: Grade of C or better in 3123,3223 . With 4922, satisfies Capstone course requirement. The instructor will guide senior meteorology majors through planning of a research project. Interdisciplinary topics are encouraged and library work will be required. Students will be paired with regular or adjunct faculty mentors. Senior doctoral students may serve as mentors with permission from the instructor. The result of 4911 will be a mini-proposal which will serve as a guide for the senior research project. In addition, the instructor may present professional skills useful during job search, early employment, and graduate school application and attendance. Note that METR 4922 should be taken following this course. (F, Sp) [V].
METR 4913 Senior Seminar
3 Credit Hours
Prerequisite: grade of $C$ or better in 3113 and 3223. Satisfies the capstone course requirement. The instructor will guide senior meteorology majors on a research project. Interdisciplinary topics will be encouraged and library work is required. Students will complete written and oral presentations of a senior thesis. (F, Sp) [V].

METR 4922 Senior Seminar II (Capstone) 2 Credit Hours
Prerequisite: Grade of $C$ or better in $3123,3223,4911$. with 4911 , satisfies the Capstone course requirement. The instructor will guide students as they follow the research plan established in the mini-proposal completed in METR 4911. Library work will continue to be required with development of research methodology and analysis of results. Students will continue to work with faculty (senior doctoral student) mentors. The culmination of the two-course Capstone sequence will be a written and oral presentation of the senior thesis. The skills learned in Capstone I and II will be useful whether the student is employed in academia, government, or the private sector. (F, Sp) [V].
METR 4960 Directed Readings 1-4 Credit Hours
1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean. May be repeated; maximum credit four hours. Designed for upper-division students who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)
METR 4970 Special Topics/Seminar 1-3 Credit Hours 1 to 3 hours. Prerequisite: Senior standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)
METR 4990 Special Problems in Meteorology 1-4 Credit Hours 1 to 4 hours. Prerequisite: permission of instructor. May be repeated with change of subject matter. (F, Sp, Su)
METR 5004 Fundamentals of Atmospheric Science 4 Credit Hours Prerequisite: graduate standing in a meteorology, physical science, or engineering program, MATH 3113 or MATH 3413 or permission of instructor. Provides a rigorous survey of the fundamental concepts in the atmospheric sciences relevant to weather, climate and atmospheric chemistry. The course is designed to provide sufficient background knowledge so that the students will be prepared to successfully undertake more specialized graduate coursework in meteorology. Graduate students in fields closely related to meteorology, such as radar engineering and hydrology, will also benefit from knowledge of these concepts. (F)

## METR 5013 Science at the Tropopause: Physics, Dynamics, \&

 Chemistry of the Upper Troposphere/Lower Stratospher 3 Credit Hours (Slashlisted with METR 4013) Prerequisite: Graduate standing. A survey of the dynamics, physics, and chemistry of the UTLS. Topics will include basic characteristics of the UTLS definition of the tropopause, dynamical principals of and theory used for the UTLS, stratosphere-troposphere exchange, and common analysis techniques for UTLS studies. Will gradually increase focus on process-level understanding and review key dynamical and physical features/phenomena that impact the UTLS. No student may earn credit for both 4013 and 5013. (Sp)METR 5023 Polar Meteorology
3 Credit Hours
(Slashlisted with METR 4023) Prerequisite: graduate standing in a meteorology or related discipline; grade of C or better in MATH 3113 or MATH 3413, or permission by instructor. This course provides an introduction and overview to weather and climate of the Earth's polar regions. This includes the climatology, dynamics, and thermodynamics of Arctic and Antarctic atmospheres. Special topics of significance will include the polar boundary layer, sea ice, polar vortices, polar lows, and oceanic circulations. This course will develop and strengthen skills in teaching, research, and service. No student may earn credit for both 4023 and 5023. (Irreg.)

METR 5043 Urban Climatology
3 Credit Hours
(Slashlisted with METR 4043; Crosslisted with GEOG 5043) Prerequisite: Graduate standing or departmental permission. This course provides an overview of urban climates based on a synthesis of modern scientific and applied research findings. The course covers a broad spectrum of topics such as urban airflow, radiation exchanges, urban energy balance, urban heat island, urban surface hydrology, air pollution, cities under global climate change, biometeorology, and sustainable urban design and planning. No student may earn credit for both 4043 and 5043. (Sp)

METR 5083 Developing Ethical and Responsible AI for Earth Sciences 3 Credit Hours
(Slashlisted with METR 4083) Prerequisite: graduate standing; grade of $C$ or better in C S 4013/5013 or C S 4033/5033 or C S 5043; or permission of instructor. Ethics of developing Artificial Intelligence (AI) for Earth and environmental sciences (ES). Topics will include responsible conduct of research, ethical scientific conduct, ownership of ideas, algorithms and data, and ethics of developing AI for ES applications. Learning activities include active discussions and debates, writing, and projects. No student may earn credit for both 4083 and 5083. (Sp)
METR 5103 Boundary Layer Meteorology
3 Credit Hours
Prerequisite: 3113, Mathematics 3113. Transfer processes near the earth's surface, turbulence, the planetary boundary layer, air mass modification, fog formation, pollutant transport.

METR 5113 Advanced Atmospheric Dynamics I 3 Credit Hours Prerequisite: Mathematics 4163 or permission of instructor. Basic fluid dynamics, equations of motion, vorticity dynamics, scale analysis, shallow water equations, linear wave dynamics, gravity waves, Rossby waves, quasi-geostrophic motions. (F)
METR 5223 Atmospheric Radiation
3 Credit Hours
Prerequisite: 3213, Mathematics 3113, or permission of instructor. Theory of radiative transfer, spectra of gaseous molecules, use of band models for radiative calculations, interaction of solar radiation with atmospheres, infrared radiative transfer in atmospheres, radiative cooling and heating, scattering, climate and radiation, remote sensing. (Sp)
METR 5233 Cloud and Precipitation Physics 3 Credit Hours
Prerequisite: 3223, Mathematics 3113. Development of thermodynamical relationships and generalized Clausius-Clapeyron equation, phase diagrams, atmospheric aerosols, review of hydrodynamics of flow past particles, collision and coalescence efficiency, theory of nucleation, precipitation growth, observations with radar, electrical state of the atmosphere. (F)

## METR 5243 Atmospheric Electrodynamics 3 Credit Hours

Prerequisite: permission of instructor. Global electrical circuit, fairweather electricity, storm electrification, charging mechanisms, electrical discharges, lightning, thunder, instrumentation and observing systems, meteorological applications.

## METR 5303 Objective Analysis

3 Credit Hours
Prerequisite: METR 4133, MATH 3113 or MATH 3413, or equivalent. Introduction to techniques used in objective analysis of meteorological data; polynomial fitting; method of successive corrections; weighting functions; statistical methods; optimum interpolation; filter design; fourdimensional data assimilation. (F)

METR 5313 Statistical Meteorology
3 Credit Hours
(Slashlisted with METR 4313) Prerequisite: Graduate standing. The role of probability and statistics in meteorology and climate: decision making, sampling, graphical presentation of data, resampling techniques, autocorrelation, confidence intervals, statistical power, and various regression models. Computational aspects using meteorology and climate data will be emphasized. No student may earn credit for both 4313 and 5313. (F)
METR 5330 Information Technology Skills for Meteorology 1-3 Credit Hours
(Slashlisted with 4330) Prerequisite: Grade of C or better in Computer Science 1313 or permission of instructor. May be repeated; maximum credit three hours. The use of computers and networks to process the information of meteorology. Workstation skills, computer operating systems, programming languages, the Internet, computer graphics, analysis and display of meteorological data. No student may earn credit for both 4330 and 5330. (Irreg.)

METR 5344 Computational Fluid Dynamics I 4 Credit Hours Prerequisite: 3113 or Engineering 3223; Engineering 3723; Mathematics 3123; permission of instructor. Application of fine difference, spectral, and semi-Lagrangian methods to multidimensional Newtonian fluid flow problems, including well-posedness, consistency, stability, convergence, accuracy, boundary conditions, conservation, grid systems, and filtering. In addition, code development practices and the use of high-performance vector and parallel supercomputers will be addressed.

## METR 5403 Applications of Meteorological Theory to SevereThunderstorm Forecasting <br> 3 Credit Hours

(Slashlisted with METR 4403) Prerequisite: graduate standing and department permission. This course provides an opportunity to bridge the academia and operational forecasting realms and provide an opportunity for students to learn from experienced meteorologist-forecasters who have performed research on a variety of topics. No student may earn credit for both 4403 and 5403. (Sp)
METR 5413 Advanced Synoptic Meteorology
3 Credit Hours
Prerequisite: 4133, 4424, 5113 or permission of instructor. Theory and application of quasi-geostrophic dynamics, Q-vectors and isentropic potential vorticity, diagnostic studies of mid-latitude synoptic-scale systems, mesoscale structure of precipitation, structure and dynamics of fronts and jets. (Sp)
METR 5433 Advanced Statistical Meteorology 3 Credit Hours Prerequisite: senior standing or graduate standing and permission of instructor. Data analysis is a routine part of many types of research in the atmospheric sciences. As such, having the right set of tools and prowess on how to use those tools is an important part to understanding the statistical and dynamical behavior of the climate system. (F, Sp)

METR 5443 Introduction to Tropical Meteorology 3 Credit Hours Prerequisite: graduate standing or permission of instructor. Introduces students to the weather and climate of the tropics. Material presented will include an overview of tropical weather, basic physics of air-sea interaction and the attendant effects on tropical weather. No student may earn credit for both 4443 and 5443. (Irreg.)

## METR 5503 Climate Dynamics

3 Credit Hours
Prerequisite: 5113. Survey of past climates; climate variability; heat and water budgets of the atmosphere, oceans and land surfaces; the general circulation; climate modeling.

METR 5533 Earth's Past Climate
3 Credit Hours
(Slashlisted with METR 4533; Crosslisted with GEOL 5533) Prerequisite: senior or graduate standing, or permission of instructor. Explores earth's climate system, controls on climate change, and evolution of climate history through geologic time as deciphered from climate proxies. No student may earn credit for both 4533 and 5533. (F)

## METR 5543 Global Climate Change 3 Credit Hours

(Slashlisted with METR 4543) Prerequisite: permission of instructor. The Intergovernmental Panel on Climate Change assesses the scientific and socio-economic information relevant for understanding the risk of human-induced climate change. This interdisciplinary class will use readings, student-led presentations and roundtable discussions of the in-situ observations, as well as modeling of the atmosphere, oceans, ice, carbon, clouds and radiative forcing to understand the next 100-years of climate change. No student may earn credit for both 4543 and 5543. (Sp)

## METR 5553 Climate and Renewable Energy

3 Credit Hours
(Slashlisted with METR 4553) Prerequisite: Mathematics 1503. Examines the science and technical aspects of solar, wind, hydro, and biomass power systems. Targets students interested in environmental science. Emphasis is on the key role of climate in determining where each of these systems is most likely to provide feasible alternatives to energy generated by fossil fuels. No student may earn credit for both 4553 and 5553. (Sp)

## METR 5603 Advanced Observations for Lower Atmospheric <br> Research <br> 3 Credit Hours

(Slashlisted with METR 4603) Prerequisite: Graduate standing and METR 5004 or concurrent enrollment, or permission of instructor. This course will examine the observation and operation principles behind a variety of research-grade instruments and the data they provide. Taught as a mix of lectures, instrument demonstrations, and datafocused projects, material presented focuses on modern, state-of-theart instruments applied to current research problems emphasizing loweratmospheric observations. Students use Python for processing, analysis, and visualization of real observed datasets. No student may earn credit for both 4603 and 5603. (F)

METR 5633 Hydrometeorology 3 Credit Hours (Slashlisted with METR 4633) Prerequisite: graduate standing. Hydrometeorology is part of meteorology directly concerned with hydrologic problems, such as forecasting and observing heavy precipitation and floods and how such features impact flood control, hydroelectric power, irrigation and similar fields of engineering and water resource management. No student may earn credit for both 4633 and 5633. (lrreg.)

METR 5643 Quantitative Hydrometeorology 3 Credit Hours (Crosslisted with CEES 5643) Prerequisite: Graduate standing or permission of instructor. Theory and concept of hydrometeorology and remote sensing, across atmospheric science and hydrology and across water science and engineering. An in-depth study of precipitation estimation from in-situ, radar, satellite, uncertainty modeling and decision making. Data analysis and computational methods for hydrometeorology. Special emphasis on probabilities/statistics and decision making. Basic level of scientific programming is helpful but not mandatory. (Irreg.)

METR 5663 Radar Engineering
3 Credit Hours
(Crosslisted with ECE 5663; Slashlisted with 4663) Prerequisite: grade of C or better in Electrical and Computer Engineering 3613, or permission. Introduction to radar system designs and applications with emphasis on weather radar. Radar system architecture and their functionalities and limitations of subsystems are discussed. Theories of radar detection and estimation in a noisy and cluttered environment; existing technologies and advanced techniques to improve radar performance. No student may earn credit in both 4663 and 5663. (F)
METR 5673 Weather Radar Theory and Practice 3 Credit Hours (Crosslisted with ECE 5673) Prerequisite: grade of $C$ or better in Mathematics 3113 and Physics 2524 or permission. This course provides an introduction to electromagnetic waves and propagation through the atmosphere, radar design trade-offs, antennas, transmitters, and coherent receivers. Analysis of radar signals as noise-corrupted stochastic processes, with emphasis on digital signal processing for Doppler spectrum and moment estimation. Implementation of processing algorithms using actual Doppler radar data. (F)
METR 5683 Weather Radar Applications 3 Credit Hours (Crosslisted with ECE 5683) Prerequisite: Graduate standing in Meteorology or Engineering, or permission of instructor. Interpretation of meteorological structures using weather radar. Introduces scatter from hydrometeors and refractive index variations. Presentation of quantitative precipitation estimation methods based on the radar reflectivity factor, attenuation, and dual-polarization observations. Also includes the fundamental concepts of clear-air echoes and the estimation of winds under non-precipitation conditions. (Sp)
METR 5693 Environmental Sampling Methods
3 Credit Hours
(Slashlisted with METR 4693; Crosslisted with METR and PBIO 5693) Prerequisite: Graduate standing and permission of instructor. The course gives students from diverse STEM backgrounds experience and knowledge of environmental sampling techniques, analysis of data generated, and interpretation of results in a scientific field outside their primary area of study. The multi-disciplinary structure helps students develop an understanding of different sampling techniques based on assumptions and perspectives on the environment at different spatial scales. No student may earn credit for both 4693 and 5693.
METR 5713 Private Sector Meteorology
3 Credit Hours
Prerequisite: graduate standing in Meteorology. An overview of private sector meteorology in the United States. Designed to build background knowledge, foster the use of higher-order analytical skills, and further develop communication and presentation skills. The course includes lectures, directed readings, visiting local private sector companies, interviews with practicing meteorologists, and the development of a portfolio about a private sector meteorological company. Students gain experience in applying their meteorological knowledge to a practical problem as might be encountered in professional practice. No student may earn credit for both 4713 and 5713. (Irreg.)
METR 5733 Hydroclimatology 3 Credit Hours
(Crosslisted with CEES 5733) Prerequisite: Graduate standing or permission of instructor. Theory and concept of hydroclimatology across atmospheric science and hydrology. An in-depth study of the local to global climate of precipitation with specific foci on drought, pluvials, and how they vary in a changing climate system. Data analysis and computational methods for hydroclimatology. Basic level of scientific programming is helpful but not mandatory. (Su)

METR 5743 Forecast Evaluation and Decision Analysis 3 Credit Hours Prerequisite: Graduate Standing or Permission of Instructor. The course is an overview of techniques and application for the evaluation of forecasts and classification problems in meteorology and other fields. It also includes basics in the analysis of decisions which relate to the value of forecasts, including models of decision making, and complexity of human decision processes. (Irreg.)
METR 5753 Forecast and Warning Communication 3 Credit Hours (Slashlisted with METR 4753) Prerequisite: Graduate standing. This course explores the fundamental theories related to the communication of weather and climate information. We will explore effective risk communication, including characteristics of the forecast, the audience, and the message that most effectively convey the information to multiple audiences. Guest speakers will share their expertise so students see the range of jobs that exist in the weather/climate information sphere. No student may earn credit for both 4753 and 5753. (Irreg.)

## METR 5803 Topics in Applied Meteorology

3 Credit Hours
Prerequisite: permission of instructor. May be repeated with change of subject matter; maximum credit 12 hours. Application of meteorological concepts and information to current environmental and meteorological problems on any scale.

## METR 5960 Directed Readings

1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing and permission of department. May be repeated; maximum credit twelve hours. Directed readings and/or literature reviews under the direction of a faculty member. (F, Sp, Su)

## METR 5970 Special Topics/Seminar

1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)
METR 5980 Research for Master's Thesis
2-9 Credit Hours
Variable enrollment, two to nine hours; maximum credit applicable toward degree, four hours. (F, Sp, Su)
METR 5990 Independent Study

## 1-4 Credit Hours

1 to 4 hours. Prerequisite: graduate standing, permission of instructor. May be repeated with change of subject matter; maximum credit eight hours for master's degree students. Individual research problems in meteorology, climatology, hydrometeorology, and other areas of the atmospheric and earth sciences. (Irreg.)

## METR 6103 Turbulence

3 Credit Hours
Prerequisite: Graduate standing and METR 5103 or METR 5113, or permission of instructor. Introduction to the evolution, structure, and effects of turbulent flow. Students will learn to use a variety of theoretical and practical tools of discovery and analysis. (Sp)

METR 6223 Convective Clouds and Storms
3 Credit Hours
Prerequisite: 5113 or equivalent. Anelastic and Boussinesq equations; Benard convection; plume models; parameterization of cloud microphysics; three-dimensional models; Doppler radar analysis; observations of severe thunderstorms and tornadoes. (Irreg.)
METR 6313 Advanced Data Assimilation Methods: Ensemble Kalman Filter Techniques and Applications

3 Credit Hours
Prerequisite: graduate standing or permission of instructor. Introduction to ensemble Kalman data assimilation techniques (EnKF). Students learn the most popular EnKF techniques through lectures and hands-on project assignments, and also develop skill in scientific thinking and synthesis, written and oral communication and programming throughout the course. (Irreg.)

METR 6413 Topics in Advanced Mesoscale Meteorology 3 Credit Hours Prerequisite: 5113. Research topics in the areas of cyclogenesis, frontogenesis and mesoscale systems. Topics include "IPV thinking" and its application to cyclogenesis; trapped gravity currents and Kelvin waves; the dryline; rainbands in extratropical cyclones; air-sea instability; topographically induced eddies; generalization of the frontogenetical function.

METR 6613 Weather Radar Polarimetry
3 Credit Hours
(Crosslisted with ECE 6613) Prerequisite: graduate standing. Provides fundamentals and principles of weather radar polarimetry through understanding wave scattering and propagation in geophysical media subject to turbulent mixing and filled with hydrometeors and other objects. The relations between polarimetric radar observables and physical parameters will be established. The methods and algorithms for retrieving cloud and precipitation microphysics for weather quantification and forecast will be introduced. (F)
METR 6960 Directed Readings
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit six hours. Directed readings and/or literature review under the direction of a faculty member. (Irreg.)

METR 6970 Seminar 1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing and permission. May be repeated with change of subject matter; maximum credit four hours for master's degree, or 10 hours for doctor's degree. (F, Sp)
METR 6980 Research for Doctoral Dissertation 2-16 Credit Hours 2 to 16 hours. Prerequisite: Graduate standing and permission of instructor; may be repeated. Directed research culminating in the completion of the doctoral dissertation. (F, Sp, Su)

## METR 6990 Special Problems 1-4 Credit Hours

1 to 4 hours. Prerequisite: graduate standing, permission of instructor. May be repeated with change of subject matter; maximum credit 12 hours for doctoral students. Individual research problems in meteorology and related areas conducted under faculty supervision. (F, Sp, Su)

## MGT-Management

MGT 2013 Introduction to Management
3 Credit Hours
A survey course covering the fundamental processes of management in terms of planning, organizing, leading and controlling in an organization. This course will not count for credit toward any Price College of Business major. (F, Sp)
MGT 2153 Introduction to Esports
3 Credit Hours
Prerequisite: ENGL 1213/EXPO 1213; Sophomore standing or permission of the instructor. This course introduces students to the business concepts that apply to the esports industry, including marketing, finance, leadership, management information systems, and supply chain management. Students will examine the various components of the esports industry, including players, teams, sponsors, and event organizers, and will learn about the key factors that contribute to success in the industry. ( $\mathrm{F}, \mathrm{Sp}$ )

MGT 2700 Management Internship for Credit 1-3 Credit Hours 1 to 3 hours. Prerequisite: Departmental permission showing approval from the designated faculty or advisor overseeing internships for credit. The internship experience will provide students with the opportunity to work in positions related to their field of study and to gain valuable professional experience while enhancing their academic career. An internship normally covers one academic semester and may be either paid or unpaid. (F, Sp, Su)

MGT 2970 Special Topics/Seminar
1-3 Credit Hours
Special Topics. 1 to 3 hours. May be repeated; maximum credit nine hours. Special topics course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research, and field projects. (lrreg.)

MGT 3013 Principles of Organization and Management 3 Credit Hours Prerequisite: Student must be approved for degree candidacy by Price College; ACCT 2123 or concurrent enrollment. An introductory course presenting the basic concepts and practices of management, both private and public. Historical development of management; basic definitions and philosophy; fundamental managerial functions, including planning, organizing, staffing, directing, and controlling; a survey approach to quantification in organizational life; current trends in management; possible future developments in organization and administration. (F, Sp, Su )
MGT 3113 Managing Corporate Communication 3 Credit Hours (Crosslisted with B AD 3113) Prerequisite: Majors only; Student must be approved for degree candidacy by Price College; ACCT 2123 or concurrent enrollment; MATH 1743 or MATH 1823 or MATH 1914; B C 2813. Strategic Communication challenges students to master their writing, listening, presentation, and interpersonal communication skills to excel in various business environments. Students will also develop strategies to promote customer engagement and loyalty through social media review sites. Emphasis is placed on credibility management, audience analysis, research, revision, and rehearsal to equip students for professional success. (F, Sp)

## MGT 3123 Supervision Skills

3 Credit Hours
Prerequisite: Student must be approved for degree candidacy by Price College, or permission; ACCT 2123 or concurrent enrollment; MGT 3013 or concurrent enrollment. Designed to introduce basic managerial skills required to build personal effectiveness and effective working relationships with employees. Through a variety of teaching methods, students will learn "real world" skills in various types of communication including coaching, motivation, goal setting, and performance feedback. (F, Sp)

## MGT 3133 Leading Individuals, Teams, and Organizations 3 Credit Hours

Prerequisite: MGT 3013; MGT 3363 or concurrent enrollment and ACCT 2123 or concurrent enrollment; student must be approved for degree candidacy by Price College. This course is designed to expose students to a variety of leadership perspectives and practices in order to enhance individual development and effectiveness as a leader. Focus will be on a repertoire of practical and theoretical leadership principles. This course will offer opportunities for students to improve their leadership skills through exercises and simulations. (F, Sp)
MGT 3143 Legal Issues for Managers 3 Credit Hours Prerequisite: Student must be approved for degree candidacy by Price College; MGT 3013 or departmental permission; ACCT 2123 or concurrent enrollment. Provide students a basic understanding of state \& federal employment law, encourage critical thinking and evaluation of legal issues to successfully navigate issues in a management environment. Topics covered will include U.S. employment laws such as family leave, equal pay, wrongful discharge, independent contractors, undocumented workers, workplace privacy, safety, discrimination, management practices, and other current developments. (Sp)

MGT 3153 An Introduction to the Business of Sports 3 Credit Hours Prerequisite: Student must be approved for degree candidacy by Price College; ACCT 2123 or concurrent enrollment. Study of the management principles of both collegiate and professional athletics. This class will cover the management of every major department of a collegiate athletic department and of a professional sport team. Guest speakers from the industry as well as field trips to witness the operation of a sporting event are a vital part of this class. (F, Sp, Su)

## MGT 3163 Licensing and Intellectual Property Management in Sports 3 Credit Hours

Prerequisite: MGT 3013 or permission; ACCT 2123 or concurrent enrollment; Must be approved for degree candidacy by Price College and a Sports Business or Sports Management major or minor for Business major or Non-business major. Provides students with an introductory view into the world of collegiate licensing. This information will be extremely useful in application for all areas within athletics, where an understanding of the principles of intellectual propertyspecifically trademark law and licensing-will assist in understanding of the happenings within a department or professional organization. (F, Sp)

## MGT 3173 Sports Logistics

3 Credit Hours
Prerequisite: MGT 3013 or permission; ACCT 2123 or concurrent enrollment; Student must be approved for degree candidacy by Price College and a Sports Business or Sports Management major or minor for Business major or Non-Business major. Principles in sports logistics. Instruction emphasizes intercollegiate athletics and deals with practical application. Provides an understanding of all phases of intercollegiate sports logistics. Opportunities for hands-on learning will be provided and guest speakers will be included. (F, Sp)

MGT 3193 Sports Marketing and Management 3 Credit Hours Prerequisite: MGT 3013 and ACCT 2123 or concurrent enrollment; student must be approved for degree candidacy by Price College and a Sports Management major or Sports Business minors. Introduction to Sports Marketing Management designed to expose students to the concepts of collegiate sports marketing while giving a real world, behind the scenes exposure to managing a major college athletics department through the marketing side of the industry. ( $\mathrm{F}, \mathrm{Sp}$ )
MGT 3203 Pay for Play: College Sports at the Precipice 3 Credit Hours Prerequisite: MGT 3013; must be enrolled in one of the following fields of study - sports business or sports management major or minor for business majors or non-business majors; student must be approved for degree candidacy by Price College. This course is designed to understand the history, legal foundations, dynamics, and alternatives for the pay for play debate raging in the courts and the media. The contributions and missions of college athletics to higher education will be discussed in depth as well as its value to student-athletes. The course is designed as an undergraduate seminar. (Sp)

MGT 3213 Sports Sales and Revenue Generation 3 Credit Hours Prerequisite: MGT 3013 and ACCT 2123 or concurrent enrollment; sports business or sports management major or minor for business majors or non-business majors; student must be approved for degree candidacy by Price College. This course examines various business disciplines as they apply to generating revenue in the sports industry. (F)

MGT 3223 Sports Analytics
Prerequisite: MGT 3013 and ACCT 2123 or concurrent enrollment; student must be approved for degree candidacy by Price College; must be declared in Sports Business or Sports Management major or minor for Business majors or Non-Business majors. Students will use analytics to study a wide variety of issues affecting the sport industry. Topics examined include: player performance measurement; in-game decision making; player selection/team building; general administration such as marketing, pricing, contracts, stadium management, etc. Students will learn how the recent application of analytics has improved each of these areas within the professional and collegiate sport industry. (Irreg.)
MGT 3233 Leadership in International Settings 3 Credit Hours Prerequisite: Junior standing; student must be approved for degree candidacy by Price College; departmental permission; ACCT 2123 or concurrent enrollment. This class will help students become culturally sensitive and knowledgeable leaders. The unique setting in Costa Rica, class discussions, current readings, and business site visits will enrich the learning environment, broaden students' perspectives and contribute to their life experiences and thus leadership development. (Sp)
MGT 3243 Financing in Sports Business
3 Credit Hours
Prerequisite: MGT 3013 and ACCT 2123 or concurrent enrollment; must be declared in Sports Business or Sports Management major or minor for business or non-business majors. This course is designed to introduce students to the concepts of financial management as applied to the unique world of sports. Topics examined include: time value of money, risk, sport ticket options, deferred compensation, financial statements, roster depreciation allowance, capital budgeting, sport team valuation, and conference realignment. (Irreg.)

MGT 3253 The Economics of Sports Business 3 Credit Hours Prerequisite: MGT 3013 and ACCT 2123 or concurrent enrollment; student must be approved for degree candidacy by Price College; must be declared in the Sports Business or Sports Management major or minor for Business majors or Non-Business majors. Economic analysis of a wide variety of issues affecting the sport industry. Topics include: optimal ticket pricing strategies; effects of free agency and collective bargaining processes on player salaries; effects of league-wide polices such as revenue-sharing, salary caps, and luxury taxes on team financial performance and league competitive balance; and impacts and rationales for government subsidization of stadiums. (Irreg.)

MGT 3263 The Future of Sports Business
3 Credit Hours
Prerequisite: Students must be approved for degree candidacy by Price College and MGT 3013; ACCT 2123 or concurrent enrollment; must be declared in Sports Business major/minor or Sports Business minor for non-business majors. This course is themed around emerging categories, technologies, and companies that may not be relevant in the Sports industry today, but will be soon. Categories include betting and gambling in sports, artificial intelligence and machine learning, metaverse, startup businesses and entrepreneurship, data privacy and policy, and emerging sports. (F)
MGT 3273 Esports Revenue Streams and Monetization 3 Credit Hours Prerequisite: Student must be approved for degree candidacy by Price College or departmental permission for non-business majors in the Esports Certificate program; Sports Business major or Sports Business minor; ACCT 2123 or concurrent enrollment; MATH 1743 or MATH 1823 or MATH 1914. This course focuses on the diverse revenue streams that drive the Esports industry. Students will gain insights into how Esports organizations, teams, and events generate income through sponsorships, advertising, merchandise, and other monetization strategies. (F, Sp)

MGT 3283 The Esports Front Office and Beyond 3 Credit Hours
Prerequisite: Student must be approved for degree candidacy by Price College or departmental permission for non-business majors in the Esports Certificate; Sports Business major or Sports Business minor; ACCT 2123 or concurrent enrollment; MATH 1743 or MATH 1823 or MATH 1914. This course provides a comprehensive exploration of the essential aspects involved in leading the front office of an esports company. Students will gain insights into the unique challenges and opportunities within the esports industry, focusing on leadership, strategic planning, and operational management. (F, Sp)
MGT 3363 Understanding Organizational Behavior
3 Credit Hours Prerequisite: Student must be approved for degree candidacy by Price College; MGT 3013 or permission; ACCT 2123 or concurrent enrollment. Covers the structure of organizations and the dynamics of behavior within organizations. Included are such topics as job design, perception, communication, decision making, motivation, groups, leadership, and organizational change and effectiveness. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

MGT 3440 Mentored Research Experience
3 Credit Hours
0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)
MGT 3513 Managing Human Capital and Talent 3 Credit Hours Prerequisite: Student must be approved for degree candidacy by Price College, MGT 3013 or permission; ACCT 2123 or concurrent enrollment. A survey course that focuses on developing students' understanding of human resource issues and the practical application of methods for solving these issues. Topics covered include job analysis, recruitment, interviewing, selection, performance appraisal, training, compensation, and equal employment opportunity. Issues are reviewed within the context of historical and current social, labor market, legal and global economic conditions influencing practice. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

MGT 3700 Management Internship for Credit 1-3 Credit Hours 1 to 3 hours. Prerequisite: student must be approved for degree candidacy by Price College; permission showing approval from the designated faculty or advisor overseeing internships for credit; MGT 3013. The internship experience will provide students with the opportunity to work in positions related to their field of study and to gain valuable professional experience while enhancing their academic career. An internship normally covers one academic semester and may be either paid or unpaid. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

## MGT 3710 Topics in Management

1-3 Credit Hours
1 to 3 hours. Prerequisite: student must be approved for degree candidacy in Price College of Business. May be repeated; maximum credit nine hours. Permits students to study topics in management not included in standard course offerings. Subject of course will vary. (F, Sp, Su )
MGT 3960 Honors Reading
1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Provides an opportunity for the gifted Honors candidate to study materials not usually presented in regular courses. (F, Sp, Su)

MGT 3970 Honors Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Subjects covered vary. Deals with concepts not usually treated in regular courses. (Irreg.)

MGT 3980 Honors Research 1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Provides an opportunity for the gifted Honors candidate to work at a special project in the student's field. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
MGT 3990 Independent Study 1-3 Credit Hours
1 to 3 hours. Prerequisite: permission of instructor and junior standing. May be repeated once with change of content. Independent study may be arranged to study a subject not available through regular course offerings. (F, Sp, Su)
MGT 4143 Evidence-Based Human Resources Management 3 Credit Hours
Prerequisite: MGT 3013; MGT 3513; student must be approved for degree candidacy by Price College. May be repeated once; maximum credit six hours. The purpose of this course is to survey topics in human resource management practices and systems concerning financial and/ or operational impact of HR practices (or what is often called utility analysis). (F, Sp)
MGT 4173 Sports Management Practicum
3 Credit Hours
Prerequisite: MGT 3013, MGT 3153, and ACCT 2123 or concurrent enrollment; student must be approved for degree candidacy by Price College and a Sports Business or Sports Management major or minor for Business major or Non-Business Major. Designed to allow students to both gain conceptual knowledge of project management and to conduct a semester length project for a professional or intercollegiate sports organization. ( $\mathrm{F}, \mathrm{Sp}$ )
MGT 4183 Managing Negotiations and Conflict 3 Credit Hours Prerequisite: Student must be approved for degree candidacy by Price College; ACCT 2123 or concurrent enrollment; MGT 3013 or concurrent enrollment. This course explores the principles behind effective negotiation and mediation while helping students develop and refine their own unique styles. Students will learn negotiation strategies in a nonthreatening classroom context. The readings and lectures will provide students with a framework for analyzing negotiations and tools and concepts useful in negotiating more effectively. ( $\mathrm{F}, \mathrm{Sp}$ )
MGT 4233 Applying Organizational Behavior 3 Credit Hours Prerequisite: Student must be approved for degree candidacy by Price College; MGT 3013 and MGT 3363 or permission; ACCT 2123 or concurrent enrollment. Designed to introduce basic managerial skills required to build personal effectiveness and effective working relationships with employees. Through a variety of teaching methods, students will learn "real world" skills in various types of communication including coaching, motivation, goal setting, and performance feedback. ( $\mathrm{F}, \mathrm{Sp}$ )

## MGT 4323 Managing Across Cultures

3 Credit Hours Prerequisite: Student must be approved for degree candidacy by Price College; ACCT 2123 or concurrent enrollment; MGT 3013 or concurrent enrollment. The purpose of the Managing Across Cultures is to improve students' understanding of the international business environment by: (a) discussing the role of culture and its influence on business interactions;
(b) developing the students' capacity to effectively manage themselves in intercultural situations, and (c) exploring the challenges organizations face when leading and managing employees in the context of global operations. ( $\mathrm{F}, \mathrm{Sp}$ )
MGT G4710 Special Problems in Management 1-3 Credit Hours 1 to 3 hours. Prerequisite: Student must be approved for degree candidacy by Price College. Special Topics. Special topics course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research, and field projects. (F, Sp, Su)

MGT 4960 Directed Readings
1-4 Credit Hours
1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean. May be repeated; maximum credit four hours. Designed for upper-division students who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)
MGT 4970 Special Topics/Seminar

## 1-3 Credit Hours

1 to 3 hours. Prerequisite: Senior standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)
MGT 4973 International Human Resource Management 3 Credit Hours Prerequisite: Student must be approved for degree candidacy by Price College; ACCT 2123 or concurrent enrollment; MGT 3013 or concurrent enrollment. Aspects of managing people in the global workplace. Caters to students aspiring to become either global managers who work for multi-national corporations located in different countries or managers who work for diversified enterprises with plants and branches in different locations. Covers global HR issues arising in relation to the management of workforces functioning in cross-cultural operating contexts. (F, Sp, Su)

## MGT 4990 Independent Study

1-3 Credit Hours
1 to 3 hours. Prerequisite: Senior standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)
MGT 5101 Leadership Academy Part 1
1 Credit Hour
Prerequisite: Graduate standing; majors only; admission to Professional MBA program; departmental permission. This course is the first in a twocourse sequence forming the Professional MBA Leadership Academy. In the first half of the academy, we will split our focus between participant's self-assessment feedback and major leadership frameworks from our readings. We will focus on a range of rigorous, scientifically valid, and time-tested leadership self-assessments. (F)

## MGT 5102 PMBA Leadership Academy

2 Credit Hours
Prerequisite: Graduate standing, departmental permission, and PMBA students only. In this course, focus is split between participants' self-assessment feedback and major leadership frameworks from readings. Focus is on a range of rigorous, scientifically valid, and timetested leadership self-assessments. In addition, focus of hearing from and discussing leadership development with successful industry professionals from the OKC area. (Irreg.)
MGT 5112 International Management
2 Credit Hours
Prerequisite: Graduate standing and departmental permission. This course will provide students with a comprehensive and relevant overview of managing a business in a global context. The knowledge and skills acquired will help students to develop a global mindset and to understand and respond effectively to the challenges and complexities of international business. (Sp)
MGT 5201 Leadership Academy Part 2
1 Credit Hour
Prerequisite: MGT 5101; graduate standing; majors only; admission to Professional MBA program; departmental permission. This course is the second in a two-course sequence forming the Professional MBA Leadership Academy. The second half will add the focus of hearing from and discussing leadership development with successful industry professionals from the OKC area. We will continue our focus on reading, applying, and discussing additional leadership frameworks. (Sp)

## MGT 5702 Organizational Behavior

2 Credit Hours
Prerequisites: graduate standing; departmental permission. Concepts and theories of organizational behavior and human resources management for MBAs. (Irreg.)
MGT 5712 Negotiations
2 Credit Hours
Prerequisite: graduate standing and departmental permission. The course is designed to provide students with knowledge of the foundations of effective negotiating, opportunities to apply this knowledge through simulations and class discussions, and a written development plan to reflect on their skills and chart a path for continued progress. (Irreg.)

MGT 5960 Directed Readings
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing and permission of department. May be repeated; maximum credit twelve hours. Directed readings and/or literature reviews under the direction of a faculty member. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

## MGT 5970 Special Topics/Seminar

1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing or permission of instructor May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

## MGT 5980 Research for Master's Thesis

2-9 Credit Hours
Variable enrollment, two to nine hours; maximum credit applicable toward degree, four hours. The only passing grade given is the neutral grade of S . (F, Sp, Su)

MGT 5990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)
MGT 6253 Seminar in Organizational Theory 3 Credit Hours Prerequisite: graduate standing. A consideration of major topics in organization structure and macroorganization theory. Emphasis will be given to applications in a wide variety of organizational and administrative contexts. (F, Sp)

MGT 6273 Seminar in Organizational Behavior 3 Credit Hours Prerequisite: graduate standing and admission to the PhD program in the Price College of Business. Addresses personal and interpersonal issues in marketing and management. Application of social science theory to explain the behavior of organization members. ( $\mathrm{F}, \mathrm{Sp}$ )

MGT 6293 Seminar in Strategic Management 3 Credit Hours Prerequisite: Graduate standing and permission of instructor. Reviews the major theories, concepts, and frames of reference regarding strategic management. (Irreg.)

MGT 6960 Readings in Selected Fields of Management1-4 Credit Hours 1 to 4 hours. Prerequisite: 12 hours of management, graduate standing and permission. Guided reading in selected fields of management theory and application, conducted on a conference basis by staff. Scope of reading and credit to be arranged on entry into course. The only passing grade in this course is the neutral grade of S. (F, Sp, Su)

MGT 6963 Seminar in Human Resources Management 3 Credit Hours Prerequisite: graduate standing and permission of instructor. Introduces doctoral-level students to major areas within the field of human resources management (HRM). Students will review and critique the literature in these selected areas and develop ideas for future research that further our understanding of HRM issues in organizations. The topics and readings covered in this course are not exhaustive, but are representative of HRM research. (Irreg.)

MGT 6970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor May be repeated; maximum credit 12 hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or research and field projects. (Irreg.)

MGT 6973 Seminar
3 Credit Hours
Prerequisite: graduate standing and permission. May be repeated with change of topic; maximum credit 12 hours. A seminar for graduate students with topics to be announced each time course is offered. ( $\mathrm{F}, \mathrm{Su}$ )

MGT 6980 Research for Doctoral Dissertation 2-16 Credit Hours 2 to 16 hours. Prerequisite: Graduate standing and permission of instructor; may be repeated. Directed research culminating in the completion of the doctoral dissertation. (F, Sp, Su)

MGT 6983 Research Methods and Design
3 Credit Hours
Prerequisite: graduate standing and permission of instructor. Survey of research design and methods issues. Designed to introduce the Ph.D. student to the broad range of issues from the idea creation to publishing. Topics include theory, models, designs, data, measurement, data collection, analysis, theory development to academic writing and ethical issues. (Irreg.)
MGT 6990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)

## MIS-Management Information Systems

MIS 2113 Computer-Based Information Systems 3 Credit Hours Prerequisite: undergraduate major in Business, prerequisite or concurrent enrolled in B AD 1001. The course educates students on how information technology facilitates organizations to achieve its goals and solve problems. Students will learn to use latest tools of information technology, conduct hands-on-exercises and solve problems. Hence, students will become familiar with advanced use of spreadsheet and database software, networking technologies, web and application programming languages, and business analytics methods. (F, Sp, Su)

MIS 3013 Introduction to Programming 3 Credit Hours Prerequisite: MIS 2113 and Junior standing; student must be approved for degree candidacy by Price College. Introduce the basic principles of programming and design. Topics covered are language syntax, algorithm, development, logic structures, arrays and math function. (F, Sp)

MIS 3033 Business Programming Languages 3 Credit Hours Prerequisite: student must be approved for degree candidacy by Price College; majors only; MIS 3013; and MIS 3353 or concurrent enrollment. May be repeated once with change of topic; maximum credit six hours. Various emerging programming languages and tools relevant to MIS applications. The basic syntax, code construction, and Object-oriented programming concepts and the business use of programming languages will be covered. Possible languages could include Visual Basic in the .Net framework, Java, and C\#. (F, Sp)

MIS 3213 Business Data Analysis
3 Credit Hours Prerequisite: student must have been approved for degree candidacy by Price College. This course will cover the use of end user computing tools such as spreadsheets to analyze various business problems. The course will introduce fundamental principles of business analysis and computer programming to develop solutions. Students may not receive credit for both MIS 3213 and MIS 3223. (F, Sp)

MIS 3353 Databases
Prerequisite: Student must be approved for degree candidacy by Price College; majors only; or permission. As organizations depend on data for their decisions, understanding database management is crucial. This course covers the structure, flow, and use of business data with an emphasis on data integrity. It covers conceptual data modeling, normalization, structured query language (SQL), physical database design and implementation, and data warehousing concepts. A team project with phased deliverables serves as the focal point. (F, Sp)
MIS 3373 Systems Analysis and Design Theory 3 Credit Hours Prerequisite: 3353 or permission. A study of the structure and application of tools, technologies, and models for analyzing, designing, and evaluating information systems. Topics include: case tools, structured analysis, I/O design, rapid application development, simulation models, prototyping, human factors, alternatives, cost/benefit analysis, recommendations for a new system, implementation and post-evaluation. (F, Sp)

MIS 3383 Electronic Business
3 Credit Hours
Prerequisite: Student must be approved for degree candidacy by Price College or permission. The application of information technology to enable business processes (e.g., sales, manufacturing, procurement, financial accounting) across business enterprises. There is a substantial focus on Enterprise Resource Planning (ERP) systems, and students become familiar with the value and use of these systems in supporting everyday business activities. Students will make use and develop competency on popular ERP software. (F, Sp)
MIS 3440 Mentored Research Experience
3 Credit Hours
0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)
MIS 3960 Honors Reading 1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Provides an opportunity for the gifted Honors candidate to study materials not usually presented in regular courses. (F, Sp)

## MIS 3970 Honors Seminar

1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Subjects covered vary. Deals with concepts not usually treated in regular courses. (Irreg.)
MIS 3980 Honors Research
1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Provides an opportunity for the gifted Honors candidate to work at a special project in the student's field. (F, Sp)
MIS 3990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: permission of instructor and junior standing. May be repeated once with change of content. Independent study may be arranged to study a subject not available through regular course offerings. (F, Sp, Su)

MIS G4013 E-Commerce Web Design
3 Credit Hours
Prerequisite: Student must be approved for degree candidacy by Price College; MIS 3013 or MIS 3033, or instructor/departmental permission. Students will be exposed to fundamental principles of web design and development that can enable e-commerce and add business value. By programming and using tools, students will design and develop a website for an organization. They will understand how the website can be evaluated from an e-commerce perspective. (Sp)
MIS G4313 Introduction to Business Analytics
3 Credit Hours
Prerequisite: Student must be approved for degree candidacy by Price College; senior standing; MIS 2113 or MIT 5602. Introduces students to concepts of business analytics and helps them develop skills to identify interesting insights from data. Students will be introduced to tools, techniques, and digital technologies that are relevant to business analysis and decision-making. While exploring these tools, the course will attend to applications across the different functional areas of business and organizations. (F, Sp)
MIS G4363 Business Infrastructure and Cyber Security 3 Credit Hours (Crosslisted with HCB 4363) Prerequisite: Student must be approved for degree candidacy by Price College. Provides information necessary to gain an understanding of communications and telecommunications networks and cyber security concepts. Key topic areas of the course are: OSI and internet network models, standards and protocols, business infrastructure design (LAN, WLAN, Backbone Networks, WAN, Connection to the Internet), cyber security concepts, basic technical and managerial aspects of business infrastructure, and practitioner's concerns and perspectives. (F, Sp)
MIS G4393 Enterprise Resource Planning Configuration 3 Credit Hours Prerequisite: MIS 3383, and student must be approved for degree candidacy by Price College; or permission of instructor. This course is designed to present an overview of key enterprise systems design concepts from a functional, technical, and implementation perspective. Emphasis is on the process-centered organization and how integrated systems are designed to support cross-functional business. (F, Sp)
MIS G4433 Project Management
3 Credit Hours
Prerequisite: Student must be approved for degree candidacy by Price College; MIS 3353 or MGT 3013, or permission of instructor. Presents the technical, managerial, and organizational concepts and tactics associated with managing software development and/or acquisition projects. A project management software tool will be introduced and used at a very basic level. (Irreg.)

MIS G4663 MIS Field Project
3 Credit Hours
Prerequisite: MIS 3013, MIS 3353, and MIS 3033 or concurrent enrollment in MIS 3033; student must be approved for degree candidacy by Price College; or permission of instructor. Involves a field project for a clientbusiness firm or other organization. Students will work closely with their client to perform an analysis, provide design alternatives, evaluate alternatives, develop and demonstrate a working model (prototype) of a part of the system, prepare a recommendation, and make a formal presentation to their client. (F, Sp)
MIS G4693 Intelligent Robotic Automation
3 Credit Hours
Prerequisite: MIS 3033 or MIS 3013 or departmental permission. This course introduces students to the latest intelligent robotic automation and AI technology (e.g., Chat GPT). Particular attention is given to emerging issues associated with the building and applications of AI technology architectures to enable efficient, effective, and adaptable business operations and strategies. It also provides hands-on exercises for building intelligent robots to address emerging business needs. (Sp)

MIS G4703 Mobile Application Development 3 Credit Hours
Prerequisite: MIS 3013, MGT 3013, MKT 3013, LS 3323, and FIN 3303; student must be approved for degree candidacy by Price College. Students will learn elements of good interface design for mobile devices, get an overall view of mobile app development, and build their own basic mobile app. (F, Sp)

MIS G4723 Information Security 3 Credit Hours Prerequisite: MIS 3013; student must be approved for degree candidacy by Price College. The course covers the essentials of information security using a hands-on approach. Students will learn how computer security breaches occur and apply concepts learned. ( $\mathrm{F}, \mathrm{Sp}$ )
MIS 4960 Directed Readings in Management Information
Systems 1-3 Credit Hours
1 to 3 hours. Prerequisite: 2113,3013 or 3033 , or permission. May be repeated once with change of topic; maximum credit six hours. Topics in the management of information systems. (F, Sp, Su)
MIS 4970 Special Topics/Seminar 1-3 Credit Hours 1 to 3 hours. Prerequisite: Senior standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)
MIS 4990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: Senior standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)

## MIT-Management Information Technology

MIT 5012 Programming Fundamentals 2 Credit Hours

Prerequisite: Graduate standing and MIT 5602 corequisite. This course will introduce programming concepts used for business data analysis. ( $F$, Sp )
MIT 5032 Analytics Programming 2 Credit Hours
Prerequisite: graduate standing. Programming in languages used for data extraction and preparation of data for data analytics and data mining. Can be repeated with change of content; maximum credit 6 hours.

## MIT 5052 Programming Concepts for Business Data Analysis <br> 2 Credit Hours

Prerequisite: Graduate standing. This course will introduce programming concepts used for business data analysis. It is intended to get students comfortable with programming and to give them insight into how data is used in an application. (F)

## MIT 5302 E-Business Architectures

2 Credit Hours
Prerequisite: Graduate standing in the Price College of Business and MIT 5602 or concurrent enrollment. A study of the basic concepts of telecommunications and distribution processing and their applications to e-business. Focus is on managerial issues related to telecommunications. (Irreg.)

## MIT 5352 Digital Innovation

2 Credit Hours
Prerequisite: Graduate standing and MIT 5602. Digital innovation, enabled by various information and communication technologies, is quickly changing the world around us. This course will provide an understanding of digital innovation-enabled transformations in the business environment, and how individuals and teams leverage such innovations to create value and gain competitive advantage for organizations. (Irreg.)

MIT 5432 Machine Learning
2 Credit Hours
Prerequisite: Graduate standing and MIT 5032 (Python) or equivalent. This course will introduce machine learning and artificial intelligence techniques applied in business scenarios. Natural language processing as a tool to enable organizational problem-solving capability will be introduced. The course will assist students in enhancing their computational thinking and skills. (Irreg.)
MIT 5602 Management Information Systems 2 Credit Hours
Prerequisites: graduate standing; departmental permission. This course examines the role of information technology, and its management, in supporting an organization's (internally- and externally-focused) operations and strategies. Particular attention is given to issues associated with the funding and building of business and technology architectures to enable efficient, effective, and adaptable operational, tactical and strategic actions. (Irreg.)
MIT 5612 Database Design and Administration 2 Credit Hours Prerequisite: graduate standing. This course is concerned with the design and governance of organizational data and its use. In this module, students will learn about the roles of database designers and administrators. Along the way, students will learn about the modeling techniques used by database designers to develop organizational databases and the standard language used to interface with databases. (Irreg.)
MIT 5642 Emerging Topics in Information Technology 2 Credit Hours Prerequisite: Graduate standing and MIT 5602. Examines current issues and approaches to information technology. Students will examine issues involved in the management and understanding of emerging topics in IT. (Irreg.)

## MIT 5662 Project Management

## 2 Credit Hours

Prerequisite: MIT 5602 or MIT 5622 and graduate standing. Focus on managing projects, including their implementation within an organization. A project is a complex, non-routine, one-time effort limited by time, budget, resources, and performance specifications designed to meet customer needs. The characteristics make project management a particularly challenging management task. Project management concepts apply to many other types of organizational activities, e.g., managing task forces and committees. Planning, organizing, staffing and controlling projects require traditional management skills, an understanding of quality assurance techniques, and an appreciation of the unique challenges of managing projects. (Irreg.)
MIT 5672 ERP Business Processes
2 Credit Hours
Prerequisite: Graduate standing in the Price College of Business and MIT 5602. This course covers key issues and trends of business strategies and technologies associated with Enterprise Resource Planning (ERP) systems. (Irreg.)

MIT 5682 Business Data Analysis 2 Credit Hours Prerequisite: graduate standing. Surveys analysis tools available in Excel relevant to business decision-making. The objective of the course is to be aware and comfortable with analytical techniques used for knowledge discovery, and to understand the power and potential of these tools in business settings. Also examines illustrations and applications across different functional areas. (Irreg.)

MIT 5692 Managing ERP Systems 2 Credit Hours
Prerequisite: Graduate standing in the Price College of Business and MIT 5602. Enterprise Resource Planning (ERP) introduces students to enterprise systems and provides an overview of the managerial and technical issues in planning, designing, implementing, and extending enterprise systems and technologies. Focus of the course is managerial with some technical content and several hands-on exercises involving enterprise software from the industry leader SAP. (Irreg.)
MIT 5702 Social Analytics
2 Credit Hours
Prerequisite: MIS 5682 or instructor permission. Introduce students to analytic and visualization techniques required for processing social and social media data. (Sp)

## MIT 5722 Cyber Security

2 Credit Hours
Prerequisite: Graduate standing. The course covers the essentials of information security using a hands-on approach. Students will learn how computer security breaches occur and apply concepts learned in an isolated lab environment. (F)
MIT 5732 Management of Business Intelligence 2 Credit Hours Prerequisites: graduate standing, MIT 5602; MIT 5612 or MIT 5772, or permission of instructor. This course will adopt a managerial perspective to recognizing the role of Business Intelligence and provide practical hands-on experience. Course sessions will help students understand how organizations could develop strategies to discover patterns in data and use this to compete in the global marketplace. (F, Sp)
MIT 5742 Data Science and Analytics 2 Credit Hours
Prerequisite: graduate standing, MIT 5602 and MIT 5612, or permission of instructor. Students will compare and experience data science tools along with the newer tools and methods of analytics, with the goal of becoming knowledgeable in both sets of tools. (Sp)

MIT 5752 Cloud Computing 2 Credit Hours
Prerequisite: graduate standing and departmental permission. Offers detailed discussion and hands-on exploration of technologies used to process, manage and store 'big data'. The ecosystem of products we will be focusing on surrounds Hadoop, including the Hadoop File System, MapReduce, and others. This course involves many labs and familiarity with SQL is helpful. Programming expertise is not required but optional materials will be provided. (F, Sp)

## MIT 5762 Enterprise Modeling

2 Credit Hours
Prerequisite: graduate standing; MIT 5602 and MIT 5742; or permission of instructor. An in-depth study of enterprise modeling techniques using an industry standard data mining technology suite. Students will develop a conceptual understanding of the major concepts used in data analytics along with in-depth use of corresponding computer software. (Sp)
MIT 5772 Principles of Data Warehousing 2 Credit Hours
Prerequisite: Departmental permission, graduate standing, and MIT 5612. This class will introduce students to concepts relating to a data warehouse (DW), considered a core component of business intelligence and data analytics in an organization. Students will learn to use current tools to develop requirements and create and maintain a DW. Students will also learn to manipulate data in the DW to extract and generate analytical reports for employees. (Irreg.)
MIT 5802 Advanced Database Management 2 Credit Hours
Prerequisite: Graduate standing; MIT 5612 and MIT 5602. This course covers the principles of design, use, and management of database technology, including data warehouses from a manager's perspective. Involves a number of exercises using a multi-user relational database management system and associated tools to address typical business problems. (F)

MIT 5812 Cyberanalytics
2 Credit Hours
Prerequisite: MIT 5602, graduate standing, and departmental permission. The course introduces analytical methods and concepts focused on the use of cyber-analytics for security management. Topics of coverage span organizational strategies and policies, network and data management, plus internal and operational controls. (F, Sp)
MIT 5822 Health Information Technologies
2 Credit Hours
Prerequisite: graduate standing, MIT 5602, or departmental permission. This course examines the application of health information technologies. It explores human computer interactions and emerging technologies for their impact on patient care and safety. The course also discusses the role of legal, regulatory, ethical, and security issues as they apply to clinical and consumer information technologies. (F)
MIT 5832 Healthcare Information Systems
2 Credit Hours
Prerequisite: graduate standing, MIT 5602, or departmental permission. Students will apply project management and information systems development principles in developing an electronic health record software application to support healthcare decision-making. Students will also explore data manipulation and analytics using structured query language (SQL) and healthcare data analytics tools. (Irreg.)
MIT 5842 Healthcare Analytics I
2 Credit Hours
Prerequisite: Graduate standing and MIT 5602 or concurrent enrollment. This course covers data management and presentation appropriate to understanding healthcare data.
MIT 5852 Healthcare Analytics 2
2 Credit Hours
Prerequisite: Graduate standing and MIT 5602 or concurrent enrollment. This course covers various methods for analyzing and predicting outcomes from healthcare data using modern data modeling tools and systems. (Irreg.)
MIT 5960 Directed Readings 1-3 Credit Hours
Prerequisite: graduate standing. 1 to 3 hours. May be repeated with change of topic; maximum credit six hours. Topics in management of information technology. (Irreg.)
MIT 5970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)
MIT 5980 Research for Master's Thesis
2-9 Credit Hours Prerequisite: MIS 5622 and instructor permission, graduate standing. Variable enrollment, two to nine hours; maximum credit applicable toward degree, three hours. Acquaints students with the research process. Students propose research project, and then conduct the research including but not limited to, performing a literature review, collecting and analyzing data, and writing the thesis prior to the end of the semester. ( $F$, Sp )
MIT 5990 Independent Study 1-3 Credit Hours 1 to 3 hours. Prerequisite: Graduate standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)

## MIT 6713 Cognition and Decision Making in Management Information

 Systems
## 3 Credit Hours

Prerequisite: graduate standing. May be repeated; maximum credit nine hours. Ph.D. seminar addressing issues of cognition and decision making in information technology enabled settings. The course focuses on these issues in an organizational setting and considers cognition and decision making at the individual, group, and organizational levels. Topics may include: fundamental theories of cognition and decision making; technology support and influence on decision making and cognition; mechanisms to coordinate cognition across individuals, groups and organizations. (Irreg.)

## MIT 6733 Governance and Control

3 Credit Hours
Prerequisite: PhD program, Price College of Business. Examines theories and empirical research regarding the governance and control (G\&C) in organizations, with special attention to the role of technology in G\&C equations. The assigned readings sample the arena of governance and control and should provide students with the range of topics that are informed and influenced by the arena as well as exposure to the state-of-the-art in theory and empirics of governance and control. (Irreg.)

## MIT 6753 The Science and Analytics of Human-Technology Interactions <br> 3 Credit Hours

Prerequisite: Graduate Standing. Attention will be focused on research relating to interactions between Humans and Information Technology (IT) artifacts, to identify facets that make these interactions productive and enjoyable. The course goals will be to get familiar on the theory foundations that help the science of HTI, become skilled in the use of data analytics tools, and complete a limited research study. Class discussions will span a broad range of topics that include among others, the science of human-technology interactions, visualization of data, designs of visual displays, support for employee's learning of IT, and gamification of HTI interactions. (F)
MIT 6960 Directed Readings in MIT
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing and permission of instructor. May be repeated as needed by Ph.D. students; maximum credit twelve hours. A study of current research and practice in information technology. (F, Sp, Su)
MIT 6970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor.
May be repeated; maximum credit 12 hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or research and field projects. (Irreg.)
MIT 6973 Seminar in Management Information Systems 3 Credit Hours Prerequisite: graduate standing. Covers topics from current research in information systems. May be repeated three time with change of content. (Irreg.)
MIT 6980 Research for Doctoral Dissertation 2-16 Credit Hours 2 to 16 hours. Prerequisite: Graduate standing and permission of instructor; may be repeated. Directed research culminating in the completion of the doctoral dissertation. (F, Sp, Su)

## MIT 6990 Independent Study

1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)

## MKT-Marketing

MKT 2013 Introduction to Marketing and Supply Chain
Management
3 Credit Hours
Prerequisite: Non-Majors only and sophomore standing. This course provides a foundational understanding of the intertwined disciplines of Marketing \& Supply Chain Management; two critical components of modern business operations. Not open to Business majors and may not count toward degree requirements for the BBA degree. (F, Sp)
MKT 2970 Special Topics/Seminar 1-3 Credit Hours
Special Topics. 1 to 3 hours. May be repeated; maximum credit nine hours. Special topics course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research, and field projects. (Irreg.)

MKT 3013 Principles of Marketing and Supply Chain Management

## 3 Credit Hours

Prerequisite: ACCT 2123 or concurrent enrollment, MATH 1743 or MATH 1823 or MATH 1914, and student must be approved for degree candidacy by Price College. MKT 3013 provides a foundational understanding of the intertwined disciplines of Marketing \& Supply Chain Management; two critical components of modern business operations. Students will gain a familiarity with each field and the terminology, learn core concepts, strategies, and best practices of both areas, explore the interaction between the two fields. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

## MKT 3053 Marketing Research

3 Credit Hours
Prerequisite: Students must be approved for degree candidacy by Price College; MKT 3013. Provides students with an understanding of the role of marketing research in organizations and how marketing research is implemented. Topics include: the value of primary and secondary data, methods for data collection and analysis, and how research errors can be avoided. The course will enhance students' ability to work in teams and effectively communicate facts and opinions to solve problems. (F, Sp)

MKT 3223 Logistics Management
3 Credit Hours
(Crosslisted with SCM 3223) Prerequisite: Student must be approved for degree candidacy by Price College, 3013 or concurrent enrollment. The physical supply and distribution function in business management, including channel selection, transportation, facility location and materials management; concentrates on the analytical and managerial methods necessary for the development and control of an integrated logistics system. (F, Sp)
MKT 3323 Consumer Behavior
3 Credit Hours
Prerequisite: Students must be approved for degree candidacy by Price College; MKT 3013 or concurrent enrollment; ACCT2123 or concurrent enrollment. This course is an introduction to the world of consumer (customer) behavior and their purchasing habits. The internal and external influences on the consumer are studied in the context of forming marketing strategies and tactics. Topics include cultural values, demographics, subcultures, reference groups, lifestyles, perception, learning, memory, motivation, personality, emotion, and attitudes. (F, Sp)
MKT 3343 Retailing Management
3 Credit Hours
Prerequisite: Student must be approved for degree candidacy by Price College, MKT 3013. An analytical approach to the management of retail institutions. Addresses strategic and operating level decision making related to delivery of products and services to consumers, focusing on each of the four dimensions of the marketing mix. Includes modules on electronic commerce and ethical responsibility. (F, Sp)

MKT 3413 New Product Development
3 Credit Hours
Prerequisite: Student must be approved for degree candidacy by Price College; МКТ3013 \& MKT3053. Focuses on the development of ideas for new or established organizations, creating an environment conducive to innovation, recognizing business opportunities, assessing the market, customer and competitor situation. The development of these ideas leads to a feasibility analysis. Examines the development of a sales and distribution structure (including franchising, distributorship, and licensing and alliances), understanding segmentation, targeting, and niching. ( $F$, Sp )

## MKT 3440 Mentored Research Experience

3 Credit Hours
0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)

## MKT 3513 Social Media Marketing

3 Credit Hours
Prerequisite: Student must be approved for degree candidacy by Price College; MKT3013 or concurrent enrollment; ACCT2123 or concurrent enrollment. The new sectors of Social Media and Digital Marketing are exploding in new technology, resulting in fundamental shifts in the way marketers communicate and interact with consumers. This course provides the practical knowledge and insights required to establish objectives and strategies, properly select the social media platforms to engage consumers and monitor the results of these efforts. (F, Sp)
MKT 3613 Healthcare Marketing and Administration 3 Credit Hours (Crosslisted with HCB 3613) Prerequisite for Business Majors: Business Candidacy \& MKT 3013 Prerequisite for Non-business Majors: MKT 2013 or 3013. Healthcare organizations must be prepared to shift their strategies in order to meet the increasing demands in this dynamic market. The purpose of this course is to apply the systems of marketing and administration to the problems of health care organizations and provide an insight to the business problems healthcare organizations are likely to encounter. (F, Sp)

## MKT 3713 Fundamentals of Franchising

3 Credit Hours
(Crosslisted with FRAN 3713) Prerequisite: Business Candidacy and 3000 level core or concurrent enrollment. Provides a fundamental understanding of the franchising business model to showcase its unique differential advantages over alternative conventional systems of distribution. In particular, the course will focus on introducing students to operational issues, information flows, financial considerations and relationship processes involved in franchising. ( $\mathrm{F}, \mathrm{Sp}$ )
MKT 3960 Honors Reading
1-3 Credit Hours
Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Provides an opportunity for the gifted honors candidate to study materials not usually presented in regular courses. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

## MKT 3970 Honors Seminar

1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Subjects covered vary. Deals with concepts not usually treated in regular courses. (Irreg.)
MKT 3980 Honors Research
1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Provides an opportunity for the gifted Honors candidate to work at a special project in the student's field. (F, Sp, Su)

MKT 3990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: permission of instructor and junior standing. May be repeated once with change of content. Independent study may be arranged to study a subject not available through regular course offerings. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
MKT 4123 Professional Selling and Negotiations
3 Credit Hours Prerequisite: Student must be approved for degree candidacy by Price College; MKT3013. Addresses the field sales effort of the firm with emphasis on tactical analysis. It examines professional selling as the negotiation process that provides the link between firm and customer with a focus on both the oral and written communication involved. The thrust of the course is application and the view is first line and tactical. (F, $\mathrm{Sp})$
MKT 4143 Digital Marketing

## 3 Credit Hours

Prerequisite: Student must be approved for degree candidacy by Price College; MKT 3013. This course provides the practical knowledge and insights required to establish objectives and strategies, properly select the digital marketing platforms to engage consumers, monitor and measure the results of these efforts. Learn how to manage, analyze a successful digital marketing presence for an organization, techniques for gaining internal/external influences to achieve organizational goals that benefit society as a whole. (F, Sp)
MKT 4173 Marketing Analytics
3 Credit Hours
Prerequisite: Students must be approved for degree candidacy by Price College; MKT3013 and MKT3053. This will be an exciting, hands-on course which will give you a variety of tools to help you understand, manipulate and add value to data thereby allowing you and others to make better business decisions. (F, Sp, Su)
MKT 4303 International Advertising
3 Credit Hours
(Crosslisted with JMC 4303) Prerequisite: JMC 3303 or special permission. May be repeated once with change of subject matter; maximum credit six hours. Designed to provide basic understanding of advertising and culture that applies to advertising in non-American locations. (Irreg.)
MKT G4333 Marketing Strategy and Policy 3 Credit Hours
Prerequisite: Student must be approved for degree candidacy by Price College; MKT3013, MKT3053 \& MKT3323. Major topics addresses are strategic marketing, product management, pricing management and marketing ethics. ( $\mathrm{F}, \mathrm{Sp}$ )
MKT 4523 International Marketing
3 Credit Hours
Prerequisite: Student must be approved for degree candidacy by Price College; МКТЗ013. Study of marketing concepts and their international marketing implications, dealing with international market structure, framework for multinational marketing, strategic guidelines for global marketing strategies, pricing, promotion, product and distribution strategies for international markets. Special assignments include case studies, country analysis, article reviews and a term paper on topic of special interest related to international marketing. ( $F, \mathrm{Sp}$ )
MKT 4613 Ethical and Regulatory Issues in Healthcare 3 Credit Hours (Crosslisted with HCB 4613) Prerequisite: MKT 3013, HCB 3613 or MKT 3613, LS 3323 or concurrent enrollment; student must be approved for degree candidacy by Price College. This course explores the complex moral, ethical and legal issues that continue to arise within the healthcare profession, providing an opportunity to apply concepts learned in previous course studies. Case studies and supplemental readings will augment the text in guiding the student to a better understanding of healthcare economics. (F, Sp)

MKT 4623 Competitive and Economic Environment of Healthcare

3 Credit Hours
(Crosslisted with HCB 4623) Prerequisite: for Business Majors: Business Candidacy, MKT/HCB 3613; for Non-business Majors: ECON 1123 and MKT/HCB 3613; Not open to Marketing majors. A range of governmental regulatory interventions in the healthcare arena and changes to the economic environment are linked to uncertainty in the structure of health insurance; the contractual arrangements and relationships that exist between patients, doctors, and hospitals. Explore these issues in detail and case studies that will guide the student to a better understanding of healthcare economics. (F, Sp)

MKT 4970 Special Topics/Seminar 1-3 Credit Hours 1 to 3 hours. Prerequisite: Senior standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

MKT 4990 Independent Study 1-3 Credit Hours
1 to 3 hours. Prerequisite: Senior standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (lrreg.)

## MKT 5402 Marketing Management 2 Credit Hours

Prerequisite: graduate standing; departmental permission. Covers marketing concepts of use to MBAs. Topics include the use of management information systems, pricing, product offerings, promotion, distribution and consumer behavior, as well as marketing segmentation and strategic marketing. ( $\mathrm{F}, \mathrm{Sp}$ )

MKT 5960 Readings in Selected Fields of Marketing 1-4 Credit Hours 1 to 4 hours. Prerequisite: graduate standing and permission. May be repeated; maximum credit eight hours. Guided reading in selected fields of marketing; conferences with staff. Scope of reading and credit to be arranged on entry into course. The only passing grade given in this course is the neutral grade of S . $(\mathrm{F}, \mathrm{Sp}, \mathrm{Su})$

## MKT 5970 Special Topics/Seminar <br> 1-3 Credit Hours

1 to 3 hours. Prerequisite: Graduate standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

MKT 5990 Independent Study 1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)
MKT 6393 Core Theories in Marketing Research 3 Credit Hours Prerequisite: Graduate standing and departmental permission of the Director, Price College of Business graduate programs. This seminar is designed to provide students with a broad exposure to the major theories in marketing research, especially in the marketing strategy literature. The goal is to provide a working knowledge of the important substantive topics and conceptual ideas that underlie historic and ongoing marketing strategy research. (Irreg.)

MKT 6960 Directed Readings in Marketing
1-4 Credit Hours
1 to 4 hours. Prerequisite: graduate standing; permission of instructor, permission (Director, Price College of Business Graduate Programs). May be repeated as needed by Ph.D. students. Special reading programs are designed to enable graduate students (1) to extend their study to fields of marketing that are not covered in other courses and/or (2) to provide an opportunity for more extensive or intensive study of subjects covered in other courses. (F, Sp, Su)

MKT 6970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit 12 hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or research and field projects. (Irreg.)

MKT 6980 Research for Doctoral Dissertation 2-16 Credit Hours 2 to 16 hours. Prerequisite: Graduate standing and permission of instructor; may be repeated. Directed research culminating in the completion of the doctoral dissertation. (F, Sp, Su)

MKT 6990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)

## MLLL-Modern Languages, Literatures, \& Linguistics

MLLL 1003 Introduction to Chinese Myths \& Folklore 3 Credit Hours Through studying an eclectic selection of time-honored Chinese myth and folklore, along with their adaptations, transculturation, transmediation, and transformation in modern and contemporary periods, students in this class will not only gain a deeper understanding and appreciation of Chinese culture, but also develop abilities in nuanced reading and critical thinking. (F) [IV-WDC].

MLLL 2970 Special Topics
1-3 Credit Hours
1 to 3 hours. Prerequisite: May be repeated; maximum credit nine hours. Special topics course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research, and field projects. (Irreg.)

MLLL 3043 Mythology and Folklore 3 Credit Hours Prerequisite: junior standing or permission. Readings in folktales and myths from cultures around the world, with a focus on narrative structures and the role of the storyteller. Involves weekly reading and weekly writing assignments and a semester-long research project published on the internet. (No previous web publishing experience is required). (F, Sp) [IV-WC] .

## MLLL 3063 Survey of Jewish Literature from Antiquity to the

 Present 3 Credit Hours Prerequisite: junior standing. Provides a survey of Jewish literature from the Hebrew Bible to contemporary American literature, presented as a journey in which stops will be made at important places, covering all significant periods, genres and prominent writers. (F) [IV-WC] .MLLL 3073 The Hebrew Bible as Literature
3 Credit Hours
Prerequisite: ENGL 1213/Expo 1213. The Hebrew Bible is the best selling book in America every single year. We will explore its greatness by reading various Biblical texts such as a great novella, the Joseph story; the greatest religious conversion narrative, Ruth; the poetry of Psalms, and the rise of David from shepherd to king, as well as other favorites to be determined by class. (Sp) [IV-WC].
MLLL 3123 Russian Culture and Civilization 3 Credit Hours Considers the historical and cultural heritage of Russia through a study of its geography, history, religion, language, literature and the fine arts. Allows students to appreciate the global perspectives and cultural diversity. [IV-WC] .
MLLL 3133 Soviet and Post-Soviet Cinema
3 Credit Hours
Prerequisite: junior standing. Familiarizes students with the history of film in the Soviet Union , from the silent movies of its beginnings to its manifestation at the present time. No previous knowledge of the Russian language is required. Russian social and political issues explored through film. (F, Su) [IV-WC] .

## MLLL 3143 Dostoevsky and His Age

3 Credit Hours
Prerequisite: junior standing. Examination of the life and literary works of Fyodor Dostoevsky, with special attention to the role the writer played in Russian and Western intellectual history. Reading assignments will include Crime and Punishment, The Brothers Karamazov, and several shorter works, all in English translation. (Irreg.) [IV-WC] .
MLLL 3163 Chekhov
3 Credit Hours
Prerequisite: junior standing or permission. An introduction to Anton Chekhov's work in translation. Both short stories and plays will be read, studying their narrative structure, plot devices, character development, themes, and other elements, while placing Chekhov's work in its historical, cultural, and political context. Excerpts of various screen adaptations of his plays will also be viewed. (F) [IV-WC] .
MLLL 3173 Nabokov 3 Credit Hours
Prerequisite: junior standing or permission. An introduction to Vladimir Nabokov's work in English, including works translated from Russian as well as texts originally written in English. Focus will be on Nabokov's Novels; although, some short stories and poems will be included. The main methodology will center on applying the techniques of close textual analysis, while placing Nabokov's work in its historical, cultural, and political context. (F) [IV-WC] .

## MLLL 3183 Tolstoy: Writer, Thinker, Social Critic 3 Credit Hours

Prerequisite: junior standing or permission of instructor. Introduction to Leo Tolstoy's work in translation. Traces Tolstoy's development as a writer of short stories, novels, and works of non-fiction. The writer's biography and significant aspects of nineteenth-century Russian society will inform discussions of Tolstoy's works, placing them in a broader context. In addition, students will explore Tolstoy's evolving religious, philosophical, and social ideas, as well as his legacy in Russia and throughout the world. (Irreg.) [IV-WC].
MLLL 3193 Trauma, Memory, and Narrative 3 Credit Hours Prerequisite: junior standing. Ways in which traumatic historical events have been depicted in works of literature, art, and historical texts, and their commemoration in museum displays and in public ritual. While the focus is on the history of the Soviet Union and Eastern Europe, students will be encouraged to consider equivalent examples from other areas of the globe. (Irreg.) [IV-WC].

MLLL 3223 Japan Through Film and Literature 3 Credit Hours
Prerequisite: junior standing. Introduces Japanese post-war society and culture with emphasis on 1945 to the present, as reflected in film and literature. Students will examine essential issues, including class, family, gender, work, education, and minorities, paying attention to the struggles between traditional cultural values and modern society. (Irreg.) [IV-WDC] .

## MLLL 3243 Readings in Arab/Islamic Heritage 3 Credit Hours

Prerequisite: Junior standing. Survey of Arab /Islamic from Pre-Islam until the fall of Andalusia. Students will read selections of pre-Islamic poetry, the Qur'an, prophetic tradition, law, sociology, architecture, food, fables, and folklore. (Sp) [IV-WDC].

## MLLL 3303 The World of Dante

3 Credit Hours
Prerequisite: Junior standing and English 1213. In this course students will engage in a close reading of a fundamental text in the western literary tradition: Dante Alighieri's Divine Comedy. The course will also consider one of Dante's minor works, the Vita Nuova, as well as the modern critical readings of Dante's writing and thought. In lectures, special attention will be paid to the historical, political, literary and intellectual context of Dante's poetry and thought. Students will also be asked to contribute to the classroom atmosphere by responding to questions and participating in discussions. (Irreg.) [IV-WC].
MLLL 3313 Introduction to Italian Literature and Culture 3 Credit Hours Prerequisite: English 1213 or EXPO 1213. Interdisciplinary approach to literature, culture, and history of the Italian peninsula, from the Middle Ages to the present day. Through major works of literature, political science, the visual arts, music, and cinema, students will set Italy's variegated literary and cultural expressions in their social and historical contexts. (F) [IV-WC].

## MLLL 3323 Language, Culture, and Identity in the Middle East and North Africa <br> 3 Credit Hours

Prerequisite: Junior standing. Introduction to the relationship between language, society, and identity in the Middle East and North Africa (MENA), with an emphasis on theoretical and methodological approaches from sociolinguistics and linguistic anthropology. (Sp) [IV-WDC].
MLLL 3343 Italian Pop Culture 3 Credit Hours
Prerequisite: Junior standing or permission of instructor. An examination of Italian culture after WW2 through cinema, television, comics, popular literature, and more. (Sp) [IV-WC].

## MLLL 3373 Italian Cinema

3 Credit Hours
Prerequisite: junior standing and English 1213. The aim of this course is to develop interpretive skills relevant to the study of Italian cinema by examining some of its most significant films. More specifically, we will analyze the ways in which Italian society is portrayed and typified in Italian cinema. We will cover the major film movements and periods, from "cinema muto" to Neorealism, from "commedia all`Italiana" to the Italian horror genre and to the most recent works made by contemporary directors. (Irreg.) [IV-AF] .

## MLLL 3393 Italian Cultural Literacy

3 Credit Hours
Prerequisite: junior standing or permission of instructor. Introduces students studying abroad in the OU in Arezzo semester program to important aspects of Italian culture and history. Students will gain an ability to engage with Italian cultural phenomena and interact with native Italian speakers. No previous knowledge of Italian is required. The cultural part of the course will be taught in English. (F, Sp, Su)

MLLL 3413 Arabic Literature and Culture 3 Credit Hours Prerequisite: junior standing. A survey of Arabic literature tradition and cultural history from the 4th century to the present. Covers themes and genres of the cultural heritage of Arabic-Islamic civilization, continuities and discontinuities between the classical and modern period, and background political and social changes. (F) [IV-WDC].

MLLL 3440 Mentored Research Experience 3 Credit Hours 0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)
MLLL 3443 Islamic Culture in the United States 3 Credit Hours Prerequisite: Junior Standing or Permission of the Instructor. This course introduces students to the historical development and cultural growth of Islam and Muslims in the US. Students will learn about the specific experiences and struggles of African, Asian, and Arab immigrants throughout American history. Students will also explore the role of American Muslims in reconciling ethnic differences and racial discrimination, advancing empowerment and advocacy, and engaging with self-representation. (F) [IV-WDC].
MLLL 3523 Survey of Russian Literature to 1917 in

## Translation <br> 3 Credit Hours

Prerequisite: junior standing. Reading, analysis and discussion of key works of Russian 19th century literature, including the major novels, plays, and poetry selections in English translation. This course does not satisfy the third semester Arts and Sciences language requirement. (F) [IV-WC] .

## MLLL 3533 Survey of Russian Literature from 1917 in

## Translation

3 Credit Hours
Prerequisite: junior standing or permission of instructor. Representative works of Soviet and post-Soviet literature are read and discussed. Selections of prose and poetry chosen from among symbolists, acmeists, futurists, populists, modernists, and post-modernists. This course does not satisfy the third semester Arts and Sciences language requirement. (Irreg.) [IV-WC] .

## MLLL 3543 The Petersburg Myth and Text/The City in Russian

Culture
3 Credit Hours
Prerequisite: junior standing. The role and significance of the city of St.
Petersburg in Russian culture by examining its literary image and myth. All readings and discussions in English. (Irreg.) [IV-WC] .
MLLL 3553 Contemporary Russian Literature 3 Credit Hours Prerequisite: junior standing. Explores major works of post-Soviet Russian literature. Students will become familiar with major figures and trends in contemporary Russian poetry and prose, and they will acquire critical vocabulary for analyzing works in any genre or national literary tradition. (Irreg.) [IV-WC].
MLLL 3573 Arthurian Legend and Literature 3 Credit Hours (Crosslisted with ENGL 3573) Examination of the legend of King Arthur in European literature. Concentrate first on the historical Arthur, followed by major portion of semester on the medieval and modern literary texts concerning Arthur and the Round Table. All texts will be read in English translation. [IV-WC].

MLLL 3623 Pre-Modern Japanese Literature and Culture 3 Credit Hours Prerequisite: junior standing. A survey of Japanese literature from ancient time to the Meiji restoration. Covers prominent works of poetry and prose in English translation. Students are introduced to traditional genres, themes, rhetorical device and aesthetics, as well as socio-historical context of literary production. (Irreg.) [IV-WDC] .
MLLL 3633 Modern Japanese Literature and Culture 3 Credit Hours Prerequisite: junior standing. A survey of Japanese literature from the Meiji restoration (1868) onward, with attention to social, political, and cultural issues as well as literary theory. Topics will include Japan's "westernization," "naturalism," proletarian literature movements, early post-war literature, and the "third new generation writers." (Sp) [IV-WDC].

## MLLL 3663 Japanese Cinema

3 Credit Hours
Prerequisite: Junior standing. This course examines the development of Japanese film form and content, and of the cultural and political transformations imbricated with those developments. We will explore the place of cinema in shaping Japanese modernity; the silent era; cinema during World War II; the Golden Age of the 1950s, and the globalization of Japanese films in the decades after. (Irreg.) [IV-WDC].
MLLL 3673 Anime: the World of Japanese Animation 3 Credit Hours (Crosslisted with FMS 3673) Prerequisite: Junior standing. This course explores the history and development of Japanese animation, or "anime". It examines how animation was brought to Japan, and how it developed prior to the Second World War, and then further in the postwar decades. We will highlight how despite being influenced by foreign sources, Japanese animators create a uniquely Japanese mode of image-making. (Irreg.) [IV-WDC].

## MLLL 3683 Traditional Japanese Poetry and Poetics in

 Translation3 Credit Hours
Prerequisite: Junior standing and ENGL/EXPO 1213. This course examines the long history and tradition of poetry in premodern Japan, and the philosophies and culture surrounding it. We explore poetry in both vernacular Japanese and Classical Chinese from Japan before the eighteenth century, and how poets and critics understood it. We will also try our own hands at making poems before compiling them into an anthology. (Sp)
MLLL 3753 Modern Chinese Literature and Culture 3 Credit Hours Prerequisite: junior standing. Students will read Chinese literary texts in English translation and learn about the historical, political, social, and cultural contexts in which they were produced. (Sp) [IV-WDC].

MLLL 3763 Chinese Cinema
3 Credit Hours
Prerequisite: junior standing. Chinese films covering a wide range of historical periods and subjects will be viewed. The films screened in this class will be studied as reflections of their respective social, as well as the filmmakers' comments on and interventions of such realities. Cinematic concepts, techniques, and film theories, will be studied. (Sp) [IV-WDC].
MLLL 3823 German Culture and Thought
3 Credit Hours Prerequisite: junior standing. Introduces major themes in German cultural history and analytical tools students can bring to the further study of German and/or other European literatures and cultures in translation. Specific topics may vary. (F) [IV-WC].
MLLL 3960 Honors Reading 1-3 Credit Hours 1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Will consist of topics designated by the instructor in keeping with the student's major program. The topics will cover materials not usually presented in the regular courses. ( $F, S p$ )

MLLL 3970 Honors Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Subjects covered vary. Deals with concepts not usually treated in regular courses. (Irreg.)
MLLL 3980 Honors Research
1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Provides an opportunity for the Honors candidate to work on a special project in the student's field. (F, Sp)

## MLLL 3990 Independent Study

1-3 Credit Hours
1 to 3 hours. Prerequisite: permission of instructor and junior standing. May be repeated once with change of content. Independent study may be arranged to study a subject not available through regular course offerings. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
MLLL 3993 Contemporary Brazilian Film
3 Credit Hours
Prerequisite: Junior Standing. In this class students will get an overview of cinema recently produced in Brazil. Besides an analysis of the films themselves, in classes we will consider both the context in which the movies were produced, and the specific context presented in each, always in comparative fashion. All movies are available for watching online on canvas or on appropriate platforms. (Sp) [IV-WC].
MLLL 4003 Movements in World Literature 3 Credit Hours (Crosslisted with ENGL 4003) Prerequisite: junior standing. May be repeated with change of subject matter; maximum credit nine hours. Focuses on texts within a literary movement (literature other than canonical American or British). Also attention to critical and theoretical questions about concepts such as genre, nation, national building, national identity, etc. (Irreg.) [IV-WC] .
MLLL 4063 Early Literary Criticism
3 Credit Hours
(Slashlisted with 5063) Prerequisite: junior standing and English 1213. Establishes a solid critical foundation of aesthetics that will enable graduate and advanced undergraduate students to deal with fundamental ideas; aesthetic and social. Emphasis on rhetoric and discourse during the second part of the semester will also enable all students to write strategically and develop effective communication skills. No student may earn credit for both 4063 and 5063. (F)

## MLLL 4113 Cultures in Portuguese: Brazil, Portugal, and

Beyond
3 Credit Hours
Prerequisite: minimum of 30 hours earned. Survey of cultures that speak Portuguese, focusing on the best cultural production in Portuguese from Europe, the Americas, and Africa. Students will compare and contrast these cultures, which will be presented in literature, cinema and the arts. Students will see how Western and non-Western cultural elements interact and influence each other in these cultures, creating interesting and exciting hybrids. (F) [IV-WC].

## MLLL 4173 Introduction to Francophone Literatures in <br> Translation <br> 3 Credit Hours

Prerequisite: junior standing. Examines the literary, social, and political issues forefronted by the Francophone literatures of West Africa, the Caribbean, and Polynesian Islands, Maghreb (chiefly Algeria, Tunisia, Morocco), and Quebec. (Sp) [IV-WDC].
MLLL 4453 Introduction to Chinese Language and Linguistics

3 Credit Hours
Prerequisite: Chinese 1115 and Chinese 1225, or LING/ANTH 2303 and LING 3033. Introduction to the structure of the Chinese language and its sociocultural meanings, with an emphasis on phonology, morphology, syntax, the writing system, and the language's interaction with culture and society. (F)

MLLL 4553 Lat America in its Lit: The Search for a Latin-American Identity

3 Credit Hours
Prerequisite: junior Standing. The course fosters an understanding of the political nature, impetus and implications of Latin-American literature. It examines stereotypes and the basis upon which they are constructed and develops an awareness of the varied identities reflected in Latin-American literature. (F)
MLLL 4753 The Chinese Way of Thinking: Language, Culture, \&
$\begin{aligned} & \text { Cognition } \\ & 3 \text { Credit Hours }\end{aligned}$
Prerequisite: Junior standing. How do languages/cultures shape the ways we think? Does learning new languages change the way you think? This course introduces the cognitive view of language use in Chinese and how it plays a critical role in mind-shaping in its cultural context. It also pursues a cross-linguistic/cross-cultural perspective on the study of Chinese languages as a window into cognition and culture. (Irreg.) [IVWDC].

## MLLL 4813 Principles and Techniques of Teaching a Foreign Language 3 Credit Hours

(Slashlisted with MLLL 5813) Prerequisite: four semesters of a foreign language or admission to the foreign language education major. Provides participants with practical experience in the teaching of foreign languages and introduces key issues in the teaching of foreign languages. Also introduces issues in teaching methodology and key issues in classroom language acquisition research. No student may earn credit for both 4813 and 5813. (F, Sp)

## MLLL 4883 Puterbaugh/Neustadt International Literature 3 Credit Hours

(Slashlisted with MLLL 5883; Crosslisted with ENGL 4883) Prerequisite: ENGL 1213 and permission of department; May be repeated with a change of content, maximum credit nine hours. In-depth study of selected contemporary international writers/jurors who visit OU campus as part of the Neustadt and/or Puterbaugh symposia for World Literature Today. No student may earn credit for both 4883 and 5883. (Irreg.)
MLLL 4950 Special Topics in World Literature Today 1-3 Credit Hours 1 to 3 hours. Prerequisite: English 1213 and permission of instructor. May be repeated with change of content; maximum credit six hours. Indepth study of selected contemporary international writers/jurors who visit campus as part of the Neustadt and/or Puterbaugh symposiums for world literature today. (Irreg.)
MLLL 4960 Directed Readings
1-4 Credit Hours
1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean. May be repeated; maximum credit four hours. Designed for upper-division students who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)
MLLL 4970 Seminar
1-4 Credit Hours
1 to 4 hours. Prerequisite: permission of instructor. May be repeated with change of content; maximum credit six hours. Varied topics in literature in English translation. (Irreg.)

## MLLL 4990 Independent Study

1-3 Credit Hours
1 to 3 hours. Prerequisite: Senior standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)

MLLL 4993 Epics of India: Ramayana and Mahabarata 3 Credit Hours Prerequisite: junior standing. Reading of the two great epics of India. Special attention will be paid to narrative structure and the role of the storyteller. The course involves extensive weekly reading along with weekly writing assignments and a semester-long research project which students will publish on the internet (no previous web publishing experience is required. (Sp) [IV-WDC] .
MLLL 5063 Early Literary Criticism 3 Credit Hours (Slashlisted with 4063) Prerequisite: graduate standing. Establishes a solid critical foundation of aesthetics that will enable graduate and advanced undergraduate students to deal with fundamental ideas; aesthetic and social. Emphasis on rhetoric and discourse during the second part of the semester will also enable all students to write strategically and develop effective communication skills. No student may earn credit for both 4063 and 5063. (F)
MLLL 5073 Contemporary Literary Criticism 3 Credit Hours
An introduction to contemporary linguistic, psychoanalytic and sociological literary theory and criticism. Readings and discussions will include questions of methodology and will demonstrate how these methods can be applied to particular texts. (Sp)

## MLLL 5173 Introduction to Francophone Literatures in

## Translation

## 3 Credit Hours

Prerequisite: graduate standing. Examines the literary, social, and political issues fore-fronted by the Francophone literatures of West Africa, the Caribbean, and Polynesian Islands, Maghreb (chiefly Algeria, Tunisia, Morocco), and Quebec. (Sp)

## MLLL 5813 Principles and Techniques of Teaching a Foreign Language <br> 3 Credit Hours

(Slashlisted with MLLL 4813) Prerequisite: graduate standing. Provides participants with practical experience in the teaching of foreign languages and introduces key issues in the teaching of foreign languages. Also introduces issues in teaching methodology and key issues in classroom language acquisition research. No student may earn credit for both 4813 and 5813. (F, Sp)
MLLL 5883 Puterbaugh/Neustadt International Literature 3 Credit Hours
(Slashlisted with MLLL 4883; Crosslisted with ENGL 5883) Prerequisite: Graduate standing and permission of department; May be repeated with a change of content; maximum credit nine hours. In-depth study of selected contemporary international writers/jurors who visit OU campus as part of the Neustadt and/or Puterbaugh symposia for World Literature Today. No student may earn credit for both 4883 and 5883. (Irreg.)
MLLL 5910 Problems in Research 2-4 Credit Hours
2 to 4 hours. Prerequisite: permission of instructor. May be repeated with change of content; maximum credit fours hours. An individual course of intensive research with the area and problem to be determined by the student and directing instructor. (Irreg.)

MLLL 5920 Field Research in Foreign Language Education 1-3 Credit Hours
1 to 3 hours. Prerequisite: 5833. Classroom oriented field research on the use of various methods of teaching foreign language in the classroom. Possible topics include aspects of language acquisition, evaluation, proficiency, communicative methods in foreign language education. ( $F$, Sp, Su)

MLLL 5960 Directed Readings
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing and permission of department. May be repeated; maximum credit twelve hours. Directed readings and/or literature reviews under the direction of a faculty member. (F, Sp, Su)

MLLL 5970 Special Topics/Seminar 1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing or permission of instructor.
May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)
MLLL 5990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)

## MRS-Medieval and Renaissance

MRS 3023 Exploring Medieval and Renaissance Studies 3 Credit Hours Prerequisite: junior standing or above, or permission of instructor. Provides an overview of the history, literature, art, and music of the Middle Ages and Renaissance, including hands-on work with medieval manuscripts and early printed books. This course will be taught by a series of faculty lecturing in their area of expertise, coordinated by a faculty member who will be present at every class and will serve as instructor of record. (Irreg.)[IV-WC] .
MRS 3440 Mentored Research Experience 3 Credit Hours 0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)

## MRS 3960 Honors Reading

1-3 Credit Hours
1 to 3 hours. Prerequisite: Admission to Honors Program. May be repeated; maximum credit six hours. Consists of topics designated by the instructor in keeping with the student's major program. The topics will cover materials not usually presented in the regular courses. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
MRS 3970 Honors Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Subjects covered vary. Deals with concepts not usually treated in regular courses. (Irreg.)
MRS 3980 Honors Research 1-3 Credit Hours
1 to 3 hours. Prerequisite: Admission to Honors Program. May be repeated; maximum credit six hours. Will provide an opportunity for the gifted Honors candidate to work at a special project in the student's field. (F, Sp, Su)
MRS 3990 Independent Study
1-3 Credit Hours
Prerequisite: junior standing or above and permission of instructor. May be repeated; maximum credit six hours. Independent study on a topic in medieval and/or Renaissance studies. ( $F$, Sp)

MRS 4960 Directed Readings
1-4 Credit Hours
1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean. May be repeated; maximum credit four hours. Designed for upper-division students who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)
MRS 4970 Special Topics/Seminar 1-3 Credit Hours
1 to 3 hours. Prerequisite: Senior standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)
MRS 4990 Independent Study
1-3 Credit Hours
Prerequisite: junior standing or above and permission of instructor. May be repeated; maximum credit six hours. Independent study on a topic in medieval and/or Renaissance studies. (F, Sp)

## MST-Museum Studies

## MST 5073 Technology for Museum Professionals 3 Credit Hours

Prerequisite: Graduate Standing. Introduction to the theory and application of information technologies within museums including hardware, software, and the application of technology to the work of museum professionals. ( $F, S p$ )

## MST 5083 Qualitative Research Methods

3 Credit Hours
Prerequisite: Graduate Standing. This course is designed to acquaint students with qualitative research methods in library, archives, and museum settings. By the end of the course, students will be familiar with the most common methods and issues in qualitative research. Students will learn how to design a study; how to recognize and address ethical issues; and how to analyze qualitative data. (Sp)

MST 5113 The World of a Museum
3 Credit Hours
Prerequisite: graduate standing. Baseline course introducing all aspects of museums and museum careers including history, structure, operations, and theoretical underpinnings. ( $F, S p, S u$ )
MST 5133 The History and Architecture of Museums 3 Credit Hours Prerequisite: graduate standing. The course explores the history of museums with special emphasis on the architectural development and the special facilities requirements of museums; it will look at the physical requirements in terms of museum missions, functions, collections, and operations. (F, Sp, Su)

## MST 5143 Museum Studies Research Methods 3 Credit Hours

 Prerequisite: Graduate Standing. Methods of investigating museum studies problems; use of evaluation in planning for continuous quality assessment and improvement of museum policies, processes, and procedures; developing original research designs; evaluating research studies in museum topics. (F, Su)MST 5163 Museum Management and Leadership 3 Credit Hours Prerequisite: graduate standing. In-depth study of the philosophy, policies, and practices of museum governance, including such topics as ethics, board development, institutional mission and organization. (F, Sp, Su )
MST 5173 Museums, Cultures, and Communities 3 Credit Hours Prerequisite: graduate standing. The course will focus on the complex issues among museums, diverse populations, and other public factors such as public and education programs, fundraising, public relations, marketing, etc. (F, Sp, Su)

MST 5183 Collections Management
3 Credit Hours
Prerequisite: graduate standing. This course will consider the place of collections in the life of a museum; how collections mesh with the museum mission; collections policies and stewardship. It will relate theoretical ideas on collection development and maintenance to the actualities of museum situations. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
MST 5190 Museum Project 2-4 Credit Hours
2 to 4 hours. Prerequisite: graduate standing and permission of dean.
May be repeated with change of subject; maximum credit four hours. Students will develop a project in their home museum or organization under the direction of an OU faculty member with an on-site supervisor or can come to OU for a project at one of the OU museums or special collections. (F, Sp, Su)

## MST 5203 Historic Preservation

3 Credit Hours
Prerequisite: graduate standing. Introduction to the field of historic preservation, including identification, documentation, and presentation of historic buildings, sites, and structures. (F, Sp, Su)

## MST 5223 The House Museum

3 Credit Hours
Prerequisite: graduate standing. Examination of the house as a museum. Topics include identifying historical significance and architecture, conservation and interpretation, and developing community involvement. (F, Sp, Su)
MST 5243 The Small Museum
3 Credit Hours
Prerequisite: graduate standing. Introduction to the history and nature of small museums in the United States. Topics include cultural significance, administration, finance, funding, staffing, program/exhibition development, community involvement, and partnership building. (F, Sp,

## Su )

MST 5313 Museum Education
3 Credit Hours
Prerequisite: graduate standing, CAS 5003 and MST 5113; or permission of dean. Introduction to museum education, including object-based learning environments, and theory, an understanding of which fosters the development of effective motivating educational programs in museums. (F, Sp, Su)
MST 5333 Introduction to Museum Interpretation 3 Credit Hours
Prerequisite: Graduate standing; and CAS 5003 and MST 5113; or departmental permission. Introduces museum interpretation as a mode of communication to solicit informational experiences and inspire curiosity about a topic via media such as physical exhibits, educational programs, interactive designs, and virtual access. Given current demands for broader demographic inclusivity, the course also revisits conventional museum domains on who interprets what, with which sociocultural and ethnic background representing which segments of society. (F, Sp, Su)

MST 5403 Museums and Native Cultures
3 Credit Hours
Prerequisite: graduate standing, CAS 5003 and MST 5113; or permission of dean. Designed for students to understand the representational history of native cultures in museums and the dynamic collaboration between a museum and a culture to accomplish an authentic and respectful presentation today. (F, Sp, Su)
MST 5423 Controversy and the World of the Museum 3 Credit Hours Prerequisite: graduate standing, CAS 5003 and MST 5113; or permission of dean. It is crucial that the museum professionals are acquainted with some of the most controversial exhibitions historically, as well as the ones from the 1990s along with an important discussion of the external legal, political, financial, and social forces that are crucial in influencing the course and the outcome of the examined cases. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

MST 5443 Federal Laws and Museums 3 Credit Hours
Prerequisite: graduate standing. An examination of federal laws that impact decision-making for museum professionals. Course activities include the critique of museum collections and policies relating to federal laws such as the Archaeological Resources Protection Act, National Historic Preservation Act, Convention on Cultural Property Implementation Act, Native American Graves Protection and Repatriation Act (NAGPRA), and The Bald and Golden Eagle Protection Act. (F, Sp)
MST 5700 Advanced Topics in Museum Studies 2-9 Credit Hours 2 to 9 hours. Prerequisite: graduate standing, CAS 5003 and MST 5113; or permission of dean. May be repeated with a change of content; maximum credit 12 hours. Topics offered under this course number will include but not be limited to: education and public programs; legislation and museum policies; exhibitions; museum stores, volunteers, and associations. (F, Sp, $\mathrm{Su})$

## MST 5763 Capstone

3 Credit Hours
Prerequisite: Graduate standing; Museum Studies majors. The capstone is the comprehensive, end of program course where students engage in a project that applies the knowledge and skills learned in the program to professional topics. Under the supervision of the course instructor, the student will select a topic and project design. Projects may include, for example, in-depth literature reviews, research studies, or exhibit designs. The course should (F, Sp)
MST 5920 Internship in Museum Studies 2-6 Credit Hours
2 to 6 hours. Prerequisite: graduate standing, CAS 5003, and permission of dean. May be repeated; maximum credit six hours. 2-6 hours. Field experience directly related to study focus in the Museum Studies program. Requirements include some combination of journal, progress reports, written summary of experiences, or academic paper, and a possible comprehensive examination over these materials. (F, Sp, Su)
MST 5930 Research Project in Museum Studies 1-3 Credit Hours 1 to 3 hours. Prerequisite: Graduate standing, Museum Studies majors only, MST 5143 or MST 5083 or equivalent; may be repeated, maximum credit 3 hours. Research under faculty supervision. Development a research project related to Museum Studies. The final project requires a written report. (F, Sp, Su)
MST 5960 Directed Readings in Museum Studies 2-9 Credit Hours 2 to 9 hours. Prerequisite: graduate standing, CAS 5003, and completion of first concentration course; or permission of dean. May be repeated with change of content; maximum credit 9 hours. In-depth study of literature on a topic related to the student's program of study; variable content. (F, Sp, Su)
MST 5970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing, CAS 5003, and completion of first concentration course; or permission of dean. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

MST 5980 Research for Master's Thesis 2-9 Credit Hours 2 to 9 hours. Prerequisite: graduate standing, CAS 5003, CAS 5013, and completion of first concentration core course; or permission of dean. May be repeated; maximum credit six hours. Research and writing of a thesis for completion of PACS graduate degrees. (F, Sp, Su)

MST 5990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing, CAS 5003, and completion of first concentration course; or permission of dean. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)

## MTHR-Musical Theatre

## MTHR 1102 Tap Foundations

2 Credit Hours
Introduction to the basic concepts of tap dance. Students learn step development, basic rhythms, and the rudiments of placement, balance, and weight change. ( $F, S p$ )
MTHR 1112 Tap I
2 Credit Hours
Prerequisite: DANC 1212 and permission of instructor. May be repeated; maximum credit four hours. A beginner class emphasizing tap fundamentals and terminology that includes weight change, proper placement and simple step patterns. The course concentrates on basic rhythms, counting, ear training and clarity of sound. (F, Sp)

## MTHR 1402 Jazz Foundations 2 Credit Hours

Introduction to the basic concepts of jazz movement. Students learn basic motor skills used in musical theatre and focus on the rudiments of placement, alignment, flexibility, and assimilation. ( $F, S p$ )

## MTHR 1442 Jazz I

2 Credit Hours
Prerequisite: DANC 1212 and permission of instructor. May be repeated; maximum credit four hours. A beginner class that provides the student with a comprehensive understanding of the technical fundamentals of jazz dance including basic rhythms, vocabulary and skills. Focus is aimed towards proper placement, strength and flexibility development. (F, Sp)
MTHR 1501 Music Theory Notation 1 Credit Hour Prerequisite: admission to Musical Theatre program. Lecture/discussion class to enhance the ability to read music and attain a general understanding of the theory of music, including treble and bass clefs, major and minor scales, diatonic intervals and chords. A rhythmic component is added to attain mastery of simple and compound meters. (F)

MTHR 1502 Studio Voice I
2 Credit Hours
Prerequisite: majors only. May be repeated; maximum credit six hours. Establishing basic vocal technique for musical theatre singing, including vocal exercises and breathing technique. Application of technique through the study of beginning level Broadway up-tempos and ballads as well as English art song and American folk song. (F, Sp)
MTHR 1551 Sight Reading and Theory
1 Credit Hour
Prerequisite: admission to Musical Theatre program. Lab practice of theory, rhythm and pitch recognition, including the ability to perform diatonic intervals, ascending/descending, as well as simple/compound rhythms in both division and subdivision. (Sp)
MTHR 1713 Understanding Musical Theatre
3 Credit Hours
A course for non-majors in musical theatre appreciation covering basic aspects of the various components, and history of, the musical theatre genre(s). (F, Sp) [IV-AF].

## MTHR 2101 Performance Practicum

1 Credit Hour
Prerequisite: Majors only; Must be cast in a show; May be repeated; maximum credit four hours. Study and practice in rehearsal and performance as a cast member in musical theatre productions including cabaret work of the freshman/sophomore level. ( $\mathrm{F}, \mathrm{Sp}$ )

MTHR 2112 Tap II
2 Credit Hours
Prerequisite: MTHR 1112 and permission of instructor. May be repeated; maximum credit four hours. An advanced beginner class that maintains focus on proper placement and clarity of sound while introducing more complicated rhythms, step patterns and vocabulary. Counting and ear training continues as the student hones assimilation skills. Focus is placed on tap dynamics including accenting, shading and movement quality. A variety of styles will be introduced. (F, Sp)

## MTHR 2122 Auditions

2 Credit Hours
Prerequisite: Musical Theatre majors only. An introduction to musical theatre performance through the practice of auditioning. Study involves an overview of song form, style, and composers. Assignments include casting notices, resume format and research tools. Emphasis is placed on assembling a portfolio of song cuttings. (Sp)

## MTHR 2162 Introduction to Urban Dance 2 Credit Hours

Prerequisite: Majors Only, may be repeated; maximum credit eight hours. Urban Dance is the combination of many dance styles. It holds various dances influenced by hip hop, house, jazz funk, modern and contemporary technique. Each class will have a learning progression starting with the warm up followed by across the floor combinations and center combinations. The ability to execute Urban Dance makes you a stronger, more well-rounded dancer. (F, Sp, Irreg.)

## MTHR 2181 Accents and Dialects for Musical Theatre Performance <br> 1 Credit Hour

Prerequisite: DRAM 1643 and DRAM 2513. This course offers a foundational exploration of the most commonly used accents and dialects for Musical Theatre performance. This International Phonetic Alphabet (IPA) is employed as a tool for exploring speech and will supplement practical tools and fundamental skills for developing successful accents and dialects for the stage. (Sp)

## MTHR 2222 Core Practice

2 Credit Hours
Prerequisite: May be repeated; maximum credit 12 hours. Designed to provide physical conditioning for musical theater performers. Included in the training will be C.O.R.E. principles (Corrective Oppositional Resistance Exercise), injury prevention, circuit training, kinesiological awareness designed to improve students' level of dance and mind/body connection. ( $\mathrm{F}, \mathrm{Sp}$ )

## MTHR 2442 Jazz II

2 Credit Hours
Prerequisite: MTHR 1442 or permission of instructor. May be repeated; maximum credit four hours. This advanced beginner class expands on the techniques learned in Jazz I with focus on cleanly executed technique, well connected movement quality, dynamics and increased strength and flexibility. A variety of jazz styles will be introduced. (F, Sp)

## MTHR 2502 Studio Voice II

2 Credit Hours
Prerequisite: Majors only; MTHR 1501, MTHR 1502, and MTHR 1551. May be repeated; maximum credit six hours. Continuing practice of vocal technique for musical theatre singing; includes developing range, flexibility and tone color. Application of technique through the study of intermediate level Broadway up-tempos and ballads, as well as Italian art song and European operetta. (F, Sp)

## MTHR 2552 Singing for the Stage

2 Credit Hours
Prerequisite: Non-majors only; May be repeated; maximum credit eight hours. Class is designed for non-majors only. Vocal technique for musical theatre singing, including technical exercises and application through the study of songs. (F, Sp)

MTHR 2970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: May be repeated; maximum credit nine hours. Special topics course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research, and field projects. (Irreg.)

MTHR 3112 Tap III
2 Credit Hours
Prerequisite: Majors only; MTHR 2112 and permission of instructor.
May be repeated; maximum credit six hours. An intermediate class with focus placed on refinement of technical and assimilation skills while dramatically increasing tap vocabulary. Students focus on tap dynamics, performance quality, style variety and movement coordination while learning longer and more complicated step patterns. Tap improvisation is introduced. (Irreg.)

MTHR 3142 Song Study I
2 Credit Hours
Prerequisite: 2122 or permission of instructor. Development of musical theatre performance technique through the study of solo song. Study includes exploring aspects of interpretation and expression to support the vocal, physical and mental aspects of performing. Emphasis is placed on integrating singing and acting skills. (F)

MTHR 3143 History of American Musical Theatre 3 Credit Hours Prerequisite: English 1213. Surveys history of the American musical theatre from its beginnings in the late 19th century to the present. (F, Sp) [IV-AF].
MTHR 3152 Song Study II
2 Credit Hours
Prerequisite: MTHR 3142. Expand analytical and performance skills through extended song forms. Study includes breath, body and visualization techniques to continue integrating vocal, physical and mental aspects of performing. Song Study II will focus on contemporary commercial music. (Sp)

MTHR 3162 Repertoire I
2 Credit Hours
Prerequisite: Musical Theatre majors only, MTHR 3152. Investigation of Broadway and Hollywood songwriting during the first half of the 20th Century. Performance material will consist of songs appropriate for the student's vocal range. Study includes critical listening to period recordings. (F)
MTHR 3172 Repertoire II
2 Credit Hours
Prerequisite: Musical Theatre majors only, MTHR 3162. Exploration of musical theatre repertoire from the second half of the 20th Century. Performance material will consist of songs appropriate for the student's vocal and physical range. Study includes viewing performances of artists from the Broadway stage. (Sp)
MTHR 3182 Musical Scenes I
2 Credit Hours
Prerequisite: 3152 or permission of instructor. Application of musical theatre performance technique utilizing scenes from the Broadway stage. Study includes using show research and script analysis to develop characterization. Emphasis is placed on creating unified performance both dramatically and musically. (F)
MTHR 3192 Musical Scenes II
2 Credit Hours
Prerequisite: 3182. Application of musical theatre performance skills using contemporary scenes from the Broadway stage. Study includes larger scene-song forms including one-acts or new-works from the musical theatre. (Sp)

MTHR 3440 Mentored Research Experience
0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)
MTHR 3442 Jazz III
2 Credit Hours
Prerequisite: MTHR 2442 and permission of instructor. May be repeated; maximum credit four hours. An intermediate class that moves at a heightened pace, this level expands on the techniques learned in Jazz II. Additional focus is placed on style variety, assimilation skills, and more advanced movement coordination and rhythms. (Irreg.)

## MTHR 3502 Studio Voice III

2 Credit Hours Prerequisite: 2502. May be repeated; maximum credit four hours. Broadening development of vocal technique for musical theatre singing; includes learning to blend the vocal registers for healthy tone production. Application of technique through the study of advanced level Broadway up-tempos and ballads, as well as German art song and American operetta. (F, Sp)

## MTHR 3960 Honors Reading

1-3 Credit Hours
Prerequisite: admission to Honors program and permission of instructor. Consists of either reading topics or independent study designated by the instructor in keeping with the student's major program. Covers materials not usually presented in the regular courses. ( $F, S$ P)

## MTHR 3970 Honors Seminar

1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Subjects covered vary. Deals with concepts not usually treated in regular courses. (Irreg.)
MTHR 3980 Honors Research
1-3 Credit Hours
Prerequisite: admission to Honors program and permission of instructor.
Provides an opportunity for the gifted Honors candidate to work at a special project in the student's field. (F, Sp)
MTHR 3990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: permission of instructor and junior standing. May be repeated once with change of content. Independent study may be arranged to study a subject not available through regular course offerings. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

## MTHR 4101 Advanced Performance Practicum

1 Credit Hour
Prerequisite: Majors only, Junior standing, and must be cast in a show; May be repeated; maximum credit four hours. Study and practice in rehearsal and performance as a cast member in musical theatre productions, including mainstage or cabaret/revue participation during the junior and senior years. ( $\mathrm{F}, \mathrm{Sp}$ )

## MTHR 4112 Tap IV

2 Credit Hours
Prerequisite: MTHR 3112 and permission of instructor; May be repeated; maximum credit four hours. This advanced class furthers the tap dancer's vocabulary, refines technical skills, greatly increases assimilation ability and furthers the study of tap improvisation. (Irreg.)

## MTHR 4162 Advanced Urban Dance 2 Credit Hours

Prerequisite: MTHR 2162 and Permission of Instructor; Majors only; May be repeated; maximum credit eight hours. Advance Urban Dance will build on the foundation of Intro to Urban Dance to provide students with the skills to learn and execute a a combination of many dance styles. Course content will include various dance styles influenced by hip hop, house, jazz funk, street jazz and modern technique. (F, Sp)

MTHR 4171 Industry
1 Credit Hour
Prerequisite: MTHR 4173; senior standing and majors only. This class focuses on preparation for musical theatre casting in New York City. Performance material will consist of songs appropriate for the students' vocal and physical range. (Sp)

MTHR 4172 Theatre Dance Styles I
2 Credit Hours
Prerequisite: 2112 and 2442, and senior standing, or permission of instructor. A practical and historical study of the Broadway dance styles. The main focus is in the jazz idiom; however, strong ballet, jazz, and tap skills are required. Emphasis is placed on technique, performance quality and auditioning skills. (F)
MTHR 4173 Coaching
3 Credit Hours
Prerequisite: Majors only and Senior standing. Advanced techniques of musical theatre performance through individual coaching. Study includes developing a song notebook appropriate to one's type for professional auditions and assignments related to working in the Broadway profession. Emphasis is placed on presenting a variety of musical and dramatic styles. (F)
MTHR 4182 Theatre Dance Styles II
2 Credit Hours
Prerequisite: 4172. This course is a continuing study of Broadway dance styles. Strong skills in jazz, ballet, and tap are required. Emphasis placed on techniques, performance quality and auditioning skills. (Sp)

MTHR 4183 Capstone Experience
3 Credit Hours
Prerequisite: Majors only and Senior standing. Requires written documentation in appropriate format. Senior year project which demonstrates mastery of skills and knowledge in musical theatre, selected under advisement and guided by appropriate faculty. (F, Sp) [V].
MTHR 4190 Special Studies
1-4 Credit Hours
1 to 4 hours. Prerequisite: junior standing, major in musical theatre, and permission of instructor. May be repeated with change of content; maximum credit six hours. Varying individual or small group topics or projects in the study and practice of musical theatre not covered in regularly scheduled courses. (Irreg.)
MTHR 4252 Advanced Tap
2 Credit Hours
Prerequisite: MTHR 4112 and permission of instructor; May be repeated; maximum credit eight hours. Class conducted at a professional level. Step breakdown will be minimized and students will be asked to create their own choreography and work heavily in improvisation. (F, Sp)

## MTHR 4442 Jazz IV

2 Credit Hours
Prerequisite: Permission of instructor. May be repeated; maximum credit four hours. An advanced class emphasizing strong technique and assimilation skills as well as the ability to adapt to any jazz style. Continued focus is placed on flexibility, strength, dynamics, and solid performance quality. (Irreg.)
MTHR 4502 Studio Voice IV
2 Credit Hours
Prerequisite: 3502. May be repeated; maximum credit four hours. Furthering development of vocal technique for musical theatre singing; includes practical application of technical skills and knowledge. Application of technique through the study of classics and contemporary Broadway up-tempos and ballads as well as French art song and American art song. (F, Sp)
MTHR 4960 Directed Readings 1-4 Credit Hours
1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean. May be repeated; maximum credit four hours. Designed for upper-division students who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)

MTHR 4970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: Senior standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

## MTHR 4990 Independent Study

1-3 Credit Hours
1 to 3 hours. Prerequisite: Senior standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)

## MUED-Music Education

MUED 1732 Introduction to Music Education 2 Credit Hours Prerequisite: Music Majors only. An overview of school music teaching. Designed to enable students to make early career choices. Students will observe music teaching in schools, develop a philosophy of music education, study psychological foundations as applied to music teaching, and become familiar with the total school music curriculum and its place in the school program. (F)

## MUED 1742 Introduction to Teaching Techniques in

Music 2 Credit Hours
Prerequisite: MUED majors only, MUED 1732. Second part of twosemester course sequence in music education. Sequential process of musical development, skills, content, methods, techniques and materials in the following areas: singing voice, classroom listening, sight reading, movement, and music series books. (Sp)
MUED 2112 Instrumental Music Education Methods I 2 Credit Hours Prerequisite: Majors only; MUTE 2242. This is the first in a series of three courses designed to prepare instrumental music education majors for public school teaching. This course focuses heavily on teaching/ rehearsing and conducting in a peer setting. Advanced conducting techniques, paired with an introduction to rehearsal techniques and sequencing, are a primary focus. (Sp)
MUED 3112 Instrumental Music Education Methods II 2 Credit Hours Prerequisite: Majors only; Junior Standing; MUED 2112. This is the second in a series of three courses designed to prepare instrumental music education majors for public school teaching. This course focuses heavily on teaching/rehearsing and conducting in a peer setting, performing on secondary string and wind/percussion instruments. A continued focus on advanced conducting and rehearsal techniques is a central component of the course. (Sp)

## MUED 3252 General Music Methods for Instrumental

## Majors

2 Credit Hours
Prerequisite: Majors only; Junior standing; MUED 1732. Sequential process of music development, skills, content, methods, techniques and materials suited to students in elementary and middle school grades. The course includes at least 10 hours of observation in elementary/secondary public school music programs. (F)

## MUED 3440 Mentored Research Experience 3 Credit Hours

 0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)MUED 3760 Field Experience for 3762
0 Credit Hours
Corequisite: 3762. Students will complete twelve to thirteen hours of independent teaching in a high school classroom. Fieldwork will take place in addition to course hours and must be scheduled through the instrumental music education office for field placement. (Sp)

MUED 3782 Internship in Piano Teaching
2 Credit Hours
Prerequisite: MUED 3783 or concurrent enrollment. Teaching of children from preschool through high school in groups and private lessons under faculty supervision. (F, Sp)

MUED 3783 Piano Pedagogy
3 Credit Hours
Prerequisite: Majors only, departmental permission, and eight hours of piano or organ. Required for piano majors and elective for other fields. Basic study of concepts necessary for successful private and class piano teaching at the elementary level. Student teaching required. (F)
MUED 3792 Internship in Piano Teaching 2 Credit Hours Prerequisite or corequisite: 3782 and 3783. Continuation of teaching skills begun in 3782. Teaching of children from preschool through high school in groups and private lessons under faculty supervision. (F, Sp)

MUED 3793 Piano Pedagogy
3 Credit Hours
Prerequisite: 3783. Required for piano majors and elective for other fields. Continuation of skills begun in 3783. Basic study of concepts necessary for successful private and class piano teaching at the intermediate level. Student teaching required. (Alt. Sp)
MUED 3823 Teaching General Music PreK-2
3 Credit Hours
Prerequisite: MUED 1732; majors only. Psychological foundations, teaching techniques and materials for vocal music instruction in prekindergarten through grade 2. Teaching techniques used in the Kodaly, Orff and other contemporary approaches will be examined. (F)
MUED 3832 Teaching Vocal/General Music 3-5 2 Credit Hours Prerequisite: MUED 1732; majors only. Sequential process of music development, skills, content, methods, techniques and materials suited to students in grades 3-5. (F)
MUED 3842 Teaching Vocal/General Music 6-8 2 Credit Hours Prerequisite: Junior standing, majors only, and MUED 1732. Sequential process of music development, skills, content, methods, techniques and materials suited to students in grades 6-8. Special attention given to the boys' changing voices. (Sp)
MUED 3852 Teaching Choral Music Grades 9-12 2 Credit Hours Prerequisite: MUED 1732, Junior standing, and majors only. Organization and management of choirs, repertoire appropriate to JHS/SHS choirs, rehearsal techniques, programming considerations, use of audio equipment, field experiences. (F)
MUED 3960 Honors Reading 1-3 Credit Hours 1 to 3 hours. Prerequisite: Admission to Honors Program. May be repeated; maximum credit six hours. Consists of topics designated by the instructor in keeping with the student's major program. The topics will cover materials not usually presented in the regular courses. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

## MUED 3970 Honors Seminar <br> 1-3 Credit Hours

1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Subjects covered vary. Deals with concepts not usually treated in regular courses. (Irreg.)
MUED 3980 Honors Research
1-3 Credit Hours
1 to 3 hours. Prerequisite: Admission to Honors Program. May be repeated; maximum credit six hours. Will provide an opportunity for the gifted Honors candidate to work at a special project in the student's field. (F, Sp, Su)

MUED 3990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: permission of instructor and junior standing. May be repeated once with change of content. Independent study may be arranged to study a subject not available through regular course offerings. (F, Sp, Su)

## MUED 4042 Capstone Seminar

2 Credit Hours
Prerequisite: concurrent enrollment in 4050 and 4060. The development of a teaching portfolio including a reflection log of teaching activities, written evaluations of video and audio episodes, and a summary of teaching successes and areas to be improved. (F, Sp) [V] .
MUED 4050 Teaching Experiences in the Elementary

## School

4-5 Credit Hours
Prerequisite: formal admission to student teaching; corequisite: 4042. Laboratory activities in music classes in elementary schools under competent direction and supervision: orientation, observation, and classroom teaching experiences supported by seminars and conferences focusing on the problems of teaching. Prospective teachers receive instruction, aid, and constructive supervision in classroom management, evaluation of pupil behavior, methods of teaching, selection of teaching materials, and school-home-community relations. (F, Sp)

## MUED 4060 Teaching Experiences in the Secondary

School 4-5 Credit Hours
Prerequisite: formal admission to student teaching; corequisite: 4042.
Correlation of theory and instructional practices in music classes in secondary schools; supervised observation, teaching, classroom management, and evaluation; acquaintance with the administration of a secondary school and the school program; selection and use of appropriate instructional materials; conferences with supervisors. (F, Sp)
MUED 4113 Instrumental Music Education Methods III 3 Credit Hours Prerequisite: Majors only; Junior standing; MUED 3113. This is the third in a series of three courses designed to prepare instrumental music education majors for public school teaching. This course focuses on the development of diagnostic and pedagogical skills while working with students. (F)
MUED G4752 Marching Band Techniques 2 Credit Hours Prerequisite: junior standing in music education. Organization of the marching band and its instrumentation, selecting and adapting music, marching fundamentals, marching styles and trends, planning and charting half-time shows, parade routines, auxiliary units and drum major signals. (Sp)
MUED 4762 String Pedagogy 2 Credit Hours Prerequisite: majors only; MUTE 2252 or MUTE 3252; junior standing. String teaching techniques in large and small group settings. Emphasis is on familiarizing students with teaching strategies for string classes in public schools. (Sp)

## MUED G4892 Vocal Pedagogy \& Diction for the Classroom Teacher <br> 2 Credit Hours

Prerequisite: junior standing and majors only. Study of vocal teaching techniques including anatomy of vocal tract, physiological process and acoustical properties. Repertory for high school students. (F)

## MUED 4960 Directed Readings <br> 1-4 Credit Hours

1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean. May be repeated; maximum credit four hours. Designed for upper-division students who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)

1 to 3 hours. Prerequisite: Senior standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)
MUED 4990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: Senior standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)
MUED 5212 Research in Music Education
2 Credit Hours
Prerequisite: graduate standing in music or music education or permission. Methods of analytical-historical research in music and historical, philosophical, descriptive and experimental research in music education. (F, Alt. Su)

## MUED 5312 Advanced Pedagogy and Practice in Instrumental

 Music 2 Credit HoursPrerequisite: Graduate standing, MUED 5212, and departmental permission. The course is designed to help practicing music educators gain advanced tools for teaching instrumental music. Topics include diverse wind/orchestral literature appropriate for a variety of levels and learning styles, strategies for comprehensive musicianship, effective rehearsal techniques, culturally responsive pedagogy, and issues pertaining to the overall development of an instrumental music program. (F)

## MUED 5322 Advanced Pedagogy and Practice in Choral

Music 2 Credit Hours
Prerequisite: Graduate standing, MUED 5212, and departmental permission. Course is designed to help practicing music educators gain advanced pedagogical tools for teaching choral music. Topics include diverse choral literature appropriate for a variety of levels and learning styles, pedagogical strategies for sight-reading and strengthening musicianship, effective rehearsal techniques, culturally responsive pedagogy, and issues pertaining to the overall development of a choral music program. (F)
MUED 5334 Capstone Project in Music Education 4 Credit Hours Prerequisite: Graduate standing, MUED 5212, and departmental permission. This course is designed to reflect an action-research project typical of the education field. The project will be directly related to the student's school classroom and his/her students. Over the course of a full semester, the student will identify a research-based issue in music education, collect and analyze data, and propose reformed teaching and learning practices informed by his/her findings. (F, Sp)

## MUED 5512 Contemporary and Commercial Music Vocal

 Pedagogy2 Credit Hours
Prerequisite: Graduate standing. The objective of graduate contemporary and commercial music (CCM) vocal pedagogy is to cover most of the necessary topics that concern the modern voice teacher when teaching non-classical and non-traditional vocal students. The course will survey the various technical adaptations needed to sing multiple CCM genres effectively and how to teach singers to perform this repertoire healthily. (Sp)

MUED 5522 Advanced Vocal Pedagogy
2 Credit Hours
Prerequisite: Graduate standing and MUTE 4312. This course will cover the topics that concern the modern voice teacher. Aspects of vocal and physical anatomy and physiology will be covered along with an introduction into the world of voice science, including interaction of formants and harmonics, resonance, registration, and spectral analysis. Teaching demonstrations will be required. (F)
MUED 5553 Kodaly Concept I 3 Credit Hours
Kodaly Concept I. Prerequisite: Graduate Standing. The Philosophy, Methodology And Techniques Of Teaching The Kodaly Concept In Music Education In Levels K-1. (F)
MUED 5562 Solfege I
2 Credit Hours
Solfege I. Kodaly Techniques Applied To The Practice And Skills Of Sight Singing, Ear Training And Dictation. Sight Singing Of Unison, Homophonic And Polyphonic Examples From The Classical Music Literature. Study Of Selected Books In The Kodaly Choral Method. (Sp)
MUED 5563 Kodaly Concept II 3 Credit Hours Prerequisite: 5553. The philosophy, methodology and techniques of teaching the Kodaly Concept of music education in levels 2-3. (Irreg.)
MUED 5572 Solfege II
2 Credit Hours
Prerequisite: 5562. Advanced Kodaly techniques applied to the practice and skills of sight singing, ear training and dictation. Sight singing examples will involve modulation, chromaticism and modes. (Su)

## MUED 5573 Kodaly Concept III

3 Credit Hours
Prerequisite: 5563. The philosophy, methodology and techniques of teaching the Kodaly concept of music education in levels 4-6.

## MUED 5582 Folk Song Research

2 Credit Hours
Prerequisite: 5553. Study of musical culture in America through analysis of melodic and rhythmic structures, forms and categories of American folk songs as source material for teaching the Kodaly Concept. (Irreg.)

## MUED 5612 Piano Pedagogy I

2 Credit Hours
Prerequisite: graduate standing or permission. Methods, materials, curriculum building and philosophical bases for teaching piano at the college and university levels with focus on group instruction. Student teaching required. (F)
MUED 5622 Piano Pedagogy II 2 Credit Hours
Prerequisite: graduate standing or permission. Methods, materials, curriculum building and philosophical bases for teaching piano at the elementary and intermediate levels. Student teaching required. (Sp)
MUED 5642 Internship in Piano Teaching
2 Credit Hours
Prerequisite: graduate standing. Teaching of children's classes, college classes, adult students or private lessons under faculty supervision. Designed to give the student experience in areas where none exists. ( $F$, Sp, Su)
MUED 5662 Teaching Intermediate and Advanced Piano 2 Credit Hours Prerequisite: graduate standing or permission. Methods, materials and curriculum building for teaching piano students at the intermediate through advanced levels. Focus will be on developing piano teaching techniques for high school and college-age students, studying repertoire that is appropriate for these students, and exploring performance practice suitable for pianists at the intermediate and advanced levels. (Alt. Sp)
MUED 5960 Directed Readings 1-3 Credit Hours
1 to 3 hours. Prerequisite: 18 hours of music, permission of the director of the school. May be repeated; maximum credit six hours. Individual topics in music education. (F, Sp, Su)

MUED 5970 Seminar in Music Education
1-6 Credit Hours
1 to 6 hours. Prerequisite: twelve hours of music education, graduate standing, or permission. May be repeated with change of subject matter; maximum graduate credit twelve hours. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
MUED 5980 Research for Master's Thesis 2-9 Credit Hours
Variable enrollment, two to nine hours; maximum credit applicable toward degree, four hours. (F, Sp, Su)
MUED 5990 Special Studies in Music Education 1-3 Credit Hours 1 to 3 hours. Prerequisite: permission of the director of the school. May be repeated with change of subject matter; maximum credit six hours. Individual study and research in the field of music education. (F, Sp, Su)
MUED 6012 Philosophical Foundations of Music Education 2 Credit Hours
Prerequisite: graduate standing in music or music education. Students will study the writings of Mursell, Leonhard, Reimer, Elliott, and others. Students will debate the theories these authors propose and prepare written papers applying aspects of these theories to music education practice in today's schools. (Irreg.)
MUED 6022 Psychological Foundations of Music Education 2 Credit

## Hours

Prerequisite: graduate standing in music or music education. Philosophies, theories, principles and concepts of learning and their implications to the teaching and learning processes in music education. The basic orientations of Associationist and Field theories will be investigated and the current status of learning theory applied to music education will be evaluated. Specific theories are those of Ausubel, Gagne, Guilford, Piaget, and Skinner and applications by Bruner, Gordon and Mursell. (Sp)
MUED 6032 Sociological Foundations of Music Education 2 Credit Hours
Prerequisite: graduate standing in Music or Music Education. Students will read works by Adorno, Becker, Blumer, Dewey, Mead, Vygotsky, and others. Students will debate the issues and theories these authors propose and will prepare written papers applying aspects of these theories to music education practice in today's schools. (Irreg.)
MUED 6042 Historical Foundations of Music Education 2 Credit Hours Prerequisite: graduate standing in Music or Music Education. Includes readings from works by Birge, Britton, Chase, Heller, Keene, Mark, and others that outline the development of music instruction in American schools. Students will debate the issues presented by these authors and prepare written papers on various historical movements and methodologies. (Irreg.)
MUED 6052 The History of Vocal Pedagogy
2 Credit Hours
Prerequisite: Graduate standing. The class will focus on a wide range of the most prominent literature connected with vocal pedagogy. Pedagogies from the 14th century through the current scholarship will be examined in the light of what the modern voice teacher should know and understand. The course will include the major names and treatises of both pedagogues and singers who became active teachers. (Sp)
MUED 6062 Vocal Performance and Teaching Psychology 2 Credit Hours
Prerequisite: Graduate standing. This course will cover material related to the teaching of singing and performance. Topics will include the psychology of singing and performance, and performance anxiety. Attitudes about practice and how and what to practice will be examined. Students will develop skills necessary to solve problems and learn how to practice effectively to remove obstacles that contribute to less ideal performance. (F)

## MUED 6212 Measurement and Evaluation in Music

## Education

2 Credit Hours
Prerequisite: graduate standing in music or music education. Techniques and methods of measuring and evaluating musical behavior in cognitive, affective and psychomotor domains. (Sp)

MUED 6222 Qualitative Research in Music Education 2 Credit Hours Prerequisite: graduate standing in music or music education. Required for the Music Education Ph.D. curriculum. Course assignments review qualitative research techniques applied to problems in music education. Students will study questionnaire development, interview formats, case study reporting, triangulation methods, and oral history methodologies. (Irreg.)
MUED 6242 Quantitative Research in Music Education 2 Credit Hours Prerequisite: graduate standing in music or music education. Required for the Music Education Ph.D. curriculum. Course assignments review empirical research techniques applied to problems in music education. Students study research design, population sampling, statistical formulae for analyzing data, and advanced statistical techniques such as factor analysis and regression analyses. (Irreg.)
MUED 6442 Current Trends in Music Education 2 Credit Hours Prerequisite: graduate standing in music or music education, permission. Identification and evaluation of current trends in music teaching. Individual projects expected. (Alt. F)
MUED 6642 Workshop in Vocal Pedagogy 2 Credit Hours
Prerequisite: Graduate standing and instructor permission. With faculty mentorship, the DMA candidate will prepare, promote, and conduct a public workshop for voice teachers. The workshop will have an emphasis on pedagogy techniques, vocal styles, repertoire for the various levels of singer or advances in voice science. The workshop should range between 4 and 5 hours and is a requirement for the DMA degree. (F, Sp, Su)
MUED 6652 Doctoral Workshop in Piano Pedagogy 2 Credit Hours Prerequisite: doctoral standing and permission. A public workshop for piano teachers concentrating on teaching techniques and materials. The workshop must be a least five hours in length. Terminal degree requirement in lieu of recital. ( $F, S p, S u$ )
MUED 6960 Directed Readings
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit six hours. Directed readings and/or literature review under the direction of a faculty member. (Irreg.)

MUED 6970 Special Topics/Seminar 1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit 12 hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or research and field projects. (Irreg.)
MUED 6980 Research for Doctoral Dissertation 2-16 Credit Hours 2 to 16 hours. Prerequisite: Graduate standing and permission of instructor; may be repeated. Directed research culminating in the completion of the doctoral dissertation. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

## MUED 6990 Independent Study

1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)

## MULI-Music Literature

MULI 2970 Special Topics in Music Literature 1-3 Credit Hours
Majors only. 1 to 3 hours. May be repeated with change of subject matter; maximum credit nine hours. Content changes each semester. Study of newly developed, experimental or inter-disciplinary topics in music literature. (Irreg.)

## MULI 3440 Mentored Research Experience <br> 3 Credit Hours

0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)
MULI 4242 The History of the American Theatre Pipe Organ

2 Credit Hours
(Slashlisted with MULI 5242) Prerequisite: Majors only. A historical survey of the development of the theatre pipe organ as a medium for entertainment, as well as its social impact on American culture and beyond. No student may earn credit for both 4242 and 5242. (Fall, alternating years)
MULI 4453 Organ Literature
3 Credit Hours
Prerequisites: Junior standing; majors only. A general survey of organ literature, composers, performers, builders and instruments from the Baroque period through modern times. The course goal is for students to be able to identify style characteristics of periods in general and composers in particular, as well as trends in organ building and how those trends influenced composers and performers. (Irreg.)
MULI G4523 Keyboard Literature 3 Credit Hours
Prerequisite: Music History 2313, 2323, 3333, or permission. (Alt. F)
MULI G4533 Keyboard Literature 3 Credit Hours
Prerequisite: Music History 2313, 2323, 3333, or permission. (Alt. Sp)
MULI G4543 Introduction to Vocal Literature 3 Credit Hours
Prerequisite: Junior standing and music majors only. This course provides an introduction to vocal literature through the intensive study of the German Lied, French melodie, and English, American and Italian art song. The main emphasis will be on songs for the solo voice; some examples from opera, oratorio, and vocal chamber music might also be discussed. (Irreg.)

MULI 4552 Choral Literature
2 Credit Hours
(Slashlisted with MULI 5552) Prerequisite: Majors only; Junior Standing; may be repeated with change of content; maximum credit 4 hours. A focused survey of choral literature from the early Renaissance through the present organized in the context of distinctive concert programming for a variety of choral ensembles including secondary school (MS and HS), collegiate, church, civic, male voice, and female voice choirs. Special attention will be given to pedagogical aims, concert programming, performance practice, and instruction in choral music sources. No student may earn credit for both 4552 and 5552. (Irreg.)

## MULI 4612 Harp Orchestral Literature

2 Credit Hours
(Slashlisted with MULI 5612) Prerequisite: majors only, junior standing. This course is designed to prepare the harp student for orchestral auditions. Classes will consist of learning a book of standard orchestral audition excerpts, studying scores, and listening to audition excerpts. No student may earn credit for both 4612 and 5612. (Irreg.)

MULI 4960 Directed Readings
1-4 Credit Hours
1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean. May be repeated; maximum credit four hours. Designed for upper-division students who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)

MULI 4970 Undergraduate Seminar 1-3 Credit Hours
1 to 3 hours. Prerequisite: permission of department. In-depth study of topics of interest as appropriate to the field of study. May be repeated; maximum credit nine hours. Subjects such as The Art Song since 1950; The Symphonic Music of Charles Ives; Songs of the American Revolution; Music of the American Theatre; The String Quartets of Haydn; and the like, are illustrative of topics that may be offered. ( $\mathrm{F}, \mathrm{Sp}$ )

MULI 4990 Independent Study 1-3 Credit Hours
1 to 3 hours. Prerequisite: Senior standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)

MULI 5242 The History of the American Theatre Pipe

## Organ

2 Credit Hours
(Slashlisted with MULI 4242) Prerequisites: Graduate Standing. Majors only. A historical survey of the development of the theatre pipe organ as a medium for entertainment as well as its social impact on American culture and beyond. No student may earn credit for both 4242 and 5242. (Fall, alternating years)

MULI 5412 Vocal Literature for the Teaching Studio 2 Credit Hours Prerequisite: Graduate standing or permission of instructor. This class surveys the standard repertoire from the areas of art song, operatic arias, and musical theater selections for use in the college studio. Repertoire examined will be in all major languages, Italian, German, French, English, Russian, Czech, Swedish, and Spanish from all time periods with the goal of learning when and how to introduce material to the college student. (Sp)
MULI 5422 20th and 21st-Century Vocal Literature 2 Credit Hours Prerequisite: Graduate standing in Music or permission of instructor. This interactive seminar will survey vocal music of the 20th and 21 st centuries and teach students how to discover newly emerging works appropriate for their voices. Literature will be introduced within a series of relevant topics. Significant time will be devoted to the discussion of diversity and representation considerations in repertoire decisions and recital/concert programming. (F)
MULI 5453 Organ Literature I: Renaissance and Baroque 3 Credit Hours Prerequisite: graduate standing, for majors only. A study of organ literature from its origins to 1750 through analysis, readings, listening, and lectures. Students will examine the relationships between the music and the organs of the time. Emphasis will also be placed on the role of organ music in the surrounding culture, both musical and social. (Irreg.)

MULI 5463 Organ Literature II: 1750-1900
3 Credit Hours
Prerequisites: graduate standing, for majors only. A study of organ literature from 1750 to 1900 through analysis, readings, listening, and lectures. Students will examine the relationships between the music and the organs of the time. Emphasis will also be placed on the role of organ music in the surrounding culture, both musical and social. (Irreg.)

MULI 5473 Organ Literature III: 1900-Present 3 Credit Hours
Prerequisite: graduate standing, for majors only. A study of organ literature from 1900 to the present through analysis, readings, listening, and lectures. Students will examine the relationships between the music and the organs of the time. Emphasis will also be placed on the role of organ music in the surrounding culture, both musical and social. (Irreg.)

## MULI 5483 Hymnody

3 Credit Hours
Prerequisite: graduate standing or permission. A historical survey of the development of Christian hymnody from the early/Byzantine period through current times. Includes lectures and analysis of texts, tunes and other primary source material. Hymns will be studied in their historical and social context. Students will also examine the role of hymns in western art music. (F, Sp)

MULI 5552 Choral Literature

## 2 Credit Hours

(Slashlisted with MULI 4552) Prerequisite: Graduate standing, music majors only, and may be repeated with change of content; maximum credit 4 hours. A focused survey of choral literature from the early Renaissance through the present organized in the context of distinctive concert programming for a variety of choral ensembles, including secondary school (MS and HS), collegiate, church, civic, male voice, and female voice choirs. Special attention will be given to pedagogical aims, concert programming, performance practice, and instruction in choral music sources. No student may earn credit for both 4552 and 5552. (Irreg.)
MULI 5612 Harp Orchestral Literature 2 Credit Hours (Slashlisted with MULI 4612) Prerequisite: majors only, graduate standing, and departmental permission. This course is designed to prepare the harp student for orchestral auditions. Classes will consist of learning a book of standard orchestral audition excerpts, studying scores, and listening to audition excerpts. No student may earn credit for both 4612 and 5612. (Irreg.)

MULI 5960 Directed Readings
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing and permission of department. May be repeated; maximum credit twelve hours. Directed readings and/or literature reviews under the direction of a faculty member. (F, Sp, Su)
MULI 5970 Seminar in Music Literature 1-4 Credit Hours
1 to 4 hours. Prerequisite: 30 hours of music, graduate standing or permission. May be repeated with change of subject matter; maximum graduate credit 12 hours. (F, Sp)

MULI 5990 Special Studies 1-3 Credit Hours Prerequisite: graduate standing; permission of the director of the school. May be repeated with change of subject matter; maximum credit six hours. Individual study and research in the field of music literature. (F, Sp, $\mathrm{Su})$

## MUNM-Music for Non-Majors

MUNM 1022 Beginning Instrument/Voice Class I 2 Credit Hours For non-music majors with no experience in the instrument/voice only. May be repeated for credit; maximum credit eight hours. Class instruction in basic performance/musicianship skills. This course does not count for major credit in the School of Music. (F, Sp)
MUNM 1032 Beginning Instrument/Voice Class II 2 Credit Hours Prerequisite: 1022 or permission. For non-music majors with limited instrumental/vocal experience only. May be repeated for credit; maximum credit eight hours. Class instruction in basic performance/musicianship skills. This course does not count for major credit in the School of Music. (F, Sp)

MUNM 1100 Freshman and/or Sophomore Piano, Violin, Etc., for
Nonmusic Majors $\quad 1-2$ Credit Hours
1 to 2 hours. Prerequisite: permission of instructor. Enrollment is subject to faculty availability and will not be accepted until the first day of classes. Private instruction in the development of instrumental or vocal performance skills and musicianship. This course does not count for major credit in the School of Music. (F, Sp, Su)
MUNM 1113 The Understanding of Music
3 Credit Hours
Open to non-music majors. A course in music appreciation covering all of the important fields of music, with opportunity for the students to listen to recordings and to attend concerts. This course does not count for major credit in the School of Music. (F, Sp, Su) [IV-AF].
MUNM 1143 American Popular Music 3 Credit Hours A study of the evolution of popular music found in America from the early minstrel shows of the nineteenth century through the current trends of today. Students will be expected to listen to and identify music from a variety of musical styles. The social and historical contexts in which this music was performed and composed will also be examined as part of the course. (F, Sp) [IV-AF].
MUNM 1153 Songs that Shaped the Country
3 Credit Hours
This class looks at the societal elements of the United States that shaped popular music and how popular music shaped the societal elements of the United States. In addition, students will learn how to play these songs or similar ones on the guitar. No music experience necessary. Guitars will be provided for to students who don't have access to one. (Irreg.) [IV-AF].
MUNM 1163 History of Video Game Music
3 Credit Hours
A study of the evolution of video game music from simple sound effects and chip tunes to today's billion-dollar crossover industry influenced by other musics. An overview of the history of video game music with a focus on world music influences and encourage students to think critically about video games and the sounds that bring these virtual worlds to life. (F, Sp)

## MUNM 1743 Experiencing Music

3 Credit Hours
Designed as an introduction to the varied strands of folk music in America. Involves examination of the historical, cultural and social implications of American folk songs; performance and analysis of folk songs as musical art forms; and the link between folk songs and largescale contemporary musical compositions. This course does not count for major credit in the School of Music. (F, Sp) [IV-AF].
MUNM 2313 History of Jazz
3 Credit Hours
Open to non-music majors. Detailed study of jazz as a major art form. Studies the development of jazz through the growth of distinct styles. Stylistic change and cultural ties are made through representative works. Critical listening and evaluation are a major element. No prior knowledge is necessary. This course does not count for major credit in the School of Music. (F, Sp, Su) [IV-AF].

## MUNM 2413 Music in Film

3 Credit Hours
A "grand tour" of the esthetics and dramatic techniques of film music since 1895. Excerpts from commercial "silent era" and "sound era" films will be viewed and studied as examples of film music development and the composer's art. (Irreg.) [IV-AF].

MUNM 2513 Music in the Rock Era: Heavy Metal 3 Credit Hours This course covers the globally popular yet often socially and critically maligned rock music genre of heavy metal from its inception in the late 1960s to the present day. We will cover musical characteristics associated with the style, investigate its fan culture, social impact, and meaning, and explore its interaction with the music industry. Related musical styles will be discussed to give additional points of reference. Previous knowledge of music and the heavy metal genre is not required. The development of critical thinking and listening skills is an important element of this class. (Sp, Su) [IV-AF].
MUNM 2970 Special Topics in Music 1-3 Credit Hours Open to non-music majors. 1 to 3 hours. May be repeated with change of subject matter; content changes each semester. Study of newly developed, experimental or inter-disciplinary topics in music. This course does not count for major credit in the School of Music.

## MUNM 3100 Junior and/or Senior Piano, Violin, etc., for Nonmusic Majors <br> 1-2 Credit Hours

1 to 2 hours. Prerequisite: permission of instructor. Enrollment is subject to faculty availability and will not be accepted until the first day of classes. Private instruction in the development of instrumental or vocal skills and musicianship. This course does not count for major credit in the School of Music. (F, Sp, Su)
MUNM 3113 World Music
3 Credit Hours
Prerequisite: junior standing. Study of music as human culture focusing on classical, popular and folk music beyond Western Art Music. Several representative cultures may include music of Native America, India, West Africa, South America, and Indonesia. Field study, music-making projects, and analysis of live performances of ethnic music are included. This course does not count for major credit in the School of Music. (F, Sp, Su) [IV-WDC].
MUNM 3213 Native American Music
3 Credit Hours
Prerequisite: junior standing. Study of Native American music of the North American continental United States (with special emphasis on music of the Plains tribes). Field study, instrument building, analytical essays of live performances and a high level of aural classroom experience will be included. This course does not count for major credit in the School of Music. [IV-WDC] .
MUNM 3313 African Repercussions
3 Credit Hours
Prerequisite: junior standing; Open to non-music majors. Study of music culture focusing on the African impact. Several areas of influence explored in depth include African traditional music, Afro Pop, Reggae and Caribbean fusion, American black gospel, rhythm and blues, and jazz. Written analyses on recorded and live music are emphasized. This course does not count for major credit in the School of Music. (F, Sp) [IV-WDC].
MUNM 3440 Mentored Research Experience 3 Credit Hours 0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)

## MUNM 3513 Music of South Asia

3 Credit Hours
Prerequisite: junior standing. Focuses on music cultures of South Asia with particular emphasis on the Indian subcontinent. Examines the musical qualities and cultural meaning of Northern (Hindustani) and Southern (Karnatak) classical styles as well as regional folk, popular (film), temple music, and devotional music. (F, Sp) [IV-WDC].

MUNM 3613 Middle Eastern Music 3 Credit Hours
Prerequisite: junior standing. Study of musical systems observed in the Arab world and parts of the Mediterranean. Explores overarching concepts of melody and rhythm in Middle Eastern music, namely the maqam and iqa', and their manifestation in various musical cultures of the East Arab world, North Africa, Turkey, and the Balkans. Course does not count for major credit in the School of Music. (F, Sp) [IV-WDC].
MUNM 3713 Jazz: Development of an African-American Art Form

3 Credit Hours
Prerequisite: Junior standing. This class will examine the history of jazz, its major exponents, structural elements, and socio-cultural aspects, through lectures, discussions, listening sessions, films, and live performances and demonstrations. The readings and assignments will deepen the student's knowledge, understanding, and appreciation of this American art form. (F, Sp) [IV-WC].
MUNM 3813 European Cultures of Crusade - 1096 to the
Present 3 Credit Hours
Prerequisite: Junior Standing. The Crusades, Christian expeditions in which Europeans travelled to distant battlegrounds to conquer Muslims, Jews, heretics, and pagans, shaped Western culture and identity for nearly a millennium. This course examines the Crusades through history, song, opera, film, games, and other media, exploring relationships between identity and difference, community and singularity, desire and distance, love (sacred and worldly) and violence. (Sp)
MUNM 3960 Honors Reading 1-3 Credit Hours
1 to 3 hours. Prerequisite: Admission to Honors Program. May be repeated; maximum credit six hours. Consists of topics designated by the instructor in keeping with the student's major program. The topics will cover materials not usually presented in the regular courses. (F, Sp, Su)
MUNM 3970 Honors Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Subjects covered vary. Deals with concepts not usually treated in regular courses. (Irreg.)
MUNM 3980 Honors Research 1-3 Credit Hours
1 to 3 hours. Prerequisite: Admission to Honors Program. May be repeated; maximum credit six hours. Will provide an opportunity for the gifted Honors candidate to work at a special project in the student's field. (F, Sp, Su)
MUNM 3990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: permission of instructor and junior standing. May be repeated once with change of content. Independent study may be arranged to study a subject not available through regular course offerings. (F, Sp, Su)

## MUNM 4960 Directed Readings

1-4 Credit Hours
1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean. May be repeated; maximum credit four hours. Designed for upper-division students who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)
MUNM 4970 Undergraduate Seminar
1-3 Credit Hours
Open to non-music majors. 1 to 3 hours. Prerequisite: 1113 or permission of instructor. May be repeated with change of subject matter; content changes each semester. Study of newly developed, experimental or interdisciplinary topics in music. This course does not count for major credit in the School of Music. (Irreg.)

MUNM 4990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: Senior standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)
MUNM 5100 Graduate Piano, Violin, etc for Nonmusic Majors

1-2 Credit Hours
1 to 2 hours. Prerequisite: graduate standing and permission; four semesters of previous study in the instrument or voice. Enrollment is subject to faculty availability and will not be accepted until the first day of classes. Private instruction in the development of instrumental or vocal skills and musicianship. This course does not count for major credit in the School of Music. (F, Sp, Su)
MUNM 5960 Directed Readings
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing and permission of department. May be repeated; maximum credit twelve hours. Directed readings and/or literature reviews under the direction of a faculty member. (F, Sp, Su)
MUNM 5970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)
MUNM 5990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)

## MUS-Music

MUS 2970 Special Topics in Music 1-3 Credit Hours
1 to 3 hours. Prerequisite: May be repeated with change of subject matter; content changes each semester. Study of newly developed, experimental, or inter-disciplinary topics in music. (Irreg.)
MUS 3440 Mentored Research Experience
3 Credit Hours
0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)
MUS 3960 Honors Reading
1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated with change of subject; maximum credit six hours. Consists of either reading topics or independent study designated by the instructor in keeping with the student's major program. Covers materials not usually presented in the regular courses. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

MUS 3970 Honors Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program; junior or senior standing. May be repeated with change of subject; maximum credit six hours. The projects covered will vary. Deals with concepts not usually presented in regular coursework. (Irreg.)

MUS 3980 Honors Research
1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated with change of subject; maximum credit six hours. Provides an opportunity for the gifted Honors candidate to work at a special project in the student's field. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

## MUS 3990 Independent Study <br> 1-3 Credit Hours

1 to 3 hours. Prerequisite: permission of instructor and junior standing. May be repeated once with change of content. Independent study may be arranged to study a subject not available through regular course offerings. (F, Sp, Su)

## MUS 4023 Senior Capstone - BA Degree

3 Credit Hours
Prerequisites: majors only; MUTH 2622; and permission. Research and reading leading to a senior capstone paper in consultation with individual faculty. (F, Sp) [V].

## MUS 4960 Directed Readings

1-4 Credit Hours
1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean. May be repeated; maximum credit four hours. Designed for upper-division students who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)
MUS 4970 Undergraduate Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: permission of department. May be repeated; maximum credit six hours. In-depth study of topics of interest. Subjects such as The Aesthetics of Music; Musical Criticism; Music in American Culture; Music of the American Indians; The Band as a Cultural Phenomenon; and the like, are illustrative of the topics that may be pursued. (Irreg.)
MUS 4990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: Senior standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)

MUS 5111 Bibliography and Research in Music 1 Credit Hour Prerequisite: Graduate standing in the School of Music. The goals of this course are to provide a model of a coherent, systematic process to follow to conduct research on any music topic, and to learn the rules of academic writing style. The model of scholarly research and writing has many uses in the music profession. This is an eight-week, one credit hour course. (F)
MUS 5121 Document Proposal

## 1 Credit Hour

Prerequisite: Graduate standing in the School of Music. The objective of this course is to write a DMA document proposal. This includes finding an appropriate topic, exploring ways to present a thesis, working on the writing skills, and practicing extemporaneous speaking. Students do not have to be at the proposal writing stage or in the DMA program to enroll. This is an eight-week, one credit hour course. (Irreg.)

MUS 5960 Directed Readings 1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing and permission of department. May be repeated; maximum credit twelve hours. Directed readings and/or literature reviews under the direction of a faculty member. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

## MUS 5970 Special Topics/Seminar

1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

MUS 5990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)

MUS 6880 Doctor of Musical arts Project
2-8 Credit Hours
2 to 8 hours. Prerequisite: admission to DMA degree program; permission of adviser and instructor. Research and/or creative endeavor leading to the completion of the final written project for the degree Doctor of Musical Arts. (F, Sp, Su)
MUS 6960 Directed Readings
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit six hours. Directed readings and/or literature review under the direction of a faculty member. (Irreg.)

MUS 6970 Special Topics/Seminar 1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit 12 hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or research and field projects. (Irreg.)
MUS 6990 Independent Study 1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)

## MUSC-Musicology

MUSC 1312 Music in Culture
2 Credit Hours
Required of all music majors; nonmusic majors admitted by permission. A study of music in its cultural context, exploring the inter-relationship of music to such aspects as everyday life, worship and belief, migration, dance, memory, politics, and identity. Techniques of aural perception are stressed for the improvement of basic listening skills. (Sp) [IV-AF].
MUSC 2313 Ancient Times to 1700
3 Credit Hours
Prerequisite: 1312. A study of the development of music from its inception to the late Baroque era conducted through lectures, readings, listening and analysis. (F) [IV-WC].

MUSC 2323 Late Baroque Through Romantic Period 3 Credit Hours Prerequisite: 1312. A study of the development of music in the eighteenth and nineteenth centuries conducted through lectures, readings, listening and analysis. (Sp) [IV-WC] .

MUSC 3333 Post-Romantic Period to the Present 3 Credit Hours Prerequisite: 1312. A study of the development of music from the PostRomantic era to the present day conducted through lectures, readings, listening and analysis. (F) [IV-WC].

## MUSC 3440 Mentored Research Experience <br> 3 Credit Hours

0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)

MUSC 3960 Honors Reading
1-3 Credit Hours
1 to 3 hours. Prerequisite: Admission to Honors Program. May be repeated; maximum credit six hours. Consists of topics designated by the instructor in keeping with the student's major program. The topics will cover materials not usually presented in the regular courses. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

## MUSC 3970 Honors Seminar <br> 1-3 Credit Hours

1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Subjects covered vary. Deals with concepts not usually treated in regular courses. (Irreg.)

MUSC 3980 Honors Research
1-3 Credit Hours
1 to 3 hours. Prerequisite: Admission to Honors Program. May be repeated; maximum credit six hours. Will provide an opportunity for the gifted Honors candidate to work at a special project in the student's field. (F, Sp, Su)
MUSC 3990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: permission of instructor and junior standing. May be repeated once with change of content. Independent study may be arranged to study a subject not available through regular course offerings. (F, Sp, Su)
MUSC 4960 Directed Readings
1-4 Credit Hours
1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean. May be repeated; maximum credit four hours. Designed for upper-division students who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)

MUSC 4970 Undergraduate Seminar 1-3 Credit Hours
1 to 3 hours. Prerequisite: permission of department. May be repeated with change of content; maximum credit nine hours. In-depth study of topics of interest as appropriate to the field of study. Subjects such as the style, aesthetics, and influence of a particular composer, i.e., Beethoven, Berlioz, Brahms; the social/cultural foundations of a particular musical era or period; notational systems; and the like, are illustrative of the topics that may be pursued. (Sp)
MUSC 4990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: Senior standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)

MUSC 5100 Music History Graduate Review I 1 Credit Hour 0 to 1 hour. Prerequisite: majors only. Designed to provide remediation to graduate students who did not pass the preliminary exam in early music history. In order to register for graduate musicology seminars, students must either have passed the preliminary exam or have passed this review course. This class is held during the first eight weeks of the semester. The Medieval, Renaissance, and Baroque eras are studied. (F, Sp)

## MUSC 5200 Music History Graduate Review II 1 Credit Hour

0 to 1 hour. Prerequisite: majors only. Designed to provide remediation to graduate students who did not pass the preliminary exam in early music history. In order to register for graduate musicology seminars, students must either have passed the preliminary exam or have passed the review course. This class is held during the last eight weeks of the semester. Classical, Romantic, and 20th century periods are studied. (F, Sp)
MUSC 5323 History of Opera 3 Credit Hours
Prerequisite: graduate standing or permission; 2313,2323,3333, or equivalent. Changes of content, style and form in dramatic music as related to social, economic and political change in the past 350 years of western civilization. (Irreg.)

MUSC 5373 History of American Music
3 Credit Hours
Prerequisite: graduate standing or permission; 2313,2323, 3333, or equivalent. Music in the United States from its beginnings to the present. (Irreg.)
MUSC 5433 Ethnomusicology
3 Credit Hours
Prerequisite: Graduate standing or permission of the department. A study of world music from an issue and concepts orientation, including illustrative musical expressions from a variety of world areas. (Irreg.)

MUSC 5513 Music in the Middle Ages
3 Credit Hours
Prerequisite: graduate standing. Majors only. A detailed survey of music from Hildegard of Bingen through Guillaume de Machaut. Explores a wide variety of medieval musical repertories, including major sacred and vernacular musical genres. Through detailed study of primary and secondary materials, we will examine musical structures as well as the historical contexts within which they were produced. (Irreg.)

MUSC 5523 Music in the Renaissance: Style, Theory and Performance 3 Credit Hours
Prerequisite: graduate standing; 2313 or equivalent. An integrated course that correlates vocal and instrumental Renaissance music by the major composers with the major writers of the time on musical theory, acoustics, philosophy, esthetics, history and performance. (Irreg.)
MUSC 5543 The Baroque Era 3 Credit Hours
Prerequisite: graduate standing or permission; 2313, 2323, 3333, or equivalent. A detailed study of music from Monteverdi through J.S. Bach. (Irreg.)
MUSC 5583 Music from 1900-1945 3 Credit Hours Prerequisite: Graduate standing or permission of the department. A study of European and American classical music during this period. (Irreg.)

## MUSC 5960 Directed Readings

1-3 Credit Hours
1 to 3 hours. Prerequisite: 18 hours of music, permission of the director of the school. May be repeated; maximum credit six hours. Individual topics in music history and literature. (F, Sp, Su)
MUSC 5970 Seminar in Music History 1-4 Credit Hours 1 to 4 hours. Prerequisite: 30 hours of music or permission. May be repeated with change of subject matter; maximum graduate credit 12 hours. (F, Sp, Su)
MUSC 5980 Research for Master's Thesis 2-9 Credit Hours Variable enrollment, two to nine hours; maximum credit applicable toward degree, four hours. Music television emphasis also requires the production of a half-hour broadcast-quality television program as part of thesis research. (F, Sp, Su)
MUSC 5990 Special Studies in Music History 1-3 Credit Hours 1 to 3 hours. Prerequisite: 30 hours of music, permission of the director of the school. May be repeated with change of subject matter; maximum graduate credit six hours. Individual study, research and analysis. (F, Sp, Su )

## MUTE-Music Technique

MUTE 1000 Freshman/Transfer Music Orientation 0 Credit Hours Prerequisite: majors only. To help ensure that music students are aware of the varied and numerous performance opportunities, and to encourage educated listening skills and habits. (F, Sp)
MUTE 1010 Recital Attendance 0 Credit Hours
0 hours credit. Performance laboratory for all undergraduate music majors. (F, Sp)

MUTE 1050 Wind Symphony
1 Credit Hour
0 to 1 hours. The University of Oklahoma Wind Symphony is the flagship wind and percussion ensemble at OU. It explores established repertoire, significant new works, and premieres. Membership is by audition. The Wind Symphony performs five concerts each academic year. Music students enroll in 1050 prior to their sophomore barrier. Non-majors seeking lower-level credit should enroll in this section. (F, Sp)
MUTE 1060 Symphony Band
1 Credit Hour
0 to 1 hours. The University of Oklahoma Symphony Band performs significant repertoire for wind and percussion instruments. The ensemble is comprised of talented undergraduate and graduate students who have demonstrated an outstanding level of musicianship through an audition procedure. The Symphony Band performs four concerts each academic year featuring new works as well as core repertoire for Winds and Percussion. (F, Sp)
MUTE 1070 University Marching Band
1 Credit Hour
0 to 1 hours. Pride of Oklahoma Marching Band. Membership is by audition. (F)
MUTE 1080 Campus Band
1 Credit Hour
0 to 1 hours. Performance band for non majors and a major ensemble credit for music majors upon the approval of applied professor and the conducting faculty. (Sp)

## MUTE 1090 Basketball Band

1 Credit Hour
0 to 1 hours. Sound of the Sooners Men's and Women's Basketball Bands. Continuation of the fall basketball band rehearsals for the Men's and Women's basketball bands. Students learn by performing throughout the spring Men's and Women's Basketball home schedule and during all Conference and NCAA Tournament Travel. Membership is by audition. (Sp)

## MUTE 1120 Jazz Ensemble

1 Credit Hour
0 to 1 hour. Prerequisite: permission by audition. May be repeated for credit; maximum credit eight hours. Preparation and performance of music written in a variety of jazz styles. (F, Sp)
MUTE 1140 University Orchestra 1 Credit Hour 0 to 1 hour. Prerequisite: permission by audition. May be repeated for credit; maximum credit eight hours. Performance in University orchestra. (F, Sp, Su)
MUTE 1160 University Chorale
1 Credit Hour
0 to 1 hour. Prerequisite: permission; membership determined by audition. May be repeated for credit; maximum credit eight hours. An ensemble of high caliber; approximately 24 singers. Rehearsal and performance of choral and choral-orchestral masterworks drawn mostly from the baroque through twentieth-century style periods. Several performances each semester. (F, Sp, Occas. Su)
MUTE 1180 Singing Sooners
1 Credit Hour
0 to 1 hour. May be repeated for credit; maximum credit six hours. Nonaudition; hearing for vocal placement within ensemble. Wide variety of styles from popular to major choral works, combining with other choirs. (F, Sp)

MUTE 1280 Opera Chorus
1 Credit Hour
$0-1$ hours. May be repeated; maximum credit 8 hours. The OU Opera Chorus is a 24 -member performing ensemble. This select ensemble will perform one fully staged opera production. Membership is open through audition to all students in any degree program at OU. Music majors must participate in both Choral Union and Opera Chorus each semester to fulfill large ensemble credit for undergraduates and graduates. (F, Sp)

MUTE 1282 Italian and English Lyric Diction 2 Credit Hours
Prerequisite: Majors only. Italian and English Lyric Diction provides an introduction to the principles of pronunciation of the Italian and English languages in speech and singing. In English, the American, Mid- Atlantic, British and General Southern dialects will be addressed. Frequent performance and coaching of poetic readings, songs, arias and recitative in class will provide opportunity to develop accurate and expressive communication. (F)

## MUTE 1290 Women's Chorus

1 Credit Hour
$0-1$ hours. May be repeated; maximum credit 8 hours. This ensemble is dedicated to the study and performance of music for the female voice. Annual performances include the Fall and Spring concerts, Christmas at OU, and the President's Concert. Membership is open through audition to female students in any degree program at OU. Fulfills large ensemble credit for undergraduate and graduate music majors. ( $\mathrm{F}, \mathrm{Sp}$ )
MUTE 1310 Men's Glee Club 1 Credit Hour
$0-1$ hours. May be repeated; maximum credit 5 hours. This ensemble is dedicated to the study and performance of music for the male voice. Annual performances include the Fall and Spring concerts, Christmas at OU, and the President's Concert. Membership is open through audition to male students in any degree program at OU . ( $\mathrm{Fa}, \mathrm{Sp}$ )
MUTE 1311 Group Piano I
1 Credit Hour
Prerequisite: permission. Development of functional piano skills for the non-keyboard music major. Emphasis on keyboard theory and technique, sight reading, solo/ensemble repertoire and creative activities (harmonization, improvisation). Laboratory (F, Sp)

MUTE 1321 Group Piano II 1 Credit Hour Prerequisite: 1311 and permission. Continued development of the skills begun in 1311. Laboratory (F, Sp)
MUTE 1332 Functional Piano Skills I
2 Credit Hours
Prerequisite: piano major, piano emphasis, permission. Experience in sight reading, playing by ear, modulation, open score reading, transposition and improvisation at the keyboard. (F)
MUTE 1342 Functional Piano Skills II 2 Credit Hours Prerequisite: 1332 or permission. Experience in sight reading, playing by ear, modulation, open score reading, transposition and improvisation at the keyboard. (Sp)
MUTE 2000 Sophomore Barrier
0 Credit Hours
Prerequisite: Majors only; Sophomore standing; Students must be in their fourth semester of 2020-level lessons or have permission from their studio instructor. The Sophomore Barrier is a formal performance exam required of all students enrolled in the BM, BME, and BMA degree programs at the end of their sophomore year. In addition, all BA students who wish to continue applied study at the upper-division level must also pass this exam. (F, Sp)
MUTE 2113 The Commercial Music and Recording Industry

## 3 Credit Hours

Prerequisite: Majors only; MUNM 1143 or MUNM 1163 or MUNM 2413 or MUTK 4113. An introductory course that will focus on the history, procedures, standard practices, economics and technologies involved with the modern machinations of the business of music including recording, distribution, audience development, touring, promotion, publicity, placements, and royalties. Students in this course will explore what career paths are available and how to build a sustainable income in the modern music industry. (Sp)

MUTE 2211 Brass Instrument Class
Prerequisite: Permission; Majors only; course is not open to freshmen. May be repeated with change of instrument or subject matter; maximum credit four hours. Designed to provide opportunities for growth both as a teacher and as a player of brass instruments. Students will demonstrate performance ability at an intermediate level; teaching ability of pedagogical issues at all ability levels through peer teaching demonstrations; and an understanding of fundamental instrumentspecific knowledge and techniques. Several teaching episodes and ample experiences on multiple instruments throughout the semester. (F,Sp)

MUTE 2221 Percussion Instrument Class
1 Credit Hour
Prerequisite: Permission of instructor; Majors only; course not open to freshmen. May be repeated with change of instrument or subject matter; maximum credit four hours. Serves as an introduction to the world of percussion performance. Students gain executive skills on a variety of percussion instruments, experience teaching multiple percussion instruments, and hands-on percussion ensemble conducting/coaching experience. (F, Sp)

## MUTE 2231 Guitar Instrument Class

1 Credit Hour
Prerequisite: MUTH 1622 and MUTH 1522. Develop skills for playing guitar and reading chord charts. Also provides opportunity to explore the structure of various styles of folk and popular music. Assessments are performance-based with students demonstrating knowledge and skill acquired through individual playing tests. The skills and knowledge acquired in this course will be applicable to teaching in elementary and and secondary general music classrooms. (F, Sp)
MUTE 2241 Woodwind Instrument Class 1 Credit Hour
Prerequisite: Permission of instructor; Majors only; course is not open to freshmen. May be repeated with change of instrument or subject matter; maximum credit four hours. Provides opportunities for growth both as a teacher and as a player of all woodwind instruments. Students demonstrate performance ability at an intermediate level; teaching ability of pedagogical issues at all ability levels through peer teaching demonstrations; and an understanding of fundamental instrumentspecific knowledge and techniques. Several teaching episodes and ample experiences are afforded throughout the semester. (F, Sp)
MUTE 2242 Bme Instrumental Conducting I 2 Credit Hours
Prerequisite: sophomore standing in music. Development of skills and knowledge in instrumental conducting, rehearsal techniques and instrumental repertoire. (F)
MUTE 2251 Stringed Instrument Class
1 Credit Hour
Prerequisite: Permission. May be repeated with change of instrument or subject matter; maximum credit four hours. Designed to provide opportunities for growth both as a teacher and as a player of string instruments. Students develop correct posture and instrument placement, as well as correct left and right hand position in order to play string instruments well. Several teaching experiences provided for students to begin to break down performance technique into left and right hand strategies. (F, Sp)

## MUTE 2271 Chamber Music

1 Credit Hour
Prerequisite: permission. May be repeated; maximum credit four hours. Study and performance of chamber music literature for various combinations of instruments. (F, Sp, Su)
MUTE 2280 Studio Ensemble
1 Credit Hour
0 to 1 hour. May be repeated for credit. Performance experience in an ensemble of similar instruments. ( $F, \mathrm{Sp}$ )

MUTE 2311 Group Piano III 1 Credit Hour
Prerequisite: 1321 and permission. Continued development of the skills begun in 1321. Laboratory ( $\mathrm{F}, \mathrm{Sp}$ )
MUTE 2321 Group Piano IV
1 Credit Hour
Prerequisite: 2311 and permission. Continued development of the skills begun in 2311. Special emphasis on sight reading, accompanying and instrumental and vocal-choral score reading. Laboratory ( $\mathrm{F}, \mathrm{Sp}$ )

## MUTE 2411 Organ Technology Lab

1 Credit Hour
Prerequisite: Majors only. May be repeated; maximum credit 4 hours. This course must be completed four times (for a total of four credit hours) as a prerequisite to MUTE 4411. Provides a practical and hands-on component to Organ Technology majors. Covers basic and fundamental areas of knowledge and experience any organ technician is expected to master. For students who already have experience in certain areas, their course of study may be altered to address areas of relative weakness or provide advanced experience. Laboratory ( $\mathrm{F}, \mathrm{Sp}$ )
MUTE 2471 Internship in Organbuilding I
1 Credit Hour
Prerequisite: Permission of instructor; may be repeated, maximum credit 2 hours. The Internship in Organbuilding is designed to provide students first-hand training in the practice of organbuilding, both in the workshop and in the field. Site visits will allow for first-hand application of skills honed in the organbuilder's shop. Travel to local churches and academic institutions will provide additional opportunities for analysis and handson experience. (Irreg.)
MUTE 2970 Special Topics in Music Technique 1-3 Credit Hours Majors only. 1 to 3 hours. May be repeated with change of subject matter; content changes each semester. Study of newly developed, experimental or inter-disciplinary topics in music technique .

## MUTE 3050 Wind Symphony 1 Credit Hour

0 to 1 hours. Prerequisite: Junior standing; may be repeated for credit; maximum credit eight hours. The University of Oklahoma Wind Symphony is the flagship wind and percussion ensemble at OU. It explores established repertoire, significant new works, and premieres. Membership is by audition. The Wind Symphony performs five concerts each academic year. Music students enrolled in 3050 should have successfully passed their sophomore barrier. Non-music majors seeking upper-level credit hours should enroll in this section. (F, Sp)
MUTE 3060 Symphony Band 1 Credit Hour 0 to 1 hours. Prerequisite: Junior standing; may be repeated for credit; maximum credit eight hours. The University of Oklahoma Symphony Band performs significant repertoire for wind and percussion instruments. Membership is by audition. The Symphony Band performs four concerts each academic year. Music students enrolled in 3060 should have successfully passed their sophomore barrier. Non-music majors seeking upper-level credit hours should enroll in this section. (F, Sp )

## MUTE 3070 University Marching Band

1 Credit Hour
0 to 1 hours. Prerequisite: Junior standing; may be repeated for credit; maximum credit eight hours. Pride of Oklahoma Marching Band.
Membership is by audition. (F)

## MUTE 3080 Campus Band

1 Credit Hour
0 to 1 hours. Prerequisite: Junior standing; may be repeated for credit; maximum credit eight hours. Performance band for non majors and a major ensemble credit for music majors upon the approval of applied professor and the conducting faculty. (Sp)

MUTE 3090 Basketball Band
1 Credit Hour
0 to 1 hours. Prerequisite: Junior standing; may be repeated for credit; maximum credit eight hours. Sound of the Sooners Men's and Women's Basketball Bands. Continuation of the fall basketball band rehearsals for the Men's and Women's basketball bands. You will learn by performing throughout the spring Men's and Women's Basketball home schedule and during all Conference and NCAA Tournament Travel. Membership is by audition. (Sp)
MUTE 3110 Studio Accompanying for Piano Majors 1 Credit Hour 0 to 1 hour. Prerequisite: majors only; PIAN 2020 or PIAN 2010. May be repeated; max credit 4 hours. Required of piano majors during junior and senior years. Two hours per week of assigned accompanying in vocal and/or instrumental teaching studios. Laboratory (F, Sp)
MUTE 3120 Jazz Ensemble 1 Credit Hour 0 to 1 hour. Admission by audition. May be repeated for credit. Preparation and performance of music written in a variety of jazz styles.

## MUTE 3140 University Orchestra

1 Credit Hour
0 to 1 hour. Prerequisite: permission by audition. May be repeated for credit; maximum credit eight hours. Performance in University orchestra. (F, Sp)

## MUTE 3160 University Chorale

1 Credit Hour
0 to 1 hour. Prerequisite: audition. May be repeated for credit. An ensemble of high caliber; approximately forty singers. Rehearsal and performance of choral and choral-orchestral masterworks drawn mostly from the baroque through twentieth-century style periods. Several performances each semester. (F, Sp)
MUTE 3180 Singing Sooners
1 Credit Hour
0 to 1 hour. May be repeated for credit; maximum credit six hours. Nonaudition; hearing for vocal placement within ensemble. Wide variety of styles from popular to major choral works, combining with other choirs. (F, Sp)
MUTE 3190 Opera/Music Theatre 2 Credit Hours
0 to 2 hours. Prerequisite: permission by audition. May be repeated for credit; maximum credit sixteen hours. Consists of rehearsals and performances of opera, musicals and other forms of music theatre. (F, Sp)

## MUTE 3202 French Lyric Diction

2 Credit Hours
Prerequisite: VOIC 2020; majors only. French Lyric Diction provides an introduction to the principles of pronunciation of the French language in speech and singing. Student will use the International Phonetic Alphabet as a symbolic medium. Frequent performance and coaching of poetic readings, songs, arias, and recitative in class will provide students an opportunity to develop accurate and expressive communication. (Sp)

## MUTE 3212 German Lyric Diction

2 Credit Hours
Prerequisite: VOIC 2020; majors only. German Lyric Diction provides an introduction to the principles of pronunciation of the German language in speech and singing. Student will use the International Phonetic Alphabet as a symbolic medium. Frequent performance and coaching of poetic readings, songs, arias, and recitative in class will provide students an opportunity to develop accurate and expressive communication. (F)
MUTE 3242 Instrumental Conducting I 2 Credit Hours
Prerequisite: junior standing in music. Development of skills and knowledge in instrumental conducting, rehearsal techniques and instrumental repertoire. (F)

## MUTE 3252 Instrumental Conducting II

2 Credit Hours
Prerequisite: 3242. Continued development of skills and knowledge in instrumental conducting, rehearsal skills and instrumental repertoire. (Sp)

MUTE 3262 Choral Conducting I 2 Credit Hours
Prerequisite: junior standing in the School of Music. Development of skills and knowledge in choral conducting, rehearsal techniques and choral repertoire. (F)
MUTE 3272 Choral Conducting II
2 Credit Hours
Prerequisite: 3262. Continued development of skills and knowledge in choral conducting, rehearsal techniques and choral repertoire. (Sp)

## MUTE 3280 Opera Chorus <br> 1 Credit Hour

0-1 hours. May be repeated; maximum credit 6 hours. The OU Opera Chorus is a 24-member performing ensemble. Ensemble performs one fully staged opera production. Membership is open through audition to all students in any degree program at OU. Music majors must participate in both Choral Union and Opera Chorus each semester to fulfill large ensemble credit for undergraduates and graduates. (F, Sp)
MUTE 3290 Women's Chorus
1 Credit Hour
0-1 hours. May be repeated; maximum credit 6 hours. Ensemble dedicated to the study and performance of music for the female voice. Annual performances include the Fall and Spring concerts, Christmas at OU, and the President's Concert. Membership is open through audition to female students in any degree program at OU. Fulfills large ensemble credit for undergraduate and graduate music majors. (F, Sp)

## MUTE 3310 Men's Glee Club

1 Credit Hour
0-1 hours. Prerequisite: junior standing. May be repeated; maximum credit 5 hours. This ensemble is dedicated to the study and performance of music for the male voice. Annual performances include the Fall and Spring concerts, Christmas at OU, and the President's Concert. Membership is open through audition to male students in any degree program at OU. (F, Sp)
MUTE 3342 Jazz Improvisation
2 Credit Hours
Prerequisite: junior standing. May be repeated; maximum credit 8 hours.
Development of improvising skills in the jazz idiom. Designed as a handson laboratory course for students of various skill levels to improve personal abilities. (F, Sp, Su)
MUTE 3440 Mentored Research Experience 3 Credit Hours 0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)
MUTE 3980 Honors Research
1-3 Credit Hours
1 to 3 hours. Prerequisite: Admission to Honors Program; May be repeated, maximum credit six hours. Will provide an opportunity for the gifted Honors candidate to work at a special project in the student's field. (F, Sp, Su)

MUTE 4020 Composition Forum 0 Credit Hours
Prerequisite: junior standing and composition majors; corequisite:
Composition 4010 or 4020 . Required of all composition majors. Meets weekly throughout the semester as an official laboratory to discuss compositional techniques and review student compositions. (F, Sp, Su)
MUTE 4232 Organ Improvisation Seminar
2 Credit Hours
Prerequisites: majors only; MUTH 2522 and MUTH 2622. The goal of the course is to help students develop basic skills in improvisation, including the development of a greater sense of harmonic direction, the exploration of simple forms and counterpoint, and the improvisation of melodic phrases. (F, Sp)

MUTE G4252 Music in Worship 2 Credit Hours
Prerequisite: junior standing. Presents both a brief history of hymnody within worship, as well as an overview of the role of music within various denominations, both within the United States and throughout the world. (F)

## MUTE G4262 Church Music Practicum

2 Credit Hours
Prerequisite: junior standing. Provides students with practical skills and information pertinent to the church music profession. (Irreg.)

## MUTE 4271 Chamber Music

1 Credit Hour
Prerequisite: permission. May be repeated; maximum credit four hours. Study and performance of chamber music literature for various combinations of instruments. (F, Sp)

## MUTE 4280 Studio Ensemble

1 Credit Hour
0 to 1 hour. Prerequisite: 2280. May be repeated for credit. Performance experience in an ensemble of similar instruments. ( $F, S p$ )
MUTE 4290 Opera Production 1-3 Credit Hours
(Slashlisted with 5290) 1 to 3 hours. Prerequisite: junior standing in music. May be repeated; maximum credit 12 hours. A musical, dramatic, and technical theater practicum for students cast in solo and chorus roles in major opera productions. The purpose of the course and productions is to provide appropriate training and performance opportunities for each participant. No student may earn credit for both 4290 and 5290. (Irreg.)

## MUTE 4310 Vocal Coaching

2 Credit Hours
0 to 2 hours credit. Prerequisite: junior or senior standing and instructors permission. May be repeated three times; maximum credit eight hours. Course is designed as a supplement to weekly voice lessons with sessions that focus primarily on diction, style and interpretation issues within a students repertoire. (F, Sp)
MUTE 4312 Voice Science and Vocal Pedagogy 2 Credit Hours Prerequisite: Junior Standing, Majors only. In this course students will learn about how the voice functions when used as musical instrument. Students will study the anatomy and physiology of the voice, respiratory and articulation system, the conditions for correct posture and alignment, and vocal acoustics. Students will learn how to apply this information to develop skills as a vocal pedagogue. (Sp)
MUTE 4382 Acting for Opera I
2 Credit Hours
(Slashlisted with MUTE 5382) Prerequisite: majors only, junior standing. Acting for Opera develops basic acting and interpretive skills for opera performance, including characterization, interaction, movement and improvisation. Music and text will be explored from the perspective of dramatic structure. The creative integration of the physical, emotional, and mental tasks of acting are emphasized. No student may earn credit for both 4382 and 5382. (F)

## MUTE 4392 Acting for Opera II

2 Credit Hours
(Slashlisted with MUTE 5392) Prerequisite: majors only, junior standing. An in-depth study of scenes selected from 18th - 20th century operatic repertoire, culminating in a performance at the end of the semester. Scenes will be assigned, coached, and rehearsed in class. The focus of the class is the development of the individual student's skills, with an emphasis on process and techniques. No student may earn credit for both 4392 and 5392. (Sp)

MUTE 4411 Organ Technology Lab
1 Credit Hour
Prerequisite: completion of MUTE 2411 for four semesters, and permission of instructor. May be repeated; maximum credit four hours. Combined with MUTE 2411, MUTE 4411 provides an eightsemester course of study of practical and hands-on experience for Organ Technology majors. Students may not enroll in MUTE 4411 without the completion of four semesters of MUTE 2411. Covers basic and fundamental areas of knowledge and experience any organ technician is expected to master. For students who already have experience in certain areas, their course of study may be altered to address areas of relative weakness or provide advanced experience. Laboratory (F, Sp)
MUTE 4423 History and Fundamentals of Pipe Organ Construction and Design

3 Credit Hours
Prerequisite: junior standing; majors only or permission of instructor. Historical and interactive study of the pipe organ, from the earliest historical examples to the latest developments in contemporary instruments. Covers a broad field of information that applies directly to the instrument itself, including topics such as: basic components of the pipe organ, various types of key action, physics of pipe speech, pipe-making, acoustics, console design and the development of tuning standards. Includes a lab-type component in which the class will explore various instruments in situ to experience the various principles in application, as well as learning the basics of tuning and maintenance. (F, Sp)
MUTE 4453 History and Technique of Organbuilding I 3 Credit Hours Prerequisite: Junior standing; majors only. The course is modeled after the syllabus published by the American Institute of Organbuilders pertaining to the fundament of knowledge required to pass the examination for admission as a Colleague of the organization. This twosemester sequence traverses the majority of the topics covered in the AIO examination, thus this course is a comprehensive study of both technical and artistic knowledge. (Irreg.)
MUTE 4463 History and Technique of Organbuilding II 3 Credit Hours Prerequisite: Majors only; Junior standing; MUTE 4453. A continuation of the content begun in MUTE 4453. Course content is modeled after the published syllabus of the American Institute of Organbuilders and the knowledge required to pass the examination for admission as a Colleague of the organization. Continues the progression of the technical and artistic knowledge of organ building. (Irreg.)

MUTE 4472 Internship in Organbuilding II
2 Credit Hours
Prerequisite: Permission of instructor; MUTE 2471; may be repeated; maximum credit 4 hours. The Internship in Organbuilding is designed to provide students first hand training in the practice of oragnbuilding, both in the workshop and in the field. Specifically, students will practice organ tuning and maintenance. Travel to local churches and academic institutions will provide additional opportunities for analysis and handson experience. (Irreg.)
MUTE 4512 Professional Preparation and Capstone Project 2 Credit Hours
Prerequisite: Majors only, junior standing. Designed to maximize student potential to think, work, and thrive in all facets of a professional musical career and complete a Capstone Project. The ultimate goal of the class is to provide students with strategies, concepts, and knowledge to help build the career-development skills necessary for 21 st-century musicians. (F) [V].

MUTE 4970 Undergraduate Seminar
1-3 Credit Hours
Majors only. 1 to 3 hours. May be repeated with change of subject matter; content changes each semester. In-depth look at areas dealing with technique, technology and applied instruction in a class or group setting. Study of newly developed, experimental or inter-disciplinary topics in music technique.

## MUTE 4990 Independent Study

1-3 Credit Hours
1 to 3 hours. Prerequisite: Senior standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)

## MUTE 5050 Wind Symphony

1 Credit Hour
0 to 1 hours. Prerequisite: Graduate standing and permission of instructor; may be repeated; maximum four credit hours. The University of Oklahoma Wind Symphony is the flagship wind and percussion ensemble at the University of Oklahoma. It explores, through rehearsal and performance, established repertoire, significant new works, and premieres. Membership is by audition. (F,Sp)

## MUTE 5060 Symphony Band

1 Credit Hour
0 to 1 hours. Prerequisite: Graduate standing and permission of instructor; may be repeated; maximum four credit hours. The University of Oklahoma Symphony Band is a major ensemble that performs significant repertoire for wind and percussion instruments. Membership is by audition. The Symphony Band performs four concerts each academic year. Students enrolled in the 5000 level of the class are graduate students of the OU School of Music, or graduate students in another field. (F, Sp)

## MUTE 5070 University Marching Band

1 Credit Hour
0 to 1 hours. Prerequisite: Graduate standing and permission of instructor; may be repeated; maximum credit four hours. Pride of Oklahoma Marching Band. Membership is by audition. (F)

## MUTE 5080 Campus Band

1 Credit Hour
0 to 1 hours. Prerequisite: Graduate standing and permission of instructor; may be repeated; maximum four credit hours. Study and performance of concert literature for the wind band to include score analysis and study of the aspects of program planning and performance practices. Number of credits applicable to degree programs varies, but In no case may exceed four hours. Audition required. (Sp)

## MUTE 5090 Basketball Band 1 Credit Hour

0 to 1 hours. Prerequisite: Graduate standing and permission of instructor; may be repeated; maximum four credit hours. Sound of the Sooners Men's and Women's Basketball Bands. Membership is by audition. (Sp)
MUTE 5120 Jazz Ensemble 1 Credit Hour 0 to 1 hour. Prerequisite: graduate standing and permission. May be repeated for credit; maximum credit four hours. Admission by audition. Preparation and performance of music written in a variety of jazz styles. (F, Sp)
MUTE 5132 Organ Improvisation Seminar 2 Credit Hours
Prerequisites: majors only; graduate standing. The goal of the course is to help students develop basic skills in improvisation, including the development of a greater sense of harmonic direction, the exploration of simple forms and counterpoint, and the improvisation of melodic phrases. (F, Sp)

MUTE 5140 University Orchestra
1 Credit Hour
0 to 1 hour. Prerequisite: permission of instructor; determined by audition. May be repeated for credit. Number of credits applicable to degree programs varies, but in no case may exceed four hours. Study and performance of orchestral literature for the string orchestra and full symphony orchestra to include score analysis and study of the aspects of program planning and performance practices. (F, Sp)
MUTE 5160 University Chorale 1 Credit Hour
Prerequisite: graduate standing, permission; membership determined by audition. May be repeated for credit. An ensemble of high caliber; approximately 40 singers. Rehearsal and performance of choral and choral-orchestral masterworks drawn mostly from the baroque through twentieth-century style periods. Several performances each semester. (F, $\mathrm{Sp}, \mathrm{Su}$ )
MUTE 5190 Opera/Music Theatre
2 Credit Hours
0 to 2 hours. Prerequisite: permission of instructor by audition. May be repeated for credit; maximum credit eight hours. Consists of rehearsals and performances of opera, musicals and other forms of music theatre. (F, Sp, Su)

MUTE 5271 Chamber Music
1 Credit Hour
Prerequisite: Graduate standing, permission. May be repeated with change of subject matter. Survey of chamber music through participation in ensemble groups. Preparation and public performance of selected chamber music works. (F, Sp)
MUTE 5280 Studio Ensemble
1 Credit Hour
0 to 1 hour. Prerequisite: graduate standing. May be repeated for credit. Performance experience in an ensemble of similar instruments. (F, Sp)
MUTE 5290 Opera Production 1-3 Credit Hours
(Slashlisted with 4290) 1 to 3 hours. Prerequisite: junior standing in music. May be repeated; maximum credit 12 hours. A musical, dramatic, and technical theater practicum for students cast in solo and chorus roles in major opera productions. The purpose of the course and productions is to provide appropriate training and performance opportunities for each participant. No student may earn credit for both 4290 and 5290. (Irreg.)

## MUTE 5310 Men's Glee Club

1 Credit Hour
Prerequisite: graduate standing. 0-1 hours. May be repeated; maximum credit 5 hours. This ensemble is dedicated to the study and performance of music for the male voice. Annual performances include the Fall and Spring concerts, Christmas at OU, and the President's Concert. Membership is open through audition to male voices in any degree program at OU. (F, Sp)

## MUTE 5320 Women's Chorus

1 Credit Hour
Prerequisite: graduate standing. 0-1 hours. May be repeated; maximum credit 8 hours. This ensemble is dedicated to the study and performance of music for the female voice. Annual performances include the Fall and Spring concerts, Christmas at OU, and the President's Concert. Membership is open through audition to female voices in any degree program at OU. Fulfills large ensemble credit for undergraduate and graduate music majors. ( $\mathrm{F}, \mathrm{Sp}$ )

MUTE 5342 Jazz Improvisation
2 Credit Hours
Prerequisite: Graduate Standing. Development of improvising skills in the jazz idiom for graduate students. Designed as a hands-on laboratory course for students of various skill levels to improve personal abilities. (F, Sp )

MUTE 5382 Acting for Opera I
2 Credit Hours
(Slashlisted with MUTE 4382) Prerequisite: graduate standing. Acting for Opera develops basic acting and interpretive skills for opera performance, including characterization, interaction, movement and improvisation. Music and text will be explored from the perspective of dramatic structure. The creative integration of the physical, emotional, and mental tasks of acting are emphasized. No student may earn credit for both 4382 and 5382. (F)
MUTE 5392 Acting for Opera II
2 Credit Hours
(Slashlisted with MUTE 4392) Prerequisite: graduate standing. An in-depth study of scenes selected from 18th-20th century operatic repertoire, culminating in a performance at the end of the semester. Scenes will be assigned, coached, and rehearsed in class. The focus of the class is the development of the individual student's skills, with an emphasis on process and techniques. No student may earn credit for both 4392 and 5392. (Sp)

## MUTE 5413 Church Music Practicum

3 Credit Hours
Prerequisite: graduate standing or permission. This course provides students with practical skills and information pertinent to the churchmusic profession. The scope of study will include, but is not limited to, service playing, accompanying choral works, console conducting, and interpersonal skills related to the workplace environment. The students will also develop a list of historical and current resources that will contribute to their knowledge of music's place within the church. ( $F$, Sp )

## MUTE 5423 History and Fundamentals of Pipe Organ Construction and Design <br> 3 Credit Hours

Prerequisite: graduate standing or permission. Historical and interactive study of the pipe organ, from the earliest historical examples to the latest developments in contemporary instruments. Covers a broad field of information that applies directly to the instrument itself, including topics such as: basic components of the pipe organ, various types of key action, physics of pipe speech, pipemaking, acoustics, console design and the development of tuning standards. Includes a lab-type component in which the class will explore various instruments in situ to experience the various principles in application as well as learning the basics of tuning and maintenance. ( $\mathrm{F}, \mathrm{Sp}$ )
MUTE 5453 History and Technique of Organbuilding I 3 Credit Hours Prerequisite: Graduate Standing. The course is modeled after the syllabus published by the American Institute of Organbuilders pertaining to the fundament of knowledge required for admission as a Colleague of the organization. The two-semester sequence of MUTE 5453 and 5463 traverses the majority of the topics covered in the AIO examination and thus is a comprehensive study of both technical and artistic knowledge. (F)

MUTE 5463 History and Technique of Organbuilding II 3 Credit Hours Prerequisite: Graduate standing and MUTE 5453. A continuation of the content begun in MUTE 5453. Course content is modeled after the published syllabus of the American Institute of Organbuilders and the knowledge required to pass the examination for admission as a Colleague of the organization. Continues the progression of the technical and artistic knowledge of organ building. (Sp)
MUTE 5471 Internship in Organbuilding I 1 Credit Hour
Prerequisite: Graduate standing. The Internship in Organbuilding is designed to provide students first-hand training in the practice of organbuilding, both in the workshop and in the field. Site visits will allow for first-hand application of skills honed in the organbuilder's shop.
Travel to local churches and academic institutions will provide additional opportunities for analysis and hands-on experience. ( $\mathrm{F}, \mathrm{Sp}$ )

MUTE 5472 Internship in Organbuilding II
2 Credit Hours
Prerequisite: Graduate standing and MUTE 5471. The Internship in Organbuilding is designed to provide students firsthand training in the practice of organbuilding, both in the workshop and in the field. Students will coordinate three-hour meeting times each week directly with an organbuilder and in consultation with the instructor. Site visits will allow for first-hand application of skills honed in the organbuilder's shop. ( $F, S p$, $\mathrm{Su})$
MUTE 5512 Choral Conducting
2 Credit Hours
Prerequisite: 3262; graduate standing; permission of instructor. May be repeated; maximum credit six hours. Development of conducting gestures, rehearsal procedures and stylistic interpretation in an ensemble setting. Content coordinated with 6152. Repertoire ranges from medieval chant to avant garde works with nonconventional notation. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
MUTE 5522 Instrumental Conducting 2 Credit Hours Instrumental Conducting: Prerequisite: 3252; Graduate Standing; Permission Of Instructor. May Be Repeated; Maximum Credit Six Hours. Development Of Baton Technique, Error Detection Skills, Rehearsal Procedures And Interpretive Skills. Conducting Of Band Or Orchestral Works From Various Style Periods. (F)
MUTE 5532 Instrumental Score Studies
2 Credit Hours
Instrumental Score Studies. Prerequisite: 3252; graduate standing or permission. May be repeated with change of content. Critical performance analysis of selected instrumental masterworks from various style periods. Development of an understanding of proper style and interpretation based on musical research.

## MUTE 5970 Seminar in Music Technique

1-3 Credit Hours 1 to 3 hours. Prerequisite: graduate standing in music and permission. May be repeated with change of subject matter; maximum credit applicable toward degree, six hours. In-depth study of topics of interest in music performance. (Sp)
MUTE 5990 Special Studies in Conducting
1-3 Credit Hours
1 to 3 hours. Prerequisite: 5512 or 5522 , graduate standing, permission of director of the school. May be repeated with change of subject matter; maximum graduate credit six hours. Advanced individual study of conducting problems and score analysis. (Sp, Su)

## MUTE 6132 Organ Improvisation Seminar

2 Credit Hours
Prerequisites: majors only; graduate standing. The goal of the course is to help students develop basic skills in improvisation, including the development of a greater sense of harmonic direction, the exploration of simple forms and counterpoint, and the improvisation of melodic phrases. (F, Sp)
MUTE 6152 Choral Score Studies
2 Credit Hours
Prerequisite: 3252; graduate standing; permission of instructor. May be repeated; eight hours credit applicable to DMA degree. Critical performance analysis of selected masterworks from medieval chant to avant garde works of the twentieth century. Development of an understanding of proper style and interpretation based on musical research. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
MUTE 6162 Instrumental Score Studies
2 Credit Hours
Prerequisite: 5532, graduate standing, and permission of instructor. May be repeated; maximum credit eight hours applicable to DMA degree. Development of knowledge of broad base of repertoire combined with indepth analysis of specific works. (F, Sp)
MUTE 6210 Collegium Musicum
1 Credit Hour
0 to 1 hour. Prerequisite: permission. Performance of instrumental and vocal music from all periods and repertoires, and problems related thereto. ( $\mathrm{F}, \mathrm{Sp}$ )

MUTE 6252 Choral Conducting 2 Credit Hours
Prerequisite: 5512; graduate standing; permission of instructor. May be repeated; eight hours credit applicable to DMA degree. Refinement of conducting, rehearsal and interpretive skills. Emphasis on musical nuance in choral style and interpretation. (F, Sp, Occas. Su)
MUTE 6262 Instrumental Conducting
2 Credit Hours
Prerequisite: 5522, graduate standing, and permission of instructor. May be repeated; maximum credit eight hours applicable to DMA degree. Development of advanced conducting techniques and rehearsal skills. Exploration of relationships between structural analysis and performance. Podium time in ensemble situations. ( $\mathrm{F}, \mathrm{Sp}$ )

## MUTH-Music Theory

MUTH 1512 Musical Structures I
2 Credit Hours
Prerequisite: Majors only; Corequisite: MUTH 1612. This is the first course in the structures sequence required of all music majors. Structures I focuses on the fundamentals, diatonic counterpoint, and introduces diatonic harmonic practices of the eighteenth and nineteenth centuries through composition, analysis, and aural perception. (F)

## MUTH 1522 Musical Structures II

2 Credit Hours
Prerequisite: MUTH 1512 and MUTH 1612 with grade of $C$ or better; Majors only; Corequisite: MUTH 1622. An overview of diatonic harmony and small-scale forms through writing, analysis, and aural perception. (Sp)
MUTH 1612 Aural Skills I
2 Credit Hours
Prerequisite: Majors only; Corequisite: MUTH 1512. This course draws connections between written and aural theory in order to enhance the students abilities of musical interpretation as well as improve upon aural training. In specific, students will learn dictation and singing of diatonic intervals, triads, and scales (major and minor), dictation and singing of diatonic melodies, dictation of basic rhythms in the standard meters. (F)

## MUTH 1622 Aural Skills II

2 Credit Hours
Prerequisite: MUTH 1512 and MUTH 1612 with grade of C or better; Corequisite: MUTH 1522. Draws connections between written and aural theory to enhance the abilities of musical interpretation as well as improve aural training. A continuation of MUTH 1612, students learn dictation and sight singing of more advanced diatonic melodies and dictation of rhythmic patterns, including triplets and syncopations, in standard meters. In addition, students learn dictation and singing of standard diatonic harmonic patterns. (Sp)

## MUTH 2512 Musical Structures III

2 Credit Hours
Prerequisite: MUTH 1522 and MUTH 1622 with grade of $C$ or better; Corequisite MUTH 2612. A study of the chromatic harmonic practices and large-scale forms of the eighteenth and nineteenth centuries through writing, analysis, and aural perception. (F) [IV-AF].
MUTH 2522 20th- and 21 st-Century Musical Structures 2 Credit Hours Prerequisite: MUTH 2512 with grade of C or better. A study of the late nineteenth- through twenty first-century compositional practices. Development of theoretical analysis skills in twentieth- and twenty firstcentury music. (Sp)
MUTH 2612 Aural Skills III
2 Credit Hours
Prerequisite: MUTH 1522 and MUTH 1622 with grade of $C$ or better; Corequisite: MUTH 2512. Study of moderately difficult rhythms and melodies in the context of illustrative eighteenth- and nineteenth-century styles - aural perception, vocal reading and analysis. (F)

MUTH 2621 Aural Skills IV
1 Credit Hour
Prerequisite: Majors only; MUTH 2512 and MUTH 2612 with grade of $C$ or better. Study of rhythms, chromatic harmonies, and modulations as used by nineteenth-century composers - aural perception, vocal reading and analysis. (Sp)

MUTH 2970 Special Topics in Music Theory
1-3 Credit Hours
Majors only. 1 to 3 hours. May be repeated with change of subject matter; content changes each semester. Study of newly developed, experimental or inter-disciplinary topics in music theory.

MUTH 3440 Mentored Research Experience
3 Credit Hours
0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)

## MUTH 3763 Counterpoint

3 Credit Hours
Prerequisite: 2522. A study of eighteenth-century counterpoint. First semester, two parts with analysis and original writing. (F)
MUTH 3783 Forms and Analysis
3 Credit Hours
Prerequisite: 2522. A study of the structure of homophonic forms, followed by the standard polyphonic and homophonic forms of eighteenth-, nineteenth-, and twentieth-century music. (Sp)

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1 to 3 hours. Prerequisite: Admission to Honors Program. May be repeated; maximum credit six hours. Consists of topics designated by the instructor in keeping with the student's major program. The topics will cover materials not usually presented in the regular courses. (F, Sp, Su)
MUTH 3970 Honors Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Subjects covered vary. Deals with concepts not usually treated in regular courses. (Irreg.)
MUTH 3980 Honors Research 1-3 Credit Hours
1 to 3 hours. Prerequisite: Admission to Honors Program. May be repeated; maximum credit six hours. Will provide an opportunity for the gifted Honors candidate to work at a special project in the student's field. (F, Sp, Su)
MUTH 3990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: permission of instructor and junior standing. May be repeated once with change of content. Independent study may be arranged to study a subject not available through regular course offerings. (F, Sp, Su)
MUTH G4853 Orchestration
3 Credit Hours
Prerequisite: Majors only; MUTH 3512 or concurrent enrollment in MUTH 3512. A study of the characteristics of the instruments of the orchestra and their uses in combination, including historical background of orchestral style. (F)
MUTH 4863 Advanced Orchestration
3 Credit Hours
Prerequisite: 4853 or permission of instructor. May be repeated; maximum credit six hours. Continuation of the study of the characteristics of the instruments of the orchestra and their uses in combination covering advanced techniques and practices, including historical background or orchestral style, including the twentieth century. (Sp)

MUTH 4960 Directed Readings
1-4 Credit Hours
1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean. May be repeated; maximum credit four hours. Designed for upper-division students who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)

## MUTH 4970 Senior Seminar

1-3 Credit Hours
1 to 3 hours. Prerequisite: 3763 and 3783. May be repeated once with change of topic; maximum credit six hours. Not open to graduate students. Intended to permit study in-depth of such areas as the style of a particular composer or the writing of a particular theorist such as Hindemith, Schenker, Persichetti and others. (F, Sp, Su)
MUTH 4990 Independent Study 1-3 Credit Hours
1 to 3 hours. Prerequisite: Senior standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)
MUTH 5811 Tonal Harmony Review
1 Credit Hour
Prerequisite: Graduate standing in the School of Music and departmental permission. Assuming a knowledge of scales, key signatures, and clef reading, this course offers a comprehensive, fast-paced review of tonal harmony via an online format that mixes text- and video-based teaching methods. To participate and receive course credit, you must have performed unsatisfactorily on either 1) the graduate program's musictheory entrance exam or 2) previous iterations of this course. (F)

MUTH 5813 Introduction to Schenkerian Analysis 3 Credit Hours Prerequisite: graduate standing and permission of the graduate music office. Develop basic skills in Schenkerian analysis and an understanding of Schenkerian theory. (Irreg.)

## MUTH 5821 Musical Form Review

1 Credit Hour
Prerequisite: Graduate standing in the School of Music and departmental permission. This course offers a comprehensive, fast-paced review of tonal form via an online format that mixes text- and video-based teaching methods. To participate and receive course credit, you must have performed unsatisfactorily on either 1) the graduate program's music-theory entrance exam or 2 ) previous iterations of this course. (Sp, Su )
MUTH 5823 Pedagogy of Music Theory

## 3 Credit Hours

Prerequisite: graduate standing and permission of the graduate music office. An examination of the philosophy, logistics, methods, content, and materials of teaching music theory at the undergraduate level. (Irreg.)
MUTH 5833 Analysis of Twentieth-Century Music 3 Credit Hours Prerequisite: graduate standing and permission of the graduate music office. Traces the origins of twentieth-century music and surveys compositional techniques. (Irreg.)

MUTH 5863 Advanced Orchestration
3 Credit Hours
Prerequisite: graduate standing and permission of the graduate music office. Continuation of the study of the characteristics of the instruments of the orchestra and their uses in combination covering advanced techniques and practices, including historical background or orchestral style, including the twentieth century. No student may earn credit for both 4863 and 5863. (Sp)
MUTH 5883 Analysis of Tonal Music
3 Credit Hours
Prerequisite: graduate standing and permission of the graduate music office. Analysis of form and harmony in selected works from the common practice era (1670-1900). (Irreg.)

MUTH 5893 Teaching Music Theory in the 21 st Century 3 Credit Hours Prerequisite: Graduate standing and departmental permission. A survey of current trends in the field of music theory. Subjects to include opportunity and access, form, galant schemata, meter, narrative, performance, popular music, Schenkerian theory, and world music. (Irreg.)

## MUTH 5960 Directed Readings

1-4 Credit Hours
1 to 4 hours. Prerequisite: 18 hours of music, permission of the director of the school. May be repeated; maximum undergraduate credit eight hours, graduate credit six hours. Individual topics in music theory. (F, Sp, Su)

## MUTH 5970 Seminar in Music Theory 1-4 Credit Hours

1 to 4 hours. Prerequisite: 30 hours of music or permission. May be repeated with change of subject matter; maximum graduate credit 12 hours. (F, Sp, Su)
MUTH 5980 Research for Master's Thesis
2-9 Credit Hours
Variable enrollment, two to nine hours; maximum credit applicable toward degree, four hours. (F, Sp, Su)
MUTH 5990 Special Studies in Music Theory 1-3 Credit Hours
1 to 3 hours. Prerequisite: 30 hours of music, permission of the director of the school. May be repeated with change of subject matter; maximum graduate credit six hours. Individual study, research and analysis in music theory. (F, Sp, Su)

MUTH 6960 Directed Readings
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit six hours. Directed readings and/or literature review under the direction of a faculty member. (Irreg.)
MUTH 6970 Special Topics/Seminar 1-3 Credit Hours 1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit 12 hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or research and field projects. (Irreg.)

MUTH 6990 Independent Study 1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)

## MUTK-Music Technology

MUTK 4113 Understanding Electroacoustic Music 3 Credit Hours (Slashlisted with MUTK 5113) Prerequisite: Sophomore standing. A course on Electroacoustic music techniques, history, aesthetics, and literature. Students will improve their role as active listeners by observing the ways we listen to music, speculate on the role of technology in creating new music, consider the aesthetic intentions of seminal experimental composers, and study their compositions using various analytical systems. No student may earn credit for both 4113 and 5113. (Irreg.) [IV-AF] .
MUTK 4133 Introduction to Digital Signal Processing 3 Credit Hours (Slashlisted with MUTK 5133) Prerequisite: Sophomore standing and permission of instructor. Students will be familiarized with the theory of Digital Audio and various Digital Signal Processing applications. Cycling 74's Max, an object-oriented programming environment for music applications, known for its real-time audio functions, will be the preferred software for the term. Students will complete weekly creative \& programming assignments. A final and original creative project will be required. No student may earn credit for both 4133 and 5133. (Irreg.)

MUTK 4143 Advanced Digital Signal Processing 3 Credit Hours
Prerequisite: 4133. Advanced methods and theories of digital audio and digital signal processing applications. (Irreg.)
MUTK 4163 Real Time MIDI Control
3 Credit Hours
Prerequisite: 4133 and sophomore, junior, or senior standing. An introduction to the real-time MIDI control and various MIDI processing applications through reading, listening, and composing. (Irreg.)

## MUTK 4173 Recording Techniques

3 Credit Hours
Prerequisite: 4183 and junior or senior standing. Provides an understanding to the fundamentals of recording techniques and studio procedures. (Irreg.)

MUTK 4183 Sound Design
3 Credit Hours
Prerequisite: sophomore, junior, or senior standing. A course designed to expand ones knowledge of MIDI sequencing, software-hardware synthesizers, and digital audio editing. (Irreg.)
MUTK 4193 Producing, Mixing, \& Mastering 3 Credit Hours Prerequisite: Junior standing; MUTK 4173 and MUTK 4183. This course gives students the opportunity to learn the practical skills involved in producing, mixing, and mastering a music recording. Students will also apply appropriate skills for mix-down and editing, and learn recording studio etiquette and final deliverable expectations for album distribution. (Sp)
MUTK 4960 Directed Readings
1-4 Credit Hours
1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean. May be repeated; maximum credit four hours. Designed for upper-division students who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)
MUTK 4970 Undergraduate Seminar
1-3 Credit Hours
Prerequisite: sophomore standing. 1 to 3 hours. May be repeated with change with change of content; maximum credit nine hours. In depth look at advanced topics of various fields of electroacoustic music. (Irreg.)
MUTK 4990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: Senior standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)
MUTK 5113 Understanding Electroacoustic Music 3 Credit Hours (Slashlisted with MUTK 4113) Prerequisite: Graduate standing and departmental permission. A course on Electroacoustic music techniques, history, aesthetics, and literature. Students will improve their role as active listeners by observing the ways we listen to music, speculate on the role of technology in creating new music, consider the aesthetic intentions of seminal experimental composers, and study their compositions using various analytical systems. No student may earn credit for both 4113 and 5113. (Irreg.)
MUTK 5133 Introduction to Digital Signal Processing 3 Credit Hours (Slashlisted with MUTK 4133) Prerequisite: Graduate standing and departmental permission. Students will be familiarized with the theory of Digital Audio and various Digital Signal Processing applications. Cycling 74's Max, an object-oriented programming environment for music applications, known for its real-time audio functions, will be the preferred software for the term. Students will complete weekly creative \& programming assignments. A final and original creative project will be required. No student may earn credit for both 4133 and 5133. (Irreg.)

MUTK 5143 Advanced Digital Signal Processing 3 Credit Hours Prerequisite: Graduate standing and departmental permission. Students will expand their knowledge and understanding of the theory and music applications of Digital Signal Processing through reading and programming in Cycling74's Max. Students will demonstrate their understanding of the topics discussed in class through weekly creative assignments and presentations. An original music composition will be presented at the end of the semester. (Irreg.)
MUTK 5153 Interactive Performance Techniques 3 Credit Hours
Prerequisite: Graduate standing and departmental permission. Students will expand their knowledge and practice of the techniques used in composition of live electronics and interactive performance, through weekly readings, listening and analyzing interactive music, and completing programming assignments in Cycling74 Max. An original creative project such as a composition for a solo performer and computer interaction will be required. (Irreg.)

MUTK 5163 Real Time MIDI Control
3 Credit Hours
Prerequisite: Graduate standing and departmental permission. Students will study in depth advanced techniques of Real time MIDI control in Cycling74's Max programming environment, through readings, listening, analysis of related compositions, completing weekly programming assignments, and composing an improvisation environment that they will demonstrate as a group. (Irreg.)
MUTK 5173 Recording Techniques
3 Credit Hours
Prerequisite: Graduate standing and departmental permission. This course aims to familiarize students with specialized recording techniques and studio procedures. This is a hands-on class with emphasis on acquiring skills via intensive practice. The students will be required to demonstrate their understanding of the materials through the successful completion of creative assignments using the recording music studio software-hardware. (Irreg.)

MUTK 5183 Sound Design

## 3 Credit Hours

Prerequisite: Graduate standing and departmental permission. Sound Design is a hands-on graduate class with emphasis on creative practice of sound manipulation. It aims to offer to the students an in-depth examination of specialized techniques divided in two major areas of interest: MIDI Sequencing and Digital Audio Editing. Students will demonstrate their understanding of the materials through the composition of creative assignments using the MIDI lab softwarehardware. (Irreg.)
MUTK 5193 Seminar in Electroacoustic Music 3 Credit Hours
Prerequisite: Graduate standing and departmental permission. The goal of the course is to extend and deepen the students' knowledge of electroacoustic music through its contemporary discourse, such as aesthetics, analytical systems, notation, terminology, genres \& categories, recent repertory, and technical fields, such as DSP, DVP, Sensors/ Actuators, etc. The students and instructor will decide the list of topics for study in according to their creative interests. (Irreg.)

## N S-Naval Science

N S 0110 Leadership Development
0 Credit Hours
Designed to expose NROTC students to the professional development of a military officer. This is accomplished through military drill, guest lecturers, command situation and role enactment training. The goal is to better prepare young men and women to serve as naval officers in various fleet assignments. (F, Sp)

N S 1123 Introduction to Naval Science 3 Credit Hours
Presents an overview of the mission and organization of the Department of Defense with particular emphasis on the Naval Service. Among the topics covered are military law, leadership fundamentals, naval heritage, naval customs and traditions, and career opportunities for Navy and Marine Corps officers. The course is designed for freshmen enrolled in NROTC but is open to all interested students. (F)

N S 1133 Sea Power And Maritime Affairs 3 Credit Hours Sea Power And Maritime Affairs. Traces The Development Of Sea Power And Analyzes Its Influence On Maritime Strategy Through The Study Of Major Events In Naval History. Students Will Develop An Appreciation For The Overlapping Roles That National Interests, Technical Advances, Maritime Strategists, And Individual Leaders Play In The Formulation Of U.S. Security Strategy And Policy. (Sp)

N S 2113 Leadership and Management
3 Credit Hours
Designed to teach introductory-level leadership and management concepts and applications to sophomore-level Naval ROTC midshipmen and all other interested University students. (F)

## N S 2133 Navigation <br> 3 Credit Hours

Introduction to marine navigation, including both traditional and electronic navigation theory and practical applications. Includes concepts in navigational safety, rules of the nautical road, and an introduction to relative motion. (Sp)

## N S 3223 Naval Ship Systems I: Naval Engineering Systems <br> 3 Credit Hours

Prerequisite: N S 1123 or permission of instructor. Detailed study of the engineering principles that define Naval Ship Systems. Course focus is on the application of electrical, mechanical, and computer engineering while introducing concepts in ship design, hydrodynamics, and the steam cycle. (F)

## N S 3333 Evolution of Warfare

3 Credit Hours
Prerequisite: ENGL 1213 or equivalent. Examines the evolution of warfare throughout history by focusing on warfare concepts, historical case studies, common threads, themes, military leadership, and the relationship between the elements of national power and the strategic, operational, tactical, and technical aspects of war. (Sp)

N S 3433 Naval Ship Systems II - Naval Weapons
Systems 3 Credit Hours
Prerequisite: N S 3223 or permission of instructor. Outlines the engineering principles of weapons systems. Course focus is on the application of radar, sonar, and ballistics while introducing the concept of weapons employment through the detect to engage sequence. (Sp)

N S 4433 Naval Operations and Seamanship 3 Credit Hours
Prerequisite: 2133 or permission of instructor. Advanced navigation concepts, including applications to shipboard evolutions and operations. Overview of operational security and tactical communications. Introduction to the law of the sea and international maritime law, naval warfare doctrine and joint operations. (F)

N S 4443 Fundamentals of Maneuver Warfare 3 Credit Hours
Prerequisite: ENGL 1213. To provide students with the necessary knowledge to understand the fundamentals of maneuver warfare and appreciate the complexities and dynamics posed by the art and science of warfare. (Sp)

N S 4633 Naval Leadership and Ethics
3 Credit Hours
Prerequisite: Junior standing or permission of instructor. An examination of leadership, ethical concepts, and management of naval (Navy and Marine Corps) resources. Objective is to learn the leadership skills, ethical expectations, and management techniques necessary to succeed as a naval officer in leading people and using limited resources in the most efficient manner. Encompasses leadership and ethics readings, and discussion of the uniform code of military justice. (F, Sp)

## NAS-Native American Studies

NAS 1013 Introduction to Native American Studies 3 Credit Hours This course will introduce students to key concepts and methods in the study of American Indian history, culture, and contemporary governance and socio-economic status. (F, Sp) [IV-WDC] .
NAS 1715 Potawatomi Language I 5 Credit Hours
Through a partnership between the Citizen Potawatomi Nation
Language Department and the university, this language course will introduce students to the culture, history, phonology, morphology, syntax, conversational practice, and vocabulary of Bodewadmimwen (Potawatomi Language) using an online platform. Framed in a seasonal context, four modules guide students through a Potawatomi-centered worldview to create story-listeners and -tellers. (F, Sp)

NAS 2013 Foundations in Native American Sovereignty 3 Credit Hours Prerequisite: Sophomore standing. Introduces the key concepts and methods in the discipline of Native American Studies. Examines the scope and nature of tribal sovereignty and self-government. Students will gain understanding of the historical origins of the current laws and policies that constitute the political foundations of sovereignty for Native peoples. (Irreg.)

## NAS 2203 Chickasaw Humanities

3 Credit Hours
This course will give students an overview of Chickasaw humanities through exploring the Chickasaw history, culture and language in contemporary and historical context. Students will gain an understanding of a non-western culture while comparing and contrasting it to Western culture. Topics covered include indigenous and Chickasaw worldview, Chickasaw historical events, governmental structure, language and art. (F)

NAS 3013 Native American Studies Internship 3 Credit Hours Prerequisite: permission of instructor. Participation in a supervised work experience. Grade is based on work performance, regular reports and journals, and on-site supervisor's evaluation. (F, Sp, Su)

NAS 3113 Native American Philosophy 3 Credit Hours
Prerequisite: junior standing or permission of instructor. A survey of systems of understanding and explaining the relationships between human beings and the natural world in Native American cultures including; concepts of power, spirituality, and ceremonialism; ethical systems; and culturally based ways of knowing. (F) [IV-WDC].

NAS 3123 Gender and Sexuality in Native North America 3 Credit Hours Prerequisite: junior standing. Study of gender and sexuality that is indigenous to North American tribal groups, focusing on the status of precolonial gender-non-normative peoples. Emergent analyses within Native studies will point to the gendered nature of colonialism by interrogating Western ontological models from Victorian-era and early anthropological ideas about sexuality. (Sp) [IV-WDC].

## NAS 3313 Introduction to Native Peoples and Sustainability 3 Credit Hours <br> Prerequisite: junior standing. Explores the concept of sustainability from a Native perspective, and as it applies to Native peoples. Emphasis is placed on cultural resilience and identity, human-environment relationships, policy and politics of tribal sovereignty in Native North America. (F)

NAS 3323 Tribal Service Learning
3 Credit Hours
Prerequisite: junior standing. Exploration of contemporary issues relevant to Native American tribes and communities, utilizing critical thinking and problem-solving skills relevant to contemporary issues within the Indian Country to develop and implement a service project for a tribe or Native American community. ( $F, S p$ )

## NAS 3440 Mentored Research Experience

3 Credit Hours
0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)
NAS 3513 Native American Film 3 Credit Hours Prerequisite: Junior standing or permission of instructor. A critical investigation of the role that film, as an art genre, has played in creating the general public's idea of the American Indian, and its construction of images representing that idea. (Irreg.)

## NAS 3693 Special Topics

3 Credit Hours
Prerequisite: six hours of NAS courses. May be repeated twice with a change in topic. Covers topics of special interest to NAS such as politics and tribal government, contemporary health issues, educational policies and trends, and tribal culture in the U.S. and Oklahoma. (F, Sp, Su)
NAS 3960 Honors Reading
1-3 Credit Hours
Prerequisite: admission to Honors Program and permission of instructor. May be repeated with change of content; maximum credit six hours. Consists of topics designated by the instructor in keeping with the student's major program. This course will allow the honors candidate the opportunity to study materials not offered in other courses. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

## NAS 3970 Honors Seminar

1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Subjects covered vary. Deals with concepts not usually treated in regular courses. (Irreg.)
NAS 3980 Honors Research
1-3 Credit Hours
Prerequisite: admission to Honors Program. May be repeated with change of content; maximum credit six hours. The study of issues related to Native American Studies for the gifted Honors candidate allowing him/ her to work on a special project. (F, Sp, Su)

## NAS 3990 Independent Study <br> 1-3 Credit Hours

1 to 3 hours. Prerequisite: six hours of NAS major courses and permission of instructor. May be repeated; maximum credit six hours. Work on a topic of the student's choosing taken under the direct supervision of a faculty member. May involve directed reading and research or participation in a community-based activity. Students will be required to give a written report or research papers. (F, Sp)

NAS 4033 Indigenous Research Methods
3 Credit Hours
(Slashlisted with NAS 5033) Prerequisite: Junior standing. Introduction to research methods in Native American Studies with an emphasis on interdisciplinarity. Students will be introduced to the range of methods available for analysis, and to the presentation of research results. Students will formulate a research proposal that includes problem identification, recommendation and justification of methods for analysis, and preparation of a critical literature review. Emphasis on Indigenous methodologies. No student may earn credit for both 4033 and 5033. (Irreg.)

NAS 4043 Sovereignty, Law, and Policy 3 Credit Hours
(Slashlisted with NAS 5043) Prerequisite: junior standing or permission of instructor. Explores what constitutes the basic nature of political sovereignty and how it is exercised in Native American communities and what the possibilities and limitations are for tribal governments. No student may earn credit for both NAS 4043 and NAS 5043. (Irreg.)

## NAS 4053 Senior Capstone

3 Credit Hours
Prerequisite: senior standing. Provides a culminating experience giving students the opportunity to incorporate knowledge gained through previous coursework. Students will integrate this knowledge into a final project. (Sp) [V].
NAS 4063 Critical Indigenous Theory
3 Credit Hours
(Slashlisted with NAS 5063) Prerequisite: senior standing. Seeks to transcend disciplinary boundaries and ground scholarly inquiry in Indigenous frameworks that reflect Native-centered concerns and objectives. Provides an alternative philosophical and theoretical toolkit for applying Indigenous methodologies, understanding strategies of decolonization, envisioning collective and individual agency and models of sovereignty, and examining the intersection of Indigenous intellectual production and lived experiences. No student may earn credit for both 4063 and 5063. (F)

NAS 4113 Oklahoma Tribal History

## 3 Credit Hours

(Slashlisted with NAS 5113) Prerequisite: junior standing. A survey of Native American history for the area known today as Oklahoma and the surrounding region. Explores the general concepts and histories of the region from a Native perspective. Discussion of Oklahoma tribal experiences in the context of regional and national experiences. Examines the Oklahoma Native experience through the world-views and words of Native Americans. No student may earn credit for both 4113 and 5113. (Irreg.)

NAS 4133 Tribal Historic Preservation
3 Credit Hours
(Slashlisted with NAS 5133) Prerequisite: junior standing or permission of instructor. Provides basic grounding in processes necessary to understand and participate in the federal tribal historic preservation program. Students will receive material and insights to help them gain skills in understanding laws and regulations relating to the federal historic preservation system. No student may earn credit for both 4133 and 5133. (Irreg.)

## NAS 4143 Native American Graves Protection and

## Repatriation

## 3 Credit Hours

(Slashlisted with NAS 5143) Prerequisite: Junior standing. This course will be centered on Native American historic preservation as it is concerned with the history of protection and repatriation of Native American human remains and associated objects. Legislative histories and U. S. and international laws dealing with Native American human remains will be examined in the context of human rights legislation informed by tribal histories and current practices. No student may earn credit for both 4143 and 5143. (Irreg.)

NAS 4153 Indigenous Mapping: Issues in Data Sovereignty and Security

3 Credit Hours
(Slashlisted with NAS 5153) Prerequisite: Junior standing. This course will be centered on the discipline of Indigenous mapping and the resulting issues confronted in dealing with data sovereignty and security for Native American tribes. This course deals with specific Native American methodologies related to Geographic Information Systems (GIS) and the application of this technology to tribal initiatives. No student may earn credit for both 4153 and 5153. (Irreg.)
NAS 4163 Native Food Sovereignty 3 Credit Hours (Slashlisted with NAS 5163) Prerequisite: Junior standing. This course focuses on Indigenous practices and concepts as it applies to the food sovereignty of the Native Americas using comparative data from across time and place. Of special interest are the dynamic connections between native foods and the health of people and place and the impacts of colonization and rapid cultural change. No student may earn credit for both 4163 and 5163. (Irreg.)

## NAS 4213 Intro to Language Documentation and Revitalization Credit <br> 3

(Slashlisted with NAS 5213) Prerequisite: Junior standing or departmental permission. We look at different strategies for language revitalization, and students investigate ways to use old and new language documentation in language revitalization. Topics include the differences and overlap between language documentation and description, how languages change in endangerment, what goes into the complete description of a language, types of language revitalization programs, and case studies of successes and troubles. No student may earn credit for both 4213 and 5213. (Irreg.)
NAS 4223 Survey of Native American Languages 3 Credit Hours (Slashlisted with NAS 5223) Prerequisite: Junior standing or departmental permission. This class addresses the linguistic and structural diversity of the Americas, as well as topics like areal diffusion and language contact. Knowledge of this type, besides being necessary background for anyone wanting to specialize in languages of the Americas, is additionally useful for knowing how particular languages students may be interested in fit into the linguistic fabric of the world. No student may earn credit for both 4223 and 5223. (Irreg.) [III-SS].
NAS 4233 Language Acquisition for Revitalization 3 Credit Hours (Slashlisted with NAS 5233) Prerequisite: Junior standing or departmental approval. This class deals with the intimate relationship between language revitalization and the science of creating new speakers, with the goal of taking experimental research in language acquisition and applying those findings to minority language revitalization contexts. No student may earn credit for both 4233 and 5233. (Irreg.)

NAS 4243 Methods of Language Documentation 3 Credit Hours (Slashlisted with NAS 5243) Prerequisite: Junior standing or departmental permission. This class is a hands-on practicum in the latest and greatest in language documentation, and prepares you to go make professional-level recordings, video documentation, and essential secondary materials for language documentation. No student may earn credit for both 4243 and 5243. (Irreg.)
NAS 4333 American Indian Health Issues and Concerns 3 Credit Hours Prerequisite: junior standing or permission of instructor. Historical information about American Indians with emphasis on health, including behavioral health, and tribal/Indian health service policy issues. Discusses traditional medicine and healing, research needs related to American Indian health, and career opportunities in health professions. (Irreg.)

NAS 4343 American Indian Education Policy and Development 3 Credit Hours
(Slashlisted with NAS 5343) Prerequisite: junior standing or permission of instructor. Enables students to come to an understanding of American Indian education history and policy as related to western European educational thought, philosophies, theories, and practices. No student may earn credit for both 4343 and 5343. (Sp) [III-SS].
NAS 4353 Introduction to Tribal Economic Development 3 Credit Hours (Slashlisted with NAS 5353) Prerequisite: junior standing. Introduces students to the concept of tribal economic development and the relevant issues facing tribal, local, state, and federal agencies. Examines theories and roles of tribal economic development as they relate to the survival and continuation of tribal governments. No student may earn credit for both 4353 and 5353. (Irreg.) [III-SS].
NAS 4363 Tribal Governance and Leadership 3 Credit Hours (Slashlisted with NAS 5363) Prerequisite: junior standing. Examines traditional and contemporary forms of tribal government and leadership. Students will be exposed to the historical development of modern tribal governments through examination of government policies and legislation. Explores contemporary issues in tribal government and styles of tribal leadership. No student may receive credit for both 4363 and NAS 5363. (Irreg.)
NAS 4373 International Indigenous Issues 3 Credit Hours (Slashlisted with NAS 5373) Prerequisite: Sophomore standing. This seminar explores the contemporary politics of Indigenous Peoples and settler societies. It takes a sociological, legal, political and anthropological approach to how politics operate within and around Indigenous Peoples. By using a comparative perspective, it examines the dynamics of critical relationships in terms of national, regional and global political order. No student may earn credit for both 4373 and 5373. (Irreg.)

## NAS 4423 Issues in Native American Environment and

## Sustainability

## 3 Credit Hours

(Slashlisted with NAS 5423) Prerequisite: Junior standing. This course will be centered on current issues in Native American environment and sustainability. This course will focus on the interrelationships of people, their environments, their philosophies and cosmologies, ethics, histories and health. No student may earn credit for both 4423 and 5423. (Irreg.)

## NAS 4433 Native American Women

3 Credit Hours
(Slashlisted with NAS 5433) Prerequisite: Junior standing. The objective of this course is to provide students with a range of learning experiences that familiarizes them with Indigenous women in traditional and contemporary societies. Students will explore historical and contemporary issues relevant to Indigenous women, examine the multifaceted roles of Indigenous women, and analyze the complexities of Indigenous women within a settler colonial society. No student may earn credit for both 4433 and 5433. (Irreg.)
NAS 4513 Native Cultural Aesthetics \& the Heritage Industry

3 Credit Hours
(Slashlisted with NAS 5513) Prerequisite: junior standing. Focus on aspects of heritage tourism pertaining to Native American experience in the United States from early 19th century to present, examining ways of life of tribes in the form of buildings, art, artifacts, and customs. No student may earn credit for both 4513 and 5513. (Irreg.) [IV-WDC].

NAS 4533 Contemporary Native American Artists 3 Credit Hours
(Slashlisted with NAS 5533) Prerequisite: Junior standing or Departmental Permission. This course introduces a contemporary tribal and textual diversity of the Indigenous arts and peoples of Native North America. By engaging with Indigenous aesthetics, Native artists' critical and creative ways of expression, and multiple modes of media, we will analyze material, visual, and aural art and artists through Indigenouscentered lenses. No student may earn credit for both 4533 and 5533. (Irreg.) [IV-NW].
NAS 4713 Indigenous Community Planning 3 Credit Hours
(Slashlisted with NAS 5713) Prerequisite: Junior standing or departmental permission. We will conceive of futures for Indigenous communities and delve into Indigenous planning and create a planning document. Related to that are Indigenous culture, land tenure, values, MMIW, and accountability to past, present, and future Indigenous community members. No student may earn credit for both 4713 and 5713. (Sp)

## NAS 4723 Spatial Storytelling 3 Credit Hours

(Slashlisted with NAS 5723) Prerequisite: Junior Standing or departmental permission. This course will analyze and respond to the ongoing settler colonial structural impacts on spaces and places and the concomitant role of power relations in shaping community and culture. Students will learn low-tech and high-tech approaches to designing and carrying out community map biographies and stories that advocate for social transformation, as well as produce less-told spatial narratives. No student may earn credit for both 4723 and 5723. (Irreg.)

## NAS 4923 Contemporary Issues in Native American <br> Studies

3 Credit Hours
(Slashlisted with NAS 5923) Prerequisite: junior standing. Familiarizes and sensitizes students to dynamics of change relevant to prevailing issues and concerns among American Indian entities with a special focus on tribal development/progress. No student may earn credit for both 4923 and 5923. (Irreg.) [IV-NW].
NAS 4960 Directed Readings
1-4 Credit Hours
1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean. May be repeated; maximum credit four hours. Designed for upper-division students who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)
NAS 4970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: senior standing or permission of instructor. May be repeated with change of topic; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library research or special projects. (Irreg.)
NAS 4990 Independent Study 1-3 Credit Hours
Prerequisite: nine hours of NAS courses and permission of Program Director or instructor. May be repeated; maximum credit six hours. The study of issues related to Native American Studies to include research and special projects. (F, Sp, Su)

NAS 5033 Indigenous Research Methods
3 Credit Hours
(Slashlisted with NAS 4033) Prerequisite: Graduate standing. Introduction to research methods in Native American Studies with an emphasis on interdisciplinarity. Students will be introduced to the range of methods available for analysis, and to the presentation of research results. Students will formulate a research proposal that includes problem identification, recommendation and justification of methods for analysis, and preparation of a critical literature review. Emphasis on Indigenous methodologies. No student may earn credit for both 4033 and 5033. (lrreg.)

NAS 5043 Sovereignty, Law, and Policy
3 Credit Hours
(Slashlisted with NAS 4043) Prerequisite: graduate standing. Explores what constitutes the basic nature of political sovereignty and how it is exercised in Native American communities and what the possibilities and limitations are for tribal governments. No student may earn credit for both NAS 4043 and NAS 5043. (Irreg.)
NAS 5063 Critical Indigenous Theory
3 Credit Hours
(Slashlisted with NAS 4063) Prerequiste: graduate standing or student in the College of Law. Seeks to transcend disciplinary boundaries and ground scholarly inquiry in Indigenous frameworks that reflect Nativecentered concerns and objectives. Provides an alternative philosophical and theoretical toolkit for applying Indigenous methodologies, understanding strategies of decolonization, envisioning collective and individual agency and models of sovereignty, and examining the intersection of Indigenous intellectual production and lived experiences. No student may earn credit for both NAS 4063 and NAS 5063. (F)
NAS 5113 Oklahoma Tribal History
3 Credit Hours
(Slashlisted with NAS 4113) Prerequisite: graduate standing. A survey of Native American history for the area known today as Oklahoma and the surrounding region. Explores the general concepts and histories of the region from a Native perspective. Discussion of Oklahoma tribal experiences in the context of regional and national experiences. Examines the Oklahoma Native experience through the world-views and words of Native Americans. No student may earn credit for both 4113 and 5113. (Irreg.)

NAS 5133 Tribal Historic Preservation
3 Credit Hours
(Slashlisted with NAS 4133) Prerequisite: Graduate standing. Provides basic grounding in processes necessary to understand and participate in the federal tribal historic preservation program. Students will receive material and insights to help them gain skills in understanding laws and regulations relating to the federal historic preservation system. No student may earn credit for both 4133 and 5133. (Irreg,)

## NAS 5143 Native American Graves Protection and

 Repatriation3 Credit Hours
(Slashlisted with NAS 4143) Prerequisite: Graduate standing. This course will be centered on Native American historic preservation as it is concerned with the history of protection and repatriation of Native American human remains and associated objects. Legislative histories and U. S. and international laws dealing with Native American human remains will be examined in the context of human rights legislation informed by tribal histories and current practices. No student may earn credit for both 4143 and 5143. (Irreg.)

NAS 5153 Indigenous Mapping: Issues in Data Sovereignty and Security

3 Credit Hours
(Slashlisted with NAS 4153) Prerequisite: Graduate standing. This course will be centered on the discipline of Indigenous mapping and the resulting issues confronted in dealing with data sovereignty and security for Native American tribes. This course deals with specific Native American methodologies related to Geographic Information Systems (GIS) and the application of this technology to tribal initiatives. No student may earn credit for both 4153 and 5153. (Irreg.)
NAS 5163 Native Food Sovereignty 3 Credit Hours
(Slashlisted with NAS 4163) Prerequisite: Graduate standing. This course focuses on Indigenous practices and concepts as they apply to the food sovereignty of the Native Americas using comparative data from across time and place. Of special interest are the dynamic connections between native foods and the health of people and place and the impacts of colonization and rapid cultural change. No student may earn credit for both 4163 and 5163. (Irreg.)

## NAS 5213 Intro to Language Documentation and Revitalization Credit

(Slashlisted with NAS 4213) Prerequisite: Graduate standing. We look at different strategies for language revitalization, and students investigate ways to use old and new language documentation in language revitalization. Topics include the differences and overlap between language documentation and description, how languages change in endangerment, what goes into the complete description of a language, types of language revitalization programs, and case studies of successes and troubles. No student may earn credit for both 4213 and 5213. (Irreg.)

NAS 5223 Survey of Native American Languages 3 Credit Hours (Slashlisted with NAS 4223) Prerequisite: Graduate standing. This class addresses the linguistic and structural diversity of the Americas, as well as topics like areal diffusion and language contact. Knowledge of this type, besides being necessary background for anyone wanting to specialize in languages of the Americas, is additionally useful for knowing how particular languages students may be interested in fit into the linguistic fabric of the world. No student may earn credit for both 4223 and 5223. (Irreg.)
NAS 5233 Language Acquisition for Revitalization 3 Credit Hours (Slashlisted with NAS 4233) Prerequisite: Graduate standing. This class deals with the intimate relationship between language revitalization and the science of creating new speakers, with the goal of taking experimental research in language acquisition and applying those findings to minority language revitalization contexts. No student may earn credit for both 4233 and 5233. (Irreg.)
NAS 5243 Methods of Language Documentation 3 Credit Hours (Slashlisted with NAS 4243) Prerequisite: Graduate standing. This class is a hands-on practicum in the latest and greatest in language documentation and prepares students to make professional-level recordings, video documentation, and essential secondary materials for language documentation. No student may earn credit for both 4243 and 5243. (Irreg.)
$\begin{array}{lll}\text { NAS } 5343 & \text { American Indian Education Policy and Development } & 3 \\ \text { Credit } & & \text { Hours }\end{array}$
(Slashlisted with NAS 4343) Prerequisite: graduate standing. Enables students to come to an understanding of American Indian education history and policy as related to western European educational thought, philosophies, theories, and practices. No student may earn credit for both 4343 and 5343. (Sp)

NAS 5353 Introduction to Tribal Economic Development 3 Credit Hours (Slashlisted with NAS 4353) Prerequisite: graduate standing. Introduces students to the concept of tribal economic development and the relevant issues facing tribal, local, state, and federal agencies. Examines theories and roles of tribal economic development as they relate to the survival and continuation of tribal governments. No student may earn credit for both 4353 and 5353. (Irreg.)
NAS 5363 Tribal Governance and Leadership 3 Credit Hours (Slashlisted with NAS 4363) Prerequisite: graduate standing. Examines traditional and contemporary forms of tribal government and leadership. Students will be exposed to the historical development of modern tribal governments through examination of government policies and legislation. Explores contemporary issues in tribal government and styles of tribal leadership. No student may receive credit for both 4363 and 5363. (Irreg.)
NAS 5373 International Indigenous Issues
3 Credit Hours
(Slashlisted with NAS 4373) Prerequisite: Graduate standing. This seminar explores the contemporary politics of Indigenous Peoples and settler societies. It takes a sociological, legal, political and anthropological approach to how politics operate within and around Indigenous Peoples. By using a comparative perspective, it examines the dynamics of critical relationships in terms of national, regional and global political order. No student may earn credit for both 4373 and 5373. (Irreg.)

## NAS 5423 Issues in Native American Environment and Sustainability <br> 3 Credit Hours

(Slashlisted with NAS 4423) Prerequisite: Graduate standing. This course will be centered on current issues in Native American environment and sustainability. This course will focus on the interrelationships of people, their environments, their philosophies and cosmologies, ethics, histories, and health. No student may earn credit for both 4423 and 5423. (Irreg.)

## NAS 5433 Native American Women

3 Credit Hours
(Slashlisted with NAS 4433) Prerequisite: Graduate standing. The objective of this course is to provide students with a range of learning experiences that familiarizes them with Indigenous women in traditional and contemporary societies. Students will explore historical and contemporary issues relevant to Indigenous women, examine the multifaceted roles of Indigenous women, and analyze the complexities of Indigenous women within a settler colonial society. No student may earn credit for both 4433 and 5433. (Irreg.)
NAS 5513 Native Cultural Aesthetics \& the Heritage Industry

3 Credit Hours
(Slashlisted with NAS 4513) Prerequisite: graduate standing. Focus on aspects of heritage tourism pertaining to Native American experience in the United States from early 19th century to present, examining ways of life of tribes in the form of buildings, art, artifacts, and customs. No student may earn credit for both 4513 and 5513. (Irreg.)
NAS 5533 Contemporary Native American Artists 3 Credit Hours (Slashlisted with NAS 4533) Prerequisite: Graduate standing. This course introduces a contemporary tribal and textual diversity of the Indigenous arts and peoples of Native North America. By engaging with Indigenous aesthetics, Native artists' critical and creative ways of expression, and multiple modes of media, we will analyze material, visual, and aural art and artists through Indigenous-centered lenses. No student may earn credit for both 4533 and 5533. (Irreg.)

NAS 5713 Indigenous Community Planning 3 Credit Hours
(Slashlisted with NAS 4713) Prerequisite: Graduate standing. We will conceive of futures for Indigenous communities, delve into Indigenous planning and create a planning document. Related to that are Indigenous culture, land tenure, values, MMIW, and accountability to past, present, and future Indigenous community members. No student may earn credit for both 4713 and 5713. (Sp)
NAS 5723 Spatial Storytelling
3 Credit Hours
(Slashlisted with NAS 4723) Prerequisite: Graduate Standing. This
course will analyze and respond to the ongoing settler colonial structural impacts on spaces and places and the concomitant role of power relations in shaping community and culture. Students will learn low-tech and high-tech approaches to designing and carrying out community map biographies and stories that advocate for social transformation, as well as produce less-told spatial narratives. No student may earn credit for both 4723 and 5723. (Irreg.)
NAS 5920 Native American Studies Practicum 3 Credit Hours Prerequisite: graduate standing. A component of the core curriculum for the master's credential within the NAS discipline. Provides learning experiences and the application of understanding and skills in American Indian related professional settings. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
NAS 5923 Contemporary Issues in Native American Studies

3 Credit Hours
(Slashlisted with NAS 4923) Prerequisite: graduate standing. Familiarizes and sensitizes students to dynamics of change relevant to prevailing issues and concerns among American Indian entities with special focus on tribal development/progress. No student may earn credit for both 4923 and 5923. (Irreg.)
NAS 5960 Directed Readings 1-3 Credit Hours 1 to 3 hours. Prerequisite: graduate standing and permission of instructor. May be repeated; maximum credit six hours. Directed readings and/or literature reviews under the direction of a faculty member. (F, Sp, Su )

## NAS 5970 Special Topics/Seminar

1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated with change of topic; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library research or special projects. (Irreg.)
NAS 5980 Research for Master's Thesis 2-6 Credit Hours
Prerequisite: graduate standing. Variable enrollment, two to six hours; maximum credit applicable toward degree, six hours. (F, Sp, Su)
NAS 5990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing and permission of instructor. May be repeated; maximum credit six hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (F,Sp, Su)

## NPNG-Nonprofit \& Nongovernmental Organizations

## NPNG 2033 Introduction to Nonprofits <br> 3 Credit Hours

A comprehensive overview of the nonprofit sector, its characteristics, and how to manage a nonprofit organization. Examines a wide range of management issues today's nonprofits face in pursuing their missions and daily operations. (F, Sp)

NPNG 3033 Nonprofit Management 3 Credit Hours
Prerequisite: NPNG 2033 or permission of department. A more detailed look at how to manage or govern a well-run nonprofit organization efficiently. Combines academic theory with real-life experience, equipping students with the tools required to effectively lead a nonprofit organization. (F,Sp)
NPNG 3193 Nonprofits and Public Policy

## 3 Credit Hours

(Crosslisted with P SC 3193) Prerequisite: P SC 1113. Examines how nonprofit organizations advocate for their causes through the public policy process as well as how public policy influences nonprofit missions and funding. It also explores more broadly the role of nonprofit organizations in democracy and the various ways they interact with government, including collaborative and conflictual relationships with government. (Irreg.)
NPNG 3771 Issue Advocacy
1 Credit Hour
(Crosslisted with P SC 3771) Prerequisite: P SC 1113 or junior standing. Designed to provide a practical application of the theories and concepts acquired in the study of political science and public administration. How to be effective advocates at all levels of government for the issues and ideas they seek to see implemented in public policy will be learned. (Irreg.)
NPNG 3781 Tracking Legislation
1 Credit Hour
(Crosslisted with P SC 3781) Prerequisite: P SC 1113 or junior standing. Designed to provide a practical application of the theories and concepts acquired in the study of political science and public administration. How to read and track legislation in the State of Oklahoma will be learned. Additionally, students will learn the inner workings of state government from a legislative perspective. (Irreg.)
NPNG 3791 Social Media Strategies for Public and Nonprofit Organizations

1 Credit Hour
(Crosslisted with P SC 3791) Prerequisite: P SC 1113 or junior standing. Designed to offer an overview of the social media field as it pertains to nonprofits and public organizations.

NPNG 3910 Nonprofit Internship
1-3 Credit Hours
1 to 3 hours. Prerequisite: junior standing and permission of instructor. May be repeated; maximum credit six hours. Interns observe and participate in functions, processes and actions of nonprofit organizations. This experience can enhance a student's knowledge of the requirements, benefits and lessons of working in the public or non-profit sector. (F, Sp, Su)

NPNG 4033 Leadership \& Planning
3 Credit Hours
Prerequisite: NPNG 3033 or permission of instructor. A continuation of nonprofit organization management, with emphasis on board members, volunteers, paid staff, accountability, interactions, risk management, finances, and trending. (Sp)
NPNG 4103 Nonprofit Human Resource Management 3 Credit Hours Prerequisite: NPNG 2033 and junior standing, or permission of instructor. Provides a comprehensive overview for those interested in entering the fundraising field or learning more about methods, technology and concepts in the development area of the nonprofit sector. The sources of funding and how to apply fundraising strategies will be studied. (Irreg.)
NPNG 4203 Fundraising and Philanthropy 3 Credit Hours Prerequisite: NPNG 2033 and senior standing or permission of instructor. Provides a comprehensive overview for those interested in entering the fundraising field or learning more about methods, technology and concepts in the development area of the nonprofit sector. The sources of funding and how to apply fundraising strategies will be studied. (Irreg.)

## NPNG 4303 Communications and Public Relations in Nonprofit Organizations <br> 3 Credit Hours

Prerequisite: NPNG 2033 and senior standing or permission of instructor. Provides students with the concepts and tools to conduct research and analyses, identify and evaluate target markets, explore opportunities to effectively communicate with new clients, donors and volunteers, and design effective web-based and social media tactic as part of an integrated marketing and communication strategy will be learned. (F)
NPNG 4533 Donor Stewardship and Grant Writing 3 Credit Hours Prerequisite: NPNG 2033 and NPNG 3033. This course will cover three aspects of nonprofit development work, including database management, grant writing, and special events (Sp)

## NPNG 4970 Special Topics/Seminar <br> 1-3 Credit Hours

1 to 3 hours. Prerequisite: Senior standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)
NPNG 5033 Nonprofits: The Sector and The System 3 Credit Hours Prerequisites: graduate standing or permission of instructor. Understanding the relationship between government and nonprofits is fundamental for the survival of the sector. Nonprofits implement public policy, receive government funding, respond to natural disasters, and help form legislation. The course includes an examination of broad theoretical, empirical and practical spectrum of nonprofit-public collaborations, conflicts, and resultant policy implications. (Irreg.)
NPNG 5413 Nonprofit Law and Policy
3 Credit Hours
Prerequisites: graduate standing or permission of instructor. Examines how policy influences nonprofits and how nonprofits impact policy. It will address the role of nonprofits in public policy and how laws shape nonprofit involvement by reviewing state and federal policy including legal forms, fundraising regulations, and employee compensation. Students will gain an understanding of nonprofit activities within a basic legal framework. (Irreg.)
NPNG 5701 Nonprofit Fundraising and Grantmaking 1 Credit Hour Prerequisites: graduate standing or permission of instructor. Assists students in securing resources for nonprofits by understanding techniques for fundraising, conducting prospect research, practicing appropriate stewardship, leading campaigns for various types of giving, writing grants, utilizing technology to facilitate resource development, and implementing creative approaches to fundraising. (Irreg.)

## NPNG 5711 Nonprofit Financial Management

1 Credit Hour
Prerequisites: graduate standing or permission of instructor. Introduces financial concepts required for effective management of nonprofit organizations. Offers an opportunity to learn about nonprofit accounting, budget management, financial planning, tax issues, grant compliance, audits, cash flow management, and capital financing. (Irreg.)
NPNG 5721 Nonprofit Human Resources 1 Credit Hour
Prerequisites: graduate standing or permission of instructor. Focuses on the knowledge and skills required by those who manage personnel. The course provides a solid base to understanding human resource management and applying that to work-life situations for those considering a career in management. Also investigates the essential concepts and federal laws that shaped human resource management. (Irreg.)

## OBOE-Oboe

OBOE 2000 Freshman and/or Sophomore Secondary Oboe 1-2
Credit
Hours
1 to 2 hours. Prerequisite: permission of adviser and instructor. May be repeated; maximum credit toward B.F.A., B.M.A., B.M.E., and B.M. degrees, eight hours. For freshman and sophomore music students studying in a secondary (or minor) performance area. (F, Sp, Su)
OBOE 2020 Oboe for Music Majors: Freshman/Sophomore 2-4 Credit Hours
2 to 4 hours. Prerequisite: Majors only. May be repeated; maximum credit 12 hours. Applied instrumental lessons for freshmen and sophomore music majors in a School of Music degree program. (F, Sp)
OBOE 3440 Mentored Research Experience 3 Credit Hours 0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)

OBOE 4000 Junior and/or Senior Secondary Oboe 1-2 Credit Hours 1 to 2 hours. Prerequisite: permission of adviser and instructor. May be repeated; maximum credit toward B.F.A., B.M.A., B.M.E., and B.M. degrees, eight hours. For junior and senior music students studying in a secondary (or minor) performance area. (F, Sp, Su)
OBOE 4020 Oboe for Music Majors: Junior/Senior 1-4 Credit Hours 1 to 4 hours. Prerequisite: majors only; junior standing. May be repeated; maximum credit 20 hours. Applied instrumental lessons for junior and senior music majors in a School of Music degree program. (F, Sp)
OBOE 5000 Master's-Level Secondary Oboe 1-2 Credit Hours 1 to 2 hours. Prerequisite: graduate standing in music; permission of adviser and instructor. May be repeated; maximum credit eight hours on a given instrument (including voice). For master's degree music students studying in a secondary (or minor) performance area. (F, Sp, Su)
OBOE 5010 Master's-Level Oboe for Non-Performance Music Majors

1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing in music; permission of adviser and instructor. May be repeated; maximum credit eight hours on a given instrument (including voice). For master's degree students other than performance majors in their major field. (F, Sp, Su)
OBOE 5020 Master's-Level Oboe for Performance Majors 2-4 Credit Hours
2 to 4 hours. Prerequisite: graduate standing in music; permission of adviser and instructor; 4020 and 4021 or equivalent. May be repeated; maximum credit toward an M.M. degree 10 hours. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

## OBOE 6000 Doctoral Secondary Oboe

1-2 Credit Hours
1 to 2 hours. Prerequisite: graduate standing in music, permission of adviser or instructor. May be repeated; maximum credit eight hours on a given instrument (including voice). For doctoral degree music students studying in a secondary (or minor) performance area. (F, Sp, Su)
OBOE 6010 Doctoral Oboe for Non-Performance Music
Majors 2-3 Credit Hours
2 to 3 hours. Prerequisite: graduate standing in music; permission of adviser and instructor. May be repeated. Doctoral-level study of applied music in the major performance area for students other than performance majors in their primary field. (F, Sp, Su)

OBOE 6020 Doctoral Oboe for Performance Majors 2-4 Credit Hours
2 to 4 hours. Prerequisite: graduate standing in music; 5042; permission of adviser and instructor. May be repeated; credit applicable toward applied music requirements for the Doctor of Musical Arts degree. Doctoral-level study of applied music for performance majors in their primary field. (F, Sp, Su)

## OCL-Organizational and Community Leadership

OCL 5603 The Science of Community Engagement 3 Credit Hours Prerequisite: Graduate standing. This course provides an evidence-based foundation of knowledge to prepare participants for the collaborative world of community engagement. Lectures/discussions will cover a range of subjects including organizational dynamics, anatomy of a community, and aspects of community observation and interaction. Levels of helping and psychology of helping and being helped will also be covered. (Irreg.)

OCL 5613 The Tools of Community Engagement 3 Credit Hours Prerequisite: Graduate standing and OCL 5603. The course focuses on methods of conducting community assessments, theories of developing and implementing programs and systems of change, public policy and administration as modes of transformation, and measuring successes and program evaluation. (Irreg.)
OCL 5623 Community Engagement Apprenticeship 3 Credit Hours Prerequisite: Graduate standing, OCL 5603, and OCL 5613. Learners will work with a mentor associated with a community partner. The apprenticeship entails shadowing, observing, and actively learning from a community partner mentor that provides a "deep dive" into community engagement. During the course of the apprenticeship, the learner will identify a key problem or issue within the community partner organization and formulate a "Capstone Prospectus." (Irreg.)

OCL 5633 Community Engagement Capstone 3 Credit Hours Prerequisite: Graduate standing, OCL 5603, OCL 5613, and OCL 5623. Learners will apply all they have learned in the preceding courses to address a real-world problem or issue affecting a community partner. In this course, learners will implement the program they developed in the Community Engagement Apprenticeship course. Learners will collect measures and other forms of data at baseline and at points following implementation of their program. (Irreg.)
OCL 6813 Prospectus Development for Doctoral Dissertation 3 Credit
Prerequisite: Graduate standing and departmental permission. May be repeated; maximum credit six hours. The course is designed for advanced doctoral students/candidates. Students will develop a research topic and write a topic proposal as a starting point to work from and further develop with the dissertation chair and committee. (F, Sp, Su)

OCL 6980 Research for Doctoral Dissertation 2-16 Credit Hours 2 to 16 hours. Prerequisite: Graduate standing and permission of instructor; May be repeated. Directed research culminating in the completion of the doctoral dissertation. (F, Sp, Su)

OCL 6990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing and permission of instructor. May be repeated with change of content; maximum credit twelve hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Individual research in areas of organizational and community leadership. Independent study may include library and/or laboratory research and field projects. Specific objectives and work requirements should be established by prior agreement between the instructor and student. (F, Sp, Su)

## ODYN-Organizational Dynamics

ODYN 5113 The Psychology of Leadership 3 Credit Hours Prerequisite: graduate standing or permission of instructor. Focuses on the theories, principles, and practice of leadership in organizational settings; particular focus on technologically based organizations, leading change in organizations, and leading teams. (Irreg.)

ODYN 5123 Survey of Organizational Dynamics 3 Credit Hours Prerequisite: admission to the Organizational Dynamics program or instructor's consent. Overview of theories and practices used in human resource management; project management; and knowledge management. Emphasis is on research methodologies and key theories relevant to each of the three substantive area, as well as application of general principles of each of the three areas in the workforce, considering individual, group and organizational levels. (Irreg.)

ODYN 5133 Teams and Motivation
3 Credit Hours
Prerequisite: graduate standing or permission of instructor. Team formation, socialization and identity, team problem solving, individual and collective motivation, conflict and power, learning and team development, and group liabilities. (Irreg.)
ODYN 5153 Design, Evaluation, and Statistics 3 Credit Hours
Prerequisite: graduate standing or permission of instructor. Covers applied research designs such as quasi-experimental and correlation designs; covers basic statistics, hypothesis testing, correlation/multiple regression, and quality control models. Focus will be on application of statistics in organizational problem solving. (Irreg.)
ODYN 5163 Applied Measurement and Analysis 3 Credit Hours Prerequisite: graduate standing or permission of instructor. Focuses on teaching principles and practices of individual and organizational assessment, covering concepts such as validity, reliability, survey and instrument development, and characteristics of organizational data. Techniques for analyzing organizational data and conducting program evaluation will also be discussed. (Irreg.)
ODYN 5183 Capstone Project
3 Credit Hours
Prerequisite: Graduate standing and ODYN 5973, or permission of instructor. This capstone project will involve real-world application of the material covered in the program. (Irreg.)

ODYN 5223 Performance Management
3 Credit Hours
Prerequisite: Graduate standing or permission of instructor. Covers basic approaches to motivating and developing individuals to perform well within organizational settings; includes discussion of alternative methods for measuring and assessing individual, team, and organizational performance. (Irreg.)
ODYN 5233 Training and Career Development 3 Credit Hours
Prerequisite: graduate standing or permission of instructor. Overview of principles, theories, and practices of learning and development in organizations. Application of various training techniques and designs will be covered as well as roles of different organizational constituencies in employee training and development. (Irreg.)

ODYN 5243 Staffing, Selection, and Compensation 3 Credit Hours
Prerequisite: graduate standing or permission of instructor. Focuses on recent, state-of-the-art processes and technologies for organizational staffing, personnel selection, and employee benefits and pay. Relevant theories in these areas will be reviewed. (Irreg.)
ODYN 5253 Organizational Behavior, Change, and Development 3 Credit
Prerequisite: graduate standing or permission of instructor. Explores theories and practices related to the planned process of changing an organization or group's culture to increase organizational productivity and effectiveness. Topics such as organizational assessment and diagnosis, continuous learning, problem solving sessions, reward systems, visioning, and empowerment will be covered. (Irreg.)
ODYN 5263 Human Resource Management Systems and Techniques

3 Credit Hours
Prerequisite: Graduate standing or permission of instructor. Survey of theory and practice in primary areas of human resource management such as workforce planning, recruiting, selection and staffing, performance management, compensation, and training and development. Focuses on a systems approach to human resource management, including how aspects of HRM are interrelated, as well as strategies and technologies being used to perform various HRM functions. (Irreg.)
ODYN 5283 Employee Health, Safety and Wellness 3 Credit Hours Prerequisite: Graduate standing or permission of instructor. Focuses on health, safety and wellness issues relevant to the workplace. Individual, social, situational and environmental factors that affect workplace health, safety and wellness will be covered, including topics such as: stress and burnout; work-life conflict; workplace safety and injury prevention; legal and regulatory compliance; and workplace conflict, aggression, and violence. (Irreg.)

## ODYN 5293 Work and Life Integration <br> 3 Credit Hours

Prerequisite: Graduate standing or permission of instructor. This course is designed to teach students about the interactive relationship between the family system and the work system. With the changing demographics of the workforce comes a stronger need to assess the relationship between these two major areas of life on one another. Such topics as work/family conflict, childcare issues, role conflict, marital satisfaction, and work satisfaction are covered. (Irreg.)
ODYN 5313 Planning Processes and Strategy Development 3 Credit Hours
Prerequisite: graduate standing or permission of instructor. Overview of principles and practices of planning and strategy development. Planning processes will be examined at micro as well as macro organizational levels; organizational strategies such as succession planning and workforce planning will be discussed. (Irreg.)
ODYN 5323 The Psychology and Practice of Project

## Management

## 3 Credit Hours

Prerequisite: graduate standing or permission of instructor. Focuses on strategies and steps involved in developing project proposals and work plans. Includes topics such as needs assessment, budgeting, resource utilization, managing diverse project teams, troubleshooting, and others. (Irreg.)
ODYN 5333 Customer Service and Market Analysis 3 Credit Hours Prerequisite: Graduate standing or permission of instructor. Principles, theories and applications of market analysis and customer service will be reviewed; techniques for gathering, assessing, and analyzing market and customer data will be covered; and techniques for improving customer service will be discussed. (Irreg.)

ODYN 5343 Organizational Communication 3 Credit Hours
Prerequisite: graduate standing or permission of instructor. Overview of theories and systems of communication in organizational settings. Various forms and effectiveness of communication as well as purposes and strategies at different organizational levels will be covered. (Irreg.)
ODYN 5353 Global Business Practices and Ethics
3 Credit Hours
Prerequisite: graduate standing or permission of instructor. Covers the relationship between organizations and global markets. Explores how organizational systems work together to meet global demands, system breakdowns, and assessment of organizational performance. (Irreg.)
ODYN 5383 Emerging Topics in Project Management 3 Credit Hours Prerequisite: Graduate standing or permission of instructor. In-depth examination of existing and emerging issues and problems facing project management professionals who work as internal or external consultants. May include issues such as risk management, project selection, conflict resolution, and strategic management decision processes. (Irreg.)
ODYN 5393 Creativity and Innovation in Organizations 3 Credit Hours
Prerequisite: Graduate standing or permission of instructor. This course focuses on theories of creativity and its assessment at the individual, group/team, and organizational level. Assumptions and predictions of the theories will be presented and discussed. A special focus will be on the stages of creative processes and their facilitation. (Irreg.)

ODYN 5413 Positive People Practices
3 Credit Hours
Prerequisite: Graduate standing or permission of instructor. Positive people practices are those practices undertaken by organizations that seek to treat five stakeholder groups (society, partners, investors, customers, and employees) as equally important to achieving the organization's vision and mission. This class will discuss a variety of positive people practices and examine diverse organizations that implement such policies effectively. (Irreg.)
ODYN 5513 Knowledge Management in Project-Driven Organizations 3 Credit Hours
Prerequisite: Graduate standing or permission of instructor. This class will focus on the 3rd generation of knowledge management and do so with a project-centric strategy. It is a project-centric environment that makes knowledge management most feasible for active, growing organizations. Students will learn methods and tools they can use to bring a sense of order to organizational knowledge. (Irreg.)
ODYN 5960 Directed Readings
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing and permission of department. May be repeated; maximum credit twelve hours. Directed readings and/or literature reviews under the direction of a faculty member. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
ODYN 5970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)
ODYN 5973 Proposing and Presenting Research 3 Credit Hours Prerequisite: admission to Organizational Dynamics master's program. Students in the course will learn to (a) read, synthesize and summarize existing research in organizational dynamics; (b) develop a research proposal that is founded in real world problems, that is based on sound research principles, and that meets accepted standards for professional and scholarly publication. The proposal, on approval of the faculty, may serve as the prospectus for either the professional project or the master's thesis. (F, Sp)

ODYN 5980 Research for Master's Thesis
2-4 Credit Hours
Prerequisite: permission of instructor. Supervised research in area agreed upon by the student and the instructor. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
ODYN 5990 Independent Study 1-3 Credit Hours 1 to 3 hours. Prerequisite: Graduate standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)

## OL-Organizational Leadership

OL 5013 Interdisciplinary Foundations for Leadership 3 Credit Hours Prerequisite: Graduate standing. An introduction to the concept of interdisciplinarity as an organizing principle for understanding and interpreting models, theories, and applications of leadership in a variety of organizational settings. Provides selected readings designed to reinforce the interdisciplinary approach to graduate studies in leadership. (F, Sp, Su)

OL 5053 Research Methods in Organizations 3 Credit Hours Prerequisite: Graduate standing. Theories, techniques, and application of research designed to prepare leadership students to understand and respond to applied research involving organizational leadership and organizational settings. (F, Sp, Su)
OL 5113 Theories of Management and Leadership 3 Credit Hours Prerequisite: graduate standing. This course explores and analyzes the concept of leadership including such topics as leadership theory, changing leadership roles, power, decision-making, empowerment, vision, communication, diversity, and ethics. (F, Sp, Su)

OL 5133 Cultures of Organizations
3 Credit Hours
Prerequisite: graduate standing. The course looks at the meaning of organizational culture and its significance for leadership behavior, ways of thinking about organizations and the structure of organizations, the implications for leaders, and other relationships between organizations and aspects of leadership. (F, Sp, Su)
OL 5153 Ethics in Leadership
3 Credit Hours
Prerequisite: Graduate standing. Students develop their leadership capacity by analyzing ethical considerations in global organizations. Students examine contemporary ethics cases, learning that many decisions fall into gray areas where the right answers may not be clear. By balancing the concepts of ethical reasoning with the organizational factors that influence ethical decision-making, students learn to make informed strategic decisions that affect global operations. (F, Sp, Su)

OL 5173 The Individual and Leadership
3 Credit Hours
Prerequisite: graduate standing. This course explores the social, psychological, and behavioral characteristics of leadership, personal skills that enhance leadership ability, and strategies for dealing with interpersonal problems in organizations. (F, Sp, Su)
OL 5193 Creating, Leading, and Managing Change 3 Credit Hours Prerequisite: Graduate standing. An examination of effective leadership skills necessary to create and manage change in a variety of organizational settings. Topics include leadership styles in change management, organizational change strategies, models, and frameworks, and the potential barriers to change in organizations. (F, Sp, Su)

OL 5203 Leadership Issues in Decision Making 3 Credit Hours
Prerequisite: graduate standing, CAS 5003, and OL 5113; or permission of dean. An interdisciplinary inquiry into the nature and attributes of rational and irrational decision making. Content will include research on how decisions must often be made with incomplete evidence, the use of cognitive psychology in decision making from a human intelligence perspective, and how decisions are made from a social and cultural process. Students will learn leadership decision making from individual, small group, and social environment contexts, as well as values of good decisions and the unintended consequences of poor decisions. (F, Sp, Su)
OL 5223 Financial Leadership
3 Credit Hours
Prerequisite: Graduate standing. Introduces foundational accounting principles and financial concepts for non-financial managers. Topics include analysis of financial reports, communication of financial data to organizational leaders and stakeholders, and financial planning. (F, Sp, Su )
OL 5243 Project Management
3 Credit Hours
Prerequisite: graduate standing, CAS 5003 and OL 5113; or permission of dean. An interdisciplinary inquiry to simulate as closely as possible the real-world experience of managing a project for a client; the client participates in the grading for the course. Topics include: project planning, project execution, project control, project communication, client relations, performance oriented design, collecting information in the field, current operations analysis, specifications for a proposed solution, devising and evaluating alternatives, and implementation. (F, Sp, Su)
OL 5283 Building High Performance Teams
3 Credit Hours
Prerequisite: Graduate standing. Provides students with the knowledge needed to identify a group's current functioning and build the necessary conditions to create a high-performance team. Explores components of teams and examines the qualities of one who is capable of leading groups of people effectively. (F, Sp, Su)
OL 5313 Organizational Communications 3 Credit Hours Prerequisite: graduate standing, CAS 5003 and OL 5113; or permission of dean. An interdisciplinary inquiry in the role information and knowledge management play in making decisions in organizations, fundamental issues in the management of information, how people in organizations exchange information, and ultimately how effective sharing of information leads to effective problem solving. (F, Sp, Su)
OL 5323 Fundraising and Budgeting
3 Credit Hours
Prerequisite: Graduate standing. Provides students with an overview of the history, philosophy, and ethics of fundraising and development. Students will learn about building relationships, goal setting, communication, and how to build strategic fundraising plans to support a non-profit organization's vision. (F, Sp, Su)

OL 5333 Motivation in Work and Leadership
3 Credit Hours Prerequisite: graduate standing. Exploration of personal and work motivation, including discussion of relevant theories and their application in leadership and the workplace. (F, Sp, Su)
OL 5353 Non-Profit Governance
3 Credit Hours
Prerequisite: Graduate standing. Provides students with an overview of key issues involved in the governance of nonprofit organizations and the role of nonprofit boards. Major governance models are examined and implications of using the different models are discussed. (F, Sp, Su)

OL 5393 Followership
3 Credit Hours
Prerequisite: graduate standing. Introduction to the follower and the dynamics that result from followership in various organizational settings. Topics include theories and definitions of followership, categorization of follower types, and discussion of how followers can be a positive influence against ineffective or bad leadership. (F, Sp, Su)

## OL 5403 Leadership in History

3 Credit Hours
Prerequisite: graduate standing. Analysis of leadership principles using prominent examples drawn from history to discern patterns and test categories and theoretical generalizations of leadership. Discussions aim to facilitate the understanding of leadership in different historical contexts. Consideration is given to success and failure, the relative importance of personality vs. circumstances, leadership characteristics and styles. (F, Sp, Su)
OL 5423 Women in Leadership
3 Credit Hours
Prerequisite: graduate standing, CAS 5003 and OL 5113; or permission of dean. Exploration of women leaders and their influence on their respective societies, as well as contributions on a broader spectrum. Special attention is focused on how women leaders from different eras became change agents and what particular issues made them transformational leaders. (F, Sp, Su)
OL 5443 Religious Leaders for Social Justice 3 Credit Hours Prerequisite: graduate standing, CAS 5003 and OL 5113; or permission of dean. Focuses on the characteristics of leaders as individuals, and in particular as individuals of faith for causes pertaining to social justice. Explores individuals from the major faith traditions including Christianity, Judaism, Islam, Buddhism, and Native American religion and investigates the ways in which faith and the particular constellation of life experiences and social situations have inspired leadership for the cause of social justice. (F, Sp, Su)
OL 5463 US Military Leadership: Insights and Applications 3 Credit

## Hours

Prerequisite: graduate standing, CAS 5003 and OL 5113; or permission of dean. Studies leadership, both uniformed and civilian, in the United States military from 1775 to present within the context of the evolution of American military from a small 18th-century army and wooden ship-and-sail navy to the globe-dominating colossus of the late 20th-century. Includes the impact of technology, maturing military theory, and the changing position of the United States in the world that produced diverse leadership styles which are illustrated in the careers of military leaders such as George Washington, U.S. Grant, Robert E. Lee, David Farragut, John Pershing, Hap Arnold, George C. Marshall, and many others. (F, Sp, Su )

## OL 5483 National Security Leadership 3 Credit Hours

Prerequisite: graduate standing. Discussion of leadership within the environment of the U.S. national security system. Course addresses the legislation that created the current national security system and examines the structure of the national security community, how it has evolved, and how it operates in practice. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

## OL 5553 Assessment-Based Coaching 3 Credit Hours

Prerequisite: Graduate standing. An examination of best practices for using assessment results to conduct data-driven leadership and executive coaching and to maximize coaching effectiveness. (F, Sp, Su)
OL 5593 Development and Grant Writing
3 Credit Hours
Prerequisite: Graduate standing. An in-depth exploration of the grant attainment process, including practical exercises in proposal writing and the grant review process. (F, Sp, Su)

OL 5700 Advanced Topics in Administrative Leadership 2-9 Credit Hours
2 to 9 hours. Prerequisite: graduate standing. May be repeated with change of content; maximum credit 12 hours. Advanced studies in various administrative leadership topics, offered under stated titles determined each semester by the instructor involved. Intensive research on a topic related to the student's program of study; variable topics. (F, Sp, Su)
OL 5903 Experiential Leadership I
3 Credit Hours
Prerequisite: Graduate standing, CAS 5003 and OL 5113; departmental permission and permission from graduate advisor. The course equips students with skills critical to developing strategy and maximizing their impact in leadership roles, and develops advanced leadership tools including those designed to increase an organization's leadership capacity. (F, Sp, Su)
OL 5913 Experiential Leadership II
3 Credit Hours
Prerequisite: Graduate standing, CAS 5003 and OL 5113; permission from graduate advisor. Corequisite: OL 5903. Students critique personal leadership skills, abilities, and strategies to build a productive team through effective planning, coaching, and decision making. (F, Sp, Su)
OL 5920 Internship in Administrative Leadership 2-6 Credit Hours 2 to 6 hours. Prerequisite: graduate standing, CAS 5003, and permission of dean. May be repeated; maximum credit six hours. 2-6 hours.Field experience directly related to study focus in the Administrative Leadership program. Requirements include some combination of journal, progress reports, written summary of experiences, or academic paper, and a possible comprehensive examination over these materials. (F, Sp, Su )
OL 5953 Graduate Capstone in Organizational Leadership 3 Credit Hours
Prerequisite: Graduate standing, CAS 5003, OL 5903, OL 5113 and departmental permission. Experiential application of leadership development skills, abilities, and strategies to enhance individual leadership performance, build productive teams and organizations through effective strategic planning, employee selection, succession planning, talent management, and training and development. (F, Sp, Su)
OL 5960 Directed Readings in Administrative Leadership 2-9 Credit Hours
2 to 9 hours. Prerequisite: graduate standing, CAS 5003, and completion of first concentration course; or permission of dean. May be repeated with change of content; maximum credit 9 hours. In-depth study of literature on a topic related to the student's program of study; variable content. (F, Sp, Su)
OL 5970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing, CAS 5003, and completion of first concentration course; or permission of dean. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)
OL 5980 Research for Master's Thesis 2-9 Credit Hours 2 to 9 hours. Prerequisite: graduate standing, CAS 5003, CAS 5013, and completion of first concentration course; or permission of dean. May be repeated; maximum credit six hours. Research and writing of a thesis for completion of PACS graduate degrees. (F, Sp, Su)

OL 5990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing, CAS 5003, and completion of first concentration course; or permission of dean. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)

## ORGN-Organ

## ORGN 2000 Freshman and/or Sophomore Secondary Organ 1-2 Credit

1 to 2 hours. Prerequisite: permission of adviser and instructor. May be repeated; maximum credit toward B.F.A., B.M.A., B.M.E., and B.M. degrees, eight hours. For freshman and sophomore music students studying in a secondary (or minor) performance area. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
ORGN 2020 Organ for Music Majors: Freshman/Sophomore 2-4 Credit Hours
2 to 4 hours. Prerequisite: Majors only. May be repeated; maximum credit 8 hours. Applied instrumental lessons for freshmen and sophomore music majors in a School of Music degree program. (F, Sp)

ORGN 3440 Mentored Research Experience 3 Credit Hours 0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)

ORGN 4000 Junior and/or Senior Secondary Organ 1-2 Credit Hours 1 to 2 hours. Prerequisite: permission of adviser and instructor. May be repeated; maximum credit toward B.F.A., B.M.A., B.M.E., and B.M. degrees, eight hours. For junior and senior music students studying in a secondary (or minor) performance area. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
ORGN 4020 Organ for Music Majors: Junior/Senior 1-4 Credit Hours 1 to 4 hours. Prerequisite: majors only; junior standing. May be repeated; maximum credit 14 hours. Applied instrumental lessons for junior and senior music majors in a School of Music degree program. (F,Sp)

ORGN 5000 Master's-Level Secondary Organ 1-2 Credit Hours 1 to 2 hours. Prerequisite: graduate standing in music; permission of adviser and instructor. May be repeated; maximum credit eight hours on a given instrument (including voice). For master's degree music students studying in a secondary (or minor) performance area. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
ORGN 5010 Master's-Level Organ for Non-Performance Music Majors 1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing in music; permission of adviser and instructor. May be repeated; maximum credit eight hours on a given instrument (including voice). For master's degree students other than performance majors in their major field. (F, Sp, Su)
ORGN 5020 Master's-Level Organ for Performance Majors 2-4 Credit Hours
2 to 4 hours. Prerequisite: graduate standing in music; permission of adviser and instructor; 4020 and 4021 or equivalent. May be repeated; maximum credit toward an M.M. degree 10 hours. (F, Sp, Su)

## ORGN 6000 Doctoral Secondary Organ 1-2 Credit Hours

1 to 2 hours. Prerequisite: graduate standing in music, permission of adviser or instructor. May be repeated; maximum credit eight hours on a given instrument (including voice). For doctoral degree music students studying in a secondary (or minor) performance area. (F, Sp, Su)

ORGN 6010 Doctoral Organ for Non-Performance Music
Majors
2-3 Credit Hours
2 to 3 hours. Prerequisite: graduate standing in music; permission
of adviser and instructor. May be repeated. Doctoral-level study of applied music in the major performance area for students other than performance majors in their primary field. (F, Sp, Su)

ORGN 6020 Doctoral Organ for Performance Majors 2-4 Credit Hours 2 to 4 hours. Prerequisite: graduate standing in music; 5042; permission of adviser and instructor. May be repeated; credit applicable toward applied music requirements for the Doctor of Musical Arts degree. Doctoral-level study of applied music for performance majors in their primary field. (F, Sp, Su)

## P E-Petroleum Engineering

P E 2011 Introduction to Petroleum Engineering 1 Credit Hour Discuss the various sources of energy and their uses. Outline the full value chain of fossil fuels from exploration to production in light of government regulation and political influence. Recognize the impact of fossil fuel production on society. (Sp)

P E 2022 Python for Energy Applications
2 Credit Hours
Prerequisite: MATH 1914. This course provides an introduction to programming basics, problem-solving methods and algorithm development aided with Python. The course focuses on program design, debugging, testing and documentation and covers data types, control statements, functions, passing arguments, library functions, arrays, plotting, and object-oriented design. Students will also learn about various Python libraries that aid in the manipulation and analyses of large datasets. (Sp)
P E 2113 Statics and Dynamics
3 Credit Hours
Prerequisite: Physics 2514 and Mathematics 2934 or 2433 or concurrent enrollment in Mathematics 2934 or 2433. Vector representations of forces and moments; general three-dimensional theorems of statics and dynamics; centroids and moments of area and inertia. Free-body diagrams, equilibrium of a particle and of rigid bodies, principles of work and energy; principle of impulse-momentum. Motion of particles and rigid bodies of translating and rotating reference frames. Newton's laws of motion and Lagrange's equation, including application to lumpedparameter systems. Analyses of trusses, frames, and machines. (F)

## P E 2153 Mechanics of Materials

3 Credit Hours
Prerequisite: PE 2113. Basic principle of mechanics, including the definition of stress, transformations and principal values for the stress and strain tensors, kinematic relation review of conservation equations and the development and application of consecutive laws for idealized materials. Elementary elastostatics utilizing Hooke's Law; consecutive relations for a linear-elastic continuum, including elastic parameters such as youngs modulus, shear and bulk moduli and poisson-s ratio. Solution of elementary one- and two-dimensional mechanics problems, including thermal stresses and strains, beam flexure, shear and deflections, pressure vessel and buckling of columns. (Sp)

P E 2213 Thermodynamics 3 Credit Hours
Prerequisite: MATH 2934 or 2433 and PHYS 2524 or concurrent enrollment in both MATH 2934 or 2433 and PHYS 2524. First and second law of thermodynamics are developed and applied to the solutions of problems from a variety of engineering fields. Extensive use is made of differential calculus to interrelate thermodynamics functions. (Sp)

P E 2281 Engineering Co-Op Program 1 Credit Hour
(Crosslisted with AME, CH E, CEES, C S, ECE, ENGR, EPHY and I E 2281) Prerequisite: student participation in the program. The Co-Op program provides student placement in jobs outside the University, but in a position related to the student's major. On completion of a semester work period, the student submits a brief written report. One hour of credit (elective) granted for each work period, with a maximum credit of six hours. (F, Sp, Su)
P E 3021 Technical Communications
1 Credit Hour
Prerequisite: English 1213/EXPO 1213. Develop skills for communication in a business/technical setting. (Sp)
P E 3022 Technical Communications
2 Credit Hours
Prerequisite: ENGL 1213. Develop skills for communication in a business/ technical setting. (Sp)
P E 3123 Petroleum Reservoir Fluids 3 Credit Hours
Prerequisite: PE 2213. Gain knowledge of properties of naturally occurring fluids in the subsurface. Analyze and interpret contemporary field and laboratory fluid property measurements to construct fluid system models for reservoir performance during depletion. (F)
P E 3213 Reservoir Rock Properties
3 Credit Hours
Prerequisite: PE 2011 or concurrent enrollment, PE 2213 or concurrent enrollment, and GEOL 1114; Corequisite: PE 3221. Gain knowledge of properties of reservoir rocks under subsurface conditions, as well as the physical processes which control and alter them. Analyze and interpret contemporary rock properties measurements that address storativity, transmissibility and heterogeneity. (Sp)
PE 3220 Petroleum Engineering Internship
0 Credit Hours
Prerequisite: PE 2011. Full time Career-related work experience of at least eight weeks in the petroleum industry. The internship may also involve research with faculty members. (F, Su)
P E 3221 Rock Properties Laboratory
1 Credit Hour
Prerequisite: PE 3022 or concurrent enrollment, co-requisite PE 3213. Laboratory course aimed at exposing student teams to the design and conducting of experiments and the analysis and interpretation of reservoir properties. Students are expected to summarize experimental results in written research reports. The course will stress safety concerns appropriate for all laboratory procedures, error analyses and report writing. (Sp)

P E 3222 Petroleum Engineering Practice II (Internship) 2 Credit Hours Prerequisite: P E 2011. Full time Career-related work experience of at least eight weeks in the petroleum industry. The internship may also involve research with faculty members. (F, Su)
P E 3223 Fluid Mechanics
3 Credit Hours
Prerequisite: PE 2113, PE 2213 or concurrent enrollment, Mathematics 2934/2443 or concurrent enrollment, Mathematics 3113 or concurrent enrollment. Coverage of the fundamental of fluid statics and dynamics. Formulation of the equations of fluid flow such as Navier Stokes, Euler, Bernoulli, etc. and their application. Examples of ideal and viscous fluid flow in open and closed conduits. (F)

PE 3313 Drilling I 3 Credit Hours Prerequisite: PE 3213, PE 3223 or concurrent enrollment. Comprehension of contemporary drilling techniques including: rig systems, drilling cost and economics, drilling fluids, wellbore hydraulics, cementing, pore and fractured pressure gradients and drill bits. Design of balanced pressure systems, with professional and ethical responsibility considerations towards safety, while minimizing common drilling problems such as formation damage, fluid loss, lost circulation, stuck pipe, kick and well control incidents. (F)

P E 3343 Revolution in Power: the Evolution of Energy Systems from Fossil Fuels to Renewables

3 Credit Hours
(Crosslisted with HSTM 3343) Prerequisite: Junior standing, or completion of one History of Science lower-division course, or permission of instructor. This course provides an interdisciplinary perspective on energy systems in both their technical and human contexts, from fossil fuels to renewables, with particular focus on their social, culture, and environmental implications for Western society and the world. The history and evolution of the associated technologies will be discussed, with attention to non-western and indigenous perspectives on these global technological systems. (F) [IV-WC].
PE 3413 Production Engineering I
3 Credit Hours
Prerequisite: PE 3123; PE 3223 or concurrent enrollment. Comprehension of well completion concepts leading to design for optimum well performance, including nodal analysis for performance prediction. (Sp)

## PE 3440 Mentored Research Experience

3 Credit Hours
0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)

P E 3513 Reservoir Engineering I
3 Credit Hours
Prerequisite: PE 3123, PE 3213. Combine knowledge of rock and fluid properties in enabling performance prediction and evaluation of hydrocarbon reservoirs, encouraging the understanding of the impact of evolving technology to the development of conventional and unconventional reservoirs. (Sp)
PE 3712 Petroleum Economics
2 Credit Hours
Prerequisite: Students need to have been admitted to the PE professional program to take upper division PE courses, requires Mewbourne College of Earth and Energy qualified enrollment. Application of petroleum engineering principles and economics to the evaluation of oil and gas projects. Analysis of the petroleum reserve management system and its use by the securities exchange commission and investors to value corporations. (F)

P E 3723 Numerical Methods for Engineering Computation 3 Credit Hours
Prerequisite: MATH 3113 or MATH 3413 or concurrent enrollment. Course uses software applications tailored for petroleum engineering majors, including methods for obtaining numerical solutions with digital computers, methods for solutions of algebraic and transcendental equations, simultaneous linear equations, and curve fitting techniques. Students will solve contemporary engineering problems using computational numerical methods for solutions in varied technical, societal, global, economic, and environmental applications. Any student who earns credit for P E 3723 cannot receive duplicate credit for AME 3723, C S 3723, or CH E 3723. (F)
P E 3813 Formation Evaluation with Well Logs 3 Credit Hours Prerequisite: PE 3213. Comprehension of various methods of formation evaluation. Application of tool responses to formation evaluation in conventional and unconventional reservoirs. Using these principles to evaluate in-place hydrocarbon volume and the selection of applicable techniques as they evolve to the ever changing exploration environment. (Sp)

PE 3960 Honors Reading 1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Consists of topics designated by the instructor in keeping with the student's major program. Covers materials not usually presented in regular coursework. (F, Sp)

## P E 3970 Honors Seminar 1-3 Credit Hours

1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. The projects covered will vary. Deals with concepts not usually presented in regular coursework. (Irreg.)

P E 3980 Honors Research 1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Provides an opportunity for the gifted Honors candidate to work on a special project in the student's field. (F, Sp)

## PE 3990 Independent Study 1-3 Credit Hours

1 to 3 hours. Prerequisite: permission of instructor and junior standing. May be repeated once with change of content. Independent study may be arranged to study a subject not available through regular course offerings. (F, Sp, Su)

P E G4033 Oil, Gas and Environmental Law
3 Credit Hours
Prerequisite: PE 3712. Review and analysis of legal principles and leading cases related to oil and gas exploration, production and marketing in the areas of land titles, leases, operating agreements, contracts, acquisitions, gas marketing, environmental regulation, pollution, and litigation. (F)
P E 4221 Petroleum Engineering Practice III
1 Credit Hour
Prerequisite: P E 3220; Majors only. Career-related work experience of at least eight weeks in the petroleum industry. (F, Su)

## P E 4323 Drilling II

3 Credit Hours
Prerequisite: PE 3313, PE 2153. Application of petroleum engineering principles, wellbore, well planning, casing design, direction control, drilling preparation, offshore operations. Team design project and presentation in casing design. Understand and evaluate environmental risk, professional and ethical responsibilities associated in drilling and production operations. Assess impact price of oil has on drilling activities, analyze and compare international drilling and completion concepts under environmental, societal contexts. (F)
P E 4331 Drilling Engineering Laboratory 1 Credit Hour Prerequisite: P E 3313. Laboratory course aimed at exposing student teams to the design and conducting of experiments and the analysis and interpretation of drilling and production engineering. The course will stress safety concerns appropriate for all laboratory procedures, error analyses and report writing. (Sp)
P E 4423 Production Engineering II 3 Credit Hours
Prerequisite: PE 3223. Gain applied understanding of the surface production systems and associated components based on technical, professional, environmental, and safety principles. Included are flow assurance, surface facilities, separation, water and gas processing, pumps, compressors and flow meters. (F)

## P E 4463 Data Analytics

3 Credit Hours
(Slashlisted with P E 5463) Prerequisite: P E 3723. Introduction to Data Mining and Machine Learning for students interested in the theory and applications of data mining/data analytics/machine learning in the petroleum industry. Will be of value to petrophysicists, geophysicists, and petroleum engineers who deal with large datasets, extracting meaning out of data. No student may earn credit for both 4463 and 5463. (Sp)

E 4521 Reservoir Fluid Mechanics Laboratory 1 Credit Hour Prerequisite: PE 3513. Laboratory course aimed at exposing student teams to the design and conducting of experiments and the analysis and interpretation of reservoir fluid mechanics. The course stresses safety concerns appropriate for all laboratory procedures, error analyses and report writing. (F)
P E 4532 Reservoir Engineering II
2 Credit Hours
Prerequisite: PE 3513. Comprehension of primary and secondary recovery drive mechanisms, including the effects of heterogeneity, for constructing enhanced recovery performance prediction models. (F)
P E G4533 Reservoir Engineering II
3 Credit Hours
Prerequisite: PE 3513. Comprehension of primary and secondary recovery drive mechanisms, including the effects of heterogeneity, for constructing enhanced recovery performance prediction models. (F)
P E 4552 Data Analytics 2 Credit Hours
Prerequisite: PE 3723. This course provides an introduction to Data Mining and Machine Learning for students interested in the theory and applications of data mining/data analytics/machine learning in the petroleum industry. As such it will be of immense value to petrophysicists, geophysicists and petroleum engineers who deal with large datasets and want to extract meaning out of this data. (Sp)
PE 4553 Integrated Reservoir Management
3 Credit Hours
(Slashlisted with P E 5553) Prerequisite: PE 3313, PE 3813, PE 4712 or PE 4711, PE 4423, PE 4533 or PE 4532, PE 4323 or concurrent enrollment. Comprehensive reservoir assessment experience based on knowledge and skills throughout PE curriculum. Results are delivered by teams in oral presentations, written technical and summary reports. Experience incorporates petroleum reserve management system (appropriate engineering standards) and multiple realistic constraints (current economic and political conditions). Requires work flow design tailored to specific reservoirs to resolve production performance, recovery and volumetrics. Capstone. No student may earn credit for both 4553 and 5553. (F, Sp) [V].

P E 4573 Well Test Analysis
3 Credit Hours
(Slashlisted with PE 5573) Prerequisite: PE 3513 or PE 3413. Review of petrophysics and fluid properties related to well testing. Material balance, diffusivity equation, steady-state flow, and pseudosteadystate flow. Analytical model for well tests. Wellbore storage and skin effects. Well test interpretation in conventional formations. Gas well test interpretation. Flow regimes and bounded reservoir behavior. Well test interpretation in fractured, faulted, and dual-porosity formations. Wellbore and near-wellbore phenomena. No student may earn credit for both 4573 and 5573. (Irreg.)
P E 4583 Improved Recovery Techniques
3 Credit Hours
(Slashlisted with P E 5583). Prerequisite: PE 3513. New wellbore and reservoir techniques for improved recovery, diagnostic techniques, waterflooding, and enhanced oil recovery. No student may earn credit for both 4583 and 5583. (Sp)

PE 4711 Petroleum Project Evaluation 1 Credit Hour Prerequisite: PE 3413 and PE 3513; and PE 3712 can be taken concurrently. Application of petroleum engineering principles and economics to the evaluation of oil and gas projects. Analysis of the petroleum reserve management system and its use by the securities exchange commission and investors to value corporations. Evaluation of risk including developing political and scientific risks to oil and gas projects. (F, Sp)

PE 4712 Petroleum Project Evaluation 2 Credit Hours
Prerequisite: PE 3413, PE 3513, PE 3712. Application of petroleum engineering principles and economics to the evaluation of oil and gas projects. Analysis of the petroleum reserve management system and its use by the securities exchange commission and investors to value corporations. Evaluation of risk including developing political and scientific risks to oil and gas projects. (F)
PE 4960 Directed Readings
1-4 Credit Hours
1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean. May be repeated; maximum credit four hours. Designed for upper-division students who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)

## P E 4970 Special Topics/Seminar <br> 1-3 Credit Hours

1 to 3 hours. Prerequisite: Senior standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

## P E $4990 \quad$ Special Studies 1-4 Credit Hours

1 to 4 hours. Prerequisite: department instructor permission. May be repeated; maximum credit 4 hours. Special research on current or special problems. (F, Sp, Su)
PE 5123 Scanning Electron Microscopy of Geological

## Materials

## 3 Credit Hours

Prerequisite: Graduate standing and permission of instructor. Gain the competency to operate and apply scanning electron microscopy technology to focus on geologic materials with special attention pertinent to the petroleum industry. Acquire and critically analyze SEM data suitable for scientific publication. (F)

P E 5233 Geothermal Technologies
3 Credit Hours
(Crosslisted with G E 5233) Prerequisite: Graduate standing or instructor permission. This course provides an overview of geothermal resources, applications, systems, surface facilities, wellbore design and completion in geothermal wells, fracture design for EGS systems, drilling challenges of deep geothermal application, well construction challenges in geothermal, and new advancements in numerical and experimental investigation of geothermal. Risk and failure analysis and economic analysis of geothermal systems are incorporated. (F)
PE 5243 Introduction to Rock Mechanics 3 Credit Hours
Prerequisite: Graduate standing or instructor permission. Engineering properties of rock; rock testing techniques; in-situ methods; mathematical approach to stress-strain analysis; discontinuities in rock; applications for underground openings; rock slopes; foundations and drilling. (Sp)
P E 5343 Oil Country Tubular Goods
3 Credit Hours
Prerequisite: Graduate standing or permission of instructor. Provides an overview of tubular use in the oil industry and manufacturing process of tubulars used from upstream to downstream applications. Students will learn about the design options to meet deliverables, safety, and integrity requirements in tubular applications. Main components of a well are described and analyzed by their function and design criteria. (F)
P E 5353 Advanced Drilling
3 Credit Hours
Prerequisite: Graduate standing or instructor permission. Cost control, hole problems, planning a well, drilling; muds, drilling fluid solids removal, pressure losses, lifting capacity of drilling fluids, surge and swab pressures, pore pressure and fracture gradients, pressure control, well control equipment, blowouts, deviation in boreholes, rotary drilling bits. (F)

P E 5363 Completion and Workover 3 Credit Hours
Prerequisite: Graduate standing and majors only, or P E 3313 and P E 3413. This course provides an overview of completions and workover equipment and methods in the oil and gas industry. It is designed to complement the courses on drilling and production engineering currently offered. The students will learn about the design options to meet deliverability, safety, and integrity requirements in completions and workover operations. (F)
P E 5393 Rheology of Complex Fluids
3 Credit Hours
(Crosslisted with CH E 5393) Prerequisite: Graduate standing and CH E 5971, or permission of instructor. Develop skills necessary to understand the basic principles of rheological and viscoelastic properties of complex fluids, such as polymer melts and solutions, emulsions, suspensions, multiphase flow, etc. Covers the flow behavior of nonNewtonian fluids and viscoelastic fluids. Newtonian fluid mechanics will be reviewed to describe the standard flows for rheology. Rheometry, the technique for characterization of fluids, will be discussed. (Sp)

## PE5423 Advanced Stimulation

3 Credit Hours
Prerequisite: Graduate standing or instructor permission. Theory and application of continuum mechanics concepts to hydraulic fracturing, acidizing, acid fracturing and other stimulation processes. (Irreg.)
P E 5433 Horizontal Well Technology
3 Credit Hours
Prerequisite: Graduate standing or instructor permission. Horizontal well technology including: horizontal drilling and associated drilling problems, horizontal well completions and stimulation, horizontal well testing and logging, horizontal wells lift systems, environmental aspects of horizontal wells, economics, regulations. (Sp)

## PE5443 Formation Damage

3 Credit Hours
(Crosslisted with G E and GEOL 5443) Prerequisite: Graduate standing or permission of instructor. This course presents an overview of main mechanisms of formation damage (mechanical, chemical, thermal, and biological) occurring during subsurface applications, including but not limited to primary and enhanced hydrocarbon production, CO2 storage, and geothermal processes. Existing theories explaining the process and methods to mitigate the formation damage will be discussed. (Irreg.)
PE 5463 Data Analytics
3 Credit Hours
(Slashlisted with P E 4463) Prerequisite: Graduate standing or instructor permission. Introduction to Data Mining and Machine Learning for students interested in the theory and applications of data mining/data analytics/machine learning in the petroleum industry. Will be of value to petrophysicists, geophysicists, and petroleum engineers who deal with large datasets, extracting meaning out of data. No student may earn credit for both 4463 and 5463. (Sp)
PE 5523 Advanced Production Engineering
3 Credit Hours
Prerequisite: graduate standing or permission. Inflow performance relationship, skins of well completion \& design, single/multiple phase flow in wellbore and pipes, Nodal analysis, artificial lifting methods including gas lift, rod pump and ESP, Production stimulation technologies including acidizing and hydraulic fracturing, introduction of production logging. (F)

P E 5553 Integrated Reservoir Management 3 Credit Hours
(Slashlisted with P E 4553) Prerequisite: Graduate standing, prerequisite or concurrent enrollment in P E 3313, P E 3813, P E 4423, P E 4323, P E 4712 or P E 4711, P E 4533 or P E 4532. Comprehensive reservoir assessment experience based on knowledge and skills throughout P E curriculum. Results are delivered by teams in oral presentations, written technical and summary reports. Experience incorporates petroleum reserve management system (appropriate engineering standards) and multiple realistic constraints (current economic and political conditions). Requires work flow design tailored to specific reservoirs to resolve production performance, recovery, and volumetrics. No student may earn credit for both 4553 and 5553. (F, Sp)

## P E 5563 Mathematical Simulation Models

3 Credit Hours
Prerequisite: Graduate standing or instructor permission. Principles of simulating engineering systems by partial differential equation systems; considers the use of engineering principles in formulating mathematical simulation models and analytic techniques for solving the resulting mathematical models. (Sp)
P E 5573 Well Test Analysis
3 Credit Hours
(Slashlisted with P E 4573) Prerequisite: Graduate standing or instructor permission. Review of petrophysics and fluid properties related to well testing. Material balance, diffusivity equation, steady-state flow, and pseudosteady-state flow. Analytical model for well tests. Wellbore storage and skin effects. Well test interpretation in conventional formations. Gas well test interpretation. Flow regimes and bounded reservoir behavior. Well test interpretation in fractured, faulted, and dualporosity formations. Wellbore and near-wellbore phenomena. No student may earn credit for both 4573 and 5573. (Sp)

P E 5583 Improved Recovery Techniques 3 Credit Hours
(Slashlisted with P E 4583) Prerequisite: senior standing, or graduate standing. New wellbore and reservoir techniques for improved recovery, diagnostic techniques, waterflooding, and enhanced oil recovery. No student may earn credit for both 4583 and 5583. (Sp)

## P E 5603 Introduction to Natural Gas Engineering and Management <br> 3 Credit Hours

Prerequisite: Graduate standing or instructor permission. Global natural gas supply and demand, international gas trade and infrastructure, gas policy, regulation, safety and environmental issues, natural gas resource base: conventional and unconventional, gas exploration, drilling and production, gas processing, storage and pipeline, gas trading and marketing, gas utilization, LNG, chemicals. (F)
P E 5613 Natural Gas Engineering
3 Credit Hours
Prerequisite: Graduate standing or permission of instructor. Review of properties of natural gases and condensate systems; gas flow in porous media; gas reservoir engineering; gas field development; gas condensate reservoirs; natural gas transportation and storage. (Alt. Sp)
P E 5623 Natural Gas Processing 3 Credit Hours Prerequisite: PE 5603, graduate standing or permission of instructor. Gas conditioning; processing of gas for its liquids; design of adsorption and absorption facilities; fractionation design. (Alt. Sp)

## P E 5633 Oil and Gas Laws

3 Credit Hours
Prerequisite: Graduate standing and departmental permission. The course will provide students with fundamental understanding of various oil and gas laws which control and govern different aspects of oil and gas business activities, from reservoir to ultimate customers of different products, whether they are oil and natural gas or final products, including methane, ethane, propane, LPG, NGL, etc. (Irreg.)

P E 5643 Natural Gas Finance - Valuation and Investment

## 3 Credit Hours

Prerequisite: Graduate standing or instructor permission. This course is the first in a two-course sequence in natural gas finance. The first course covers valuation and investment topics; and the second course covers risk management and natural gas trading topics. The valuation and investment course exposes students to basic concepts and practices of valuation and investment in the natural gas industry. Topics include accounting systems, financial statement analysis, valuation of company stocks, competitive comparisons, value of reserves in the ground, corporate restructuring, legal and tax environment for mergers, valuation of bonds and preferred stocks. The emphasis of the course will be on the application of the basis financial theories of valuation and investment on the natural gas industry. (F)

## P E 5653 Natural Gas Finance - Trading and Risk Management

## 3 Credit Hours

Prerequisite: Graduate standing or instructor permission. This course is the second in a two-course sequence in natural gas finance. The first course covers valuation and investment topics; and the second course covers risk management and natural gas trading topics. The gas risk management course exposes students to basic concepts and practices of risk management in the natural gas industry. Topics include basic structure of the gas physical and financial markets, derivatives, hedging strategies, futures and forward price determination, option pricing theories, value at risk and market fundamental and technical analyses. The emphasis of the course will be on the application of the basis financial risk management theories to the natural gas industry. (Sp)
P E 5663 Natural Gas Utilization
3 Credit Hours
Prerequisite: Graduate standing or permission of instructor. The course covers the uses of natural gas for combustion, power, LNG, gas conversion to chemicals and fuels, and gas transportation. (Sp)

## P E 5673 Liquified Natural Gas Value Chain

3 Credit Hours
Prerequisite: Graduate standing and departmental permission. The course covers the worldwide supply and demand landscape for LNG followed by all aspects of the LNG value chain, beginning with receiving feed natural gas from supply pipelines and processing it to meet required specifications for liquification to LNG and transporting it to end users. (F, Sp)
P E 5683 Natural Gas Transportation \& Storage 3 Credit Hours
Prerequisite: Graduate standing and departmental permission. This course covers basic principles of hydrocarbon value chain from wellhead to the end user. Primary focus relates to mid-stream operations and covers hydrocarbon transportation fundamentals (on-shore and off-shore), transportation safety, fluid characterization, pipeline design (on-shore and off-shore), rotating and reciprocating equipment design, storage facilities, flow assurance, and integrity management. (F)

P E 5693 Safety and Human Factors
3 Credit Hours
Prerequisite: Graduate standing and departmental permission. This course is designed as an introduction to the safety and human factors that are important in delivering on the energy industries' commitment to safe and environmentally-sound development of our natural resources. Engineered systems work hand in hand with leadership and organizational culture to adapt to an ever-changing environment to ensure that safe and environmentally-sustainable performance is maintained. (Su)

PE 5703 Advanced Energy Economics 3 Credit Hours
Prerequisite: Graduate standing. Covers the topics related to the economic analysis of the energy industry markets at both the domestic and international levels. Analysis of natural gas market including topics of energy scenarios, energy demand and supply analyses, determination of prices under different market structures, various energy sectors, role of energy efficiency, and policy. (F)
PE 5723 Environmental Sustainability 3 Credit Hours Prerequisite: Graduate standing and departmental permission. Course will discuss trends moving toward low carbon energy sources and how natural gas technologies fit in the future energy market; will cover proactive environmental management opportunities including concepts in pollution prevention and industrial ecology applied to natural gas systems; and will review how to calculate material and energy balances for power systems as basis for sustainability analyses. (Sp)

## PE 5733 Culmination Experience

3 Credit Hours
Prerequisite: Graduate standing and departmental permission. Culmination research project within the online Master's Degree Program in Natural Gas Engineering and Management program. Designed to prepare Engineering Managers, Business Managers, and Government Representatives to address the wide-ranging challenges in the midstream natural gas business. This research project course is structured to demonstrate the program outcomes have been achieved and sufficient awareness of topics gained. ( $F, S p$ )

## P E 5743 Advanced Project Management

3 Credit Hours
Prerequisite: Graduate standing or instructor permission. This course covers how capital-intensive projects worth billions of dollars in the oil and gas industry are executed, including the different aspects of planning from conception to closeout for successful execution. (Su)

## P E 5753 Low Carbon Energy Markets

3 Credit Hours
Prerequisite: Graduate standing or departmental permission. Comprehensive review of principles, technologies, policies, and market drivers behind the shift towards low-carbon energy. Learn about technologies that make up low-carbon energy markets and explore the role of energy storage and emerging trends. Examine policies/regulations that shape industry. Develop critical thinking and problem-solving skills to analyze complex energy markets, evaluate ethical/social implications and make strategic recommendations for stakeholders. (Su)

P E 5763 Integrated Asset Management
3 Credit Hours
Prerequisite: Graduate standing. This course is based on the three steps to the successful completion of solutions to managing asset integration: Assessing needs and requirements; Analyzing and modeling solution candidates; Gaining organizational approval and adoption. It will provide an understanding, tools, and skills that can be used to pursue the steps to achieve successful integrated solutions in the technical realms of modern industry. (Sp)
PE 5960 Directed Readings
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing and permission of department. May be repeated; maximum credit twelve hours. Directed readings and/or literature reviews under the direction of a faculty member. (F, Sp, Su)
P E 5970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

P E 5980 Research for Master's Thesis 2-9 Credit Hours
Variable enrollment, two to nine hours; maximum credit applicable toward degree, four hours. (F, Sp, Su)
P E 5990 Special Studies
1-4 Credit Hours
1 to 4 hours. Prerequisite: graduate standing in petroleum engineering.
May be repeated with change of topic; maximum credit twelve hours.
Supervised individual study or specialized research in petroleum engineering. ( $F, S p, S u$ )
PE 6273 Advanced Rock Mechanics II
3 Credit Hours
(Crosslisted with G E 6273) Prerequisite: Graduate standing and instructor permission. Advanced topics related to petroleum and geothermal reservoir rock properties, constitutive models, rock fracture, and coupled processes in rocks and rock masses. Influence of stress, fluid pressure, temperature, and chemistry on rock properties and deformation in the context of drilling, reservoir stimulation, and induced seismicity. (Irreg.)

## P E 6283 Seismic Reservoir Modeling

3 Credit Hours
Prerequisite: Graduate standing or permission of instructor. This course is designed to explore the seismic response of rocks and how it is related to petrophysical parameters. This understanding is key to interpretation of seismic data in terms of subsurface rocks and fluids. (F)
P E 6293 Unconventional Reservoirs
3 Credit Hours
Prerequisite: Graduate standing or instructor permission. The objective of this course is to provide basic understanding of developing and producing from unconventional reservoirs, in particular, mudrocks/shales. (F)

PE 6573 Advanced Reservoir Engineering 3 Credit Hours Prerequisite: graduate standing. Petrophysics, Formation Evaluation, Reservoir Fluid Properties, Flow in Porous Media, Reservoir Material Balance, Decline Curve Analysis and Reservoir Simulation. (F)
P E 6583 Enhanced Oil Recovery
3 Credit Hours
Prerequisite: graduate standing or permission. Fundamentals and principles of enhanced oil recovery; practical applications of method of characteristics to design miscible gas injection, water alternating gas flooding, and polymer flooding. (Sp)

P E 6960 Directed Readings
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit six hours. Directed readings and/or literature review under the direction of a faculty member. (Irreg.)
P E 6970 Special Topics/Seminar 1-3 Credit Hours 1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit 12 hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or research and field projects. (Irreg.)

P E 6980 Research for Doctoral Dissertation 2-16 Credit Hours
2 to 16 hours. Prerequisite: Graduate standing and permission of instructor; may be repeated. Directed research culminating in the completion of the doctoral dissertation. (F, Sp, Su)
PE 6990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)

## P SC-Political Science

## P SC 1113 American Federal Government

3 Credit Hours
Not accepted for major credit. A study of the structure, organization and powers of the executive, legislative and judicial branches including relationships between state and national governments. Emphasis upon political processes and popular government; elections, political parties, pressure groups, voting behavior. (F, Sp, Su) [III-PSC] .

P SC 2013 Introduction to Political Analysis 3 Credit Hours Prerequisite: P SC 1113 or department permission; for majors only. Scientific method and the variety of approaches to a science of politics; problems of research design; methods and techniques of systematic political inquiry. (F, Sp)

## P SC 2103 Politics in America

3 Credit Hours
Prerequisite: P SC 1113. Focuses on the practice of politics in the United States and the forces and ideas that shape political conflict and determines who wins. The three major national institutions of American government are considered: Congress, the presidency, and the judiciary. Examines their constitutional bases of power, their evolving relationships, and their roles in contemporary policymaking. Also considers how ideas and power relationships influence the shape of political conflict. Contemporary political issues will be integrated into course content. (F)
P SC 2503 Global Politics
3 Credit Hours
Prerequisite: P SC 1113. Introduces sources of continuity and change in world politics. Emphasis is given to the struggle for power and search for peace among state and non-state actors. Additional topics include the relevance of international law, foreign policy decision-making, balance of power, collective security, and moral choices in international politics. (F)

## P SC 2603 Governments Around the World <br> 3 Credit Hours

Prerequisite: P SC 1113. Gateway course in political science and international and area studies. Provides an introduction to the varieties of politics and governmental systems around the world. Students will develop skills in comparative analysis to understand why countries have distinct types of government. (F, Sp, Su) [IV-WC] .

P SC 2703 Justice, Liberty and the Good Society 3 Credit Hours Prerequisite: P SC 1113. An introduction to the literature about the best form of government, how a just and free society should be designed, and what difficulties stand in the way of our pursuit of the good society. Topics may include: the classic idea of a republic, theories shaping American democracy, the theory of equality and liberty, and contemporary ideas for the critical analysis and improvement of democracy. ( $\mathrm{F}, \mathrm{Sp}$ )

## P SC 2970 Special Topics

1-3 Credit Hours
Special Topics. 1 to 3 hours. May be repeated; maximum credit nine hours. Special topics course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research, and field projects. (Irreg.)
P SC 3020 Problems in American Government and
1-3 Credit Hours
1 to 3 hours. Prerequisite: 1113 or permission of instructor. May be repeated with change of subject matter; maximum credit nine hours. Will not assume prior knowledge on the part of the students in reference to the topics under examination. The focus is on the national government, including the political processes and policies that relate to it. (F, Sp)

P SC 3023 Law and Courts
3 Credit Hours
Prerequisite: 1113 or permission of the instructor. This is an introduction to the judicial process, origin and sources of law, and the relationship between courts and other sectors of the American political system. It will focus on the criminal justice system, civil justice system, constitutional law, judicial selection, judicial policymaking, and how interest groups use the courts. (F)
P SC 3033 Religion and Politics in America 3 Credit Hours Prerequisite: 1113. Examines the diverse religious traditions in America and explores their political manifestations. Assesses the religious impact on voting, lobbying, political mobilization and political culture. Particular attention will be paid to the strategic environment in which religious political actors must operate. [IV-WC].

## P SC 3043 Gender, Power and Leadership in Politics and Public

 Administration3 Credit Hours
(Crosslisted with WGS 3043) Prerequisite: 1113. Focuses on the relationship between gender, power, leadership, and government in politics and public administration. Causes of under-representation of women in elected office and the bureaucracy are explored. Historical, social, psychological, and organizational barriers are considered. (Irreg.)

P SC 3053 Global Religion and American Foreign Policy 3 Credit Hours Prerequisite: 1113 or permission of instructor. This course examines the intersection of American faith-based movements, global religious developments, and U.S. foreign policy. It explores how global religious conflicts impinge on American foreign policy, and how domestic religious groups attempt to shape U.S. policy on such concerns as human rights, humanitarian aid, and conflict mediation. (F,Sp)
P SC 3063 Religion and the American Constitution 3 Credit Hours Prerequisite: P SC 1113. This course examines the vital role of religion in the American Constitution, its antecedents and contemporary interpretations. (F)

## P SC 3073 Immigration Politics

3 Credit Hours
Prerequisite: P SC 1113 or permission of instructor. An examination of the politics of immigration in America. Includes lively debate, in addition to daily discussions of current events involving immigration. Emphasis will be placed upon the development of a unique research project that examines an important question, puzzle, or aspect of immigration in American politics. (Irreg.)
P SC 3083 The Politics of Criminal Justice
3 Credit Hours
Prerequisite: P SC 1113. How does a political community best provide security to its members while also respecting the rights of all of its citizens? This course is an examination of the relationship between political variables and crime rates, police behavior, court dynamics and sentences, and prison practices and functions. (Irreg.)
P SC 3090 Special Topics 1-3 Credit Hours Prerequisite: 1113 or permission of instructor. May be repeated with change of content; maximum credit nine hours. Topics considered will deal with issues whose subject matter spans two or more subfields of the undergraduate curriculum in political science and/or public affairs and public administration. (Irreg.)
P SC 3093 Minority Political Behavior
3 Credit Hours
Prerequisite: P SC 1113. Examination of racial minority status in American politics. Addresses such broad topics as: racial and ethnic identity; political mobilization; statutory and legal intervention in the electoral process; the politics of immigration, acculturation, and identification; theories of minority representation; and what shapes political behavior among African-Americans, Latinos, Asian Americans, and Native Americans. (Irreg.)

P SC 3113 Bureaucracy and Citizenship 3 Credit Hours
Prerequisite: 1113 or permission of instructor. Focuses upon various aspects of political life in bureaucratic society, including the scope of contemporary public programs and their impact on society, and extent and character of citizens' bureaucratic encounters, administrative pathology, bureaucratic helping, appeals of administrative decisions, bureaucratic accountability and democratic theory, and the future of citizen-bureaucratic relations. (Sp)
P SC 3123 Social Statistics
3 Credit Hours
(Crosslisted with SOC 3123) Prerequisite: SOC 1113 and any General Education Math EXCEPT Philosophy 1113 or Philosophy 3113.
Descriptive and inferential statistics as they are used in sociology to analyze survey and macro-level data. Problems of research design and interpretation of analysis in sociological theory are major topics. A grade of $C$ or better in this course is a prerequisite for Sociology capstone courses. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

P SC 3133 Politics and Public Administration
3 Credit Hours
Prerequisite: 1113 and sophomore standing. Examines the concept of the political role of the bureaucracy and the impact of other government institutions on bureaucratic structure, functions and behavior. The role of the bureaucracy in public policy making and the influence of politics on policy implementation is analyzed. (F) [III-SS].

## P SC 3143 U.S. Congress

3 Credit Hours
An introduction to the legislative process, with emphasis upon the United States Congress: the legislative process, committee systems; legislative leadership; the legislator and constituents; lobbyist and interest groups; legislative-executive relations. (Sp)

## P SC 3163 The American Presidency

3 Credit Hours
Prerequisite: 1113. Examination of the constitutional, electoral,
administrative and political aspects of the contemporary American presidency; ending with an assessment of its capabilities in the context of its demands. (F)
P SC 3170 Problems in Public Administration 1-3 Credit Hours 1 to 3 hours. Prerequisite: five hours of political science or three hours of another social science, or junior standing and permission of instructor. May be repeated with change of subject matter; maximum credit nine hours. Special topics and/or problems in the field of public administration not covered in the regular curriculum or by supervised individual study. The course will involve readings appropriate to the subject matter and requires completion of a substantial paper. Additional requirements will be covered by the instructor in the syllabus. (Irreg.)

P SC 3173 Administration \& Society
3 Credit Hours
Prerequisite: P SC 1113; Majors only. This course introduces you to public administration. We focus on understanding the purpose, structures, functions, and challenges related to operating publicly funded programs and how these dynamics relate to organizations in the public, non-profit and private sectors. (F, Sp)

P SC 3183 Politics of Government Budgeting
3 Credit Hours
Prerequisite: P SC 1113. Provides an introduction to budgeting and the budgetary process in American government. Budgeting decision-making about government revenues and expenditures will be presented. (Sp)

P SC 3193 Nonprofits and Public Policy
3 Credit Hours
(Crosslisted with NPNG 3193) Prerequisite: P SC 1113. Examines how nonprofit organizations advocate for their causes through the public policy process as well as how public policy influences nonprofit missions and funding. It also explores more broadly the role of nonprofit organizations in democracy and the various ways they interact with government, including collaborative and conflictual relationships with government. (Irreg.)
P SC 3203 Sexuality, Gender, and the Law 3 Credit Hours Prerequisite: P SC 1113 or permission of the instructor. The course will examine a number of the most politically significant legal debates regarding gender and sexuality. Though the issues covered will vary by semester, they will include many of the following: discrimination on the basis of gender and sexual orientation, reproductive rights, the regulation of pornography, same-sex marriage, sexual harassment in the workplace, and the right to sexual privacy. (lrreg.)
P SC 3213 Law, Politics, and Society
3 Credit Hours
Prerequisite: 1113 or permission of instructor. Examines how courts and other political actors use law to solve problems and how judicial decisions incorporate legal and political considerations. It explores how law shapes or alters the political community, the extent that law changes to fit needs of society, and the role of politics in interpretation of law. (Sp)
P SC 3220 Topics in Public Policy
1-3 Credit Hours
1 to 3 hours. Prerequisite: 1113. May be repeated with change of content; maximum credit six hours. Research and investigation on selected topics in public policy. (Irreg.)

P SC 3223 Making Public Policy
3 Credit Hours
Prerequisite: P SC 1113; Majors and Minors only. Provides a rigorous introduction to the important components, concepts, and dominant theories of public policy in the context of federal, state, local, and foreign policymaking processes in the United States. (Irreg.)
P SC 3233 Environmental Policy and Administration 3 Credit Hours Prerequisite: 1113. Characterizes the evolution of public sector involvement in protection of the environment; addresses current issues associated in environmental protection including administrative efficiency and effectiveness and intergovernmental relations, and assesses potential solutions to emerging environmental problems. (F)
P SC 3263 Social Welfare 3 Credit Hours
Prerequisite: ENGL 1213 or EXPO 1213. Introduction to the basics of welfare policy in the United States. To do so, we will review the history of this policy area from early efforts in Western Europe up to the changes made by, and the impacts of, the Personal Responsibility and Work Opportunity Act of 1996 which did away with the Aid to Families with Dependent Children (AFDC) program and ushered in TANF (Temporary Assistance to Needy Families). There will be a specific focus on the logic behind policy components (to include examining competing theories of human behavior and how they relate to relief efforts), their evolution, and the role of the political environment in fostering change. (Sp)
P SC 3273 Privatization
3 Credit Hours
Prerequisite: P SC 1113 or permission of instructor. Exposes students to competing theories regarding the privatization of publicly provided services (such as fire and police protection, road construction and maintenance, refuse collection, child protective services, and maintenance of public parks) with a particular focus on the supposed benefits and problems. (F)
P SC 3313 Urban Government and Politics
3 Credit Hours
Structure and function of urban governments and analysis of politics in urban areas. (F)

P SC 3323 State Government
3 Credit Hours
The organization, structure, functions, and administration of American state and local governments; federal-state relations; constitutions and legal systems; legislative, executive, and judicial departments; a study in the political process; problems of metropolitan areas; fiscal and administrative systems. (F)

P SC 3333 Civic Engagement 3 Credit Hours
Prerequisite: PSC 1113. This course is an introduction to civic engagement. Students will learn about actions everyday citizens take to improve the world around them. Readings, lectures, and discussions cover who participates, who doesn't, and why; the evolution of civic engagement over time; the effectiveness of specific mobilization strategies; and how local, statewide, federal, and international societies are changed by such efforts. (Irreg.)
P SC 3403 Interest Groups and Social Movements 3 Credit Hours Role of interest groups and collective action in the political process; theory of collective action and development of American pressure groups; group organization and internal behavior; patterns of external behavior; collective action and foreign political systems; and organized interests and democratic government. (F)

P SC 3413 American Political Parties
3 Credit Hours
A descriptive and critical examination of the political processes in the United States, with special reference to the role and organization of political parties and their relationship to voter behavior and the popular control of government. (Irreg.)

## P SC 3423 Public Opinion

3 Credit Hours
Relies on three basic themes as a framework for the study of public opinion: coalitions, elites and masses. More specific subjects studied include political socialization, the parties and the media. Students may not take both P SC 3423 and P SC 4013 for credit. (Irreg.)
P SC 3433 Voters and Campaigns
3 Credit Hours
Prerequisite: 1113. Covers some of the literature on voting behavior and political campaigns: political socialization; political participation; election studies; influence on voting such as party, candidate, issues, and group affiliations; the legal framework and impact of reform; election outcomes and their policy import. Coverage of the campaign process includes party and interest group activity, campaign financing, strategy, the media, and campaign reform. (Irreg.)
P SC 3440 Mentored Research Experience

## 3 Credit Hours

0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)

## P SC 3443 Mass Media and American Politics

3 Credit Hours
Prerequisite: 1113. Role of mass media in American politics including origin and development of relationship between press and politics, how the press covers politics, effects of mass media on public opinion, political elites, and institutions. (Irreg.)
P SC 3463 American Political Development
3 Credit Hours
Prerequisite: 1113 or permission of instructor. Analyzes the institutional development of American politics. The premise is that institutions are created to solve conflicts at specific historical junctures. Once in place, these institutions create opportunities and constraints for future generations. Focus on explaining large-scale political change in the United States from the founding to the present. (Irreg.) [IV-WC].

P SC 3483 Campaign Management
3 Credit Hours
Prerequisite: departmental permission and P SC 1113. Addresses practical aspects of campaign management including information about the decisions campaign managers make in gathering information, raising money, harnessing technology, honing and disseminating messages, and targeting volunteers/voters in the context of aiding a candidate in running for/winning office. Explores practical lessons on campaign management and provides hands-on training through the use of existing electoral databases and on-campus resources. (Irreg.)
P SC 3493 Congress: Politics, Policy and the Constitution 3 Credit Hours
Prerequisite: P Sc 1113. Introduces students to theory and research on the role of the Congress under the U.S. Constitution and the relationship of the Congress to the coordinate branches of the federal government, as well as to the state governments in interpreting and applying the Constitution. Experience in original archival research on the politics, policies and constitutional struggles of the Congress through the Carl Albert Congressional Research \& Studies Center will be gained. (Irreg.)
P SC 3543 United States-Latin American Relations 3 Credit Hours Prerequisite: Sophomore standing or departmental permission. This course studies both the historical development and current problems of conflict and cooperation between the United States and the countries of Latin America, and the ways their interactions affect each country's security, politics, economy, society, and culture. (Irreg.) [IV-WC].
P SC 3550 Topics in International Relations 1-3 Credit Hours
1 to 3 hours. Prerequisite: 1113 or permission of instructor. May be repeated with change of content; maximum credit nine hours. Systematically explores contemporary problem areas in international relations. Will not assume prior knowledge on the part of the students in reference to the topics under examination. Meets in a seminar format where emphasis will be placed on classroom presentations and extensive research papers. (Irreg.)
P SC 3553 International Political Economy
3 Credit Hours
Prerequisite: 1113. Focus on patterns, processes, and problems of international trade, monetary, technological, and investment relations. Deals with the roles played by key international organizations in managing conflict and cooperation among states. Students learn to apply theoretical approaches in analyzing issues in the global economy. (F) [IVWC] .
P SC 3563 United States Diplomatic History 3 Credit Hours Prerequisite: none. A survey of American diplomatic history from the War for Independence to the present, emphasizing relations with major European, Latin American and Far Eastern countries. [IV-WC].
P SC 3573 Great Power Politics
3 Credit Hours
Prerequisite: P SC 1113. Explores the meaning of power in politics and diplomacy, relations among great powers in different historical settings, arguments for and against realism as a theory of international politics, different strategies for projecting power, whether moral choices are relevant in the realm of power politics, and the importance of geopolitics in the 21 st century map of world affairs. (Irreg.)

## P SC 3583 Masters \& Commanders: Wartime Strategy and Statecraft <br> 3 Credit Hours

Prerequisite: P SC 1113. Based on Andrew Roberts' Masters And Commanders: How Roosevelt, Churchill, Marshall and Alanbrooke Won the War in the West. Focuses on debates between the four principals and senior Allied officials in shaping the grand strategy of the West during the Second World War. Attention is devoted to disagreements about military necessities and about the structure of the postwar world. (Sp)

P SC 3593 Nongovernmental Organizations 3 Credit Hours
Prerequisite: P SC 1113 and sophomore standing, or department permission. Provides an understanding of the political role of nongovernmental organizations (NGOs) in global as well as local politics. Introduces practical knowledge about the activities of NGOs in various policy fields. Provides information about transnational advocacy, nongovernmental networks, agenda setting, civil society mobilization, and contentious politics. (Irreg.)

## P SC 3600 Topics in Comparative Politics

1-3 Credit Hours
1 to 3 hours. Prerequisite: 1113 or permission of instructor. May be repeated with change of content; maximum credit nine hours. Will examine contemporary issues in politics and government around the world. Meets in a seminar format where emphasis will be placed on classroom presentations and research. (Irreg.)
P SC 3633 Politics of Authoritarian Regimes 3 Credit Hours Prerequisite: P SC 1113 and sophomore standing. This course invites students to think critically about non-democratic political systems. We explore some important authoritarian countries/regions and explore how autocrats there come to power and maintain power. We consider debates about whether insitutions- such as political parties and legislaturesmatter in authoritarian regimes. Finally, we examine the tools of authoritarian governance, including repression, cooptation, redistribution, propaganda and censorship. (F)

## P SC 3643 Democracies and Democratization: A Comparative Inquiry <br> 3 Credit Hours

Prerequisite: 1113. Studies the theory, history, causes, and prospects for democracy in the world, beginning with ancient Greece and ending with the challenges of democracy and democratization in countries around the world today. Although primarily a social science course, questions about the philosophical underpinnings of democracy are also raised. (Sp) [IV-WC].
P SC 3653 Government and Politics of Latin America 3 Credit Hours Prerequisite: 1113 or permission of instructor. General survey of structure, organization and operation of Latin American governments. Problems of dictatorship, underdevelopment, social reform and relations with the United States are covered. (F) [IV-WC] .

## P SC 3663 Politics of the Middle East

3 Credit Hours
Prerequisite: 1113 or permission of instructor. This course surveys the developments in current domestic politics in Middle Eastern countries. It will focus on the process of state building, great power politics, Islam and political ideologies, economic crises, and regime stability and change. (Irreg.)

## P SC 3703 From Plato to Machiavelli, the Classic Art of

## Politics

3 Credit Hours
Prerequisite: 1113 and sophomore standing. Study of the origins of political science or political philosophy in the thought of classical antiquity and of the continuing influence of the classic works. Topics may include: Plato and Aristotle's attempt at a systematic political science; Thucydides on democracy and war; the interaction of religion and politics; and the early modern rebirth of the classical republican era. (F) $[$ IV-WC] .

## P SC 3713 The Idea of a Liberal Society

3 Credit Hours
Prerequisite: 1113 and sophomore standing. Study of the major works of modern political thought that inspired the idea of a rights-oriented liberal society. Readings vary, but may include Thomas Hobbes and John Locke, their followers and critics in later centuries (such as Montesquieu, Rousseau, Kant, Hegel, and Mill), and those who later subjected the liberal idea to fundamental criticism (Marx, Nietzsche, and others). (Sp) [IV-WC] .

P SC 3723 Foundations of American Politics
3 Credit Hours
An examination of the principal issues and ideas of the American colonial, revolutionary and founding periods and their influence on, and relevance to contemporary American politics.
P SC 3753 Human Rights and Contentious Politics 3 Credit Hours Prerequisite: P SC 1113. Students gain an understanding of the major players influencing human rights, their interests, the arenas in which they interact, and the rules that govern their interactions. The focus of the class is not on philosophical underpinnings of rights, but rather on how repression and efforts to combat it play out in the domestic and international arena. (Irreg.)

## P SC 3763 Field Research Methods and Community Engagement: The Oklahoma City Exit Poll <br> 3 Credit Hours

Prerequisite: P SC 1113. Trains students as field researchers for an election exit poll. In addition to learning how to design relevant and valid questionnaire items, students will participate as survey enumerators on the day of the election. As part of the course students will receive CITI certification demonstrating their expertise as researchers. (Irreg.)
P SC 3771 Issue Advocacy 1 Credit Hour
(Crosslisted with NPNG 3771) Prerequisite: P SC 1113 or junior standing. Designed to provide a practical application of the theories and concepts students acquire in the study of political science and public administration. Students will learn to be effective advocates at all levels of government for the issues and ideas they seek to see implemented in public policy. (Irreg.)
P SC 3781 Tracking Legislation
1 Credit Hour
(Crosslisted with NPNG 3781) Prerequisite: P SC 1113 or junior standing. Designed to provide a practical application of the theories and concepts acquired in the study of political science and public administration. How to read and track legislation in the State of Oklahoma will be learned. Additionally, students will learn the inner workings of state government from a legislative perspective. (Irreg.)

## P SC 3791 Social Media Strategies for Public and Nonprofit

 Organizations1 Credit Hour
(Crosslisted with NPNG 3791) Prerequisite: P SC 1113 or junior standing. This course is designed to offer an overview of the social media field as it pertains to nonprofits and public organizations.
P SC 3823 The Management and Politics of Disasters 3 Credit Hours Prerequisite: P SC 1113. This course introduces the politics of extreme events such as natural disasters, technological crises, and terrorism. The discussion will address issues ranging from the emergency management cycle, social behavior in catastrophic circumstances, and the policy systems related to disasters. Films will complement the traditional academic reading and lecture material to provide vivid illustrations of the politics (and myths) of disasters. (Irreg.)

## P SC 3843 Education Policy

3 Credit Hours
Prerequisite: P SC 1113. This course will provide a thorough overview of the actors, institutions, and issues relevant to contemporary K-12 education policy in the United States. In providing such an overview, the course will address both longstanding areas of debate, such as the primary purpose of education and the financing of schools, as well as hotbutton issues of the day. (Irreg.)

P SC 3873 Transnational Politics
3 Credit Hours
Prerequisite: P SC 1113. Transnational Politics is about political phenomena that not only cross national borders, but transcend them. This includes the transnationalization of production by multinational companies; the transnationalization of culture by international advocacy organizations; and the transnationalization of insurgency by "terrorist" groups. We will evaluate the processes driving these trends, and consider their implications for both domestic and international politics. (Irreg.)

## P SC 3910 Government Internship

2-3 Credit Hours
2 to 3 hours. Prerequisite: good academic standing with 45 semester hours completed, including nine hours of political science; permission of instructor. May be repeated; maximum credit six hours. Interns observe and participate in the functions, processes and actions of governmental institutions at the federal, state and local level. Grade of S/ $U$ based on completion of directed readings, an academic research paper, performance reports. (F, Sp, Su)

## P SC 3923 World Happiness <br> 3 Credit Hours

(Crosslisted with IAS 3923) Prerequisite: Junior standing or permission of instructor. This course explores and compares, in detail, the breadth and expression of global happiness philosophical concepts in the east and west leading to modern global and societal well-being measures and wellbeing policies in nations around the world. (Irreg.)

## P SC 3943 Campaigns Through Film 3 Credit Hours

Prerequisite: P SC 1113. Through the lens of documentary films, this course will examine various facets of campaigning for political office in the United States. (Irreg.)

P SC 3953 Bhutan Democracy and Happiness 3 Credit Hours Prerequisite: P SC 1113. This is a comparative politics course that examines comparative theories of democratization and happiness with Gross National Happiness (GNH) policy and democratization in Bhutan. Incorporated in the examination of GNH is an examination of other nonGross Domestic Product global measures of societal progress such as the Happy Planet Index, Human Development Index, and United Nations Millennial Development Goals. (Irreg.) [IV-WDC].

P SC 3960 Honors Reading 1-3 Credit Hours 1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Will consist of topics designated by the instructor in keeping with the student's major program. The topics will cover materials not usually presented in the regular courses. (F, Sp, Su)

## P SC 3970 Honors Seminar 1-3 Credit Hours

1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated: maximum credit six hours. The projects covered will vary. The content will deal with concepts not usually presented in regular coursework. (F, Sp)
P SC 3980 Honors Research 1-3 Credit Hours 1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Will provide an opportunity for the gifted Honors candidate to work at a special project in the student's field. (F, Sp, Su)

P SC 3990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: one course in general area to be studied; junior standing; permission of instructor and department. May be repeated; maximum credit six hours. Through a written contract, independent study may be arranged for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

P SC 4020 Problems in American Government 1-3 Credit Hours
1 to 3 hours. May be repeated with change of content; maximum credit nine hours. Focus on the national government, including the political processes and policies that relate to it. (Irreg.)

## P SC 4023 Community Scholars

3 Credit Hours
Prerequisite: P SC 1113. Service-learning course allows students to become participants in community activities and organizations designed to address community needs. At the same time, students develop skills and abilities for critical thinking, group problem-solving, and effective civic engagement. Combines community service and academic learning to examine how local government agencies work along side community organizations, mainly nonprofit organizations, to meet the needs of their community. (F)

P SC 4033 Capitol Scholars: A Service Learning Course 3 Credit Hours Prerequisite: P SC 1113 and permission of instructor. The course uses service-learning and weekly seminars to focus on institutions, policymaking and politics in legislative settings. (Sp)
P SC 4043 Public Policy Implementation
3 Credit Hours
(Slashlisted with P SC 5043) Prerequisite: P SC 1113. This course examines how public laws are implemented. It investigates actors, institutions and processes influential in decisions and actions regarding public program delivery. No student may earn credit for both 4043 and 5043. (Irreg.)

P SC 4083 Strategies in Politics and Public Policy 3 Credit Hours (Slashlisted with P SC 5083) Prerequisite: P SC 1113. Politics involves the interaction of people who seek to use mechanisms of collective choice to further their goals. This undergraduate course focuses on how political institutions translate the preferences of individuals into social choices. What strategies can individuals employ to influence social choices? This class addresses these questions through theories of individual decision making, social choice, and collective action. No student may earn credit for both 4083 and 5083. (Irreg.)
P SC 4093 Capstone Seminar in Political Science 3 Credit Hours
Prerequisite: Majors only, P SC 1113, PSC 2013, senior standing
and permission of department. Capstone seminar for majors in political science. Explores topics in political science for students with substantial background in the discipline and includes a significant writing component. Specific subtitles will vary. (F, Sp) [V].
P SC 4143 Policy/Program Evaluation
3 Credit Hours
Prerequisite: P SC 1113. Introduces the planning and implementation of a variety of evaluation types and methods. Considers the utilization of findings in a political environment. (Irreg.)
P SC 4193 The Profession of Public Management 3 Credit Hours Prerequisite: 1113 or permission of instructor. Open to undergraduate students only. Focuses on the internal administrative processes of public agencies, concentrating on the generic management functions of planning, directing and controlling as they relate to the development and implementation of public policy programs. (Irreg.)
P SC 4203 Capstone Seminar in Public Affairs and
Administration
3 Credit Hours
Prerequisite: Majors only, PSC 1113, PSC 2013, senior standing, and permission from department; May be repeated once with change of content. The focus and subtitle will vary. Develops the ability to analyze and interpret the subject matter; contains a substantial writing component. (F, Sp) [V].

P SC 4220 Problems in Public Policy
1-3 Credit Hours
1 to 3 hours. Prerequisite: 1113 or permission of instructor. May be repeated with change of content; maximum credit nine hours. Research and investigation on selected problems in the field of public policy. (Irreg.)
P SC 4253 Theories of the Policy Process
3 Credit Hours
Prerequisite: P SC 1113 and Junior standing or permission of instructor. In this course, we will review the concepts and theories that underlie the study of public policy in political science. We will not focus on specific policy areas (e.g., environmental or health policy), but rather on lenses and techniques, which are argued to be applicable to all policy domains, to understand why and how policies are enacted, changed, and/or terminated. (F)
P SC G4263 American Constitutional Law I: Governance 3 Credit Hours Prerequisite: P SC 1113. Chronological exploration of the role of constitutional principles and the United States Supreme Court in the historical and contemporary political struggles concerning the structure, distribution, and uses of national governmental power in the American polity. Examines the Constitution's allocation of powers vertically between the national government and the states, and horizontally among the legislative, executive, and judicial branches. (F)

## P SC G4283 American Constitutional Law II: Civil Rights and Civil Liberties <br> 3 Credit Hours

Prerequisite: P SC 1113 or permission of instructor. Investigates the character, function, and enforcement of civil rights and civil liberties in the American constitutional system. (Sp) [IV-WC] .

## P SC 4323 Political Communication <br> 3 Credit Hours

(Crosslisted with COMM 4323) Prerequisite: COMM 1113 or P SC 1113 and junior standing or permission of instructor. This course considers the role of communication in democracy. Topics include the kinds of information necessary to sustain democratic systems, the ways in which citizens are informed about public affairs, the function of news media in democratic systems, and how citizens, media and political leaders interact. (F, Sp)

## P SC 4493 Architecture of Democracy

3 Credit Hours (Slashlisted with P SC 5493; Crosslisted with ARCH 4493) Prerequisite: P SC 1113 or permission of instructor. This course explores how space, place and values come together in public spaces, by reviewing the evolution of architecture as it relates to human governance; introducing methods for assessing and designing physical space as an expression of human values; examines the social meaning and behavioral impact of spaces; studies the expression of democratic values in public spaces. No student may earn credit for both 4493 and 5493. (Irreg.)
P SC 4903 Social Movement Theory
3 Credit Hours
(Slashlisted with P SC 5903) Prerequisite: P SC 1113. This course will focus on major political theories that assess social movements and public policymaking. It will also examine when and why social movements occur, who joins or supports social movements, how social movements are organized, what are the impacts of social movements, the role of the state and social movements, and why social movements decline. No student may earn credit for both 4903 and 5903. (Irreg.)

## P SC 4960 Directed Readings

1-4 Credit Hours
1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean. May be repeated; maximum credit four hours. Designed for upper-division students who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)

P SC 4970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: Senior standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)
P SC 4990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: three courses in general area to be studied; senior standing; permission of instructor and department. May be repeated; maximum credit six hours. Through a written contract, independent study may be arranged for a topic not currently offered in regularly scheduled courses. Independent study may include library and/ or laboratory research and field projects. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

P SC 5003 Introduction to Public Administration 3 Credit Hours Prerequisite: graduate standing. An introductory graduate seminar surveying the field of public administration and its role and position in contemporary government, providing a basis from which to undertake advanced studies of theoretical and substantive nature. Attention will be given to key themes in past and present of mainstream public administration, such as the foundation, personnel, organization, and policies of government. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
P SC 5013 History and Theory of Urban Planning 3 Credit Hours (Crosslisted with RCPL 5013) Prerequisite: open to seniors in social science departments, civil engineering and architecture, and to graduate students in regional and city planning. An introductory course on the history and theory of contemporary planning, focusing on the physical, social, institutional and economic structure and dynamics of human settlements, and on the role and responsibilities of the professional planner. (F)
P SC 5023 Problems in American Government 3 Credit Hours Prerequisite: 12 hours in political science or senior standing and permission of instructor. May be repeated with change of content; maximum credit nine hours. Content varies with instructor. The focus is on the national government, including the political process and policies that relate to it. (Irreg.)
P SC 5033 Foundations of Nonprofit Management 3 Credit Hours
Prerequisite: graduate standing. Introduces broad theories and managerial practices in the field of nonprofit management. The main foci of the course are to provide theoretical foundations of the nonprofit sector by examining its nature, scope, legal frameworks, functions, and policy implications and to examine various managerial challenges nonprofit organizations face due to their unique sector positions and how they respond to those challenges. Challenges are multifaceted (leadership, financial, personnel, performance evaluation and accountability, governmental relations) and the course will provide several case studies for students to review and seek potential solutions in individual as well as group settings. (Irreg.)
P SC 5043 Public Policy Implementation
3 Credit Hours
(Slashlisted with 4043) Prerequisite: graduate standing. This course examines how public laws are implemented. It investigates actors, institutions and processes influential in decisions and actions regarding public program delivery. No student may earn credit for both 4043 and 5043. (Irreg.)

P SC 5053 Agenda-Setting in Public Policy 3 Credit Hours Prerequisite: graduate standing. This class will focus on agenda-setting and policy change - that is, how policy agendas are determined and their impact on policy change. In so doing, we will examine the role that various actors play (including public administrators), the impact of focusing events, political institutions, and the media. (Irreg.)

P SC 5063 Nonprofits and the Public Sector Relations 3 Credit Hours Prerequisite: graduate standing. Explores various issues that arise from collaborative efforts between the nonprofit and government sectors in delivering public services. Includes an examination of a nonprofitpublic sector collaboration and partnership, especially the nature of nonprofit-public sector strategic alliances, the dynamics of service delivery networks, and the effectiveness of collaborations. The role of nonprofits and the policy implications in social service contracting are examined. (lrreg.)
P SC 5073 Municipal Management and Leadership 3 Credit Hours Prerequisite: graduate standing. Streets, water, sewer, trash, public safety, and business all center on Main Street U.S.A., and cities are literally where politics and policy directly meet citizens in their everyday lives. The management of urban areas involves a wide array of public administration skills and topics. Topics include: infrastructure, municipal finance, economic development, human resource management, and basic service delivery. Students will hone the skills of political analysis, project planning and strategic management. (Irreg.)
P SC 5083 Strategies in Politics and Public Policy 3 Credit Hours (Slashlisted with P SC 4083) Prerequisite: graduate standing. Politics involves the interaction of people who seek to use mechanisms of collective choice to further their goals. This course focuses on how political institutions translate the preferences of individuals into social choices. What strategies can individuals employ to influence social choices? The class addresses these strategies through theories of individual decision making, social choice, and collective action. No student may earn credit for both 4083 and 5083. (Irreg.)

## P SC 5093 Grants and Contracts

3 Credit Hours
Prerequisite: graduate standing. This course discusses how to write a strong grant or contract proposal along with strategies for successful implementation of the resulting project. The focus will be on project development and project management for public and nonprofit sectors. (Irreg.)
P SC 5103 Organizations: Design, Structure and Process 3 Credit Hours Prerequisite: full graduate standing or permission of instructor. Analyzes large, complex organizations, particularly governmental units and other public sector agencies. Attention will be given to the principal theoretical models for their design and structure. Also seeks to understand system-subsystem relationships in the processes of decision making, communication, influence, leadership and technology. (F)
P SC 5113 Federalism and Intergovernmental Relations 3 Credit Hours Covers the origins, development, and operational aspects of federalism in the U.S. Intergovernmental relations as the dynamics of federalism are studied as they impact on decision-making, administrative and fiscal patterns. Decentralization and reorganization are analyzed as they affect the administration of national programs. (Sp)
P SC 5123 The Making of American Foreign Policy 3 Credit Hours A study of American policy formulation with its problems and limitations. Current American foreign policies and alternate courses of action are examined critically. (Irreg.)

[^60]P SC 5143 Program Evaluation and Applied Policy Analysis

3 Credit Hours
Prerequisite: graduate standing. Methodology of planning and evaluating government policies and programs. Emphasizes research design, economic analysis of public policies and programs, and methods for handling threats to validity of research results. (F)

P SC 5170 Problems in Public Administration

## 2-3 Credit Hours

2 to 3 hours. May be repeated; maximum credit six hours. Research and investigation on selected problems of public administration. Some alternative subjects; administrative theory and organizational theory; bureaucracy; organization and management; government corporations; administrative policy making; responsibility and accountability. (Irreg.)

## P SC 5173 Bureaucracy and Politics

3 Credit Hours
Prerequisite: graduate standing. Examines the concept of the political role of the bureaucracy and the impact of other government institutions on bureaucratic structure, functions and behavior. The role of the bureaucracy in public policy making and the influence of politics on policy implementation are analyzed. (Sp)
P SC 5183 Public Budgeting and Finance
3 Credit Hours
Prerequisite: graduate standing or permission of instructor. Examines the techniques and politics of raising and spending public funds. Discusses topics such as deficit politics, legislative and executive powers, and the budgetary role of the courts. Assesses the impacts of taxing and spending policies. Explores issues relevant to national, state, and local governments. (Sp)

## P SC 5213 Risk, Public Policy, and Law

3 Credit Hours
Prerequisite: graduate standing. This seminar will focus on how concepts of risk serve to justify and shape public policies, legal rules, and risk management practices. It will introduce some of the primary methods for analyzing potentially risky policies and managing risk. We will begin with a focus on the definition of risk as it applies to public policy, and as it has been used to analyze and inform policies and laws designed to address risks. We will then turn to the differences between formal assessments of risk and the "perceived risks" and social, political and institutional responses that typically drive public policy. These concepts will then be applied to a set of specific cases in current public policies that involve the intersection of environmental, energy, natural disaster, and security concerns. (Irreg.)

P SC 5233 Health Policy
3 Credit Hours
Prerequisite: graduate standing. This course is designed to provide students with a clear understanding of the nature and dynamics of health policy making and administration in the United States. (Irreg.)
P SC 5243 Managing Public Programs
3 Credit Hours
Introduces MPA students to the general principles of management as they are applied in the public sector. Topics include: systems theory, systems design (PERT), organization design, techniques of supervision, public sector labor relations, public sector personnel practices, agency interface with political actors in the environment. (Irreg.)
P SC 5253 Human Resource Administration 3 Credit Hours An analysis of the structure and role of manpower in all levels of U.S. government, focusing on the development of the public service, manpower planning, unionization of public employees and recent trends in public personnel relations. (Sp)

P SC 5263 Congress in the Political System 3 Credit Hours
Prerequisite: graduate standing or permission of instructor. Empirically based course considering United States Congress and its role in American political system; examination of relationships between Congress and other institutions and actors. Possible topics include: Congress and the Presidency, interest groups, and lobbyists; Congress and Supreme Court; Congress and foreign policy; Congress and executive bureaus. (F)
P SC 5283 Problems in Law and the Constitution 3 Credit Hours Content varies. Intensive analysis of specific problems in legal or constitutional theory. Topics could include: Slavery and the constitution, capitalism and constitutional order, constitutional crisis and failure, law and morality, jurisprudence. (Irreg.)
P SC 5293 Administration, Ethics and American Government 3 Credit Hours Prerequisite: graduate standing. An exploration of the role of ethics in American government, especially in public administration. Topics to be studied include codes of professional ethics for administrators, ethics and constitutionalism, law and ethics, and the ethical implications of differing approaches to administrative work and to democracy. (Irreg.)
P SC 5313 Urban Politics
3 Credit Hours
Prerequisite: graduate standing. Examine differing theories as to how urban governance, administration, and politics actually operate. Included in this examination are a variety of major issues related to urban governance and administration including intergovernmental relations, urban service delivery, fragmentation of urban areas between cities and suburbs, the rise of sunbelt cities, urban sprawl, racism, poverty, crime, and national urban policy. We will also examine broader visions and proposals to revitalize and enhance urban living. Finally, we will consider the current state of urban politics and where it might go in the future. (Irreg.)
P SC 5323 Problems in Public Policy 3 Credit Hours May be repeated with change of content; maximum credit six hours. Content varies with professor. Focus on topics related to public policy issues at all levels of government, including the design, implementation, and evaluation of specific policy initiatives. (Irreg.)

## P SC 5343 Public Policy and Inequality 3 Credit Hours

Prerequisite: graduate standing or permission of instructor. Explores alternative definitions of equality and their implications in terms of public policy. Specific topics include the role of issue definition and agendasetting in policy formation, the causes and politics of inequality, the difficulties in measuring inequality, and institutional dynamics that exacerbate or ameliorate inequality. (F)

## P SC 5353 State and Local Public Finance and Budgeting Systems <br> 3 Credit Hours

(Crosslisted with RCPL 5353) Prerequisite: graduate standing or permission. An overview of the process and methods for local capital improvement programs and capital budget preparation, and an examination of the relationships between local development policies and fiscal decision making, including revenue potential. (CE)
P SC 5363 Public Financial Management 3 Credit Hours
Prerequisite: graduate standing or permission of instructor. Introduces students to important concepts, procedures, and skills associated with managing public monies. Major topics include government accounting, debt management, forecasting, cash management, and capital budgeting. (Irreg.)

P SC 5373 Education Policy
3 Credit Hours
Prerequisite: graduate standing. This course is designed to give students an overview of the major policy issues in primary, secondary, and higher education. Special attention will be given to how these issues relate to prominent theories of the policy process. (Irreg.)
P SC 5383 Survey of Political Communication
3 Credit Hours
(Crosslisted with COMM 5383) Prerequisite: graduate standing. Embraces the premise that meaningful democracy requires an effective political communication system. Examines some of the tensions between the requirements of democracy and the forms of communication that have emerged to meet them, exploring the roles of political leaders, citizens, and the mass media in the evolution of a democratic political information system. (Irreg.)
P SC 5400 Problems in Political Behavior

## 2-3 Credit Hours

2 to 3 hours. Prerequisite: graduate standing, qualified senior by permission of instructor. May be repeated; maximum credit six hours. Content varies, representative topics would include interdisciplinary contributions to the study of political behavior, political socialization, decision making, voting behavior, belief systems, political violence, personality and politics and political culture. (Irreg.)

P SC 5423 Mass Politics: Public Opinion, Voting, Realignment Credit
A survey of the literature on public opinion, voting behavior and realignment (or electoral change). Additional topics may include political socialization, participation and elite-mass interactions. (Irreg.)

## P SC 5493 Architecture of Democracy

3 Credit Hours
(Slashlisted with P SC 4493; Crosslisted with ARCH 5493) Prerequisite: Graduate standing or permission of instructor. This course explores how space, place and values come together in public spaces, by reviewing the evolution of architecture as it relates to human governance; introducing methods for assessing and designing physical space as an expression of human values; examining the social meaning and behavioral impact of spaces; and studying the expression of democratic values in public spaces. No student may earn credit for both 4493 and 5493. (Irreg.)
P SC 5513 International Relations Theory
3 Credit Hours
Overview and appraisal of the state of the field of international relations. Primary emphasis will be placed on scope and method issues and on a review of theoretical attempts to explain general and specific aspects of international relations. (Irreg.)

## P SC 5523 Morality and Foreign Policy

3 Credit Hours
Prerequisite: graduate standing or permission of instructor. Addresses the moral and ethical foundations of foreign policy. Emphasis will be on American foreign policy, but may also include broader issues of foreign policy and international relations. Sample issues may include national interest versus conceptions of justice as foundations for foreign policy, idealism and realism in the American foreign policy tradition, ethical issues in international relations, globalization, genocide, just war theory, etc. Readings may be taken from political theory, American foreign policy, and international relations. (Irreg.)
P SC 5550 Problems in International Relations
2-3 Credit Hours
2 to 3 hours. May be repeated; maximum credit six hours. Analysis of current international conflicts and problems with study of possible solutions. May include study of the role and current problems of the United Nations. (Irreg.)

P SC 5600 Problems in Comparative Government 2-3 Credit Hours 2 to 3 hours. May be repeated; maximum credit six hours. Content varies, but involves systematic comparative treatment of such central themes as the transitional society, change and revolution, modernization, political groups, constitutionalism, and bureaucracy. (Sp)
P SC 5653 Democracies and Democratization 3 Credit Hours Prerequisite: graduate standing or permission of instructor. Examines the historical sources of modern democracy, the causal factors underlying the genesis and survival of democracy, the dynamics of democratic breakdowns and transitions from authoritarian rule, and the problems of democratic regime consolidation and quality. (Irreg.)
P SC 5673 Global Far Right and Democracy 3 Credit Hours Prerequisite: graduate standing. Examines in detail, theories of democracy as they occur around the planet. Analyzes theories of the global far right and explores the theoretical and practical linkages and implications of the global far right and democracy. Finally, we look at several representative and real-world case examples of the global far right and democracy. (Irreg.)

## P SC 5683 Politics in Latin America

3 Credit Hours
Prerequisite: graduate standing or permission of instructor. Covers recent approaches to understanding politics in Latin America, with an emphasis on questions of transitions to democracy and regime stability, the nature of democratic rule, and the role of political institutions, the economy, and the military. (F)
P SC 5693 Global Urban Politics \& Theory 3 Credit Hours Prerequisite: Graduate standing. The course will examine differing theories related to power and influence in global urban governance and politics. We will also examine broader visions and proposals to revitalize and enhance global urban living. Finally, we will consider the current state of global urban politics and where it might go in the future. (Irreg.)

## P SC 5803 Emergency Management

3 Credit Hours
Prerequisite: graduate standing. Large scale emergency events (including natural disaster, technological risks, and terrorist attacks) create novel challenges for our political system. This course will review the basic logic of our emergency management policy system along with the basic skills needed to succeed as an emergency manager. (Irreg.)
P SC 5903 Social Movement Theory 3 Credit Hours
(Slashlisted with P SC 4903) Prerequisite: Graduate standing. This course will focus on major political theories that assess social movements and public policymaking. It will also examine when and why social movements occur, who joins or supports social movements, how social movements are organized, what are the impacts of social movements, the role of the state and social movements, and why social movements decline. No student may earn credit for both 4903 and 5903. (Irreg.)
P SC 5910 Government Internship 2-8 Credit Hours 2 to 8 hours. Prerequisite: 15 hours of political science or 24 hours of social science. May be repeated; maximum credit eight hours. (F, Sp, Su)
P SC 5913 Introduction to Analysis of Political and Administrative Data

3 Credit Hours
Prerequisite: Graduate standing, majors only. Presents an introduction to the foundations and use of quantitative methods in political science/ public administration. Topics covered include: conducting systematic research in political science/public administration, measurement theory, bivariate analysis, hypothesis testing and statistical inference. A student may not receive credit for this course and P SC 5923. (F)

P SC 5923 Introduction to Analysis of Political Data 3 Credit Hours Prerequisite: Graduate standing and departmental permission. Introduces research methods and statistical analysis for political science, including basic statistics. Students put these elements into practice by developing a basic research project. Oriented toward development and utilization of quantitative procedures and interpretation of results, instead of theoretical issues and the mathematical derivation of formulas. A student may not receive credit for this course and P SC 5913. (F)
P SC 5933 Intermediate Analysis of Political Data 3 Credit Hours Prerequisite: 5913; 5000-level prerequisite. Continues the study of the foundations and use of quantitative methods in political science. Topics covered include: probability theory, distribution theory, control table analysis, analysis of variance and correlation and regression analysis. (Sp)
P SC 5940 Advanced Research Methods: Special Topics 1-3 Credit Hours
1 to 3 hours. Prerequisite: 5913 or permission of instructor. May be repeated with change of subject matter; maximum credit six hours. Provides introduction into advanced qualitative or quantitative analytical methods for students who will pursue a career in research. Topics will vary but may include such methodologies as ethnographic, cultural, discriminant, or factor analysis. (Irreg.)
P SC 5950 Research Problems
2-5 Credit Hours
2 to 5 hours. May be repeated with change of subject matter; maximum credit ten hours. Students must indicate field of research and hours credit at the time of enrollment. To be subdivided topically as follows: American national government, public administration, American state and local government, public law, popular government, international relations, comparative government, political theory, elections and political behavior, behavioral laboratory. (F, Sp, Su)
P SC 5953 Qualitative Research Methods
3 Credit Hours
Prerequisite: P SC 5913 or permission of instructor. This course provides graduate-level training in qualitative research methods as preparation for dissertation research. The course begins by orienting students towards research traditions and epistemological issues. It then considers a range of options for designing research and achieving causal inference. The last third of the course covers concrete tools that researchers may deploy while conducting fieldwork. (Irreg.)
P SC 5960 Directed Readings
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit six hours. (F, Sp, Su)
P SC 5963 Capstone in Public Administration 3 Credit Hours Prerequisite: graduate standing. The primary role of government is to address the collective problems, needs, and challenges faced by its citizenry. Government addresses these issues through the development, enactment, and implementation of public policy. This class takes an analytical approach, broadly defined, to studying collective problems and government responses to these problems. The end product of this study will be a research paper. ( Sp )
P SC 5970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

P SC 5980 Research for Master's Thesis
2-9 Credit Hours Variable enrollment, two to nine hours; maximum credit applicable toward degree, six hours. (F, Sp, Su)

P SC 5990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)

P SC 6003 Political Science: Survey of a Discipline 3 Credit Hours Prerequisite: admission to doctoral program in political science. Traces the development of the discipline of political science as well as the epistemological and theoretical foundations of the field. Emphasis is given to the role of research design for political analysis. Attention also is devoted to the professional norms and expectations of an academic career in political science. (Every third semester)

P SC 6023 Field Seminar in American Politics 3 Credit Hours Prerequisite: graduate standing. Seminar designed to introduce as much of the field of American politics as possible. Includes epistemology and paradigms, institutionalism, the various political institutions that structure our politics, and the role of the individual in American politics. (Irreg.)

## P SC 6103 Field Seminar in Public Administration 3 Credit Hours

Prerequisite: graduate standing. Review of the field of public administration. Investigates epistemology and paradigms of the field and considers the role of bureaucratic organizations in the American system of governance. (Irreg.)
P SC 6113 Foundations in Public Administration 3 Credit Hours Prerequisite: graduate standing or permission of instructor. Broad overview of the public administration literature. Historical underpinnings of the subfield and its evolution. Focuses on the frameworks and theories scholars have developed to understand public administration generally. Both theoretical and empirical research are reviewed to examine the "big picture." (Irreg.)

## P SC 6133 Foundations in Public Policy <br> 3 Credit Hours

Prerequisite: graduate standing or permission of instructor. Gives students a broad overview of the public policy literature. We examine the historical underpinnings of the subfield and familiarize ourselves with its evolution. The course is not substantive in the sense of studying particular policy areas (e.g., environmental, education), but rather focuses on the frameworks and theories scholars have developed to understand the policy process generally. Both theoretical and empirical research are reviewed in an effort to examine the "big picture." (Irreg.)

P SC 6223 Field Seminar in Public Policy 3 Credit Hours
Prerequisite: permission of the instructor. A capstone seminar for doctoral students who have substantially completed public policy coursework in preparation of information on completing theories, frameworks, approaches, analytical tools, and guiding principles central to the study of the formulation, implementation, and evaluation of public policy. Attention also will be given to crosscutting topics such as values in the policy process, the role(s) of the policy analyst; ethics; and the utilization and misutilization of the results of social science research. (Irreg.)
P SC 6603 Field Seminar in Comparative Politics 3 Credit Hours Prerequisite: graduate standing. This course is an exploration of the central theoretical concepts and problems of comparative politics. (Irreg.)
P SC 6960 Directed Readings 1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit six hours. Directed readings and/or literature review under the direction of a faculty member. (Irreg.)

P SC 6970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit 12 hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or research and field projects. (Irreg.)

P SC 6980 Research for Doctoral Dissertation
2-16 Credit Hours
2 to 16 hours. Prerequisite: Graduate standing and permission of instructor; may be repeated. Directed research culminating in the completion of the doctoral dissertation. (F, Sp, Su)

P SC 6990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)

## PBIO-Plant Biology

PBIO 1114 General Botany
4 Credit Hours
Previous course in chemistry (high school or college) recommended. Fulfills Arts and Sciences' biological science requirement. Basic processes and structures in plants; their relation to factors in the environment; reproduction; heredity, heritable and nonheritable variations in plants and their causes and consequences are studied. Scientific procedures are acquired through application and discussion. Laboratory (F, Sp, Su) [II-NSL].
PBIO 2404 Ecology \& Environmntl Quality
4 Credit Hours
(Crosslisted with BIOL 2404) Prerequisite: sophomore standing. Study of ecological principles and their applications to human systems, study of population, air pollution, water pollution, energy issues, etc. Laboratory exercises focus on learning scientific methods of measurement of environmental quality factors. This course does not count for major credit in Plant Biology. Laboratory. (Sp) [II-NSL].
PBIO 2503 Plant Care and Cultivation
3 Credit Hours
Prerequisite: PBIO 1114, or Biology 1005, or Biology 1114, or Biology 1134, or any introductory college Biology course. Application of the principles of botany to the cultivation, propagation, and maintenance of plants grown in home environments. Particular attention is given to the effects of light, water, minerals, and soil factors on plant growth; seed and vegetative propagation; pest control; and proper conditions for cultivated plants. (F) [II-NS].

PBIO 3113 Cell Biology
3 Credit Hours
(Crosslisted with MBIO and BIOL 3113) Prerequisite: 1114, or Biology 1134, or Biology 1114 and 1121, or Biology 1124; and Chemistry 3053. Introduction to the cell as a unit of life. A chemical and physical comparison of procaryotic and eucaryotic cells to include a discussion of cell metabolism, types of metabolic regulation and an analysis of ultrastructure. Emphasis will be placed on the dynamic changes in metabolism and ultrastructure which occur during the life of a cell. ( $\mathrm{F}, \mathrm{Sp}$ )
PBIO 3163 Economic Botany
3 Credit Hours
Prerequisite:1114, or Biology 1134, or Biology 1005, or any introductory biology course. A survey of plants and plant products used in industry, drug plants and drugs, and especially food plants and food adjuncts. Origin of agriculture, domestication and evolution of crop plants, and uses of plants in different cultures are emphasized. (F) [IV-WC].

PBIO 3333 Genetics
(Crosslisted with BIOL 3333) Prerequisite: eight hours of ZOO/BIOL and/ or PBIO and/or MBIO, or five hours of ZOO/BIOL or PBIO or MBIO and permission of instructor. Principles of inheritance at gene, chromosome and population levels; nature of the genetic material and its involvement in the determination of structure and function. No laboratory. (F, Sp)

## PBIO 3440 Mentored Research Experience

3 Credit Hours
0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)
PBIO 3451 Methods in Plant Ecology
1 Credit Hour
Prerequisite: Corequisite: PBIO 3453. Methodology in plant physiological, population, community and ecosystem ecology will be covered. Emphasis will be on actual field or laboratory experience and the applicability of these methods to other areas of ecology. Laboratory. (F)
PBIO 3453 Principles of Plant Ecology
3 Credit Hours
Prerequisite: PBIO 1114 or BIOL 1134. Introduction to physiological, population and community ecology. Emphasis is placed on environmental factors, disturbance and succession and how these factors affect species diversity and landscape patterns. One field trip. (F)
PBIO 3673 Practical Bioinformatics
3 Credit Hours
(Crosslisted with MBIO 3673) Prerequisite: PBIO 1114, or MBIO 2815, or MBIO 3813, or BIOL 1005, or BIOL 1114, or equivalent introductory biology course, and junior standing, or instructor permission. Study of the use of computers to analyze and interpret various types of biological data. Topics covered will include accessing genomics databases, aligning DNA and protein sequences, searching genomic databases for similar sequences, analyzing protein structure, and building molecular phylogenies. Classes will emphasize group work and in-class computer exercises in a highly interactive environment. (Sp)
PBIO 3960 Honors Reading (HONORS) 1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
PBIO 3970 Honors Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program; May be repeated; maximum credit six hours. Subjects covered vary. Deals with concepts not usually treated in regular courses.
PBIO 3980 Honors Research (HONORS) 1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program; May be repeated; maximum credit six hours. Provides an opportunity for the gifted Honors candidate to work on a special project in the student's field. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
PBIO 3990 Independent Study 1-3 Credit Hours
1 to 3 hours. Prerequisite: one course in general area to be studied; permission of instructor and department; May be repeated; maximum credit six hours. Contracted independent study for topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (F, Sp, Su)

Prerequisite: PBIO 1114 and CHEM 3053 or permission of instructor. Plant Physiology is the study of how plants grow and develop, respond to biotic and abiotic factors in their environments, convert solar energy to chemical energy, and generally how plants go about their business. Modern plant physiology is a fairly all-inclusive discipline and incorporates plant anatomy and morphology, biochemistry, genetics, molecular biology, etc. Laboratory. (F)
PBIO G4283 Plant Anatomy
3 Credit Hours
Prerequisite: seven hours in biology or permission of instructor. The structure and development of the organs of vascular plants as revealed by observations of representative living and prepared specimens. Theories concerning the evolution of organs and internal structure. (Sp odd-numbered years)
PBIO 4313 Biotechnology Applications
3 Credit Hours
(Crosslisted with MBIO 4313) Prerequisite: PBIO/BIOL 3113 or PBIO/ BIOL 3333 or PBIO/MBIO/BIOL 4843 or PBIO/MBIO 4873 or Chemistry 3653 or permission of instructor. For students who possess a working knowledge of molecular biology. Focus on developing familiarity with methods used in biotechnology to address societal challenges. Students will put into practice central methods of biotechnology, gaining practical skills for use in future careers in laboratory science, particularly methods relevant to pharmaceutical production, agricultural improvement, bio-fuel production, and medical and forensic diagnostics, among others. (Sp)

## PBIO 4334 Horticulture

4 Credit Hours
Prerequisite: PBIO 1114 and BIOL 1134, or permission of the instructor. Application of botanical principles to the cultivation, propagation, and maintenance of plants. Attention is given to the evolutionary history of the plants and their needs in cultivation. Lab activities cover growth and propagation of plants in a greenhouse environment, constructing and testing hypotheses for how plant growth is affected by different conditions, and using R to examine resulting data. Laboratory. (Irreg.)
PBIO 4534 Plant Systematics 4 Credit Hours
(Slashlisted with PBIO 5534) Prerequisite: PBIO 1114 and BIOL 1134 or permission of the instructor. Introduction to the evolution and identification of vascular plants with emphasis on the origin and evolution of the Oklahoma flora. Laboratory activities stress identification skills, terminology, field techniques, and family recognition for the flora of Oklahoma. Field trips. Laboratory. No student may earn credit for both 4534 and 5534. (Irreg.)
PBIO 4630 PBIO Internship
1-6 Credit Hours
1 to 6 hours. (Crosslisted with MBIO 4630) Prerequisite: PBIO major; must have completed at least 30 hours; permission of instructor. This course is a planned hands-on work experience that will provide students with the opportunity to earn college credit while engaging in a valuable learning opportunity within the field of plant biology. Through an internship, students can explore plant biology career paths prior to graduation and apply the knowledge obtained from their PBIO coursework. (F, Sp, Su)

## PBIO 4693 Environmental Sampling Methods

3 Credit Hours
(Slashlisted with PBIO 5693; Crosslisted with METR and MBIO 4693) Prerequisite: diverse STEM background; permission of instructor; senior standing. The course gives students from diverse STEM backgrounds experience and knowledge of environmental sampling techniques, analysis of data generated, and interpretation of results in a scientific field outside their primary area of study. The multi-disciplinary structure helps students develop an understanding of different sampling techniques based on assumptions and perspectives on the environment at different spatial scales. No student may earn credit for both 4693 and 5693. (Sp)

PBIO 4733 Environmental Remote Sensing 3 Credit Hours (Slashlisted with PBIO 5733; Crosslisted with GIS 4733) Prerequisite: either a course or hands-on experience in remote sensing, GIS, statistical analysis, computer programming, or permission of the instructor and adviser. Course develops comprehensive knowledge and advanced skills of remote sensing, to apply to the study of the structure, composition, and functions of vegetation, landscapes, and the biosphere. Students will learn hyperspectral data acquisition and analysis; field survey methods; land cover classification from multiple sensors, time series data; and estimation of biophysical and biochemical parameters. Includes image processing software and algorithms. No student may earn credit for both 4733 and 5733. (Sp)

## PBIO 4783 Introduction to Python Programming for Data

## Analytics

3 Credit Hours
(Slashlisted with PBIO 5783; Crosslisted with MBIO 4783) Prerequisite: Senior standing. This course will introduce students, who have no prior programming experience, to Python programming. It will cover data analysis and visualization methods in Python. Real-world examples will be used to teach general concepts in data analytics and practical coding skills in Python. No student may earn credit for both 4783 and 5783. (F)

## PBIO 4843 Molecular Biology <br> 3 Credit Hours

(Slashlisted with PBIO 5843; Crosslisted with MBIO and BIOL 4843) Prerequisite: MBIO 3812 and MBIO 3813, or Plant Biology 1114, or Biology 1114, or Biology 1124, or Biology 1134, and one course in organic chemistry. Introduction to the characteristics and biological functions of nucleic acids and proteins in living cells with emphasis on nucleic acid replication, transcription, translation and regulation; also emphasis on the molecular aspects of microbial genetics transformation, transduction and conjugation; and emphasis on molecular immunology and genetic engineering/recombinant DNA technology. No student may earn credit for both 4843 and 5843. (F, Sp)

## PBIO 4960 Directed Readings <br> 1-4 Credit Hours

1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean; May be repeated; maximum credit four hours. Designed for upper-division students who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)

## PBIO 4970 Special Topics/Seminar

1-3 Credit Hours
1 to 3 hours. Prerequisite: Senior standing or permission of instructor; May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

## PBIO 4983 Senior Capstone: Plant Biol

3 Credit Hours
Prerequisite: Majors only, 12 hours of botany and senior standing. Interdisciplinary approach to synthesize ideas from the major areas of botany. Readings, research and discussions on the important issues in botany at the present and into the next century. A major written assignment required. [V].
PBIO 4990 Independent Study 1-3 Credit Hours 1 to 3 hours. Prerequisite: three courses in general area to be studied, permission of instructor and department; May be repeated; maximum credit six hours. Contracted independent study for topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (F, Sp, Su)

## PBIO 5364 Transmis Electron Microscopy <br> 4 Credit Hours

(Crosslisted with MBIO and ZOO 5364) Prerequisite: permission. Introduction to the theory of transmission electron microscopy and practical instruction in specimen preparation, ultramicrotomy, instrument operation, photography and quantitative methods. Laboratory (F)

PBIO 5374 Scanning Electron Microscopy
4 Credit Hours
(Crosslisted with MBIO and ZOO 5374) Prerequisite: basic chemistry; basic physics; demonstrated need; graduate standing and permission of instructor. Principles of scanning electron microscopy combined with training in the operation of the SEM and ancillary equipment. Students will be certified in the operation of all equipment. Sample preparation on a variety of samples and darkroom procedures will be performed. Independent project with oral report and poster required. Laboratory.

## PBIO 5394 Advanced Light Microscopy

4 Credit Hours
(Slashlisted with PBIO 4394; Crosslisted with BIOL and MBIO 5394) Prerequisite: permission of instructor and graduate standing; Corequisite: Lab section. Focuses on theory and techniques in light microscopy covering principles including confocal laser scanning microscopy, multiple photon imaging, FLIM/FCS, FRET, fluorescence microscopy, phase contrast, DIC, 3D rendering, and other advanced optical technologies. Also includes a lab section where students will learn to use advanced epifluorescence and confocal microscopes. No student may earn credit for both 4394 and 5394. (F)
PBIO 5453 Advanced Ecology/Evolut Biol
3 Credit Hours
(Crosslisted with BIOL 5453) Prerequisite: Graduate standing, general ecology. Required for students in the ecology and evolutionary biology doctoral program. An introduction to current research opportunities and research programs in ecology and evolutionary biology at the University of Oklahoma. Specific topics and lecturers will vary from week to week to give students a broad overview of ongoing research projects. (F)
PBIO 5471 Seminar in Ecology \& Evolutionary Biology 1 Credit Hour (Crosslisted with MBIO and BIOL 5471) Prerequisite: graduate standing; May be repeated, maximum credit 2 hours. Two semesters of enrollment are required for students in the ecology and evolutionary biology doctoral program. An intensive, student-based seminar in which students present both proposals and ongoing progress reports on doctoral level research projects in ecology and evolutionary biology. (F, Sp)
PBIO 5620 Investigations in Botany
1-6 Credit Hours
1 to 6 hours. Prerequisite: 15 hours of BOT/PBIO and permission of instructor; May be repeated, maximum of nine hours for a masters student and twelve hours for Ph.D. student. Only six hours allowed with one professor, unless approved by Department Chair by petition. Fields: Ecology, morphology, physiology, systematics, mycology, anatomy, electron microscopy, plant molecular biology. (F, Sp, Su)
PBIO 5693 Environmental Sampling Methods
3 Credit Hours
(Slashlisted with PBIO 4693; Crosslisted with MBIO and METR 5693) Prerequisite: Graduate standing and permission of instructor. The course gives students from diverse STEM backgrounds experience and knowledge of environmental sampling techniques, analysis of data generated, and interpretation of results in a scientific field outside their primary area of study. The multi-disciplinary structure helps students develop an understanding of different sampling techniques based on assumptions and perspectives on the environment at different spatial scales. No student may earn credit for both 4693 and 5693. (Sp)

PBIO 5733 Environmental Remote Sensing 3 Credit Hours
(Slashlisted with PBIO 4733; Crosslisted with GIS 5733) Prerequisite: Graduate standing, and either a course or hands-on experience in remote sensing, GIS, statistical analysis, computer programming, or permission of the instructor and adviser. Course develops comprehensive knowledge and advanced skills of remote sensing, to apply to the study of the structure, composition, and functions of vegetation, landscapes, and the biosphere. Students will learn hyperspectral data acquisition and analysis; field survey methods; land cover classification from multiple sensors, time series data; and estimation of biophysical and biochemical parameters. Includes image processing software and algorithms. No student may earn credit for both 4733 and 5733. (Sp)
PBIO 5810 Special Topics 1-3 Credit Hours
1 to 3 hours. (Slashlisted with PBIO 4810) Prerequisite: two courses in plant biology, graduate standing, and permission of instructor; May be repeated with change of content, maximum credit three hours per semester, nine hours total. 1 to 3 hours. Topics will include newly developing areas of the discipline. Taught at the graduate level based on previous course background. No student may earn credit for both 4810 and 5810 for the same content. No student may earn credit for both 4810 and 5810. (Irreg.)
PBIO 5821 Graduate Professional Development Seminar 1 Credit Hour (Crosslisted with MBIO 5821) Prerequisite: Graduate standing and permission of instructor. This course will cover various topics and involve activities that are targeted at helping graduate students succeed in their first year of study, while also providing an opportunity to build a sense of community with other incoming students. (F)

## PBIO 5953 BioWriting

3 Credit Hours
(Slashlisted with PBIO 4953; Crosslisted with BIOL and MBIO 5953) Prerequisite: permission of instructor. This course provides students engaged in research with the information and skills needed to effectively communicate as professional biologists. Students will learn to report the results of their own research in the format of a journal article, conferencestyle presentation, and poster. Graduate students have additional assignments beyond those completed by undergraduates. No student may earn credit for both 4953 and 5953. (Irreg.)
PBIO 5960 Directed Readings 1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing and permission of department; May be repeated, maximum credit twelve hours. Directed readings and/or literature reviews under the direction of a faculty member. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
PBIO 5970 Special Topics/Seminar
1-3 Credit Hours 1 to 3 hours. Prerequisite: Graduate standing or permission of instructor; May be repeated, maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)
PBIO 5971 Seminar in Botany 1 Credit Hour (Crosslisted with MBIO 5971) Prerequisite: graduate standing, majors only, and permission of instructor. Required of all graduate students in botany. May be repeated; maximum credit two hours for the master's degree, three hours for the doctor's degree. Selected topics in botany. Each student is called upon for discussion or formal presentations. No laboratory. (F, Sp)
PBIO 5980 Research for Master's Thesis 2-9 Credit Hours
2 to 9 hours. Prerequisite: Graduate standing. Variable enrollment, two to nine hours; maximum credit applicable toward degree, six hours. Preparation of an original research paper in one of the fields of botany. (F, Sp, Su)

PBIO 5990 Special Studies in Botany
1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing, 15 hours of BOT/PBIO and permission of instructor; May be repeated, maximum credit 12 hours, with a limit of six hours with one professor unless approved by Department Chair by petition. The student selects an area in which the student desires to read intensively, then selects a staff member who is an authority in that field and together they plan a program for investigation of the literature. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
PBIO 6960 Directed Readings
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor; May be repeated, maximum credit six hours. Directed readings and/or literature review under the direction of a faculty member. (Irreg.)

## PBIO 6970 Special Topics/Seminar 1-3 Credit Hours

1 to 3 hours. Prerequisite: graduate standing or permission of instructor; May be repeated, maximum credit 12 hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or research and field projects. (Irreg.)
PBIO 6980 Research for Doctoral Dissertation 2-16 Credit Hours 2 to 16 hours. Prerequisite: Graduate standing and permission of instructor; may be repeated. Preparation of a research paper consisting of a notable contribution to knowledge in one of the fields of botany. (F, $\mathrm{Sp}, \mathrm{Su}$ )
PBIO 6990 Independent Study 1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing and permission of instructor; May be repeated, maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)

## PCUS-Percussion

PCUS 2000 Freshman and/or Sophomore Secondary Percussion $\begin{array}{r}1-2 \\ \text { Credit }\end{array}$ Hours
1 to 2 hours. Prerequisite: permission of adviser and instructor. May be repeated; maximum credit toward B.F.A., B.M.A., B.M.E., and B.M. degrees, eight hours. For freshman and sophomore music students studying in a secondary (or minor) performance area. (F, Sp, Su)

## PCUS 2020 Percussion for Music Majors: Freshman/

## Sophomore

2-4 Credit Hours
2 to 4 hours. Prerequisite: Majors only. May be repeated; maximum credit 12 hours. Applied instrumental lessons for freshmen and sophomore music majors in a School of Music degree program. (F, Sp)
PCUS 3440 Mentored Research Experience
3 Credit Hours
0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)

PCUS 4000 Junior and/or Senior Secondary Percussion 1-2 Credit Hours
1 to 2 hours. Prerequisite: permission of adviser and instructor. May be repeated; maximum credit toward B.F.A., B.M.A., B.M.E., and B.M. degrees, eight hours. For junior and senior music students studying in a secondary (or minor) performance area. (F, Sp, Su)

PCUS 4020 Percussion for Music Majors: Junior/Senior 1 -4 Credit Hours
1 to 4 hours. Prerequisite: majors only; junior standing. May be repeated; maximum credit 20 hours. Applied instrumental lessons for junior and senior music majors in a School of Music degree program. (F, Sp)
PCUS 5000 Master's-Level Secondary Percussion 1-2 Credit Hours 1 to 2 hours. Prerequisite: graduate standing in music; permission of adviser and instructor. May be repeated; maximum credit eight hours on a given instrument (including voice). For master's degree music students studying in a secondary (or minor) performance area. (F, Sp, Su)
PCUS 5010 Master's-Level Percussion for Non-Performance Music Majors

1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing in music; permission of adviser and instructor. May be repeated; maximum credit eight hours on a given instrument (including voice). For master's degree students other than performance majors in their major field. (F, Sp, Su)
PCUS 5020 Master's-Level Percussion for Performance
Majors 2-4 Credit Hours
2 to 4 hours. Prerequisite: graduate standing in music; permission of adviser and instructor; 4020 and 4021 or equivalent. May be repeated; maximum credit toward an M.M. degree 10 hours. (F, Sp, Su)

## PCUS 6000 Doctoral Secondary Percussion

1-2 Credit Hours
1 to 2 hours. Prerequisite: graduate standing in music, permission of adviser or instructor. May be repeated; maximum credit eight hours on a given instrument (including voice). For doctoral degree music students studying in a secondary (or minor) performance area. (F, Sp, Su)
PCUS 6010 Doctoral Percussion for Non-Performance Music Majors 2-3 Credit Hours
2 to 3 hours. Prerequisite: graduate standing in music; permission of adviser and instructor. May be repeated. Doctoral-level study of applied music in the major performance area for students other than performance majors in their primary field. (F, Sp, Su)
PCUS 6020 Doctoral Percussion for Performance Majors 2-4 Credit Hours
2 to 4 hours. Prerequisite: graduate standing in music; 5042; permission of adviser and instructor. May be repeated; credit applicable toward applied music requirements for the Doctor of Musical Arts degree. Doctoral-level study of applied music for performance majors in their primary field. (F, Sp, Su)

## PDC-Planning, Design \& Construction

PDC 1003 Gateway to Building Communities 3 Credit Hours
This first-year experience course introduces students to aspects of creating communities through the lens of planning, design, and construction disciplines. Lectures explore tools of listening and successful collaboration that can help lead to personal and professional success. Concepts of cultural fluency, critical thinking, civil discourse, citizenship, and community engagement will be investigated through inclass discussions, writing assignments, and group projects. (F) [V-FYE].
PDC 6003 History and Philosophy of Planning, Design and

## Construction

3 Credit Hours
Prerequisite: graduate standing with permission of instructor. Explore the events, phases and evolution of planning, design and construction; review historical developers, city planners and contractors and the contributions/impacts they had on the professions and marketplace; explore the future based on the past. (Sp)

PDC 6023 Advanced Research Methods
3 Credit Hours
Prerequisite: graduate standing with permission of instructor. Explore discipline-based qualitative and quantitative research methods; develop dissertation research design and support documentation; apply for funding for the dissertation project. (F)
PDC 6980 Research for Doctoral Dissertation 2-16 Credit Hours 2 to 16 hours. Prerequisite: Graduate standing and permission of instructor; may be repeated. Directed research culminating in the completion of the doctoral dissertation. (F, Sp, Su)

## PERS-Persian

## PERS 1115 Beginning Persian

5 Credit Hours
This course is for students who have no background in the Persian language and wish to learn the language at an academic level. Students learn the Persian alphabet, phonology, and syntax. (F) [I-FL].
PERS 1225 Beginning Persian Continued
5 Credit Hours
Prerequisite: PERS 1115 or permission of department. A continuation of PERS 1115. An elementary-level course, which stresses oral communication, vocabulary building, simple sentence structure, reading comprehension and writing elementary-level texts, and gaining familiarity with Persian culture. (Sp) [I-FL].
PERS 2113 Intermediate Persian
3 Credit Hours
Prerequisite: PERS 1225. Continuation of PERS 1225. An intermediate level course, which will stress listening, speaking, reading and writing at the intermediate level with more emphasis on reading and writing. Students are expected to gain proficiency of Intermediate Mid on the American Council on Teaching of Foreign Languages Scale. (F)
PERS 2223 Intermediate Persian Continued 3 Credit Hours
Prerequisite: PERS 2113. Continuation of PERS 2113. Intermediatelevel course, which will continue developing language skills: speaking, writing, listening and reading at the intermediate high-level. Students are expected to gain proficiency of Intermediate High on the American Council on Teaching of Foreign Languages Scale. (Sp)
PERS 3440 Mentored Research Experience 3 Credit Hours 0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)

## PHCH-Public Health and Community Health

PHCH 2013 Introduction to Public and Community Health

## 3 Credit Hours

Introduction to fields of public and community health, including principles of population health, determinants of health, prevention of disease and disability, public health institutions and systems, essential health services, the US healthcare system, health policy, and the role of advocacy and politics in public health. ( $F, S p$ )

PHCH 3113 Introduction to Epidemiology 3 Credit Hours
Prerequisite: ENGL 1213 or EXPO 1213; PHCH 2013 or concurrent enrollment. Principles of epidemiology, the systematic approach to collecting and evaluating information on distributions of health outcomes in populations; history of epidemiology, descriptive epidemiology, epidemiologic methods, association and causation, evidence-based public health and applications. (F)
PHCH 3213 Health Policy, Law, and Ethics 3 Credit Hours
Prerequisite: ENGL 1213 or EXPO 1213; PHCH 2013 or concurrent enrollment. Examines the legal and ethical dimensions of public health, preparing students to make informed, ethical decisions in arenas such as policy development, clinical care, research, environmental health, occupational health, resource allocation, and genetics. (Sp)

PHCH 3313 Health Data and Statistics
3 Credit Hours
Prerequisite: ENGL 1213 or EXPO 1213; PHCH 2013 or concurrent enrollment. Introduction to the basic concepts, methods, and tools of public health data collection, use, and analysis. Specific topics may include biostatistical and epidemiological methods, informatics, and the use, management, and dissemination of big data. (Sp)

## PHCH 3413 Health Communication

3 Credit Hours
Prerequisite: ENGL 1213 or EXPO 1213; PHCH 2013 or concurrent enrollment. Explores key concepts and strategies of communication specific to public health, including risk communication, the use of mass media for health communication, and evaluation of public health communication effectiveness. (F)
PHCH 3513 Public Health \& Healthcare Systems 3 Credit Hours
Prerequisite: ENGL 1213 or EXPO 1213; PHCH 2013 or concurrent enrollment. Designed to introduce students from multiple disciplines to the fundamental characteristics of health care systems; the organization, financing, and delivery of services in the US health care system; the role of prevention and other non-medical factors in population health outcomes; key management and policy issues in contemporary health systems; and the process of public policy development. (F, Sp)

## PHCH 3613 Determinants of Health

3 Credit Hours
Prerequisite: ENGL 1213 or EXPO 1213; PHCH 2013 or concurrent enrollment. Explores key social determinants of health, including: socioeconomic status, race/ethnicity, neighborhood environments, social relationships, and political economy. Mechanisms through which these factors are hypothesized to influence health, such as stress and access to health resources and constraints, will be discussed, as well as the ways in which these mechanisms can operate across the lifecourse. ( $F$, Sp)

## PHCH 3960 Honors Reading (HONORS)

1-3 Credit Hours
1 to 3 hours. Prerequisite: Admission to Honors Program; May be repeated; maximum credit six hours. Consists of topics designated by the instructor in keeping with the student's major program. The topics will cover materials not usually presented in the regular courses. (F, Sp, Su)

PHCH 3980 Honors Research 1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Provides an opportunity for the gifted Honors candidate to work at a special project in the student's field. (F, Sp, Su)
PHCH 4013 Community Health Capstone 3 Credit Hours
Prerequisite: PHCH 2013, senior standing, and 9 additional hours of PHCH coursework. Integrates knowledge and skills developed in previous coursework to prepare students to become impactful community health practitioners. Students will work in groups to develop, implement, and evaluate a community health project. (Sp) [V].

PHCH 4103 Environmental Health
3 Credit Hours
Prerequisite: Admission to BPH degree program or permission of instructor. The effects of environment on health. Consideration is given to urban water supply and wastewater disposal, air quality control, solid and hazardous wastes, and sanitation. No students may earn credit for both PHCH 4103 and OEH 5013. (Sp)

## PHCH 4106 Cumulative and Experiential Public Health

## Activities

6 Credit Hours
Prerequisite: Admission to BPH program. Provides students with opportunities to integrate, synthesize, and apply knowledge through cumulative and experiential activities. Students will complete a cumulative applied or scholarly experience that may include either (a) an internship with a local-level public health professional and/or agency or (b) a faculty-mentored research project. (F, Sp)

PHCH 4113 Public Health Capstone
3 Credit Hours
Prerequisite: Admission to Bachelors of Public Health Program; senior standing. A specialized project-based culminating course for students accepted to the Bachelor's of Public Health program. Students will use knowledge and skills they have developed in their major to complete a project to address a specific public health issue. (Sp) [V].

PHCH 4960 Directed Readings
1-4 Credit Hours
1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean. May be repeated; maximum credit four hours. Designed for upper-division students who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)

PHCH 4970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: Senior standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)
PHCH 4990 Independent Study 1-3 Credit Hours
1 to 3 hours. Prerequisite: three courses in general area to be studied, permission of instructor and department. May be repeated; maximum credit six hours. Contracted independent study for topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (F, Sp, Su)

## PHIL-Philosophy

PHIL 1013 Introduction to Philosophy 3 Credit Hours
Basic problems of philosophy explored through a consideration of selected philosophers. (F, Sp, Su) [IV-WC] .

PHIL 1103 Critical Reasoning 3 Credit Hours
An informal survey of evaluative principles of reasoning. The application of these principles is emphasized, and common errors and fallacies in everyday, ethical, legal, and scientific reasoning are discussed. This course is not a course in formal symbolic logic or mathematical logic. (F, Sp) [III-SS] .
PHIL 1113 Introduction to Logic
3 Credit Hours
Prerequisite: DMAT 0123 or satisfactory score on Math placement test. An introduction to modern logic and its applications. Emphasis is placed on deductive logic, but may also include some treatment of inductive logic. Various common fallacies and errors in reasoning will also be discussed. (F, Sp, Su) [I-M] .

PHIL 1213 Introduction to Ethics
3 Credit Hours
Basic issues in moral philosophy examined through a consideration of selected philosophers, including a sampling of normative theories as well as an introduction to issues of metaethics. (F, Sp, some Su) [IV-WC] .
PHIL 1223 Introduction to Asian Philosophy
3 Credit Hours
(Crosslisted with IAS 1223) Survey of the major figures and schools of philosophy in Asia. Includes study of Hinduism, Buddhism, Confucianism, and Daoism. (F) [IV-WDC].

## PHIL 1233 Contemporary Moral Issues

3 Credit Hours
Philosophical exploration of major contemporary moral issues such as euthanasia, abortion, death penalty, war and terrorism, poverty and world hunger, animal rights, pornography, marriage, affirmative action, drug legalization, and organ sales. Students will read contrasting views from prominent philosophers, and learn about how moral theories may be invoked in support of positions on those issues. (F, Sp)[IV-WC].

PHIL 1263 Introduction to Ethics in Health Care 3 Credit Hours An overview of important issues in health care ethics, including dilemmas facing providers, patients, researchers, and society at large. The course will introduce facts and concepts drawn from health care practice, and a variety of philosophical approaches used to analyze ethical dilemmas. (F, Sp) [IV-WC].
PHIL 1273 Introduction to Business Ethics
3 Credit Hours
An overview of important issues in business ethics, including the morality of market systems, business-customer relations, employer-employee relations, and firm-shareholder relations. The course will introduce facts and concepts drawn from economic analysis and business practice, as well as a variety of philosophical approaches used to analyze ethical considerations. (F, Sp) [IV-WC].
PHIL 2023 Existentialism, its Sources and Influences 3 Credit Hours The historical background and cultural impact of existentialism in its literary, religious, psychiatric and philosophical expressions. Stresses Kierkegaard, Heidegger and Sartre. Briefly treats Nietzsche, Jaspers, Berdyaev, Maslow, Beckett, etc. (Irreg.)
PHIL 2900 Special Topics
4 Credit Hours
1 to 4 hours. May be repeated with change of topic; maximum credit nine hours. Topics in philosophy not accommodated by the existing curriculum will be taught from time to time (examples: Islamic philosophy, Navajo thought, feminism). (Irreg.)

PHIL 3023 Aesthetics and the Philosophy of Art
3 Credit Hours
Prerequisite: six hours of Philosophy or junior standing. Examines historical and contemporary views about the nature, value, social role and interpretation of artworks in a variety of artistic media. The appreciation of nature and of everyday experience is also discussed. (Irreg.) [IV-WC].
PHIL 3033 Philosophy and Literature
3 Credit Hours
Literature expresses in concrete form what philosophy discusses in abstract terms: views of the world that human beings inhabit; views of the nature of human freedom and rationality; and views of the good human life. Use of literature to illustrate philosophical issues, and philosophy to reveal the unstated assumptions and implications of selected literary works. (Irreg.) [IV-WC] .
PHIL 3233 The Meaning of Life
3 Credit Hours
Prerequisite: Junior Standing. "What is the meaning of life?" In the realm of philosophy, this is often the first question that comes to mind. The meaning of life has been a subject of discussion among philosophers since ancient times. Over the past two decades, there has been been a resurgence of interest, with a new wave of philosophers revisiting this profound question. (F, Sp)

PHIL 3243 Civility
3 Credit Hours
Prerequisite: 6 hours of Philosophy or junior standing. Addresses the moral, social, and political aspects of the virtue of civility. Course readings will range from theoretical works linking civility to broad moral and political concerns to more applied approaches that seek to address how civility practices have altered alongside historical, sociological, and technological changes in society. (Irreg.) [IV-WC].
PHIL 3253 History of Ethics
3 Credit Hours
Prerequisite: six hours of philosophy. A survey of the major figures in the history of moral philosophy with emphasis on their interrelations, influences on each other and effect on contemporary moral philosophy. (Sp) [IV-WC] .
PHIL 3263 Virtue Ethics
3 Credit Hours
Prerequisite: junior standing or six hours of Philosophy. An overview of the history of virtue ethics from the ancient Greeks to the present day, covering the historical zenith of virtue ethics through the Middle Ages, the fall of virtue concepts in the early modern period, and the rebirth of virtue ethics in the later 20th century. Discusses a number of executive, moral, intellectual, and civic virtues and their related vices, and addresses some of the fundamental philosophical questions that arise in the study of virtue ethics. (F, Sp) [IV-WC].
PHIL 3273 Ethics and Business
3 Credit Hours
Prerequisite: Six hours of philosophy or junior standing. A study of how ethics illuminates business activities. Topics include: the philosophical bases of capitalism; the legitimacy of the profit motive; virtue and the marketplace; corporate responsibility; government regulation; the marketplace and the environment; the ethics of advertising; employee privacy; and the challenges posed by the developing information age. (Irreg.) [IV-WC] .

PHIL 3293 Environmental Ethics
3 Credit Hours
Prerequisite: junior standing or permission of instructor. Surveys the field of environmental ethics. Various principles philosophers use to assign value to the natural world and assign obligations toward nature to human beings are examined by students in order to articulate and defend their own reasoned points of view on environmental questions. (Irreg.) [IV-WC].
PHIL 3313 History of Ancient Philosophy 3 Credit Hours Prerequisite: six hours of philosophy. A survey of Greek and Roman philosophy with concentration on selected readings in classical philosophy from Thales to St. Augustine. (F) [IV-WC] .
PHIL 3333 History of Modern Philosophy
3 Credit Hours
Prerequisite: six hours of philosophy. A survey of modern European philosophy with concentration on selected readings from the Renaissance through Kant. (Sp) [IV-WC] .

PHIL 3343 Chinese Philosophy
3 Credit Hours
(Crosslisted with IAS 3343) Prerequisite: Six hours of philosophy or junior standing. Survey and analysis of the major texts and schools of philosophy in China, from the ancient world to the contemporary era. (Irreg.) [IV-WDC].
PHIL 3393 History of Analytic Philosophy
3 Credit Hours
Prerequisite: six hours of philosophy or junior standing; open to nonmajors. Explores some of the main methods and topics of interest in the analytic philosophical tradition. Examines the views of influential philosophers, starting around the beginning of the twentieth century, on questions such as: What is the world made up of? What is the nature of time? What is knowledge, and do we have any? (Irreg.) [IV-WC].

PHIL 3403 Jewish and Islamic Philosophy 3 Credit Hours
Prerequisite: 6 hours of philosophy. This course covers the development of classical Jewish and Islamic philosophy from roughly 800 to 1200 CE and then examines the development of these traditions in light of issues of contemporary relevance. ( $\mathrm{F}, \mathrm{Sp}$ ) [IV-WDC].
PHIL 3423 Ancient and Medieval Religious Philosophy 3 Credit Hours Prerequisite: six hours of philosophy or junior standing. Covers the history of religious philosophy in the West from ancient Greece until the 16th century. Major figures studied include Plato, Aristotle, the Stoics, Plotinus, Augustine, Boethius, Anselm, Maimonides, Aquinas, Averroes, Scotus, Ockham, and the Reformers. (Irreg.) [IV-WC] .
PHIL 3433 Modern Philosophy of Religion 3 Credit Hours Prerequisite: six hours of philosophy or junior standing. Covers the history of modern religious philosophy in the West from the 17th to the mid-20th centuries. Major figures studied include Descartes, Pascal, Leibniz, Locke, Hume, Kant, Kierkkegaard, Nietzsche, Clifford, James, Freud, and Wittgenstein. (Irreg.) [IV-WC] .
PHIL 3440 Mentored Research Experience 3 Credit Hours 0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)
PHIL 3443 Contemporary Issues in Philosophy of Religion 3 Credit Hours
Prerequisite: six hours of philosophy or junior standing. Issues currently debated in philosophy of religion. Topics include the rationality of religious belief, the problem of evil, the dilemma of divine foreknowledge and human free will, life after death, the relation between science and religion, and religion and public policy. (Irreg.) [IV-WC].
PHIL 3503 Self and Identity
3 Credit Hours
Prerequisite: 1013 or permission of instructor. Introduction to a number of philosophical topics about the self including personal identity, immortality, unity of self-consciousness, self-knowledge, and nature of self. (Irreg.) [IV-WC] .
PHIL 3533 Language, Communication, and Knowledge 3 Credit Hours Prerequisite: six hours of philosophy or junior standing. The nature of language and communication as studied by linguists and philosophers. Topics will include the nature of meanings; the relationship between syntax, semantics, and pragmatics; and the transmission of knowledge through testimony. Combines philosophical readings with readings from the empirical sciences. (Irreg.) [IV-WC] .
PHIL 3613 Philosophy of Biology
3 Credit Hours
Prerequisite: six hours of philosophy or junior standing. Philosophical issues raised by evolutionary theory. Topics include creationism versus evolutionary theory; what makes a hypothesis scientific; can evolutionary theory explain psychological or cultural phenomena? (Irreg.) [IV-WC] .
PHIL 3713 History of Social and Political Philosophy 3 Credit Hours Prerequisite: six hours of philosophy or junior standing. A survey of the views of major philosophers from Plato to the nineteenth century on the nature of man's relation to society and to the state in the context of their wider philosophical (logical, epistemological, metaphysical and ethical) doctrines. Plato, Aristotle, Aquinas, Hobbes, Locke, Rousseau, Hegel and Marx are the chief figures covered, though others will be considered as time permits. (Irreg.) [IV-WC].

PHIL 3733 Religion in Political Theory
3 Credit Hours
Prerequisite: six hours of Philosophy or junior standing. Survey of views on religion in political life held by important political theorists in the modern western tradition and consider how theoretical positions on the role of religion in political life are reflected in political institutions, such as the first amendment establishment clause. (Irreg.) [IV-WC] .

PHIL 3743 Feminist Philosophy

## 3 Credit Hours

Prerequisite: Six hours of philosophy or junior standing. A study of the major schools of feminist philosophy, as well as issues of perennial and contemporary interest in feminist philosophy. (Irreg.) [IV-WC] .
PHIL 3753 Philosophy of Race
3 Credit Hours
Prerequisite: junior standing or six hours of philosophy. Addresses philosophical questions about race. Social justice will be an important focus of the course. Additional specific issues related to race and racism will also be addressed; hopefully, a better understanding of the philosophical issues and a commitment to the eradication of racism and racial injustice will be reached. (Irreg.) [IV-WC].
PHIL 3763 Law and Society
3 Credit Hours
Prerequisite: six hours of philosophy or junior standing. An introduction to the history and structure of the main controversies in modern law, with special attention to the United States legal system. Covered topics include natural law, legal realism, the law and economics movement, theories of responsibility and liability, feminist legal theory, and theories of text interpretation. (Irreg.) [IV-WC].
PHIL 3811 Philosophy Writing Workshop
1 Credit Hour
Prerequisite: co-requisite with 3813,3833 or 3853 . Intensive instruction on how to write papers in philosophy. Students will use the workshop to help them write the term paper for a designated target class, in which they must be concurrently enrolled. ( $F, S p$ )

PHIL 3813 History of Ancient Philosophy for Majors 3 Credit Hours Prerequisite: six hours of philosophy and Philosophy or Ethics and Religion major. A survey of Greek and Roman philosophy with concentration on selected readings in classical philosophy from Thales to St. Augustine. For majors in Philosophy or Ethics and Religion. No student may earn credit for both 3313 and 3813. (F, Sp)
PHIL 3833 History of Modern Philosophy for Majors 3 Credit Hours
Prerequisite: six hours of philosophy and Philosophy or Ethics and Religion major. A survey of modern European philosophy with concentration on selected readings from the Renaissance through Kant. For majors in Philosophy or Ethics and Religion. No student may earn credit for both 3333 and 3833. (F, Sp)
PHIL 3843 Chinese Philosophy for Majors
3 Credit Hours
Prerequisite: six hours of Philosophy and declared Philosophy major.
Survey and analysis of the major texts and schools of philosophy in
China, from the ancient world to the contemporary era. This is the majorsonly version of PHIL 3343, Chinese Philosophy; it meets concurrently with that course, but has intensified writing requirements. It can serve as a "target class" for PHIL 3811, the Writing Workshop in Philosophy. (Irreg.)
PHIL 3853 History of Ethics for Majors
3 Credit Hours
Prerequisite: six hours of philosophy and Philosophy or Ethics and Religion major. A survey of the major figures in the history of moral philosophy with emphasis on their interrelations, influences on each other and effect on contemporary moral philosophy. For majors in Philosophy or Ethics and Religion. No student may earn credit for both 3253 and 3853. (Sp)

PHIL 3900 Special Topics
1-4 Credit Hours
1 to 4 hours. May be repeated with change of topic, maximum credit nine hours. Topics in philosophy not accommodated by the existing curriculum will be taught from time to time. (Irreg.)
PHIL 3960 Honors Reading 1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Will consist of topics designated by the instructor in keeping with the student's major program. Topics will cover materials not usually presented in the regular courses. (F, Sp, Su)
PHIL 3970 Honors Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. The projects covered will vary. The content will deal with concepts not usually presented in regular coursework. (Irreg.)
PHIL 3980 Honors Research 1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Will provide an opportunity for the gifted Honors candidate to work at a special project in the student's field. (F, Sp, Su)
PHIL 3990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: one course in general area to be studied; permission of instructor and department. May be repeated; maximum credit six hours. Contracted independent study for topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (F, Sp, Su)

PHIL 4023 Survey of Analytic Aesthetics and Philosophy of Art

3 Credit Hours
(Slashlisted with PHIL 5023) Prerequisite: eight hours of philosophy or permission of department. Survey of major philosophical topics in aesthetics and the philosophy of art. Topics include the ontology of art, interpretation, the value of artworks, the relationship between aesthetic and moral value, and aesthetic experience in everyday life. No student may earn credit for both 4023 and 5023. (Irreg.)
PHIL G4133 Symbolic Logic I 3 Credit Hours An introduction to the symbolism and methods of modern deductive logic. (F)
PHIL 4293 Ethical Theory
3 Credit Hours
(Slashlisted with 5293) Prerequisite: eight hours of philosophy including an ethics course or permission. A survey of theories of the nature and foundations of morality. Topics may include the analysis of moral language, the justification of moral beliefs, and the status of ethical theories. No student may earn credit for both 4293 and 5293. (Sp)

## PHIL 4343 Early Chinese Philosophy <br> 3 Credit Hours

(Slashlisted with 5343, Crosslisted with IAS 4343) Prerequisite: eight hours of Philosophy or permission. Survey of pre-Qin Chinese philosophy, including the major texts and figures of Confucianism, Daoism, and other notable schools. No student may earn credit for both 4343 and 5343. (Irreg.)

## PHIL 4473 Philosophy of Religion

3 Credit Hours
(Slashlisted with 5473) Prerequisite: eight hours of philosophy or permission. Survey of topics in the philosophy of religion. Topics covered include the concept of God, the problem of religious knowledge, the nature of religious language, the problem of evil, and particular thinkers. No student may earn credit for both 4473 and 5473. (Irreg.)

PHIL 4513 Metaphysics
3 Credit Hours
(Slashlisted with 5513) Prerequisite: eight hours of philosophy or permission. Survey of major philosophical views about the nature of reality. Topics covered may included the mind-body problem, causation, personal identity, free will and determinism, universals, and the existence of God. No student may earn credit for both 4513 and 5513. (Sp)

## PHIL 4523 Epistemology

3 Credit Hours
(Slashlisted with 5523) Prerequisite: eight hours of philosophy or permission. Survey on the evaluation of human reasoning and the nature and scope of human knowledge. Topics include skepticism, the nature of justification, the ethics of belief, and the problem of induction. No student may earn credit for both 4523 and 5523. (F)

## PHIL 4533 Philosophy of Language

3 Credit Hours
(Slashlisted with PHIL 5533) Prerequisite: eight hours of philosophy
or permission. Survey of major philosophical views on the nature and workings of language. Topics covered include: meaning and truth, sense and reference, speech acts, and communication. No student may earn credit for both 4533 and 5533. (Irreg.)
PHIL 4543 Philosophy of Mind
3 Credit Hours
(Slashlisted with PHIL 5543) Prerequisite: eight hours of philosophy or permission. Survey of major philosophical views on the nature of the mind. Topics covered may include: the nature and unity of consciousness, the mind-body problem, personal identity, the emotions, actions and intentions, self-knowledge, and other minds. No student may earn credit for both 4543 and 5543. (Irreg.)
PHIL 4623 Philosophy of The Social Sciences
3 Credit Hours
(Slashlisted with 5623) Prerequisite: nine hours of upper-division social sciences or permission. Survey of issues in the philosophy of the social sciences. Topics covered will include explanation in the social sciences, theory construction, theories and observation, evidence and theory of confirmation, theoretical constructs and operationism, verstehen and objectivity. No student may earn credit for both 4623 and 5623. (Irreg.)

## PHIL 4713 Survey of Social and Political Philosophy 3 Credit Hours

 (Slashlisted with 5713) Prerequisite: Eight hours of philosophy or permission. Survey of important theories in social and political philosophy. Beginning with ancient theories (Plato and Aristotle), to modern social contract theories and the foundations of liberalism (Hobbes, Locke, Rousseau, and Mill), and concludes with the debate between liberals and communitarians (Rawls and his critics). No student may earn credit for both 4713 and 5713. (Irreg.)PHIL 4893 Senior Capstone in Philosophy
3 Credit Hours
Prerequisite: graduating majors. Covering the major areas of philosophy taught in the undergraduate major, coordinated with the departmental objectives for undergraduate majors and for the purpose of assessing the level of learning among graduating seniors. (Sp) [V] .
PHIL 4960 Directed Readings
1-4 Credit Hours
1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean. May be repeated; maximum credit four hours. Designed for upper-division students who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)
PHIL 4970 Special Topics/Seminar
1-3 Credit Hours 1 to 3 hours. Prerequisite: senior standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

PHIL 4990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: three courses in general area to be studied; permission of instructor and department. May be repeated; maximum credit six hours. Contracted independent study for topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (F, Sp, Su)
PHIL 5023 Survey of Analytic Aesthetics and Philosophy of Art

3 Credit Hours
(Slashlisted with PHIL 4023) Prerequisite: graduate standing. Survey of major philosophical topics in aesthetics and the philosophy of art. Topics include the ontology of art, interpretation, the value of artworks, the relationship between aesthetic and moral value, and aesthetic experience in everyday life. No student may earn credit for both 4023 and 5023. (Irreg.)
PHIL 5143 Symbolic Logic II
3 Credit Hours
Prerequisite: graduate standing. Further study of first order predicate logic: identity, axiomatic development. Various metatheorems; soundness, consistency and completeness. (Alt. Sp)
PHIL 5293 Ethical Theory 3 Credit Hours
(Slashlisted with 4293) Prerequisite: graduate standing. A survey of theories of the nature and foundations of morality. Topics may include the analysis of moral language, the justification of moral beliefs, and the status of ethical theories. No student may earn credit for both 4293 and 5293. (Sp)

PHIL 5313 Studies in Ancient Philosophy
3 Credit Hours
Prerequisite: 3313 . May be repeated with change of content; maximum credit 18 hours. Survey of philosophical writings of a major ancient Greek philosopher, typically Plato and Aristotle. Works covering different philosophical topics and written at different stages in the philosopher's development will be studied. Selection of figure will alternate each year the course is offered. (Sp)
PHIL 5333 Studies in Modern Philosophy
3 Credit Hours
May be repeated with change of content; maximum credit 18 hours. Survey of philosophical writings of major philosophers. Figures covered will alternate each year between the Rationalists (Descartes, Leibniz, and Spinoza) and the Empiricists (Locke, Berkeley, and Hume), though other combinations (e.g., Locke and Leibniz) may be offered. (F)
PHIL 5343 Early Chinese Philosophy 3 Credit Hours
(Slashlisted with 4343) Prerequisite: eight hours of Philosophy or permission. Survey of pre-Qin Chinese philosophy, including the major texts and figures of Confucianism, Daoism, and other notable schools. No student may earn credit for both 4343 and 5343. (Irreg.)

## PHIL 5473 Philosophy of Religion

3 Credit Hours
(Slashlisted with 4473) Prerequisite: graduate standing. Survey of topics in the philosophy of religion. Topics covered include the concept of God, the problem of religious knowledge, the nature of religious language, the problem of evil, and particular thinkers. No student may earn credit for both 4473 and 5473. (Irreg.)
PHIL 5513 Metaphysics
3 Credit Hours
(Slashlisted with 4513) Prerequisite: graduate standing. Survey of major philosophical views about the nature of reality. Topics covered may included the mind-body problem, causation, personal identity, free will and determinism, universals, and the existence of God. No student may earn credit for both 4513 and 5513. (Sp)

PHIL 5523 Epistemology
3 Credit Hours
(Slashlisted with 4523) Prerequisite: graduate standing. Survey on the evaluation of human reasoning and the nature and scope of human knowledge. Topics include skepticism, the nature of justification, the ethics of belief, and the problem of induction. No student may earn credit for both 4523 and 5523. (F)

PHIL 5533 Philosophy of Language

## 3 Credit Hours

(Slashlisted with PHIL 4533) Prerequisite: graduate standing. Survey of major philosophical views on the nature and workings of language. Topics covered include: meaning and truth, sense and reference, speech acts, and communication. No student may earn credit for both 4533 and 5533. (Irreg.)

PHIL 5543 Philosophy of Mind
3 Credit Hours
(Slashlisted with PHIL 4543) Prerequisite: graduate standing. Survey of major philosophical views on the nature of the mind. Topics covered may include the nature and unity of consciousness, the mind-body problem, personal identity, the emotions, actions and intentions, self-knowledge, and other minds. No student may earn credit for both 4543 and 5543. (Irreg.)
PHIL 5623 Philosophy of The Social Sciences
3 Credit Hours
(Slashlisted with 4623) Prerequisite: graduate standing. Survey of issues in the philosophy of the social sciences. Topics covered will include explanation in the social sciences, theory construction, theories and observation, evidence and theory of confirmation, theoretical constructs and operationism, verstehen and objectivity. No student may earn credit for both 4623 and 5623. (Irreg.)

PHIL 5713 Survey of Social and Political Philosophy 3 Credit Hours (Slashlisted with 4713) Prerequisite: Eight hours of philosophy or permission. Survey of important theories in social and political philosophy. Beginning with ancient theories (Plato and Aristotle), to modern social contract theories and the foundations of liberalism (Hobbes, Locke, Rousseau, and Mill), and concludes with the debate between liberals and communitarians (Rawls and his critics). No student may earn credit for both 4713 and 5713. (Irreg.)
PHIL 5813 Philosophy Proseminar
3 Credit Hours
Prerequisite: Graduate standing and Majors only. The Philosophy Proseminar is designed to: (i) help philosophy graduate students develop the skills needed to succeed at their academic work in the graduate program; (ii) prepare them to make good progress through their respective programs, either the MA or the PhD; and (iii) prepare them for success after graduation. (Sp)
PHIL 5823 Philosophy Graduate Writing Seminar 3 Credit Hours Prerequisite: Graduate standing and Majors only. The Writing Seminar will immerse students in the professional craft of philosophical writing. We will examine exemplars of good philosophical writing, analyze philosophical writing techniques and structures, and identify common strengths and weaknesses in philosophical work. The course will be delivered in a cooperative fashion, with students gaining experience through presentations, giving peer feedback, intensive editing and revision. (F)
PHIL 5960 Directed Readings 1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing and permission of department. May be repeated; maximum credit twelve hours. Directed readings and/or literature reviews under the direction of a faculty member. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

PHIL 5970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing. May be repeated with change of topic; maximum credit nine hours. Topics in philosophy not accommodated by the existing curriculum. (Irreg.)
PHIL 5980 Research for Master's Thesis
2-9 Credit Hours
Variable enrollment, two to nine hours; maximum credit applicable toward degree, four hours. (F, Sp, Su)
PHIL 5990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: permission of instructor and adviser. May be repeated with change of subject matter; maximum undergraduate credit eight hours; maximum graduate credit 12 hours. (F, Sp, Su)

PHIL 6023 Seminar in Aesthetics and Philosophy of Art 3 Credit Hours Prerequisite: graduate standing. May be repeated with change of content; maximum credit 12 hours. Intensive seminar on a topic in aesthetics and the philosophy of art. (Irreg.)
PHIL 6203 Seminar in Ethics
3 Credit Hours
May be repeated with change of subject matter; maximum credit 12 hours. (F, Sp)
PHIL 6383 Seminar in Chinese Philosophy 3 Credit Hours Prerequisite; graduate standing. May be repeated with change of content; maximum credit 12 hours. Intensive seminar on a topic in Chinese philosophy. (Irreg.)
PHIL 6393 Seminar in the History of Philosophy 3 Credit Hours May be repeated with change of subject matter; maximum credit 12 hours. (Irreg.)

PHIL 6473 Seminar In Philosophy Of Religion 3 Credit Hours
Seminar In Philosophy Of Religion. Prerequisite: 5473 Or Permission. May Be Repeated With Change Of Content; Maximum Credit 12 Hours. Intensive Seminar On A Topic In The Philosophy Of Religion. (Irreg.)

PHIL 6513 Seminar in Metaphysics 3 Credit Hours
Prerequisite: 5513 or permission. May be repeated with change of content; maximum credit 12 hours. Intensive seminar on a topic in metaphysics. (Irreg.)
PHIL 6523 Seminar in Epistemology 3 Credit Hours
Prerequisite: 5523 or permission. May be repeated with change of content; maximum credit 12 hours. Intensive seminar on a topic in epistemology. (Irreg.)
PHIL 6593 Seminar in Contemporary Philosophy 3 Credit Hours May be repeated with change of subject matter; maximum credit 12 hours. (Irreg.)
PHIL 6793 Seminar in Social and Political Philosophy 3 Credit Hours Prerequisite: 5763 or permission. May be repeated with change of content; maximum credit 12 hours. Intensive seminar on a topic in the philosophy of law. (Irreg.)

## PHIL 6960 Directed Readings

1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit six hours. Directed readings and/or literature review under the direction of a faculty member. (Irreg.)
PHIL 6970 Special Topics/Seminar 1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit 12 hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or research and field projects. (Irreg.)

PHIL 6980 Research for Doctoral Dissertation 2-16 Credit Hours
2 to 16 hours. Prerequisite: Graduate standing and permission of instructor; may be repeated. Directed research culminating in the completion of the doctoral dissertation. (F, Sp, Su)
PHIL 6990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)

## PHYS-Physics

PHYS 1114 General Physics for Non-Science Majors 4 Credit Hours Prerequisite: high school algebra II. Not open to students who intend to do major work in mathematics or physical science. Concepts of force, energy, matter, atomic physics, electricity, light, presented as a part of a liberal education. A student may not receive credit for this course and PHYS 1205, PHYS 2414 or PHYS 2514. (F, Sp, Su) [II-NS].

PHYS 1205 Introductory Physics I for Physics Majors 5 Credit Hours Prerequisite: enrollment in Mathematics 1823 or 1914 or permission of instructor. To be taken by physics, astronomy and engineering physics majors during the first semester of their freshman year. Kinematics, dynamics, work and energy, many-particle systems, rigid body rotation, simple harmonic motion. Laboratory is an integral part of the course. Laboratory (F) [II-NSL].
PHYS 1215 Introductory Physics II for Physics Majors 5 Credit Hours Prerequisite: 1205 or permission of instructor. Electricity and magnetism: static fields and forces, circuits, electromagnetic induction. Thermodynamics: the First and Second Laws, temperature, heat, work and entropy. Laboratory is an integral part of the course. Laboratory (Sp)
PHYS 1311 General Physics Lab I 1 Credit Hour
Prerequisite: Corequisite: 2414 or 2514. Experiments in basic law of mechanics and thermodynamics. (F, Sp, Su) [II-NSL] .
PHYS 1321 General Physics Lab II 1 Credit Hour Prerequisite: Corequisite: 2424 or 2524. Experiments in basic laws of electricity, magnetism, and optics. (F, Sp, Su) [II-NSL] .
PHYS 1453 Musical Acoustics
3 Credit Hours
An introduction to the science of sound and its propagation with special emphasis on the production of sound by musical instruments and the voice, psychological aspects of sound perception, and room acoustics. Topics are explored through lectures, demonstrations, and discussions. No previous musical experience or proficiency is required. Not for major credit. (F) [II-NS] .
PHYS 2203 Introductory Physics III: Modern Physics 3 Credit Hours Prerequisite: 1215 or 2524 (or concurrent enrollment), or permission of instructor. An introduction to and overview of key concepts in contemporary physics, with emphasis on the contrast between classical and modern ways of thinking about the physical universe. Includes an introduction to selected major subject areas, which might include light and optics, relativity, atoms and molecules, the solid state, nuclei, elementary particles, fundamental interactions, cosmology and/or chaos. Students will also explore selected topics in current physics research. (F)

PHYS 2222 Computational Physics
2 Credit Hours
Prerequisite: MATH 2433 and PHYS 2203. Students will learn basic skills in programming in the context of solving physics problems. It is assumed that the student has no computer programming experience, and only modest understanding of physics. Through a variety of projects, the students are to obtain a deeper understanding of physical principles by implementing computer simulations. (Sp)
PHYS 2303 Electronics 3 Credit Hours
Prerequisite: 1215 or 2524 (or concurrent enrollment), or permission of instructor. An introduction to the characteristics of semiconductor electronic components and their use in the design and operation of practical analog and digital electronic circuits. The emphasis will be on gaining a working knowledge of basic circuits and preparation for understanding and building electronic circuits encountered by experimental research physicists. (F)

## PHYS 2414 General Physics for Life Science Oriented

## Majors

## 4 Credit Hours

Prerequisite: Mathematics 1523 or 1743. Kinematics and dynamics of particles and rigid bodies, gravitation, equilibrium, momentum, energy, static and flowing fluids, kinetic theory, heat and thermodynamics, vibrations, waves and sound. A student may not receive credit for this course and PHYS 1205 or PHYS 2514. (F, Sp, Su) [II-NS].

## PHYS 2424 General Physics for Life Science Oriented

Majors
Prerequisite: PHYS 2414 or PHYS 2514. Electric charge, electric
field, electric potential, energy, DC and AC currents, magnetic fields, electromagnetic induction, geometrical optics, wave nature of light, optical instruments, early quantum theory, models of the atom, the nucleus, radioactivity, nuclear reactions and nuclear energy. A student may not receive credit for this course and PHYS 1215 or PHYS 2524. (F, Sp, Su)

## PHYS 2514 General Physics for Engineering and Science

Majors
4 Credit Hours
Prerequisite: MATH 1823 or MATH 1914 with grade of C or better.
Vectors, kinematics and dynamics of particles, work and energy systems of particles, rotational kinematics and dynamics, oscillations, gravitation, fluid mechanics, waves. A student may not receive credit for this course and PHYS 1205. (F, Sp, Su) [II-NS].

## PHYS 2524 General Physics for Engineering and Science

Majors
4 Credit Hours
Prerequisite: PHYS 2514 and MATH 2423 or MATH 2924 with grade of
C or better. Temperature, heat, thermodynamics, electricity, magnetism, optics. A student may not receive credit for this course and PHYS 1215. (F, Sp, Su)

## PHYS 2970 Selected Topics in Physics

1-3 Credit Hours
1 to 3 hours. Prerequisite: sophomore standing or permission of instructor. May be repeated; maximum credit six hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)
PHYS 3043 Physical Mechanics I
3 Credit Hours
Prerequisite: 1205 or 2514, and Mathematics 3113 or 3413 (or concurrent enrollment); or permission of instructor. Differential equations based continuum mechanics: Newtonian particle mechanics, driven and damped oscillations, vibrations and waves, and their application to other linear systems, non-linear oscillations, introduction to Lagrange's equations. (Sp)

PHYS 3053 Physical Mechanics II
3 Credit Hours
Prerequisite: 3043 or permission of instructor. Lagrangian and Hamiltonian dynamics. Non-inertial reference frames. Rigid body motion. Central forces and collisions. Special relativity. (F)
PHYS 3183 Electricity and Magnetism I
3 Credit Hours
Prerequisite: 2203, Mathematics 3413 or concurrent enrollment; or permission of instructor. Electrostatics, dielectrics, continuity conditions, magnetic forces and fields, magnetic induction, magnetization, Maxwell's equations. (F)
PHYS 3223 Modern Physics for Engineers 3 Credit Hours
Prerequisite: Mathematics 3113 or equivalent. Relativity, atomic structure, nuclear theory, wave mechanics, statistical physics, solid state physics. (F)
PHYS 3302 Advanced Lab I
2 Credit Hours
Prerequisite: 2303 or permission of instructor. Junior-level experiments in physics. (F, Sp)
PHYS 3312 Advanced Lab II
2 Credit Hours
Prerequisite: 3302 or permission of instructor. Junior-level experiments in physics. (F, Sp)
PHYS 3440 Mentored Research Experience
3 Credit Hours
0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)

PHYS 3803 Introduction to Quantum Mechanics I 3 Credit Hours Prerequisite: PHYS 3043 and MATH 3413 or permission of instructor. Fundamental ideas of quantum physics. Postulates of quantum theory, wave functions, operators, the Schrodinger equation, one-dimensional systems. Mathematical tools of quantum mechanics. Theory of measurement. Stationary and nonstationary states. (Sp)
PHYS 3960 Honors Reading
1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Will consist of topics designated by the instructor in keeping with the student's major program. Covers materials not usually presented in the regular courses. (F, Sp, Su)
PHYS 3970 Honors Seminar 1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. The projects covered will vary. Deals with concepts not usually presented in regular coursework. (Su)
PHYS 3980 Honors Research 1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Provides an opportunity for the gifted Honors candidate to work at a special project in the student's field. (F, Sp, Su)

PHYS 3990 Independent Study

## 1-3 Credit Hours

1 to 3 hours. Prerequisite: one course in general area to be studied; permission of instructor and department. May be repeated; maximum credit six hours. Contracted independent study for topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (F, Sp, Su)

PHYS G4153 Statistical Physics and Thermodynamics 3 Credit Hours
Prerequisite: 3803. Statistical properties of physical systems. Entropy and temperature, the Boltzmann distribution, Fermi-Dirac and BoseEinstein gases. Thermodynamic functions. Statistical interpretation of thermodynamics. (F)

## PHYS G4183 Electricity and Magnetism II

3 Credit Hours
Prerequisite: 3183. Maxwell's equations, electromagnetic wave equations, propagation of electromagnetic waves, reflection and refraction, radiation. (Sp)

## PHYS 4213 Nuclear and Particle Physics <br> 3 Credit Hours

(Slashlisted with 5213) Prerequisite: 3803. Basic nuclear structure, nuclear models, radioactivity, nuclear reactions. Particle interactions and families, quark model, weak decays of quarks and leptons. No student may earn credit for both 4213 and 5213. (F)

## PHYS 4223 Optics

3 Credit Hours
(Slashlisted with PHYS 5223) Prerequisite: Junior standing. Geometrical optics; optical systems; optical aberrations; electromagnetic optics; diffraction theory; Fourier optics; interference; optical coherence and statistical properties of light; advanced topics such as, e.g., lasers and fiber optics. No student may earn credit for both 4223 and 5223. (Irreg.)

## PHYS 4243 Solid State Physics

3 Credit Hours
(Slashlisted with 5243) Prerequisite: 3803. Crystal structure, electrons in simple metals, electron band theory, semiconductors, superconductivity, phonons. No student may earn credit for both 4243 and 5243. (Sp)
PHYS 4300 Senior Research Project
1-3 Credit Hours
1 to 3 hours. Prerequisite: senior standing in major and permission of instructor. May be repeated once. Research project, experimental or theoretical, to be arranged with individual faculty, leading to a senior thesis. Group seminars to discuss projects and other topics of current interest in physics and astronomy. Total of four hours required for general education capstone. ( $\mathrm{F}, \mathrm{Sp}$ ) [V].

## PHYS 4310 Senior Research Project I

1-3 Credit Hours
1 to 3 hours. Prerequisite: Senior standing or permission of instructor. Research project, experimental or theoretical, to be arranged with individual faculty, leading to a senior thesis. Group seminars to discuss projects and other topics of current interest in physics and astronomy.
Total of four hours between PHYS 4310 and PHYS 4320 are required. (F, $\mathrm{Sp})$ [V].

## PHYS 4320 Senior Research Project II

1-3 Credit Hours
1 to 3 hours. Prerequisite: PHYS 4310. A continuation of the research project, experimental or theoretical, arranged with individual faculty, producing a senior thesis. Group seminars to discuss projects and other topics of current interest in physics and astronomy. Total of four hours between PHYS 4310 and PHYS 4320 are required. ( $\mathrm{F}, \mathrm{Sp}$ ) [V].
PHYS G4803 Introduction to Quantum Mechanics II 3 Credit Hours Prerequisite: 3803 or permission of instructor. Quantum mechanics of three-dimensional systems. Angular momentum. Approximation methods: perturbation theory, variational methods. Time-dependent perturbations: transition rates, selection rules. Interaction of radiation with matter. Applications. Quantum mechanics of atoms and molecules. (F)

## PHYS 4813 Atomic Physics

3 Credit Hours
(Slashlisted with PHYS 5813) Prerequisite: PHYS 4803. Hydrogen atom: fine structure, hyperfine structure, and external field effects; helium and many-electron atoms; two-level atom: rotating wave approximation, Rabi oscillation, and Bloch sphere; atom interferometry; broadening mechanisms; saturation spectroscopy; photon echoes. No student may earn credit for both 4813 and 5813. (Sp)

PHYS 4960 Directed Readings
1-4 Credit Hours
1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean. May be repeated; maximum credit four hours. Designed for upper-division students who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)
PHYS 4970 Seminar-Selected Topics in Physics 1-3 Credit Hours 1 to 3 hours. Prerequisite: permission of instructor. May be repeated with change of subject; maximum credit six hours. (Irreg.)
PHYS 4990 Independent Study 1-3 Credit Hours
1 to 3 hours. Prerequisite: three courses in general area to be studied, permission of instructor and department. May be repeated; maximum credit six hours. Contracted independent study for topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (F, Sp, Su)
PHYS 5000 Introduction to Graduate Studies in Physics 0 Credit Hours Prerequisite: Graduate standing. The course is an introduction to research in general as well as specific research done within the department. It will familiarize students with departmental procedures, improve their teaching of Physics, and convey the expectations and demands of a career in Physics or Astronomy. (F)
PHYS 5013 Mathematical Methods in Physics
3 Credit Hours
Prerequisite: graduate standing. Orthogonal transformations and tensor analysis; partial differential equations and special functions; Green's functions; perturbation theory; calculus of variations; theory of complex variables; integral definition of special functions. (F)
PHYS 5153 Classical Mechanics
3 Credit Hours
Prerequisite: PHYS 3053 or equivalent. Hamilton's principle, Lagrange's equations, mechanics of particles and rigid bodies, Hamilton's equations, canonical transformations, Poisson brackets, action-angle variables. (F)
PHYS 5163 Statistical Mechanics
3 Credit Hours
Prerequisite: PHYS 4153 or equivalent. Classical and quantum statistical mechanics, fluctuations, thermodynamics, ideal gases, phase equilibrium and transitions, Bose-Einstein and Fermi-Dirac statistics, blackbody radiation, Einstein-Debye model, electrons in metals, critical exponents, spin models. (Sp)
PHYS 5213 Nuclear and Particle Physics 3 Credit Hours
(Slashlisted with 4213) Prerequisite: 4803; graduate standing. Basic nuclear structure, nuclear models, radioactivity, nuclear reactions. Particle interactions and families, quark model, weak decays of quarks and leptons. No student may earn credit for both 4213 and 5213. (F)

## PHYS 5223 Optics

3 Credit Hours
(Slashlisted with PHYS 4223) Prerequisite: Graduate standing.
Geometrical optics; optical systems; optical aberrations; electromagnetic optics; diffraction theory; Fourier optics; interference; optical coherence and statistical properties of light; advanced topics such as, e.g., lasers and fiber optics. No student may earn credit for both 4223 and 5223. (Irreg.)
PHYS 5243 Solid State Physics 3 Credit Hours
(Slashlisted with 4243) Prerequisite: 4803; graduate standing.
Crystal structure, electrons in simple metals, electron band theory, semiconductors, superconductivity, phonons. No student may earn credit for both 4243 and 5243. (Sp)

PHYS 5293 Electronic, Optical and Magnetic Properties of

## Materials

3 Credit Hours
Prerequisite: Graduate standing and permission of instructor. This course surveys the electronic, optical and magnetic properties of materials and how these properties can be designed for specific applications. Topics include: forces, energies and timescales in condensed matter, electrons in crystalline semiconductors, electromagnetic waves in matter, optical and transport properties of polymers and small molecules, origins of magnetization in materials, structural and magnetic order/disorder phase transitions. (Irreg.)

PHYS 5393 Quantum Mechanics I
3 Credit Hours
Prerequisite: PHYS 4803 or equivalent. Topics in nonrelativistic quantum mechanics including the Heisenberg and Schrodinger pictures, Dirac formalism, angular momentum, bound states of spherically symmetric potentials, spin and angular momentum coupling, density matrix, 1d potential scattering. (Sp)

PHYS 5403 Quantum Mechanics II
3 Credit Hours
Prerequisite: PHYS 5393. Time-independent perturbation theory, timedependent perturbation theory, electromagnetic interactions, potential scattering, symmetry and statistics, multiparticle systems, relativistic quantum mechanics including Klein-Gordon and Dirac equation. (F)
PHYS 5573 Electrodynamics I
3 Credit Hours
Prerequisite: PHYS 4183 or equivalent. Electrostatics; Poisson equation; solution via Green's functions; ponderable media; magnetism and Ampere's law; Faraday's law; Maxwell equations, solution via potentials; gauge fixing; advanced and retarded Green's functions; causality. (Sp)

## PHYS 5583 Electrodynamics II

3 Credit Hours
Prerequisite: PHYS 5573. Electromagnetic waves and radiation; scattering and diffraction; special relativity and relativistic electrodynamics; radiation by moving charges. (F)

PHYS 5813 Atomic Physics
3 Credit Hours
(Slashlisted with PHYS 4813) Prerequisite: Graduate standing and PHYS 4803. Hydrogen atom: fine structure, hyperfine structure, and external field effects; helium and many-electron atoms; two-level atom: rotating wave approximation, Rabi oscillation, and Bloch sphere; atom interferometry; broadening mechanisms; saturation spectroscopy; photon echoes. No student may earn credit for both 4813 and 5813. (Sp)
PHYS 5910 Problems in Natural Science 1-2 Credit Hours
1 to 2 hours. Prerequisite: admission to candidacy for degree of Master of Natural Science. (F, Sp, Su)
PHYS 5960 Directed Readings
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing and permission of department. May be repeated; maximum credit twelve hours. Directed readings and/or literature reviews under the direction of a faculty member. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

PHYS 5970 Seminar--Selected Topics in Modern Physics 1-3 Credit Hours
1 to 3 hours. Prerequisite: permission. May be repeated with change of subject matter; maximum credit for master's degree six hours, for doctor's degree 12 hours. (F, Sp, Su)
PHYS 5980 Research for Master's Thesis
2-9 Credit Hours
Variable enrollment, two to nine hours; maximum credit applicable toward degree, four hours. (F, Sp, Su)
PHYS 5990 Special Studies 1-4 Credit Hours
Prerequisite: 12 hours of physics, permission. May be repeated with change of subject matter; maximum credit for a master's degree four hours, for a doctor's degree ten hours. (F, Sp, Su)

PHYS 6213 Advanced Particle Physics
3 Credit Hours
Prerequisite: 5213,5403 or equivalents. The theory and phenomenology of the "standard model" of particle physics which encompasses the electro-weak and strong interactions. Topics will include: symmetries, groups and conservation laws; bound states, quarkonium; Feynman diagrams, QED; QCD; weak interactions; gauge theories. (Irreg.)

## PHYS 6243 Advanced Solid State Physics 3 Credit Hours

Prerequisite: 4243,5403, or equivalents. The physics of metals, semiconductors and insulators. Free electron theory, crystal structure and phonons, electron band theory, semiclassical model, applications to electronic and optical properties of solids, effects of magnetic fields. (Irreg.)
PHYS 6283 Advanced Atomic/Molecular Physics 3 Credit Hours
Prerequisite: Graduate standing and PHYS 5403 (QMII), PHYS 5813 (AMOI), or equivalent. Beyond the two-level atom approximation: effects such as lambda system, STIRAP, dark states, and slow light; Dopplerfree spectroscopy; optical pumping; collective atomic effects; laser cooling; Bose-Einstein condensates; electronic wave functions of atoms and molecules: variational principle, Hartee-Fock, and configuration interaction; molecular interaction potentials; interaction of light and molecules. (Irreg.)
PHYS 6333 General Relativity 3 Credit Hours
Prerequisite: 5013, 5583. The mathematical and physical basis for the relativistic theory of gravitation; the principle of equivalence; tensor analysis; Einstein's field equations; tests of general relativity; gravitational collapse; cosmology; toward a quantum theory of gravity. (Irreg.)

PHYS 6433 Quantum Field Theory
3 Credit Hours
Prerequisite: 5403. Canonical quantization of scalar and spinor fields; perturbation theory and Feynman diagrams; renormalization; path integral formulation; renormalization group; gauge fields with selected applications to QED, electro-weak theory and QCD. (Irreg.)
PHYS 6443 Advanced Quantum Field Theory
3 Credit Hours
Prerequisite: graduate standing and 6433. Path integral quantization; renormalization; renormalization group equations; gauge theories of strong and electroweak interactions. (F)

PHYS 6543 Advanced Quantum Optics
3 Credit Hours
Prerequisite: Graduate standing, PHYS 5393, PHYS 5403, PHYS 5573, and PHYS 5813, or equivalent; Recommended - PHYS 5223. This course introduces students to advanced topics in quantum optics, with reference to both historic and current state-of-the-art developments. Students will be introduced to core concepts such as quantum noise, phase-space, atom-light interactions, entanglement, and open systems. Students will learn how to apply these theoretical concepts to experimental systems that study the generation and manipulation of quantum states of light. (Irreg.)
PHYS 6663 Non-Relativistic Many Body Theory 3 Credit Hours Prerequisite: Graduate standing, PHYS 5393 (QMI), PHYS 5403 (QMII), PHYS 5573 (EMI), PHYS 5153 (Class Mech), and PHYS 5163 (Stat Mech), or equivalent. This course introduces students to several many-body treatments and illustrates the techniques on a variety of examples, focusing on applications of historical importance and recent modern developments. The course focuses on non-relativistic (as opposed to relativistic) quantum many-body techniques and applications. Students will be introduced to mean-field theory, Green's functions, broken symmetries and transformations, path integrals, and diagrammatic techniques. (Irreg.)

PHYS 6860 Advanced Topics in Mathematical Methods in
Physics
1-3 Credit Hours
1 to 3 hours. Prerequisite: 5013 or permission. May be repeated with change of content; maximum credit nine hours. Topics covered will be selected by instructor and announced prior to the term in which it will be offered. The course is intended to offer material currently used in theoretical physics. (Irreg.)

PHYS 6960 Directed Readings
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit six hours. Directed readings and/or literature review under the direction of a faculty member. (Irreg.)

PHYS 6970 Special Topics/Seminar 1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit 12 hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or research and field projects. (Irreg.)

PHYS 6980 Research for Doctoral Dissertation 2-16 Credit Hours 2 to 16 hours. Prerequisite: Graduate standing and permission of instructor; may be repeated. Directed research culminating in the completion of the doctoral dissertation. (F, Sp, Su)

PHYS 6990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)

## PIAN-Piano

## PIAN 2000 Freshman and/or Sophomore Secondary Piano <br> 1-2 <br> Credit <br> Hours

1 to 2 hours. Prerequisite: permission of adviser and instructor. May be repeated; maximum credit toward B.F.A., B.M.A., B.M.E., and B.M. degrees, eight hours. For freshman and sophomore music students studying in a secondary (or minor) performance area. (F, Sp, Su)

PIAN 2020 Piano for Music Majors: Freshman/Sophomore 2-4 Credit Hours

2 to 4 hours. Prerequisite: Majors only. May be repeated; maximum credit 8 hours. Applied instrumental lessons for freshmen and sophomore music majors in a School of Music degree program. (F, Sp)

PIAN 3440 Mentored Research Experience 3 Credit Hours
0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office Not for honors credit. (F, Sp, Su)

PIAN 4000 Junior and/or Senior Secondary Piano 1-2 Credit Hours 1 to 2 hours. Prerequisite: permission of adviser and instructor. May be repeated; maximum credit toward B.F.A., B.M.A., B.M.E., and B.M. degrees, eight hours. For junior and senior music students studying in a secondary (or minor) performance area. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

PIAN 4020 Piano for Music Majors: Junior/Senior 1-4 Credit Hours 1 to 4 hours. Prerequisite: majors only; junior standing. May be repeated; maximum credit 14 hours. Applied instrumental lessons for junior and senior music majors in a School of Music degree program. (F, Sp)

PIAN 5000 Master's-Level Secondary Piano
-2 Credit Hours
1 to 2 hours. Prerequisite: graduate standing in music; permission of adviser and instructor. May be repeated; maximum credit eight hours on a given instrument (including voice). For master's degree music students studying in a secondary (or minor) performance area. (F, Sp, Su)

PIAN 5010 Master's-Level Piano for Non-Performance Music Majors

1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing in music; permission of adviser and instructor. May be repeated; maximum credit eight hours on a given instrument (including voice). For master's degree students other than performance majors in their major field. (F, Sp, Su)

PIAN 5020 Master's-Level Piano for Performance Majors 2-4 Credit Hours

2 to 4 hours. Prerequisite: graduate standing in music; permission of adviser and instructor; 4020 and 4021 or equivalent. May be repeated; maximum credit toward an M.M. degree 10 hours. (F, Sp, Su)

PIAN 6000 Doctoral Secondary Piano 1-2 Credit Hours
1 to 2 hours. Prerequisite: graduate standing in music, permission of adviser or instructor. May be repeated; maximum credit eight hours on a given instrument (including voice). For doctoral degree music students studying in a secondary (or minor) performance area. (F, Sp, Su)

## PIAN 6010 Doctoral Piano for Non-Performance Music

Majors
2-3 Credit Hours
2 to 3 hours. Prerequisite: graduate standing in music; permission of adviser and instructor. May be repeated. Doctoral-level study of applied music in the major performance area for students other than performance majors in their primary field. (F, Sp, Su)

PIAN 6020 Doctoral Piano for Performance Majors 2-4 Credit Hours
2 to 4 hours. Prerequisite: graduate standing in music; 5042; permission of adviser and instructor. May be repeated; credit applicable toward applied music requirements for the Doctor of Musical Arts degree. Doctoral-level study of applied music for performance majors in their primary field. (F, Sp, Su)

## PORT-Portuguese

PORT 1115 Beginning Portuguese
5 Credit Hours
Develop the skills necessary to grasp fundamental principles of Portuguese and Luso-Brazilian culture, and to acquire basic proficiency in the four skills of language learning: listening, speaking, reading and writing. This course does not count for major credit in the Department of Modern Languages, Literatures and Linguistics. (F, Sp) [I-FL].

PORT 1225 Beginning Portuguese Continued 5 Credit Hours Prerequisite: 1115. Give continuity to the skills acquired during the first semester of Portuguese in order to become more fluent in the spoken language as well as more proficient in writing. This course does not count for major credit in the Department of Modern Languages, Literatures and Linguistics. (F, Sp) [I-FL].

PORT 2113 Intermediate Portuguese
3 Credit Hours
Prerequisite: 1225. Develops reading skills and control of grammar while cultivating depth of oral and writing ability. Emphasis on expansion of vocabulary and strong reinforcement of grammatical structures. Reading and discussion of texts of literary and cultural interest. Oral and written assignments. (F, Sp)

PORT 2223 Intermediate Portuguese (Continued) 3 Credit Hours
Prerequisite: 2113. Refines reading skills and mastery of grammar.
Emphasis on sophisticated vocabulary and understanding of grammatical structures. Literary and cultural texts discussed in oral and essay form. (F, Sp)

PORT 2970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: May be repeated; maximum credit nine hours. Special topics course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research, and field projects. (Irreg.)
PORT 3113 Advanced Portuguese 3 Credit Hours Prerequisite: 2223. Develops further reading skills and control of grammar, cultivates speaking and writing ability, and exposes students to a wide range of topics covered daily by Brazilian newspapers and magazines. (F)

PORT 3223 Advanced Portuguese Continued 3 Credit Hours
Prerequisite: 3113. Continuation of 3113. Develops further reading skills and control of grammar while cultivating depth of oral and writing ability. Exposes the student to a wide range of topics covered daily by Brazilian newspapers and magazines. (Sp)
PORT 3440 Mentored Research Experience 3 Credit Hours 0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)
PORT 3960 Honors Reading 1-3 Credit Hours
1 to 3 hours. Prerequisite: Admission to Honors Program. May be repeated; maximum credit six hours. Consists of topics designated by the instructor in keeping with the student's major program. The topics will cover materials not usually presented in the regular courses. (F, Sp, Su)
PORT 3970 Honors Seminar
1-3 Credit Hours 1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Subjects covered vary. Deals with concepts not usually treated in regular courses. (Irreg.)
PORT 3980 Honors Research 1-3 Credit Hours
1 to 3 hours. Prerequisite: Admission to Honors Program. May be repeated; maximum credit six hours. Will provide an opportunity for the gifted Honors candidate to work at a special project in the student's field. (F, Sp, Su)

PORT 3990 Independent Study 1-3 Credit Hours
1 to 3 hours. Prerequisite: one course in general area to be studied; permission of instructor and department. May be repeated; maximum credit six hours. Contracted independent study for topic not currently offered in regularly scheduled courses. (F, Sp)
PORT 4960 Directed Readings 1-4 Credit Hours
1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean. May be repeated; maximum credit four hours. Designed for upper-division students who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)

1-3 Credit Hours
1 to 3 hours. Prerequisite: Senior standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

PORT 4990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: one course in general area to be studied; permission of instructor and department. May be repeated; maximum credit six hours. Contracted independent study for topic not currently offered in regularly scheduled courses. (F, Sp)

## POTA-Potawatomi

## POTA 1715 Potawatomi Language I

5 Credit Hours
Through a partnership between the Citizen Potawatomi Nation Language Department and the university, this language course will introduce students to the culture, history, phonology, morphology, syntax, conversational practice, and vocabulary of Bodewadmimwen (Potawatomi Language) using an online platform. Framed in a seasonal context, four modules guide students through a Potawatomi-centered worldview to create story-listeners and -tellers. (F, Sp)
POTA 1725 Potawatomi Language II
5 Credit Hours
Prerequisite: NAS 1715 or departmental permission. Through a partnership between the Citizen Potawatomi Nation Language Department and the university, this language course will build on the foundation of Potawatomi Language I to introduce students to the culture, history, phonology, morphology, syntax, conversational practice, and vocabulary using an online platform. Students will foster awareness of the Potawatomi worldview by gaining comprehension of culture, identity, and historic events. (F, Sp)

## PSAD-PACS Aerospace \& Defense

PSAD 3603 Introduction to Aerospace and Defense 3 Credit Hours Prerequisite: Junior standing or departmental permission. This course provides an overview of topics needed by decision makers in the aerospace and defense field. Topics related to the development and history of the field, technology, intelligence, weapons, procurement, strategy, and future trends will be examined. Students will be exposed to a range of ideas and competencies needed by policymakers in a variety of aerospace and defense organizations. (F, Sp)

PSAD 4613 Considerations for Future Aerospace and Defense

## 3 Credit Hours

Prerequisite: Junior standing or departmental permission. This course provides an overview of the aerospace and defense industry, with a focus on the development of national strategy and doctrine, international political environment, contemporary and future procurement, and future developments in technology and planning. Students will learn about the key players in the industry, the challenges and opportunities, and the role of aerospace and defense in national security. (F, Sp)

## PSBA-PACS Business Administration

PSBA 2283 Understanding Management
3 Credit Hours
Examines organizational planning, the process of organizational decision making, the early research on leadership that focuses on personal traits, motivation in organizations, communicating in organizations, teamwork in organizations, the principles of organization and organizational control. (F, Sp, Su)

PSBA 3123 Applied Budget \& Finance
3 Credit Hours
Prerequisite: Junior standing or departmental permission. This course serves as an introduction to fundamental financial principles utilized in business today. It is increasingly important for nonfinancial managers to be able to understand financial terms at a nontechnical level. This course provides students with an understanding of financial terminology and accounting methods so that they can effectively explain the financial implications of decisions made within the business. (F, Sp, Su)
PSBA 3143 Marketing and Brand Management 3 Credit Hours
Prerequisite: Junior standing or departmental permission. Focuses on marketing and marketing strategy planning, examining the "Four Ps" (Product, Place, Promotion, and Price). The course integrates topics such as international marketing, social media, and ethics throughout the units. The course will also cover brand management concepts, discussing how branding should result in increased sales, as well as how branding integrates into the other areas of marketing. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
PSBA 3223 Finance for Non-Finance Managers 3 Credit Hours Prerequisite: Junior standing or departmental permission. An introduction to financial information for leaders who are not directly responsible for accounting or finance functions in their organizations. ( $F, \mathrm{Sp}, \mathrm{Su}$ )
PSBA 4123 Quality Initiatives in Organizations 3 Credit Hours Prerequisite: junior standing or permission from advisor. Total quality management enables leaders of for-profit, nonprofit, public sector, and multinational organizations to produce high-quality products and services that customers want. The TQM process adds value to customers' lives and positions the organization to respond quickly to changing consumer preferences. Lean, Six Sigma, Kaizen, and benchmarking methods help leaders systematically optimize and modernize their organizational practices to improve effectiveness. (F, Sp, Su)
PSBA 4133 Human Resources Administration 3 Credit Hours
Prerequisite: Junior standing or departmental permission. This course is designed to implement the administration of Human Resources within all types of organizations. The theoretical review covers the aspects related to the analysis of work and job design while discussing behavioral aspects that affect Human Resources performance. The practical approach will review recruitment, selection, training, career development, performance management, compensation, labor relations, rules, and regulations. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

## PSBA 4163 Non-Profit Management

3 Credit Hours
Prerequisite: junior standing or permission from CLS adviser. Provides an overview of nonprofit management, operations, and leadership as well as the problems and environment unique to the various nonprofit entities functioning in society. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
PSBA 4173 Business Ethics and Legal Environment 3 Credit Hours Prerequisite: Junior standing or departmental permission. This course will help students develop an understanding of the law and its application to the business environment. Emphasis will be on recognition of legal problems, critical thinking, and ethical analysis. Few can conduct business without having to consider and deal with legal, ethical, and social responsibility issues. This course prepares students for reasoned decision-making in the workplace. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

PSBA G4623 Principles of Lean Thinking
3 Credit Hours
Prerequisite: Junior standing. Explores the interdependencies of Lean process improvement tools and the business culture elements required for companies to evolve from mediocrity to excellence. Students will be challenged to capture current state conditions of processes and suggest improvements based on the mentalities of Lean (Continuous Improvement + Respect for People). Lean Six Sigma Yellow Belt certification is included. (F,Sp)

## PSCJ-PACS Criminal Justice

PSCJ 2283 Introduction to Criminal Justice 3 Credit Hours
Investigation and analysis of the three major components of the criminal justice system: police, courts, and corrections. Topics include the criminal justice system's ability to balance crime control and individual civil liberties, the use of formal and informal decision-making processes, and the effectiveness of criminal justice policies, practices, and programs. (F, Sp, Su)
PSCJ 3063 Statistics in Criminal Justice
3 Credit Hours
Prerequisite: junior standing or permission from PACS adviser. An introduction to the basics of social statistics, the methods and techniques which sociologists, policy analysts, and other social scientists use to summarize numeric data obtained from censuses, surveys, and experiments. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
PSCJ 3113 Comparative Justice Systems
3 Credit Hours
Prerequisite: junior standing or permission from PACS adviser. Examines and compares the legal and criminal justice systems of different nations. Focuses on historical, political and social factors, and explains their influence on legal institutions and systems of justice. Discusses points of divergence between other societies and the United States in perceived causes of crime and differing approaches to rehabilitation and crime prevention. Countries representing Europe, Africa, Asia and (F, Sp, Su)

## PSCJ 3133 Theories of Criminal Behavior <br> 3 Credit Hours

Prerequisite: junior standing or permission from PACS adviser. An overview of theories of criminal behavior as well as current issues in criminology. Students will be exposed to biological, sociological and psychological theories of crime, as well as opposing viewpoints on important topics in criminology. (F, Sp, Su)

PSCJ 3173 Deviance and Social Control
3 Credit Hours
Prerequisite: junior standing or permission from PACS adviser. Students will be introduced to the sociological study of deviance and social control, with a focus on the social construction of deviant behavior and the relative nature of such definitions through time and across cultures. Current research on selected types of deviance will be reviewed to understand the individual and structural dimension of behavior as well as implications for policy ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
PSCJ 3203 Criminal Justice Administration 3 Credit Hours
Prerequisite: junior standing or permission from PACS adviser. Covers the development, proliferation, institutionalization, and goals of the components of the criminal justice system and their administration. The course will also cover the ethics of managing justice and punishment. (F, Sp, Su)
PSCJ 3223 American Judicial Processes 3 Credit Hours
Prerequisite: junior standing or permission from PACS adviser. Acquaints students of criminal justice with the overall structure of state and federal courts, including jurisdiction, sources of law, civil and criminal legal procedures from initial pleadings through appeal, substantive civil and criminal law, and policy issues about the role of the judiciary in representative government. (F, Sp, Su)

PSCJ 3413 Crime Scene Processing
Prerequisite: Sophomore standing or permission from academic advisor. Introductory training in the process of crime scene management and how to become proficient in recognizing evidence and determining the proper packaging and preservation methods. Topics include basic methods in crime scene photography, sketching, collection, and documentation. ( $F$, $\mathrm{Sp}, \mathrm{Su}$ )
PSCJ 3463 Homeland Security and Emerging Threats 3 Credit Hours Prerequisite: Junior standing or permission from PACS advisor. An introduction to the organizational and process aspects of Homeland Security at federal, state, and local levels and the emerging threats to the U.S. homeland. (F, Sp, Su)

PSCJ 4123 Introduction to Forensic Science/Criminalistics 3 Credit

## Hours

Prerequisite: junior standing or permission from PACS adviser. Using the study and application of science to examine the relationship between science disciplines, and the criminal investigative process, students will be presented with theories and principles related to methods in the recognition, collection, preservation and analysis of physical evidence. Actual forensic cases will be presented and discussed throughout the course. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
PSCJ 4143 Drugs and Society
3 Credit Hours
Prerequisite: junior standing or permission from PACS adviser. Examines the impact of drug abuse on contemporary American society. Students learn about drug regulation and legal issues, how drugs affect the brain and shape behavior, and the various categories of drugs and their characteristics. Also focuses on drug abuse prevention, treating drug dependence, and law enforcement programs to address drugs in society. (F, Sp, Su)
PSCJ 4243 Police and Policing
3 Credit Hours
Prerequisite: junior standing or permission from PACS adviser. Provides a historical perspective of policing as well as up-to-date information on policing and the issues that police deal with in a post-9/11 society. The course will provide students with a basic understanding of the CSI effect, the creation of the Department of Homeland Security and developments in community policing. The course also highlights the role of officers in society ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

PSCJ 4263 The American Correctional System 3 Credit Hours Prerequisite: junior standing or permission from PACS adviser. A survey course covering the development of the field of corrections from its early American roots to the present. Included are discussions of the role and function of jails, traditional and modern correctional facilities, private/ contract corrections, and probation and parole. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

## PSCJ 4273 Community Corrections

3 Credit Hours
Prerequisite: Junior standing or permission from academic advisor. Introduction to the topics of probation, parole, and other alternatives to incarceration, collectively referred to as Community Corrections. Emphasis will be placed on the role of research and program evaluation in determining policy/program effectiveness. ( $F, \mathrm{Sp}, \mathrm{Su}$ )
PSCJ 4403 Criminal Investigation 3 Credit Hours
Prerequisite: junior standing or permission from PACS adviser.
Provides students with the theoretical and practical aspects of criminal investigation. Students develop an analytical and practical understanding of investigative methodology, the collection and preservation of physical evidence and explore current crime solving technology. (F, Sp, Su)

PSCJ 4413 Intelligence Analysis for Law Enforcement 3 Credit Hours Prerequisite: Junior standing or permission from academic advisor. A survey of intelligence analysis and the use of data, cyber, and human sources of information to predict, interdict, and investigate crime. Topics include understanding the role of intelligence analysis and dissemination in modern law enforcement and homeland security, crime analysis techniques, geographic information systems, cyber data gathering, and human sources of intelligence. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
PSCJ 4423 Cyberspace Security
3 Credit Hours
Prerequisite: junior standing or permission from PACS adviser. Provides an in-depth exploration of cyberspace crime and security. An intensive study of the types of crimes committed in cyberspace, a profile of offenders, and current legal issues in cyberspace. Students will explore emerging issues in information assurance and prevention of cyberspace crimes and will examine the proper collection, preservation and examination of digital evidence. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

PSCJ 4443 Juvenile Delinquency
3 Credit Hours
Prerequisite: junior standing or permission from PACS adviser. An overview of juvenile delinquency in the United States, including current issues. Students will read both classic studies on the emergence of the juvenile system and current research on trends in juvenile delinquency. ( $F$, Sp, Su)
PSCJ 4453 Human Trafficking
3 Credit Hours
Prerequisite: Junior standing or permission from academic advisor. An examination of human trafficking and slavery, including bonded labor, forced migration, and sex trafficking. Topics include historical and modern examples from both the United States and global contexts, as well as current policies and laws intended to combat human trafficking. (F, Sp, Su)
PSCJ 4463 Homeland/Global Security and Justice 3 Credit Hours Prerequisite: junior standing or permission from PACS adviser. Designed to help the student understand how governments deal with the problem of securing the homeland. Examines what terrorism is, and how America has traditionally dealt with homeland security, and how that perspective is evolving. Once we understand what terrorism is, the focus of the course will be on how law enforcement and the courts have taken on the challenge ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
PSCJ 4493 Organized Crime and International Drug

## Trafficking

## 3 Credit Hours

Prerequisite: Junior standing or permission from PACS advisor. An examination of trends relating to international drug trafficking and organized crime. Topics include the history of the drug trade, criminal organizations and governments involved in drug trafficking, and emerging issues relating to the digital world and cyberspace. (F, Sp, Su)

## PSCS-PACS Computer \& Data Science

PSCS 3613 Software and Information Technology Systems 3 Credit Hours
Prerequisite: Junior standing or departmental permission. This course provides students with an overview of core computer technology concepts common to complex modern organizations. Students will be exposed to a range of software and information technology topics needed by managers and decision-makers in a variety of organizations, including core ideas of software, data storage, collaborative work systems, web-based applications, data security, hardware, networks, and programming. (F, Sp)

PSCS 4603 Applied Statistics for Data Analytics 3 Credit Hours
Prerequisite: Junior standing or departmental permission. This course provides students with an overview of core concepts and techniques in statistical data analysis. Students will be exposed to a range of statistical and data analytic techniques needed by managers and decisionmakers in a variety of organizations. Students will gain understanding of the core ideas of validity, the empirical method, statistical testing, and insight into quantitative data analysis. (F, Sp)

## PSHA-Health Administration

PSHA 3153 Ethical and Legal Issues in Health Care 3 Credit Hours Prerequisite: junior standing or permission from adviser. Introduction to the ethical and legal issues caregivers and administrators face in providing health services throughout the lifespan. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
PSHA 3523 Healthcare Finance
3 Credit Hours
Prerequisite: Junior standing or departmental permission. This course serves as an introduction to the concepts of healthcare finance. Course content includes fundamentals of finance, principles of accounting, planning, budgeting, financial statement preparation, and capital analysis. This course will provide students with an understanding of financial management and accounting methods to make effective and efficient decisions applicable to the healthcare industry. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
PSHA 4513 Healthcare Operations Management 3 Credit Hours Prerequisite: Junior standing or departmental permission. Healthcare operations management integrates scientific principles of management to determine the most efficient methods to support patient care delivery. Healthcare in the United States is continuously innovating, reducing costs, and improving quality. Topics include managed care, health plans, value-based payments, quality improvement, information technology, statistical analysis, supply chain management, and healthcare finance, among other important aspects of management. (F, Sp, Su)
PSHA 4533 Healthcare Program Evaluation 3 Credit Hours
Prerequisite: Junior standing or departmental permission. This course facilitates the development of knowledge and skills essential to understand and apply the concepts, principles, processes, models, and assessment strategies imperative to plan, design, implement, and evaluate a healthcare system, education program, or prevention program. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

## PSHU-PACS Humanities

PSHU 1213 Creativity in the Arts 3 Credit Hours
Students will learn about the literary, visual and performance arts by viewing, reading and listening to some of the most famous examples of the arts. Students will also learn about the creative process through the production of their own art. (F, Sp, Su)

## PSHU 3113 Special Topics in the Humanities of the Ancient

 World 3 Credit HoursPrerequisite: junior standing or permission from adviser. Students will explore a broad variety of cultural themes found concurrently in both western and non-western cultures from Antiquity through the Middle Ages. (F, Sp, Su) [IV-WC].

## PSHU 3133 Special Topics in the Humanities of the Modern

 World 3 Credit HoursPrerequisite: junior standing or permission from adviser. Students will explore a broad variety of cultural themes found concurrently in both western and non-western cultures from the Renaissance through the Enlightenment and into the Modern World. (F, Sp, Su) [IV-WC].

PSHU 3173 Renaissance Art
3 Credit Hours
Prerequisite: junior standing or permission from adviser. A critical discussion of the art of the Italian Renaissance. The focus of this course will be on explicating religious textual narratives and exploring how artists translated these ideas into visual form to create an effective message. The course will deal with painting, sculpture and architecture and will highlight well-known artists. (F, Sp, Su) [IV-AF].
PSHU 3193 Art of the Non-Western World 3 Credit Hours Prerequisite: junior standing or permission from adviser. Explores variety of cultural themes found in non-western art from the ancient to the modern world. Introduction to art of non-western cultures and the role that art history plays in the study of these objects. Consists of four parts: African art; Asian art of India, China and Japan; native American art of North, Meso-America; and South America and the Pacific. (F, Sp, Su) [IVWDC].
PSHU 3283 Film Noir
3 Credit Hours
Prerequisite: Sophomore standing or permission from academic adviser. An exploration of film noir as an art form through the perspectives of history, sociology, psychology, philosophy, and technology. Topics include the intellectual and literary origins of film noir and the genre's impact on film making and culture. (F, Sp, Su)
PSHU 4163 World Religions and Ecology
3 Credit Hours
Prerequisite: Junior standing or permission from academic advisor. A multi-religious perspective on the environment investigating how various religious traditions treat the relationship between human agency and the environment. Topics include the connections between religion, politics, economics, social policies and the environment, as well as sustainability, eco-justice, and globalization. (Irreg.) [IV-WDC].
PSHU 4173 Women in the Bible and Qur'an
3 Credit Hours
Prerequisite: Junior standing or permission from academic advisor. An examination of women in the Bible and Qur'an and the insight this exploration provides about religious traditions. Topics include the roles of women within these Scriptures, their role relative to men in general, their place in the foundational myths such as the creation accounts, and the ways in which women negotiate power and authority. (Irreg.) [IV-WC].
PSHU 4183 Crafting the Cinematic Jesus 3 Credit Hours Prerequisite: Junior standing or permission from academic advisor. Surveys common understandings of the person and goals of Jesus, and the roles of other biblical figures, through film and literature. Examines the role that film plays in religious understanding, the role of culture in religion, the variety of conceptions of Jesus, and key issues of the Christian tradition. (Irreg.) [IV-AF].
PSHU 4193 Women of the Middle East and North Africa 3 Credit Hours Prerequisite: Junior standing or permission from academic advisor. An examination of women in the Middle East and North Africa. Topics include the social, political, and economical status of women in the region, the effects of globalization, and a discussion of recent political and cultural changes. (F, Sp, Su) [IV-WDC].

## PSHU 4213 A Critical Review of the Bible as a Literary

Work
3 Credit Hours
Prerequisite: junior standing or permission from adviser. Examines the Bible as a work of literature, approaching it without concern for the doctrines of any particular religion. The aim of the course is to make students biblically familiar with both the Old and New Testaments. (F, Sp, Su ) [IV-WC].

PSHU 4293 Exploring Race and Gender in Film 3 Credit Hours
Prerequisite: Junior standing or permission from academic adviser. An exploration of race and gender in film during the post-civil rights period. Examines the effects of inequality and inclusiveness through the cinematic lens and analyzes the evolution of film relating to the depiction of race and gender issues. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

## PSIS-PACS Integrative Studies

PSIS 1003 Introduction to Interdisciplinary Study 3 Credit Hours An introductory study of the concepts and practices of interdisciplinary inquiry, writing, critical thinking and problem solving across disciplines, and techniques for solving problems and writing papers from an interdisciplinary perspective. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
PSIS 1113 Interdisciplinary Composition I 3 Credit Hours
First in a series of two courses that help prepare students for interdisciplinary work by emphasizing writing and the conventions of academic discourse through natural sciences, social sciences, and humanities. Students will employ a variety of writing strategies, study expository prose models and interpret, critique, summarize and paraphrase test. (F, Sp, Su) [l-ENGL].

## PSIS 1133 Interdisciplinary Composition II

3 Credit Hours
Prerequisite: ENGL 1113 or PSIS 1113, or equivalent. This course completes the series of composition courses by emphasizing argument, library research, and style. Through its emphasis on thinking rhetorically, providing evidence for assertions, creative thinking, and writing as a process, this course will prepare students for argument and researchbased writing in academic interdisciplinary settings. (F, Sp, Su) [I-ENGL].

PSIS 2023 Strategies for Success
3 Credit Hours
An exploration of useful skills and strategies for academic, professional, and personal success. Topics discussed include individual learning styles, emotional intelligence, time management, goal setting, effective listening and communication, organization, creative and critical thinking, interdependence and collaboration skills, and combating self-defeating patterns of thoughts and behaviors. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
PSIS 2033 Writing for Success 3 Credit Hours
Prerequisite: Sophomore standing or departmental permission. An exploration of writing skills and strategies for academic essays, personal narratives and research. Topics include the selection of a research topic, development of a writing plan, the correct way to summarize and paraphrase, and the use of the APA citation style. (F, Sp, Su)
PSIS 3003 Interdisciplinary Inquiry
3 Credit Hours
Prerequisite: junior standing or permission from adviser. Will focus on adult learning theory and development, assessment of prior learning, development of self-directed learning skills, educational and career planning and writing of portfolios and learning contracts. Designed for the returning, adult learner. Will also focus on preparation for academic writing and argumentation. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

PSIS 3013 Effective Communication 3 Credit Hours Prerequisite: Junior standing or departmental permission. Students will enhance their interpersonal and professional communication skills in this course. Special attention is paid to recognizing the role of listening in communication, in addition to enhancing verbal, nonverbal, written, and presentation skills. Throughout the course, students will apply these concepts to real world situations and reflect on the impact of communication in their personal and professional lives. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

PSIS 3053 Digital Literacy \& Data Analysis
3 Credit Hours
Prerequisite: Junior standing or departmental permission. This course is designed to increase students' knowledge and application of digital and quantitative data literacy. Students will also be introduced to principles of ethical decision-making. Using applied activities and analyses, students will learn how to utilize these skills in the real world and the workplace. ( $F$, Sp, Su)
PSIS 3071 Life Design 101
1 Credit Hour
Prerequisite: Junior standing or departmental permission. A holistic examination of a student's life, skill set, and career aspirations. Includes assessment inventories, personal reflections, and the development of action plans. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
PSIS 3083 Life Design: A Better You
3 Credit Hours
Prerequisite: Junior standing or departmental permission. The Transformation Triad is designed to help students find ways to introduce more balance into their lives, uncover their purpose, and use that knowledge to produce meaningful change within themselves in order to lead their best life. Students will evaluate their life on a fundamental level and create balance along with a concrete plan for what will come after graduation. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
PSIS 3153 Foundations of Ethics in Liberal Studies 3 Credit Hours Prerequisite: junior standing or permission from adviser. A foundation for the scholarly research and discussion of ethics. Topics will include historical and philosophical grounding in the consideration of ethics. The course will utilize an interdisciplinary approach to the inquiry of ethics. ( $F$, $\mathrm{Sp}, \mathrm{Su}$ )

PSIS 3243 Leadership in LGBTQ Studies
3 Credit Hours
Prerequisite: Sophomore Standing or permission from an academic advisor. An introduction to lesbian, gay, bisexual, transgender, queer/ questioning, (LGBTQ+) and marginalized individuals based on their sexual/romantic orientation. Empirical data is utilized to holistically explore the experiences of this community as a means of understanding factors and limitations in leadership. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ ) [III-SS].

PSIS 3343 Challenges in a Changing World
3 Credit Hours
Prerequisite: junior standing or permission from adviser; PSSC 1313. Conformity and deviance in societies. Topics addressed include sexual behavior, drug use and crime and violence. It also looks at social problems expressed on a broader scale, including those associated with increased problems and associated urbanization and the outbreaks of war, terrorism and international conflict arising from inequalities occurring on an international scale. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
PSIS 3953 Critical Inquiry in Interdisciplinary Studies 3 Credit Hours Prerequisite: Departmental permission and approximately $70 \%$ of program core complete. This course requires students to locate, critique, and integrate literature/concepts to demonstrate their understanding of the foundational principles of interdisciplinary studies and their primary area of concentration. During the course, students will complete a series of assignments that will be used in the development of a comprehensive ePortfolio, which will be constructed and finalized in LSIS 4953. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
PSIS 4033 Innovative Problem-Solving 3 Credit Hours
Prerequisite: Junior standing or departmental permission. This course is intended to empower students to think clearly and analytically about information and beliefs. Students will be prepared to recognize bias and common fallacies in reasoning and evaluate informational resources. An introduction to innovative thinking and creative decision-making will help position students to tackle problem-solving at the personal, academic, and career levels. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

PSIS 4353 Mediation: History, Theory, and Practice 3 Credit Hours
Prerequisite: junior standing or permission from adviser. The course provides an overview of the history of mediation as well as an introduction to substantive mediation theories and models. The practice of mediation will be introduced by examining its origins in both the court and community-focused movements. Contemporary applications and trends in mediation also will be examined. (F, Sp, Su)
PSIS 4483 Calendars, Culture, and Cosmos 3 Credit Hours Prerequisite: Junior standing or departmental permission. This course details the many ways in which contemporary timekeeping is founded upon astronomy. It explores early derivations by cultures learning to keep time by observing movements of the Moon and Sun and traces this development to contemporary timekeeping systems. The calendars of many present cultures are examined in depth. (F, Sp, Su)
PSIS 4700 Advanced Topics in Liberal Studies 1-9 Credit Hours 1 to 9 hours. Prerequisite: junior standing or permission from adviser; PSSC 2213; may be repeated with change of content; maximum credit nine hours. Specific course content will be defined each time the course is offered. A problem-oriented approach to interdisciplinary studies. Reading and research, arranged and directed in consultation with the instructor in specified areas of liberal studies. (F, Sp, Su)
PSIS 4953 Portfolio in Interdisciplinary Studies 3 Credit Hours Prerequisite: PSIS 3953 and departmental permission. The practicum course for the Interdisciplinary Studies program requires students to create a comprehensive ePortfolio, which showcases their key learnings about effective communication, digital literacy, data analysis, innovative problem-solving, and their primary area of concentration. (F, Sp, Su)

## PSMS-PACS Math

PSMS 1053 Mathematics in Liberal Studies 3 Credit Hours
Prerequisite: Norman Campus students only - DMAT 0123 at OU, satisfactory score on the placement test, or satisfactory score on the ACT/SAT. Designed to enhance the student's ability to understand and utilize mathematical tools in their daily lives. Covers such topics as use of statistics, evaluating others' use of statistics, mathematics in finance, and growth models. (F, Sp, Su) [I-M].

## PSNS-PACS Natural Sciences

$\begin{array}{lll}\text { PSNS } 1513 & \text { Introduction to Interdisciplinary Physical Sciences } & 3 \\ \text { Credit } & & \text { Hours }\end{array}$
Emphasis on physics and chemistry, including topics such as the laws of motion, elements of thermodynamics, wave forms and properties, structure of atoms, and the formation of chemical bonds. (F, Sp, Su)
PSNS 2413 Celestial Insights 3 Credit Hours
This course explores questions about the natural world and how astronomy is/has been used in culture. Students learn about Moon phases, seasons, blue skies, eclipses, and tides and their relation to astronomy. The course investigates how cultures kept time by the Sun and Moon, astronomical derivations for the names of days, and reasons behind changing times for moveable feasts. (F, Sp, Su)
PSNS 2514 The Human Environment 4 Credit Hours
Explores the interaction between the environment and multiple disciplines, such as society, the economy, and politics. Students will be immersed in an interactive experience in which they learn about the basic chemical properties and processes of the physical environment and how other parts of their world affect it. (F, Sp, Su) [II-NS].

PSNS 2533 Science as a Process
3 Credit Hours
Analysis and criticism of the scientific method, design of experiments and collection and interpretation of data in scientific investigations. (F, $\mathrm{Sp}, \mathrm{Su}$ ) [II-NS].
PSNS 2553 Interdisciplinary Life Sciences
3 Credit Hours
A study of the integration of biological systems at the cellular level. It includes discussions of metabolism, chromosome structure and function and the structure and function of the DNA molecule. (F, Sp, Su)

PSNS 2700 Special Topics in Liberal Studies 1-9 Credit Hours 1 to 9 hours. Prerequisite: May be repeated with change of content; maximum credit nine credit hours. Specific course content will be defined each time the course is offered. A problem-oriented approach to interdisciplinary studies. Reading and research, arranged and directed in consultation with the instructor, in specified areas of liberal studies. (F, $\mathrm{Sp}, \mathrm{Su}$ )

PSNS 3113 Lifespan Development
3 Credit Hours
Prerequisite: junior standing or permission from adviser. Survey of human development from birth to death, drawing from multiple disciplines including biology, psychology, sociology, and medicine. The emphasis is on empirically-derived information about human development that may be of practical use to individuals working directly with others in a service capacity. Particular attention is devoted to issues of physical, cognitive, social, and emotional development at all stages of (F, Sp, Su)
PSNS 3413 History of Astronomy in Culture 3 Credit Hours Prerequisite: Junior Standing or departmental permission. An exploration of the historical methods and uses of astronomy in cultures throughout the world, with examples from six continents and islands in the Pacific. (F, Sp )
PSNS 3423 Biology of Human Aging
3 Credit Hours
Prerequisite: junior standing or permission from adviser. Introduction of both natural science and social science methods used to study aging in humans and other creatures. Topics will include a synopsis of the demographics of aging in human populations, terms and theories of aging, mechanisms of aging at the cellular level, and a review of how the body ages, system-by-system. (F, Sp, Su)

## PSNS 3513 The Dynamic Universe

3 Credit Hours
Prerequisite: junior standing or permission from adviser. Select topics including the Big Bang, formation of matter and its association into stars and planets, plate tectonics and the physics and chemistry of the atmosphere. (F, Sp, Su)
PSNS 3533 Ecology and Evolution
3 Credit Hours
Prerequisite: junior standing or permission from adviser. A study of the interactions of genetic change in organisms with environmental stress, and contributions of these interactions to evolution. (F, Sp, Su)
PSNS 3573 Chemistry for Changing Times 3 Credit Hours
Prerequisite: junior standing or permission from adviser. An overview of chemistry, with fundamentals and organic processes explained. The course investigates chemicals found in everyday life and on the earth with the aim of understanding how chemical processes are at work, both in the environment around us and in energy, air, water, biochemistry, drugs, poisons and chemicals. It is ideal for the generalist and the interdisciplinary student, although (F, Sp, Su)

## PSNS 4563 Weather and Climate

3 Credit Hours
Prerequisite: junior standing or permission from adviser. An introduction to energy balance, temperature, atmospheric moisture, cloud formation, static stability, precipitation mechanisms, winds, mid-latitude and severe storms, weather forecasting and climate. The course is designed for students who are not scientists. (F, Sp, Su)

PSNS 4593 The Role of Genetic Engineering: Past, Present and Future

3 Credit Hours
Prerequisite: junior standing or permission from adviser. Examines the role of gene manipulation in the past, present, and future. It will begin with descriptions of genes, evolution and fitness, and will conclude by exploring the scientific and political future of genetic engineering. ( $F, \mathrm{Sp}$, Su)

## PSOL-PACS Organizational Leadership

## PSOL 3113 Leadership in Organizations <br> 3 Credit Hours

Prerequisite: junior standing or permission from adviser. The general purpose of this course is to learn about contemporary thinking regarding leadership in organizations and the applications of these insights for growth as a leader. (F, Sp, Su)
PSOL 3133 Conflict Resolution
3 Credit Hours
Prerequisite: junior standing or permission from adviser. A review of several contemporary theories of the nature of conflict and how best to manage it. Students examine the communication process and practice effective communication skills through exercise. (F, Sp, Su)

PSOL 3153 Ethics in Leadership
3 Credit Hours
Prerequisite: Junior standing or departmental permission. Explores the principles and standards of conduct used by organizational leaders to build trust and integrity in business through systemic ethical practices. Students grow their leadership capacity by developing the behaviors and virtues of the workforce that contribute to sustainable ethical business conduct. (F, Sp, Su)

PSOL 3333 Motivation in Learning and Leadership 3 Credit Hours Prerequisite: junior standing or permission from adviser. Introduces learners to several theories on human motivation which can be applied across several contexts, including both learning and leadership. (F, Sp, Su)

PSOL 3373 Measuring Human Performance 3 Credit Hours
Prerequisite: Sophomore Standing or permission from an academic advisor. An exploration of how leaders use assessments to measure human performance in organizations. Topics include common research terminology, best practices in employee selection, performance appraisals, and organizational performance management. (F, Sp, Su)

## PSOL 3393 Goal Setting in Organizations

3 Credit Hours
Prerequisite: Junior standing or permission from advisor. An examination of the importance of establishing goals, goal alignment, and goal attainment processes in organizational settings. Key concepts include perspectives of goal attainment strategies that apply to organizational effectiveness and methods to overcome inevitable challenges to goal success. (F, Sp, Su)

PSOL 3513 Integrated Marketing Strategies
3 Credit Hours
Prerequisite: junior standing or permission from adviser. Focuses on marketing communications by examining many types of retailers, the basic concepts that apply to all areas of promotion, basic selling techniques, and advertising and sales promotion as important parts of a promotion blend. (F, Sp, Su)

PSOL 3953 Research Analysis and Application in Organizational Leadership

3 Credit Hours
Prerequisite: Junior standing and LSTD 3003, or permission from advisor. Preparatory course for the organizational leadership capstone. Students examine, critique, integrate, and apply organizational behavior literature and concepts to demonstrate mastery of the foundational principles of leadership. (F, Sp, Su)

PSOL 4113 Group \& Organizational Communication 3 Credit Hours Prerequisite: Junior standing or departmental permission. Designed to support students in the development of interpersonal and employmentrelated business communication skills as an integral component in the field of business administration. Topics covered include foundational communication principles; communication planning; oral, written, and electronic communication; formal report-writing and presentation; and employment communication. Students will apply their knowledge on these topics by completing written, spoken (recorded), and team-discussion-based coursework. (F, Sp, Su)

PSOL 4143 Cultural Diversity in the Workplace 3 Credit Hours Prerequisite: Junior standing or departmental permission. Students will explore their personal perceptions about diversity in organizational settings, learn how implicit bias can undermine organizational performance, and develop best practices to promote cultural diversity in the workplace. (F, Sp, Su)

PSOL 4203 Decision-Making, Problem Solving, and Strategic Thinking

3 Credit Hours
Prerequisite: junior standing or permission from adviser. Exploration of decision-making, problem solving and strategic thinking in a variety of organizational settings. Discussion of applied intelligence and the methods/tools utilized to make effective decisions. (F, Sp, Su)

PSOL 4283 Social Processes in Organizations 3 Credit Hours
Prerequisite: Junior Standing or permission from an academic advisor. An overview of how leaders use social processes to improve organizational performance. Topics include the individual factors that affect social processes, i.e. personality, emotion, attitudes, perceptions, etc., and strategies to motivate employees, lead teams, communicate ideas, and develop an organizational culture. (F, Sp, Su)
PSOL 4953 Capstone in Organizational Leadership 3 Credit Hours Prerequisite: Junior standing, PSIS 3003, and PSOL 3953, or permission from advisor; students may enroll in PSOL 3953 and PSOL 4953 during the same semester provided that PSOL 3953 is successfully completed (grade of C or higher) prior to the start of PSOL 4953. Capstone course in organizational leadership resulting in the creation of a comprehensive ePortfolio that demonstrates student mastery of leadership theories and best practices. (F, Sp, Su) [V].

## PSSC-PACS Social Sciences

PSSC 1153 A History of the United States
3 Credit Hours
A general historical overview of the United States with a particular focus on the role that the humanities played in shaping this country. (F, Sp, Su) [IV-US].

PSSC 1313 What in the World are the Social Sciences? 3 Credit Hours Discusses what comprises the social sciences and how we perform research in the different areas, including addressing ethical questions. ( $F$, $\mathrm{Sp}, \mathrm{Su}$ ) [III-SS].

## PSSC 1333 Government in the United States 3 Credit Hours

An analysis of the differing ideologies governing autocratic vs. democratic systems of government, the structure of the United States government, and the role of extra-governmental elements such as lobbyists and the PACs on the process of governing. (F, Sp, Su) [III-PSC].
PSSC 2313 The Human Experience: The Role of Culture 3 Credit Hours A critical discussion of prejudice, discrimination, gender identity and crime and deviance from the perspective of the social sciences. (F, Sp, Su)

PSSC 2323 Human Groups and Distribution of Resources 3 Credit

## Hours

A study of culture from a social sciences perspective, including investigating topics such as ethnocentrism, cultural relativism and personal identity within the context of being American. (F, Sp, Su)

PSSC 2333 Contemporary Social Issues
3 Credit Hours
An introduction to social issues in modern day society. Beginning with an introduction to differing sociological perspectives, and addresses issues such as the changing demographics in the U.S., gender inequality, the environment, and both utopian and dystopian societies. Students will be expected to review, consider, and write how each of the topics impacts their lives, either directly or indirectly. (F, Sp, Su)
PSSC 3203 Diversity in the United States 3 Credit Hours
Prerequisite: Sophomore Standing or permission from an academic advisor. An examination of current issues of race, gender, class, and culture utilizing a combination of empirical data, historic records and conceptual reflection. (F, Sp, Su) [III-SS].
PSSC 3223 Social Justice Leadership
3 Credit Hours
Prerequisite: Sophomore standing or permission from academic advisor. An interdisciplinary examination of issues related to social justice and leadership. The concepts of race, class, gender, and ability are addressed from a variety of historical, conceptual, and theoretical perspectives relating to the study of social difference. Also includes an analysis of social movements and strategies for community engagement. (F, Sp, Su)
PSSC 3263 Multiculturalism in the Workplace: Global Challenges 3 Credit Hours
Prerequisite: Junior Standing or departmental permission. An examination of psychological and organizational challenges that leaders experience in a multicultural or multinational workplace. Includes case studies and discussions to illustrate theories and research findings for developing positive employee engagement strategies. (F, Sp, Su)
PSSC 3333 Human Arrangements: Troubled Institutions, Probs. Inequality 3 Credit Hours
Prerequisite: junior standing or permission from adviser; LSTD 1313 and LSTD 1323. Issues affecting institutions from family through those affecting the national population, including health care, education, the economy, and the interaction of government with all such questions. Problems arising from inequality among groups in the society, including poverty, elderly and young, minority and majority, and gender concerns. (F, Sp, Su)
PSSC 3363 Ethics in Social Sciences 3 Credit Hours
Prerequisite: junior standing or permission from adviser; LSTD 1313 and LSTD 1323. Concepts, principles and case studies involved in ethics in the social sciences, with a particular emphasis on business ethics. Students will examine core values in light of social conditioning, shortterm profiteering and the need for affiliation. (F, Sp, Su)
PSSC 3373 American Public Intellectuals 3 Credit Hours
Prerequisite: Junior standing or permission from adviser. Examines the unique and diverse styles of six important Americans from different eras in order to determine the impact these individuals had on society and posterity. (F, Sp, Su)

PSSC 3383 Harry Potter and the Culture of the Wizarding
World 3 Credit Hours
Prerequisite: ENGL 1113 or equivalent, ENGL 1213 or equivalent; junior standing or permission from Academic Advisor. This course takes a social sciences approach to analyze social and cultural themes within the films from the Harry Potter series by J.K. Rowling. Students will practice social science methodologies and apply key social sciences concepts to evaluate character actions, relationships, and social structures within the wizarding world, drawing parallels to current and historical events and personal experiences as well. (F, Sp, Su) [III-SS].
PSSC 4133 US History of World War II - Pacific Theater 3 Credit Hours A review of several contemporary theories of the United States involvement in World War II: Pacific Theater. Students examine the historical process and practice effective communication skills through exercise. (F, Sp, Su)
PSSC 4263 Understanding Race in American Society 3 Credit Hours Prerequisite: Junior standing or permission from academic adviser. An exploration of the major theoretical perspectives used to explain racial issues in the United States. Identifies common racial/ethnic assumptions through an examination of how race or ethnicity is portrayed in the media with a comparison of current research findings relating to inequality. ( $F$, Sp, Su)

## PSY-Psychology

## PSY 1113 Elements of Psychology 3 Credit Hours

A survey of the scientific study of human behavior. Emphasis is placed upon scientific method, basic life processes, mechanisms of adaption, individual differences and group behavior. Students have the opportunity to be exposed to the research process either by serving as participants in research experiments or by conducting reviews of research topics. ( $F, S p$, Su) [III-SS].

## PSY 2001 Career Exploration for Psychology 1 Credit Hour

 Prerequisite: PSY 1113 or concurrent enrollment. This course will explore the range of career options in psychology and other fields available to those with bachelor's and graduate psychology degrees, and provide academic planning assistance. Sub-disciplines within the field of psychology will be examined as well as graduate school application processes. (F, Sp, Su)
## PSY 2003 Understanding Statistics

3 Credit Hours
Prerequisite: Math 0123 or satisfactory score on math placement test. An introductory applied statistics course which will focus on descriptive and inferential statistical methods. Emphasis will be placed on in-class activities and homework which help the student learn by experience. Topics include measures of central tendency and variability, z-scores, normal distribution, correlation, regression, sampling distributions, hypotheses testing, t-tests and chi-square tests. Laboratory (F, Sp, Su) [IM ].
PSY 2403 Introduction to Personality
3 Credit Hours
Prerequisite: PSY 1113 or permission of instructor. Introduces the classic theoretical perspectives in personality psychology and establishes a solid foundation for understanding personality dynamics. The emphasis is on personality theories representing (but not limited to) the psychodynamic, trait, cognitive, behavioral, and humanistic perspectives. (F, Sp, Su)

PSY 2503 Computing for Behavioral Sciences 3 Credit Hours
Students will learn to identify the parts and functions of personal computers. Building on that basic knowledge, such topics as developing and publishing a web page, collecting data from participants through the web, and using the advanced features of Excel for statistical analysis will be covered. Programming languages will include HTML and JavaScript. (F, Sp, Su)
PSY 2603 Lifespan Development
3 Credit Hours
Prerequisite: PSY 1113. Survey of the psychological changes across the life span; the changes in cognitive, social, emotional, and physiological development from conception to death will be included. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
PSY 2970 Special Topics
1-3 Credit Hours
1 to 3 hours. Prerequisite: May be repeated; maximum credit nine hours. Special topics course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research, and field projects. (Irreg.)
PSY 3003 Advanced Undergraduate Statistics 3 Credit Hours Prerequisite: PSY 2003 or PSY 2113. Review of previous material, SAS, multiple comparisons, two-way ANOVA, power calculations, repeated measures designs, multiple linear regression, general linear model, nonparametric methods. Designed to help students prepare for graduate statistics courses. (Irreg.)

## PSY 3083 Animal Behavior

3 Credit Hours
(Crosslisted with ZOO 3083) Prerequisite: Zoology 2013 or permission of instructor. Animal behavior from an evolutionary perspective. The effects of natural selections on mechanisms underlying behavior and on diversity of behavior among and within species. ( $F, S p$ )

## PSY 3114 Research Methods: Applications and Experimental Design 4 Credit Hours

Prerequisite: Major in Psychology; PSY 1113; PSY 2003 or PSY 2113.
Examines how new discoveries are made in psychology through the scientific method. Primary goal is to prepare students to conduct an independent research project to address a theoretical question, analyze and interpret the data, and present the data to others in both written and oral form. Laboratory. (F, Sp, Su)
PSY 3203 Cognitive Psychology
3 Credit Hours
Prerequisite: PSY 1113. Surveys how people extract relevant information from their environment and store, retrieve and utilize such information at a later time. Topics will include memory storage and retrieval, attention, imagery, mnemonic devices and other cognitive processes. (F, Sp, Su)
PSY 3313 Positive Psychology 3 Credit Hours
Prerequisite: PSY 1113. Survey of positive psychology--the scientific study of the conditions and processes that contribute to the flourishing or optimal functioning of people, groups, and institutions. Topics include research methods, models of well-being, positive emotions, positive relationships, engagement and flow, self-regulation and grit, goals and habits, optimism and hope, as well as applications and interventions.
PSY 3440 Mentored Research Experience 3 Credit Hours 0 to 3 hours. Prerequisite: PSY 1113 or equivalent, and permission of instructor; May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)

PSY 3613 Developmental Psychology: Infancy through Adolescence 3 Credit

## Hours

Prerequisite: PSY 1113; PSY 2003 or PSY 2113, or permission of instructor. Introduces themes, theories, and scientific research on cognitive, social, and emotional development from infancy through adolescence. Explores fundamental psychological questions of how we become who we are, what factors cause children's development of behavior and mind, and what leads to the diversity of developmental outcomes. No student may earn credit for both PSY 2603 and PSY 3613. (Irreg.)

PSY 3703 Social Psychology
3 Credit Hours
Prerequisite: PSY 1113. The science of how people think and feel about, relate to, and influence one another. Topics include classic and contemporary research on stereotypes, persuasion, attitude change, emotions, the self-concept, aggression, impression formation, and altruism, among others. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
PSY 3753 Introduction to Industrial Organizational Psychology 3 Credit Hours
Prerequisite: PSY 1113 and PSY 2003 or PSY 2113 or permission of instructor. Industrial Organizational psychology covers psychological theories and their practical applications to the workplace. The course covers issues of critical relevance to the well-being of individuals and organizational performance. Topics include, but are not limited to, motivation, selection, training, assessment, performance management, satisfaction, teams, and leadership. (F, Sp, Su)
PSY 3803 Physiological Psychology
3 Credit Hours
Prerequisite: PSY 1113 or equivalent; and BIOL 1114 or BIOL 1124 or equivalent. Provides an introduction to physiological and neurological foundations of behavior. Some emphasis will be placed on contemporary issues and theoretical models. ( $F, S p$ )
PSY 3960 Honors Reading
1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program, PSY 2003 or PSY 2113, and permission of department. May be repeated; maximum credit six hours. Will consist of topics designated by the instructor in keeping with the student's major program. The topics will cover materials not usually presented in the regular courses. (F, Sp, Su)
PSY 3970 Honors Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program; PSY 2003 or PSY 2113. May be repeated; maximum credit six hours. The projects covered will vary. The content will deal with concepts not usually presented in regular coursework. (Irreg.)

PSY 3980 Honors Research 1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program, PSY 2003 or PSY 2113 , and permission of department. May be repeated; maximum credit six hours. Will provide an opportunity for the gifted Honors candidate to work at a special project in the student's field. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

## PSY 3990 Independent Study

1-3 Credit Hours
1 to 3 hours. Prerequisite: one course in general area to be studied, PSY 2003 or PSY 2113 , and permission of department. May be repeated; maximum credit, six hours. Contracted independent study for topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (F, Sp, Su)
PSY 4023 Psychological Test and Measurements 3 Credit Hours Prerequisite: PSY 1113, and PSY 2003 or PSY 2113; and junior standing. An introduction to the measurement of human behavior. Special emphasis is given to tests of intelligence, achievement, personality, and interest. (Irreg.)

PSY 4113 Capstone Survey of Major Fields in Psychology

## 3 Credit Hours

Prerequisite: Major in Psychology; PSY 3114 or permission of instructor; senior standing. Lecture-based course focusing on major areas of psychology. Attempts to instill in the student an understanding of the integration and diversity of the field of psychology. Content and title vary with instructor. (F, Sp) [V].
PSY 4143 Capstone Service Learning
3 Credit Hours
Prerequisite: Major in Psychology; PSY 2403, PSY 3114, PSY 4453; senior standing and permission of instructor. Students apply learning from other courses to a project of significant community need. Classes are held both on campus and on-site. Students will develop a written description of the experience and the psychological principles applied. ( $\mathrm{F}, \mathrm{Sp}$ ) [V].

## PSY 4243 Decision Making and Problem Solving 3 Credit Hours

Prerequisite: PSY 2003 or PSY 2113, and PSY 3203. Review of issues in inductive thinking, deductive reasoning, inference generation, problem solving, insight, expertise, algorithms, and heuristics. The emphasis will be on current research investigations. (Irreg.)
PSY G4253 Selected Topics in Cognitive Science 3 Credit Hours
Prerequisite: PSY 1113 and PSY 3114 and PSY 3203, and PSY 2003 or PSY 2113; or permission of instructor. May be repeated with change of content; maximum credit 6 hours. Seminar focusing on specific issues in cognitive science. Topics include memory representation and retrieval, symbol and referent processing, knowledge structure, expert and novice differences, imagery, and others. (Irreg.)
PSY 4263 Psychology and Law 3 Credit Hours
Prerequisite: 3114. Examines some of the most important points of contact between the fields of psychology and the law, including eyewitness identification, the prison system, juries, and confessions and interrogations. (Irreg.)
PSY 4283 Neural Bases of Perception and Cognition 3 Credit Hours Prerequisite: Junior standing; PSY 1113, PSY 2003, and PSY 3114; PSY 3203, PSY 3803, or permission of instructor. Survey of the ways in which the structures and functions of the nervous system support psychological experience, including basic perception, attention, memory, and complex cognition. Topics to be emphasized may vary by semester. (Irreg.)
PSY G4313 Motivation
3 Credit Hours
Prerequisite: PSY 2003 or PSY 2113. Primary motivational states and learned motivational states (e.g., fear, frustration, anxiety, etc.) will be considered as well as emotion and curiosity. Topics of current interest in both human and animal motivation will also be covered. (Irreg.)

## PSY 4343 Health Psychology <br> 3 Credit Hours

Prerequisite: Major in Psychology; PSY 1113 or an introductory Biology course. Health psychology examines the bi-directional relationship between psychology and health. Topics include, but are not limited to, physiological and psychological factors that influence perceptions of stress, the links between stress and illness, the psychosocial influences on health enhancing and health compromising behaviors, adjustment to illness and coping, pain, sociocultural factors and health, and personality and health. (F, Sp, Su)

PSY G4403 Advanced Personality
3 Credit Hours
Prerequisite: PSY 1113, PSY 2403, and junior standing or permission of instructor. Advanced personality course focusing on modern and current theoretical and empirical research. Introduces the research methods personality psychologists use to make substantive contributions to the scientific understanding of human thoughts, feelings, and behaviors. Topics include (but are not limited to) field dependence, autonomy, sex/ gender, subjective well-being, dominance, leadership, sensation-seeking, risk-taking, pain tolerance, sensation reducing/augmenting, and locus of control. (Irreg.)
PSY 4413 Behavioral Addictions
3 Credit Hours
Prerequisite: major in Psychology; PSY 1113. This course provides a conceptualization of behavioral addictions and brief overview of the varied forms of addictive behaviors and treatments, including gambling, online gaming, food addiction, pornography addiction, sex addiction, compulsive shopping, Internet addiction, and a variety of impulse control disorders, among others. Attention is given to the relationship between behavioral addictions and substance addictions across a number of domains. (Irreg.)
PSY 4423 Eating Disorders
3 Credit Hours
Prerequisite: major in Psychology; PSY 1113. Eating Disorders provides an introduction to the characteristics and criteria associated with a variety of forms of disordered eating. It covers Pica, Avoidant-Restrictive Food Intake Disorder, anorexia nervosa, bulimia, binge eating disorder, and compulsive overeating, among others, and overviews key features of their causes, presentation, and treatment. (Irreg.)
PSY 4433 Clinical Psychology
3 Credit Hours
Prerequisite: Major in Psychology; PSY 1113, PSY 2003 or 2113, and PSY 4453. A survey of the field of Clinical Psychology. Topics include but are not limited to the following: Current Issues in the field, such as training and ethics; Psychological assessment; and Psychotherapy. Evidence-Based Practice in Psychology (EBPP) is emphasized. ( $\mathrm{F}, \mathrm{Sp}$ )
PSY 4443 Law, Counseling, \& Psychology 3 Credit Hours Prerequisite: PSY 1113 and PSY 2003; junior standing. This course deals with topics at the interface of psychology, counseling, and the law. There are many points of contact between these fields, including eyewitness identification, confessions, and interrogations, forensic confirmation biases, jury decision-making, the death penalty, the impact of and rationale for incarceration, evaluation of competency, mental illness, deception detection, plea bargains, the impact of race, etc. (Irreg.)
PSY 4443` Law, Counseling, \& Psychology
3 Credit Hours
Prerequisite: PSY 1113 and PSY 2003; junior standing. This course deals with topics at the interface of psychology, counseling, and the law. There are many points of contact between these fields, including eyewitness identification, confessions, and interrogations, forensic confirmation biases, jury decision-making, the death penalty, the impact of and rationale for incarceration, evaluation of competency, mental illness, deception detection, plea bargains, the impact of race, etc. (Irreg.)

## PSY 4453 Abnormal Psychology

3 Credit Hours
Prerequisite: Major in Psychology; PSY 1113 and PSY 2403, and PSY 2003 or PSY 2113; or permission of instructor. An examination of the major clinical and research findings in the field of abnormal psychology. Topics include studies of conflict, anxiety, neurosis, character disorders, schizophrenia, and psychotherapy. (F, Sp)
PSY 4510 Applications of Psychology Practicum 1-3 Credit Hours 1 to 3 hours. Prerequisite: PSY 2003 or PSY 2113, 12 hours of psychology, permission of instructor. May be repeated; maximum credit six hours; undergraduates limited to two enrollments. Individualized field experiences in an area of interest in psychology. (F, Sp)

PSY 4523 Sport \& Exercise Psychology
3 Credit Hours
Prerequisite: PSY 1113, and PSY 2003 or PSY 2113, and junior standing; or instructor permission. Course discusses how psychological principles can be used by physical educators, coaches, and athletes in everyday situations and to cultivate peak performance and personal growth, and also many practical issues relevant to students, such as anxiety and stress; confidence and coping strategies; skill acquisition and training; attention control; goal setting; self-regulation; coaching and leadership, cohesion; burnout; injuries; and career options. (Irreg.)
PSY 4613 Current Topics in Developmental Psychology 3 Credit Hours Prerequisite: PSY 2003 or PSY 2113, and PSY 2603 or PSY 3613; or permission of instructor. May be repeated with change of content; maximum credit 6 hours. An advanced seminar dealing with contemporary issues in developmental psychology. Content will vary with the instructor. (Irreg.)
PSY 4633 Social and Personality Development 3 Credit Hours
Prerequisite: PSY 1113, and PSY 2603 or PSY 3613. Explores theory and research in social and personality development from infancy through adolescence. Topics covered include attachment, temperament, emotional development, moral development, peer relationships, gender development, prosocial and antisocial behavior, and the influence of parenting, child care, and other important developmental contexts on the behavior and adjustment of children and adolescents. (Irreg.)

PSY 4653 Cognitive Development
3 Credit Hours
Prerequisite: PSY 2603 or PSY 3613. This course explores classic and contemporary theory and research on cognitive development from infancy through adolescence, including perceptual development, attention and memory, conceptual development, language, and social cognition. (F, Sp)
PSY 4673 Psychology of the Family
3 Credit Hours
Prerequisite: PSY 2603. This course addresses family structure and functioning as they affect human development from pregnancy through adulthood. Topics covered include the influence of parents, siblings, and grandparents; childless and childfree families; and family resilience. (F, Sp)

## PSY 4703 Psychology of Leadership

3 Credit Hours
Prerequisite: major in Psychology, senior standing or permission of instructor. Provide students with an understanding of the psychological principles underlying leadership in government, industry, and society. Review psychological research on leadership and management, examining topics such as leadership skills, leading changes in organization, leader-follower relationships, and leadership tactics. Students will participate in various exercises to analyze leadership strategies and assess their potential strengths and weaknesses as leaders. (Sp)

PSY 4713 Prejudice and Civil Rights 3 Credit Hours
Prerequisite: PSY 1113. The Psychology of Prejudice and Civil Rights examines systems of privilege, oppression, and institutionalized discrimination that influence and help maintain racism, sexism, heterosexism, and classism and their psychological consequences on the individual and society. This course is designed to acquaint you with a modern conceptualization of these issues and provide you with a more comprehensive understanding of this field. (Irreg.)
PSY 4723 Moral Psychology
3 Credit Hours
Prerequisite: Junior Standing. This course focuses on moral behavior and reasoning informed by empirical science and philosophy. Topics may include moral motivation, moral responsibility, character traits, virtues, cross-cultural differences, reactive attitudes, moral development, and applied issues. (Irreg.)

PSY 4733 Selected Topics in Social Psychology
3 Credit Hours
Prerequisite: junior standing or permission of instructor. May be repeated once with change of topic; maximum credit six hours. Content varies with the instructor. Deals with central topical areas of study in social psychology (i.e., attitudes and social cognition; person perception; groups and group dynamics; or theory construction). (Irreg.)
PSY 4763 Work, Stress, and Health
3 Credit Hours
Prerequisite: PSY 1113; PSY 2003 or PSY 2113; and PSY 3753. This
Work, Stress, and Health course is the interdisciplinary study of how psychological factors influence employee health and wellness in the workplace. (Irreg.)
PSY 4793 Psychology of Groups
3 Credit Hours
Prerequisite: 1113. Provides students with an understanding of the psychological principles underlying group behavior. Topics covered will include group formation and development, cohesion and norms, social influence, power, inter-group relations, stereotyping and prejudice, group decision making, diversity within groups, stigma in the workplace, social identity, leadership in groups, group performance, and staffing organizational groups. (Irreg.)

PSY 4910 Instructional Aides
1-3 Credit Hours
1 to 3 hours. Prerequisite: PSY 1113 and PSY 2003 or PSY 2113; junior standing (or honors students); majors with grade point averages of at least 3.00 and acceptance of an application, or by invitation by faculty member. May be repeated once, maximum credit six hours. Designed for students contemplating graduate school to offer experience in all aspects of instruction. Individual assignments of special instructional tasks in psychology. Supervised instructional experience will be part of each enrollment. (F, Sp, Su)
PSY 4920 Current Topics in Basic and Applied Psychology

1-3 Credit Hours
1 to 3 hours. Prerequisite: PSY 1113, and PSY 2003 or PSY 2113; May be repeated with change of content; maximum credit 9 hours. Content and number of credit hours varies with instructor and section. Focus on current topics in psychology not covered in existing course offerings. Intended for purpose of offering high interest course topics during regular semester, summer, and intersession. (F, Sp, Su)
PSY G4940 Seminar in Psychology
1-3 Credit Hours
1 to 3 hours. Prerequisite: PSY 1113, and PSY 2003 or PSY 2113; and junior standing; or departmental permission. May be repeated with change of content; maximum credit 6 hours. Advanced seminar dealing with contemporary issues and problems in psychology. Content varies with instructor. (F, Sp, Su)
PSY 4960 Directed Readings
1-4 Credit Hours
1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean. May be repeated; maximum credit four hours.
Designed for upper-division students who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)

## PSY 4970 Special Topics

1-3 Credit Hours
Special Topics. 1 to 3 hours. Prerequisite: Junior standing or permission of instructor. May be repeated; Maximum credit nine hours. Special topics course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research, and field projects. (Irreg.)

PSY 4990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: PSY 2003 or PSY 2113 , PSY 3114, three courses in general area to be studied, and permission of instructor. May be repeated; maximum credit six hours. Contracted independent study for topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (F, $\mathrm{Sp}, \mathrm{Su}$ )

PSY 5003 Psychological Statistics I
3 Credit Hours
Prerequisite: graduate standing and undergraduate statistics course, or permission of instructor. Applied statistics with emphasis upon statistical problems in behavioral sciences research. Includes probability, descriptive statistics, estimations and test of hypotheses. Techniques covered in depth include t-test, one and two factor ANOVA methods, multiple comparison methods (e.g., Scheff, Tukey, Ryan, etc.), and the robustness of these techniques to violation of their assumptions.

## PSY 5013 Psychological Statistics II

3 Credit Hours
Prerequisite: 5003 or equivalent, or permission of instructor. The general linear model is covered as it applies to the analysis of variance including
fixed, mixed, and random models, individual comparisons, analysis of covariance, and multiple regression. Also, some nonparametric techniques are discussed including chi-square and distribution free procedures.
PSY 5203 Survey in Cognitive Psychology
3 Credit Hours
Prerequisite: graduate standing or permission. Survey of the field of cognitive psychology designed to provide a foundation for the study of human higher mental processes. Topics include: pattern recognition, attention, episodic memory, semantic memory, psycholinguistics, comprehension, reasoning, decision making and problem solving.
PSY 5280 Seminar in Cognitive Processes 1-4 Credit Hours
1 to 4 hours. Prerequisite: 5203 or permission of instructor. May be repeated with change of subject matter; maximum credit six hours. Considers special topics in cognitive psychology emphasizing recent research literature.

PSY 5403 Survey in Developmental Psychology
3 Credit Hours
Prerequisite: graduate standing in the department or permission of instructor. Survey of classic and contemporary research in developmental psychology. (Irreg.)
PSY 5423 Current Theories in Social Psychology 3 Credit Hours Prerequisite: graduate standing and permission of instructor. An overview of current theory and research in social psychology, including such topics as motivated cognition, automatic and controlled processing, stereotyping, impression formation, attributions, the self-concept and self-regulation, relationships, emotions, attitudes, altruism, and aggression. (Irreg.)
PSY 5703 Survey of Industrial Psychology 3 Credit Hours
Prerequisite: Graduate standing. This course is intended to provide an overview of the key principles and practices of Industrial/Organizational psychology with an emphasis on work analysis and the selection, assessment, and development of human resources. This course will also examine legal and ethical issues faced by I/O psychologists as well as strategic workforce planning. (Irreg.)
PSY 5713 Training and Development
3 Credit Hours
Prerequisite: 5703. Design and development of training courses as well as practical considerations in the delivery of training in organizational settings. (Sp)

PSY 5723 Selection and Assessment in Organizations 3 Credit Hours Prerequisite: 5703. Covers a variety of substantive topics including; the choice and design of personnel selection tools, validation of employment tests, legal issues regarding personnel assessment and selection, assessment of intelligence, experience, personality and integrity, the use of common assessment methods such as situational judgment tests, interviews, biodata, and assessment centers, frame-of-reference training, theoretical and empirical literature regarding assessment center technology, and development and administration of an assessment center. (Irreg.)

## PSY 5733 Techniques in Industrial and Organizational

 Psychology
## 3 Credit Hours

Prerequisite: 5703. Provides an overview of how to develop and apply several methodologies and techniques that I/O psychologists commonly use to address organizational needs. During this course we will explore topics such as basic consulting skills, job analysis, individual assessment and selection, biodata, performance appraisal, ad organizational surveys. Some basic familiarity with these areas is assumed. This class focuses on how to develop and implement these types of applications in organizational settings. (Irreg.)
PSY 5743 Survey of Organizational Psychology
3 Credit Hours
Prerequisite: Graduate standing. The purpose of this course is to provide a broad overview of important topics defining organizational psychology and organizational behavior from a psychological perspective, covering topics such as organizational socialization, commitment, networks and culture, conflict and negotiation, organizational change, and counterproductive work behavior. (Irreg.)
PSY 5753 Cognition in Organizations
3 Credit Hours
Prerequisite: Graduate standing. Organizational cognition has become a key sub-discipline in the fields of organizational behavior and organizational psychology. This course will examine the nature of knowledge in organizations and how this knowledge is used in decisionmaking. It will also examine key cognitive processes (e.g. creative problem solving processes, forecasting, causal analysis) involved in organizational cognition along with key applications. (Irreg.)

## PSY 5763 Individual Differences

3 Credit Hours
Prerequisite: Graduate standing. Understanding of the sources of human variation provides a basis for many psychology-based interventions. This course reviews critical findings, major theories, and research methods employed in studying the major content areas involved in the study of individual differences, covering general domains such as cognitive, motivational, dispositional/trait, and group-based individual differences. (Irreg.)
PSY 5783 Seminar in I/O Psychology
3 Credit Hours
Prerequisite: Graduate standing; May be repeated with change of topic; maximum credits 12 hours. The purpose of this course is to provide a general course number that can be repeated with a change of content. A variety of courses will be taught under this number such as Organizational Cognition, Organizational Ethics, Innovation in Organizations, and Individual Differences. (Irreg.)
PSY 5901 Foundations of Psychological Science I 1 Credit Hour
Prerequisite: admission to graduate psychology program. Overview of current research in psychological science. Discussion of ethics, professional development, the pedagogical arts, methodology and grantsmanship. Participants complete a first year research project including a grant proposal, presentation at a professional meeting and presentation at departmental speaker series.

PSY 5911 Foundations of Psychological Science II 1 Credit Hour
Prerequisite: 5901. Continuation of 5901. Advanced topics in professional development, research planning, funding and communication.
PSY 5960 Directed Readings in Psychology
1-4 Credit Hours
1 to 4 hours. Prerequisite: graduate standing, permission of instructor, adviser and dean. Maximum credit nine hours. Supervised reading of selected topics in psychology by agreement of instructor and student. (F, $\mathrm{Sp}, \mathrm{Su}$ )
PSY 5970 Pre-Master's Research in Psychology 1-4 Credit Hours Prerequisite: graduate standing; pre-master's status; permission of instructor. May be repeated; maximum credit nine hours. Supervised research in area agreed upon by student and instructor. Students conducting research for the master's thesis should enroll in 5980. (F, Sp,
Su )
PSY 5980 Research for Master's Thesis
2-9 Credit Hours
Variable enrollment, two to nine hours; maximum credit applicable toward degree, four hours. (F, Sp, Su)
PSY 5990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)

## PSY 6013 Factor Analysis and Structural Equation

## Models

## 3 Credit Hours

Prerequisite: 5003, 5013 or equivalent. Several exploratory factor analysis models are discussed including principle factors, maximum likelihood, and alpha-factors analysis. Factor-analytic-like models such as components analysis and image analysis are also covered. Offers an overview of the application of structural equations in the social sciences. (Irreg.)
PSY 6023 Statistical Models of Tests Scores 3 Credit Hours
Prerequisite: 5003,5013 or equivalent. Topics include classical test theory, item-sampling theories, latent ability test theory, item analysis and test validation. (Irreg.)
PSY 6063 Seminar in Quantitative Psychology 3 Credit Hours
Prerequisite: 5013 or permission of instructor. May be repeated with change of topic; maximum credit 15 hours. The topic or topics to be covered depend upon the faculty member or members in charge of the seminar at the time it is offered.
PSY 6073 Experimental Design for Psychology 3 Credit Hours
Prerequisite: 5003, 5013, or permission of instructor. Classical experimental design applied to research problems in the behavioral sciences; completely randomized, randomized blocks, factorial, Latin square, fractional factorial and repeated measures designs, confounding, and related topics are discussed. (F)
PSY 6223 Quantitative Models in Cognition 3 Credit Hours
Prerequisite: 5203 or permission. Survey of quantitative models in cognition, with an emphasis on memory and reaction time. Techniques for model testing and development will be taught and supported by exercises.

PSY 6280 Advanced Seminar in Cognitive Processes 1-4 Credit Hours 1 to 4 hours. Prerequisite: 5203 or permission. May be repeated with change of subject matter; maximum credit 12 hours. Special topics in human learning and memory or in memory and cognitive processes will be considered in detail, emphasizing recent research literature and development of research proposals. (Irreg.)

PSY 6323 Teaching of Psychology
3 Credit Hours
Prerequisite: Graduate standing and permission of instructor. The purpose of this course is to prepare you to excel as an independent instructor, whether you are teaching for the first time or already have experience as an instructor of record. The class is designed with a practical focus on preparing course materials, creating assignments, delivering content, managing interactions, and evaluating student work. (Sp)
PSY 6423 Seminar in Social Psychology 3 Credit Hours
Prerequisite: graduate standing and permission of instructor. May be repeated with change of topic; maximum credit nine hours. Intensive study of major problem areas in social psychology, including intrapersonal processes, group dynamics, the self, and research methods. Course topic will vary. (Irreg.)
PSY 6433 Seminar in Theories of Personality 3 Credit Hours Prerequisite: graduate standing in Psychology or permission of instructor. May be repeated with change of topic; maximum credit 12 hours. Intensive exploration of both traditional and modern theories of personality. Examples from several major categories of personality theory are examined through intensive primary readings, writing, and discussion. (Irreg.)
PSY 6443 Stress, Health, and Identity 3 Credit Hours
Prerequisite: Graduate standing or instructor permission. The focus of this course is to consider theoretical perspectives, methods, and research findings in the study of stress, health, and identity. Course content includes perspectives on stress, coping, and health; research on advancing health equity and justice; and multiple facets of identity as they relate to adjustment, well-being, and health from social and developmental psychology perspectives. (Irreg.)
PSY 6453 Seminar in Interpersonal Relationships 3 Credit Hours Prerequisite: Graduate standing and permission of instructor.
Covers classic and contemporary theories and findings in the social psychological literature on interpersonal relationships, with a focus on the biological, motivations, social and personality factors that contribute to attraction, closeness, satisfaction, and stability in dyadic relationships. (Irreg.)
PSY 6643 Seminar in Developmental Psychology 3 Credit Hours Prerequisite: graduate standing or permission of instructor. May be repeated with change of topic; maximum credit 12 hours. Involves indepth study of theory and research in major areas of developmental psychology, e.g., social cognition, peer relations, emotions, temperament and personality, morality, aggression, theory of mind. (Irreg.)
PSY 6703 Advanced Seminar in Industrial and Organizational Psychology 3 Credit Hours
Prerequisite: 5703. May be repeated with change of content; maximum credit nine hours. Focus in-depth on one or more topics examining the area with respect to new theoretical developments and major research findings. Topics may include active, emergent research areas likely to lead to changes in theoretical and professional practice including motivation, team effectiveness, work and family issues, changes in job design, etc. (Sp)
PSY 6713 Leadership Theories, Research, and Practice 3 Credit Hours Prerequisite: 5703. This graduate seminar examines the theoretical and empirical research as well as case studies on a variety of topics in the field of leadership, leadership dyads, outstanding forms of leadership (transformational, charismatic, pragmatic), politics, leading innovation and change, assessing leadership effectiveness, gender and leadership, and cross-cultural leadership. (Irreg.)

PSY 6910 Readings in Psychology
1 to 4 hours. Prerequisite: advanced graduate standing (post-master's). May be repeated; maximum graduate credit nine hours. Supervised reading for advanced students. Topics chosen by agreement of instructor and student.

## PSY 6923 History of Psychology <br> 3 Credit Hours

Prerequisite: graduate standing. Introduction to origin of modern psychology within science. Origins are examined from the ancient Greeks through philosophy, physiology, and astronomy. Special emphasis placed on the historical trends and the people involved.
PSY 6930 Res-Cognitive Process, Sensation-Perception, Physiological Psy

1-6 Credit Hours
1 to 6 hours. Prerequisite: by permission of instructor only. May be repeated; maximum graduate credit eighteen hours. Supervised laboratory research on major projects in an area of mutual interest with a faculty member. Upon advice of the instructor involved, enrollment for work on minor research projects in the above areas may alternatively be in 4990. (F, Sp, Su)

## PSY 6940 Research in Personality: Social and Developmental Psychology <br> 1-6 Credit Hours

1 to 6 hours. Prerequisite: by permission of instructor only. May be repeated; maximum graduate credit 18 hours. Supervised individual laboratory research on major projects in an area of mutual interest with a faculty member. Upon advice of the instructor involved, enrollment for work on minor research projects in the above areas may alternatively be in 4990. (F, Sp, Su)
PSY 6960 Research in Industrial and Organizational

## Psychology

1-6 Credit Hours
1 to 6 hours. Prerequisite: 5703 and permission of instructor. May be repeated; maximum credit twelve hours. Provide guided research experiences preparatory for master's and doctoral degrees. Topics selected in consultation with faculty member may include leadership, management ethics, and motivation. Exposure to key aspects of the research process including literature reviews, study design, data analysis, report preparation, proposal writing, paper presentation, and article writing. (F, Sp, Su)
PSY 6970 Post-Master's Research in Psychology 1-4 Credit Hours Prerequisite: master's degree and permission of instructor. May be repeated; maximum credit 12 hours. Supervised research for advanced graduate students on major projects of mutual interest with a faculty member. (F, Sp, Su)

PSY 6980 Research for Doctoral Dissertation 2-16 Credit Hours 2 to 16 hours. Prerequisite: Graduate standing and permission of instructor; may be repeated. Directed research culminating in the completion of the doctoral dissertation. (F, Sp, Su)

## PSY 6990 Independent Study

1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)

# RCPL-Regional \& City Planning 

RCPL 3440 Mentored Research Experience<br>3 Credit Hours

0 to 3 hours. Prerequisite: ENGL 1113 or equivalent, and permission of instructor; May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)
RCPL 4003 The Global City and Planning Issues 3 Credit Hours (Crosslisted with GEOG 4003; Slashlisted with 5003) Prerequisite: English 1213 and junior standing. An introduction to the concept of globalization and its effects on cities, and the city planning issues related to those effects. Characteristics, theories, and strategies of city development are reviewed. Cities are observed from several perspectives: natural and built environment, governance, society, economics, and history. No student may earn credit for both 4003 and 5003. (Sp)

## RCPL 4033 Sociology of Housing

3 Credit Hours
(Slashlisted with RCPL 5033; Crosslisted with SOC 4033) Prerequisite: ENGL 1213 or EXPO 1213, Junior standing, and Departmental Permission. This course introduces students to socioeconomic, political, and equity issues in housing. Students will engage with planning and policy issues to understand the history of housing and interventions for diverse populations. Topics will cover primarily U.S. Housing policy and practices with some comparative international examples. No student may earn credit for both 4033 and 5033. (Irreg.)
RCPL 4063 Planning with Diverse Communities 3 Credit Hours (Slashlisted with RCPL 5063) Prerequisite: Completion of ENG 1213 or EXPO 1213, Junior Standing, and Department or Instructor Permission. As cities become more diverse, planning with various communities becomes increasingly complex and challenging. This upper-division undergraduate and graduate course is intended to introduce students to issues related to diversity and inequality. Aspects of diversity (e.g., race/ ethnicity, gender, class, sexuality, national origin, abilities, etc) and their intersections with planning and urban policy and development issues are discussed. No student may earn credit for both 4063 and 5063. (Irreg., Sp)
RCPL 4213 Principles and Practice of Urban Planning 3 Credit Hours (Slashlisted with RCPL 5213) Prerequisite: Junior standing. The field of urban and regional planning is a multi-dimensional discipline that seeks, by its actions, to promote the public purpose. What falls within the embrace of the public purpose varies by and within each jurisdiction. This survey course is about how the planning process, and specifically urban planners, help identify and cultivate that purpose across special interests. No student may earn credit for both 4213 and 5213. (F)
RCPL 4263 Infrastructure Planning
3 Credit Hours
(Slashlisted with RCPL 5263) Prerequisite: Permission of the instructor. Course focuses on several major topics related to planning of community infrastructure: an overview of major infrastructure systems; the relationship between larger planning goals such as growth management, economic development, and sustainability and infrastructure; as well as municipal budgeting and financing techniques for infrastructure projects. No student may earn credit for both 4263 and 5263. (F)

RCPL 4273 International Development Planning 3 Credit Hours (Slashlisted with RCPL 5273) Prerequisite: Permission of Instructor. This course is open to both graduate and undergraduate students interested in improving the quality of life for people living in the developing world. It will explore what has been tried, what has been learned, and what are the current challenges in expanding human opportunity through international development efforts in middle and low income countries. No student may earn credit for both 4273 and 5273. (Irreg.)
RCPL 4283 Public Health and the Built Environment 3 Credit Hours (Slashlisted with RCPL 5283) Prerequisite: Permission of the instructor. The intersection of public health and planning is a critical new area for both theory and professional practice. Planning the built environment is an essential part of improving physical activity levels, decreasing air quality pollutants, and increasing transportation options. Class covers how addressing public health and planning issues together will address our environment, infrastructure costs, health, and quality of life. No student may earn credit for both 4283 and 5283. (Irreg., Sp)

RCPL 4293 Food Systems Planning
3 Credit Hours
(Slashlisted with RCPL 5293) Prerequisite: Permission of the instructor. Course provides students with foundational understanding of social, spatial, economic, and environmental processes that influence food availability, access, consumption, and governance in U.S. Specifically, it explores both historical and contemporary trends in food systems to encourage students to think more critically about the role of public health and planning professionals in remedying patterns of food insecurity and concomitant health consequences. No student may earn credit for both 4293 and 5293. (Irreg., Sp)
RCPL 4463 Geographic Information Systems for Land Use

## Planning

3 Credit Hours
(Slashlisted with RCPL 5463 ) Prerequisite: junior standing. This introductory course is concerned with theories, models, and techniques for geographical information systems (GIs) and its associated spatial data management, spatial analysis, and quantitative modeling within a GIs environment for effective socio-economic decision-making for problems in the field of regional and city planning. Introduces the regional and city planning applications of microcomputer-based mapping and geographic information systems. No student may earn credit for both 4463 and 5463. (F)

## RCPL 4513 Subdivision and Planned Unit Development

## Planning

3 Credit Hours
(Slashlisted with RCPL 5513) Prerequisite: ENGL 1213 or EXPO 1213, Junior Standing, and Departmental Permission. The course provides students from a range of disciplines with a foundational understanding of social, ecological, and physical conditions that influence the design of the built environment. Specifically, the course explores historical and contemporary trends in site planning and urban design as a means of encouraging students to think more critically about designing a more sustainable built environment. No student may earn credit for both 4513 and 5513. (Sp)
RCPL 4753 Transportation Geography and Planning 3 Credit Hours (Slashlisted with RCPL 5753; Crosslisted with GEOG 4753) Prerequisite: Junior Standing. This course is intended to introduce students to the world of transportation planning and geography by explaining the importance of transportation from local to global and by engaging them in everyday transportation activities. Topics include, but not limited to, the history of transportation, the relationships between transportation and geography, transportation managements and policies, and urban transportation systems. No student may earn credit for both 4753 and 5753. (Sp)

RCPL 4960 Directed Readings
1-4 Credit Hours
1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean; May be repeated; maximum credit four hours. Designed for upper-division students who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)
RCPL 4970 Special Topics/Seminar 1-3 Credit Hours
1 to 3 hours. Prerequisite: Senior standing or permission of instructor; May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)
RCPL 4990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: Senior standing and permission of instructor; May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)
RCPL 5003 The Global City and Planning Issues 3 Credit Hours
(Slashlisted with RCPL 4003; Crosslisted with GEOG 5003) Prerequisite: graduate standing. An introduction to the concept of globalization and its effects on cities, and the city planning issues related to those effects. Characteristics, theories, and strategies of city development are reviewed. Cities are observed from several perspectives: natural and built environment, governance, society, economics, and history. No student may earn credit for both 4003 and 5003. (Sp)
RCPL 5013 History and Theory of Urban Planning 3 Credit Hours (Crosslisted with P SC 5013) Prerequisite: open to seniors in social science departments, civil engineering and architecture, and to graduate students in regional and city planning. An introductory course on the history and theory of contemporary planning, focusing on the physical, social, institutional and economic structure and dynamics of human settlements, and on the role and responsibilities of the professional planner. (F)
RCPL 5033 Sociology of Housing
3 Credit Hours
(Slashlisted with RCPL 4033; Crosslisted with SOC 5033) Prerequisite: Graduate standing, departmental permission, and instructor permission. This course introduces students to socioeconomic, political, and equity issues in housing. Students will engage with planning and policy issues to understand the history of housing and interventions for diverse populations. Topics will cover primarily U.S. Housing policy and practices with some comparative international examples. No student may earn credit for both 4033 and 5033. (Irreg.)
RCPL 5053 Planning Management 3 Credit Hours
Prerequisite: 5525. Planning management draws on the skills and experiences in previous courses, internships, and/or planning studio to prepare students for the day-to-day life of a professional planner. Topics covered include planners' roles in a democratic society, citizen participation, planning ethics, communication and presentation skills, project management, proposal and grant writing, and systems management. (Sp)
RCPL 5063 Planning with Diverse Communities 3 Credit Hours (Slashlisted with RCPL 4063) Prerequisite: Graduate standing, and departmental or instructor permission. As cities become more diverse, planning with various communities becomes increasingly complex and challenging. This course is intended to introduce students to issues related to diversity and inequality. Aspects of diversity (e.g., race/ ethnicity, gender, class, sexuality, national origin, abilities, etc.) and their intersections with planning and urban policy and development issues are discussed. No student may earn credit for both 4063 and 5063. (Irreg.)

RCPL 5113 Urban Planning Research Methods 3 Credit Hours
Prerequisite: graduate standing or permission of instructor. Introduces the basic research and statistical methods used by urban planners and related professions. The course emphasizes application of statistical methods to urban planning problems. (F)

## RCPL 5173 Urban and Regional Analysis

3 Credit Hours
(Crosslisted with ECON 5173) Prerequisite: Graduate standing and RCPL 5113 or equivalent. A lecture-seminar-problems-oriented course designed to acquaint the student with the scientific techniques used to analyze urban and regional social, economic, political and environmental problems. Oriented to reflect requirements for studies leading to the preparation of goals, policies and plans for urban and regional scale development. (Sp)
RCPL 5203 Urban Land Use Controls
3 Credit Hours
(Crosslisted with SOC 5203) Prerequisite: open to seniors in social sciences, architecture and civil engineering, and to graduate students in regional and city planning. A study of the historical development of property systems; of zoning law, ordinance preparation, and administrative procedures; of subdivision regulations and other codes used in the regulation and control of land use. ( Sp )
RCPL 5213 Principles and Practice of Urban Planning 3 Credit Hours (Slashlisted with RCPL 4213; Crosslisted with GEOG 5213) Prerequisite: open to seniors in social science departments, architecture and civil engineering, and to graduate students in regional and city planning. Examines the physical, social, economic, and public interest determinants of land use; the economic, population, and land use studies required to provide the basis for planning; space and location requirements and design characteristics for residential, commercial, industrial, and public uses of land; and the study of urban traffic as a function of land use in terms of structure and systems. No student may earn credit for both 4213 and 5213. (F)
RCPL 5263 Infrastructure Planning
3 Credit Hours
(Slashlisted with RCPL 4263) Prerequisite: Graduate standing and permission of instructor. This course focuses on an overview of major infrastructure systems; the relationship between larger planning goals such as growth management, economic development, and sustainability and infrastructure; and municipal budgeting and financing techniques for infrastructure projects. No student may earn credit for both 4263 and 5263. (F)

RCPL 5273 International Development Planning 3 Credit Hours (Slashlisted with RCPL 4273) Prerequisite: Graduate standing and permission of instructor. This course is for students interested in improving the quality of life for people living in the developing world. It will explore what has been tried, what has been learned, and what are the current challenges in expanding human opportunity through international development efforts in middle- and low-income countries. No student may earn credit for both 4273 and 5273. (Sp)
RCPL 5283 Public Health and the Built Environment 3 Credit Hours (Slashlisted with RCPL 4283) Prerequisite: Graduate standing and permission of instructor. This class will cover how addressing public health and planning issues together will address our environment, infrastructure costs, health, and quality of life. How we plan the built environment is an essential part of the equation for improving physical activity levels, decreasing air quality pollutants, and increasing transportation options. No student may earn credit for both 4283 and 5283. (Irreg., Sp)

RCPL 5293 Food Systems Planning 3 Credit Hours
(Slashlisted with RCPL 4293) Prerequisite: Graduate standing and permission of instructor. The course will provide a foundational understanding of the social, spatial, economic, and environmental processes that influence food availability, access, consumption, and governance in the United States. Students will acquire an ability to interpret, analyze, and discuss food systems as one component of planning more sustainable forms of urban, suburban, and rural development. No student may earn credit for both 4293 and 5293. (Irreg., Sp )

## RCPL 5353 State and Local Public Finance and Budgeting

## Systems

3 Credit Hours
(Crosslisted with P SC 5353) Prerequisite: graduate standing or permission. An overview of the process and methods for local capital improvement programs and capital budget preparation, and an examination of the relationships between local development policies and fiscal decision making, including revenue potential. (Irreg.)
RCPL 5453 Public Mass Transportation Systems 3 Credit Hours Prerequisite: Graduate standing; CEES 3884 or permission of instructor. Service characteristics of the principal modes of public mass transportation with emphasis on urban transit (fixed-route bus, light rail, subways, commuter rail, paratransit, taxi); legislation and regulations; institutional structures; financing; need and demand studies; planning strategies; management; operations and record keeping; case studies of leading systems. (Irreg.)

## RCPL 5463 Geographic Information Systems for Land Use

Planning
3 Credit Hours
(Slashlisted with RCPL 4463) Prerequisite: Graduate standing or permission of instructor. This introductory course is concerned with theories, models, and techniques for geographical information systems (GIs) and its associated spatial data management, spatial analysis, and quantitative modeling within a GIs environment for effective socioeconomic decision-making for problems in the field of regional and city planning. Introduces the regional and city planning applications of microcomputer-based mapping and geographic information systems. No student may earn credit for both 4463 and 5463. (F)
RCPL 5483 Urban and Regional Transportation Planning 3 Credit Hours Prerequisite: graduate standing or permission. Characteristics of urban and regional passenger and freight demand; travel demand forecasting methodologies; long- and short-range planning strategies; role of governments; characteristics of major modes of transport; decisionmaking strategies; case studies. (Sp)
RCPL 5493 Transportation and Land Development 3 Credit Hours (Crosslisted with CEES 5493) Prerequisite: graduate standing or permission. Study of interactions between land development activity and the transportation network. Application of planning and design techniques to manage the impacts of development upon the transportation system.
RCPL 5513 Subdivision and Planned Unit Development

## Planning

3 Credit Hours
(Slashlisted with RCPL 4513) Prerequisite: Graduate standing and departmental permission. The course provides students from a range of disciplines with a foundational understanding of social, ecological, and physical conditions that influence the design of the built environment. Specifically, the course explores historical and contemporary trends in site planning and urban design as a means of encouraging students to think more critically about designing a more sustainable built environment. No student may earn credit for both 4513 and 5513. (Sp, Irreg.)

RCPL 5522 Comprehensive RCPL Project: Reporting and

## Implementation

2 Credit Hours
Prerequisite: Graduate standing. The second course in a two-course sequence intended to fulfill the 5 -credit studio requirement in Masters of Planning curriculum and Studio V in the MLA curriculum. Focusing on data analysis and presentation of recommendations to a community. Involving quantitative or qualitative analysis of gathered data, the development of recommendations and the preparation of professional deliverables to a client. Laboratory. (F, Sp, Su)
RCPL 5523 Comprehensive RCPL Project: Research and Plan Making 3 Credit Hours
Prerequisite: Graduate standing. First course in a two-course sequence intended to fulfill the 5-credit studio requirement in Masters of Planning curriculum and Studio V in the MLA curriculum. Focusing on data collection for community projects and community engagement aspects of professional planning practice. These elements are often the most time consuming elements of professional practice and usually precede actually "plan making". Laboratory. (F, Sp, Su)

## RCPL 5525 Comprehensive Regional And City Planning

Project
5 Credit Hours
Prerequisite: RCPL 5513 or RCPL 5515 . Theories, Concepts, And Methods Used To Develop And Implement A Comprehensive Regional Or City Plan. Topics Include The Methods To Assess, Analyze, Plan, And Implement The Elements Of A Comprehensive Plan Such As Citizen Participation, Human Settlement Issues, Demographics And Economics, Environmental Factors, Infrastructure Systems, Transportation Systems, Land Use, Community Facilities, And Typical Legally Mandated City Planning Processes. Laboratory. (F)

RCPL 5713 Urban Economic Development Planning 3 Credit Hours Prerequisite: graduate standing or permission of instructor. An introductory course on planning for economic development in the United States at the local, substate and state level. Topics include organizing the economic development planning process, identifying appropriate development strategies, the role of different community components, business attraction and retention, infrastructure issues, industrial parks, financing, training, and programmatic assistance currently available. (Sp)
RCPL 5723 Community Development and Revitalization 3 Credit Hours Prerequisite: graduate standing or permission. An overview of community development, revitalization and preservation programs, their historical context, principles and procedures, current approaches and function in the planning process. Topics also include housing, public/private cooperation, financing methods, historic issues, legal context and case studies. Laboratory (F, Sp)
RCPL 5753 Transportation Geography and Planning 3 Credit Hours (Slashlisted with RCPL 4753; Crosslisted with GEOG 5753) Prerequisite: Graduate standing. This course is intended to introduce students to the world of transportation planning and geography by explaining the importance of transportation from local to global and by engaging them in everyday transportation activities. Topics include, but not limited to, the history of transportation, the relationships between transportation and geography, transportation managements and policies, and urban transportation systems. No student may earn credit for both 4753 and 5753. (Sp)

RCPL 5813 Environmental Planning Methods
3 Credit Hours Prerequisite: graduate standing or permission. An introduction to the use of environment factors in the urban planning process. Current methodologies for minimizing detrimental environmental impacts are introduced and applied to case study examples. Alternative approaches are compared and contrasted.

RCPL 5893 Historic Preservation Planning
3 Credit Hours
Prerequisite: Graduate standing. Through this course, students will: understand and be able to articulate the social and economic values associated with preservation; Gain exposure to and understanding of local, state and federal guidelines for delineation and regulation of historic districts and buildings; Develop case studies in economic feasibility and adaptive reuse, reconstruction and rehabilitation; Understand the role of the State Historic Preservation Office. (F)
RCPL 5960 Directed Readings
1-6 Credit Hours
1 to 6 hours. Prerequisite: Graduate standing; enrollment in regional and city planning; May be repeated; maximum credit six hours. Designed to permit the individual student to read extensively in one or more phases of urban or regional planning. (F, Sp)

RCPL 5970 Special Topics/Seminar

## 1-3 Credit Hours

1 to 3 hours. Prerequisite: Graduate standing or permission of instructor; May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)
RCPL 5980 Research for Master's Thesis 2-9 Credit Hours
2 to 9 hours. Prerequisite: Graduate standing and majors only. Variable enrollment, two to nine hours; maximum credit applicable toward degree, four hours. (F, Sp, Su)

RCPL 5990 Special Studies in Urban and Regional

## Planning

## 2-6 Credit Hours

2 to 6 hours. Prerequisite: Graduate standing; enrollment in regional and city planning; May be repeated with change of subject matter; maximum credit 15 hours. A research problems course designed for the specific needs of students desiring intensive study in a specialized phase of urban or regional planning. Studies are provided in urban and regional analysis, community organization and action programs, and similar areas of concern. Laboratory (F, Sp, Su)
RCPL 6520 Field Studies
1-6 Credit Hours
1 to 6 hours. Prerequisite: Graduate standing; RCPL 5213, RCPL 5613, enrollment in regional and city planning or permission of staff. Provides the individual student with practical experience in working on a professional staff on a specific planning project. The design of the project and the staff situation under which the student will work is carefully controlled to provide opportunity for significant and meaningful experience. (F, Sp, Su)
RCPL 6643 Urban Design Theory
3 Credit Hours
(Crosslisted with L A 6643 and ARCH 6643) Prerequisite: graduate standing. A survey of theory relevant to the urban design process, including social and behavioral concepts, visual and aesthetic theory, spatial and geographic factors of urban form. (Sp)

RCPL 6960 Directed Readings
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor; May be repeated; maximum credit six hours. Directed readings and/or literature review under the direction of a faculty member. (Irreg.)
RCPL 6970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor; May be repeated; maximum credit 12 hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or research and field projects. (Irreg.)

RCPL 6990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing and permission of instructor; May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)

## RELS-Religious Studies

RELS 1113 Introduction to Religious Studies
3 Credit Hours
Facilitates understanding of human behaviors and products that are identified as religious. Includes critical engagements with ideas and practices of authority, transcendence, value, meaning, and collectivity. Provides strong foundation in culturally-grounded critical thinking, a nuanced understanding of how humans construct their worlds, and the ability to interrogate forms of power. (F, Sp, Su) [IV-WC].

## RELS 1213 Judaism and Christianity in Conversation and Conflict <br> 3 Credit Hours

This course introduces students to academic study of Judaism and Christianity, including their relationship to one another in antiquity and today. Our approach is comparative, historical, and analytical as we examine the development of these major religious traditions over time and the diversity both between and within them. (Irreg.) [IV-WC].
RELS 2133 History of Christian Traditions
3 Credit Hours
Explores Christian beliefs and practices from ancient origins to the present day. Examines key texts and observes how and why certain thinkers and events were crucial to the development of the Christian religious tradition, and how ideas and practices were contested (internally and externally) and adapted according to cultural context. (Sp) [IV-WC].

## RELS 2213 World Religions

3 Credit Hours
An introduction to some of the world's major religious traditions, including study of their internal diversity and how they change over time. Close attention is also paid to the ways the categories of "religion" and "world religions" shape the way we understand one another and the world around us. (F) [IV-WDC].
RELS 2303 Introduction to Islam
3 Credit Hours
An introduction to a selection of major Islamic beliefs, texts, stories, practices, rituals, ethical norms, institutions, and debates. History, concepts, and examples are presented with an eye toward interpreting writings by Muslim authors with a diversity of backgrounds and outlooks. (Irreg.) [IV-WDC].

## RELS 2313 Religion and Black Popular Music 3 Credit Hours

Examines the relationship between black religions and black popular music in the U.S. Key areas of emphasis include the cultural, social, religious, political, and economic dimensions (the "context") of genres from spirituals to ragtime, blues, jazz, gospel, rock \& roll, rhythm and blues, reggae, soul, disco, house, and hip hop. (Sp) [IV-AF].
RELS 2613 Pilgrims and Pilgrimage 3 Credit Hours
Prerequisite: Sophomore standing or permission of instructor. This course examines historical and modern-day religious and secular pilgrimage. (Irreg.) [IV-WC].
RELS 2653 Approaches to the Study of Religion 3 Credit Hours Examines ways religion may be studied in order to better understand it. The course will include theory and the methodologies of the social sciences and humanities. (Sp)

RELS 2703 History of Buddhist Traditions
3 Credit Hours
An introductory study of Buddhist traditions focusing on sacred texts and core concepts. Examines the historical development of Buddhism in India, the formation of Theravada, Mahayana, and Vajrayana Buddhism, and local variations in Southeast Asia, East Asia, and the modern West. (Irreg.) [IV-WDC].

## RELS 2713 History of Hindu Traditions

## 3 Credit Hours

Introduces students to the historical development of the many traditions that come under the umbrella of what we now call "Hinduism." Particular attention paid to the ways in which Hindu ways of being have been influenced by many factors in South Asian history, and have constantly been debated and in flux. (Irreg.) [IV-WDC].
RELS 2960 Directed Readings 1-3 Credit Hours 1 to 3 hours. Prerequisite: permission of instructor. May be repeated; maximum credit six hours. Consists of topics designated by the instructor in keeping with the student's major. Topics will cover materials not usually presented in the regular course offerings. (F, Sp, Su)
RELS 2970 Special Topics
1-3 Credit Hours
1 to 3 hours. Prerequisite: May be repeated; maximum credit nine hours.
Special topics course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research, and field projects. (Irreg.)
RELS 3013 Special Topics in Religious Texts
3 Credit Hours
Prerequisite: junior standing or permission of instructor. May be repeated with change of text; maximum credit nine hours. An examination of religious texts, and may include the Koran, Jewish scriptures, Christian scriptures, Bhagavad Gita, Vedas, etc. (Irreg.)

## RELS 3043 Special Topics in Religion, Social Organization \&

 Politics3 Credit Hours
Prerequisite: junior standing or permission of instructor. May be repeated with a change of content; maximum credit nine hours. An examination of issues and topics in religion, social organization and politics. (Irreg.

RELS 3053 Special Topics in Religion and History 3 Credit Hours Prerequisite: junior standing or permission of instructor. May be repeated with a change of content; maximum credit nine hours. An examination of religious phenomena throughout history, appearance and development of religious traditions, or special issues or topics in religion and history. (Irreg.)

## RELS 3103 Famous Bibles

3 Credit Hours
Prerequisite: Junior standing or permission of instructor. The Bible is one of the most famous books ever produced and distributed. But it wasn't always a book, and it has never been singular. The Bible exists in material form as varied and multiple. This course explores the historical circumstances of the production of particular bibles through attention to famous, and infamous, Bibles in Jewish and Christian history. (Irreg.)

## RELS 3153 Jesus Interpreted

3 Credit Hours
Prerequisite: junior standing or permission of instructor. Examines varied portrayals of Jesus of Nazareth in literature, scholarship, and film, ranging from ancient gospels to contemporary scholarly and cinematic portrayals. Primary texts include canonical and non-canonical gospels from antiquity, modern scholarly reconstructions of the historical Jesus, and contemporary Jesus films. (Irreg.) [IV-WC].

RELS 3173 Women and the Bible
Prerequisite: Junior standing or permission of instructor. A study of biblical literature through narratives from the Bible featuring women. Using a variety of perspectives, including historical, literary, and ideological approaches, we consider what these texts tell us about sex, gender, masculinity, and femininity in the ancient world and also how these texts have been interpreted through time to shape attitudes about women, gender, and sexuality. (Irreg.) [IV-WC].
RELS 3193 Biblical Literature
3 Credit Hours
Prerequisite: junior standing or permission of instructor. Examines Biblical texts to observe the Bible as the scriptural background of both Judaism and Christianity; modern scholarship and current debates surrounding the composition, themes, content, and dating of Biblical texts; historical and geographic circumstances surrounding the composition of biblical texts; the Bible as cultural inscription, the various ways the Bible is read today, and its impact on modern culture. (Irreg.) [IVWC].

## RELS 3223 Religion and Nationalism in India

3 Credit Hours Prerequisite: junior standing or permission of instructor. A study of how the major religions of India (Hinduism, Buddhism, Islam, Zoroastrianism, and Sikhism) change under various political regimes; a case study of how these religions transformed under British colonial rule and in nationalist and post-independence India, hardened religious boundaries, and the partition of India into two nation-states, and one (Pakistan) divided again (into Pakistan and Bangladesh). (Irreg.) [IV-WDC].
RELS 3233 Money, Power, and God(s): Religion and Economy East and West

3 Credit Hours
Prerequisite: Junior standing or permission of instructor. An exploration of the intertwining of religious and economic modes of human life, particularly in Euro-American and South Asian contexts. The course disrupts the received categories of "religion" and "economy" to uncover the ways that humans think about what is valuable, good, and precious and how they seek to create a world in which each emerges. (Sp) [IVWDC].
RELS 3323 Religion and Social Change 3 Credit Hours
Prerequisite: Junior standing or permission of instructor. What is social change? What is religion? What is the relationship between religion and social change? This course examines how global movements have intersected with religious communities and practices in the 20th and 21 st centuries in the hope of producing a world where all life, both human and non-human, can flourish. (Irreg.)
RELS 3353 Religion and Black Political Thought 3 Credit Hours Prerequisite: Junior standing or permission of instructor. Examines the relationship between black religions and black political thought in the U.S. Key areas of emphasis include the cultural, social, religious, political, and economic dimensions (the "context") informing the "decolonial turn" in black religious and political thought. (Irreg.)

## RELS 3423 Gender, Sex, and the Body in the Christian

## Tradition

## 3 Credit Hours

Prerequisite: junior standing or permission of instructor. An overview of some topics where issues of gender and sexuality intersect with a particular religious tradition. Topics have to do with gender, sexuality, and religion, including purity and power, celibacy and virginity, marriage, reproductive rights, gender fluidity, and religious leadership and ordination. (F) [IV-WC].

RELS 3440 Mentored Research Experience
3 Credit Hours
0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)
RELS 3533 The Qur'an
3 Credit Hours
Prerequisite: Junior standing or permission of instructor. Intensive study of the Qur'an, its major themes, and literary forms, with attention to a range of classical and contemporary discourses about the Qur'an, emphasizing the great variety of ways in which Muslims and nonMuslims have analyzed and interpreted the Qur'an. (Irreg.) [IV-WDC].

## RELS 3543 Islamic Law <br> 3 Credit Hours

Prerequisite: Junior standing or permission of instructor. A close reading and discussion of primary texts (scriptural, classical, and modern) and accounts of court cases, focused on one aspect of Islamic law such as equity, violence, authority, or gender. (Irreg.) [IV-WDC].
RELS 3563 Islamic Theology
3 Credit Hours
Prerequisite: junior standing or permission of instructor. A close reading and discussion of primary texts (the Qur'an creeds, classical theological arguments, and modern writings) on major theological problems such as salvation, God, revelation, and religious pluralism. (Irreg.) [IV-WDC].

## RELS 3593 Hermeneutics: Approaches to Interpreting the Bible and the Qur'an <br> 3 Credit Hours

Prerequisite: Junior standing or permission of instructor. A historical and philosophical excursion through the landscape of hermeneutics-the theory of how to interpret texts, especially scriptures. We will explore how Christians, Muslims, and modern European philosophers have answered the question of where meaning comes from and how it should be discovered (or created), focusing on how to interpret the Bible and the Qur'an. (Sp)

RELS 3613 Roman Religion
3 Credit Hours
(Crosslisted with HIST 3613) Prerequisite: junior standing or permission of instructor. The course examines religious practices and beliefs in the Roman world from the founding of the Roman Republic to Late Antiquity, including conceptions of the divine, ways of worshiping the gods, civic and private religion, conceptions of the afterlife, magic, the mystery religions and salvation, and philosophical religions, through a survey of literary and archaeological evidence. (Irreg.)
RELS 3623 Paul and Christian Origins
3 Credit Hours
Prerequisite: junior standing or permission of the instructor. Explores who Paul claimed to be within his own Jewish and then Greco-Roman firstcentury context. Explores the letter-writing medium, his view of law, the role of women, resurrection and afterlife, and his goals for the church. (Irreg.)

## RELS 3733 Tibetan Buddhism

3 Credit Hours
Prerequisite: junior standing or permission of instructor. A survey of Tibetan Buddhism, sometimes referred to as "Vajrayana" or "Tantric Buddhism," considered in relation to the socio-cultural history of late Medieval India. Themes include monastic institutions, reincarnate lama traditions, death and dying, and contemporary political issues. A major theme will be the "image of Tibet"--the mythologization of Tibet, the Tibetan people, and their culture in foreign imagination. (Irreg.) [IV-WDC].

RELS 3743 History of Daoist Traditions 3 Credit Hours
Prerequisite: junior standing or permission of instructor. Examines history, practices, and worldviews of the greater Daoist tradition as it developed and took shape over Chinese history focusing on the social and cultural forces that shaped its development, and the views, practices, and goals of specific Daoist schools. A study of the formation of Daoist identity and community, material culture, construction of sacred space, and self-cultivation techniques. (Irreg.) [IV-WDC].
RELS 3763 Chinese Religions
3 Credit Hours
Prerequisite: Junior standing or permission of instructor. This course introduces students to major religious traditions of China: Confucianism, Daoism, Buddhism, and popular religion. These religious traditions are considered in reference to the historical development of their respective worldviews, practices, and institutions as well as the manner in which they have mutually influenced each other over the course of that historical development. (Sp) [IV-WDC].
RELS 3813 Animals, Art, and Religion 3 Credit Hours
Prerequisite: Junior standing or permission of instructor. This interdisciplinary seminar analyzes recent work in animal studies that bridges religious studies, Black studies, Native American studies, feminist and queer theory, anthropology, performance studies, biology, and art history. We'll explore the significance of representational forms in shaping understandings of animality and religion across a variety of artistic practices, including film, theater, photography, poetry, sculpture, painting, and literature. (Irreg.)

## RELS 3823 Queer Religion

3 Credit Hours
(Crosslisted with WGS and LGBT 3823) Prerequisite: Junior standing or permission of instructor. This interdisciplinary seminar engages a range of methods and theoretical approaches to queer studies and religion. The course explores questions including: What is the relationship between queer life and religious life? Is religion ever queer? Is queerness ever religious? What do scholars mean when they label religion (or other objects of study) as queer or queer-able? (Irreg.) [IV-WC].
RELS 3833 Archaeology of the Lands of the Bible 3 Credit Hours (Crosslisted with HIST 3833) Prerequisite: junior standing. Examines the lands, cultures, and people associated with the Hebrew Bible and the New Testament through a chronological survey of archaeological evidence and investigates the relationship between archaeology and biblical texts. The course also investigates archaeological evidence for Jewish and Christian practices in late Roman Palestine as well as archaeological and architectural evidence for early Islamic Jerusalem. (Sp) [IV-WC].

## RELS 3893 Greek Religion

3 Credit Hours
(Crosslisted with HIST 3893) Prerequisite: junior standing or permission of instructor. Examines the religious rituals, beliefs, and sacred sites of the ancient Greeks. Considers such topics as the relationship between myths and ritual, sacred time and space, concepts of the afterlife, and the role of religion in the family and city-state. (Irreg.)
RELS 3900 Special Topics 1-4 Credit Hours
1 to 4 hours. Prerequisite: junior standing or permission of instructor. May be repeated with change of topic; maximum credit nine hours. Topics in Religious Studies not accommodated by the existing curriculum. (Irreg.)

## RELS 3960 Honors Reading

1-3 Credit Hours
1 to 3 hours. Prerequisite: Admission to Honors Program. May be repeated; maximum credit six hours. Consists of topics designated by the instructor in keeping with the student's major program. Topics will cover materials not usually presented in the regular course offerings. Will provide an opportunity for the gifted Honors candidate to work at a special project in the student's field. (F, Sp, Su)

RELS 3970 Honors Seminar

## 1-3 Credit Hours

1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Subjects covered vary. Deals with concepts not usually treated in regular courses. (Irreg.)
RELS 3980 Honors Research
1-3 Credit Hours
1 to 3 hours. Prerequisite: Admission to Honors Program. May be repeated; maximum credit six hours. Consists of topics designated by the instructor in keeping with the student's major program. Topics will cover materials not usually presented in the regular offerings. Will provide an opportunity for the gifted Honors candidate to work at a special project in the student's field. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
RELS 3990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: 1113, Anthropology 1823, Philosophy 1203 or 2403; junior standing, and permission of instructor. May be repeated; maximum credit six hours. Through a written contract, independent study may be arranged for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or field projects. (F, $\mathrm{Sp}, \mathrm{Su}$ )
RELS 4053 History of Magic
3 Credit Hours
(Crosslisted with HSTM 4053) Prerequisite: Junior standing or permission of instructor. This course is an investigation of the category of magic, magical practices, and the place of magic in society from antiquity to the modern world. (Irreg.) [IV-WC].

## RELS 4323 Capstone

3 Credit Hours
Prerequisite: Major in Religious Studies and permission of instructor. Capstone provides the opportunity to integrate knowledge about the major and apply it to a project culminating in a presentation and senior paper. The project will develop a selected problem, issue, or controversy in religious studies. (F, Sp) [V].
RELS 4640 Field Study in Religious Studies
1-6 Credit Hours
(Slashlisted with RELS 5640) 1 to 6 hours. Prerequisite: junior standing and permission of instructor or RELS program. May be repeated with change of content/location; maximum credit 12 hours. Students participate in excavation and field study of material culture. Course combines lectures, lab, discussion, and/or research. The subject matter depends upon the specific summer session. No student may earn credit for both 4640 and 5640 for the same content/location. (Su)
RELS 4960 Directed Readings
1-4 Credit Hours
1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean. May be repeated; maximum credit four hours. Designed for upper-division students who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)

RELS 4970 Special Topics/Seminar 1-3 Credit Hours 1 to 3 hours. Prerequisite: Senior standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)
RELS 4990 Independent Study 1-3 Credit Hours
1 to 3 hours. Prerequisite: 1113, Anthropology 1823, Philosophy 1203 or 2403; senior standing, and permission of instructor. May be repeated; maximum credit six hours. Through a written contract, independent study may be arranged for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or field projects. (F, $\mathrm{Sp}, \mathrm{Su}$ )

RELS 5640 Field Study in Religious Studies 1-6 Credit Hours
(Slashlisted with RELS 4640) 1 to 6 hours. Prerequisite: graduate standing, permission of instructor or RELS program. May be repeated with a change of content/location; maximum credit twelve hours. Students will participate in excavation and field study of material, social, and visual culture. Combines lectures, lab, discussion, and/or research. The subject matter depends upon the specific summer session. No student may earn credit for both 4640 and 5640. (Su)
RELS 5960 Independent Study In Religious Studies 1-3 Credit Hours 1 to 3 hours. Prerequisite: graduate standing and/or permission of instructor. May be repeated with change of content; maximum credit nine hours, maximum of six hours with one professor/instructor. Independent study/directed reading arranged between the professor and student on a special topic in religious studies, to give students the opportunity to complete intensive readings in field of study under direct guidance of the student's advisory committee. F, Sp, Su)
RELS 5970 Special Topics/Seminar 1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)
RELS 5990 Independent Study 1-3 Credit Hours 1 to 3 hours. Prerequisite: Graduate standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)

RELS 6960 Advanced Readings in Religious Studies 1-3 Credit Hours 1 To 3 Hours. Prerequisite: permission of instructor; student must be at PhD level. May be repeated with change of content; maximum credit nine hours. Advanced independent study/directed reading, arranged between the professor and student on a special topics in religious studies.
Designed to give students the opportunity to complete intensive readings in field of study under direct guidance of his/her advisory committee. (F, Sp, Su)
RELS 6970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit 12 hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or research and field projects. (Irreg.)

RELS 6990 Independent Study 1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)

## RPHD-Music Recitals

RPHD 6022 Graduate Recital-Doctor of Philosophy Degree 2 Credit Hours
Prerequisite: concurrent enrollment in 6010, permission of adviser and instructor. May be repeated for credit with the approval of the student's advisory committee. May not be elected during first enrollment. Preparation and performance of a public recital. (F, Sp, Su)

## RUSS-Russian

RUSS 1115 Beginning Russian
5 Credit Hours
An elementary course in understanding, speaking, reading and writing Russian. This course does not count for major credit in the Department of Modern Languages, Literatures and Linguistics. (F, Sp, Su) [l-FL].

RUSS 1225 Beginning Russian (Continued)
5 Credit Hours
Prerequisite: 1115. An elementary course in understanding, speaking, reading and writing Russian. This course does not count for major credit in the Department of Modern Languages, Literatures and Linguistics. ( $F$, Sp ) $[\mathrm{I}-\mathrm{FL}]$.
RUSS 2113 Intermediate Russian 3 Credit Hours
Prerequisite: 1225. Training in reading, writing, speaking, and understanding contemporary Russian. Emphasis on expansion of vocabulary and strong reinforcement of grammatical structures. (F, Sp)
RUSS 2223 Intermediate Russian (Continued) 3 Credit Hours
Prerequisite: 2113. Continued training in reading, writing, speaking, and understanding contemporary Russian. Emphasis on expansion of vocabulary and strong reinforcement of grammatical structures. ( $F, S p$ )
RUSS 2970 Special Topics/Seminar 1-3 Credit Hours
Special Topics. 1 to 3 hours. May be repeated; maximum credit nine hours. Special topics course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research, and field projects. (Irreg.)
RUSS 3023 Beginning Business Russian
3 Credit Hours
Prerequisite: twenty hours of Russian. Intended to enable Russian students to read, write, and translate business Russian. Readings in this course will consist of translating contracts, agreements, and other areas of commercial correspondence. (Irreg.)

RUSS 3073 Russian Conversation
3 Credit Hours
Prerequisite: RUSS 2113. Training in reading, writing, and understanding contemporary Russian. Emphasis on expansion of vocabulary and strong reinforcement of grammatical structures. (F, Sp)
RUSS 3313 Russian Phonetics 3 Credit Hours
Prerequisite: 2113. A detailed study of the sounds of Russian and the inculcation of proper speech habits. (Irreg.)
RUSS 3323 Advanced Russian Reading and Composition 3 Credit Hours Prerequisite: 2223. A systematic grammar review with a view toward improving the student's control of written Russian. (F)
RUSS 3423 Advanced Russian Reading and Composition
(Continued)
3 Credit Hours
Prerequisite: 3323. A systematic grammar review with a view toward improving the student's control of written Russian. (Sp)
RUSS 3440 Mentored Research Experience 3 Credit Hours 0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)

RUSS 3523 Interpreting the Russian Media 3 Credit Hours
Prerequisite: 2223. Focus on developing higher-level receptive and productive language skills through an exposure to authentic texts from Russian print media and television news reports. Students will focus on vocabulary-building, recognizing and employing journalistic conventions, reading between the lines, understanding nuance and enhancing their awareness of cultural references. (Irreg.)
RUSS 3533 Russian Pop Culture 3 Credit Hours
Prerequisite: RUSS 2223. A communicative language class in which students explore contemporary Russian-language popular music, television programming, and internet culture. (Irreg.)

## RUSS 3960 Honors Reading 1-3 Credit Hours

1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Consists of topics designated by the instructor in keeping with the student's major program. The topics will cover materials not usually presented in the regular courses. (F, Sp, Su)
RUSS 3970 Honors Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. The projects covered will vary. The content will deal with concepts not usually covered in regular coursework. (Irreg.)
RUSS 3980 Honors Research 1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Provides an opportunity for the gifted Honors candidate to work at a special project in the student's field. ( $\mathrm{F}, \mathrm{Sp}$ )
RUSS 3990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: one course in general area to be studied; permission of instructor and department. May be repeated; maximum credit six hours. Contracted independent study for topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. ( $\mathrm{F}, \mathrm{Sp}$ )
RUSS 4173 Topics in Nineteenth-Century Russian Literature and Culture 3 Credit Hours
Prerequisite: 3423. May be repeated once with change of content; maximum credit six hours. A course for advanced students of the Russian language. All reading assignments and lectures will be in Russian. (F)

## RUSS 4183 Topics in 20th and Post-20th Century Russian Literature

 and Culture 3 Credit HoursPrerequisite: 3423. May be repeated once with change of content; maximum credit six hours. A course for advanced students of the Russian language. All reading assignments and lectures will be in Russian. (Sp) [V].
RUSS G4613 Advanced Russian Conversation 3 Credit Hours
Prerequisite: 3073, 3323. Conversation on topics in Soviet history, government, literature and sociology with emphasis on the particular terminology of each of these fields. (Sp)

RUSS 4960 Directed Readings 1-4 Credit Hours 1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean. May be repeated; maximum credit four hours. Designed for upper-division students who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)

RUSS 4970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: Senior standing or permission of instructor. May be repeated; maximum credit nine hours. Special Topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)
RUSS 4990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: three courses in general area to be studied; permission of instructor and department. May be repeated; maximum credit six hours. Contracted independent study for topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (F, Sp)
RUSS 5910 Problems in Research 2-4 Credit Hours
2 to 4 hours. May be repeated with change of content; maximum credit nine hours. An individual course of intensive research with the area and problem to be determined by the student and directing instructor. (F, Sp)

## RUSS 5960 Directed Readings <br> 1-3 Credit Hours

1 to 3 hours. Prerequisite: graduate standing and permission of department. May be repeated; maximum credit twelve hours. Directed readings and/or literature reviews under the direction of a faculty member. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
RUSS 5970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

RUSS 5990 Independent Study 1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)

## S WK-Social Work

S WK 2113 Introduction to Social Work
3 Credit Hours
Prerequisite: sophomore or junior standing. Defines the profession of social work and describes its historical development. Provides foundation knowledge in social work values, professional ethics, and the history of social welfare and social services policy in the United States. ( $F, S p$ )

S WK 2223 Statistics for Social Work 3 Credit Hours
Prerequisite: DMAT 0123, MATH 0123, or satisfactory score on math placement exam. Introduction to statistics and data analysis in social work and the helping professions. Covers descriptive statistics (univariate and bivariate), inferential statistics (estimation and significance tests) and data interpretation (causality and generalizability). ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ ) [l-M].
S WK 2970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: Permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)
S WK 3003 Interviewing Skills for Generalist Practice 3 Credit Hours Prerequisite: majors only. Introduction to basic interviewing and communication skills utilized in culturally sensitive, generalist social work practice. Emphasis on the development of self-awareness and skill development and on providing both didactic and experiential learning. (F)

S WK 3013 Professions in Social Work
3 Credit Hours
Prerequisite: Junior standing. This course provides an overview of social work as a profession, including central concepts and theories, values and ethics and career pathways. The profession's historical development is included along with a focus on poverty and economic disparity, human rights and social justice, and human diversity. It provides an introduction to the generalist practice model across system levels. (Su)

## S WK 3103 Generalist Practice with Individuals and

## Families

3 Credit Hours
Prerequisite: majors only. First of three generalist social work practice courses explicates a generalist perspective that focuses on the knowledge, values, skills, and techniques appropriate for engagement, assessment, intervention and evaluation with individuals and families. (F)

S WK 3113 Generalist Practice with Families and Groups 3 Credit Hours Prerequisite: Junior standing and S WK 3103 or concurrent enrollment. The second of three generalist social work practice courses; explicates a generalist perspective that focuses on the knowledge, values, skills and techniques appropriate for engagement, assessment, intervention, and evaluation with families and small groups. ( $F, S p$ )

S WK 3233 Human Behavior. Individuals and Families 3 Credit Hours Prerequisite: majors only. Within a social systems framework and biopsychosocial perspective, students learn empirically based theories which deal with life-span development and family dynamics. This course provides a theoretical foundation for micro-level generalist practice. (F)
S WK 3313 Social Welfare Policy: Analysis and Practice 3 Credit Hours Prerequisite: majors only. An undergraduate level historical and descriptive review of federal and state social welfare programming, introduction to social welfare policy analysis, and the role of the social work profession in affecting change in social welfare policy. (Sp)
S WK 3323 Human Diversity and Social Justice 3 Credit Hours Prerequisite: majors only. Provides undergraduate students with social work knowledge of human diversity from a social justice perspective. Knowledge of diverse groups' norms/values, differential power, societal oppression, and transactions between and within social groups are emphasized. (F)

## S WK 3440 Mentored Research Experience

3 Credit Hours
0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)

## S WK 3960 Honors Reading <br> 1-3 Credit Hours

1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Will consist of topics designated by the instructor in keeping with the student's major program. The topics will cover materials not usually presented in regular coursework. (F, Sp, Su)

## S WK 3970 Honors Seminar

1-3 Credit Hours
1 to 3 hours. Prerequisite; admission to Honors Program. May be repeated; maximum credit six hours. The projects covered will vary. The content will deal with concepts not usually presented in regular coursework. (Irreg.)

S WK 3980 Honors Research
1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Will provide an opportunity for the gifted Honors candidate to work at a special project in the student's field. (F, Sp, Su)

S WK 3990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: permission of instructor and junior standing. May be repeated once with change of content. Independent study may be arranged to study a subject not available through regular course offerings. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

## S WK 4003 Forensic Social Work

3 Credit Hours
(Slashlisted with S WK 5003) Prerequisite: Junior standing. This course provides an overview of forensic social work practice and theory. Additionally, it illustrates skills for working with diverse populations across the lifespan and across diverse settings, such as community, medical, school, child welfare, mental health and addictions, and juvenile and criminal justice settings. No student may earn credit for both 4003 and 5003. (Irreg.)
S WK 4033 Trauma-Informed Practice in Child Welfare 3 Credit Hours (Slashlisted with S WK 5033) Prerequisite: Senior standing; Students who are being funded by the Child Welfare program are required to take this course. This course will provide a multi-dimensional exploration of trauma and the importance of trauma informed child welfare practice. Skill development focuses on building a strong knowledge base concerning trauma that will support ethical social work practice and an emphasis on strengths-based social work service delivery. This course also brings forward the concepts of trauma informed organizational practice. No student may earn credit for both 4033 and 5033. (Su)

## S WK 4053 Preventing and Treating Substance Use

 Disorders
## 3 Credit Hours

(Slashlisted with S WK 5053) Prerequisite: Junior standing or permission of instructor. Students will be introduced to the fundamentals of the prevention and treatment of substance use disorders. Course emphasizes best practices in the areas of treatment and prevention of substance use disorders, and the strategic prevention framework. Cultural influences and issues important to special populations will be also reviewed. No student may earn credit for both 4053 and 5053. (Irreg.)
S WK 4063 Social Work with Older Adults 3 Credit Hours (Slashlisted with S WK 5063) Prerequisite: Upper-division standing or permission of instructor. Focus is on issues of significance to social work or social welfare. This course focuses on the knowledge, skills and techniques appropriate for engagement, assessment, intervention and evaluation with older adults and their family caregivers. No student may earn credit for both 4063 and 5063. (Irreg.)

## S WK 4083 Undergraduate Social Work Research Methods

Prerequisite: senior standing and S WK 2223 or equivalent. Introduction to the design and implementation of quantitative and qualitative research methods appropriate to social work practice evaluation and program evaluation. (F)

## S WK 4093 Undergraduate Social Work Research Methods

II
3 Credit Hours
Prerequisite: S WK 4083. Introduction to applied data analysis methods appropriate to research in social work practice evaluation and human services program evaluation. (Sp)

## S WK 4103 Generalist Practice with Organizations and

 Communities
## 3 Credit Hours

Prerequisite: S WK 3113; Majors only. Third of three methods courses in the social work practice sequence using a generalist model focuses on knowledge, values and skills requisite for social work practice with various client systems. Course emphasizes development of knowledge and skills specific for assessment and intervention with organizations and communities. (Sp)

S WK 4163 Child Abuse and Neglect
3 Credit Hours
(Slashlisted with S WK 5163) Prerequisite: upper-division standing or permission of instructor. Introduction to the field of child abuse and neglect. Examines the history of the field, different forms of abuse and neglect, causative factors, abuse and neglect dynamics, treatment approaches, the social services system, and prevention strategies. No student may earn credit for both 4163 and 5163. (Irreg)
S WK 4170 Special Topics in Social Work and Social Welfare

2-3 Credit Hours
(Slashlisted with S WK 5170) 2 to 3 hours. Prerequisite: upper-division standing or permission of director. May be repeated with change of content; maximum credit nine hours. Focus is on issues significant to social work or social welfare. No student may earn credit for both 4170 and 5170 on the same topic. (Irreg.)
S WK 4313 Practicum Seminar I 3 Credit Hours Prerequisite: senior standing, majors only; corequisite: 4315. The integration of classroom course content with the learning of practice skills in the field setting. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
S WK 4315 Practicum I
5 Credit Hours
Prerequisite: majors only, senior standing; corequisite: S WK 4313. A structured, educationally directed experience in social work practice, provided under the supervision of a qualified social worker as practicum instructor. (F, Sp, Su)
S WK 4323 Practicum Seminar II
3 Credit Hours
Prerequisite: Social Work BASW majors only; S WK 4313; senior standing; corequisite: S WK 4325. This is the Capstone course for the BASW. The purpose of this course is for students to demonstrate application of major social work content including social work research, social welfare policy, human behavior in the social environment, human diversity, and social work practice in the context of a field practicum setting. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

## S WK 4325 Practicum II

5 Credit Hours
Prerequisite: S WK 4315 and S WK 4313; majors only; senior standing; permission of instructor; corequisite: S WK 4323. A continuation of the educational experience in S WK 4315. In combination with Practicum Seminar II (S WK 4323), this course comprises the General Education capstone experience in social work. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ ) [V].

## S WK 4573 Disaster Response in Japan: A Human Rights <br> Approach <br> 3 Credit Hours

(Slashlisted with S WK 5573) Prerequisite: Junior standing or instructor permission. This course provides experiences and knowledge of how human advocacy services are provided to victims of disasters in Japan, man-made or natural. This is the study abroad program which was cultivated within the frameworks of Experiential and Transformative Learning theories, specifically for students to gain knowledge of and experience in global human rights aspects in social work. No student may earn credit for both 4573 and 5573. (Sp) [IV-WDC].

## S WK 4753 Child and Adolescent Psychopathology: Assessment and Treatment <br> 3 Credit Hours

(Slashlisted with S WK 5753) Prerequisite: Junior standing or permission of instructor. Provides an overview of clinical information necessary to effectively assess, diagnose and provide social work treatment for children and adolescents in need of mental health services. The course incorporates both person-in-environment and strengths perspective in the understanding of how to serve children and families dealing with childhood disorders. No student may earn credit for both 4753 and 5753. (Irreg.)

S WK 4960 Directed Readings
1-4 Credit Hours
1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean. May be repeated; maximum credit four hours. Designed for upper-division students who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)
S WK 4970 Special Topics/Seminar 1-3 Credit Hours
1 to 3 hours. Prerequisite: Senior standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)
S WK 4990 Independent Study 1-3 Credit Hours
1 to 3 hours. Prerequisite: three courses in general area to be covered; permission of instructor and undergraduate program coordinator. May be repeated; maximum credit six hours. Contracted independent study for topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field practicum projects. (F, Sp, Su)
S WK 5003 Forensic Social Work
3 Credit Hours
(Slashlisted with S WK 4003) Prerequisite: Graduate standing. This course provides an overview of forensic social work practice and theory. It illustrates skills for working with diverse populations across the lifespan and across diverse settings, such as community, medical, school, child welfare, mental health and addictions, and juvenile and criminal justice settings. No student may earn credit for both 4003 and 5003. (Irreg.)
S WK 5033 Trauma-Informed Practice in Child Welfare 3 Credit Hours (Slashlisted with S WK 4033) Prerequisite: Graduate standing; Students funded by the Child Welfare program are required to take this course. This course will provide a multi-dimensional exploration of trauma and the importance of trauma-informed child welfare practice. Skill development focuses on building a strong knowledge base concerning trauma that will support ethical social work practice and an emphasis on strengths-based social work service delivery. The course also brings forward the concepts of trauma-informed organizational practice. No student may earn credit for both 4033 and 5033. (Su)
S WK 5043 Introduction to Advanced Integrative Practice3 Credit Hours Prerequisite: Requires admission to MSW Advanced Standing program. This seminar course is designed to enhance the preparation of Advanced Standing students for graduate study in social work. This course orients students to graduate level writing and research, the generalist practice model, Social Work in Oklahoma, simulation as a tool for skill development, and an introduction to the Decision Case model. Individualized student professional development is emphasized. (Su)
S WK 5053 Preventing and Treating Substance Use Disorders

## 3 Credit Hours

(Slashlisted with S WK 4053) Prerequisite: Graduate standing or permission of instructor. Students will be introduced to the fundamentals of the prevention and treatment of substance use disorders. Course emphasizes best practices in the areas of treatment and prevention of substance use disorders, and the strategic prevention framework. Cultural influences and issues important to special populations will be also reviewed. No student may earn credit for both 4053 and 5053. (Irreg.)

S WK 5063 Social Work with Older Adults 3 Credit Hours
(Slashlisted with S WK 4063) Prerequisite: Graduate standing or permission of instructor. Focus is on issues of significance to social work or social welfare. This course focuses on the knowledge, skills, and techniques appropriate for engagement, assessment, intervention, and evaluation with older adults and their family caregivers. No student may earn credit for both 4063 and 5063. (Irreg.)
S WK 5083 Social Work Research Methods 3 Credit Hours Prerequisite: Graduate standing in Social Work. Introduction to the design and implementation of quantitative and qualitative research methods used to evaluate the effectiveness of social work practice and policies. (F)

## S WK 5093 Social Work Research Methods II <br> 3 Credit Hours

Prerequisite: graduate standing in Social Work and S WK 5083.
Introduction to applied data analysis methods appropriate to research in social work practice evaluation and human services program evaluation. (Sp)
S WK 5153 Seminar on Community Health
3 Credit Hours
Prerequisite: graduate standing in social work or permission of instructor. This is an intensive course that immerses students within the OUTulsa School of Community Medicine Summer Institute. A variety of experiential learning methods are combined into an interdisciplinary setting. Full participation in the Summer Institute is required in addition to specific assignments relevant to social work. (Irreg.)
S WK 5163 Child Abuse and Neglect 3 Credit Hours (Slashlisted with S WK 4163) Prerequisite: graduate standing or permission of instructor. Introduction to the field of child abuse and neglect. Examines the history of the field, different forms of abuse and neglect, causative factors, abuse and neglect dynamics, treatment approaches, the social services system, and prevention strategies. No student may earn credit for both 4163 and 5163. (Irreg.)

## S WK 5170 Special Topics in Social Work and Social

## Welfare

## 2-3 Credit Hours

(Slashlisted with S WK 4170) 2 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated with change of content; maximum credit 12 hours. Focus is on issues significant to social work or social welfare. No student may earn credit for both 4170 and 5170 on the same topic. (Irreg.)
S WK 5213 Infant Mental Health
3 Credit Hours
Prerequisite: graduate standing in social work or permission of instructor. This course provides an overview of clinical and policy information necessary to effectively assess, and provide treatment for children ages 1 -5 years and their families. (Irreg.)
S WK 5253 Alcohol and Other Drugs 3 Credit Hours Prerequisite: graduate standing in Social Work or permission of instructor. Integrated focus on the action of drugs and the consequences of AOD use, abuse, and addiction. Historical and current policies as well as issues are also examined. Attention is given to diverse populations, research findings and theoretical perspectives. (Irreg.)

## S WK 5263 Biopsychosocial Aspects of Health and

 Behavior3 Credit Hours
Prerequisite: graduate standing or permission of instructor. The primary focus of this course is on enhancing knowledge and understanding of biological determinants of health and behavior as they interact with the environmental dimensions of health and behavior. These issues will be discussed in relation to the individual, and family, as well as ethical and policy and program implications. (Irreg.)

S WK 5273 School Social Work
3 Credit Hours
Prerequisite: graduate standing in social work or permission of instructor. Designed to help prepare students for social work practice in school settings. It covers a range of practice and policy issues along with the multiplicity of school social worker roles and responsibilities. Currently offered as an internet course. (Irreg.)

## S WK 5283 Tribal-U.S.Child/Family Welfare Policy and Practice 3

 Credit
## Hours

Prerequisite: graduate standing. Examines and critically analyzes the policies, regulations, and organizational change issues that aim to improve the lives of children, youth, and families from tribal and United States backgrounds. The contexts, forces, and ideologies that produce the often-changing goals and methods of agencies serving children and their families at a tribal, state, and national levels will be examined. Emphasis will be placed on current opportunities and dilemmas facing Indian child welfare programs and public and private child welfare agencies. Using social and behavioral science research and information related to diversity and social justice, critical frameworks for assessing and analyzing child welfare policies, service systems, and organizational structures will be developed. It is highly recommended that S WK 5293: Social Work with American Indians be taken prior to this course. (Irreg.)

S WK 5293 Direct Practice with Diverse Students, Disabilities, \& Transition 3 Credit Hours
Prerequisite: S WK 5103 or EDSP 5093 or permission of instructor; Social Work or Educational Psychology graduate students only. An overview of the theory and skills needed to work with diverse students including students with disabilities as they prepare to transition from school to adult life. Focuses on the knowledge, values, skills, and techniques appropriate for engagement, assessment, intervention and evaluation with diverse students preparing for transition. (Su)
S WK 5303 American Indian Behavioral Health 3 Credit Hours Prerequisite: graduate standing. Provides the knowledge, skills, and self-awareness necessary for culturally relevant behavioral health services to tribal populations located in the United States. Knowledge will encompass traditional tribal conceptualizations of mental health and the impact of colonization. Indigenous and Western theories will frame the development of skills for mental health and substance abuse assessment, interventions, and prevention with individuals, families, and communities with a particular focus on tribal youth. It is highly recommended that S WK 5293: Social Work with American Indians be taken prior to this course. (Irreg.)

## S WK 5313 Policy Practice in Social Work: Analysis and

 Advocacy 3 Credit HoursPrerequisite: graduate standing in Social Work. A historical and descriptive review of federal and state social welfare programming, an introduction to practice skills of policy analysis, and advocacy in affecting development, change, or implementation of social welfare policy. (F, Sp)
S WK 5333 Human Diversity and Societal Oppression 3 Credit Hours Prerequisite: graduate standing in Social Work. Provides graduate students with social work knowledge of human diversity from a social justice perspective. Knowledge of diverse groups' norms/values, differential power, societal oppression, and transactions between and within social groups is emphasized. (F)

S WK 5343 Social Work with American Indians 3 Credit Hours
Prerequisite: graduate standing in Social Work, Native American Studies or junior/senior undergraduate standing in Social Work or Native American Studies. An introduction to issues influencing social work among American Indians. Knowledge of tribal culture, historical and contemporary oppression, sovereign status, and current service contexts will be framed against the strengths and empowerment perspectives. The skills and values unique to social work with American Indians will be developed to form the essential foundation for effective practice across the individual, family, clan, community, and tribal nation. (Irreg.)

## S WK 5353 International Child Welfare

3 Credit Hours
Prerequisite: graduate standing. Comparative study of child welfare policies and practices in Israel and the United States through study abroad. Content areas include international and comparative frameworks in policy and practice analyses, child welfare practices in the United States and Israel, governmental and not-for-profit sectors for the protection of children and their families, cross-cultural learning exchanges with social work students and social workers in Israel and the United States. (Su)
S WK 5363 Health \& Social Work
3 Credit Hours
Prerequisite: graduate standing or special permission for undergrads. Designed to develop practice-based knowledge of social work in health care settings, medical terminology, health care provisions, interdisciplinary teams, and insurance issues; the effects of illness and disease on the patient and families, the importance of patient rights and the intersection of culture, gender, age, class, and sexual orientation, on the interactions between the patient, healthcare system and professionals. (Irreg.)
S WK 5373 Theory, Practice, and Evaluation with Individuals 3 Credit Hours
Prerequisite: Graduate standing in Social Work. This course provides the theoretical background, practice skills, and research experience necessary for generalist social work practice and evaluation at the individual level. The generalist intervention model is the foundation for teaching the knowledge, values, skills, cognitive, and affective processes necessary for engagement, assessment, intervention, and evaluation with individuals. ( $\mathrm{F}, \mathrm{Sp}$ )

## S WK 5383 Theory, Practice, and Evaluation with Families and Groups 3 Credit Hours

Prerequisite: Graduate standing in Social Work. This course addresses foundation-level components of theory, practice, and evaluation related to generalist social work practice with families and groups. Students learn key explanatory theories about how families and groups operate, and are introduced to generalist practice models for practice with these client types. Students also learn about how to effectively evaluate practice with families and groups. ( $\mathrm{F}, \mathrm{Sp}$ )

## S WK 5393 Theory, Practice, and Evaluation with Communities and Organizations <br> 3 Credit Hours

Prerequisite: Graduate standing in Social Work. Exploration of the generalist perspective focusing on the knowledge, values, skills, and techniques appropriate to assessment and interventions with organizations and communities. (F,Sp)

## S WK 5403 Professional Social Work

3 Credit Hours
Prerequisite: Graduate standing in Social Work. This course is an overview of social work as a profession, including central concepts and theories, values, ethics, and career pathways. The profession's historical development is included along with a focus on poverty and economic disparity, human rights and social justice, and human diversity. It provides an introduction to the generalist practice model across system levels.

S WK 5413 Social Work Practicum I
3 Credit Hours
Prerequisite: Graduate standing in Social Work, and permission of practicum coordinator. Professionally supervised foundation year practicum placement in an area social service agency. (F, Sp, Su)
S WK 5423 Social Work Practicum II
3 Credit Hours
Prerequisite: Graduate standing in Social Work, and S WK 5413 or concurrent enrollment. A professionally supervised practicum placement in an area social service agency; a continuation of S WK 5413. (F, Sp, Su)
S WK 5433 Human Lifespan Development
3 Credit Hours
Prerequisite: Graduate standing in Social Work. Within a social systems framework and biopsychosocial perspective, students learn empiricallybased theories that deal with lifespan development and family theory. This course provides an introduction to small group dynamics and development as well as a theoretical foundation for micro and mezzo level generalist practice. ( $F, S p$ )

## S WK 5513 Client-Centered Direct Practice

3 Credit Hours
Prerequisite: Graduate standing in Social Work. This course addresses clinical practice across the lifespan with application to individuals, families, and groups. Evidenced informed practice provides a framework within which empirically supported treatment modalities are explored as they relate to the intersecting domains of trauma, substance abuse, and mental health. (F)

S WK 5523 Macro Systems in Practice
3 Credit Hours
Prerequisite: Graduate standing in Social Work. This course utilizes an advanced generalist perspective focused on advancing the knowledge, values, skills, and techniques appropriate to engagement, assessment, and intervention with organizations and communities. (F)
S WK 5563 Integrative Practice with Children and Families 3 Credit Hours
Prerequisite: Graduate standing. This course provides students with specific knowledge and skills utilized when working with children and adolescents within their family systems. (Irreg.)
S WK 5573 Disaster Response in Japan: A Human Rights Approach 3 Credit Hours
(Slashlisted with S WK 4573) Prerequisite: Graduate standing or permission of instructor. This course provides experiences and knowledge of how human advocacy services are provided to victims of disasters in Japan, man-made or natural. This is the study abroad program which was cultivated within the frameworks of Experiential and Transformative Learning theories, specifically for students to gain knowledge of and experience in global human rights aspects in social work. No student may earn credit for both 4573 and 5573. (Sp)
S WK 5723 Human Services Administration
3 Credit Hours
Prerequisite: Graduate standing. Social work selective course offered first to social work master's level students who have completed a foundation level macro social course. Primary attention is given to the roles of administrator and planner in social work/social welfare settings with additional emphasis on grant writing and resource development. (Irreg.)
S WK 5733 Mental Health Assessment and Diagnosis 3 Credit Hours Prerequisite: graduate standing in social work or permission of instructor. Designed to assist the student in understanding \& using the prevailing psychiatric taxonomic system, the diagnostic \& statistical manual of mental disorders (DSM 5). Prepares students to function in clinical settings where familiarity with the DSM 5 criteria \& the multi-axial diagnostic framework is fundamental knowledge. Additionally, students will examine the benefits and risks of this psychiatric taxonomy. (Irreg.)

## S WK 5753 Child and Adolescent Psychopathology: Assessment and Treatment <br> 3 Credit Hours

(Slashlisted with S WK 4753) Prerequisite: Graduate standing in social work or permission of instructor. Provides an overview of clinical information necessary to effectively assess, diagnose, and provide social work treatment for children and adolescents in need of mental health services. The course incorporates both person-in-environment and strengths perspective in the understanding of how to serve children and families dealing with childhood disorders. No student may earn credit for both 4753 and 5753. (Irreg.)

## S WK 5783 Human Sexuality 3 Credit Hours

Prerequisite: Graduate standing in Social Work or instructor permission. This course provides graduate students with social work knowledge of human sexuality in social work practice. The primary goal of the course is to increase social worker's competence and understanding of human sexuality concepts based on theory, research and practice. (Irreg.)
S WK 5816 Social Work Practicum III 6 Credit Hours Prerequisite: Graduate standing in Social Work, S WK 5513, S WK 5523, and permission of instructor. This course offers an educationally focused and professionally supervised practicum placement in a social service agency and requires a minimum of 550 clock hours at an assigned practicum site. (Sp, Su)
s WK 5826 Social Work Practicum IV
6 Credit Hours
Prerequisite: Graduate graduate standing in Social Work, S WK 5513, S WK 5523, and permission of instructor. This course offers an educationally focused \& professionally supervised practicum placement in a social service agency \& requires a minimum of 550 clock hours at an assigned practicum site. (Sp, Su)
S WK 5833 Social Work with Sexual and Gender
Minorities
3 Credit Hours
Prerequisite: Graduate standing in social work. This course addresses advanced micro, mezzo, and macro-level social work practice with individuals identifying as lesbian, gay, bisexual, transgender, queer and/or questioning, intersex, asexual, two-spirit (LGBTQIA2S+). (Irreg.)

## S WK 5883 Military Social Work

3 Credit Hours
Prerequisite: Graduate standing. Theoretical and practical approaches to clinical practice with military families. Overview of common social issues in the military system and demands on the family dynamic. (Irreg.)
S WK 5960 Directed Readings
1-4 Credit Hours
1 to 4 hours. Prerequisite: graduate standing in Social Work and permission of the department. Directed readings and/or literature reviews under the direction of a faculty member. May be repeated; maximum credit six hours. (F, Sp, Su)

S WK 5970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)
S WK 5973 Advanced Integrative Seminar 3 Credit Hours
Prerequisite: Graduate standing in Social Work. This is an advanced integrative seminar for concentration year students taken in the final semester. The course builds on foundation and concentration course work throughout the MSW curriculum using critical thinking that incorporates micro and macro systems case analysis and decisionmaking. (Sp)

S WK 5980 Research for Master's Thesis
2-6 Credit Hours
Prerequisite: permission of instructor. Research for Master's thesis. Variable enrollment, two to six hours; maximum credit applicable toward degree: six hours. (F, Sp, Su)
S WK 5990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)
S WK 6003 Theories for Social Work
3 Credit Hours
Prerequisite: Graduate standing in social work or departmental permission. This course examines social work theories, analyzing their assumptions and empirical basis. Students explore historical contexts, research effectiveness, and major theories from diverse disciplines. Additionally, they delve into unique theories related to their interests, gaining insight into broader philosophical and empirical methods supporting social work. (F)
S WK 6011 Doctoral Professional Seminar I 1 Credit Hour
Prerequisite: Graduate standing in social work or departmental permission. This one-hour seminar delves into career opportunities for Ph.D. in social work holders, covering academia, research, policy, and more. Participants learn to create a strategic professional development plan during their doctoral studies and post-Ph.D. years. The session also provides insights into job search processes for academic, post-doc, research, and policy positions. (F)
S WK 6013 Applied Quantitative Research Methods 3 Credit Hours Prerequisite: Graduate standing in social work or departmental permission. This course delves into the diverse landscape of quantitative research designs, covering five key types. Participants explore the nuances of Descriptive, Survey, Correlational, Quasi-experimental, and Experimental Research designs. Through engaging discussions and practical applications, learners gain a comprehensive understanding of each design's purpose, methods, and potential contributions to empirical inquiry in various fields. (F)
S WK 6021 Doctoral Professional Seminar II 1 Credit Hour
Prerequisite: Graduate standing in social work or departmental permission. This one-hour seminar covers crucial aspects of academic progression. Topics include selecting an advisor and dissertation committee, faculty presentations, conference participation, and publishing endeavors. Faculty members provide insights and guidance, ensuring students gain valuable knowledge in navigating academia. The seminar concludes with reflections and next steps, fostering a comprehensive understanding of key academic milestones. (Sp)
S WK 6023 Applied Qualitative Research Methods 3 Credit Hours Prerequisite: Graduate standing in social work and completion of CITI Human Subjects Training. This course builds on qualitative research skills, focusing on conceptualization, design, and data collection in social work and related fields. It addresses research problems, design considerations, and theory's role, encompassing qualitative traditions like biography, phenomenology, grounded theory, ethnography, and case study. It explores qualitative data collection methods such as observation, interviews, focus groups and document analysis. (F)

S WK 6041 Doctoral Professional Seminar IV 1 Credit Hour Prerequisite: Graduate standing in social work or departmental permission. This course navigates diverse career paths in research, policy, and international work. Participants explore their interests, learn to craft a professional vita, and draft effective cover letters. The module on obtaining external funding covers fellowship basics, research funding exploration, and proposal development skills. The job search segment addresses crucial considerations, interview preparation, and efficient research communication. (Sp)
S WK 6043 Advanced Qualitative Data Analysis 3 Credit Hours Prerequisite: Graduate standing in social work and completion of CITI Human Subjects Training. This advanced qualitative data analysis course explores intricate methodologies for analyzing qualitative data. Students delve into advanced coding techniques, thematic analysis, and interpretive frameworks. Emphasis is on refining skills in uncovering nuanced insights, triangulating data sources, and crafting comprehensive narratives. The course integrates practical applications, fostering expertise in handling complex qualitative research challenges. (Sp)
S WK 6053 Advanced Quantitative Data Analysis 3 Credit Hours Prerequisite: Graduate standing in social work and completion of CITI Human Subjects Training. This advanced inferential statistics course focuses on practical statistical analysis. Students explore the role of statistics in research, learn terminology, apply appropriate techniques, and interpret findings in economics, business, nursing, and medical research. Topics include data graphing, hypothesis testing, chi-squared, ANOVA, regression, correlation, and decision-making under uncertainty. (Sp)
S WK 6980 Research for Doctoral Dissertation 2-16 Credit Hours 2 to 16 hours. Prerequisite: Graduate standing; may be repeated. Directed research culminating in the completion of the doctoral dissertation. ( F , $\mathrm{Sp}, \mathrm{Su}$ )

## SAX-Saxophone

## SAX 2000 Freshman and/or Sophomore Secondary Saxophone Credit <br> 1-2 <br> 1 to 2 hours. Prerequisite: permission of adviser and instructor. May be repeated; maximum credit toward B.F.A., B.M.A., B.M.E., and B.M. degrees, eight hours. For freshman and sophomore music students studying in a secondary (or minor) performance area. (F, Sp, Su)

SAX 2020 Saxophone for Music Majors: Freshman/ Sophomore

## 2-4 Credit Hours

2 to 4 hours. Prerequisite: Majors only. May be repeated; maximum credit 12 hours. Applied instrumental lessons for freshmen and sophomore music majors in a School of Music degree program. (F, Sp)
SAX 3440 Mentored Research Experience 3 Credit Hours 0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)
SAX 4000 Junior and/or Senior Secondary Saxophone 1-2 Credit Hours 1 to 2 hours. Prerequisite: permission of adviser and instructor. May be repeated; maximum credit toward B.F.A., B.M.A., B.M.E., and B.M. degrees, eight hours. For junior and senior music students studying in a secondary (or minor) performance area. (F, Sp, Su)

SAX 4020 Saxophone for Music Majors: Junior/Senior 1-4 Credit Hours 1 to 4 hours. Prerequisite: majors only; junior standing. May be repeated; maximum credit 20 hours. Applied instrumental lessons for junior and senior music majors in a School of Music degree program. (F, Sp)
SAX 5000 Master's-Level Secondary Saxophone 1-2 Credit Hours 1 to 2 hours. Prerequisite: graduate standing in music; permission of adviser and instructor. May be repeated; maximum credit eight hours on a given instrument (including voice). For master's degree music students studying in a secondary (or minor) performance area. (F, Sp, Su)
SAX 5010 Master's-Level Saxophone for Non-Performance Music Majors

1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing in music; permission of adviser and instructor. May be repeated; maximum credit eight hours on a given instrument (including voice). For master's degree students other than performance majors in their major field. (F, Sp, Su)

SAX 5020 Master's-Level Saxophone for Performance Majors $\quad \mathbf{2 - 4}$ Credit Hours
2 to 4 hours. Prerequisite: graduate standing in music; permission of adviser and instructor; 4020 and 4021 or equivalent. May be repeated; maximum credit toward an M.M. degree 10 hours. (F, Sp, Su)
SAX 6000 Doctoral Secondary Saxophone
1-2 Credit Hours
1 to 2 hours. Prerequisite: graduate standing in music, permission of adviser or instructor. May be repeated; maximum credit eight hours on a given instrument (including voice). For doctoral degree music students studying in a secondary (or minor) performance area. (F, Sp, Su)

## SAX 6010 Doctoral Saxophone for Non-Performance Music

 Majors 2-3 Credit Hours 2 to 3 hours. Prerequisite: graduate standing in music; permission of adviser and instructor. May be repeated. Doctoral-level study of applied music in the major performance area for students other than performance majors in their primary field. (F, Sp, Su)
## SAX 6020 Doctoral Saxophone for Performance Majors 2-4 Credit Hours

2 to 4 hours. Prerequisite: graduate standing in music; 5042; permission of adviser and instructor. May be repeated; credit applicable toward applied music requirements for the Doctor of Musical Arts degree. Doctoral-level study of applied music for performance majors in their primary field. (F, Sp, Su)

## SCM-Supply Chain Management

SCM 2113 Introduction to Logistics and Supply Chain Management

3 Credit Hours
Course is designed to familiarize and present business related topics to majors in other disciplines of study. Topics will vary and may encompass all divisions within the Price College of Business. (F, Sp)

SCM 3113 Principles of Supply Chain Management 3 Credit Hours Prerequisite: Student must be approved for business degree candidacy; ACCT 2123 or concurrent enrollment; MATH 1743 or MATH 1823 or MATH 1914. Firms of all kinds are attempting to improve their competitive positions by strategically managing the flow of raw materials, work-in-process inventories and finished goods. This course is built around the topic of managing the supply chain that plans, sources, makes and delivers an organization's good and/or services - from suppliers of raw materials through to the final customer. (F, Sp)

SCM 3123 Procurement and Strategic Sourcing 3 Credit Hours
Prerequisite: Student must be approved for degree candidacy by Price College; SCM 3113; ACCT 2123 or concurrent enrollment; MATH 1743 or MATH 1823 or MATH 1914. Procurement and Strategic Sourcing addresses the processes that facilitate the structure, creation and management of value-added transaction and relationships between supplier and customer organizations in a channel, supply chain, and integrated value system context. (F)

## SCM 3223 Logistics Management

3 Credit Hours
(Crosslisted with MKT 3223) Prerequisite: Student must be approved for degree candidacy by Price College, Marketing 3013 or concurrent enrollment. The physical supply and distribution function in business management, including channel selection, transportation, facility location and materials management; concentrates on the analytical and managerial methods necessary for the development and control of an integrated logistics system. (F, Sp)
SCM 3440 Mentored Research Experience
3 Credit Hours
0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)
SCM 3523 Production/Operations Management 3 Credit Hours Prerequisite: Student must be approved for degree candidacy by Price College, SCM 3113; ACCT 2123 or concurrent enrollment; MATH 1743 or MATH 1823 or MATH 1914. A study of the principles and practices related to production and operations management including product decisions, process planning, project planning, work measurement, plant location, facilities layout, scheduling and associated analytical techniques. (F, Sp)
SCM 3960 Honors Reading
1-3 Credit Hours
1 to 3 hours. Prerequisite: Admission to Honors Program. May be repeated; maximum credit six hours. Consists of topics designated by the instructor in keeping with the student's major program. The topics will cover materials not usually presented in the regular courses. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

## SCM 3970 Honors Seminar

1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Subjects covered vary. Deals with concepts not usually treated in regular courses. (Irreg.)

SCM 3980 Honors Research
1-3 Credit Hours
1 to 3 hours. Prerequisite: Admission to Honors Program. May be repeated; maximum credit six hours. Will provide an opportunity for the gifted Honors candidate to work at a special project in the student's field. (F, Sp, Su)

## SCM 3990 Independent Study

1-3 Credit Hours
1 to 3 hours. Prerequisite: permission of instructor and junior standing. May be repeated once with change of content. Independent study may be arranged to study a subject not available through regular course offerings. (F, Sp, Su)

SCM G4003 Global Supply Chain Management 3 Credit Hours
Prerequisite: Student must be approved for degree candidacy by Price College; SCM 3113, SCM 3123, SCM 3223, SCM 3523; ACCT 2123 or concurrent enrollment; MATH 1743 or MATH 1823 or MATH 1914. Overview of current transportation and supply chain management practices, which is a dynamic process involving a constant flow of information, products, and funds between the supplier, manufacturer, wholesaler, retailer and the consumer. Includes a review of current case studies and provides managerial insights into what is considered the best practices. (F, Sp)
SCM G4013 Supply Chain Modeling and Decision Making3 Credit Hours Prerequisite: Student must be approved for degree candidacy by Price College; SCM 3113, SCM 3123, SCM 3223, SCM 3523; ACCT 2123 or concurrent enrollment; MATH 1743 or MATH 1823 or MATH 1914. This course involves the development and application of analytical techniques to model complex supply chains to address strategic, tactical and operational issues. We will address how decisions relating to forecasting, resource allocation, transportation, project management, inventory management and supply networks can be improved through the use of analytical models. (F)
SCM 4323 Applied Strategic Projects
3 Credit Hours
Prerequisite: Majors only; SCM 3123, SCM 3223 or MKT 3223, and SCM 3523; Student must be approved for degree candidacy by Price College. Supply chain management is of critical importance to businesses, households and the health and welfare of the country and the world. SCM 4323 will provide an overview of current supply chain management practices, which is a dynamic process that involves a constant flow of information, products, and funds between the supplier, manufacturer, wholesaler, retailer, and the consumer. (Sp)
SCM G4633 Healthcare Supply Chain Management 3 Credit Hours (Crosslisted with HCB 4633) Prerequisite: MKT 3613 or HCB 3613; student must be approved for degree candidacy by Price College; ACCT 2123 or concurrent enrollment; MATH 1743 or MATH 1823 or MATH 1914. The healthcare supply chain is a critical core business component of the healthcare delivery system. The purpose of this course is to bring an overview of the healthcare supply chain through the elements of the supply chain, the operational aspects and the strategic aspects of the integration of the supply chain with the clinical delivery of care. ( $F, S p$ )

SCM 4960 Directed Readings
1-4 Credit Hours
1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean. May be repeated; maximum credit four hours. Designed for upper-division students who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)
SCM 4970 Special Topics/Seminar 1-3 Credit Hours
1 to 3 hours. Prerequisite: Senior standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

## SCM 4990 Independent Study

1-3 Credit Hours
1 to 3 hours. Prerequisite: Senior standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)

SCM 5402 Logistics, Distribution and Transportation Management 2 Credit Hours
Prerequisite: Graduate Standing; departmental permission; and SCM 5502 or concurrent enrollment. This course explores logistics, distribution, and transportation management by leveraging current events and case studies. Topics include planning, controlling, implementing, forwarding, and reversing the flows of goods, services, and information. This is an integrated course meant to offer a framework to improve personal managerial skills and professionalism in supplies management practices through analyzing logistics activities. (Irreg.)
SCM 5422 Strategic Sourcing and Supply Management 2 Credit Hours Prerequisite: Graduate Standing; departmental permission; and SCM 5502 or concurrent enrollment. Recognized as one of the key areas in supply chain management, strategic sourcing and supply management plays a role in maximizing value in the integrated supply chain. We will discuss advanced concepts, analytical tools, strategic and practical issues, and solutions in strategic sourcing and supply management across multiple major industry sectors. (Irreg.)
SCM 5502 Fundamentals of Supply Chain 2 Credit Hours Prerequisite: Graduate standing; departmental permission. This course dives into the fundamentals of supply chain and is divided into five sections, including (1) supply chain management: an overview, (2) supply issues in supply chain management, (3) operations issues in supply chain management (4) distribution issues in supply chain management, and (5) integration issues in supply chain management. (F)
SCM 5522 Planning and Operations Management 2 Credit Hours Prerequisite: Graduate standing; departmental permission. In this course, we will discuss advanced concepts of operations planning, operations functions, current operations management practices, analytical techniques related to operations management problems, and applying these concepts and techniques in practice. (Irreg.)
SCM 5562 Supply Chain Excellence in a Global World 2 Credit Hours Prerequisite: Graduate Standing; departmental permission; and SCM 5402 or concurrent enrollment; and SCM 5422 or concurrent enrollment; and SCM 5522 or concurrent enrollment. Supply Chain is truly global in today's world markets, and an up-to-date perspective is needed as the world is changing daily. Logistics is a key driver of globalization, and a facilitator of international trade and development with an ever search for excellence. We will focus on interdependent flows: materials, data, and resources worldwide, with a lens on quality and distinction. (Irreg.)
SCM 5572 Modeling, Analytics, and Decision Making 2 Credit Hours Prerequisite: Graduate standing; departmental permission; and SCM 5402 or concurrent enrollment; and SCM 5422 or concurrent enrollment; and SCM 5522 or concurrent enrollment. This course will provide an overview of analytical techniques used to model complex supply chain problems to address strategic, tactical, and operational issues. We will address how decisions relating to forecasting, resource allocation, transportation, project management, inventory management, and supply networks can be improved by analytical models. (Irreg.)
SCM 5582 Current Topics in Supply Chain Management 2 Credit Hours Prerequisite: Graduate standing; departmental permission; and SCM 5402 or concurrent enrollment; and SCM 5422 or concurrent enrollment; and SCM 5522 or concurrent enrollment. Supply chain management occurs in a world that is constantly changing. This course is designed to examine the current issues and challenges that face the supply chain managers and executives during the period that this course is taught. (Irreg.)

SCM 5602 Integrated Supply Chain Capstone 2 Credit Hours
Prerequisite: Graduate standing; departmental permission; and
SCM 5562 or concurrent enrollment; and SCM 5572 or concurrent enrollment; and SCM 5582 or concurrent enrollment. The student will gain an understanding of strategic sourcing and SCM and will develop critical thinking skills involving how the components of supply chain management work together to create value. The student will be introduced to decision analytic tools and their use in decision-making in SCM to develop an appreciation of the impact on the performance of the company. (Irreg.)
SCM 5960 Directed Readings 1-3 Credit Hours 1 to 3 hours. Prerequisite: graduate standing and permission of department. May be repeated; maximum credit twelve hours. Directed readings and/or literature reviews under the direction of a faculty member. (F, Sp, Su)

## SCM 5970 Special Topics/Seminar

1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing or permission of instructor.
May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

## SCM 5990 Independent Study

1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)

## SES-Sustainable Energy Systems

SES 2113 Fundamentals of Earth Systems, Energy, \& Sustainability

3 Credit Hours
Prerequisite: MATH 1503. A comprehensive exploration of key topics related to climate, energy, and sustainability. Study of the carbon cycle and earth system processes at multiple temporal and geographical scales. Introduction to fundamental principles of energy systems, covering diverse energy forms and their conversions. Students will develop the knowledge and skills to analyze, design, and implement sustainable energy solutions. (F)

SES 2123 Energy in Society: A Systems Perspective on Energy Transitions 3 Credit Hours Prerequisite: ENGL 1213 or EXPO 1213. Explores how energy systems can be viewed from a social perspective. Combines several academic approaches on society to present a comprehensive overview of the components of and historical changes in energy systems. Reviews ethical theories to help identify issues of moral concern in existing energy systems, and ways energy transitions can address them. (Sp)

## SOC-Sociology

SOC 1113 Introduction to Sociology
3 Credit Hours
The fundamental concepts of sociology; foundations of group life; social change, processes, and problems. (F, Sp, Su) [III-SS] .

SOC 1523 Social Problems
3 Credit Hours
Analysis of major social problems of contemporary U.S. and policy debates concerning them. Examination of social science theory and research that are relevant to understanding these problems. Development of social institutions in which social problems occur. (F, Sp, Su) [IV-WC].

SOC 2970 Special Topics
1 to 3 hours. Prerequisite: May be repeated; maximum credit nine hours. Special topics course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research, and field projects. (Irreg.)
SOC 3123 Social Statistics 3 Credit Hours
(Crosslisted with P SC 3123) Prerequisite: SOC 1113 and any General Education Math EXCEPT Philosophy 1113 or Philosophy 3113.
Descriptive and inferential statistics as they are used in sociology to analyze survey and macro-level data. Problems of research design and interpretation of analysis in sociological theory are major topics. A grade of $C$ or better in this course is a prerequisite for Sociology capstone courses. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

## SOC 3133 Methods of Social Research

3 Credit Hours
Prerequisite: SOC 1113 and any General Education Math EXCEPT Philosophy 1113 or Philosophy 3113 or permission of instructor. Basic elements of the scientific method as applied to the study of human group life. Examines the problem of conceptualization, the formulation of hypotheses, designs of proof, the interdependence of theory and fact and the techniques and procedures for assembling and ordering of data. A grade of C or better in this course is a prerequisite for Sociology capstone courses. (F, Sp, Su)

## SOC 3353 Race, Class and Gender

3 Credit Hours
(Crosslisted with WGS 3353) Prerequisite: junior standing or permission of instructor. Explores the intersections of race, ethnicity, class, gender and sexuality. Focus is on how systems of power and oppression reinforce each other,how they intersect in shaping social structure and individual experiences, and how the systems of oppression are mutually reinforcing. Theories and practice of intersectionality, how gender, race, class and other categories of identity are constructed and reproduced in social, political and economic structures, and experienced in every day life. (F, Sp)
SOC 3363 Sociological Theory
3 Credit Hours
Prerequisite: SOC 1113 and ENGL 1213 or EXPO 1213; majors only; not open to freshmen. Consideration of classical sociologists including Durkheim, Weber, and Marx. Attention is devoted to the application of classical theories to current research issues. ( $\mathrm{F}, \mathrm{Sp}$ )

SOC 3440 Mentored Research Experience 3 Credit Hours 0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)

SOC 3523 Criminology
3 Credit Hours
Prerequisite: 1113 or sophomore standing. A study of the nature and causes of various forms of deviant and illegal behavior, especially serious personal injury and property crimes (e.g., homicide, burglary). While some consideration is given to biological and psychological explanations, the primary focus is on sociological theories that attempt to explain crime, criminality, and victimization in modern societies. (F,Sp)

The System of Criminal Justice 3533 Credis
Prerequisite: 1113 or permission of instructor. An analysis of the sociological literature on the American system of criminal justice, viewed as a system of social control. Emphasis is on the functional significance of the system in relation to the various interests represented in the law. Attention given to special problems in each of the major components of the system: law enforcement, the administration of justice and corrections. (F, Sp)

## SOC 3543 Sociology of Deviance

3 Credit Hours
Prerequisite: SOC 1113 or permission of instructor. The sociological study of deviant behaviors. Focus is on sociological theories and processes by which behaviors are defined as deviant, and how these definitions affect the individual. ( $\mathrm{F}, \mathrm{Sp}$ )
SOC 3553 Sociology of Law

## 3 Credit Hours

Prerequisite: 1113 or permission of instructor. Provides a sociological understanding of the interrelationship between law and society. Covers the origins of law, types of legal systems, theories of punishment, and examines law as an independent variable (i.e., as a mechanism for social change) and as a dependent variable (i.e., how laws are created or changed by social pressure). ( $\mathrm{F}, \mathrm{Sp}$ )
SOC 3573 Sexuality, Media, and Crime
3 Credit Hours
Prerequisite: ENGL 1213 or EXPO 1213. The sociological constructions of gender and sexuality will be examined through the context of several forms of American media including advertising, television, and film. Also examines stigma, hate crimes, and violence based on gender and sexuality including LGBTQ identities/experiences. (Irreg.)

## SOC 3583 Federal Criminal Justice System

3 Credit Hours
Prerequisite: SOC 1113 or permission of instructor; course not open to freshmen. This course provides an overview of the federal criminal justice system, including the structure and functions of the federal court system, distinctions between state and federal justice systems; federal law enforcement agencies and types of crimes prosecuted by the U.S. Department of Justice and federal punishment under the United States Sentencing Guidelines including critical issues and policies. (Irreg.)

## SOC 3593 Sexual Deviance and Society <br> 3 Credit Hours

Prerequisite: ENGL 1213 or EXPO 1213. A critical examination of the sociology of deviant sexual behaviors. Investigations of deviance, criminology and gender through the study of sexual behavior, sex crimes, and victimology. (Irreg.)
SOC 3613 Global Social Problems
3 Credit Hours
Prerequisite: SOC 1113 or Junior standing. Provides an overview of pressing global social problems with attention to developing insights into the conceptual analyses of meaningful solutions from a sociological perspective. Readings discuss the relationships among various levels of the social system, so that social roots of pressing issues are recognized and used as a tool to suggest alternative approaches to address them. (Irreg.) [III-SS].

## SOC 3623 Sociology of Race and Ethnicity

3 Credit Hours
Prerequisite: SOC 1113 or permission of instructor. This course explores the historical and contemporary issues surrounding the impact that race and ethnicity have on U.S. society. You will examine how racial and ethnic criteria often guide important economic, political, and social decisions that affect access to resources by various groups, usually having significant consequences for the individual. (Irreg.)

SOC 3643 Population and Society
Prerequisite: SOC 1113 or permission of instructor. Introduction to population study. Analysis of human mortality, fertility and migration. Evaluation of demographic theories with emphasis on social and cultural factors. (Irreg.)
SOC 3663 Sociology of Music
3 Credit Hours
Prerequisite: Junior standing. The course is an historical, theoretical, and sociological exploration of music. The course addresses diverse topics such as how the current system of music developed, the distinction between high culture and popular culture, and the ways race, gender, class and other social distinctions influence the production and consumption of music. (Irreg.) [III-SS].

## SOC 3683 Wealth, Power, and Prestige

3 Credit Hours
Prerequisite: 1113 or sophomore standing or above. Examines the systems in which the central elements of class stratification--wealth, power, and prestige--are created and distributed and addresses the issue of "who gets how much and why?". Topics include a review of the theories and evidence in current stratification studies and an assessment of the racial, ethnic, and religious correlates of inequality. ( $F, S p$ )

## SOC 3713 Medical Sociology

3 Credit Hours
Prerequisite: SOC 1113 or permission of instructor. A study of cultural and class factors in health and morbidity. Focus is on the social organization of medical services, including discussion of the hospital as a social institution. The role of medical and paramedical personnel and the interaction of the medical system with other social institutions such as government, church, education, and family. (Sp)

## SOC 3723 Sociology of Family

3 Credit Hours
Prerequisite: 1113 or sophomore standing or above. The sociological study of the family as an institution; the origin and development of the family; the interrelationships of the family and the larger society; the environmental conditions which seem to favor the development and continuance of the major family forms; the rise of the modern democratic family; characteristic patterns of change in the contemporary family. ( F , Sp )

## SOC 3733 Sociology of Gender

3 Credit Hours
Prerequisite: 1113 or permission of instructor. Sociological analysis of the reinforcement of gender roles by the major institutions of society. Examine the effects on gender roles of education, mass media, economics, public policy, law, religion, and society. (Irreg)

## SOC 3773 Sociology of Religion

3 Credit Hours
Prerequisites: SOC 1113 or sophomore standing. Using the perspectives and methods of social science, and particularly sociology, the common social dimensions of all religions including moral definitions; micro-level processes of membership, conversion and socialization; the life-cycle of religious institutions; and religion's relationship to health, science, and important institutions like the American family, economy, and politics will be examined. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

SOC 3803 Inequality in A Global Perspective
3 Credit Hours
Prerequisite: SOC 1113 or sophomore standing or above. Examines the causes and consequences of socioeconomic inequality in contemporary societies (including the United States) by using theories and research evidence from the vantage point of international political economy. Topics include the nature, structure, and hierarchy of the global economy; the link between international and national distributions of wealth and power; and the racial, ethnic, and religious correlates of social inequality. (Irreg.)

Prerequisite: ENGL 1213 or EXPO 1213. Introduction to social psychological theories and findings. Covers socialization, identity development, emotions, social interaction, deviant behavior, and small group behavior. (Irreg.)
SOC 3843 Sociology of Aging
3 Credit Hours
Prerequisite: 1113 or permission of instructor. Comprehensive description of the dimensions of aging. The point of departure is the notion that to talk meaningfully about one aspect of aging requires consideration of its other dimensions. (Irreg)
SOC 3893 Environment, Ecology and Society 3 Credit Hours
Prerequisite: SOC 1113 or permission of instructor. Examines
relationships between environmental factors and human social arrangements. The class will be organized around these and a number of related topics, which will help to shape the readings, lectures, and discussions. (Irreg.)
SOC 3900 Special Topics in Sociology
1-3 Credit Hours
1 to 3 hours. Prerequisite: 1113 or permission of instructor. May be repeated with change of content; maximum credit six hours. Cover topics not currently offered in regularly scheduled courses. (Irreg)
SOC 3903 The Sociology of Urban Street Gangs 3 Credit Hours Prerequisite: SOC 1113 and SOC 3523 and junior standing. Focusing on a sociological understanding of gangs, this course will provide an overview of research on gangs and theoretical perspectives of gang membership, while paying close attention to the interplay of social structure, gang dynamics, and the life-course of individual gang members. (Irreg.)
SOC 3913 The Death Penalty in the United States 3 Credit Hours Prerequisite: 1113 and 3523 . Provides an overview of capital punishment in the United States, and Oklahoma in particular, from a sociological perspective. History of capital punishment in the United States specific cases related to the death penalty, and arguments for and against the use of capital punishment. (Irreg.)

SOC 3923 Alcohol, Drugs and Society
3 Credit Hours
Prerequisite: 1113 and 3523. Explores sociological explanations of alcohol and drug use with a special emphasis on current issues in the United States. (Irreg.)
SOC 3933 Inside/Out: Drugs, Alcohol, and Society 3 Credit Hours Prerequisite: SOC 1113, SOC 3523, and departmental permission; Course not open to Freshmen. This is an "inside-out" course. Taught with half enrollment of "inside students" from a correctional facility and "outside students" from OU. Explores sociological explanations of alcohol and drug use with a special emphasis on current issues in the United States. (Irreg.)
SOC 3943 Inside/Out: The Family and Crime 3 Credit Hours Prerequisite: SOC 1113, SOC 3523 and departmental permission; Course not open to Freshmen. The "Inside-Out" Prison Exchange Program is an opportunity for students from OU and a group of prison residents to exchange ideas about a variety of issues. Our focus is the family and crime, and we will delve into causes of crime, the role of families, the effects of contact with the criminal justice system on families and communities, etc. (Irreg.)
SOC 3953 Juvenile Justice
3 Credit Hours
Prerequisite: 1113 or permission of instructor. Course examines criminal measurement of juvenile crime, theories of delinquency, legal rights of juveniles and the juvenile justice system. (Irreg.)

SOC 3960 Honors Reading
1-3 Credit Hours
1 to 3 hours. Prerequisite: 1113 and permission of instructor and admission to Honors Program. May be repeated; maximum credit six hours. Will consist of topics designated by the instructor in keeping with the student's major program. The topics will cover materials not usually presented in the regular courses. (Irreg)

## SOC 3970 Honors Seminar

1-3 Credit Hours
1 to 3 hours. Prerequisite: 1113 or permission of instructor and admission to Honors Program. May be repeated; maximum credit six hours. The projects covered will vary. The content will deal with concepts not usually presented in regular coursework. (Irreg)

## SOC 3973 Sociology of Violence

3 Credit Hours
Prerequisite: SOC 1113 and SOC 3523. An examination of the causes, correlates and consequences of various forms of violent crime. An emphasis on the social nature of violence, social institutions related to violence and the social costs of violence. (F,Sp)

SOC 3980 Honors Research
1-3 Credit Hours
1 to 3 hours. Prerequisite: 1113 or permission of instructor and admission to Honors Program. May be repeated; maximum credit six hours. Will provide an opportunity for the gifted Honors candidate to work at a special project in the student's field. (Irreg)
SOC 3983 Women, Girls and Crime
3 Credit Hours
Prerequisite: SOC 1113 and SOC 3523, or permission of instructor. Indepth examination of crime and the justice system as it relates to girls and women. The focus will be on girls and women as victims, girls and women as offenders, and criminal justice responses to girls and women. (F, Sp)
SOC 3990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: permission of instructor and junior standing. May be repeated once with change of content. Independent study may be arranged to study a subject not available through regular course offerings. (F, Sp, Su)

## SOC 3993 Sociology of Gender and Sexuality in the Media

3 Credit Hours
Prerequisite: ENGL 1213 or EXPO 1213. The sociological constructions of gender and sexuality will be examined through the context of several forms of American media including advertising, television, and film. Explores how manifestations of "normative" behaviors are reproduced and maintained through media representations of gender and sexuality. Examines advertising, television, and film as they relate to societal shifts in attitudes toward gender and sexuality. (Irreg.)
SOC 4033 Sociology of Housing 3 Credit Hours (Slashlisted with SOC 5033; Crosslisted with RCPL 4033) Prerequisite: ENGL 1213 or EXPO 1213, Junior standing, and Departmental Permission. This course introduces students to socioeconomic, political, and equity issues in housing. Students will engage with planning and policy issues to understand the history of housing and interventions for diverse populations. Topics will cover primarily U.S. Housing policy and practices with some comparative international examples. No student may earn credit for both 4033 and 5033. (Irreg.)

SOC 4113 International Migration
3 Credit Hours
Prerequisite: Junior standing. This course will use sociological theory to understand structural and cultural factors that shape social change in Europe and present real challenges to full participation. (Su) [III-SS].

SOC 4373 Sociology of Climate Change
3 Credit Hours
(Slashlisted with SOC 5373) Prerequisite: Junior standing, departmental permission, and SOC 1113 or SOC 1523. The course will prepare students to analyze the climate crisis, including its origins, impacts, and its entanglements with other issues. The course examines potential pathways toward climate stability and climate justice. These issues are examined through a sociological lens while also engaging relevant scholarship in the humanities and other social sciences. No student may earn credit for both 4373 and 5373. (F) [III-SS].
SOC 4603 Internship in Sociology
3 Credit Hours
Prerequisite: SOC 1113, SOC 3123, SOC 3133, and at least two of the following: SOC 3523, SOC 3533, SOC 3543, SOC 3553, SOC 3623, SOC 3683, SOC 3723, SOC 3733 . Work experience in the field of sociology under the supervision of a faculty member. While the instructor will assist in finding internship opportunities, the ultimate responsibility is with the student. Internships may be served in any setting related to the field of sociology. Student will be required to develop a paper linking the work experience to scholarly research in sociology. ( $F, \mathrm{Sp}, \mathrm{Su}$ )
SOC 4843 Capstone in Criminology 3 Credit Hours Prerequisite: SOC 1113, SOC 3123 (C or better), SOC 3133 (C or better), and at least two of the following: SOC 3363, SOC 3523, SOC 3533, SOC 3543, SOC 3553, SOC 3583, SOC 3623, SOC 3923, SOC 3953, and permission of instructor. Students will actively participate in an in-depth analysis and discussion of current research topics in the sociological study of criminology (crime and delinquency, deviance, sociology of law, criminal justice). Students will use material learned in Sociology 3123,3133 and 3000-level substantive courses and will be required to demonstrate in written assignments their ability to understand and critique current quantitative research. (F, Sp) [V].
SOC 4873 World Religions and Society
3 Credit Hours (Slashlisted with SOC 5873) Prerequisite: sophomore standing. The course examines the major world religions, how they develop historically and in the context of other social institutions. Hinduism, Buddhism, Confucianism, Taoism, Judaism, Christianity, Islam, and Native Traditions will be considered. Students will study how religious institutions are influenced by, and have an influence on, societies and the people in them. No student may earn credit for both 4873 and 5873. (Irreg.) [IV-WDC].
SOC 4943 Capstone in General Sociology
3 Credit Hours
Prerequisite: SOC 1113, SOC 3123 (C or better), SOC 3133 (C or better), and at least two of the following: SOC 3363, SOC 3523, SOC 3623, SOC 3643, SOC 3683, SOC 3713, SOC 3723, SOC 3733, SOC 3753, and permission of instructor. As a component of this course, students will actively participate in an in-depth analysis and discussion of a current research topic or topics in sociology. Students will be expected to use material they have learned in Sociology 3123 and 3133, as well as material in substantive courses, and will be required to demonstrate their ability to understand and critique research. (F, Sp) [V] .
SOC 4960 Directed Readings
1-4 Credit Hours
1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean. May be repeated; maximum credit four hours. Designed for upper-division students who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)
SOC 4970 Special Topics/Seminar 1-3 Credit Hours 1 to 3 hours. Prerequisite: Senior standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

SOC 4990 Independent Study
1 to 3 hours. Prerequisite: Fifteen hours of Sociology (including 1113, 3123,3133 ) and permission of instructor and department. May be repeated; maximum credit six hours. Contracted independent study for topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. ( F , $\mathrm{Sp}, \mathrm{Su}$ )
SOC 5033 Sociology of Housing
3 Credit Hours
(Slashlisted with SOC 4033; Crosslisted with RCPL 5033) Prerequisite: Graduate standing, departmental permission, and instructor permission. This course introduces students to socioeconomic, political, and equity issues in housing. Students will engage with planning and policy issues to understand the history of housing and interventions for diverse populations. Topics will cover primarily U.S. Housing policy and practices with some comparative international examples. No student may earn credit for both 4033 and 5033. (Irreg.)
SOC 5143 Program Evaluation
3 Credit Hours
Prerequisite: Graduate standing. Methodology of planning and evaluating government policies and programs. Emphasizes research design, economic analysis of public policies and programs, and methods for handling threats to the validity of research results. (Irreg.)
SOC 5283 Fundamentals of Sociological Statistics 3 Credit Hours Prerequisite: SOC 3123 and SOC 3133, or graduate standing in Sociology, or permission of instructor. Advanced statistical concepts and analysis; analysis of variance and covariance; multiple regression analysis; use of computers for statistical analysis. (Irreg.)
SOC 5293 Advanced Methods of Social Research 3 Credit Hours Prerequisite: SOC 3123 and SOC 3133, or graduate standing in Sociology, or permission of instructor. Advanced research methodology; heavy focus of attention will be on concept measurement, index formation and survey research. (Irreg.)

## SOC 5313 Qualitative Research Methods 3 Credit Hours

Prerequisite: graduate standing. Survey of different qualitative methodological strategies used in the social sciences to collect, code, and analyze information. (Sp)
SOC 5333 Seminar in the Criminal Justice System 3 Credit Hours Prerequisite: graduate standing in Sociology or permission of instructor. A critical examination of the American system of criminal justice. Attention will be given to the unique problems of the system and to each of its component parts. Special emphasis will be placed on the role of extralegal factors in discretionary decision-making by the principal actors within the system. (Irreg.)

## SOC 5373 Sociology of Climate Change <br> 3 Credit Hours

(Slashlisted with SOC 4373) Prerequisite: Graduate standing and departmental permission. The course will prepare students to analyze the climate crisis, including its origins, impacts, and its entanglements with other issues. The course examines potential pathways toward climate stability and climate justice. These issues are examined through a sociological lens while also engaging relevant scholarship in the humanities and other social sciences. No student may earn credit for both 4373 and 5373. (F)

## SOC 5383 Social Stratification

3 Credit Hours
Prerequisite: graduate standing in Sociology or permission of instructor. In-depth treatment of sociological theories, methods and research in the area of stratification and inequality. (Irreg.)

SOC 5483 Advanced Regression Analysis
3 Credit Hours
Prerequisite: SOC 5283 and graduate standing in Sociology or permission of instructor. A graduate-level introduction to linear regression analysis. Focuses on theory and empirical applications including topics such as model specification, estimation, interpretation, inferences, and assumptions diagnostics. (Irreg.)

SOC 5523 Criminology
3 Credit Hours
Prerequisite: graduate standing in Sociology or permission of instructor. Examines the patterns and correlates of crime at the individual, situational, and aggregate levels. Also includes examination of the history of criminological thought as well as contemporary explanations of crime, with an emphasis on critical evaluation of these explanations. (Irreg.)

## SOC 5543 Deviance and Social Control

3 Credit Hours
Prerequisite: graduate standing in Sociology or permission of instructor. A critical examination of the literature on deviance and social control with special emphasis on the scope of the field. The frame of reference for the examination will consist of one or more of the major theoretical perspectives in sociology: the functional, the conflict and the symbolic interactionist. (Irreg.)

SOC 5623 Race and Ethnicity
3 Credit Hours
Prerequisite: graduate standing in Sociology or permission of instructor. Review of concepts and terminology of social differentiation, and indepth study of the theories of prejudice and discrimination, power and dominance, and patterns of inter-group relations. Includes a history and analysis of race and ethnicity in the United States and other selected countries. (Irreg.)
SOC 5683 Categorical, Panel, and Advanced Statistical

## Analyses

3 Credit Hours
Prerequisite: SOC 5483 or permission of instructor. The primary focus of this course will be on the application of categorical outcome regression models for social scientific research questions. The course will also provide a broad-based overview of some advanced statistical models commonly used in the social sciences including basic longitudinal/ panel statistical models, hierarchical linear models, and a number of approaches to handling missing data in regression analysis. (Irreg.)
SOC 5713 Program Evaluation Practicum 3 Credit Hours Prerequisite: Graduate standing and departmental permission. Field experience. Students will observe and document how working professionals perform their job responsibilities. Students will also participate in performing tasks under supervision by program professors and on-site staff. (Irreg.)
SOC 5723 Sociology of the Family
3 Credit Hours
Prerequisite: graduate standing in Sociology or permission of the instructor. Analysis of the family as a social institution, focusing on the problems created by changes in the family. The family is examined in historical, cross cultural and demographic perspectives. Applications include consideration of alternative arrangements, including discussion of the probable future of family arrangements in Western society. (Irreg.)

## SOC 5733 Sociology of Gender

3 Credit Hours
Prerequisite: graduate standing in Sociology or permission of instructor. Theoretical and empirical approaches to the study of gender within several substantive areas of sociology such as family, work, race and ethnicity, and social class. (Irreg.)

SOC 5743 Religion Seminar
3 Credit Hours
Prerequisite: Graduate standing, majoring in sociology or permission of instructor/department. The course considers theoretical perspectives on religion. In connection with that, it examines the major world religions, including how they developed historically and in the context of other social institutions. The course examines how religious institutions are influenced by, and have an influence on, societies and the people in them, considering the contemporary world in its comparative and historical context. (Irreg.)
SOC 5790 Special Sociological Issues 2-3 Credit Hours
2 to 3 hours. Prerequisite: graduate standing in Sociology and permission of instructor. May be repeated with change of content; maximum credit 12 hours. Intensive survey of the literature in a selected area of sociology under the direction of a member of the staff. Instructors rotate each semester. (Irreg.)

## SOC 5821 Professionalization Seminar

1 Credit Hour
Prerequisite: Graduate standing and majors only. Prepares students for careers in academia. Comprised of units covering research and service. (Irreg.)

## SOC 5823 Social Demography

3 Credit Hours
Prerequisite: graduate standing in Sociology or permission of instructor. Introduction to the four variables that comprise the subject matter of demography: fertility, mortality, migration, and age structure. Sources of demographic data for the study of these variables are examined and basic demographic statistics are covered. (Irreg.)
SOC 5831 Teaching Seminar 1 Credit Hour
Prerequisite: graduate standing in Sociology. Preparation for teaching sociology. Taken prior to assignment of sole responsibility for teaching a course in sociology. (Irreg.)

## SOC 5833 Social Psychology

3 Credit Hours
Prerequisite: graduate standing in Sociology or permission of instructor. Examines issues regarding research in social psychology and personality psychology. Addresses the history of social psychology research issues, some class controversies, and new research directions in the field. Specific topics include social cognition attitudes, attribution, the self, groups, expectation states, collective behavior, the life course. (Irreg.)

SOC 5873 World Religions and Society 3 Credit Hours
(Slashlisted with SOC 4873) Prerequisite: graduate standing. The course examines the major world religions, how they develop historically and in the context of other social institutions. Hinduism, Buddhism, Confucianism, Taoism, Judaism, Christianity, Islam, and Native Traditions will be considered. Students will study how religious institutions are influenced by, and have an influence on, societies and the people in them. No student may earn credit for both 4873 and 5873. (Irreg.)
SOC 5893 Seminar in Environment and Society 3 Credit Hours Prerequisite: graduate standing. Explores the human interface with the natural environment through the sociological perspective, particularly in the late industrial era. How social development, population and technology impact the environment will be studied. Considering ways to think about the complex array of environmental issues as society moves into the Third Millennium will conclude the course. (Irreg.)

## SOC 5933 Sociological Theory

3 Credit Hours
Prerequisite: graduate standing in Sociology or permission of instructor. Intensive analysis of the original writings of classical sociologists including Durkheim, Weber and Marx. Attention is devoted to the application of classical theories to current research issues. (Irreg.)

SOC 5943 Inequality in a Global Perspective 3 Credit Hours
Prerequisite: graduate standing in Sociology or permission of instructor. Provides an in-depth review and analysis of the sociological concepts and theories used to study how wealth (and its correlates, power and prestige) are created and distributed. Special emphasis is placed upon how these processes occur within a global system. (Irreg.)
SOC 5960 Directed Readings in Sociology
1-4 Credit Hours
Prerequisite: Graduate standing, twelve hours of upper-division sociology. No more than six hours may be counted toward the M.A. degree. No more than twelve hours may be counted toward the Ph.D. degree. Intensive survey of literature in a selected area of sociology under the direction of a sociology faculty member. (F, Sp, Su)
SOC 5970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing in Sociology or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)
SOC 5980 Research for Master's Thesis
2-9 Credit Hours
Variable enrollment, two to nine hours; maximum credit applicable toward degree, four hours. (F, Sp, Su)
SOC 5990 Independent Study 1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)
SOC 6343 Special Topics in Criminology
3 Credit Hours
Prerequisite: graduate standing in Sociology or permission of instructor.
May be repeated; maximum credit 12 hours. Covers in depth one significant topic in the area of criminology such as, but not limited to, deterrence, longitudinal research, ecology of crime, drugs and alcohol, societal reaction theory, macro-normative theory, micro-normative theory, penology, mental illness, victimology, and violence. (Irreg.)
SOC 6353 Life Course Seminar
3 Credit Hours
Prerequisite: Graduate standing in Sociology or permission of instructor; May be repeated; maximum credit 12 hours. Covers in depth a topic in the area of demography such as, but not limited to, migration, mortality, fertility, population composition, and segregation. (Irreg.)

SOC 6363 Family Demography Seminar
3 Credit Hours Prerequisite: Graduate standing in Sociology or permission of instructor; May be repeated with change of content; maximum credit 12 hours.
Covers in depth one significant area of social differentiation such as, but not limited to, racial prejudice/discrimination, status attainment, poverty and welfare, work and occupations, community power and social elites. (Irreg.)
SOC 6373 Sociology of Sexualities 3 Credit Hours Prerequisite: Graduate standing in Sociology or permission of instructor. Considers sociological understandings of sex and sexualities, LGBTQ identities/experiences, and heteronormativity with an emphasis on gender, power, and intersectionalities. (Irreg.)
SOC 6753 Historical and Comparative Sociology 3 Credit Hours Prerequisite: graduate standing in Sociology or permission of instructor. Examines how religious, educational, economic, and political institutions influence peoples lives from a historical and comparative perspective. Examines general principles and conditions for how societies evolve over time. (Irreg.)

SOC 6903 Issues in Sociological Theory
3 Credit Hours
Prerequisite: SOC 5933 and graduate standing in Sociology or permission of instructor. M.A. students may enroll only once; Ph.D. students may repeat the course once with a change of topic; maximum credit six hours. Examines a particular sociological theory in detail at a level appropriate for students who have completed SOC 5933. Topics will vary and may include conflict theory, functionalism, symbolic interactionism, exchange theory, etc. (Irreg.)
SOC 6960 Directed Readings
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit six hours. Directed readings and/or literature review under the direction of a faculty member. (Irreg.)

## SOC 6970 Special Topics/Seminar <br> 1-3 Credit Hours

1 to 3 hours. Prerequisite: graduate standing in Sociology or permission of instructor. May be repeated; maximum credit 12 hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or research and field projects. (Irreg.)
SOC 6980 Research for Doctoral Dissertation 2-16 Credit Hours 2 to 16 hours. Prerequisite: Graduate standing and permission of instructor; may be repeated. Directed research culminating in the completion of the doctoral dissertation. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
SOC 6990 Special Studies in Sociology 1-4 Credit Hours 1 to 4 hours. Prerequisite: eighteen hours of sociology and permission of instructor. Individual research in a selected field; a problem is analyzed under the direction of a member of the staff. ( $F, S p$ )

## SPAN-Spanish

## SPAN 1115 Beginning Spanish

5 Credit Hours
An elementary course in understanding, speaking, reading and writing Spanish. Laboratory. This course does not count for major credit in the Department of Modern Languages, Literatures and Linguistics. (F, Sp, Su) [I-FL].

SPAN 1225 Beginning Spanish (Continued) 5 Credit Hours Prerequisite: 1115. An elementary course in understanding, speaking, reading and writing Spanish. Laboratory. This course does not count for major credit in the Department of Modern Languages, Literatures and Linguistics. (F, Sp, Su) [I-FL].

## SPAN 2113 Intermediate Spanish

3 Credit Hours
Prerequisite: 1225 or equivalent. Develops reading skills and control of grammar while cultivating depth of oral and writing ability. Emphasis on expansion of vocabulary and strong re-enforcement of grammatical structures. Reading and discussion of texts of literary and cultural interest. Oral and written assignments. (F, Sp, Su).
SPAN 2223 Intermediate Spanish Continued 3 Credit Hours
Prerequisite: 2113. Refines reading skill and mastery of grammar. Emphasis on sophisticated vocabulary and understanding of grammatical structures. Literary and cultural texts discussed in oral and essay form. (F, Sp, Su)

## SPAN 2603 Spanish for Social Work Majors

3 Credit Hours
Prerequisite: social work major and SPAN 1225 or equivalent. Designed to prepare students for an intermediate proficiency in Spanish. An expansion of vocabulary and grammatical structure used in practice settings commonly experienced by social workers is emphasized. This course may not count for credit for any major other than social work. (F, Sp)

SPAN 2970 Special Topics/Seminar
1-3 Credit Hours
Special Topics. 1 to 3 hours. May be repeated; maximum credit nine hours. Special topics course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research, and field projects. (lrreg.)

SPAN 3073 Grammar in Conversational Communication 3 Credit Hours Prerequisite: SPAN 2223. Aim is to improve students' conversational skills through an active use of the Spanish language. By using a contextualized content-based approach, focuses on seven core communicative functions and engages in meaningful communicative practices through listening and speaking activities related to cinema and other forms of cultural production. (F, Sp)

SPAN 3423 Grammar in Written Communication 3 Credit Hours Prerequisite: SPAN 2223. Further develops communicative abilities as well as increasing students' knowledge and ability to produce a variety of forms of cultural production in the Spanish language. Writing as a process that includes brainstorming, organization, outline, drafts and revisions will be learned. Familiarity with authentic texts written in different styles will be developed. (F, Sp)

SPAN 3440 Mentored Research Experience 3 Credit Hours 0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)

SPAN 3723 Business Spanish
3 Credit Hours
Prerequisite: SPAN 3073. Designed to develop an understanding of the business cultures of Latin America and Spain. Methods for communicating with Spanish-speaking companies or customers will be learned. In addition, linguistic and intercultural skills that will enable students to perform different commercial transactions, as well as attend a trade fair to meet potential customers, will be learned. This course includes a service learning component. (F, Sp)
SPAN 3733 Medical Spanish
3 Credit Hours
Prerequisite: SPAN 3073. Develops new critical perspectives on health care for the Hispanic community in the United States. Develops medical language skills and cultural competency for health care situations in order to allow for more effective communication with Spanish-speaking patients and their families. Introduces essential medical vocabulary, practical reference information, and medical notes written from a crosscultural perspective. (F, Sp)

## SPAN 3743 Legal Spanish

3 Credit Hours
Prerequisite: SPAN 3073. Provides an overview of the Spanish language in the legal context. Spanish legal terminology and conversational topics in areas such as civil rights, employment law, family law, immigration law, and human rights will be studied. Legal texts and arguments in order to discuss their implications for the Spanish community in the United States will be examined. (F, Sp)
SPAN 3753 Spanish for Social Work
3 Credit Hours
Prerequisite: SPAN 3073. Addresses students' needs in the area of social work. Spanish terminology and conversational topics related to social services will be examined. Includes an exploration of current policy issues and emerging social needs affecting Spanish-speaking families in Oklahoma, as well as resources available to this group, and gaps in services. (F, Sp)

SPAN 3763 Spanish for Journalism
3 Credit Hours
Prerequisite: SPAN 3073. An introduction to the exciting world of journalism in Spanish. Explores the ingredients of news and news gathering as well as how to tell stories in Spanish across media platforms (print, radio, television, etc.). How to cover a variety of people, places, things, events, and issues associated with the Hispanic community in the United States will be learned. (F, Sp)
SPAN 3853 Introduction to Hispanic Literature and Culture

3 Credit Hours
Prerequisite: SPAN 2223. Initiates students into the literatures and cultures of the Hispanic world, both in Spain and Latin America. Teaches how to analyze literature by literary genres and movements. Emphasis on all four language skills (hearing, speaking, reading, and writing) and culture. (F, Sp)
SPAN 3960 Honors Reading 1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Consists of topics designated by the instructor in keeping with the student's major program. The topics will cover materials not usually presented in the regular courses. (F, Sp)

## SPAN 3970 Honors Seminar <br> 1-3 Credit Hours

1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. The projects covered will vary. The content will deal with concepts not usually presented in regular coursework. (F, Sp, Su)
SPAN 3980 Honors Research 1-3 Credit Hours 1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Provides an opportunity for the gifted Honors candidate to work at a special project in the student's field. (F, Sp)

## SPAN 3990 Independent Study <br> 1-3 Credit Hours

1 to 3 hours. Prerequisite: one course in general area to be studied; permission of instructor and department. May be repeated; maximum credit six hours. Contracted independent study for topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (F, Sp, Su)

## SPAN 4083 Literature and Culture of Spain

3 Credit Hours
Prerequisite: SPAN 3853. May be repeated with change of content; maximum credit nine hours. Introduces the literature and culture of Spain. It covers canonical texts from the Early to the Early Modern Period. It also emphasizes culture throughout its rich history. Like all other courses in Spanish, it emphasizes as well all four language skills (hearing, speaking, reading, and writing) and culture. (F, Sp)
SPAN 4113 Literature and Culture of Latin America 3 Credit Hours Prerequisite: SPAN 3853. May be repeated with change of content; maximum credit nine hours. Introduces the literature and culture of Latin America. Covers canonical texts from the Early (Colonial) to the Early Modern (Postmodern) Period. Also emphasizes culture throughout its varied history. Like all other courses in Spanish, it stresses as well all four language skills (hearing, speaking, reading, and writing) and culture. ( F , Sp)

## SPAN 4143 Transatlantic Literature and Culture 3 Credit Hours

 Prerequisites: SPAN 3853. May be repeated with change of content; maxim credit nine hours. Introduces the literature and culture of Spain and Spanish America. Covers canonical texts from the Early, the Early Modern, and the Modern (Postmodern) Period. Also emphasizes culture throughout the ages in its ample history. Like all other courses in Spanish, it stresses as well all four language skills (hearing, speaking, reading, and writing) and culture. (F, Sp)SPAN 4173 Regional Literature and Cultures
3 Credit Hours
Prerequisite: SPAN 3853. May be repeated with change of content; maximum credit nine hours. Introduces the literature and cultures of specific regions in Spain or Spanish America. Covers canonical texts from the Early to the Early Modern Period. May focus on a specific literary genre, or several, theme, or movement. Like all other courses in Spanish, it emphasizes as well all four language skills (hearing, speaking, reading, and writing) and culture. ( $\mathrm{F}, \mathrm{Sp}$ )
SPAN 4183 Senior Capstone
3 Credit Hours
Prerequisite: 3853, Spanish major and senior standing. Synthesis of Hispanic contributions to world literature and culture. (F, Sp) [V] .

## SPAN G4313 Spanish Civilization

3 Credit Hours
Prerequisite: 3423, History 2613 or 2623. Spanish cultural heritage from the beginnings to the present day. (Sp)
SPAN 4503 Hispanic Cinema Studies
3 Credit Hours
Prerequisite: SPAN 3423. May be repeated with change of content; maximum credit nine hours. Introduces film culture of the Hispanic world. Covers classical and contemporary films from the five main areas producing film (Spain, Mexico, Brazil, Cuba, and Argentina) as well as from other Hispanic regions. (F, Sp)
SPAN 4713 History of the Spanish Language
3 Credit Hours
(Slashlisted with SPAN 5713) Prerequisite: SPAN 3853. As an introduction to historical Spanish Linguistics, the basic patterns of the evolution of Modern Spanish from Vulgar Latin, as shown in several major literary texts will be learned. Provides an understanding of how the Modern Spanish sound system evolved from the Vulgar Latin of the Iberian Peninsula. Emphasizes all four language skills (hearing, speaking, reading, and writing) and culture. No student may earn credit for both 4713 and 5713. (F, Sp)
SPAN 4773 Topics in Spanish Linguistics
3 Credit Hours
Prerequisites: SPAN 3073 and SPAN 3423. May be repeated with change of content; maximum credit nine hours. Introduces the role of meaning in the structure, function, and use of the language and focuses on the core aspects of the representation of meaning in Spanish. Examines how Spanish speakers combine basic linguistic units into larger linguistic expressions that allow them to represent the complex aspects of reality and thought in this language. ( $\mathrm{F}, \mathrm{Sp}$ )
SPAN 4913 The Structure of the Spanish Language 3 Credit Hours Prerequisite: SPAN 3073 and SPAN 3423. Aims to improve students' formal knowledge of the Spanish language. Principal articulatory properties of the Spanish sounds, Spanish morphology such as word formation and word categories, and Spanish syntax and semantics will be examined. Topics related to social issues and Spanish variation, and in particular, to its situation in the United States will be explored. (F, Sp)
SPAN 4923 Teaching of Spanish in the United States 3 Credit Hours (Slashlisted with SPAN 5923) Prerequisite: SPAN 3073 and SPAN 3423. A theoretical and practical introduction to teaching of Spanish in the United States. The theoretical component of the course incorporates major contemporary notions about Second Language Acquisition (SLA) and Second Language Teaching (SLT). The practical component of the course focuses on professional development as an instructor, roles of instructor and student, and day-to-day classroom activities. No student may earn credit for both 4923 and 5923. (F, Sp)

SPAN 4933 Spanish Literary Translation
3 Credit Hours
Prerequisite: SPAN 3423 and SPAN 3853. Introduces effective literary translation techniques from Spanish to English, paying particular attention to the role of meaning in the structure, function, and use of Spanish as it transfers to English and how texts written in Spanish combine basic linguistic units into larger linguistic expressions that allow them to represent the complex aspects of reality and thought in language. ( $\mathrm{F}, \mathrm{Sp}$ )
SPAN 4960 Directed Readings 1-4 Credit Hours
1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean. May be repeated; maximum credit four hours. Designed for upper-division students who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)
SPAN 4970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: Senior standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)
SPAN 4990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: three courses in general area to be studied; permission of instructor and department. May be repeated; maximum credit six hours. Contracted independent study for topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (F, Sp, Su)

## SPAN 5113 Traditional Novel in Spanish America: Romanticism to Vanguard <br> 3 Credit Hours

Prerequisite: graduate standing or permission of instructor. Beginning with the earliest forms of long prose, the course treats the Romantic novel, the Naturalistic novel, the Novel of the Land, and the Indianist novel. Representative texts of each mode will provide a thorough grounding in the characteristics of the different forms of prose. (Irreg.)
SPAN 5203 Prose Fiction of Cervantes-The Quijote 3 Credit Hours Prerequisite: graduate standing or permission of instructor. Style, structure, content, and fundamental criticism of Cervantes' masterpiece. (Irreg.)

SPAN 5353 Studies in Renaissance and Baroque Drama 3 Credit Hours Prerequisite: graduate standing or permission of instructor. May be repeated once with change of content; maximum credit six hours. The theatre of the Spanish siglo de oro. Works by Lope de Vega, Ruiz de Alarcón, Tirson de Molina, Calderón de la Barca, and others. Comedia theory and special topics such as kingship, honor, God. (Irreg.)
SPAN 5413 The Spanish-American Novel of the Post-

## Boom

3 Credit Hours
Prerequisite: graduate standing or permission of instructor. Beginning with novels that are reactions to the new novel, often by the same novelists, the course treats the different forms that have characterized the novel in Spanish America since the seventies. The novelists portray ordinary characters whose quiet desperation and existential suffering is portrayed different from the new novel. (Irreg.)

SPAN 5423 The Spanish-American Essay
3 Credit Hours
The main currents of Spanish-American thought as they appear in the essay, from Simon Bolivar to the present. (Irreg.)

SPAN 5433 Spanish-American Drama 3 Credit Hours
Prerequisite: graduate standing or permission of instructor. The study of the canonical works tracing the development of Spanish-American drama from colonial times to the present. (Irreg.)

SPAN 5443 Post-Modernista Poetry in Spanish America 3 Credit Hours Prerequisite: Graduate standing. A survey of Spanish-American poetry after World War I. (Irreg.)
SPAN 5453 The Spanish-American Short Story 3 Credit Hours The development of the genre from colonial times to the present. (Irreg.)

## SPAN 5513 Colonial Literature: The Encounter 3 Credit Hours

Prerequisite: graduate standing or permission of instructor. The objective of this course is to familiarize students with early colonial Latin American discourse and its cultural/literary/historic context. Beginning with the letters of Christopher Columbus, the course includes early chronicles and histories. (Irreg.)

SPAN 5523 Colonial Literature: The Criollos 3 Credit Hours Prerequisite: graduate standing or permission of instructor. This course familiarizes students with colonial Latin American discourse and its cultural/literary/historic context. The course primarily focuses on writers raised in colonial Spanish America approximately 100 years after the encounter. (Irreg.)
SPAN 5603 Studies in Renaissance and Baroque Prose 3 Credit Hours Prerequisite: graduate standing or permission of instructor. May be repeated once with change of topic; maximum credit six hours. The study of representative narrative from the Spanish Golden Age, including the Picaresque, Pastoral, Sentimental, Chivalric, Mystical and Byzantine traditions. Works by Quevedo, Fray Luis de León, Cervantes, Jorge de Montemayor, Gracián, and others. (Irreg.)
SPAN 5623 Studies in Renaissance and Baroque Poetry 3 Credit Hours Prerequisite: graduate standing or permission of instructor. May be repeated once with change of content; maximum credit six hours. Poetry of Garcilaso, Boscan, Fray Luis de Leon, Fernando de Herrera, Luis de Gongora, Francisco Quevedo, Lope de Vega, and others. Concepts of imitatio, cultismo, conceptismo, and the petrarchan and satirical traditions. (Irreg.)
SPAN 5683 Studies in Modern Peninsular Prose
3 Credit Hours
Prerequisite: graduate standing or permission of instructor. May be repeated once with change of content; maximum credit six hours. Representative writings in the development of the nineteenth- and twentieth-century Spanish narrative. The essay, short story, and novel of the Romantic, Realist, Naturalist, Modernist, Vanguard, and post Civil War periods are some of the themes to be covered. (Irreg.)
SPAN 5693 Studies in Modern Peninsular Poetry
3 Credit Hours
Prerequisite: graduate standing or permission of instructor. May be repeated once with change of content; maximum credit six hours. Representative poetry of modern Spain. Topics include the works of Romantic, Realist, and Modernist poetry: the Generation of '98; the Generation of '27; and post Civil War poets. Representative poets include Espronceda, Bécquer, Machado, Jiménez, Lorca, Salinas, Guillén, Diego, Alberti, Aleixandre, Cernuda, and others. (Irreg.)
SPAN 5713 History of the Spanish Language
3 Credit Hours (Slashlisted with SPAN 4713) Prerequisite: SPAN 3853 and graduate standing. As an introduction to Historical Spanish Linguistics, the basic patterns of the evolution of Modern Spanish from Vulgar Latin, as shown in several major literary texts will be learned. Provides an understanding of how the Modern Spanish sound system evolved from the Vulgar Latin of the Iberian Peninsula. Emphasizes as well all four language skills (hearing, speaking, reading, and writing) and culture. No student may earn credit for both 4713 and 5713. (F,Sp)

SPAN 5723 Studies in Modern Peninsular Drama 3 Credit Hours
Prerequisite: graduate standing or permission of instructor. May be repeated once with change of content; maximum credit six hours. Representative writers and works of the modern Spanish theater. Topics include Romanticism, Realism, Expressionism, theater of the absurd., and the Esperpento. Dramatic works of Valle Inclán, Garcia Lorca, Buero Vallejo, Alfonso Sastre, and others will be included. (Irreg.)
SPAN 5910 Problems in Research
2-4 Credit Hours
2 to 4 hours. May be repeated with change of content; maximum credit nine hours. An individual course of intensive research with the area and problem to be determined by the student and directing instructor. (F, Sp, Su )

SPAN 5923 Teaching Of Spanish In The United States 3 Credit Hours (Slashlisted with SPAN 4923) Prerequisite: graduate standing and Spanish proficiency. A theoretical and practical introduction to teaching of Spanish in the United States. The theoretical component of the course incorporates major contemporary notions about Second Language Acquisition (SLA) and Second Language Teaching (SLT). The practical component of the course focuses on professional development as an instructor, roles of instructor and student, and day-to-day classroom activities. No student may earn credit for both 4923 and 5923. (F, Sp)
SPAN 5930 Seminar in Spanish Literature
1-3 Credit Hours
1 to 3 hours. May be repeated with change of subject matter; maximum credit nine hours. (F, Sp)
SPAN 5940 Seminar in Spanish-American Literature 1-3 Credit Hours 1 to 3 hours. May be repeated with change of subject matter; maximum credit nine hours. (F, Sp)
SPAN 5960 Directed Readings
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing and permission of department. May be repeated; maximum credit twelve hours. Directed readings and/or literature reviews under the direction of a faculty member. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

SPAN 5970 Special Topics/Seminar 1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)
SPAN 5980 Research for Master's Thesis 2-9 Credit Hours Variable enrollment, two to nine hours; maximum credit applicable toward degree, four hours. (F, Sp)
SPAN 5990 Independent Studies 1-3 Credit Hours 1 to 3 hours. Prerequisite: graduate standing, permission of instructor. May be repeated; maximum credit twelve hours. Independent reading on one or more topics under the general direction of a faculty member. ( $F, S p$, Su )
SPAN 6960 Directed Readings
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit six hours. Directed readings and/or literature review under the direction of a faculty member. (Irreg.)
SPAN 6970 Special Topics/Seminar 1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit 12 hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or research and field projects. (Irreg.)

SPAN 6980 Research for Doctoral Dissertation
2-16 Credit Hours
2 to 16 hours. Prerequisite: Graduate standing and permission of instructor; may be repeated. Directed research culminating in the completion of the doctoral dissertation. (F, Sp)
SPAN 6990 Independent Study 1-3 Credit Hours
1 to 3 hours. Prerequisite: Graduate standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)

## SRRE-Music Recitals

## SRRE 4020 Senior Recital

0 Credit Hours
Prerequisite: Senior standing; majors only and departmental permission; Co-requisite: enrollment in appropriate 4020. Preparation and performance of a public recital by students in the BMA degree program and all BM degrees. (F, Sp)
SRRE 4021 Senior Recital
1 Credit Hour
Prerequisite: Majors only and instructor permission; Co-requisite: enrollment in appropriate 4020. Preparation and performance of a public recital by students in the BMA degree program and all BM degrees. (F, Sp) [V].

## TESL-TESOL

TESL 5113 Phonetics for ESL
3 Credit Hours
Prerequisite: graduate standing, MA TESOL majors only. Introduces the study of human speech sounds and relates this to teaching ESL; physiology of the vocal tract and how the parts shape sounds; the International Phonetic Alphabet and its interpretation. Students practice transcribing sounds and complete a phonetic description of how a language differs from English in its sound system. (Irreg.)
TESL 5123 Second Language Acquisition Theory for ESL 3 Credit Hours Prerequisite: graduate standing, MA TESOL majors only. Covers the essential topics that underlie English language acquisition, with special emphasis on those that will be most pertinent to students who will be teaching English as a Second Language. Topics include age, individual differences, aptitude, cognition, affect, motivation, the learner environment, and social dimensions of learning. (Irreg.)
TESL 5133 General Linguistics for ESL
3 Credit Hours
Prerequisite: graduate standing, MA TESOL majors only. Covers the essential topics that underlie linguistics, with special emphasis on those that will be most pertinent to students who will be teaching English as a Second Language. Topics include morphology, phonology, semantics, pragmatics, language and the brain, and sociolinguistics, with review of phonetics and grammatical structure. (Irreg.)
TESL 5143 Structure of the English Language 3 Credit Hours Prerequisite: graduate standing, MA TESOL majors only. Provides indepth understanding of the grammatical, syntactical and other features of English as they are taught by teachers of ESL to non-native speakers. Topics will include recent theories of grammar and acquisition; taxonomy and rules of English; strategies for teaching simple and complex constructions; and strategies for recognizing and addressing language interference and learner needs. ( $F$ )

TESL 5233 ESL Methods and Techniques 3 Credit Hours
Prerequisite: graduate standing and MA TESOL majors only. Explores the intersection of second language acquisition theory and history, applied linguistics, and ESL methods and techniques related to teaching ESL. Examines new research grounded in sociolinguistics, behavioral linguistics and related fields. Explores how digital and social media innovations are transforming the field and can benefit student outcomes. (F)

TESL 5333 Understanding Cultures for ESL 3 Credit Hours
Prerequisite: graduate standing and MA TESOL majors only. Examines the interaction between language and culture, with application to teaching ESL. Explores how culture is defined and manifested, its influence on identity and self-concept, how cultural differences affect perceptions and interactions, and culture in the ESL classroom. Grounded in constructivist theories of formal schooling, the course trains culturally responsive teachers. (Irreg.)

## TESL 5433 ESL Curriculum

3 Credit Hours
Prerequisite: graduate standing; MA TESOL majors only. Introduces students to learner-centered pedagogy and needs-based ESL curriculum. Students use the procedures to design ELL courses and materials. Through needs-assessment, students explore an outcomes-based curriculum planning process and identify curricular goals and objectives. Introduces the range of technologies and software for ELL's; students evaluate their usefulness to teach using CALL. (Sp)
TESL 5443 ESL Testing and Assessment 3 Credit Hours
Prerequisite: graduate standing, MA TESOL majors only. Provides fundamental principles for evaluating and designing assessment processes in ESL classes. Focuses on the most common pedagogical challenge: classroom based assessment for ELLs. Presents treatment of assessing all four macro skills. Considers the validity and utility of standardized tests, the ethics of testing and alternatives in assessment in ESL. (Sp)
TESL 5553 Teaching ESL Reading/ Writing/ Listening/ Speaking

3 Credit Hours
Prerequisite: graduate standing, MA TESOL majors only, GRAD 5113, GRAD 5123, GRAD 5143. Enables students to identify cultural learning strategies in the ESL/ELL paradigm and use that understanding to overcome barriers to learning in regards to the four macro skills. Analyzes learning and scaffolding techniques to build skills by evaluating metacognitive strategies. Emphasizes classroom management and professionalism. (Su)
TESL 5945 Internship in TESOL 5 Credit Hours
Prerequisite: Graduate standing and MA TESOL majors only. A 150hour field component in which students observe, assist, and teach in an approved ESL setting. Students analyze and reflect upon their own professional knowledge in the field of TESOL with the aid of an instructor and fellow participants. Enables the students to plan future professional development. (Sp)

## TRMP-Trumpet

TRMP 2000 Freshman and/or Sophomore Secondary Trumpet Credit
1 to 2 hours. Prerequisite: permission of adviser and instructor. May be repeated; maximum credit toward B.F.A., B.M.A., B.M.E., and B.M. degrees, eight hours. For freshman and sophomore music students studying in a secondary (or minor) performance area. (F, Sp, Su)

TRMP 2020 Trumpet for Music Majors: Freshman/ Sophomore

## 2-4 Credit Hours

2 to 4 hours. Prerequisite: Majors only. May be repeated; maximum credit 12 hours. Applied instrumental lessons for freshmen and sophomore music majors in a School of Music degree program. ( $\mathrm{F}, \mathrm{Sp}$ )
TRMP 3440 Mentored Research Experience 3 Credit Hours 0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)
TRMP 4000 Junior and/or Senior Secondary Trumpet 1-2 Credit Hours 1 to 2 hours. Prerequisite: permission of adviser and instructor. May be repeated; maximum credit toward B.F.A., B.M.A., B.M.E., and B.M. degrees, eight hours. For junior and senior music students studying in a secondary (or minor) performance area. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
TRMP 4020 Trumpet for Music Majors: Junior/Senior 1-4 Credit Hours 1 to 4 hours. Prerequisite: majors only; junior standing. May be repeated; maximum credit 20 hours. Applied instrumental lessons for junior and senior music majors in a School of Music degree program. ( $F, \mathrm{Sp}$ )
TRMP 5000 Master's-Level Secondary Trumpet 1-2 Credit Hours 1 to 2 hours. Prerequisite: graduate standing in music; permission of adviser and instructor. May be repeated; maximum credit eight hours on a given instrument (including voice). For master's degree music students studying in a secondary (or minor) performance area. (F, Sp, Su)
TRMP 5010 Master's-Level Trumpet for Non-Performance Music
Majors
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing in music; permission of adviser and instructor. May be repeated; maximum credit eight hours on a given instrument (including voice). For master's degree students other than performance majors in their major field. (F, Sp, Su)
TRMP 5020 Master's-Level Trumpet for Performance Majors 2-4 Credit Hours
2 to 4 hours. Prerequisite: graduate standing in music; permission of adviser and instructor; 4020 and 4021 or equivalent. May be repeated; maximum credit toward an M.M. degree 10 hours. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
TRMP 6000 Doctoral Secondary Trumpet 1-2 Credit Hours 1 to 2 hours. Prerequisite: graduate standing in music, permission of adviser or instructor. May be repeated; maximum credit eight hours on a given instrument (including voice). For doctoral degree music students studying in a secondary (or minor) performance area. (F, Sp, Su)

## TRMP 6010 Doctoral Trumpet for Non-Performance Music

 Majors 2-3 Credit Hours2 to 3 hours. Prerequisite: graduate standing in music; permission of adviser and instructor. May be repeated. Doctoral-level study of applied music in the major performance area for students other than performance majors in their primary field. (F, Sp, Su)
TRMP 6020 Doctoral Trumpet for Performance Majors 2-4 Credit Hours 2 to 4 hours. Prerequisite: graduate standing in music; 5042; permission of adviser and instructor. May be repeated; credit applicable toward applied music requirements for the Doctor of Musical Arts degree. Doctoral-level study of applied music for performance majors in their primary field. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

## TROM-Trombone

TROM 2000 Freshman and/or Sophomore Secondary Trombone<br>1-2<br>Credit<br>Hours

1 to 2 hours. Prerequisite: permission of adviser and instructor. May be repeated; maximum credit toward B.F.A., B.M.A., B.M.E., and B.M. degrees, eight hours. For freshman and sophomore music students studying in a secondary (or minor) performance area. (F, Sp, Su)
TROM 2020 Trombone for Music Majors: Freshman/
Sophomore 2-4 Credit Hours
2 to 4 hours. Prerequisite: Majors only. May be repeated; maximum credit 12 hours. Applied instrumental lessons for freshmen and sophomore music majors in a School of Music degree program. ( $\mathrm{F}, \mathrm{Sp}$ )
TROM 3440 Mentored Research Experience 3 Credit Hours
0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)

TROM 4000 Junior and/or Senior Secondary Trombone 1-2 Credit Hours
1 to 2 hours. Prerequisite: permission of adviser and instructor. May be repeated; maximum credit toward B.F.A., B.M.A., B.M.E., and B.M. degrees, eight hours. For junior and senior music students studying in a secondary (or minor) performance area. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
TROM 4020 Trombone for Music Majors: Junior/Senior 1-4 Credit

## Hours

1 to 4 hours. Prerequisite: majors only; junior standing. May be repeated; maximum credit 20 hours. Applied instrumental lessons for junior and senior music majors in a School of Music degree program. (F, Sp)
TROM 5000 Master's-Level Secondary Trombone 1-2 Credit Hours 1 to 2 hours. Prerequisite: graduate standing in music; permission of adviser and instructor. May be repeated; maximum credit eight hours on a given instrument (including voice). For master's degree music students studying in a secondary (or minor) performance area. (F, Sp, Su)

TROM 5010 Master's-Level Trombone for Non-Performance Music Majors 1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing in music; permission of adviser and instructor. May be repeated; maximum credit eight hours on a given instrument (including voice). For master's degree students other than performance majors in their major field. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

## TROM 5020 Master's-Level Trombone for Performance Majors 2-4

## Credit

2 to 4 hours. Prerequisite: graduate standing in music; permission of adviser and instructor; 4020 and 4021 or equivalent. May be repeated; maximum credit toward an M.M. degree 10 hours. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
TROM 6000 Doctoral Secondary Trombone 1-2 Credit Hours
1 to 2 hours. Prerequisite: graduate standing in music, permission of adviser or instructor. May be repeated; maximum credit eight hours on a given instrument (including voice). For doctoral degree music students studying in a secondary (or minor) performance area. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

## TROM 6010 Doctoral Trombone for Non-Performance Music Majors 2-3 Credit Hours

2 to 3 hours. Prerequisite: graduate standing in music; permission of adviser and instructor. May be repeated. Doctoral-level study of applied music in the major performance area for students other than performance majors in their primary field. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

TROM 6020 Doctoral Trombone for Performance Majors 2-4 Credit Hours
2 to 4 hours. Prerequisite: graduate standing in music; 5042; permission of adviser and instructor. May be repeated; credit applicable toward applied music requirements for the Doctor of Musical Arts degree. Doctoral-level study of applied music for performance majors in their primary field. (F, Sp, Su)

## TUBA-Tuba

TUBA 2000 Freshman and/or Sophomore Secondary Tuba 1-2 Credit Hours
1 to 2 hours. Prerequisite: permission of adviser and instructor. May be repeated; maximum credit toward B.F.A., B.M.A., B.M.E., and B.M. degrees, eight hours. For freshman and sophomore music students studying in a secondary (or minor) performance area. (F, Sp, Su)
TUBA 2020 Tuba for Music Majors: Freshman/Sophomore 2-4 Credit Hours
2 to 4 hours. Prerequisite: Majors only. May be repeated; maximum credit 12 hours. Applied instrumental lessons for freshmen and sophomore music majors in a School of Music degree program. ( $\mathrm{F}, \mathrm{Sp}$ )
TUBA 3440 Mentored Research Experience 3 Credit Hours 0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)
TUBA 4000 Junior and/or Senior Secondary Tuba 1-2 Credit Hours 1 to 2 hours. Prerequisite: permission of adviser and instructor. May be repeated; maximum credit toward B.F.A., B.M.A., B.M.E., and B.M. degrees, eight hours. For junior and senior music students studying in a secondary (or minor) performance area. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
TUBA 4020 Tuba for Music Majors: Junior/Senior 1-4 Credit Hours 1 to 4 hours. Prerequisite: majors only; junior standing. May be repeated; maximum credit 20 hours. Applied instrumental lessons for junior and senior music majors in a School of Music degree program. (F, Sp)
TUBA 5000 Master's-Level Secondary Tuba 1-2 Credit Hours 1 to 2 hours. Prerequisite: graduate standing in music; permission of adviser and instructor. May be repeated; maximum credit eight hours on a given instrument (including voice). For master's degree music students studying in a secondary (or minor) performance area. (F, Sp, Su)
TUBA 5010 Master's-Level Tuba for Non-Performance Music Majors

1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing in music; permission of adviser and instructor. May be repeated; maximum credit eight hours on a given instrument (including voice). For master's degree students other than performance majors in their major field. (F, Sp, Su)

TUBA 5020 Master's-Level Tuba for Performance Majors 2-4 Credit Hours
2 to 4 hours. Prerequisite: graduate standing in music; permission of adviser and instructor; 4020 and 4021 or equivalent. May be repeated; maximum credit toward an M.M. degree 10 hours. (F, Sp, Su)
TUBA 6000 Doctoral Secondary Tuba 1-2 Credit Hours
1 to 2 hours. Prerequisite: graduate standing in music, permission of adviser or instructor. May be repeated; maximum credit eight hours on a given instrument (including voice). For doctoral degree music students studying in a secondary (or minor) performance area. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
TUBA 6010 Doctoral Tuba for Non-Performance Music Majors 2-3 Credit Hours
2 to 3 hours. Prerequisite: graduate standing in music; permission of adviser and instructor. May be repeated. Doctoral-level study of applied music in the major performance area for students other than performance majors in their primary field. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
TUBA 6020 Doctoral Tuba for Performance Majors 2-4 Credit Hours 2 to 4 hours. Prerequisite: graduate standing in music; 5042; permission of adviser and instructor. May be repeated; credit applicable toward applied music requirements for the Doctor of Musical Arts degree. Doctoral-level study of applied music for performance majors in their primary field. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

## UGRE-Music Recitals

UGRE 4010 Undergraduate Recital
0 Credit Hours
Prerequisite: Majors only; concurrent enrollment in applied instruction (4020) on the primary instrument, permission of adviser and instructor. Preparation and performance of a public recital by students in the B.M.E. degree programs. (F, Sp, Su)

## UGRE 4011 Undergraduate Recital

1 Credit Hour
Prerequisite: concurrent enrollment in 4010, permission of adviser and instructor. Preparation and performance of a public recital by students in the B.M.A. and B.M.E. degree programs. (F, Sp, Su)

## UNIV-University Course

UNIV 1000 University Course
16 Credit Hours
Prerequisite: variable, generally at freshman level. May be repeated without restriction with change of subject matter. An interdisciplinary course, with subject matter, credit and format variable, and usually of an ad hoc and/or experimental nature. (F, Sp, Su)
UNIV 1002 Foundations for College Learning 2 Credit Hours Prerequisite: Freshman standing and departmental permission. This course aids students in making a successful transition from high school to college and creating a foundation for future success. Students develop critical skills for college-level learning, managing time, exploring career pathways, financial planning, healthy living, connecting to campus resources, etc. Class sizes of 20-24 foster active learning and connection with the instructor, peer mentor, and classmates. (F, Sp)
UNIV 1013 Introductory Seminars
3 Credit Hours
Prerequisite: departmental permission. This course is intended to assist students in the transition from high school to college. Focus is placed on both the characteristics and behavior of the successful college student. Topics to be covered include, but are not limited to, study skills, time management, goal setting, major and career exploration, financial planning, physical and mental health, and personal and civic responsibility. (F, Su)

UNIV 1022 University Seminar
2 Credit Hours
Prerequisite: departmental permission. This course is intended to assist students in the transition from high school to college. Focus is placed on both the characteristics and behavior of the successful college student. Topics to be covered include, but are not limited to, study skills, time management, goal setting, major and career exploration, financial planning, physical and mental health, and personal and civic responsibility. (F, Su)
UNIV 1023 Majors and Money
3 Credit Hours
Prerequisite: Concurrent students only and departmental permission.
This hybrid course merges major exploration and financial management. It dives into how values, interests and skills connect to major and career options as well as the decision-making process. It looks at how to manage your money during your college years and beyond, focusing on personal finance topics \& issues that are practical and relevant now and for the future. (Irreg.)

UNIV 1031 Exploring Careers
1 Credit Hour
Designed for students who have decided on a major and are beginning the process of exploring their career options. Students will have the opportunity to engage in self-assessment, perform career research, investigate additional academic opportunities, and create action plans to prepare for post-college careers. (F, Sp)

## UNIV 1210 First-Year Student Mentoring

0 Credit Hours
Introduction to the academic community; individual and group meetings to encourage student-faculty interaction and foster awareness of academic and cultural resources available to freshmen. (F, Sp)
UNIV 2000 University Course 1-16 Credit Hours
Prerequisite: variable, generally at sophomore level. May be repeated without restriction with change of subject matter. An interdisciplinary course, with subject matter, credit and format variable, and usually of an ad hoc and/or experimental nature. (F, Sp, Su)
UNIV 2001 Strategies for Success
1 Credit Hour
Prerequisite: Departmental permission; may be repeated; maximum credit two hours. Strategies for Success assists students in reaching their academic potential. It is required for first-year students with an OU GPA below 2.0 and available, by permission, to other students who are in need of academic recovery and assistance. This course will emphasize holistic support which includes academic skills, time management, motivation, goal setting, wellness, majors and career, and finances. (F, Sp)
UNIV 2021 Choosing a Major
1 Credit Hour
Designed to help students decide on a major that fits their personality, interests, skills, and goals. Working through the decision-making process, this activity-based class uses self-assessments, group discussions, and in-class research to explore majors and careers. Students will decide on a major or narrow their options, and have the skills and resources needed to make decisions about future career choices. (F,Sp)
UNIV 2970 Special Topics/Seminar 1-3 Credit Hours 1 to 3 hours. Prerequisite: May be repeated; Maximum credit nine hours. Special topics course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research, and field projects. (Irreg.)
UNIV 3000 University Course
16 Credit Hours
Prerequisite: variable, generally at junior level. May be repeated without restriction with change of subject matter. An interdisciplinary course, with subject matter, credit and format variable, and usually of an ad hoc and/ or experimental nature. $(\mathrm{F}, \mathrm{Sp}, \mathrm{Su})$

UNIV 3001 Transitions for Transfer Students
1 Credit Hour
Prerequisite: must be a transfer student. Introduces transfer students to the academic requirements, policies, and resources at the University of Oklahoma. Students will learn about academic advising, transfer credit, degree programs, resources, student life, and methods for achieving academic success at a four-year research institution. (F)

UNIV 3440 Mentored Research Experience 3 Credit Hours 0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)
UNIV 4000 University Course
16 Credit Hours
Prerequisite: variable, generally at senior level. May be repeated without restriction with change of subject matter. An interdisciplinary course, with subject matter, credit and format variable, and usually of an ad hoc and/ or experimental nature. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

## UNIV 4970 Special Topics/Seminar

1-3 Credit Hours 1 to 3 hours. Prerequisite: Senior standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

## UNIV 5000 University Course

16 Credit Hours
Prerequisite: variable, Graduate level. May be repeated without restriction with change of subject matter. An interdisciplinary course, with subject matter, credit and format variable, and usually of an ad hoc and/or experimental nature. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

## VIOA-Viola

VIOA 2000 Freshman and/or Sophomore Secondary Viola 1-2 Credit Hours
1 to 2 hours. Prerequisite: permission of adviser and instructor. May be repeated; maximum credit toward B.F.A., B.M.A., B.M.E., and B.M. degrees, eight hours. For freshman and sophomore music students studying in a secondary (or minor) performance area. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
VIOA 2020 Viola for Music Majors: Freshman/Sophomore 2-4 Credit Hours
2 to 4 hours. Prerequisite: Majors only. May be repeated; maximum credit 12 hours. Applied instrumental lessons for freshmen and sophomore music majors in a School of Music degree program. (F, Sp)

VIOA 3440 Mentored Research Experience 3 Credit Hours 0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)

VIOA 4000 Junior and/or Senior Secondary Viola 1-2 Credit Hours 1 to 2 hours. Prerequisite: permission of adviser and instructor. May be repeated; maximum credit toward B.F.A., B.M.A., B.M.E., and B.M. degrees, eight hours. For junior and senior music students studying in a secondary (or minor) performance area. (F, Sp, Su)

VIOA 4020 Viola for Music Majors: Junior/Senior 1-4 Credit Hours 1 to 4 hours. Prerequisite: majors only; junior standing. May be repeated; maximum credit 20 hours. Applied instrumental lessons for junior and senior music majors in a School of Music degree program. (F, Sp)
VIOA 5000 Master's-Level Secondary Viola 1-2 Credit Hours
1 to 2 hours. Prerequisite: graduate standing in music; permission of adviser and instructor. May be repeated; maximum credit eight hours on a given instrument (including voice). For master's degree music students studying in a secondary (or minor) performance area. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

## VIOA 5010 Master's-Level Viola for Non-Performance Music

 Majors 1-3 Credit Hours1 to 3 hours. Prerequisite: graduate standing in music; permission of adviser and instructor. May be repeated; maximum credit eight hours on a given instrument (including voice). For master's degree students other than performance majors in their major field. (F, Sp, Su)

VIOA 5020 Master's-Level Viola for Performance Majors 2-4 Credit Hours
2 to 4 hours. Prerequisite: graduate standing in music; permission of adviser and instructor; 4020 and 4021 or equivalent. May be repeated; maximum credit toward an M.M. degree 10 hours. (F, Sp, Su)
VIOA 6000 Doctoral Secondary Viola 1-2 Credit Hours
1 to 2 hours. Prerequisite: graduate standing in music, permission of adviser or instructor. May be repeated; maximum credit eight hours on a given instrument (including voice). For doctoral degree music students studying in a secondary (or minor) performance area. (F, Sp, Su)

VIOA 6010 Doctoral Viola for Non-Performance Music
Majors
2-3 Credit Hours
2 to 3 hours. Prerequisite: graduate standing in music; permission of adviser and instructor. May be repeated. Doctoral-level study of applied music in the major performance area for students other than performance majors in their primary field. (F, Sp, Su)
VIOA 6020 Doctoral Viola for Performance Majors 2-4 Credit Hours 2 to 4 hours. Prerequisite: graduate standing in music; 5042; permission of adviser and instructor. May be repeated; credit applicable toward applied music requirements for the Doctor of Musical Arts degree. Doctoral-level study of applied music for performance majors in their primary field. (F, Sp, Su)

## VIOL-Violin

VIOL 2000 Freshman and/or Sophomore Secondary Violin 1-2 Credit Hours
1 to 2 hours. Prerequisite: permission of adviser and instructor. May be repeated; maximum credit toward B.F.A., B.M.A., B.M.E., and B.M. degrees, eight hours. For freshman and sophomore music students studying in a secondary (or minor) performance area. (F, Sp, Su)

VIOL 2020 Violin for Music Majors: Freshman/Sophomore 2-4 Credit Hours
2 to 4 hours. Prerequisite: Majors only. May be repeated; maximum credit 12 hours. Applied instrumental lessons for freshmen and sophomore music majors in a School of Music degree program. (F, Sp)

VIOL 3440 Mentored Research Experience
0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)
VIOL 4000 Junior and/or Senior Secondary Violin 1-2 Credit Hours 1 to 2 hours. Prerequisite: permission of adviser and instructor. May be repeated; maximum credit toward B.F.A., B.M.A., B.M.E., and B.M. degrees, eight hours. For junior and senior music students studying in a secondary (or minor) performance area. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
VIOL 4020 Violin for Music Majors: Junior/Senior 1-4 Credit Hours 1 to 4 hours. Prerequisite: majors only; junior standing. May be repeated; maximum credit 20 hours. Applied instrumental lessons for junior and senior music majors in a School of Music degree program. (F, Sp)
VIOL 5000 Master's-Level Secondary Violin 1-2 Credit Hours 1 to 2 hours. Prerequisite: graduate standing in music; permission of adviser and instructor. May be repeated; maximum credit eight hours on a given instrument (including voice). For master's degree music students studying in a secondary (or minor) performance area. (F, Sp, Su)

VIOL 5010 Master's-Level Violin for Non-Performance Music Majors 1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing in music; permission of adviser and instructor. May be repeated; maximum credit eight hours on a given instrument (including voice). For master's degree students other than performance majors in their major field. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
VIOL 5020 Master's-Level Violin for Performance Majors 2-4 Credit
Hours
2 to 4 hours. Prerequisite: graduate standing in music; permission of
adviser and instructor; 4020 and 4021 or equivalent. May be repeated;
maximum credit toward an M.M. degree 10 hours. (F, Sp, Su)

VIOL 6000 Doctoral Secondary Violin 1-2 Credit Hours 1 to 2 hours. Prerequisite: graduate standing in music, permission of adviser or instructor. May be repeated; maximum credit eight hours on a given instrument (including voice). For doctoral degree music students studying in a secondary (or minor) performance area. (F, Sp, Su)
VIOL 6010 Doctoral Violin for Non-Performance Music Majors 2-3 Credit Hours
2 to 3 hours. Prerequisite: graduate standing in music; permission of adviser and instructor. May be repeated. Doctoral-level study of applied music in the major performance area for students other than performance majors in their primary field. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
VIOL 6020 Doctoral Violin for Performance Majors 2-4 Credit Hours 2 to 4 hours. Prerequisite: graduate standing in music; 5042; permission of adviser and instructor. May be repeated; credit applicable toward applied music requirements for the Doctor of Musical Arts degree. Doctoral-level study of applied music for performance majors in their primary field. (F, Sp, Su)

## VOIC-Voice

VOIC 2000 Freshman and/or Sophomore Secondary Voice 1-2 Credit Hours
1 to 2 hours. Prerequisite: permission of adviser and instructor. May be repeated; maximum credit toward B.F.A., B.M.A., B.M.E., and B.M. degrees, eight hours. For freshman and sophomore music students studying in a secondary (or minor) performance area. (F, Sp, Su)
VOIC 2020 Voice for Music Majors: Freshman/Sophomore 2-4 Credit Hours
2 to 4 hours. Prerequisite: Majors only. May be repeated; maximum credit 8 hours. Applied instrumental lessons for freshmen and sophomore music majors in a School of Music degree program. (F, Sp)
VOIC 3440 Mentored Research Experience 3 Credit Hours 0 to 3 hours. Prerequisites: ENGL 1113 or equivalent, and permission of instructor. May be repeated; maximum credit 12 hours. For the inquisitive student to apply the scholarly processes of the discipline to a research or creative project under the mentorship of a faculty member. Student and instructor should complete an Undergraduate Research \& Creative Projects (URCP) Mentoring Agreement and file it with the URCP office. Not for honors credit. (F, Sp, Su)

VOIC 4000 Junior and/or Senior Secondary Voice 1-2 Credit Hours 1 to 2 hours. Prerequisite: permission of adviser and instructor. May be repeated; maximum credit toward B.F.A., B.M.A., B.M.E., and B.M. degrees, eight hours. For junior and senior music students studying in a secondary (or minor) performance area. ( $F$, Sp, Su)
VoIC 4020 Voice for Music Majors: Junior/Senior 1-4 Credit Hours 1 to 4 hours. Prerequisite: majors only; junior standing. May be repeated; maximum credit 8 hours. Applied instrumental lessons for junior and senior music majors in a School of Music degree program. (F,Sp)
VOIC 5000 Master's-Level Secondary Voice 1-2 Credit Hours
1 to 2 hours. Prerequisite: graduate standing in music; permission of adviser and instructor. May be repeated; maximum credit eight hours on a given instrument (including voice). For master's degree music students studying in a secondary (or minor) performance area. (F, Sp, Su)
VOIC 5010 Master's-Level Voice for Non-Performance Music Majors

1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing in music; permission of adviser and instructor. May be repeated; maximum credit eight hours on a given instrument (including voice). For master's degree students other than performance majors in their major field. (F, Sp, Su)
VOIC 5020 Master's-Level Voice for Performance Majors 2-4 Credit Hours
2 to 4 hours. Prerequisite: graduate standing in music; permission of adviser and instructor; 4020 and 4021 or equivalent. May be repeated; maximum credit toward an M.M. degree 10 hours. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

## VOIC 6000 Doctoral Secondary Voice <br> 1-2 Credit Hours

1 to 2 hours. Prerequisite: graduate standing in music, permission of adviser or instructor. May be repeated; maximum credit eight hours on a given instrument (including voice). For doctoral degree music students studying in a secondary (or minor) performance area. (F, Sp, Su)
VoIC 6010 Doctoral Voice for Non-Performance Music
Majors 2-3 Credit Hours
2 to 3 hours. Prerequisite: graduate standing in music; permission of adviser and instructor. May be repeated. Doctoral-level study of applied music in the major performance area for students other than performance majors in their primary field. (F, Sp, Su)

VOIC 6020 Doctoral Voice for Performance Majors 2-4 Credit Hours
2 to 4 hours. Prerequisite: graduate standing in music; 5042; permission of adviser and instructor. May be repeated; credit applicable toward applied music requirements for the Doctor of Musical Arts degree. Doctoral-level study of applied music for performance majors in their primary field. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

## WGS-Women's \& Gender Studies

WGS 1003 Introduction to Women's and Gender Studies 3 Credit Hours Examines women's issues and movements in the U.S. and globally, focusing on the role of gender in people's lives and on the ways it is used to create privilege for some and oppress others. This course challenges traditional, normative notions about gender and sexuality, which are inextricably entwined. Explores how disability, race, and religion intersect with gender and sexual identity. (F, Sp, Su) [IV-WC].

## WGS 2033 Introduction to Digital Humanities 3 Credit Hours

 (Crosslisted with LIS, HIST and HSTM 2033) This course introduces students to digital and/or computational methods in the humanities and addresses critical questions about the role of digital technology in society. This is a collaborative, hands-on, project-based course. (Sp) [IVWC].WGS 2970 Special Topics in WGS
1-4 Credit Hours
Special Topics. 1 to 4 hours. May be repeated; Maximum credit eight hours. Special topics course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research, and field projects. (Irreg.)

## WGS 3043 Gender/Power/Ldrshp-Politics

3 Credit Hours
(Crosslisted with P SC 3043) Prerequisite: Political Science 1113.
Focuses on the relationship between gender, power, leadership, and government in politics and public administration. Causes of underrepresentation of women in elected office and the bureaucracy are explored. Historical, social, psychological, and organizational barriers are considered. (Irreg.)

WGS 3063 Topics in United States Women's Movements 3 Credit Hours Prerequisite: WGS 1003 or junior standing. May be repeated with change of content; maximum credit 9 hours. Content will vary but will cover a particular aspect of women's studies, be it history, art, communication, literature, contemporary social problems, theory, or other appropriate area of study. (lrreg.)
WGS 3123 Social Justice and Social Change 3 Credit Hours Prerequisite: W S 1003 or junior standing. Introduces students to the major theories and principles of social justice, including fairness, equality and justice; applies these concepts to contemporary social issues such as poverty, gender equality, racial and ethnic identity and politics, environmentalism, the social role of media, war, and globalization; and suggests strategies for creating social change and social justice. Includes both an analysis of the major cultural and structural causes of inequality and injustice, and an examination of the most effective responses. (Irreg.) [IV-WC].
WGS 3133 Medieval Women
3 Credit Hours
(Crosslisted with HIST 3133) Prerequisite: History 1113 or History 1613 or junior standing. Covers social history of women in western Europe from late antiquity to the late Middle Ages. Topics include stages of life, marriage, families, occupation, law, power, health, religion, love and education. (F) [IV-WC].

WGS 3203 Rhetoric and Sexuality 3 Credit Hours (Crosslisted with ENGL 3203) Prerequisite: ENGL 1213 or EXPO 1213 or the equivalent. Investigates the intersections of rhetoric and sexuality as they function socially, politically, and personally. Development and application of research methods from the field of rhetoric and writing studies with a focus on writing, inquiry and revision. (Irreg.) [I-O].

## WGS 3220 WGS Special Topics

1-3 Credit Hours
Prerequisite: WGS 1003 or junior standing. 1 to 3 hours. 3220 preceded by the department name will be a junior level interdisciplinary course in women's studies. May be repeated with change of title and content; maximum credit nine hours. Content will be agreed upon by the departments in cooperation with women's studies. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

## WGS 3223 WGS Special Topics

3 Credit Hours
Prerequisite: WGS 1003 or junior standing. 3223 preceded by the department name will be a junior level interdisciplinary course in women's and gender studies. May be repeated with change of title and content; maximum credit twelve hours. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

## WGS 3233 Women Creating Social Change

3 Credit Hours
Prerequisite: junior standing or permission of instructor. Overview of how women's organizations developed as part of the women's movement in the 1960's. Examines how women have organized at the local, regional and national levels, both within and across race, class, ethnicity, religion and sexuality. Provides students with a basic understanding of how to create, run and manage a nonprofit organization. (F) [IV-WC].
WGS 3253 Men and Masculinity
3 Credit Hours
Prerequisite: junior standing or W S 1003. Designed as an introduction to the literature and theory that focuses on men and masculinity. Masculinity will be opened for critique and critical inquiry in cross-cultural and cross-historical comparison. The performance of masculinity and attendant judgments of this performance change based upon class, race, ethnicity, sexuality, politics, geography, culture, and language. Our readings are designed to analyze this performance from a number of contextual and sociological angles. Particular emphasis will focus on the way that masculinity and concepts of masculinity have been received and engaged in women's and gender studies, feminism and queer theory. (Irreg.)
WGS 3263 LGBTQ Movements
3 Credit Hours
(Crosslisted with LGBT 3263) Prerequisite: WGS 1003 or junior standing. This course will focus on the mainstream gay and lesbian movement in US history, and how that movement shifted from radical to mainstream and the important debates therein. The course will also consider the impact of systems of oppression from colonialism to the US justice system on LGBTQ identity. (Irreg.)

## WGS 3273 Queer Theory

3 Credit Hours
(Crosslisted with LGBT 3273) Prerequisite: WGS 1003 or junior standing. This interdisciplinary course is an introduction to the academic fields and debates within queer theory, specifically, normalization, resistance, and the practice of queering. The central focus is to examine, challenge, critique, and destabilize normative conceptions and representations of not just gender and sexuality but of other categories of being as well. (Irreg.)

WGS 3283 Human Trafficking
Prerequisite: junior standing. Introduces the trafficking of persons in different areas, included, but not limited to, bonded labor, forced migration, and sex trafficking. Human trafficking from a historical and also modern perspective, both in the United States and in the global context, will be studied. Human trafficking is modern day slavery. There are more slaves in the world today than before the time of abolition. Estimates show there are about 27-30 million people are enslaved in the world today. Human trafficking is a 32 billion dollar industry worldwide and is second only to drug trafficking with 36 billion dollar revenue. Explores the different kinds of trafficking, effects of globalization, the demand, and what the governments can do in order to combat human trafficking. (F)
WGS 3353 Race, Class \& Gender
3 Credit Hours
(Crosslisted with SOC 3353) Prerequisite: junior standing or permission of instructor. Explores the intersections of race, ethnicity, class, gender and sexuality. Focus is on how systems of power and oppression reinforce each other, how they intersect in shaping social structure and individual experiences, and how the systems of oppression are mutually reinforcing. Theories and practice of intersectionality, how gender, race, class and other categories of identity are constructed and reproduced in social, political, and economic structures, and experienced in every day life. ( F , Sp)
WGS 3393 Gender and Identity in STEM 3 Credit Hours
Prerequisite: Sophomore standing or permission of the instructor. This course examines the effects of gender and other forms of identity, including race, ethnicity, and sexual orientation, on contemporary STEM students and professionals, including the impact on skill, self-efficacy, and academic/professional outcomes in STEM disciplines. It also explores the intersection and effects of cultural expectations associated with gender, race, ethnicity, and sexual orientation on professional identity and student engagement. (Irreg.) [IV-WC].

## WGS 3413 Body Image Vs. Reality

3 Credit Hours Prerequisite: 1003 or junior standing. Looks at the topic of body image, which is of great importance to men and women. We explore women's identity in popular culture, examining how different authors have responded to the pressures on women to be beautiful, to inhabit a particular place in society and to create a space for themselves as subjects rather than objects. ( $F, S p, S u$ )

## WGS 3423 Women and Sports

3 Credit Hours
Prerequisite: 1003 or junior standing. Examines six generations of American women athletes and their struggle to achieve equality. Explores how women have historically participated in sports and how sports have changed with the passage to Title IX, as well as contemporary female athletics. ( $\mathrm{F}, \mathrm{Sp}$ )

WGS 3433 Race and Sexuality in Women's Sports 3 Credit Hours Prerequisite: Junior Standing. This course is an in-depth look at how gender and sexuality have impacted sports for women. The class will address the issues facing women of color and LGBTQ women and how they survived in a world that had no experience in accepting them. Also included is the role of Title IX and how contemporary female athletes have changed society. (Sp)
WGS 3440 Mentored Research Experience
3 Credit Hours

WGS 3463 Sex and Gender in Early Christianities 3 Credit Hours
Prerequisite: Junior standing. Course introduces students to the diverse understandings of sexuality and gender that developed in early Christianities. Focus on the relationships between gender, leadership, and power; understandings of the body; and views on human sexuality including same-sex relationships, non-binary and transgressive gender expressions, and celibacy. Course will examine how developments in these early Christian communities had long-lasting effects throughout history. (Sp)

## WGS 3473 Red Dirt Women and Power

3 Credit Hours
Prerequisite: 1003 or junior standing. The stories of "red dirt women" are central to an examination of their power and vulnerability in Oklahoma past and present. Individual women come alive as students do oral/video histories. Novels, videos, history and structural social analysis place them in their social context. (F) [IV-WC].
WGS 3483 Domestic Violence and the Law
3 Credit Hours
Prerequisite: 1003 or junior standing. Introduction to the legal aspects of domestic violence by examining case law, statutes and scholarly research and commentary. Studies how domestic violence is addressed by the legal system, and analyzes the different legal treatment of married couples, non-married couples and same-sex couples. Law enforcement, court systems, legal representation, and advocacy groups are evaluated for the role they play in domestic violence law. (F)
WGS 3493 Bodies, Nature, and Justice
3 Credit Hours
Prerequisite: WGS 1003. This course will explore the interconnections between reproductive justice and environmental justice. We use feminist theories of embodiment combined with critical environmental humanities explorations of what constitutes "nature" to explore the political and ethical dimensions of reproductive justice and environmental justice. (Irreg.)
WGS 3513 Gender, Law and Human Rights
3 Credit Hours
Prerequisite: junior standing or 1003. This course follows the development of women's human rights and the subsequent evolution of legal remedies for gender-specific issues. Studies will include the relevant treaties and conventions of the United Nations as well as international case law affecting women. Various women's human rights issues we will study include religion, employment discrimination, gender violence, cultural relativism, polygyny and reproductive rights. (Irreg.) [III-SS].

## WGS 3523 Reproductive Law and Justice 3 Credit Hours

 Prerequisite: Junior standing. In the United States, reproductive rights incorporate legal principles including family law, health law, criminal law, immigration, human rights, and constitutional law. Explores social, legal, and economic barriers to accessing reproductive health through tools including critical race theory, critical legal theory, human rights, feminist theory, and public health systems. Includes contemporary issues: breastfeeding regulations, gender identity discrimination, poverty, and racism. (F)WGS 3563 Gender and Global Politics
3 Credit Hours
Prerequisite: junior standing or permission of instructor. How gender shapes global processes such as war and peace, globalization and labor migration, the rise of ideologies of community such as ethno-nationalism and religious fundamentalism, and the emergence of global norms and activism. A particular focus is on local and global social movements and activism that address gender inequality, as well as the rise of global norms of gender equality. (F) [III-SS].

WGS 3703 Female Heroism in Hollywood 3 Credit Hours
Prerequisite: WGS 1003 or junior standing. Examines conceptual and performative shifts in female heroism in Hollywood genre. Students will engage with various theoretical (feminist theory, feminist film theory, critical race theory) and critical texts discussing the social construction of the female body in American society and cinema, and examine the changing generic parameters through which the female body is considered and constituted heroic. (F) [IV-WC].
WGS 3713 Gender and James Bond
3 Credit Hours
Prerequisite: WGS 1003 or junior standing. Explores the unprecedented longevity and popular cultural viability of the James Bond film franchise by considering the representations of heroism and villainy in the series, focusing on the performance and intersectionality of gender, race, class, nationality and sexual orientation. Examines representations of women and the way those representations have changed throughout the life of the franchise. (Irreg.) [IV-WC].

WGS 3810 WGS Special Topics
1-3 Credit Hours
1 to 3 hours. Prerequisite: WGS 1003 or junior standing. May be repeated with change of content; maximum credit nine hours. Content will vary but will cover a particular aspect of women's studies, be it history, art, communication, literature, contemporary social problems, theory, or other appropriate area of study. Texts and supplementary readings will be assigned according to the topics chosen. ( $F, S p$ )
WGS 3813 WGS Special Topics
3 Credit Hours
Prerequisite: WGS 1003 or junior standing. May be repeated with change of content; maximum credit nine hours. Content will vary but will cover a particular aspect of women's and gender studies, be it history, art, communication, literature, contemporary social problems, theory, or other appropriate area of study. (Irreg.)

## WGS 3823 Queer Religion

3 Credit Hours
(Crosslisted with LGBT and RELS 3823) Prerequisite: Junior standing or permission of instructor. This interdisciplinary seminar engages a range of methods and theoretical approaches to queer studies and religion. The course explores questions including: What is the relationship between queer life and religious life? Is religion ever queer? Is queerness ever religious? What do scholars mean when they label religion (or other objects of study) as queer or queer-able? (Irreg.) [IV-WC].
WGS 3933 U.S. Queer History
3 Credit Hours
(Crosslisted with HIST 3933) Prerequisite: Junior standing. The last 130 years have been a time of incredible change for LBGTQ people and the meanings of sexuality in the United States. We will trace LGBTQ experience and community formation, the policing of queer communities, and the constructions of queerness in pop culture, medicine, the law, and politics, as well as how these histories inform our own time. (Irreg.) [IVWC].

## WGS 3943 Women's Health

3 Credit Hours
Prerequisite: 2003 or permission of instructor. Students will gain basic understanding of subjects necessary to develop physical, mental, and social well-being. Covers female anatomy, physiology, and normal processes, including reproduction, childbearing, and menopause. Healthy life choices and decision-making, stress management, and self-care, including nutrition, exercise, and mental wellness, will also be considered. (F, Sp)

WGS 3953 Women and the Law
3 Credit Hours
Prerequisite: junior standing. This course will examine the history of women's rights and gender discrimination in the United States. It will focus on topics such as the family, education, reproduction, sexual harassment, violence against women, pornography and discrimination in the workplace. Although the subject matter involves legal cases and discourse, it is not intended to be a law school course. (F) [IV-WC].
WGS 3960 Honors Reading (HONORS)
1-3 Credit Hours
Prerequisite: 2003 and admission to Honors Program. May be repeated; maximum credit six hours. Consists of topics designated by the Women's and Gender Studies faculty member. Topics will cover materials not usually presented in regular courses. (Irreg.)
WGS 3963 Gender, Employment Discrimination and Law 3 Credit Hours Prerequisite: WGS 1003 or junior standing. Taught through a feminist lens, students will learn about employment law by focusing primarily on Title VII of the Civil Rights Act of 1964 and federal case law examining adverse employment actions on the basis of sex. Sexual harassment, gender discrimination, family leave, sexual orientation and equal pay will all be examined in detail. (Irreg.)

WGS 3970 Honors Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Subjects covered vary. Deals with concepts not usually treated in regular courses. (Irreg.)
WGS 3973 Divorce Law and Social Implications 3 Credit Hours Prerequisite: WGS 1003 or junior standing. This course provides an understanding of divorce law and the social impact divorce can have on women in particular. This information is crucial to understanding gendered poverty, single parenting issues, and societal norms associated with divorced women and will be looked at through a feminist lens. (Irreg.)

## WGS 3980 Honors Research (HONORS)

1-3 Credit Hours
Prerequisite: 2003 and admission to Honors Program. Individualized research with a Women's and Gender Studies faculty member on a topic leading toward work for the Honors thesis. In-depth research of specialized topic in women's studies. (Irreg.)
WGS 3990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: permission of instructor and junior standing. May be repeated once with change of content. Independent study may be arranged to study a subject not available through regular course offerings. (F, Sp, Su)
WGS 4003 Women's and Gender Studies Senior Capstone 3 Credit Hours
Prerequisite: WGS 1003 or junior standing and WGS major or minor. Designed to acquaint majors and/or minors with the inter-relationship between theory and methodology in Women's and Gender Studies. The course will interweave the sciences, social sciences, humanities, and arts. Students are expected to write weekly critiques, develop a research proposal, and do an oral presentation. (Sp)
WGS 4013 WGS Internship
3 Credit Hours
Prerequisite: junior standing, permission of adviser and instructor, and an approved women's and gender studies course. May be repeated; maximum credit six hours. Students must relate their academic experience to women's or gender issues by working with a non-profit organization or project. Academic credit is based on the site supervisor's report and a substantial paper relating to the internship experience. (F, Sp, Su)

WGS 4023 Social Justice Internship
3 Credit Hours
Prerequisite: 2223 and junior standing and 2.5 GPA. Designed to provide students an opportunity to relate their academic experience to social justice issues in the community by working in a social justice agency or non-profit organization or on a social justice service-learning project for a semester. (F, Sp)

## WGS 4073 Cultural Heritage Data and Social Engagement 3 Credit Hours

(Slashlisted with WGS 5073; Crosslisted with HIST, LIS and HSTM 4073) Prerequisite: Junior standing. This course uses methods from digital humanities, media studies, and data science to explore cultural heritage -- the histories, literature, art, and artifacts of our world's cultures. It particularly focuses on cultural heritage in digital public spaces: websites, social media, etc. No prior background in computer programming is necessary. No student may earn credit for both 4073 and 5073. (F)

WGS G4120 WGS Special Topics 1-3 Credit Hours
1 to 3 hours. Prerequisite: junior standing. May be repeated in a given department, maximum credit nine hours, provided that the course title and content is different in each instance. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )

## WGS 4123 Contemporary Feminist Thought 3 Credit Hours

(Slashlisted with WGS 5123) Prerequisite: senior standing or permission of instructor. Survey of the core concepts and texts of feminist theory exposes students to the major works in feminist theory as well as critiques and scholarly analysis of them. Includes discussion of the roots of feminist theory, analysis of alternatives to liberal feminist thought, and examination of the impact of postmodernism on feminist thought and the rise of global feminism. (Sp) [V].

## WGS 4233 Feminist Research Methods

3 Credit Hours
Prerequisite: WGS 1003 or LGBT 1003 and declared WGS major or minor. This course teaches students the building blocks of feminist knowledge production, exploring the theories behind research methodologies in Women's and Gender Studies scholarship, the importance of understanding interdisciplinary methods as well as new methods in WGS, and how to navigate complex information and data environments. Students will apply their knowledge by conducting original research in projects of their own design. (F)

## WGS 4473 Women and Mental Health

3 Credit Hours
Prerequisite: junior standing. Examines psychological theory and practice as it pertains to women. Will look at traditional theories and practice, new approaches to working with women, and such topical issues as leadership, work issues, depression, trauma, and health. Will be useful to all students who seek to have a better understanding of social and psychological issues that impact women, and how to help resolve those issues. (Irreg.)
WGS 4623 Gender and Children's Culture 3 Credit Hours (Crosslisted with LGBT 4623) Prerequisite: WGS 1003 or LGBT 1003. Children's culture shapes our identities and environments. This course explores children's culture contexts through feminist and queer frameworks. Key content includes analyzing children's media, video games, books, toys, the environment, academics, and digital cultures while examining how childhood is a context for cultural history and leveraging power. It focuses on children's engagement in world building and knowledge production. (F)

WGS 4633 Latina Feminist Epistemologies
3 Credit Hours
(Slashlisted with WGS 5633; Crosslisted with EDS 4633) Prerequisite: Junior standing. This course explores the experiences of Chicanas and Latinas through the lens of contemporary research. Topics to be discussed: community formation and activism, Chicana/Latina feminism, sexuality, religion, health, family, immigration, migration, education, work, media, and artistic expressions. Readings emphasize the links between the structural inequalities of society, and the day-to-day lived experiences of Chicanas/Latinas. No student may earn credit for both 4633 and 5633. (Irreg.)
WGS 4643 Black Feminism and Womanism
3 Credit Hours
(Crosslisted with AFAM 4643) Prerequisite: Junior standing and any 2000-level African and African-American Studies class. This course analyses the way race, gender, sexuality, and socioeconomic status have historically dominated, intersected, and/or competed with the lives and experiences of Black women. This course examines the way Black women have drawn upon these internal struggles to serve as voices of power and agents of social change. Readings in this course will highlight activism, literature, and social justice. (Irreg.)
WGS 4913 Senior Thesis
3 Credit Hours
Prerequisite: senior standing and permission of instructor. Research and presentation of written thesis on suitable topics in women's or gender studies. Specific topic must be approved in advance by instructor. ( $\mathrm{F}, \mathrm{Sp}$, $\mathrm{Su})$
WGS 4960 Directed Readings

## 1-4 Credit Hours

1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean. May be repeated; maximum credit four hours. Designed for upper-division students who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)

WGS 4970 Special Topics in WGS
1-4 Credit Hours
Prerequisite: twelve hours in women's studies courses or permission of instructor. 1 to 4 hours. Variable content; impact of women's studies on the several academic disciplines; interdisciplinary scholarship on women; integration of women's studies in the curriculum. (Sp)
WGS 4990 Independent Study
1-6 Credit Hours
1 to 6 hours. Prerequisite: junior standing, permission of instructor, and an approved Women's and Gender Studies course. May be repeated once with change of content; maximum credit six hours. Designed to accommodate students' interest in reading and research in a specialized area of women's studies. ( $\mathrm{F}, \mathrm{Sp}, \mathrm{Su}$ )
WGS 5001 Women \& Gender Studies Colloq
1 Credit Hour
Prerequisite: 3 hours at or above the 5000-level. Offers a discussion and review of major debates and current literature in the women's and gender studies field with an emphasis on feminist research methods and approaches. Students will expose one another to approaches to women's and gender studies in such major disciplines as anthropology, sociology, political science, education, English, history, communications, and human relations. (F)
WGS 5013 Graduate Internship
3 Credit Hours
Prerequisite: graduate standing, permission of instructor, and an approved graduate women's and gender studies course. May be repeated; maximum credit six hours. Students must relate their academic experience to women's or gender issues by working with a non-profit organization or project. Academic credit is based on the site supervisor's report and a substantial paper relating to the internship experience. ( $F, S p$, Su )

WGS 5073 Cultural Heritage Data and Social Engagement 3 Credit

## Hours

(Slashlisted with WGS 4073; Crosslisted with HIST, LIS and HSTM 5073)
Prerequisite: Graduate standing. This course uses methods from digital humanities, media studies, and data science to explore cultural heritage -- the histories, literature, art, and artifacts of our world's cultures. It particularly focuses on cultural heritage in digital public spaces: websites, social media, etc. No prior background in computer programming is necessary. No student may earn credit for both 4073 and 5073. (F)

WGS 5123 Contemporary Feminist Thought 3 Credit Hours
(Slashlisted with 4123) Prerequisite: graduate standing or permission of instructor. Survey of the core concepts and texts of feminist theory exposes students to the major works in feminist theory as well as critiques and scholarly analysis of them. Includes discussion of the roots of feminist thought, analysis of alternatives to liberal feminist thought, and examination of the impact of postmodernism on feminist thought and the rise of global feminism. (Sp)
WGS 5633 Latina Feminist Epistemologies 3 Credit Hours
(Slashlisted with WGS 4633; Crosslisted with EDS 5633) Prerequisite: Graduate standing. This course explores the experiences of Chicanas and Latinas through the lens of contemporary research. Topics to be discussed include community formation and activism, Chicana/Latina feminism, sexuality, religion, health, family, immigration, migration, education, work, media, and artistic expressions. Readings emphasize the links between the structural inequalities of society, and the day-to-day lived experiences of Chicanas/Latinas. No student may earn credit for both 4633 and 5633. (Irreg.)

WGS 5960 Directed Readings
1-6 Credit Hours
1 to 6 hours. Prerequisite: six hours of Women's and Gender Studies courses at the graduate level. Graduate directed readings is designed for specialized research on a women's studies topic. (F, Sp, Su)
WGS 5970 Special Topics/Seminar
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.)

WGS 5990 Independent Study
1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)

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- 2020-21 OU General Catalog
- 2019-20 OU General Catalog
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- 2016-18 OU General Catalog
- 2017 Course Descriptions
- 2016 Course Descriptions


## 2014-16 OU General Catalog

- 2015 Course Descriptions
- 

2012-14 OU General Catalog

- 2009-12 OU General Catalog
- 2006-08 OU General Catalog - 2006-08 Course Descriptions
- 2003-06 OU General Catalog with Course Descriptions
- 2001-03 OU General Catalog with Course Descriptions
INDEX
A
A HI-Art History ..... 1820
A T-Art and Technology ..... 1826
A. Max Weitzenhoffer School of Musical Theatre ..... 1571
About OU ..... 18
Academic Affairs ..... 80
Academic Majors - Undergraduate and Graduate ..... 55
Academic Records ..... 40
Academic Success Center ..... 73
Accounting Advanced Standing, M.Acc. ..... 901
Accounting, B.B.A. ..... 890
Accounting, B.B.A./Finance, M.S. ..... 896
Accounting, B.B.A./M.Acc ..... 893
Accounting, B.B.A./Management of Information and Technology, M.S ..... 898
Accounting, Minor ..... 893
Accounting/Finance Graduate Electives Course List ..... 898
ACCT-Accounting ..... 1827
Adult \& Higher Education, M.Ed ..... 1083
Adult \& Higher Education, Ph.D. ..... 1086
Adult \& Higher Education: Intercollegiate Athletic Administration, M.Ed.1083
Advanced Chemistry Electives Course Lists ..... 1290
AERO-Aerospace Studies ..... 1831
Aerospace \& Mechanical Engineering Elective Lists ..... 1238
Aerospace and Defense Analytics, Graduate Certificate ..... 879
Aerospace and Defense, E.M.B.A. ..... 878
Aerospace Engineering, B.S ..... 1235
Aerospace Engineering, B.S./M.S ..... 1244
Aerospace Engineering, M.S ..... 1250
Aerospace Engineering, Ph.D. ..... 1251
Aerospace Studies, Minor ..... 696
AFAM-African \& African American Studies ..... 1832
African and African-American Studies, B.A ..... 225
African and African-American Studies, Minor ..... 227
African Studies, Minor ..... 1667
African Studies Minor Electives ..... 1668
AGSC-Atmospheric and Geographic Sciences ..... 1835
AHS-Allied Health Sciences ..... 1836
Air Force ROTC - Aerospace Studies ..... 694
Air Traffic Control, Minor ..... 827
AME-Aerospace \& Mechanical Engineering ..... 1836
American Indian Law, Graduate Certificate ..... 1760
AMGT-Arts Management ..... 1842
Anne and Henry Zarrow School of Social Work ..... 701
ANTH-Anthropology ..... 1844
Anthropology, B.A. ..... 239
Anthropology, B.A./Sociocultural Anthropology, M.A. ..... 246
Anthropology Department Electives List ..... 242
Anthropology, Minor ..... 245
Anthropology (Standard), M.A. ..... 249
Anthropology: Applied Medical Anthropology, M.A. ..... 249
Anthropology: Archaeology, Ph.D ..... 251
Anthropology: Human Health \& Biology, Ph.D. ..... 252
Anthropology: Linguistic Anthropology, M.A. ..... 250
Anthropology: Socio-Cultural Anthropology, M.A. ..... 251
Anthropology: Sociocultural \& Linguistics, Ph.D. ..... 252
Applications of Educational Research and Evaluation, Graduate Certificate1111
Applied Behavior Analysis, Graduate Certificate ..... 1112
Applied Computing, M.S ..... 1220
Applied Research and Program Evaluation Electives Course List ..... 732
Applied Research and Program Evaluation, Graduate Certificate ..... 732
Applied Statistics, Graduate Certificate ..... 214
Applied Statistics Graduate Certificate Course Lists ..... 215
Applied Statistics, M.S ..... 209
Applied Statistics M.S. Approved Elective Courses ..... 209
Applied Statistics, Minor ..... 190
Applied Statistics Minor Course Lists ..... 190
Applied Statistics, Undergraduate Certificate ..... 195
Applied Statistics Undergraduate Certificate Course Lists ..... 196
Approved Classical Archaeology Electives ..... 341
Approved Cybersecurity Electives ..... 1774
Approved Digital Humanities Elective Courses ..... 502
Approved Health Medicine \& Society Elective Courses ..... 448
Approved Learning Experience Design and Technology Electives ..... 1110
Approved Public Health \& Community Health Major Electives ..... 189
ARAB-Arabic ..... 1853
Arabic, B.A. ..... 552
Arabic Major Support Course List ..... 554
Arabic, Minor ..... 572
ARCH-Architecture ..... 1854
Architectural Engineering, B.S ..... 1304
Architectural Engineering, B.S./Civil Engineering, M.S. ..... 1315
Architectural Studies, Minor ..... 106
Architecture, $31 / 2+1 \frac{1}{2}$ Program, B. Arch.St./M. Arch. ..... 107
Architecture, Four+ Year Program, B. Arch. ..... 104
Architecture, Three+ Year Program, B. in Arch. St ..... 102
Architecture via Architecture Bachelor's Degree, M. Arch ..... 110
Architecture via Non-Architecture Bachelor's Degree, M. Arch ..... 109
Archival Studies Elective Course List ..... 501
Archival Studies, Graduate Certificate ..... 500
Archived Catalogs ..... 2315
Army ROTC - Military Science ..... 696
ARNM-Art for Non-Majors ..... 1861
Art and Technology (Online), M.A ..... 1608
Art, B.A. ..... 1597
Art History, B.A ..... 1599
Art History, M.A. ..... 1607
Art History, Minor ..... 1607
Art History: Art of the American West, Ph.D. ..... 1609
Art History: European Art, Ph.D. ..... 1610
Art History: Native American Art, Ph.D. ..... 1610
Art, M.F.A. in Art ..... 1608
Art, Minor ..... 1606
Art, Technology \& Culture, B.F.A ..... 1601
ART-Art ..... 1862
ARTC-Art Theory \& Criticism ..... 1868
ARTH-Art Therapy ..... 1869
Arts Management and Entrepreneurship Elective Lists ..... 1442
Arts Management and Entrepreneurship for Fine Arts Majors, Minor . 1440
Arts Management and Entrepreneurship for Non-Fine Arts Majors, Mino1441
Arts Management and Entrepreneurship, Graduate Certificate ..... 1442
Arts Management Department List ..... 1441
Arts Management (Online), M.A ..... 1441
Asian Religions, Undergraduate Certificate ..... 693
Asian Studies, B.A. ..... 1641
Asian Studies Course Lists ..... 1643
Asian Studies, Minor ..... 1669
ASTR-Astronomy ..... 1869
Astronomy, B.S ..... 611
Astronomy, Minor ..... 620
Astrophysics, B.S ..... 613
Astrophysics, Ph.D ..... 621
ATC-Art, Technology, and Culture ..... 1871
AVIA-Aviation ..... 1872
Aviation: Air Traffic Management Track, B.S ..... 815
Aviation: Aviation Management - Non-Flying Track, B.S ..... 820
Aviation: Aviation Management, Minor ..... 827
Aviation: Aviation Management Track, B.S ..... 818
Aviation: Multi-Engine Commercial Pilot, Minor ..... 828
Aviation: Professional Pilot - Airplane Track, B.S. ..... 822
Aviation: Professional Pilot - Helicopter Track, B.S ..... 825
Aviation: Single-Engine Commercial Pilot, Minor ..... 828
B
B AD-Business Administration ..... 1875
B C-Business Communication ..... 1878
Ballet Pedagogy, B.F.A. ..... 1447
Ballet Performance, B.F.A ..... 1450
BASN-Bassoon ..... 1878
BASS-Bass ..... 1879
BIA-Business Intelligence \& Analysis ..... 1880
Biochemistry, B.S ..... 303
BIOL-Biology ..... 1880
Biology, B.S ..... 274
Biology, M.S ..... 289
Biology, Minor ..... 288
Biology, Ph.D. ..... 292
Biomedical Engineering, B.S ..... 1260
Biomedical Engineering, B.S./M.S ..... 1263
Biomedical Engineering, M.S. ..... 1266
Biomedical Engineering, Ph.D ..... 1267
Bioprocessing, Graduate Certificate ..... 129
Bioprocessing, Undergraduate Certificate ..... 1287
BME Course Lists ..... 1263
BME-Biomedical Engineering ..... 1890
Broadcast Meteorology, Minor ..... 1719
Business Administration, M.B.A ..... 876
Business Administration, Ph.D. ..... 883
Business Analytics Course List ..... 970
Business Analytics (Online), M.S ..... 970
Business and Transactional Law, Graduate Certifıcate ..... 176
Business Entrepreneurship, Graduate Certificate ..... 914
Business Intelligence and Analytics, Undergraduate Certificate ..... 967
Business of Energy, Graduate Certificate ..... 932
C
C S-Computer Science ..... 1894
Career Planning ..... 77
CAS-College of Arts \& Sciences ..... 1900
CEE-College of Earth \& Energy ..... 1902
CEES-Civil Engineering \& Environmental Science ..... 1902
Cellular \& Behavioral Neurobiology: Exercise Physiology, Ph.D ..... 421
Cellular \& Behavioral Neurobiology: Psychology, Ph.D ..... 683
Cellular and Behavioral Neurobiology: Aerospace \& MechanicaEngineering, Ph.D.1253
Cellular and Behavioral Neurobiology: Biology, Ph.D. ..... 293
Cellular and Behavioral Neurobiology: Chemistry \& Biochemistry, Ph.D. 318
CELO-Cello ..... 1910
Certificates ..... 61
CH E-Chemical Engineering ..... 1911
CHEM-Chemistry ..... 1915
Chemical Biosciences, B.S ..... 306
Chemical Engineering - Bioengineering Option, B.S ..... 1279
Chemical Engineering - Pre-Medical Option, B.S ..... 1282
Chemical Engineering - Sustainability Option, B.S. ..... 1284
Chemical Engineering, M.S. ..... 1290
Chemical Engineering, Ph.D ..... 1292
Chemical Engineering (Standard), B.S. ..... 1277
Chemical Engineering (Standard), B.S./M.S. ..... 1287
Chemistry \& Biochemistry, M.S. ..... 313
Chemistry and Biochemistry (Standard Option), B.S ..... 308
Chemistry and Biochemistry: Analytical Chemistry, Ph.D ..... 315
Chemistry and Biochemistry: Biochemistry, Ph.D. ..... 315
Chemistry and Biochemistry: Inorganic Chemistry, Ph.D. ..... 316
Chemistry and Biochemistry: Materials Chemistry, Ph.D. ..... 316
Chemistry and Biochemistry: Organic Chemistry, Ph.D. ..... 317
Chemistry and Biochemistry: Physical Chemistry, Ph.D. ..... 317
Chemistry and Biochemistry: Structural Biology, Ph.D. ..... 317
Chemistry, Minor ..... 313
Chemistry (Professional), B.S ..... 311
Chemistry: Bioinformatics, M.S ..... 314
CHER-Cherokee ..... 1921
CHIN-Chinese ..... 1921
Chinese, B.A. ..... 554
Chinese Major Support List ..... 556
Chinese, Minor ..... 572
CHOC-Choctaw ..... 1922
Choral Conducting, M.M ..... 1552
Christopher C. Gibbs College of Architecture ..... 85
Civil Engineering, B.S. ..... 1307
Civil Engineering, B.S./M.S ..... 1320
Civil Engineering, Ph.D ..... 1342
Civil Engineering: Geotechnical Engineering, M.S ..... 1332
Civil Engineering: Geotechnical Engineering (Online), M.S. ..... 1333
Civil Engineering: Structural Engineering, M.S ..... 1334
Civil Engineering: Structural Engineering (Online), M.S ..... 1335
Civil Engineering: Transportation Engineering (Online), M.S. ..... 1336
Civil Engineering: Water Resources Engineering, M.S ..... 1337
Civil Engineering: Water Resources Engineering (Online), M.S ..... 1338
CL C-Classical Culture ..... 1922
CLAR-Clarinet ..... 1925
Clara Luper Department of African and African-American Studies ..... 221
Classical Archaeology, Minor ..... 340
Classical Culture, Minor ..... 342
Classical Greek, Minor ..... 342
Classical Studies Distribution Course Lists ..... 332
Classics: Classical Languages, B.A ..... 328
Classics: Classical Studies, B.A ..... 330
Classics: Latin, B.A ..... 333
Climate Adaptation, Minor ..... 785
Clinical Mental Health Counseling, M.H.R. ..... 470
Clinical Mental Health Counseling, M.S. ..... 471
Clinical Mental Health Counseling (Online), M.C.M.H.C ..... 469
Clinical Professional Counseling Graduate Elective Courses ..... 1109
Clinical Professional Counseling, M.Ed ..... 1108
CNS-Construction Science ..... 1925
College of Architecture Administrated Programs ..... 88
College of Arts and Sciences Administrated Programs ..... 168
College of Atmospheric and Geographic Sciences ..... 746
College of Business Administrated Programs ..... 862
College of Continuing Education ..... 1002
College of Earth and Energy Administrated Programs ..... 1009
College of Engineering Administrated Programs ..... 1211
College of Fine Arts Administrated Programs ..... 1440
College of Law ..... 1739
College of PACS Administrated Programs ..... 1792
College of Professional and Continuing Studies ..... 1775
College Teaching Certificate, Graduate Certificate ..... 1086
COMM-Communication ..... 1929
Commercial Music, Minor ..... 1551
Commercial Space Applications, Graduate Certificate ..... 880
Communication Approved Graduate Electives ..... 353
Communication, B.A ..... 350
Communication, M.A ..... 353
Communication, Minor ..... 352
Communication, Ph.D. ..... 354
Communication: Organizational Communication, M.A. ..... 354
Community Engagement, Graduate Certificate ..... 84
Community Engagement (Tulsa), Graduate Certificate ..... 1613
Community Health, B.A. ..... 177
Community Health B.A./Epidemiology, M.P.H. ..... 198
Community Health, B.A./Health Promotion Sciences, M.P.H. ..... 201
Community Health, B.S. ..... 179
Community Health, B.S./Epidemiology, M.P.H ..... 203
Community Health, B.S./Health Promotion Sciences, M.P.H ..... 206
COMP-Composition ..... 1935
Composition, B.Mus. ..... 1519
Computational Technology, Minor ..... 1356
Computer Engineering, B.S ..... 1378
Computer Engineering, B.S./Computer Science, M.S ..... 1383
Computer Engineering, B.S./Electrical and Computer Engineering, M.S ..... 1386
Computer Science, B.S. ..... 1352
Computer Science, B.S./M.S ..... 1357
Computer Science, M.S. ..... 1360
Computer Science, M.S. Approved Courses List ..... 1361
Computer Science, Minor ..... 1355
Computer Science, Ph.D. ..... 1361
Conducting, D.M.A. ..... 1564
Conducting, M.M.Ed. ..... 1560
Constitutional Studies Category Course Lists ..... 339
Constitutional Studies, Minor ..... 342
Construction Management, Graduate Certificate ..... 121
Construction Management, M.C.B. ..... 121
Construction Management: Special Studies, M.S ..... 120
Construction Management: Thesis, M.S. ..... 120
Construction Science, B.S ..... 117
Construction Science, Minor ..... 119
Continuing Education ..... 23
Corrections Management Graduate Certificate Approved Electives List 216
Corrections Management (Online), Graduate Certificate ..... 216
Course Descriptions ..... 1818
Creative Media Production, B.A ..... 1709
Creative Media Production, B.A./Journalism and Mass Communication M.A. ..... 1724
Creative Media Production, Minor ..... 1719
CREK-Creek ..... 1935
Criminal Investigation and Intelligence Analysis, Minor ..... 1810
Criminal Justice Administration (Online), Graduate Certificate ..... 217
Criminal Justice, Master of Science Elective Course List ..... 210
Criminal Justice, Minor ..... 1811
Criminal Justice (Online), B.S ..... 1809
Criminal Justice (Online), M.S. ..... 209
Critical Issues in Art History, Ph.D. ..... 1611
CRJU-Criminal Justice ..... 1936
Cultural \& Area Studies Course List ..... 1670
Curriculum/Supervision, Ed.D. Elective Course Lists ..... 1088
Cybersecurity, B.S. ..... 1772
CYBS-Cybersecurity ..... 1937
D
DANC-Dance ..... 1940
Dance History, Minor ..... 1454
Dance, M.F.A. in Dance ..... 1455
Data Analytics for Information Professionals Elective List ..... 501
Data Analytics for Information Professionals (Online), Graduate Certificate ..... 501
Data Analytics, Graduate Certificate ..... 217
Data Analytics Graduate Certificate Course Lists ..... 218
Data Analytics, Minor ..... 191
Data Analytics Minor Course Lists ..... 192
Data Analytics, Undergraduate Certificate ..... 196
Data Analytics Undergraduate Certificate Course Lists ..... 197
Data Science and Analytics, Graduate Certificate ..... 1368
Data Science and Analytics, M.S ..... 1368
Data Science and Analytics, Ph.D. ..... 1369
Data Science and Analytics, Undergraduate Certificate ..... 1367
Data Science and Analytics Undergraduate Certificate Electives ..... 1367
Data Systems and Digital Design (BIM/GIS/FAB), Graduate Certificate ..... 89
Data Systems and Digital Design Elective List ..... 90
David and Judi Proctor Department of Mathematics ..... 503
David L. Boren College of International Studies ..... 1622
DENG-Developmental English ..... 1944
Department of Anthropology ..... 228
Department of Chemistry and Biochemistry ..... 295
Department of Classics and Letters ..... 318
Department of Communication ..... 343
Department of Economics ..... 355
Department of Educational Leadership and Policy Studies ..... 1069
Department of Educational Psychology ..... 1090
Department of English ..... 367
Department of Film and Media Studies ..... 401
Department of Geography and Environmental Sustainability ..... 752
Department of Health and Exercise Science ..... 408
Department of History ..... 423
Department of History of Science, Technology, and Medicine ..... 440
Department of Human Relations ..... 455
Department of Instructional Leadership and Academic Curriculum ..... 1116
Department of International and Area Studies ..... 1626
Department of Modern Languages, Literatures, and Linguistics ..... 528
Department of Native American Studies ..... 580
Department of Political Science ..... 623
Department of Psychology ..... 661
Department of Religious Studies ..... 685
Department of Sociology ..... 715
Department of Women's and Gender Studies ..... 733
DES-Design ..... 1944
Design Entrepreneurship and Real Estate Elective List ..... 90
Design Entrepreneurship and Real Estate, Graduate Certificate ..... 90
Digital Humanities, Graduate Certificate ..... 501
Digital Marketing for Business Majors, Minor ..... 986
Digital Marketing for Non-Business Majors, Minor ..... 986
Digital Technologies, Graduate Certificate ..... 971
Diversity, Equity, and Strategic Impact (Online), M.H.R. ..... 471
Division of Architecture ..... 91
Division of Enrollment Management ..... 29
Division of Finance ..... 915
Division of Interior Design ..... 122
Division of Management and International Business ..... 933
Division of Management Information Systems ..... 958
Division of Marketing and Supply Chain Management ..... 971
Division of Planning, Landscape Architecture, and Design ..... 133
DMAT-Developmental Mathematics ..... 1945
Dodge Family College of Arts and Sciences ..... 156
DRAM-Drama ..... 1945
Drama, M.A. ..... 1480
Dramaturgy Departmental Course Lists ..... 1470
DRDG-Developmental Reading ..... 1951
Drug and Alcohol Counseling, Graduate Certificate ..... 1112
Drug Policy Management (Online), Graduate Certificate ..... 219
DSA-Data Science and Analytics ..... 1951


## E

EACS-Educational Administration Curriculum \& Supervision ..... 1953
Early Childhood Education, B.S ..... 1140
Early Childhood Education: Birth through Third Grade (Tulsa), B.Ed. . ..... 1143
Early Childhood: Birth through Third Grade (Tulsa), B.S ..... 1146
ECE-Electrical \& Computer Engineering ..... 1956
Ecology and Evolutionary Biology - Biology, Ph.D. ..... 293
Ecology and Evolutionary Biology - Botany and Microbiology, Ph.D. ..... 294
ECON-Economics ..... 1962
Econometrics, M.A ..... 365
Econometrics, M.A. Approved Electives ..... 366
Economics, B.A. ..... 360
Economics, B.A./M.A. ..... 363
Economics, B.B.A. ..... 871
Economics, B.B.A./Management of Information and Technology, M.S ..... 874
Economics, Minor ..... 362
Economics, Ph.D. ..... 367
Economics: Applied Economics, M.A. ..... 366
Economics: Managerial Economics, M.A. ..... 366
EDAH-Adult and Higher Education ..... 1966
EDEC-Early Childhood Education ..... 1971
EDEL-Elementary Education ..... 1974
EDEN-English Education ..... 1976
Editing and Publishing, Minor ..... 383
EDLT-Literacy Education ..... 1978
EDMA-Mathematics Education ..... 1980
EDPC-Professional Counseling ..... 1982
EDPY-Education \& Counseling Psychology ..... 1984
EDRG-Reading Education ..... 1985
EDS-Educational Studies ..... 1987
EDSC-Science Education ..... 1990
EDSE-Secondary Education ..... 1992
EDSP-Special Education ..... 1993
EDSS-Social Studies Education ..... 1998
EDSW-Education Sooner Works ..... 1999
EDUC-College of Education ..... 2000
Education Administration - Curriculum \& Supervision Option, M.Ed. ..... 1084
Education Administration - Curriculum/Supervision Option, Ed.D. ..... 1087
Education Administration - Curriculum/Supervision Option, Ph.D. ..... 1089
Educational Studies, M.Ed ..... 1085
Educational Studies, Ph.D. ..... 1089
EDWL-World Language Education ..... 2003
EIPT-Instructional Psychology \& Technology ..... 2004
Elections \& Campaign Management, Minor ..... 644
Electrical and Computer Engineering, M.S ..... 1392
Electrical and Computer Engineering, Minor ..... 1382
Electrical and Computer Engineering, Ph.D. ..... 1392
Electrical Engineering, B.S ..... 1380
Electrical Engineering, B.S./Electrical and Computer Engineering, M.S. ..... 1389
Elementary Education, B.S. ..... 1149
ELM-Engineering Leadership and Management ..... 2008
EMAD-Executive MBA Aerospace \& Defense ..... 2009
EMBA-Executive Energy MBA ..... 2011
EMGT-Energy Management ..... 2014
EN D-Environmental Design ..... 2015
Energy and Natural Resources Law, Graduate Certificate ..... 1762
Energy and Natural Resources Law, LL.M. ..... 1756
Energy and Natural Resources Law, M.L.S ..... 1758
Energy, E.M.B.A ..... 878
Energy Management, B.B.A. ..... 941
ENGB-Energy for Business ..... 2015
Engineering Leadership and Management, M.S ..... 1221
Engineering Leadership Course Lists ..... 1217
Engineering Leadership Sustainability Course Lists ..... 1219
Engineering Leadership, Undergraduate Certificate ..... 1216
Engineering Leadership: Sustainability, Undergraduate Certificate ..... 1219
Engineering, M.S. ..... 1221
Engineering, Ph.D ..... 1222
Engineering Physics, B.S. ..... 1395
Engineering Physics, M.S. ..... 1398
Engineering Physics, Ph.D. ..... 1398
Engineering: Engineering Education, Ph.D. ..... 1222
ENGL-English ..... 2016
English Literary \& Cultural Studies Distribution Lists ..... 380
English Writing Distribution Lists ..... 383
English: Literary \& Cultural Studies, B.A. ..... 377
English: Literary \& Cultural Studies, B.A./M.A. ..... 385
English: Literary \& Cultural Studies, Minor ..... 383
English: Literary Studies, M.A. ..... 391
English: Literary Studies, Ph.D. ..... 392
English: Rhetoric \& Writing Studies, M.A ..... 391
English: Rhetoric \& Writing Studies, Ph.D. ..... 392
English: Writing, B.A. ..... 380
English: Writing, B.A./M.A. ..... 388
English: Writing, Minor ..... 384
ENGR-College of Engineering ..... 2024
ENST- Environmental Studies ..... 2027
ENT-Entrepreneurship ..... 2030
Enterprise Studies, Minor ..... 193
Entrepreneurship \& Real Estate Development, Undergraduate Certificate120
Entrepreneurship \& Venture Management, B.B.A./Management ofInformation and Technology, M.S.911
Entrepreneurship and Innovation Major Electives List ..... 914
Entrepreneurship and Innovation (Online), M.S. ..... 913
Entrepreneurship and Venture Management, B.B.A. ..... 908
Entrepreneurship for Business Majors, Minor ..... 910
Entrepreneurship for Non-Business Majors, Minor ..... 910
Environmental Design, B.S ..... 143
Environmental Design, B.S./M.L.A. ..... 145
Environmental Design, B.S./M.R.C.P.L. ..... 148
Environmental Design, B.S./Urban Design, M.U.D. ..... 150
Environmental Engineering, B.S. ..... 1309
Environmental Engineering, B.S./M.S ..... 1326
Environmental Engineering Electives Course List ..... 1339
Environmental Engineering, M.S. ..... 1338
Environmental Engineering, Ph.D. ..... 1343
Environmental Geology, B.S. ..... 1048
Environmental Science, B.S ..... 1312
Environmental Science B.S. Electives ..... 773
Environmental Science, B.S./M.E.S ..... 1329
Environmental Science Electives Course List ..... 1341
Environmental Science, M.E.S. ..... 1340
Environmental Science, Minor ..... 1314
Environmental Science, Ph.D. ..... 1343
Environmental Studies ..... 393
Environmental Studies, B.A. ..... 396
Environmental Studies Category Lists ..... 398
Environmental Studies, M.S. ..... 400
Environmental Studies, Minor ..... 400
Environmental Sustainability, B.A. ..... 767
Environmental Sustainability, B.S ..... 771
Environmental Sustainability Concentration Elective List ..... 770
Environmental Sustainability, Minor ..... 785
Environmental Sustainability: Planning \& Management, B.A./M.R.C.P. ..... 787
Environmental Sustainability. Planning \& Management, B.S./M.R.C.P. ..... 790
EPHY-Engineering Physics ..... 2034
Esports Business, Undergraduate Certificate ..... 954
GeoEnergy Engineering, B.S. ..... 1019
EUPH-Euphonium ..... 2034
European Studies, B.A. ..... 1644
European Studies Course Lists ..... 1646
European Studies, Minor ..... 1670
European Studies: Russian \& East European, B.A. ..... 1646
European Studies: Russian \& East European Course Lists ..... 1649
Executive Management in Aerospace \& Defense, Graduate Certificate . ..... 880
EXPO-Expository Writing ..... 2035
F
F A-College of Fine Arts ..... 2035
Facilities and Resources ..... 23
Film \& Media Studies, B.A. ..... 405
Film \& Media Studies, Minor ..... 408
Film and Media Studies Guided Electives ..... 407
FIN-Finance ..... 2036
Finance, B.B.A. ..... 923
Finance, B.B.A./Finance, M.S. ..... 925
Finance, B.B.A./Management of Information and Technology, M.S. ..... 928
Finance BBA/MS Graduate Electives Course List ..... 928
Finance for Business Majors, Minor ..... 925
Finance, Graduate Certificate ..... 932
Finance, M.S. ..... 931
FLUT-Flute ..... 2041
FMS-Film and Media Studies ..... 2042
Foundations of Business, Graduate Certificate ..... 881
FR H-French Horn ..... 2045
FR-French ..... 2045
Franchising, Minor ..... 987
French, B.A. ..... 556
French, M.A. ..... 577
French, Minor ..... 573
French, Ph.D. ..... 579
Fundamentals of Special Education, Graduate Certificate ..... 1112
G
G E-Geological Engineering2047
Gallogly College of Engineering ..... 1203
Gaylord College of Journalism and Mass Communication ..... 1686
GCRE-Grad Comp Recital ..... 2049
GDMA-Graduate Recital DMA ..... 2049
General Business for Non-Business Majors, Minor ..... 873
General Music Education, M.M.Ed. ..... 1561
GEOG-Geography ..... 2049
Geographic Information Science, B.A. ..... 774
Geographic Information Science, B.A./M.R.C.P. ..... 794
Geographic Information Science, B.S ..... 776
Geographic Information Science, B.S./M.R.C.P. ..... 797
Geographic Information Systems, Minor ..... 786
Geography \& Environmental Sustainability, Ph.D. ..... 808
Geography and Environmental Sustainability, M.A. ..... 805
Geography and Environmental Sustainability: Environmental Systems, M.S805
Geography and Environmental Sustainability: Geospatial Technologies,
M.S. ..... 806
Geography, B.S ..... 782
Geography, B.S./M.R.C.P. ..... 802
Geography, Minor ..... 786
Geography: Geohumanities, B.A. ..... 778
Geography: Physical \& Social Sciences, B.A. ..... 780
Geography: Physical \& Social Sciences, B.A./M.R.C.P. ..... 799
GEOL-Geology ..... 2056
Geological Engineering, M.S ..... 1030
Geological Engineering, Ph.D. ..... 1032
Geology, B.S ..... 1050
Geology, M.S. ..... 1059
Geology, Minor ..... 1059
Geology, Ph.D. ..... 1060
Geophysics, B.S. ..... 1053
Geophysics, M.S. ..... 1060
Geophysics, Ph.D. ..... 1061
Geospatial Technologies, Graduate Certificate ..... 807
Geotechnical Engineering Electives Course List ..... 1333
GERM-German ..... 2061
German, B.A. ..... 558
German, M.A. ..... 578
German, Minor ..... 573
GIS-Geographic Information Science ..... 2063
Global Affairs Course List ..... 1681
Global Affairs, M.A. ..... 1680
Global Energy, Environment, and Resources, B.A. ..... 1649
Global Energy, Environment, and Resources Course Lists ..... 1652
Global Energy, Environment, and Resources, Minor ..... 1671
Global Engagement, Undergraduate Certificate ..... 1676
Global Studies Course Lists ..... 1682
Global Studies, M.A. ..... 1682
Glossary of Terms and Abbreviations ..... 1814
GPHY-Geophysics ..... 2066
GRAD-Graduate College ..... 2068
Graduate College ..... 1612
GRK-Greek ..... 2069
GRRE-Graduate Recital - MM ..... 2071
GTAR-Guitar ..... 2071
H
H R-Human Relations ..... 2071
HARP-Harp ..... 2081
Haskell and Irene Lemon Construction Science Division ..... 111
HCB-Health Care Business ..... 2081
Health \& Exercise Science, B.S. ..... 416
Health \& Exercise Science, M.S. ..... 419
Health \& Exercise Science, Minor ..... 418
Health and Exercise Science: Exercise Physiology, M.S ..... 419
Health and Exercise Science: Exercise Physiology, Ph.D. ..... 422
Health and Exercise Science: Health Promotion, M.S ..... 420
Health and Exercise Science: Health Promotion, Ph.D. ..... 422
Health and Exercise Science: Sports Data Analytics, M.S ..... 420
Health, Medicine, and Society, B.A. ..... 446
Health Sciences Center ..... 22
Healthcare Business, B.B.A. ..... 979
Healthcare Business, Minor ..... 987
Healthcare Law, LL.M. ..... 1757
Healthcare Law, M.L.S ..... 1758
HEBR-Hebrew ..... 2082
Hebrew, Minor ..... 574
Helping Skills in Human Relations, Graduate Certificate ..... 476
HES-Health and Exercise Science ..... 2083
HIST-History ..... 2089
History, B.A. ..... 436
History, M.A ..... 439
History, Minor ..... 438
History of Medicine, Minor ..... 452
History of Science, Minor ..... 453
History of Science, Technology, and Medicine, B.A. ..... 449
History of Science, Technology, and Medicine Course Lists ..... 451
History of Science, Technology, and Medicine, M.A ..... 453
History of Science, Technology, and Medicine, Ph.D. ..... 454
History, Ph.D. ..... 439
HMS-Health, Medicine, and Society ..... 2099
Homer L. Dodge Department of Physics and Astronomy ..... 603
HON-Honors College ..... 2099
HPCD-Harpsichord ..... 2100
HSTM-History of Science, Technology, and Medicine ..... 2100
Human \& Health Services Administration (Online), M.A. ..... 210
Human Health \& Biology, B.S. ..... 243
Human Relations, B.A. ..... 466
Human Relations, Minor ..... 469
Human Relations (Standard), M.H.R. ..... 472
Human Relations: Human Resources, M.H.R. ..... 473
Human Resource Development and Workforce Diversity, Graduate
Certificate ..... 476
Human Resource Management Electives Course List ..... 954
Human Resource Management (Tulsa), Graduate Certificate ..... 682
Human Resource Management, Undergraduate Certificate ..... 954
Human Resource Studies, M.A. ..... 475
Hydrocarbon Energy, Graduate Certificate ..... 881
Hydrologic Science, Minor ..... 786
Hydrology and Water Security Guided Electives ..... 1342
Hydrology and Water Security (Online), M.E.S. ..... 1341
D-Interior Design ..... 2104
IAS-International \& Area Studies ..... 2109
ILAC-Instructional Leadership \& Academic Curriculum ..... 2120
ILAC: Early Childhood Education, M.Ed ..... 1190
ILAC: Elementary Education, M.Ed. ..... 1191
LAC: English Education, M.Ed. ..... 1192
ILAC: Instructional Leadership, M.Ed. ..... 1192
ILAC: Mathematics Education, M.Ed. ..... 1193
ILAC: Reading Education, M.Ed ..... 1194
LAC: Science Education, M.Ed. ..... 1195
ILAC: Science, Technology, Engineering \& Math (STEM) Education, M.Ed. ..... 1196
ILAC: Secondary Education, M.Ed ..... 1197
ILAC: Social Studies Education, M.Ed. ..... 1198
ILAC: Teacher Education, M.Ed ..... 1198
ILAC: World Language Education, M.Ed. ..... 1199
LAW-International Law ..... 2122
Inclusive Leadership, M.H.R ..... 474
Indigenous Peoples Law, Graduate Certificate ..... 1762
Indigenous Peoples Law, LL.M. ..... 1757
Indigenous Peoples Law, M.L.S. ..... 1759
Industrial and Systems Engineering - Analytics, B.S./Data Science and Interior Design for Non-Architecture/Non-Visual Communication Majors,Analytics, M.S1425
Industrial and Systems Engineering - Analytics, B.S./M.S. ..... 1422
Industrial and Systems Engineering - Analytics Option, B.S ..... 1408
Industrial and Systems Engineering - Pre-Medicine Option, B.S. ..... 1410
Industrial and Systems Engineering, B.S ..... 1406
Industrial and Systems Engineering, B.S./Data Science and Analytics, M.S.1416
Industrial and Systems Engineering, B.S./M.B.A. ..... 1419
Industrial and Systems Engineering, B.S./M.S. ..... 1413
Industrial and Systems Engineering, M.S. ..... 1427
Industrial and Systems Engineering, Ph.D. ..... 1429
Industrial Systems and Engineering Electives Course List ..... 1429
Information Science and Technology, B.S. ..... 489
Information Science and Technology Course Lists ..... 491
Information Studies, B.A ..... 492
Information Studies, B.A./M.L.I.S ..... 496
Information Studies Major Category Lists ..... 494
Information Studies, Minor ..... 496
Information Studies Minor Category Course Lists ..... 496
Information Studies, Ph.D. ..... 502
Instructional Leadership \& Academic Curriculum, Ph.D ..... 1201
Instrumental Conducting, M.M. ..... 1553
Instrumental Jazz, Minor ..... 1551
Instrumental, M.M.Ed. ..... 1563
Instrumental Music Education, B.M.Ed. ..... 1544
Integrated Childhood Well-Being (Tulsa), M.A. ..... 1200
Integrative Studies, B.A. ..... 1794
Integrative Studies Bachelor of Arts Elective Course Lists ..... 1795
Integrative Studies Master of Arts Elective Course List ..... 212
Integrative Studies (Online), M.A. ..... 211
Intercollegiate Athletic Administration Course List ..... 1084
Interdisciplinary Studies, Ph.D. ..... 1614
Interdisciplinary Studies: Aerospace \& Defense Management, B.A. ..... 1795
Interdisciplinary Studies: Business Administration, B.A. ..... 1797
Interdisciplinary Studies: Construction Management, B.A. ..... 1798
Interdisciplinary Studies: Criminal Justice Leadership, B.A. ..... 1800
Interdisciplinary Studies: Healthcare Management, B.A. ..... 1801
Interdisciplinary Studies: Learning and Education Studies, B.A. ..... 1803
Interdisciplinary Studies: Organizational Leadership, B.A ..... 1804
Interior Design, B.I.D. ..... 129
Interior Design (First Professional), M.S. ..... 132Minor131
Interior Design for Visual Communication Majors, Minor ..... 131
Interior Design (Post-Professional), M.S ..... 132
International Business, B.B.A ..... 944
International Business Law, LL.M ..... 1758
International Business Law, M.L.S ..... 1759
International Development, B.A. ..... 1652
International Development Course Lists ..... 1655
International Development, Minor ..... 1671
International Enterprise Studies, Minor ..... 193
International Law, Graduate Certificate ..... 1763
International Relations Course Lists ..... 1683
International Relations, M.A. ..... 1683
International Security Studies, B.A ..... 1655
International Security Studies Course Lists ..... 1658
International Security Studies, Minor ..... 1672
International Studies Accelerated Course Lists ..... 1679
International Studies, B.A. ..... 1658
International Studies, B.A./Global Studies, M.A ..... 1676
International Studies Course Lists ..... 1661
International Studies, Minor ..... 1673
INTL-International Courses ..... 2122
Iranian Studies, Minor ..... 1673
Irish Studies, Minor ..... 385
ISE-Industrial and Systems Engineering ..... 2122
Islamic Studies, Undergraduate Certificate ..... 694
ITAL-Italian ..... 2127
Italian, B.A. ..... 560
Italian Major Support List ..... 563
Italian, Minor ..... 574
J
Japanese, B.A. ..... 563
Japanese, Minor ..... 575
JAPN-Japanese ..... 2128
Jeannine Rainbolt College of Education ..... 1062
JMC-Journalism \& Mass Communication ..... 2129
Joe C. and Carole Kerr McClendon Honors College ..... 1617
John T. Steed School of Accounting ..... 885
Journalism Advertising, B.A. ..... 1707
Journalism and Mass Communication, M.A ..... 1734
Journalism, B.A. ..... 1712
Interior Design for Architecture Majors, Minor ..... 130
Journalism, B.A./Journalism and Mass Communication, M.A. ..... 1727
Journalism: Advertising, B.A./Journalism and Mass Communication, M.A1720
JRRE-Music Recitals ..... 2143
Judaic \& Israel Studies, Minor ..... 480
Judaic Studies, B.A ..... 478
K
KIOW-Kiowa ..... 2143
L
L A-Landscape Architecture ..... 2144
L S-Legal Studies ..... 2145
Landscape Architectural Studies, M.L.A. ..... 153
Landscape Architecture, M.L.A. ..... 152
Landscape Architecture via BLA, M.L.A. ..... 153
Language Arts Education, B.S ..... 1152
LAT-Latin ..... 2147
Latin American Studies, B.A. ..... 1662
Latin American Studies Course Lists ..... 1664
Latin American Studies, Minor ..... 1674
Latin, Minor ..... 343
Latinx Studies, B.A ..... 181
Latinx Studies, Minor ..... 194
Law, J.D. ..... 1765
Law, LL.M. ..... 1756
LAW-Law ..... 2148
LDMA-Music Recitals ..... 2154
Leadership for Business Majors, Minor ..... 952
Leadership, Undergraduate Certificate ..... 954
Learning Design and Technology, Graduate Certificate ..... 1113
Learning Experience Design and Technology, M.S ..... 1109
Learning Experience Design and Technology, Ph.D. ..... 1114
Legal Studies Electives Course List ..... 955
Legal Studies, Undergraduate Certificate ..... 955
Letters (Standard), B.A. ..... 335
Letters: Constitutional Studies, B.A ..... 337
LGBT-LGBTQ Studies ..... 2154
LGBTQ Studies, Minor ..... 741
Library \& Information Studies, M.L.I.S. ..... 499
Lifespan Care Administration (Online), B.A. ..... 1806
LING-Linguistics ..... 2155
Linguistics, B.A ..... 565
Linguistics, Minor ..... 575
LIS-Library and Information Studies ..... 2157
Literacy Specialist, Graduate Certificate ..... 1201
Litigation, Graduate Certificate ..... 1764
LSG-Legal Studies (General) ..... 2163
LSH-Legal Studies Healthcare Law ..... 2163
LSHA-Human \& Health Services Administration ..... 2164
LSI-Legal Studies Indigenous Peoples Law ..... 2165
LSIB-Legal Studies International Business Law ..... 2166
LSO-Legal Studies Oil, Gas, \& Energy Law ..... 2167
LTRS-Letters ..... 2168
M
M S-Military Science - Army ..... 2171
M.C.B. Business Electives ..... 121
Management, B.B.A. ..... 947
Management, B.B.A./Management of Information and Technology, M.S.955
Management Information Systems, B.B.A ..... 964
Management Information Systems, B.B.A./Management of Information and Technology, M.S. ..... 967
Management, Minor ..... 952
Management of Information and Technology, M.S. ..... 970
Marketing, B.B.A ..... 981
Marketing, B.B.A./Management of Information and Technology, M.S. ..... 989
Marketing, B.B.A./Supply Chain Management (Online), M.S. ..... 992
Marketing for Non-Business Majors, Minor ..... 988
Marketing, Minor ..... 987
Mass Communication, Ph.D. ..... 1737
Master of Legal Studies, M.L.S ..... 1760
MATH-Mathematics ..... 2172
Mathematics, B.A./Finance, M.S. ..... 519
Mathematics, B.A./M.B.A. ..... 515
Mathematics, B.S./Biostatistics, M.S ..... 521
Mathematics BA/Finance MS Accelerated Course Lists ..... 521
Mathematics Education, B.S. ..... 1155
Mathematics, M.A. ..... 524
Mathematics, M.S. ..... 524
Mathematics, Minor ..... 515
Mathematics, Ph.D ..... 525
Mathematics (Professional Option), B.S ..... 513
Mathematics (Standard Option), B.A ..... 511
Mathematics/MBA Accelerated Course Lists ..... 518
MBIO-Microbiology ..... 2178
Mechanical Engineering - Premedical Option, B.S ..... 1241
Mechanical Engineering, M.S. ..... 1251
Mechanical Engineering, Ph.D. ..... 1252
Mechanical Engineering (Standard), B.S ..... 1239
Mechanical Engineering (Standard), B.S./M.S ..... 1247
Media Management, Graduate Certificate ..... 1736
Medical Humanities, Minor ..... 1620
Medieval \& Renaissance Studies, Minor ..... 526
Medieval and Renaissance Studies ..... 526
Meteorology, B.S. ..... 841
Meteorology, B.S./Data Science and Analytics, M.S ..... 848
Meteorology, B.S./M.B.A ..... 845
Meteorology, M.S ..... 850
Meteorology, Minor ..... 844
Meteorology, Ph.D. ..... 851
Meteorology Upper Division Major Elective Course List ..... 843
METR-Meteorology ..... 2181
Mewbourne College of Earth and Energy ..... 1005
Mewbourne School of Petroleum and Geological Engineering ..... 1010
MGT-Management ..... 2188
Michael F. Price College of Business ..... 853
Microbiology, M.S ..... 289
Microbiology, Minor ..... 288
Microbiology, Ph.D. ..... 294
Microbiology (Professional), B. Mbio ..... 281
Microbiology (Standard), B.S. ..... 276
Microbiology (Standard): Biotechnology, B.S ..... 278
Microbiology: Bioinformatics, M.S. ..... 290
Microscopic Imaging and Technology, Graduate Certificate ..... 292
Middle Eastern Studies, B.A ..... 1665
Middle Eastern Studies Course Lists ..... 1667
Middle Eastern Studies, Minor ..... 1675
Military Science, Minor ..... 698
Minor Electives for Interior Design for Architecture Majors ..... 131
Minor Electives for Interior Design for Non-Architectural/Non-Visua Communication Majors ..... 132
Minors ..... 62
MIS for Business Majors, Minor ..... 966
MIS for Non-Business Majors, Minor ..... 966
MIS-Management Information Systems ..... 2192
MIT-Management Information Technology ..... 2194
MKT-Marketing ..... 2196
MLLL-Modern Languages, Literatures, \& Linguistics ..... 2198
Modern Dance Performance, B.F.A. ..... 1452
MRS-Medieval and Renaissance ..... 2202
MST-Museum Studies ..... 2203
MTHR-Musical Theatre ..... 2204
MUED-Music Education ..... 2207
MULI-Music Literature ..... 2210
Multidisciplinary Studies, B.A ..... 82
Multidisciplinary Studies, B.S ..... 83
MUNM-Music for Non-Majors ..... 2211
MUS-Music ..... 2213
MUSC-Musicology ..... 2214
Museum Studies Graduate Elective List ..... 500
Museum Studies (Online), M.A. ..... 500
Museum Studies, Undergraduate Certificate ..... 1607
Museums and Collections ..... 26
Music, B.A ..... 1517
Music, B.M.A. ..... 1541
Music Composition, D.M.A. ..... 1565
Music Composition, M.M. ..... 1553
Music Education, Ph.D. ..... 1569
Music, Minor ..... 1552
Music Theory Course List ..... 1555
Music Theory, M.M ..... 1554
Music: Instrumental Jazz, B.A. ..... 1514
Musical Theatre Performance, B.F.A. ..... 1575
Musicology, M.M ..... 1555
MUTE-Music Technique ..... 2215
MUTH-Music Theory ..... 2222
MUTK-Music Technology ..... 2223
N
N S-Naval Science ..... 2224
NAS-Native American Studies ..... 2225
Native American Studies Areas of Emphasis ..... 590
Native American Studies, B.A. ..... 588
Native American Studies, Graduate Certificate ..... 592
Native American Studies, M.A. ..... 591
Native American Studies, Minor ..... 590
Natural Gas Engineering \& Management, M.S ..... 1031
Naval ROTC - Naval Science ..... 699
Naval Science, Minor ..... 701
Non-Governmental Organizations, Minor ..... 645
Non-Profit Management (Tulsa), Graduate Certificate ..... 660
Nonprofit Organizational Studies, Minor ..... 646
Norman Campus ..... 21
NPNG-Nonprofit \& Nongovernmental Organizations ..... 2230
0
OBOE-Oboe ..... 2231
OCL-Organizational and Community Leadership ..... 2232
ODYN-Organizational Dynamics ..... 2232
Office of Admissions \& Recruitment ..... 29
Office of the Registrar ..... 39
Oil \& Gas, Natural Resources, and Energy Law, Graduate Certificate ..... 1764
OL-Organizational Leadership ..... 2234
Online Accounting Advanced Standing, M. Acc. ..... 901
Online Accounting, M.Acc ..... 902
Organ, B.Mus ..... 1522
Organ, D.M.A. ..... 1567
Organ: Church Music, M.M ..... 1556
Organ: Standard, M.M. ..... 1555
Organ: Technology, M.M ..... 1556
Organization ..... 19
Organizational and Community Leadership (Tulsa), Ph.D. ..... 1614
Organizational Dynamics - Human Resource Management Option, M.A679
Organizational Dynamics - Project Management Option, M.A. ..... 680
Organizational Dynamics, M.A. ..... 678
Organizational Leadership Approved Graduate Electives ..... 214
Organizational Leadership, B.A. ..... 1808
Organizational Leadership, Minor ..... 1811
Organizational Leadership (Online), Graduate Certificate ..... 220
Organizational Leadership (Online), M.A. ..... 213
Organizational Psychology (Tulsa), Graduate Certificate ..... 682
Organizational Research (Tulsa), Graduate Certificate ..... 682
ORGN-Organ ..... 2236
Orientation and Advisement ..... 67
OU Online ..... 65
OU School of Visual Arts ..... 1577
OU-Tulsa Schusterman Center and Polytechnic Institute ..... 22
PP E-Petroleum Engineering ................................................................. 2236
P SC-Political Science ..... 2242
Paleontology, B.S. ..... 1055
PBIO-Plant Biology ..... 2251
PCUS-Percussion ..... 2254
PDC-Planning, Design \& Construction ..... 2255
Peggy Dow Helmerich School of Drama ..... 1455
PERS-Persian ..... 2255
Petroleum Engineering, B.S ..... 1022
Petroleum Engineering, B.S./M.B.A ..... 1027
Petroleum Engineering, B.S./M.S ..... 1024
Petroleum Engineering, Ph.D. ..... 1033
Petroleum Engineering (Standard), M.S. ..... 1032
Petroleum Geology, B.S. ..... 1057
PHCH-Public Health and Community Health ..... 2255
PHIL-Philosophy ..... 2256
Philosophy, B.A. ..... 598
Philosophy, M.A. ..... 601
Philosophy, M.A. Course Lists ..... 602
Philosophy Major Distribution Lists ..... 601
Philosophy, Minor ..... 601
Philosophy, Ph.D. ..... 602
Philosophy, Ph.D. Course Lists ..... 603
PHYS-Physics ..... 2261
Physical Geography, Minor ..... 787
Physics, M.S. ..... 621
Physics, Minor ..... 620
Physics, Ph.D ..... 622
Physics (Professional), B. Phys ..... 618
Physics (Standard), B.S. ..... 615
PIAN-Piano ..... 2265
Piano, B.Mus. ..... 1524
Piano, D.M.A. ..... 1566
Piano Pedagogy, B.Mus. ..... 1526
Piano Pedagogy, M.M.Ed. ..... 1563
Piano: Performance and Pedagogy, M.M ..... 1558
Piano: Performance, M.M. ..... 1557
Planned Program, B.A ..... 183
Planned Program, B.S. ..... 185
Planning, Design and Construction, M.S ..... 89
Planning, Design and Construction, Ph.D. ..... 91
Plant Biology, B.S ..... 283
Plant Biology, M.S. ..... 291
Plant Biology, Minor ..... 289
Plant Biology, Ph.D. ..... 295
Plant Biology: Bioinformatics, M.S. ..... 291
Plant Biology: Biotechnology, B.S. ..... 285
Policies ..... 1813
Political Science, B.A. ..... 637
Political Science, B.A./M.A. ..... 647
Political Science, B.A./M.P.A. ..... 650
Political Science Distribution Requirement Course Lists ..... 639
Political Science, M.A. ..... 657
Political Science, Minor ..... 646
Political Science, Ph.D. ..... 661
Political Science: Elections and Campaign Management, B.A. ..... 640
Polytechnic Institute ..... 1767
PORT-Portuguese ..... 2265
Portuguese, Minor ..... 576
POTA-Potawatomi ..... 2266
Pre-Health Social Sciences, Minor ..... 677
Price College of Business approved course list ..... 1736
Professional MBA, M.B.A. ..... 877
Professional Writing, B.A. ..... 1714
Professional Writing, M.P.W. ..... 1735
Professional Writing, Minor ..... 1720
Program in Data Science and Analytics ..... 1362
Program in Engineering Physics ..... 1393
Project Management (Tulsa), Graduate Certificate ..... 683
PSAD-PACS Aerospace \& Defense ..... 2266
PSBA-PACS Business Administration ..... 2266
PSCJ-PACS Criminal Justice ..... 2267
PSCS-PACS Computer \& Data Science ..... 2268
PSHA-Health Administration ..... 2269
PSHU-PACS Humanities ..... 2269
PSIS-PACS Integrative Studies ..... 2270
PSMS-PACS Math ..... 2271
PSNS-PACS Natural Sciences ..... 2271
PSOL-PACS Organizational Leadership ..... 2272
PSSC-PACS Social Sciences ..... 2272
PSY-Psychology ..... 2273
Psychology, Minor ..... 677
Psychology, Ph.D ..... 684
Psychology (Professional), B.S. ..... 674
Psychology (Standard), B.A. ..... 671
Psychology (Standard), M.S ..... 681
Psychology: Industrial and Organizational Psychology, Ph.D ..... 684
Public Administration, M.P.A ..... 658
Public Administration: Non-Profit Management, M.P.A. ..... 659
Public Administration: Public Management, M.P.A. ..... 659
Public Administration: Public Policy, M.P.A. ..... 660
Public Affairs \& Administration, Minor ..... 647
Public \& Nonprofit Administration, B.A./M.P.A. ..... 655
Public and Community Health, Minor ..... 195
Public and Nonprofit Administration, B.A. ..... 642
Public and Nonprofit Administration, B.A./Political Science, M.A. ..... 652
Public Health, B.P.H. ..... 187
Public Management Concentration Courses ..... 660
Public Relations, B.A. ..... 1717
Public Relations, B.A./Journalism and Mass Communication, M.A. ..... 1731
Public Relations Course List ..... 1719
R
RCPL-Regional \& City Planning ..... 2279
Reading Specialist, M.Ed. ..... 1201
Regional and City Planning, M.R.C.P.L ..... 154
Registration \& Student Services ..... 48
Religious Studies, B.A. ..... 689
Religious Studies Major Elective Course Lists ..... 691
Religious Studies, Minor ..... 693
RELS-Religious Studies ..... 2283
Renewable Energy, Graduate Certificate ..... 882
Renewable Energy Management, Undergraduate Certificate ..... 955
Renewables, E.M.B.A. ..... 879
Reserve Officers Training Corps ..... 694
Resilient Planning, Design, and Construction Elective List ..... 91
Resilient Planning, Design, and Construction, Graduate Certificate ..... 90
Restorative Justice Administration Graduate Certificate Approved
Electives ..... 220
Restorative Justice Administration (Online), Graduate Certificate ..... 220
Restorative Justice, Minor ..... 1812
RPHD-Music Recitals ..... 2286
RUSS-Russian ..... 2286
Russian and Eastern European Studies, Minor ..... 1675
Russian, B.A. ..... 567
Russian, Minor ..... 576
S
S WK-Social Work ..... 2287
SAX-Saxophone ..... 2293
School Counseling, Graduate Certificate ..... 1113
School of Aerospace and Mechanical Engineering ..... 1223
School of Aviation ..... 809
School of Biological Sciences ..... 253
School of Civil Engineering and Environmental Science ..... 1292
School of Computer Science ..... 1344
School of Dance ..... 1443
School of Electrical and Computer Engineering ..... 1369
School of Geosciences ..... 1033
School of Geosciences Math \& Science Elective Lists ..... 1052
School of Industrial and Systems Engineering ..... 1399
School of Library and Information Studies ..... 481
School of Meteorology ..... 829
School of Music ..... 1481
School of Sustainable Chemical, Biological and Materials Engineering ..... 1268
Schusterman Program in Judaic and Israel Studies ..... 476
Science Education: Biological Sciences, B.S ..... 1158
Science Education: Chemistry, B.S. ..... 1162
Science Education: Earth Science, B.S ..... 1165
Science Education: Physical Science, B.S. ..... 1168
Science Education: Physics, B.S. ..... 1171
Science of Psychology, Data, and Research in Education, M.S ..... 1110
Science of Psychology, Data, and Research in Education, Ph.D ..... 1114
SCM-Supply Chain Management ..... 2293
Secondary Transition Education Specialist, Graduate Certificate ..... 1113
SES-Sustainable Energy Systems ..... 2295
Shyam Dev Patwardhan Department of Philosophy ..... 592
SOC-Sociology ..... 2295
Social Justice, Minor ..... 742
Social Studies Education, B.S ..... 1175
Social Work, B.A. ..... 71
Social Work, M.S.W ..... 713
Social Work with American Indians, Graduate Certificate ..... 715
Social Work: Advanced Standing Graduate Elective Course List ..... 715
Social Work: Advanced Standing, M.S.W ..... 714
Sociology - Criminology, Minor ..... 728
Sociology - Criminology Option, B.A. ..... 725
Sociology - General, Minor ..... 728
Sociology - General Option, B.A ..... 723
Sociology, B.A./M.A. ..... 729
Sociology, M.A. ..... 731
Sociology, Ph.D ..... 732
SPAN-Spanish ..... 2301
Spanish, B.A. ..... 570
Spanish, M.A. ..... 578
Spanish, Minor ..... 577
Spanish, Ph.D ..... 580
Special Education, B.S. ..... 1105
Special Education, M.Ed. ..... 1110
Special Education, Ph.D. ..... 1115
Sports Business, B.B.A. ..... 949
Sports Business for Business Majors, Minor ..... 952
Sports Business for Non-Business Majors, Minor ..... 953
SRRE-Music Recitals ..... 2304
Stephenson School of Biomedical Engineering ..... 1253
Strategic Communication and Digital Strategy, M.A ..... 1735
Strategic Planning, Graduate Certificate ..... 1736
Structural Engineering Electives Course List ..... 1335
Student Affairs ..... 79
Student Financial Center ..... 36
Studio Arts, B.F.A ..... 1603
Supply Chain Management, B.B.A. ..... 983
Supply Chain Management, B.B.A./Management of Information andTechnology, M.S. ................................................................................ 995
Supply Chain Management, B.B.A./Supply Chain Management (Online),
M.S. ..... 997
Supply Chain Management for Business Majors, Minor ..... 988
Supply Chain Management for Non-Business Majors, Minor ..... 989
Supply Chain Management (Online), Graduate Certificate ..... 1000
Supply Chain Management (Online), M.S. ..... 1000
Sustainability - Energy and Materials Management, M.S ..... 1291
Sustainable Architecture, M.S. ..... 111
Sustainable Energy Systems Electives ..... 1009
Sustainable Energy Systems, Undergraduate Certificate ..... 1009
T
TESL-TESOL ..... 2304
TESOL, M.A. ..... 579
The University of Oklahoma General Catalog ..... 17
Theatre, Minor ..... 1480
Theatre: Acting Emphasis, B.F.A. ..... 1463
Theatre: Costume Design Emphasis, B.F.A ..... 1465
Theatre: Dramaturgy Emphasis, B.F.A. ..... 1468
Theatre: Lighting Design Emphasis, B.F.A ..... 1471
Theatre: Scenic Design Emphasis, B.F.A. ..... 1473
Theatre: Sound Design Emphasis, B.F.A ..... 1475
Theatre: Stage Management Emphasis, B.F.A. ..... 1478
Tom Love Division of Entrepreneurship and Economic Development ..... 903
TRMP-Trumpet ..... 2305
TROM-Trombone ..... 2306
TUBA-Tuba ..... 2306
U
UGRE-Music Recitals ..... 2307
UNIV-University Course ..... 2307
University of Oklahoma Health Sciences Center ..... 1616
Urban Design (Tulsa), M.U.D ..... 155
V
Veteran Student Services ..... 51
VIOA-Viola ..... 2308
VIOL-Violin ..... 2308
Visual Communication, B.F.A. ..... 1604
Vocal Music Education, B.M.Ed ..... 1547
VOIC-Voice ..... 2309
Voice, B.Mus ..... 1529
Voice, D.M.A ..... 1568
Voice: Opera, M.M. ..... 1558
Voice: Performance, M.M. ..... 1559
W
Water and Sanitation for Health and Sustainable Development, Minor ..... 1315
Water Resources Engineering Electives Course List ..... 1337
Weather and Climate, Minor ..... 844
Weitzenhoffer Family College of Fine Arts ..... 1431
WGS Interdisciplinary Electives Course List ..... 741
WGS-Women's \& Gender Studies ..... 2310
Wind, Percussion, String, D.M.A. ..... 1569
Wind, Percussion, String, M.M ..... 1560
Wind/Percussion/String: Brass \& Percussion, B.Mus ..... 1531
Wind/Percussion/String: Harp, B.Mus. ..... 1534
Wind/Percussion/String: Strings \& Guitar, B.Mus. ..... 1536
Wind/Percussion/String: Woodwinds, B.Mus. ..... 1539
Women's \& Gender Studies, B.A. ..... 739
Women's and Gender Studies, Graduate Certificate ..... 744
Women's and Gender Studies, Minor ..... 743
World Language Education: French, B.S ..... 1178
World Language Education: German, B.S ..... 1181
World Language Education: Latin, B.S. ..... 1184
World Language Education: Spanish, B.S ..... 1187


[^0]:    ${ }^{1}$ Open Elective (6 hours)-Any open elective hours are the student's choice but may not include architecture courses.
    2 Required upper-division Gen. Ed. course outside of the student's major.
    ${ }^{3}$ Research Elective ( 15 hours)-student choice of graduate courses in architecture or related discipline.
    ${ }^{4}$ ARCH 4723 can be substituted for ARCH 5723. Students must take ARCH 5723 in order to share hours with the graduate degree.

[^1]:    Minimum Total Hours (Thesis): 30
    Minimum Total Hours (Non-Thesis): 33

[^2]:    ${ }^{1}$ College of Arts and Sciences Requirements: college requirements are not automatically fulfilled by a previous degree.

[^3]:    A graduate certificate is not a graduate degree. A graduate degree represents a program of independent inquiry beyond the depth of

[^4]:    ${ }^{1}$ College of Arts and Sciences Requirements: college requirements are not automatically fulfilled by a previous degree.

[^5]:    HSTM 3333 Technology and Society in World History (also fulfills Upper-Division Core IV Humanities - Western Civ.)

[^6]:    - Some courses required for the major may also fulfill University General Education and/or Dodge College of Arts \& Sciences Requirements.
    - The major requires 33 hours beyond LAT 1115, LAT 1215 (or LAT 1315), GRK 1115 and GRK 1215.
    - CL C 2413 will not be accepted for major credit.
    - At least 15 hours must be in courses numbered 3000 or above.

[^7]:    ${ }^{1}$ College of Arts and Sciences Requirements: college requirements are not automatically fulfilled by a previous degree.

[^8]:    - Some courses required for the major may also fulfill University General Education and/or Dodge College of Arts \& Sciences Requirements.
    - A grade of $C$ or better must be earned in each English course presented for major credit.

[^9]:    - Some courses required for the major may also fulfill University General Education and/or Dodge College of Arts \& Sciences Requirements.

[^10]:    ${ }^{1}$ College of Arts and Sciences Requirements: college requirements are not automatically fulfilled by a previous degree.

[^11]:    ${ }^{1}$ MATH 3113 and MATH 3413 overlap by 2 hours. Students who take both will earn only 4 hours of credit.

[^12]:    - Some courses required for the major may also fulfill University General Education and/or Dodge College of Arts \& Sciences Requirements.

[^13]:    MLLL 3543 The Petersburg Myth and Text/The City in Russian Culture 3 Credit Hours
    Prerequisite: junior standing. The role and significance of the city of St. Petersburg in Russian culture by examining its literary image and myth. All readings and discussions in English. (Irreg.) [IV-WC] .

[^14]:    - Some courses required for the major may also fulfill University General Education and/or Dodge College of Arts \& Sciences Requirements
    - The major requires 33 hours beyond GERM 1115 and GERM 1225. 1000-Level German courses may not be counted for major credit at the University of Oklahoma.

[^15]:    ${ }^{1}$ College of Arts and Sciences Requirements: college requirements are not automatically fulfilled by a previous degree.

[^16]:    - Native American Studies, B.A. (p. 588)
    - Native American Studies, Minor (p. 590)

[^17]:    ${ }^{1}$ P SC 4203 must be completed with a grade of C or better.

[^18]:    ODYN 5113 The Psychology of Leadership

[^19]:    - All courses must be taken at OU. No transfer credit will apply.
    - No course substitutions are permitted for graduate certificates.
    - Coursework applied to a graduate certificate cannot be more than five years old as of the semester the graduate certificate is awarded.

[^20]:    - A broader perspective of the world around us and a nuanced understanding of the human condition

[^21]:    Graduate Electives (15 hours)

[^22]:    1 A grade of C of better must be earned in SOC 3123 and SOC 3133.

[^23]:    - The requirements for a minor must be completed concurrently with the major degree requirements.
    - No minor may be added by completing courses after receiving the bachelor's degree.

[^24]:    RCPL 4463 Geographic Information Systems for Land Use Planning

[^25]:    - Courses required for major support may not also fulfill UniversityWide General Education Requirements.

[^26]:    Minimum Total Hours (Thesis): 30
    Minimum Total Hours (Non-Thesis): 32
    Program Code: M685

[^27]:    ${ }^{1}$ Requires completion of all other business core courses prior to enrollment and permission from Price Academic Advising Services.

[^28]:    1 Prebusiness course.
    2 University-Wide General Education course, refer to online listing.
    ${ }^{3}$ Will fulfill upper-division General Education requirement unless Economics is second major.

[^29]:    1 Prebusiness course.
    2 University-Wide General Education course, refer to online listing.

[^30]:    Language (0-10 hours)
    ( $0-10$ hours in the same language) Students who have not completed two years of the same language in high school are required to take two college courses in the same language

    Beginning Course 0-5
    Beginning Course, continued 0-5
    Mathematics (minimum 3 hours)
    MATH 1914 Differential and Integral Calculus I ${ }^{1}$ 3-4
    or MATH 1823 Calculus and Analytic Geometry I
    $\begin{array}{lll}\text { Core Area II: Natural Science (minimum } 7 \text { hours, } 2 \text { courses) } \\ \text { CHEM } 1315 & \text { General Chemistry (Science with Lab) }{ }^{1}\end{array}$
    or CHEM 1335 General Chemistry I: Signature Course
    PHYS 2514 General Physics for Engineering and
    4

    Core Area III: Social Science (6 hours)

[^31]:    1 The MATH 1823, MATH 2423, MATH 2433, and MATH 2443 sequence

[^32]:    Language (0-10 hours)

[^33]:    - Seismic Processing and Acquisition Design: SLB Vista; SLB OMNI; Haliburton Landmark; ProMAX; SeisSpace; Madagascar
    - Seismic Modelling: Tesseral; ANRAY 3D Ray Tracing
    - Seismic Interpretation: CPSGG AASPI; SLB Petrel; Geophysical Insights Paradise; Ikon Geosciences RokDok; CGG HampsonRussell Geoview; IHS Kingdom; OpendTect; Haliburton Landmark Decision Space
    - Passive Seismic Data Management and Processing: Antelope; Seismon

[^34]:    ${ }^{1}$ Mewborne College of Earth and Energy Sciences requirements that also satisfy University General Education requirements.

[^35]:    A graduate certificate is not a graduate degree. A graduate degree represents a program of independent inquiry beyond the depth of coursework alone, while a graduate certificate represents a set of courses only.

    - All courses must be taken at OU. No transfer credit will apply.
    - No course substitutions are permitted for graduate certificates.
    - Coursework applied to a graduate certificate cannot be more than five years old as of the semester the graduate certificate is awarded.

[^36]:    - All courses must be taken at OU. No transfer credit will apply.
    - No course substitutions are permitted for graduate certificates.

[^37]:    Specialization

[^38]:    All coursework applied to the master's degree must carry graduate credit.

[^39]:    All coursework applied to the master's degree must carry graduate credit.

[^40]:    Pillar 1-4 (Personal Development; Interpersonal
    Relationships; Management and Teamwork; Leadership)

[^41]:    ${ }^{1}$ CHEM 1315 can be substituted with CHEM 1335 (Fall only).
    2 MATH 1823, MATH 2423, MATH 2433, and MATH 2443 sequence can be substituted for MATH 1914, MATH 2924, and MATH 2934.

[^42]:    Second Semester
    MATH 3113 Introduction to Ordinary Differential 3
    Equations

[^43]:    ${ }^{1}$ Students must take either CEES 3663 or CEES 3673 or they may take both courses if desired.

[^44]:    Core Area II: Natural Science (including one laboratory)

[^45]:    Core Area II: Natural Science

[^46]:    ${ }^{1}$ MATH 1473 is recommended.

[^47]:    * Course has prerequisite(s).

    1 If not chosen as part of Dramaturgy Core requirements.
    ${ }^{2}$ Requires audition.

[^48]:    Electives

[^49]:    SAX 5020 Master's-Level Saxophone for Performance Majors $\quad \mathbf{2 - 4}$ Credit Hours 2 to 4 hours. Prerequisite: graduate standing in music; permission of adviser and instructor; 4020 and 4021 or equivalent. May be repeated; maximum credit toward an M.M. degree 10 hours. (F, Sp, Su)

[^50]:    ${ }^{1}$ MATH 1473 is recommended.

[^51]:    1 MATH 1473 is recommended.

[^52]:    Additional Requirements

[^53]:    ${ }^{1}$ MATH 1473 is recommended.

[^54]:    ${ }^{1}$ Course may only be taken once formally admitted to music education teacher education program. See admission requirements under degree requirements. Consult with your advisor.
    2 String players enroll in MUED 4762 instead of MUED 4752.
    3 No more than 12 hours may be taken during the semester of student teaching. No courses may conflict with the student teaching experience.
    4 Component, Senior Capstone Experience.

[^55]:    Minimum Total Hours (Thesis): 60

[^56]:    - Asian Studies, B.A. (p. 1641)
    - Asian Studies Course Lists (p. 1643)
    - European Studies, B.A. (p. 1644)
    - European Studies Course Lists (p. 1646)
    - European Studies: Russian \& East European, B.A. (p. 1646)
    - European Studies: Russian \& East European Course Lists (p. 1649)
    - Global Energy, Environment, and Resources, B.A. (p. 1649)
    - Global Energy, Environment, and Resources Course Lists (p. 1652)
    - International Development, B.A. (p. 1652)
    - International Development Course Lists (p. 1655)
    - International Security Studies, B.A. (p. 1655)

[^57]:    1 University-Wide General Education course, refer to online listing. One course (Artistic Forms, World Culture, or Western Culture) must be 3000-4000-level.

[^58]:    - Pass the Gaylord College Entrance Exams - Language Skills Test and Academic Integrity Test
    - Complete JMC 1013 (Introduction to Media) with a grade of C or better;

[^59]:    L A 5525 Landscape Architecture Introductory Graduate Studio II

    5 Credit Hours
    Prerequisite: Graduate standing and LA 5515. Introduction to site planning at small to medium scales with particular emphasis on design process where consideration of natural and human factors influence design solutions. Subject matter varies and is reflective of a host of problems and issues common to landscape architecture. (Sp)

[^60]:    P SC 5133 Strategic Planning and Performance Measurement 3 Credit

    Hours
    Prerequisite: graduate standing or permission of instructor. Introduces students to strategic planning, performance measurement, and benchmarking in the public sector. Provides an overview of strategic management and illustrates the development, implementation and reformulation of public policy and operational strategy. Emphasis on the changes in an organization's environment. (Irreg.)

